

P802.3ae Draft 3.2 Comments

CI 00 SC P L # 352

Dawe, Piers Agilent

Comment Type E Comment Status R

Weird control code in table headings. e.g. Table 44?1, Table 52?25 and many but not all others. Stops the "find" working.

SuggestedRemedy

Fix it please, O FrameMeisters!

Response Response Status C

REJECT. This comment does not relate to the text of the draft, only to a "Find" operation within Adobe. Please forward more information to Brad Booth (bradley.booth@intel.com), so that this issue may be investigated outside the comment resolution process.

CI 00 SC P L # 186

Selee, Steve Blaze Network Product

Comment Type E Comment Status A

Replace all references to WWDM with CWDM. The term WWDM was proposed by a single company several years ago and has not been widely adopted. The term CWDM is now appearing in trade journals, advertising, and other market information to indicate broad channel WDM technology. CWDM has become the common industry term for this technology and will better define the IEEE 802.3ae standard.

SuggestedRemedy

Replace all references to WWDM with CWDM.

Response Response Status C

ACCEPT IN PRINCIPLE.

Change all references to WWDM to WDM - Wavelength Division Multiplexing

Failed

New Proposal
Replace with 10GBASE-LX4 or LX4 as appropriate

CI 00 SC P L # 320

Dawe, Piers Agilent

Comment Type E Comment Status A

Underscore or not in pause_quantum, pause_quanta?

SuggestedRemedy

Global search and align? Affects 31B, 44.3, 46.1.4, 52.

Response Response Status C

ACCEPT IN PRINCIPLE. The underscore should exist as pause_quanta is a unit of measurement.

CI 00 SC P L # 351

Dawe, Piers Agilent

Comment Type E Comment Status A

Hexadecimal notation "0x" hasn't been introduced. If it's something to do with software, this isn't principally a software standard. Clauses 30, 31, 45 don't use it (e.g. "hexadecimal 89". 50 and 35 use e.g. "89 hexadecimal" 49 uses it and calls it "normal hexadecimal", hmm. 46 or 48 have hex numbers with and without the "0x". 52.9.1, 3.5.4, 40.3, 31A use "0x" without explanation. 43.3.6.2 uses it and mentions "canonical format". 23.5 has "73 hex". IEEE Standards Style Manual doesn't mention hexadecimal but says: "13.6 Abbreviations and acronyms Technical abbreviations and acronyms should be used to save time and space, but only if their meaning is unquestionably clear to the reader. The first use shall be spelled out, followed by the abbreviation or acronym itself in parentheses. Exceptions to this are approved SI units. A list of abbreviations and acronyms may be included as a separate clause, if necessary (see 10.5)." In any case, we need to explain ourselves.

SuggestedRemedy

Add "hex" to abbreviations 1.5 (even if it's obvious). In tables, remove the "0x"s and use footnotes, see Table 46?3 as an example. In text, choose one of "hexadecimal 89", "89 hexadecimal" and "89 hex".

Response Response Status C

ACCEPT IN PRINCIPLE.

Add the notational convention of "0x" in a new subclause 1.2.5. Retain the current usage in 802.3ae. Ensure that all tables and text either use "0x" or a footnote indicating that values are hexadecimal.

CI 00 SC P L # 587

Axel, Kloth Mindspeed Technology

Comment Type E Comment Status A

The Draft 3.2 uses - as all its predecessors did - a mix of US and metric units, and we even misuse some internationally defined units, like S (= Siemens) instead of s (= second), and unfortunately, this is true for the multipliers of units, like M for Mega (at least two occurrences of mHz = milliHertz...).

SuggestedRemedy

Let us make all units consistent and according to SI standards, or at least stick with either US or metric measurements. Let us try to be metric on all units since we mostly anyway have metric units, do not mix metric and US standard units. We especially need to use s for seconds instead of S which is Siemens which is 1/Ohm (use Ohm-sign). We should use the Ohm-sign instead of the word Ohm. Also, use æm instead of æ or micron. Let us do the same for wavelengths and other units, check all wavelengths for nm and frequencies for Hz instead of hz, KHz, khz similar.

Response Response Status C

ACCEPT IN PRINCIPLE. The editors will review the next draft to ensure that the units are SI compliant.

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Cl 00 SC 0 P 445 L 38 # 64

Jonathan Thatcher World Wide Packets

Comment Type E Comment Status A

There are several places in the document where numbers like this get split between two lines.

SuggestedRemedy

Figure out how to make FrameMaker quit doing this! If necessary, put these "formulas" into a frame formula.

Response Response Status C

ACCEPT IN PRINCIPLE.

Change to a non-breaking hyphen by typing "Esc - h".

Cl 00 SC 52.6.3 P 442 L 35 # 297

Kolesar, Paul Lucent

Comment Type T Comment Status A link model

"Link power budget" insufficient to support 10 km. Sum of "channel insertion loss" and "allocation for penalties" exceeds power budget by 0.7 dB.

SuggestedRemedy

Increase transmitter minimum optical modulation amplitude, or receiver sensitivity, or lower fiber loss until reconciled. Using 0.4 dB/km fiber loss instead of 0.5 dB/km would be more than adequate and is readily justified by fiber specifications in Table 52-27.

Response Response Status C

ACCEPT IN PRINCIPLE. See #193. Use 0.4dB/Km for attenuation.

Add footnote to 0.5: "Using 0.5 dB/km may not support operation at 10 km."

Also clause 53, table 53-14.

Cl 00 SC Figure n-1 P L # 372

Dawe, Piers Agilent

Comment Type E Comment Status A

Inconsistent titles to Figures 1. Examples:

Figure 6?1? PLS service specification relationship to the ISO/IEC Open Systems Interconnection (OSI) reference model and the IEEE 802.3 CSMA/CD LAN model
 Figure 22?1? MII relationship to the ISO/IEC Open Systems Interconnection (OSI) reference model and the IEEE 802.3 CSMA/CD LAN model
 Figure 35?1? GMII relationship to the ISO/IEC Open Systems Interconnection (OSI) reference model and the IEEE 802.3 CSMA/CD LAN model
 ... more ...

Figure 49?1? Relationship of 10GBASE-R PCS and the PMDs
 Figure 52?1? Relationship of 10GBASE-R/W Serial PMDs [to what?]
 Figure 53?1? LX4 PMD location in the ISO protocol stack (this style was deprecated in a comment vs. D3.1 Cl.52)

SuggestedRemedy

Choose a format so Cl.52 and Cl.53 can follow it.

Response Response Status C

ACCEPT IN PRINCIPLE.

Clauses 46 to 53 will have figure 1 title changed to read the following:
 46: XGMII relationship to the ISO/IEC Open Systems Interconnection (OSI) reference model and the IEEE 802.3 CSMA/CD LAN model
 47: XAUI relationship to the ISO/IEC Open Systems Interconnection (OSI) reference model and the IEEE 802.3 CSMA/CD LAN model
 48: 10GBASE-X PCS and PMA relationship to the ISO/IEC Open Systems Interconnection (OSI) reference model and the IEEE 802.3 CSMA/CD LAN model
 49: 10GBASE-R PCS relationship to the ISO/IEC Open Systems Interconnection (OSI) reference model and the IEEE 802.3 CSMA/CD LAN model
 50: WIS relationship to the ISO/IEC Open Systems Interconnection (OSI) reference model and the IEEE 802.3 CSMA/CD LAN model
 51: Serial PMA and XSBI relationship to the ISO/IEC Open Systems Interconnection (OSI) reference model and the IEEE 802.3 CSMA/CD LAN model
 52: 10GBASE-S, -L, and -E PMDs relationship to the ISO/IEC Open Systems Interconnection (OSI) reference model and the IEEE 802.3 CSMA/CD LAN model
 53: 10GBASE-LX4 PMD relationship to the ISO/IEC Open Systems Interconnection (OSI) reference model and the IEEE 802.3 CSMA/CD LAN model

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Cl 00 SC General P L # 122
Thaler, Pat Agilent Technologies

Comment Type E Comment Status A

I notice that the existing 802.3 almost always uses the Ohm symbol (an upper case omega) rather than "Ohm" when specifying impedance. Our draft uses "Ohm" in many places."Ohm" is used consistantly in managed object definitions and should not be changed because they probably don't allow for symbols.

SuggestedRemedy

Use Ohm symbol - One way to get it is an uppercase W in the symbol font. Please, comfirm with Geoff that that is the preferred one.Retain "Ohm" in managed object definitions (Clause 30 and its annexes).

Response Response Status C
ACCEPT.

Cl 01 SC 1.4 P5 L 49 # 324
Dawe, Piers Agilent

Comment Type E Comment Status A

RIN12(OMA) has been generalised to RIN_xOMA.

SuggestedRemedy

Change "RIN12(OMA): Relative Intensity Noise. Laser noise in dB/Hz with 12dB" to "RIN_xOMA: Relative Intensity Noise. Laser noise in dB/Hz with x dB"

Response Response Status C
ACCEPT.

Cl 01 SC 1.5 P L # 588
Tom Mathey Independent

Comment Type E Comment Status A

To the list of abbeviations, add the following: CID,ITU-T, MJ, TSS, TXCG, RXCU, XCU, SNR, LVDS.

SuggestedRemedy

Add the following:
CID: used on p. 391 in 50.3.8.2, line 41
ITU-T:
MJS: used on p. 339 in Annex 48B, line 28
TSS: used on p. 391 in 50.3.8.2, line 39
TXCG: used on p. 416 in Figure 51-3 line 37
RXCU: used on p. 416 in Figure 51-3 line 36
SNR: used in Appendix B.1.4, line 43 (signal to noise ratio)
SIL: used on p. 416 in Figure 51-3 line 37; on page 415, 51.4, line 18
LVDS: used on p. 417 in 51.5.1, line 42

Response Response Status C
ACCEPT IN PRINCIPLE.

Add abbreviations for: CID, TSS, SNR, LVDS.

The rest are related to abbreviations of standards bodies, standards documents, signal or block names that we traditionally do not add to this list.

Cl 04 SC 4.4.2 P L # 589
Tom Mathey Independent

Comment Type E Comment Status A

Text no longer applies.

SuggestedRemedy

Delete text on line 54 as subclauses 4.4.2.1 to 4.4.2.4 have been added back in.

Response Response Status C
ACCEPT.

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Cl 22 SC 22 P46 L1 # 311

Dawe, Piers Agilent

Comment Type E Comment Status R

Does changing "power down" to "low power" have any implications to clause 22?

SuggestedRemedy

Response Response Status C

REJECT.

These type of changes will be handled through the maintenance process, similarly to other comments that we have received in previous ballots (clauses 31, 35 and 43).

Cl 30 SC 30.3.2.1.7 P145 L5 # 314

Dawe, Piers Agilent

Comment Type E Comment Status A

Does changing "power down" to "low power" have any implications to clause 30?

SuggestedRemedy

Response Response Status C

ACCEPT IN PRINCIPLE.

There is an outstanding editors note related to the aPhyAdminState which now can be addressed since the thrash with the Power Down bit is resolved. To address this note -

1) Add the following text to the end of the aPhyAdminState attribute behavior.

'For all MMDs that provide a Clause 45 MDIO Interface within the PHY, setting this attribute to 'enabled' will result in the MMD Low Power bit being set for normal operation. MMDs that support Low Power are the PMA/PMD MMD (see 45.2.1.1.2 and 45.2.1.2.3), the WIS MMD (see 45.2.2.1.3 and 45.2.2.2.3), the PCS MMD (see 45.2.3.1.3 and 45.2.3.2.3), the PHY XS MMD (see 45.2.4.1.3 and 45.2.4.2.3) and the DTE XS MMD (see 45.2.5.1.3 and 45.2.5.2.3).'

2) Delete the editors note.

Note that no specific text is required for the Clause 45 Power Down bit when the aPhyAdminState attribute is set to 'disabled'. This is similar to the existing text which only mentions the Clause 22 Isolate bit in relation to the attribute being set to 'disabled' yet mentions both the Clause 22 Isolate and Power Down bits in relation to the attribute being set to 'enabled'. This is due to the Isolate bit being used to disconnect the PHY from the MII bus (the MII supported multiple PHYs on a single MII bus which the XGMII/XAUI does not) when the attribute is set to 'disabled' and to reconnect when the attribute is set to 'enabled'. The Power Down bit however is optional and the functions it performs and the power it saves is vendor specific. The attribute therefore does not mandate its use when set to 'disabled' however it has to mandate that the Power Down bit is set to normal when the attribute is set to enabled.

In addition now that this change has been made the Editors note can be removed.

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Cl 30 SC 30.5.1.1.2 P 59 L 15 # 30004

David Law

Comment Type E Comment Status A

This comment was received from "C. M. Heard" <heard@pobox.com>

Incorrect cross references to Clause 45 register.

SuggestedRemedy

The text "If a Clause 45 MDIO Interface is present, then this will map to the Port type selection bits in the WIS Control register specified in 45.2.2.1, the PCS Control register specified in 45.2.3.1 and the PMA/PMD Control 1 register specified in 45.2.1.1." should read "If a Clause 45 MDIO Interface is present, then this will map to the PCS type selection bit(s) in the 10G WIS Control 2 register specified in 45.2.2.6.4 and in the 10G PCS Control 2 register specified in 45.2.3.6.1 and to the PMA/PMD type selection bits in the 10G PMA/PMD Control 2 register specified in 45.2.1.6.1."

Response Response Status C

ACCEPT.

Cl 30 SC 30.5.1.1.4 P 60 L 36 # 30001

David Law

Comment Type E Comment Status A

This comment was received from "C. M. Heard" <heard@pobox.com>

Incorrect cross references to Clause 45 register.

SuggestedRemedy

The text ".. a logic one in the LOF status bit (45.2.2.6.1) maps to the enumeration "WIS frame loss", a logic one in the LOS status bit (45.2.2.6.2) maps to the .." should read ".. a logic one in the LOF status bit (45.2.2.8.5) maps to the enumeration "WIS frame loss", a logic one in the LOS status bit (45.2.2.8.6) maps to the ..".

Response Response Status C

ACCEPT.

Cl 30 SC 30.8.1.1.10 P 63 L 26 # 30003

David Law

Comment Type E Comment Status A

This comment was received from "C. M. Heard" <heard@pobox.com>

Incorrect cross references to Clause 45 register.

SuggestedRemedy

The text ".. to the WIS Line Status register specified in 45.2.2.6.;" should read ".. to the WIS Status 3 register specified in 45.2.2.8.;"

Response Response Status C

ACCEPT.

Cl 30 SC 30.8.1.1.2 P 61 L 41 & 43 # 30002

David Law

Comment Type E Comment Status A

This comment was received from "C. M. Heard" <heard@pobox.com>

Incorrect cross references to Clause 45 register.

SuggestedRemedy

The text ".. the LOS bit in the WIS Section Status register." should read ".. the LOS bit in the WIS Status 3 register.". The text ".. WIS Status 3 register specified in 45.2.2.6.;" should read ".. WIS Status 3 register specified in 45.2.2.8.;"

Response Response Status C

ACCEPT.

Cl 30 SC 30.8.1.1.25 P 66 L 44 # 183

Figueira, Norival

Nortel Networks

Comment Type T Comment Status A

Far End AIS-P and Far End LOP-P are reported using the same ERDI-P code and cannot be indicated separately in aFarEndPathStatus. ps. A related comment is being made against 45.2.2.8 to fix this problem.

SuggestedRemedy

Change line 42 to "BIT STRING [SIZE (1..2)].Change line 44 to "A string of 2 bits...". Change (line 46) "..., the second bit corresponds to the Far End Path Alarm Indication Signal and maps to the Far End AIS-P bit, and the third bit corresponds to the Far End Path Loss of Pointer flag and maps to the Far End LOP-P bit" to "... and the second bit corresponds to the Far End Path Alarm Indication Signal/Path Loss of Pointer flag and maps to the Far End AIS-P/LOP-P bit".

Response Response Status C

ACCEPT.

Cl 30 SC 30.8.1.1.25 P 70 L 42 to 49 # 184

Dan Romascanu

Avaya Inc

Comment Type T Comment Status A

Far end AIS-P and far end LOP-P are reported using the same ERDI-P code and cannot be indicated separately in the aFarEndPathStatus syntax and behavior definition

SuggestedRemedy

consolidation of two bits into a single one

Response Response Status C

ACCEPT.

The text supplied in comment 183 will be used to correct this error.

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Cl 30 SC 30.8.1.2.1 P 67 L 36 # 136
 Law, David 3Com

Comment Type T Comment Status A

This comment was prompted on a discussion on the IETF reflector. From that discussion I do not believe that an equivalent to the acResetWIS action will be provided in the IETF MIB. There doesn't seem to be any point in providing management with the ability to be able to reset the WIS sublayer without resetting any other sublayer through the action, acResetWIS, in the WIS Managed object class - it is also unclear how this would work without the other sublayers being reset at the same time. In addition no other sublayer can be reset individually. The ability to reset the WIS is provided by resetting entire PHY through the existing Clause 30 action 30.5.1.2.1 acResetMAU.

SuggestedRemedy

Remove the action acResetWIS.

Response Response Status C

ACCEPT.

Cl 30B SC 30B.2 P 145 L 5 # 312
 Dawe, Piers Agilent

Comment Type E Comment Status R

Does changing "power down" to "low power" have any implications to annex 30B?

SuggestedRemedy

Response Response Status C

REJECT.

The change of the "power down" bit to "low power" only effects the behavior of the aPhyAdminState attribute and does not change any enumerations which are listed in Annex 30B. There is therefore no changed needed for Annex 30B.

Cl 44 SC 44.3 P L # 590
 Tom Mathey Independent

Comment Type E Comment Status A

Resolution of D3.0, comment 444801 was to change row entries for:
 XGXS/XAUI delay to 4096,
 8B/10B PCS/PMA delay to 2048.

SuggestedRemedy

Change line 31 from 4048 to 4096
 Change line 34 from 2024 to 2048
 Add a column for actual sublayer name such as 10GBASE-R while keeping coding method 64B/66B PCS in a column labeled -coding+.

Response Response Status C

ACCEPT IN PRINCIPLE.
 Numbers to be updated as per suggested remedy.
 Coding column not to be added. "8B/10B PCS and PMA" to be changed to "10GBASE-X PCS and PMA", and "64B/66B PCS" to be changed to "10GBASE-R PCS".

Cl 44 SC Table 44-1 P L # 594
 Tom Mathey Independent

Comment Type E Comment Status A Clause 44, 46

There is a lack of harmony between Table 44-1, its values and those in Table 46-1 for round-trip delay constraints, entry for MAC, etc. Table 44-1 row entry for MAC is 9728 with pause quanta listed as 16. The value of 9728/512 is 19

SuggestedRemedy

Change Table 44-1 row entry for MAC to 9728 with pause quanta listed as 19. Change Table 46-1 to match.

Response Response Status C

ACCEPT IN PRINCIPLE. Table 44-1 bit time is in error and should be 8192.

Cl 44A SC 44A.3 P L # 591
 Tom Mathey Independent

Comment Type E Comment Status A

Font size is smaller than other paragraphs.

SuggestedRemedy

Change font size to match other paragraphs.

Response Response Status C

ACCEPT. Good catch Tom!

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CI 45 SC 45.1.7.4 P 190 L 44 # 389
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status A C45 discussion item
 Std states: "If the transmit fault condition exists at the time the register is read via the management interface then the transmit local fault bit shall not be cleared to zero by the read operation." Does not have a PICS reference statement.
 SuggestedRemedy
 Input PICS reference:Local fault bit not zero by read operation if transmit fault condition exists same time register read via management interface.
 Response Response Status C
 ACCEPT.
 The PICS will be updated to match the response to #117.

CI 45 SC 45.2 P 181 L 25 # 54
 Jonathan Thatcher World Wide Packets
 Comment Type T Comment Status A
 Figure 45-2 does not represent "corner cases" where there is no MMD upstream or downstream.
 SuggestedRemedy
 Add "RS;" "MDI" or such.
 Response Response Status C
 ACCEPT.
 [D3.5 P182]

CI 45 SC 45.2.1.1. P 184 L 8 # 310
 Dawe, Piers Agilent
 Comment Type E Comment Status A C45 discussion item
 At the last meeting it was mentioned that "power down" was a bad choice of name, as it implies "switched off". A better word would be "standby" but that has a special meaning in clause 43, Link Aggregation, and is used in clause 30, 10 Mb/s,100 Mb/s,1000 Mb/s,MAC Control,and Link Aggregation Management. Propose "low power".
 SuggestedRemedy
 Change "power down" to "low power" or "low power state" or "low power mode" as appropriate throughout clause 45.
 Response Response Status C
 ACCEPT.

CI 45 SC 45.2.1.1.1 P 183 L 48 # 313
 Dawe, Piers Agilent
 Comment Type T Comment Status A C45 discussion item
 Noting intended absence of time limit for optics coming out of power down/reset. The note is to benefit station management software writers who might expect everything to turn on instantly. Alternatives with timers, thermometers, or standardised time limits at the pace of the heaviest, coldest optics in the world, are NOT desirable. Impatient STAs can use the error and coding violation monitors in WIS and PCS to detect when satisfactory error rates have been achieved, but the error detection systems are strong enough to preclude false packets at all raw error rates so no special action is needed. I'm assuming that all other sublayers, being electronic, can get operational in 0.5 s.
 SuggestedRemedy

Change "The reset process shall be completed within 0.5s from the setting of bit 1.0.15." to "The control and management interface shall be restored to operation within 0.5s from the setting of bit 1.0.15.". At the end of the NOTE at top of next page, insert: "The data path of a PMD, depending on type and temperature, may take many seconds to run to optimum error rate after exiting from power down [low power mode] or at switch-on." Revise wording of PIC p245 to match.
 Response Response Status C
 ACCEPT.

CI 45 SC 45.2.1.1.2 P 184 L 12 # 115
 Thaler, Pat Agilent Technologies
 Comment Type E Comment Status A
 It looks like there is a comma after from which should not be there. Also, the first and is unnecessary.
 SuggestedRemedy
 Change to: "The behavior of the PMA/PMD in, in transition to and from the power down state"This change should also be applied to the other Power down subclauses.
 Response Response Status C
 ACCEPT.
 [D3.5, P185 L11, P198 L19, P213 L12, P225 L53, P234 L8]

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Cl 45 SC 45.2.1.2.2 P185 L 41 # 117
 Thaler, Pat Agilent Technologies

Comment Type T Comment Status A C45 discussion item

The description of the operation of the behavior after a read isn't quite perfect. It says that the bit isn't set if the receive link is still down but it doesn't exactly mandate that it is set if the link is up. Also, some latching bits specify behavior after a reset and some, such as this one, do not. We should be consistent.

SuggestedRemedy

"After the register is read via the management interface then the receive link status bit shall assume a value based on the current state of the receive link." Consider also applying the same statement to after a reset. Apply to other latching bits as needed. The other option would be to remove the text from each latching bit description and put an overall description of LL/LH behavior at the beginning such as "When a bit is latch low (LL) and the condition for the bit to be low has occurred, the bit shall remain low until after it has been read via the management interface. Once such a read has occurred, the bit shall assume a value based on the current state of the condition it monitors." and similarly for LH. Consider also covering the case of a reset.

Response Response Status C

ACCEPT.

Add global text somewhere at the start of Clause 45 for LL and LH bits and remove the description of LL and LH from the bits in the clause.

[Related to #118]

Cl 45 SC 45.2.1.3 P186 L 1 # 368
 Dawe, Piers Agilent

Comment Type T Comment Status A C45 discussion item

I believe the XENPAK MSA would like a space for an identifier showing MSA membership (which MSA, physical format, MSA revision number, ...). I think the simple way is to provide another 32-bit space, just like a second sublayer identifier. It could go with x.2,3 (identifier) or (better?) x.5,6 (Devices in package). I believe this space should appear in each MMD. This comment is somewhat of a placeholder.

SuggestedRemedy

As above or as suggested by my learned colleagues in the industry.

Response Response Status C

ACCEPT IN PRINCIPLE.

In response to this the following change (PMA/PMD MMD is used as example) to the existing register 1.2 and 1.3 definition is proposed with the addition of a new 'OUI' based register, "Package Identifier (Registers 1.E and 1.F)".

"45.2.1.3 Device Identifier (Registers 1.2 and 1.3)
 Registers 1.2 and 1.3 provide a 32-bit value which shall constitute a unique identifier for a particular type of PMA/PMD. The Identifier shall be composed of the third through 24th bits of the Organizationally Unique Identifier (OUI) assigned to the device manufacturer by the IEEE, plus a six-bit model number, plus a four-bit revision number. A device may return a value of zero in each of the 32 bits of the device identifier.

The format of the device identifier is specified in 45.X.Y.Z

45.2.1.XX Package Identifier (Registers 1.E and 1.F)
 Registers 1.E and 1.F provide a 32-bit value which shall constitute a unique identifier for a particular type of package that the PMA/PMD is instantiated within. The Identifier shall be composed of the third through 24th bits of the Organizationally Unique Identifier (OUI) assigned to the package manufacturer by the IEEE, plus a six-bit model number, plus a four-bit revision number. A PMA/PMD may return a value of zero in each of the 32 bits of the device identifier.

A non-zero Package Identifier may be returned by one or more MMDs in the same package. The Package Identifier may or may not be the same value as the Identifier."

In addition a second Vendor Specific MMD will be added, this will be allocated the Device address 30. Text will be added to the Vendor Specific MMD specification to say that 'It is recommended a Vendor Specific MMD can be configured to respond to either of the Vendor Specific MMD Device addresses."

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Cl 45 SC 45.2.1.7.4 P190 L 42 # 118
 Thaler, Pat Agilent Technologies

Comment Type T Comment Status A C45 discussion item

One sentence says essentially: When A occurs, you shall do B. The next sentence says: If C is true, then when A occurs you shall not do B. This imposes contradictory requirements. This problem is repeated in other descriptions of latching (e.g. 45.2.1.7.5). Also, after a reset, there might be a fault condition present so clearing the bit after reset may not be correct. I am making this comment a T because the text said the same thing in D3.1. If we choose not to fix this now, I will make this as a TR at sponsor ballot.

SuggestedRemedy

Either correct this each place it occurs or put in one description covering all LL and LH behavior (see my comment on 45.2.1.2.2). If we correct it by inserting text here the following text could be used: "and shall remain set until the register is read via the management itnerface or a reset has occurred. After the register is read via the management interface or the PMA/PMD is reset, then the bit shall assume a value based on the current state of the transmit path."

Response Response Status C

ACCEPT IN PRINCIPLE.

See response to #117.

Cl 45 SC 45.2.1.7.5 P191 L 5 # 388
 Eric, Lynskey UNH IOL

Comment Type E Comment Status A C45 discussion item

Std states: "If the receive fault condition exists at the time the register is read via the management interface then the receive local fault bit shall not be cleared to zero by the read operation." Does not have a PICS Reference.

SuggestedRemedy

Input PICS reference:Local fault bit not zero by read operation if receive fault condition exists same time register read via management interface.

Response Response Status C

ACCEPT IN PRINCIPLE.

Update the PICS to match the response to #117

Cl 45 SC 45.2.2.6.1 P200 L 22 # 120
 Thaler, Pat Agilent Technologies

Comment Type E Comment Status A

It would be helpful to say that this bit applies to the transmit test pattern mode.

SuggestedRemedy

Add at the beginning of the paragraph: Bit 2.7.3 controls the type of test pattern sent by the transmitter when in test pattern mode.

Response Response Status C

ACCEPT.

[D3.5 P201 L22]

Cl 45 SC 45.2.2.6.1 P200 L 24 # 390
 Eric, Lynskey UNH IOL

Comment Type E Comment Status A

Std states: "Register 2.7 provides the seed for mixed frequency test patten." Spelling correction needed

SuggestedRemedy

Change "patten" to "pattern"

Response Response Status C

ACCEPT IN PRINCIPLE.

[Superceded by #307]

Cl 45 SC 45.2.2.6.1 P200 L 24 # 307
 Dan Romascanu Avaya Inc.

Comment Type T Comment Status A

The sentence 'Register 2.7 provides the seed for the mixed frequency test pattern' needs to be deleted because there is no seed register anymore (even the designation is a typo: the seed registered did exist in D3.1, but it was register 2.61).

SuggestedRemedy

Delete the sentence

Response Response Status C

ACCEPT.

[D3.5 P201 L25]

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CI 45 SC 45.2.2.6.2 P 200 L 30,31 # 308
 Dan Romascanu Avaya Inc.
 Comment Type T Comment Status A
 The sentence 'Register 2.8 counts the number of errors received during a test patten test' in this subclause needs to be deleted, because the register has been removed (it was in D3.1 as register 2.62).
 SuggestedRemedy
 Delete the sentence
 Response Response Status C
 ACCEPT.
 [D3.5 P201 L31. WIS counts errors in normal operating error counters.]

CI 45 SC 45.2.2.6.2 P 200 L 31 # 391
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status A
 Std states: "Register 2.8 counts number of errors received during a test patten test." Spelling correction needed and redundant comment
 SuggestedRemedy
 Change "patten" to "pattern" and remove "test" at the end of the sentence.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 See #308.
 [D3.5 - Sentence deleted.]

CI 45 SC 45.2.2.61. P 200 L 31 # 119
 Thaler, Pat Agilent Technologies
 Comment Type E Comment Status A
 "patten" should be "pattern". Also, "test pattern test" doesn't read very nicely.
 SuggestedRemedy
 How about "counts the number of errors when in receive test pattern mode."
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 See #308.
 [D3.5 - Sentence deleted.]

CI 45 SC 45.2.2.8 P 201 L 46 # 182
 Figueira, Norival Nortel Networks
 Comment Type T Comment Status A
 Far End AIS-P and Far End LOP-P are reported using the same ERDI-P code and cannot be indicated separately.
 SuggestedRemedy
 Change 2.33.9 name to "Far End AIS-P/LOP-P" and description to "Far End Path Alarm Indication Signal / Path Loss of Pointer". Delete 2.33.8 Far End LOP-P. Editorial license is given to renumber bits to eliminate the gap, if desired. ps. A separate comment is being made to fix subclause 30.8.1.1.25 aFarEndPathStatus.
 Response Response Status C
 ACCEPT.

[D3.5 P202, P203, P204. Also requires modification of text for bit 2.33.9 and the deletion of the text for bit 2.33.8. Update of PICS required to modify entries WM38 and WM39 and to delete entries WM40 and WM41.]

CI 45 SC 45.2.2.8 P 201 L 46 to 48 # 185
 Dan Romascanu Avaya Inc.
 Comment Type T Comment Status A
 Far end AIS-P and far end LOP-P are reported using the same ERDI-P code and cannot be indicated separately in the WIS Status 3 register
 SuggestedRemedy
 consolidation of two bits into a single one
 Response Response Status C
 ACCEPT.
 See #182.
 [D3.5]

CI 45 SC 45.2.3.1.2 P 211 L 47 # 121
 Thaler, Pat Agilent Technologies
 Comment Type T Comment Status A
 The two sentences state mandatory requirements for the PCS and then the latter sentences say that it only applies to 10GBASE-R.
 SuggestedRemedy
 Change to: "PCS" to "10GBASE-R PCS" in the first two sentences. Also, in the next sentence it would be less wordy to say "The specific behavior of the 10GBASE-R PCS during loopback"
 Response Response Status C
 ACCEPT.
 [D3.5 P212 L47-51]

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Cl 45 SC 45.2.3.7.2 P 216 L 8 # 392
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status A C45 discussion item
 Std states: "If the transmit fault condition exists at the time the register is read via the management interface then the transmit local fault bit shall not be cleared by a zero by the read operation." A PICS comment is not present.
 SuggestedRemedy
 Input PICS reference:Local fault bit not zero by read operation if transmit fault condition exists same time register read via management interface.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 See response to #117.

Cl 45 SC 45.2.3.7.3 P 216 L 19 # 393
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status A C45 discussion item
 Std states: "If the receive fault condition exists at the time the register is read via the management interface then the receive local fault bit shall not be cleared by a zero by the read operation." A PICS comment is not present.
 SuggestedRemedy
 Input PICS reference:Local fault bit not zero by read operation if receive fault condition exists same time register read via management interface.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 See response to #117.

Cl 45 SC 45.2.3.9 P 218 L 30 # 45010
 Ed Turner
 Comment Type T Comment Status A
 The table has 'high frequency test pattern select' as <11> which is also reserved. In the text describing these bits, the code <00> is used to select the high frequency pattern. This also applies to 45.2.4.8 and 45.2.5.8.
 SuggestedRemedy
 Change 'high frequency test pattern select' code to <00> in all three tables so that it ties up with the text.
 Response Response Status C
 ACCEPT.

Cl 45 SC 45.2.5 P 231 L 43 # 450020
 NoName
 Comment Type E Comment Status A Tom Mathey
 Table 45-51
 Entry 3.25 should be 5.25.
 SuggestedRemedy
 Change 3.25 to read 5.25.
 Response Response Status C
 ACCEPT.

Cl 45 SC 45.3.5 P L # 592
 Tom Mathey Independent
 Comment Type E Comment Status A
 The statement -A station management entity that is attached to multile ports must have a priori knowledge of the appropriate port address for each port.+ is correct. This statement implies that attachment to a single port does not need the knowledge of port address. I believe that even for attachment to a single port, the knowledgement of port address is needed by the station management.
 SuggestedRemedy
 Change text to something like:
 A station management entity must have a priori knowledge of the appropriate port address for each port to which it is attached, whether connected to a single port or multiple ports.
 Response Response Status C
 ACCEPT.
 [D3.5 P241 L48-51.]

Cl 45 SC 45.4.1 P 241 L 33 # 55
 Jonathan Thatcher World Wide Packets
 Comment Type E Comment Status A
 The parameter should be "Input voltage" not "Maximum input voltage"
 SuggestedRemedy
 Fix
 Response Response Status C
 ACCEPT.
 And re-name it from VIMAX to VI.
 [D3.5 P243]

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CI 45 SC 45.5.5.10 P 256 L 17 # 429
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status A
 In DM12, 45.2.4.1.4 should be 45.2.5.1.4
 SuggestedRemedy
 45.2.4.1.4 needs to be changed to 45.2.5.1.4 and 45.2.5.1.4 needs to be inserted into 2 PICS references:
 Bits 5.0.13 and 5.0.6 both written as one.
 Attempt to change bits to invalid setting is ignored
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 45.2.5.1.4 only needs to be inserted in one reference.

CI 45 SC 45.5.5.10 P 256 L 23 # 430
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status A
 In DM15, Missing information. Previous DM's mimic PM's, however this one does not.
 SuggestedRemedy
 Need to input information for DM15
 Response Response Status C
 ACCEPT.
 See #187. Remove DM15 and re-shuffle.
 [D3.5]

CI 45 SC 45.5.5.10 P 256 L 24 # 187
 Turner, Ed Lattice Semiconductor
 Comment Type E Comment Status A
 Item DM 25 is empty.
 SuggestedRemedy
 Delete line DM15 and re-number subsequent items.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Item is DM15 not DM25.
 [D3.5]

CI 45 SC 45.5.5.12 P 258 L 27 # 431
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status A
 MF15 is a repetition of MF14.
 SuggestedRemedy
 Delete MF15
 Response Response Status C
 ACCEPT.
 [D3.5]

CI 45 SC 45.5.5.6 P 253 L 14 # 432
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status A
 In RM39,says Bad sync headers, but seems to connect to BER.
 SuggestedRemedy
 Change Bad sync headers counter to BER counter on Page 253 line 14
 Response Response Status C
 ACCEPT.
 [D3.5]

CI 45 SC 45.5.5.6 P 253 L 17 # 433
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status A
 In RM40, says Bad sync headers, but seems to connect to BER
 SuggestedRemedy
 Change Bad sync headers counter to BER counter on line 17 of page 253
 Response Response Status C
 ACCEPT.
 [D3.5]

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Cl 45 SC Annex 45A.2 P 261 L 35 # 425
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status A
 Std states: "As the Clause 45 MDIO electrical interface is significantly different to the Clause 22 MII Management electrical interface..." Grammatical mistake
 SuggestedRemedy
 Change "to the" to "from"
 Response Response Status C
 ACCEPT.
 We think 'from' is correct in this case.

Cl 45 SC Table 45-45 P 226 L 15 # 426
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status A
 Bit 4.1.1 used for both power down and reserved.
 SuggestedRemedy
 Change 4.1.1:0 to just 4.1.0
 Response Response Status C
 ACCEPT.
 [D3.5 P227 L17]

Cl 45 SC Table 45-53 P 233 L 47 # 427
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status A
 Bit 5.1.1 used for both power down and reserved.
 SuggestedRemedy
 Change 5.1.1:0 to just 5.1.0
 Response Response Status C
 ACCEPT.
 [D3.5 P234 L49]

Cl 45 SC Table 45-57 P 237 L 11 # 428
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status A
 Bit 5.24.12 seen twice and no 5.24.11 seen at all.
 SuggestedRemedy
 Need to specify register 5.24.11.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Make the 'pattern testing ability' bit number 11.
 [D3.5 P238 L11]

Cl 45 SC Tbl 45-62 P 241 L 43 # 45002
 Ed Turner
 Comment Type T Comment Status A
 IOH measurement condition missing
 SuggestedRemedy
 Add V = 1.0V to the condition box and a link to a footnote at the bottom of the table that says that the IOH value is not applicable to open drain drivers.
 Response Response Status C
 ACCEPT.
 [D3.5 P243]

Cl 45 SC Tbl 45-62 P 241 L 45 # 45003
 Ed Turner
 Comment Type T Comment Status A
 IOL measurement condition missing.
 SuggestedRemedy
 Add V = 0.3V to condition box.
 Response Response Status C
 ACCEPT.
 [D3.5 P243 - also now raised to Technical.]

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Cl 45A SC Figures (all) P L # 188
 Turner, Ed Lattice Semiconductor
 Comment Type E Comment Status A
 There's some stray blobs and marks that need removing.
 SuggestedRemedy
 Remove stray blobs and marks.
 Response Response Status C
 ACCEPT.
 [D3.5 Annex]

Cl 45A SC Fiure 45A-1 P L # 593
 Tom Mathey Independent
 Comment Type E Comment Status A
 In figure 45A-1, just to the left of the line which has associated text 1.2 V, there are two extra -dots+. These appear to be drawing artifacts. Same comment for 45A-2 for one -dot, 45A-3 for one -dot+ at tow places. For 45A-3, there is an extra -large dot+ just above the text MDIO. Same for 45A-4
 SuggestedRemedy
 Remove drawing artifacts.
 Response Response Status C
 ACCEPT.
 [D3.5 Annex]

Cl 46 SC 46.3.3.3 P 279 L 18 # 137
 Naresh Raman LSI Logic Corporation
 Comment Type T Comment Status A
 The first sentence of this subclause says that the 10 Gb/s PCS is required to align the Start control character to lane 0. This function is performed by the RS.
 SuggestedRemedy
 Change the first sentence of this subclause to read as "The transmit portion of the RS is expected to align the Start control character to lane 0." Also, the second sentence of this subclause may be changed from "The RS shall not indicate DATA_VALID to the MAC for a Start control character received on any other lane." to "The receive portion of the RS shall not indicate DATA_VALID to the MAC for a Start control character received on any other lane."

Response Response Status C
 ACCEPT IN PRINCIPLE.
 Changed to "T" as the commenter is not part of the WG ballot pool.
 Subclause 46.3.3.2 describes error handling functions on the transmit path. Section 46.3.3.3 only applies to the receive path.
 No technical changes are required. Make the following editorial changes to enhance clarity:
 Change title of subclause 46.3.3.3 to "Response to received invalid frame sequences", and add the phrase "either or preserve the column alignment of the transmitting RS or" to the first sentence so that it reads "The 10 Gb/s PCS is required to either preserve the column alignment of the transmitting RS or align the Start control character to lane 0."

Cl 46 SC 46.5.2.3 P 285 L 9 # 256
 Venkatavaradan, Vinod Kumar UNH-IOL
 Comment Type E Comment Status D
 The subclause 46.1.1f),the item XS is referencing to is not in agreement.
 SuggestedRemedy
 Change the subclause to 46.1.1g) from 46.1.1f) to match the feature of this item.
 Response Response Status Z
 Withdrawn by editor, duplicate of #39.

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Cl 46 SC 46.5.2.3 P 285 L 9 # 39
 Venkatavaradan, Vinod Kumar UNH-IOL
 Comment Type E Comment Status A
 The subclause 46.1.1f),the item XS is referencing to is not in agreement.
 SuggestedRemedy
 Change the subclause to 46.1.1g) from 46.1.1f) to match the feature of this item.
 Response Response Status C
 ACCEPT.

Cl 46 SC 46.5.3.1 P 285 L 31 # 257
 Venkatavaradan, Vinod Kumar UNH-IOL
 Comment Type E Comment Status D
 The subclause(46.1.5) the item G2 is referencing to is not in agreement.
 SuggestedRemedy
 Change the subclause to 46.1.6 from 46.1.5 to match the feature of this item.
 Response Response Status Z
 Withdrawn by editor, duplicate of #40.

