NVMSX550U

(1-P 1000Base - SX GBIC Module (MM, GBIC))

More information:
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Product Specification

Features

- Compliant with Fiber Channel 100-M5-SN-I and 100-M6-SN-I standard
- Compliant with IEEE802.3z Gigabit Ethernet standard
- Industry standard small form pluggable (SFP) package
- Duplex LC connector
- Differential LVPECL inputs and outputs
- Single power supply 3.3V
- TTL signal detect indicator
- Hot Pluggable
- Class 1 laser product complies with EN 60825-1

Application

- Distributed multi-processing
- Switch to switch interface
- High speed I/O for file server
- Bus extension application
- Channel extender, data storage

Specifications

Absolute Maximum Ratings

PARAMETER	SYMBOL	MIN	MAX	UNITS	NOTE
Storage Temperature	T_S	–40	85	°C	
Supply Voltage	*Vcc*	–0.5	4.0	V	
Input Voltage	V_{IN}	–0.5	*Vcc*	V	
Output Current	I_o	---	50	mA	
Operating Current	I_{OP}	---	400	mA	

Recommended Operating Conditions

PARAMETER	SYMBOL	MIN	MAX	UNITS	NOTE
Case Operating Temperature	T_C	0	70	°C	
		-20	85	°C	
		-40	85	°C	
Supply Voltage	*Vcc*	3.1	3.5	V	
Supply Current	$I_{TX} + I_{RX}$	---	250	mA	

Transmitter Electro-optical Characteristics

***Vcc* = 3.1 V to 3.5 V, T_C = 0 °C to 70 °C (-20 °C to 85 °C) (-40 °C to 85 °C)**

PARAMETER	SYMBOL	MIN	TYP.	MAX	UNITS	NOTE
Output Optical Power (50/125μm fiber, NA=0.20) (62.5/125μm fiber, NA=0.275)	P_{out}	−9.5	---	-4	dBm	
Extinction Ratio	*ER*	9	---	---	dB	
Coupled Power Ratio	*CPR*	9	---	---	dB	
Center Wavelength	λ_C	830	850	860	nm	
Spectral Width (RMS)	$\Delta\lambda$	---	---	0.85	nm	
Rise/Fall Time, (20–80%)	$T_{r,f}$	---	---	260	ps	
Relative Intensity Noise	*RIN*	---	---	−117	dB/Hz	
Total Jitter	*TJ*	---	---	227	ps	
Output Eye			Compliant with IEEE802.3z			
Max. P_{out} TX-DISABLE Asserted	P_{OFF}	---	---	−45	dBm	
Differential Input Voltage	V_{DIFF}	0.4	---	2.0	V	

Receiver Electro-optical Characteristics

Vcc = 3.1 V to 3.5 V, T_C = 0 °C to 70 °C (-40 °C to 85 °C)

PARAMETER	SYMBOL	MIN	TYP.	MAX	UNITS	NOTE
Optical Input Power-maximum	P_{IN}	0	---	---	dBm	BER < 10^{-12}
Optical Input Power-minimum (Sensitivity)	P_{IN}	---	---	−18	dBm	BER < 10^{-12}
Operating Center Wavelength	λ_C	770	---	860	nm	
Optical Return Loss	*ORL*	12	---	---	dB	
Loss of Signal-Asserted	P_A	---	---	−18	dBm	
Loss of Signal-Deasserted	P_D	−35	---	---	dBm	
Differential Output Voltage	V_{DIFF}	0.5	---	1.2	V	
Data Output Rise, Fall Time (20–80%)	$T_{r,f}$	---	---	0.35	ns	
Receiver Loss of Signal Output Voltage-Low	RX_LOS_L	0	---	0.5	V	
Receiver Loss of Signal Output Voltage-High	RX_LOS_H	2.4	---	V_{CC}	V	

Eye Safety Mark

The series multimode transceiver is a class 1 laser product. It complies with EN 60825-1 and FDA 21 CFR 1040.10 and 1040.11. In order to meet laser safety requirements the transceiver shall be operated within the Absolute Maximum Ratings.

Caution

All adjustments have been done at the factory before the shipment of the devices. No maintenance and user serviceable part is required. Tampering with and modifying the performance of the device will result in voided product warranty.

Required Mark

Class 1 Laser Product
Complies with
21 CFR 1040.10 and 1040.11

Note : All information contained in this document is subject to change without notice.