

100.7 Protocol implementation conformance statement (PICS) proforma for Clause 100, Physical Medium Dependent (PMD) sublayer and medium for coaxial cable distribution networks, type 10GPASS-XR¹

The supplier of a protocol implementation that is claimed to conform to Clause 100, Physical Medium Dependent (PMD) sublayer and medium for passive optical networks type 10GPASS–XR shall complete the following protocol implementation conformance statement (PICS) proforma.

A detailed description of the symbols used in the PICS proforma, along with instructions for completing the PICS proforma, can be found in [Clause 21](#).

100.7.1 Identification

100.7.1.1 Implementation identification

Supplier ¹	
Contact point for enquiries about the PICS ¹	
Implementation Name(s) and Version(s) ^{1,3}	
Other information necessary for full identification—e.g., name(s) and version(s) for machines and/or operating systems; System Name(s) ²	
NOTE 1—Required for all implementations. NOTE 2—May be completed as appropriate in meeting the requirements for the identification. NOTE 3—The terms Name and Version should be interpreted appropriately to correspond with a supplier’s terminology (e.g., Type, Series, Model).	

100.7.1.2 Protocol summary

Identification of protocol standard	IEEE Std 802.3bn-201x, Clause 100, Reconciliation Sublayer, Physical Coding Sublayer, and Physical Media Attachment for EPoC
Identification of amendments and corrigenda to this PICS proforma that have been completed as part of this PICS	
Have any Exception items been required? No [] Yes [] (See Clause 21 ; the answer Yes means that the implementation does not conform to IEEE Std 802.3bn-201x.)	

Date of Statement	
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¹Copyright release for PICS proformas: Users of this standard may freely reproduce the PICS proforma in this subclause so that it can be used for its intended purpose and may further publish the completed PICS.

100.7.2 Major capabilities/options

Item	Feature	Subclause	Value/Comment	Status	Support
DC	Delay constraints	100.2.1.1	Device conforms to delay constraints	M	Yes []
DMM	Downstream modulation rates	100.2.5	Provides mandatory rates specified in Table 100-2	M	Yes []
CLTO1	Downstream modulation rate 8-QAM	100.2.5	Optional rate in Table 100-2	CLT:O	Yes [] No [] N/A []
CNUO1	Downstream modulation rate 8-QAM	100.2.5	Optional rate in Table 100-2	CNU:O	Yes [] No [] N/A []
CLTO2	Downstream modulation rate 16-QAM	100.2.5	Optional rate in Table 100-2	CLT:O	Yes [] No [] N/A []
CNUO2	Downstream modulation rate 16-QAM	100.2.5	Optional rate in Table 100-2	CNU:O	Yes [] No [] N/A []
CLTO3	Downstream modulation rate 32-QAM	100.2.5	Optional rate in Table 100-2	CLT:O	Yes [] No [] N/A []
CNUO3	Downstream modulation rate 32-QAM	100.2.5	Optional rate in Table 100-2	CNU:O	Yes [] No [] N/A []
CLTO4	Downstream modulation rate 8192-QAM	100.2.5	Optional rate in Table 100-2	CLT:O	Yes [] No [] N/A []
CNUO4	Downstream modulation rate 8192-QAM	100.2.5	Optional rate in Table 100-2	CNU:O	Yes [] No [] N/A []
CLTO5	Downstream modulation rate 16384-QAM	100.2.5	Optional rate in Table 100-2	CLT:O	Yes [] No [] N/A []
CNUO5	Downstream modulation rate 16384-QAM	100.2.5	Optional rate in Table 100-2	CNU:O	Yes [] No [] N/A []
UMM	Upstream modulation rates	100.2.5	Provides mandatory rates specified in Table 100-2	M	Yes []
CLTO6	Upstream modulation rate 2048-QAM	100.2.5	Optional rate in Table 100-2	CLT:O	Yes [] No [] N/A []
CNUO6	Upstream modulation rate 2048-QAM	100.2.5	Optional rate in Table 100-2	CNU:O	Yes [] No [] N/A []
CLTO7	Upstream modulation rate 4096-QAM	100.2.5	Optional rate in Table 100-2	CLT:O	Yes [] No [] N/A []

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Item	Feature	Subclause	Value/Comment	Status	Support
CNUO7	Upstream modulation rate 4096-QAM	100.2.5	Optional rate in Table 100–2	CNU:O	Yes [] No [] N/A []
MR	Frequency plan marking	100.2.7	Device conforms to down- stream and upstream marking requirements	M	Yes []

100.7.3 PICS proforma tables for Physical Medium Dependent (PMD) sublayer for coax cable distribution networks, type 10GPASS-XR