Cl 46 SC 46.5.3.1 P 285 L 31 # 40
 Venkatavaradan, Vinod Kumar UNH-IOL
 Comment Type E Comment Status A
 The subclause(46.1.5) the item G2 is referencing to is not in agreement.
 SuggestedRemedy
 Change the subclause to 46.1.6 from 46.1.5 to match the feature of this item.
 Response Response Status C
 ACCEPT.

Cl 46 SC 46.5.3.2 P 285 L 39 # 41
 Venkatavaradan, Vinod Kumar UNH-IOL
 Comment Type E Comment Status A
 The subclause 46.1 the item PL1 is referencing to is not in agreement.
 SuggestedRemedy
 Change the subclause to 46.1.7 from 46.1
 Response Response Status C
 ACCEPT.

Cl 46 SC 46.5.3.2 P 285 L 39 # 258
 Venkatavaradan, Vinod Kumar UNH-IOL
 Comment Type E Comment Status D
 The subclause 46.1 the item PL1 is referencing to is not in agreement.
 SuggestedRemedy
 Change the subclause to 46.1.7 from 46.1
 Response Response Status Z
 Withdrawn by editor, duplicate of #41.

Cl 46 SC 46.5.3.2 P 285 L 4226 # 42
 Venkatavaradan, Vinod Kumar UNH-IOL
 Comment Type E Comment Status A
 The subclauses(46.1.6.1.4,.....,46.1.6.5.3) corresponding to items (PL2,.....,PL13) is not in agreement.
 SuggestedRemedy
 Change all the subclauses beginning with 46.1.6 to 46.1.7 to match the features of all these items.
 Response Response Status C
 ACCEPT.

Cl 46 SC 46.5.3.2 P 285 L 4226 # 259
 Venkatavaradan, Vinod Kumar UNH-IOL
 Comment Type E Comment Status D
 The subclauses(46.1.6.1.4,.....,46.1.6.5.3) corresponding to items (PL2,.....,PL13) is not in agreement.
 SuggestedRemedy
 Change all the subclauses beginning with 46.1.6 to 46.1.7 to match the features of all these items.
 Response Response Status Z
 Withdrawn by editor, duplicate of #42.

Cl 46 SC 46.5.3.4 P 287 L 3339 # 261
 Venkatavaradan, Vinod Kumar UNH-IOL
 Comment Type E Comment Status D
 There are no shall statements corresponding to items FS14,FS17 and these items are redundant.
 SuggestedRemedy
 Remove the items FS14 & FS17.
 Response Response Status Z
 Withdrawn by editor, duplicate of #44.

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CI 46 SC 46.5.3.4 P 287 L 3339 # 44
 Venkatavaradan, Vinod Kumar UNH-IOL
 Comment Type E Comment Status A
 There are no shall statements corresponding to items FS14,FS17 and these items are redundant.
 SuggestedRemedy
 Remove the items FS14 & FS17.
 Response Response Status C
 ACCEPT.

CI 46 SC 46.5.3.5 P 288 L 817 # 260
 Venkatavaradan, Vinod Kumar UNH-IOL
 Comment Type E Comment Status D
 The subclause 46.3.4 corresponding to items LF2,LF3,LF4 and LF5 is not in agreement
 SuggestedRemedy
 Change the subcluse 46.3.4 corresponding to items LF2,LF3,LF4 and LF5 to 46.3.4.3
 Response Response Status Z
 Withdrawn by editor, duplicate of #43.

CI 46 SC 46.5.3.5 P 288 L 817 # 43
 Venkatavaradan, Vinod Kumar UNH-IOL
 Comment Type E Comment Status A
 The subclause 46.3.4 corresponding to items LF2,LF3,LF4 and LF5 is not in agreement
 SuggestedRemedy
 Change the subcluse 46.3.4 corresponding to items LF2,LF3,LF4 and LF5 to 46.3.4.3
 Response Response Status C
 ACCEPT.

CI 47 SC 3.4.1 P 296 L 12 # 272
 Ali Ghiasi Broadcom
 Comment Type T Comment Status R NC
 As specified common mode return loss a perfect 100 ohms differential termination will have 6 dB return loss.
 SuggestedRemedy
 Propose to reduce the common mode return loss to 5 dB allowing differential recivers.
 Response Response Status C
 REJECT. Reasoning is not clear nor justified. Effect on system performace required before return loss spec is changed.

CI 47 SC 3.4.1 P 296 L 12 # 282
 Ali Ghiasi Broadcom
 Comment Type T Comment Status R NC
 As specified common mode return loss a perfect 100 ohms differential termination will have 6 dB return loss.
 SuggestedRemedy
 Propose to reduce the common mode return loss to 5 dB allowing differential recivers.
 Response Response Status C
 REJECT. Duplicates 272. See that comment for resolution.

CI 47 SC 3.4.4 P 296 L 41 # 273
 Ali Ghiasi Broadcom
 Comment Type T Comment Status R NC
 Specifying the common mode impedance in reference to 25 ohms is difficult to measure with 50 ohms instrument. Possibly an splitter might be used and apply half the signal to each input.
 SuggestedRemedy
 Clarification and/or suggested test procedure is required. Suggest to either user an splitter or short the second output measure with 50 ohms NWA.
 Response Response Status C
 REJECT. Duplicates 283. See that comment for resolution.

CI 47 SC 3.4.4 P 296 L 41 # 283
 Ali Ghiasi Broadcom
 Comment Type T Comment Status R NC
 Specifying the common mode impedance in reference to 25 ohms is difficult to measure with 50 ohms instrument. Possibly an splitter might be used and apply half the signal to each input.
 SuggestedRemedy
 Clarification and/or suggested test procedure is required. Suggest to either user an splitter or short the second output measure with 50 ohms NWA.
 Response Response Status C
 REJECT. Need a specific proposal.

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CI 47 SC 4.2 P298 L 54 # 607
 Michael Jenkins LSI Logic Corporation

Comment Type T Comment Status R NC

As I understand it, the motivation behind adding in 47.4.2 "The left and right edges of the template are aligned with the mean zero crossing points of the measured data eye, as illustrated in Figure 47-7" (starting with draft 3.1) was the concern that possibly unconstrained asymmetry of deterministic jitter might cause receiver bit errors. Controlling this potential problem was the sole reason that deterministic jitter was isolated for a separate spec limit. But, if further constraints are deemed necessary, it is much less problematic to put a limit directly on the asymmetry of the deterministic jitter instead. I see several difficulties associated with forcing the mean of the jitter to equal 0 UI:

* It over-constrains the transmitter jitter. The distance between adjacent transmitter templates is exactly equal to the max total jitter specification. A transmitter which has slightly less than the max total jitter, but has some asymmetry in the jitter distribution, will have one tail of its jitter distribution forced inside the template by this new requirement, failing the test.

* It relaxes the receiver jitter tolerance test. The 'reference input' signals for that test must comply to this requirement. (See clause 47.4.3.2.) The intent of that test is to adjust "the signal amplitude until the data eye hugs the inner boundary of the driver's far-end eye template...." The result of this requirement will be a reference input which hugs the template on one side only (probably the left side), leaving some open space on the other side. A more open reference data eye will result.

* The Compliance Channel was developed prior to this new requirement. The transfer function of the Compliance Channel will result in a skewed jitter distribution. I am uncertain whether anyone has assessed whether it is now possible to transmit a signal through the compliance channel which will meet the new transmitter template.

* Presently, template tests are done on oscilloscopes. However, jitter is not well measured on these instruments. The requirement is to high-pass filter the jitter. The typically prescribed method is to use a "Golden PLL" to generate a low-pass-filtered scope trigger. However, I know of no such adequate instrument (which must have jitter much less than the transmitter under test, a well defined bandwidth, and very low drift of phase error). Setting the jitter mean to 0 UI requires measuring the jitter mean on an oscilloscope, but I don't know how to do that.

* The transmitter template is typically more a test of rise time and signal quality, in general, than a jitter test. The template is left-to-right symmetrical. However, a skin-effect-induced data eye is not. The ability to horizontally adjust the data eye to the template partially compensated for this too-idealized template shape.

SuggestedRemedy

In the long run, better techniques for testing transmitter templates will help. (TIA-based methods are in development.) But, at this time, I believe a simple solution is needed. I suggest that the line "The left and right edges of the template are aligned with the mean zero crossing points of the measured data eye, as illustrated in Figure 47-7" be removed, and that the referenced figure also be removed. To satisfy those concerned about how receivers may suffer from extreme asymmetry in the jitter distribution, I would propose a spec limit on that asymmetry: asymmetry := mean - center
 center := (max total jitter + min total jitter)/2
 |asymmetry| < ??

I would propose that a value could be derived from existin compliance channel simulations and/or measurements plus some added guardband. I suspect something like 0.1 UI might work. Thanks to all who persevered in reading this far.

Response Response Status C
 REJECT. Complete resolution not supplied. Question as to whether current spec is broke. Straw poll taken as to whether:

- 1) It is perceived that the comment reflects a significant exposure in Clause 47 AND the suggested remedy adequately corrects the exposure;
- 2) It is perceived that an exposure may exist that requires attention;
- 3) The comment is not perceived to reflect a problem in Clause 47.

The results of the straw poll were 1-7-7 for #1, #2 and #3, respectively.

CI 47 SC 47.3.3 P293 L 14 # 144
 Kesling, Dawson Intel

Comment Type E Comment Status A Done

The test load is difficult to determine from the draft for the far end load and the reference signal. Several sections refer back to this transmit test load statement, even sections having to do with template testing and receive signal characteristics.

SuggestedRemedy

Remove reference to the transmitter in this test load statement, move it to a new section in 47.4, and refer to it where needed.

Response Response Status C
 ACCEPT.

CI 47 SC 47.3.3.4 P294 L 39 # 123
 Thaler, Pat Agilent Technologies

Comment Type E Comment Status R NC

"jitter requirements ... are for a maximum total jitter ... and a maximum deterministic jitter ..." is awkward wording because of unnecessary words.

SuggestedRemedy

Use: "jitter requirements ... are maximum total jitter ... and maximum deterministic jitter" Appears a couple of places. Another alternative would be to use the grammar from D3.1 which looks fine. I'm not sure why it was changed.

Response Response Status C
 REJECT. Wording was modified by vote of task force in order to clarify the previously ambiguous wording. (The previous wording could be mistakenly interpreted to allow mixing of near end TJ with far end DJ, for example. The new wording is more explicit that both TJ and DJ must be met at the same end.)

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CI 47 SC 47.3.3.4 P 294 L 42 # 608
Lindsay, Tom StratosLightwave

Comment Type T Comment Status A Done

Definition of jitter is not complete.

SuggestedRemedy

Insert a new sentence ahead of the 2nd to last sentence of this paragraph saying "Jitter specifications include all but 10E-12 of the jitter population."

Response Response Status C

ACCEPT.

CI 47 SC 47.3.3.4 P 294 L 43 # 124
Thaler, Pat Agilent Technologies

Comment Type T Comment Status A Done

It should be clarified here or in 47.4.3 that "random jitter" really means 14 times RMS random jitter.

SuggestedRemedy

Put such a statement into 47.4.3.

Response Response Status C

ACCEPT IN PRINCIPLE. Applied response to comment 608 as a response to this comment.

CI 47 SC 47.3.3.4 P 336 L 34 # 99007
Baumer, Howard Broadcom Corp.

Comment Type TR Comment Status R XAUJ (D3.1) NC

Differential return loss specified as as a flat responce of 10dB from 100MHz to 2.5GHz is unrealistic and cannot be met with pratical and reasonable designs and packages. also the common mode return loss specifications excludes pure differential designs, that is a pure 100ohm differential termination will have a 0dB common mode return loss but is a preferable design since it keeps all currents in the signal lines.

SuggestedRemedy

Specify the driver output differential return loss with a nonflat responce and remove the common mode return loss requirement. New description to read: "Driver output impeadance shall result in a differential return loss better than 10dB from 100MHz to 781.25MHz and reduce 20dB per decade from 781.25MHz to 2.5GHz".The last sentence in this paragraph will then need to read: "The reference impedance for differential return loss measurements is 100ohms."Table 47-1 in subclause 47.3.3 on page 334 will need to be updated with these redefined return loss specifications.

Response Response Status U

REJECT. The working group requests evidence that the suggested limits can be met in practice and simultaneously allow for full system functionality without alteration of other specification limits.

CI 47 SC 47.3.3.6 P 339 L 3839 # 99008
Baumer, Howard Broadcom Corp.

Comment Type TR Comment Status R XAUJ (D3.1) NC

The current transmit jitter specification allows for the near end random jitter to be has high as 8ps rms and the far end random jitter to be has high as 12.6ps rms. (Since the specification allows Dj=0 and Rj=Tj-Dj(actual) Rj can then equal Tj. For near end Rj=0.35UI=112ps pk-pk which is 8ps rms {112/14}. For the far end Rj=0.55UI=176ps pk-pk which is 12.6ps rms.) This puts an undue burdon on the Receiver to be able to handle this large pure random jitter. A maximum random jitter should be specified.

SuggestedRemedy

Add a maximum random jitter specification that is not based on the determinstic jitter and add the constraint that the sum of the Rj & Dj has to be less than the Tj.Second to last sentence (lines 38-39) modified to read: "The maximum peak to peak random jitter, defined as 14 * rms random jitter, shall be less than 0.22UI. The sum of the measured deterministic and measured peak to peak random jitter shall be less than the total jitter".Table 47-1 in subclause 47.3.3 on page 334 will need to be updated with the maximum random jitter.

Response Response Status U

REJECT. The working group desires further investigation of an appropriate RJ limit. The editor asks that the commentor determine an RJ limit acceptable to the working group and then resubmitted this comment.

CI 47 SC 47.3.4 P 295 L 39 # 142
Kesling, Dawson Intel

Comment Type E Comment Status A Done

The presentation of BER and reference signal is confusing. They really belong together.

SuggestedRemedy

Move first sentence in 47.3.4 to the beginning of 47.3.4.1 (appropriately modified). Retitle 47.3.4.1 as "Bit error rate".

Response Response Status C

ACCEPT.

CI 47 SC 47.3.4 P 295 L 41 # 470001
Rich Taborek

Comment Type E Comment Status A Done

Change "subsection" to "subclause".

SuggestedRemedy

See comment

Response Response Status C

ACCEPT.

P802.3ae Draft 3.2 Comments

CI 47 SC 47.3.4.5 P 296 L 53 # 609
 Lindsay, Tom StratosLightwave
 Comment Type T Comment Status A Done
 Definition of jitter values is not complete.
 SuggestedRemedy
 Insert a new sentence ahead of the last sentence of this paragraph saying "Jitter specifications include all but 10E-12 of the jitter population."
 Response Response Status C
 ACCEPT.

CI 47 SC 47.3.4.5 P 342 L 2937 # 99009
 Baumer, Howard Broadcom Corp.
 Comment Type TR Comment Status R XAUI (D3.1) NC
 There is no specific random jitter specified for the receiver jitter tolerance. This results in the same problem illustrated in my comment #164.
 SuggestedRemedy
 Add the following sentence to subclause 47.3.4.5 between the sentence on specifying Dj and the sentence specifying Tj: "The maximum peak to peak random jitter, defined as 14 * rms random jitter, shall be less than 0.22UI."
 Response Response Status U
 REJECT. See response to #164 (#99008).

CI 47 SC 47.3.5 P 297 L 26 # 610
 Lindsay, Tom StratosLightwave
 Comment Type E Comment Status R NC
 Last half of this paragraph is informative, but seems inappropriate for a standard.
 SuggestedRemedy
 Is there an Annex for it? Remove it? It would be harmless to leave it in...
 Response Response Status C
 REJECT.

CI 47 SC 47.4.2 P 298 L 46 # 143
 Kesling, Dawson Intel
 Comment Type E Comment Status A NC
 This section was written before the contents of Annex 48B were complete. It should be reviewed in light of changes expected to be made to Annex 48B at the Interim.
 SuggestedRemedy
 Review and approve necessary changes in light of changes to Annex 48B at the September Interim.
 Response Response Status C
 ACCEPT IN PRINCIPLE. Subclause 47.4.2 wording is adequate based on responses to other Clause 47 comments as well new Annex 48B and responses to comments on it.

CI 47 SC 47.4.2 P 298 L 46 # 140
 Kesling, Dawson Intel
 Comment Type T Comment Status R NC
 Submitted for third party: The current draft for XAUI does not appear to allow for the effects of in-circuit probing. By this I mean that a user has a system (i.e. daughtercard > connector > backplane > connector > daughtercard) and he wants to probe at the inputs to the receiver device. The loading effects of the probe will influence the measured eye, potentially significantly. It is not clear to me where this would go in Clause 47."
 SuggestedRemedy
 "I do not have a suggestion for a solution."

Response Response Status C
 REJECT. XAUI electrical requirements are component-level requirements and do not provide for in-circuit probing. Load requirements are targeted toward 50 ohm test equipment.

CI 47 SC 47.4.2 P 298 L 53 # 265
 Venkatavaradan, Vinod Kumar UNH-IOL
 Comment Type E Comment Status A Done
 A Shall in the subclause 47.4.2 is not referenced in the PICS. There is no reference in the PICS to the statement "The eye template SHALL be measured with AC coupling and centered at 0 Volts differential".
 SuggestedRemedy
 An entry corresponding to the SHALL statement could be made in the PICS.
 Response Response Status C
 ACCEPT IN PRINCIPLE. Duplicates 48. See that comment for resolution.

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CI 47 SC 47.4.2 P 298 L 53 # 48
 Venkatavaradan, Vinod Kumar UNH-IOL

Comment Type E Comment Status A Done

A Shall in the subclause 47.4.2 is not referenced in the PICS. There is no reference in the PICS to the statement "The eye template SHALL be measured with AC coupling and centered at 0 Volts differential".

SuggestedRemedy

An entry corresponding to the SHALL statement could be made in the PICS.

Response Response Status C

ACCEPT IN PRINCIPLE. The entire subclause is mandated by the calling text and covered by other PICS (E6 through E8 in this case), so "shall"s have been intentionally omitted in other statements of this subclause to avoid redundancy. Rather than create a PICS entry for this one statement, replace "shall be" with "is" as is done in the other statements.

CI 47 SC 47.4.2 P 298 L 53 # 57
 Jonathan Thatcher World Wide Packets

Comment Type E Comment Status R NC

The AC coupling and centering requirement could be misinterpreted to mean centered between the logic one and logic zero rather than at the average power.

SuggestedRemedy

Change to: "...centered at the average power (shown in Figure 47-7 as 0 volts differential)."

Response Response Status C

REJECT. Centering is correct as volts, not power (watts) for this electrical (not optical) signal.

CI 47 SC 47.4.3 P 299 L 21 # 125
 Thaler, Pat Agilent Technologies

Comment Type TR Comment Status A Changed in 1.4

Since the jitter specs are for total jitter and deterministic jitter, this subclause should provide at least a brief description of what those terms mean.

SuggestedRemedy

The definitions from MJS are reasonably brief and clear. Importing them would satisfy this comment.

Response Response Status C

ACCEPT IN PRINCIPLE. Rather than importing the definitions, added the following total, deterministic and random jitter definitions to 1.4:

jitter, total jitter (TJ): The deviation from the ideal timing of an event at the mean amplitude of the signal population. Jitter is composed of both deterministic and random content. Low frequency deviations are tracked by the clock recovery circuit, and do not directly affect the timing allocations within a bit cell. Jitter that is not tracked by the clock recovery circuit directly affects the timing allocations in a bit cell.

deterministic jitter (DJ): Jitter with non-Gaussian probability density function. Deterministic jitter is always bounded in amplitude and has specific causes. Four kinds of deterministic jitter are identified: duty cycle distortion, data dependent, sinusoidal, and uncorrelated (to the data) bounded. DJ is characterized by its bounded, peak-to-peak value.

random jitter (RJ): Jitter that is characterized by a Gaussian distribution. For example random jitter is the peak-to-peak value at approximately 14 times the standard deviation of the Gaussian distribution for a BER of 10E-12, if the jitter population consists of only Gaussian components.

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CI 47 SC 47.4.3 P 299 L 24 # 56
Jonathan Thatcher World Wide Packets

Comment Type TR Comment Status A Done

There is no jitter test method specified in the jitter test requirements for 47.3.4.5; 47.4.3; 47.4.3.1; 47.4.3.2. Compare to clause 52.8 / 52.9.9.3 / 52.9.10 / 52.9.11.4 / and equivalent sections in clause 53.

SuggestedRemedy

Recommend using concepts in clauses 52 and 53 for consistency. Alternately, use clause 38 as a basis. Additionally, need to specify the conditions under which Rx jitter is measured with respect to lanes not under test (e.g. rise/fall times; power levels; etc).

Response Response Status C

ACCEPT IN PRINCIPLE.

Modified Clause 47 to directly specify jitter test methods where the methodology and test procedures themselves are either self-contained in Clause 47 or exemplified in Annex 48B due to the general nature of the methodology and/or test procedures. Modifications to Clause 47 as well as existing correspondence of Clause 52 jitter test methods in documented in Clause 47 which address all concerns listing in this comment are as follows:

- 1) 52.8.1 deals with transmit jitter spec (47.3.3.4), channel requirements (47.4.1) and test pattern (47.4.3 and Annex 48A).
- 2) 52.3.2 deals with receive jitter test method (47.4.3.2), input signal (47.3.4.1) and test pattern (47.4.3 and Annex 48A).
- 3) 52.9.9.3 describes the jitter test procedure using the bathtub curve and golden PLL. Changed the last sentence in 47.4.3 to read as follows: "Jitter measurement shall be performed with a test procedure resulting in a BER bathtub curve such as that described in Annex 48B." A corresponding PICS entry is added.
- 4) 52.9.10 deals with making receive sensitivity measurements with a closed eye (47.4.3.2).
- 5) 52.9.11.4 deals with the jitter tolerance test setup (Annex 48B), adjustment of input amplitude (47.3.4.2) and SJ sweep (47.3.4.5 and 47.4.3.2).

The second part of the comment is concerned with crosstalk. The far-end transition times are defined by the compliance channel (47.4.1) and far end amplitude by the far-end eye template. The near end waveform on unused lanes is roughly defined; added SJ covers the difference between transition times, amplitude and pre-distortion waveforms of various test systems.

CI 47 SC 47.6.4.2 P 301 L 2834 # 45
Venkatavaradan, Vinod Kumar UNH-IOL

Comment Type E Comment Status A Done

The subclause 47.2 corresponding to items F1,F2 & F3 is not in agreement,the item F2 corresponds to a MAY and not a SHALL in the subclause where it is defined.

SuggestedRemedy

Change the subclause to 47.2.1 corresponding to items F1,F2 and to 47.2.2 corresponding to item F3.

Response Response Status C

ACCEPT.

CI 47 SC 47.6.4.2 P 301 L 2834 # 262
Venkatavaradan, Vinod Kumar UNH-IOL

Comment Type E Comment Status A Done

The subclause 47.2 corresponding to items F1,F2 & F3 is not in agreement,the item F2 corresponds to a MAY and not a SHALL in the subclause where it is defined.

SuggestedRemedy

Change the subclause to 47.2.1 corresponding to items F1,F2 and to 47.2.2 corresponding to item F3.

Response Response Status C

ACCEPT. Duplicates 45. See that comment for resolution.

CI 47 SC 47.6.4.3 P 301 L 42 # 46
Venkatavaradan, Vinod Kumar UNH-IOL

Comment Type E Comment Status A None

There is no matching shall statemnt for the item E1

SuggestedRemedy

Response Response Status C

ACCEPT. Duplicates 53. See that comment for resolution.

CI 47 SC 47.6.4.3 P 301 L 42 # 270
Venkatavaradan, Vinod Kumar UNH-IOL

Comment Type E Comment Status A Done

The item E1 misses a corresponding shall in the subcluse 47.3 where it is defined.

SuggestedRemedy

Add a Shall statement corresponding to this PICS entry.

Response Response Status C

ACCEPT. Duplicates 53. See that comment for resolution.

P802.3ae Draft 3.2 Comments

CI 47 SC 47.6.4.3 P 301 L 42 # 53
 Venkatavaradan, Vinod Kumar UNH-IOL
 Comment Type E Comment Status A Done
 The item E1 misses a corresponding shall in the subclause 47.3 where it is defined.
 SuggestedRemedy
 Add a Shall statement corresponding to this PICS entry.
 Response Response Status C
 ACCEPT IN PRINCIPLE. Deleted PICS item E1.

CI 47 SC 47.6.4.3 P 301 L 42 # 263
 Venkatavaradan, Vinod Kumar UNH-IOL
 Comment Type E Comment Status A Done
 There is no matching shall statemnt for the item E1
 SuggestedRemedy
 Response Response Status C
 ACCEPT. Duplicates 53. See that comment for resolution.

CI 47 SC 47.6.4.3 P 302 L 7 # 264
 Venkatavaradan, Vinod Kumar UNH-IOL
 Comment Type E Comment Status A Done
 The Value/Comment field is left blank for the item E9
 SuggestedRemedy
 Add "maybe larger than 1600mVp-p in the Value/Comment field".
 Response Response Status C
 ACCEPT. Duplicates 47. See that comment for resolution.

CI 47 SC 47.6.4.3 P 302 L 7 # 47
 Venkatavaradan, Vinod Kumar UNH-IOL
 Comment Type E Comment Status A Done
 The Value/Comment field is left blank for the item E9
 SuggestedRemedy
 Add "maybe larger than 1600mVp-p in the Value/Comment field".
 Response Response Status C
 ACCEPT. Add "May be larger than 1600mVp-p" in the Value/Comment field.

CI 47 SC Fig. 47.2 P 292 L 38 # 141
 Kesling, Dawson Intel
 Comment Type E Comment Status A Done
 Lanes inputs and outputs have same names.
 SuggestedRemedy
 Re-label destination lanes from L0<P>, L0<N>, L1<P>, ... L3<N> to DL0<P>, DL0<N>, DL1<P>, ... DL3<N> and change source lanes from L0<P>, L0<N>, L1<P>, ... L3<N> to SL0<P>, SL0<N>, SL1<P>, ... SL3<N>. Re-label Li<P> and Li<N> in Fig. 47-3 to SLi<P> and SLi<N>.

Response Response Status C
 ACCEPT.

CI 47 SC Table 47-4 P 297 L # 611
 Lindsay, Tom StratosLightwave
 Comment Type T Comment Status A Done
 Definition of jitter values is not complete.

SuggestedRemedy
 Add a note in the table saying "Jitter specifications include all but 1E-12 of the jitter population."

Response Response Status C
 ACCEPT.

CI 48 SC 48.1.2 P 304 L 42 # 49
 Venkatavaradan, Vinod Kumar UNH-IOL
 Comment Type E Comment Status D
 The text desribing the relationship between 802.3 MAC and 802.2 LLC is not in agreement

SuggestedRemedy
 Change the 802.2 LLC to 802.3 LLC.

Response Response Status Z
 PROPOSED REJECT. Duplicate of 266.

CI 48 SC 48.1.2 P 304 L 42 # 266
 Venkatavaradan, Vinod Kumar UNH-IOL
 Comment Type E Comment Status R
 The text desribing the relationship between 802.3 MAC and 802.2 LLC is not in agreement

SuggestedRemedy
 Change the 802.2 LLC to 802.3 LLC.

Response Response Status C
 REJECT. This is consistent with previous clauses and does reference the correct relationship.

P802.3ae Draft 3.2 Comments

Cl 48 SC 48.2.1 P 307 L 43 # 267
Venkatavaradan, Vinod Kumar UNH-IOL

Comment Type E Comment Status A

The text " the PCS client is the RS defined in clause 47" is not in agreement with the actual definition of clause 47

SuggestedRemedy

Change the clause 47 reference to clause 46.

Response Response Status C
ACCEPT.

Cl 48 SC 48.2.1 P 307 L 43 # 50
Venkatavaradan, Vinod Kumar UNH-IOL

Comment Type E Comment Status D

The text "" the PCS client is the RS defined in clause 47" is not in agreement with the actual definition of clause 47

SuggestedRemedy

Change the clause 47 reference to clause 46.

Response Response Status Z
PROPOSED REJECT. Duplicate of 267.

Cl 48 SC 48.2.2 P 309 L 3 # 343
Dawe, Piers Agilent

Comment Type E Comment Status A

"generates RX on the XGMII." This term RX has popped up and I would have to read on nine pages to find its definition. You use it only 6 times, it relates to the XGMII yet Clause 47 doesn't use it.

SuggestedRemedy

Spell it out each time: replace each use of "RX" with "RXD and RXC" and delete the definition of RX.

Response Response Status C
ACCEPT IN PRINCIPLE.

Will remove the references to RX that exist before the state machines. The variable RX is used in the Receive State Diagram and clearly defined in 48.2.5.1.3.

Cl 48 SC 48.2.4.4 P 315 L 18 # 116
Thaler, Pat Agilent Technologies

Comment Type TR Comment Status A

The last sentence conflicts with the changes that were made to table 48-2. Reserved characters should now be sent according to table 36-2 and if they have a valid encoding in that table they are not sent as /E/.

SuggestedRemedy

Delete "The PCS transmitprocess replaces all reserved XGMII control characters with /E/"

Response Response Status C
ACCEPT.

Cl 48 SC 48.2.5 P L # 595
Tom Mathey Independent

Comment Type E Comment Status A

Line44 is -State diagram timers follow the conventin of 14.2.3.2+. However, I can not find any timers in the state diagrams.

SuggestedRemedy

Delete sentence.

Response Response Status C
ACCEPT.

Cl 48 SC 48.2.5.1.3 P L # 596
Tom Mathey Independent

Comment Type E Comment Status A

On line 36 and 37, use of x.0.11 and x.0.15 will appear to the reader as a typo error. What is needed is 4.0.11 for the PHY XS, and 5.0.11 for the DTE XS. Same for x.0.15. A similar situation exists in 48.2.5.2.3,

SuggestedRemedy

Change text from
-has low power mode set via Control register bit x.0.11+
to
-has low power mode set via its Control register bit (4.0.11 for the PHY XS, 5.0.11 for the PHY XS)+
Yes, I understand that this now the only place in the 48.2.5.1.x text where the uniqueness of the PHY XS vs PHY DTE is even mentioned.

Response Response Status C
ACCEPT IN PRINCIPLE.

Will replace x.0.11 with 4.0.11 and 5.0.11. Will replace x.0.15 with 4.0.15 and 5.0.15. Reword properly with editorial license.

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CI 48 SC 48.3.3 P 330 L 34 # 126
Thaler, Pat Agilent Technologies

Comment Type TR Comment Status A

Re: "while ensuring that remote entities do not interpret this test data as valid information." Since we no longer define transmitter output while in loopback mode, this statement is no longer true.

SuggestedRemedy

Delete the phrase quoted above.

Response Response Status C

ACCEPT.

CI 48 SC 48.4 P 331 L 13 # 269
Venkatavaradan, Vinod Kumar UNH-IOL

Comment Type E Comment Status A

There is no reference to SHALL in the text " Implementations of an XGMII SHALL comply with the requirements as specified in Clause 46" in the PICS.

SuggestedRemedy

Add a PICS entry corresponding to this SHALL statement.

Response Response Status C

ACCEPT IN PRINCIPLE. A PICS entry will be added.

CI 48 SC 48.4 P 331 L 13 # 52
Venkatavaradan, Vinod Kumar UNH-IOL

Comment Type E Comment Status D

There is no reference to SHALL in the text "" Implementations of an XGMII SHALL comply with the requirements as specified in Clause 46"" in the PICS.

SuggestedRemedy

Add a PICS entry corresponding to this SHALL statement.

Response Response Status Z

PROPOSED REJECT. Duplicate of 269

CI 48 SC 48.7.4.2 P 333 L 43 # 51
Venkatavaradan, Vinod Kumar UNH-IOL

Comment Type E Comment Status D

The value/comment field corresponding to the item TSD is not in agreement with the feature of this item

SuggestedRemedy

Change the value/comment field to "" Meet the requirements of figures 48-6" from " Meet the requirements of figures 48-6 and 48-7 "

Response Response Status Z

PROPOSED REJECT. Duplicate of 268

CI 48 SC 48.7.4.2 P 333 L 43 # 268
Venkatavaradan, Vinod Kumar UNH-IOL

Comment Type E Comment Status A

The value/comment field corresponding to the item TSD is not in agreement with the feature of this item

SuggestedRemedy

Change the value/comment field to " Meet the requirements of figures 48-6" from " Meet the requirements of figures 48-6 and 48-7 "

Response Response Status C

ACCEPT.

CI 48 SC Figure 48-6 P L # 597
Tom Mathey Independent

Comment Type E Comment Status A

Drawing has artifacts left over from editing. TX_CLK was not completely removed.

SuggestedRemedy

Lines 29 and 39, delete TX_CLK.

Response Response Status C

ACCEPT.

CI 48 SC Figure 48-9 P 327 L 5 # 48001
Eric Lynskey

Comment Type T Comment Status A

When in the LOCAL_FAULT_INDICATE state, it currently says to pass the following up to the XGMII: RXC<3:0> = 0b1000 , RXD<31:0>=0h9c000001. This is incorrect, as it puts the sequence ordered_set on lane 3 and not on lane 0. This should be reversed.

SuggestedRemedy

Replace the LOCAL_FAULT_INDICATE text with the following: RX=LFAULT. Add a definition: LFAULT

A vector of bits RXD<31:0> and RXC<3:0> containing a Local Fault sequence ordered_set. The Local Fault sequence ordered_set is defined in 46.3.4.

Additionally, change the IDLE_MODE state to read: RX=IDLE. Add a definition: IDLE

A vector of bits RXD<31:0> and RXC<3:0> containing Idle. Idle is defined in Table 46-4.

Response Response Status C

ACCEPT.

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Cl 48A SC 48A.1 P 335 L 34 # 612
 Lindsay, Tom StratosLightwave
Comment Type T Comment Status A
 This pattern cannot be used for RJ compliance testing - it will give erroneous results compared to CJPAT and the methods of Annex 48B.
SuggestedRemedy
 Reword the 1st sentence to "The intent of this test pattern is to observe sources of random jitter (RJ), and also to test asymmetry of transition times. This pattern shall not be used for jitter compliance testing."
Response Response Status C
 ACCEPT IN PRINCIPLE. Add sentence with "This pattern is not intended for jitter compliance testing."

Cl 48A SC 48A.2 P 335 L 45 # 613
 Lindsay, Tom StratosLightwave
Comment Type T Comment Status A
 This pattern cannot be used for RJ compliance testing - it will give erroneous results compared to CJPAT and the methods of Annex 48B.
SuggestedRemedy
 Reword the 1st sentence to "The intent of this test pattern is to observe sources of random jitter (RJ), and also to test PLL drift. This pattern shall not be used for jitter compliance testing."
Response Response Status C
 ACCEPT IN PRINCIPLE. Add sentence with "This pattern is not intended for jitter compliance testing."

Cl 48A SC 48A.3 P 336 L 3 # 614
 Lindsay, Tom StratosLightwave
Comment Type T Comment Status A
 This pattern cannot be used for jitter compliance testing - it will give erroneous results compared to CJPAT and the methods of Annex 48B.
SuggestedRemedy
 Reword the 1st sentence to "The intent of this test pattern is to observe sources of random jitter (RJ) and high frequency intersymbol interference. This pattern shall not be used for jitter compliance testing."
Response Response Status C
 ACCEPT IN PRINCIPLE. Add sentence with "This pattern is not intended for jitter compliance testing."

Cl 48A SC 48A.4 P 336 L 17 # 615
 Lindsay, Tom StratosLightwave
Comment Type T Comment Status A
 This pattern cannot be used for jitter compliance testing - it will give erroneous results compared to CJPAT and the methods of Annex 48B. Also, since disparity is not controlled, its special properties cannot be guaranteed.
SuggestedRemedy
 Add to the end of the 1st paragraph: "However, the special properties of this pattern require positive running disparity at the start of the 9th byte, which may not be guaranteed during normal operation. This pattern shall not be used for jitter compliance testing."
Response Response Status C
 ACCEPT IN PRINCIPLE. Add sentence with "This pattern is not intended for jitter compliance testing."

Cl 48A SC 48A.4 P 337 L # 616
 Lindsay, Tom StratosLightwave
Comment Type T Comment Status R
 CJPAT is still being studied to provide more realistic crosstalk properties.
SuggestedRemedy
 TBD. John D'Ambrosia is heading this effort.
Response Response Status C
 REJECT. No comment to date from John D'Ambrosia or anyone else has been submitted against this draft to change the pattern. Commentor is encouraged to resubmit at sponsor ballot with a detailed pattern.

Cl 48A SC 48A.5 P L # 598
 Tom Mathey Independent
Comment Type E Comment Status A
 In an annex that is normative, the use of the word -proposed+ seems not quite correct. The clause is long past the point where proposals are appropriate. The continuous jitter test pattern (CJPAT) should be -as specified+ or just delete the sentence.
SuggestedRemedy
 Delete sentence on line 19: -The following test bit sequences are proposed for receive jitter testing.+
Response Response Status C
 ACCEPT IN PRINCIPLE. Change sentence to "This pattern is intended for receive jitter compliance testing."

P802.3ae Draft 3.2 Comments

CI 48B SC P L # 379
 Anthony Sanders Infineon Technologies

Comment Type T Comment Status A

The current text for Annex 48B is to be updated, removing all consistencies, removing all references to MJS, and updating "effective jitter" with the latest information from FC and the XAUI adhoc.

SuggestedRemedy

Replace current Annex 48B with text sent in asanders_1_0901.pdf.

Response Response Status C

PROPOSED ACCEPT IN PRINCIPLE. Certain editorial fixes are needed.

CI 48B SC P L # 635
 Lindsay, Tom StratosLightwave

Comment Type E Comment Status A

This Annex is still largely incomplete.

SuggestedRemedy

TBD. Anthony Sanders is working this.

Response Response Status C

ACCEPT IN PRINCIPLE. See Comment 379.

CI 49 SC 2.8 P 357 L 1 # 281
 Ali Ghiasi Broadcom

Comment Type T Comment Status A

Error in the line "Either 64 zeros or the LF ordered_set can be selected as the data pattern.

SuggestedRemedy

The second sentence should be " Either 64 zeros or 64-bit frames of LF order_set can be selected as the data pattern". The added 64-bit frames of LF adds clarification to the sentence that the data input should be in 64b/66b frame format

Response Response Status C

ACCEPT IN PRINCIPLE.

Downgraded to a T because commenter is not part of WG ballot pool.

Duplicate for 271

CI 49 SC 2.8 P 357 L 1 # 271
 Ali Ghiasi Broadcom

Comment Type T Comment Status A

Error in the line "Either 64 zeros or the LF ordered_set can be selected as the data pattern.

SuggestedRemedy

The second sentence should be " Either 64 zeros or 64-bit frames of LF order_set can be selected as the data pattern". The added 64-bit frames of LF adds clarification to the sentence that the data input should be in 64b/66b frame format

Response Response Status C

ACCEPT IN PRINCIPLE.

Downgraded to a T because commenter is not part of WG ballot pool.

Use "Either 64 zeros or the 64-bit encoding for two LF ordered_sets can be selected as the data pattern."

CI 49 SC 49.2.11 P 357 L 40 # 418
 Eric, Lynskey UNH IOL

Comment Type E Comment Status A shall

Std states: "The WIS data rate is always slower than the XGMII data rate and a PCS connected to a WIS shall insert idles to adapt between rates." Does not have a PICS statement

SuggestedRemedy

Input PICS Reference:PCS connected to WIS inserts idles to adapt between XGMII and WIS data rates.

Response Response Status C

ACCEPT IN PRINCIPLE. A shall statement is not necessary for this. Change "shall" to "will".

CI 49 SC 49.2.12 P 357 L 50 # 419
 Eric, Lynskey UNH IOL

Comment Type E Comment Status R

A shall is not included in the following sentence:"A PCS which supports both WIS and direct PMA attachment may reject or allow an attempt to activate receive test pattern mode when a WIS is attached."

SuggestedRemedy

Change "may" to "shall"

Response Response Status C

REJECT. Duplicates 415

P802.3ae Draft 3.2 Comments

Cl 49 SC 49.2.13.2.3 P L # 601
 Tom Mathey Independent

Comment Type E Comment Status A

The text+Encodes the 72-bit vector returning tx_coded<65:0> which is sent to the scrambler.+ is not quite correct. The two high order sync bits are not set to the scrambler.

SuggestedRemedy

Change to -Encodes the 72-bit vector returning tx_coded<65:0> of which tx_coded<63:0> is sent to the scrambler. The two high order sync bits bypass the scrambler.+.

Response Response Status C

ACCEPT.

Cl 49 SC 49.2.13.2.3 P 360 L 22 # 424
 Eric, Lynskey UNH IOL

Comment Type E Comment Status R

Spelling error: "Prescient"???

SuggestedRemedy

Possible "present"?

Response Response Status C

REJECT. Prescient means having a foreknowledge of events. It is in my dictionary and it was used in 802.3z for a similar situation. The treatment of the current block is based in part on the content of the next block.

