8540 Series Universal Power Meters

Fast, Accurate CW And Peak Power Measurements From A Single Power Meter.

UNIVERSAL POWER MEASUREMENT

Now, for the very first time, you can make CW *and* peak power measurements quickly and accurately with a single meter — a Universal Power Meter.

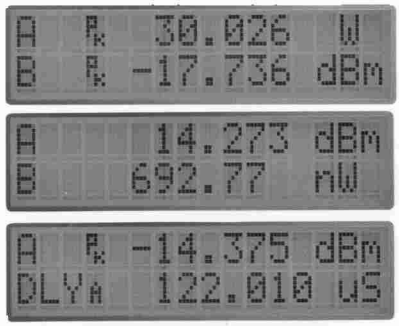
And all for about the same price you would expect to pay for a CW *only* power meter.

POWER MEASUREMENTS INSTANTLY

Imagine seeing display updates instantly. Measurement speeds over the GPIB exceeding 200 readings per second and an exclusive Burst Mode capturing more than 2,000 readings in the same tick of a clock.

And because the 8540 Series uses diode sensors, you can measure all the way from -70 to +20 dBm with the same sensor, and without range changing delays. Think about what this will do for your ATE productivity as well as for your company's bottom line.

Giga-tronics offers a range of sensors for measuring CW power from 10 MHz to 40 GHz, some with a full 90 dB dynamic range.



A two-line back lit LCD display provides high contrast and a wide viewing angle. The display lets you set the desired resolution and select either Lin or Log readout for each line.

JUST PLUG IT IN

If you're worried about having to write new code for your computer controlled testing, don't be: The 8540 Series uses the same GPIB command set as HP's 436A, 437B and 438A.

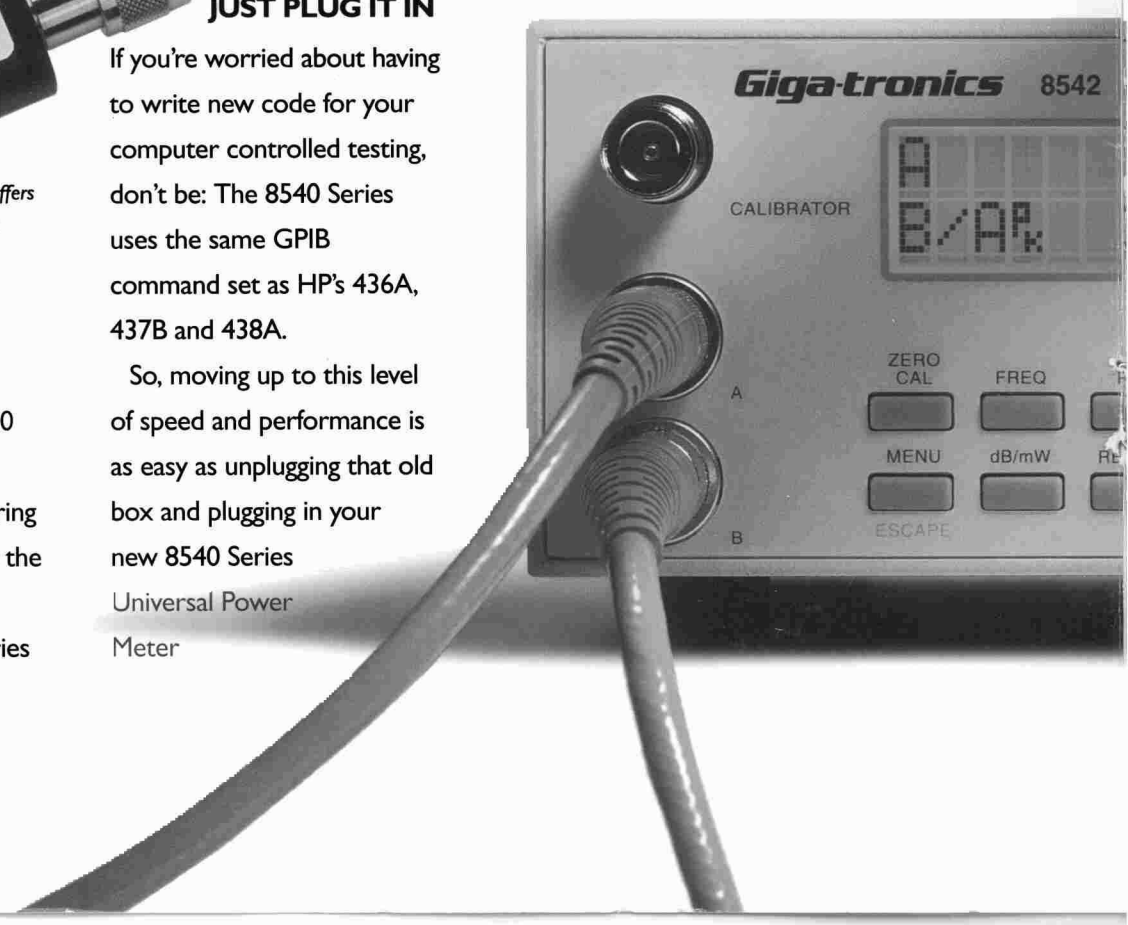
So, moving up to this level of speed and performance is as easy as unplugging that old box and plugging in your new 8540 Series Universal Power Meter

