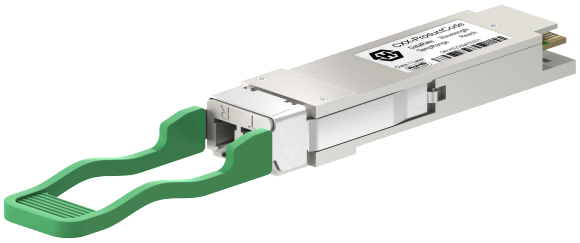
DATA SHEET

Transceivers
100G QSFP28 CWDM4
CQS-901A05

Properties

- Protocol 100G Ethernet
- Data rate 103.125 Gbps
- Reach up to 2km
- Wavelengths 1271/1291/1311/1331nm
- LC/PC duplex connector
- Singlemode fiber
- Temp. range 0 ... 70°C
- Link budget at least 5 dB
- Power consumption < 3.5 W



General data	
Form factor	QSFP28
Product image	Actual product may differ from the images shown. Colours, design, and details can vary.
Protocol	100G Ethernet, Infiniband
Data rate standards	100GBASE-CWDM4
Media type	Singlemode
Connector	LC/PC duplex
Modulation Format	NRZ
Built-in FEC	No
CDR	Double
Operation temperature	0 °C ... 70 °C
Supply voltage typical	3.13 V ... 3.47 V
Supply Current	< 1060 mA
Power consumption	< 3.5 W
Digital Diagnostic Management (DDM)	Yes
Laser hazard level	1

Absolute Maximum Ratings	
Max. supply voltage range	-0.3 V ... 4 V
Max. Storage Temperature Range	-40 °C ... 85 °C
Max. relative humidity range	5 % ... 95 %

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Transmitter Specifications	
Laser Type	DML
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	-6.5 dBm ... 2.5 dBm
Outer Optical Modulation Amplitude (OMA)	-5 dBm ... 2.5 dBm
Total optical output power	< 8.5 dBm
Extinction Ratio	> 3.5 dB
Side Mode Suppression	> -30 dB
Supported Data rate	103.125 Gbps

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	> 2.5 dBm
Receiver Sensitivity	< -10 dBm
Receiver Sensitivity (OMA)	< -9.5 dBm
Bit Error Rate at Receiver	5E-5
Maximum Optical Input Power per Lane (Overload)	3.5 dBm
Receiver LOS Hysteresis	> 0.5 dB
Supported Data rate	103.125 Gbps

Ordering Information Table		
Order Code	Compatibility code explanation	Wavelength code explanation
CQS-901A05xxxx-13	“xxxx” is an alphanumerical string, describing the compatibility. “0000” means no special coding to ensure compatibility with a special switch type.	-13: 1310nm

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