Cl 49 SC 49.2.14.4 P L # 602
 Tom Mathey Independent

Comment Type E Comment Status A

Missleading title. Purpose of text is to describe Loopback.

SuggestedRemedy

Change title from Control to Loopback.

Response Response Status C

ACCEPT.

Cl 49 SC 49.2.14.4 P 366 L 1 # 422
 Eric, Lynskey UNH IOL

Comment Type E Comment Status A

Std states: "In addition, the PCS shall transmit a continuous stream of 0x00FF data words to the PMA or WIS sublayer..." Does not have a PICS statement.

SuggestedRemedy

Input PICS Reference:PCS transmits continuous stream of 0x00FF data words to PMA or WIS.

Response Response Status C

ACCEPT IN PRINCIPLE. Add one PICs entry for loopback "Performs as in 49.2.14.4."

Cl 49 SC 49.2.14.4 P 366 L 2 # 423
 Eric, Lynskey UNH IOL

Comment Type E Comment Status A

Std states: "In addition, the PCS....shall ignore all data presented to it by the PMA or WIS sublayer." Does not have a PICS statement

SuggestedRemedy

Input PICS reference:PCS ignores all data presented by PMA or WIS

Response Response Status C

ACCEPT IN PRINCIPLE. See 422

Cl 49 SC 49.2.2 P 349 L 34 # 409
 Eric, Lynskey UNH IOL

Comment Type E Comment Status A

Std states: "The value of PCS_R_STATUS shall be OK when Receive state machine is not in the RX_INIT state." Does not have a PICS reference.

SuggestedRemedy

Input PICS reference:PCS_R_STATUS OK when Receive state machine not in RX_INIT state.

Response Response Status C

ACCEPT. Thank you for the careful review of the correlation between the PICs and the body of this clause.

Cl 49 SC 49.2.4.10 P 355 L 10 # 414
 Eric, Lynskey UNH IOL

Comment Type E Comment Status A

Std states: "Such deletion shall only occur when two consecutive sequence ordered sets have been received and shall delete only one of the two" does not have a PICS statement.

SuggestedRemedy

Input two PICS Reference:Deletion occurred when two consecutive sequence ordered sets had been receivedOnly one whole ordered_set of two consecutive sequence ordered sets shall be deleted.

Response Response Status C

ACCEPT IN PRINCIPLE. PICS entry is there but points to wrong clause. Correct reference in PICS C5.

P802.3ae Draft 3.2 Comments

CI 49 SC 49.2.4.3 P L # 599
 Tom Mathey Independent

Comment Type E Comment Status A

In Figure 49-7, data blocks contain 8 data characters. Control blocks contain either 7 or 8 characters, with a mix of control and data. Therefore, the sentence on line 16 that -Control blocks contain an 8-bit block type field followed by a total of eight control and data characters.+ is incorrect. Of the 15 possible formats, 11 have 7 characters following the type field; 4 have 8 characters following the type field.

SuggestedRemedy

Change to: -Control blocks contain an 8-bit block type field followed by a total of either seven or eight control and data characters.+.

Response Response Status C

ACCEPT IN PRINCIPLE. The change you are suggesting was a previous wording which was changed because it was inaccurate and was causing confusion. Every block whether control or data encodes 8 characters. However the current wording isn't exactly correct either as one of the 8 characters is sometimes implicit in the type field rather than following the type field.

Change the paragraph to:

Data blocks contain eight data characters. Control blocks begin with an 8-bit block type field which indicates the format of the remainder of the block. For control blocks containing a Start or Terminate character, that character is implied by the block type field. Other control characters are encoded in a 7-bit control code or a 4-bit O Code. Each control block contains eight characters.

CI 49 SC 49.2.4.4 P 352 L 44 # 412
 Eric, Lynskey UNH IOL

Comment Type T Comment Status A shall 412

Std states: "All XGMII and 10GBASE-R control code values that do not appear in the table shall not be transmitted and shall be treated as an error if received" Does not have a PICS reference.

SuggestedRemedy

Need two PICS references: XGMII an 10GBASE-R control code values that do not appear in Figure 49-7 are not transmitted. XGMII an 10GBASE-R control code values that do not appear in Figure 49-7 are errors if received.

Response Response Status C

ACCEPT IN PRINCIPLE. Covered in C1 and C2 but there does not to be a clear compliance statement covering the whole of 49.2.4. Change the definitions in 49.2.13.2.3 for encode and decode funtions to "The {encode/decode} funtion shall {encode/decode} the block" Add reference to 49.2.13.2.3 in C1 and C2.

CI 49 SC 49.2.8 P 356 L 36 # 415
 Eric, Lynskey UNH IOL

Comment Type E Comment Status R

A shall is missing in the following sentence:"A PCS which supports both WIS and direct PMA attachment may reject or allow an attempt to activate transmit test pattern mode when a WIS is attached."

SuggestedRemedy

Change "may" to "shall"

Response Response Status C

REJECT. The statement doesn't need a shall. It is just stating that either of the two possible behaviors is allowed.

CI 49 SC 49.2.8 P 356 L 38 # 370
 Dawe, Piers Agilent

Comment Type E Comment Status R

It's not strictly true to call these test patterns "pseudo-random". Alternatives: truncated pseudo-random? data like? "near pseudo-random" as Table 52?24?

SuggestedRemedy

Change to "near pseudo-random". Also at lines 40 and 46, next page lines 4, 5, 5, 6 (some with spelling mistake).

Response Response Status C

REJECT. Psuedo - being apparently rather than actually stated. Random - without definate aim, direction, rule or method; relating to, having, or being elements or events with a definate probability of occurence.

Psuedo-random doesn't mean one goes through the whole cycle of a psuedo-random number generator. It just means that if you looked at a bit of the sequence it would look pretty random. If you look longer you will notice that it repeats. "Psuedo-random" is like saying "fake random" and near fake random doesn't make sense.

CI 49 SC 49.2.8 P 356 L 41 # 369
 Dawe, Piers Agilent

Comment Type E Comment Status A geoff and brad

Reference to Clause 52 can now be made more precise and turned into a link.

SuggestedRemedy

Change "Clause 52" to link to 52.9.

Response Response Status C

ACCEPT IN PRINCIPLE. Reference will be changed to 52.9 but Geoff says to leave creating a link to the IEEE editor during prepartion for publication.

P802.3ae Draft 3.2 Comments

Cl 49 SC 49.2.8 P 357 L 2 # 416
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status R
 Std states: "After loading Seed A or Seed B, the scrambler input shall be driven with the data pattern" Does not have a PICS reference.
 SuggestedRemedy
 Input PICS reference:Scrambler input driven with data pattern after loading Seed A or Seed B
 Response Response Status C
 REJECT. Covered by JT1.

Cl 49 SC 49.2.8 P 357 L 3 # 417
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status R
 Std states: "After loading Seed A Invert or Seed B Invert, the scrambler input shall be driven with the inverse of the data pattern." Does not have a PICS statement
 SuggestedRemedy
 Input PICS reference:Scrambler input driven with the inverse of data pattern after loading Seed A or Seed B
 Response Response Status C
 REJECT. Covered by JT1

Cl 49 SC 49.3.3 P 368 L 7 # 407
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status R
 Missing shall for PICS .
 SuggestedRemedy
 Put a shall statement in 49.1.5:XSBI compatibility interface shall be implemented.
 Response Response Status C
 REJECT. XSBI interface is optional in body and PICS shows it as an option.

Cl 49 SC 49.3.3 P 368 L 9 # 408
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status R
 Missing shall for PIC
 SuggestedRemedy
 Input a shall statement in 49.1.5.
 Response Response Status C
 REJECT. XGMII compatability interface is optional in body and PICS shows it as an option.

Cl 49 SC 49.3.4.1 P 368 L 32 # 410
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status A shall 412
 PICS representing "Encoder implementing code as specified" does not have a shall in the Clause.
 SuggestedRemedy
 Input shall statement into 49.2.4:Encoder implements code as specified in Figure 49-5.
 Response Response Status C
 ACCEPT IN PRINCIPLE. See 412.

Cl 49 SC 49.3.4.1 P 368 L 34 # 411
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status A shall 412
 PICS representing "Decoder implementing code as specified" does not have a shall in the Clause.
 SuggestedRemedy
 Input shall statement into 49.2.4:Decoder implements code as specified in Figure 49-5.
 Response Response Status C
 ACCEPT IN PRINCIPLE. See 410

Cl 49 SC 49.3.4.1 P 368 L 43 # 413
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status A
 PICS representing C5- Sequence ordered_set deletion, does not have a shall in the Clause.
 SuggestedRemedy
 Input shall statement into Clause 49.2.4.5:Only one whole ordered_set of two consecutive sequence ordered sets shall be deleted.
 Response Response Status C
 ACCEPT IN PRINCIPLE. Shall statement is in 49.2.4.10. Correct reference in PICS. (Same remedy as 414.)

P802.3ae Draft 3.2 Comments

Cl 49 SC 49.3.6 P 369 L 44 # 420
Eric, Lynskey UNH IOL

Comment Type E Comment Status A

PICS reference does not have a shall in subclause 49.2.14.

SuggestedRemedy

Input shall statement into subclause 49.2.14:PCS Management objects shall be accessible from MDIO

Response Response Status C

ACCEPT IN PRINCIPLE. PICS entry is unnecessary. The shalls are in Clause 45. Delete PICS entry.

Cl 49 SC 49.3.6 P 369 L 48 # 421
Eric, Lynskey UNH IOL

Comment Type E Comment Status R

PICS reference does not have a shall in subclause 49.2.14.

SuggestedRemedy

Input shall statement into subclause 49.2.14:Alternate access to PCS Management objects shall be provided.

Response Response Status C

REJECT. It is a recommendation not a requirement. PICS shows it as an option. Body and PICS are consistant.

Cl 49 SC Figure 49-3 P 347 L 6 # 135
Thaler, Pat Agilent Technologies

Comment Type T Comment Status A

Also applies to Figure 49-2 line 26. It doesn't make sense to talk about bit significance in relation to tx_data-units and rx_data-units. Bit significance only applies within a byte in 802.3. In the cases where bit significance goes across bytes (e.g. the length field) the least significant bit of the most significant byte is transmitted first. The R PCS transmit and receive data units contain parts of up to three bytes and therefore any one of the bits in them may be the least or most significant of the 16. Some of the bits are sync headers and don't have binary weight at all.

SuggestedRemedy

Delete LSB and MSB on line 26 of page 346 and line 6 of page 347.

Response Response Status C

ACCEPT.

Cl 49 SC Table 49-1 P L # 600
Tom Mathey Independent

Comment Type E Comment Status A

The text -encoded by block type field plus O code+ on line 20 in column 10GBASE-R Control Code should be replicated on line 33 in the same column as all of the same conditions apply. Some entries are a dash --+ and some are blank. Please explain in the clause the difference or remove dashes.

SuggestedRemedy

Replicate text.Explain purpose of dash or remove.

Response Response Status C

ACCEPT.

Cl 50 SC P L # 45001
Ed Turner

Comment Type T Comment Status D Withdrawn

Clause 45 received a comment (#308) which reads :

Comment : 'The sentence "Register 2.8 counts the number of errors received during a test pattern test" in this subclause needs to be deleted, because the register has been removed (it was in D3.1 as register 2.62)'
Remedy : 'Delete the sentence'

The comment was against the description for the receive test pattern enable bit of register 2.7. The comment is a valid one, but my question is : with the error counter removed, what use is this bit ? And shouldn't we remove it completely ?

SuggestedRemedy

Response Response Status Z

Comment withdrawn.

P802.3ae Draft 3.2 Comments

Cl 50 SC 3.2.2 P384 L 34 - 40 # 382
 Juergen Rahn Lucent Technologies

Comment Type T Comment Status R ZZ - Duplicate

Since protection is not supported on the 10GbE WAN PHY, K1 and K2 are set to default values; normally, in the SDH/SONET environment these default value would be "No request - null channel" (this can be read from "between the lines" in Telcordia's GR-253-CORE paragraph 5.3.5). Apparently, IEEE has choosen to use different default values: "No request - working channel #1".

There doesn't seem to be a reason to make the 10GbE WAN PHY default values different from the SONET/SDH values on purpose? Different default values will make it much harder to introduce possible further enhancements in the future for the 10GbE WAN PHY w.r.t. interworking with SONET/SDH protection mechanisms.

SuggestedRemedy

Be compatible with Telcordia's GR-253-CORE as follows:
 change the K1 octet to "00000000"
 change the bits 1 to 5 inclusive of the K2 octet to "00000"
 remove the first line of the note that states that this encoding indicates that the WIS is acting as a working channel.

Response Response Status C

REJECT.

Duplicate comment - see resolution to Comment #606.

Cl 50 SC 3.2.2 P384 L 34 - 40 # 606
 Juergen Rahn Lucent Technologies

Comment Type T Comment Status R JR - Rejected

Since protection is not supported on the 10GbE WAN PHY, K1 and K2 are set to default values; normally, in the SDH/SONET environment these default value would be "No request - null channel" (this can be read from "between the lines" in Telcordia's GR-253-CORE paragraph 5.3.5). Apparently, IEEE has choosen to use different default values: "No request - working channel #1".

There doesn't seem to be a reason to make the 10GbE WAN PHY default values different from the SONET/SDH values on purpose? Different default values will make it much harder to introduce possible further enhancements in the future for the 10GbE WAN PHY w.r.t. interworking with SONET/SDH protection mechanisms.

SuggestedRemedy

Be compatible with Telcordia's GR-253-CORE as follows:
 change the K1 octet to "00000000"
 change the bits 1 to 5 inclusive of the K2 octet to "00000"
 remove the first line of the note that states that this encoding indicates that the WIS is acting as a working channel.

Response Response Status C

REJECT.

After discussion with a number of SONET people from different backgrounds, it is clear that there is some disagreement as to what the specific value of the K1 and K2 bytes should be. However, there is no disagreement whatsoever as to the intent: the K1 and K2 bytes should be set to indicate that this is a WORKING CHANNEL with NO PROTECTION REQUEST ACTIVE.

This comment is hence rejected for the present, with the understanding that a discussion will take place among the various technical experts to determine the most suitable value for the K1 and K2 bytes, and a new comment will be submitted as necessary during the next ballot cycle to address this issue. The comment will be submitted by the Clause 50 editor if it is determined that a change is required to the draft.

Note that as the APS portions of the K1 and K2 bytes are not tied to any MDIO register resources, this value is not user-configurable and hence must be explicitly specified in Clause 50.

P802.3ae Draft 3.2 Comments

CI 50 SC 3.2.2 P 384 L 34-40 # 293
 Juergen Rahn Lucent Technologies

Comment Type T Comment Status R ZZ - Duplicate

Since protection is not supported on the 10GbE WAN PHY, K1 and K2 are set to default values; normally, in the SDH/SONET environment these default value would be "No request - null channel" (this can be read from "between the lines" in Telcordia's GR-253-CORE paragraph 5.3.5). Apparently, IEEE has chosen to use different default values: "No request - working channel #1".

There doesn't seem to be a reason to make the 10GbE WAN PHY default values different from the SONET/SDH values on purpose? Different default values will make it much harder to introduce possible further enhancements in the future for the 10GbE WAN PHY w.r.t. interworking with SONET/SDH protection mechanisms.

SuggestedRemedy

Be compatible with Telcordia's GR-253-CORE as follows:
 change the K1 octet to "00000000"
 change the bits 1 to 5 inclusive of the K2 octet to "00000"
 remove the first line of the note that states that this encoding indicates that the WIS is acting as a working channel.

Response Response Status C

REJECT.

Duplicate comment - see resolution to Comment #606.

CI 50 SC 50.1 P 372 L 14 # 178
 Figueira, Norival Nortel Networks

Comment Type E Comment Status A NF - Implemented

The statement "Operation over electrically multiplexed..." breaks the line of thought. The statement "Such interoperation would require..." should follow immediately after the statement that begins on line 13, i.e., "A 10GBASE-W interface...".

SuggestedRemedy

Move the statement "Operation over electrically multiplexed..." to the end of the paragraph.

Response Response Status C

ACCEPT.

CI 50 SC 50.1 P 372 L 19 # 181
 Figueira, Norival Nortel Networks

Comment Type E Comment Status A NF - Implemented

The statement "The achievable topologies with the use of a WIS as part of a 10GBASE-W PHY are identical to those implementable without it" is confusing since it may give the impression that there can be a 10GBASE-W PHY without a WIS.

SuggestedRemedy

Change the statement to "The achievable topologies with the use of a 10GBASE-W PHY are identical to those of other PHYs without a WIS".

Response Response Status C

ACCEPT IN PRINCIPLE.

Delete the entire sentence. There is no need to distinguish between topologies in the context of the WIS.

CI 50 SC 50.1 P 372 L 20 # 179
 Figueira, Norival Nortel Networks

Comment Type E Comment Status A NF - Implemented

The statement "10GBASE-W PHY with a WIS" is confusing. There is no 10GBASE-W PHY without a WIS.

SuggestedRemedy

Editor to search for all the instances of "10GBASE-W PHY with a WIS" within the clause and delete "with a WIS".

Response Response Status C

ACCEPT IN PRINCIPLE.

Editorial license is requested to correct any sentence construction issues arising from the global deletion of phrases such as "with a WIS".

P802.3ae Draft 3.2 Comments

CI 50 SC 50.1 P 372 L 22 # 180
 Figueira, Norival Nortel Networks
 Comment Type E Comment Status A NF - Implemented
 The statement "However, a 10GBASE-W interface implementing a WIS may interoperate only with another 10GBASE-W interface that also implement a WIS" is confusing since there is no 10GBASE-W PHY without a WIS.
 SuggestedRemedy
 Either delete the whole statement or replace it with "However, a 10GBASE-W interface may only interoperate with another 10GBASE-W interface."
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 See comment #179. The sentence should be retained but changed to "However, a 10GBASE-W interface may interoperate only with another 10GBASE-W interface." as proposed in the remedy.

CI 50 SC 50.1.1 P 372 L 4344 # 242
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type T Comment Status A VKV -
 The SHALL's in this subclause has no entry in the PICS.
 SuggestedRemedy
 Add a PICS entry for every shall in this subclause.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 PICS item(s) to be added stating that WIS implementation meets applicable requirements of T1.416. The redundant SHALL on line 44 to be removed (replace "shall be excluded" with "are excluded"). Renumber PICS as needed.
 Also add a PICS item stating that ANSI T1.269-2000 and ANSI T1.416-1999 takes precedence in case of any discrepancy in constant values. The subclauses referenced by this item are 50.3.2, 50.3.2.1, 50.3.2.3, and 50.3.3.
 Also, add a conditional PICS item relating to the MDIO, and make all the MDIO related PICS items dependent on this conditional PICS item. These are MR1 and MR2. Also put asterisks (*) by the tags associated with the major capabilities and options.

CI 50 SC 50.1.1 P 372 L 4344 # 25
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status R ZZ - Duplicate
 The SHALL's in this subclause has no entry in the PICS.
 SuggestedRemedy
 Add a PICS entry for every shall in this subclause.
 Response Response Status C
 REJECT.
 Duplicate comment.

CI 50 SC 50.2.1.1 P 376 L 20 # 26
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status A VKV - Implemented
 The SHALL's in this subclause has no entry in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL in this subclause.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 One PICS entry is used to cover both of the SHALLs, as they occur in the same sentence and relate to different aspects of the same thing (bit significance in the data-unit vector).

CI 50 SC 50.2.1.1 P 376 L 20 # 243
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status R ZZ - Duplicate
 The SHALL's in this subclause has no entry in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL in this subclause.
 Response Response Status C
 REJECT.
 Duplicate comment.

P802.3ae Draft 3.2 Comments

Cl 50 SC 50.2.2.1 P 376 L 5253 # 27
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type T Comment Status A VKV - Implemented
 The SHALL's in this subclause has no entry in the PICS.
SuggestedRemedy
 Add a PICS entry for every SHALL in this subclause.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 One PICS entry is used to cover both of the SHALLs, as they occur in the same sentence and relate to different aspects of the same thing (bit significance in the data-unit vector).

Cl 50 SC 50.2.2.1 P 376 L 5253 # 244
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status R ZZ - Duplicate
 The SHALL's in this subclause has no entry in the PICS.
SuggestedRemedy
 Add a PICS entry for every SHALL in this subclause.
 Response Response Status C
 REJECT.
 Duplicate comment.

Cl 50 SC 50.3.10.1 P 394 L 3 # 251
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type T Comment Status A VKV - Implemented
 The SHALL's in this subclause has no entry in the PICS.
SuggestedRemedy
 Add a PICS entry for every SHALL in this subclause.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Also remove the redundant "SHALL" on line 49 of page 393; replace "WIS shall support" with "WIS supports".

Cl 50 SC 50.3.10.1 P 394 L 3 # 34
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status R ZZ - Duplicate
 The SHALL's in this subclause has no entry in the PICS.
SuggestedRemedy
 Add a PICS entry for every SHALL in this subclause.
 Response Response Status C
 REJECT.
 Duplicate comment.

Cl 50 SC 50.3.10.1 P 394 L 3-18 # 50001
 Tom Alexander
 Comment Type E Comment Status A TA - Implemented
 Typos in register numbering: WIS Control register should be Control 1, WIS Status register should be Status 1, WIS Control 2 register should be register #7, WIS Status 2 register should be register #8.
SuggestedRemedy
 Update as follows:
 Change "WIS Control register" to "WIS Control 1 register"
 Change "WIS Status register" to "WIS Status 1 register"
 Change "WIS Control 2 register (Register 4)" to "WIS Control 2 register (Register 7)"
 Change "WIS Status 2 register (Register 5)" to "WIS Status 2 register (Register 8)"
 These updates match the new names / numbers in Clause 45.
 Response Response Status C
 ACCEPT.

Cl 50 SC 50.3.10.3 P 394 L 40 # 35
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status R ZZ - Duplicate
 The SHALL in this subclause has no entry in the PICS.
SuggestedRemedy
 Add a PICS entry for every SHALL in this subclause.
 Response Response Status C
 REJECT.
 Duplicate comment.

P802.3ae Draft 3.2 Comments

Cl 50 SC 50.3.10.3 P 394 L 40 # 252
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type T Comment Status A VKV - Implemented
 The SHALL in this subclause has no entry in the PICS.
SuggestedRemedy
 Add a PICS entry for every SHALL in this subclause.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 The "SHALL" is in the wrong location within this subclause; the need to provide the counters is not mandated, but equivalent support for the counters in case they are not implemented is mandated. This is backwards.
 Change the phrase "counters are provided" on line 37 to "counters shall be provided". Change the phrase "equivalent support for these objects shall be provided" on line 40 to "these counters are to be accessible by equivalent means".

Cl 50 SC 50.3.5 P 388 L 26283134 # 29
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type T Comment Status A VKV - Implemented
 The SHALL's in this subclause has no entry in the PICS.
SuggestedRemedy
 Add a PICS entry for every SHALL in this subclause.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Remove redundant "SHALLs" on lines 26 and 34 and replace with "must". The relevant "SHALLs" are actually located in subclauses 50.3.5.1, 50.3.5.2, and 50.3.5.3.
 Also remove redundant "SHALL" on line 1 of page 389.
 Also add entries to the Value/Comment field for the existing PICS entries as appropriate and necessary.

Cl 50 SC 50.3.4 P 388 L 2021 # 28
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status A VKV - Implemented
 The SHALL's in this subclause has no entry in the PICS.
SuggestedRemedy
 Add a PICS entry for every SHALL in this subclause.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Add entries (WRx) to 50.6.4.3 to account for the "shalls" in this paragraph. The editor is given license to renumber the entries in the PICS to keep things in proper sequence.

Cl 50 SC 50.3.5 P 388 L 26283134 # 246
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status R ZZ - Duplicate
 The SHALL's in this subclause has no entry in the PICS.
SuggestedRemedy
 Add a PICS entry for every SHALL in this subclause.
 Response Response Status C
 REJECT.
 Duplicate comment.

Cl 50 SC 50.3.4 P 388 L 2021 # 245
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status R ZZ - Duplicate
 The SHALL's in this subclause has no entry in the PICS.
SuggestedRemedy
 Add a PICS entry for every SHALL in this subclause.
 Response Response Status C
 REJECT.
 Duplicate comment.

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Cl 50 SC 50.3.8 P 390 L 42 # 127
Thaler, Pat Agilent Technologies

Comment Type TR Comment Status A PT - Implemented

The statement about two types of test pattern should indicate that the choice applies only to the transmit test pattern.

SuggestedRemedy

Change "two types of test pattern" to "two types of transmit test pattern" and perhaps also add "The test pattern receiver only operates in mixed frequency test pattern mode." Also, on line 52 delete "and the mixed frequency test pattern has been selected". To be consistent with the way the bits are used for the PCS, the test pattern type selection only affects the way the transmitter functions. When the receive test pattern mode is enabled, it always operates in mixed frequency test pattern mode.

Response Response Status C

ACCEPT IN PRINCIPLE.

Implement the following changes as per the suggested remedy:

1. Change "two types of test pattern" to "two types of transmit test pattern".
2. Add the sentence "The test pattern receiver only operates in mixed frequency test pattern mode."
3. On line 52, delete "and the mixed frequency test pattern has been selected".

Cl 50 SC 50.3.8.1 P 391 L 3 # 128
Thaler, Pat Agilent Technologies

Comment Type TR Comment Status A PT - Implemented

Square wave test pattern mode only affects the transmitter.

SuggestedRemedy

Delete Receive and Synchronization processes.

Response Response Status C

ACCEPT.

This appears to be a bug; the preceding subclause (50.3.8) clearly states that the transmit and receive datapaths can be separately placed into test pattern mode, yet the 50.3.8.1 immediately contradicts this by stating that the WIS Receive and Synchronization processes are unconditionally defeated when the transmitter is placed in square-wave test pattern mode.

Cl 50 SC 50.3.8.1 P 391 L 345 # 30
venkatavaradan, vinod kumar UNH-IOL

Comment Type E Comment Status R ZZ - Duplicate

The SHALL's in this subclause has no entry in the PICS.

SuggestedRemedy

Add a PICS entry for every SHALL in this subclause.

Response Response Status C

REJECT.

Duplicate comment.

Cl 50 SC 50.3.8.1 P 391 L 345 # 247
venkatavaradan, vinod kumar UNH-IOL

Comment Type T Comment Status A VKV - Implemented

The SHALL's in this subclause has no entry in the PICS.

SuggestedRemedy

Add a PICS entry for every SHALL in this subclause.

Response Response Status C

ACCEPT.

Cl 50 SC 50.3.8.2 P 391 L 15 # 129
Thaler, Pat Agilent Technologies

Comment Type T Comment Status R PT - Rejected

Since receive and transmit test modes operate independently and do different things, it would be better (more clear) to describe the transmit mixed frequency test pattern requirements in a separate subclause from the receive test pattern requirements.

SuggestedRemedy

Separate 50.3.8.2 into two subclauses Transmit mixed frequency test pattern and receive test pattern.

Response Response Status C

REJECT.

While the intent of the commenter is appreciated, the proposed remedy might actually have the opposite effect of making things more difficult to read.

Currently, the receive and transmit test pattern functionality share a substantial amount of clause text and figures in common, such as the TSS, CID pattern, default overhead, etc. It is therefore possible to describe both in a concise manner within one set of subclauses; there are only about 3-4 sentences out of the 2-page description that deal specifically with the receive pattern checker functionality, the remainder being common to both receive and transmit paths.

Splitting the clause into separate receive and transmit test descriptions will increase the amount of unnecessarily redundant text.

P802.3ae Draft 3.2 Comments

Cl 50 SC 50.3.8.2 P 391 L 52 # 130
 Thaler, Pat Agilent Technologies
 Comment Type E Comment Status A PT - Implemented
 Grammar
 SuggestedRemedy
 should be "CID pattern is placed"
 Response Response Status C
 ACCEPT.

Cl 50 SC 50.3.8.2 P 391392 L 471234 # 248
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status R ZZ - Duplicate
 The SHALL's in this subclause has no entry in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL in this subclause.
 Response Response Status C
 REJECT.
 Duplicate comment.

Cl 50 SC 50.3.8.2 P 391392 L 471234 # 31
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type T Comment Status A VKV - Implemented
 The SHALL's in this subclause has no entry in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL in this subclause.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Also, the "SHALLs" on lines 2, 3 and 4 on page 392 are to be covered as entries in the Value/Comment field of the PICS entry for the "SHALL" on line 1 of page 392.

Cl 50 SC 50.3.8.2.1 P 392393 L 1314161720 # 249
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status R ZZ - Duplicate
 The SHALL's in this subclause has no entry in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL in this subclause.
 Response Response Status C
 REJECT.
 Duplicate comment.

Cl 50 SC 50.3.8.2.1 P 392393 L 1314161720 # 32
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type T Comment Status A VKV - Implemented
 The SHALL's in this subclause has no entry in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL in this subclause.
 Response Response Status C
 ACCEPT IN PRINCIPLE.

Change the phrase "and is formatted as shown in Figure 50-13" to "and shall be formatted as shown in Figure 50-13" to make the TSS format normative. The figure is normative.

Most of the rest of the "SHALLs" in the paragraph can be construed as redundant; therefore, remove the redundant "SHALLs" on lines 13, 14 (first instance), 16, and 17 of page 392.

Cl 50 SC 50.3.8.2.1 P 393 L 17 # 131
 Thaler, Pat Agilent Technologies
 Comment Type T Comment Status R PT - Rejected
 The reason for inverting the PRBS in the second frame was for the two frames to be inverses of each other. However, the J1 and fixed stuff comes at the point of greatest interest - immediately after the CID pattern. Neither of these is described as being inverted for the second frame. Therefore, there doesn't seem to be any reason to invert the PRBS.
 SuggestedRemedy
 Either invert the J1 and Fixed stuff for the second frame or remove the requirement to invert the PRBS.
 Response Response Status C
 REJECT.

The text in the draft was obtained from Tim Warland's contribution at the Portland meeting, which in turn was derived from accepted SONET practice. Input from jitter experts on this subject is solicited.

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Cl 50 SC 50.3.8.2.1 P 393 L 7 # 132
 Thaler, Pat Agilent Technologies
 Comment Type T Comment Status A PT - Implemented
 It would be better to say "Standard SONET test equipment may not support the WIS test pattern" because over time new test equipment may come out that has the WIS test pattern added to it. We shouldn't be recommending against a type of test equipment.
 SuggestedRemedy
 See Comment.
 Response Response Status C
 ACCEPT.

Cl 50 SC 50.3.8.2.2 P 393 L 13 # 133
 Thaler, Pat Agilent Technologies
 Comment Type E Comment Status A PT - Implemented
 Delete the reference. The complete description of the CID pattern is in the subclause. Why make the reader think he/she has to go look at another document for something that is just a string of zeros or ones? If the reader is curious about the background of the pattern, the reference was already mentioned at the beginning of the mixed test pattern description.
 SuggestedRemedy
 Delete "is derived from ITU-T Recommendation G.957, 1995 and"
 Response Response Status C
 ACCEPT.

Cl 50 SC 50.3.8.2.2 P 393 L 1315 # 250
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status R ZZ - Duplicate
 The SHALL's in this subclause has no entry in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL in this subclause.
 Response Response Status C
 REJECT.
 Duplicate comment.

Cl 50 SC 50.3.8.2.2 P 393 L 1315 # 33
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type T Comment Status A VKV - Implemented
 The SHALL's in this subclause has no entry in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL in this subclause.
 Response Response Status C
 ACCEPT.

Cl 50 SC 50.4 P 395 L 36 # 253
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status R ZZ - Duplicate
 The SHALL's in this subclause has no entry in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL in this subclause.
 Response Response Status C
 REJECT.
 Duplicate comment.

Cl 50 SC 50.4 P 395 L 36 # 36
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type T Comment Status A VKV - Implemented
 The SHALL's in this subclause has no entry in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL in this subclause.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 The first "SHALL" covers the entire subclause with the exception of the parameter values.
 Also change the subclause reference of SD1 from 50.4.2 to 50.4.
 Also change the Value/Comment field of SD1 to include Figure 50-16 as well.

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CI 50 SC 50.4.1.2 P 396 L 1011 # 37
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type T Comment Status A VKV - Implemented
 The SHALL's in this subclause has no entry in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL in this subclause.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Remove redundant "SHALLs" on lines 10 and 11 of page 396. The "SHALL" on line 3 of page 395 takes precedence over this one.

CI 50 SC 50.4.1.2 P 396 L 1011 # 254
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status R ZZ - Duplicate
 The SHALL's in this subclause has no entry in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL in this subclause.
 Response Response Status C
 REJECT.
 Duplicate comment.

CI 50 SC 50.4.3 P 398 L 44 # 38
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status A VKV - Implemented
 The SHALL in this subclause has no entry in the PICS.
 SuggestedRemedy
 Add a PICS entry for this shall.
 Response Response Status C
 ACCEPT.

CI 50 SC 50.4.3 P 398 L 44 # 255
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status R ZZ - Duplicate
 The SHALL in this subclause has no entry in the PICS.
 SuggestedRemedy
 Add a PICS entry for this shall.
 Response Response Status C
 REJECT.
 Duplicate comment.

CI 50 SC 50.6.4.2 P 402 L 25 # 4
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type T Comment Status A VKV - Implemented
 Not every SHALL in the subclause(50.3.1.1) corresponding to the item WT1 has been referenced to in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL in this subclause.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Also remove redundant "SHALLs" on lines 24, 30, 32, 36, 37 and 38, as they are all covered by the "SHALLs" on lines 27 and 35.
 Split PICS entry WT1 into two, one for the payload mapping and one for the relabeling.
 For the payload mapping, provide the high/low octet mapping SHALLs as the value/comment field of the PICS entry.
 Remove the last sentence in the first paragraph of 50.3.1.1, as it adds nothing to the meaning of the paragraph.

CI 50 SC 50.6.4.2 P 402 L 25 # 221
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status R ZZ - Duplicate
 Not every SHALL in the subclause(50.3.1.1) corresponding to the item WT1 has been referenced to in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL in this subclause.
 Response Response Status C
 REJECT.
 Duplicate comment.

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CI 50 SC 50.6.4.2 P 402 L 28 # 5
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status R ZZ - Duplicate
 Not every SHALL in the subclause(50.3.2.1) corresponding to the item WT2 has been referred to in the PICS.
 SuggestedRemedy
 Add an entry in the PICS for every SHALL.
 Response Response Status C
 REJECT.
 Duplicate comment.

CI 50 SC 50.6.4.2 P 402 L 28 # 222
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type T Comment Status A VKV - Implemented
 Not every SHALL in the subclause(50.3.2.1) corresponding to the item WT2 has been referred to in the PICS.
 SuggestedRemedy
 Add an entry in the PICS for every SHALL.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Also remove redundant "SHALLs" on line 53 of page 382, and lines 1 and 34 of page 383.
 No "SHALL" exists to say that the WIS must insert Path Overhead. Add a "SHALL" to cover this as follows: change the phrase "WIS Transmit process inserts Path Overhead" to read "WIS Transmit process shall insert Path Overhead". Change WT2 to reference this.
 Add PICS entries to cover the "SHALLs" on lines 32 and 38 of page 383.

CI 50 SC 50.6.4.2 P 402 L 30 # 223
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type T Comment Status A VKV - Implemented
 Not every SHALL in the subclause(50.3.2.2) corresponding to the item WT3 has been referred to in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 50.3.2.2 does not mandate that Line Overhead should be inserted. Add a "SHALL" for this purpose: change phrase "WIS Transmit process inserts Line Overhead" to "WIS Transmit process shall insert Line Overhead" on line 45 of page 383 and add a PICS entry covering this.
 Also remove redundant "SHALLs" on lines 48, 49 of page 383 and 37 of page 384.

CI 50 SC 50.6.4.2 P 402 L 30 # 6
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status R ZZ - Duplicate
 Not every SHALL in the subclause(50.3.2.2) corresponding to the item WT3 has been referred to in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL.
 Response Response Status C
 REJECT.
 Duplicate comment.

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Cl 50 SC 50.6.4.2 P 402 L 31 # 224
venkatavaradan, vinod kumar UNH-IOL

Comment Type T Comment Status A VKV - Implemented

Not every SHALL in the subclause(50.3.2.3) corresponding to the item WT4 has been referenced to in the PICS.

SuggestedRemedy

Add a PICS entry for every SHALL.

Response Response Status C

ACCEPT IN PRINCIPLE.

50.3.2.3 does not mandate that Section Overhead should be inserted. Add a "SHALL" for this purpose: change phrase "WIS Transmit process inserts Section Overhead" to "WIS Transmit process shall insert Section Overhead" on line 45 of page 383, and add a PICS entry covering this.

Also remove redundant "SHALLs" (first and second in the first paragraph of 50.3.2.3).

Cl 50 SC 50.6.4.2 P 402 L 31 # 7
venkatavaradan, vinod kumar UNH-IOL

Comment Type E Comment Status R ZZ - Duplicate

Not every SHALL in the subclause(50.3.2.3) corresponding to the item WT4 has been referenced to in the PICS.

SuggestedRemedy

Add a PICS entry for every SHALL.

Response Response Status C

REJECT.

Duplicate comment.

Cl 50 SC 50.6.4.2 P 402 L 32 # 225
venkatavaradan, vinod kumar UNH-IOL

Comment Type T Comment Status A VKV - Implemented

Not every SHALL in the subclause(50.3.3) corresponding to the item WT5 has been referenced to in the PICS.

SuggestedRemedy

Add a PICS entry for every SHALL.

Response Response Status C

ACCEPT IN PRINCIPLE.

This subclause contains many redundant "SHALLs", especially considering that the whole point of the subclause is to stipulate that the scrambler and descrambler has to be implemented according to ANSI T1.105 Section 10.3. In addition, the subclause does not contain separate "SHALLs" for the scrambler and the descrambler.

Remove redundant "SHALLs" on lines 2, 4, 33 and 34 of page 387.

Change the first sentence of 50.3.3 (lines 52 and 53 of page 386) to read: "The WIS shall implement a frame-synchronous scrambler within the Transmit process, and shall also implement a frame-synchronous descrambler within the Receive process, both of sequence length 127 and as specified by Section 10.3 of ANSI T1.105-1995." Change the Feature entry for WT5 and WR6 to indicate "Frame scrambler" and "Frame descrambler".

Cl 50 SC 50.6.4.2 P 402 L 32 # 8
venkatavaradan, vinod kumar UNH-IOL

Comment Type E Comment Status R ZZ - Duplicate

Not every SHALL in the subclause(50.3.3) corresponding to the item WT5 has been referenced to in the PICS.

SuggestedRemedy

Add a PICS entry for every SHALL.

Response Response Status C

REJECT.

Duplicate comment.

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CI 50 SC 50.6.4.2 P 402 L 34 # 9
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status R ZZ - Duplicate
 Not every SHALL in the subclause(50.3.6) corresponding to the item WT6 has been referenced to in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL.
 Response Response Status C
 REJECT.
 Duplicate comment.

CI 50 SC 50.6.4.2 P 402 L 34 # 226
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type T Comment Status A VKV - Implemented
 Not every SHALL in the subclause(50.3.6) corresponding to the item WT6 has been referenced to in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL.
 Response Response Status C
 ACCEPT.

CI 50 SC 50.6.4.2 P 402 L 36 # 227
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status A VKV - Implemented
 The value/comment field corresponding to the item WT7 is left blank.
 SuggestedRemedy
 "The sum of transmit and recieve data delays shall not exceed 14336BT" could be added in the value/comment field of this item.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Fix spelling mistake ("recieve") first.

CI 50 SC 50.6.4.2 P 402 L 36 # 10
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status R ZZ - Duplicate
 The value/comment field corresponding to the item WT7 is left blank.
 SuggestedRemedy
 "The sum of transmit and recieve data delays shall not exceed 14336BT" could be added in the value/comment field of this item.
 Response Response Status C
 REJECT.
 Duplicate comment.

CI 50 SC 50.6.4.2 P 402 L 38 # 228
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status R ZZ - Duplicate
 Not every SHALL in the subclause(50.3.8) corresponding to the item WT8 has been referenced to in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL.
 Response Response Status C
 REJECT.
 Duplicate comment.

CI 50 SC 50.6.4.2 P 402 L 38 # 11
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status A VKV - Implemented
 Not every SHALL in the subclause(50.3.8) corresponding to the item WT8 has been referenced to in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 There are a large number of PICS items relating to the test pattern generator and checker. Therefore, items WT8 and WR8 should be removed from subclauses 50.6.4.2 and 50.6.4.3 respectively and all of the test pattern generator PICS entries should be placed in their own table.
 Also, all of SHALL statements in 50.3.8 except for the first one are redundant with the SHALL statements in 50.3.8.1 and 50.3.8.2, etc. They should be removed.

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CI 50 SC 50.6.4.3 P 403 L 11 # 14
venkatavaradan, vinod kumar UNH-IOL

Comment Type T Comment Status A VKV - Implemented

Not every SHALL in the subclause(50.3.2.5) corresponding to the item WR5 has been referenced to in the PICS.

SuggestedRemedy

Add a PICS entry for every SHALL

Response Response Status C

ACCEPT IN PRINCIPLE.

