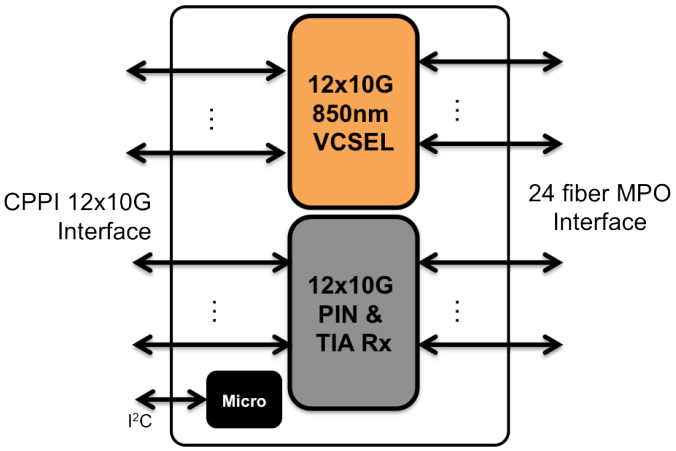
120Gbps SR-10 850nm CXP Transceiver
P/N DSR0P0x-0850

Description

Menara Networks' DSR0P0x-0850 CXP transceivers are designed for use in 103.125 Gbps 100GE to 111.809 Gbps OTU-4 links up to 300m over OM3 or 400m over OM4 multimode fiber. The CXP module supports 12 850nm wavelengths, each operating from 10.3125 Gbps to 11.1809 Gbps line rates for Ethernet Switches, IP Routers or ODU switch optical interfaces. Digital Optical Monitoring interfaces are provided via the CXP MSA standards compliant I^2C interface.



Management

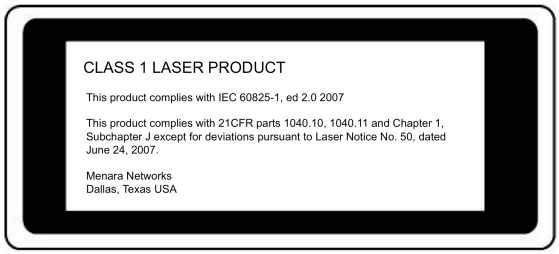
Management of the SR10 CXP is provided via the CXP MSA I^2C interface, which supports digital diagnostic monitoring and alarms.

Applications

- IP/MPLS and Ethernet Switches and Routers
- ODU Switches
- High Capacity Datacenter Interconnection
- Access and Metro Carrier Ethernet Networks

Features

- Compliant with hot pluggable CXP MSA
- Up to 12x11G full duplex operation
- Maximum link length of 300m on OM3 or 400m on OM4 Multimode Fiber (MMF)
- Unretimed CPPI electrical Interface
- IEEE 802.3ba 100GBASE-SR10 and OTU-4 compatible interfaces
- Infiniband transmission at 12ch SDR, DDR and QDR
- <3.5W power consumption
- Integrated digital diagnostic functions
- 0 to 70°C operating range
- Single MPO connector
- ROHS-6 Compliant



Absolute Maximum Ratings

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Supply Voltage	V_{CC}	-0.3		3.6	V	-
Storage Temperature	T_S	-20		+85	°C	
Case Operating Temperature	T_{OP}	0		70	°C	
Storage Humidity	RH	5		95	%	

Transmitter E-O Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Supported data rate	-	10.3125	-	11.181	Gbps	-
Center Wavelength	λ_c	840	850	860	nm	
Spectral Width (RMS)	$\Delta\lambda$			0.65	nm	
Extinction Ratio	Er	3	-	-	dB	
Average Optical Output Power	$P_{OUT\ AVG}$	-7.6		2.4	dBm	
Transmit OMA	TxOMA	-5.6		3.0	dBm	1
TDP	TDP			3.5	dBm	
Relative Intensity Noise	RIN			-128	dB/Hz	2
Data Input Swing Differential	V_{IN}	200		1200	mV	
Input Differential Impedance	Z_{IN}	90	100	110	Ω	
Output Eye Diagram {X1,X2,X3,Y1,Y2,Y3}	0.23, 0.34, 0.43, 0.27, 0.35, 0.4					

Receiver O-E Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Supported data rate	-	10.3125	-	11.181	Gbps	-
Center Wavelength	λ_c	840		860	nm	
Average Optical Receive Power	$P_{IN\ AVG}$	-9.5		2.4	dBm	
Receive Power (OMA)	RxOMA			3.0	dBm	
Stressed Receiver Sensitivity (OMA)	SRS			-5.4	dBm	
Vertical Eye Closure Penalty				1.9	dB	
Stressed Eye J2 Jitter				0.3	UI	
Stressed Eye J9 Jitter				0.47	UI	
Receive Jitter Tolerance (OMA)				-5.4	dBm	
LOS Assert	LOS_A	-11			dBm	
LOS De-Assert	LOS_D			-14	dBm	
LOS Hysteresis		1			dB	
Skew	S_W			300	ps	
Output Differential Impedance	Z_{OUT}	90	100	110	Ω	
Data Output Swing Differential	V_{OUT}	600		800	mV	

Notes:

1. Even if TDP is <0.9dB, the OMA min must exceed this value.
2. RIN is scaled by 10*log (10/4) to maintain SNR outside of transmitter.

Ordering Information

Part Number	ROHS Compliant	Operating Case Temperature
DSR0P0x-0850	ROHS-6	0 ~ +70°C

x = J for Juniper, x = C for Cisco, x = A for Alcatel, x = O for Cisco ONS

For further information:

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