



## Datasheet

## 10 Gigabit XFP Transceivers



### Features

- Data rates from 9.95 Gbps to 10.7 Gbps, including 10-Gig Ethernet, SONET, and Fibre Channel
- Hot-pluggable
- 80 km maximum link range
- Digital diagnostics
- MSA compliance
- RoHS and China RoHS compliance
- Class 1 Laser, 21CFR 1040.10/1040.11 compliance
- EN 60825-1/A1:2002 compliance
- USA and Canada UL listing

### Overview

MRV Communications' XFP transceivers provide the high speeds and compact dimensions that today's demanding networks require while delivering the deployment flexibility and inventory control that network administrators demand. Designed to Multi-Source Agreement (MSA) standards for broadest compatibility, they perfectly match MRV's wide range of optical transport solutions. The Multimode Extender (MMX) XFP is especially noteworthy. It employs advanced modal conditioning technology to achieve link distances of up to 750 meters over existing 62.5µm or 50µm multimode fiber, about 2.5 times the typical maximum distance of 300 meters.

### Ordering Information

Model	Function	Protocol	Wavelength (nm)	Output Power (dBm)		Min. Receiver Sensitivity (dBm)	Min. Link Budget (dBm)	Saturation Power (dBm)	Max. Power Dissipation (W)	Operating Case Temp.	Input Voltages (VDC)	Distance Range (km) <sup>2</sup>
				Min.	Max.							
XFP-10GD-SX	XFP Multi-mode	SONET OC-192 / SDH STM-64 ITU-T G.959.1 P1L1-2D2, 10-Gigabit Ethernet 10GBASE per IEEE 802.3 and 10G Fibre Channel.	850	-7	-1	-11	DL <sup>3</sup>	-1	2.5	-5 to 70	1.8, 3.3, 5.0	0 - 0.3
XFP-10GD-MMX	XFP Extended Multi-mode	SONET OC-192 / SDH STM-64 ITU-T G.959.1 P1L1-2D2, 10-Gigabit Ethernet 10GBASE per IEEE 802.3 and 10G Fibre Channel.	1310	-6	-1	-13	DL <sup>3</sup>	0.5	2.5	-5 to 70	3.3, 5.0	0 - 0.5
XFP-10GD-LR	XFP Single-mode	SONET OC-192 / SDH STM-64 ITU-T G.959.1 P1L1-2D2, 10-Gigabit Ethernet 10GBASE per IEEE 802.3 and 10G Fibre Channel.	1310	-6	-1	-13	7	0.5	2.5	-5 to 70	3.3, 5.0	0 - 14
XFP-10GD-IR2	XFP Single-mode	SONET OC-192 / SDH STM-64 ITU-T G.959.1 P1L1-2D2, 10-Gigabit Ethernet 10GBASE per IEEE 802.3 and 10G Fibre Channel.	1550	-1	2	-16	13 <sup>3</sup>	-1	3.5	-5 to 70	1.8, 3.3, 5.0	12 - 52
XFP-10GD-LR2	XFP Single-mode	SONET OC-192 / SDH STM-64 ITU-T G.959.1 P1L1-2D2, 10-Gigabit Ethernet 10GBASE per IEEE 802.3 and 10G Fibre Channel.	1550	0	4	-24	21 <sup>3</sup>	-7	3.5	-5 to 70	1.8, 3.3, 5.0	44 - 84
XFP-DWIR204-xx <sup>1</sup>	DWDM XFP Single-mode	SONET OC-192 / SDH STM-64 ITU-T G.959.1 P1L1-2D2, 10-Gigabit Ethernet 10GBASE per IEEE 802.3 and 10G Fibre Channel.	(xx) See Guide below	-1	2	-16	13 <sup>3</sup>	-1	3.5	-5 to 70	1.8, 3.3, 5.0	12 - 52
XFP-DWLR08-xx <sup>1</sup>	DWDM XFP Single-mode	SONET OC-192 / SDH STM-64 ITU-T G.959.1 P1L1-2D2, 10-Gigabit Ethernet 10GBASE per IEEE 802.3 and 10G Fibre Channel.	(xx) See Guide below	-1	3	-24	20 <sup>3</sup>	-7	3.5	-5 to 70	1.8, 3.3, 5.0	40 - 80

<sup>1</sup> Substitute "xx" value from the following Wavelength Guide table ITU Channel columns.

<sup>2</sup> Maximum range quoted not possible with all wavelengths and/or fiber. Please consult MRV.

<sup>3</sup> DL - Dispersion Limited


 **$\lambda_c$  Wavelength Guide**

ITU Channel/ Product Code	Frequency (THz)	Wavelength (nm)	ITU Channel/ Product Code	Frequency (THz)	Wavelength (nm)
17	191.7	1563.863	39	193.9	1546.119
18	191.8	1563.047	40	194.0	1545.322
19	191.9	1562.233	41	194.1	1544.526
20	192.0	1561.419	42	194.2	1543.730
21	192.1	1560.606	43	194.3	1542.936
22	192.2	1559.794	44	194.4	1542.142
23	192.3	1558.983	45	194.5	1541.349
24	192.4	1558.173	46	194.6	1540.557
25	192.5	1557.363	47	194.7	1539.766
26	192.6	1556.555	48	194.8	1538.976
27	192.7	1555.747	49	194.9	1538.186
28	192.8	1554.940	50	195.0	1537.397
29	192.9	1554.134	51	195.1	1536.609
30	193.0	1553.329	52	195.2	1535.822
31	193.1	1552.524	53	195.3	1535.036
32	193.2	1551.721	54	195.4	1534.250
33	193.3	1550.918	55	195.5	1533.465
34	193.4	1550.116	56	195.6	1532.681
35	193.5	1549.315	57	195.7	1531.898
36	193.6	1548.515	58	195.8	1531.116
37	193.7	1547.715	59	195.9	1530.334
38	193.8	1546.917	60	196.0	1529.553

MRV has more than 50 offices throughout the world. Addresses, phone numbers, and fax numbers are listed at [www.mrv.com](http://www.mrv.com). Please e-mail us at [sales@mrv.com](mailto:sales@mrv.com) or call us for assistance.

**MRV (West Coast USA)**  
 20415 Nordhoff St.  
 Chatsworth, CA 91311  
 800-338-5316  
 818-773-0900

**MRV (East Coast USA)**  
 295 Foster St.  
 Littleton, MA 01460  
 800-338-5316  
 978-952-4700

**MRV (International)**  
 Business Park Moerfelden  
 Waldeckerstrasse 13  
 64546 Moerfelden-Walldorf  
 Germany  
 Tel. (49) 6105/2070  
 Fax. (49) 6105/207-100

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