

anagement Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced Pair

CI 146 SC 146.8.1 P 174 L 40 # r03-25

Yseboodt, Lennart

Signify

Comment Type TR Comment Status R MDI

Comment r01-88 provided a rationale to remove the descriptive language used in 146.8.1 that points to connectors based on IEC 63171-1 and IEC 63171-6.

This comment, after substantial discussion, was accepted in principle and the CRG chose to remove the connector descriptions.

This change was reverted at the next meeting.

This group has chosen NOT to mandate a specific connector in order to comply with 802.3cg. This allows system vendors to make the appropriate choice for their applications. It also allows other SDO's to create interoperability standards around 802.3cg where choices are made for specific application (eg. connectors chosen.)

There is no justification for an 802.3 standard to choose NOT to mandate a connector, but at the same time make a soft recommendation for TWO connectors. Either the group chooses to define MDI interoperability, and mandate a connector, or we leave that choice to vendors/other SDO's and only specify connector requirements.

802.3 is no place for advertisements.

The new SPMD group is going to define a powering system for use with an (enhanced) part of 802.3cg. Because power is involved, the issue of connectors will also play there. It complicates the work of that group if there is market confusion around connectors. Recommendations for connectors create that confusion. The group needs time to figure out how to enable interoperability and co-existence between all of the different 802.3cg data modes and the two powering schemes.

It is key that 802.3cg makes no mention of connectors and leaves a green field for SPMD to figure this out.

SuggestedRemedy

Re-adopt the resolution of r01-88.

Response Response Status U

REJECT.

The CRG cannot come to a consensus to make changes necessary to address the comment. Significant discussion and contributions have been dedicated to this issue in prior meetings, and many statements are matters of opinion. Consensus does not satisfy all, but the group has discussed the issue repeatedly in an attempt to build a broad consensus.

Motion #4: Move to accept #r03-25.

Moved by: Lennart Yseboodt

Seconded by: Valerie Maguire

Y: 12 N: 8 A: 15
MOTION FAILS (Technical >= 75%)

CI 146 SC 146.8.1 P 174 L 44 # r03-26

Jones, Chad

Cisco Systems, Inc.

Comment Type TR Comment Status R MDI

The standard offers two options for a connector - and optional options. While some think this is a service to the reader, I view this as a disservice. It is my opinion that a connector should be mandatory or not included. Since this standard attempts to cover a great many use cases, many that do not need a connector, I feel the connector references should be deleted.

802.3 is not Craigslist. It should not be a place for advertisements.

SuggestedRemedy

revert to the resolution of r01-88

Response Response Status U

REJECT.

The CRG cannot come to a consensus to make changes necessary to address the comment. Significant discussion and contributions have been dedicated to this issue in prior meetings, and many statements are matters of opinion. Consensus does not satisfy all, but the group has discussed the issue repeatedly in an attempt to build a broad consensus.

Motion #5: Move to accept #r03-26.

Moved by: Chad Jones

Seconded by: Jon Lewis

Y: 10 N: 9 A: 14
MOTION FAILS (>= 75%)

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CI 147 SC 147.9.1 P 225 L 43 # r03-27

Jones, Chad Cisco Systems, Inc.

Comment Type TR Comment Status R MDI

The standard offers two options for a connector - and optional options. While some think this is a service to the reader, I view this as a disservice. It is my opinion that a connector should be mandatory or not included. Since this standard attempts to cover a great many use cases, many that do not need a connector, I feel the connector references should be deleted.

802.3 is not Craigslist. It should not be a place for advertisements.

SuggestedRemedy

revert to the resolution of r01-88

Response Response Status U

REJECT.

The CRG cannot come to a consensus to make changes necessary to address the comment. Significant discussion and contributions have been dedicated to this issue in prior meetings, and many statements are matters of opinion. Consensus does not satisfy all, but the group has discussed the issue repeatedly in an attempt to build a broad consensus.

