BLONDER TONGUE

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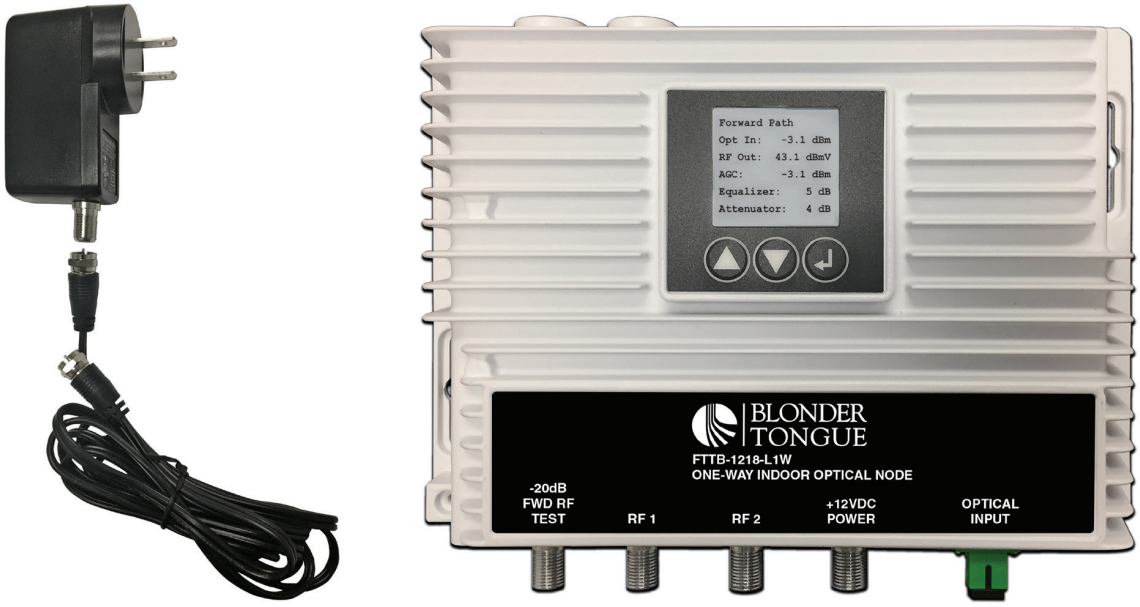
FTTB-1218-L1W

One-Way Indoor Optical Node with Dual High-RF Outputs

The **FTTB-1218-L1W (One-Way Indoor Optical Node)** converts the optical signal received from the headend into dual +44 dBmV RF outputs with automatic gain control (AGC) over an optical input range of -4 dBm to + 3 dBm.

The compact housing includes an optical receiver with an LCD display, control keys, RF AGC, adjustable attenuator, adjustable slope, and RF amplifier providing high RF output and excellent performance up to 1218 MHz bandwidth.



Features

- Optical and RF parameters configured via user-friendly LCD menu with three key navigation
- 1218 MHz forward RF bandwidth
- High performance and low power consumption GaAs technology
- Dual +44 dBmV AGC'd RF outputs
- Variable attenuator and slope controls
- Die-cast aluminum housing for indoor installation
- -20 dB RF test port
- 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-L1W	7621	One-Way Indoor Optical Node; 1218 MHz; Dual RF High Outputs; AGC

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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

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