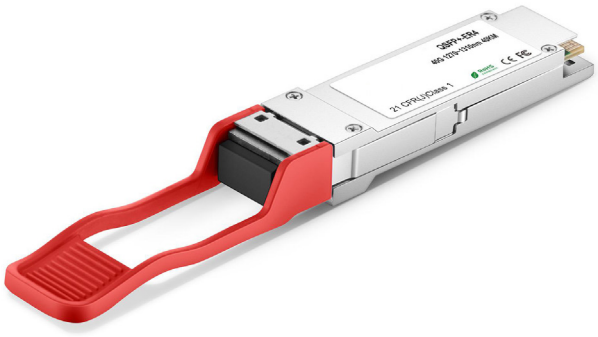
BRITICOM
British Pride, Global Power

Fibre Optic Active

SFP+ 100GB Single Mode SM 40km



Product Description

Briticom® 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

To Order

To place an order, use the contact details below.

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.

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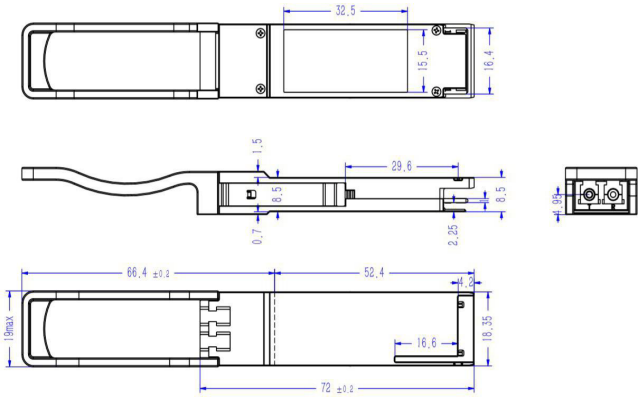
Electrical Characteristics

PARAMETER	SYMBOL	MIN	TYP.	MAX	UNIT
Input Differential Impendance	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 Impendance	Rout	-	100	-	Ohm
Differential termination mismatch (max)	D-mismatch	-	-	10	%
Differential Data Output Amplitude	Vout, P-P	-	-	900	mVpp
ModPrsl and Intl	VOL	0	-	0.4	V
	VOH	VCC-0.5	-	VCC+0.3.	V

Outline Dimensions



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Ordering Information

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

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

*Leave column blank if no coding

Example Part Number	
Description	**Part Number**
SFP+ 100GB Single Mode 40km Cisco	SFPPGXXSM40CIS

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