



Optical Micro Node with PON Pass Through Port

Key Features

- » The laser control circuit uses an advanced circuit design, insuring reliable and stable operation
- » Provides excellent AGC characteristics, when the input optical power range is within -8 ~ 0dBm, the RF output level remains unchanged, and CTB and CSO basically remain unchanged
- » Optimized circuit design, SMT circuit board manufacture, with optimization of the entire signal path, making the optical signal transmission more stable, and with better RF linearity
- » Professional RF attenuator circuit, with good linear attenuation and high precision
- » Features a high quality, low noise DFB laser for transmission
- » MMIC GaAs amplifier, with good index, low distortion, and high reliability
- » Aluminum die casting for efficient cooling, and reliable, stable performance
- » The return path control uses burst mode, patented RFoG technology that fully complies with SCTE 174 2010
- » GPON/XGSPON bidirectional pass-through port passes only the 1310/1490nm or 1270/1577nm wavelengths while rejecting the rest of wavelengths on the RFoG signal



Description

The MUL-MN-V-RFOG-XXXX-GPON/XGSPON optical micro-node with PON Pass-Through is bidirectional equipment that was specially developed for HFC broadband networks, accommodates FTTH network topology, while addressing the issues of CATV bidirectional return channel noise and high reliability network security transmission requirements of modern CATV networks. The return path uses burst mode patented RFoG technology which greatly reduces the noise. The Multicom RFoG micro-node with GPON/XGSPON Pass-Through has the capability to filter the wavelengths of the RFoG and the PON wavelengths, thus providing a separate PON port that the user can use to go straight from the micro-node to an ONT for easier installation in a FTTH network.

MUL-MN-V-RFOG-XXXX-XPON

└ GPON, XGSPON
└ 1310, 1610nm

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RFOG Optical Micro Node with PON Pass Through Port

Product Specifications

Parameter		Specification	Notes
Optical	Receive Wavelength	1540 ~ 1565nm	
	Return Wavelength	1310nm or 1610nm	
	PON Wavelength	1310 / 1490nm or 1270 / 1577nm	
	Return Loss	>45dB	
	Insertion Loss	≤0.7dB	WDM
	Fiber Type	Singlemode	
	Connector	SC/APC or SC/UPC	
Forward Path	RF Bandwidth	54 / 85 / 105 / 258 ~1218MHz	
	RF Flatness	±1dB	
	RF Output Slope	3 ±1dB	
	RF Return Loss	≥18dB @40MHz (-1.5dB/octave)	
	AGC Range	-8 ~ 0dBm	
	Equivalent Input Noise Current	≤5 pA/vHz	
	CSO	>64dB	CENELEC 42 ~ 1218MHz 3.5% OMI / CH
	CTB	>62dB	
	RF Output Level	≥20 dBmV	
	Output Test Point	-20±1dB	
Return Path	Laser Type	DFB	
	Laser On Output Power	3 ±0.5dBm	
	Laser Off Output Power	<-30dBm	
	RF Bandwidth	5 ~ 42 / 65 / 85 / 204MHz	
	RF Flatness	±1dB	
	RF Return Loss	≥18dB	
	Laser Rise/Fall Time	<1 / <1 ms	SCTE_174_2010
	Laser Turn On RF Level	7 dBmV	
	Laser Turn Off RF Level	-2 dBmV	
	NPR / Dynamic range	≥15dB @35dB	-10dBm receive
OMI	35% @ single channel 33 dBmV input		
General	Input Voltage Range	12VDC	External Power
	Power Consumption	<4W	
	Protection Class	IP42	
	RF Connector Type	F-Female	
	Surge	>4kV (EN61000-4-5, 1, 2/50 μs pulse)	RF Ports
	ESD	>2kV	
	Operating Temperature	-4°F ~ 131°F (-20° ~ 55°C)	
	Storage Temperature	-40°F ~ 149°F (-40°C ~ 65°C)	
	ROHS	ROHS 2	
	Dimensions (W x L x H)	6" x 4.8" x 1.4" (154 x 121.2 x 36.5mm)	
	Weight	1.1Lbs. (0.5Kg)	

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