FAST, EASY PEAK POWER MEASUREMENT

Now, an easy-to-use CW power meter can also measure pulsed RF signals with the simple addition of a peak power sensor.

There are no time-consuming, unreliable duty cycle corrections, and you'll get the same accuracy and speed you'd get with a much-more-expensive dedicated peak power meter.

View the pulsed signal's amplitude profile on a scope and see the exact power measurement point on the pulse.



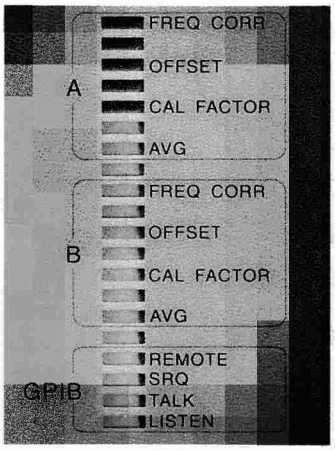
You'll be confident of your peak power readings without sacrificing any of the benefits of having an incredibly fast CW power meter.

Padded soft carry case has pockets for accessories.

ONE OR TRUE TWO CHANNEL OPERATION

If a single-channel meter is what you need, the Model 8541 is the meter for you. But if you need two-channel capability, prepare yourself for a pleasant surprise: With the Model 8542, you can see readings from both channels *simultaneously*.

Use one line for CW and the other for peak measurements, and see both readings at the same time. Or display readings in dB on one line and mW on the other for gain and output power.



Twenty LEDs confirm your selections, show you the status of GPIB operation and function as an electronic peaking meter.

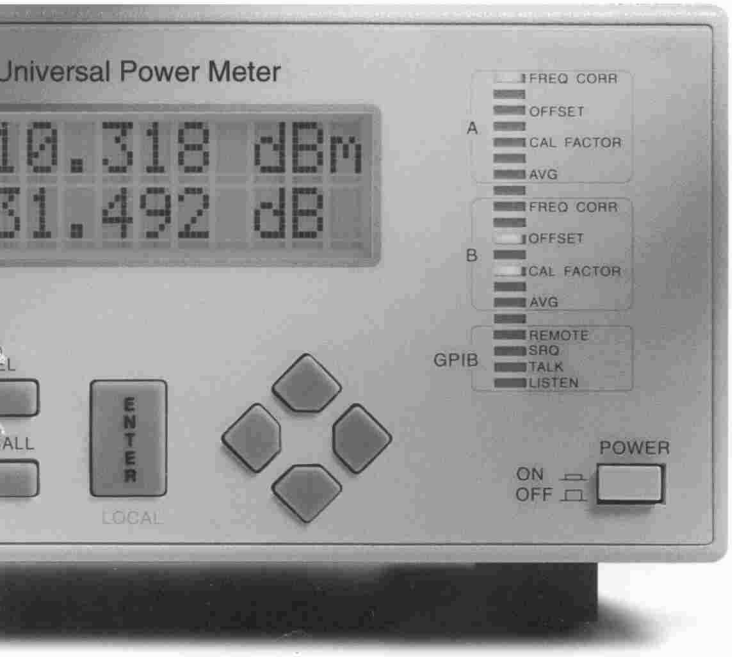
SIMPLE, INTELLIGENT OPERATION

The 8540 Series has only half as many controls as other power meters, but don't let that fool you. Intelligent design and sophisticated software give you easy access to extensive built-in capabilities.

