

### 0.0.1 Major capabilities/options

Item	Feature	Subclause	Value/Comment	Status	Support
*MD	MDIO capability	58.x	Registers and interface supported.	O	Yes [ ] No [ ]
*PX10	1000BASE-PX10-D or 1000BASE-PX10-U PMD	58.3	Device supports 10km	O/1	Yes [ ] No [ ]
*PX20	1000BASE-PX20-D or 1000BASE-PX20-U PMD	58.4	Device supports 20km	O/1	Yes [ ] No [ ]
*INS	Installation / Cable	58.2.1	Items marked with INS include installation practices and cable specifications not applicable to a PHY manufacturer.	O	Yes [ ] No [ ]

### 0.0.2 PICS proforma tables for Physical Medium Dependent (PMD) sublayer and baseband medium, types 1000BASE-PX10-D (PON OLT PX10), 1000BASE-PX10-U (PON ONU PX10), 1000BASE-PX20-D (PON OLT PX20), and 1000BASE-PX20-U (PON ONU PX20).

#### 0.0.2.1 PMD functional specifications

Item	Feature	Subclause	Value/Comment	Status	Support
FS1	Transmit function	58.2.2	Conveys bits from PMD service interface to MDI	M	Yes [ ]
FS2	Transmitter optical signal	58.2.2	Higher optical power transmitted is a logic 1	M	Yes [ ]
FS3	Receive function	58.2.3	Conveys bits from MDI to PMD service interface	M	Yes [ ]
FS4	Receiver optical signal	58.2.3	Higher optical power received is a logic 1	M	Yes [ ]
FS5	Signal detect function (downstream)	58.2.4.1	Mapping to PMD service interface	M	Yes [ ]
FS6	Signal detect parameter (downstream)	58.2.4.1	Generated according to Table 58-3 and Table 58-5	M	Yes [ ]
FS8	Signal detect parameter (upstream)	58.2.4.2	Generated according to Table 58-2 and Table 58-4	M	Yes [ ]

#### 0.0.2.2 Management functions

Item	Feature	Subclause	Value/Comment	Status	Support

### 0.0.2.3 PMD to MDI optical specifications for 1000BASE-PX10

Item	Feature	Subclause	Value/Comment	Status	Support
PX10: TX	1000BASE-PX10-D and 1000BASE-PX10-U Transmit	58.3.1	Meets specifications in Table 58-7	PX10:M	Yes [ ] N/A [ ]
PX10: EYE	1000BASE-PX10-D and 1000BASE-PX10-U TX Eye	58.3.1	Meets specifications in 58.8.7 and Figure 58-4	PX10:M	Yes [ ] N/A [ ]
PX10: SW	1000BASE-PX10-D and 1000BASE-PX10-U RMS spectral width	58.3.1.1	Meets specifications in Figure 58-2 and Table 58-8	PX10:M	Yes [ ] N/A [ ]
PX10: RX	1000BASE-PX10-D and 1000BASE-PX10-U Receive	58.3.2	Meets specifications in Table 58-9	PX10:M	Yes [ ] N/A [ ]

### 0.0.2.4 PMD to MDI optical specifications for 1000BASE-PX20-D

Item	Feature	Subclause	Value/Comment	Status	Support
PX20: TX	1000BASE-PX20-D and 1000BASE-PX20-U Transmit	58.4.1	Meets specifications in Table 58-11	PX20:M	Yes [ ] N/A [ ]
PX20: EYE	1000BASE-PX20-D and 1000BASE-PX20-U TX Eye	58.4.1	Meets specifications in 58.8.7 and Figure 58-4	PX20:M	Yes [ ] N/A [ ]
PX20: SW	1000BASE-PX20-D and 1000BASE-PX20-U RMS spectral width	58.4.1.1	Meets specifications in Figure 58-3 and Table 58-12	PX20:M	Yes [ ] N/A [ ]
PX20: RX	1000BASE-PX20-D and 1000BASE-PX20-U Receive	58.4.2	Meets specifications in Table 58-13	PX20:M	Yes [ ] N/A [ ]

### 0.0.2.5 Optical measurement requirements

Item	Feature	Subclause	Value/Comment	Status	Support
OM1	Measurement cable	58.8	2 to 5 meters in length	M	Yes [ ]
OM2	Center wavelength and spectral width measurement	58.8.1	Measured using an optical spectrum analyzer per TIA/EIA-455-127 under modulated conditions	M	Yes [ ]
OM3	Average optical power	58.8.2	Measured using the methods specified in TIA/EIA-455-95[B7]	M	Yes [ ]
OM4	Extinction ratio	58.8.3	Measured using the methods specified in ANSI/TIA/EIA-526-4A-1997 [B13]	M	Yes [ ]
OM5	OMA measurement bandwidth	58.8.5	As described in 60.7.6	M	Yes [ ]
OM6	RIN	58.8.6	Measured using ANSI X3.230[B20](FC-PH), Annex A, A.5	M	Yes [ ]
OM7	Transmit eye	58.8.7	Eye must be measured with respect to mask and using Bessel Thomson filter	M	Yes [ ]
OM8	Stressed receiver conformance test	58.8.11	Performed in accordance with the requirements of 60.7.11	M	Yes [ ]

### 0.0.2.6 Characteristics of the fiber optic cabling and MDI

Item	Feature	Subclause	Value/Comment	Status	Support
FO1	Fiber optic cabling	58.11	Specified in Table 58-17	INS:M	Yes [ ]
FO4	Maximum discrete reflectance - singlemode fiber	58.11.2.2	Less than -26 dB	INS:M	Yes [ ] N/A [ ]

### 0.0.2.7 Environmental specifications

Item	Feature	Subclause	Value/Comment	Status	Support

### 0.0.2.8 Environment

Item	Feature	Subclause	Value/Comment	Status	Support