

## RF-2000E/EW Repeater

### General

	Output Power Option*	
	Power Level 1	Power Level 2
Frequency Range	1.7-2.3 GHz	1.7-2.3 GHz
Nominal Gain	45 dB (15 dB ALC)	45 dB (15 dB ALC)
Maximum Gain	60 dB (0 dB ALC)	60 dB (0 dB ALC)
AGC/ALC	15 dB down fade 5 dB up fade	15 dB down fade 5 dB up fade
Gain		
Adjust**	0-20 dB	0-20 dB
Noise Figure	7 dB	7 dB
3rd Order Intercept	+34 dBm	+38 dBm
Antenna Ports	Type N Coax	Type N coaxial
Return Loss	>20 dB	>20 dB

### Nominal Signal Levels

	Output Power Options* (at Antenna Ports)	
	Power Level 1	Power Level 2
FM/FSK/MSK	+24 dBm	+28 dBm
4PSK/QPSK/OQPSK	+22	+26
16 QAM	+18	+22
64 QAM	+14	+18
256 QAM	+12	+16
QPR9	+17	+21
32 TCM	+15	+19
64 TCM	+14	+18

### Frequency Plan

	RF-2000E	RF-2000EW
Channel		
Bandwidth	20 MHz, 1 dB	30 MHz, 1 dB
T-R Spacing	50 MHz, min.	80 MHz, min.
T-T Spacing	28 MHz, min.	42 MHz, min.
(on common feeders)		

\* Duplex, delay-equalized configuration only.

\*\* AGC/ALC range will be reduce by amount equal to the reduction of maximum gain due to additional branch loss.

### Channel Response

	RF-2000E (fo±5 MHz)	RF-2000EW (fo±10 MHz)
Amplitude	±0.5 dB	±0.5 dB
Group Delay (Equalized)	N/A	5 ns,P-P
Group Delay (Non Equalized)	0.3 ns/(MHz) <sup>2</sup>	N/A

### Power Requirements

	Output Power Options*	
	Power Level 1	Power Level 2
Nominal Voltage	+13.5 VDC	+13.5 VDC
Voltage Range	+11 to +16.5 VDC	+11 to +16.5 VDC
Current	2.2 A*	2.8 A*
Polarity	Neg. Ground	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\*

Height	27 inches (690 mm)
Width	27.5 inches (699 mm), with vent hoods
Depth	9.7 inches (246 mm)
Weight	50 lbs. (23 kg)

### Reliability\*

MTBF	85,000 hours
MTTR	30 minutes

### Typical Configurations

Duplex  
1+1 Frequency Diversity  
One-Way

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