

4540 Peak Power Meter



PRELIMINARY

Taking performance to a new peak

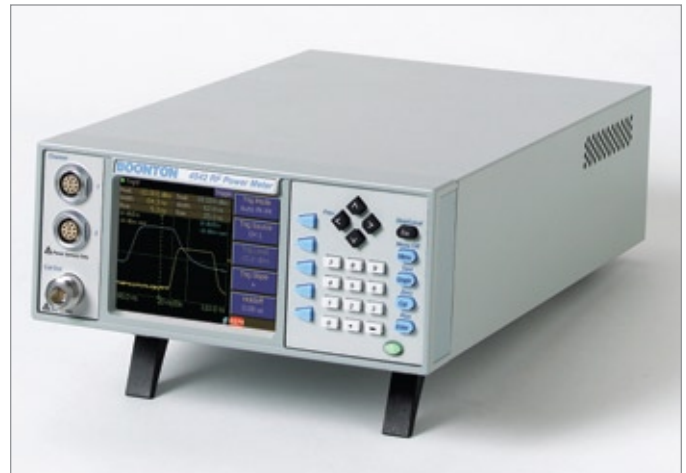
4540 Peak Power Meter

The Boonton model 4540 Series is the instrument of choice for capturing, displaying and analyzing RF power in both the time and statistical domains. Applications include pulsed RF signals such as radar, TDMA and GSM, pseudorandom or noise-like signals such as CDMA and WLAN and WiMAX.

The 4540 Series is a single- or dual-channel RF Power Meter that can measure modulated or CW signals with Boonton power sensors. It will accept a wide range of Boonton sensors, including passive CW diode and thermal, and peak detector models.

The 4540 Series has three operating modes: Pulse, Statistical, and Modulated/CW and features:

- High Bandwidth Wide Dynamic Range Sensors
- Intuitive User Interface
- 4" color LCD display
- 200psec time resolution
- Statistical analysis including CCDF
- Text view of 15 time and power measurements per channel
- GPIB, USB and LAN



4540 Series Specifications

Sensor Inputs

| | |
|-----------------------|-----------------------------|
| RF Channels | 1 or 2 |
| RF Frequency Range | 1MHz to 110GHz* |
| Peak Pwr range | -55 to +20dBm* |
| CW Pwr range | -70 to +44dBm* |
| Relative Offset Range | +/- 100.00dB |
| Single Shot Bandwidth | 5MHz |
| | (based on 10 samples/pulse) |
| Video BW | 70MHz* |
| Risetime | 7ns* |

Acquisition and Measurement System

| | |
|-----------------|-----------------------|
| Time resolution | 0.2ns |
| A/D Converter | 14 bit |
| DSP | 32 bit floating point |

Trigger

| | |
|---------------------------|----------------|
| Ext Trig range, impedance | +/-5V, 1 M Ohm |
| Min trig pulse width | 15ns |
| Max trig rate | 30MHz |

* Sensor Dependent



Pulse Mode Automated Measurements

| | |
|----------------------------|--|
| Pulse width | Pulse power |
| Pulse rise-time | Overshoot (dB or %) |
| Pulse fall-time | Waveform Average power |
| Pulse period | Top level power |
| Pulse repetition frequency | Bottom level power |
| Pulse duty cycle | Pulse delay (2 channel instruments only) |
| Pulse off-time | Peak power |
| Edge delay | |

Statistical Mode Automated Measurements

| | |
|-----------------------|-------------------------------------|
| Peak power | Power or Percent at cursor |
| Average power | Percent |
| Minimum power | Total time (indicated) |
| Peak to Average ratio | Total number of samples (indicated) |
| Dynamic Range | |

User I/O Signals

| | |
|----------------|---------------------|
| Sensors | USB device |
| Calibrator | Recorder/Status Out |
| GPIB | Trigger Out |
| Ethernet (LAN) | |

Calibrator Source

| | |
|---------------------|-------------------------|
| Internal Calibrator | 50MHz, CW -60 to +20dBm |
|---------------------|-------------------------|

Pulse and Modulated Mode Marker Measurements

| | |
|----------------------------|---|
| Markers (Vertical Cursors) | Settable in time relative to the trigger position |
| Marker Independently | Power at specified time |
| Pair of Marker | Power at two specified times with ratio or average power between them. The minimum and maximum power between the markers and the ratio or average power between them. The average power, peak power (hold) and peak-to average power ratio between the markers. |
| Lines (Horizontal Cursors) | Settable in power |
| Automatic Tracking | Intersection of either marker and the waveform. Either marker and pulse distal, mesial or proximal levels. |

Other Characteristics

| | |
|--------------|-------------------------------|
| Display type | 4" Color LCD (320x240) |
| Keyboard | 22 key, conduct rubber |
| Dimensions | 8.2" x 3.5" x 16.5" |
| | 20.8cm x 8.9cm x 34.3cm |
| | Half rack, 2U |
| Weight | 3.5kg / 7.7lbs |
| Power Supply | Universal Input 80 to 264 VAC |



Ordering Information

| | |
|------|---|
| 4540 | RF Peak Power Analyzer, single channel, front panel inputs. |
| -01 | Dual channel, front panel inputs |
| -02 | Single channel, rear panel inputs |
| -03 | Dual channel rear panel inputs |
| -06 | Trigger outputs (rear panel only) |
| -07 | Calibrator, rear panel output |
| -30 | Warranty extended to 3 years |

Wireless Telecom Group Inc.
 Parsippany, NJ 07054
 USA
 Tel: +1 973 386 9696
 Fax: +1 973 386 9191
 boonton@boonton.com
 www.boonton.com

Wireless Telecom Group
 Cheadle Hulme, Cheshire
 United Kingdom
 Tel: +44 (0) 161 486 3353
 Fax: +44 (0) 161 486 3354

Wireless Telecom Group
 Roissy
 France
 Tel: +33 (0) 1 72 02 30 30
 Fax: +33 (0) 1 49 38 01 06

Wireless Telecom Group
 Ismaning
 Germany
 Tel: +49 (0) 89 996 41 0
 Fax: +49 (0) 89 996 41 440

Wireless Telecom Group.
 Singapore
 Tel: +65 6827 9670
 Fax: +65 6827 9601

Wireless Telecom Group
 Shanghai
 China
 Tel: +86 21 5835 8039
 Fax: +86 21 5835 5238

© Copyright 2008

Boonton
 A Wireless Telecom Group Company

All rights reserved.
 Note: Specifications, terms and conditions are subject to change without prior notice.