

GPON ONU Stick SFP Optical Transceiver with MAC

CLGPONONUSTK

Product Features:

- Single fiber bi-directional data links GPON ONU and application with GPON MAC function
- Transmitter 1310nm 1.244Gbps with DFB-LD
- Receiver 1490nm 2.488Gbps with APD-TIA
- Single 3.3V power supply
- Digital diagnostic monitor interface compatible with SFF-8472
- Compliant with MSA SFP-8074
- Compliant with ITU-T G.984.2
- Operating temperature range commercial 0~75°C

Applications:

- Passive Optical Networks
- Other applications

Functional Characteristics

The following tables list the performance specifications for the various functional blocks of the module.

Table 1 – Optical Characteristics

Parameter	Symbol	Min.	Typical	Max.	Unit	Notes
Transmitter						
Center Wavelength	λ_c	1290	1310	1330	nm	
Data Rate	DR		1.244		Gbps	
Spectral Width (-20dB)	$\Delta\lambda$			1	nm	
Side Mode Suppression Ratio	SMSR	30			dB	
Average Output Power	AOP	0.5		5	dBm	
Extinction Ratio	ER	10			dB	
Transmitter Reflectance		-15		-10	dB	
Transmitter Dispersion Penalty	TDP			1	dB	
Output Optical Eye	Compliant With ITU-T G.984.2					
Receiver						
Center Wavelength	λ_c	1480	1490	1500	nm	
Data Rate	DR		2.488		Gbps	
Sensitivity	Sen			-28	dBm	
Saturation Optical Power	SAT	-8			dBm	
SD De-Assert	SDD	-45			dBm	
SD Assert	SDA			-29	dBm	
Signal-Detected Hysteresis		0.5		6	dB	
Receiver Reflectance				-12	dB	

Table 2 – Electrical Characteristics

Parameter	Symbol	Min.	Typical	Max.	Unit	Notes
Power Supply						
Power Supply Voltage	Vcc	3.13	3.3	3.47	V	
Power Supply Current	Icc			800	mA	
Operating Case Temperature	Tc	0		75	°C	
Transmitter						
LVPECL Inputs (Differential)	Vin	200		1200	mVpp	
Input Impedance (Differential)	Zin	90	100	110	ohm	
Tx_DISABLE Input Voltage High		2.0		Vcc	V	
Tx_DISABLE Input Voltage Low		0		0.8	V	
Tx_FAULT Output Voltage High		2.4		Vcc	V	
Tx_FAULT Output Voltage Low		0		0.4	V	
Receiver						
Data Output Differential Swing	Vout	370		1000	mVpp	
Loss of Signal - High		2.4		Vcc	V	
Loss of Signal - Low		0		0.4	V	

Ordering Information

Table 3 - Ordering Information

Part No.	Description
CLGPONONUSTK	SFP, SC-BiDi, GPON ONU stick, 1310(TX)/1490(RX)nm, 0~75°C

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