

## 4A.2 ONU-specific PICS

### 4A.2.1 Implementation identification

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

### 4A.2.2 Protocol summary

Identification	per Table 5-1, ONU-specific requirements
Identification of amendments and corrigenda to this PICS proforma that have been completed as part of this PICS	
Have any Exception items been required?	<input type="checkbox"/> <input type="checkbox"/> No
	<input type="checkbox"/> <input type="checkbox"/> Yes
(See 3.7; the answer Yes means that the implementation of the given EPON ONU does not conform to IEEE Std 1904.4 requirements.)	

Date of Statement	
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### 4A.2.3 REPORT MPCP format

Item	Description	Subclause	Value/Comment	Status	Support
U-RF0a	Implements <i>REPORT</i> MPCP format	Table 5-1	ONU implements <i>REPORT</i> MPCP format per 8.4.3	M	<input type="checkbox"/> <input type="checkbox"/> Yes
U-RF0b	<i>REPORT</i> MPCP format	8.4.3	<i>REPORT</i> MPCPDU conforms to the structure shown in Figure 8-5.	M	<input type="checkbox"/> <input type="checkbox"/> Yes
U-RF1	Queue Set count (ONU)	8.4.3.1	<i>REPORT</i> MPCPDU contains between 1 and 4 Queue Sets.	M	<input type="checkbox"/> <input type="checkbox"/> Yes
U-RF2a	Queue count per Queue Set	8.4.3.2	Single queue per Queue Set. Report bitmap field contains 0x01.	M	<input type="checkbox"/> <input type="checkbox"/> Yes

Item	Description	Subclause	Value/Comment	Status	Support
U-RF2b	Queue #n Report field count	8.4.3.2	All Queue Sets contain a single Queue #n Report field.	M	[ ] [ ] Yes
U-RF3	Ordering Queue #n Reports	8.4.3.4	Reported queue length values for Queue #n is cumulative.	M	[ ] [ ] Yes
U-RF5	Threshold $T_i$ crossing	8.4.2	When there is not enough data to cross the next threshold $T_i$ , then the reported values $r_{i+1}$ through $r_n$ are not included in the <i>REPORT</i> MPCPDU.	O	[ ] [ ] Yes [ ] [ ] No

#### 4A.2.4 Report queue length calculation

Item	Description	Subclause	Value/Comment	Status	Support
U-RLC0	Implements report queue length calculation	Table 5-1	ONU implements report queue length calculation per 8.4.2.	M	[ ] [ ] Yes

#### 4A.2.5 Queue service discipline

Item	Description	Subclause	Value/Comment	Status	Support
U-QSD0	Implements queue service discipline	Table 5-1	ONU implements queue service discipline per 8.4.1.	M	[ ] [ ] Yes

#### 4A.2.6 ONU transceiver status monitoring

Item	Description	Subclause	Value/Comment	Status	Support
U-USM0a	Implements ONU transceiver status monitoring	Table 5-1	ONU implements ONU transceiver status monitoring.	M	[ ] Yes
U-USM0b	Implementation of ONU transceiver status monitoring	9.1.3	Via SFF-8472– and SFF-8077i–compliant interfaces.	M	[ ] Yes
U-USM1	Management and measurement methodology	9.1.3	Management, threshold crossing events, fault diagnostics, and performance prediction functions per DPoE-SP-OAM.	M	[ ] Yes
U-USM2	Optical transceiver temperature monitoring	9.1.3.1	ONU supports the measurement of temperature of the optical transceiver, with the measured value represented in the format of a 16-bit signed two’s-complement value, with the LSB equal to $1/256$ °C, covering the range of $-40$ °C to $+125$ °C.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
U-USM3	Optical transceiver supply voltage monitoring	9.1.3.2	ONU supports the measurement of supply voltage of the optical transceiver, with the measured value represented in the format of a 16-bit signed two's-complement value, with the LSB equal to 100 $\mu$ V, covering the range of 0 to +6.55 V.	M	[ ] Yes
U-USM4	Optical transmitter bias current monitoring	9.1.3.3	ONU supports the measurement of the bias current of the optical transmitter, with the measured value represented in the format of a 16-bit signed two's-complement value, with the LSB equal to 2 $\mu$ A, covering the range of 0 to +131 mA.	M	[ ] Yes
U-USM5	Optical transmitter output power monitoring	9.1.3.4	ONU supports the measurement of the output power of the optical transmitter, with the measured value is represented in the format of a 16-bit signed two's-complement value, with the LSB equal to 0.1 $\mu$ W, covering the range of 0 to +6.5535 mW (~ -40 to +8.2 dBm).	M	[ ] Yes
U-USM6	Optical receiver input power monitoring	9.1.3.5	ONU supports the measurement of the input power of the optical receiver, with the measured value is represented in the format of a 16-bit signed two's-complement value, with the LSB equal to 0.1 $\mu$ W, covering the range of 0 to +6.5535 mW (~ -40 to +8.2 dBm).	M	[ ] Yes

#### 4A.2.7 Events

Item	Description	Subclause	Value/Comment	Status	Support
U-E0a	Implements events	Table 5-1	ONU implements events per 9.2.6.	M	[ ] Yes
U-E0b	Events defined in IEEE Std 802.3, Clause 57	9.2.6	Support events per 9.2.6.	M	[ ] Yes
U-E1a	Downstream link fault (generation condition)	9.2.6.1	Downstream link fault event is generated when a critical status of the downstream link on the L-ONU is detected using any type of vendor-specific mechanism.	M	[ ] Yes
U-E1b	Downstream link fault (upstream transmission on detect)	9.2.6.1	ONU stops all upstream transmissions when the downstream link fault condition was detected.	M	[ ] Yes
U-E1c	Downstream link fault (clear condition)	9.2.6.1	Downstream link fault event is cleared when a critical status of the downstream link on the L-ONU is no longer detected using any type of vendor-specific mechanism.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
U-E2	Dying Gasp (generation condition)	9.2.6.3	Dying Gasp event is generated when an L-ONU detects unexpected power failure.	M	[ ] Yes

#### 4A.2.8 Data encryption

Item	Description	Subclause	Value/Comment	Status	Support
U-DE0a	Implements data encryption	Table 5-1	ONU implements data encryption per 11.2.2.	M	[ ] Yes
U-DE0b	Data encryption	11.2.2	Implement data encryption and integrity protection mechanisms, as defined in DPoE-SP-SEC and DPoE-SP-OSSI.	M	[ ] Yes

#### 4A.2.9 ONU authentication

Item	Description	Subclause	Value/Comment	Status	Support
U-AU0a	Implements ONU authentication	Table 5-1	ONU implements ONU authentication per 11.3.3.	M	[ ] Yes
U-AU0b	ONU authentication	11.3.3	Implement ONU authentication mechanisms, as defined in DPoE-SP-SEC, DPoE-SP-MULPI, and DPoE-SP-OSSI.	M	[ ] Yes

#### 4A.2.10 Management

Item	Description	Subclause	Value/Comment	Status	Support
U-MG0	Management	13.4.1	Implement OAM-based management protocols per IEEE Std 802.3, Clause 57.	M	[ ] Yes
U-MG1a	eOAMPDU Frame Format	13.4.2	Meets the requirements of Table 13-2.	M	[ ] Yes
U-MG1b	eOAMPDU Frame Format (fields)	13.4.2	Meet the requirements as listed in 13.4.2.	M	[ ] Yes
U-MG2	TLV sequence terminator	13.4.3	A series of TLVs carried in any of the <i>eOAM_Get_Request</i> , <i>eOAM_Get_Response</i> , <i>eOAM_Set_Request</i> , or <i>eOAM_Set_Response</i> eOAMPDU is terminated with the Variable Descriptor with values carried in the Branch and Leaf fields equal to 0.	M	[ ] Yes
U-MG3	Variable Descriptor TLV format	13.4.3.1	Meets the requirements of Table 13-3.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
U-MG4a	Variable Container TLV format	13.4.3.2	Meets the requirements of Table 13-4.	M	[ ] Yes
U-MG4b	Variable Container TLV format (integer)	13.4.3.2	Represented in the two's-complement form, with the Most Significant Octet (MSO) first.	M	[ ] Yes
U-MG4c	Variable Container TLV format (integer, length)	13.4.3.2	Destination OAM client accepts an integer in a Variable Container of any legal width (1..128 octets).	M	[ ] Yes
U-MG4d	Variable Container TLV format (enumerated value)	13.4.3.2	Source OAM client does not suppress trailing zeros for enumerated values.	M	[ ] Yes
U-MG4e	Variable Container TLV format (enumerated value)	13.4.3.2	Destination OAM client does not add trailing zeros for enumerated values.	M	[ ] Yes
U-MG4f	Variable Container TLV format (sequence list)	13.4.3.2	All elements in the sequence list are of the same length.	M	[ ] Yes
U-MG4g	Variable Container TLV format (sequence list)	13.4.3.2	Number of elements in the sequence list is determined based on size of the given Variable Container.	M	[ ] Yes
U-MG5a	<i>Extended Information</i> TLV format	13.4.4.1	Meets the requirements of Table 13-5.	M	[ ] Yes
U-MG5b	<i>Extended Information</i> TLV structure (OUI)	13.4.4.1	At least one of the <i>Organization Specific Information</i> TLVs exchanged between the ONU and the OLT during the eOAM discovery process is of <i>Extended Information</i> TLV type, containing the OUI_1904_4.	M	[ ] Yes
U-MG6a	Basic structure of <i>Organization Specific Event</i> TLV	13.4.4.2	As specified in IEEE Std 802.3, 57.5.3.5.	M	[ ] Yes
U-MG6b	Specific fields of <i>Organization Specific Event</i> TLV	13.4.4.2	As defined in Figure 13-5 and in text below Figure 13-5.	M	[ ] Yes
U-MG6c	Organization Specific Value format	13.4.4.2	Meets the requirements per Table 13-6.	M	[ ] Yes
U-MG7a	Multipart eOAMPDU response sequence (obligation to notify)	13.4.5	ONU informs the OLT that the complete response to the original request was not sent in a single eOAMPDU, but rather in a series of eOAMPDUs.	M	[ ] Yes
U-MG7b	Multipart eOAMPDU response sequence (notification mechanism)	13.4.5	ONU adds an instance of the <i>Sequence</i> TLV (0xDB/0x00-01) to the response eOAMPDU to denote the response sequence.	M	[ ] Yes
U-MG7c	Single-part eOAMPDU response sequence (notification mechanism)	13.4.5	ONU does not add an instance of the <i>Sequence</i> TLV (0xDB/0x00 - 01) to the response eOAMPDU to denote the response sequence.	O	[ ] Yes [ ] No

Item	Description	Subclause	Value/Comment	Status	Support
U-MG8	eOAMPDU Type codes	13.4.6.1	Assignment of eOAMPDU type code meets the requirements of Table 13-9.	M	[ ] Yes
U-MG9	<i>eOAM_Get_Request</i> eOAMPDU type	13.4.6.2	Meets the requirements per Table 13-10.	M	[ ] Yes
U-MG10	<i>eOAM_Get_Response</i> eOAMPDU type	13.4.6.3	Meets the requirements per Table 13-11.	M	[ ] Yes
U-MG11	<i>eOAM_Set_Request</i> eOAMPDU type	13.4.6.4	Meets the requirements per Table 13-12.	M	[ ] Yes
U-MG12	<i>eOAM_Set_Response</i> eOAMPDU type	13.4.6.5	Meets the requirements per Table 13-13.	M	[ ] Yes
U-MG16a	<i>eOAM_KeyExchange</i> eOAMPDU structure	13.4.6.7.1	Meets the requirements per Table 13-20.	M	[ ] Yes
U-MG16b	<i>eOAM_KeyExchange_Assign</i> eOAMPDU type	13.4.6.7.2	Meets the requirements per Table 13-21.	M	[ ] Yes
U-MG16c	<i>eOAM_KeyExchange_ACK</i> eOAMPDU type	13.4.6.7.3	Meets the requirements per Table 13-22.	M	[ ] Yes
U-MG17a	<i>eOAM_Software</i> eOAMPDU structure	13.4.6.6.1	Meets the requirements per Table 13-14.	M	[ ] Yes
U-MG17b	<i>eOAM_Software_WriteRequest</i> eOAMPDU type	13.4.6.6.2	Meets the requirements per Table 13-16.	M	[ ] Yes
U-MG17c	<i>eOAM_Software_FileTransfer Data</i> eOAMPDU type	13.4.6.6.3	Meets the requirements per Table 13-17.	M	[ ] Yes
U-MG17d	<i>eOAM_Software_FileTransfer Ack</i> eOAMPDU type	13.4.6.6.4	Meets the requirements per Table 13-18.	M	[ ] Yes
U-MG19	<i>eOAM_Early_WakeUpOLT</i> eOAMPDU type	13.4.6.8	Meets the requirements per Table 13-23.	M	[ ] Yes
U-MG20	<i>eOAM_Early_WakeUpONU</i> eOAMPDU type	13.4.6.9	Meets the requirements per Table 13-24.	M	[ ] Yes
U-MG21	<i>eOAM_Sleep_Allowed</i> eOAMPDU type	13.4.6.10	Meets the requirements per Table 13-25.	M	[ ] Yes
U-MG22	eOAMPDU return codes	13.4.7	Codes as listed in Table 13-26.	M	[ ] Yes
U-MG23	TLV with return codes for <i>eOAM_Set_Request</i> eOAMPDU	13.4.7	ONU provides exactly one TLV with the return code for each attribute/action TLV included in the received <i>eOAM_Set_Request</i> eOAMPDU	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
U-MG24	TLV with return codes for <i>eOAM_Get_Request</i> eOAMPDU	13.4.7	ONU provides either exactly one TLV with the return code or at least one TLV with the value of the requested attribute for each attribute TLV included in the received <i>eOAM_Get_Request</i> eOAMPDU	M	[ ] Yes
U-MG25	<i>Object Context</i> TLV for return codes for <i>eOAM_Set_Request</i> eOAMPDU	13.4.7	ONU sends the return code in the <i>eOAM_Set_Response</i> eOAMPDU preceded by the <i>Object Context</i> TLV used by the TLV in <i>eOAM_Set_Request</i> eOAMPDU	M	[ ] Yes
U-MG26	Large number of return codes for a TLV	13.4.7	If the series of return codes to the given TLVs in the <i>eOAM_Set_Request</i> eOAMPDU does not fit into one <i>eOAM_Set_Response</i> eOAMPDU, the remaining part of the series of return codes is preceded by the appropriate <i>Object Context</i> TLV	M	[ ] Yes
U-MG27a	ONU response time	13.2.3	ONU generates an <i>eOAM_Get_Response</i> or <i>eOAM_Set_Response</i> eOAMPDU within 1 second of the reception of the corresponding <i>eOAM_Get_Request</i> or <i>eOAM_Set_Request</i> eOAMPDU from the OLT	M	[ ] Yes
U-MG27b	ONU response alarm	13.2.3	If an ONU cannot respond to the OLT request before the expiration of 1-second window, the ONU generates the ONU Busy alarm (see 13.4.4.2.6).	M	[ ] Yes
U-MG28a	eOAMPDU transmission	13.2.4	ONU transmits all OAMPDUs in envelopes tagged with Management Link ID (MLID) that was assigned to the ONU during the MPCP registration (i.e., the primary MLID).	M	[ ] Yes
U-MG28b	eOAMPDU receipt	13.2.4	ONU is able to receive OAMPDUs in envelopes tagged with either the primary MLID or any additional unidirectional MLID assigned to the ONU via the <i>acConfigLlid</i> (0xDD/0x01-20) management action (see 14.6.2.8).	M	[ ] Yes
U-MG29	ONU replying to an OAM request as an OAMPDU	13.2.5	ONU replies with an OAMPDU OAM response message when receiving an OAM request as an OAMPDU	M	[ ] Yes
U-MG30a	ONU replying to an OAM request as an VLCPDU	13.2.5	ONU replies with an VLCPDU OAM response message when receiving an OAM request as an VLCPDU	M	[ ] Yes
U-MG30b	VLCPDU destination address	13.2.5	VLCPDU destination address is equal to the source address in the received VLCPDU OAM request	M	[ ] Yes
U-MG31	ONU OAM event notification	13.2.5	ONU sends the OAM event notification messages using the same PDU type as was used by the last OAM message it received from the OLT	M	[ ] Yes
U-MG32	ONU VLCPDU envelope tag	13.2.5	ONU transmits all VLCPDUs in envelopes with MLID tag	M	[ ] Yes

#### 4A.2.11 Device and capability discovery

Item	Description	Subclause	Value/Comment	Status	Support
U-DCD0	Implements device and capability discovery	Table 5-1	OLT implements device and capability discovery per 13.3.	M	[ ] Yes
U-DCD1	Discovery LLID	13.3.2	The eOAM discovery process is executed on the primary MLID	M	[ ] Yes
U-DCD2a	Discovery process	13.3.2.1	Implement the eOAM discovery process and the eOAM Capability Notification mechanism, using the Organization Specific extensions to the Information TLV specified in IEEE Std 802.3, 57.5.2.3.	M	[ ] Yes
U-DCD2b	Discovery process	13.3.2.1	Implement the eOAM discovery process by exchanging the <i>Organization Specific Information TLV</i> , as defined in IEEE Std 802.3, 57.5.2.3, and further specified in 13.4.4.1, referred to as <i>Extended Information TLV</i> .	M	[ ] Yes
U-DCD2c	ONU includes <i>Extended Information TLV</i>	13.3.2.1	ONU includes the <i>Extended Information TLV</i> in all <i>Information OAMPDU</i> s exchanged during the eOAM discovery process	M	[ ] Yes
U-DCD2d	ONU starts discovery process	13.3.2.1	ONU starts the eOAM discovery process not later than five seconds after the successful completion of the MPCP discovery and registration process	M	[ ] Yes
U-DCD3	Ordering <i>Organization Specific Information TLVs</i> (source)	13.3.2.2.1	<i>Local Information TLV</i> and <i>Remote Information TLV</i> are transmitted first, followed by <i>Organization Specific Information TLVs</i> .	M	[ ] Yes
U-DCD4a	Ordering <i>Organization Specific Information TLVs</i> (destination)	13.3.2.2.2	Support multiple <i>Information TLVs</i> in a single <i>Information OAMPDU</i> , including <i>Local Information TLV</i> , <i>Remote Information TLV</i> and at least one <i>Organization Specific Information TLV</i> .	M	[ ] Yes
U-DCD4b	Processing order	13.3.2.2.2	Process all received <i>Information TLVs</i> in the order of their reception, discarding any <i>Information TLVs</i> which are either malformed or unsupported.	M	[ ] Yes
U-DCD5a	ONU implementation (sL-ONU)	13.3.2.3.6	Implement the extended OAM discovery process as shown in Figure 12-4	M	[ ] Yes
U-DCD5b	ONU implementation (mL-ONU)	13.3.2.3.6	Implement the extended OAM discovery process as shown in Figure 12-4, for every registering L-ONU	M	[ ] Yes
U-DCD6	ONU OAM and eOAM Keep-alive Process	13.3.3	ONU goes through the MPCP deregistration process, as defined in IEEE Std 802.3ca, 144.3.7.	M	[ ] Yes

