

**FIBER RECEIVER & DISTRIBUTION AMPLIFIER
TRAILBLAZER**



The FRDA is a fiber optic receiver module integrated with a broadband distribution amplifier (BIDA). The FRDA is used as a launch amplifier in a coaxial distribution sub-system fed from a single mode broadband fiber network. The FRDA'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 optical power transmitters. The FRDA is available with 550 and 860 MHz RF bandwidths and power doubling hybrid amplifier technology to provide high RF output levels with low distortion. The FRDA operates with the FIBT Series of transmitters as well as those from other leading manufacturers

○ **Features & Benefits**

- LED For Optical Input Status
- Gain and Slope Controls
- Exceptional CNR Performance At Low Optical Input Levels
- 550 and 860 MHz Power Doubling Hybrid Models
- Optical Input Jack Scaled 1V/mW Provides Precise Measurement Capability Using DC Voltmeter

○ **Specifications**

Optical Receiver

Bandwidth: 47 to 860 MHz
 Bandpass Flatness: 1.0 dB P/V
 Operating Wavelength: 1310/1550 nm
 Optical Input Range: -6.0 to +3.0 dBm
 Output Impedance: 75 Ω
 CNR -1 dBm Input, 40 Ch. Load: 56 dB
 CNR -1 dBm Input, 79 Ch.+ Data: 55 dB
 CNR -1 dBm Input, 110 Ch. Load: 54 dB
 Input Connector: FC/APC

Distribution Amplifier

Impedance - All Ports: 75 Ohm
 Return Loss Output: 16 dB
 RF Gain: 43 dB
 Test Port: -30, ±2 dB
 Gain Control Range: 10 dB
 Slope Control Range: 8 dB
 Operating Temperature: -20 to +45°C
 Power Supply Requirements:
 117 VAC, 60 Hz: 28 W
 Size (WxHxL):
 7.25 x 3.25 x 10.25 in.,
 18.42 x 8.26 x 26.04 cm
 Weight: 5.75 lbs., 2.61 kg
 Number Of Hybrids: 2
 Hybrid Technology: Power Doubling

Varying Specifications

Channel Loading
 FRDA-550: 77
 FRDA-860: 110
 Flatness
 FRDA-550: ± 0.5 dB
 FRDA-860: ± 0.75 dB
 Output Level (Low/High)
 FRDA-550: 36/44 dBmV
 FRDA-860: 34/42 dBmV
 Composite Triple Beat (CTB)
 FRDA-550: -63 dB
 FRDA-860: -60 dB
 Composite Second Order (CSO)
 FRDA-550: -57 dB
 FRDA-860: -58 dB
 Hum Modulation: -70

Optical Input		Increase Optical Input Power Orange Optical LED Indication
dBm	mW	
-10	0.10	Recommended Attenuator Plug-in Value (9320-xx)
-9	0.13	
-8	0.16	
-7	0.20	
-6	0.25	
-5	0.32	
-4	0.40	
-3	0.50	
-2	0.63	
-1	0.79	
0	1.00	Decrease Optical Input Power Red Optical LED Indication
1	1.26	
2	1.58	
3	2.00	
4	2.51	
5	3.16	

○ **Ordering Information**

Model	Stock No.	Description
FRDA-S4A-550-43PA	7400P54A	Fiber Optic Receiver/RF Distribution Amplifier, Single-mode 47-550 MHz, 1310/1550 nm, FC/APC Conn., 43 dB Gain, Wall Mount
FRDA-S4A-860-43PA	7400P84A	Fiber Optic Receiver/RF Distribution Amplifier, Single-mode 47-860 MHz, 1310/1550 nm, FC/APC Conn., 43 dB Gain, Wall Mount
Accessories		
VMI-AT	9320	VMI Attenuator, Plug-In 1000 MHz