



FRDA Series

Fiber Receiver & Distribution Amplifier



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 power optical transmitters. The FRDA has an 860 MHz RF bandwidth 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
- 860 MHz Power Doubling Hybrid
- 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
 CNR (-1 dBm Input, 40 Ch. Load): 54 dB
 CNR (-1 dBm Input, 79 Ch.+ Data): 53 dB
 CNR (-1 dBm Input, 110 Ch. Load): 52 dB
 Input Connector: FC/APC

Distribution Amplifier

Impedance - All Ports: 75 Ω
 Return Loss Output: 16 dB
 RF Gain: 43 dB
 Test Port: -30, ±2 dB
 Gain Control Range: 10 dB
 Slope Control Range: 8 dB
 Channel Loading: 110
 Flatness: ± 0.75 dB
 Output Level (Low/High):
 34/42 dBmV
 Composite Triple Beat (CTB): -60 dB
 Composite Second Order (CSO): -58 dB
 Hum Modulation: -70

Power

Power Supply Requirements:
 117 VAC, 60 Hz: 28 W

Mechanical

Size (W x H x D):
 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
 Operating Temperature: -20 to +45°C

Indicators

Optical Input Alarm: LED, Tri-colored
 Power: LED, Green

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			
GREEN	-5	0.32	0 dB	
	-4	0.40	2 dB	
	-3	0.50	4 dB	Recommended Attenuator Plug-in Value (9320-xx)
	-2	0.63	6 dB	
	-1	0.79	8 dB	
LED	0	1.00	10 dB	
	1	1.26	12 dB	
	2	1.58	14 dB	
	3	2.00	16 dB	
	4	2.51	18 dB	
5	3.16		Decrease Optical Input Power Red Optical LED Indication	

Please refer to the Product Instruction Manual for more specifications.

Ordering Information

Model	Stock No.	Description
FRDA-S4A-860-FA	7400P84AB	Fiber Optic Receiver/RF Distribution Amplifier, Single-mode 47-860 MHz, 1310/1550 nm, FC/APC Conn., 43 dB Gain, Wall Mount
FRDA-S4A-860-SA	7400P84BS	Fiber Optic Receiver/RF Distribution Amplifier, Single-mode 47-860 MHz, 1310/1550 nm, SC/APC Conn., 43 dB Gain, Wall Mount