#### 4A.2.12 Software update

Item	Description	Subclause	Value/Comment	Status	Support
U-SU0	Implements software update	Table 5-1	ONU implements software update per 13.5	M	[ ] Yes
U-SU1	ONU retains software image on download failure	13.5.1.2	If the software image downloading process is aborted, the ONU retains the software image that existed in the ONU prior to the failed download attempt.	M	[ ] Yes
U-SU2	ONU retains software image on committing failure	13.5.1.4	If the software image committing process is aborted, the ONU retains the software image that existed in the ONU prior to the failed committing attempt.	M	[ ] Yes
U-SU3	ONU software update processes	13.5.2.6	Implement the software image download process as shown in Figure 13-8.	M	[ ] Yes

#### 4A.2.13 Management entities

Item	Description	Subclause	Value/Comment	Status	Support
U-ME0	Management entities	14.4	Implement management entities, as defined in 14.4.	M	[ ] Yes
U-ME1a	<i>Object Context</i>	14.2.1	Meets the requirements of Table 14-1	M	[ ] Yes
U-ME1b	Source OAM Client (set object context)	14.2.1	The source OAM Client sets the proper context, as specified for each attribute and action in 14.3 through 14.6 using the <i>Object Context</i> TLV.	M	[ ] Yes
U-ME1c	Source OAM Client (maintain object context)	14.2.1	The source OAM Client does not insert the <i>Object Context</i> TLV in front of Variable Container TLVs or Variable Descriptor TLVs if the proper context is already set, either explicitly via an earlier <i>Object Context</i> TLV or implicitly, as a default object context.	O	[ ] Yes [ ] No
U-ME1d	Destination OAM Client (default object context)	14.2.1	Until the first <i>Object Context</i> TLV is encountered in the received eOAMPDU, the destination OAM Client uses the LLID on which the eOAMPDU was received as the object context.	M	[ ] Yes
U-ME1e	Destination OAM Client (maintain object context)	14.2.1	The destination OAM Client applies the current object context to all subsequent Variable Container TLVs and Variable Descriptor TLVs until another <i>Object Context</i> TLV is encountered.	M	[ ] Yes
U-ME2a	ObjectType	14.2.1.1	Supports values per Table 14-2.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
U-ME2b	Action for reserved ObjectType value	14.2.1.1	When the destination OAM Client encounters an <i>Object Context</i> TLV carrying one of the reserved ObjectType values, the destination OAM Client discards this <i>Object Context</i> TLV and all the subsequent TLVs present in the same eOAMPDU until it encounters another <i>Object Context</i> TLV with one of the supported values.	M	[ ] Yes
U-ME3a	ObjectInstance value (ONU object)	14.2.1.2.1	Instance number for the ONU ObjectType is equal to 0x00, per Table 14-3.	M	[ ] Yes
U-ME3b	ObjectInstance value (PON Port object)	14.2.1.2.2	Instance number for the PON Port ObjectType starts with 0x00 up to the value of N-1, where N represents the total number of PON Port interfaces, per Table 14-4.	M	[ ] Yes
U-ME3c	ObjectInstance value (LLID object)	14.2.1.2.3	Instance number for the LLID ObjectType starts with 0x00 up to the value of N-1, where N represents the total number of supported LLIDs, per Table 14-5.	M	[ ] Yes
U-ME3d	ObjectInstance value (Service Port object)	14.2.1.2.4	Instance number for the UNI Port ObjectType starts with 0x00 up to the value of N-1, where N represents the total number of supported UNIs, per Table 14-6.	M	[ ] Yes
U-ME3f	ObjectInstance value (Queue object) for upstream queues	14.2.1.2.5	Instance number for the Queue ObjectType starts with 0x00-00 up to the value of 0xFF-FF, representing the LLID instance with which the given queue is associated, per Table 14-7.	M	[ ] Yes
U-ME3g	ObjectInstance value (Queue object) for downstream queues	14.2.1.2.5	Instance number for the Queue ObjectType starts with 0x00 up to the value of N-1, with the maximum value equal to N-1, where N is the total number of queues associated with the given port, per Table 14-8.	M	[ ] Yes
U-ME4	Supported standard attributes	14.3	Per Table 14-9.	M	[ ] Yes
U-ME5	<i>Frames Transmitted OK</i> TLV (0x07/0x00-02)	14.3.1.1	Meets the requirements of Table 14-10.	M	[ ] Yes
U-ME6	<i>Single Collision Frames</i> TLV (0x07/0x00-03)	14.3.1.2	Meets the requirements of Table 14-11.	M	[ ] Yes
U-ME7	<i>Multiple Collision Frame</i> TLV (0x07/0x00-04)	14.3.1.3	Meets the requirements of Table 14-12.	M	[ ] Yes
U-ME8	<i>Frames Received OK</i> TLV (0x07/0x00-05)	14.3.1.4	Meets the requirements of Table 14-13.	M	[ ] Yes

