

## The RF/Burst Power Meter

*Extremely Fast · Robust · Flexible*

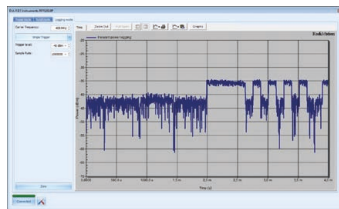
An adequate power meter is indispensable to perform reproducible and reliable RF power measurements. The RadiPower Pulse offers a range of RF power meters dedicated for RF/Burst power measurements. The RadiPower Pulse USB power heads are affordable, accurate and extremely fast. The RPR2006P provides 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.



# RadiPower® Pulse

## Technical Specifications



RadiPower Head	RPR2006P	RPR2018P
Detector type	Log detector	
Measurement function	RMS CW power, Peak power (max hold) and Envelop Tracing mode	
Calibrated frequency range	9 kHz <sup>1</sup> to 6 GHz	80 MHz to 18 GHz
Power measuring range	-55 dBm up to +10 dBm (Usable to -60 dBm)	-45 dBm up to +10 dBm (Usable to -50 dBm)
Input damage level	> +20 dBm	
Resolution	0,01 dB	
RF input impedance	50 Ohm	
Maximum SWR	1.05 @ below 100 MHz 1.15 @ 100 MHz to 2 GHz 1.35 @ 2 GHz to 6 GHz	1.20 @ 80 MHz to 6 GHz 1.35 @ 6 GHz to 18 GHz
Frequency response accuracy (at 23 °C ± 2 °C)	±0.25 dB (≤ 10 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)	0.25 dB / 10 dB (-40 dBm to +10 dBm)
Measuring speed	20 kSps, 100 kSps or 1 MSps	
Logging buffer 'Record Mode'	4.000 samples (maximum 2.000 pre-trigger and 2.000 post trigger)	
Temperature effect	0.15 dB over full temperature range	
Zero adjustment	Not required	
Measurement units	dBm or W	
Minimum RF burst width	2 µs	
Frequency response correction	Stored frequency response data is taken into account by numerical entry of the measurement frequency	

RadiPower Plug-in card (USB1004A)	
Form factor	Occupies one slot in a RadiCentre

Environmental conditions	Card & Head
Temperature range (use)	10 °C to 40 °C
Temperature range (storage)	-20 °C to 85 °C
Relative humidity	10% to 90% (non-condensing)

Connectors and cables	Head
To plug-in card or PC (data)	USB-B
USB Communication	USB 1.1
USB power consumption	<200 mA
RF input connector	Precision N-type
Warranty	3 years

Models	
USB1004A	Plug-in card for RadiCentre - 4 channels
RPR2006P	RadiPower RF Burst/Pulse power head, 6 GHz
RPR2018P	RadiPower RF Burst/Pulse power head, 18 GHz

<sup>(1)</sup> Depending on VBW setting

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