

RF-6000EW Microwave RF Repeater

General

| | |
|--|--------------------------|
| Frequency Range | 6.425 ~ 7.125 GHz |
| Linear Amplifier Gain, L1 ¹ | 58 dB typ., 56 dB min. |
| Linear Amplifier Gain, L2 ¹ | 63 dB typ., 61 dB min. |
| AGC/ALC | 15 dB down, 5 dB up fade |
| Noise Figure ¹ | 5 dB at max gain |
| Antenna Ports | WR137 waveguide |
| W/G Flange | CPR137G |
| Return Loss | ≥ 26 dB |

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 |

Power Requirements: Duplex, 2 Amplifiers

| | |
|----------------------------|------------------------------------|
| Nominal Voltage | +12 VDC (+24 VDC <i>Optional</i>) |
| Voltage Range | +11 ~ +16 VDC |
| Power Consumption, Level 1 | 30 W, Solar Rated |
| Power Consumption, Level 2 | 35 W, Solar Rated |
| Polarity | Negative Ground |

Nominal Transmit Power^{1,2}

| Modulation | Level 1 | Level 2 |
|-----------------|----------|----------|
| FM/FSK/MSK | 26.0 dBm | 30.0 dBm |
| 4QAM/QPSK/OQPSK | 24.0 | 28.0 |
| 16QAM | 20.0 | 24.0 |
| 32QAM | 18.0 | 22.0 |
| 64QAM/64TCM | 16.0 | 20.0 |
| 128QAM/128TCM | 14.0 | 18.0 |
| 256QAM | 13.0 | 17.0 |
| 512QAM | 12.0 | 16.0 |
| 32TCM | 17.0 | 21.0 |
| 256TCM | 12.0 | 16.0 |

Dimensions: 1+0, 1+1 and 2+0 Configurations³

| | |
|--------|-----------------------------|
| Height | 36.74 in, 933 mm |
| Width | 23.25 in, 591 mm |
| Depth | 22.82 in, 580 mm |
| Weight | 1+0 99 lb, 45.0 kg |
| | 1+1, 2+0 120 lb, 54.5 kg |
| | 2+0, 4-Port 128 lb, 58.0 kg |

Reliability

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

Frequency Plan

| | |
|-------------------|---|
| Channel Bandwidth | 40 MHz – High Capacity |
| T-R Spacing | 100 MHz, min. |
| T-T Spacing* | 80 MHz, min |
| T-T Spacing** | 40 MHz, min |
| | * on common feeders ** on separate feeders |

Environmental

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

¹ : Not including branching losses, see Operations Manual.

³ : See Operations Manual for more Configurations including 2+1, 3+1.

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

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Peninsula Engineering Solutions, inc. may change specifications as necessary to meet industry requirements.

