

N10GSM, 1310 nm Single-mode SFP+ 10G

10GFC 1200-SM-LL-L(Fiber Channel), 10GBASE-LW/LR(Ethernet)

More information:
WWW.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
- SFP+ module form factor
- 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	*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	0	70	°C	
Supply Voltage	*Vcc3*	3.1	3.5	V	
Supply Current	*Icc3*	---	600	mA	

All rights reserved Niveo International BV 2025

Transmitter Electro-optical Characteristics

***Vcc* = 3.1 V to 3.5 V, T_C = 0 °C to 70 °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 Supression 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	
$\overline{\text{I}}$nterrupt assert delay	$\overline{\text{I}}$nterrupt_on	---	---	200	ms	
$\overline{\text{I}}$nterrupt negate delay	$\overline{\text{I}}$nterrupt_off	---	---	500	µs	

All rights reserved Niveo International BV 2025

Transmitter Electro-optical Characteristics

***Vcc* = 3.1 V to 3.5 V, T_C = 0°C to 70 °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		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	

All rights reserved Niveo International BV 2025