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NV30-R17-R17

Dual Channel Optical Receiver with AutoSFP® functionality for SMPTE 297-2006 Video applications

Data Sheet

Description

The NV30-R17-R17 is a Small Form Factor Pluggable (SFP) LC dual channel optical receiver. The unit is specially designed to meet SMPTE 297-2006 and to give robust performance when SDI pathological signals are present. DVB-ASI and all SD-, HD- and 3G-SDI signal formats are supported. It is made with AutoSFP® enabled functionality to fit the miniHUB product range.

Part Number Options

Part Number	Temperature *)
NV30-R17-R17	-5°C to +55°C

*) Rated temperature for the complete miniHUB unit.

Features

- AutoSFP® enabled functionality
- Compliant to SMPTE 297-2006
- Excellent performance with SDI-Checkfield test signal at SD-, HD- and 3G-SDI
- PIN receiver technology
- Typical Link lengths at 2.97Gbps:
  - Up to 30km @ 9µm SMF (limited by laser)
- Non-MSA Video compliant pinning
- SFF-8472 diagnostic features
- Hot-pluggable
- 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	3.8	V

Recommended Operating Conditions

Parameter	Minimum	Typical	Maximum	Unit
Case operating temperature:	-5		+70	°C
Relative Humidity (non-condensing)	5		90	%
Supply voltage (Vcc)	3.14	3.3	3.47	V

Electrical Characteristics

Parameter	Minimum	Typical	Maximum	Unit
Power dissipation			1000	mW
Data rate	50		3000	Mbps

Receiver Optical Characteristics

Parameter	Minimum	Typical	Maximum	Unit
Transmitting circuit fiber	Single Mode (9/125µm)			
Receiver technology	PIN			
Optical input overload power	-3			dBm
Optical receiver sensitivity @ 2.97 Gbps (3G-SDI Checkfield, BER = 10^{-12}, $TX_{EXT} \geq 7dB$)		-20	-19	dBm
Optical receiver sensitivity @ 1.485 Gbps (HD-SDI Checkfield, BER = 10^{-12}, $TX_{EXT} \geq 7dB$)		-22	-20	dBm
Optical receiving window	1260		1620	nm