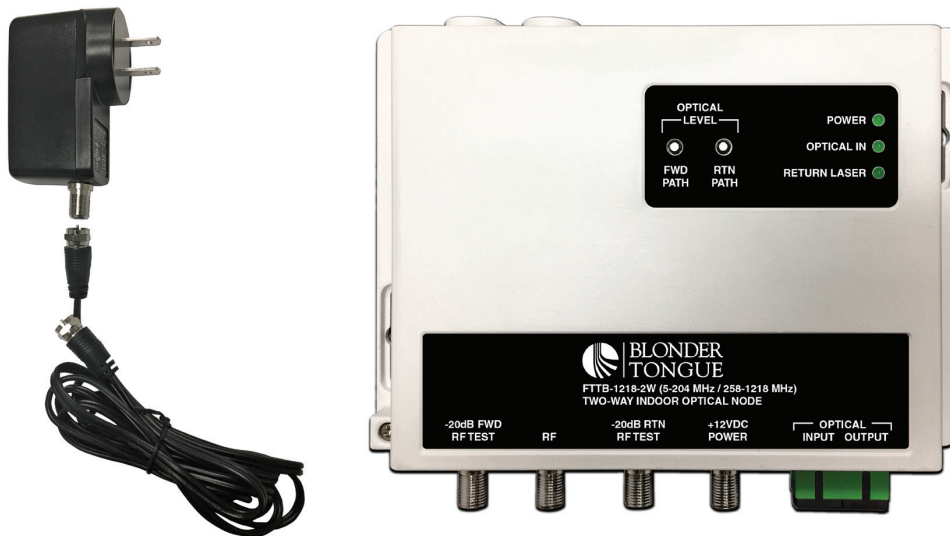


FTTB-1218-2W

Two-Way Indoor Optical Node with DOCSIS 3.1 Support

The **FTTB-1218-2W (Two-Way Indoor Optical Node)** converts the optical signal received from the headend into a +36 dBmV RF output. The compact housing includes an optical receiver, RF AGC, RF amplifier, and return path optical transmitter. Three (3) frequency splits are available to satisfy standard 5-42 MHz, 5-85 MHz, or 5-204 MHz returns for increased return bandwidths required in DOCSIS 3.1 applications.

The **FTTB-1218-2W** has one tri-color LED indicating the optical input status, one bi-color LED indicating return transmitter status as well as calibrated DC test points for receive and transmit optical powers.



Features

- 1218 MHz forward RF bandwidth for DOCSIS 3.1 compatibility
- Three (3) frequency splits available for all DOCSIS 3.1 applications
- +36 dBmV AGC'd RF output with optical input range from -4 to +3 dBm
- High performance and low power consumption GaAs technology
- 1310 nm 3.0 dBm DFB return path transmitter
- Die-cast aluminum housing for indoor installation
- Tri-color LED indicating optical input status
- Bi-color LED indicating return laser transmitter output status
- Forward and Return -20 dB RF test ports (one each)
- Local/Remote 12 VDC powering from F connector.

PRELIMINARY
 Pre-Production Specifications
 Subject to Change

Ordering Information

Model	Stock #	Description
FTTB-1218-2W	7630 42	Two-Way Indoor Optical Node; 1218 MHz; 42/54 MHz Split
	7630 85	Two-Way Indoor Optical Node; 1218 MHz; 85/105 MHz Split
	7630 204	Two-Way Indoor Optical Node; 1218 MHz; 204/258 MHz Split

FTTB-1218-2W

Two-Way Indoor Optical Node with DOCSIS 3.1 Support

Forward Path Receiver

Optical	Optical Wavelength: 1210 ~ 1650 nm Optical Input Connector: SC/APC; Single Mode Optical Return Loss: 50 dB Optical Input Power: -6 ~ +3 dBm AGC Effective Optical Input Range: -4 ~ +3 dBm Optical Power Test Point: 1V/mW
RF	RF Bandwidth: 54 ~ 1218 MHz (42/54 MHz Diplexer) 105 ~ 1218 MHz (85/105 MHz Diplexer) 258 ~ 1218 MHz (204/258 MHz Diplexer) AGC RF Output Level: +36 dBmV AGC RF Output Stability Range: ± 1.5 dB RF Slope (54~1218 MHz): 6 dB RF Flatness: ± 0.75 dB (Relative to Slope) 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 (50~550 MHz) and digital channels (550~1218 MHz, RF level 10 dB lower) at -1 dBm optical input (10 km fiber + optical attenuator).
 RETURN PATH: return path specs are measured in transmitter and receiver composed link.

General

Connectors	Fiber Ports: 2x SC/APC Female (Optical Input/Output) RF Port: 1x F-Female RF Test Ports: 1x -20 dB Forward; 1x -20 dB Return 12 VDC Port: 1x F-Female for DC power input
Chassis Dimensions (L x W x H):	6.85" x 4.9" x 1.22" (174 mm x 124 mm x 31 mm)
Weight:	1.18 lbs (0.54 kg)
Power	Power Supply: 12V 1.0A DC Adaptor, UL Certified Power Consumption: ≤ 7 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

Return Path Transmitter

Optical	Optical Wavelength: 1310 nm DFB Laser (Uncooled) Optical Output Connector: SC/APC Optical Output Power: 3 dBm ± 1 dB Optical Return Loss: 50 dB
RF	RF Bandwidth: 5 ~ 42 MHz / 85 MHz / 204 MHz RF Input Level: 17 dBmV RF Flatness: ± 1 dB RF Return Loss: > 16 dB RF Test Port: -20 dB NPR: > 25 dB

Optical Power / DC Test Ports

Optical Power (dBm)	DC Test Port (V)
-4	0.40
-2	0.63
-1	0.79
0	1.00
+1	1.26
+2	1.58
+3	2.00

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

Alarms and Monitoring

Optical Input Tri-Color LED	Green: Normal: > -4 dBm to < +3 dBm Orange: Low: < -4 dBm Red: High: > +3 dBm
Return Path Laser LED (Laser Output Power)	Green: > +3 dBm Red: < +3 dBm

PRELIMINARY
Pre-Production Specifications
Subject to Change