<b>Item</b>	<b>Description</b>	<b>Subclause</b>	<b>Value/Comment</b>	<b>Status</b>	<b>Support</b>
U-ME9	<i>Frame Check Sequence Errors TLV</i> (0x07/0x00-06)	14.3.1.5	Meets the requirements of Table 14-14.	M	[ ] Yes
U-ME10	<i>Alignment Errors TLV</i> (0x07/0x00-07)	14.3.1.6	Meets the requirements of Table 14-15.	M	[ ] Yes
U-ME11	<i>Octets Transmitted OK TLV</i> (0x07/0x00-08)	14.3.1.7	Meets the requirements of Table 14-16.	M	[ ] Yes
U-ME12	<i>Frames With Deferred Transmissions TLV</i> (0x07/0x00-09)	14.3.1.8	Meets the requirements of Table 14-17.	M	[ ] Yes
U-ME13	<i>Late Collisions TLV</i> (0x07/0x00-0A)	14.3.1.9	Meets the requirements of Table 14-18.	M	[ ] Yes
U-ME14	<i>Frames Aborted Collisions TLV</i> (0x07/0x00-0B)	14.3.1.10	Meets the requirements of Table 14-19.	M	[ ] Yes
U-ME15	<i>Frames Lost Internal Tx Error TLV</i> (0x07/0x00-0C)	14.3.1.11	Meets the requirements of Table 14-20.	M	[ ] Yes
U-ME16	<i>Octets Received OK TLV</i> (0x07/0x00-0E)	14.3.1.12	Meets the requirements of Table 14-21.	M	[ ] Yes
U-ME17	<i>Frames Lost Internal Rx Error TLV</i> (0x07/0x00-0F)	14.3.1.13	Meets the requirements of Table 14-22.	M	[ ] Yes
U-ME18	<i>Multicast Frames Transmitted OK TLV</i> (0x07/0x00-12)	14.3.1.14	Meets the requirements of Table 14-23.	M	[ ] Yes
U-ME19	<i>Broadcast Frames Transmitted OK TLV</i> (0x07/0x00-13)	14.3.1.15	Meets the requirements of Table 14-24.	M	[ ] Yes
U-ME20	<i>Frames With Excessive Deferral TLV</i> (0x07/0x00-14)	14.3.1.16	Meets the requirements of Table 14-25.	M	[ ] Yes
U-ME21	<i>Multicast Frames Received OK TLV</i> (0x07/0x00-15)	14.3.1.17	Meets the requirements of Table 14-26.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
U-ME22	<i>Broadcast Frames Received OK</i> TLV (0x07/0x00-16)	14.3.1.18	Meets the requirements of Table 14-27.	M	[ ] Yes
U-ME23	<i>In Range Length Errors</i> TLV (0x07/0x00-17)	14.3.1.19	Meets the requirements of Table 14-28.	M	[ ] Yes
U-ME24	<i>Out Of Range Length</i> TLV (0x07/0x00-18)	14.3.1.20	Meets the requirements of Table 14-29.	M	[ ] Yes
U-ME25	<i>Frame Too Long Errors</i> TLV (0x07/0x00-19)	14.3.1.21	Meets the requirements of Table 14-30.	M	[ ] Yes
U-ME26	<i>MAC Enable Status</i> TLV (0x07/0x00-1A)	14.3.1.22	Meets the requirements of Table 14-31.	M	[ ] Yes
U-ME27	<i>Read-Write MAC Address</i> TLV (0x07/0x00-1D)	14.3.1.23	Meets the requirements of Table 14-32.	M	[ ] Yes
U-ME28	<i>PHY Type</i> TLV (0x07/0x00-20)	14.3.2.1	Meets the requirements of Table 14-33.	M	[ ] Yes
U-ME29	<i>Symbol Error During Carrier</i> TLV (0x07/0x00-23)	14.3.2.2	Meets the requirements of Table 14-34.	M	[ ] Yes
U-ME30	<i>PHY Admin State</i> TLV (0x07/0x00-25)	14.3.2.3	Meets the requirements of Table 14-35.	M	[ ] Yes
U-ME31	<i>Media Available</i> TLV (0x07/0x00-47)	14.3.3.1	Meets the requirements of Table 14-36.	M	[ ] Yes
U-ME32	<i>Duplex Status</i> TLV (0x07/0x00-5A)	14.3.4.1	Meets the requirements of Table 14-37.	M	[ ] Yes
U-ME33	<i>MAC Control Frames Transmitted</i> TLV (0x07/0x00-5E)	14.3.5.2	Meets the requirements of Table 14-38.	M	[ ] Yes
U-ME34	<i>MAC Control Frames Received</i> TLV (0x07/0x00-5F)	14.3.5.3	Meets the requirements of Table 14-39.	M	[ ] Yes
U-ME35	<i>Unsupported Opcodes Received</i> TLV (0x07/0x00-60)	14.3.5.4	Meets the requirements of Table 14-40.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
U-ME36	<i>PAUSE Frames Transmitted</i> TLV (0x07/0x00-62)	14.3.5.5	Meets the requirements of Table 14-41.	M	[ ] Yes
U-ME37	<i>PAUSE Frames Received</i> TLV (0x07/0x00-63)	14.3.5.6	Meets the requirements of Table 14-42.	M	[ ] Yes
U-ME38	<i>MPCP Frames Transmitted</i> TLV (0x07/0x01-18)	14.3.6.1	Meets the requirements of Table 14-43.	M	[ ] Yes
U-ME39	<i>MPCP Frames Received</i> TLV (0x07/0x01-19)	14.3.6.2	Meets the requirements of Table 14-44.	M	[ ] Yes
U-ME40	<i>MPCP Discovery Windows</i> <i>Sent</i> TLV (0x07/0x01-20)	14.3.6.3	Meets the requirements of Table 14-45.	M	[ ] Yes
U-ME41	<i>MPCP Discovery Timeout</i> TLV (0x07/0x01-22)	14.3.6.4	Meets the requirements of Table 14-46.	M	[ ] Yes
U-ME42	<i>REGISTER_ACK MPCPDUs</i> <i>Transmitted</i> TLV (0x07/0x01-3C)	14.3.6.5	Meets the requirements of Table 14-47.	M	[ ] Yes
U-ME43	<i>REGISTER_REQ MPCPDUs</i> <i>Transmitted</i> TLV (0x07/0x01-3E)	14.3.6.6	Meets the requirements of Table 14-48.	M	[ ] Yes
U-ME44	<i>REPORT MPCPDUs</i> <i>Transmitted</i> TLV (0x07/0x01-3F)	14.3.6.7	Meets the requirements of Table 14-49.	M	[ ] Yes
U-ME45	<i>GATE MPCPDUs Received</i> TLV (0x07/0x01-40)	14.3.6.8	Meets the requirements of Table 14-50.	M	[ ] Yes
U-ME46	<i>REGISTER MPCPDUs</i> <i>Received</i> TLV (0x07/0x01-42)	14.3.6.9	Meets the requirements of Table 14-51.	M	[ ] Yes
U-ME47	<i>FEC Corrected Blocks</i> TLV (0x07/0x01-24)	14.3.7.1	Meets the requirements of Table 14-52.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
U-ME48	<i>FEC Uncorrectable Blocks</i> TLV (0x07/0x01-25)	14.3.7.2	Meets the requirements of Table 14-53.	M	[ ] Yes
U-ME49	<i>FEC Ability</i> TLV (0x07/0x01-39)	14.3.7.3	Meets the requirements of Table 14-54.	M	[ ] Yes
U-ME50	Supported extended attributes	14.4.1	Per Table 14-55.	M	[ ] Yes
U-ME51	<i>Sequence</i> TLV (0xDB/0x00-01)	14.4.1.1	Meets the requirements of Table 14-56.	M	[ ] Yes
U-ME52	<i>ONU ID</i> TLV (0xDB/0x00-02)	14.4.1.2	Meets the requirements of Table 14-57.	M	[ ] Yes
U-ME53	<i>ONU Firmware Version</i> TLV (0xDB/0x00-03)	14.4.1.3	Meets the requirements of Table 14-58.	M	[ ] Yes
U-ME54	<i>ONU Chipset ID</i> TLV (0xDB/0x00-04)	14.4.1.4	Meets the requirements of Table 14-59.	M	[ ] Yes
U-ME55	<i>ONU Date of Manufacture</i> TLV (0xDB/0x00-05)	14.4.1.5	Meets the requirements of Table 14-60.	M	[ ] Yes
U-ME56	<i>ONU Manufacturer Info</i> TLV (0xDB/0x00-06)	14.4.1.6	Meets the requirements of Table 14-61.	M	[ ] Yes
U-ME57	<i>ONU LLID Capability</i> TLV (0xDB/0x00-07)	14.4.1.7	Meets the requirements of Table 14-62.	M	[ ] Yes
U-ME58	<i>ONU PON Port Capability</i> TLV (0xDB/0x00-08)	14.4.1.8	Meets the requirements of Table 14-63.	M	[ ] Yes
U-ME59	<i>ONU Packet Buffer</i> TLV (0xDB/0x00-0A)	14.4.1.9	Meets the requirements of Table 14-64.	M	[ ] Yes
U-ME60	<i>L-ONU Forwarding State</i> TLV (0xDB/0x00-0C)	14.4.1.10	Meets the requirements of Table 14-65.	M	[ ] Yes
U-ME61	<i>OAM Frame Rate</i> TLV (0xDB/0x00-0D)	14.4.1.11	Meets the requirements of Table 14-66.	M	[ ] Yes
U-ME62	<i>ONU CVC Identifier</i> TLV (0xDB/0x00-0E)	14.4.1.12	Meets the requirements of Table 14-67.	M	[ ] Yes
U-ME63	<i>ONU CVC Validity</i> TLV (0xDB/0x00-0F)	14.4.1.13	Meets the requirements of Table 14-68.	M	[ ] Yes
U-ME64	<i>ONU UNI Port Type</i> TLV (0xDB/0x00-10)	14.4.1.14	Meets the requirements of Table 14-69.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
U-ME65	<i>Vendor Name</i> TLV (0xDB/0x00-11)	14.4.1.15	Meets the requirements of Table 14-70.	M	[ ] Yes
U-ME66	<i>Model Number</i> TLV (0xDB/0x00-12)	14.4.1.16	Meets the requirements of Table 14-71.	M	[ ] Yes
U-ME67	<i>Hardware Version</i> TLV (0xDB/0x00-13)	14.4.1.17	Meets the requirements of Table 14-72.	M	[ ] Yes
U-ME68	<i>Data Rate Mode</i> TLV (0xDB/0x00-14)	14.4.1.18	Meets the requirements of Table 14-73.	M	[ ] Yes
U-ME69a	<i>Media Type Capability</i> TLV (0xDB/0x00-16)	14.4.1.19	Meets the requirements of Table 14-75	M	[ ] Yes
U-ME69b	Support for multiple types	14.4.1.19	The <i>aMediaTypeCapability</i> attribute declares the support for multiple media types only if each of the supported media types can be selected programmatically using the <i>aMediaType</i> (0xDB/0x00-17) attribute (see 14.4.1.20) and without requiring local access to physical ONU device.	M	[ ] Yes
U-ME69c	Context object for <i>aMediaTypeCapability</i> attribute	14.4.1.19	If the context object is a Service Port of a type other than <i>uni_port</i> , the <i>aMediaTypeCapability</i> attribute contains a single value 0x00 (No media attached).	M	[ ] Yes
U-ME70a	<i>Media Type</i> TLV (0xDB/0x00-17)	14.4.1.20	Meets the requirements of Table 14-76.	M	[ ] Yes
U-ME70b	Default value	14.4.1.20	One of the media types supported by the given port (as reported by <i>aMediaTypeCapability</i> attribute) is selected by default.	M	[ ] Yes
U-ME70c	Context object for <i>aMediaType</i> attribute	14.4.1.20	If the context object is a Service Port of a type other than <i>uni_port</i> , the <i>aMediaType</i> attribute contains a single value 0x00 (No media attached).	M	[ ] Yes
U-ME71a	<i>Service Port Description</i> TLV (0xDB/0x00-18)	14.4.1.21	Meets the requirements of Table 14-77.	M	[ ] Yes
U-ME71b	Description string is unique	14.4.1.21	The content of this attribute is vendor-specific, but for every service port instance, the description string is unique.	M	[ ] Yes
U-ME72	<i>LLID Fragmentation Threshold</i> TLV (0xDB/0x00-19)	14.4.1.22	Meets the requirements of Table 14-78.	M	[ ] Yes
U-ME73a	<i>Firmware Filename</i> TLV (0xDB/0x01-0E)	14.4.1.23	Meets the requirements of Table 14-79.	M	[ ] Yes
U-ME73b	Value retention	14.4.1.23	The ONU retains the value of this attribute across the reset event.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
U-ME74	<i>Dynamic Learning Table Size</i> TLV (0xDB/0x01-01)	14.4.2.1	Meets the requirements of Table 14-80.	M	[ ] Yes
U-ME75	<i>Dynamic Address Age Limit</i> TLV (0xDB/0x01-02)	14.4.2.2	Meets the requirements of Table 14-81.	M	[ ] Yes
U-ME76	<i>Dynamic Address MAC Table</i> TLV (0xDB/0x01-03)	14.4.2.3	Meets the requirements of Table 14-82.	M	[ ] Yes
U-ME77	<i>Static Address MAC Table</i> TLV (0xDB/0x01-04)	14.4.2.4	Meets the requirements of Table 14-83.	M	[ ] Yes
U-ME78	<i>UNI Port Auto-Negotiation</i> TLV (0xDB/0x01-05)	14.4.2.5	Meets the requirements of Table 14-85.	M	[ ] Yes
U-ME79	<i>Source Address Admission Control</i> TLV (0xDB/0x01-06)	14.4.2.6	Meets the requirements of Table 14-86.	M	[ ] Yes
U-ME80	<i>MAC Learning Min Guarantee</i> TLV (0xDB/0x01-07)	14.4.2.7	Meets the requirements of Table 14-87.	M	[ ] Yes
U-ME81	<i>MAC Learning Max Allowed</i> TLV (0xDB/0x01-08)	14.4.2.8	Meets the requirements of Table 14-88.	M	[ ] Yes
U-ME82	<i>MAC Learning Aggregate Limit</i> TLV (0xDB/0x01-09)	14.4.2.9	Meets the requirements of Table 14-89.	M	[ ] Yes
U-ME83	<i>Length Error Discard</i> TLV (0xDB/0x01-0A)	14.4.2.10	Meets the requirements of Table 14-90.	M	[ ] Yes
U-ME84	<i>Flood Unknown</i> TLV (0xDB/0x01-0B)	14.4.2.11	Meets the requirements of Table 14-91.	M	[ ] Yes
U-ME85	<i>Local Switching</i> TLV (0xDB/0x01-0C)	14.4.2.12	Meets the requirements of Table 14-92.	M	[ ] Yes
U-ME86	<i>MAC Table Full Behavior</i> TLV (0xDB/0x01-0F)	14.4.2.13	Meets the requirements of Table 14-93.	M	[ ] Yes
U-ME87	<i>ONU Maximum Frame Capability</i> TLV (0xDB/0x01-12)	14.4.2.14	Meets the requirements of Table 14-94.	M	[ ] Yes
U-ME88	<i>UNI Maximum Frame Length</i> TLV (0xDB/0x01-13)	14.4.2.15	Meets the requirements of Table 14-95.	M	[ ] Yes
U-ME89	<i>LLID Type</i> TLV (0xDB/0x01-20)	14.4.2.16	Meets the requirements of Table 14-96.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
U-ME90	<i>Service Port Type</i> TLV (0xDB/0x01-21)	14.4.2.17	Meets the requirements of Table 14-97.	M	[ ] Yes
U-ME91	<i>Queue Info</i> TLV (0xDB/0x01-22)	14.4.2.18	Meets the requirements of Table 14-98.	M	[ ] Yes
U-ME92a	<i>RX Frames Green</i> TLV (0xDB/0x02-01)	14.4.3.1	Meets the requirements of Table 14-99.	M	[ ] Yes
U-ME92b	Value reset	14.4.3.1	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME93a	<i>TX Frames Green</i> TLV (0xDB/0x02-02)	14.4.3.2	Meets the requirements of Table 14-100.	M	[ ] Yes
U-ME93b	Value reset	14.4.3.2	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME94a	<i>RX Frames Too Short</i> TLV (0xDB/0x02-03)	14.4.3.3	Meets the requirements of Table 14-101.	M	[ ] Yes
U-ME94b	Value reset	14.4.3.3	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME95a	<i>RX Frames 64 Octets</i> TLV (0xDB/0x02-04)	14.4.3.4	Meets the requirements of Table 14-102.	M	[ ] Yes
U-ME95b	Value reset	14.4.3.4	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME96a	<i>RX Frames 65–127 Octets</i> TLV (0xDB/0x02-05)	14.4.3.5	Meets the requirements of Table 14-103.	M	[ ] Yes
U-ME96b	Value reset	14.4.3.5	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME97a	<i>RX Frames 128–255 Octets</i> TLV (0xDB/0x02-06)	14.4.3.6	Meets the requirements of Table 14-104.	M	[ ] Yes
U-ME97b	Value reset	14.4.3.6	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME98a	<i>RX Frames 256–511 Octets</i> TLV (0xDB/0x02-07)	14.4.3.7	Meets the requirements of Table 14-105.	M	[ ] Yes
U-ME98b	Value reset	14.4.3.7	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME99a	<i>RX Frames 512–1023 Octets</i> TLV (0xDB/0x02-08)	14.4.3.8	Meets the requirements of Table 14-106.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
U-ME99b	Value reset	14.4.3.8	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME100a	<i>RX Frames 1024–1518 Octets TLV (0xDB/0x02-09)</i>	14.4.3.9	Meets the requirements of Table 14-107.	M	[ ] Yes
U-ME100b	Value reset	14.4.3.9	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME101a	<i>RX Frames 1519 Octets TLV (0xDB/0x02-0A)</i>	14.4.3.10	Meets the requirements of Table 14-108.	M	[ ] Yes
U-ME101b	Value reset	14.4.3.10	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME102a	<i>TX Frames 64 Octets TLV (0xDB/0x02-0B)</i>	14.4.3.11	Meets the requirements of Table 14-109.	M	[ ] Yes
U-ME102b	Value reset	14.4.3.11	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME103a	<i>TX Frames 65–127 Octets TLV (0xDB/0x02-0C)</i>	14.4.3.12	Meets the requirements of Table 14-110.	M	[ ] Yes
U-ME103b	Value reset	14.4.3.12	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME104a	<i>TX Frames 128–255 Octets TLV (0xDB/0x02-0D)</i>	14.4.3.13	Meets the requirements of Table 14-111.	M	[ ] Yes
U-ME104b	Value reset	14.4.3.13	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME105a	<i>TX Frames 256–511 Octets TLV (0xDB/0x02-0E)</i>	14.4.3.14	Meets the requirements of Table 14-112.	M	[ ] Yes
U-ME105b	Value reset	14.4.3.14	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME106a	<i>TX Frames 512–1023 Octets TLV (0xDB/0x02-0F)</i>	14.4.3.15	Meets the requirements of Table 14-113.	M	[ ] Yes
U-ME106b	Value reset	14.4.3.15	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME107a	<i>TX Frames 1024–1518 Octets TLV (0xDB/0x02-10)</i>	14.4.3.16	Meets the requirements of Table 14-114.	M	[ ] Yes
U-ME107b	Value reset	14.4.3.16	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
U-ME108a	<i>TX Frames 1519 Octets</i> TLV (0xDB/0x02-11)	14.4.3.17	Meets the requirements of Table 14-115.	M	[ ] Yes
U-ME108b	Value reset	14.4.3.17	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME109	<i>Delay Threshold</i> TLV (0xDB/0x02-12)	14.4.3.18	Meets the requirements of Table 14-116.	M	[ ] Yes
U-ME110a	<i>Delay</i> TLV (0xDB/0x02-13)	14.4.3.19	Meets the requirements of Table 14-117.	M	[ ] Yes
U-ME110b	Value reset	14.4.3.19	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME111a	<i>Frames Dropped</i> TLV (0xDB/0x02-14)	14.4.3.20	Meets the requirements of Table 14-118.	M	[ ] Yes
U-ME111b	Value reset	14.4.3.20	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME112a	<i>Octets Dropped</i> TLV (0xDB/0x02-15)	14.4.3.21	Meets the requirements of Table 14-119.	M	[ ] Yes
U-ME112b	Value reset	14.4.3.21	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME113a	<i>Octets Delayed</i> TLV (0xDB/0x02-16)	14.4.3.22	Meets the requirements of Table 14-120.	M	[ ] Yes
U-ME113b	Value reset	14.4.3.22	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME114a	<i>Upstream Octets Unused</i> TLV (0xDB/0x02-17)	14.4.3.23	Meets the requirements of Table 14-121.	M	[ ] Yes
U-ME114b	Value reset	14.4.3.23	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME115a	<i>Optical Monitoring Temperature</i> TLV (0xDB/0x02-1D)	14.4.3.24	Meets the requirements of Table 14-122.	M	[ ] Yes
U-ME115b	Value reset	14.4.3.24	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME116a	<i>Optical Monitoring VCC</i> TLV (0xDB/0x02-1E)	14.4.3.25	Meets the requirements of Table 14-123.	M	[ ] Yes
U-ME116b	Value reset	14.4.3.25	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
U-ME117a	<i>Optical Monitoring Tx Bias Current</i> TLV (0xDB/0x02-1F)	14.4.3.26	Meets the requirements of Table 14-124.	M	[ ] Yes
U-ME117b	Value reset	14.4.3.26	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME118a	<i>Optical Monitoring Tx Power</i> TLV (0xDB/0x02-20)	14.4.3.27	Meets the requirements of Table 14-125.	M	[ ] Yes
