

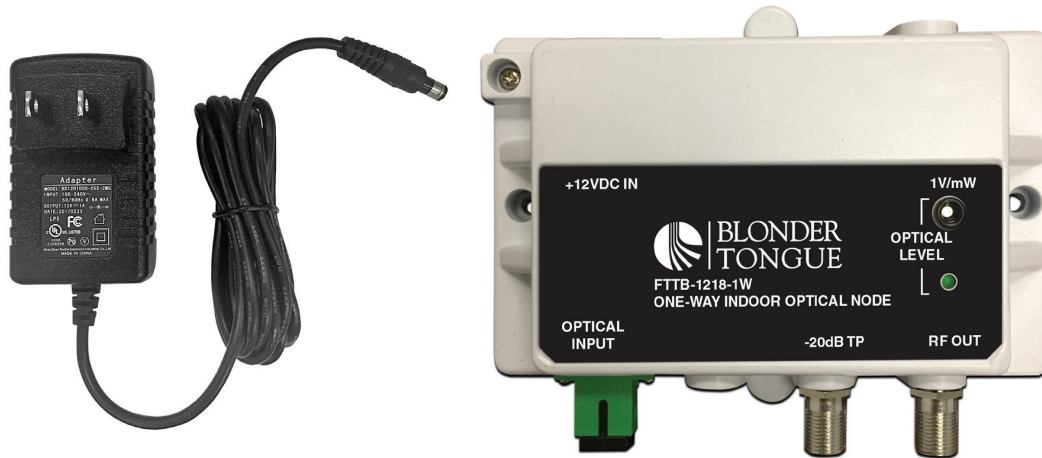


FTTB-1218-1W

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 50-1218 MHz.

The **FTTB-1218-1W** node has one optical input, one RF output, one -20 dB RF test port, and one 12 VDC power port. 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 port for accurately determining the received optic 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 port
- -20 dB RF test port
- Convenient 12 VDC powering

PRELIMINARY
Pre-Production Specifications
Subject to Change

Ordering Information

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

FTTB-1218-1W

One-Way Indoor Optical Node

Optical and RF Performance

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 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 Ch. NTSC
CTB:	< -65 dBc at 77 Ch. NTSC

Test Conditions

FORWARD PATH: 77 analog channels (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).

General

Connectors	Fiber Port: 1x Optical Receiver Input RF Port: F-Female RF Test Port: 1x -20 dB 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 1.0A DC Adaptor, UL Certified Power Consumption: ≤ 2.5 W
Working Temperature:	-4 to 140 °F (-20 to +60 °C)
Storage Temperature:	-40 to 185 °F (-40 to +85 °C)
Humidity:	5%~95% Non-condensing

Optical vs RF Levels

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

DC voltage Test port vs Optical input power (calibrated at 1310 nm optical input)

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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