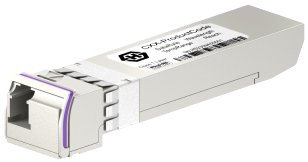
DATA SHEET

Transceivers
10G SFP+ Bidi ZR
CSB-857A22

Properties

- Multi-protocol support
- Data rate up to 11.3 Gbps
- Reach up to 80km
- Wavelength 1490/1550nm
- LC/PC simplex connector
- Singlemode fiber
- Temp. range -40 ... 85°C
- Link budget at least 22 dB (w/o dispersion penalty)



General data	
Form factor	SFP+
Product image	Actual product may differ from the images shown. Colours, design, and details can vary.
Protocol	1/10G Ethernet, 1/2/4/8/10G FC, STM-64/OC-48, CPRI Option 2...8, OBSAI
Data rate standards	10GBASE-ZR/ZW
	CPRI Option 2 to 8
Media type	Singlemode
Connector	LC/PC simplex
Modulation Format	NRZ
Built-in FEC	No
CDR	none
Operation temperature	-40 °C ... 85 °C
Supply voltage typical	3.13 V ... 3.47 V
Supply Current	< 550 mA
Power consumption	< 1.8 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 %

Transmitter Specifications	
Laser Type	EML
Operating channels	1490nm (1480.00 to 1500.00nm)
	1550nm (1540.00 to 1560.00nm)
Grid	None

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Transmitter Specifications	
Available Wavelength in nm	Tx 1490nm / Rx 1550nm
	Tx 1550nm / Rx 1490nm
Average launch power per lane	-1 dBm ... 4 dBm
Extinction Ratio	> 7.5 dB
Side Mode Suppression	> 30 dB
Supported Data rate	1.0625 Gbps ... 11.3 Gbps

Receiver Specifications	
Receiver Type	APD
Operating channels	1490nm (1480.00 to 1500.00nm)
	1550nm (1540.00 to 1560.00nm)
Receiver Overload	> -6 dBm
Receiver Sensitivity	< -23 dBm
Bit Error Rate at Receiver	1E-12
Receiver LOS De-Assert	< -24 dBm
Receiver LOS Assert	> -38 dBm
Receiver LOS Hysteresis	> 0.5 dB
Supported Data rate	1.0625 Gbps ... 11.3 Gbps

Ordering Information Table		
Order Code	Compatibility code explanation	Wavelength code explanation
CSB-857A22CO11-45	"xxxx" is an alphanumerical string, describing the compatibility. "0000" means no special coding to ensure compatibility with a special switch type.	-45: 1490nm Laser / 1550nm Receiver
		-54: 1550nm Laser / 1490nm Receiver

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DOCUMENT PIM-P28431 / Date of publication: 28.10.2026 / uncontrolled copy