

## RF-11000 Microwave RF Repeater

### General

Frequency Range	10.7 ~ 11.7 GHz
Linear Amplifier Gain <sup>1</sup>	63 dB typ., 61 dB min.
AGC/ALC	15 dB down fade 5 dB up fade min.
Noise Figure <sup>1</sup>	3.5 dB at max gain
Antenna Ports	WR75 waveguide
W/G Flange	WR75, Cover
Return Loss	≥ 26 dB

### Nominal Transmit Power<sup>1,2</sup>

FM/FSK/MSK	32.0 dBm
4QAM/QPSK/OQPSK	30.0
16QAM	26.0
32QAM	24.0
64QAM/64TCM	22.0
128QAM/128TCM	20.0
256QAM	19.0
512QAM	18.0
32TCM	23.0
256TCM	18.0

### Frequency Plan

Channel Bandwidth	40 MHz – High Capacity 20 MHz – Low ~ Medium <sup>3</sup>
T-R Spacing	130 MHz, min.
T-T Spacing*	80 MHz, min

\* on common feeders

<sup>1</sup> : Not including branching losses, see Operations Manual.

<sup>2</sup> : See Operations Manual for more details. Modulations listed are a sample only, contact PESi for more.

<sup>3</sup> : RF-11000L – Low ~ Medium Capacity

### Channel Response: High Capacity, Equalized

Amplitude	± 0.5 dB, $f_0 \pm 20$ MHz
Group Delay	5 nsec P-P, $f_0 \pm 20$ MHz

### Channel Response: High Capacity, Un-Equalized

Amplitude	± 1.0 dB, $f_0 \pm 20$ MHz
Group Delay	10 nsec P-P, $f_0 \pm 20$ MHz

### Channel Response: Low ~ Medium Capacity, Un-Equalized<sup>3</sup>

Amplitude	± 1.0 dB, $f_0 \pm 10$ MHz
Group Delay	10 nsec P-P, $f_0 \pm 10$ MHz

### Power Requirements: Duplex, 2 Amplifiers

Nominal Voltage	+24 VDC
Voltage Range	+19 ~ +30 VDC
Power Consumption	65 W, Solar Rated
Polarity	Negative Ground

### Dimensions: 1+0, 1+1 and 2+0 Configurations

Height	36.20 in, 920 mm
Width	23.25 in, 591 mm
Depth	20.50 in, 521 mm
Weight	110 lb, 50 kg – 1+0 124 lb, 56 kg – 1+1, 2+0

### Reliability

MTBF	85,000 hours
MTTR	30 minutes, on-site

### Environmental

Ambient Temperature	-40° C ~ +60° C
Relative Humidity	90% - Housing Internal 100% - Housing External
Altitude	15,000 feet, 4600 meters
Enclosure Housing	Weatherlight Aluminum

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