144.5 Protocol implementation conformance statement (PICS) proforma for Clause 144, Multipoint MAC Control for Nx25G-EPON[4]

144.5.1 Introduction

The supplier of a protocol implementation that is claimed to conform to Clause 144 Multipoint MAC Control, 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.

144.5.2 Identification

144.5.2.1 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).	

144.5.2.2 Protocol summary

Identification of protocol standard	IEEE Std 802.3ca-201x, Clause 144, Multipoint MAC Control for Nx25G-EPON
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 802.3ca-201x.)	

Date of Statement	

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[4]*Copyright 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.

144.5.3 Major capabilities/options

Item	Feature	Subclause	Value/Comment	Status	Support
*OLT	OLT functionality	144.1	Device supports functionality required for OLT	O/1	Yes [ ] No [ ]
*ONU	ONU functionality	144.1	Device supports functionality required for ONU	O/1	Yes [ ] No [ ]

144.5.4 PICS proforma tables for Multipoint MAC Control

144.5.4.1 Clock tracking

Item	Feature	Subclause	Value/Comment	Status	Support
CLK1	Clock tracking at OLT	144.2.1.2	*LocalTime* tracks the transmit clock	OLT:M	Yes [ ]
CLK2	Clock tracking at ONU	144.2.1.2	*LocalTime* tracks the receive clock	ONU:M	Yes [ ]

144.5.4.2 LLID

Item	Feature	Subclause	Value/Comment	Status	Support
LL1a	DISC_PLID, unregistered ONU	144.3.3	An unregistered ONU accepts only the envelopes with DISC_PLID value in LLID field	ONU:M	Yes [ ]
LL1b	DISC_PLID, registered ONU	144.3.3	A registered ONU ignores envelopes with DISC_PLID value in the LLID field	ONU:M	Yes [ ]
LL2	LLIDs accepted by a registered ONU	144.3.3	A registered ONU accepts envelopes with LLID values: — The specific assigned PLID — The specific assigned MLID — BCAST_PLID — BCAST_MLID — BCAST_ULID — Any configured ULID or GLID	ONU:M	Yes [ ]

144.5.4.3 State diagrams

Item	Feature	Subclause	Value/Comment	Status	Support
SM1	Control Parser	144.2.1.5	Meets the requirements of Figure 144–5	M	Yes [ ]
SM2	Control Multiplexer	144.2.1.6	Meets the requirements of Figure 144–6	M	Yes [ ]
SM3a	Discovery Initiation in OLT	144.3.5.6	Meets the requirements of Figure 144–18, single instance associated with DISC_PLID	OLT:M	Yes [ ]
SM3b	Discovery Completion in OLT	144.3.5.7	Meets the requirements of Figure 144–19, one instance for each unicast PLID being registered	OLT:M	Yes [ ]
SM3c	Discovery in ONU	144.3.5.8	Meets the requirements of Figure 144–20, single instance	ONU:M	Yes [ ]
SM4a	Gate Generation	144.3.6.7	Meets the requirements of Figure 144–21, one instance for each registered unicast PLID	OLT:M	Yes [ ]
SM4b	Gate Reception	144.3.6.8	Meets the requirements of Figure 144–22	ONU:M	Yes [ ]
SM5a	Envelope Commitment in OLT	144.3.6.9	Meets the requirements of Figure 144–23, single instance	OLT:M	Yes [ ]
SM5b	Envelope Commitment in ONU	144.3.6.10	Meets the requirements of Figure 144–24, single instance	ONU:M	Yes [ ]
SM5c	Envelope Activation	144.3.6.11	Meets the requirements of Figure 144–25, single instance	M	Yes [ ]
SM6a	CCP Processing in OLT	144.4.3.6	Meets the requirements of Figure 144–30, each instance is associated with a MLID being registered	OLT:M	Yes [ ]
SM6b	CCP Processing in ONU	144.4.3.6	Meets the requirements of Figure 144–31	ONU:M	Yes [ ]

144.5.4.4 MPCP

Item	Feature	Subclause	Value/Comment	Status	Support
MP1	MPCPDU structure	144.3.4	As in Figure 144–9	M	Yes [ ]
MP2	GATE structure	144.3.4.1	As in Figure 144–10	M	Yes [ ]
MP2a	Grant start time and size	144.3.4.1	Transmission on each channel starts at the ONU's local time equal to the *StartTime* value and has the length as necessary to transmit all allocated envelopes (the sum of all *EnvLength* fields) together with the associated optical and FEC overhead	ONU:M	Yes [ ]
MP2b	Fragmentation	144.3.4.1	When flag *F* is set to 0, do not fragment new frames	ONU:M	Yes [ ]
MP2c	Forced report	144.3.4.1	When flag *FR* is set to 1, report the total length of the frames (including IPG and preamble), queued for transmission on this specific LLID	ONU:M	Yes [ ]
MP3	REPORT structure	144.3.4.2	As in Figure 144–11	M	Yes [ ]
MP4	REGISTER_REQ structure	144.3.4.3	As in Figure 144–12	M	Yes [ ]
MP5	REGISTER structure	144.3.4.4	As in Figure 144–13	M	Yes [ ]
MP6	REGISTER_ACK structure	144.3.4.5	As in Figure 144–14	M	Yes [ ]
MP7	DISCOVERY structure	144.3.4.6	As in Figure 144–15	M	Yes [ ]
MP7a	Discovery attempt	144.3.4.6	Attempt to register on a single channel only	ONU:M	Yes [ ]
MP7b	*OnuRssiMin* trigger	144.3.4.6	Generate a REGISTER_REQ message in the given discovery window only when measured RSSI is greater or equal to *OnuRssiMin*	ONU:M	Yes [ ]
MP7c	*OnuRssiMax* trigger	144.3.4.6	Generate a REGISTER_REQ message in the given discovery window only when measured RSSI is smaller than or equal to *OnuRssiMax*	ONU:M	Yes [ ]
MP8	SYNC_PATTERN structure	144.3.4.7	As in Figure 144–16	M	Yes [ ]
MP9a	MPCPDU timing on transmit	144.3.1.1	When multiple MPCPDUs are transmitted within a single envelope, all these MPCPDUs have the same timestamp value, referencing the transmission time of ESH.	M	Yes [ ]
MP9b	MPCPDU timestamp drift	144.3.1.1	ONU ignores timestamp drift error immediately after the registration	ONU:M	Yes [ ]

144.5.4.5 CCP

Item	Feature	Subclause	Value/Comment	Status	Support
CP1	CCPDU structure	144.4.2	As in Figure 144–27	M	Yes [ ]
CP2	CC_REQUEST structure	144.4.2.1	As in Figure 144–28	M	Yes [ ]
CP3	CC_RESPONSE structure	144.4.2.2	As in Figure 144–29	M	Yes [ ]
CP4a	Disabled ONU receive path remains active	144.4.1.1	Do not accumulate statistics or increment of error counters on this channel, such as invalid receive blocks or uncorrectable FEC codewords, when ONU receiver is disabled	ONU:M	Yes [ ]
CP4b	Disabled ONU transmit path remains active	144.4.1.3	Do not accumulate statistics or increment of error counters on this channel, such as invalid receive blocks or uncorrectable FEC codewords, when ONU transmitter is disabled	ONU:M	Yes [ ]