For example, you use the same key to zero and calibrate the power sensors. The meter automatically determines the function you want by detecting whether a sensor is connected to the calibrator.

A two-line LCD display shows prompts for instrument settings, as well as measurements. While a twenty-segment LED bargraph shows instrument status and also acts as a peaking display.

Giga-tronics exclusive peak power sensors let you measure pulsed signals directly and accurately.



The 8540 Series features intelligent design and sophisticated software. The result is a simplified front panel and extensive built-in capabilities that prevent many common operational mistakes that typically lead to inaccurate measurements.

The Secret Is The Sensors

The Giga-tronics 8540 Series delivers incredible performance by taking full advantage of the speed and dynamic range of diode sensors.

ACCURACY OVER A 90 DB RANGE

Giga-tronics has solved the challenge that previously limited diode sensors to the "square law" region—below -20 dBm—by utilizing a built-in power sweep calibration system.

The power sweep calibrator uses a 50 MHz amplitude controlled oscillator to step from -30 to +20 dBm in 1 dB increments. Each step is set using an internal thermistor—the standard for linearity.

The sensor being calibrated is connected to the calibrator output and the corresponding voltage for each power level is stored in a look-up table in the power meter. When the sensor is connected to your device under test, the output power can be accurately displayed referencing the diode output voltage to the look-up table.

You get thermistor linearity, plus diode speed and dynamic range, for measuring signals accurately over a full 90 dB power range.

BUILT-IN FREQUENCY RESPONSE CALIBRATION

Correcting for sensor frequency response is easy, too. Each sensor contains an EEPROM programmed with the frequency Cal Factors measured at the factory or in your own cal lab. When you key in the frequency at which power is being measured, the instrument automatically applies the correct Cal Factor from the sensor EEPROM. It's a much easier way to handle

Accuracy Audit

Assume the power meter is being used to measure the output power at 10 GHz from a source with a of VSWR=1.5:1. Displayed power level is -25 dBm. Noise and mismatch calculations assume Standard CW Power Sensors.

	RSS	Worst Case
System Linearity at 50 MHz	0.5%	0.5%
Power Linearity at -25 dBm and 10 GHz	0.000%	0.000%
Calibrator Uncertainty at 50 MHz	1.2%	1.2%
Calibrator/Sensor Mismatch at 50 MHz	0.3%	0.3%
Calibration Factor Uncertainty at 10 GHz	1.9%	3.6%
Zero Error	0.0016%	0.0016%
Noise	0.0016%	0.0016%
Mismatch (Sensor/Source)	4.0%	4.0%
Total	**4.62%**	**9.6%**

Here's how to determine worst case and RSS values of measurement uncertainty. Accuracy of relative measurements is determined by Zero Error, Noise and Linearity.

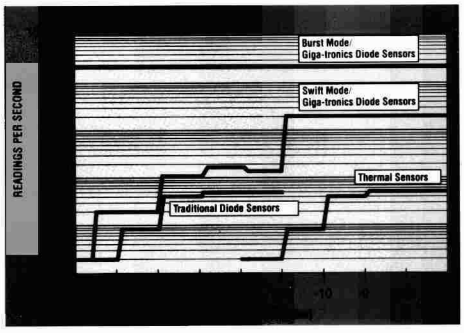
Continuous Mode Reading Rates

Measurement speed increases significantly using the 8540's data storage capabilities. Storing data in the power meter's memory for later down loading to your controller reduces GPIB protocol overhead. Up to 128,000 readings can be buffered. The table below illustrates typical maximum measurement rates for 80300 Series CW power sensors or 80340 Series Peak Power Sensors.