U-ME118b	Value reset	14.4.3.27	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME119a	<i>Optical Monitoring Rx Power</i> TLV (0xDB/0x02-21)	14.4.3.28	Meets the requirements of Table 14-126.	M	[ ] Yes
U-ME119b	Value reset	14.4.3.28	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME120a	<i>Rx Frames Yellow</i> TLV (0xDB/0x02-22)	14.4.3.29	Meets the requirements of Table 14-127.	M	[ ] Yes
U-ME120b	Value reset	14.4.3.29	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME121a	<i>Tx Frames Yellow</i> TLV (0xDB/0x02-23)	14.4.3.30	Meets the requirements of Table 14-128.	M	[ ] Yes
U-ME121b	Value reset	14.4.3.30	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME122a	<i>Tx Octets Green</i> TLV (0xDB/0x02-24)	14.4.3.31	Meets the requirements of Table 14-129.	M	[ ] Yes
U-ME122b	Value reset	14.4.3.31	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME123a	<i>Rx Octets Yellow</i> TLV (0xDB/0x02-25)	14.4.3.32	Meets the requirements of Table 14-130.	M	[ ] Yes
U-ME123b	Value reset	14.4.3.32	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME124a	<i>Rx Octets Green</i> TLV (0xDB/0x02-26)	14.4.3.33	Meets the requirements of Table 14-131.	M	[ ] Yes
U-ME124b	Value reset	14.4.3.33	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME125a	<i>Tx Octets Yellow</i> TLV (0xDB/0x02-27)	14.4.3.34	Meets the requirements of Table 14-132.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
U-ME125b	Value reset	14.4.3.34	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME126a	<i>Tx Frames Layer 2 Unicast TLV (0xDB/0x02-28)</i>	14.4.3.35	Meets the requirements of Table 14-133.	M	[ ] Yes
U-ME126b	Value reset	14.4.3.35	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME127a	<i>Tx Frames Layer 2 Multicast TLV (0xDB/0x02-29)</i>	14.4.3.36	Meets the requirements of Table 14-134.	M	[ ] Yes
U-ME127b	Value reset	14.4.3.36	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME128a	<i>Tx Frames Layer 2 Broadcast TLV (0xDB/0x02-2A)</i>	14.4.3.37	Meets the requirements of Table 14-135.	M	[ ] Yes
U-ME128b	Value reset	14.4.3.37	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME129a	<i>Rx Frames Layer 2 Unicast TLV (0xDB/0x02-2B)</i>	14.4.3.38	Meets the requirements of Table 14-136.	M	[ ] Yes
U-ME129b	Value reset	14.4.3.38	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME130a	<i>Rx Frames Layer 2 Multicast TLV (0xDB/0x02-2C)</i>	14.4.3.39	Meets the requirements of Table 14-137.	M	[ ] Yes
U-ME130b	Value reset	14.4.3.39	The ONU resets this counter to the value of 0x00 on write of any value to this attribute	M	[ ] Yes
U-ME131a	<i>Rx Frames Layer 2 Broadcast TLV (0xDB/0x02-2D)</i>	14.4.3.40	Meets the requirements of Table 14-138.	M	[ ] Yes
U-ME131b	Value reset	14.4.3.40	The ONU resets this counter to the value of 0x00 on write of any value to this attribute.	M	[ ] Yes
U-ME132	<i>Counter Number TLV (0xDB/0x02-2E)</i>	14.4.3.41	Meets the requirements of Table 14-139.	M	[ ] Yes
U-ME133a	<i>L2CP Frames Rx TLV (0xDB/0x02-2F)</i>	14.4.3.42	Meets the requirements of Table 14-140.	M	[ ] Yes
U-ME133b	Value reset	14.4.3.42	The ONU resets this counter to the value of 0x00 on write of any value to this attribute.	M	[ ] Yes
U-ME134a	<i>L2CP Octets Rx TLV (0xDB/0x02-30)</i>	14.4.3.43	Meets the requirements of Table 14-141.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
U-ME134b	Value reset	14.4.3.43	The ONU resets this counter to the value of 0x00 on write of any value to this attribute.	M	[ ] Yes
U-ME135a	<i>L2CP Frames Tx</i> TLV (0xDB/0x02-31)	14.4.3.44	Meets the requirements of Table 14-142.	M	[ ] Yes
U-ME135b	Value reset	14.4.3.44	The ONU resets this counter to the value of 0x00 on write of any value to this attribute.	M	[ ] Yes
U-ME136a	<i>L2CP Octets Tx</i> TLV (0xDB/0x02-32)	14.4.3.45	Meets the requirements of Table 14-143.	M	[ ] Yes
U-ME136b	Value reset	14.4.3.45	The ONU resets this counter to the value of 0x00 on write of any value to this attribute.	M	[ ] Yes
U-ME137a	<i>L2CP Frames Discarded</i> TLV (0xDB/0x02-33)	14.4.3.46	Meets the requirements of Table 14-144.	M	[ ] Yes
U-ME137b	Value reset	14.4.3.46	The ONU resets this counter to the value of 0x00 on write of any value to this attribute.	M	[ ] Yes
U-ME138a	<i>L2CP Octets Discarded</i> TLV (0xDB/0x02-34)	14.4.3.47	Meets the requirements of Table 14-145.	M	[ ] Yes
U-ME138b	Value reset	14.4.3.47	The ONU resets this counter to the value of 0x00 on write of any value to this attribute.	M	[ ] Yes
U-ME139a	<i>L2 Tx Errors</i> TLV (0xDB/0x02-35)	14.4.3.48	Meets the requirements of Table 14-146.	M	[ ] Yes
U-ME139b	Value reset	14.4.3.48	The ONU resets this counter to the value of 0x00 on write of any value to this attribute.	M	[ ] Yes
U-ME140a	<i>L2 Rx Errors</i> TLV (0xDB/0x02-36)	14.4.3.49	Meets the requirements of Table 14-147.	M	[ ] Yes
U-ME140b	Value reset	14.4.3.49	The ONU resets this counter to the value of 0x00 on write of any value to this attribute.	M	[ ] Yes
U-ME141a	<i>Count Frames Over Limit Dropped UNI</i> TLV (0xDB/0x02-37)	14.4.3.50	Meets the requirements of Table 14-148.	M	[ ] Yes
U-ME141b	Value reset	14.4.3.50	The ONU resets this counter to the value of 0x00 on write of any value to this attribute.	M	[ ] Yes
U-ME142a	<i>Count Octets Over Limit Dropped UNI</i> TLV (0xDB/0x02-38)	14.4.3.51	Meets the requirements of Table 14-149.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
U-ME142b	Value reset	14.4.3.51	The ONU resets this counter to the value of 0x00 on write of any value to this attribute.	M	[ ] Yes
U-ME143	<i>Port Stat Threshold</i> TLV (0xDB/0x03-01)	14.4.4.1	Meets the requirements of Table 14-150.	M	[ ] Yes
U-ME144	<i>L-ONU Stat Threshold</i> TLV (0xDB/0x03-02)	14.4.4.2	Meets the requirements of Table 14-151.	M	[ ] Yes
U-ME145	<i>Alarm Status Control</i> TLV (0xDB/0x03-03)	14.4.4.3	Meets the requirements of Table 14-152.	M	[ ] Yes
U-ME146	<i>Encryption Key Expiry Time</i> TLV (0xDB/0x04-01)	14.4.5.1	Meets the requirements of Table 14-153.	M	[ ] Yes
U-ME147	<i>Encryption Mode</i> TLV (0xDB/0x04-02)	14.4.5.2	Meets the requirements of Table 14-154.	M	[ ] Yes
U-ME148	Number of <i>sClause</i> sub-attributes	14.4.6.1.1	A frame processing rule contains at least one <i>sClause</i> sub-attribute	M	[ ] Yes
U-ME149a	<i>Port Ingress Rule</i> TLV (0xDB/0x05-01)	14.4.6.1.3	Meets the requirements of Table 14-155.	M	[ ] Yes
U-ME149b	<i>sClause</i> sub-attribute structure	14.4.6.1.3	Meets the requirements of Table 14-156.	M	[ ] Yes
U-ME149c	<i>sResult</i> sub-attribute for the frame actions NOP, DISCARD, and FORWARD	14.4.6.1.3	Meets the requirements of Table 14-157.	M	[ ] Yes
U-ME149d	<i>sResult</i> sub-attribute for the frame action QUEUE	14.4.6.1.3	Meets the requirements of Table 14-158.	M	[ ] Yes
U-ME149e	<i>sResult</i> sub-attribute for the frame action SET	14.4.6.1.3	Meets the requirements of Table 14-159.	M	[ ] Yes
U-ME149f	<i>sResult</i> sub-attribute for the frame action COPY	14.4.6.1.3	Meets the requirements of Table 14-160.	M	[ ] Yes
U-ME149g	<i>sResult</i> sub-attribute for the frame actions DELETE, INSERT, REPLACE, CLEAR_DELETE, and CLEAR_INSERT	14.4.6.1.3	Meets the requirements of Table 14-161.	M	[ ] Yes
U-ME149h	<i>sResult</i> sub-attribute for the frame action INC_COUNTER	14.4.6.1.3	Meets the requirements of Table 14-162.	M	[ ] Yes
U-ME150a	<i>Custom Field</i> TLV (0xDB/0x05-02)	14.4.6.2	Meets the requirements of Table 14-164.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
U-ME150b	Write into <i>aRuleCustomField.sReferenceCount</i> sub-attribute	14.4.6.2	ONU ignores any request to write a value into this sub-attribute.	M	[ ] Yes
U-ME151	<i>Alternative C-VLAN TPID TLV</i> (0xDB/0x05-03)	14.4.6.3	Meets the requirements of Table 14-175.	M	[ ] Yes
U-ME152	<i>Alternative S-VLAN TPID TLV</i> (0xDB/0x05-04)	14.4.6.4	Meets the requirements of Table 14-176.	M	[ ] Yes
U-ME153	<i>Multicast Group Identifier TLV</i> (0xDB/0x05-05)	14.4.6.5	Meets the requirements of Table 14-177.	M	[ ] Yes
U-ME154	<i>Alternative I-TPID TLV</i> (0xDB/0x05-06)	14.4.6.6	Meets the requirements of Table 14-178.	M	[ ] Yes
U-ME155	<i>Alternative B-TPID TLV</i> (0xDB/0x05-07)	14.4.6.7	Meets the requirements of Table 14-179.	M	[ ] Yes
U-ME156a	<i>Broadcast Rate Limit TLV</i> (0xDB/0x06-01)	14.4.7.1	Meets the requirements of Table 14-180.	M	[ ] Yes
U-ME156b	Disable broadcast frame limitation function	14.4.7.1	ONU disables the broadcast frame limitation function for the given UNI port on the write of the value of 0xFF-FF into this attribute.	M	[ ] Yes
U-ME157	<i>Queue Committed Information Rate TLV</i> (0xDB/0x06-04)	14.4.7.2	Meets the requirements of Table 14-181.	M	[ ] Yes
U-ME158	<i>Queue Excess Information Rate TLV</i> (0xDB/0x06-06)	14.4.7.3	Meets the requirements of Table 14-182.	M	[ ] Yes
U-ME159	<i>Queue Color Marking TLV</i> (0xDB/0x06-07)	14.4.7.4	Meets the requirements of Table 14-183.	M	[ ] Yes
U-ME160	<i>Queue Rate Limiter Capabilities TLV</i> (0xDB/0x06-08)	14.4.7.5	Meets the requirements of Table 14-184.	M	[ ] Yes
U-ME161	<i>Coupling Flag TLV</i> (0xDB/0x06-09)	14.4.7.6	Meets the requirements of Table 14-185.	M	[ ] Yes
U-ME162	<i>ONU Power Saving Capabilities TLV</i> (0xDB/0xFF-FF)	14.4.8.1	Meets the requirements of Table 14-186.	M	[ ] Yes
U-ME163	<i>ONU Protection Capability TLV</i> (0xDB/0x09-00)	14.4.9.1	Meets the requirements of Table 14-187.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
U-ME164	<i>ONU Protection Configuration TLV</i> (0xDB/0x09-01)	14.4.9.2	Meets the requirements of Table 14-188.	U- LPTE0+ U- LPTK0:M	[ ] Yes
U-ME165	<i>PON Interface Administrative TLV</i> (0xDB/0x09-02)	14.4.9.3	Meets the requirements of Table 14-189.	U- LPTE0:M	[ ] Yes
U-ME166	<i>ONU Configuration Holdover Period TLV</i> (0xDB/0x09-03)	14.4.9.4	Meets the requirements of Table 14-190.	U- LPTK0:M	[ ] Yes
U-ME167	<i>Clock Transport Capability TLV</i> (0xDB/0x07-01)	14.4.10.1	Meets the requirements of Table 14-191.	M	[ ] Yes
U-ME168	<i>Clock Transport Admin Status TLV</i> (0xDB/0x07-02)	14.4.10.2	Meets the requirements of Table 14-192.	M	[ ] Yes
U-ME169	<i>Clock Transfer Time TLV</i> (0xDB/0x07-03)	14.4.10.3	Meets the requirements of Table 14-193.	M	[ ] Yes
U-ME170	<i>Clock Transfer Propagation Parameters TLV</i> (0xDB/0x07-04)	14.4.10.4	Meets the requirements of Table 14-194.	M	[ ] Yes
U-ME171	<i>Clock Transfer RTT TLV</i> (0xDB/0x07-05)	14.4.10.5	Meets the requirements of Table 14-195.	M	[ ] Yes
U-ME172	<i>EEE Status TLV</i> (0xDB/0x08-00)	14.4.11.1	Meets the requirements of Table 14-196.	M	[ ] Yes
U-ME173	<i>PoE Status TLV</i> (0xDB/0x08-21)	14.4.11.2	Meets the requirements of Table 14-197.	M	[ ] Yes
U-ME174	Supported basic actions	14.5	Per Table 14-198.	M	[ ] Yes
U-ME175	<i>PHY Admin Control TLV</i> (0x09/0x00-05)	14.5.1	Per Table 14-199.	M	[ ] Yes
U-ME176	<i>UNI Auto-Negotiation Restart TLV</i> (0x09/0x00-0B)	14.5.2	Per Table 14-200.	M	[ ] Yes
U-ME177	<i>UNI Auto-Negotiation Admin TLV</i> (0x09/0x00-0B)	14.5.3	Per Table 14-201.	M	[ ] Yes
U-ME178	Supported extended actions	14.6	Per Table 14-202.	M	[ ] Yes
U-ME179	<i>ONU Reboot TLV</i> (0xDD/0x00-01)	14.6.1.1	Meets the requirements of Table 14-203.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
U-ME180	<i>Clear Dynamic MAC Table TLV (0xDD/0x01-01)</i>	14.6.2.1	Meets the requirements of Table 14-204.	M	[ ] Yes
U-ME181	<i>Add Dynamic MAC Address TLV (0xDD/0x01-02)</i>	14.6.2.2	Meets the requirements of Table 14-205.	M	[ ] Yes
U-ME182	<i>Delete Dynamic MAC Address TLV (0xDD/0x01-03)</i>	14.6.2.3	Meets the requirements of Table 14-206.	M	[ ] Yes
U-ME183	<i>Clear Static MAC Table TLV (0xDD/0x01-04)</i>	14.6.2.4	Meets the requirements of Table 14-207.	M	[ ] Yes
U-ME184	<i>Add Static MAC Address TLV (0xDD/0x01-05)</i>	14.6.2.5	Meets the requirements of Table 14-208.	M	[ ] Yes
U-ME185	<i>Delete Static MAC Address TLV (0xDD/0x01-06)</i>	14.6.2.6	Meets the requirements of Table 14-209.	M	[ ] Yes
U-ME186	<i>UNI MAC Learned TLV (0xDD/0x01-08)</i>	14.6.2.7	Meets the requirements of Table 14-210.	M	[ ] Yes
U-ME187a	<i>Config Logical Link TLV (0xDD/0x01-20)</i>	14.6.2.8	Meets the requirements of Table 14-211.	M	[ ] Yes
U-ME187b	Queue allocation / deallocation	14.6.2.8	Allocating or deallocating a queue does not affect the data stored in queues associated with other LLID or UNI port entities	M	[ ] Yes
U-ME187c	Do not delete system LLIDs	14.6.2.8	The request to delete all LLID entities ( <i>sLlidAction</i> = <i>del_all</i> ) does not delete the system LLIDs	M	[ ] Yes
U-ME187d	“Insufficient Resources” response code 0x87	14.6.2.8	The ONU responds with the “Insufficient Resources” code 0x87 (see 13.4.7) to a request to add a new LLID entity ( <i>sLlidAction</i> = <i>add_llid</i> ) if any of the following conditions are present: <ul style="list-style-type: none"> <li>— the maximum supported number of LLID entities has already been created;</li> <li>— the queue of the size indicated by the <i>sQueueSize</i> sub-attribute cannot be allocated.</li> </ul>	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
U-ME187e	“Bad Parameters” response code 0x86	14.6.2.8	The ONU responds with the “Bad Parameters” code 0x86 (see 13.4.7) to a request to add or delete an LLID entity if any of the following conditions are present: <ul style="list-style-type: none"> <li>— <code>add_llid</code> request containing an LLID value that already exists in this ONU;</li> <li>— <code>del_llid</code> request containing an LLID value that does not exist in this ONU;</li> <li>— <code>del_llid</code> request containing an LLID value corresponding to one of the system LLIDs.</li> </ul>	M	[ ] Yes
U-ME188a	<i>Config Service Port TLV</i> (0xDD/0x01-21)	14.6.2.9	Meets the requirements of Table 14-212.	M	[ ] Yes
U-ME188b	Queue allocation / deallocation	14.6.2.9	Allocating or deallocating a queue does not affect the data stored in queues associated with other LLID or UNI port entities	M	[ ] Yes
U-ME188c	“Insufficient Resources” response code 0x87	14.6.2.9	The ONU responds with the “Insufficient Resources” code 0x87 (see 13.4.7) to a request to add a new service port entity ( <i>sServicePortAction</i> = <code>add_port</code> ) if the queues with the sizes indicated by the <i>sQueueSize[sQueueCount]</i> sub-attribute cannot be allocated.	M	[ ] Yes
U-ME188d	“Bad Parameters” response code 0x86	14.6.2.9	The ONU responds with the “Bad Parameters” code 0x86 (see 13.4.7) to a request to add or delete an LLID entity if any of the following conditions are present: <ul style="list-style-type: none"> <li>— <code>add_port</code> request containing an service port index that already added to this ONU;</li> <li>— <code>del_port</code> request containing an service port index that has not been previously added to this ONU.</li> </ul>	M	[ ] Yes
U-ME189	<i>Clear Counters TLV</i> (0xDD/0x02-01)	14.6.3.1	Meets the requirements of Table 14-213.	M	[ ] Yes
U-ME190	<i>Retrieve Current Alarm Summary TLV</i> (0xDD/0x03-01)	14.6.4.1	Meets the requirements of Table 14-214.	M	[ ] Yes
U-ME191	<i>Clear Port Ingress Rules TLV</i> (0xDD/0x05-01)	14.6.5.1	Meets the requirements of Table 14-215.	M	[ ] Yes
U-ME192	<i>Add Port Ingress Rule TLV</i> (0xDD/0x05-02)	14.6.5.2	Meets the requirements of Table 14-216.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
U-ME193	<i>Delete Port Ingress Rule</i> TLV (0xDD/0x05-03)	14.6.5.3	Meets the requirements of Table 14-217.	M	[ ] Yes
U-ME194	<i>Enable User Traffic</i> TLV (0xDD/0x06-01)	14.6.6.1	Meets the requirements of Table 14-218.	M	[ ] Yes
U-ME195	<i>Disable User Traffic</i> TLV (0xDD/0x06-02)	14.6.6.2	Meets the requirements of Table 14-219.	M	[ ] Yes
U-ME196	<i>Loopback Enable</i> TLV (0xDD/0x06-03)	14.6.6.3	Meets the requirements of Table 14-220.	M	[ ] Yes
U-ME197	<i>Loopback Disable</i> TLV (0xDD/0x06-04)	14.6.6.4	Meets the requirements of Table 14-221.	M	[ ] Yes
U-ME198	<i>Laser Tx Power Off</i> TLV (0xDD/0x06-05)	14.6.6.5	Meets the requirements of Table 14-222.	M	[ ] Yes
U-ME199	<i>EEE Change State</i> TLV (0xDD/0x07-01)	14.6.7.1	Meets the requirements of Table 14-223.	M	[ ] Yes
U-ME200	<i>PoE Change State</i> TLV (0xDD/0x07-02)	14.6.7.2	Meets the requirements of Table 14-224.	M	[ ] Yes
U-ME201	Support for programmable, general-purpose counters	14.7	ONU supports programmable, general-purpose counter attributes shown in Table 14-225.	M	[ ] Yes
U-ME202a	<i>Programmable Counter N</i> TLV (0xDC/0x00-00 to 0xDC/0x7F-FF)	14.7.1	Meets the requirements of Table 14-226.	M	[ ] Yes
U-ME202b	Reset of counter	14.7.1	ONU resets this counter to the value of 0x00 on write of any value to this attribute.	M	[ ] Yes

