

Multi-source Agreement (MSA) of 40 Gbit/s Miniature Device (XLMD)

General Description of XLMD MSA

**Rev. 1.0
February 21, 2008**

Description

The XLMD MSA committee established by the following members has drawn up documents about the Electrical & Optical interfaces and the Physical interface specs of 40Gbit/s pigtail type optical devices. This document shows general description of MSA and the relations between the documents which the XLMD MSA committee drew up.

The optical devices specified by the XLMD MSA committee are intended to be applied to 40 Gbit/s optical transceiver modules. The specifications of optical devices are prescribed by combination of the Electrical & Optical interfaces specs and the Physical interface specs.

The documents of the XLMD MSA are offered to both users and suppliers of optical devices as a basis for a technical agreement. However, it is not a warranted document. Each optical device supplier will have its own datasheet. If the users wish to find a warranted document, they should consult the datasheet of the chosen optical device supplier.

The MSA committee reserves the rights at any time to add, amend or withdraw technical data contained in this document.

Revision History

Revision	Date of Issue	Purpose/Changes
1.0	February 21, 2008	First Public Issue

1 Scope

This document shows the list and the relations between the documents drawn up by the MSA committee.

The specifications of optical devices are prescribed by combination of the Electrical & Optical interfaces and the Physical interface in the listed documents.

2 MSA committee Members

Company	Representative	E-mail
Eudyna Devices Inc.	Hideki Machida	
Mitsubishi Electric Corp.	Hitoshi Watanabe	
NEC Electronics Corp.	Hiroshi Nakano	
Oki Electric Industry Co., Ltd.	Yasunari Mizuguchi	
Opnext, Inc.	Masanobu Okayasu	
Sumitomo Electric Industries, Ltd.	Yutaka Matsumura	

3 Abbreviations

EMwL External modulator with laser
MSA Multi source agreement
PIN PD Photo diode with PIN structure
TEC Thermo-electric cooler
TIA Trans-impedance amplifier

4 MSA Documents List

The XLMD MSA documents already published are listed as follows. The document name, title, the latest revision number, and the issue date are in the list.

The specifications of optical transmitter devices are prescribed by combination of 4.1 and 4.2.

The specifications of optical receiver devices are prescribed by combination of 4.3 and 4.4.

4.1 Electrical and Optical Specification of Optical Transmitter Device

[XLMD 01] MSA_XLMD_EML: "Electrical & Optical Interfaces of Optical Transmitter Device"

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This document specifies electrical and optical interfaces of an optical transmitter device with an EMWL, a modulator driver IC, and a TEC.

4.2 Physical Specification of Optical Transmitter Device

[XLMD 02] MSA_XLMD_EML_PKG: "Physical Interface of Optical Transmitter Device Package"

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This document specifies a physical interface of an optical transmitter device with a fiber pigtail and dual SMPM male full detent interface connectors. SMPM, which is compatible with GPPO™, is specified in MIL-STD-348A NOTICE 5.

4.3 Electrical and Optical Specification of Optical Receiver Device

[XLMD 11] MSA_XLMD_PIN: "Electrical & Optical Interfaces of Optical Receiver Device"

Rev.1.0 February 21, 2008

This document specifies electrical and optical interfaces of an optical receiver device with a PIN PD and a TIA IC.

4.4 Physical Specification of Optical Receiver Device

[XLMD 12] MSA_XLMD_PIN_PKG: "Physical Interface of Optical Receiver Device Package"

Rev.1.0 February 21, 2008

This document specifies a physical interface of an optical receiver device with a fiber pigtail and dual SMPM male full detent interface connectors.