CI 146 SC 146.8.1 P 174 L 44 # r03-28

Kim, Yongbum NIO

Comment Type TR Comment Status R MDI

While heading is editorial, this comment is on the use of the terminology MDI - a mandatory conformance test point and interoperability interface -- inappropriately to refer to a connector reference that "may be" used as "MDI connectors". There may be only one MDI connector, unless there is no connector at all at the MDI (as is the case with Backplane Ethernet, automotive Ethernet PHYs, chip to module interfaces, all to do with undefinable or undesirable (for the served application) connector at the MDI). This project clearly has a need for a medium attachment unit (MAU), Medium, and means of connecting tyhe two (THE MDI connector). Either pick one of the two illustrated referenced connector as the MDI (only one), or do not refer to either one as MDI connectors. Doing so would only serve marketing purposes without serving any normative conformance purposes.

Reminder -- we do standard to achieve industry-wide multi-vendor interoperability. We don't do standards for standards sake. MDI, including a single chosen connector, serves a way to ensure interoperability while also serving as the exposed test point. Unless there is no selectable connector system to reference, there should be one and only one MDI connector.

SuggestedRemedy

Change the clause title to "Reference Connectors";
Change "MDI jack connector" line 3, pg 175 to "jack connector";
Change Table 146-8 "MDI contacts" to "contacts"

Response Response Status U

REJECT.

The CRG disagrees with the commenter.

IEEE Std 802.3-2018 contains other clauses which specify more than one MDI connector (see, e.g., 39.5.1, 85.11, 92.12, 96.8.1, or Annex 136C in IEEE Std 802.3cd-2018). Significant discussion in the CRG has referenced that which connector is used may depend on environmental, equipment design, or other factors which require variation. Referencing connectors which may be used in a number of environments, particularly connectors which ISO/IEC SC25 WG3 and TIA TR42 have liaised that they are recommending for use in single pair installations, provides assistance to the user of the standard by aligning with other standards.

Motion #6: Move to reject comment #r03-28 with the response:

The CRG disagrees with the commenter.

IEEE Std 802.3-2018 contains other clauses which specify more than one MDI connector (see, e.g., 39.5.1, 85.11, 92.12, 96.8.1, or Annex 136C in IEEE Std 802.3cd-2018). Significant discussion in the CRG has referenced that which connector is used may depend on environmental, equipment design, or other factors which require variation. Referencing connectors which may be used in a number of environments, particularly connectors which ISO/IEC SC25 WG3 and TIA TR42 have liaised that they are recommending for use in single pair installations, provides assistance to the user of the

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standard by aligning with other standards.

Moved by: Chris DiMinico
Seconded by: Masood Shariff

Y: 23 N: 0 A: 9
MOTION PASSES (Technical, >= 75%)

CI 146 SC 146.8.2 P 176 L 3 # r03-29

Kim, Yongbum NIO

Comment Type TR Comment Status R MDI

"The electrical requirements specified in 146.5.4 and 146.5.5 shall be met when the PHY is connected to the MDI connector mated with the specified plug connector." This statement is in error. There is a "shall" statement but there is NO specified plug connector in the draft at present. Either specify one (and only one) specified connector (which would make this statement true), or revise the statement to eliminate the reference to the "specified connector".

Suggested Remedy

If CRG selects one and only one MDI connector as the MDI, then this comment is withdrawn. Otherwise, change the text to read "The electrical requirements specified in 146.5.4 and 146.5.5 shall be met when the PHY is connected to a connector mated with a plug connector, measured at the mated contacts as the measurement interface," or technically equivalent statement that recognizes that there is no specified MDI connector while preserving the normative statement. FYI - CL147 uses the "MDI attachment point" phrase, which does not clearly specify where the test probe should be attached.

Response Response Status U

REJECT.
The CRG disagrees with the commenter. The referenced sentence can only be interpreted as referring to the plug connector specified to be mated with the MDI connector used on the port.

Motion #7: Move to reject comment #r03-29 with the response:

The CRG disagrees with the commenter. The referenced sentence can only be interpreted as referring to the plug connector specified to be mated with the MDI connector used on the port.

