

Protocol Implementation Conformance Statement (PICS) proforma

1 Introduction

The supplier of a protocol implementation that is claimed to conform to this standard shall complete the following PICS proforma.

A completed PICS proforma is the PICS for the implementation in question. The PICS is a statement of which capabilities and options of the protocol have been implemented. The PICS can have a number of uses, including the following:

a) By the protocol implementer, as a checklist to reduce the risk of failure to conform to the standard through oversight;

b) By the supplier and acquirer—or potential acquirer—of the implementation, as a detailed indication of the capabilities of the implementation, stated relative to the common basis for understanding provided by the standard PICS proforma;

c) By the user—or potential user—of the implementation, as a basis for initially checking the possibility of interworking with another implementation (note that, while interworking can never be guaranteed, failure to interwork can often be predicted from incompatible PICS);

d) By a protocol tester, as the basis for selecting appropriate tests against which to assess the claim for conformance of the implementation.

2 Abbreviations and special symbols

2.1 Status symbols

M	mandatory
O	optional
<i>O.n</i>	optional, but support of at least one of the group of options labeled by the same numeral n is required
X	prohibited
pred:	conditional-item symbol, including predicate identification (see A.3.4)
¬	logical negation, applied to a conditional item's predicate

2.2 General abbreviations

N/A	not applicable
PICS	Protocol Implementation Conformance Statement

3 AVTP Protocol

Item	Feature	Status	Reference	Support
	Does this device use an Ethertype value listed in Table 5.1?	M	5.1.2	Yes[] No[]

	Does this device use the experimental subtype?	M	5.2.2	No []
	Does this device set the version field to zero(0)?	M	5.2.3	Yes []
	Does this device ignore AVTPDU's received with a reserved version number?	M	5.2.4	Yes []
	If the sv field is set to one (1) does the stream_id field contain the 64 bit stream ID?	M	5.2.6	Yes []
	If the cd field is zero (0) then is the sv field set to one (1) and does the stream_id field contain the 64 bit stream ID?	M	5.2.6	Yes []
	If the cd field is one (1) and the sv field set to one (1) then does the stream id field contain the 64 bit stream ID?	M	5.2.6	Yes []
	If the cd field is one (1) and the sv field is zero (0) then is the stream id field set to zero (0)?	M	5.2.6	Yes []
	Is the control_data_length field set to fit in a single Ethernet frame?	M	5.3.3	Yes []
	Does the device contain a AVTP gateway function	M	5.4.3	Yes [] No []
	Is the gv field set to zero?	AVTPGW:0	5.4.3	Yes []
	Is the gateway_info field zero (0)?	AVTPGW:0	5.4.9	Yes []
	Is the tv bit set?	M	5.4.4 5.5.2	Yes [] No []
	Does the avtp_timestamp field contain a valid timestamp?	M	5.4.4 5.5.2	Yes [] No []
	Does the sequence_num field increment by 1?	M	5.4.5	Yes []
	Does the sequence_num field wrap from 11111111_2 to 00000000_2 ?	M	5.4.5	Yes []
	Does the device support the tu field as described?	M	5.4.7	Yes []
	Is the avtp_timestamp in unit of nanoseconds?	M	5.4.8	Yes []
	Is the avtp_timestamp maximum value $2^{32}-1ns$?	M	5.4.8	Yes []
	If the tv bit is zero (0) does	M	5.4.4	Yes []

	the device ignore the received avtp_timestamp?		5.4.8	
	Is the stream_data_length field set to allow all stream data to fit within a single Ethernet frame?	M	5.4.10	Yes []
	Does the protocol_specific_header contain 16 bits of data?	M	5.4.11	Yes []
	Does the device transfer control fo the AVTP frame to the MAC layer no later than the Presentation Time – Max Transit Time?	M	5.5.4	Yes []
	Is the Device’s timing uncertainty less than Max Timing Uncertainty define in table 5.4?	M	5.5.4	Yes []
	Does the device support gPTP?	M	5.5.5	Yes []
	Does the device support SRP?	M	5.5.5	Yes []
	Does the device support FQTSS?	M	5.5.5	Yes []

