

DWDM XFP Optical Transceivers



Pirelli DWDM XFP Optical Transceivers are high-performance, cost-effective modules for serial optical data communication applications at 10 Gb/s.

The Pirelli DWDM XFP PX100 family is designed to tolerate dispersion rates of 1600 ps/nm, 2400 ps/nm and 3200 ps/nm and operate at bit rates ranging from 9.9 to 11.3 Gb/s. Superior line stability enables easy integration in 100 GHz DWDM systems and future compatibility with 50 GHz systems.

- **Multi-rate**
- **MSA-compliant**
- **ITU 100 GHz grid, ready for 50 GHz**

Pirelli's optical transceivers fully comply with the XFP MSA. They support SONET/SDH, 10 Gigabit Ethernet and FEC applications. An electrical interface enables hot-plugging for easy wavelength management.

DWDM XFP Optical Transceivers

- Multi-rate MSA-compliant
- ITU 100 GHz grid, ready for 50 GHz



APPLICATIONS

9.95G SONET/SDH
 10.3G Ethernet
 10.5G Fiber Channel
 10.7G SONET/SDH+FEC
 11.1G Ethernet+FEC
 11.3G 10GFC+FEC

FEATURES

data rates from 9.9 to 11.3 Gb/s
 ITU C-band grid with 100 GHz spacing (50 GHz ready)
 high output power
 superior wavelength stability
 dispersion tolerant
 2-wire management interface
 digital diagnostics
 power dissipation below 3.5W
 low EMI emission
 compliant with XFP MSA
 XFI electrical interface
 DWDM and TDM applications
 hot pluggable

THERMAL CONDITIONS

Item	Min.	Max.	Unit
Storage Case Temperature	-40	85	°C
Operating Case Temperature	-5	70	°C

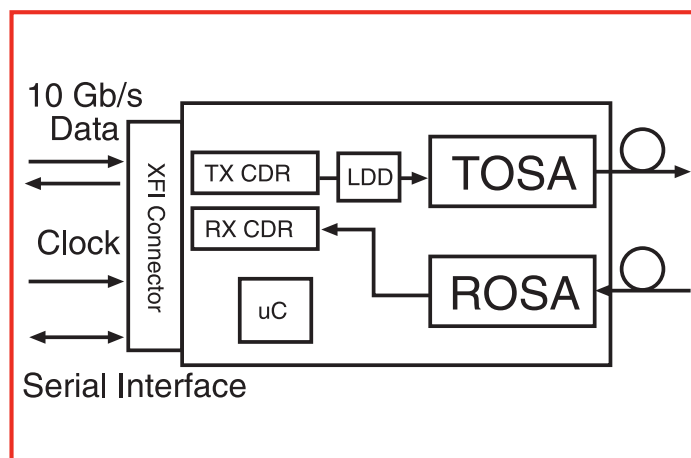
OPTICAL CHARACTERISTICS

Item	Value	Unit	notes
Transmitter			
Launch Power (PX100-16 and PX100-24)	+4 to +7	dBm	-
Launch Power (PX100-32)	0 to +3	dBm	-
Wavelength Stability (PX100-16 and PX100-32)	±25	pm	-
Receiver			
Minimum Overload	-8	dBm	-
Maximum Reflectance	-27	dB	-
Maximum Receiver Power (Damage Threshold)	0	dBm	-
Optical Performance			
Dispersion Tolerance (PX100-16)	-100 to +1600	ps/nm	Pin=-22 to -8 dBm @ 9.9 Gb/s, BER=1e-12
Dispersion Tolerance (PX100-24)	-100 to 2400	ps/nm	Pin=-20 to -8 dBm @ 10.7 Gb/s, BER=1e-5, OSNR=20dB @ RBW=0.1nm
Dispersion Tolerance (PX100-32)	-100 to +3200	ps/nm	Pin=-20 to -8 dBm @ 10.7 Gb/s, BER=1e-5, OSNR=19.5 @ RBW=0.1

ELECTRICAL CHARACTERISTICS

Power supply	V _{cc5}	V _{cc3}	V _{cc2}
Voltage	5V	3.3V	1.8V
Voltage Variation	+/-5%	+/-5%	+/-5%
Maximum Inrush Current	0.5A	0.75A	1A
Maximum Current Ramp Rate	100mA/us	100mA/us	100mA/us

BLOCK DIAGRAM



XFP HOST CARD (Top View)