#### 4A.2.14 Port-specific loopback

Item	Description	Subclause	Value/Comment	Status	Support
U-PSL0	Implements port-specific loopback	Table 5-1	ONU implements port-specific loopback per 9.1.9.	M	[ ] Yes
U-PSL1	IEEE 802.3 loopback	9.1.9	ONU implements port-specific loopback function per IEEE Std 802.3.	M	[ ] Yes
U-PSL2	Profile-specific loopback	9.1.9	ONU implements port-specific loopback function per 9.1.9.	O	[ ] Yes [ ] No

#### 4A.2.15 Power saving

Item	Description	Subclause	Value/Comment	Status	Support
U-PS0a	Implements power-saving mechanism	Table 5-1	ONU implements power-saving mechanism per 10.4 and 10.5.2.	M	[ ] Yes
U-PS0b	Support power-saving mechanism	10.5.2	Support power-saving mechanism defined in 10.4 and 10.5.2.	M	[ ] Yes
U-PS1a	Maintain SLS when ONU in power-saving mode	10.4.2	ONU maintains existing SLS when the power-saving mode is enabled.	O	[ ] Yes [ ] No
U-PS1b	Maintain provisioned QoS bounds	10.4.2	ONU does not exceed the provisioned QoS parameter bounds.	O	[ ] Yes [ ] No
U-PS1c	Maintain FLR when ONU in power-saving mode	10.4.2	ONU does not increase FLR when the power-saving mode is enabled.	O	[ ] Yes [ ] No
U-PS2	ONU registration state	10.4.2	ONU remains registered during the sleep period.	M	[ ] Yes
U-PS3	Sleep period duration (maximum)	10.4.2	1 second.	M	[ ] Yes
U-PS4a	Support for early wake-up function	10.5.2.5.3	—	O	[ ] Yes [ ] No
U-PS4b	ONU wake-up function	10.5.2.5.3	ONU in TRx sleep mode supporting the early wake-up function wakes up from its provisioned sleep mode prior to the reception of the downstream gratuitous grant, with enough time to power up all of its subsystems, synchronize to the downstream data, and properly receive the grant in question.	T-PS4a:M	[ ] Yes
U-PS5	ONU state change confirmation	10.5.2.5.1	ONU confirms the transition from the sleep state to the active state with the transmission of the <i>eOAMI_Early_WakeUpONU</i> eOAMPDU.	O	[ ] Yes [ ] No
U-PS6	ONU operation	10.5.2.5.5.5	Meets the requirements of Figure 10-7.	M	[ ] Yes
U-PS7	ONU state diagram count	10.5.2.5.5.5	State diagram per Figure 10-7 to be instantiated per C-ONU.	M	[ ] Yes

#### 4A.2.16 ONU VLAN modes

Item	Description	Subclause	Value/Comment	Status	Support
U-UVM0	Implements ONU VLAN modes	Table 5-1	ONU implements ONU VLAN modes per 7.2.2.3.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
U-UVM1a	Support PB VLAN modes	7.2.2.3	C-ONU is able to able to configure any of the PB VLAN modes as defined in 7.2.2.3 on any of the UNIs.	M	[ ] Yes
U-UVM1b	One PB VLAN mode per UNI	7.2.2.3	Each UNI on C-ONU operates in one and only one PB VLAN mode at any time. A new provisioned PB VLAN mode for the given UNI overwrites previously existing configuration.	M	[ ] Yes
U-UVM2	Transport PB VLAN mode	7.2.2.3.1	MAC Client at the ONU operates according to Table 7-25 for downstream and upstream ESP.	M	[ ] Yes
U-UVM3a	Encapsulation PB VLAN mode (downstream)	7.2.2.3.2	MAC Client at the ONU operates according to Table 7-26 for downstream ESP.	M	[ ] Yes
U-UVM3b	Encapsulation PB VLAN mode (downstream, operation selection)	7.2.2.3.2	Only one operation per Table 7-26 is provisioned in the MAC Client at the ONU at any time.	M	[ ] Yes
U-UVM3c	Encapsulation PB VLAN mode (upstream)	7.2.2.3.2	MAC Client at the ONU operates according to Table 7-27 for upstream ESP.	M	[ ] Yes
U-UVM4	Drop traffic with unknown MAC address	7.2.2.3.3	When the Source Address Admission Control is enabled for the given UNI, ONU drops any frame received from the ONU UNI port if the MAC Source Address for such a frame is not present in the MAC address admission control table on the ONU.	M	[ ] Yes

#### 4A.2.17 ONU tunneling modes

Item	Description	Subclause	Value/Comment	Status	Support
U-UTM0	Implements ONU tunneling modes	Table 5-1	ONU implements ONU tunneling modes per 7.3.2.	M	[ ] Yes
U-UTM1a	Support tunneling modes	7.3.2	C-ONU is able to able to configure any of the tunneling modes as defined in 7.3.2 on any of the UNIs.	M	[ ] Yes
U-UTM1b	One tunneling mode per UNI	7.3.2	Each UNI on C-ONU operates in one and only one tunneling mode at any time. A new provisioned tunneling mode for the given UNI overwrites previously existing configuration.	M	[ ] Yes
U-UTM2	Transport tunneling mode	7.3.2.1	MAC Client at the ONU operates according to Table 7-29 for downstream and upstream ESP.	M	[ ] Yes
U-UTM3a	Encapsulation tunneling mode (downstream)	7.3.2.2	MAC Client at the ONU operates according to Table 7-30 for downstream ESP.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
U-UTM3b	Encapsulation tunneling mode (downstream, operation selection)	7.3.2.2	Only one operation per Table 7-30 is provisioned in the MAC Client at the ONU at any time.	M	[ ] Yes
U-UTM3c	Encapsulation tunneling mode (upstream)	7.3.2.2	MAC Client at the ONU operates according to Table 7-30 for upstream ESP.	M	[ ] Yes
U-UTM3d	Encapsulation tunneling mode (upstream, operation selection)	7.3.2.2	Only one operation per Table 7-30 is provisioned in the MAC Client at the ONU at any time.	M	[ ] Yes

#### 4A.2.18 Multicast connectivity

Item	Description	Subclause	Value/Comment	Status	Support
U-MC0	Implements multicast connectivity	Table 5-1	ONU implements multicast connectivity per 7.4.2.	M	[ ] Yes
U-MC1a	IGMP/MLD forwarding (upstream)	7.4.2.2.1	ONU forwards all IGMP and MLD control messages received at the UNI to the ONU_MDI using a provisioned unicast ESP.	M	[ ] Yes
U-MC1e	UNI Port Instance	7.4.2.2.1	When one or all mLLIDs are deleted from the ONU, the ONU does not modify or delete any of the rules provisioned into Classifier/Modifier using the <i>aRuleSetConfig</i> (0xDB/0x05-01) attribute.	M	[ ] Yes
U-MC1f	Multiple frame copies to the same UNI port	7.4.2.3.2	The ONU rejects a rule with multiple <i>sResult</i> sub-attributes pointing to the same instance of a UNI port.	M	[ ] Yes
U-MC1g	Multicast flows to the existing clients	7.4.2.3.2	When a new rule is added at the ONU and the old rule is deleted after that, and if the new rule contains the same <i>sClause</i> sub-attributes and some of the <i>sResult</i> clauses forwarding traffic to the same queues as the old rule, the Classifier at the ONU does not discard any frames destined to these queues, i.e., the multicast flows to the existing and remaining multicast clients are not interrupted when other clients are added or deleted.	M	[ ] Yes
U-MC2b	Multicast forwarding (rules)	7.4.2.4.2	OLT forwards multicast traffic based on rules per Table 7-4.	M	[ ] Yes