4 AVTP-61883 Protocol

Item	Feature	Status	Reference	Support
	Is the tcode field set to 1010_2 ?	M	6.2.3	Yes[]
	Does the device ignore the tcode field on receive?	M	6.2.3	Yes[]
	Is the 2 bit CIP header 1 st quadlet indicator set to 00_2 ?	M	6.2.6.1	Yes[]
	Does the device ignore the 2 bit CIP header 1 st quadlet indicator on receive?	M	6.2.6.1	Yes[]
	Is the 6 bit SID field set to 63?	M	6.2.6.2	Yes []
	Is the DBS field set to a value that will not cause the AVTPDU to exceed the MTU of the network?	M	6.2.6.3	Yes []
	Does the AVTPDU contain an integral number of data blocks?	M	6.2.6.3	Yes []
	Is the 2 bit CIP header 2 nd quadlet indicator set to 10_2 ?	M	6.2.6.9	Yes []
	Is the SYT field set to $FFFF_{16}$?	SPH=0	6.2.6.12	
	Does the device ignore the SYT field on receive?	SPH=0	6.2.6.12	Yes[]
	Is the tv field set to zero?	SPH=1	6.2.6.13 61883-4 61883-7	Yes []
	If the data to be transmitted is larger than a standard Ethernet frame, are multiple CIP packets generated, each of which can fit in a standard Ethernet frame?	M	6.4.1	Yes []
	Does the device comply with all mandatory requirements of the IEC 61883 series of specifications?	M	6.4.1	Yes[]
	Is the CIP header SYT field set to all ones?	M	6.4.2 61883-2	
	Does the device ignore the e CIP header SYT field on receive?	M	6.4.2 61883-2	
	Does the device transmit a valid time stamp once every	M	6.4.2 61883-2	

	video frame period?			
	Does the avtp_timestamp in the AVTPDU meet the conditions specified in 6.4.2?	M	6.4.2 61883-2	Yes[]
	Does the transmission of AVTPDU packets meet the conditions specified in 6.4.2?	M	6.4.2 61883-2	Yes[]
	Does the transmitting device specify the presentation time of the event at the receiver?	M	6.4.4 61883-6 6.4.7 61883-8	
	Is the receiver capable of presenting events at the time specified by the transmitter?	M	6.4.4 61883-6 6.4.7 61883-8	
	Does the transmitter add TRANSFER_DELAY to the presentation time?	M	6.4.4 61883-6	
	Does the device transmit a single stream of video pr AVTP stream?	M	6.4.7 61883-8	
	Does the device transmission of nonempty AVTPDU's meet the conditions specified in 6.4.7?	M	6.4.7 61883-8	

5 MAAP Protocol

Item	Feature	Status	Reference	Support
	Does the device implement MAAP?	M	Annex B	Yes[] No[]
	Does the device use addresses from the MAAP Dynamic Allocation Pool?	M	B.1	Yes[] No[]
	Is the SA MAC address set to the MAC address of the sender?	M	B.2	Yes[]
	Is the ethertype set to the ethertype defined in Table 5.1?	M	B.2	Yes[]
	Is the CD field set to 1?	M	B.2.1	Yes []
	Is the subtype field set to $7E_{16}$?	M	B.2.2	Yes []
	Is the SV field set to zero (0)?	M	B.2.3	Yes []
	Does the device ignore reserved message_types?	M	B.2.5	Yes []
	Does the device use the version field in accordance with B.2.6.1, B.2.6.2 and B.2.6.3?	M	B.2.6	Yes[]
	Is the maap_data_length set to 16??	M	B.2.7	Yes[]
	Is the stream_id set to zero (0)?	M	B.2.8	Yes []
	Does the device implement the MAAP state machine as described in B.3.2?	M	B.3.2	Yes []
	Is the random number generator seeded in accordance with B.3.6.1?	M	B.3.6.1	Yes[]
	Are MAC addresses compared in octet-wise reverse order?	M	B.3.6.4	Yes[]
	Does the compare_MAC return TRUE if the MAC address of the receiving	M	B.3.6.4	Yes[]

	station is lower than the MAC address from the received MAAP PDU?			
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