

# Satellite LNB Fiberlink RECEIVER

This unique satellite L-band system utilizes a fiber optic transmitter that is attached directly to the dish-mounted LNB. Utilize the advantages of fiber for the entire LNB-to-receiver link. With this system, there is no need for a long coaxial cable run between the LNB and fiber optic transmitters. Use fiber optic cable for the entire connection between the LNBs and the satellite receivers.

- Connect satellite antenna to receivers over LONG DISTANCES without loss.
- Prevent lightning damage.
- Provide HIGH SIGNAL LEVELS to feed many receivers without need for amplification.
- Transmitter has FC/APC optical connector for connection to fiber optic receiver.
- Transmitter has one 'F' connector for connection to LNB signal output, and 1 'F' connector for connection to DC power source (receiver/LNB power supply is purchased separately).
- Receiver is a rack mounted card that mounts inside a 3RU chassis. Redundant power supply is available for chassis.

## Features (used with #FSS-95F5T)

- 800 MHz – 2250 MHz
- > 10 km
- 50Ω and 75Ω versions
- Adjustable RF gain
- Up to 16 Rec'rs per chassis, 8 slot
- Chassis can hold 2 power supplies



RECEIVER DETAILS: Wide Bandwidth fiber optic inter-facility links (IFL's) are a high-performance, cost-effective alternative to coaxial cable for 800 MHz to 2250 MHz Satellite Communication applications, and more.

Used with the #FSS-95F5T "LNB-mounted" Transmitter, the #FSS-95F5R Fiber Optic Receiver's provide much longer transmission distances than possible with copper cables, while retaining the highest level of signal quality. Alternate transmitters are available to cover other frequencies.

## #FSS-95F5R Performance Highlights

		Min	Typical	Max	Units
Frequency Range	50Ω	800	--	2250	MHz
	75Ω	800	--	2250	MHz
Optical Distance (when used with #FSS-95F5T)	0	--	10		Km
	0	--	5		dB
Wavelength			1310		nm
Temperature Range (for FSS95F5R receiver)		0	--	50	C

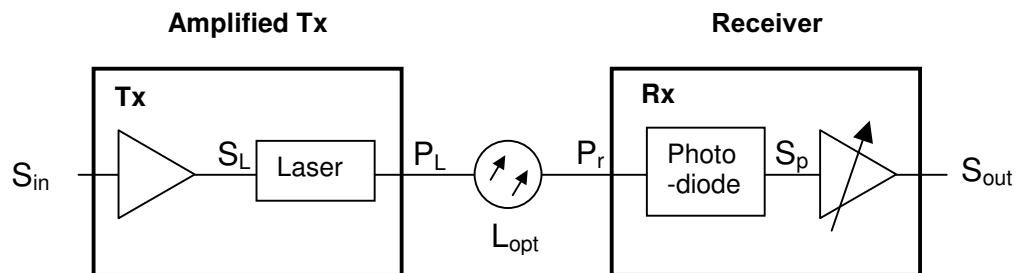
See following pages for complete specifications and conditions.



## Absolute Maximum Ratings

Stresses in excess of the absolute maximum ratings can cause permanent damage to the device. These are absolute stress ratings only. Functional operation of the device is not implied at these or any other conditions in excess of those given in the operational sections of the data sheet. Exposure to absolute maximum ratings for extended periods can adversely affect device reliability.

Parameter	Symbol	Min	Max	Units
Operating Temperature (within specifications)	$T_{OP}$	0	50	°C
Operating Temperature (no damage)	$T_{OP}$	-20	65	°C
Storage Temperature	$T_{STG}$	-40	85	°C
RF Input	$S_{in}$	-15	--	dBm
Optical Power into Receiver	$P_r$	--	12	dBm



## Primary Versions (Call for more info)

Model	Description
option	Rx, 800 to 2250 MHz 50Ω
option	Rx, Double*, 800 to 2250 MHz 50Ω
FSS-95F5R	Rx, 800 to 2250 MHz 75Ω
FSS-95F5R-DUAL	Rx, Double*, 800 to 2250 MHz 75Ω