The wording of the second sentence in the first paragraph of Section 50.3.2.5 is awkward and should be changed. Reword as follows:

"Section, Line and Path defects and anomalies listed in Table 50-4 of this document shall be detected and processed as defined by Sections 7.3, 7.4.1 and 7.5 of ANSI T1.416-1999. Defects and anomalies not listed in Table 50-4 are ignored."

Also remove redundant "SHALLs" on lines 22 and 41 of page 386 and replace them with the word "must".

CI 50 SC 50.6.4.3 P 403 L 11 # 231
venkatavaradan, vinod kumar UNH-IOL

Comment Type E Comment Status R ZZ - Duplicate

Not every SHALL in the subclause(50.3.2.5) corresponding to the item WR5 has been referenced to in the PICS.

SuggestedRemedy

Add a PICS entry for every SHALL

Response Response Status C

REJECT.

Duplicate comment.

CI 50 SC 50.6.4.3 P 403 L 13 # 232
venkatavaradan, vinod kumar UNH-IOL

Comment Type E Comment Status R VKV - Rejected

There is no shall corresponding to the item WR6 in the subclause 50.3.3 and this subclause defines the scrambling process as opposed to the descrambling feature of this item.

SuggestedRemedy

Remove this item.

Response Response Status C

REJECT.

The first paragraph of the subclause clearly states that both a transmit scrambler and a receive descrambler are required for the WIS. In addition, it states that the construction and functioning of the scrambler are identical to the descrambler. Therefore, there should be separate PICS items to represent the transmit and receive scramblers. Otherwise it might be possible to claim conformance with only the transmit scrambler and not the receive scrambler.

See resolution to comment #225 dealing with the transmit scrambler PICS (WT5).

CI 50 SC 50.6.4.3 P 403 L 13 # 15
venkatavaradan, vinod kumar UNH-IOL

Comment Type E Comment Status R ZZ - Duplicate

There is no shall corresponding to the item WR6 in the subclause 50.3.3 and this subclause defines the scrambling process as opposed to the descrambling feature of this item.

SuggestedRemedy

Remove this item.

Response Response Status C

REJECT.

Duplicate comment.

CI 50 SC 50.6.4.3 P 403 L 15 # 16
venkatavaradan, vinod kumar UNH-IOL

Comment Type E Comment Status R ZZ - Duplicate

The feature of the item WR5 is redundant with the feature of the item WT6 and also the item name(WR5) is redundant (some other PICS entry is using the same item name).

SuggestedRemedy

Remove this item and explain the bit and octet ordering to/from PMA for both the transmit and receive process in item WT6 itself.

Response Response Status C

REJECT.

Duplicate comment.

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CI 50 SC 50.6.4.3 P 403 L 15 # 233
 venkatavaradan, vinod kumar UNH-IOL

Comment Type E Comment Status A VKV - Implemented

The feature of the item WR5 is redundant with the feature of the item WT6 and also the item name(WR5) is redundant (some other PICS entry is using the same item name).

SuggestedRemedy

Remove this item and explain the bit and octet ordering to/from PMA for both the transmit and receive process in item WT6 itself.

Response Response Status C

ACCEPT IN PRINCIPLE.

1. The feature description of WT6 is actually different from WR5 (the word "to" is used in WT6, while the word "from" is used in WR5). Therefore, the two PICS items are in fact associated with separate functions and should be retained.

2. The item numbering for the table in 50.6.4.3 is, however, all messed up. The editor should renumber the items properly.

CI 50 SC 50.6.4.3 P 403 L 17 # 17
 venkatavaradan, vinod kumar UNH-IOL

Comment Type E Comment Status A VKV - Implemented

The feature of the item WR7 is somewhat analogous to the feature of the item WT7.

SuggestedRemedy

The item WR7 could be removed and feature(sum of transmit and receive data delay) could be explained in WT7 itself instead of making a separate entry for transmit and receive data delay constraints as suggested in comment 7.

Response Response Status C

ACCEPT IN PRINCIPLE.

Instead of deleting the item in toto, the Value/Comment field will be updated for WR7 in the same way as WT7.

CI 50 SC 50.6.4.3 P 403 L 17 # 234
 venkatavaradan, vinod kumar UNH-IOL

Comment Type E Comment Status R ZZ - Duplicate

The feature of the item WR7 is somewhat analogous to the feature of the item WT7.

SuggestedRemedy

The item WR7 could be removed and feature(sum of transmit and receive data delay) could be explained in WT7 itself instead of making a separate entry for transmit and receive data delay constraints as suggested in comment 7.

Response Response Status C

REJECT.

Duplicate comment.

CI 50 SC 50.6.4.3 P 403 L 19 # 18
 venkatavaradan, vinod kumar UNH-IOL

Comment Type E Comment Status A VKV - Implemented

The feature of the item WR8 is somewhat redundant with the feature of the item WT8.

SuggestedRemedy

This item could be removed and PICS entries for every SHALL in the subclause 50.3.8 corresponding to the item WT8 could be added(ie explaining the test patterns for transmit and receive in the item WT8 itself).

Response Response Status C

ACCEPT IN PRINCIPLE.

A separate PICS table for the test pattern generator will be created, in light of the large number of PICS entries relating to them and the commonality between them.

CI 50 SC 50.6.4.3 P 403 L 19 # 235
 venkatavaradan, vinod kumar UNH-IOL

Comment Type E Comment Status R ZZ - Duplicate

The feature of the item WR8 is somewhat redundant with the feature of the item WT8.

SuggestedRemedy

This item could be removed and PICS entries for every SHALL in the subclause 50.3.8 corresponding to the item WT8 could be added(ie explaining the test patterns for transmit and receive in the item WT8 itself).

Response Response Status C

REJECT.

Duplicate comment.

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Cl 50 SC 50.6.4.3 P 403 L 6 # 229
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type T Comment Status A VKV - Implemented
 Not every SHALL in the subclause(50.3.1.2) corresponding to the item WR1 has been referred to in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Also remove the redundant "SHALLs" on lines 17, 20 and 22 (both instances).

Cl 50 SC 50.6.4.3 P 403 L 6 # 12
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status R ZZ - Duplicate
 Not every SHALL in the subclause(50.3.1.2) corresponding to the item WR1 has been referred to in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL.
 Response Response Status C
 REJECT.
 Duplicate comment.

Cl 50 SC 50.6.4.3 P 403 L 9 # 13
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status R ZZ - Duplicate
 Not every SHALL in the subclause(50.3.2.4) corresponding to the item WR2 has been referred to in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL.
 Response Response Status C
 REJECT.
 Duplicate comment.

Cl 50 SC 50.6.4.3 P 403 L 9 # 230
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type T Comment Status A VKV - Implemented
 Not every SHALL in the subclause(50.3.2.4) corresponding to the item WR2 has been referred to in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Also remove redundant "SHALLs" on lines 31, 33, 38, 44, and 49 on page 385, and line 8 on page 386.

Also, as no "SHALL" statement exists to stipulate that the WIS has to perform receive Path, Line and Section overhead processing, insert a "SHALL" into the first line of 50.3.2.4 (line 29 on page 385) by changing the phrase "The WIS Receive process extracts" to read "The WIS Receive process shall extract".

Cl 50 SC 50.6.4.5 P 403 L 36 # 19
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status A VKV - Implemented
 Not every condition that leads to a fault notification to the PCS has been referred to in the PICS.
 SuggestedRemedy
 Add PICS entries for every condition that leads to a fault notification to the PCS.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Add PICS entries to cover all of the "shall"s in subclause 50.3.5 (including sub-subclauses). Remove redundant SHALL in last sentence of 50.3.5.
 Add an entry in the Value/Comment field of EN1 to indicate the four propagated errors as in 50.3.5.1.

Change the sentence "The WIS Receive and Synchronization processes must cause specific errors detected during reception, that prevent delineation of valid data from the incoming WIS frame stream, to be propagated to the 10GBASE-R PCS." to read "The WIS Receive and Synchronization processes detect specific errors during reception that prevent delineation of valid data from the incoming WIS frame stream, and cause these errors to be propagated to the 10GBASE-R PCS."

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Cl 50 SC 50.6.4.5 P 403 L 36 # 236
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status R ZZ - Duplicate
 Not every condition that leads to a fault notification to the PCS has been referenced to in the PICS.
 SuggestedRemedy
 Add PICS entries for every condition that leads to a fault notification to the PCS.
 Response Response Status C
 REJECT.
 Duplicate comment.

Cl 50 SC 50.6.4.5 P 403 L 37 # 20
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status R ZZ - Duplicate
 Not every SHALL in the subclause(50.3.5.2) corresponding to the item EN2has been referenced to in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL.
 Response Response Status C
 REJECT.
 Duplicate comment.

Cl 50 SC 50.6.4.5 P 403 L 37 # 237
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type T Comment Status A VKV - Implemented
 Not every SHALL in the subclause(50.3.5.2) corresponding to the item EN2 has been referenced to in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 The entire paragraph under 50.3.5.2 is poorly worded and partially non-normative to boot. Reword the paragraph as follows:
 "Propagation of errors to the PCS according to the mechanism of 50.3.5 begins as soon as possible after the detection of one or more of the error conditions specified in 50.3.5.1. Error propagation shall terminate, and valid data shall be transferred to the PCS, within 125 microseconds of the removal of all of the error conditions in 50.3.5.1."

Cl 50 SC 50.6.4.5 P 403 L 39 # 238
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status R ZZ - Duplicate
 Not every SHALL in the subclause(50.3.5.3) corresponding to the item EN3 has been referenced to in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL.
 Response Response Status C
 REJECT.
 Duplicate comment.

Cl 50 SC 50.6.4.5 P 403 L 39 # 21
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status A VKV - Implemented
 Not every SHALL in the subclause(50.3.5.3) corresponding to the item EN3 has been referenced to in the PICS.
 SuggestedRemedy
 Add a PICS entry for every SHALL.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Also, change the term "Loss of Code-word Delineation" in the PICS to match the rest of the clause (I.e., "Loss of Code-group Delineation"). Remove the present Value/Comment field entry for EN3 and replace with the appropriate entries corresponding to the new set of PICS.

Cl 50 SC 50.6.4.6 P 403 L 48 # 239
 venkatavaradan, vinod kumar UNH-IOL
 Comment Type E Comment Status R ZZ - Duplicate
 The Value/Comment field of the item MR1 is not in agreement with feature of this item because the feature talks about the management interface whereas the value/comment field talks about an equivalent implementation of management interface if management registers are not implemented.
 SuggestedRemedy
 A Change in the value/comment field to "A set of required and optional management objects to be controlled by STA(Station Management Entity)" from the old one in order to make a correspondance with the feature of this item,could be made.
 Response Response Status C
 REJECT.
 Duplicate comment.

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CI 50 SC 50.6.4.6 P 403 L 48 # 22
 venkatavaradan, vinod kumar UNH-IOL

Comment Type E Comment Status A VKV - Implemented

The Value/Comment field of the item MR1 is not in agreement with feature of this item because the feature talks about the management interface whereas the value/comment field talks about an equivalent implementation of management interface if management registers are not implemented.

SuggestedRemedy

A Change in the value/comment field to ""A set of required and optional management objects to be controlled by STA(Station Management Entity)"" from the old one in order to make a correspondance with the feature of this item,could be made.

Response Response Status C

ACCEPT IN PRINCIPLE.

Split this PICS item into two sets within the same table:

- one dealing with the management registers (subclause 50.3.10.1)
- one dealing with the management support objects (subclause 50.3.10.3)

The value/comment sentence referred to in the present PICS item should be placed into the new PICS items dealing with 50.3.10.1 and 50.3.10.3, with suitable modifications to reflect the different PICS item types.

Also see resolutions to comments #251 and #252.

CI 50 SC 50.6.4.6 P 403 L 51 # 240
 venkatavaradan, vinod kumar UNH-IOL

Comment Type E Comment Status R ZZ - Duplicate

Not every SHALL in the subclause(50.3.9) corresponding to the item MR2 has been referenced to in the PICS.

SuggestedRemedy

Add a PICS entry for every SHALL.

Response Response Status C

REJECT.

Duplicate comment.

CI 50 SC 50.6.4.6 P 403 L 51 # 23
 venkatavaradan, vinod kumar UNH-IOL

Comment Type T Comment Status A VKV - Implemented

Not every SHALL in the subclause(50.3.9) corresponding to the item MR2 has been referenced to in the PICS.

SuggestedRemedy

Add a PICS entry for every SHALL.

Response Response Status C

ACCEPT IN PRINCIPLE.

Also remove redundant "SHALLs" on lines 33 and 39 of page 393.

CI 50 SC 50.6.4.6 P 403 L 53 # 241
 venkatavaradan, vinod kumar UNH-IOL

Comment Type E Comment Status R ZZ - Duplicate

The item MR3 in this subclause is redundant with the item EN3.

SuggestedRemedy

This item could be removed.

Response Response Status C

REJECT.

Duplicate comment.

CI 50 SC 50.6.4.6 P 403 L 53 # 24
 venkatavaradan, vinod kumar UNH-IOL

Comment Type E Comment Status A VKV - Implemented

The item MR3 in this subclause is redundant with the item EN3.

SuggestedRemedy

This item could be removed.

Response Response Status C

ACCEPT.

P802.3ae Draft 3.2 Comments

Cl 51 SC 51.1 P 386 L 1 # 99003
Jonathan Thatcher World Wide Packets

Comment Type TR Comment Status R Technical Feasibility (D3.0)

When the Higher Speed Study Group put forth a PAR to 802 and the IEEE standards board for approval to create a standard, we committed that: "10 Gb/s Ethernet technology will be demonstrated during the course of the project, prior to the completion of the sponsor ballot. " This requirement was added to our PAR because, at the time of writing the PAR, there was no evidence that PMD and PMA technology was feasible which simultaneously meet the other four criteria. Feasibility means that technology must be demonstrated with reports and working models; proven technology; reasonable testing and with confidence in reliability. Historically, Ethernet has been successful, in part, because it "leveraged" technology that existed at the time of the writing of the PAR. No such 10 Gigabit PHY technology existed in November 1999. While the time for which this must be completed is still a couple of meeting cycles away, it is not clear that sufficient effort is being made to validate the specifications; measurement procedures; engineering analysis and judgment and to assure that the PMA meets the requirement we set for ourselves in time for the May 2001 cutoff for last technical change.

SuggestedRemedy

DEMONSTRATE the technical feasibility of the technology specified in Clause 51 for each PMD type, 10GBASE-SR/LR/ER/SW/LW/EW, while ensuring the attainment of the other 4 criteria. Or, change the requirements/specifications such that this goal can be achieved.

Response Response Status C

REJECT. Technical feasibility demonstrated already in other organizations and products.

Straw vote in logic track that tech feasibility has been achieved:

Y:14, N:0 A:1

Cl 51 SC 51.10.3 P 426 L 9 # 402
Eric, Lynskey UNH IOL

Comment Type T Comment Status A

Std states that there is a PICS for a shall, however on Pg. 417 there is no shall for subclause 51.4.2.

SuggestedRemedy

Input either a shall or remove the PICS reference

Response Response Status C

ACCEPT.
Change "This signal is compliant .. " to "This signal shall be compliant .. " PICS is already present.

Cl 51 SC 51.2 P 411 L 22 # 394
Eric, Lynskey UNH IOL

Comment Type E Comment Status A

Std states: "The PMA Service Interface shall support the exchange of data-groups between the PMA and the PMA client." No PICS reference available.

SuggestedRemedy

Input PICS reference:PMA Service Interface supports exchange of data-groups between PMA and its client.

Response Response Status C

ACCEPT. Will add PICS in section 51.10.3

Cl 51 SC 51.3.1 P 413 L 8 # 395
Eric, Lynskey UNH IOL

Comment Type E Comment Status A

Std states: "Upon receipt of PMA_UNITDATA.request primitive, the PMA Transmit function shall serialize the sixteen bits of the tx_data-group<15:0> parameter and transmit them to the PMD in the form of sixteen successive PMD_UNITDATA.request primitives." does not have a PICS reference.

SuggestedRemedy

Input two PICS references:PMA Transmit function serializes sixteen bits of tx_data-group<15:0> when PMA_UNITDATA.request primitive received.Sixteen bits of tx_data-group<15:0> transmitted to PMD via sixteen successive PMD_UNITDATA.request primitives.

Response Response Status C

ACCEPT IN PRINCIPLE. Will add one new PIC in section 51.10.4.2 with comment "serialization of 16bit data and transmission to PMD".

Cl 51 SC 51.3.2 P 413 L 15 # 396
Eric, Lynskey UNH IOL

Comment Type E Comment Status A

Std states: "...the PMA shall assemble the sixteen received bits into a single sixteen-bit value and pass that value to the PMA..." does not have a PICS reference.

SuggestedRemedy

Input 2 PICS reference:PMA assembles sixteen received to single sixteen-bit value when sixteen PMA_UNITDATA.request primitives successfully received.Sixteen-bit value passed to the PMA client as rx_data-group<15:0> parameter of PMA_UNITDATA.indicate.

Response Response Status C

ACCEPT IN PRINCIPLE. Will add one new PIC in section 51.10.4.3 with comment "assembly of sixteen received bits into single sixteen bit value and transmission to PMA client".

P802.3ae Draft 3.2 Comments

CI 51 SC 51.3.3 P 413 L 29 # 397
 Eric, Lynskey UNH IOL
 Comment Type T Comment Status A
 Std states: "This implies that MAC, MAC Control sublayer, and PHY implementors shall conform to certain delay maxima, and that network planners and administrators conform to constraints regarding the cable topology adn concatenation of devices." Does not have a PICS reference
 SuggestedRemedy
 Input PICS reference:PHY implementors, MAC & its control sublayer conform to certain delay maxima.
 Response Response Status C
 ACCEPT IN PRINCIPLE. Editor to change "shall" to "will" thus requiring no additional PICS.

CI 51 SC 51.3.3 P 413 L 30 # 434
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status A
 Spelling error: "...administrators conform to constraints regarding the cable topology and concatenation of devices."
 SuggestedRemedy
 Change "confrom" to "conform"
 Response Response Status C
 ACCEPT.

CI 51 SC 51.4 P 413 L 40 # 398
 Eric, Lynskey UNH IOL
 Comment Type T Comment Status A
 Std states: "An XSBI implementation shall behave as described in 51.4 through 51.9." Does not have a PICS reference.
 SuggestedRemedy
 Input PICS reference:
 XSBI implementation behaves as stated in 51.4 to 51.9.
 Response Response Status C
 ACCEPT IN PRINCIPLE. Will change "shall behave as" to "is". No PICS required.

CI 51 SC 51.4 P 415 L 17 # 138
 Justin Chang Quake Technologies
 Comment Type T Comment Status A
 Present statement states that when PMA loopback is active, all inputs to the SIL logic should be ignored, including the optional Sync_Err signal. This should not be the case. When PMA loopback is active, the SIL logic should only ignore the PMD_Loopback.indicate and PMD_SIGNAL.indicate primitives.
 SuggestedRemedy
 Change "the PMA_SIGNAL.indicate will signal OK regardless of the other signals into the Signal Indicate Logic (SIL)." to "the PMA_SIGNAL.indicate will ignore the PMD_LOOPBACK.indicate and PMD_SIGNAL.indicate and behave as if PMD_SIGNAL.indicate is valid."
 Response Response Status C
 ACCEPT.

CI 51 SC 51.4 P 415 L 25 # 399
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status A
 Std states: "During transitions between lock and out-of-lock conditions PMA_RX_CLK shall at all times obey the PMA_RX_CLK minimum duty cycle specified in 51-10" does not have a PICS reference.
 SuggestedRemedy
 PMA_RX_CLK always obeys PMA_RX_CLK minimum duty cycle during transitions between lock and out-of-lock conditions.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Delete last sentence.
 Change line 24, "the clock from .." to
 "the clock from the serial input data, a valid PMA_RX_CLK is provided."

CI 51 SC 51.4.1 P 416 L 43 # 400
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status A
 Std states: "The PMA_TX_CLK<P,N> shall be derived from PMA_TXCLK_SRC<P,N>." does not have a PICS reference.
 SuggestedRemedy
 Input PICS reference:
 PMA_TX_CLK<P,N> derived from PMA_TXCLK_SRC<P,N>
 Response Response Status C
 ACCEPT. Will add new PICS in section 51.10.4.2

P802.3ae Draft 3.2 Comments

CI 51 SC 51.4.1 P 417 L 11 # 401
 Eric, Lynskey UNH IOL

Comment Type T Comment Status A

Std states: "The transition from the line source to the REFCLK source and vice versa shall not affect the PMA_RX_CLK<P,N> minimum or maximum clock transition period" does not have a PICS reference.

SuggestedRemedy

Input four PICS references:PMA_RX_CLK<P,N> minimum clock transition period not affected during transition from line source to REFCLK source.
 PMA_RX_CLK<P,N> maximum clock transition period not affected during transition from line source to REFCLK source.
 PMA_RX_CLK<P,N> minimum clock transition period not affected during transition from REFCLK source to line source.
 PMA_RX_CLK<P,N> maximum clock transition period not affected during transition from REFCLK source to line source.

Response Response Status C

ACCEPT IN PRINCIPLE.

Delete sentence:

"The transition from the line source to .. clock transition period."

The intent of this sentence is addressed in section 51.7.2.
 See response to comment #371

CI 51 SC 51.7 P 422 L 3 # 436
 Eric, Lynskey UNH IOL

Comment Type E Comment Status A

Spelling error: "...to allow simplification of macro design."

SuggestedRemedy

Change "simplification" to "simplification"

Response Response Status C

ACCEPT.

CI 51 SC 51.7.1 P 422 L 16 # 403
 Eric, Lynskey UNH IOL

Comment Type T Comment Status A

Std states: "...a valid PMA_RX_CLK shall be provided with frequency characteristics as defined in Table 51-12." Does not have a PICS reference.

SuggestedRemedy

Valid PMA_RX_CLK has frequency characteristics as specified in Table 51-12.

Response Response Status C

ACCEPT IN PRINCIPLE.

Leave as "shall be" and add PICS.
 See response to comment #371.

CI 51 SC 51.7.1 P 422 L 17 # 404
 Eric, Lynskey UNH IOL

Comment Type T Comment Status A

Std states: "During transition between out-of-lock conditions PMA_RX_CLK shall at all times obey PMA_RX_CLK minimum duty cycle specified in Table 51-10." Does not have a PICS reference.

SuggestedRemedy

PMA_RX_CLK always obeys PMA_RX_CLK minimum duty cycle during transitions between lock and out-of-lock conditions.

Response Response Status C

ACCEPT IN PRINCIPLE.

See response to comment #371

P802.3ae Draft 3.2 Comments

CI 51 SC 51.7.1 P 422 L 18 # 371

Dawe, Piers Agilent

Comment Type T Comment Status A

A strict reading of "Transitions from nominal clock to recovered clock of from recovered clock to nominal clock shall not decrease the time between adjacent edges of PMA_RX_CLK." would mean that the transition MUST be made by temporarily slowing the clock or gapping out a cycle or edge, and can never be made by temporarily speeding up the clock (gradually pulling the clock forward). Apart from being ambiguous because only the rising edges are marked out in Figure 51?8, so I don't know if this is meant to include the falling edges or not, this seems very restrictive. Perhaps a requirement to keep the clock frequency (period) or the high, low times within bounds, even in transition, would achieve Tim's intent.

SuggestedRemedy

Delete the sentence but specify the minimum instantaneous clock part-cycle time in transition, in ps equivalent to a frequency of from +2500ppm and 45% duty, or a looser number as decided.

Response Response Status C

ACCEPT IN PRINCIPLE.
The clause is trying to avoid the occurrence of "slivers" or "runt" signaling on the clock. Furthermore, the edges are meant to be "adjacent" edges since the falling edge may be used by the PMA client for clocking in data.

Delete the last two sentences of paragraph, i.e. "During transition between lock .."

Replace with
"During the transitions from nominal clock to recovered clock or from recovered clock to nominal clock, the period and duty cycle requirements do not apply. During the transitions, the PMA_RX_CLK pulse width shall not be less than the minimum that is calculated by the period times the duty cycle as defined in Table 51-10 and Table 51-12."

Move entire edited paragraph, starting at line 14, to section 51.7.2 after first sentence (page 423 line 52). Delete sentence, line 53-54.

Two PICS will be added in section 51.10.4.3
1) a valid PMA_RX_CLK shall be provided
2) PMA_RX_CLK pulse width shall not be ..

CI 51 SC 51.7.1 P 422 L 19 # 405

Eric, Lynskey UNH IOL

Comment Type T Comment Status A

Std states: "Transitions from nominal clock to recovered clock of from recovered clock to nominal clock shall not decrease the time between adjacent edges of PMA_RX_CLK." Does not have a PICS reference.

SuggestedRemedy

Transitions from nominal to recovered to nominal clock does not decrease time between PMA_RX_CLK adjacent edges.

Response Response Status C

ACCEPT IN PRINCIPLE.
See response to comment #371

CI 51 SC 51.7.2 P 423 L 53 # 406

Eric, Lynskey UNH IOL

Comment Type T Comment Status A

Std states: "...out-of-lock conditions the PMA_RX_CLK shall meet the PMA_RX_CLK minimum duty cycle specified in Table 51-10." Does not have a PICS reference.

SuggestedRemedy

PMA_RX_CLK always obeys PMA_RX_CLK minimum duty cycle during transitions between lock and out-of-lock conditions.

Response Response Status C

ACCEPT IN PRINCIPLE.
Remove last sentence and add additional text.
See response to comment #371

CI 51 SC 51.7.2 P 423 L 53-54 # 51001

Rick Rabinovich

Comment Type T Comment Status A

The intent is to not have "runts" or "slivers" during transitions from recovered clock to PMA clock. Better wording is needed to clarify this.

SuggestedRemedy

Remove last sentence and replace with text describing that the minimum pulse width will not be less than the period times the duty cycle.

Response Response Status C

ACCEPT IN PRINCIPLE.
See response to comment #371.

P802.3ae Draft 3.2 Comments

Cl 51 SC 51.8 P 424 L 21 # 383
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status A
 Std states: "PMA/PMD Loopback function as specified in 45.2.1.1.2" This is not the correct reference number, since 45.2.1.1.2 discusses power down state of PMA/PMD.
 SuggestedRemedy
 Change "45.2.1.1.2" to "45.2.1.7.4" which does define Loopback mode of PMA.
 Response Response Status C
 ACCEPT.

Cl 51 SC 51/6 P 419 L 21 # 435
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status A
 Spelling error: "...to allow simplication of macro design."
 SuggestedRemedy
 Change "simplication" to "simplification"
 Response Response Status C
 ACCEPT.

Cl 51 SC Figure 51-2 P 414 L 41 # 134
 Thaler, Pat Agilent Technologies
 Comment Type T Comment Status A
 tx_data-unit<15:0> is LSB in the PCS point of view and MSB in the WIS point of view.
 SuggestedRemedy
 Delete LSB and MSB (each 2 places).
 Response Response Status C
 ACCEPT.

Cl 52 SC P L # 633
 Lindsay, Tom StratosLightwave
 Comment Type T Comment Status A
 As the stressed OMA and vertical eye closure penalty are part of stressed receiver conformance testing, sections 52.9.10, 52.9.11, and 52.9.13 should be combined. This group of sections is generally a mess with lots of redundancy, mis-links, inconsistencies, etc.
 SuggestedRemedy
 Per comment. This group of sections is sufficiently screwed up that a remedy is way beyond the ability of the comment tool. I would be glad to assist the editor if interested and approved by the group.

Response Response Status C
 ACCEPT.

Cl 52 SC P L # 643
 Lindsay, Tom StratosLightwave
 Comment Type T Comment Status A
 0 and 1 are not defined for the timing references of the jitter bathtub masks.
 SuggestedRemedy
 Define them per the direction of the group.

Response Response Status C
 ACCEPT IN PRINCIPLE. We have no reliable way of measuring where they are, can't have "shall" or a PICS entry. Add text: "0 and 1 on the unit interval scale on the bathtub curve should be the mean crossing times, and trading time from one side of the bathtub to the other is deprecated."

P802.3ae Draft 3.2 Comments

Cl 52 SC P L # 531
Lynskey, Eric UNH IOL

Comment Type E Comment Status A
The JS2 item refers to 9 separate shall statements.

SuggestedRemedy

Replace Item JS1 with a single item for each shall in subclause 52.8.2.

Response Response Status C

ACCEPT IN PRINCIPLE. Modify text as follows:

- Page 446, line 41 - no change. "Shall" refers to receiver requirements under a set of specified conditions.
- Page 446, line 50 - replace "shall be" with "is". Refers to test OMA conditions.
- Page 447, line 3 - replace "shall meet the requirements of" with "is specified by". Refers to input jitter test conditions.
- Page 447, line 40 - replace "shall have" with "has". Refers to RJ test conditions.
- Page 447, line 43 - replace "shall be" with "is". Refers to golden PLL performance.
- Page 447, line 44 - replace "shall have" with "has". Refers to golden PLL corner frequency.
- Page 447, line 46 - replace "shall be" with "is". Refers to PLL loop filter response.
- Page 447, line 51 - replace "shall meet the requirements of" with "is specified by". Refers to added sinusoidal jitter test condition.
- Page 447, line 52 replace "shall be added to the" with "is added to a". Refers to addition of noise to a test signal.

Cl 52 SC P L # 617
Lindsay, Tom StratosLightwave

Comment Type T Comment Status A
Spreadsheet has been evolving to track numerous issues. Also, stressed_rx testing may include DDJ as part of vertical eye closure and calibration.

SuggestedRemedy

Update all values related to the spreadsheet tool. These include at least optical powers, losses, penalties, triple-tradeoffs, etc.

Response Response Status C

ACCEPT.

Cl 52 SC P 440 L # 9903
Dawe, Piers

Comment Type E Comment Status A
Return loss (max) should be Return loss (min) like the receive tables.

SuggestedRemedy

See comment.

Response Response Status C

ACCEPT. Check draft for other instances of a positive dB value to make sure it is a minimum, not a maximum.

Cl 52 SC P 449 L 15 # 309
Coleman, Doug Corning Cable System

Comment Type T Comment Status A
The channel insertion loss values for each fiber type must match the channel insertion loss values in Table 52-26. Table 52-26 has adjusted the channel insertion loss values to incorporate part of the unallocated margin budget as discussed and agreed upon at the July IEEE 802.3ae meeting. Comment Table 52-26

SuggestedRemedy

Response Response Status C

ACCEPT IN PRINCIPLE.

Add to the 3rd footnote "and for the multimode fiber cases includes the "additional Insertion Loss allowed from Table 52-10".

Note the numbers should not exactly match the insertion losses in eg Table 52-10. As the losses in Table 52-26 are at the nominal wavelength and those in eg Table 52-10 are at a specified wavelength that is normally worst case.

Cl 52 SC 52 P 434 L 49 # 147
Ohlen, Peter Optillion

Comment Type E Comment Status A
Text says "10GBASE-R and 10GBASE-W" signal. Can't have both at the same time though.

SuggestedRemedy

Change "and" to "or". Occurs at some more places. Search for this in cl. 52 and change where necessary.

Response Response Status C

ACCEPT. See also comment #322.

Modify per suggested remedy.

Also page 450, line 44, change "10GBASE-R and 10GBASE-W" to "10GBASE-R or 10GBASE-W".

Also page 463, line 14, change "10GBASE-R and 10GBASE-W" to "10GBASE-R or 10GBASE-W".

Also page 466, line 42, change "10GBASE-R and 10GBASE-W" to "10GBASE-R or 10GBASE-W".

P802.3ae Draft 3.2 Comments

Cl 52 SC 52.1 P 402 L 1 # 99001
 Thatcher, Jonathan World Wide Packets

Comment Type TR Comment Status R Technical Feasibility (D3.0)

When the Higher Speed Study Group put forth a PAR to 802 and the IEEE standards board for approval to create a standard, we committed that: "10 Gb/s Ethernet technology will be demonstrated during the course of the project, prior to the completion of the sponsor ballot. " This requirement was added to our PAR because, at the time of writing the PAR, there was no evidence that PMD and PMA technology was feasible which simultaneously meet the other four criteria. Feasibility means that technology must be demonstrated with reports and working models; proven technology; reasonable testing and with confidence in reliability. Historically, Ethernet has been successful, in part, because it "leveraged" technology that existed at the time of the writing of the PAR. No such 10 Gigabit PHY technology existed in November 1999. While the time for which this must be completed is still a couple of meeting cycles away, it is not clear that sufficient effort is being made to validate the specifications; measurement procedures; engineering analysis and judgment and to assure that the PMDs individually meet the requirement we set for ourselves in time for the May 2001 cutoff for last technical change.

SuggestedRemedy

DEMONSTRATE the technical feasibility of the technology specified in Clause 52 for each PMD type, 10GBASE-SR/LR/ER/SW/LW/EW, individually while ensuring the attainment of the other 4 criteria. Or, change the requirements/specifications such that this goal can be achieved.

Response Response Status U

REJECT. This comment does not suggest any remedy or change to the text.

The Serial PMD ad hoc may choose at its discretion to put together a plan to demonstrate technical feasibility and develop criteria as appropriate.

Cl 52 SC 52.1 P 512 L 1 # 99004
 Grow, Robert Intel

Comment Type TR Comment Status R Technical Feasibility (D3.1)

D3.0 comment #850 is both valid and pertinent. Technical feasibility of the interfaces defined in this clause has not been demonstrated.

SuggestedRemedy

Each PMD type must be demonstrated as technically feasible per our commitment in the five criteria.

Response Response Status U

REJECT. No change to the text is suggested by remedy. Ad hoc formed to address technical feasibility.

Cl 52 SC 52.1.1.1 P 431 L 41 # 315
 Dawe, Piers Agilent

Comment Type E Comment Status A

Edited sentence could be smoother.

SuggestedRemedy

Change "data (in the form of serialized data)" to "serial data", "serialized data" or "the serial data stream".

Response Response Status C

ACCEPT. Change "data (in the form of serialized data)" to "a serial data stream".

Cl 52 SC 52.1.1.1.1 P 431 L 45 # 316
 Dawe, Piers Agilent

Comment Type E Comment Status A

Unwanted space in "PMD_UNITDATA.request (tx_bit)"

SuggestedRemedy

Change to "PMD_UNITDATA.request(tx_bit)".

Response Response Status C

ACCEPT.

Modify per suggested remedy.

Cl 52 SC 52.1.1.2.1 P 432 L 18 # 317
 Dawe, Piers Agilent

Comment Type E Comment Status A

Unwanted space in "PMD_UNITDATA.request (rx_bit)"

SuggestedRemedy

Change to "PMD_UNITDATA.request(rx_bit)".

Response Response Status C

ACCEPT.

Modify per suggested remedy.

P802.3ae Draft 3.2 Comments

Cl 52 SC 52.1.1.2.3 P 432 L 30 # 318
 Dawe, Piers Agilent

Comment Type E Comment Status R

The sentence "The effect of receipt of this primitive by the client is unspecified by the PMD sublayer." is unnecessarily unhelpful. So where is it specified?

SuggestedRemedy

Change to "The effect of receipt of this primitive by the client is specified in 51.2.2.2, 51.3.2 and 51.4." (or, just "51").

Response Response Status C

REJECT. Client behavior typically isn't specified or referenced in each clause. This is a standard sentence--see for example 46.1.7.2.4 (or others).

Cl 52 SC 52.1.1.3.3 P 433 L 3 # 507
 Lynskey, Eric UNH IOL

Comment Type E Comment Status A

The statement "...PMD_signal_detect_0 shall be continuously set..." does not have an associated PICS entry.

SuggestedRemedy

Add the appropriate PICS entry.

Response Response Status C

ACCEPT.

Add the following PICS entry to 52.15.4.2:

MR5 PMD_signal_detect 52.1.1.3.3 PMD signal detect O Yes/No

Cl 52 SC 52.10.2 P 462 L 45 # 582
 Lynskey, Eric UNH IOL

Comment Type E Comment Status A

The shall does not have an associated PICS entry.

SuggestedRemedy

Add the appropriate PICS entry.

Response Response Status C

ACCEPT.

Modify 52.15.4.10, OM17. Change "Laser safety" to "Laser safety - Class I certification"

Add the following PICS entry to 52.15.4.10 following OM17, and renumber other entries:

OM18 "Laser safety - IEC" 52.10.2 M Yes/No

Cl 52 SC 52.10.2 P 462 L 52 # 217
 Dudek, Mike Cielo Communications

Comment Type T Comment Status A

A ruling has been given that compliance with the IEC laser safety standard will be accepted as compliance with the CDRH standard for these links. The note is therefore no longer required.

SuggestedRemedy

Delete note.

Response Response Status C

ACCEPT.

Cl 52 SC 52.10.2 P 463 L 2 # 583
 Lynskey, Eric UNH IOL

Comment Type E Comment Status A

The shall does not have an associated PICS entry.

SuggestedRemedy

Add the appropriate PICS entry.

Response Response Status C

ACCEPT IN PRINCIPLE.

Page 463, line 2 - replace "shall" with "is required to". Refers to documentation requirements..

Cl 52 SC 52.13 P 464 L 36 # 73
 Thatcher, Jonathan World Wide Packets

Comment Type T Comment Status A

Shouldn't have empty cells in table.

SuggestedRemedy

Put in value, or "N/A" or "--"

Response Response Status C

ACCEPT IN PRINCIPLE. Add N/A in all the blank cells.

P802.3ae Draft 3.2 Comments

Cl 52 SC 52.14.1 P 465 L # 171
Ohlen, Peter Optillion

Comment Type T Comment Status A

Oops. I think we are now specifying the fiber in THIS draft and not by reference to other fiber standards.

SuggestedRemedy

Replace "The fiber optic cable requirements shall meet the requirements of Table 52?27. These requirements are satis-fied by IEC 60793-2 ..."with"The fiber optic cable shall meet the requirements of IEC 60793-2 ..."We also need to change the "and" between the fiber types of "or".

Response Response Status C

ACCEPT IN PRINCIPLE. Recast existing text as follows: "The fiber optic cable shall meet the requirements of IEC 60793-2 with the exceptions noted in Table 52–27 for fiber types A1a (50/125 µm multimode), A1b (62.5/125 µm multimode), B1.1 (dispersion un-shifted single mode) or B1.3 (low water peak single mode).

Cl 52 SC 52.14.1 P 465 L 42 # 300
Kolesar, Paul Lucent

Comment Type T Comment Status A

Language of ** footnote is inaccurate and incomplete. The bandwidth performance is contingent upon using sources that meet the launch conditions of Table 52-7. This contingency must be stated and is presently missing. The TIA/EIA-455-220 DMD test method presently referenced is called out in the TIA/EIA-492AAAC detailed fiber specification. Referencing this detailed specification provides complete definition of all the fiber properties for this fiber type, and as such is a more encompassing and accurate reference.

SuggestedRemedy

Modify the present footnote to read:

*** Effective modal bandwidth for fiber meeting TIA/EIA-492AAAC when used with sources meeting the wavelength (range) and encircled flux specifications of Table 52-7.

Response Response Status C

ACCEPT IN PRINCIPLE. Modify the present footnote to read: *** Effective modal bandwidth for fiber meeting TIA/EIA-492AAAC when used with sources meeting the wavelength (range) and encircled flux specifications of Table 52-7. TIA/EIA-492AAAC is presently in ballot."

Note: need to remove second sentence later.

Cl 52 SC 52.14.1 P 465 L 9 # 584
Lynskey, Eric UNH IOL

Comment Type E Comment Status A

The shall does not have an associated PICS entry.

SuggestedRemedy

Add the appropriate PICS entry.

Response Response Status C

ACCEPT.

Add the following PICS entry to 52.15.4.11 followinOg FO1, and renumber other entries:

FO2 "Optical fiber characteristics" 52.14.1 M Yes/No

Cl 52 SC 52.14.1 P 465 L 912 # 3
Young, Leonard Corning

Comment Type T Comment Status A

There is no reference to non zero dispersion shifted fiber in Clause 52.14.1 and the related table -- Table 52-27 on page 465 line 14

SuggestedRemedy

Change 52.14.1 Optical fiber and cable - paragraph 1 to read (page 465 lines 9 --12) The fiber optic cable requirements shall meet the requirements of Table 52-27. (page 465, line 14) These requirements are satisfied by IEC 60793-2 for fiber types A1a (50/125um multimode), A1b (62.5/125um multimode), B1.1 (dispersion un-shifted single mode), B1.3 (low water single mode), and B4 (non-zero dispersion shifted single mode), with the exceptions noted in Table 52-27.(page 465, lines 37-42)

Change Table 52.17 to include the following (right-hand) column information in Table 52.17:

Description: Type B4 SMF
Nominal fiber specification wavelength: 1550
Fiber cable attenuation (max): See footnote
Modal Bandwidth (min): N/A
Zero dispersion wavelength (lambda0): 1530 <= lambda0 <= 1625
Dispersion slope (max) (S0): 0.093
Footnote: Attenuation for 1550 links is based on Fibre Channel and is specified in Clause 52.14.3

See comment #3 in lyoung_1_0901.pdf.