Moved by: Bob Voss
Seconded by: Jon Lewis

Y: 27 N: 0 A: 8
MOTION PASSES (Technical >= 75%)

CI 147 SC 147.9.1 P 226 L 43 # r03-30

Kim, Yongbum NIO

Comment Type TR Comment Status R MDI

While heading is editorial, this comment is on the use of the terminology MDI - a mandatory conformance test point and interoperability interface -- inappropriately to refer to a connector reference that "may be" used as "MDI connectors". There may be only one MDI connector, unless there is no connector at all at the MDI (as is the case with Backplane Ethernet, automotive Ethernet PHYs, chip to module interfaces, all to do with undefinable or undesirable (for the served application) connector at the MDI). This project clearly has a need for a medium attachment unit (MAU), Medium, and means of connecting the two (THE MDI connector). Either pick one of the two illustrated referenced connector as the MDI (only one), or do not refer to either one as MDI connectors. Doing so would only serve marketing purposes without serving any normative conformance purposes. Recognizing that 10BASE-T1S serves automotive and backplane (non-exposed and undesirable-to-define connector systems) as well as industrial (exposed medium connection), it would be appropriate to specify the MDI as optional mandatory, i.e. use of the MDI connector is optional, but if one were to be used then it shall be the one..

Suggested Remedy

If CRG decides to select one and only one MDI connector as the optional mandatory (e.g. use is optional, but if used then it shall be the one) then this comment is withdrawn. Otherwise,
Change the clause title to "Reference Connectors";
Change "MDI jack connector" line 3, pg 175 to "jack connector";
Change Table 147-3 "MDI contacts" to "contacts".

Response Response Status U

REJECT.
The CRG disagrees with the commenter.
IEEE Std 802.3-2018 contains other clauses which specify more than one MDI connector (see, e.g., 39.5.1, 85.11, 92.12, or 96.8.1). Significant discussion in the CRG has referenced that which connector is used may depend on environmental, equipment design, or other factors which require variation. Referencing connectors which may be used in a number of environments, particularly connectors which ISO/IEC SC25 WG3 and TIA TR42 have liaised that they are recommending for use in single pair installations, provides assistance to the user of the standard by aligning with other standards.

Motion #8: Move to reject comment #r03-30 with the response:

The CRG disagrees with the commenter.
IEEE Std 802.3-2018 contains other clauses which specify more than one MDI connector (see, e.g., 39.5.1, 85.11, 92.12, or 96.8.1). Significant discussion in the CRG has referenced that which connector is used may depend on environmental, equipment design, or other factors which require variation. Referencing connectors which may be used in a number of environments, particularly connectors which ISO/IEC SC25 WG3 and TIA TR42 have liaised that they are recommending for use in single pair installations, provides assistance to the user of the standard by aligning with other standards.

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Moved by: Chris DiMinico
Seconded by: Jon Lewis

Y: 27 N: 0 A: 7

CI 147 SC 147.12.3 P 232 L 11 # r03-32

Kim, Yongbum

NIO

Comment Type TR Comment Status R PICS

*INS "Installation/Cabling" "Items marked with INS include installation practices and cabling specifications not applicable to a PHY manufacturer."

Comment 2: 10BASE-T1S PHY operating in P2P has termination in the PHY, while 10BASE-T1S PHY operating in the Mixing Segment has termination on the medium (PHY being high-impedance tap connection), and 10BASE-T1S operating in half-duplex P2P has termination in TBD places. And in the cases where the high impedance tap is used, the internal trace length (from the connector) may/may not effect compliance to the conformance spec. So this part of the PICS seems to have dependancy to PHY as well as installation.

SuggestedRemedy

Change "... installation practices and cabling specifications not applicable to a PHY manufacturer." to "... installation practices and cabling specifications and may be applicable to a PHY manufacturer."

Response

Response Status U

REJECT.

The CRG disagrees with the commenter. While the media termination is dependent on the mixing segment, the PHY termination is dependent on whether the PHY is in multidrop mode, and if the PHY meets the requirements, the mixing segment is not applicable to a PHY manufacturer.