

Data Sheet

10Gb/s Hot Pluggable Ethernet X2 Transceiver, 850nm, VCSEL, SC Duplex, Optical Receptacle PX2-3831MF

Issue: January 2009



Features:

- XAUI Electrical Interface: 4 Lanes @ 3.125Gbit/s
- Hot Z-Pluggable
- SC-Duplex Optical Receptacle
- MDIO, DOM Support
- 850 nm wavelength VCSEL
- PIN Photo-detector
- Operating Case Temperature: 0 to 70 °C
- Compliant to IEEE 802.3ae 10GBASE-SR Application
- Compliant to X2 MSA
- Mechanical Footprint: 91mm L x 36mm W x 13.46* H [*Other heights available]
- RoHS Compliant Part



Applications:

- 10 Gigabit Ethernet

Description

PeakOptical®'s 10GbE X2 transceiver module PX2-3831MF is a hot pluggable in the Z-direction module that is usable in typical router line card applications, Storage, IP network and LAN and compliant to X2 MSA. The PX2-SR is a fully integrated 10.3Gbit/s optical transceiver module that consists of a 10.3Gbit/s optical transmitter and receiver, XAUI interface, Mux and Demux with clock and data recovery(CDR). This transceiver uses an 850nm VCSEL Laser Diode to achieve 300m over multi-mode fiber as 10GBASE-SR of the IEEE 802.3ae.

Specification:

Optical Characteristics: (Condition: $T_a=T_{OP}$)

Parameters	Symbols	Min.	Typ.	Max.	Unit
Center Wavelength	λ_C	840	850	860	nm
Signaling speed		-	10.3125	-	Gbit/s
Signaling speed variation from nominal		-100	-	+100	ppm
Optical modulation amplitude	OMA	-5.2	-	-	dBm
Optical Output Power	Pf	-5	-	+0.5	dBm
Extinction Ratio	Er	3.5	-	-	dB
Off Transmit Power	Poff	-	-	-28	dBm
Receiver Sensitivity in OMA	OMArmin	-	-	-9.9	dBm
Receiver Overload	Rro	+0.5	-	-	dBm
Receiver Return Loss	RL	12	-	-	dB

All rights reserved, including intellectual property rights. Technical data subject to modifications and delivery subject to availability. Any liability that the data and illustrations are complete, actual or correct is excluded. Designations may be trademarks and/or copyrights of the respective manufacturer, the use of which by third parties for their own purposes may infringe the rights of such owner.

**10Gb/s Hot Pluggable Ethernet X2 Transceiver,
850nm, VCSEL, SC Duplex, Optical Receptacle
PX2-3831MF**

Issue: January 2009



Absolute Maximum Ratings:

Parameter	Symbol	Min.	Max.	Unit
Supply Voltage	VCC1	0	+5.5	V
Supply Voltage	VCC2	0	+3.6	V
Supply Voltage	VCC3	0	+1.5	V
Optical Receiver Input	PIMAX	-	+1.5	dBm
Case Temperature (Figure 1)	Tc	0	+70	°C
Storage Temperature	TSTR	-40	+85	°C

Recommended Operating Environment:

Parameter	Symbol	Min.	Typical	Max.	Unit
Supply Voltage	VCC1	4.75	5	5.25	V
Supply Voltage	VCC2	3.135	3.3	3.465	V
Supply Voltage	VCC3	1.152	1.2	1.248	V
Case Temperature (Figure 1)	TC	0	25	70	°C

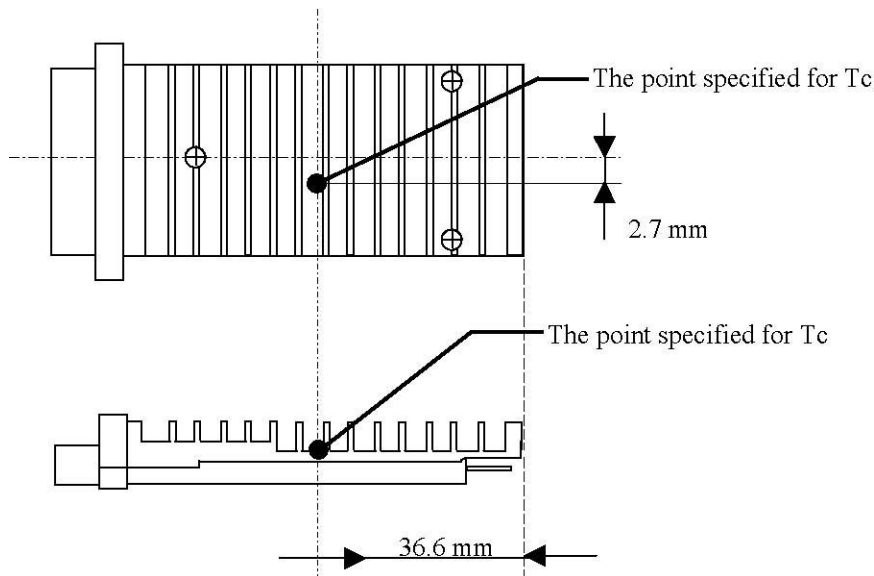


Figure 1 The Point Specified for Case Temperature (Tc)