Response Response Status C

ACCEPT IN PRINCIPLE. Add note to text, p465 line 12

Note: It is believed that for 10GBASE-E, type B4 fiber may be substituted for B1.1 or B1.3.

Vote: 16:0:2

P802.3ae Draft 3.2 Comments

CI 52 SC 52.14.2.1 P 456 L 5354 # 2
 Young, Leonard Corning

Comment Type T Comment Status R

In 52.14.2.1, there seems to be a problem in that there is a 2 dB allocation for connectors but the example is still based on a 1.5 dB allocation. Also, I see no mention of 10BASE-S PMDs here. (page 456 line 53 and page 466 line1)

SuggestedRemedy

Correct the example to agree with the 2dB allocation

See comment #2 in lyoung_1_0901.pdf.

Response Response Status C

REJECT.

CI 52 SC 52.14.2.1 P 465 L 52 # 218
 Dudek, Mike Cielo Communications

Comment Type T Comment Status A

10GBase-I and -E do not use multimode fiber.

SuggestedRemedy

Change "an allocationtotal connection" to "an allocation of 1.5dB total connection"

Response Response Status C

ACCEPT IN PRINCIPLE. Dealt with by another comment.

CI 52 SC 52.14.2.1 P 465 L 53 # 299
 Kolesar, Paul Lucent

Comment Type T Comment Status A

The loss allocation for MMF connection and splices is 1.5 dB, not 2.0 dB. References to 1300 and 1550 PMDs are misplaced within a MMF paragraph.

SuggestedRemedy

Modify the present sentence to read:
 "... allocation of 1.5 dB total connection and splice loss."

Response Response Status C

ACCEPT IN PRINCIPLE. Change text "...an allocation of 1.5 dB for 10GBASE-S total connection and splice loss."

CI 52 SC 52.14.2.1 P 465466 L # 363
 Dawe, Piers Agilent

Comment Type E Comment Status A

This subclause has been mis-edited. Multimode doesn't go with 10GBASE-E.

SuggestedRemedy

Fix it up so that:
 MMF 10GBASE-S 1.5 dB
 SMF 10GBASE-L 2 dB
 SMF 10GBASE-E 1 dB

Response Response Status C

ACCEPT.
 Replace the text in 52.14.2.1 with the following text:

"The insertion loss is specified for a connection, which consists of a mated pair of optical connectors.

The maximum link distances for multimode fiber are calculated based on an allocation of 1.5 dB total connection and splice loss. For example, this allocation supports three connections with an average insertion loss equal to 0.5 dB (or less) per connection, or two connections (as shown in Figure 52-18) with a maximum insertion loss of 0.75 dB. Connections with different loss characteristi may be used provided the requirements of Table 52-26 are met.

The maximum link distances for single mode fiber are calculated based on an allocation of 2 dB total connection and splice loss at 1310 nm for 10GBASE-L, and 1 dB total connection and splice loss at 1550 nm for 10GBASE-E."

CI 52 SC 52.14.2.1 P 466 L 6 # 219
 Dudek, Mike Cielo Communications

Comment Type T Comment Status A

The single-mode connection and splice loss needs clarifying

SuggestedRemedy

Change "Connection and splice loss at 1310nm" to "connection and splice loss for 10GBASE-L and 1.0dB connection and splice loss for 10GBASE-E"

Response Response Status C

ACCEPT.

P802.3ae Draft 3.2 Comments

Cl 52 SC 52.14.2.2 P 466 L 12 # 373
 Dawe, Piers Agilent

Comment Type T Comment Status R

124 Cl 52 SC 52.14.2.2 P 566 L 19 Comment Type E We should add an informative note in the standard explaining why our connector reflection spec is -26 dB rather than aligned with telecom's -27 dB. The reason is for backwards compatibility with 1G Ethernet. SuggestedRemedy Add sentence explaining that our connector reflection spec is -26 dB rather than aligned with telecom's -27 dB to achieve backwards compatibility (re-use of installed plant) with 1G Ethernet. Response REJECT. The comment appears to be valid, but the proposed resolution includes a vague reference to "telecom's -27dB" spec that cannot be used in the standard. A justification for the 26 dB return loss might be helpful, but doesn't appear to be necessary. The commenter is invited to resubmit a comment with a more detailed proposed comment resolution.

SuggestedRemedy

You can refer to G.691. What do IEC 61753-1-1 and IEC 61753-3-2 and GR-253 say? Ask the fibre experts.

Response Response Status C

REJECT. Notes of explanation are typically not provided where the specification is straight forward and simple, as in this case. The fact that the value has historical basis is irrelevant to the implementation or specification. Connectors meeting more stringent requirements will suffice for this application.

Cl 52 SC 52.14.3 P 466 L 16 # 172
 Ohlen, Peter Optillion

Comment Type T Comment Status A

The use of "link" here is different from the definition in 52.13.

SuggestedRemedy

Remove "For a 10GBASE-E link, "

Response Response Status C

ACCEPT.

Cl 52 SC 52.15.3 P 469 L 12 # 520
 Lynskey, Eric UNH IOL

Comment Type T Comment Status A

Item MC3 does not have an associated shall statement in 52.7.

SuggestedRemedy

Add the shall or remove the PICS entry.

Response Response Status C

ACCEPT IN PRINCIPLE. These are identical to the PICS entries in 1000BASE-X for multiple PMD types (with no explicit corresponding shall).

Cl 52 SC 52.15.3 P 469 L 15 # 526
 Lynskey, Eric UNH IOL

Comment Type E Comment Status R

Items MC4, MC5, and MC6 do not have associated shall statements in subclauses 52.5, 52.6, and 52.7, respectively.

SuggestedRemedy

Add the shall or remove the PICS entry.

Response Response Status C

REJECT. These are "packages", in IEEE parlance, and so are not subject to the "shall" rule.

Cl 52 SC 52.15.3 P 469 L 6 # 366
 Dawe, Piers Agilent

Comment Type E Comment Status A

If you choose more intelligent names for these items it will make the option groups easier to understand. See 49.3.3 for an example.

SuggestedRemedy

Change MC1, MC2 and so on to SR, LR and so on.

Response Response Status C

ACCEPT.

Change MC1 to SR
 Change MC2 to LR
 Change MC3 to ER
 Change MC4 to SW
 Change MC5 to LW
 Change MC6 to EW
 Change MC7 to DLY

Cl 52 SC 52.15.3 P 469 L 6 # 514
 Lynskey, Eric UNH IOL

Comment Type E Comment Status R

Item MC1 does not have an associated shall statment in 52.5.

SuggestedRemedy

Add the shall or remove the PICS entry.

Response Response Status C

REJECT. This is a package. See #526

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Cl 52 SC 52.15.3 P 469 L 6 # 365
 Dawe, Piers Agilent
 Comment Type E Comment Status A
 "Status" column is empty, here and in following tables.
 SuggestedRemedy
 Fill in. See 49.3.3 for an example.
 Response Response Status C
 ACCEPT.

Cl 52 SC 52.15.3 P 469 L 9 # 516
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 Item MC2 does not have an associated shall statement in 52.6.
 SuggestedRemedy
 Add the shall or remove the PICS entry.
 Response Response Status C
 REJECT. See #526.

Cl 52 SC 52.15.4 P 473 L 30 # 220
 Dudek, Mike Cielo Communications
 Comment Type E Comment Status A
 OM15 title should be Transmitter and Dispersion Penalty for 10GBASE-E
 SuggestedRemedy
 Change to "Transmister and dispersion penalty for 10GBASE-E."
 Response Response Status C
 ACCEPT IN PRINCIPLE. Change OM15 to:
 "Transmitter and dispersion penalty for 10GBASE-E"

Cl 52 SC 52.15.4.1 P 469 L 36 # 506
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The Subclause for Item FS1 is should be 52.1.
 SuggestedRemedy
 Change 52.1.1 to 52.1.
 Response Response Status C
 ACCEPT.

Cl 52 SC 52.15.4.1 P 469 L 51 # 508
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 Item FS7 references wrong subclause.
 SuggestedRemedy
 Change 52.4.2 to 52.4.4
 Response Response Status C
 ACCEPT.

Cl 52 SC 52.15.4.10 P 473 L 16 # 545
 Lynskey, Eric UNH IOL
 Comment Type T Comment Status A
 Item OM7 refers to 7 separate shall statements.
 SuggestedRemedy
 Replace item OM7 with a separate PICS entries for each shall.
 Response Response Status C
 ACCEPT IN PRINCIPLE. Eliminate unnecessary "shalls".

Page 452, line 42 - Add sentence "If used, the procedure shall be performed as described in 52.9.6.1, 52.9.6.2, and 52.9.6.3."
 Page 452, line 48 - replace "shall be" with "is". Refers to a test condition.
 Page 453, line 2 - replace "shall be" with "is". Refers to a test condition.
 Page 453, line 13 - replace "shall be" with "is required to be". Refers to test equipment.
 Page 453, line 21 - replace "shall be" with "is to be". Refers to test filter BW. (typo "qual" - ">"equal")
 Page 453, line 22 - replace "shall take" with "is required to take". Refers to test filter BW calculation.
 Page 453, line 31 - replace "shall be" with "should be". Refers to calibration capability of the test power meter.
 Page 454, line 8 - replace "shall be" with "is". Refers to test procedure.

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Cl 52 SC 52.15.4.10 P 473 L 23 # 553
 Lynskey, Eric UNH IOL

Comment Type E Comment Status A
 Item OM11 refers to 13 separate shall statements.

SuggestedRemedy

Replace item OM11 with separate entries for each shall statement.

Response Response Status C

ACCEPT IN PRINCIPLE. Eliminate unnecessary "shalls".

- Page 455, line 46. Add sentence "Transmitter jitter conformance testing shall be performed in accordance with the requirements of 52.9.9.1, 52.9.9.2, and 52.9.9.3."
- Page 456, line 6 - replace "shall have" with "has". Refers to test receiver characteristics.
- Page 456, line 12 - replace "shall have" with "has". Refers to test receiver characteristics.
- Page 456, line 16 - replace "shall have" with "has". Refers to test receiver PLL characteristics.
- Page 456, line 40 - replace "shall be" with "is". Refers to test receiver calibration.
- Page 456, line 43 - replace "shall be satisfied" with "are performed". Refers to test data characteristics.
- Page 456, line 45 - replace "shall" with "should". Refers to "normal signal properties" and isn't specifically defined.
- Page 456, line 48 - replace "shall meet" with "is described by". Refers to test channel.
- Page 456, line 50 - keep as is.
- Page 456, line 52 - replace "shall be" with "is to be". Refers to fiber requirements for test channel.
- Page 457, line 18 - replace "shall" with "is to". Refers to channel requirements for testing.
- Page 457, line 20 - replace "shall provide" with "provides". Refers to channel requirements for testing.
- Page 457, line 22 - replace "shall be" with "is". Refers to channel requirements for testing.
- Page 457, line 26 - replace "shall provide" with "provides". Refers to channel requirements for testing.

Cl 52 SC 52.15.4.10 P 473 L 24 # 174
 Ohlen, Peter Optillion

Comment Type E Comment Status A
 Title of OM12 does not correspond to 52.9.11.

SuggestedRemedy

Change OM12 title to "Stressed receiver conformance test".

Response Response Status C

ACCEPT.

Modify per suggested remedy.

Cl 52 SC 52.15.4.10 P 473 L 26 # 571
 Lynskey, Eric UNH IOL

Comment Type E Comment Status A
 Item OM13 refers to multiple shall statements.

SuggestedRemedy

Replace with a separate entry for each shall.

Response Response Status C

ACCEPT IN PRINCIPLE.

- Page 460, line 7 - leave as is.
- Page 460, line 9 - change "shall be" to "is". Item is already covered under the "shall" statement on line 7.
- Page 460, line 10 - change "shall be" to "is". Item is already covered.
- Page 460, line 46 - change "shall be" to "is". Item is already covered in the preceding list of requirements.
- Page 460, line 48 - change "shall be" to "is". Item is already covered.

Cl 52 SC 52.15.4.10 P 473 L 28 # 570
 Lynskey, Eric UNH IOL

Comment Type E Comment Status A

The shall in 52.9.12 refers only to the digital optical source, and not to the 3dB cutoff frequency.

SuggestedRemedy

Change the feature to read "Digital optical source"

Response Response Status C

ACCEPT IN PRINCIPLE.

- Line 34 - Change "The 3 dB upper cutoff frequency is measured using the following steps:" to "The 3 dB upper cutoff frequency shall be measured using the following steps:"
- Line 38 - change "shall meet" to "meets".

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CI 52 SC 52.15.4.10 P 473 L 31 # 575
Lynskey, Eric UNH IOL

Comment Type E Comment Status A
Item OM15 refers to multiple shall statements.

SuggestedRemedy

Replace item OM15 with a separate entry for each shall statement.

Response Response Status C
ACCEPT IN PRINCIPLE.

Page 461, line 42 - change "shall be" to "are". Refers to test measurement pattern.
Page 461, line 43 - change "shall be" to "is". Refers to test measurement pattern.
Page 461, line 51 - change "shall be" to "is". Refers to test receiver calibration.
Page 462, line 1 - leave as-is.
Page 462, line 12 - change "shall be" to "is". Refers to test receiver calibration.
Page 462, line 17 - change "..shall be symmetric and pass.." to "..is symmetric and passes..".
Refers to test signal.
Page 462, line 18 - change "shall be" to "is". Refers to test signal.
Page 462, line 29 - change "shall be" to "is". Refers to test receiver.

CI 52 SC 52.15.4.10 P 473 L 7 # 173
Ohlen, Peter Optillion

Comment Type T Comment Status A
PICS item OM2 is not necessary and also stands in contradiction to other PICS. For each measurement, the patterns that shall be used are defined in that section. Sometimes by reference to 52.9.1, but sometimes not necessarily.

SuggestedRemedy

Remove the OM2 PICS.

Response Response Status C
ACCEPT IN PRINCIPLE. Remove PICS. Change p. 450:32 to "The test patterns 1 and 2 are generated with the data input mode programmed to select all zero data input."

CI 52 SC 52.15.4.10 P 473 L 7 # 542
Lynskey, Eric UNH IOL

Comment Type E Comment Status A
The Feature of Item OM2 is incorrect. The shall refers only the data input mode being programmed to select all data zero inputs.

SuggestedRemedy

Change feature to Data Input Mode OR Add another shall that refers to the patterns.

Response Response Status C
ACCEPT IN PRINCIPLE. Removed item.

CI 52 SC 52.15.4.10 P 473 L 9 # 543
Lynskey, Eric UNH IOL

Comment Type E Comment Status A
Item OM3 refers to two separate shall statements.

SuggestedRemedy

Insert new PICS item that refers only to Spectral width, and change item OM3 to refer only to center wavelength.

Response Response Status C
ACCEPT IN PRINCIPLE. Combine both "shalls" into one sentence.

Line 44 - Combine first and second sentences. Delete "...-127. Center wavelength and spectral width shall be measured under modulated..", and replace with "...-127, and under modulated..".

CI 52 SC 52.15.4.11 P 473 L 45 # 585
Lynskey, Eric UNH IOL

Comment Type E Comment Status A
Item FO2 does not have an associated shall with it.

SuggestedRemedy

Add the appropriate shall or remove the PICS entry.

Response Response Status C
ACCEPT IN PRINCIPLE. Delete FO2.

CI 52 SC 52.15.4.11 P 473 L 47 # 586
Lynskey, Eric UNH IOL

Comment Type E Comment Status A
Item FO3 should refer to either multimode or single mode, but not both.

SuggestedRemedy

Change Item FO3 to Connection return loss multimode fiber. Insert a new PICS item that refers to single mode fiber.

Response Response Status C
ACCEPT.

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Cl 52 SC 52.15.4.11 P 473 L 51 # 175
Ohlen, Peter Optillion

Comment Type T Comment Status R

The MDI (FO5) is part of the transceiver, while FO1-4 is part of the cabling infrastructure. Transceiver vendors cannot guarantee FO1-4, while they should care about FO5. Do they really belong in the same section??

SuggestedRemedy

Move FO5 out of 52.15.4.11. Might also want to put 52.14.4 outside 52.14.

Response Response Status C

REJECT. No specific placement recommendations provided. If, for example, the specs were to be moved into the PICS for PMD to MDI, they would need to be repeated for each PMD type. The requirements of 52.14.4 apply across all PMDs and provide a condensed PICS..

Cl 52 SC 52.15.4.2 P 470 L 11 # 511
Lynskey, Eric UNH IOL

Comment Type E Comment Status A

The MR3 entry does not have an associated shall.

SuggestedRemedy

Add the shall or remove the PICS entry.

Response Response Status C

ACCEPT IN PRINCIPLE.

Page 435, line 42 - change "maps" to "shall be mapped".

Cl 52 SC 52.15.4.2 P 470 L 13 # 512
Lynskey, Eric UNH IOL

Comment Type E Comment Status A

The MR4 PICS Item does not have an associated shall statement.

SuggestedRemedy

Add the shall or remove the PICS entry.

Response Response Status C

ACCEPT IN PRINCIPLE.

Page 435, line 50 - change "maps" to "shall be mapped".

Cl 52 SC 52.15.4.2 P 470 L 6 # 509
Lynskey, Eric UNH IOL

Comment Type E Comment Status A

The MR1 PICS entry does not have a shall associated with it.

SuggestedRemedy

Add the shall or remove the PICS entry.

Response Response Status C

ACCEPT IN PRINCIPLE.

Page 435, line 17 - Change "Mapping of MDIO control variables to PMD control variables is shown in Table 52-3. Mapping of MDIO status variables to PMD status variables is shown in Table 52-4."

to "If MDIO is implemented, it shall map MDIO control variables to PMD control variables as shown in Table 52-3, and MDIO status variables to PMD status variables as shown in Table 52-4."

Cl 52 SC 52.15.4.3 P 471 L 6 # 525
Lynskey, Eric UNH IOL

Comment Type E Comment Status R

Item SR1 refers to subclause 52.6.1. This subclause contains two shall statements that refer to three separate sections of the clause. Item SR1 contains one of these references, but does not mention the transmit mask of the eye measurement as defined in 52.9. It may be easier to replace item LR1 with three separate PICS entries; one for each of the items addressed by the shall statements in 52.6.1.

SuggestedRemedy

Replace item SR1 with the following

Item: SR1, Feature: Transmitter meets specifications in Table 52-12 for 10GBASE-SR, Subclause: 52.6.1, Value/Comment: , Status: , Support: Yes[] N/A[].

Add item SR2 with the following Item: SR2, Feature: Transmitter meets specifications in Table 52-13 for 10GBASE-SR, Subclause: 52.6.1, Value/Comment: , Status: , Support: Yes[] N/A[].

Add item SR3 with the following Item: SR3, Feature: Transmitter meets transmit mask specifications, Subclause: 52.6.1, Value/Comment: , Status: , Support: Yes[] N/A[].

Rename Item SR2 to SR4.

Make similar changes to subclause 52.15.4.4.

Response Response Status C

REJECT. Transmit eye is covered by another PICS.

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CI 52 SC 52.15.4.4 P 471 L 14 # 513
Lynskey, Eric UNH IOL

Comment Type E Comment Status R

This subclause is not necessary since section 52.5 refers only to 10GBASE-S and does not make reference to 10GBASE-SR or 10GBASE-SW.

SuggestedRemedy

Remove subclause 52.15.4.4. Rename subclause 52.15.4.3 to "PMD to MDI optical specifications for 10GBASE-S." Change items SR1 and SR2 to "S1, S2" respectively. Strike the "R" from the "SR" in both feature blocks.

Response Response Status C

REJECT. The nominal speed is different, as are the test patterns. The specifications are quite different for R and W variants.

CI 52 SC 52.15.4.5 P 471 L 33 # 519
Lynskey, Eric UNH IOL

Comment Type E Comment Status A

Should be Table 52-13.

SuggestedRemedy

Change Table 52-11 to Table 52-13.

Response Response Status C

ACCEPT.

CI 52 SC 52.15.4.5 P 471 L 33 # 524
Lynskey, Eric UNH IOL

Comment Type E Comment Status R

Item LR1 refers to subclause 52.6.1. This subclause contains two shall statements that refer to three separate sections of the clause. Item LR1 contains one of these references, but does not mention the transmit mask of the eye measurement as defined in 52.9. It may be easier to replace item LR1 with three separate PICS entries; one for each of the items addressed by the shall statements in 52.6.1.

SuggestedRemedy

Replace item LR1 with the following
Item: LR1, Feature: Transmitter meets specifications in Table 52-12 for 10GBASE-LR, Subclause: 52.6.1, Value/Comment: , Status: , Support: Yes[] N/A[].
Add item LR2 with the following
Item: LR2, Feature: Transmitter meets specifications in Table 52-13 for 10GBASE-LR, Subclause: 52.6.1, Value/Comment: , Status: , Support: Yes[] N/A[].
Add item LR3 with the following
Item: LR3, Feature: Transmitter meets transmit mask specifications, Subclause: 52.6.1, Value/Comment: , Status: , Support: Yes[] N/A[].
Rename Item LR2 to LR4.
Make similar changes to subclause 52.15.4.6.

Response Response Status C

REJECT. Prefer to go with two table references, and let the transmit mask be caught by the "transmit eye" PICS entry.

CI 52 SC 52.15.4.6 P 471 L 41 # 517
Lynskey, Eric UNH IOL

Comment Type E Comment Status R

This subclause is not necessary since section 52.6 refers only to 10GBASE-L and does not make reference to 10GBASE-LR or 10GBASE-LW.

SuggestedRemedy

Remove subclause 52.15.4.6. Rename subclause 52.15.4.3 to "PMD to MDI optical specifications for 10GBASE-L." Change items LR1 and LR2 to "L1, L2" respectively. Strike the "R" from the "LR" in both feature blocks.

Response Response Status C

REJECT. This is not correct. Both types are distinct and referenced.

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Cl 52 SC 52.15.4.7 P 472 L 14 # 93
 Taborek, Rich Intel
 Comment Type E Comment Status A
 "spcified" misspelled implementations.
 SuggestedRemedy
 Change to "specified"
 Response Response Status C
 ACCEPT.
 Modify per suggested remedy.

Cl 52 SC 52.15.4.7 P 472 L 6 # 523
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 Item ER1 refers to subclause 52.7.1. This subclause contains two shall statements that refer to two separate sections of the clause. Item ER1 contains one of these references, but does not mention the transmit mask of the eye measurement as defined in 52.9. It may be easier to replace item ER1 with two separate PICS entries; one for each of the items addressed by the shall statements in 52.7.1.
 SuggestedRemedy
 Replace item ER1 with the following
 tem: ER1, Feature: Transmitter meets specifications in Table 52-17 for 10GBASE-ER, Subclause: 52.7.1, Value/Comment: , Status: , Support: Yes[] N/A[].
 Add item ER2 with the following
 Item: ER2, Feature: Transmitter meets transmit mask specifications, Subclause: 52.7.1, Value/Comment: , Status: , Support: Yes[] N/A[].
 Rename Item ER2 to ER3.
 Make similar changes to subclause 52.15.4.8.
 Response Response Status C
 REJECT. Prefer to have transmit eye caught by a different PICS.

Cl 52 SC 52.15.4.8 P 472 L 17 # 521
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 This subclause is not necessary since section 52.7 refers only to 10GBASE-E and does not make reference to 10GBASE-ER or 10GBASE-EW.
 SuggestedRemedy
 Remove subclause 52.15.4.8. Rename subclause 52.15.4.3 to "PMD to MDI optical specifications for 10GBASE-E." Change items ER1 and ER2 to "E1, E2" respectively. Strike the "R" from the "ER" in both feature blocks.
 Response Response Status C
 REJECT. Not true. Both are mentioned explicitly.

Cl 52 SC 52.15.4.9 P 472 L 34 # 527
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The JS1 item refers to 4 separate shall statements.
 SuggestedRemedy
 Replace Item JS1 with a single item for each shall in subclause 52.8.1.x.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Page 445, line 15 - leave as is.
 Page 446, line 25 - change "..optical channel used to test the transmitter shall meet.." to "transmitter is tested using an optical channel which meets".
 Page 446, line 26 - delete "shall".
 Page 446, line 29 - change "Have" to "Consists of".
 Page 446, line 32 - change "Meet" to "Meets".
 Page 446, line 38 - change "shall be" to "is".

Cl 52 SC 52.2 P 433 L 10 # 319
 Dawe, Piers Agilent
 Comment Type E Comment Status A
 Grammar and format.
 SuggestedRemedy
 Change "pause quanta" to "pause_quantum". On line 11, change "pause quanta" to "pause_quanta" and change the dumb text "section 44.3" into a link "44.3".
 Response Response Status C
 ACCEPT.
 Modify per suggested remedy.

Cl 52 SC 52.3 P 433 L 38 # 387
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status A
 Register/bit number 1.5.11 specification is not same as clause 45 specification. In Clause 52, 1.5.11 refers to transmitting local fault, however in Clause 45, it is reserved.
 SuggestedRemedy
 Change 1.5.11 to 1.8.11
 Response Response Status C
 ACCEPT.

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Cl 52 SC 52.3 P 433 L 40 # 386
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status A
 Register/bit number 1.5.10 specification is not same as clause 45 specification. In Clause 52, 1.5.10 refers to receiving local fault, however in Clause 45, it is reserved
 SuggestedRemedy
 Change 1.5.10 to 1.8.10
 Response Response Status C
 ACCEPT.

Cl 52 SC 52.3 P 433 L 42 # 385
 Eric, Lynskey UNH IOL
 Comment Type E Comment Status A
 Register/bit number 1.9.0 does not match with specification given in Clause 45. In Table 52-4, 1.9.0 refers that it is used for Receive Signal Detect, however in Clause 45, 1.9.0 refers to Global PMD transmit disable.
 SuggestedRemedy
 Change "1.9.0" to "1.10.0", which does discuss Receive Signal Detect.
 Response Response Status C
 ACCEPT.

Cl 52 SC 52.4.1 P 433 L 53 # 321
 Dawe, Piers Agilent
 Comment Type E Comment Status A
 Figure 52-2 is an orphan.
 SuggestedRemedy
 Change "the following points" to "test points TP2 and TP3 as shown in Figure 52-2".
 Response Response Status C
 ACCEPT.
 Modify per suggested remedy.

Cl 52 SC 52.4.4 P 435 L 7 # 322
 Dawe, Piers Agilent
 Comment Type E Comment Status A
 Boolean logic and brackets. Can't have a compliant 10GBASE-R and 10GBASE-W signal.
 SuggestedRemedy
 Change: "(Input_optical_power .ge. Receive sensitivity AND compliant 10GBASE-R and 10GBASE-W signal input)"
 to
 "Input_optical_power .ge. Receive sensitivity AND compliant (10GBASE-R or 10GBASE-W signal input)". Maybe the brackets could be left out altogether.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Change: "(Input_optical_power .ge. Receive sensitivity AND compliant 10GBASE-R and 10GBASE-W signal input)"
 to
 "Input_optical_power .ge. Receive sensitivity AND 10GBASE-R or 10GBASE-W compliant signal input"

Cl 52 SC 52.4.4 P 435 L 9 # 58
 Thatcher, Jonathan World Wide Packets
 Comment Type T Comment Status A
 the "and" within the condition is confusing with respect to the "AND"
 SuggestedRemedy
 Change "and" to "OR," --or-- replace the line "compliant 10GBASE-R..." with "compliant input data stream"
 Response Response Status C
 ACCEPT. Change "and" to "or,"

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CI 52 SC 52.4.5 P 435 L 23 # 510
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "When asserted, this function shall turn off the optical transmitter..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.
 Add the following entry to 52.15.4.2 following MR2:
 MR3 PMD_transmit_disable_0 output power 52.4.5 O Y/N/NA

CI 52 SC 52.5 P 436 L 3 # 323
 Dawe, Piers Agilent
 Comment Type E Comment Status A
 Multiple ranges.
 SuggestedRemedy
 Change "range for 10GBASE-S is" to "ranges for 10GBASE-S are". Singular in table is OK.
 Response Response Status C
 ACCEPT.
 Modify per suggested remedy.

CI 52 SC 52.5,6,7 P 436443 L # 377
 Dawe, Piers Agilent
 Comment Type T Comment Status A
 Recently it has been pointed out that our estimates of RIN penalty were noticeably too optimistic. As it turns out, I believe the eye mask spec protects us anyway, as the eye mask measurement is affected by transmitter noise. But we should review the situation. Options are: do nothing, delete RINxOMA spec as superfluous, tighten RINxOMA spec to e.g. -127 dB/Hz, make the item informative, like nominal Rx sensitivity.
 SuggestedRemedy
 Change all three RINxOMA specs to -127 dB/Hz. In future revisions, consider making this informative.
 Response Response Status C
 ACCEPT IN PRINCIPLE. Change all three RINxOMA specs to -130 dB/Hz.
 However RIN is an important parameter that is not well protected by eye mask measurements and should not be made informative in future revisions.

CI 52 SC 52.5.1 P 437 L 1 # 89
 Taborek, Rich Intel
 Comment Type E Comment Status A
 Missing space between "4.5" and "micrometer" qualifier
 SuggestedRemedy
 Add space
 Response Response Status C
 ACCEPT.
 Correction is on line 7, not line 1 as noted.

CI 52 SC 52.5.1 P 437 L 4 # 515
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The notes following Table 52-7 contain redundant "shalls". Table 52-7 is already under the blanket coverage of a shall on line 27 of page 436.
 SuggestedRemedy
 Change the sentence in line 4 to read "The 10GBASE-S launch power will be the lesser of the class..."Change the sentence in line 7 to read "The encircled flux at 19um will be greater than or equal to...and the encircled flux at 4.5um is less than or equal to..."
 Response Response Status C
 REJECT. Both these are necessarily "shalls"

CI 52 SC 52.5.3 P 439 L 17 # 294
 Kolesar, Paul Lucent
 Comment Type T Comment Status A
 The sum of "channel insertion loss", "allocation for penalties", and "additional insertion loss allowed" exceeds the 7.5 dB power budget by the amount of the "additional insertion loss allowed" values.
 SuggestedRemedy
 Reconcile by subtracting the "additional insertion loss allowed" from the "allocation for penalties". Modify the second footnote to read: "The channel insertion loss is calculated using the maximum distance values specified in Table 52-6 plus an allocation of 1.5 dB for connection and splice loss".
 Response Response Status C
 ACCEPT IN PRINCIPLE. See however comment #190 that changes the link budget. The combined effect of this comment and comment #190 is to change the line for allocation for penalties to 4.86,4.86,4.92,4.92,4.71

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CI 52 SC 52.5.3 P 439 L 24 # 295
 Kolesar, Paul Lucent

Comment Type T Comment Status A

It is pointless to place a footnote on an entry called "additional insertion loss allowed" that states "for insertion loss only". State the true intention.

SuggestedRemedy

Change the last footnote to: "This portion of the unallocated margin is permitted to be used to overcome insertion loss higher than the "Channel insertion loss" value. Add a new row for unallocated margin with appropriate values to true up the sums.

Response Response Status C

ACCEPT IN PRINCIPLE. Change the last footnote to: "This portion of the link budget is permitted to be used to overcome insertion loss higher than the "Channel insertion loss" value."

It was decided at the last meeting not to have a separate row for unallocated margin as this has confused users in the past.

CI 52 SC 52.6 P 438 L 10 # 59
 Thatcher, Jonathan World Wide Packets

Comment Type E Comment Status A

We simply must fix these triple trade off curves once and for all! Must be readable in black and white.

SuggestedRemedy

See comment

Response Response Status C

ACCEPT. Related comment #328.

CI 52 SC 52.6 P 439 L 27 # 330
 Dawe, Piers Agilent

Comment Type E Comment Status A

Mysterious double space between 10 and km.

SuggestedRemedy

fix

Response Response Status C

ACCEPT. Yes, but there wasn't an extra space. Just FrameMaker being fiddly.

CI 52 SC 52.6 P 440442 L # 362
 Dawe, Piers Agilent

Comment Type T Comment Status A link model

This comment updates the 10GBASE-L transmit and receive powers, penalties and losses following much thought, and aims to resolve several comments on D3.1 which were referred to the serial ad hoc. The values have been prepared with 10GEPBud3_1_16.xls (low RIN, high jitter, 0 eye margin, 47.1 ps risetime, 0 dB link margin) and aim to make the minimum of changes to account for reflection noise and deterministic jitter and to make the tables self-consistent and reasonable. Experimental work is needed to validate the absolute Tx/Rx power levels and the effective DJ limit.

SuggestedRemedy

Table 52-12 10GBASE-L transmit characteristics Average launch power (max) change from 0.5 to +1 dBm Table 52?13 Tx triple trade off Center Wavelength Spectral width OMA (nm) (nm) (dBm)
 1260 (worst) 0.2 change from -3.2 to -2.9 (-2.87 for calculation)
 1310-1315 (best) 0.05 change from -3.9 to -3.7 (-3.65 for calculation)
 Revise whole table in line with these points.

Table 52?14 10GBASE-L receive characteristics Receive sensitivity No change Stressed receive sensitivity change from 0.094 (-10.28) to 0.087 (-10.6) mW (dBm) (-10.58 for calculation) Vertical eye closure penalty change from 1.78 to 2.6 dB (2.59 for calculation, now including effect of DJ, or 2.24 without) Table 52?15 10GBASE-L link power budgets Link power budget change from 9.4 to 10.4 dB (10.36 for calculation) Channel insertion loss change from 7.17 to 7.3 dB (7.25 for calculation) Allocation for penalties change from 2.96 to 3.1 dB (3.11 for calculation)

Response Response Status C

ACCEPT IN PRINCIPLE. New model voted in. Multiple locations in D3.3 may need updates. Need new TTC and tables.

11:7 fails
 19:0 reconsider (Petar P.)

Motion modify SRS to -10.3 for BASE-L. 14 : 0 : 9

New model voted in. Multiple locations in D3.3 may need updates. Need new TTC and tables. Change SRS to -10.3 for BASE-L in Table 52-14. Make sure this is still consistent with RS of -13.4 dBm for BASE-E.

Unanimous

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Cl 52 SC 52.6.1 P 439 L 48 # 148
 Ohlen, Peter Optillion
 Comment Type E Comment Status A
 Double dot.
 SuggestedRemedy
 ".." --> "!" !
 Response Response Status C
 ACCEPT. Comment changed from clause 00 to clause 52. Good.

Cl 52 SC 52.6.1 P 440 L 1 # 296
 Kolesar, Paul Lucent
 Comment Type T Comment Status A
 Curves of figure 52-4 disagree with values in table 52-13 by 0.5 dB
 SuggestedRemedy
 Align figure with table.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 The exact values may need to be modified further if a new link model is adopted.

Cl 52 SC 52.6.14 P 462 L 1 # 578
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.
 Add the following entry to 52.15.4.10, following OM15, and renumber as needed:
 OM16 Transmitter and dispersion penalty measurement 52.9.14 Y/N
 Actually, was mislabelled, but already there.

Cl 52 SC 52.6.2 P 440 L 35 # 60
 Thatcher, Jonathan World Wide Packets
 Comment Type T Comment Status A
 Description: Table 52-12 "Clock tolerance (max)" is not correct. Ditto Tables 52-7; 52-9; 52-14; 52-17; and 52.18.
 SuggestedRemedy
 Change to something like "Signaling speed variation from nominal (max)"
 Response Response Status C
 ACCEPT IN PRINCIPLE. Further wordsmithing at editor's discretion.

Cl 52 SC 52.6.3 P 442 L 42 # 298
 Kolesar, Paul Lucent
 Comment Type T Comment Status A
 Second footnote insufficient to provide understanding of calculation components.
 SuggestedRemedy
 Modify the second footnote to read: "The channel insertion loss is calculated using the maximum distance specified in Table 52-11 and fiber attenuation of Y.X dB/km at 1310 nm plus an allocation of 2.0 dB for connection and splice loss". The value of Y.X should be either 0.4 or 0.5 depending on the resolution to my previous comment on subclause 52.6.3, page 442, line 35.
 Response Response Status C
 ACCEPT IN PRINCIPLE. Prefer instead of "an allocation of 2.0 dB for connection and splice loss", "an allocation for connection and splice loss given in 52.14.2.1", to avoid be another opportunity for inconsistency.

Cl 52 SC 52.7 P 443 L 2 # 335
 Dawe, Piers Agilent
 Comment Type E Comment Status R
 Double space before km.
 SuggestedRemedy
 fix
 Response Response Status C
 REJECT. Close but no cigar.. Turns out the extra spaces are a PDF artifact.

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Cl 52 SC 52.7 P 443444 L # 376

Dawe, Piers Agilent

Comment Type T Comment Status R link model

This comment updates the 10GBASE-E stressed receive powers, budget, penalties and losses to resolve inconsistencies and implement a previous resolution to remove 100th of dB. The values have been prepared with 10GEPBud3_1_14.xls (high RIN, high jitter, 3 dB VECP, 0.3502 dB/km at 1310nm, 0.28 dB margin in spreadsheet) and make the minimum of changes to account for deterministic jitter and to make the tables self-consistent and reasonable. Experimental work is needed to validate the effective DJ limit.

SuggestedRemedy

Table 52-17 10GBASE-E transmit characteristics Change "Launch power (min) in OMA minus TDP -1.39" to "Launch power (min) in OMA -1.4 - TDP
 Table 52?18 10GBASE-E receive characteristics
 Receive sensitivity No change
 Stressed receive sensitivity
 change from 0.0724 (-11.40) to 0.0589 (-12.3) mW (dBm)
 Vertical eye closure penalty No change
 Table 52?19 10GBASE-E link power budgets
 Link power budget change from 18.0 to 17.0 dB
 Channel insertion loss change from 13.0 to 12.9 dB
 Allocation for penalties change from 5.00 to 4.1 dB

Response Response Status C

REJECT.
 The launch power (min) in OMA should be -1.4 +TDP (not minus). The larger TDP is, the larger the required output power.
 The stressed receive sensitivity does not need to be changed. All the degradations in the Transmitter and Fiber are included in TDP. All the Receiver degradations are included within the Receiver test (tested with 3dB TDP ie vertical eye closure penalty). There is no reason to require an extra 0.9dB budget beyond the attenuation for stressed receiver sensitivity testing. Accept change to Link power budget. Do not accept the changes to Channel insertion loss or allocation for penalties. The channel insertion loss is derived from the approved link budget model.
 See comment 196

Withdrawn

Cl 52 SC 52.7.1 P 443 L 32 # 177

Warland, Tim Independant

Comment Type T Comment Status A

The minimum launch power for the 1550nm transmitter is expressed in OMA minus TDP. Transmitter power is not measured in OMA, only receive sensitivity. By expressing the transmit power in OMA and including the requirement for TDP, this document is explicitly requiring that the minimum transmit power be measured at the receiver. In other words, in order to determine whether a transmitter meets specification, the link must be established and a measurement taken at the far end. This is an engineered link and must be avoided for 802.3. The minimum transmit power must only be a function of the transmitter NOT in OMA and NOT including TDP.

SuggestedRemedy

Express minimum transmit power in dBm

Response Response Status C

ACCEPT IN PRINCIPLE. (1) Both transmitters and receivers can be specified using OMA or average power. The use of OMA in this standard is intended to allow trade-off between parameters on transmitters. Therefore the OMA style specification has been chosen instead of the average power specification. (2) In order to verify that a 1550nm transmitter meets specification both the dispersion penalty and the output power has to be measured. It is not enough to measure the output power.

Regarding the comment "this document is explicitly requiring that the minimum transmit power be measured at the receiver," this is partially correct. The transmitter is specified and tested at the end of a "golden fiber" (TP3) so that the power, and various penalties can be traded off against each other by the transmitter manufacturer. This is not the actual receiver of the operational link. It is a test for the transmitter, only.

Cl 52 SC 52.7.1 P 443 L 37 # 176

Warland, Tim Independant

Comment Type T Comment Status R

The extinction ratio for the 1550nm transmitter is too low. Analysis performed by the ITU and Telcordia recommend an extinction ratio of 8.2dB. This represents the optimum trade off between extinction ratio penalty and chirp penalty for most 1550nm transmitters.

SuggestedRemedy

Change extinction ratio to 8.2dB

Response Response Status C

REJECT. The commenter states that 8.2dB is the optimum trade-off for _most_ transmitters. Allowing a low ER does not prevent an implementer to use a high ER, but it allows a wider range of transmitters to be used. Still, if an implementer's design choice is 8.2 dB extinction ratio you would still need some margin to the specification to account for process variations and measurement inaccuracy.

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Cl 52 SC 52.7.1 P 443 L 40 # 61
 Thatcher, Jonathan World Wide Packets
 Comment Type E Comment Status A
 "transmitter and transmitter and"
 SuggestedRemedy
 How about just one "transmitter and"
 Response Response Status C
 ACCEPT. Related comment #61. But it so nice to keep saying transmitter and.. Like the little girl said, I know how to spell banana, but I just don't know when to stop.