#### 4A.2.19 Trunk protection

Item	Description	Subclause	Value/Comment	Status	Support
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Item	Description	Subclause	Value/Comment	Status	Support
U-LPTK0	Implement trunk optical link protection	Table 5-1	ONU implements trunk optical link protection per 9.3.3 and 9.3.5.1.	O	[ ] Yes [ ] No
U-LPTK1	Fault condition detection	9.3.2.2.2	Detect the fault condition on the optical line using Optical LoS or MAC LoS mechanism.	U-LPTK0:M	[ ] Yes
U-LPTK2	Switching time	9.3.3.1	Be lower than or equal to 150 ms.	U-LPTK0:M	[ ] Yes
U-LPTK3	T <sub>LoS_Optical</sub> and T <sub>LoS_MAC</sub> Configuration	9.3.3.4	The values for T <sub>LoS_Optical</sub> and T <sub>LoS_MAC</sub> parameters are configured via eOAM, as specified in using the <i>ONU Protection Configuration TLV (0xDB/0x09-01)</i> per 14.4.9.2.	U-LPTK0:M	[ ] Yes [ ] No
U-LPTK4	ONU operation	9.3.3.4.5	Meet the requirements of Figure 9-11.	U-LPTK0:M	[ ] Yes

#### 4A.2.20 Tree protection

Item	Description	Subclause	Value/Comment	Status	Support
U-LPTE0	Implement tree optical link protection	Table 5-1	ONU implements tree optical link protection per 9.3.4 and 9.3.5.1.	O	[ ] Yes [ ] No
U-LPTE1	Line monitoring mechanisms (ONU)	9.3.2.2.2	Detect the fault condition on the working optical line using Optical LoS or MAC LoS mechanisms.	U-LPTE0:M	[ ] Yes
U-LPTE2a	Switching time	9.3.4.1	Be lower than or equal to 50 ms.	U-LPTE0:M	[ ] Yes
U-LPTE2b	Working L-ONU registration status	9.3.4.1	The working L-ONU is registered at the working L-OLT and remain fully active (including MPCP, OAM and subscriber data flows) as long as the link between the working L-ONU and working L-OLT remains functional.	U-LPTE0:M	[ ] Yes
U-LPTE2c	Standby L-ONU registration status	9.3.4.1	The standby L-ONU is registered at the standby L-OLT and remain fully active (including MPCP and OAM flows) as long as the link between the standby L-ONU and the standby L-OLT remains functional.	U-LPTE0:M	[ ] Yes
U-LPTE2d	Data flows on backup path	9.3.4.1	The link between the standby L-ONU and the standby L-OLT does not carry any subscriber traffic.	U-LPTE0:M	[ ] Yes
U-LPTE2e	Device discovery and registration	9.3.4.1	MPCP discovery and registration processes, IEEE 802.3 (Clause 57) OAM discovery, eOAM discovery, and ONU authentication process if configured to do so by the operator executed independently for the primary and backup links.	U-LPTE0:M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
U-LPTE3	T <sub>LoS</sub> _Optical and T <sub>LoS</sub> _MAC Configuration	9.3.4.5	The values for T <sub>LoS</sub> _Optical and T <sub>LoS</sub> _MAC parameters are configured via eOAM, as specified in using the <i>ONU Protection Configuration TLV (0xDB/0x09-01)</i> per 14.4.9.2.	U-LPTE0:M	[ ] Yes [ ] No
U-LPTE4a	ONU operation	9.3.4.5.5	Meet the requirements of Figure 9-19.	U-LPTE0:M	[ ] Yes
U-LPTE4b	ONU state diagram count	9.3.4.5.5	State diagram per Figure 9-19 is instantiated per each registered C-ONU.	U-LPTE0:M	[ ] Yes

## 4A.3 OLT-specific PICS

### 4A.3.1 Implementation identification

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

### 4A.3.2 Protocol summary

Identification	per Table 5-1, OLT-specific requirements
Identification of amendments and corrigenda to this PICS proforma that have been completed as part of this PICS	
Have any Exception items been required?	<input type="checkbox"/> No
	<input type="checkbox"/> Yes
(See 3.7; the answer Yes means that the implementation of the given EPON ONU does not conform to IEEE Std 1904.4 requirements.)	

Date of Statement	
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### 4A.3.3 REPORT MPCP format

Item	Description	Subclause	Value/Comment	Status	Support
T-RF0	Implements <i>REPORT</i> MPCPDU format	Table 5-1	OLT implements <i>REPORT</i> MPCPDU format per 8.4.3.	M	<input type="checkbox"/> Yes
T-RF1	Queue Set count (OLT)	8.4.3.1	OLT accepts a <i>REPORT</i> MPCPDU with the number of Queue Sets between 1 and 4.	M	<input type="checkbox"/> Yes
T-RF2	Queue count per Queue Set (OLT)	8.4.3.2	OLT accepts <i>REPORT</i> MPCPDUs with a single queue per Queue Set.	M	<input type="checkbox"/> Yes
T-RF3	Minimum size of a queue threshold	8.4.2	Minimum size of a queue threshold is not less than the maximum frame size that may be encountered in the given queue.	M	<input type="checkbox"/> Yes

#### 4A.3.4 OLT transceiver status monitoring

Item	Description	Subclause	Value/Comment	Status	Support
T-TSM0a	Implements OLT transceiver status monitoring	Table 5-1	OLT implements OLT transceiver status monitoring per 9.1.3.	M	[ ] Yes
T-TSM0b	Implementation of OLT transceiver status monitoring	9.1.3	Via SFF-8472- and SFF-8077i-compliant interfaces.	M	[ ] Yes
T-TSM1	Management and measurement methodology	9.1.3	Management, threshold crossing events, fault diagnostics, and performance prediction functions per DPoE-SP-OAM.	M	[ ] Yes
T-TSM2	Optical transceiver temperature monitoring	9.1.3.1	OLT supports the measurement of temperature of the optical transceiver, with the measured value represented in the format of a 16-bit signed two's-complement value, with the LSB equal to 1/256 °C, covering the range of -40 °C to +125 °C.	M	[ ] Yes
T-TSM3	Optical transceiver supply voltage monitoring	9.1.3.2	OLT supports the measurement of supply voltage of the optical transceiver, with the measured value represented in the format of a 16-bit signed two's-complement value, with the LSB equal to 100 μV, covering the range of 0 to +6.55 V.	M	[ ] Yes
T-TSM4	Optical transmitter bias current monitoring	9.1.3.3	OLT supports the measurement of the bias current of the optical transmitter, with the measured value represented in the format of a 16-bit signed two's-complement value, with the LSB equal to 2 μA, covering the range of 0 to +131 mA.	M	[ ] Yes
T-TSM5	Optical transmitter output power monitoring	9.1.3.4	OLT supports the measurement of the output power of the optical transmitter, with the measured value is represented in the format of a 16-bit signed two's-complement value, with the LSB equal to 0. μW, covering the range of 0 to +6.5535 mW (~-40 to +8.2 dBm).	M	[ ] Yes
T-TSM6	Optical receiver input power monitoring	9.1.3.5	OLT supports the measurement of the input power of the optical receiver, with the measured value is represented in the format of a 16-bit signed two's-complement value, with the LSB equal to 0.1 μW, covering the range of 0 to +6.5535 mW (~-40 to +8.2 dBm).	M	[ ] Yes

#### 4A.3.5 Events

Item	Description	Subclause	Value/Comment	Status	Support
T-E0a	Implements events	Table 5-1	OLT implements events per 9.2.6.	M	[ ] Yes
T-E0b	Events defined in IEEE Std 802.3, Clause 57	9.2.6	Support events per 9.2.6.	M	[ ] Yes

#### 4A.3.6 Data encryption

Item	Description	Subclause	Value/Comment	Status	Support
T-DE0a	Implements data encryption	Table 5-1	OLT implements data encryption per 11.2.2.	M	[ ] Yes
T-DE0b	Data encryption	11.2.2	Implement data encryption and integrity protection mechanisms, as defined in DPoE-SP-SEC and DPoE-SP-OSSI.	M	[ ] Yes

#### 4A.3.7 ONU authentication

Item	Description	Subclause	Value/Comment	Status	Support
T-AU0a	Implements ONU authentication	Table 5-1	OLT implements ONU authentication per 11.3.3.	M	[ ] Yes
T-AU0b	ONU authentication	11.3.3	Implement ONU authentication mechanisms, as defined in DPoE-SP-SEC, DPoE-SP-MULPI, and DPoE-SP-OSSI.	M	[ ] Yes

#### 4A.3.8 Management

Item	Description	Subclause	Value/Comment	Status	Support
T-MG0	Management	13.4.1	Implement OAM-based management protocols per IEEE Std 802.3, Clause 57.	M	[ ] Yes
T-MG1a	eOAMPDU Frame Format	13.4.2	Meets the requirements of Table 13-2.	M	[ ] Yes
T-MG1b	eOAMPDU Frame Format (fields)	13.4.2	Meet the requirements as listed in 13.4.2.	M	[ ] Yes
T-MG2	TLV sequence terminator	13.4.3	A series of TLVs carried in any of the <i>eOAM_Get_Request</i> , <i>eOAM_Get_Response</i> , <i>eOAM_Set_Request</i> , or <i>eOAM_Set_Response</i> eOAMPDU is terminated with the Variable Descriptor with values carried in the Branch and Leaf fields equal to 0.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
T-MG3	Variable Descriptor TLV format	13.4.3.1	Meets the requirements of Table 13-3.	M	[ ] Yes
T-MG4a	Variable Container TLV format	13.4.3.2	Meets the requirements of Table 13-4.	M	[ ] Yes
T-MG4b	Variable Container TLV format (integer)	13.4.3.2	Represented in the two's-complement form, with the Most Significant Octet (MSO) first.	M	[ ] Yes
T-MG4c	Variable Container TLV format (integer, length)	13.4.3.2	Destination OAM client accepts an integer in a Variable Container of any legal width (1..128 octets).	M	[ ] Yes
T-MG4d	Variable Container TLV format (enumerated value)	13.4.3.2	Source OAM client does not suppress trailing zeros for enumerated values.	M	[ ] Yes
T-MG4e	Variable Container TLV format (enumerated value)	13.4.3.2	Destination OAM client does not add trailing zeros for enumerated values.	M	[ ] Yes
T-MG4f	Variable Container TLV format (sequence list)	13.4.3.2	All elements in the sequence list are of the same length.	M	[ ] Yes
T-MG4g	Variable Container TLV format (sequence list)	13.4.3.2	Number of elements in the sequence list is determined based on size of the given Variable Container.	M	[ ] Yes
T-MG5a	<i>Extended Information</i> TLV format	13.4.4.1	Meets the requirements of Table 13-5.	M	[ ] Yes
T-MG5b	<i>Extended Information</i> TLV structure (OUI)	13.4.4.1	At least one of the <i>Organization Specific Information</i> TLVs exchanged between the ONU and the OLT during the eOAM discovery process is of <i>Extended Information</i> TLV type, containing the OUI_1904_4.	M	[ ] Yes
T-MG6a	Basic structure of <i>Organization Specific Event</i> TLV	13.4.4.2	As specified in IEEE Std 802.3, 57.5.3.5.	M	[ ] Yes
T-MG6b	Specific fields of <i>Organization Specific Event</i> TLV	13.4.4.2	As defined in Figure 13-5 and in text below Figure 13-5.	M	[ ] Yes
T-MG6c	Organization Specific Value format	13.4.4.2	Meets the requirements per Table 13-6.	M	[ ] Yes
T-MG7	Detecting missing eOAMPDUs in multipart eOAMPDU response sequence	13.4.5	OLT is capable of detecting any missing eOAMPDUs in the series of eOAMPDUs comprising a complete response from an ONU.	M	[ ] Yes
T-MG8	eOAMPDU Type codes	13.4.6.1	Assignment of eOAMPDU type code meets the requirements of Table 13-9.	M	[ ] Yes
T-MG9	<i>eOAM_Get_Request</i> eOAMPDU type	13.4.6.2	Meets the requirements per Table 13-10.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
T-MG10	<i>eOAM_Get_Response</i> eOAMPDU type	13.4.6.3	Meets the requirements per Table 13-11.	M	[ ] Yes
T-MG11	<i>eOAM_Set_Request</i> eOAMPDU type	13.4.6.4	Meets the requirements per Table 13-12.	M	[ ] Yes
T-MG12	<i>eOAM_Set_Response</i> eOAMPDU type	13.4.6.5	Meets the requirements per Table 13-13.	M	[ ] Yes
T-MG16a	<i>eOAM_KeyExchange</i> eOAMPDU structure	13.4.6.7.1	Meets the requirements per Table 13-20.	M	[ ] Yes
T-MG16b	<i>eOAM_KeyExchange_Assign</i> eOAMPDU type	13.4.6.7.2	Meets the requirements per Table 13-21.	M	[ ] Yes
T-MG16c	<i>eOAM_KeyExchange_ACK</i> eOAMPDU type	13.4.6.7.3	Meets the requirements per Table 13-22.	M	[ ] Yes
T-MG17a	<i>eOAM_Software</i> eOAMPDU structure	13.4.6.6.1	Meets the requirements per Table 13-14.	M	[ ] Yes
T-MG17b	<i>eOAM_Software_WriteRequest</i> eOAMPDU type	13.4.6.6.2	Meets the requirements per Table 13-16.	M	[ ] Yes
T-MG17c	<i>eOAM_Software_FileTransfer</i> <i>Data</i> eOAMPDU type	13.4.6.6.3	Meets the requirements per Table 13-17.	M	[ ] Yes
T-MG17d	<i>eOAM_Software_FileTransfer</i> <i>Ack</i> eOAMPDU type	13.4.6.6.4	Meets the requirements per Table 13-18.	M	[ ] Yes
T-MG19	<i>eOAM_Early_WakeUpOLT</i> eOAMPDU type	13.4.6.8	Meets the requirements per Table 13-23.	M	[ ] Yes
T-MG20	<i>eOAM_Early_WakeUpONU</i> eOAMPDU type	13.4.6.9	Meets the requirements per Table 13-24.	M	[ ] Yes
T-MG21	<i>eOAM_Sleep_Allowed</i> eOAMPDU type	13.4.6.10	Meets the requirements per Table 13-25.	M	[ ] Yes
T-MG22	eOAMPDU return codes	13.4.7	Codes as listed in Table 13-26.	M	[ ] Yes

#### 4A.3.9 Device and capability discovery

Item	Description	Subclause	Value/Comment	Status	Support
T-DCD0	Implements device and capability discovery	Table 5-1	OLT implements device and capability discovery per 13.3.	M	[ ] Yes
T-DCD1	Discovery LLID	13.3.2	The eOAM discovery process is executed on the primary MLID	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
T-DCD2a	Discovery process	13.3.2.1	Implement the eOAM discovery process and the eOAM Capability Notification mechanism, using the Organization Specific extensions to the Information TLV specified in IEEE Std 802.3, 57.5.2.3.	M	[ ] Yes
T-DCD2b	Disable data services	13.3.2.1	OLT disables all data services for the given ONU until the successful completion of the OAM discovery process (see IEEE Std 802.3, 57.3.2.1) and the eOAM discovery process (see 13.3) and the completion of the optional authentication process, if enabled by the operator.	M	[ ] Yes
T-DCD2c	Deregister ONU on lack of eOAM discovery	13.3.2.1	OLT deregisters any ONU that does not participate in the eOAM discovery process, as defined in 13.3	M	[ ] Yes
T-DCD2d	Discovery process	13.3.2.1	Implement the eOAM discovery process by exchanging the <i>Organization Specific Information</i> TLV, as defined in IEEE Std 802.3, 57.5.2.3, and further specified in 13.4.4.1, referred to as <i>Extended Information</i> TLV.	M	[ ] Yes
T-DCD3	Ordering <i>Organization Specific Information</i> TLVs (source)	13.3.2.2.1	<i>Local Information</i> TLV and <i>Remote Information</i> TLV are transmitted first, followed by <i>Organization Specific Information</i> TLVs.	M	[ ] Yes
T-DCD4a	Ordering <i>Organization Specific Information</i> TLVs (destination)	13.3.2.2.2	Support multiple <i>Information</i> TLVs in a single <i>Information</i> OAMPDU, including <i>Local Information</i> TLV, <i>Remote Information</i> TLV and at least one <i>Organization Specific Information</i> TLV.	M	[ ] Yes
T-DCD4b	Processing order	13.3.2.2.2	Process all received <i>Information</i> TLVs in the order of their reception, discarding any <i>Information</i> TLVs which are either malformed or unsupported.	M	[ ] Yes
T-DCD5	OLT implementation	13.3.2.3.6	Implement the extended OAM discovery process as shown in Figure 12-3 for each newly discovered L-ONU	M	[ ] Yes
T-DCD6	OLT deregisters ONU on OAM and eOAM Keep-alive Process failure	13.3.3	If the OLT detects an OAM keep-alive failure for the given ONU, the OLT deregisters the ONU following the MPCP deregistration process, as defined in IEEE Std 802.3ca, 144.3.7	M	[ ] Yes

#### 4A.3.10 Software update

Item	Description	Subclause	Value/Comment	Status	Support
T-SU0	Implements software update	Table 5-1	OLT implements software update per 13.5	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
T-SU1	OLT software update processes	13.5.2.6	Implement the software image download process as shown in Figure 13-9.	M	[ ] Yes

