DATA SHEET

Transceivers
1G SFP EX
CSS-331A19

Properties

- Multi-protocol support
- Data rate 125 Mbps and 1.0625...1.25 Gbps
- Reach up to 40km
- Wavelength 1310nm
- LC/PC duplex connector
- Singlemode fiber
- Temp. range 0 ... 70°C
- Link budget at least 19 dB
- Power consumption < 1 W



General data	
Form factor	SFP
Product image	Actual product may differ from the images shown. Colours, design, and details can vary.
Protocol	1G Ethernet, 1G Fiber Channel, CPRI 2
Data rate standards	1000BASE-EX
	CPRI Option 2
Media type	Singlemode
Connector	LC/PC duplex
Modulation Format	NRZ
Built-in FEC	No
CDR	none
Operation temperature	0 °C ... 70 °C
Supply voltage typical	3.13 V ... 3.47 V
Supply Current	< 300 mA
Power consumption	< 1 W
Digital Diagnostic Management (DDM)	Yes
Laser hazard level	1

Absolute Maximum Ratings	
Max. supply voltage range	-0.5 V ... 4 V
Max. Storage Temperature Range	-40 °C ... 85 °C
Max. relative humidity range	5 % ... 95 %

Transmitter Specifications	
Laser Type	Uncooled DFB
Operating Wavelength Range	1260 nm ... 1340nm
Grid	None

Transceivers

1G SFP EX

CSS-331A19

Transmitter Specifications	
Average launch power per lane	-5 dBm ... 0 dBm
Extinction Ratio	> 9 dB
Side Mode Suppression	> 30 dB
Supported Data rate	125 Mbps / 1.0625 Gbps ... 1.25 Gbps

Receiver Specifications	
Receiver Type	PIN
Operating Wavelength Range	1260 nm ... 1620nm
Receiver Overload	> -1 dBm
Receiver Sensitivity	< -24 dBm
Bit Error Rate at Receiver	1E-12
Receiver LOS De-Assert	< -25 dBm
Receiver LOS Assert	> -38 dBm
Receiver LOS Hysteresis	> 0.5 dB
Supported Data rate	125 Mbps / 1.0625 Gbps ... 1.25 Gbps

Ordering Information Table		
Order Code	Compatibility code explanation	Wavelength code explanation
CSS-331A19xxxx-13	“xxxx” is an alphanumerical string, describing the compatibility. “0000” means no special coding to ensure compatibility with a special switch type.	-13: 1310nm

HUBER+SUHNER is certified by ISO 9001, ISO 14001, ISO 45001, IATF 16949, AS/EN 9100 and ISO/TS 22163-IRIS. Waiver: Facts and figures herein are for information only and do not represent any warranty of any kind.
DOCUMENT PIM-P30255 / Date of publication: 02.11.2026 / uncontrolled copy