Cl 52 SC 52.7.2 P 444 L 430 # 197
 Dudek, Mike Cielo Communications
 Comment Type T Comment Status A
 With the changes made in this draft to include the effects of the CDR in the stressed receiver sensitivity it is no longer correct to say that this is measured "at the eye center"
 SuggestedRemedy
 On line 4 Delete the Sentence "The sampling instant is defined to occur at the eye center.On line 30 Delete "at the eye center" in the footnote.
 Response Response Status C
 ACCEPT. See #49

Cl 52 SC 52.8 P 445 L 7 # 88
 Taborek, Rich Intel
 Comment Type TR Comment Status R
 This comment is a follow up to D3.1 Recirculation Ballot comment 176. Jitter specifications are inconsistent with P802.3ae PAR and 5 Criteria. Technical feasibility investigation shows that existing transponder modules employed in SONET applications do not meet Clause 52 jitter specifications, specifically at the receiver. This is inconsistent with the Scope and Purpose of the P802.3ae PAR and the support of point-to-point only links as specified in this clause. See the referenced comment for full text. This comment proposes a specific suggested remedy.
 SuggestedRemedy
 Relax and simplify Clause 52 jitter specifications to $T_j = 0.45 \text{ UI @ TP2}$ and $T_j = 0.55 \text{ UI @ TP3}$. Effective T_j at the PMA input and output, although not specified in this draft standard, would be set to $T_j = 0.35 \text{ UI @ TP1}$ and $T_j = 0.65 \text{ UI @ TP4}$, respectively. All other clause 52 jitter specifications, should be based on the values suggested here. A slight re-apportioning of TP2 and TP3 jitter would be acceptable.
 Response Response Status C
 REJECT. There is no compelling reason to change the TJ values to the recommended values, however the statement that the measurement methodology needs further review is correct.

Cl 52 SC 52.8 P 448 L 34 # 156
 Ohlen, Peter Optillion
 Comment Type E Comment Status A
 Remove editors box.
 SuggestedRemedy
 See comment.
 Response Response Status C
 ACCEPT.

Cl 52 SC 52.8 P 541 L 7 # 99006
 Taborek, Rich Intel
 Comment Type TR Comment Status R Jitter (D3.1)
 Jitter specifications are inconsistent with P802.3ae PAR and 5 Criteria. Technical feasibility investigation is showing that existing transponder modules employed in SONET applications do not meet Clause 52 jitter specifications, specifically at the receiver. This is inconsistent with the Scope and Purpose of the P802.3ae PAR. Specifically, the Scope of the PAR says: "In addition to the traditional LAN space, add parameters and mechanisms that enable deployment of Ethernet over the Wide Area Network operating at a data rate compatible with OC-192c and SDH VC-4-64c payload rate.]" The Purpose says: "The purpose of this project is to extend the 802.3 protocol to an operating speed of 10 Gb/s and to expand the Ethernet application space to include Wide Area Network links in order to provide a significant increase in bandwidth while maintaining maximum compatibility with the installed base of 802.3 interfaces, previous investment in research and development, and principles of network operation and management. Inconsistency with the 5 criteria is evident with respect to Technical Feasibility in that existing SONET transponders do not seem to meet P802.3ae Clause 52 jitter specifications. It is noteworthy that the target application, the MAN/metro, should warrant jitter specifications that are less stringent than those of SONET since MAN/metro applications are less demanding than SONET WAN applications for which SONET jitter specifications were developed. Further inconsistency with the 5 criteria is evident with respect to Economic Feasibility which states that: "A target cost increase of 3X of 1000BASE-X with a ten-fold increase in available bandwidth in the full duplex operating mode will result in an improvement in the cost-performance ratio by a factor of 3." Jitter specifications that require the development of components with superior jitter performance to those of SONET clearly do not support the legacy aggressive Ethernet cost targets.

SuggestedRemedy
 Set Clause 52 jitter specifications to exactly that which will allow existing SONET PMA and PMD components to be used with SONET or, better yet, relaxed SONET specifications to satisfy the MAN/metro applications targeted by the Clause 52 PMDs. Resolve any confusion and inconsistency between frequency (SONET-style) and time (MJS-style) domain jitter test methodology.
 Response Response Status C
 REJECT. There are no specific changes recommended to accomplish the required changes. If this is just a relaxing of the parameters changes should be proposed to make this happen.

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CI 52 SC 52.8.1 P 445 L 15 # 528
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. Removed the shalls.

CI 52 SC 52.8.1 P 445 L 15 # 150
 Ohlen, Peter Optillion
 Comment Type E Comment Status A
 In most cases, "eye opening" means vertical. Here it does not.
 SuggestedRemedy
 Insert "horizontal" before "eye opening"
 Response Response Status C
 ACCEPT.
 Modify per suggested remedy.

CI 52 SC 52.8.1 P 445 L 18 # 151
 Ohlen, Peter Optillion
 Comment Type E Comment Status A
 Too many dots here.
 SuggestedRemedy
 Remove some dots.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Replace "polynomial,;" with "polynomials:".
 OK.

CI 52 SC 52.8.1 P 445 L 39 # 152
 Ohlen, Peter Optillion
 Comment Type T Comment Status A
 TX and RX masks are not aligned. Do we want to have them defined for the same BER values.
 SuggestedRemedy
 Define the TX BER mask between 1e-6 and 1e-12.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Make all 1e-6 to 1e-12 in text and in figures 52-6 and 52.5.

CI 52 SC 52.8.1 P 445 L 9 # 62
 Thatcher, Jonathan World Wide Packets
 Comment Type TR Comment Status R
 There is no specification on the Rx path while doing Tx jitter measurement
 SuggestedRemedy
 Include requirement for asynchronous Rx valid data under reasonable optical conditions (OMA; rise/fall time; test pattern; etc).
 Response Response Status U
 REJECT. This requirement is already spelled out in the required conformance test section.
 Serial PMD Ad Hoc will review in preparation for November meeting.
 10: 1 : 3

CI 52 SC 52.8.1.1 P 446 L 25 # 529
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted in proposed response to comment #527.

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Cl 52 SC 52.8.1.1 P 446 L 26 # 530
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry. This shall refers to two specific points, and each one should have a PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entries.
 Response Response Status C
 REJECT. "Shall" was deleted in proposed response to comment #527.

Cl 52 SC 52.8.1.2 P 446 L 37 # 532
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted in proposed response to comment #527.

Cl 52 SC 52.8.1.3 P 460 L 1213 # 212
 Dudek, Mike Cielo Communications
 Comment Type E Comment Status A
 Incorrect references
 SuggestedRemedy
 For c) change 52.8.2.2 to 52.8.2.1For d) change 52.8.2.3 to 52.8.2.2
 Response Response Status C
 ACCEPT.
 Modify per suggested remedy.

Cl 52 SC 52.8.2 P 446 L 35 # 63
 Thatcher, Jonathan World Wide Packets
 Comment Type TR Comment Status R
 There is no specification on the Tx path while doing Rx jitter measurement
 SuggestedRemedy
 Include requirement for asynchronous Tx valid data (use test pattern?)
 Response Response Status U
 REJECT. This requirement is already spelled out in the required conformance test section.
 Serial PMD Ad Hoc will review in preparation for November meeting.
 8 : 1 : 1

Cl 52 SC 52.8.2 P 446 L 41 # 648
 Lindsay, Tom StratosLightwave
 Comment Type E Comment Status R
 Should refer to sections 52.9.10, 52.9.11, and 52.9.13 (not 52.11-52.14).Note - implicit in this comment is that receive tolerance receive stressed sensitivity testing should be combined into one section. It makes no sense to keep a separate sensitivity test section.
 SuggestedRemedy
 Change references per comment.
 Response Response Status C
 REJECT. Fixed by your other comment resolution.

Cl 52 SC 52.8.2 P 446 L 41 # 533
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 This shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. Associated PICS entry is JS2.

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CI 52 SC 52.8.2 P 446 L 45 # 340
 Dawe, Piers Agilent
 Comment Type E Comment Status R
 Missing "and".
 SuggestedRemedy
 Insert "and" between "signal" and "the".
 Response Response Status C
 REJECT. Sentence removed by another comment.
 ----- original proposed response:
 Change
 "...conformance test signal, the minimum specified input jitter (TJ and DJ)."
 to
 "conformance test signal, and the minimum specified input jitter (TJ and DJ)."

CI 52 SC 52.8.2.1 P 446 L 47 # 154
 Ohlen, Peter Optillion
 Comment Type T Comment Status A
 Title should be more specific.
 SuggestedRemedy
 Change title to "Optical power for the stressed receiver conformance test" or something even better.
 Response Response Status C
 ACCEPT IN PRINCIPLE. See also #633.

CI 52 SC 52.8.2.1 P 446 L 49 # 534
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 This shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted in proposed response to comment #531.

CI 52 SC 52.8.2.1 P 446 L 49 # 153
 Ohlen, Peter Optillion
 Comment Type T Comment Status A SJ02
 The 0.2 dB has been taken out by comment #16 onb D3.1.
 SuggestedRemedy
 Delete "0.2 dB higher than".
 Response Response Status C
 ACCEPT. Note: #633 removed this subclause.

CI 52 SC 52.8.2.1 P 446 L 49 # 621
 Lindsay, Tom StratosLightwave
 Comment Type T Comment Status A SJ02
 The 0.2 dB factor is a holdover from when SJ replaced a portion of DJ. It is no longer appropriate.
 SuggestedRemedy
 Remove portion regarding 0.2 dB change to stressed Rx OMA.
 Response Response Status C
 ACCEPT IN PRINCIPLE. See #153

CI 52 SC 52.8.2.1 P 446 L 49 # 341
 Dawe, Piers Agilent
 Comment Type T Comment Status A SJ02
 As part of change to make the 0.05 UI of SJ part of the DJ, the 0.2 dB power uplift should have gone (D3.1 #16). Anyway, had we wanted it, we could less confusingly have changed the table value by 0.2 dB.
 SuggestedRemedy
 Delete "0.2 dB higher than".
 Response Response Status C
 ACCEPT. Note: #633 removed this subclause.

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CI 52 SC 52.8.2.1 P 446 L 50 # 198
Dudek, Mike Cielo Communications

Comment Type T Comment Status A SJ02

With the inclusion of the sinusoidal jitter in the Dj as decided at the last meeting the power for the conformance test should be at the stressed receiver sensitivity as defined in the appropriate tables.

SuggestedRemedy

Change "less than or equal to 0.2dB higher than the stressed" to "less than or equal to the stressed"

Response Response Status C

ACCEPT IN PRINCIPLE. See #153. Note: #633 removed this subclause.

CI 52 SC 52.8.2.1 P 46 L 49 # 65
Thatcher, Jonathan World Wide Packets

Comment Type TR Comment Status A SJ02

Language "shall be less than or equal to 0.2 dB higher than..." is at very least confusing.

SuggestedRemedy

Why is the specific ion effectively modified in the measurement section? This is the only place where the stressed Rx sensitivity is used, right? So, if the number needs to change, change it in Table 52-9. Get rid of this language.

Response Response Status C

ACCEPT IN PRINCIPLE. See 153, 198, 341, 621 and D3.1#16.

CI 52 SC 52.8.2.2 P 447 L 17 # 622
Lindsay, Tom StratosLightwave

Comment Type E Comment Status A

Sigma changed to s.

SuggestedRemedy

Change back to sigma. Watch globally for other instances.

Response Response Status C

ACCEPT.

CI 52 SC 52.8.2.2 P 447 L 3 # 535
Lynskey, Eric UNH IOL

Comment Type E Comment Status R

This shall does not have an associated PICS entry.

SuggestedRemedy

Add the appropriate PICS entry.

Response Response Status C

REJECT. "Shall" was deleted in proposed response to comment #531.

CI 52 SC 52.8.2.2 P 447 L 3 # 199
Dudek, Mike Cielo Communications

Comment Type T Comment Status A

It was decided at the last meeting that the sinusoidal jitter is to be included as part of the Dj.

SuggestedRemedy

After Table 52-20 on line 4 add "and shall include the sinusoidal jitter described in 52.8.2.3

Response Response Status C

ACCEPT.

CI 52 SC 52.8.2.2 P 447 L 40 # 536
Lynskey, Eric UNH IOL

Comment Type E Comment Status R

This shall does not have an associated PICS entry.

SuggestedRemedy

Add the appropriate PICS entry.

Response Response Status C

REJECT. "Shall" was deleted in proposed response to comment #531.

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CI 52 SC 52.8.2.2 P 447 L 43 # 637
Lindsay, Tom StratosLightwave

Comment Type T Comment Status A

This (jitter tolerance) section specifies a golden PLL, BT4 filter, etc., whereas the jitter output section does not. They should be consistent. Since both go into much more detail in the (normative??) test section, the simpler option would be to remove this redundant "stuff".

SuggestedRemedy

Remove last paragraph of this subclause. Or, does the group think the (essence of the) paragraph should be added into clause 52.8.1?

Response Response Status C

ACCEPT IN PRINCIPLE.

Change sentence to: The test method for verification of the receive jitter is defined in section 52.9.9.

Add to 52.8.1: The test method for verification of the transmit jitter is defined in section 52.9.9.

Remove from 52.8.2.2: "A golden PLL shall be used for verification of the input jitter. It shall have a low frequency corner of greater than or equal to 4 MHz and a slope of 20dB/decade. The low frequency corner corresponds to the point at which the PLL must begin to track low frequency jitter. The filter used for RX input signal characterization shall be a fourth-order Bessel-Thomson filter as specified in section 52.9.7."

CI 52 SC 52.8.2.2 P 447 L 43 # 537
Lynskey, Eric UNH IOL

Comment Type E Comment Status R

This shall does not have an associated PICS entry.

SuggestedRemedy

Add the appropriate PICS entry.

Response Response Status C

REJECT. "Shall" was deleted in proposed response to comment #531.

CI 52 SC 52.8.2.2 P 447 L 44 # 538
Lynskey, Eric UNH IOL

Comment Type E Comment Status R

This shall does not have an associated PICS entry.

SuggestedRemedy

Add the appropriate PICS entry.

Response Response Status C

REJECT. "Shall" was deleted in proposed response to comment #531.

CI 52 SC 52.8.2.2 P 447 L 46 # 539
Lynskey, Eric UNH IOL

Comment Type E Comment Status R

This shall does not have an associated PICS entry.

SuggestedRemedy

Add the appropriate PICS entry.

Response Response Status C

REJECT. "Shall" was deleted in proposed response to comment #531.

CI 52 SC 52.8.2.3 P 447 L 49 # 155
Ohlen, Peter Optillion

Comment Type T Comment Status A

Sinusoidal jitter is no longer added to the test signal. (Comment #15 on D3.1)

SuggestedRemedy

Change title to "Sinusoidal jitter for receiver conformance test". Change "added to" to "included in" on p.447:52.

Response Response Status C

ACCEPT IN PRINCIPLE. See #199. Change title to "Sinusoidal jitter for receiver conformance test". Change "added to" to "included in" on p.447:52.

CI 52 SC 52.8.2.3 P 447 L 49 # 344
Dawe, Piers Agilent

Comment Type E Comment Status A

Per D3.1 comment # 15, sinusoidal jitter isn't currently exactly added but is a component of jitter. The test is not "receiver jitter test" but "Stressed receiver conformance test".

SuggestedRemedy

Change title to "Sinusoidal jitter component of stressed receiver conformance test".

Response Response Status C

ACCEPT IN PRINCIPLE. Dealt with by another comment.

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CI 52 SC 52.8.2.3 P 447 L 51 # 540
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 This shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted in proposed response to comment #531.

CI 52 SC 52.8.2.3 P 447 L 52 # 200
 Dudek, Mike Cielo Communications
 Comment Type T Comment Status A
 At the last meeting it was decided to include the Sinusoidal jitter as part of the Dj
 SuggestedRemedy
 On line 52 change "Sinusoidal jitter shall be added to" to "Sinusoidal jitter shall be included in"
 Response Response Status C
 ACCEPT IN PRINCIPLE. See also #199

CI 52 SC 52.8.2.3 P 447 L 52 # 623
 Lindsay, Tom StratosLightwave
 Comment Type T Comment Status A
 We agreed that SJ would replace a portion of DJ, not add to it. Note - ad hoc is considering adding SJ from baud/2500 and below. TBD.
 SuggestedRemedy
 Add another sentence to 1st paragraph "0.05 UI of SJ shall replace 0.05 of W during receiver jitter testing. Therefore, the value for W from Table 52-20 may be reduced by 0.05 UI."
 Response Response Status C
 ACCEPT IN PRINCIPLE. See #155.

CI 52 SC 52.8.2.3 P 447 L 52 # 541
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 This shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted in proposed response to comment #531.

CI 52 SC 52.8.2.3 P 447 L 52 # 345
 Dawe, Piers Agilent
 Comment Type T Comment Status A
 Per D3.1 comment # 15, sinusoidal jitter isn't currently exactly added but is a component of jitter.
 SuggestedRemedy
 Change "Sinusoidal jitter shall be added to the test signal that complies with clause 52.8.2.2" to "A sinusoidal jitter component specified by Table 52-21 shall be substituted for up to 0.05 UI of W of the test signal of 52.8.2.2. Messy! Alternatively, use W-0.05 in 52.8.2.2, then the SJ is "added". Or see another comment...
 Response Response Status C
 ACCEPT IN PRINCIPLE. See #155.

CI 52 SC 52.8.2.3 P 448 L 1 # 346
 Dawe, Piers Agilent
 Comment Type T Comment Status A SJ
 Adding sinusoidal jitter over an undefined frequency sweep isn't practical. We could cap the frequency somewhere but, having said that we are dealing in "effective DJ" as defined by the mask, the argument that SJ is more stressful (effective), and a protection in this test, mostly falls away. Maybe some experimental track record should be developed, and this may be out of order as a technical comment not linked to a change in D3.1, but here's the proposal anyway:
 SuggestedRemedy
 Change Table 52-21 to: f < 40 kHz NA
 40 kHz < f < 20 MHz 2x10^5/f
 f > 20 MHz NA
 Change Figure 52?? to match. Lower cutoff is now 0.01 UI. Go back to "added" verbiage for SJ.
 Response Response Status C
 ACCEPT IN PRINCIPLE. Limit SJ to 0.05 UI from 4 to 10LB MHz. Add note: "Recommended minimum value of upper bound of 0.05 UI added range is 10 times loop bandwidth" (put in table and on graph)

CI 52 SC 52.9 P L # 627
 Lindsay, Tom StratosLightwave
 Comment Type E Comment Status A
 We developed this nice section on test patterns, yet many of the tests still describes their own pattern(s). This comment is a globalization of my 2 previous comments.
 SuggestedRemedy
 Use the test pattern section and eliminate test patterns within each test unless specifically required.
 Response Response Status C
 ACCEPT.

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CI 52 SC 52.9.1 P 448 L 53 # 624
Lindsay, Tom StratosLightwave

Comment Type T Comment Status A

Sentence carries over to next page. Wording not clear. Are these patterns normative? Are they part of the requirements? I believe they are meant to be. Is the sentence trying to offer the possibility that other patterns can be used as long as the specifications required with these patterns are still met?

SuggestedRemedy

Please clarify intent and wording.

Response Response Status C

ACCEPT IN PRINCIPLE.

Change paragraph to:
Compliance shall be specified by the patterns in Table 52-22 unless specified otherwise.

Add "Note: while other test methods and patterns could be used it is the implementer's responsibility to ensure that measurements carried out with the specified patterns achieve the requirements specified."

Remove: "The description of each individual measurement specifies the appropriate patterns and, in many cases, the alternatives.
While other test methods and patterns could be used it is the implementer's responsibility to ensure that measurements carried out with the specified patterns achieve the requirements specified."

CI 52 SC 52.9.1 P 449 L Optillion # 157
Ohlen, Peter

Comment Type T Comment Status R

Could we call patterns "1" and "2": "stressful" and "typical" to avoid confusion? My memory is already overloaded...

SuggestedRemedy

Change the pattern names in subclause 52.9 to "stressful" and "typical" instead of "1" and "2".

Response Response Status C

REJECT. 1 and 2 are sufficient

CI 52 SC 52.9.1 P 449 L 16 # 72
Thatcher, Jonathan World Wide Packets

Comment Type T Comment Status A rise

Missing or erroneous information in table.

SuggestedRemedy

Remove rise/fall row. Fill in blanks with values or N/A. Fix double row for "Jitter."

Response Response Status C

ACCEPT IN PRINCIPLE.

Jitter: resolved in another comment
Rise/Fall: Square wave
SMSR: resolved in another comment
Fix double row

CI 52 SC 52.9.1 P 449 L 38 # 90
Taborek, Rich Intel

Comment Type E Comment Status A

Replace "1s" with "ones" and "0s" with "zeros"

SuggestedRemedy

Per comment

Response Response Status C

ACCEPT.

Modify per suggested remedy.

CI 52 SC 52.9.1 P 449 L 42 # 91
Taborek, Rich Intel

Comment Type E Comment Status A

Missing space after "and"

SuggestedRemedy

Add space

Response Response Status C

ACCEPT.

Modify per suggested remedy.

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CI 52 SC 52.9.1 P 449 L 44 # 353
 Dawe, Piers Agilent
 Comment Type E Comment Status A
 Dumb text should be links (4 off on this page, one on next).
 SuggestedRemedy
 Check 49.2.6, 49.2.8, 49.2.8, 49.2.12 and 50.3.8 point at the right places, and make them into links.
 Response Response Status C
 ACCEPT. Yes, but only chief editor can do this.
 Modify per suggested remedy.

CI 52 SC 52.9.1 P 449 L 47 # 92
 Taborek, Rich Intel
 Comment Type E Comment Status R
 Missing comma before "respectively"
 SuggestedRemedy
 Add comma
 Response Response Status C
 REJECT. Editor doesn't agree it needs a comma.

CI 52 SC 52.9.1 P 449 L 5 # 347
 Dawe, Piers Agilent
 Comment Type E Comment Status A
 Tables 22, 23, 24 are orphans.
 SuggestedRemedy
 Refer to all three tables in the text. Seek a Frame way of checking for orphan tables.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Make the following text changes to reference the tables. (Page numbers refer to the change-bar version of D3.2)

Page 448, line 51: Change "Most optical and jitter measurements may be carried out using the test patterns described here."
 to "Most optical and jitter measurements may be carried out using the test patterns described here, and shown in Table 52-22."

Page 449, line 43-45: Change "They may be generated dynamically by the 58 bit scrambler and "control block" sync header generation defined in 49.2.6, and using the scrambler starting seed as specified below and the method of generation in 49.2.8."
 to "They may be generated dynamically by the 58 bit scrambler and "control block" sync header generation defined in 49.2.6, and using the scrambler starting seeds specified in Table 52-23 and the method of generation in 49.2.8."

Page 449, line 45: Change "The segments are assembled into patterns, each containing four segments."
 to "The segments are assembled into patterns, each containing four segments, as described in Table 52-24."

CI 52 SC 52.9.1 P 449 L 7 # 66
 Thatcher, Jonathan World Wide Packets
 Comment Type E Comment Status A
 Consider this an ER. The Pattern referred to in column 2 of Table 52-22 is not defined until page 450. There is no forward reference.
 SuggestedRemedy
 Move Table 52-22 and supporting text after Table 52-24.
 Response Response Status C
 ACCEPT.

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Cl 52 SC 52.9.10 P 457 L 53 # 634
 Lindsay, Tom StratosLightwave
 Comment Type E Comment Status R
 Reference should be to 52.9.13, not 52.9.14.
 SuggestedRemedy
 Change reference to 52.9.13.
 Response Response Status C
 REJECT. Removed in massive upheaval caused by #633.

Cl 52 SC 52.9.10 P 457 L 53 # 209
 Dudek, Mike Cielo Communications
 Comment Type E Comment Status R
 Incorrect reference
 SuggestedRemedy
 Change 52.8.14 to 52.8.2
 Response Response Status C
 REJECT. Removed in massive upheaval caused by Tom Lindsay's #633.

Cl 52 SC 52.9.10 P 457 L 53 # 163
 Ohlen, Peter Optillion
 Comment Type E Comment Status R
 Reference wrong.
 SuggestedRemedy
 Reference should be 52.9.13 in this draft.
 Response Response Status C
 REJECT. Removed in massive upheaval caused by Tom Lindsay's #633.

Cl 52 SC 52.9.11 P 458 L 11 # 210
 Dudek, Mike Cielo Communications
 Comment Type E Comment Status R
 The use of two different names for the same test is confusing.
 SuggestedRemedy
 Change "receive jitter conformance" to "stressed receiver conformance"
 Response Response Status C
 REJECT. Changed by another comment.

Cl 52 SC 52.9.11 P 458 L 18 # 164
 Ohlen, Peter Optillion
 Comment Type T Comment Status A
 The titles of the subsubclauses of this subclause are confusing.
 SuggestedRemedy
 52.9.11.1: "Block diagram and general test setup" 52.9.11.2: "Characterization of the conformance test signal"
 52.9.11.3: section talks about the same things as the preceding section. Remove this title line to merge sections.
 52.9.11.4: "Stressed receiver conformance test procedure"

Response Response Status C
 ACCEPT IN PRINCIPLE. See also #633

Cl 52 SC 52.9.11 P 458 L 7 # 567
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.

Response Response Status C
 ACCEPT IN PRINCIPLE. Create a global "shall" requirement and remove unnecessary "shalls".
 Page 458, line 6 - Insert at the beginning of the paragraph: "Stressed receiver tolerance testing shall be performed in accordance with the requirements of 52.9.11.1, 52.9.11.2, 52.9.11.3, and 52.9.11.4."
 Page 458, line 7 - change "shall be satisfied" to "are performed". Refers to test data characteristics.
 Page 458, line 8 - change "shall" to "should". Refers to "normal signal properties" and isn't specifically defined.

Cl 52 SC 52.9.11.1 P 458 L 13 # 354
 Dawe, Piers Agilent
 Comment Type E Comment Status R
 Bad link for definition of test patterns.
 SuggestedRemedy
 Change "49.2.8." to 52.9.1.
 Response Response Status C
 REJECT. Gone.. Fixed or removed by another comment.

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Cl 52 SC 52.9.11.2 P 458 L 18 # 632
Lindsay, Tom StratosLightwave

Comment Type E Comment Status A
Subclause is not really a procedure, so rename.

SuggestedRemedy
Rename to "Stressed receiver conformance test configuration".

Response Response Status C
ACCEPT.

Cl 52 SC 52.9.11.2 P 458 L 24 # 631
Lindsay, Tom StratosLightwave

Comment Type E Comment Status A
Golden PLL is used for calibration, not for Rx test.

SuggestedRemedy
Add "for calibration" at end of paragraph.

Response Response Status C
ACCEPT.

Cl 52 SC 52.9.11.2 P 458 L 24 # 568
Lynskey, Eric UNH IOL

Comment Type E Comment Status A
The shall does not have an associated PICS entry.

SuggestedRemedy
Add the appropriate PICS entry.

Response Response Status C
ACCEPT IN PRINCIPLE. Delete unnecessary "shall".

Page 458, line 24 - replace "shall be" with "is".

Cl 52 SC 52.9.11.4 P 459 L 10 # 165
Ohlen, Peter Optillion

Comment Type T Comment Status A
Broken references.

SuggestedRemedy
line 10: Change "Table 52.8.2.2" to "52.9.10"line 11: Change "Table 52.8.2.3" to "52.8.2.3"

Response Response Status C
ACCEPT.

Cl 52 SC 52.9.11.4 P 459 L 912 # 211
Dudek, Mike Cielo Communications

Comment Type E Comment Status A
Incorrect references

SuggestedRemedy
Change "52.8.10.1 and 52.8.10.2" to "52.9.11.1 and 52.9.11.2"Change "Table 52.8.2.2" to "52.8.2" (Not a table)
Change "Table 52.8.2.3" to "Table 52-21"

Response Response Status C
ACCEPT IN PRINCIPLE. Fixed by another comment.

Cl 52 SC 52.9.12 P 459 L 15 # 166
Ohlen, Peter Optillion

Comment Type T Comment Status A
This section is squeezed in between jitter test section. It would feel better if put after 52.9.13.
This would also fix a broken reference in 52.8.2.

SuggestedRemedy
Switch order of subclauses 52.9.12 & 52.9.13.

Response Response Status C
ACCEPT.

Cl 52 SC 52.9.12 P 459 L 20 # 569
Lynskey, Eric UNH IOL

Comment Type E Comment Status A
The [pattern] does not refer to anything.

SuggestedRemedy
Put the reference or actual pattern here.

Response Response Status C
ACCEPT.

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CI 52 SC 52.9.12 P 459 L 20 # 355
 Dawe, Piers Agilent

Comment Type T Comment Status A
 Need to specify a pattern: should be "typical".

SuggestedRemedy

Replace "The data pattern to be used for this test is [pattern]." with "The recommended pattern is test pattern 1 of 52.9.1. An appropriate PRBS or a valid 10GBASE-R and 10GBASE-W signal, OC-192 signal, STM-64 signal or another representative test pattern may be used."

Response Response Status C
 ACCEPT.

CI 52 SC 52.9.13 P 460 L 13 # 357
 Dawe, Piers Agilent

Comment Type T Comment Status A
 Need to avoid double-including jitter.

SuggestedRemedy

Combine f) into d): as "The total jitter requirements of 52.8.2.2 including the swept frequency sinusoidal jitter contribution described in 52.8.2.3."

Response Response Status C
 ACCEPT. Except he means g) into d), not f) into d).... G) removed.

CI 52 SC 52.9.13 P 460 L 13 # 645
 Lindsay, Tom StratosLightwave

Comment Type T Comment Status A
 Clarify jitter measurement level.

SuggestedRemedy

to the end of d), add "Jitter shall be calibrated at the average value of the overall optical waveform. This can be accomplished with AC coupling to ground and measuring at ground."

Response Response Status C
 ACCEPT IN PRINCIPLE. to the end of d), add "Jitter shall be calibrated at the average value of the overall optical waveform. This can be accomplished with AC coupling."

CI 52 SC 52.9.13 P 460 L 47 # 167
 Ohlen, Peter Optillion

Comment Type T Comment Status R
 The vertical eye closure sohuld be measured after adding the sinusoidal jitter.

SuggestedRemedy

Remove ", prior to the addition of the sinusoidal jitter, ".

Response Response Status C
 REJECT. Fixed by #360

CI 52 SC 52.9.13 P 460 L 47 # 573
 Lynskey, Eric UNH IOL

Comment Type E Comment Status R
 The shall does not have an associated PICS entry.

SuggestedRemedy

Add the appropriate PICS entry.

Response Response Status C
 REJECT. "Shall" was deleted through proposed response to #571.

CI 52 SC 52.9.13 P 460 L 48 # 361
 Dawe, Piers Agilent

Comment Type T Comment Status A
 The vertical eye closure penalties in Tables 52?9, 52?14 and 52?18 were calculated without any jitter.

SuggestedRemedy

Revise the vertical eye closure penalties in Tables 52?9, 52?14 (2.6 dB) and 52?18 using 10GEPBud3_1_14.xls or current successor.

Response Response Status C
 ACCEPT.

CI 52 SC 52.9.13 P 460 L 48 # 360
 Dawe, Piers Agilent

Comment Type T Comment Status A
 "The vertical eye closure penalty, prior to the addition of the sinusoidal jitter" could be misleading.

SuggestedRemedy

If 0.05 UI SJ >4 MHz is removed, change to "The vertical eye closure penalty, measured with deterministic jitter but before the addition of the sinusoidal jitter". If not, could use same remedy, adjusting VECP for 0.25 UI of DJ, or suggest a spot frequency for the SJ in VECP measurement e.g. 20 MHz.

Response Response Status C
 ACCEPT IN PRINCIPLE. Change to "The vertical eye closure penalty, measured with deterministic jitter but before the addition of the sinusoidal jitter". A suitable new value of VECP should be calculated by setting the value of DJ (other than DCD) to zero in the link model.

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CI 52 SC 52.9.13 P 460 L 48 # 213
 Dudek, Mike Cielo Communications
 Comment Type T Comment Status R
 It was decided at the last meeting that the sinusoidal jitter should be included as part of the Dj
 SuggestedRemedy
 Change " The vertical eye closure penalty prior to the addition of the sinusoidal jitter" to " The vertical eye closure penalty including the addition of sinusoidal jitter above 4MHz"
 Response Response Status C
 REJECT. See also #360

CI 52 SC 52.9.13 P 460 L 48 # 574
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted through proposed response to #571

CI 52 SC 52.9.13 P 460 L 7 # 572
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The list of 7 items following this shall statement are all required and do not need additional shall statements within the list (see item a). Also, each of these items should have their own PICS entry.
 SuggestedRemedy
 Remove the shalls from item (a) and make a PICS entry for each of the 7 items.
 Response Response Status C
 REJECT. "Shall" applies to all items in the list. See also proposed response to #571.

CI 52 SC 52.9.13 P 460 L 9 # 71
 Thatcher, Jonathan World Wide Packets
 Comment Type T Comment Status A
 Data pattern is defined in "a)" as "B" and in "f)" as "2."
 SuggestedRemedy
 Remove reference to "B." Also get rid of the "]" in "f)."
 Response Response Status C
 ACCEPT. Editor typo.

CI 52 SC 52.9.13 P 460 L 9 # 358
 Dawe, Piers Agilent
 Comment Type E Comment Status A
 Patterns are 1, 2 not A, B.
 SuggestedRemedy
 Change B to 2.
 Response Response Status C
 ACCEPT.
 Modify per suggested remedy.

CI 52 SC 52.9.14 P 461 L # 215
 Dudek, Mike Cielo Communications
 Comment Type E Comment Status A
 There are two paragraphs saying that the nominal sensitivity of the golden receiver shall be measured
 SuggestedRemedy
 Combine the first sentence of the paragraph starting on line 12 on page 462 with the last paragraph on page 461 ie the paragraph on page 461 becomes The nominal sensitivity of the golden receiver S shall be measured in OMA using the set up of Figure 52-17 without the test fiber. It shall be calibrated at the wavelength of the transmitter under test. The paragraph on page 462 then starts. "The golen Tx"
 Response Response Status C
 ACCEPT.
 Modify per suggested remedy.

CI 52 SC 52.9.14 P 461 L 44 # 576
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted through proposed response to #575.

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Cl 52 SC 52.9.14 P 461 L 46 # 168
 Ohlen, Peter Optillion
 Comment Type E Comment Status A
 Ugly formatted equation.
 SuggestedRemedy
 Put in nice format.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Format equation according to IEEE style guide.

Cl 52 SC 52.9.14 P 461 L 51 # 214
 Dudek, Mike Cielo Communications
 Comment Type T Comment Status A
 It is necessary that the bandwidth of the golden receiver is specified and it is not obvious what bandwidth should be used for this test.
 SuggestedRemedy
 Add a paragraph at line 51. The Golden Receiver shall have a bandwidth given in sect 52.9.7
 Response Response Status C
 ACCEPT IN PRINCIPLE. Add paragraph: at line 51. "The Golden Receiver should have the bandwidth given in 52.9.7"

Cl 52 SC 52.9.14 P 461 L 52 # 577
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted through proposed response to #575.

Cl 52 SC 52.9.14 P 462 L 12 # 579
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted through proposed response to #575.

Cl 52 SC 52.9.14 P 462 L 17 # 580
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted through proposed response to #575.

Cl 52 SC 52.9.14 P 462 L 18 # 581
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted through proposed response to #575.

Cl 52 SC 52.9.14 P 462 L 18 # 216
 Dudek, Mike Cielo Communications
 Comment Type E Comment Status A
 Incorrect reference
 SuggestedRemedy
 Change 52.9.14 to 52.9.13
 Response Response Status C
 ACCEPT IN PRINCIPLE. Think it's now 52.9.10, according to #633.

Cl 52 SC 52.9.15 P 462 L 17-18 # 169
 Ohlen, Peter Optillion
 Comment Type T Comment Status A
 Too much shall. Cannot enforce it anyway.
 SuggestedRemedy
 Change "shall" to "should" on line 17 and 18.
 Response Response Status C
 ACCEPT.

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Cl 52 SC 52.9.3 P 450 L 51 # 67
 Thatcher, Jonathan World Wide Packets

Comment Type T Comment Status R

The end of the sentence, "a valid 10GBASE-R and 10GBASE-W signal, OC-192 signal, STM-64 signal or other representative test pattern" seems a bit much.

SuggestedRemedy

How about "...made with the node transmitting any test pattern that is DC balanced over a sufficiently short period with respect to the filter of the measurement equipment" or simply "...using the square wave pattern."

Response Response Status C

REJECT.

Cl 52 SC 52.9.4 P 451 L 6 # 348
 Dawe, Piers Agilent

Comment Type T Comment Status A

We can tidy this up by using the definition of square wave introduced in D3.2

SuggestedRemedy

Replace This measurement may be made with the node transmitting a data pattern consisting of a repeating sequence of four zeros followed by four ones (i.e....11110000111100001111000011110000). Note: this pattern generates a 1.25 GHz (10GBASE-W) or 1.29 GHz (10GBASE-R) square wave." with "The measurement may be made using the square wave defined in 52.9.1." (or 49.2.8). Merge the sentence onto the previous paragraph.

Response Response Status C

ACCEPT. Belongs to the same group of comments on square wave.

Cl 52 SC 52.9.4 P 451 L 6 # 204
 Dudek, Mike Cielo Communications

Comment Type T Comment Status A

With the definition of the square wave pattern in 52.9.1 the text can be simplified.

SuggestedRemedy

Change the 2nd and 3rd paragraphs of this subclause to "This measurement may be made with the node transmitting the square wave pattern defined in 52.9.1

Response Response Status C

ACCEPT IN PRINCIPLE. Please see response to comment # 626

Cl 52 SC 52.9.4 P 451 L 7 # 625
 Lindsay, Tom StratosLightwave

Comment Type T Comment Status A

Calls out 00001111 pattern, yet pattern table allows variation up to 11 0's and 1's.

SuggestedRemedy

I believe we only want to refer to the square wave pattern described in clause 52.9.1. Delete all info regarding pattern definition within this section.

Response Response Status C

ACCEPT.

Cl 52 SC 52.9.5 P L # 636
 Lindsay, Tom StratosLightwave

Comment Type T Comment Status R

Figure 52-9 assumes a pattern rate trigger. Although appropriate in GBE clause 38, which was written more as a component standard, this trigger is generally not available in a system test, and clock recovery will be required.

SuggestedRemedy

Add a paragraph: A possible implementation of this test is to setup a measurement system identical to that specified in clause 52.9.7. OMA may be determined by placing the measurement cursors as indicated by A_N in Figure 52-15. Since a low frequency square wave pattern shall be transmitted for this test, the inner portions of the eye (A_0 in Figure 52-15) will probably not be evident."

Response Response Status C

REJECT. This is a great idea and already exists in 52.9.5 as the preferred method.

Cl 52 SC 52.9.5 P 451 L 14 # 626
 Lindsay, Tom StratosLightwave

Comment Type T Comment Status A

Calls out 00001111 pattern, yet pattern table allows variation up to 11 0's and 1's.

SuggestedRemedy

I believe we want to refer to the square wave pattern described in clause 52.9.1. Delete all info regarding pattern definition within this section.

Response Response Status C

ACCEPT. Synchronize all comments on square pattern.

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CI 52 SC 52.9.5 P 451 L 14 # 349

Dawe, Piers Agilent

Comment Type T Comment Status A square

We can tidy this up by using the definition of square wave introduced in D3.2.

SuggestedRemedy

Replace "OMA should be measured for a node transmitting a repeating "00001111" pattern corresponding to a 1.25 GHz (10GBASE-W) or 1.29 GHz (10GBASE-R) square wave." with "OMA should be measured using the square wave defined in 52.9.1.". (or 49.2.8)

Response Response Status C

ACCEPT.

CI 52 SC 52.9.5 P 451 L 14 # 205

Dudek, Mike Cielo Communications

Comment Type E Comment Status A

With the definition of the square wave pattern in 52.9.1 the text can be simplified.

SuggestedRemedy

Change to "Should be measured for a node transmitting the square wave pattern defined in 52.9.1

Response Response Status C

ACCEPT. Please see response to comment # 349

CI 52 SC 52.9.5 P 451 L 18 # 206

Dudek, Mike Cielo Communications

Comment Type E Comment Status A

Incorrect reference

SuggestedRemedy

Change 52.7.5 to 52.9.7

Response Response Status C

ACCEPT.

Modify per suggested remedy.

CI 52 SC 52.9.5 P 451 L 24 # 544

Lynskey, Eric UNH IOL

Comment Type E Comment Status R

This shall does not have an associated PICS entry.

SuggestedRemedy

Add the appropriate PICS entry.

Response Response Status C

REJECT. Delete unnecessary "shall".

Page 451, line 24 - change "shall be" to "is". Refers to test procedure.

CI 52 SC 52.9.5 P 451 L 39 # 350

Dawe, Piers Agilent

Comment Type T Comment Status A

Still haven't said what asymmetric means. I know it means not symmetric! Symmetry by reflection in voltage axis? time axis? by rotation? By absence of DCD?

SuggestedRemedy

I don't have the remedy. This time I've made the comment technical so the originator of this text can tell us what he had in mind.

