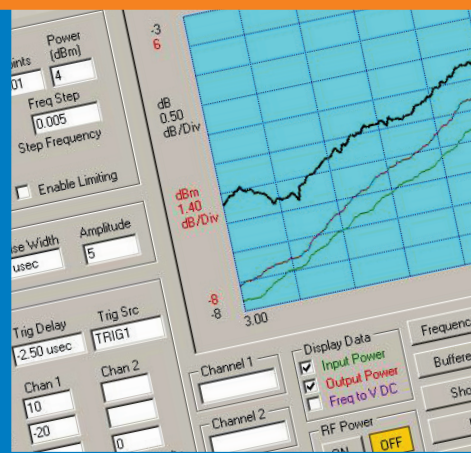




Data Sheet

Amplifier Test Bench



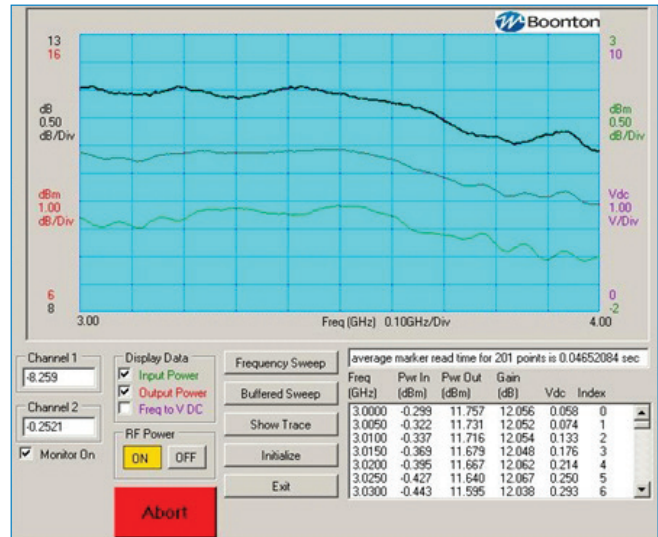
Taking performance to a new peak

Amplifier Test Bench

Boonton's Amplifier Test Bench is a powerful software tool especially designed for efficient and accurate, test verification and analysis of high power or small signal RF amplifiers. The software works with Boonton 4540 and 4500B power meters and is equally suited for pulsed, continuous or random (noise-like) signals. Supported frequencies are sensor dependent and range from 10MHz to 40GHz.

Features

- Automatic testing of RF amplifier parameters (pulsed and continuous)
- Measures gain over frequency, gain over input power and combinations.
- Measures VSWR and return loss over frequency (requires directional bridge).
- Plots frequency vs. power responses with one or multiple traces on the display.
- Measures input and output power simultaneously.
- Significant improvements in accuracy compared with average power measurements.
- Very detailed signal analysis.
- Many popular signal generators are supported and others can be easily adapted.



Screenshots

The instrument setting of Amplifier Test Bench is easy. Basic parameters like start, stop frequency and power for the signal generator or pulse period and pulse width for the pulse generator are simply entered at the user screen.

Whether a Boonton 4540 or 4500B Power meter is used, additional settings for horizontal and vertical display scale and offset can be entered as well. To analyze a particular portion of a pulse, a time marker can be positioned on a particular interval. Multiple acquisitions are useful for long term testing or temperature variation measurements. (Figure 2).