#### 4A.3.11 Management entities

Item	Description	Subclause	Value/Comment	Status	Support
T-ME0	Management entities	14.4	Implement management entities, as defined in 14.4.	M	[ ] Yes
T-ME1a	<i>Object Context</i>	14.2.1	Meets the requirements of Table 14-1	M	[ ] Yes
T-ME1b	Source OAM Client (set object context)	14.2.1	The source OAM Client sets the proper context, as specified for each attribute and action in 14.3 through 14.6 using the <i>Object Context</i> TLV.	M	[ ] Yes
T-ME1c	Source OAM Client (maintain object context)	14.2.1	The source OAM Client does not insert the <i>Object Context</i> TLV in front of Variable Container TLVs or Variable Descriptor TLVs if the proper context is already set, either explicitly via an earlier <i>Object Context</i> TLV or implicitly, as a default object context.	O	[ ] Yes [ ] No
T-ME1d	Destination OAM Client (default object context)	14.2.1	Until the first <i>Object Context</i> TLV is encountered in the received eOAMPDU, the destination OAM Client uses the LLID on which the eOAMPDU was received as the object context.	M	[ ] Yes
T-ME1e	Destination OAM Client (maintain object context)	14.2.1	The destination OAM Client applies the current object context to all subsequent Variable Container TLVs and Variable Descriptor TLVs until another <i>Object Context</i> TLV is encountered.	M	[ ] Yes
T-ME2a	ObjectType	14.2.1.1	Supports values per Table 14-2.	M	[ ] Yes
T-ME2b	Action for reserved ObjectType value	14.2.1.1	When the destination OAM Client encounters an <i>Object Context</i> TLV carrying one of the reserved ObjectType values, the destination OAM Client discards this <i>Object Context</i> TLV and all the subsequent TLVs present in the same eOAMPDU until it encounters another <i>Object Context</i> TLV with one of the supported values.	M	[ ] Yes
T-ME3a	ObjectInstance value (ONU object)	14.2.1.2.1	Instance number for the ONU ObjectType is equal to 0x00, per Table 14-3.	M	[ ] Yes
T-ME3b	ObjectInstance value (PON Port object)	14.2.1.2.2	Instance number for the PON Port ObjectType starts with 0x00 up to the value of N-1, where N represents the total number of PON Port interfaces, per Table 14-4.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
T-ME3c	ObjectInstance value (LLID object)	14.2.1.2.3	Instance number for the LLID ObjectType starts with 0x00 up to the value of $N-1$ , where $N$ represents the total number of supported LLIDs, per Table 14-5.	M	[ ] Yes
T-ME3d	ObjectInstance value (Service Port object)	14.2.1.2.4	Instance number for the UNI Port ObjectType starts with 0x00 up to the value of $N-1$ , where $N$ represents the total number of supported UNIs, per Table 14-6.	M	[ ] Yes
T-ME3f	ObjectInstance value (Queue object) for upstream queues	14.2.1.2.5	Instance number for the Queue ObjectType starts with 0x00-00 up to the value of 0xFF-FF, representing the LLID instance with which the given queue is associated, per Table 14-7.	M	[ ] Yes
T-ME3g	ObjectInstance value (Queue object) for downstream queues	14.2.1.2.5	Instance number for the Queue ObjectType starts with 0x00 up to the value of $N-1$ , with the maximum value equal to $N-1$ , where $N$ is the total number of queues associated with the given port, per Table 14-8.	M	[ ] Yes
T-ME4	Supported standard attributes	14.3	Per Table 14-9.	M	[ ] Yes
T-ME5	<i>Frames Transmitted OK</i> TLV (0x07/0x00-02)	14.3.1.1	Meets the requirements of Table 14-10.	M	[ ] Yes
T-ME6	<i>Single Collision Frames</i> TLV (0x07/0x00-03)	14.3.1.2	Meets the requirements of Table 14-11.	M	[ ] Yes
T-ME7	<i>Multiple Collision Frame</i> TLV (0x07/0x00-04)	14.3.1.3	Meets the requirements of Table 14-12.	M	[ ] Yes
T-ME8	<i>Frames Received OK</i> TLV (0x07/0x00-05)	14.3.1.4	Meets the requirements of Table 14-13.	M	[ ] Yes
T-ME9	<i>Frame Check Sequence Errors</i> TLV (0x07/0x00-06)	14.3.1.5	Meets the requirements of Table 14-14.	M	[ ] Yes
T-ME10	<i>Alignment Errors</i> TLV (0x07/0x00-07)	14.3.1.6	Meets the requirements of Table 14-15.	M	[ ] Yes
T-ME11	<i>Octets Transmitted OK</i> TLV (0x07/0x00-08)	14.3.1.7	Meets the requirements of Table 14-16.	M	[ ] Yes
T-ME12	<i>Frames With Deferred Transmissions</i> TLV (0x07/0x00-09)	14.3.1.8	Meets the requirements of Table 14-17.	M	[ ] Yes
T-ME13	<i>Late Collisions</i> TLV (0x07/0x00-0A)	14.3.1.9	Meets the requirements of Table 14-18.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
T-ME14	<i>Frames Aborted Collisions</i> TLV (0x07/0x00-0B)	14.3.1.10	Meets the requirements of Table 14-19.	M	[ ] Yes
T-ME15	<i>Frames Lost Internal Tx Error</i> TLV (0x07/0x00-0C)	14.3.1.11	Meets the requirements of Table 14-20.	M	[ ] Yes
T-ME16	<i>Octets Received OK</i> TLV (0x07/0x00-0E)	14.3.1.12	Meets the requirements of Table 14-21.	M	[ ] Yes
T-ME17	<i>Frames Lost Internal Rx</i> <i>Error</i> TLV (0x07/0x00-0F)	14.3.1.13	Meets the requirements of Table 14-22.	M	[ ] Yes
T-ME18	<i>Multicast Frames Transmitted</i> <i>OK</i> TLV (0x07/0x00-12)	14.3.1.14	Meets the requirements of Table 14-23.	M	[ ] Yes
T-ME19	<i>Broadcast Frames</i> <i>Transmitted OK</i> TLV (0x07/0x00-13)	14.3.1.15	Meets the requirements of Table 14-24.	M	[ ] Yes
T-ME20	<i>Frames With Excessive</i> <i>Deferral</i> TLV (0x07/0x00-14)	14.3.1.16	Meets the requirements of Table 14-25.	M	[ ] Yes
T-ME21	<i>Multicast Frames Received</i> <i>OK</i> TLV (0x07/0x00-15)	14.3.1.17	Meets the requirements of Table 14-26.	M	[ ] Yes
T-ME22	<i>Broadcast Frames Received</i> <i>OK</i> TLV (0x07/0x00-16)	14.3.1.18	Meets the requirements of Table 14-27.	M	[ ] Yes
T-ME23	<i>In Range Length Errors</i> TLV (0x07/0x00-17)	14.3.1.19	Meets the requirements of Table 14-28.	M	[ ] Yes
T-ME24	<i>Out Of Range Length</i> TLV (0x07/0x00-18)	14.3.1.20	Meets the requirements of Table 14-29.	M	[ ] Yes
T-ME25	<i>Frame Too Long Errors</i> TLV (0x07/0x00-19)	14.3.1.21	Meets the requirements of Table 14-30.	M	[ ] Yes
T-ME26	<i>MAC Enable Status</i> TLV (0x07/0x00-1A)	14.3.1.22	Meets the requirements of Table 14-31.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
T-ME27	<i>Read-Write MAC Address</i> TLV (0x07/0x00-1D)	14.3.1.23	Meets the requirements of Table 14-32.	M	[ ] Yes
T-ME28	<i>PHY Type</i> TLV (0x07/0x00-20)	14.3.2.1	Meets the requirements of Table 14-33.	M	[ ] Yes
T-ME29	<i>Symbol Error During Carrier</i> TLV (0x07/0x00-23)	14.3.2.2	Meets the requirements of Table 14-34.	M	[ ] Yes
T-ME30	<i>PHY Admin State</i> TLV (0x07/0x00-25)	14.3.2.3	Meets the requirements of Table 14-35.	M	[ ] Yes
T-ME31	<i>Media Available</i> TLV (0x07/0x00-47)	14.3.3.1	Meets the requirements of Table 14-36.	M	[ ] Yes
T-ME32	<i>Duplex Status</i> TLV (0x07/0x00-5A)	14.3.4.1	Meets the requirements of Table 14-37.	M	[ ] Yes
T-ME33	<i>MAC Control Frames</i> <i>Transmitted</i> TLV (0x07/0x00-5E)	14.3.5.2	Meets the requirements of Table 14-38.	M	[ ] Yes
T-ME34	<i>MAC Control Frames</i> <i>Received</i> TLV (0x07/0x00-5F)	14.3.5.3	Meets the requirements of Table 14-39.	M	[ ] Yes
T-ME35	<i>Unsupported Opcodes</i> <i>Received</i> TLV (0x07/0x00-60)	14.3.5.4	Meets the requirements of Table 14-40.	M	[ ] Yes
T-ME36	<i>PAUSE Frames Transmitted</i> TLV (0x07/0x00-62)	14.3.5.5	Meets the requirements of Table 14-41.	M	[ ] Yes
T-ME37	<i>PAUSE Frames Received</i> TLV (0x07/0x00-63)	14.3.5.6	Meets the requirements of Table 14-42.	M	[ ] Yes
T-ME38	<i>MPCP Frames Transmitted</i> TLV (0x07/0x01-18)	14.3.6.1	Meets the requirements of Table 14-43.	M	[ ] Yes
T-ME39	<i>MPCP Frames Received</i> TLV (0x07/0x01-19)	14.3.6.2	Meets the requirements of Table 14-44.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
T-ME40	<i>MPCP Discovery Windows Sent TLV</i> (0x07/0x01-20)	14.3.6.3	Meets the requirements of Table 14-45.	M	[ ] Yes
T-ME41	<i>MPCP Discovery Timeout TLV</i> (0x07/0x01-22)	14.3.6.4	Meets the requirements of Table 14-46.	M	[ ] Yes
T-ME42	<i>REGISTER_ACK MPCPDUs Transmitted TLV</i> (0x07/0x01-3C)	14.3.6.5	Meets the requirements of Table 14-47.	M	[ ] Yes
T-ME43	<i>REGISTER_REQ MPCPDUs Transmitted TLV</i> (0x07/0x01-3E)	14.3.6.6	Meets the requirements of Table 14-48.	M	[ ] Yes
T-ME44	<i>REPORT MPCPDUs Transmitted TLV</i> (0x07/0x01-3F)	14.3.6.7	Meets the requirements of Table 14-49.	M	[ ] Yes
T-ME45	<i>GATE MPCPDUs Received TLV</i> (0x07/0x01-40)	14.3.6.8	Meets the requirements of Table 14-50.	M	[ ] Yes
T-ME46	<i>REGISTER MPCPDUs Received TLV</i> (0x07/0x01-42)	14.3.6.9	Meets the requirements of Table 14-51.	M	[ ] Yes
T-ME47	<i>FEC Corrected Blocks TLV</i> (0x07/0x01-24)	14.3.7.1	Meets the requirements of Table 14-52.	M	[ ] Yes
T-ME48	<i>FEC Uncorrectable Blocks TLV</i> (0x07/0x01-25)	14.3.7.2	Meets the requirements of Table 14-53.	M	[ ] Yes
T-ME49	<i>FEC Ability TLV</i> (0x07/0x01-39)	14.3.7.3	Meets the requirements of Table 14-54.	M	[ ] Yes
T-ME50	Supported extended attributes	14.4.1	Per Table 14-55.	M	[ ] Yes
T-ME51	<i>Sequence TLV</i> (0xDB/0x00-01)	14.4.1.1	Meets the requirements of Table 14-56.	M	[ ] Yes
T-ME52	<i>ONU ID TLV</i> (0xDB/0x00-02)	14.4.1.2	Meets the requirements of Table 14-57.	M	[ ] Yes
T-ME53	<i>ONU Firmware Version TLV</i> (0xDB/0x00-03)	14.4.1.3	Meets the requirements of Table 14-58.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
T-ME54	<i>ONU Chipset ID</i> TLV (0xDB/0x00-04)	14.4.1.4	Meets the requirements of Table 14-59.	M	[ ] Yes
T-ME55	<i>ONU Date of Manufacture</i> TLV (0xDB/0x00-05)	14.4.1.5	Meets the requirements of Table 14-60.	M	[ ] Yes
T-ME56	<i>ONU Manufacturer Info</i> TLV (0xDB/0x00-06)	14.4.1.6	Meets the requirements of Table 14-61.	M	[ ] Yes
T-ME57	<i>ONU LLID Capability</i> TLV (0xDB/0x00-07)	14.4.1.7	Meets the requirements of Table 14-62.	M	[ ] Yes
T-ME58	<i>ONU PON Port Capability</i> TLV (0xDB/0x00-08)	14.4.1.8	Meets the requirements of Table 14-63.	M	[ ] Yes
T-ME59	<i>ONU Packet Buffer</i> TLV (0xDB/0x00-0A)	14.4.1.9	Meets the requirements of Table 14-64.	M	[ ] Yes
T-ME60	<i>L-ONU Forwarding State</i> TLV (0xDB/0x00-0C)	14.4.1.10	Meets the requirements of Table 14-65.	M	[ ] Yes
T-ME61	<i>OAM Frame Rate</i> TLV (0xDB/0x00-0D)	14.4.1.11	Meets the requirements of Table 14-66.	M	[ ] Yes
T-ME62	<i>ONU CVC Identifier</i> TLV (0xDB/0x00-0E)	14.4.1.12	Meets the requirements of Table 14-67.	M	[ ] Yes
T-ME63	<i>ONU CVC Validity</i> TLV (0xDB/0x00-0F)	14.4.1.13	Meets the requirements of Table 14-68.	M	[ ] Yes
T-ME64	<i>ONU UNI Port Type</i> TLV (0xDB/0x00-10)	14.4.1.14	Meets the requirements of Table 14-69.	M	[ ] Yes
T-ME65	<i>Vendor Name</i> TLV (0xDB/0x00-11)	14.4.1.15	Meets the requirements of Table 14-70.	M	[ ] Yes
T-ME66	<i>Model Number</i> TLV (0xDB/0x00-12)	14.4.1.16	Meets the requirements of Table 14-71.	M	[ ] Yes
T-ME67	<i>Hardware Version</i> TLV (0xDB/0x00-13)	14.4.1.17	Meets the requirements of Table 14-72.	M	[ ] Yes
T-ME68	<i>Data Rate Mode</i> TLV (0xDB/0x00-14)	14.4.1.18	Meets the requirements of Table 14-73.	M	[ ] Yes
T-ME69a	<i>Media Type Capability</i> TLV (0xDB/0x00-16)	14.4.1.19	Meets the requirements of Table 14-75	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
T-ME69b	Support for multiple types	14.4.1.19	The <i>aMediaTypeCapability</i> attribute declares the support for multiple media types only if each of the supported media types can be selected programmatically using the <i>aMediaType</i> (0xDB/0x00-17) attribute (see 14.4.1.20) and without requiring local access to physical ONU device.	M	[ ] Yes
T-ME69c	Context object for <i>aMediaTypeCapability</i> attribute	14.4.1.19	If the context object is a Service Port of a type other than <i>uni_port</i> , the <i>aMediaTypeCapability</i> attribute contains a single value 0x00 (No media attached).	M	[ ] Yes
T-ME70a	<i>Media Type TLV</i> (0xDB/0x00-17)	14.4.1.20	Meets the requirements of Table 14-76.	M	[ ] Yes
T-ME70b	Default value	14.4.1.20	One of the media types supported by the given port (as reported by <i>aMediaTypeCapability</i> attribute) is selected by default.	M	[ ] Yes
T-ME70c	Context object for <i>aMediaType</i> attribute	14.4.1.20	If the context object is a Service Port of a type other than <i>uni_port</i> , the <i>aMediaType</i> attribute contains a single value 0x00 (No media attached).	M	[ ] Yes
T-ME71a	<i>Service Port Description TLV</i> (0xDB/0x00-18)	14.4.1.21	Meets the requirements of Table 14-77.	M	[ ] Yes
T-ME71b	Description string is unique	14.4.1.21	The content of this attribute is vendor-specific, but for every service port instance, the description string is unique.	M	[ ] Yes
T-ME72	<i>LLID Fragmentation Threshold TLV</i> (0xDB/0x00-19)	14.4.1.22	Meets the requirements of Table 14-78.	M	[ ] Yes
T-ME73	<i>Firmware Filename TLV</i> (0xDB/0x01-0E)	14.4.1.23	Meets the requirements of Table 14-79.	M	[ ] Yes
T-ME74	<i>Dynamic Learning Table Size TLV</i> (0xDB/0x01-01)	14.4.2.1	Meets the requirements of Table 14-80.	M	[ ] Yes
T-ME75	<i>Dynamic Address Age Limit TLV</i> (0xDB/0x01-02)	14.4.2.2	Meets the requirements of Table 14-81.	M	[ ] Yes
T-ME76	<i>Dynamic Address MAC Table TLV</i> (0xDB/0x01-03)	14.4.2.3	Meets the requirements of Table 14-82.	M	[ ] Yes
T-ME77	<i>Static Address MAC Table TLV</i> (0xDB/0x01-04)	14.4.2.4	Meets the requirements of Table 14-83.	M	[ ] Yes
T-ME78	<i>UNI Port Auto-Negotiation TLV</i> (0xDB/0x01-05)	14.4.2.5	Meets the requirements of Table 14-85.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
T-ME79	<i>Source Address Admission Control</i> TLV (0xDB/0x01-06)	14.4.2.6	Meets the requirements of Table 14-86.	M	[ ] Yes
T-ME80	<i>MAC Learning Min Guarantee</i> TLV (0xDB/0x01-07)	14.4.2.7	Meets the requirements of Table 14-87.	M	[ ] Yes
T-ME81	<i>MAC Learning Max Allowed</i> TLV (0xDB/0x01-08)	14.4.2.8	Meets the requirements of Table 14-88.	M	[ ] Yes
T-ME82	<i>MAC Learning Aggregate Limit</i> TLV (0xDB/0x01-09)	14.4.2.9	Meets the requirements of Table 14-89.	M	[ ] Yes
T-ME83	<i>Length Error Discard</i> TLV (0xDB/0x01-0A)	14.4.2.10	Meets the requirements of Table 14-90.	M	[ ] Yes
T-ME84	<i>Flood Unknown</i> TLV (0xDB/0x01-0B)	14.4.2.11	Meets the requirements of Table 14-91.	M	[ ] Yes
T-ME85	<i>Local Switching</i> TLV (0xDB/0x01-0C)	14.4.2.12	Meets the requirements of Table 14-92.	M	[ ] Yes
T-ME86	<i>MAC Table Full Behavior</i> TLV (0xDB/0x01-0F)	14.4.2.13	Meets the requirements of Table 14-93.	M	[ ] Yes
T-ME87	<i>ONU Maximum Frame Capability</i> TLV (0xDB/0x01-12)	14.4.2.14	Meets the requirements of Table 14-94.	M	[ ] Yes
T-ME88	<i>UNI Maximum Frame Length</i> TLV (0xDB/0x01-13)	14.4.2.15	Meets the requirements of Table 14-95.	M	[ ] Yes
T-ME89	<i>LLID Type</i> TLV (0xDB/0x01-20)	14.4.2.16	Meets the requirements of Table 14-96.	M	[ ] Yes
T-ME90	<i>Service Port Type</i> TLV (0xDB/0x01-21)	14.4.2.17	Meets the requirements of Table 14-97.	M	[ ] Yes
T-ME91	<i>Queue Info</i> TLV (0xDB/0x01-22)	14.4.2.18	Meets the requirements of Table 14-98.	M	[ ] Yes
T-ME92	<i>RX Frames Green</i> TLV (0xDB/0x02-01)	14.4.3.1	Meets the requirements of Table 14-99.	M	[ ] Yes
T-ME93	<i>TX Frames Green</i> TLV (0xDB/0x02-02)	14.4.3.2	Meets the requirements of Table 14-100.	M	[ ] Yes
T-ME94	<i>RX Frames Too Short</i> TLV (0xDB/0x02-03)	14.4.3.3	Meets the requirements of Table 14-101.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
T-ME95	<i>RX Frames 64 Octets TLV (0xDB/0x02-04)</i>	14.4.3.4	Meets the requirements of Table 14-102.	M	[ ] Yes
T-ME96	<i>RX Frames 65–127 Octets TLV (0xDB/0x02-05)</i>	14.4.3.5	Meets the requirements of Table 14-103.	M	[ ] Yes
T-ME97	<i>RX Frames 128–255 Octets TLV (0xDB/0x02-06)</i>	14.4.3.6	Meets the requirements of Table 14-104.	M	[ ] Yes
T-ME98	<i>RX Frames 256–511 Octets TLV (0xDB/0x02-07)</i>	14.4.3.7	Meets the requirements of Table 14-105.	M	[ ] Yes
T-ME99	<i>RX Frames 512–1023 Octets TLV (0xDB/0x02-08)</i>	14.4.3.8	Meets the requirements of Table 14-106.	M	[ ] Yes
T-ME100	<i>RX Frames 1024–1518 Octets TLV (0xDB/0x02-09)</i>	14.4.3.9	Meets the requirements of Table 14-107.	M	[ ] Yes
T-ME101	<i>RX Frames 1519 Octets TLV (0xDB/0x02-0A)</i>	14.4.3.10	Meets the requirements of Table 14-108.	M	[ ] Yes
T-ME102	<i>TX Frames 64 Octets TLV (0xDB/0x02-0B)</i>	14.4.3.11	Meets the requirements of Table 14-109.	M	[ ] Yes
T-ME103	<i>TX Frames 65–127 Octets TLV (0xDB/0x02-0C)</i>	14.4.3.12	Meets the requirements of Table 14-110.	M	[ ] Yes
T-ME104	<i>TX Frames 128–255 Octets TLV (0xDB/0x02-0D)</i>	14.4.3.13	Meets the requirements of Table 14-111.	M	[ ] Yes
T-ME105	<i>TX Frames 256–511 Octets TLV (0xDB/0x02-0E)</i>	14.4.3.14	Meets the requirements of Table 14-112.	M	[ ] Yes
T-ME106	<i>TX Frames 512–1023 Octets TLV (0xDB/0x02-0F)</i>	14.4.3.15	Meets the requirements of Table 14-113.	M	[ ] Yes
T-ME107	<i>TX Frames 1024–1518 Octets TLV (0xDB/0x02-10)</i>	14.4.3.16	Meets the requirements of Table 14-114.	M	[ ] Yes
T-ME108	<i>TX Frames 1519 Octets TLV (0xDB/0x02-11)</i>	14.4.3.17	Meets the requirements of Table 14-115.	M	[ ] Yes
T-ME109	<i>Delay Threshold TLV (0xDB/0x02-12)</i>	14.4.3.18	Meets the requirements of Table 14-116.	M	[ ] Yes
T-ME110	<i>Delay TLV (0xDB/0x02-13)</i>	14.4.3.19	Meets the requirements of Table 14-117.	M	[ ] Yes
T-ME111	<i>Frames Dropped TLV (0xDB/0x02-14)</i>	14.4.3.20	Meets the requirements of Table 14-118.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
T-ME112	<i>Octets Dropped</i> TLV (0xDB/0x02-15)	14.4.3.21	Meets the requirements of Table 14-119.	M	[ ] Yes
T-ME113	<i>Octets Delayed</i> TLV (0xDB/0x02-16)	14.4.3.22	Meets the requirements of Table 14-120.	M	[ ] Yes
T-ME114	<i>Upstream Octets Unused</i> TLV (0xDB/0x02-17)	14.4.3.23	Meets the requirements of Table 14-121.	M	[ ] Yes
T-ME115	<i>Optical Monitoring Temperature</i> TLV (0xDB/0x02-1D)	14.4.3.24	Meets the requirements of Table 14-122.	M	[ ] Yes
T-ME116	<i>Optical Monitoring VCC</i> TLV (0xDB/0x02-1E)	14.4.3.25	Meets the requirements of Table 14-123.	M	[ ] Yes
T-ME117	<i>Optical Monitoring Tx Bias Current</i> TLV (0xDB/0x02-1F)	14.4.3.26	Meets the requirements of Table 14-124.	M	[ ] Yes
T-ME118	<i>Optical Monitoring Tx Power</i> TLV (0xDB/0x02-20)	14.4.3.27	Meets the requirements of Table 14-125.	M	[ ] Yes
T-ME119	<i>Optical Monitoring Rx Power</i> TLV (0xDB/0x02-21)	14.4.3.28	Meets the requirements of Table 14-126.	M	[ ] Yes
T-ME120	<i>Rx Frames Yellow</i> TLV (0xDB/0x02-22)	14.4.3.29	Meets the requirements of Table 14-127.	M	[ ] Yes
T-ME121	<i>Tx Frames Yellow</i> TLV (0xDB/0x02-23)	14.4.3.30	Meets the requirements of Table 14-128.	M	[ ] Yes
T-ME122	<i>Tx Octets Green</i> TLV (0xDB/0x02-24)	14.4.3.31	Meets the requirements of Table 14-129.	M	[ ] Yes
T-ME123	<i>Rx Octets Yellow</i> TLV (0xDB/0x02-25)	14.4.3.32	Meets the requirements of Table 14-130.	M	[ ] Yes
T-ME124	<i>Rx Octets Green</i> TLV (0xDB/0x02-26)	14.4.3.33	Meets the requirements of Table 14-131.	M	[ ] Yes
T-ME125	<i>Tx Octets Yellow</i> TLV (0xDB/0x02-27)	14.4.3.34	Meets the requirements of Table 14-132.	M	[ ] Yes
T-ME126	<i>Tx Frames Layer 2 Unicast</i> TLV (0xDB/0x02-28)	14.4.3.35	Meets the requirements of Table 14-133.	M	[ ] Yes
T-ME127	<i>Tx Frames Layer 2 Multicast</i> TLV (0xDB/0x02-29)	14.4.3.36	Meets the requirements of Table 14-134.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
T-ME128	<i>Tx Frames Layer 2 Broadcast TLV (0xDB/0x02-2A)</i>	14.4.3.37	Meets the requirements of Table 14-135.	M	[ ] Yes
T-ME129	<i>Rx Frames Layer 2 Unicast TLV (0xDB/0x02-2B)</i>	14.4.3.38	Meets the requirements of Table 14-136.	M	[ ] Yes
T-ME130	<i>Rx Frames Layer 2 Multicast TLV (0xDB/0x02-2C)</i>	14.4.3.39	Meets the requirements of Table 14-137.	M	[ ] Yes
T-ME131	<i>Rx Frames Layer 2 Broadcast TLV (0xDB/0x02-2D)</i>	14.4.3.40	Meets the requirements of Table 14-138.	M	[ ] Yes
T-ME132	<i>Counter Number TLV (0xDB/0x02-2E)</i>	14.4.3.41	Meets the requirements of Table 14-139.	M	[ ] Yes
T-ME133	<i>L2CP Frames Rx TLV (0xDB/0x02-2F)</i>	14.4.3.42	Meets the requirements of Table 14-140.	M	[ ] Yes
T-ME134	<i>L2CP Octets Rx TLV (0xDB/0x02-30)</i>	14.4.3.43	Meets the requirements of Table 14-141.	M	[ ] Yes
T-ME135	<i>L2CP Frames Tx TLV (0xDB/0x02-31)</i>	14.4.3.44	Meets the requirements of Table 14-142.	M	[ ] Yes
T-ME136	<i>L2CP Octets Tx TLV (0xDB/0x02-32)</i>	14.4.3.45	Meets the requirements of Table 14-143.	M	[ ] Yes
T-ME137	<i>L2CP Frames Discarded TLV (0xDB/0x02-33)</i>	14.4.3.46	Meets the requirements of Table 14-144.	M	[ ] Yes
T-ME138	<i>L2CP Octets Discarded TLV (0xDB/0x02-34)</i>	14.4.3.47	Meets the requirements of Table 14-145.	M	[ ] Yes
T-ME139	<i>L2 Tx Errors TLV (0xDB/0x02-35)</i>	14.4.3.48	Meets the requirements of Table 14-146.	M	[ ] Yes
T-ME140	<i>L2 Rx Errors TLV (0xDB/0x02-36)</i>	14.4.3.49	Meets the requirements of Table 14-147.	M	[ ] Yes
T-ME141	<i>Count Frames Over Limit Dropped UNI TLV (0xDB/0x02-37)</i>	14.4.3.50	Meets the requirements of Table 14-148.	M	[ ] Yes
T-ME142	<i>Count Octets Over Limit Dropped UNI TLV (0xDB/0x02-38)</i>	14.4.3.51	Meets the requirements of Table 14-149.	M	[ ] Yes
T-ME143	<i>Port Stat Threshold TLV (0xDB/0x03-01)</i>	14.4.4.1	Meets the requirements of Table 14-150.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
T-ME144	<i>L-ONU Stat Threshold</i> TLV (0xDB/0x03-02)	14.4.4.2	Meets the requirements of Table 14-151.	M	[ ] Yes
T-ME145	<i>Alarm Status Control</i> TLV (0xDB/0x03-03)	14.4.4.3	Meets the requirements of Table 14-152.	M	[ ] Yes
T-ME146	<i>Encryption Key Expiry Time</i> TLV (0xDB/0x04-01)	14.4.5.1	Meets the requirements of Table 14-153.	M	[ ] Yes
T-ME147	<i>Encryption Mode</i> TLV (0xDB/0x04-02)	14.4.5.2	Meets the requirements of Table 14-154.	M	[ ] Yes
T-ME148	Number of <i>sClause</i> sub-attributes	14.4.6.1.1	A frame processing rule contains at least one <i>sClause</i> sub-attribute	M	[ ] Yes
T-ME149a	<i>Port Ingress Rule</i> TLV (0xDB/0x05-01)	14.4.6.1.3	Meets the requirements of Table 14-155.	M	[ ] Yes
T-ME149b	<i>sClause</i> sub-attribute structure	14.4.6.1.3	Meets the requirements of Table 14-156.	M	[ ] Yes
T-ME149c	<i>sResult</i> sub-attribute for the frame actions NOP, DISCARD, and FORWARD	14.4.6.1.3	Meets the requirements of Table 14-157.	M	[ ] Yes
T-ME149d	<i>sResult</i> sub-attribute for the frame action QUEUE	14.4.6.1.3	Meets the requirements of Table 14-158.	M	[ ] Yes
T-ME149e	<i>sResult</i> sub-attribute for the frame action SET	14.4.6.1.3	Meets the requirements of Table 14-159.	M	[ ] Yes
T-ME149f	<i>sResult</i> sub-attribute for the frame action COPY	14.4.6.1.3	Meets the requirements of Table 14-160.	M	[ ] Yes
T-ME149g	<i>sResult</i> sub-attribute for the frame actions DELETE, INSERT, REPLACE, CLEAR_DELETE, and CLEAR_INSERT	14.4.6.1.3	Meets the requirements of Table 14-161.	M	[ ] Yes
T-ME149h	<i>sResult</i> sub-attribute for the frame action INC_COUNTER	14.4.6.1.3	Meets the requirements of Table 14-162.	M	[ ] Yes
T-ME150	<i>Custom Field</i> TLV (0xDB/0x05-02)	14.4.6.2	Meets the requirements of Table 14-164.	M	[ ] Yes
T-ME151	<i>Alternative C-VLAN TPID</i> TLV(0xDB/0x05-03)	14.4.6.3	Meets the requirements of Table 14-175.	M	[ ] Yes
T-ME152	<i>Alternative S-VLAN TPID</i> TLV (0xDB/0x05-04)	14.4.6.4	Meets the requirements of Table 14-176.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
T-ME153	<i>Multicast Group Identifier TLV (0xDB/0x05-05)</i>	14.4.6.5	Meets the requirements of Table 14-177.	M	[ ] Yes
T-ME154	<i>Alternative I-TPID TLV (0xDB/0x05-06)</i>	14.4.6.6	Meets the requirements of Table 14-178.	M	[ ] Yes
T-ME155	<i>Alternative B-TPID TLV (0xDB/0x05-07)</i>	14.4.6.7	Meets the requirements of Table 14-179.	M	[ ] Yes
T-ME156	<i>Broadcast Rate Limit TLV (0xDB/0x06-01)</i>	14.4.7.1	Meets the requirements of Table 14-180.	M	[ ] Yes
T-ME157	<i>Queue Committed Information Rate TLV (0xDB/0x06-04)</i>	14.4.7.2	Meets the requirements of Table 14-181.	M	[ ] Yes
T-ME158	<i>Queue Excess Information Rate TLV (0xDB/0x06-06)</i>	14.4.7.3	Meets the requirements of Table 14-182.	M	[ ] Yes
T-ME159	<i>Queue Color Marking TLV (0xDB/0x06-07)</i>	14.4.7.4	Meets the requirements of Table 14-183.	M	[ ] Yes
T-ME160	<i>Queue Rate Limiter Capabilities TLV (0xDB/0x06-08)</i>	14.4.7.5	Meets the requirements of Table 14-184.	M	[ ] Yes
T-ME161	<i>Coupling Flag TLV (0xDB/0x06-09)</i>	14.4.7.6	Meets the requirements of Table 14-185.	M	[ ] Yes
T-ME162	<i>ONU Power Saving Capabilities TLV (0xDB/0xFF-FF)</i>	14.4.8.1	Meets the requirements of Table 14-186.	M	[ ] Yes
T-ME163	<i>ONU Protection Capability TLV (0xDB/0x09-00)</i>	14.4.9.1	Meets the requirements of Table 14-187.	M	[ ] Yes
T-ME164	<i>ONU Protection Configuration TLV (0xDB/0x09-01)</i>	14.4.9.2	Meets the requirements of Table 14-188.	U-LPTE0+ U-LPTK0:M	[ ] Yes
T-ME165	<i>PON Interface Administrate TLV (0xDB/0x09-02)</i>	14.4.9.3	Meets the requirements of Table 14-189.	U-LPTE0:M	[ ] Yes
T-ME166	<i>ONU Configuration Holdover Period TLV (0xDB/0x09-03)</i>	14.4.9.4	Meets the requirements of Table 14-190.	U-LPTK0:M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
T-ME167	<i>Clock Transport Capability TLV (0xDB/0x07-01)</i>	14.4.10.1	Meets the requirements of Table 14-191.	M	[ ] Yes
T-ME168	<i>Clock Transport Admin Status TLV (0xDB/0x07-02)</i>	14.4.10.2	Meets the requirements of Table 14-192.	M	[ ] Yes
T-ME169	<i>Clock Transfer Time TLV (0xDB/0x07-03)</i>	14.4.10.3	Meets the requirements of Table 14-193.	M	[ ] Yes
T-ME170	<i>Clock Transfer Propagation Parameters TLV (0xDB/0x07-04)</i>	14.4.10.4	Meets the requirements of Table 14-194.	M	[ ] Yes
T-ME171	<i>Clock Transfer RTT TLV (0xDB/0x07-05)</i>	14.4.10.5	Meets the requirements of Table 14-195.	M	[ ] Yes
T-ME172	<i>EEE Status TLV (0xDB/0x08-00)</i>	14.4.11.1	Meets the requirements of Table 14-196.	M	[ ] Yes
T-ME173	<i>PoE Status TLV (0xDB/0x08-21)</i>	14.4.11.2	Meets the requirements of Table 14-197.	M	[ ] Yes
T-ME174	Supported basic actions	14.5	Per Table 14-198.	M	[ ] Yes
T-ME175	<i>PHY Admin Control TLV (0x09/0x00-05)</i>	14.5.1	Per Table 14-199.	M	[ ] Yes
T-ME176	<i>UNI Auto-Negotiation Restart TLV (0x09/0x00-0B)</i>	14.5.2	Per Table 14-200.	M	[ ] Yes
T-ME177	<i>UNI Auto-Negotiation Admin TLV (0x09/0x00-0B)</i>	14.5.3	Per Table 14-201.	M	[ ] Yes
T-ME178	Supported extended actions	14.6	Per Table 14-202.	M	[ ] Yes
T-ME179	<i>ONU Reboot TLV (0xDD/0x00-01)</i>	14.6.1.1	Meets the requirements of Table 14-203.	M	[ ] Yes
T-ME180	<i>Clear Dynamic MAC Table TLV (0xDD/0x01-01)</i>	14.6.2.1	Meets the requirements of Table 14-204.	M	[ ] Yes
T-ME181	<i>Add Dynamic MAC Address TLV (0xDD/0x01-02)</i>	14.6.2.2	Meets the requirements of Table 14-205.	M	[ ] Yes
T-ME182	<i>Delete Dynamic MAC Address TLV (0xDD/0x01-03)</i>	14.6.2.3	Meets the requirements of Table 14-206.	M	[ ] Yes
T-ME183	<i>Clear Static MAC Table TLV (0xDD/0x01-04)</i>	14.6.2.4	Meets the requirements of Table 14-207.	M	[ ] Yes
T-ME184	<i>Add Static MAC Address TLV (0xDD/0x01-05)</i>	14.6.2.5	Meets the requirements of Table 14-208.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
T-ME185	Delete Static MAC Address TLV (0xDD/0x01-06)	14.6.2.6	Meets the requirements of Table 14-209.	M	[ ] Yes
T-ME186	UNI MAC Learned TLV (0xDD/0x01-08)	14.6.2.7	Meets the requirements of Table 14-210.	M	[ ] Yes
T-ME187a	Config Logical Link TLV (0xDD/0x01-20)	14.6.2.8	Meets the requirements of Table 14-211.	M	[ ] Yes
T-ME187b	Queue allocation / deallocation	14.6.2.8	Allocating or deallocating a queue does not affect the data stored in queues associated with other LLID or UNI port entities	M	[ ] Yes
T-ME187c	Do not delete system LLIDs	14.6.2.8	The request to delete all LLID entities ( <i>sLlidAction</i> = del_all) does not delete the system LLIDs	M	[ ] Yes
T-ME188a	Config Service Port TLV (0xDD/0x01-21)	14.6.2.9	Meets the requirements of Table 14-212.	M	[ ] Yes
T-ME188b	Queue allocation / deallocation	14.6.2.9	Allocating or deallocating a queue does not affect the data stored in queues associated with other LLID or UNI port entities	M	[ ] Yes
T-ME189	Clear Counters TLV (0xDD/0x02-01)	14.6.3.1	Meets the requirements of Table 14-213.	M	[ ] Yes
T-ME190	Retrieve Current Alarm Summary TLV (0xDD/0x03-01)	14.6.4.1	Meets the requirements of Table 14-214.	M	[ ] Yes
T-ME191	Clear Port Ingress Rules TLV (0xDD/0x05-01)	14.6.5.1	Meets the requirements of Table 14-215.	M	[ ] Yes
T-ME192	Add Port Ingress Rule TLV (0xDD/0x05-02)	14.6.5.2	Meets the requirements of Table 14-216.	M	[ ] Yes
T-ME193	Delete Port Ingress Rule TLV (0xDD/0x05-03)	14.6.5.3	Meets the requirements of Table 14-217.	M	[ ] Yes
T-ME194	Enable User Traffic TLV (0xDD/0x06-01)	14.6.6.1	Meets the requirements of Table 14-218.	M	[ ] Yes
T-ME195	Disable User Traffic TLV (0xDD/0x06-02)	14.6.6.2	Meets the requirements of Table 14-219.	M	[ ] Yes
T-ME196	Loopback Enable TLV (0xDD/0x06-03)	14.6.6.3	Meets the requirements of Table 14-220.	M	[ ] Yes
T-ME197	Loopback Disable TLV (0xDD/0x06-04)	14.6.6.4	Meets the requirements of Table 14-221.	M	[ ] Yes
T-ME198	Laser Tx Power Off TLV (0xDD/0x06-05)	14.6.6.5	Meets the requirements of Table 14-222.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
T-ME199	<i>EEE Change State TLV (0xDD/0x07-01)</i>	14.6.7.1	Meets the requirements of Table 14-223.	M	[ ] Yes
T-ME200	<i>PoE Change State TLV (0xDD/0x07-02)</i>	14.6.7.2	Meets the requirements of Table 14-224.	M	[ ] Yes
T-ME201	Support for programmable, general-purpose counters	14.7	ONU supports programmable, general-purpose counter attributes shown in Table 14-225.	M	[ ] Yes
T-ME202	<i>Programmable Counter N TLV (0xDC/0x00-00 to 0xDC/0x7F-FF)</i>	14.7.1	Meets the requirements of Table 14-226.	M	[ ] Yes

