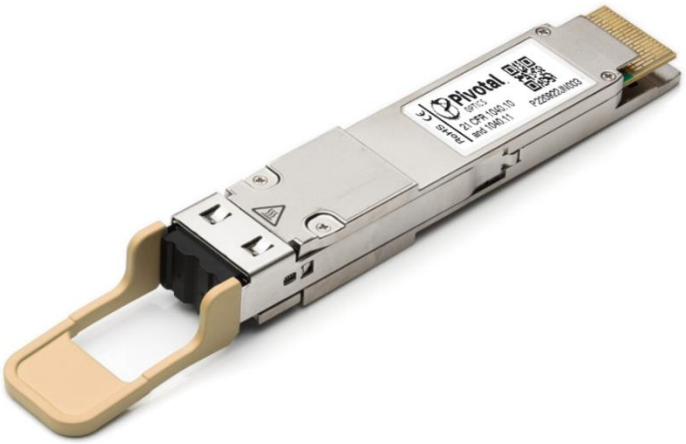
QSFP56-DD-SR8

400G QSFP56-DD SR8 850nm SMF 100m Transceiver

Product Features

- Support 26.5625 GBd Data rate per channel
- Maximum link length over MMF:
  70m(OM3) / 100m(OM4)
- High Reliability 850nm VCSEL technology
- 8x50G PAM4 VCSEL transmitter
- Electrically hot pluggable
- Digital diagnostic QSFP DD CMIS compliant
- Compliant with QSFP DD MSA
- Standard 1 6 lane with MPO connector
- Power dissipation < 10 W
- Compliant to IEEE 802.3 cd
- Compliant to QSFP DD MSA
- Case operating temperature:
  - Commercial: 0 ~ 70°C



Product Applications

- 400G Ethernet
- Data Center
- Enterprise networking

I. Maximum Ratings

Exceeding the limits below may damage the transceiver module permanently.

Parameter	Symbol	Min.	Typ.	Max.	Units
Storage Temperature	Ts	-40		85	°C
Power Supply Voltage	Vcc	-0.3		4	V
Relative Humidity (non-condensing)	RH	5		95	%
Signal Input Voltage		Vcc-0.3		Vcc+0.3	V

II. Operating Specifications

Parameter	Symbol	Min.	Typ.	Max.	Units	Notes
Case Operating Temperature	Tcase	0		70	°C	1
Power Supply Voltage	Vcc	3.14	3.3	3.46	V	
Power Supply Current	ICC			2700	mA	
Data Rate(Electrical)	Dre		26.5625		GBd	
Transmission Distance	TD			100	m	100m @ OM4
						70m over OM3

Notes:

1. Commercial Temperature – without air flow

III. Optical Characteristics

Parameter	Symbol	Min	Typical	Max	Unit	Notes
Transmitter						
Wavelength	λ	840	850	860	nm	
Spectral Width (RMS)	σ			0.6	dB	
Modulation format			PAM			
Data Rate(range)	DR		26.5625		Gbd	
Data rate variation		-100		100	ppm	
Average Launch Power	Pavg	-6		4	dBm	1
Optical modulation amplitude (OMA)		-4		3	dBm	2
Launch power in OMAouter minus TDECQ (min)		-5.9			dBm	
Transmitter and dispersion eye closure for PAM4 (TDECQ) (max)				4.9	dB	
Extinction Ratio	ER	3			dB	
Average launch Power off per lane	Poff			-30	dBm	
Optical return loss tolerance(max)				12	dB	

Parameter	Symbol	Min	Typical	Max	Unit	Notes
Receiver						
Wavelength	λ	840	850	860	nm	
Data Rate(range)	DR		26.5625		Gbd	
Data rate variation		-100		100	ppm	
Modulation format			PAM			
Damage threshold	Rdmg	5			dBm	4
Average receiver power	RxP	-7.9		4	dBm	5
Receiver reflectance (max)				-12	dB	
Receiver Sensitivity (OMA)				-7	dBm	@BER2.4E-4 6
Overload Receiver power (Overload)	Psat	4			dBm	
Conditions of stressed receiver sensitivity test:						
Stressed eye closure for PAM4 (SECQ)				4.9	dB	7

Notes:

1. Average launch power(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.
2. Even if the TDECQ < 1dB, the OMA (min) must exceed this value.
3. TDECQ is the Transmitter and Dispersion eye closure for PAM4.
4. The receiver shall be able to tolerate, without damage, continuous exposure to an optical input signal having this average power level.
5. Average received power(min) is informative and not the principal indicator of signal strength. A received power below this value cannot be compliant; however, a value above this does not ensure compliance.
6. Receiver sensitivity (OMA) is informative.
7. These test conditions are for measuring stressed receiver sensitivity. They are not characteristics of the Receiver.

Warranty

All transceivers feature a limited lifetime 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.