

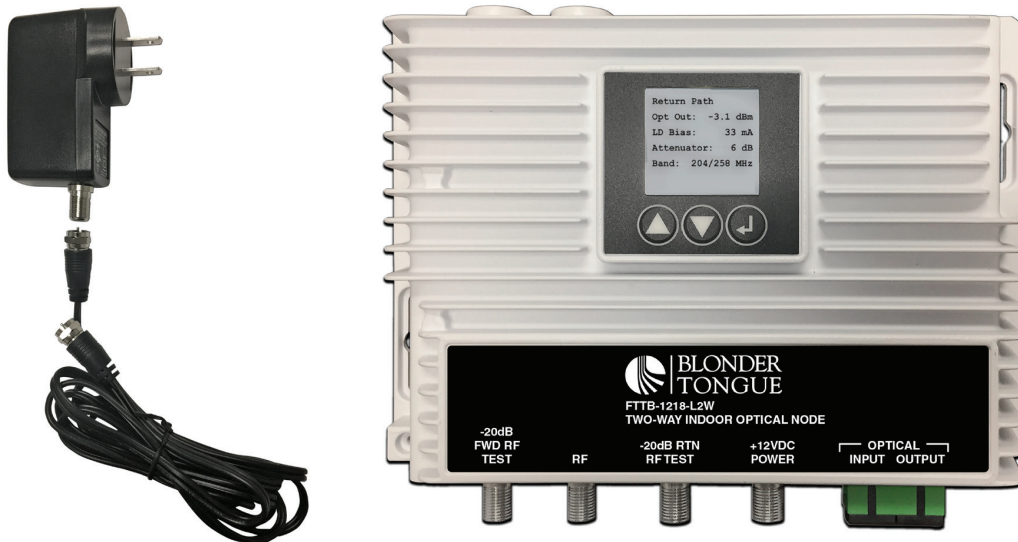
FTTB-1218-L2W

Two-Way Indoor Optical Node with DOCSIS 3.1 Support

The **FTTB-1218-L2W (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.

A future proof feature of the **FTTB-1218-L2W** is that its RF diplexers are able to be changed in the field to accommodate increased return bandwidth requirements when demands for more data occur.

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
- Field upgradable frequency splits
- 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 12 VDC "F" connector input port for local/remote powering

PRELIMINARY

Pre-Production Specifications

Subject to Change

Ordering Information

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

FTTB-1218-L2W

Two-Way Indoor Optical Node with DOCSIS 3.1 Support

Optical and RF Performance

Forward Path Receiver	
Forward RF Optical Wavelength:	1210~1650 nm
Optical Input Connector:	SC/APC, Single Mode
Optical Return Loss:	50 dB
Optical Input Power:	-6 dBm ~ +3 dBm
AGC Effective Optical Input Range:	-4 dBm ~ +3 dBm
<hr/>	
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 ± 1.5 dB
AGC RF Output Stability Range:	± 0.75 dB without slope
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 Ch. NTSC
CTB:	<-60 dBc @ 77 Ch. NTSC
<hr/>	
Return Path Transmitter	
Return Path Laser Wavelength:	1310 nm
Optical Connector:	SC/APC
Optical Output Power:	3 ±1 dBm
Optical Return Loss:	50 dB
<hr/>	
Return RF Bandwidth:	5~42 MHz/85 MHz/204 MHz
Return RF Input Level:	17 dBmV
Return RF Return Loss:	> 16 dB
Return RF Flatness:	±1 dB
RF Test Port:	-20 dB
NPR:	> 25 dB

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 Female for DC power input
<hr/>	
Chassis Dimensions (L x W x H):	6.85" x 4.9" x 1.54" (174 mm x 124 mm x 39 mm)
<hr/>	
Weight:	1.18 lbs (0.54 kg)
<hr/>	
Power	
Power Supply:	12V 1.0A DC Adaptor, UL Certified
Power Consumption:	≤9 W
<hr/>	
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

LCD Control and 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
<hr/>	
Monitoring*	
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:	< +10.5V or > +13.5V (12V ±1.5V)
Temperature:	< -40.0° C or > +80.0° C
<hr/>	
System Information:	
	Model
	Serial Number
	Firmware Version

* Diplexer Band for adjusting after a field upgrade.

* Monitoring alerts will display when the following specifications are out of range.

PRELIMINARY
Pre-Production Specifications
Subject to Change