

RadiPower® Pulse

The RF/Burst Power Meter Extremely Fast • Accurate • 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 wide frequency range from 10 MHz till 6 GHz. The RPR2018P measures over a frequency range of 10 MHz till 18 GHz.

Extremely Fast

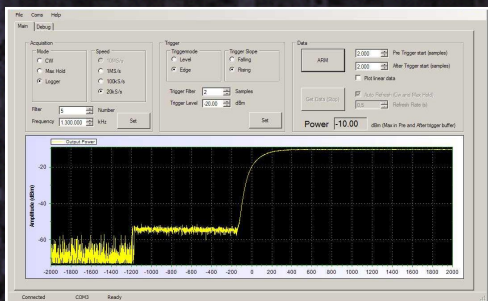
The RPR2006P and RPR2018P perform power measurements at a maximum sampling speed of 1 million samples per second! By using such a high sampling mode the power meter is able to measure RF Burst/Pulse signals with duration time down to 2µsec. Both power meters are capable of measuring CW as well.

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. The RPR2018P has a dynamic range of 55 dB. Both power meters provide an accuracy of 0.2 dB over the complete band 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. The USB1004A is designed to fit into the RadiCentre® EMC test system mainframes. Alternatively the RadiPower® Pulse heads can be connected directly to a PC USB port and controlled with the standard monitoring program.



Pulse-shape recording mode

The RadiPower® Pulse is not only able to extremely fast, it also has an internal measurement buffer that can store 2.000 samples. This 'Record mode' feature enables the user to visualize RF Burst signals in a very easy way. The control software that is supplied as standard with the power head supports pre- and post triggering features, to enable investigation of Burst/Pulse phenomena.

Ford RADAR Pulse test

Due to the extremely fast speed and the 'record mode' the RadiPower® Pulse are very suitable for measurements in accordance to the Automotive Ford standard EMC_CS_2009. This standard specifies an RF Radar Pulse test (RI-114) from 1.2 GHz to 1.4 GHz and 2.7 GHz to 3.1 GHz with Pulse duration (PD) time of 3µsec and a Pulse Repetition Rate (PRR) of 300 Hz. All these requirements are completely covered within the standard specifications of the RPR2006P and RPR2018P.

Software support

In case the RadiPower® Pulse is used in a RadiCentre®, it is software controllable with USB, RS-232 and/or IEEE-488. Beside this the RadiMation® integral EMC measurement software can be used to control the power meter. Finally the RadiPower® Pulse can be controlled by any other EMC measurement software package, as all instrument command codes to control the unit are made available.



Dijkstra Advice, Research & EMC Instruments B.V.
Vijzelmolenlaan 7 – NL-3447 GX Woerden
The Netherlands
Tel: +31(0)348 41 65 92
Fax: +31 (0348) 49 97 32
Internet: www.dare.nl
E-mail: instruments@dare.nl

The Standard for Consultancy, (Re)design
and Training in RF EMC and Product Safety

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Technical Specifications

RadiPower®		
RadiPower® Head	RPR2006P	RPR2018P
Detector type	: Diode detector	
Measurement function	: RMS CW power, Peak power mode and logging mode	
Calibrated frequency range	: 10 MHz to 6 GHz	: 10 MHz to 18 GHz
Power measuring range	: -55 dBm to +10 dBm	: - 45 dBm to + 10 dBm
Maximum SWR	: 1,05 @ 10 MHz to 100 MHz : 1,15 @ 100 MHz to 2 GHz : 1,35 @ 2 GHz to 6 GHz	: 1,20 @ 10 MHz to 10 GHz : 1,35 @ 10 GHz to 18 GHz
Frequency response accuracy (at 23°C ± 2°C)	: ± 0,25 dB	: ± 0,25 dB (≤ 10 GHz) ± 0,50 dB (> 10 GHz)
Linearity error	: 0,05 dB/10 dB (0 dBm reference point)	
Input damage level	: > +20 dBm	
Resolution	: 0,01 dB	
RF input impedance	: 50 Ohm	
Measuring speed	: 1Msps, 100kSps or 20kSps (software selectable)	
Logging buffer 'Record Mode'	: 2.000 samples (maximum 2.000 pre-trigger and 2.000 post trigger)	
Temperature effect	: 0,15 dB over full temperature range	
Frequency response correction	: Stored frequency response data is taken into account by numerical entry of the measurement frequency	
Minimum RF burst width	: 2 µs	
Measurement units	: dBm	
RadiPower® Plug-in card (USB1004A)		
Form factor	: Occupies one slot in a RadiCentre®	

Environmental conditions	Card & Head
Temperature range (use)	: +20 ⁰ C - +40 ⁰ C
Temperature range (storage)	: 0 ⁰ C - + 85 ⁰ C
Relative humidity	: 10 – 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

More information

For more information contact:
D.A.R.E!! Instruments at:
+31 (0)348 41 65 92 or instruments@dare.nl
Internet: www.dare.nl

Distributed by:

Dijkstra Advice, Research & EMC Instruments B.V.
Vijzelmolenlaan 7 – NL-3447 GX Woerden - The Netherlands
Tel: +31(0)348 41 65 92, Fax: +31 (0)348 49 97 32
Internet: www.dare.nl
E-mail: instruments@dare.nl