#### 4A.3.12 Port-specific loopback

Item	Description	Subclause	Value/Comment	Status	Support
T-PSL0	Implements port-specific loopback	Table 5-1	OLT implements port-specific loopback per 9.1.9.	M	[ ] Yes
T-PSL1	IEEE 802.3 loopback	9.1.9	OLT implements port-specific loopback function per IEEE Std 802.3.	M	[ ] Yes
T-PSL2	Port-specific loopback	9.1.9	OLT implements port-specific loopback function per 9.1.9.	O	[ ] Yes [ ] No

#### 4A.3.13 Power saving

Item	Description	Subclause	Value/Comment	Status	Support
T-PS0a	Implements power-saving mechanism	Table 5-1	OLT implements power-saving mechanism per 10.4 and 10.5.2.	M	[ ] Yes
T-PS0b	Support power-saving mechanism	10.5.2	Support power-saving mechanism defined in 10.4 and 10.5.2.	M	[ ] Yes
T-PS1a	Maintain SLS when OLT in power-saving mode	10.4.2	OLT maintains existing SLS when the power-saving mode is enabled.	O	[ ] Yes [ ] No
T-PS1b	Maintain provisioned QoS bounds	10.4.2	OLT does not exceed the provisioned QoS parameter bounds.	O	[ ] Yes [ ] No
T-PS1c	Maintain FLR when OLT in power-saving mode	10.4.2	OLT does not increase FLR when the power-saving mode is enabled.	O	[ ] Yes [ ] No

Item	Description	Subclause	Value/Comment	Status	Support
T-PS2	Broadcast traffic queuing	10.4.2	OLT to queue broadcast traffic as long as the entire multicast service group is in the sleep state.	M	[ ] Yes
T-PS3	Sleep period duration (maximum)	10.4.2	1 second	M	[ ] Yes
T-PS4	Support for early wake-up function	10.5.2.5.3	—	O	[ ] Yes [ ] No
T-PS5a	Buffer space	10.5.2.4	OLT provides adequate buffering space for multicast and broadcast data transmission for all eligible ONUs currently in the sleep state.	M	[ ] Yes
T-PS5b	Ignore alarms for ONU in sleep state	10.5.2.4	OLT ignores any alarms associated with this ONU in the sleep state, including signal loss and synchronization loss.	M	[ ] Yes
T-PS6	Early wake-up function	10.5.2.5.3	OLT enables or disables the early wake-up function for each ONU with the detected support for the power-saving mechanism.	M	[ ] Yes
T-PS7	OLT operation	10.5.2.5.5.5	Meets the requirements of Figure 10-6.	M	[ ] Yes
T-PS8	OLT state diagram count	10.5.2.5.5.5	State diagram per Figure 10-6 to be instantiated per C-ONU.	M	[ ] Yes
T-PS9a	Support for synchronized wake-up	10.5.2.5.4	—	O	[ ] Yes [ ] No
T-PS9b	Synchronized wake-up	10.5.2.5.4	OLT uses signaling protocol per 10.5.2.5.1 to synchronize wake-up times for different ONUs.	T-PS9a:M	[ ] Yes

#### 4A.3.14 OLT VLAN modes

Item	Description	Subclause	Value/Comment	Status	Support
T-TVM0	Implements OLT VLAN modes	Table 5-1	OLT implements OLT VLAN modes per 7.2.2.3.	M	[ ] Yes
T-TVM1a	Support PB VLAN modes	7.2.2.3	C-OLT is able to support all PB VLAN modes as defined in 7.2.2.3.	M	[ ] Yes
T-TVM1b	Operate in at least one PB VLAN mode	7.2.2.3	C-OLT is able to operate in at least one PB VLAN mode as configured by the NMS.	M	[ ] Yes
T-TVM2	Transport PB VLAN mode	7.2.2.3.1	MAC Client at the OLT operates according to Table 7-24 for downstream and upstream ESP.	M	[ ] Yes
T-TVM3	Encapsulation PB VLAN mode	7.2.2.3.2	MAC Client at the OLT operates according to Table 7-24 for downstream ESP.	M	[ ] Yes

#### 4A.3.15 OLT tunneling modes

Item	Description	Subclause	Value/Comment	Status	Support
T-TTM0	Implements OLT tunneling modes	Table 5-1	OLT implements OLT tunneling modes per 7.3.2.	M	[ ] Yes
T-TTM1a	Support tunneling modes	7.3.2	C-OLT is able to support all tunneling modes as defined in 7.3.2.	M	[ ] Yes
T-TTM1b	Operate in at least one tunneling mode	7.3.2	C-OLT is able to operate in at least one tunneling mode as configured by the NMS.	M	[ ] Yes
T-TTM2	Transport tunneling mode	7.3.2.1	MAC Client at the OLT operates according to Table 7-28 for downstream and upstream ESP.	M	[ ] Yes
T-TTM3	Encapsulation tunneling mode	7.3.2.2	MAC Client at the OLT operates according to Table 7-28 for downstream ESP.	M	[ ] Yes

#### 4A.3.16 Multicast connectivity

Item	Description	Subclause	Value/Comment	Status	Support
T-MC0	Implements multicast connectivity	Table 5-1	OLT implements multicast connectivity per 7.4.2.	M	[ ] Yes
T-MC1d	UNI Port Instance	7.4.2.2.1	If OLT does not know the instance of the UNI port to which the multicast client is connected, it queries the ONU to determine an instance of a UNI port on which the given client's MAC address has been learned.	M	[ ] Yes
T-MC1e	Provisioning of mLLID	7.4.2.2.2	If the ONU is not already configured to receive the mLLID carrying the requested IP multicast session, the OLT provisions the mLLID (see 7.4.2.3.1).	M	[ ] Yes
T-MC1f	Provisioning of classification and forwarding rule for multicast session	7.4.2.2.2	If the ONU is not already configured to receive the requested IP multicast session, the OLT adds a new classification and forwarding rule to forward the requested multicast session to the specific UNI port (see 7.4.2.3.2).	M	[ ] Yes
T-MC1g	Modification of existing classification and forwarding rule	7.4.2.2.2	If the ONU is already receiving the requested multicast session, but the given UNI port is not configured to receive the multicast session, the OLT modifies the existing classification and forwarding rule to include the additional UNI port into the existing multicast group.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
T-MC1h	Provisioning of local multicast-bearing ESP	7.4.2.2.2	If the IP multicast session requested by a client does not exist in the OLT, the OLT provisions multicast-bearing ESP that forwards multicast traffic identified by the requested IP multicast address to the same mLLID that has been provisioned to the ONUs to receive this multicast stream.	M	[ ] Yes
T-MC2a	Last member leave on ONU port	7.4.2.2.2	When the OLT determines that there are no multicast clients for an IP multicast session connected to an ONU UNI port, the OLT modifies the associated classification and forwarding rule at the ONU to stop forwarding the indicated multicast session to the UNI port (see 7.4.2.3.3).	M	[ ] Yes
T-MC2b	Last member leave on ONU	7.4.2.2.2	When the OLT determines that there are no multicast clients for an IP multicast session connected to any of the UNI ports on an ONU, the OLT configures the ONU to delete the associated classification and forwarding rule on that ONU (see 7.4.2.3.3).	M	[ ] Yes
T-MC2c	Last member leave on mLLID	7.4.2.2.2	When the OLT determines that there are no multicast clients connected to any of the UNI ports on an ONU for any of IP multicast sessions being delivered on a specific mLLID, the OLT configures the ONU to delete the mLLID used to deliver these IP multicast sessions (see 7.4.2.3.1).	M	[ ] Yes
T-MC3a	Adding the first UNI port to a multicast group	7.4.2.3.2	To add the first UNI port to a multicast group, the OLT generates the <i>aRuleSetConfig</i> (0xDB/0x05-01) attribute that includes one or more <i>sClause</i> sub-attributes and a single <i>sResult</i> sub-attribute with the action set to <i>QUEUE</i> , directing traffic to a specific queue associated with a specific UNI port instance.	M	[ ] Yes
T-MC3b	Adding an additional UNI port to a multicast group	7.4.2.3.2	To add an additional UNI port to a multicast group already existing in the ONU, the OLT generates a new <i>aRuleSetConfig</i> attribute, that contains an additional <i>sResult</i> sub-attribute with the action set to <i>QUEUE</i> , but is otherwise identical to the existing rule for the given multicast group.	M	[ ] Yes
T-MC3c	Multiple <i>sResult</i> sub-attributes pointing to the same instance of a UNI port	7.4.2.3.2	The OLT does not generate a rule with multiple <i>sResult</i> sub-attributes pointing to the same instance of a UNI port.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
T-MC3d	Deleting a UNI port from an existing multicast group	7.4.2.3.2	To delete a UNI port from an existing multicast group in the given ONU, the OLT generates a new <i>aRuleSetConfig</i> attribute, that does not contain the <i>sResult</i> sub-attribute forwarding traffic to the port being deleted, but is otherwise identical to the existing rule for the given multicast group.	M	[ ] Yes
T-MC3e	Generates new rule before deleting the old rule	7.4.2.3.2	The OLT generates the new <i>aRuleSetConfig</i> attribute before deleting the old rule.	M	[ ] Yes
T-MC3f	Deleting the old rule before receiving a confirmation from the ONU	7.4.2.3.2	The OLT does not configure the ONU to delete the old <i>aRuleSetConfig</i> attribute before it receives a confirmation from the ONU that the new <i>aRuleSetConfig</i> attribute was configured successfully.	M	[ ] Yes
T-MC3g	Deleting all UNI ports from a multicast group	7.4.2.3.2	To delete all UNI ports from an existing multicast group in the given ONU, the OLT deletes the associated <i>aRuleSetConfig</i> attribute entirely.	M	[ ] Yes
T-MC4a	Retrieving the instance of the UNI port	7.4.2.3.3	The OLT uses the <i>acGetUniMacLearned</i> (0xDD/0x01-08) action to retrieve the instance of the UNI port on which the given MAC address has been learned.	M	[ ] Yes
T-MC4b	Handling of a non-learned MAC address	7.4.2.3.3	The OLT does not generate the new <i>aRuleSetConfig</i> attribute if the sub-attribute <i>sUniPort</i> contains the value 0xFF, indicating that the given MAC address has not been learned on any of UNI ports.	M	[ ] Yes
T-MC5	Multicast forwarding rules	7.4.2.4.1	OLT forwards multicast traffic based on rules per Table 7-32.	M	[ ] Yes

#### 4A.3.17 Multicast connectivity, coexistence

Item	Description	Subclause	Value/Comment	Status	Support
T-MCC0	Implements multicast connectivity, coexistence	Table 5-1	OLT implements multicast connectivity, coexistence.	M	[ ] Yes
T-MCC1a	Multicast forwarding in coexistence mode	7.4.1.1.2	When a multicast group includes clients that are connected to both 1 Gb/s ONUs and 10 Gb/s ONUs, the OLT duplicates multicast frames to two output ports, one connected to 1G-EPON multicast LLID and the other one connected to 10G-EPON multicast LLID.	M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
T-MCC1b			If all multicast clients with membership in a specific multicast group are connected to the same ONU type (25G-EPON or 50G-EPON ONU), the OLT forwards multicast frames for the entire multicast group using a unicast ESP associated with the multicast LLID.	M	[ ] Yes

#### 4A.3.18 Trunk protection

Item	Description	Subclause	Value/Comment	Status	Support
T-LPTK0	Implement trunk optical link protection	Table 5-1	OLT implements trunk optical link protection per 9.3.3 and 9.3.5.1.	O	[ ] Yes [ ] No
T-LPTK1	Fault condition detection	9.3.2.2.1	The working OLT detects the fault condition on the working optical line using Optical LoS or MAC LoS mechanism.	T-LPTK0:M	[ ] Yes
T-LPTK2	Switching time	9.3.3.1	Be lower than or equal to 150 ms.	T-LPTK0:M	[ ] Yes
T-LPTK3	GATE MPCPDU transmission	9.3.3.2	The backup OLT, once the switchover process is complete, sends one or more GATE MPCPDUs to force each registered ONU to resynchronize to the MPCP clock.	T-LPTK0:M	[ ] Yes
T-LPTK4a	OLT state diagram count (Trunk_1)	9.3.3.4.5	State diagram per Figure 9-10 is instantiated per C-OLT.	T-LPTK0:M	[ ] Yes
T-LPTK4b	OLT state diagram count (Trunk_2)	9.3.3.4.5	State diagram per Figure 9-10 is instantiated per L-OLT.	T-LPTK0:M	[ ] Yes

#### 4A.3.19 Tree protection

Item	Description	Subclause	Value/Comment	Status	Support
T-LPTE0	Implement tree optical link protection	Table 5-1	OLT implements tree optical link protection per 9.3.4 and 9.3.5.1.	O	[ ] Yes [ ] No
T-LPTE1	Line monitoring mechanisms (OLT)	9.3.2.2.1	The working OLT detects the fault condition on the working optical line using Optical LoS or MAC LoSi mechanisms.	T-LPTE0:M	[ ] Yes
T-LPTE2a	Switching time	9.3.4.1	Be lower than or equal to 50 ms.	T-LPTE0:M	[ ] Yes

Item	Description	Subclause	Value/Comment	Status	Support
T-LPTE2b	Data flows on backup path	9.3.4.1	MPCP and OAM data flows only.	T-LPTE0:M	[ ] Yes
T-LPTE2c	Device discovery and registration	9.3.4.1	MPCP discovery and registration processes, IEEE 802.3 (Clause 57) OAM discovery, eOAM discovery and ONU authentication process if configured to do so by the operator executed independently for the primary and backup links.	T-LPTE0:M	[ ] Yes
T-LPTE3a	Configuration of backup ONUs	9.3.4.2	Backup OLT supports configuration of backup ONUs connected to backup path.	T-LPTE0:M	[ ] Yes
T-LPTE3b	Maintain data link connectivity with backup ONU	9.3.4.2	The standby OLT enables all necessary MPCP and OAM/eOAM mechanisms defined in this standard as well as in IEEE Std 802.3 in order to maintain data link connectivity with individual standby ONUs.	T-LPTE0:M	[ ] Yes
T-LPTE3c	Upstream grants to backup ONUs	9.3.4.2	The standby OLT issues grants to the standby ONUs to ensure normal operation of the MPCP.	T-LPTE0:M	[ ] Yes
T-LPTE3d	Suppress alarms and warnings	9.3.4.2	The standby OLT suppresses generation of any alarms and warnings associated with the arrival of empty/underutilized upstream transmission slots.	T-LPTE0:M	[ ] Yes
T-LPTE3e	Downstream traffic for standby ONUs	9.3.4.2	The standby OLT disallows any downstream user traffic prior to the switchover event.	T-LPTE0:M	[ ] Yes
T-LPTE4a	OLT operation	9.3.4.5.5	Meet the requirements of Figure 9-18.	T-LPTE0:M	[ ] Yes
T-LPTE4b	OLT state diagram count	9.3.4.5.5	State diagram per Figure 9-18 is instantiated per each registered C-ONU.	T-LPTE0:M	[ ] Yes