## Optical Characteristics

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Wavelength	$\lambda$	-	1300 1530	1310 1550	1320 1565	nm nm
Tx Optical Output Power, #FSS-95F5T	$P_L$	-	4 6	6 8	9 9	mW dBm
Rx Optical Input Power	$P_r$	-	--	0	3	dBm
Receiver dc Responsivity	-	1310 nm 1550 nm	0.85 0.95	-- --	-- --	A/W A/W
Connector Return Loss	-	-	60	--	--	dB
Fiber	-	Single-mode, 9 $\mu$ m / 125 $\mu$ m (Corning SMF-28 or equivalent)				



## DC Power

Input Voltage	Single Rx	Dual Rx
+5	80 mA	160 mA
+15	130 mA	260 mA

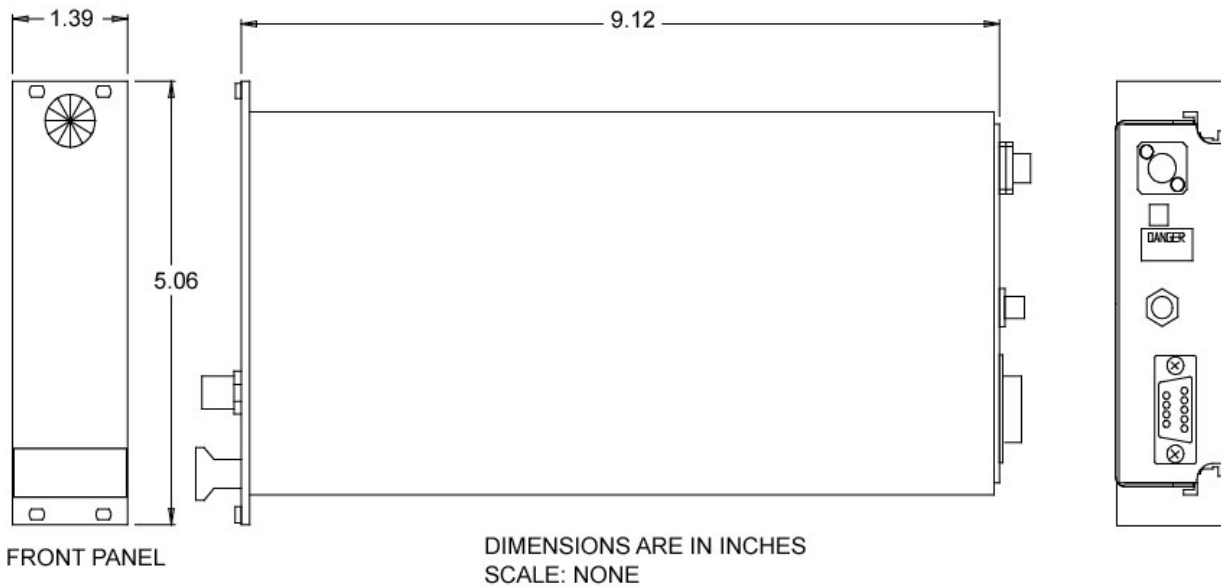
Ripple and noise: 100 mVp-p >100 kHz; 200 mVp-p <100 kHz  
 +5 and +15 V may be from model 10901A/B or equivalent power supplies.

## Pin Information

Plug-in D-sub	FRM-AST8 back-plane	Rx #FSS-95F5R (Single Receiver)	Rx #FSS-95F5R-DUAL (Dual Receiver)
1*	--	+15 VDC	+15 VDC
2*	--	+5 VDC	+5 VDC
3*	--	nc	nc
4*	--	POWER GND	POWER GND
5**	1	REF GND	REF GND
6**	2	PDIM	PDIM, Rx #1
7**	3	ALARM	ALARM Rx #1
8**	4	nc	PDIM, Rx #2
9**	5	nc	ALARM Rx #2

\* Powered from FRM-AST8, FP-AST8-REDUNPS, or equivalent power supply

\*\* Accessible via connector on back panel of FRM-AST8 chassis



**Mechanical Dimensions – #FSS-95F5R Receiver interface with #FRM-AST8 Chassis**

