

BOONTON ELECTRONICS

4500A

The Boonton Electronics 4500A is a high-performance RF Peak Power Analyzer designed for capturing, displaying, and analyzing fast RF power pulses. Featuring standard dual RF channels, a high-resolution color display, and a built-in 1.002 GHz step calibrator, the 4500A is optimized for demanding radar, electronic warfare, and wireless communication testing applications.

SPECIFICATIONS

General

Interfaces	GPIB (IEEE-488), RS-232, Centronics Parallel, VGA out
Display	Color TFT LCD, 640×480 resolution
Removable Storage	3.5-inch 1.44 MB floppy disk drive
Internal Setup Storage	Up to 10 instrument configurations in non-volatile RAM

Physical

Power Supply	90 to 260 V AC, 47 to 63 Hz, 120 VA max
Operating Temperature	0 to 50 °C °C
Dimensions (W×H×D)	438×178×470 mm mm
Weight	14 kg kg

Input Channels & Configuration

Optional Analog Channels	2 (for voltage inputs)
Compatible Sensors	Boonton 56000 and 57000 series peak power sensors

Measurement Ranges & Performance

Frequency Range	30 MHz to 40 GHz (sensor dependent)
Power Dynamic Range	-40 dBm to +20 dBm (sensor dependent)
Rise Time	< 15 ns (sensor dependent)
Timebase Range	5 ns/div to 1 h/div

Internal Calibrator

Calibrator Source Frequency	1.0025 GHz
Calibrator Power Range	-40 to +20 dBm

Triggering

Trigger Sources	Channel 1, Channel 2, External
External Trigger Input	BNC, TTL compatible
Trigger Modes	Auto, Normal, Free Run, Single-Shot
Trigger Slope	Positive or Negative

Physical & Environmental

Rackmount Compatibility	Standard 19-inch rack-mountable
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Performance

Single-Shot Sampling Rate	1 MSa/s per channel
Effective Sampling Rate	25 MSa/s (for repetitive signals)
Video Bandwidth	Up to 30 MHz (sensor dependent)
Timebase Jitter	< 50 ps RMS

Display & Scale

Vertical Scale (Logarithmic)	0.1 to 10 dB/div in 1-2-5 sequence
Vertical Scale (Linear)	1 nW/div to 100 MW/div

Measurement

Statistical Functions	CDF, CCDF, PDF
Automatic Pulse Measurements	Rise time, fall time, pulse width, off-time, period, duty cycle, peak power, average power, pulse power, overshoot, delay, crest factor

Calibrator

Calibrator Output Connector	Type N (female), front panel
Calibrator VSWR	< 1.20 @ 1.0 GHz
Calibrator Power Accuracy (at 0 dBm)	±0.065 dB (±1.5%)
Calibrator Power Accuracy (-10 to +10 dBm)	±0.09 dB (±2.1%)

Environmental

Storage Temperature	-40°C to +75°C
Relative Humidity	95% RH, non-condensing
Operating Altitude	4,572 m (15,000 ft)
Non-operating Altitude	15,240 m (50,000 ft)

Inputs & Outputs

Recorder Outputs	Rear panel BNC connectors, 0 to 10 V into >10 kOhm
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Horizontal System

Timebase Accuracy	±0.01%
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Display

Display Resolution (Logarithmic)	0.1, 0.01, or 0.001 dB
Display Resolution (Linear)	1 to 4 significant digits

TECHNOLOGY

RF Peak Power Analysis

APPLICATIONS

Radar, EW, and Wireless Pulsed Signal Measurement

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.