

## RF-11000 Repeater

### General\*

Frequency Range	10.7—11.7 GHz
Nominal Gain	40 dB (13 dB ALC)
Maximum Gain	53 dB (0 dB ALC)
Fade Compensation	13 dB down fade AGC 7 dB up fade AGC min.

Noise Figure	8.5 dB
3rd Order Intercept	+37 dBm
Antenna Ports	WR75
W/G Flange	WR75, Cover
Return Loss	≥26 dB

\*For Duplex Configuration

### Nominal Signal Levels

	Nominal Input**	Nominal Output**
FM/FSK/MSK	-13 dBm	+27 dBm
4PSK/QPSK/OQPSK	-15	+25
8PSK	-17	+23
16 QAM	-19	+21
64 QAM	-23	+17
QPR3/9QPRS	-18	+22
QPR7/49QPRS	-19	+21

### Frequency Plan

Channel	
Bandwidth	40 MHz, 1 dB
T-R Spacing	130 MHz, min.
T-T Spacing	80 MHz, min.
(on common feeders)	

\* Duplex 1+0 configuration only.

\*\*Nominal input level has allowance for 13 dB AGC (input can fade 13 dB and still maintain nominal output). Systems can be engineered with 13 dB lower input and still maintain nominal output. Branching loss included for duplex configuration.

### Channel Response

Amplitude	0.5 dB P-P, fo ± 20 MHz
Group Delay Equalized	4 ns/P-P, fo ± 20 MHz

### Power Requirements (Duplex)

Nominal Voltage	+24 VDC
Voltage Range	+21 to +28 VDC
Current	2.7A (2 amplifiers and alarms)
Polarity	Neg. Ground

### Environmental

Housing	Weathertight Aluminum
Ambient Temp.	-40° C to +60° C
Relative Humidity	90% (housing internal) 100% (housing external)
Altitude	15,000 feet (4600 meters)

### Dimensions (Duplex and 1+1 Configurations)

Height	36 inches (915 mm)
Width	23 inches (591 mm)
Depth	21 inches (520 mm)
Weight	80 lbs. (36 kg)
Housing	

### Reliability

MTBF	85,000 hours
MTTR	30 minutes

### Typical Configurations

- Duplex
- 1+1 Frequency Diversity
- 1+1 Multiline
- Dual Polarized

World Headquarters  
39 Grand Canyon Lane  
San Ramon,  
CA 94583 USA

Phone  
925.901.0103

Fax  
925.901.0403

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