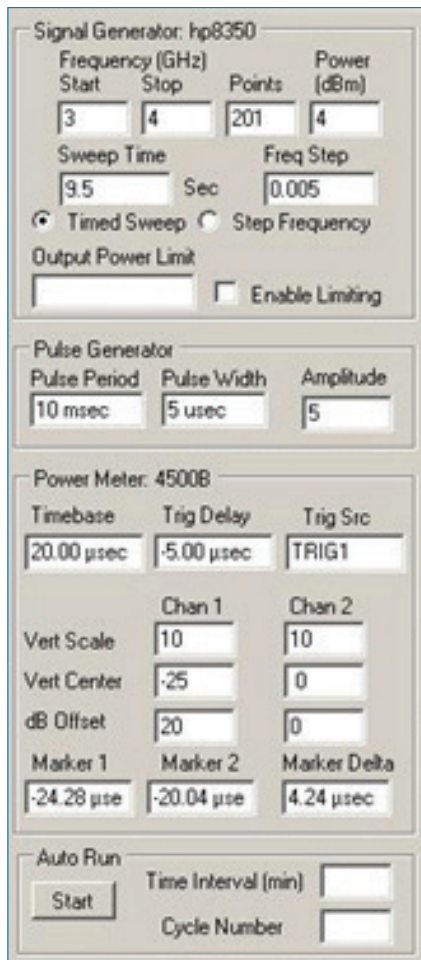


Figure 2

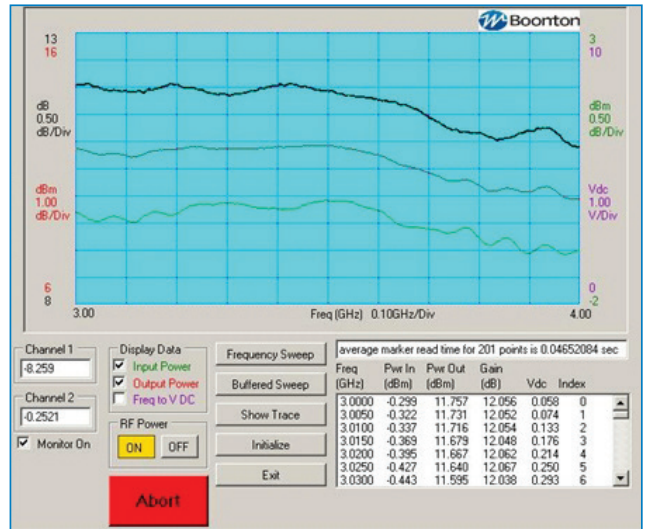


Figure 3

The measurement data can be represented in tabular or graphic format. Detailed information about every measurement point is available in the result table. The graphic in Figure 3 shows the input, the output and the gain over a frequency range of 3 GHz to 4 GHz.

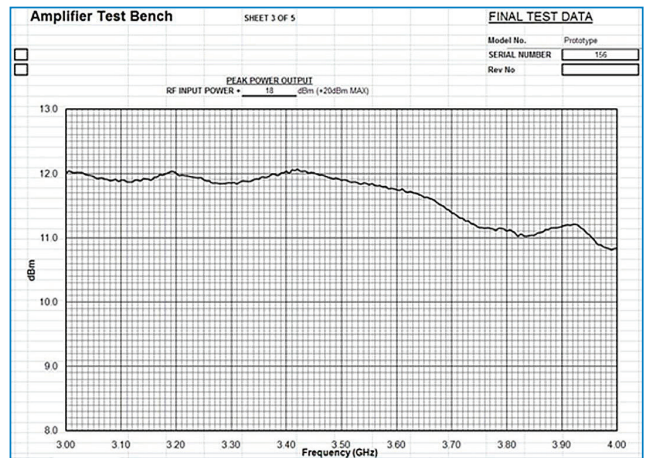
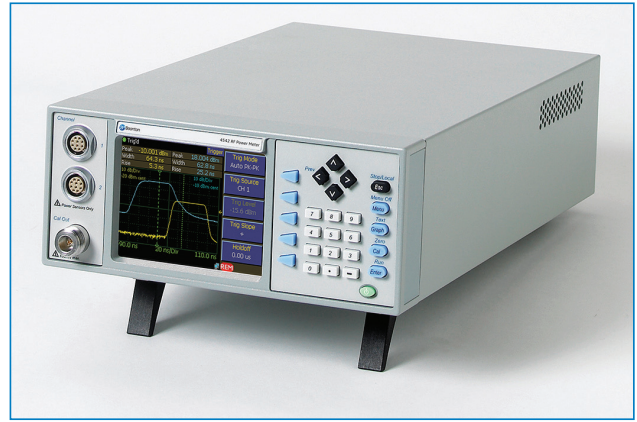


Figure 4

Documentation is often mandatory for quality or proof of the amplifier performance. Amplifier Test Bench can create plots by exporting data to Excel®. Amplifier Test bench comes with an Excel® template (Freqresponse.xls) to quickly create a plot and information like the serial number from the DUT can be automatically added to the plot (Figure 4).



Boonton 4500B Peak Power Meter



Boonton 4540 RF Power Meter

Ordering Information

Software Packages for Windows® W2K, XP and W7

Model

Amplifier Test Bench

*Complementary

NOTE: Complementary software with the purchase of Boonton 4500B or 4540 Peak meter

Related Equipment

Model	Frequency	Rise Time	Dynamic Range
4500B Peak Power Meter	1 MHz to 40 GHz		
4540 RF Power Meter	10 kHz to 40 GHz		
57006 Wideband Peak Power Sensor	0.5 to 6 GHz	<7ns	-50 to +20 dBm
59318 Wideband Peak Power Sensor	0.5 to 18 GHz	<10ns	-24 to +20 dBm
59340 Wideband Peak Power Sensor	0.5 to 40 GHz	<10ns	-24 to +20 dBm
57518 Wideband Peak Power Sensor	0.1 to 18 GHz	<100ns	-40 to +20 dBm
57540 Wideband Peak Power Sensor	0.1 to 40 GHz	<100ns	-40 to +20 dBm

