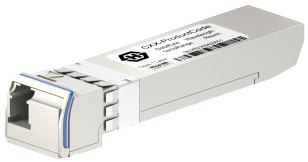
DATA SHEET

Transceivers
25G SFP28 Bidi LR
CSB-413A08

Properties

- Multi-protocol support
- Data rate 9.83...11.3 / 24.33...25.78 Gbps
- Reach up to 20km
- Wavelength 1270/1330 or 1330/1270nm
- LC/PC simplex connector
- Singlemode fiber
- Temp. range 0 ... 70°C
- Link budget at least 8 dB



General data	
Form factor	SFP28
Product image	Actual product may differ from the images shown. Colours, design, and details can vary.
Protocol	10/25G Ethernet, eCPRI, CPRI 7/8/10
Data rate standards	25GBASE-LR
	25G eCPRI
	CPRI Option 7,8,10
Media type	Singlemode
Connector	LC/PC simplex
Modulation Format	NRZ
Built-in FEC	No
CDR	Double, with bypass by LOL
Operation temperature	0 °C ... 70 °C
Supply voltage typical	3.14 V ... 3.47 V
Supply Current	< 300 mA
Power consumption	< 1.2 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	Uncooled DFB
Operating channels	1270nm (1260.00 to 1280.00nm) 1330nm (1320.00 to 1340.00nm)
Grid	None
Available Wavelength in nm	Tx 1270nm/Rx 1330nm Tx 1330nm/Rx 1270nm
Average launch power per lane	-4 dBm ... 4 dBm
Extinction Ratio	> 3.5 dB
Side Mode Suppression	> 30 dB
Supported Data rate	9.83 Gbps ... 11.3 Gbps / 24.33 Gbps ... 25.78 Gbps

Receiver Specifications	
Receiver Type	PIN
Operating channels	1270nm (1260.00 to 1280.00nm) 1330nm (1320.00 to 1340.00nm)
Receiver Overload	> 0.5 dBm
Receiver Sensitivity	< -12 dBm
Bit Error Rate at Receiver	5E-5
Receiver LOS De-Assert	< -13 dBm
Receiver LOS Assert	> -30 dBm
Receiver LOS Hysteresis	> 0.5 dB
Supported Data rate	9.83 Gbps ... 11.3 Gbps / 24.33 Gbps ... 25.78 Gbps

Ordering Information Table		
Order Code	Compatibility code explanation	Wavelength code explanation
CSB-413A08xxxx-ww	"xxxx" is an alphanumerical string, describing the compatibility. "0000" means no special coding to ensure compatibility with a special switch type.	-23: 1270nm Laser / 1330nm Receiver -32: 1330nm Laser / 1270nm Receiver

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