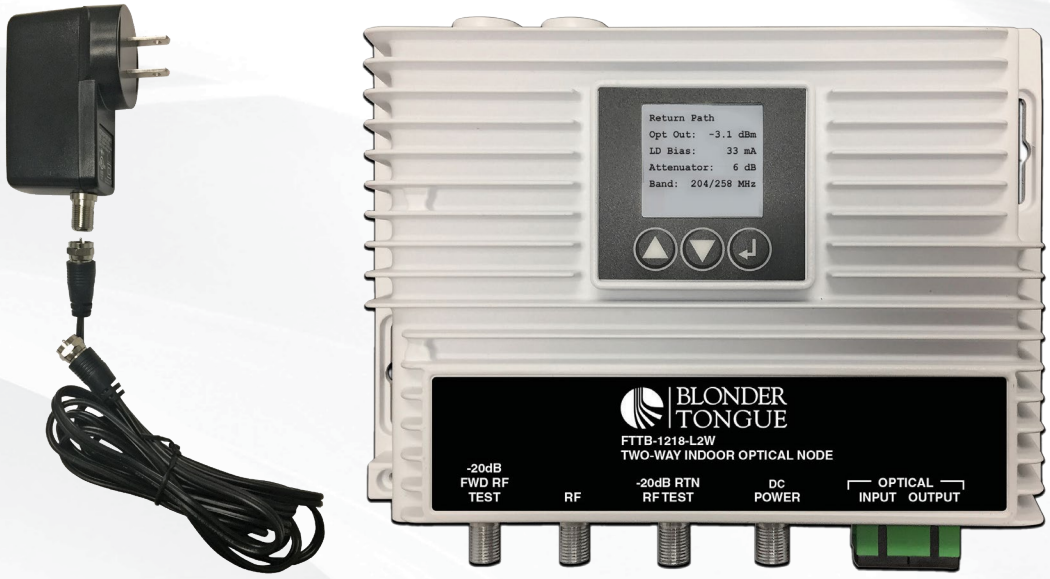
FTTB-1218-L2W Series

Two-Way Indoor Optical Node with DOCSIS 3.1 Support

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

3150 SW 15th Street | Deerfield Beach, FL 33442 | 954.427.5711 | sales@amt.com

Call Us: 954.427.5711
Toll Free: 888.293.5856

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

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.

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.

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: (L x W x H)	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

3150 SW 15th Street | Deerfield Beach, FL 33442 | 954.427.5711 | sales@amt.com

Call Us: 954.427.5711
Toll Free: 888.293.5856