

The FTTB-1218-L2W Series (Two-Way Indoor Optical Node) converts the optical signal received from the headend into a +44 dBmV RF output, while sending upstream cable modem signals over a second fiber back to the headend. Three frequency splits are available to satisfy standard 5-42 MHz, 5-85 MHz, or 5-204 MHz returns for increased bandwidths required for DOCSIS 3.1 applications.

The compact housing includes an optical receiver with an LCD display, control keys, RF AGC, adjustable attenuator, adjustable slope, RF amplifier and a return path optical transmitter.



Features

- Optical and RF Parameters Configured via User-Friendly LCD Menu with Three Key Navigation
- Three (3) Frequency Splits Available for All DOCSIS 3.1 Applications
- 1218 MHz Forward RF Bandwidth
- RF AGC Maintaining +44 dBmV Output
- High Performance and Low Power Consumption GaAs Technology
- 1310 nm 3.0 dBm DFB Return Path Transmitter
- Aluminum Die Cast Housing for Indoor Installation
- Forward and Return -20 dB RF Test Ports (one each)
- One 18 VDC “F” Connector Input Port for Local/Remote Powering

Ordering Information

Model	Stock #	Description
FTTB-1218-L2W-42	7631 42	Two-Way Indoor Optical Node; 1218 MHz; 44 dBmV Output w/AGC; 42/54 MHz Split
FTTB-1218-L2W-85	7631 85	Two-Way Indoor Optical Node; 1218 MHz; 44 dBmV Output w/AGC; 85/105 MHz Split
FTTB-1218-L2W-204	7631 204	Two-Way Indoor Optical Node; 1218 MHz; 44 dBmV Output w/AGC; 204/258 MHz Split

Accessories

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

Specifications

Forward Path Receiver

Optical	Input 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
RF	RF Bandwidth: 54~1218 MHz (42/54 MHz Diplexer) 105~1218 MHz (85/105 MHz Diplexer) 258~1218 MHz (204/258 MHz Diplexer) RF Output Level: 44 dBmV; 0 dB attenuation & slope AGC RF Output Stability Range: ± 1.5 dB RF Flatness: ± 0.75 dB without slope RF Attenuation: 0-15 dB (1 dB step) RF Slope (54~1218 MHz): 0-15 dB (1 dB step) RF Return Loss: >16 dB RF Output Impedance: 75 Ω RF Test Port: -20 dB CNR: ≥51 dB @ -1 dBm CSO: <-60 dBc @ 77 CW carriers CTB: <-60 dBc @ 77 CW carriers

Return Path Receiver

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

Test Conditions

FORWARD PATH: 77 CW carriers (54~550 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.

LCD Control & Monitoring

User-Adjustable Controls Forward Path	Equalizer: 0-15 dB (1 dB step) Attenuator: 0-15 dB (1 dB step)
Return Path	Attenuator: 0-15 dB (1 dB step) Diplexer Band* Options: 42/54 MHz 85/105 MHz 204/258 MHz
Monitoring [1] Forward Path	Optical Input Level: < -4.0 dBm or > +3.0 dBm RF Output Level: < 10.0 dBmV or > 50.0 dBmV AGC Attenuator: 0-15 dB (Status Only)
Return Path	Optical Output Level: < -1.0 dBm or > +4.0 dBm LD Bias: Status Only
System Status	Power: < +16.5V or > +19.5V (18V ±1.5V) Temperature: < -40.0° C or > +80.0° C
System Information:	Model Serial Number Firmware Version

[1] Monitoring alerts will display when the following specifications are out of range.

General

Connectors	Fiber Ports: 2x SC/APC Female (Optical Input/Output) RF Port: 1x F-Female -20 dB RF Test Ports: 1x F-Female Forward; 1x F-Female Return 18 VDC Port: 1x F-Female for DC power input
Chassis Dimensions:	6.85" x 4.9" x 1.54" (174 mm x 124 mm x 39 mm)
Weight:	1.55 lbs (0.70 kg)
Power	Power Supply: 18V 1.3A DC Adaptor, UL Certified Power Consumption: ≤ 9 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