

N10GMM, (850 nm Multimode SFP+ 10G)

10GFC 1200-MX-SN-I(Fiber Channel), 10GBASE-SR(Ethernet)

More information:
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Product Specification

Features

- Multi Mode 10G Fiber Module
- Compliant with 10GFC-1200MX-SN-I Fiber Channel Standard
- Compliant with IEEE802.3ae 10GBASE SW/SR Ethernet Standard
- Complaient with XFP MSA INF-8077I
- Differential CML inputs and CML outputs
- Differential PECL reference clock input (1/64 transmitter data)
- Single Power supply 3.3V
- TTL signal detect indicator
- Hot Pluggable
- Class 1 laser product complies with EN 60825-1

Absolute Maximum Ratings

PARAMETER	SYMBOL	MIN	MAX	UNITS	NOTE
Storage Temperature	T_S	−40	85	°C	
Supply Voltage	*Vcc3*	−0.5	4.0	V	
Input Voltage	V_{IN}	−0.5	*Vcc*	V	

Recommended Operating Conditions

PARAMETER	SYMBOL	MIN	MAX	UNITS	NOTE
Case operating Temperature	T_C	-10	70	°C	
Supply Voltage	*Vcc3*	3.1	3.5	V	
Supply Current	*Icc3*	---	400	mA	

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Transmitter Electro-optical Characteristics

***Vcc* = 3.1 V to 3.5 V, T_C = -10 °C to 70 °C**

PARAMETER	SYMBOL	MIN	TYP.	MAX	UNITS	NOTE
Operating Data Rate			9.95/ 10.51875		Gbps	
Input Reference Clock Rate			1/64 Operating Data Rate			
Output Optical Power (50/125µm fiber, NA=0.20) (62.5/125µm fiber, NA=0.275)	P_{out}	–7.1	---	-1	dBm	
Optical Modulation Amplitude (OMA)	*OMA*	---	---	---	dBm	Refer to IEEE 802.3ae Table 52-3
Extinction Ratio	*ER*	3			dB	
Center Wavelength	λ_C	840		860	nm	
Spectral Width (RMS)	Δλ	---	---	---	nm	Refer to IEEE 802.3ae Table 52-8
Relative Intensity Noise	*RIN*	---	---	–128	dB/Hz	
Output Eye			Compliant with IEEE802.3ae			
Differential Input Voltage	V_{DIFF}	0.25	---	1.0	V	
TX_DISABLE Assert Time	*t_off*	---	---	10	µs	
TX_DISABLE Negate Time	*t_on*	---	---	2	ms	
Time to initialize	*t_init*	---	---	300	ms	
nterrupt assert delay	nterrupt_on	---	---	200	ms	

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Receiver Electro-optical Characteristics

Vcc = 3.1 V to 3.5 V, T_C = -10°C to 70 °C

PARAMETER	SYMBOL	MIN	TYP.	MAX	UNITS	NOTE
Optical Input Power-maximum	P_{IN}	-1	---	---	dBm	BER < 10^{-12}
Receiver Sensitivity	P_{IN}	---	---	−9.9	dBm	BER < 10^{-12}
Receiver Sensitivity in OMA	P_{IN}	---	---	−11.1	dBm	BER < 10^{-12}
Operating Center Wavelength	λ_C	840	---	860	nm	
Optical Return Loss	*ORL*	12	---	---	dB	
Loss of Signal-Asserted	P_A	---	---	−20	dBm	
Loss of Signal-Deasserted	P_D	−12	---	---	dBm	
Differential Output Voltage	V_{DIFF}	0.575	---	0.725	V	
TTL Input High Voltage		2		Vcc	V	
TTL Input Low Voltage		0		0.8	V	
TTL Output High Voltage		2.4	---	Vcc	V	
TTL Output Low Voltage		0	---	*0.4*	V	
Receiver Loss of Signal Assert Time (off to on)	t_{A,RX_LOS}	---	---	100	µs	
Receiver Loss of Signal Assert Time (on to off)	t_{D,RX_LOS}	---	---	100	µs	
I2C Clock Frequency				400	*kHz*	

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