



**ISO/IEC JTC 1/SC 25/WG 3 N1081**

**Date: 2015-03-06**

<p style="text-align: center;"><b>ISO/IEC JTC 1/SC 25</b> <b>INTERCONNECTION OF INFORMATION TECHNOLOGY EQUIPMENT</b> <b>Secretariat: Germany (DIN)</b></p> <p style="text-align: center;"><b>Working Group 3 “Customer Premises Cabling”</b></p>
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**DOC TYPE:** Liaison

**TITLE:** Response to P802.3bv Gigabit Ethernet Over Plastic Optical Fiber Task Force communication

**SOURCE:** Convenor ISO/IEC JTC 1/SC 25/WG 3

**PROJECTs:**

**STATUS:** The attached letter has been agreed during the recent meeting of ISO/IEC JTC 1/SC 25/WG 3 in response to IEEE P802.3bv communication from January 15, 2015.

**ACTION ID:** To note

**REQUESTED ACTION:** WG 3 to note

**DUE DATE:** --

**MEDIUM:** Def.

**No of Pages:** 3 (including cover)

**DISTRIBUTION:** Experts of JTC 1/SC 25/WG 3, see IEC Collaboration Tool

ISO/IEC JOINT TECHNICAL COMMITTEE 1  
SUBCOMMITTEE No.25: INTERCONNECTION OF  
INFORMATION TECHNOLOGY EQUIPMENT  
WORKING GROUP 3: CUSTOMER PREMISES CABLING

58th Meeting of WG 3  
 San Juan, Puerto Rico, 2015-03-02/06

To: Robert Grow, Chair, IEEE P802.3bv Task Force [bob.grow@ieee.org](mailto:bob.grow@ieee.org)

CC: Alan Flatman, IEEE liaison, [a\\_flatman@tiscali.co.uk](mailto:a_flatman@tiscali.co.uk)  
 David Law, [dlaw@hp.com](mailto:dlaw@hp.com)

Subject: Response from ISO/IEC JTC 1/SC 25 WG 3 on IEEE P802.3bv TF liaison letter dated January 15, 2015

Dear Bob,

Thank you for your request for guidance on referencing our cabling standards with plastic optical fibre.

ISO/IEC 11801 currently specifies 2 plastic optical fibre categories, OP1 1 mm POF fibre and OP2 490 µm fibre. Both fibres are of the step index design.

Cable performance requirements from OP1 and OP2 are given below.

Category	Maximum attenuation dB/km (see Note 1)			Minimum modal bandwidth MHz•km (see Note 2)		
	650 nm	850 nm	1 300 nm	650 nm	850 nm	1 300 nm
OP1 (See Note 3)	180	na	na	4	na	na
OP2	100	33	33	80	188	188
OH1	ffs	10	ffs	ffs	5	ffs
NOTE 1	Although the attenuation values are quoted in dB/km, the qualification measurement may be undertaken using 100 m lengths.					
NOTE 2	Modal bandwidth requirements apply to the optical fibre used to produce the relevant cabled optical fibre Category and are assured by the parameters and test methods specified in IEC 60793-2-40. Although the modal bandwidth values are quoted in MHz•km, the qualification measurement may be undertaken using 100 m lengths.					
NOTE 3	Launch condition N.A. = 0.3					

The plastic fibre is standardised by IEC/SC 86A in IEC 60793-2-40.

The selected connector interface is the LC connector, we have specified a maximum attenuation of the connection as 1,5 dB and have requested IEC SC 86B/WG 6 to develop the related product specification.

We have received information in the past that there are no active or planned developments in IEC/SC 86B regarding optical connector interfaces on POF.

We should point out that POF expertise in ISO/IEC JTC 1/SC25 WG 3 is minimal and there are no active projects regarding POF in our group.

For silica optical fibre, the IEC standards groups have developed a modal condition based on encircled flux taking worst case modal condition of the standardised transmitters (VCSELs).

We believe that there is no international agreed modal condition for measurement of attenuation of POF, connectors and cabling to assure compliance with application requirements.

Sincerely,

Dr. Albrecht Oehler  
Convenor ISO/IEC JTC 1/SC 25 WG 3