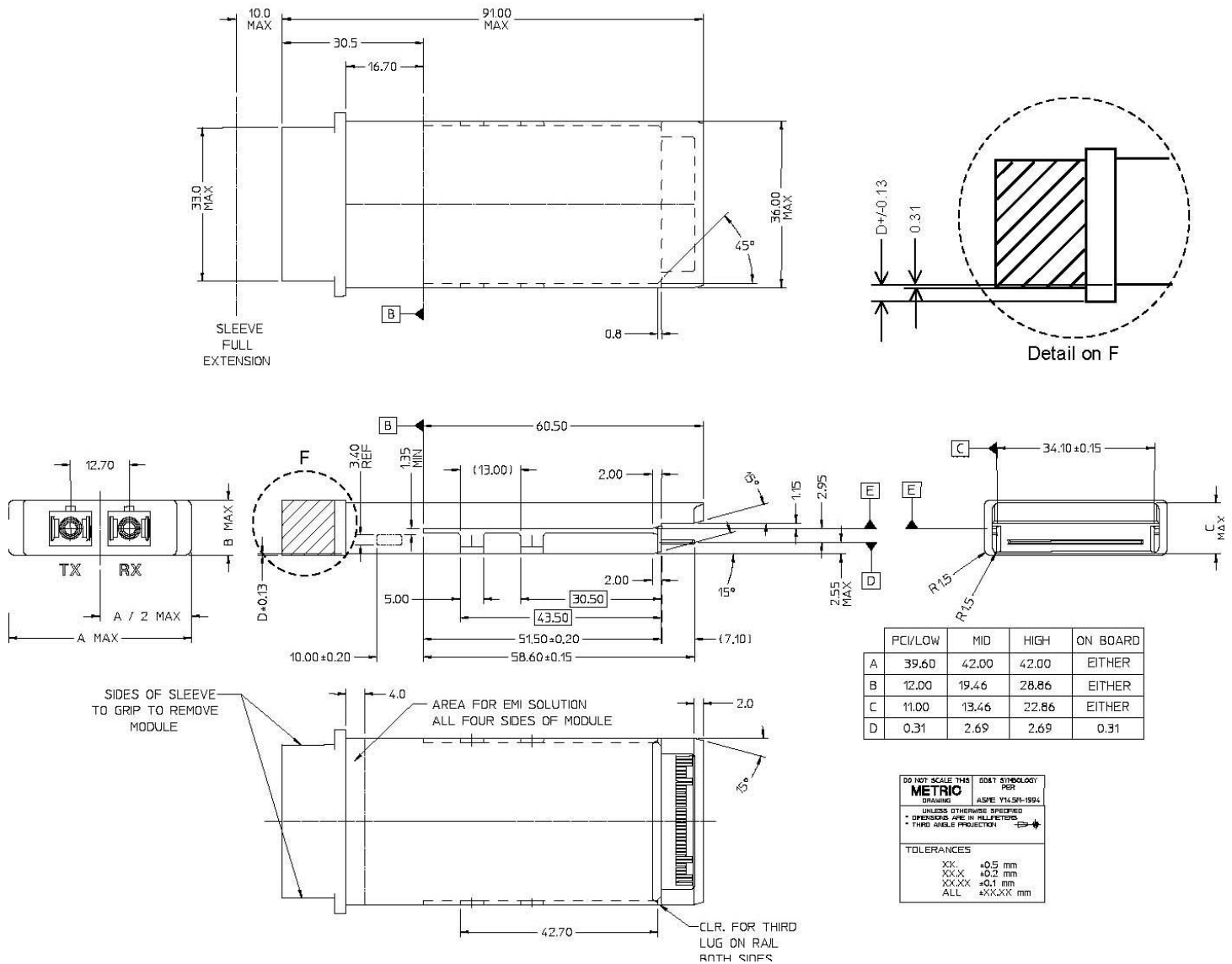
Data Sheet

10Gb/s Hot Pluggable Ethernet X2 Transceiver, 850nm, VCSEL, SC Duplex, Optical Receptacle PX2-3831MF

Issue: January 2009



Mechanical Dimensions:



All rights reserved, including intellectual property rights. Technical data subject to modifications and delivery subject to availability. Any liability that the data and illustrations are complete, actual or correct is excluded. Designations may be trademarks and/or copyrights of the respective manufacturer, the use of which by third parties for their own purposes may infringe the rights of such owner.