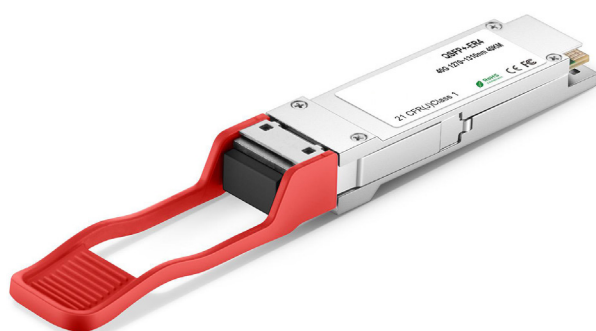




Product Description

BCP® Small Form-Factor Pluggable (SFP) Fibre Optic Transceivers are used to interface networking devices to fibre or copper networking cables in Telecom and data applications.

Features & Benefits

- QSFP28 MSA package with duplex LC receptacles
- Compliant with 100Gb/s QSFP28 ER4
- 100Gb/s transceiver module should support 103Gb/s
- EML LAN-WDM lasers on transmitter side
- SOA&PD on the receiver side
- Reaches up to 40km on SMF
- High speed I/O electrical interface
- Two Wire Serial Interface with Digital Diagnostic Monitoring
- Operating case temperature range 0°C to +70°C
- Maximum power consumption 6.5W
- 3.3V power supply voltage
- Compliant to RoHS
- Class 1 Laser

Applications & Standards

- 100G Datacom& Telecom connections
- 100Gbase-ER4

Recommended Operating Conditions and Power Supply Requirements

PARAMETER	SYMB	MIN	TYP.	MAX	UNIT
Case Operating Temperature	Tcase	0	-	70	°C
Supply Voltage	VCC	3.135	3.3	3.465	V
Relative Humidity	RH	5	-	85	%
Power Dissipation	PD	-	-	6.5	W
Data Rate (Optical)	DRO	-	4*25.78125	-	Gbps
Data Rate (Electrical)	DRE	-	4*25.78125	-	Gbps
Operating Link Distance	LD	-	-	40	Km



Optical Characteristics

PARAMETER	SYMBOL	MIN	TYP.	MAX	UNIT	NOTE
Transmitter						
Data Rate	DR	-	4*25.78125	-	GBd	
Data Rate Variation	DRV	-100	-	+100	ppm	
Modulation Format		NRZ				
Wavelength L0	WL0	1294.53	1295.56	1296.59	nm	
Wavelength L1	WL1	1299.02	1300.05	1301.09	nm	
Wavelength L2	WL2	1303.54	1304.58	1305.63	nm	
Wavelength L3	WL3	1308.09	1309.14	1310.19	nm	
Total Launch Power	Ptotal	-	-	8.9	dBm	
Average Optical Launch Power Per Lane	Pout	-2.9	-	2.9	dBm	1
Power Optical modulation amplitude per lane	POMA	0.1	-	4.5	dBm	2
Extinction Ratio	ER	8	-	-	dB	
Side-mode suppression ratio	SMSR	30	-	-	dB	
Launch power of OFF						
Transmitter per lane		-	-	-30	dBm	
Eye Mask		IEEE 802.3 Clause 88 100Gbase-ER4, {0.25, 0.4, 0.45, 0.25, 0.28, 0.4}				
Optical Return Loss Tolerance	ORLT	-	-	20	dB	
Transmitter reflectance	TR	-	-	-12	dB	3
Receiver						
Data Rate	DR		4*25.78125		GBd	
Data Rate Variation	DRV	-100	-	+100	ppm	
Modulation format		NRZ				
Wavelength L0	WL0	1294.53	1295.56	1296.59	nm	
Wavelength L1	WL1	1299.02	1300.05	1301.09	nm	
Wavelength L2	WL2	1303.54	1304.58	1305.63	nm	
Wavelength L3	WL3	1308.09	1309.14	1310.19	nm	
Damage Threshold for Receiver per lane	Pdamage	5.5			dBm	4
Average receiver power	Rpow	-20.9	-	-3.5	dBm	5
Receiver sensitivity per lane (OMA)				-21.4	dBm	5
Receiver Reflectance	RXR	-	-	-26	dB	
LOS assert per lane	LOSA	-	-	-27	dBm	
LOS de-assert per lane	LOSD	-	-	-24	dBm	
LOS Hysteresis		0.5	-	5	dB	

Notes

Note1. Average launch power, each lane (min) is informative and not the principal indicator of signal strength. A transmitter with launch power below this value cannot be compliant; however, a value above this does not ensure compliance.

Note2. Even if the TDP < 1dB, the OMA (min) must exceed this value.

Note3. Transmitter reflectance is defined looking into the transmitter.

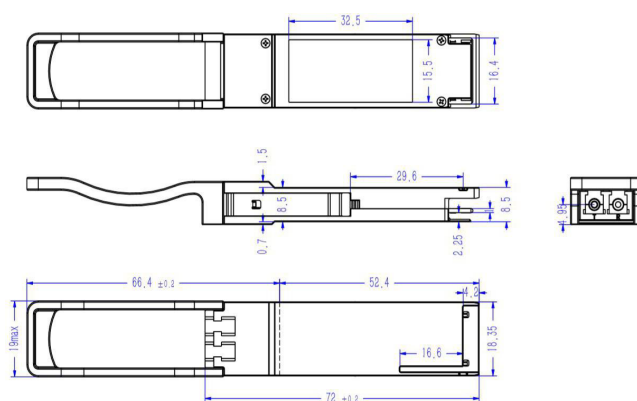
Note4. The receiver shall be able to tolerate, without damage, continuous exposure to an optical input signal having this average power level.

Note5. Measured with conformance test signal for BER = 10E-12@25.78125Gb/s.

Electrical Characteristics

PARAMETER	SYMBOL	MIN	TYP.	MAX	UNIT
Input Differential Impedance	Rin	-	100	-	Ohm
Differential termination mismatch (max)	D-mismatch	-	-	10	%
Differential Data Input Amplitude	VIN, P-P	-	-	900	mVpp
LPMode, Reset and ModSelL	VIL	-0.3	-	0.8	V
	VIH	2.0	-	VCC+0.3	V
Receiver (Module Output)					
Output Differential Impedance	Rout	-	100	-	Ohm
Differential termination mismatch (max)	D-mismatch	-	-	10	%
Differential Data Output Amplitude	Vout, P-P	-	-	900	mVpp
ModPrsl and IntI	VOL	0	-	0.4	V
	VOH	VCC-0.5	-	VCC+0.3.	V

Outline Dimensions



Ordering Information

Use combinations of **bold** letters and numbers to create part numbers for ordering.

Product		Type		Coding Type*	
B/SFP B/XFP B/QSFP B/SFP+	B/SFP B/XFP B/QSFP B/SFP+	RJ SM MM BIDI WDM DDMI DWDM CWDM	RJ45 Single-mode Multimode Bi-Directional WDM DDMI DWDM CWDM	CIS HP JP EX	Cisco HP Juniper Extreme Leave empty if no coding
⬆		⬆		⬆	
B/SFP	GXX	SM	40	CIS	
⬇		⬇			
100M 1GB 2GB 5GB 6GB 10GB 20GB 40GB 100GB	ET G1 G2 G5 G6 GX G2X G4X GXX	100m 300m 500m 2km 10km 20km 40km 80km 120km	100 300 500 2 10 20 40 80 120		
Speed		Distance			

Example Part Number	
Description	Part Number
BCP SFP+ 100GB Single Mode 40km Cisco	B/SFP+GXXSM40CIS