

QSFP-SRBD-40GD

40GBASE, QSFP+, SR2 BiDi, MMF TRANSCEIVER**850/908nm, 150m REACH, DUPLEX LC CONNECTOR**

Product Features

- Compliant with 40GBASE-SR2 BiDi
- Compliant with SFF-8436 QSFP+ MSA
- Compliant with IEEE 802.3ba-2010 40GbE XLPI Interface
- Dual wavelength 850/908nm VCSEL Bi-Directional optical interface
- Up to 11.2Gbps data rate per 10G channel
- Built in quad TX CDR and RX CDR
- Hot Pluggable
- Dual Bidi LC connector
- 2-wire interface for management and diagnostic monitor compliant with SFF-8436,SFF-8636
- Single 3.3V power supply
- Link distance up to 150m (OM4)
- Maximum power consumption: 3.5W
- RoHS compliant
- Operating Temperature:
 - Commercial: 0~+70°C



Product Applications

- 40GBASE-SR2 Ethernet @41.3G
- Data Centers Switch Interconnect
- Server and Storage Area Network Interconnect

I. Operating Specifications

Parameter		Symbol	Min	Typical	Max	Unit	Notes
Case Operating Temperature		T _{OP}	0		+70	°C	commercial
Storage Temperature		T _{ST}	-40		85	°C	
Supply Voltage		V _{CC3}	-0.5		3.6	V	
Storage Relative Humidity		RH	0		85	%	
Operating Link Distance	OM3	D			100	m	
	OM4				150		

II. Electrical Characteristics

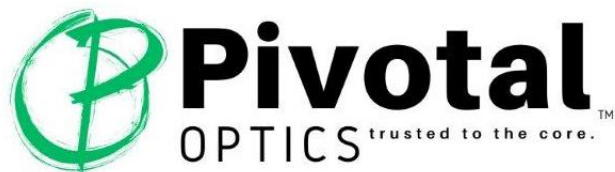
Parameter	Symbol	Min	Typical	Max	Unit	Notes
Electrical Data Rate, per lane	DR		10.3125	11.2	Gb/s	
Supply Voltage	V _{CC}	+3.13	+3.3	+3.47	V	
Data Rate Accuracy	ΔDR	-100		+100	Ppm	
Bit Error Rate (NO FEC)	BER			5x10 ⁻⁵		
Supply Current	I _{CC}		750	1000	mA	
Power Consumption	P		2.5	3.5	W	
Transceiver Power-on Initialization Time				2000	Ms	
Control Input Voltage High	V _{IH}	2.0		V _{CC}	V	
Control Input Voltage Low	V _{IL}	GND		0.7	V	
Control Output Voltage High	V _{OH}	2.0		V _{CC}	V	
Control Output Voltage Low	V _{OL}	GND		0.7	V	

III. Optical Characteristics (V_{CC}= 3.13V to 3.47V, TOP = 0 °C to 70 °C)

Parameter	Symbol	Min.	Typ.	Max.	Units	Notes
Transmitter						
Optical Data Rate, per Optical Channel	DR _{OP-T}		20.625		Gb/s	
Average Launch Power, per Channel	P _{AVG}	-4	-2.5	+5	dBm	
Optical Wavelength, CH1	λ _{CH1}	832	850	868	nm	1
Optical Wavelength, CH2	λ _{CH2}	882	908	918	nm	1
Spectral Width (RMS)	Δλ		0.5	0.65	nm	1
Optical Extinction Ratio	ER	3			dB	
Average Launch Power OFF, per Channel	P _{OFF}			-30	dBm	
Optical Return Loss Tolerance	ORLT			12	dB	
Input Differential Impedance	Z _{IN}	80	100	120	Ω	
Differential Data Input Voltage	V _{IN-PP}	120		1200	mVpp	

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Parameter	Symbol	Min.	Typ.	Max.	Units	Notes
Receiver						
Optical Data Rate, per Optical Channel	DR _{OP-R}		20.625		Gb/s	
Maximum Receive Power, per Channel	PR _{X-MAX}	+3				2
Receiver Sensitivity, per Channel	SEN			-6.5	dBm	3
Optical Wavelength, CH1	λ_{CH1}	882	908	918	nm	
Optical Wavelength, CH2	λ_{CH2}	832	850	868	nm	
Receiver Reflectance	R _{RX}			-12	dB	
LOS De-Assert	LOS _D			-8.6	dBm	
LOS Assert	LOS _A	-30			dBm	
LOS Hysteresis	LOS _H	0.5			dB	
Output Differential Impedance	Z _{OUT}	80	100	120	Ω	
Differential Data Input Voltage	V _{OUT-PP}	300	600	800	mVpp	

Notes:

1. Transmitter wavelength, RMS spectral width and launch power need to meet the OMA minus TDP specs to guarantee link performance.
2. The receiver shall be able to tolerate, without damage, continuous exposure to a modulated optical input signal having this power level on one lane. The receiver does not have to operate correctly at this input power.
3. Measured with conformance test signal at receiver input for BER= 5×10^{-5} .

IV. Ordering Information

Pivotal Part Number	Description
QSFP-SRBD-40GD	QSFP+, Duplex BiDi 850nm, SR MMF 100m, 40G DDM

Notes:

1. Please contact sales for specific OEM Platform part numbers to fit your network.

Warranty

<https://pivotaloptics.com/warranty/>

Disclaimer

External physical characteristics are subject to variation. This may include, but is not limited to, external case designs, pull tab colors and/or shapes, removal latch styles or colors, and label sizes and placement. These variations do not affect the function or characteristics of the transceivers.