Response Response Status C

ACCEPT IN PRINCIPLE. Add parenthetical clarification after word "asymmetric": "(around the average power level)"

CI 52 SC 52.9.6 P L # 628

Lindsay, Tom StratosLightwave

Comment Type T Comment Status A

For the RIN value to be correct, a test pattern is required, and the pattern must be consistent with the spreadsheet model.

SuggestedRemedy

For the signal portion of the test, mandate the square wave pattern. This must also be corrected in Table 52-22.

Response Response Status C

ACCEPT. Also see 207 and 202

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Cl 52 SC 52.9.6.1 P 452 L 48 # 546
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted through proposed response to #545.

Cl 52 SC 52.9.6.1 P 453 L 2 # 547
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted through proposed response to #545

Cl 52 SC 52.9.6.2 P 453 L 13 # 548
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted through proposed response to #545

Cl 52 SC 52.9.6.2 P 453 L 21 # 158
 Ohlen, Peter Optillion
 Comment Type E Comment Status A
 See remedy.
 SuggestedRemedy
 Add "e" before "qual".
 Response Response Status C
 ACCEPT.
 Modify per suggested remedy.

Cl 52 SC 52.9.6.2 P 453 L 21 # 549
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted through proposed response to #545

Cl 52 SC 52.9.6.2 P 453 L 22 # 550
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted through proposed response to #545

Cl 52 SC 52.9.6.2 P 453 L 31 # 551
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted through proposed response to #545

Cl 52 SC 52.9.6.3 P 453 L 45 # 207
 Dudek, Mike Cielo Communications
 Comment Type T Comment Status A
 The signal amplitude is best measured with the square wave pattern which reduces the effect of ISI in the measurement.
 SuggestedRemedy
 Change e) to "Turn on the modulation to the laser using the square wave pattern of 52.9.1 and note the power measurement Pm"
 Response Response Status C
 ACCEPT.

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Cl 52 SC 52.9.6.3 P 454 L 8 # 552
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted through proposed response to #545

Cl 52 SC 52.9.8 P 455 L 28 # 68
 Thatcher, Jonathan World Wide Packets
 Comment Type T Comment Status D
 If there are no rise/fall specifications, why is there a measurement section?
 SuggestedRemedy
 Remove. Also remove OM9 in the PICS.
 Response Response Status Z
 PROPOSED REJECT. Shortwave still has rise/fall specifications.

Cl 52 SC 52.9.9.1 P 456 L 10 # 160
 Ohlen, Peter Optillion
 Comment Type E Comment Status A
 Specify which fiber is omitted for 850nm.
 SuggestedRemedy
 Add "golden" before "fiber".
 Response Response Status C
 ACCEPT.
 Modify per suggested remedy.

Cl 52 SC 52.9.9.1 P 456 L 12 # 555
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted through proposed response to #553.

Cl 52 SC 52.9.9.1 P 456 L 16 # 556
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted through proposed response to #553.

Cl 52 SC 52.9.9.1 P 456 L 1619 # 161
 Ohlen, Peter Optillion
 Comment Type T Comment Status A
 To align the TX and RX tests, we should describe the golden PLL in 52.8.1. This is also more appropriate as it defines the frequency range of the jitter we put bounds on.
 SuggestedRemedy
 Move p.456:16-19 to p.445:41. Rewrite the beginning of the paragraph as it is written for the RX jitter spec (p447:43-44). Insert a reference to the description of the PLL: "A golden PLL meeting the requirements of 52.x.x.x shall be used."
 Response Response Status C
 ACCEPT IN PRINCIPLE. See 637.

Cl 52 SC 52.9.9.1 P 456 L 40 # 557
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted through proposed response to #553.

Cl 52 SC 52.9.9.1 P 456 L 41 # 644
 Lindsay, Tom StratosLightwave
 Comment Type E Comment Status A
 "Calibrated" is not appropriate here for output testing.
 SuggestedRemedy
 Remove "(calibrated)".
 Response Response Status C
 ACCEPT.

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Cl 52 SC 52.9.9.1 P 456 L 43 # 558
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted through proposed response to #553.

Cl 52 SC 52.9.9.1 P 456 L 45 # 559
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted through proposed response to #553.

Cl 52 SC 52.9.9.1 P 456 L 6 # 374
 Dawe, Piers Agilent
 Comment Type E Comment Status A
 Thompson s/b Thomson
 SuggestedRemedy
 Fix. and 495 line 17
 Response Response Status C
 ACCEPT.
 Change all occurrences of "Bessel-Thomson" (various spellings and hyphenation) to "Bessel-Thomson".
 Line 6 - Replace "Bessel Thomson" with "Bessel-Thomson".
 Line 12 - Replace "Bessel Thomson" with "Bessel-Thomson".
 Page 451, Line 18 - Replace "Bessel Thomson" with "Bessel-Thomson".
 Page 454, Line 25 - Replace "Bessel Thomson" with "Bessel-Thomson".

Cl 52 SC 52.9.9.1 P 456 L 6 # 159
 Ohlen, Peter Optillion
 Comment Type E Comment Status A
 Which receiver are we talking about?
 SuggestedRemedy
 Add "golden" before "receiver".Make the same addition on p.456:12.
 Response Response Status C
 ACCEPT.
 Modify per suggested remedy, on lines 6 and 12.

Cl 52 SC 52.9.9.1 P 456 L 6 # 554
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted through proposed response to #553.

Cl 52 SC 52.9.9.2 P 456 L 48 # 560
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted through proposed response to #553.

Cl 52 SC 52.9.9.2 P 456 L 50 # 561
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT IN PRINCIPLE. Remove shall.

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Cl 52 SC 52.9.9.2 P 456 L 52 # 562
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted through proposed response to #553.

Cl 52 SC 52.9.9.2 P 457 L 19 # 563
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted through proposed response to #553.

Cl 52 SC 52.9.9.2 P 457 L 20 # 564
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted through proposed response to #553.

Cl 52 SC 52.9.9.2 P 457 L 22 # 565
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted through proposed response to #553.

Cl 52 SC 52.9.9.2 P 457 L 26 # 566
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status R
 The shall does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 REJECT. "Shall" was deleted through proposed response to #553.

Cl 52 SC 52.9.9.2 P 457 L 3 # 70
 Thatcher, Jonathan World Wide Packets
 Comment Type T Comment Status A
 Table column descriptions "Minimum dispersion"; "Maximum" and cell "(maximum)" make little to no sense, even with supporting text in 52.9.9.2.
 SuggestedRemedy
 Could we do something like: If $\Lambda > x$ then min dispersion = Y; else min dispersion = Z? Or something more formulaic?
 Response Response Status C
 ACCEPT IN PRINCIPLE. Resolved with comment 356

Cl 52 SC 52.9.9.3 P 457 L 37-40 # 162
 Ohlen, Peter Optillion
 Comment Type T Comment Status R
 This section floats in the air and does not really tell the reader much of interest.
 SuggestedRemedy
 Remove it.
 Response Response Status C
 REJECT. Look at comment 208

Cl 52 SC 52.9.9.3 P 457 L 38 # 629
 Lindsay, Tom StratosLightwave
 Comment Type E Comment Status A
 Paragraph is incomplete and not relevant since Golden PLL is required for test.
 SuggestedRemedy
 Remove paragraph.
 Response Response Status C
 ACCEPT.

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Cl 52 SC 52.9.9.3 P 457 L 40 # 208
 Dudek, Mike Cielo Communications

Comment Type E Comment Status R

The second paragraph contains an interesting statement but could be improved

SuggestedRemedy

add to the end of the paragraph "hence the Golden PLL is used.

Response Response Status C

REJECT. Removed by other comment.

Cl 52 SC 52-10 P 439 L 1619 # 1
 Young, Leonard Corning

Comment Type T Comment Status A margin

It is clear that the editors did not follow the agreement in Portland on Tables 52-10, 52-26, 53-9, and 53-13. However, the proposed solution could work but there are still errors and no consistency in how Clause 52 and Clause 53 handled the comments (which there must be to avoid confusion).(page 439 lines 16 -- 19)

Agreement in Portland:

Reduce unallocated margin to 0.23 dB and add difference to the channel insertion loss for all fiber types

Draft 3.2 implementation

In Table 52-10, the entire unallocated margin has been added to the allocation for penalties and then the difference between the total unallocated margin and the .23 safety margin is listed as additional insertion loss. This is probable OK but the addition of the channel insertion loss and the additional loss should match the channel insertion loss in Table 52-26 (which in two cases it does not). (page 464, lines 34 --35)

In Table 53-9, it is treated the same way but in Table 53-13, the value entered here is less the safety margin (0.23 dB). Again, these numbers should match and be consistent between clauses.

SuggestedRemedy

In Table 52-10:).(page 439 lines 16 -- 19)

BW 160 200 400 500 2000

CIL 1.60 1.63 1.75 1.81 2.59

AIL 0.84 0.81 0.63 0.57 0.00

Total 2.44 2.44 2.38 2.38 2.59

These numbers MUST match those in Table 52-26 (which they don't):).(page 464 lines 34 -- 35)

BW 160 200 400 500 2000

CIL 2.45 2.44 2.38 2.38 2.55

So the entries in Table 52-26 must be changed for 160 and 2000 BW.

In Table 53-9 (page 488, lines 17 --23)

BW 500 400 500 SMF

CIL 2.46 2.37 2.46 7.14

AIL 0.91 0.50 0.41 0.04+

Total 3.37 2.87 2.87 7.18

These numbers MUST match those in Table 53-13 (which they don't): (page 506, lines 31 -- 33)

BW 500 400 500 SMF

CIL 3.14 2.64 2.64 7.14

See comment #1 in lyoung_1_0901.pdf.

Response Response Status C

ACCEPT IN PRINCIPLE.

The problem being discussed for Clause 52 relates to two entries. The item related to 160MHz.Km bandwidth is correct. Change the channel insertion loss in table 52-26 for 62.5um 160MHz.Km to 2.44

The difference at 2000MHz.Km however is because the allowance in table 52-10 is for the worst

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case wavelength of 840nm (stated in the footnote) whereas the loss in Table 52-26 is at the nominal wavelength of 850nm. No change is needed here

The comments appear to be more valid for clause 53 although the difference for nominal wavelength versus worse case wavelength does not appear to have been correctly evaluated for the SMF. This issue should be addressed by the clause 53 editors.

Cl 52 SC 52-14 P 442 L 17 # 113

Healey, Adam Agere Systems

Comment Type T Comment Status X

The vertical eye closure penalty appears to include an ISI penalty due to receiver bandwidth limitations. Since the stressed receiver conformance test signal is applied to TP3, and will be subject to ISI induced by the receiver under test. Therefore, it appears that this penalty is being double-counted.

SuggestedRemedy

Base vertical eye closure penalty on fiber exit response time rather than composite rise time. This corresponds to a vertical eye closure penalty of 1.2 dB for the LR/LW PMD.

Response Response Status Z

Withdrawn.

Cl 52 SC 52-14 P 442 L 21 # 522

Lynskey, Eric UNH IOL

Comment Type T Comment Status R

The notes following Table 52-14 contain redundant "shalls". Table 52-14 is already under the blanket coverage of a shall in subclause 52.6.2 page 439 line 51.

SuggestedRemedy

Change the sentence to read "The receiver will be able to tolerate..."

Response Response Status C

REJECT. Extra shalls are harmless.

Cl 52 SC 52-3 P 433 L 28 # 384

Eric, Lynskey UNH IOL

Comment Type E Comment Status A

Std states that register/bit number to disable transmit is 1.8.0 on a PMD, however 1.8.0 in clause 45 is to see if PMA has loopback ability.

SuggestedRemedy

Change "1.8.0" to "1.9.0" which does discuss transmit disable.

Response Response Status C

ACCEPT.

Cl 52 SC 52-9 P 438 L 49 # 518

Lynskey, Eric UNH IOL

Comment Type E Comment Status R

The notes following Table 52-9 contain redundant "shalls". Table 52-9 is already under the blanket coverage of a shall on line 41 of page 437.

SuggestedRemedy

Reword the sentence to "The receiver will be able to tolerate continuous..."

Response Response Status C

REJECT. Extra shalls are harmless. See also #522.

Cl 52 SC 6,8 P 440 - 445 L # 604

Rahn, Juergen Lucent Technologies

Comment Type T Comment Status R

In order to achieve feasibility of the 10km interface, the parameters given Table 52-12-10GBASE-L transmit characteristics (line 30 to 53 page 440), Table 52-14-10GBASE-L receive characteristics (Line 1-28, page 442), Table 52-15-10GBASE-L link power budgets * (Line 30 to 45, page 442) as well as the jitter values in Table 52-20- BERT mask specifications (Line 42 to 51, page 445) have to be in line or amended accordingly to the results of the feasibility investigation.

SuggestedRemedy

Ensure the parameters are in line to the feasibility investigation and amend if not in line.

Response Response Status C

REJECT. Duplicate #380

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CI 52 SC 6,8 P 440 - 445 L # 380
 Rahn, Juergen Lucent Technologies

Comment Type T Comment Status R

In order to achieve feasibility of the 10km interface, the parameters given Table 52-12-10GBASE-L transmit characteristics (line 30 to 53 page 440), Table 52-14-10GBASE-L receive characteristics (Line 1-28, page 442), Table 52-15-10GBASE-L link power budgets * (Line 30 to 45, page 442) as well as the jitter values in Table 52-20- BERT mask specifications (Line 42 to 51, page 445) have to be in line or amended accordingly to the results of the feasibility investigation.

SuggestedRemedy

Change:
 Table 52-13—10GBASE-L optical modulation amplitude (min) (dBm) as a function of center wavelength and spectral width (informative)

Modify note on Table 52-12—10GBASE-L transmit characteristics
 * RMS spectral width is the standard deviation of the spectrum. This is not sufficiently describing singlemode sources.
 † Informative on possible tradeoffs based on the RMS model are available between spectral centre wavelength, RMS spectral width, and minimum Optical Modulation Amplitude See Figure 52-4 and Table 52-13

Response Response Status C

REJECT. This is essentially a removal of the triple tradeoff curves and tables.

12:1:12 Passed

CI 52 SC 6,8 P 440-445 L # 291
 Rahn, Juergen Lucent Technologies

Comment Type T Comment Status R

In order to achieve feasibility of the 10km interface, the parameters given Table 52-12-10GBASE-L transmit characteristics (line 30 to 53 page 440), Table 52-14-10GBASE-L receive characteristics (Line 1-28, page 442), Table 52-15-10GBASE-L link power budgets * (Line 30 to 45, page 442) as well as the jitter values in Table 52-20- BERT mask specifications (Line 42 to 51, page 445) have to be in line or amended accordingly to the results of the feasibility investigation.

SuggestedRemedy

Ensure the parameters are in line to the feasibility investigation and amend if not in line.

Response Response Status C

REJECT. Duplicate #380.

CI 52 SC 7 P 443 L 10 # 274
 Ghiasi, Ali Broadcom

Comment Type T Comment Status R

An 802.3ae 10GBASEE-L reciver should interoperate with the higher performance 10GBASE-E assuming power maximum power level for 10GBASE-l is not violated. Typically InGaAs or InGaAsP detectors have higher sensitivity at 1550 nm so there is no technical issue to allow 10GBASE-L receive 1550 nm light.

SuggestedRemedy

To line 10 add a second line including 1530-1565 nm window. In the note add the maximum sensitivity penalty operating at the 1530-1565nm window is 0.5 dB.

Response Response Status C

REJECT. It seems like the intention is to make interoperation between 1310 & 1550 possible. However, to give an extra value, this must work in both ways. Therefore changes would also be needed in the 1550 TX and/or RX characteristics (e.g. receiver overload).

If the commenter still thinks this is a desired change to make, he is asked to resubmit the comment, with a complete remedy describing the necessary changes to both the 1310 and 1550 PMD specifications including information and/or data related to overload for each case.

CI 52 SC 7 P 443 L 10 # 284
 Ghiasi, Ali Broadcom

Comment Type T Comment Status R

An 802.3ae 10GBASEE-L reciver should interoperate with the higher performance 10GBASE-E assuming power maximum power level for 10GBASE-l is not violated. Typically InGaAs or InGaAsP detectors have higher sensitivity at 1550 nm so there is no technical issue to allow 10GBASE-L receive 1550 nm light.

SuggestedRemedy

To line 10 add a second line including 1530-1565 nm window. In the note add the maximum sensitivity penalty operating at the 1530-1565nm window is 0.5 dB.

Response Response Status C

REJECT. Duplicate of comment #274.

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Cl 52 SC 7,8 P 443 - 445 L # 381
 Rahn, Juergen Lucent Technologies

Comment Type T Comment Status R

In order to achieve feasibility of the 40km interface, the parameters given in Table 52-17-10GBASE-E transmit characteristics (line 22 to 44 page 443), Table 52-18-10GBASE-E receive characteristics (Line 6-35, page 444), Table 52-19-10GBASE-E link power budgets (Line 43 to 54, page 444) as well as the jitter values in Table 52-20- BERT mask specifications (Line 42 to 51, page 445) have to be in line or amended accordingly to the results of the feasibility investigation.

Suggested Remedy

Ensure the parameters are in line to the feasibility investigation and amend if not in line.

Response Response Status C

REJECT. Duplicate #605.

Cl 52 SC 7,8 P 443 - 445 L # 605
 Rahn, Juergen Lucent Technologies

Comment Type T Comment Status A

In order to achieve feasibility of the 40km interface, the parameters given in Table 52-17-10GBASE-E transmit characteristics (line 22 to 44 page 443), Table 52-18-10GBASE-E receive characteristics (Line 6-35, page 444), Table 52-19-10GBASE-E link power budgets (Line 43 to 54, page 444) as well as the jitter values in Table 52-20- BERT mask specifications (Line 42 to 51, page 445) have to be in line or amended accordingly to the results of the feasibility investigation.

Suggested Remedy

Raise the sensitivity requirements (stressed and unstressed) by 2 dB for 10GBASE-E.

Stressed -> -11.4 -> -9.4
 Sensitivity -> -15.39 -> -13.4

Lower the link attenuation to 11 dB for 10GBASE-E

Also change in Table 52-19: 10GBASE-E link power budgets
 Link power budget: 18.0 dB -> 15.0 dB
 Allocation for penalties: 5.00 dB-> 4.0 dB

Graph and section 52.14.3: "between 5 and 11 dB"
 All lines need to be moved down by 2 dB.

Table 52-18: Average receive power (max): -3dBm -> -1 dBm

Change 13 dB to 11 dB, change note in Table 52-26 on ** (13 dB) to "Channel insertion loss at 1550 nm calculated using cable length, attenuation of 0.25 dB/km, two connections at 0.5 dB each and multiple splices of negligible attenuation."

Change first line of 10GBASE-E operating range to 2m to 30 km.
 Add second line operating range of 2m to 40 km.
 Add footnote to 40 km: "Links longer than 30 km for the same link power budget are considered engineered links. Attenuation for such links needs to be less than that of B1 SMF fiber as specified in Table 52-27."

Response Response Status C

ACCEPT IN PRINCIPLE. Check conflicting resolution against other comments affecting 10GBASE-E values, including, for example stressed sensitivity (Tom Lindsay).

-- note: refer to this comment for baseline

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CI 52 SC 7,8 P 443-445 L # 292
 Rahn, Juergen Lucent Technologies

Comment Type T Comment Status R

In order to achieve feasibility of the 40km interface, the parameters given in Table 52-17-10GBASE-E transmit characteristics (line 22 to 44 page 443), Table 52-18-10GBASE-E receive characteristics (Line 6-35, page 444), Table 52-19-10GBASE-E link power budgets (Line 43 to 54, page 444) as well as the jitter values in Table 52-20- BERT mask specifications (Line 42 to 51, page 445) have to be in line or amended accordingly to the results of the feasibility investigation.

SuggestedRemedy

Ensure the parameters are in line to the feasibility investigation and amend if not in line.

Response REJECT. Duplicate #605. Response Status Z

CI 52 SC 7.1 P 443 L 35 # 275
 Ghiasi, Ali Broadcom

Comment Type T Comment Status R

Current extinction ratio was arrived to have the same noise interferometric noise as the 10GBASE-L instead of setting ER with regard to existing product.

SuggestedRemedy

Propose to increase extinction ratio to 6 dB in line with today technology. This will increase link margin, alternatively the maximum optical power be reduced, and allows the use of EDFA for 80 Km reach applications.

Response REJECT. The intent of choosing a low extinction ratio specification is to allows a wider range of transmitters to be used. This is possible due to the use of OMA as a specification method. We are not excluding existing products and technologies. Response Status C

CI 52 SC 7.1 P 443 L 35 # 285
 Ghiasi, Ali Broadcom

Comment Type T Comment Status R

Current extinction ratio was arrived to have the same noise interferometric noise as the 10GBASE-L instead of setting ER with regard to existing product.

SuggestedRemedy

Propose to increase extinction ratio to 6 dB in line with today technology. This will increase link margin, alternatively the maximum optical power be reduced, and allows the use of EDFA for 80 Km reach applications.

Response REJECT. Duplicate of comment #275. Response Status C

CI 52 SC 7.3 P 444 L 50 # 139
 Brand, Richard Nortel Networks

Comment Type T Comment Status R

Reference comment # 365 Juergen Rahn for D3.1. The existing value is not realistic and will necessitate the use of expensive receivers. Data in support of the comment will be presented at the upcoming interim.

SuggestedRemedy

Decrease the attenuation value for link power budget to 11dB including splices and connectors.

Response REJECT. Withdrawn. Response Status Z

CI 52 SC 8.1 P 445 L 37 # 286
 Ghiasi, Ali Broadcom

Comment Type T Comment Status R

If DJ and RJ values are not normative then there is contradiction with table 52-20.

SuggestedRemedy

Propose to make RJ and DJ values normative.

Response REJECT. Duplicate comment to #276. Response Status C

CI 52 SC 8.1 P 445 L 37 # 276
 Ghiasi, Ali Broadcom

Comment Type T Comment Status A

If DJ and RJ values are not normative then there is contradiction with table 52-20.

SuggestedRemedy

Propose to make RJ and DJ values normative.

Response ACCEPT IN PRINCIPLE. The values of "W" and "S" are normative, although individual compliance is not required. Delete the following words from line 37 "although the DJ and RJ values are not normative in the standard". The rest of the paragraph is okay. Response Status C

This results in a sentence which says: "The variables "W" and "S" (normative) are the effective DJ and RJ (informative) respectively."

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Cl 52 SC 8.1 P 445 L 39 # 287
 Ghiasi, Ali Broadcom
 Comment Type T Comment Status R
 Typo with 10-12<BER<10-4.
 SuggestedRemedy
 The eye mask coordinate are defined for BER of 1E-12.
 Response Response Status C
 REJECT. Duplicate comment to #278

Cl 52 SC 8.1 P 445 L 39 # 278
 Ghiasi, Ali Broadcom
 Comment Type T Comment Status R
 Typo with 10-12<BER<10-4.
 SuggestedRemedy
 The eye mask coordinate are defined for BER of 1E-12.
 Response Response Status C
 REJECT. The given range is for defining a bathtub curve, not a singular typical eye mask.

Cl 52 SC 8.1 P 445 L 39 # 288
 Ghiasi, Ali Broadcom
 Comment Type E Comment Status A
 Typo with 10-12<BER<10-4.
 SuggestedRemedy
 The eye mask coordinate are defined for BER of 1E-12.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Not clear whether the comment refers to the line break or the BER range.
 Modify line break so that 10E-12 is on one line.

Cl 52 SC 8.1 P 445 L 39 # 277
 Ghiasi, Ali Broadcom
 Comment Type T Comment Status R
 Typo with 10-12<BER<10-4.
 SuggestedRemedy
 The eye mask coordinate are defined for BER of 1E-12.
 Response Response Status C
 REJECT. Duplicate comment to #278

Cl 52 SC 8.1 P 445 L 46 # 290
 Ghiasi, Ali Broadcom
 Comment Type T Comment Status R
 With current value of DJ at 0.35 UI and RJ of 0.21 UI with addition of TIA/PA the total jitter may exceed 0.75 UI, which is larger than even 1GBE.
 SuggestedRemedy
 Propose to either reduce TP3 maximum DJ from 0.35 UI to 0.3 UI or alternatively limit the maximum RJ to 0.3 UI to allow robust data recovery in presence of high DJ.
 Response Response Status C
 REJECT.

Before the committee can entertain changes to the jitter specifications (W and S), there must be experimental data that validates the position.

Cl 52 SC 8.1 P 445 L 46 # 289
 Ghiasi, Ali Broadcom
 Comment Type T Comment Status R
 Value specified for randoem jitter sigma are very optimistic.
 SuggestedRemedy
 If 1sigma values are for best case then leave as 0.015 but if you are specifying typical value it should be 0.018 UI.
 Response Response Status C
 REJECT. Duplicate comment to #279

Cl 52 SC 8.1 P 445 L 46 # 279
 Ghiasi, Ali Broadcom
 Comment Type T Comment Status R
 Value specified for randoem jitter sigma are very optimistic.
 SuggestedRemedy
 If 1sigma values are for best case then leave as 0.015 but if you are specifying typical value it should be 0.018 UI.
 Response Response Status C
 REJECT. See #290.
 Passed 8:1:11

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Cl 52 SC 8.1 P 445 L 46 # 280
 Ghiasi, Ali Broadcom

Comment Type T Comment Status R

With current value of DJ at 0.35 UI and RJ of 0.21 UI with addition of TIA/PA the total jitter may exceed 0.75 UI, which is larger than even 1GBE.

SuggestedRemedy

Propose to either reduce TP3 maximum DJ from 0.35 UI to 0.3 UI or alternatively limit the maximum RJ to 0.3 UI to allow robust data recovery in presence of high DJ.

Response Response Status C

REJECT. Duplicate comment to #290

Cl 52 SC Figure 52-3 P 438 L 1 # 328
 Dawe, Piers Agilent

Comment Type E Comment Status A

Before publication, take the Excelisms out of this graph.

SuggestedRemedy

Put x axis at bottom of graph. Add vertical grid lines. Make all text bigger (if you make the chart smaller before importing you may get thicker lines too?). Use colours which can be seen on a monochrome printout.

Response Response Status C

ACCEPT.

Modify per suggested remedy. See also comment #59.

"Excel"lent idea. I hope you adopted this, Piers.

Cl 52 SC Figure 52-13 P 458 L # 630
 Lindsay, Tom StratosLightwave

Comment Type T Comment Status A

I thought we had agreed to add more detail to the figure. Also suggest that a scope block be shown for calibration of stressed OMA and vertical eye closure.

SuggestedRemedy

Replace the contents of the Signal Characterization Measurement block with the Golden Rx, Golden PLL, and the BERT as depicted in Figure 52-12. Add a scope option next to BERT - to be used for calibration of stressed OMA and vertical eye closure.

Response Response Status C

ACCEPT IN PRINCIPLE. See #633.

Cl 52 SC Figure 52-15 P 460 L 18 # 359
 Dawe, Piers Agilent

Comment Type E Comment Status R

The diagram shows a situation where DCD is the dominant or only cause of DJ. Do we need a diagram representing $DJ > 2 * DCD$ as in this standard?

SuggestedRemedy

Response Response Status C

REJECT. Valid comment, but no proposed solution. Is the commenter asking to change the diagram, or to add a second diagram? In any case, this is a technical comment, not an editorial, which needs a remedy to be able to address it.

Cl 52 SC Figure 52-4 P 440 L # 194
 Dudek, Mike Cielo Communications

Comment Type E Comment Status R

The vertical axis on the informative figure needs to be adjusted so that the curves match the normative table 52-13.

SuggestedRemedy

Adjust axis by 0.5dB.

Response Response Status C

REJECT. Vertical axis doesn't match Table 52-13, but it's not clear that it needs to. The data is nominally centered on the figure.

Also, these were your curves, no?

Cl 52 SC Figure 52-4 P 440 L 1 # 332
 Dawe, Piers Agilent

Comment Type E Comment Status A

This graph has interpolation in the bottom left region only. I don't object to interpolation but should be consistent. And, before publication, take the Excelisms out of this graph.

SuggestedRemedy

Interpolate or step as decided. Put x axis at bottom of graph. Add vertical grid lines. Make all text bigger (if you make the chart smaller before importing you may get thicker lines too?). Use colours which can be seen on a monochrome printout.

Response Response Status C

ACCEPT.

Modify per suggested remedy. Agreed.

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Cl 52 SC Figure 52-6 P 447 L 21 # 342
 Dawe, Piers Agilent

Comment Type E Comment Status A

Figure needs revision to match text above. Also "RX" is more usually "Rx".

SuggestedRemedy

Show grey areas extending from 10⁻¹² to 10⁻⁶ with white all the way across above 10⁻⁶.
 Change "RX" to "Rx", here and 5 other places in the clause.

Response Response Status C

ACCEPT IN PRINCIPLE.

-- ed response

Squashed graph above 10⁻⁶ per comments anyway, so not relevant. Changed SOME RX to receive, others to Rx, as required by space. May need to add Rx abbreviation somewhere.

--- original response
 Remove shading above 10⁻⁶.

Neither "RX" or "Rx" is listed in the abbreviations in Clause 1. Replace "RX" with "receive".

Cl 52 SC Table 52-20 P 445 L 48 # 367
 Dawe, Piers Agilent

Comment Type T Comment Status R

Random jitter of 1.5 ps RMS when all (high) frequencies of jitter are included may be too little in practice. In the case of 10GBASE-L we may have some wiggle room having tightened up W (effective deterministic jitter) under the belief that CDRs are much less tolerant of DJ than RJ. As this comment doesn't relate to a change in D3.2 it could be held over.

SuggestedRemedy

At least for 10GBASE-L, consider raising sigma from 0.015 UI to around 0.02 UI.

Response Response Status Z

REJECT. Withdrawn

Cl 52 SC Table 52-10 P 439 L 17 # 329
 Dawe, Piers Agilent

Comment Type T Comment Status A margin

Oops! we require: Allocation for penalties = BUDGET - loss - additional loss.

SuggestedRemedy

Can work out as above (may not be quite perfect but this change expresses our intent and could be editorial). Numbers may change anyway through technical review.

Response Response Status C

ACCEPT IN PRINCIPLE. See #1.

Cl 52 SC Table 52-10 P 439 L 22 # 190
 Dudek, Mike Cielo Communications

Comment Type T Comment Status A

The footnote is incorrect that a wavelength of 840nm and spectral width of 0.4 nm is used to calculate allocation for penalties. At those conditions the Tx OMA minimum is -3.60dBm (table 52-8 at just less than 0.4nm spectral width. This would give a link power budget of 8.38dB. No OMA cell contains the -4.48dBm output OMA corresponding to the 7.5dB Link power budget so more changes are required.

SuggestedRemedy

Change the footnote to state at 840nm and a spectral width of 0.29nm. Change the Link Power budget row from 7.5dB to 7.3dB and reduce all the allocation for penalties by 0.2dB

Response Response Status C

ACCEPT IN PRINCIPLE.

The exact value may need to be modified if a new link model is adopted.

Cl 52 SC Table 52-10 P 439 L 7 # 331
 Dawe, Piers Agilent

Comment Type E Comment Status A

This table is two pages away from its parent subclause.

SuggestedRemedy

At least, don't let tables and figures float outside the first division of subclause e.g. keep this one, and the figure and table before it, BEFORE the start of 52.6.

Response Response Status C

ACCEPT IN PRINCIPLE. Verify that Figure 52-3 is anchored to subclause 52.5.1, Tables 52-9 is anchored to subclause 52.5.2, and Table 52-10 is anchored to subclause 52.5.3.

Force a page break prior to subclause 52.6 to keep all three of these tables and figures with the previous subclause.

Cool trick, RB, thanks.

Cl 52 SC Table 52-13 P 441 L 12 # 191
 Dudek, Mike Cielo Communications

Comment Type E Comment Status A

Incorrect table formatting

SuggestedRemedy

Delete the first line of the table. consolidate 3 lines into 1305-<1320. delete the duplicate line 1320-<1325

Response Response Status C

ACCEPT IN PRINCIPLE.

See related comment #333.

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CI 52 SC Table 52-13 P 441 L 28 # 333
 Dawe, Piers Agilent

Comment Type E Comment Status A

Wrong end of range. Should say 1315 not 1320. And there are two identical rows 1320-1325 nm. But were you starting to take the redundant rows out of the table? That's a good idea.

SuggestedRemedy

Merge the identical rows. With the numbers we have here, we have ranges 1305-1320, 1320-1345, 1345-1360. These groupings would change if the underlying calculations were changed.

Response Response Status C

ACCEPT IN PRINCIPLE. See also related comment #191.

--- ed response

Keep groupings the same otherwise it gets really hard to read I think. Steps should be consistent.

--- original suggested response

- Line 12 - delete duplicate row.
- Line 27 - change first column to "1305 - <1320".
- Line 28 - delete row.
- Line 29 - delete row.
- Line 31 - change first column to "1320 - <1340".
- Line 33 - delete row.
- Line 34 - delete row.
- Line 36 - delete row.
- Line 37 - delete row.
- Line 40 - change first column to "1345 - <1360".
- Line 42 - delete row.
- Line 43 - delete row.

CI 52 SC Table 52-14 P 442 L # 618
 Lindsay, Tom StratosLightwave

Comment Type E Comment Status R

I don't understand the 2nd footnote. Is it referring to operational or damage tolerance? If the latter, why not simply change the table value? If the former, please clarify.

SuggestedRemedy

See comment, please clarify.

Response Response Status C

REJECT. Damage. Seems clear.

CI 52 SC Table 52-14 P 442 L 1 # 334
 Dawe, Piers Agilent

Comment Type E Comment Status A

This table has floated away from its parent subclause.

SuggestedRemedy

Put it and Table 52-15 inside 52.6.

Response Response Status C

ACCEPT.

Move Table 52-14 and Table 52-15 to subclause 52.6 (following Table 52-13).

CI 52 SC Table 52-14 P 442 L 23 # 192
 Dudek, Mike Cielo Communications

Comment Type T Comment Status A

With the changes made in this draft to include the effects of the CDR in the stressed receiver sensitivity it is no longer correct to say that this is measured "at the eye center"

SuggestedRemedy

Delete "at the eye center" from the footnote on line 23

Response Response Status C

ACCEPT. See #49

CI 52 SC Table 52-15 P 442 L 31 # 338
 Dawe, Piers Agilent

Comment Type E Comment Status A

Making the table full width will benefit the footnotes.

SuggestedRemedy

Make the table full width.

Response Response Status C

ACCEPT.

Modify per suggested remedy (make same width as Table 52-19).

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CI 52 SC Table 52-15 P 442 L 35 # 193
 Dudek, Mike Cielo Communications
 Comment Type T Comment Status A link model
 The link power budget is incorrect with the Specification of 1260nm and 0.2nm spectral width. This would require an output OMA of -3.3dBm (from table 52-13) resulting in a link budget of 9.97dB. The budget also does not add up
 SuggestedRemedy
 Change Link power budget from 9.4dB to 9.97dB Change Allocation of penalties from 2.96dB to 2.8dB
 Response Response Status C
 ACCEPT IN PRINCIPLE. Make changes consistent with comment resolution #362. BASE-L triple trade off curve anchor point will remain unchanged.

CI 52 SC Table 52-15 P 442 L 35 # 339
 Dawe, Piers Agilent
 Comment Type T Comment Status A link model
 Table doesn't add up. Should be, Budget = losses + allocation for penalties. Also, budget = Tx OMA - Rx sens (nom). So budget is wrong: I guess it should have been revised to take account of the change in calculation wavelength from 1290 to 1260 nm.
 SuggestedRemedy
 Change Link power budget from 9.4 to 10.1, or 10.4, dB; see another, technical, comment.
 Response Response Status C
 ACCEPT IN PRINCIPLE. Make changes consistent with comment resolution #362. BASE-L triple trade off curve anchor point will remain unchanged.

CI 52 SC Table 52-17 P 443 L 32 # 195
 Dudek, Mike Cielo Communications
 Comment Type E Comment Status R
 The use of "Launch power (min) in OMA minus TDP has been found to be very confusing
 SuggestedRemedy
 Change Description to Launch power (min) in OMA. Change value to -1.39 +TDP
 Response Response Status C
 REJECT. No, this is a flip-flop. That's the way we had it.

CI 52 SC Table 52-17 P 443 L 32 # 337
 Dawe, Piers Agilent
 Comment Type E Comment Status R
 Confusing way of defining Launch power. And we agreed to clear out the hundredths of dB, dBm.
 SuggestedRemedy
 Change "Launch power (min) in OMA minus TDP -1.39 dBm" to "Launch power (min) in OMA -1.4 + TDP dBm".
 Response Response Status C
 REJECT. No, this is a flip-flop. That's the way we had it.

CI 52 SC Table 52-17 P 443 L 40 # 336
 Dawe, Piers Agilent
 Comment Type E Comment Status A
 "transmitter and transmitter and"?
 SuggestedRemedy
 Remove duplicate.
 Response Response Status C
 ACCEPT. Related comment #61.

CI 52 SC Table 52-18 P 444 L 26 # 114
 Healey, Adam Agere Systems
 Comment Type T Comment Status R
 The vertical eye closure penalty appears to include an ISI penalty due to receiver bandwidth limitations. Since the stressed receiver conformance test signal is applied to TP3, and will be subject to ISI induced by the receiver under test. Therefore, it appears that this penalty is being double-counted.
 SuggestedRemedy
 Base vertical eye closure penalty on fiber exit response time rather than composite rise time. This corresponds to a vertical eye closure penalty of 2.4 dB for the ER/EW PMD.
 Response Response Status C
 REJECT. Withdrawn.

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Cl 52 SC Table 52-19 P 444 L 47 # 196
 Dudek, Mike Cielo Communications

Comment Type T Comment Status A

This table has incorrect values for the Link Power budget(18dB) and is somewhat confusing. (With 3dB for TDP the required output power is -1.39dBm +3dB which is only 17dB more than the receiver sensitivity of -15.39)

SuggestedRemedy

Change Link power budget from "18" to "14 + TDP"Change Allocation for penalties to "1+TDP"
 Delete the last footnote from "A wavelength....."

Response Response Status C

ACCEPT IN PRINCIPLE. Dealt with by #605.

Cl 52 SC Table 52-19 P 444 L 47 # 149
 Ohlen, Peter Optillion

Comment Type T Comment Status A

I think we removed some excessive margin for 1550 nm, making the power budget 17 dB and not 18 dB.

SuggestedRemedy

Link power budget: 17 dBAllocation for penalties: 4 dB

Response Response Status C

ACCEPT IN PRINCIPLE. See #605.

Cl 52 SC Table 52-20 P 445 L 47 # 620
 Lindsay, Tom StratosLightwave

Comment Type T Comment Status A

The W value for 10GBASE-S is too large. W is "effective" DJ, and pk-pk DJ with long patterns may be approx. 30% higher than W. Such a high pk-pk DJ value is unnecessary for transmitters and challenging for receivers.

SuggestedRemedy

Reduce value to 0.30. Retain sigma at 0.015.

Response Response Status C

ACCEPT IN PRINCIPLE. Dealt with by #290.

Cl 52 SC Table 52-22 P 449 L 17 # 201
 Dudek, Mike Cielo Communications

Comment Type T Comment Status A rise

To measure Rise and fall times correctly the square wave pattern is required. (measurements on the eye can be very misleading if there is a lot of overshoot or ISI)

SuggestedRemedy

Use the Square Wave pattern for Transmitter Rise and Fall time

Response Response Status C

ACCEPT IN PRINCIPLE. Add "Square" pattern field for rise/fall time measurement.

Cl 52 SC Table 52-22 P 449 L 20 # 202
 Dudek, Mike Cielo Communications

Comment Type T Comment Status A

The RIN(OMA) test determines the signal amplitude from the RMS power of the signal. If there is significant ISI then the signal may not reach full amplitude within a bit period. It is better to use the Square Wave pattern for this test.

SuggestedRemedy

Change the RIN test to use the square wave pattern.

Response Response Status C

ACCEPT. Also, rename RIN to RINxOMA.

Cl 52 SC Table 52-22 P 449 L 24-32 # 203
 Dudek, Mike Cielo Communications

Comment Type T Comment Status A

Patterns are not specified for Side Mode Suppression and Transmitter and Dispersion penalty and the "related subclause" is not included for Transmitter and Dispersion penalty.

SuggestedRemedy

Use pattern 1 for side mode suppression.Use pattern 2 for transmitter and dispersion penalty and reference 52.9.14

Response Response Status C

ACCEPT. Table reference is 52-22. Typo "Suppression"

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Cl 52 SC Table 52-22 P 449 L 33 # 649
Lindsay, Tom StratosLightwave

Comment Type T Comment Status A

2 rows for jitter patterns - one should be for Tx jitter output, the other for Rx jitter tolerance. Rx jitter tolerance should be combined with Stressed Rx sensitivity.

SuggestedRemedy

Combine Rx stressed sensitivity and jitter tolerance test sections. Clarify table entries.

Response Response Status C

ACCEPT IN PRINCIPLE. See #633.

