



# Blonder Tongue

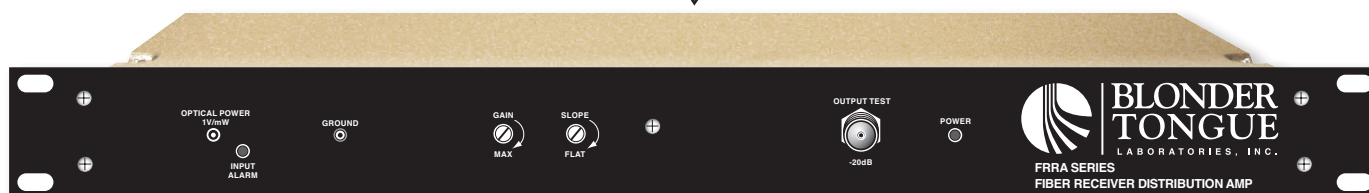
# FRRA Trailblazer Series

## Fiber Receiver & Distribution Amplifier

### SOLUTIONS FOR ALL YOUR APPLICATIONS

The FRRA is a fiber optic receiver module integrated with a rack mounted broadband distribution amplifier (RMDA). The FRRA is used as a launch amplifier in a coaxial distribution sub-system fed from a single mode broadband fiber network. The FRRA's optical receiver section provides exceptional CNR performance at low optical input levels. This feature is also a cost saving one, since it permits the use of lower power optical transmitters. The FRRA has two RF bandwidths available, 860 MHz and 1000 MHz, and features power doubling hybrid amplifier technology for high RF output levels and low distortion. The FRRA operates with the FIBT Series of transmitters as well as those from other leading manufacturers.

**Optical Input  
1310 /1550 nm**



**CATV**

**45-860/1000 MHz**



### Features

- 860 MHz and 1000 MHz (1 GHz) power doubling hybrid models
- LED for optical input status
- Gain and slope controls
- Exceptional CNR performance at low optical input levels
- Optical input power jack scaled 1V/mW

### Ordering Information

Model	Stock #	Description
FRRA-S4A-860-43P	7411P84B	Fiber Optic Receiver/RF Distribution Amplifier, Single-mode 860 MHz, 1310/1550 nm, FC/APC Conn.
FRRA-S4S-860-43P	7411P84BS	Fiber Optic Receiver/RF Distribution Amplifier, Single-mode 860 MHz, 1310/1550 nm, SC/APC Conn.
FRRA-S4A-1000	7411P14	Fiber Optic Receiver/RF Distribution Amplifier, Single-mode 1000 MHz, 1310/1550 nm, FC/APC Conn.
FRRA-S4A-1000	7411P14S	Fiber Optic Receiver/RF Distribution Amplifier, Single-mode 1000 MHz, 1310/1550 nm, SC/APC Conn.

# Specifications

## Optical Receiver

<b>Bandwidth:</b>	45 to 1000 MHz
<b>Bandpass Flatness:</b>	1 dB P/V
<b>Operating Wavelength:</b>	1310/1550 nm
<b>Optical Input Range:</b>	-3 to +3.0 dBm
<b>Carrier Noise Ratio (CNR):</b>	
-1 dBm input, 40 Channel Load:	54 dB
-1 dBm input, 79 Channel Load:	53 dB
-1 dBm input, 110 Channel Load:	52 dB

## Distribution Amplifier

<b>Impedance (All Ports):</b>	75 Ω
<b>Return Loss Input:</b>	16 dB
<b>Return Loss Output:</b>	16 dB
<b>Test Port Level:</b>	-30, ±2 dB
<b>Gain Control Range:</b>	10 dB
<b>Slope Control Range:</b>	8 dB
<b>Channel Loading:</b>	110
<b>Flatness:</b>	±0.75 dB
<b>Output Level:</b>	34/42 dBmV
<b>Composite Triple Beat (CTB):</b>	-60 dB
<b>Composite Second Order (CSO):</b>	-58 dB
<b>Hum Modulation:</b>	-70 dB

## General

<b>Dimensions (W x H x D):</b>	19" x 1.75" x 6.25" (483mm x 45mm x 159mm)
<b>Weight:</b>	5.75 lbs. (2.61 kg)
<b>Operating Temperature Range:</b>	-20 to +60 °C
<b>Number Of Hybrids:</b>	2
<b>Hybrid Technology:</b>	Power Doubling

## Power

<b>Power Supply Requirements:</b>	117 VAC, 60 Hz, 28 W
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## Connectors

<b>Optical Input:</b>	FC/APC or SC/APC (Model dependent)
<b>RF Output and Test Ports:</b>	"F" Female

## Indicators

<b>Power:</b>	LED, Green
<b>Optical Input Alarm:</b>	LED, Tri-colored

		Optical Input		
		dBm	mW	
		-10	0.10	Increase Optical Input Power Orange Optical LED Indication
		-9	0.13	
		-8	0.16	
		-7	0.20	
		-6	0.25	0 dB
		-5	0.32	2 dB
		-4	0.40	4 dB
<b>G R E E N  L E D</b>	-3	0.50	6 dB	Recommended Attenuator Plug-in Value (9320-xx)
	-2	0.63	8 dB	
	-1	0.79	10 dB	
	0	1.00	12 dB	
	1	1.26	14 dB	
	2	1.58	16 dB	
		3	2.00	18 dB
		4	2.51	Decrease Optical Input Power Red Optical LED Indication
		5	3.16	