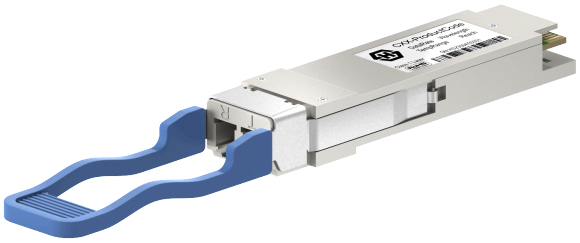
DATA SHEET

Transceivers
100G QSFP28 LR4
CQS-931A07

Properties

- Multi-protocol support
- Data rate 103.125/111.809 Gbps
- Reach up to 10km
- Wavelengths 1296/1300/1304/1309nm
- LC/PC duplex connector
- Singlemode fiber
- Temp. range -40 ... 85°C
- Link budget at least 7 dB
- Power consumption < 4 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, OTU4
Data rate standards	100GBASE-LR4
Media type	Singlemode
Connector	LC/PC duplex
Modulation Format	NRZ
Built-in FEC	No
CDR	Double
Operation temperature	-40 °C ... 85 °C
Supply voltage typical	3.13 V ... 3.47 V
Supply Current	< 1200 mA
Power consumption	< 4 W
Digital Diagnostic Management (DDM)	Yes
Laser hazard level	1

Absolute Maximum Ratings	
Max. supply voltage range	-0.3 V ... 3.6 V
Max. Storage Temperature Range	-40 °C ... 85 °C
Max. relative humidity range	5 % ... 95 %

HUBER+SUHNER

Transceivers

100G QSFP28 LR4

CQS-931A07

Transmitter Specifications	
Laser Type	DML
Operating channels	1295.56nm (1294.53 to 1296.59nm)
	1300.05nm (1299.02 to 1301.09nm)
	1304.58nm (1303.54 to 1305.63nm)
	1309.14nm (1308.09 to 1310.19nm)
Grid	None
Average launch power per lane	-4.3 dBm ... 4.5 dBm
Total optical output power	< 10.5 dBm
Extinction Ratio	> 4 dB
Side Mode Suppression	> 30 dB
Supported Data rate	103.125 Gbps ... 111.809 Gbps

Receiver Specifications	
Receiver Type	PIN
Operating channels	1295.56nm (1294.53 to 1296.59nm)
	1300.05nm (1299.02 to 1301.09nm)
	1304.58nm (1303.54 to 1305.63nm)
	1309.14nm (1308.09 to 1310.19nm)
Receiver Overload	> 4.5 dBm
Receiver Sensitivity	< -10.6 dBm
Receiver Sensitivity (OMA)	< -8.6 dBm
Bit Error Rate at Receiver	1E-12
Maximum Optical Input Power per Lane (Overload)	4.5 dBm
Receiver LOS De-Assert	< -12 dBm
Receiver LOS Assert	> -24 dBm
Receiver LOS Hysteresis	> 0.5 dB
Supported Data rate	103.125 Gbps ... 111.809 Gbps

Ordering Information Table		
Order Code	Compatibility code explanation	Wavelength code explanation
CQS-931A07xxxx-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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