

FRR Series

Fiber Receiver & Distribution Amplifier



The FRR is a fiber optic receiver module integrated with a rack mounted broadband distribution amplifier (RMDA). The FRR is used as a launch amplifier in a coaxial distribution sub-system fed from a single mode broadband fiber network. The FRR'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 FRR has a RF bandwidth of 860 MHz, and features power doubling hybrid amplifier technology for high RF output levels and low distortion. The FRR 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 Power Jack Scaled 1V/mW

Specifications

Optical Receiver

Bandwidth: 45 to 860 MHz
 Bandpass Flatness: 1 dB P/V
 Operating Wavelength: 1310/1550 nm
 Optical Input Range: -6 to +3.0 dBm
 CNR (-1 dBm Input, 40 Ch. Load): 54 dB
 CNR (-1 dBm Input, 79 Ch. Load): 53 dB
 CNR (-1 dBm Input, 110 Ch. Load): 52 dB

Connectors

Optical Input: FC/APC or SC/APC
 RF Output and Test Ports: "F" Female

Distribution Amplifier

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

Hum Modulation: -70 dB

Mechanical

Size (W x H x D): 19 x 1.75 x 6.25 in.
 48.26 x 4.45 x 15.88 cm
 Weight: 5.75 lbs., 2.61 kg
 Number Of Hybrids: 2
 Hybrid Technology: Power Doubling
 Operating Temperature: -20 to +60 °C

Power

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

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			
GREEN LED	-6	0.25	0 dB	
	-5	0.32	2 dB	
	-4	0.40	4 dB	
	-3	0.50	6 dB	Recommended Attenuator Value (4006A-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			

Please refer to the Product Instruction Manual for more specifications.

Ordering Information

Model	Stock No.	Description
FRR-S4A-860-43P	7411P84AB	Fiber Optic Receiver/RF Distribution Amplifier, Single-mode 47-860 MHz, 1310/1550 nm, FC/APC Conn., 43 dB, Rack Mount, Power Doubling
FRDA-S4S-860-43P	7411P84BS	Fiber Optic Receiver/RF Distribution Amplifier, Single-mode 47-860 MHz, 1310/1550 nm, SC/APC Conn., 43 dB, Rack Mount, Power Doubling

Specifications Subject To Change Without Notice

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