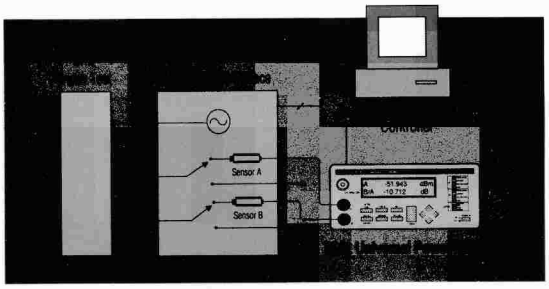
Normal Mode	Swift Mode	Swift Mode	Burst Mode
Continuous Single Readings	Cont or Buffered Bus/TTL Trg.	Cont or Buffered Free-Run Trg.	Buffered Data Time Intv.=0
>30 rdgs/s	>175 rdgs/s	>200 rdgs/s	2600 rdgs/s

Measurement rate depends on several factors including controller speed and number of averages. Burst Mode speed shown does not include bus communication time.

Data is read immediately after measurement in the "display on" Normal Mode. Both Normal Mode and Swift Mode "slow down" at low power levels [<-37dBm for Standard Sensors] to average the effects of noise. Swift Mode allows triggering of individual data points, and can store the data in the 8540's memory. Burst Mode also buffers measurement data. Triggering is controlled by setting the time interval between measurements in ms.



Just look at the improvement in speed you'll get with Giga-tronics diode sensors, regardless of the operating mode.



Cut your measurement time and reduce switching complexity by using one Giga-tronics 90 dB sensor instead of the two 50 dB sensors you were once forced to use.

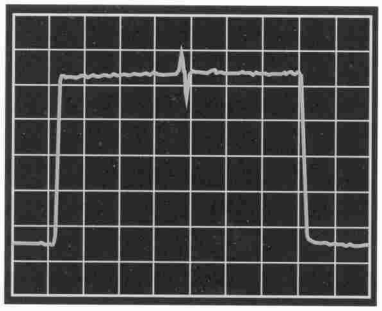
Cal Factors, and avoids the chance of errors from reading a table or graph.

It's also a great time saver on GPIB systems, since you don't have to manually enter a new set of Cal Factors every time you change sensors.

SENSORS FOR EVERY NEED

We offer a full range of CW and Peak sensors tailored to your specific needs. Our sensors cover frequency ranges from 10 MHz to 40 GHz with up to 90 dB dynamic range. There are 1 to 50 Watt high power sensors, too.

Use our diode-based True RMS sensors to accurately measure quadrature modulated signals, intermodulation distortion power and 1 dB gain compression. Use our low VSWR sensors for unequalled CW measurement accuracy. Or connect a Precision Return Loss Bridge and measure Return Loss or VSWR using only a single channel.

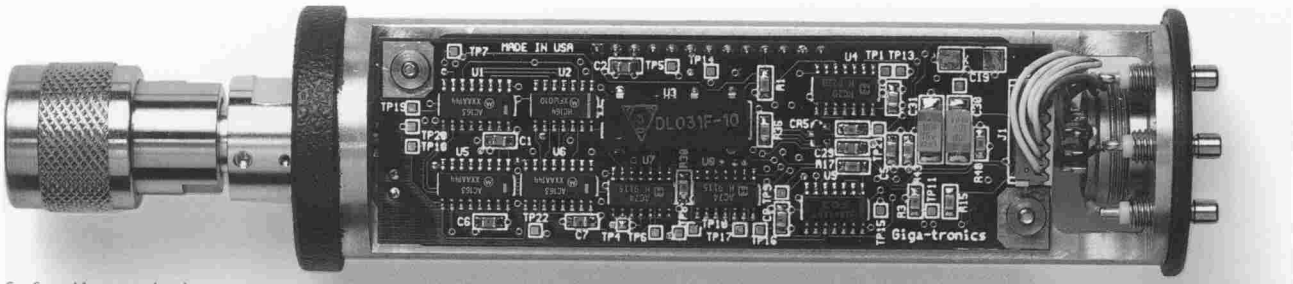


The peak power sensor adds a marker onto a monitor output for viewing the exact measurement point on pulsed signals.

With all you've got to do, imagine the time you'll save.

But why just imagine? Call your local Giga-tronics representative to get your hands on an 8540 Series Universal Power Meter and start measuring CW *and* peak power in an instant.

