Comment 125, Clause 154 PICS

Tom Issenhuth, Huawei, P802.3ct Chief Editor
Peter Stassar, Huawei, P802.3ct clause 154 Editor

IEEE P802.3ct Task Force, 16 April 2020 Interim Teleconference Meeting

Comment 125

154.11 lists the Protocol implementation conformance statement (PICS) proforma

Sections 154.11.3 Major capabilities/options and 154.11.4 PMD functional specifications have incomplete tables.

In reviewing other amendments required sections may be missing from the current draft.

This presentation proposes values to complete the blank tables and proposes the creation of four new tables and thier associated values.

154.11.3

154.11.3	Major capabilities/options				
Item	Feature	Subclause	Value/Comment	Status	Support
ZR	100GBASE-ZR	154.7	Device supports requirements for 100GBASE-ZR PHY	O.1	Yes [ ] No [ ]
TP1	Reference point TP1 exposed and available for testing	154.5.3	This point may be made available for use by implementers to certify component conformance	O	Yes [ ] No [ ]
TP4	Reference point TP4 exposed and available for testing	154.5.3	This point may be made available for use by implementers to certify component conformance	O	Yes [ ] No [ ]
DC	Delay constraints	154.3.1	Device conforms to delay constraints	M	Yes [ ]
SC	Skew constraints	154.3.2	Device conforms to Skew and Skew Variation constraints	M	Yes [ ]
MD	MDIO capability	154.4	Registers and interface supported	O	Yes [ ] No [ ]

154.11.4.1

154.11.4.1	PMD functional specifications				
Item	**Feature**	**Subclause**	**Value/Comment**	**Status**	**Support**
F1	Compatible with 100GBASE-ZR PCS and PMA	154.1		M	Yes [ ]
F2	Integration with management functions			O	Yes [ ] No [ ]
F3	Bit error ratio	154.1.1	Meets BER specified in 154.1.1	M	Yes [ ]
F4	Transmit function	154.5.2	Conveys symbols from PMD service interface to MDI	M	Yes [ ]
F5	Receive function	154.5.3	Conveys symbols from PMD service interface to MDI	M	Yes [ ]
F6	Global signal detect function	154.5.4	Report to the PMD service interface the message PMD:IS_SIGNAL.indication (SIGNAL_DETECT)	O	Yes [ ] No [ ]
F7	PMD reset function	154.5.5	Resets the PMD sublayer	O	Yes [ ] No [ ]
F8	Transmitter nominal center frequency	154.6	Controls the transmitter center frequency via the Tx_optical_channel_index variable	O	Yes [ ] No [ ]
F9	Receiver nominal center frequency	154.6	Controls the receiver center frequency via the Rx_optical_channel_index variable	O	Yes [ ] No [ ]

154.11.4.2

154.11.4.2	Management Functions				
Item	**Feature**	**Subclause**	**Value/Comment**	**Status**	**Support**
M1	Management register set	154.4		MD:M	Yes [ ] No [ ]
M2	PMD global transmit disable function	154.5.6	Disables the optical transmitter with the PMD_global_transmit_disable variable	MD:O	Yes [ ] No [ ] N/A [ ]
M3	PMD fault function	154.5.7	Sets PMD_transmit_fault to one if a local fault is detected	MD:O	Yes [ ] No [ ] N/A [ ]
M4	PMD transmit fault function	154.5.8	Sets PMD_transmit_fault to one if a local fault is detected	MD:O	Yes [ ] No [ ] N/A [ ]
M5	PMD receive fault function	154.5.9	Sets PMD_receive_fault to one if a local fault is detected	MD:O	Yes [ ] No [ ] N/A [ ]
M6	PMD receive center frequency ability	154.6	Reports the ability to operate with different Tx and Rx center frequencies via the Tx_Rx_diff_opt_channel_ability variable	MD:O	Yes [ ] No [ ] N/A [ ]

154.11.4.3 and 154.11.4.4

154.11.4.3	PMD to MDI optical specifications for 100GBASE-ZR				

Item	Feature	Subclause	Value/Comment	Status	Support
ZR1	Transmitter meets specifications in Table 154-8	154.7.1	Per definitions in 154.8	M	Yes [ ] N/A [ ]
ZR2	Reciever meets specifications in Table 154-9	154.7.2	Per definitions in 154.9	M	Yes [ ] N/A [ ]

154.11.4.4	Optical measurement methods				

Item	Feature	Subclause	Value/Comment	Status	Support
OM1	Measurement cable	154.8	2 m to 5 m in length	M	Yes [ ]
OM2	Optical center frequency (wavelength) and side-mode suppression ratio (SMSR)	154.8.2	Per definitions in table 154.12	M	Yes [ ]
OM3	Average channel output power	154.8.3	Per definitions in table 154.12	M	Yes [ ]
OM4	Error vector magnitude	154.8.9	Per definitions in table 154.8	M	Yes [ ]
OM5	I-Q offset	154.8.10	Per definitions in table 154.8	M	Yes [ ]
OM6	OSNR(193.6) [amplified]	154.8.14	Per definitions in table 154.9	M	Yes [ ]
OM7	Receiver OSNR tolerance(193.6)	154.8.16	Per definitions in table 154.9	M	Yes [ ]

154.11.4.5 and 154.11.4.6

154.11.4.5	Environmental specifications				

Item	Feature	Subclause	Value/Comment	Status	Support
ES1	General safety	154.9.1	Conforms to IEC 60950-1	M	Yes [ ]
ES2	Laser safety	154.9.2	Conforms to Hazard Level 1 laser requirements defined in IEC 60825-1 and IEC 60825-2	M	Yes [ ]
ES3	Temperature, humidity, and hand	154.9.5	Complies with applicable local and national codes for the limitation of electromagnetic interference	M	Yes [ ]

154.11.4.6	Characteristics of Black Link and MDI				

Item	Feature	Subclause	Value/Comment	Status	Support
OC1	Black Link Requirements	154.8	Meets the requirements in Table 154-10	M	Yes [ ]
OC2	MDI requirements	154.10	Meets IEC 61753-1-1 and IEC 61753-021-2	INS:M	Yes [ ] N/A [ ]

Thanks!