

## RF-4500 Repeater

### General\*

Frequency Range	4.4—5.0 GHz
Nominal Gain	45 dB (15 dB ALC)
Maximum Gain	60 dB (0 dB ALC)
AGC/ALC	15 dB down fade 5 dB up fade
Noise Figure	7 dB
3rd Order Intercept	+35 dBm
Antenna Ports	WR187
W/G Flange	WR187G, Choke, Gasket
Return Loss	≥ 26 dB

### Nominal Signal Levels\*

	Nominal Input	Nominal Output
FM/FSK/MSK	-20 dBm	+25 dBm
4PSK/QPSK/OQPSK	-22	+23
16 QAM	-26	+19
64 QAM	-30	+15
256 QAM	-32	+13
QPR3/9QPRS	-25	+20
QPR7/49QPRS	-26	+19

### Frequency Plan

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

### Channel Response

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

### Power Requirements

Nominal Voltage	+13.5 VDC
Voltage Range	+11 to +16.5 VDC
Current	2.5 A*

### 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

Height	34.4 inches (874 mm)
Width	27.5 inches (700 mm), with vent hoods
Depth	15.3 inches (389 mm)
Weight	90 lbs. (41 kg)

### Reliability

MTBF	85,000 hours
MTTR	30 minutes

\* Duplex 1+0 configuration only.

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