100.7.3.1 PMD functional specifications

Item	Feature	Subclause	Value/Comment	Status	Support
FN1	Transmit function	100.2.2	Conveys I/Q value pairs from PMD service interface to MDI	M	Yes []
FN2	Receive function	100.2.3	Conveys I/Q value pairs from MDI to PMD service interface	M	Yes []
DSRU	Update DS_DataRate	100.2.6.1	Updates after configuration or pilot change.	CLT:M	Yes [] No []
USRU	Update DS_DataRate	100.2.6.2	Updates after profile or pilot change	CLT:M	Yes [] No []
CLTRF	CLT modulated RF signal	100.2.8.2	Meets specifications in Table 100–3, Table 100–5, and Table 100–6	CLT:M	Yes [] No []
CLTPN	CLT phase noise	100.2.8.3	Meets specifications as per Table 100–4	CLT:M	Yes [] No []
CLTCP	CLT power per OFDM channel	100.2.8.4	Comply with requirements	CLT:M	Yes [] No []
CLTSE	CLT out-of-band spurious emissions	100.2.8.5	Meets specifications as per 100.2.8.5 and Table 100–6	CLT:M	Yes [] No []
CLTPL	CLT power limit	100.2.9.3	Limit $P_{1.6Max}$ to no more than 53.2 dBmV+ ($P_{Max} - 65$) if the bandwidth of the modulated spectrum is ≤ 24 MHz	CLT:M	Yes [] No []
CNULP	CNU initial power	100.2.9.3	Initiate PHY Discovery using lowest power	CNU:M	Yes [] No []
CNUTP	CNU target power for each subcarrier	100.2.9.3	Meets Equation (100–10)	CNU:M	Yes [] No []
CNUSE	CNU noise and spurious emissions	100.2.9.5	Meets specifications in 100.2.9.5, Table 100–7, Table 100–8, and Table 100–9	CNU:M	Yes [] No []
CNUTM	CNU transmit MER	100.2.9.6	Meets requirements in Table 100–10	CNU:M	Yes [] No []

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Item	Feature	Subclause	Value/Comment	Status	Support
CNURF	CNU modulated RF signal	100.2.9.7	Meets specifications in Table 100–11	CNU:M	Yes [] No []
CLTRX1	CLT receiver input signal level	100.2.10.1	Operate with an average up to 31 dBmV	CLT:M	Yes [] No []
CLTRX2	CLT receiver configuration and performance	100.2.10.1	Meets specifications in Table 100–12	CLT:M	Yes [] No []
CLTEP	CLT receiver error performance	100.2.10.2	Meets specifications in Table 100–13	CLT:M	Yes [] No []
CLTRM	CLT receiver MER requirements	100.2.11	Measurements of receive MER for all active subcarriers	CLT:M	Yes [] No []
CNUSR	CNU signal reception	100.2.12.1	Meets specifications in Table 100–14	CNU:M	Yes [] No []
CNUER	CNU receive post-FEC error ratio	100.2.12.2	$\leq 10^{-6}$ frame loss ratio when meeting specifications in 100.2.12.2.1 and Table 100–15	CNU:M	Yes [] No []
CNURM	CNU receive MER	100.2.12.3	Measurements of receive MER for all active subcarriers	CNU:M	Yes [] No []
EE	Energy savings	100.5	Turn off RF power amplifier between bursts.	CNU:M	Yes [] No []

100.7.3.2 Definition of parameters and measurement methods

Item	Feature	Subclause	Value/Comment	Status	Support
TST1	CLT RF output muting return loss	100.3.1	Meets specifications in Table 100–3	CLT:M	Yes [] No []
TST2	CNU receive MER testing	100.3.2	Receive MER_std ≤ 0.5 dB and delta receiver ≤ 4 dB and ≥ 6 dB when operating conditions specified in 100.3.2	CNU:M	Yes [] No []
TST3	CLT transmitter phase noise tests	100.3.3	Meet specifications in Table 100–16	CLT:M	Yes [] No []
TST4	CLT transmitter mute	100.3.4	Supports CLT_TxMute as per 100.3.4	CLT:M	Yes [] No []

100.7.3.3 Environmental specifications

Item	Feature	Subclause	Value/Comment	Status	Support
ES1	General safety	100.4.1	Conforms to IEC 60950–1.	M	Yes []
ES2	Installation	100.4.2	Meets applicable local codes and regulation	M	Yes []

Item	Feature	Subclause	Value/Comment	Status	Support
ES3	Documentation	100.4.3	Explicitly defines requirements and usage restrictions to meet environment and safety certifications	M	Yes [] No []
ES4	Labeling	100.4.4	Labeled in a manner visible to the user	M	Yes [] No []

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