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Data Sheet



# RadiPower® Pro series

USB Power Meter

Model - RPR4006R

True RMS

Wide Dynamic Range

High accuracy





# RadiPower® 4000 Series

## Fast RMS Power Measurements

True RMS

Wide Dynamic Range

High accuracy

The RPR4006R is the first member of the RadiPower® 4000 series power meters, offering excellent RMS measurement accuracy and high measurement speed, even at low power levels.

**True RMS** | To ensure accurate power measurement of non-sinusoidal RF signals over the entire measuring range, the RadiPower® 4006R uses a true RMS detector. This detector leads to a DC voltage proportional to the RF RMS value of the input signal, resulting in higher accuracy and faster measurements.

**High dynamic range & speed** | The RadiPower® RPR4006R offers a high dynamic range of up to 80 dB over the frequency range from 4 kHz to 6 GHz, maintaining its high measuring speed over the entire input power range. With measurement rates of up to 5 MS/s, fast true RMS power measurements become reality.

**Accuracy** | The RPR4006R power meter offers improved accuracy of +/- 0.2 dB over the complete frequency range, and with active input ranging, the error contribution for non-sinusoidal signals with a high crest factor is less than 0.2 dB. The input VSWR of the power meter is optimized to minimize measurement uncertainty, making the RadiPower® 4000 series better for accurate RF power measurements.

**Ruggedized housing** | The RadiPower® RPR4006R uses a robust, specially treated, aluminium housing with good RF shielding and a sleek industrial appearance.

**Easy to use** | The power meter is easy to use, equipped with a USB interface that allows direct connection to a Windows PC. and can be controlled by “RadiMation®”. The software for EMC immunity testing.

**Software support** | The RadiPower® RPR4006R power meter is compatible with Raditeq’s EMC immunity testing software, “RadiMation®,” for convenient control and operation. Additionally, the RPR4006R can be utilized with any other software that employs the instrument command codes specified in the manual. Driver availability is accessible upon request.



# RadiPower® Technical Specifications

Model	RPR4006R		
Measuring function	RMS power		
Measurement speed	5 MS/s		
- Internal sample rate:	600 Hz		
- VBW:	0.01 dB		
Resolution	dBm or Watt		
Measuring units	Not required		
Zero adjustment	> +20 dBm		
Input damage level			
Measurement range & accuracy			
Frequency range	4 kHz to 6 GHz		
Power measuring range	<b>Frequency</b>	<b>MAX</b>	<b>MIN</b>
	4 kHz - 100 MHz	10	-70
	100 MHz - 15 GHz	10	-65
	15 GHz - 35 GHz	10	-60
	35 GHz - 45 GHz	10	-55
	45 GHz - 6 GHz	10	-50
Frequency response accuracy (at 23° C ± 2° C)	+/- 0,2 dB		
Linearity error	0.08 dB + 0.005 dB/dB		
Temperature effect	0,15 dB max over full temperature range		
Deviation from CW for signals with high crest factor	< 0,2 dB		
VSWR			
Max SWR: < 100 MHz	1.05		
100 MHz to 6 GHz	1.10		
Connections & Dimensions			
Dimensions of measuring device (LxWxH)	125.2 * 44.5 * 32 mm		
RF input connector	N type precision		
Data connector (power head side)	USB mini type B		
Power Consumption			
Supply voltage	+5 Vdc from USB port (4,75 V to 5,25 V)		
Current consumption (USB)	Max. 500 mA (400 mA Typical)		
Environmental conditions			
Temperature range (operating)	0° to 40° Celsius		
Temperature range (storage)	-20 to 85° C		
Relative humidity	10 - 90% (non-condensing)		
Compliance			
EMC	EN 61326		
Low Voltage	N/A		
Warranty			
	3 year <sup>(1)</sup>		

- All specifications are measured after 10 minutes warm-up time and 0dBm unless specified otherwise.
- Typical specifications indicate that the measured values are met on at least 80% of the points.
- After you register your new Raditeq product two (2) years of warranty will be added for free.



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