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Data Sheet

RadiPower[®] 2000 Pulse Series

RF Power Meter

Flexible

Versatile

Fast



raditeq.com

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RadiPower® Pulse Series

The accurate EMC Power Meter

Flexible | Versatile | Extensible

An adequate power meter is indispensable to perform reproducible and reliable RF power measurements. The RadiPower® Pulse offers a range of RF power meters dedicated for RF/Burst power measurements. The RadiPower® Pulse USB power heads are affordable, accurate and extremely fast. The RPR2006P provides measurements over a frequency range from 9 kHz up to 6 GHz. The RPR2018P measures over a frequency range of 80 MHz up to 18 GHz.

Extremely Fast

The RadiPower® Pulse USB power heads perform power measurements with a maximum sampling speed of 1 million samples per second! By using such a high sampling mode it is capable to measure RF Burst/Pulse signals with pulse durations down to 2 µsec and it can measure CW and RMS power as well.

Accurate

Next to speed, accuracy is another main requirement when performing RF Burst/Pulse power measurements. The RPR2006P allows high precision RF power measurements with a high dynamic range of over 65 dB. Both power meters provide a basic accuracy of 0.25 dB and are way within requirements for measurements in accordance to international EMC immunity standards.

Flexible

The RadiPower® plug-in card (USB1004A) contains 4 USB slots to connect a maximum of four RadiPower® power heads of any combination and is designed to fit into the RadiCentre® EMC test systems. Alternatively the RadiPower® heads can be connected directly to a PC USB port.

'RMS' and 'Peak' mode

Using the 'RMS' mode an unmodulated RF power signal can be measured with a maximum speed of 10 MSps. But, the RadiPower® Pulse is not only able to measure extremely fast. In 'Peak' mode the RadiPower® Pulse keeps track of the highest level detected. This can be done for an infinite time.

'Envelop trace' mode

The 'envelop trace' mode can be used to visualize an RF/Burst signal using an internal buffer that can store 4.000 samples, using 2.000 pre-trigger measurements and 2.000 post-trigger measurements. The RadiPower® supports 'edge' or 'level' triggering modes and using this mode RF Burst signals can be visualized in a very easy way. This unique function can be used to perform different kind of RF Burst/Pulse measurements including the RI-114 Radar Pulse power measurements in accordance to the Automotive Ford standard FMC1278.

Software support

The standard RadiMation® FREE freeware control software fully supports the RadiPower® measurement modes where the measurement parameters can be configured and the results are graphically displayed or printed/exported. Beside this RadiMation® EMC test software can be used to perform fully automated immunity tests and control of the RadiPower power meter. Using the instrument command codes the RadiPower® can be used with any other software control package.

- 1) Standard one year of warranty is given on Raditeq equipment. After you register your new Raditeq product two (2) years of warranty will be added for free resulting in three (3) years of warranty. Registration can be done at: www.raditeq.com

RadiPower® Pulse Series

Model	RPR2006P	RPR2018P
Detector type	Log envelop detector	
Measuring function	CW power, Peak power, Envelop tracing	
Measurement speed	20 kSps, 100 kSps, 1 MSps	
Resolution	0,01 dB	
Measuring units	dBm or Watt	
RF input impedance	50 Ohm	
Input damage level	> +20 dBm	
Measurement range & accuracy		
Frequency range	(4 kHz) 9 kHz to 6 GHz	80 MHz to 18 GHz
Power measuring range	-55 dBm to +10 dBm (Usable to -60 dBm)	-45 dBm to +10 dBm (Usable to -50 dBm)
Frequency response accuracy (at 23°C ± 2°C)	+/- 0,25 dB (≤ 6 GHz)	+/- 0,25 dB (≤ 10 GHz) +/- 0,50 dB (> 10 GHz)
Linearity error	0,05 dB + 0,005 dB/dB (-50 dBm to +10 dBm)	0,025 dB / dB (-40 dBm to +10 dBm)
Temperature effect	0,15 dB max over full temperature range	
VSWR		
< 100 MHz	1,05	1,20
100 MHz to 2 GHz	1,15	1,20
2 GHz to 6 GHz	1,35	1,20
6 GHz to 18 GHz	n/a	1,35
Power Consumption		
Supply voltage	+5Vdc from USB port (4,75 V to 5,25 V)	
Current consumption (USB)	120 mA	160 mA
Connections & Demensions		
Dimensions of the power sensor (h * b * d)	124 * 32 * 32 mm	152 * 32 * 32 mm
RF input connector	N type precision	
USB connector	USB type B (1.1)	
Enviromental conditions		
Temperature range (operating)	0° to 40° Celsius	
Temperature range (storage)	-20 to 85° C	
Relative humidity	10 - 90% (non-condensing)	
Warranty (1)		
Warranty	3 years	
Model		
USB1004A		
Supply voltage	12 V	
Current consumption (USB)	100 mA max.	
Dimensions of the power sensor (h * b * d)	2U * 84TE * 250,4mm	
Data connector	USB type A (1.1)	
Number of power sensors per card	4 max.	
Temperature range (operating)	0° to 40° Celsius	
Temperature range (storage)	-20 to 85° C	
Relative humidity	10 - 90% (non-condensing)	

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www.emv-service.com



emv Service GmbH

Ohmstr. 11
83607 Holzkirchen
Germany

+49 8024 470 08-0
info@emv-service.com
www.emv-service.com