



This product range potentially can measure true root-mean-square (RMS) RF power over a dynamic range of 60dB in a single carrier or complex multi channel digital waveform environment at frequencies up to 2.7 GHz.

The peak voltages of multiple transmitters statistically add. In a system of digital transmitters with individually high crest factors this can result in a system with peak to average voltages in excess of 20 dB. Traditional power detectors using diode detection or log amps do not accurately measure power when the peak-to-average ratio of the transmitted signal is not fixed.

Designed for use with RFS directional couplers and the output polled by a master unit, multiple RF sensors and other RS485 devices can be simply paralleled on the one pair of wires. The RFS Monitor System display unit supplies DC power to the detectors and has an 8.4" TFT colour screen to provide multiple views of detector and RF switch arrays.

Alternatively, the detector can be used without the control unit featuring a linear or log analogue output (0.05 to 4.75V, 100 ohms), requiring an external 8 to 30V DC power source at 60mA.

FEATURES / BENEFITS

- ◆ True RMS power detector
- ◆ Input dynamic range in excess of 50dB
- ◆ RF power measurement is independent of signal peak-to-average ratio (crest factor)
- ◆ Measurement of power of multiple digital channels with crest factors approaching 20dB
- ◆ Standard frequency range of 30 MHz to 1 GHz
- ◆ Output is via a half duplex RS485 two wire interface



Wideband RF detector module

Technical features

GENERAL SPECIFICATIONS

Product Line		Components
Product Type		Power Detector
Uncertainty	%	

ELECTRICAL SPECIFICATIONS

Frequency Range	MHz	30 - 1000
Frequency Range Comment		Note#2
Frequency Band		VHF Band I, VHF Band II, VHF Band III, UHF Band IV/V
Input Impedance	Ω	50
Output Impedance	Ω	50
Input dynamic range	dB	>50
Input Power(Max)	dBm	36
Input Power (Continuous Max)	dBm	24
Input Power DTV Max	dBm	13
Input Power (min)	dBm	-27

MECHANICAL SPECIFICATIONS

RF Connector		N Type plug
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External Document Links

Notes

Note 1 Applies to waveform and temperature effects over a 25 +/- 15 degree C range at the customer specified channel and rated power, excluding the accuracy of calibration standards

Note 2 Standard models are available to cover the FM, VHF and UHF frequency bands, with extended bandwidth and frequency variations to order.

Suffix B for 45 to 250 MHz

Suffix E for 470 to 860 MHz

Suffix A for analogue output

