

RF-2500E Repeater

General*

Frequency Range	2.3—2.7 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

GainAdjust**	0-20 dB
Noise Figure	7 dB
3rd Order Intercept	+33 dBm
Antenna Ports	Type N Coax
Return Loss	>20 dB

Nominal Signal Levels*

	Nominal Input	Nominal Output
FM/FSK/MSK	-22 dBm	+23 dBm
4PSK/QPSK/OQPSK	-24	+21
16 QAM	-28	+17
64 QAM	-32	+13
256 QAM	-34	+11
QPR3/9QPRS	-27	+18
QPR7/49QPRS	-28	+17
QPR9	-29	+16

Frequency Plan

Channel	
Bandwidth	20 MHz, 1 dB
T-R Spacing	50 MHz, min.
T-T Spacing	28 MHz, min.
(on common feeders)	

* Duplex configuration only.

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

Channel Response

Amplitude	± 0.5 dB fo ± 5 MHz
Group Delay Ripple	0.3 ns/(MHz) ² , fo ± 8 MHz

Power Requirements

Nominal Voltage	+13.5 VDC
Voltage Range	+11 to +16.5 VDC
Current	2.2 A*
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

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

