



RFOG Optical Network Unit

Key Features

- » The laser control circuit uses advanced circuit design, insuring reliable and stable operation
- » Provides excellent AGC characteristics, when the input optical power range is within $-7 \sim +2\text{dBm}$, the RF output level remains unchanged, CTB and CSO basically remain unchanged
- » Optimized circuit design, SMT production process, optimizing the entire signal path, makes the optical signal transmission more stable, RF linear indicators higher
- » Professional RF attenuator circuit, with good linear attenuation and high precision
- » GaAs amplifier device, with good index, low distortion, and high reliability
- » Aluminum die casting for efficient cooling, and reliable, stable performance



Description

The Multicom RFOG Optical Network Unit is bidirectional and specially developed for HFC broadband networks while accommodating all FTTH (Fiber to the Home) network topologies. This unit also addresses the issues of CATV bi-directional return channel noise and the high reliability network security transmission requirements of modern CATV networks.

MUL-MN-V-RFOG-ONU-XXXX

1310, 1610

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RFOG Optical Network Unit

Product Specifications

Forward Optical Receiver

Optical Parameters	Unit	Technical Parameter
Optical Receiving Power	dBm	-7 ~ +2
Suggested Use Range	dBm	-3 ~ +1
Optical Return Loss	dB	> 45
Optical Receiving Wavelength	nm	1100 ~ 1600
Optical Connector Type		SC/APC
Fiber Type		Single Mode
Link Performance		
C/N	dB	≥ 51 received optical power (-1dBm)
C/CTB	dB	≥ 63
C/CSO	dB	≥ 60
RF Parameters		
Frequency Range	MHz	54 ~ 1003
Flatness in Band	dB	± 0.75
Rated Output Level	dBmV	≥ +32 (≥ 92 dBμV)
Max Output Level	dBmV	≥ +32 (≥ 92 dBμV)
Output Return Loss	dB	≥ 16
Output Impedance	Ω	75

Return Optical Transmitter

Optical Parameters	Unit	Technical Parameter
Optical Transmit Wavelength	nm	1310 ±10, 1610 ±10
Laser Type		DFB laser
Optical Output Power	mW	0.5 ~ 2
Optical Connector Type		SC/APC
RF Parameters		
Frequency Range	MHz	5 ~ 42 (up to 55/65 optional)
Flatness in Band	dB	±0.75
Input Level	dBmV	+15 ~ +25 (75 ~ 85 dBμV suggested input 80)
Input Return Loss	dB	≥ 16
Output Impedance	Ω	75
NPR Dynamic Range	dB	≥15 (NPR ≥30 dB)
General Specifications		
Power Voltage	V	+12VDC (from the included AC Adapter)
Operating Temperature	°C	-30 ~ +70 (-22 ~ +158°F)
Storage Temperature	°C	-30 ~ +70 (-22 ~ +158°F)
Relative Humidity	%	Max 95% no condensation
Consumption	W	≤ 6
Dimensions	mm	154 (L) x 116(W) x 26(H) (6in x 4.6in x 1in)

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