



FTTB-1218-1W

One-Way Indoor Optical Node

The FTTB-1218-1W (One-Way Indoor Optical Node) converts the optical signal received from the headend into a +28 dBmV RF output with a -1 dBm optical input. The compact housing includes an optical receiver and wide bandwidth RF amplifier having a frequency range of 54-1218 MHz.

The FTTB-1218-1W node has one optical input, one RF output, one -20 dB RF test port, and one 12 VDC power socket. Optical input status of the node can be easily verified by the tri-color LED indicator.

Additionally, the node also features a calibrated DC test point for accurately determining the received optical input level with a common DC voltmeter, eliminating the need for a fiber power meter.



Features

- 1218 MHz Low Noise GaAs Amplifier
- 28 dBmV RF Output at -1 dBm Optical Input
- High-Linearity Photodiode
- Die-Cast Aluminum Housing for Indoor Installation
- Tri-color LED Indicating Optical Input Status
- Optical Input Power DC Test Point
- -20 dB RF Test Port
- Convenient 12 VDC Powering

Ordering Information

Model	Stock #	Description
FTTB-1218-1W	7620	One-Way Indoor Optical Node; 54-1218 MHz; 28 dBmV Output

Accessories

Model	Stock #	Description
FC/APC Adapter	7607	SC/APC Male to FC/APC Female Connector Adapter

Specifications

Optical and RF Performance

Optical	Input Optical Wavelength: 1210 ~ 1650 nm Optical Input Connector: SC/APC; Single Mode Optical Return Loss: 50 dB Optical Input Power: -8 ~ +2 dBm Recommended Optical Input: -4 ~ +2 dBm Forward Optical Power Test Point: 1V/mW
RF	RF Bandwidth: 54 ~ 1218 MHz RF Output Level: 28 dBmV ±1.0 dBmV (-1 dBm optical input) RF Flatness: ± 0.75 dB RF Return Loss: >16 dB RF Output Impedance: 75 Ω RF Test Port: -20 dB CNR: ≥ 51 dB at -1.0 dBm CSO: <-62 dBc at 77 CW carriers CTB: <-65 dBc at 77 CW carriers

Test Conditions

FORWARD PATH: 77 CW carriers (54~550 MHz) and digital channels (550 MHz~1218 MHz, RF level 10 dB lower) at -1 dBm optical input (10 km fiber + optical attenuator).

Alarms and Monitoring

Optical Input Tri-Color LED	Green: Normal: > -4 dBm to < +3 dBm Orange: Low: < -4 dBm Red: High: > +3 dBm
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Optical vs RF Levels

Optical Input Power Level (dBm)	Approx. RF Output Level (dBmV)	Received Power DC Test Point (V)
-8	14	0.16
-6	18	0.25
-4	22	0.40
-2	26	0.63
-1	28	0.79
0	30	1.00
+1	32	1.26
+2	34	1.58

Note: DC voltage Test point vs Optical input power (calibrated at 1310 nm optical input)

General

Connectors	Fiber Port: 1x Optical Receiver Input RF Port: 1x F-Female -20 dB RF Test Port: 1x F-Female DC Socket: 1x DC Adaptor Socket
Chassis Dimensions: (L x W x H)	5.0" x 3.5" x 1.25" (127 mm x 89 mm x 32 mm)
Weight:	0.6 lbs (0.27 kg)
Power	Power Supply: 12V 0.5A DC Adaptor, UL Certified Power Consumption: ≤3 W
Working Temperature: Storage Temperature: Humidity:	-4 to 140 °F (-20 to +60 °C) -40 to 185 °F (-40 to +85 °C) 5%~95% Non-condensing

