

400G QSFP-DD FR4 TRANSCEIVER

CQS-100A04 DUPLEX TRANSCEIVER

PRODUCT OVERVIEW

Properties

- Data rate 425 Gbps
- Temperature Range 0 ... 70°C
- Reach up to 2km
- Wavelengths 1271/1291/1311/1331nm
- LC/PC Duplex Adapter
- Singlemode Fibre
- Link budget at least 4 dB



General Data

Form Factor	QSFP-DD
Data Rate Standards	400GBASE-FR8
Protocol	400G Ethernet
Media Type	SMF28
Supply Current	< 3637 mA
Adapter	LC/PC Duplex
Modulation Format	PAM4
Operation Temperature	0°C ... 70°C
Supply Voltage Typical	3.13 V ... 3.47 V
Power Consumption	< 12 W
Digital Diagnostic Management (DDM)	Built-in
Laser Hazard Level	1

Absolute Maximum Ratings

Maximum Supply Voltage Range	-0.5 V ... 3.6 V
Maximum Storage Temperature Range	-40°C ... 85°C
Max. Relative Humidity Range	5 % ... 95 %



Transmitter Specifications

Laser Type	EML
Operating Channels	1271.00nm (1264.5 to 1277.5nm)
	1291.00nm (1284.5 to 1297.5nm)
	1311.00nm (1304.5 to 1317.5nm)
	1331.00nm (1324.5 to 1337.5nm)
Grid	None
Average Launch Power Per Lane	-3.3 dBm ... 3.5 dBm
Outer Optical Modulation Amplitude (OMA)	-0.3 dBm ... 3.7 dBm
Total Optical Output Power	< 9.5 dBm
Extinction Ratio	> 3.5 dB
Side Mode Suppression	> 30 dB
Supported Data Rate	425 GB/s
Transmitter and dispersion eye closure for PAM4 (TDECQ)	< 3.4 dB

Receiver Specifications

Receiver Type	PIN
Operating Channels	1271.00nm (1264.5 to 1277.5nm)
	1291.00nm (1284.5 to 1297.5nm)
	1311.00nm (1304.5 to 1317.5nm)
	1331.00nm (1324.5 to 1337.5nm)
Receiver Overload	> 3.5 dBm
Receiver Sensitivity (OMA)	< -4.6 dBm
Receiver LOS Hysteresis	> 0.5 dB
Supported Data Rate	425 GB/s

Ordering Information

Part Code	Compatibility Code Explanation	Wavelength Code Explanation
CQS-100A04xxxx-13	"xxxx" is an alphanumeric string, describing the compatibility. "0000" means no special coding to ensure compatibility with a special switch type.	-13: 1310nm