Cl 52 SC Table 52-25 P 457 L 8 # 356
Dawe, Piers Agilent

Comment Type T Comment Status A

Dispersion: I think (not sure) that contents of "Minimum" and "Maximum" columns should be reversed.

SuggestedRemedy

Check, and if necessary, reverse.

Response Response Status C

ACCEPT IN PRINCIPLE. Reverse columns 2&3. Also, Change the col. 2-3 heading to "Dispersion (ps/nm)"

Cl 52 SC Table 52-26 P 464 L 34 # 170
Ohlen, Peter Optillion

Comment Type T Comment Status A

As this is now normative we should add a minimum row.

SuggestedRemedy

Add minimum row for channel insertion loss to table 52-26:

```
+-----+
|0|0|0|0|0|0|7|dB|
+-----+
```

Response Response Status C

ACCEPT IN PRINCIPLE. Last value should be 5 dB

Cl 52 SC Table 52-27 P 442 L 31 # 364
Dawe, Piers Agilent

Comment Type E Comment Status A

Making the table full width will benefit it and its footnotes.

SuggestedRemedy

Make the table full width.

Response Response Status C

ACCEPT. Comment page number and line don't agree with table number reference. Appears that this comment was intended to apply against Table 52-27 (otherwise a duplicate of comment #338).

Modify per suggested remedy.

Cl 52 SC Table 52-3 P 433 L 26 # 145
Ohlen, Peter Optillion

Comment Type T Comment Status A

Cannot find "PMD_reset" anywhere else in the document.

SuggestedRemedy

Add a section like 53.4.6 in cl. 52.

Response Response Status C

ACCEPT. Copy from Clause 53 Reset function.

Cl 52 SC Table 52-4 P 433 L 36 # 146
Ohlen, Peter Optillion

Comment Type T Comment Status A

Cannot find "PMD_local_fault" anywhere else in cl. 52.

SuggestedRemedy

Add a section like 53.4.10 defining what the scope of "PMD_local_fault" is.

Response Response Status C

ACCEPT. See also #145.

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Cl 52 SC Table 52-8 P 437 L 11 # 325
 Dawe, Piers Agilent

Comment Type E Comment Status A

Table title could be smoother, title which starts with digits is unfortunate.

SuggestedRemedy

Change "10GBASE-S optical modulation amplitude (min) (dBm) as a function of center wavelength and spectral width" to "Minimum 10GBASE-S optical modulation amplitude (dBm) as a function of wavelength and maximum spectral width". Similarly for table 52-13.

Response Response Status C

ACCEPT IN PRINCIPLE. Re-phrase "(min)" to "Minimum", but title is otherwise correct according to the parameters listed in the table.

Change title to: "Minimum 10GBASE-S optical modulation amplitude (dBm) as a function of center wavelength and spectral width"

Also on page 441 change title of Table 52-13 to "Minimum 10GBASE-L optical modulation amplitude (dBm) as a function of center wavelength and spectral width"

Cl 52 SC Table 52-8 P 437 L 1631 # 326
 Dawe, Piers Agilent

Comment Type E Comment Status R

-< is ugly, unusual and I think can be avoided. See table 52-6 for an example. The remedy hypothetically lets the implementer of a PMD on a knife edge place it in either bin, but in the real world...

SuggestedRemedy

Search and replace each "<" and the "-" in right most column with "to ". For consistency, replace "<0.1" with "Less than 0.1" Similarly for table 52-13.

Response Response Status C

REJECT. Proposed solution creates a problem with overlapping ranges--for example, for the ranges "0.1 to 0.2", and "0.2 to 0.3", which spec applies when the spectral width is 0.2? Table 52-6 is referenced as an example, but it doesn't have overlapping ranges.

Cl 52 SC Table 52-8 P 437 L 18 # 327
 Dawe, Piers Agilent

Comment Type T Comment Status A

Steps in TTO are huge, 0.5 nm spectral width could be on a cliff edge.

From D3.1 # 67 Cl 52 SC 52.5.1, Table 52.8 P 430 L 530

Comment Type TR
 Table 52-8 and the paragraph following it do not give flexibility to fully utilize the trade-off between the center wavelength, RMS linewidth and OMA due to the large granularity (0.1 nm) in the table). Suggested Remedy was, Allow interpolation to be used for RMS linewidth, OMA or center wavelength within each region in Table 52-8. the response was, REJECT. Although the commenter is correct. The change was made based on previous comments indicating that following curves and interpolating allowed too much room for error. Suggest adding 0.05nm steps up to 4nm thereby removing the 5nm spectral width which requires an unrealistically large power. Pepeljugin, Petar IBM

SuggestedRemedy

Use 0.05 nm steps at least above 0.2 nm, and/or curtail table at 0.30 (from jewell_1_1100.pdf), 0.35, 0.4 or 0.45 nm, and/or allow interpolation. Use 10GEPBud3_1_14.xls or successor to rebuild TTO and other 10GBASE-S table entries.

Response Response Status C

ACCEPT IN PRINCIPLE. Change steps to 0.05 nm, add cap at 0.45 nm.

Cl 52 SC Table 52-9 P 438 L # 619
 Lindsay, Tom StratosLightwave

Comment Type E Comment Status R

I don't understand the 2nd footnote. Is it referring to operational or damage tolerance? If the latter, why not simply change the table value? If the former, please clarify.

SuggestedRemedy

See comment, please clarify.

Response Response Status C

REJECT. Damage, but that appears clear in the writing.

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Cl 52 SC Table 52-9 P 438 L 46 # 112
 Healey, Adam Agere Systems

Comment Type T Comment Status X

The vertical eye closure penalty appears to include an ISI penalty due to receiver bandwidth limitations. Since the stressed receiver conformance test signal is applied to TP3, and will be subject to ISI induced by the receiver under test. Therefore, it appears that this penalty is being double-counted.

SuggestedRemedy

Base vertical eye closure penalty on fiber exit response time rather than composite rise time. This corresponds to a vertical eye closure penalty of 3.0 dB for the SR/SW PMD.

Response Response Status Z

Withdrawn.

Cl 52 SC Table 52-9 P 438 L 51 # 189
 Dudek, Mike Cielo Communications

Comment Type T Comment Status A

With the changes made in this draft to include the effects of the CDR in the stressed receiver sensitivity it is no longer correct to say that this is measured "at the eye center"

SuggestedRemedy

Delete "at the eye center" in the footnote on line 51

Response Response Status C

ACCEPT.

Cl 53 SC P L # 638
 Lindsay, Tom StratosLightwave

Comment Type T Comment Status A

The spreadsheet tool is evolving. Values should be recalculated and checked.

SuggestedRemedy

Update all values related to the spreadsheet tool. These include at least optical powers, losses, penalties, triple-tradeoffs, etc.

Response Response Status C

ACCEPT IN PRINCIPLE.

Clause 53 will update according to the latest approved link model.

Cl 53 SC P L # 642
 Lindsay, Tom StratosLightwave

Comment Type T Comment Status A

There are numerous comments against the jitter output and tolerance, and Rx conformance test sections of clause 52. Most all of those changes are appropriate for clause 53 and should be included.

SuggestedRemedy

Include jitter changes per clause 52 work while retaining particulars for clause 53 (pattern, golden PLL frequencies, speed, etc.).

Response Response Status C

ACCEPT IN PRINCIPLE.

Clause 53 will track changes in clause 52

Cl 53 SC 53.1 P 446 L 1 # 99002
 Jonathan Thatcher World Wide Packets

Comment Type TR Comment Status A Technical Feasibility (D3.0)

When the Higher Speed Study Group put forth a PAR to 802 and the IEEE standards board for approval to create a standard, we committed that: "10 Gb/s Ethernet technology will be demonstrated during the course of the project, prior to the completion of the sponsor ballot. " This requirement was added to our PAR because, at the time of writing the PAR, there was no evidence that PMD and PMA technology was feasible which simultaneously meet the other four criteria. Feasibility means that technology must be demonstrated with reports and working models; proven technology; reasonable testing and with confidence in reliability. Historically, Ethernet has been successful, in part, because it "leveraged" technology that existed at the time of the writing of the PAR. No such 10 Gigabit PHY technology existed in November 1999. While the time for which this must be completed is still a couple of meeting cycles away, it is not clear that sufficient effort is being made to validate the specifications; measurement procedures; engineering analysis and judgment and to assure that the PMD meets the requirement we set for ourselves in time for the May 2001 cutoff for last technical change.

SuggestedRemedy

DEMONSTRATE the technical feasibility of the technology specified in Clause 53 for the 10GBASE-LX4 PMD, while ensuring the attainment of the other 4 criteria. Or, change the requirements/specifications such that this goal can be achieved.

Response Response Status U

ACCEPT IN PRINCIPLE.

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Cl 53 SC 53.1 P 576 L 1 # 99005
 Grow, Robert Intel
 Comment Type TR Comment Status A Technical Feasibility (D3.1)
 D3.0 comment #852 is both valid and pertinent. Technical feasibility of the interface defined in this clause has not been demonstrated.
 SuggestedRemedy
 The PMD type must be demonstrated as technically feasible per our commitment in the five criteria.
 Response Response Status C
 ACCEPT.
 Per the Technical Feasibility Ad-hoc Group, the criteria for meeting the technical feasibility objectives of the 802.3ae is being addressed.

Cl 53 SC 53.1.5.2 P 481 L 6 # 94
 Rich Taborek Intel
 Comment Type E Comment Status A
 "generated" should be "generates"
 SuggestedRemedy
 Per comment
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.10.1 P 504 L 35 # 500
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "All equipment meeting this standard shall conform..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.10.2 P 504 L 39 # 501
 Lynskey, Eric UNH IOL
 Comment Type T Comment Status A
 There are two shalls in this paragraph...one of them is most likely redundant and can be deleted.
 SuggestedRemedy
 Delete the second shall.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Change 1st paragraph to read
 "The 10GBASE-LX4 optical transceivers shall be Class 1 laser certified under any condition of operation in conformance to the International Electrotechnical Commission (IEC) Standard Publication 60825-1, Safety of Laser Products Part 1: Equipment Classification, Requirements and User's Guide, 1st edition (11/1993) which has been updated by Amendment 2 (2001-01). This includes single fault conditions whether coupled into a fiber or out of an open bore."

Cl 53 SC 53.10.2 P 504 L 49 # 502
 Lynskey, Eric UNH IOL
 Comment Type T Comment Status A
 Is this shall necessary?
 SuggestedRemedy
 Reword sentence "This documentation explicitly defines..."
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.11 P 505 L 8 # 503
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "Normative specifications in this clause shall be met..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

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Cl 53 SC 53.12 P 505 L 58 # 111
 Rich Taborek Intel
 Comment Type E Comment Status A
 Incorrect punctuation.
 SuggestedRemedy
 Replace the punctuation or add a semicolon after every item in this list with the exception of the last item.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.14 P 506 L 32 # 304
 Paul Kolesar Lucent
 Comment Type T Comment Status A
 The values for "Channel insertion loss" for MMFs are 0.5 dB too high. The present "channel insertion loss" includes 0.5 dB for offset mode condition cord + 0.46 for cable attenuation + 1.5 dB for connection and splice loss plus the unallocated margin minus 0.23 dB. The loss of the mode conditioning patch cord should not be reflected in the "Lane loss" because the mode conditioning cord is not used in field measurements of channel loss. And because the transmitter output power is measured thru the mode conditioning cord at TP2, the loss of this component must be already accounted for in the transmitter output power specification, as was done for 1000BASE-LX.
 SuggestedRemedy
 Subtract 0.5 dB from the MMF "channel insertion loss" values.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.14.3 P 508 L 12 # 505
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 Why are there two PICS entries for this shall?
 SuggestedRemedy
 Remove one of the PICS entries, either LI4 or LI5.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.14.3 P 508 L 6 # 306
 Paul Kolesar Lucent
 Comment Type T Comment Status A
 The material in this subclause does not yet reflect the changes agreed to in the twin subclause of clause 52 regarding the allowed MDI types and connector standard references.
 SuggestedRemedy
 Align with material in clause 52.14.4.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Replace 53.14.3 with 52.14.4 changing the PMD type to LX4.

Cl 53 SC 53.14.3 P 508 L 6 # 305
 Paul Kolesar Lucent
 Comment Type T Comment Status A
 The material in this subclause does not yet reflect the changes agreed to in the twin subclause of clause 52 regarding the use of SMF types B1.1 and B1.3 (low water peak single mode).
 SuggestedRemedy
 Align with material in clause 52.14.1. Differences can be found in line 11 and 17 of page 465.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.14.4.1 P 511 L 34 # 85
 Jonathan Thatcher World Wide Packets
 Comment Type TR Comment Status A
 FN10 is a combination of requirements and description from both 53.4.8 and 53.4.9.
 SuggestedRemedy
 Split FN10 into two and represent both sets of "shalls."
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Add Pic for shall statements in 53.4.8 for Global PMD transmit disable function.

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Cl 53 SC 53.15.4 P511 L 27 # 442
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The Signal Detect function (FN6) PICS entry should be mapped to 53.4.5 and not 53.4.4.
 SuggestedRemedy
 Change 53.4.4 to 53.4.5.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.15.4.1 P511 L 34 # 443
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The FN10 Item is mapped to the wrong Subclause.
 SuggestedRemedy
 Change 53.4.8 to 53.4.9.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.15.4.2 P512 L 7 # 86
 Jonathan Thatcher World Wide Packets
 Comment Type T Comment Status A
 I can't see any reason why there are "N/A's" in any of the cells in the "Support" columns of 53.15.4.2 and 53.15.4.5.
 SuggestedRemedy
 Verify
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Change N/A to NO

Cl 53 SC 53.15.4.3 P512 L 19 # 87
 Jonathan Thatcher World Wide Packets
 Comment Type TR Comment Status A
 Were are 53.15.4.3 and 53.15.4.4?
 SuggestedRemedy
 Do the work.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.15.4.5 P512 L 28 # 504
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 Item LI1 has the wrong Value/Comment.
 SuggestedRemedy
 Change Value/Comment from Table 53-14 to 53-13.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.15.4.5 P512 L 37 # 447
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 Missing Subclause for Item L16.
 SuggestedRemedy
 Insert Subclause 53.6 in PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.2 P481 L 19 # 437
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The shall statement does not have a corresponding PICS entry.
 SuggestedRemedy
 Enter the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

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Cl 53 SC 53.4.11 P 485 L 22 # 445
 Lynskey, Eric UNH IOL
 Comment Type T Comment Status A
 The MDIO PMD_transmit_local_fault_x variables are not defined in Clause 45.
 SuggestedRemedy
 Add the variable to Clause 45 or remove this subclause.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Change sentence to read
 "If the MDIO is implemented, and the PMD has detected a local fault on any transmit lane, the PMD shall set the PMD_transmit_local_fault variable to ONE."

Cl 53 SC 53.4.12 P 485 L 28 # 446
 Lynskey, Eric UNH IOL
 Comment Type T Comment Status A
 The PMD_receive_local_fault_x variables are not defined in Clause 45.
 SuggestedRemedy
 Add this variable to clause 45 or remove this subclause.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Change sentence to read
 "If the MDIO is implemented, and the PMD has detected a local fault on any receive lane, the PMD shall set the PMD_receive_local_fault variable to ONE."

Cl 53 SC 53.4.11 P 485 L 23 # 100
 Rich Taborek Intel
 Comment Type E Comment Status A
 Unclear function. Value "x" undefined.
 SuggestedRemedy
 Define this function in a manner such as:
 "PMD_transmit_local_fault_n value, where n represents the lane number in the range 0:3".
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.4.2 P 482 L 45 # 439
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "...signal streams shall then be wavelength division multiplexed and delivered to the MDI..." does not have a PICS entry associated with it.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.4.12 P 485 L 28 # 101
 Rich Taborek Intel
 Comment Type E Comment Status A
 Unclear function. Value "x" undefined.
 SuggestedRemedy
 Define this function in a manner such as:"PMD_receive_local_fault_n value, where n represents the lane number in the range 0:3".
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.4.3 P 482 L 51 # 440
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "...PMD Receive function shall demultiplex the composite optical signal stream received from the MDI into four separate optical signal streams" does not have a PICS entry associated with it.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

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Cl 53 SC 53.4.4 P 483 L 47 # 441
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "SIGNAL DETECT shall be a global indicator of the presence of optical signals on all four lanes." does not have a PICS entry associated with it.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.4.8 P 484 L 48 # 444
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "...this function shall turn off all optical transmitters..." does not have a PICS entry associated with it.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.4.4 P 484 L 12 # 74
 Jonathan Thatcher World Wide Packets
 Comment Type T Comment Status A
 Clause 53 and 52 should both use PMD-lookback, or not.
 SuggestedRemedy
 Get together and make a decision.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Remove PMD Loopback from clause 53

Cl 53 SC 53.4.8 P 484 L 50 # 97
 Rich Taborek Intel
 Comment Type E Comment Status A
 Incorrect punctuation.
 SuggestedRemedy
 Replace the punctuation or add a semicolon after every item in this list with the exception of the last item.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.4.5 P 484 L 27 # 95
 Rich Taborek Intel
 Comment Type E Comment Status A
 Unclear function. Value "x" undefined.
 SuggestedRemedy
 Define this function in a manner such as:
 "PMD_signal_detect_n value, where n represents the lane number in the range 0:3".
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.4.9 P 485 L 12 # 75
 Jonathan Thatcher World Wide Packets
 Comment Type E Comment Status R
 Order of information in this subsection is confusing.
 SuggestedRemedy
 Do something like:
 1. ...lane by lane disable shall be provided...
 2. ...if MDIO is implemented...shall use
 3. ...otherwise an alternate method.... Similarly change the PICS.
 Response Response Status C
 REJECT.

Cl 53 SC 53.4.6 P 484 L 34 # 96
 Rich Taborek Intel
 Comment Type E Comment Status A
 Missing period at end of sentence.
 SuggestedRemedy
 Add period after 45.2.1.1.1.
 Response Response Status C
 ACCEPT.

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Cl 53 SC 53.4.9 P 485 L 6 # 99
 Rich Taborek Intel
 Comment Type E Comment Status A
 Unclear function. Value "x" undefined.
 SuggestedRemedy
 Define this function in a manner such as:
 "PMD_transmit_disable_n value, where n represents the lane number in the range 0:3".
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.4.9 P 485 L 8 # 98
 Rich Taborek Intel
 Comment Type E Comment Status A
 Incorrect punctuation.
 SuggestedRemedy
 Replace the punctuation or add a semicolon after every item in this list with the exception of the last item.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.6 P 485 L 52 # 448
 Lynskey, Eric UNH IOL
 Comment Type T Comment Status R
 Missing a shall in this sentence "A 10GBASE-LX4 compliant transceiver supports all media types listed..."
 SuggestedRemedy
 Change to read "A 10GBASE-LX4 compliant transceiver shall support all media types listed..."
 OR Remove PICS entry
 Response Response Status C
 REJECT.
 This is a redundant shall. A transceiver meeting the specifications set forth in table 53-7 and table 53-8 will meet the link lengths listed in table 53-6.

Cl 53 SC 53.7 P 486 L # 378
 Dawe, Piers Agilent
 Comment Type T Comment Status A
 I think you have left the extinction ratio unspecified, so in principle it could fall as low as 1.2 dB which is unwise and could give a problem with reflection noise.
 SuggestedRemedy
 Impose minimum extinction ratio, choose in range 2.5 to 4 dB.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Add a row to table 53-7 after minimum OMA to be
 Minimum Extinction Ratio 3.5dB

Cl 53 SC 53.7.1 P 486 L 42 # 90100
 Eric Grann
 Comment Type T Comment Status A
 The rise/fall time should be increased to 120ps
 SuggestedRemedy
 see comment
 Response Response Status C
 ACCEPT.

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Cl 53 SC 53.7.2 P 487 L 40 # 90101

Eric Grann

Comment Type T Comment Status A

Update the Table 53-8 and Table 53-9 to match the new link model 3.1.16.

Suggested Remedy

Change 29.6 (-15.25) to 32.7 (-14.85) in line 42 on page 487
 Change 137 (-8.63) and 46 (-13.4) to 93 (-10.3) and 45 (-13.5) in line 45 on page 487
 Change 3.60 and 0.74 to 3.6 and 0.8 in line 47 on page 487

Change Lines 20 and 22 in Table 53-9 to
 1.9 1.9 1.9 6.2
 5.4 5.4 5.4 2.4
 0.2 0.3 0.2 0.0

Change line 17 of Table 53-9 to 8.6

Change 4th note of Table 53-9 to read "A wavelength of 1269nm, a minimum receiver bandwidth of 2550MHz, and a DCD_DJ of 14ps is used to calculate lane insertion loss, link power penalties, and

Response Response Status C

ACCEPT.

Cl 53 SC 53.7.3 P 488 L 20 # 301

Paul Kolesar

Lucent

Comment Type T Comment Status A

The values for "Lane insertion loss" for MMFs are 0.5 dB too high. The present "Lane insertion loss" includes 0.5 dB for offset mode condition cord + 0.46 for cable attenuation + 1.5 dB for connection and splice loss. The loss of the mode conditioning patch cord should not be reflected in the "Lane loss". Because the transmitter output power is measured thru the mode conditioning cord at TP2, the loss of this component must be accounted for in the transmitter output power specification, as was done for 1000BASE-LX. The mode conditioning cord is not used in field measurements of channel loss.

Suggested Remedy

Subtract 0.5 dB from the MMF "Link power budget" values. These become 7.5 dB. Subtract 0.5 dB from the MMF "lane insertion loss" values. Delete the second footnote regarding offset launch additional 0.5 dB loss.

Response Response Status C

ACCEPT.

Cl 53 SC 53.7.3 P 488 L 20 # 302

Paul Kolesar

Lucent

Comment Type T Comment Status A

For MMF the sum of the "lane insertion loss" and "additional insertion loss allowed" exceeds the maximum channel loss in Table 53-13 by 0.23 dB. These values should be equivalent except for the difference caused by the wavelength assumed in the calculation.

Suggested Remedy

Reconcile by subtracting 0.23 dB from the "additional insertion loss allowed" for MMFs. Modify the third footnote to read:
 "The channel insertion loss is calculated using the maximum distance values specified in Table 53-6 plus an allocation of 1.5 dB for connection and splice loss".

Response Response Status C

ACCEPT.

Cl 53 SC 53.7.3 P 488 L 23 # 303

Paul Kolesar

Lucent

Comment Type T Comment Status A

It is pointless to place a footnote on an entry called "Additional insertion loss allowed" that states "for insertion loss only". State the true intention.

Suggested Remedy

Change the last footnote to: "This portion of the unallocated margin is permitted to be used to overcome insertion loss higher than the "lane insertion loss" value. Add a new row for unallocated margin with appropriate values to true up the sums.

Response Response Status C

ACCEPT IN PRINCIPLE.

Clause 53 will synchronize with Clause 52.

Cl 53 SC 53.8.1 P 488 L 40 # 449

Lynskey, Eric

UNH IOL

Comment Type E Comment Status A

The statement "All points on the BER 'bathtub curve' shall have an eye opening..." does not have a PICS entry associated with it.

Suggested Remedy

Add the appropriate PICS entry.

Response Response Status C

ACCEPT.

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Cl 53 SC 53.8.1 P 489 L 21 # 90102
 Eric Grann
 Comment Type T Comment Status A
 Change W from 0.35 to 0.3
 SuggestedRemedy
 see comment
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.8.1.1 P 489 L 47 # 450
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "The optical channel for 10GBASE-LX4 shall:..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.8.1.2 P 490 L 3 # 640
 Lindsay, Tom StratosLightwave
 Comment Type T Comment Status A
 I don't understand this statement. Is the test pattern in 48A.4 not normative? Is the statement suggesting that specs must be met with any and all patterns?
 SuggestedRemedy
 Please clarify.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Remove second sentence.

Cl 53 SC 53.8.2 P 490 L 8 # 102
 Rich Taborek Intel
 Comment Type E Comment Status A
 Incorrect annex referenced
 SuggestedRemedy
 Change reference to Annex 48B
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.8.2 P 490 L 8 # 641
 Lindsay, Tom StratosLightwave
 Comment Type E Comment Status A
 I believe this should be referencing Annex 48B, since 48A does not include jitter methods.
 SuggestedRemedy
 Change reference to Annex 48B.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.8.2 P 490 L 8 # 451
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "The receiver shall operate at a BER less than 10^-12..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.8.2.2 P 490 L 21 # 452
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "The input jitter used to test receiver jitter tolerance shall meet the requirements..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.8.2.2 P 491 L 22 # 453
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "The random jitter component of the input signal shall have uniform spectral content..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

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Cl 53 SC 53.8.2.2 P 491 L 24 # 454
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "A golden PLL shall be used for verification..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.8.2.2 P 491 L 25 # 455
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "It shall have a low frequency corner..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.8.2.2 P 491 L 28 # 456
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "The filter used for RX input signal characterization shall be a fourth-order Bessel Thompson filter..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.8.2.2 P 491 L 28 # 375
 Dawe, Piers Agilent
 Comment Type E Comment Status A
 Thompson s/b Thomson
 SuggestedRemedy
 Fix.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.8.2.3 P 491 L 32 # 457
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "The sinusoidal jitter used to test receiver tolerance shall meet the requirements of Table 53-11." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.8.2.3 P 491 L 34 # 458
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "Sinusoidal jitter shall be added..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9 P 492 L 25 # 459
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "All optical measurements shall be made through a short patch cable..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.1 P 492 L 35 # 103
 Rich Taborek Intel
 Comment Type E Comment Status A
 Incorrect usage of comma
 SuggestedRemedy
 Replace comma after "Table 53-8" with a semicolon
 Response Response Status C
 ACCEPT.

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Cl 53 SC 53.9.10 P 497 L 35 # 487
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "...the stressed sensitivity shall meet the specification..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.11 P 497 L 40 # 488
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "The measurements in this section shall be satisfied with asynchronous..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.11 P 497 L 41 # 106
 Rich Taborek Intel
 Comment Type E Comment Status A
 Period missing at end of paragraph
 SuggestedRemedy
 Add period
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.11 P 497 L 41 # 489
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "This data shall be consistent with normal signal properties and content" does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.11.1 P 497 L 45 # 80
 Jonathan Thatcher World Wide Packets
 Comment Type T Comment Status A
 Reference to Annex 48A is not correct. Which test pattern (line 47) needs to be defined.
 SuggestedRemedy
 See comment
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Change "the test pattern" to "a test pattern" on line 47

Cl 53 SC 53.9.11.1 P 498 L 2 # 490
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "A Golden PLL meeting the requirements of 53.8.2.2 shall be used" does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.11.2 P 498 L 40 # 107
 Rich Taborek Intel
 Comment Type E Comment Status A
 "Singlemode" should be "single-mode"
 SuggestedRemedy
 See comment. Change globally throughout the document.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.11.2 P 498 L 42 # 491
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "A golden PLL meeting the requirements of 53.8.2.2 shall be used" does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

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Cl 53 SC 53.9.11.4 P 499 L 14 # 492
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "The receiver cutoff frequency measurement shall be performed on each wavelength..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.12 P 499 L 21 # 81
 Jonathan Thatcher World Wide Packets
 Comment Type T Comment Status A
 Consider the option to combine the signals optically as in clause 52.
 SuggestedRemedy
 Add note that combiner could be optical as in 52.9.12
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Add line at end of first paragraph to state
 "The test may use two optical sources and an optical combiner as defined in 52.9.12"

Cl 53 SC 53.9.12 P 499 L 38 # 493
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "The 3dB upper cutoff frequency shall be measured using the following steps:" does not have an associated PICS entry. There are five items in this list, and each one should have a PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.12 P 499 L 42 # 108
 Rich Taborek Intel
 Comment Type E Comment Status A
 Incorrect punctuation.
 SuggestedRemedy
 Replace the punctuation or add a semicolon after every item in this list with the exception of the last item.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.13 P 500 L 10 # 109
 Rich Taborek Intel
 Comment Type E Comment Status A
 Incorrect punctuation.
 SuggestedRemedy
 Replace the punctuation or add a semicolon after every item in this list with the exception of the last item.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.13 P 500 L 11 # 83
 Jonathan Thatcher World Wide Packets
 Comment Type T Comment Status A
 Having two different DCD values doesn't make a lot of sense.
 SuggestedRemedy
 Use the worst case value only: 25 ps.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 It is recommended to use the single mode DCD value of 20.5ps. Change note in Table 53-9 to reflect this value.

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Cl 53 SC 53.9.13 P 500 L 14 # 496
Lynskey, Eric UNH IOL
Comment Type E Comment Status A
The statement "The vertical eye closure penalty shall be greater..." does not have an associated PICS entry.
SuggestedRemedy
Add the appropriate PICS entry.
Response Response Status C
ACCEPT.

Cl 53 SC 53.9.13 P 500 L 4 # 494
Lynskey, Eric UNH IOL
Comment Type E Comment Status A
The statement "...jitter requirements of 53.9.9 shall be tested..." does not have an associated PICS entry.
SuggestedRemedy
Add the appropriate PICS entry.
Response Response Status C
ACCEPT.

Cl 53 SC 53.9.13 P 500 L 5 # 82
Jonathan Thatcher World Wide Packets
Comment Type T Comment Status A
Can't be "recommended that the conformance test signal shall...."
SuggestedRemedy
It is either a shall or it isn't. Fix PICS as appropriate.
Response Response Status C
ACCEPT IN PRINCIPLE.
Eliminate shall change "the short" to "a short"

Cl 53 SC 53.9.13 P 500 L 5 # 495
Lynskey, Eric UNH IOL
Comment Type E Comment Status A
The statement "It is recommended that the conformance test signal shall be generated..." does not have an associated PICS entry.
SuggestedRemedy
Add the appropriate PICS entry.
Response Response Status C
ACCEPT.

Cl 53 SC 53.9.13 P 501 L 13 # 497
Lynskey, Eric UNH IOL
Comment Type E Comment Status A
The statement "...and filter shall be a fourth order..." does not have an associated PICS entry.
SuggestedRemedy
Add the appropriate PICS entry.
Response Response Status C
ACCEPT.

Cl 53 SC 53.9.13 P 501 L 17 # 498
Lynskey, Eric UNH IOL
Comment Type E Comment Status A
The statement "The source for the channel under test shall be set to supply..." does not have an associated PICS entry.
SuggestedRemedy
Add the appropriate PICS entry.
Response Response Status C
ACCEPT.

Cl 53 SC 53.9.13 P 501 L 49 # 110
Rich Taborek Intel
Comment Type E Comment Status A
Incorrect punctuation.
SuggestedRemedy
Replace the punctuation or add a semicolon after every item in this list with the exception of the last item.
Response Response Status C
ACCEPT.

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Cl 53 SC 53.9.14 P 501 L 45 # 84
Jonathan Thatcher World Wide Packets

Comment Type T Comment Status A

There seems to be no specification for what happens on the Tx during Rx conformance testing.

SuggestedRemedy

Add requirements for pattern, asynchronous clocking, etc on Tx and OMA, rise/fall, phase and other relationships with adjacent lambdas on the Rx. Make sure the method is consistent with the Tx jitter and mask measurements.

Response Response Status C

ACCEPT IN PRINCIPLE.

Add after e) " f) the transmitter of the transceiver under test is operating with valid test patterns as defined in Annex 48A."

Cl 53 SC 53.9.14 P 501 L 46 # 499
Lynskey, Eric UNH IOL

Comment Type E Comment Status A

The statement "...on a per channel basis and shall meet..." does not have an associated PICS entry.

SuggestedRemedy

Add the appropriate PICS entry.

Response Response Status C

ACCEPT.

Cl 53 SC 53.9.2 P 492 L 40 # 460
Lynskey, Eric UNH IOL

Comment Type E Comment Status A

The statement "The absolute optical power of each channel shall be measured..." does not have an associated PICS entry.

SuggestedRemedy

Add the appropriate PICS entry.

Response Response Status C

ACCEPT.

Cl 53 SC 53.9.3 P 493 L 3 # 461
Lynskey, Eric UNH IOL

Comment Type E Comment Status A

The statement "The source spectral window shall be measured..." does not have an associated PICS entry.

SuggestedRemedy

Add the appropriate PICS entry.

Response Response Status C

ACCEPT.

Cl 53 SC 53.9.3 P 493 L 5 # 462
Lynskey, Eric UNH IOL

Comment Type E Comment Status A

The statement "The channel under test shall be modulated..." does not have an associated PICS entry.

SuggestedRemedy

Add the appropriate PICS entry.

Response Response Status C

ACCEPT.

Cl 53 SC 53.9.4 P 493 L 19 # 463
Lynskey, Eric UNH IOL

Comment Type E Comment Status A

The statement "...from all of the channels not under test shall be below -30dBm." does not have an associated PICS entry.

SuggestedRemedy

Add the appropriate PICS entry.

Response Response Status C

ACCEPT.

Cl 53 SC 53.9.5 P 493 L 24 # 464
Lynskey, Eric UNH IOL

Comment Type E Comment Status A

The statement "...from all of the channels not under test shall be below -30dBm." does not have an associated PICS entry.

SuggestedRemedy

Add the appropriate PICS entry.

Response Response Status C

ACCEPT.

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Cl 53 SC 53.9.6 P 493 L 33 # 465
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "The eye shall be measured..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.6 P 494 L 1 # 466
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "A golden PLL shall be used for verification..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.6 P 494 L 1 # 467
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "It shall have a low frequency corner..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.7 P 494 L 27 # 69
 Jonathan Thatcher World Wide Packets
 Comment Type T Comment Status A
 If clause 52 has removed r/f time, why doesn't clause 53?
 SuggestedRemedy
 See clause 53. Consider removing 53.9.7 and supporting PIC and specs from table 53-7.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Clause 53 is considering the removal of the r/f time specification, however, there appears to be discrepancies with the PMDs of clause 52 on this subject. Clause 53 will monitor their progress.

Cl 53 SC 53.9.7 P 494 L 31 # 468
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "...measured waveforms shall conform to the mask..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.7 P 494 L 32 # 469
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "...the filter response shall be removed using the equation..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.7 P 494 L 40 # 470
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "Any filter shall have an impulse..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.8 P 494 L 47 # 471
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "The stressed receive sensitivity shall be measured..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

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Cl 53 SC 53.9.9 P 495 L 6 # 76
 Jonathan Thatcher World Wide Packets
 Comment Type T Comment Status A
 Specify which test pattern is required. Fix the "YYYY" in line 6.
 SuggestedRemedy
 See comment
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 See resolution of comment #472

Cl 53 SC 53.9.9.1 P 495 L 17 # 473
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "...the receiver shall have a fourth-order..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.9.1 P 495 L 20 # 77
 Jonathan Thatcher World Wide Packets
 Comment Type T Comment Status A
 The omission of the fiber is only true for MMF.
 SuggestedRemedy
 General structure of subclause needs to make it clear which fiber type each requirement refers to. Recommend all statements common to both first, then SMF, then MMF.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Appropriate editorial changes will be made.

Cl 53 SC 53.9.9.1 P 495 L 23 # 474
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "...the receiver shall have a fourth-order..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.9.1 P 495 L 27 # 104
 Rich Taborek Intel
 Comment Type E Comment Status A
 "Is shall" should be "It shall"
 SuggestedRemedy
 See comment
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.9.1 P 495 L 27 # 476
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 Wrong word...Is should be It
 SuggestedRemedy
 Replace start of sentence "Is shall have..." with "It shall have..."
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.9.1 P 495 L 27 # 475
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "It shall have a corner frequency..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

P802.3ae Draft 3.2 Comments

Cl 53 SC 53.9.9.1 P 495 L 3 # 472
 Lynskey, Eric UNH IOL
 Comment Type T Comment Status A
 The clause reference YYYY can be replaced with the actual reference.
 SuggestedRemedy
 Replace with actual reference.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Delete "putting the PCS in test mode as specified in YYYY and"
 Delete "This pattern is serialized by the PMA and output from the PMD onto the MDI."

Cl 53 SC 53.9.9.1 P 495 L 32 # 477
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "Jitter shall be measured..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.9.1 P 495 L 32 # 646
 Lindsay, Tom StratosLightwave
 Comment Type E Comment Status A
 "Calibrated" is not appropriate here for output testing.
 SuggestedRemedy
 Remove "(calibrated)".
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.9.1 P 495 L 35 # 478
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "The measurement in this section shall be satisfied..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.9.2 P 496 L 24 # 479
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "The optical channel used to test the transmitter shall meet..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.9.2 P 496 L 29 # 78
 Jonathan Thatcher World Wide Packets
 Comment Type T Comment Status A
 Use of Minimum dispersion and Maximum in table 53-12 confusing. Similar comment written against clause 52.
 SuggestedRemedy
 Find a more clear means to write this requirement (including text).
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Clause 53 will follow clause 52 lead on this.

Cl 53 SC 53.9.9.2 P 496 L 45 # 480
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "...the transmitter shall be compliant..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

P802.3ae Draft 3.2 Comments

Cl 53 SC 53.9.9.2 P 496 L 46 # 481
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "This shall be achieved using ITU-T G.652 fiber..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.9.2 P 496 L 50 # 483
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "The channel shall provide an optical back reflection..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.9.2 P 496 L 50 # 482
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "The channel shall meet these requirements in the linear regime of the fiber" does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.9.2 P 496 L 51 # 484
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "The state of polarization of the back reflection shall be adjusted..." does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.9.2 P 497 L 2 # 485
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 The statement "The channel shall provide back reflection to the transmitter at -12 dB" does not have an associated PICS entry.
 SuggestedRemedy
 Add the appropriate PICS entry.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.9.3 P 497 L 14 # 79
 Jonathan Thatcher World Wide Packets
 Comment Type E Comment Status A
 Paragraph at line 14 and paragraph at line 18 are largely redundant.
 SuggestedRemedy
 Fix
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Remove paragraph between lines 13-17 in 53.9.9.3. Sentence is already included in the following paragraph

Cl 53 SC 53.9.9.3 P 497 L 14 # 647
 Lindsay, Tom StratosLightwave
 Comment Type T Comment Status A
 Golden PLL is mandatory. 2nd paragraph should be deleted, and 3rd paragraph should be reworded.
 SuggestedRemedy
 Follow corresponding wording in clause 52.
 Response Response Status C
 ACCEPT IN PRINCIPLE.

Delete 2nd paragraph.
 Replace 3rd paragraph with "A golden PLL having a low frequency corner of less than or equal to 1.3 MHz and a slope of 20 dB/decade shall be used to generate the reference clock for transmit jitter measurements."

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Cl 53 SC 53.9.9.3 P 497 L 14 # 486
 Lynskey, Eric UNH IOL
 Comment Type E Comment Status A
 This is an exact duplicate of text in the next paragraph.
 SuggestedRemedy
 Remove lines 14-16 or remove the next paragraph.
 Response Response Status C
 ACCEPT.

Cl 53 SC 53.9.9.3 P 497 L 14 # 105
 Rich Taborek Intel
 Comment Type E Comment Status A
 "likely" should be "unlikely"
 SuggestedRemedy
 See comment
 Response Response Status C
 ACCEPT.

Cl 53 SC Table 45-3 P 183 L 15 # 438
 Lynskey, Eric UNH IOL
 Comment Type T Comment Status A
 Bit 1.0.14 is defined in Clause 53 as used for PMD Loopback. In Clause 45, it is defined as reserved and to always be read as 0.
 SuggestedRemedy
 Change bit 1.0.14 in the following manner:
 Name: Loopback
 Description: 1 = Enable PMD loopback mode, 0 = Disable PMD loopback Mode
 R/W: R/W
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 PMD_Loopback was removed in a previous comment to Draft 3.1.
 Therefore,
 A) remove section 53.1.5 and subclauses.
 B) remove Loopback in table 53-2
 C) remove "OR Loopback" statement in Table 53-4
 D) remove section 53.4.7
 E) remove "When the PMD_loopback function is not enabled," statement from line 51 page 482 of 53.4.3.
 F) remove paragraph beginning with "When the MDIO PMD_loopback function is enabled," on line 37 page 483 of 53.4.3

Cl 53 SC Table 53-3 P L # 603
 Tom Mathey Independent
 Comment Type E Comment Status R
 For the description of MDIO registers, it is the convention that the ordering in a table be from high order bits to low order bits. Thus entry on line 12 for 1.10.0 should be at the bottom of the table.
 SuggestedRemedy
 Move entry for 1.10.0 to bottom of the table.
 Response Response Status C
 REJECT.

Cl 53 SC Table 53-9 P 488 L 23 # 639
 Lindsay, Tom StratosLightwave
 Comment Type T Comment Status A
 I am surprised to see additional insertion loss allowed for all subvariants, since there is no unallocated margin currently applied to stressed Rx and triple-tradeoff values. (Note - this may change if recent spreadsheet methodologies are approved, but in case the values should be checked).
 SuggestedRemedy
 Apply latest approved spreadsheet methods. Generally, additional insertion loss allowed is only the DIFFERENCE in each subvariant's unallocated margin from the subvariant with the lowest margin.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Clause 53 will synchronize with clause 52 10GBASE-LR/LW methodology