



N10GSM, 1310 nm Single-mode XFP 10G(SM, GBIC)
10GFC 1200-SM-LL-L(Fiber Channel), 10GBASE-LW/LR(Ethernet)

More information:
WWW.NIVEOPROFESSIONAL.COM
INFO@NIVEOPROFESSIONAL.COM



Product Specification

Features

- Single Mode 10G Fiber Module
- 16dB power budget
- Compliant with 10GFC-1200-SM-LL-L Fiber Channel Standard
- Compliant with IEEE802.3ae 10GBASE LW/LR Ethernet Standard
- Compliant with XFP MSA INF-8077i
- Differential LVPECL inputs and CML outputs
- 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	V_{CC3}	-0.5	4.0	V	
Input Voltage	V_{IN}	-0.5	V_{CC}	V	

Recommended Operating Conditions

PARAMETER	SYMBOL	MIN	MAX	UNITS	NOTE
Case operating Temperature	T_C	0	70	°C	
Supply Voltage	V_{CC3}	3.1	3.5	V	
Supply Current	I_{CC3}	---	600	mA	



Transmitter Electro-optical Characteristics

$V_{CC} = 3.1\text{ V to }3.5\text{ V}$, $T_C = 0\text{ }^\circ\text{C to }70\text{ }^\circ\text{C}$

PARAMETER	SYMBOL	MIN	TYP.	MAX	UNITS	NOTE
Operating Data Rate		9.95		11.3	Gbps	
Input Reference Clock Rate		Not required				
Output power	P_{OUT}	+1		+5	dBm	
Extinction Ratio	ER	3.5			dB	
Center Wavelength	λ_C	1290		1330	nm	
Sidemode Suppression ratio	SSR_{min}	30				dB
Relative Intensity Noise	RIN	---	---	-128	dB/Hz	
Output Eye		Compliant with IEEE802.3ae				
Differential Input Voltage	V_{DIFF}	0.25	---	1.0	V	
Transmit Fault Output-Low	TX_FAULT_L	0.0	---	0.5	V	
Transmit Fault Output-High	TX_FAULT_H	2.4	---	V_{CC}	V	
TX_DISABLE Assert Time	t_{off}	---	---	10	μs	
TX_DISABLE Negate Time	t_{on}	---	---	2	ms	
Time to initialize	t_{init}	---	---	300	ms	
$\overline{\text{nterrupt}}$ assert delay	$\overline{\text{nterrupt}}_{on}$	---	---	200	ms	
$\overline{\text{nterrupt}}$ negate delay	$\overline{\text{nterrupt}}_{off}$	---	---	500	μs	

Transmitter Electro-optical Characteristics

$V_{cc} = 3.1 \text{ V to } 3.5 \text{ V}$, $T_c = 0^\circ\text{C to } 70^\circ\text{C}$

PARAMETER	SYMBOL	MIN	TYP.	MAX	UNITS	NOTE
Receiver Sensitivity		-15		+2	dBm	BER < 10^{-12}
Operating Center Wavelength	λ_C	1260	---	1355	nm	
Optical Return Loss	ORL	12	---	---	dB	
Loss of Signal-Asserted	P_A	---	---	-30	dBm	
Loss of Signal-Deasserted	P_D	-18	---	---	dBm	
Differential Output Voltage	V_{DIFF}	0.5	0.65	0.8	V	
TTL Input High Voltage		2		V_{cc}	V	
TTL Input Low Voltage		0		0.8	V	
TTL Output High Voltage		2.4	---	V_{cc}	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	