

ND01-T1300-R30-MM

Optical Transceiver with AutoSFP™ functionality for MADI Multi Mode

Data Sheet



Description

The ND01-T1300-R30-MM is a Small Form Factor Pluggable (SFP) LC optical transceiver. The unit is specially designed to work in a pair with the ND12-Cxxxx-R25-40 to function as a MADI Multi Mode to Single Mode CWDM transponder. It is made with AutoSFP™ enabled functionality to fit the miniHUB product range.

Part Number Options

Part Number	Temperature *)
ND01-T1300-R30-MM	-40°C to +65°C

*) Rated temperature for the complete miniHUB unit.

Features

- AutoSFP™ enabled functionality
- Compliant to the MADI multimode standard
- Operates with 62.5/125 μm and 50/125 μm multimode fiber
- 1300nm LED laser
- Compliant to MSA-SFP specification
- SFF-8472 diagnostic features
- Hot-pluggable
- Class 1 21CFR and IEC60825-1 laser safety compliant
- Pb-free and RoHS compliant

Absolute Maximum Ratings

Absolute maximum ratings are those values beyond which functional performance is not intended, device reliability is not implied, and damage to the device may occur.

Parameter	Minimum	Maximum	Unit
Storage temperature (non-operating)	-40	+85	°C
Relative Humidity (non-condensing)	5	95	%
Supply voltage (Vcc)	-0.5	3.63	V
Control input voltage	-0.5	Vcc+0.5	V

Recommended Operating Conditions

Parameter	Minimum	Typical	Maximum	Unit
Case operating temperature: • ND12-T1310-R18-10	-40		+85	°C
Relative Humidity (non-condensing)	5		90	%
Supply voltage (Vcc)	3.14	3.3	3.47	V

Electrical Characteristics

Parameter	Minimum	Typical	Maximum	Unit
Supply current		200	240	mA
Power dissipation		660	830	mW
Data rate			1250	Mbps

Transmitter Optical Characteristics

Parameter	Minimum	Typical	Maximum	Unit
Transmitting circuit fiber	Multimode 50/125µm and 62.5/125µm			
Light source	1300nm InGaAsP LED			
Optical output power	-19	-15.7	-14	dBm
Optical center wavelength	1270	1308	1380	nm
Optical rise/fall time (20-80%)			3	ns

Receiver Optical Characteristics

Parameter	Minimum	Typical	Maximum	Unit
Transmitting circuit fiber	Single Mode (9/125µm), Multi Mode compatible			
Receiver technology	PIN			
Optical input overload power			-14	dBm
Optical receiver sensitivity (BER = 10^{-12} , TX _{EXT} ≥ 9dB)		-31	-30	dBm
Optical receiving window	1270		1380	nm

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