Giga-tronics peak power sensors provide true peak power measurement capability with the same ease of use as CW sensors.



Surface Mount technology assures greater sensor accuracy and reliability.

CW Power Sensor Selection Guide

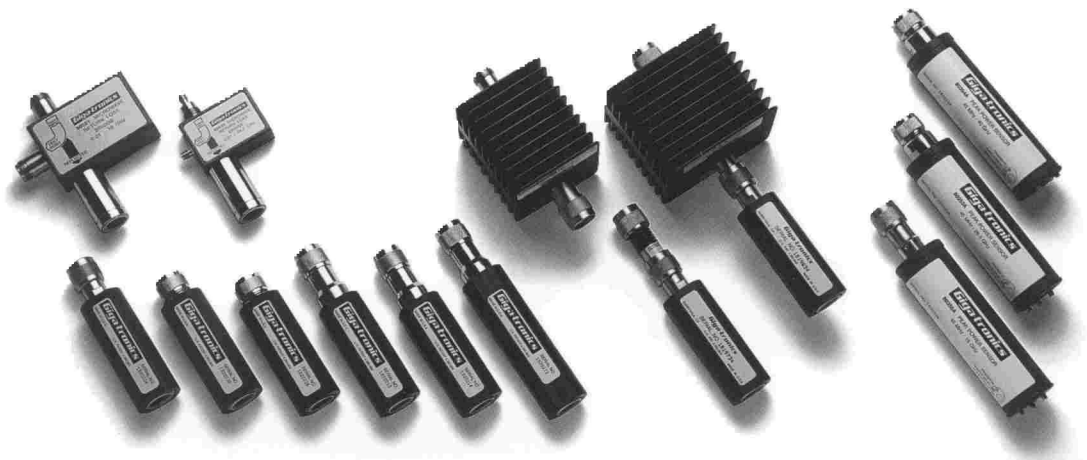
	Frequency Range/ Power Range	Maximum Power	Power Linearity [4] (Freq.>8 GHz)	VSWR		RF Connector	Dimensions Length	Dimensions Diameter	Weight
Standard CW Sensors									
80301A	10 MHz to 18 GHz -70 to +20 dBm	+23 dBm (200 mW)	-70 to -20 dBm: ±0.00 dB -20 to +20 dBm: ±0.05 dB/10 dB	10 MHz - 2 GHz; 2 GHz - 12.4 GHz; 12.4 GHz - 18 GHz;	1.12 1.22 1.29	Type N(m) 50Ω	114.5 mm (4.5 in)	32 mm (1.25 in)	0.18 kg (0.4 lb)
80302A	10 MHz to 18 GHz -70 to +20 dBm	+23 dBm (200 mW)	-70 to -20 dBm: ±0.00 dB -20 to +20 dBm: ±0.05 dB/10 dB	10 MHz- 2 GHz; 2 GHz - 12.4 GHz; 12.4 GHz - 18 GHz;	1.12 1.22 1.29	APC-7 50Ω	114.5 mm (4.5 in)	32 mm (1.25 in)	0.18 kg (0.4 lb)
80303A	10 MHz to 26.5 GHz -70 to +20 dBm	+23 dBm (200 mW)	-70 to -20 dBm: ±0.00 dB -20 to +20 dBm: ±0.1 dB/10 dB	10 MHz - 2 GHz; 2 GHz - 12.4 GHz; 12.4 GHz - 18 GHz; 18 GHz - 26.5 GHz;	1.12 1.22 1.38 1.43	Type K(m)[1] 50Ω	114.5 mm (4.5 in)	32 mm (1.25 in)	0.18 kg (0.4 lb)
80304A	10 MHz to 40 GHz -70 to 0 dBm	+23 dBm (200 mW)	-70 to -20 dBm: ±0.00 dB -20 to 0 dBm: ±0.2 dB/10 dB	10 MHz - 2 GHz; 2 GHz - 12.4 GHz; 12.4 GHz - 18 GHz; 18 GHz - 26.5 GHz; 26.5 GHz - 40 GHz;	1.12 1.22 1.38 1.43 1.92	Type K(m)[1] 50Ω	114.5 mm (4.5 in)	32 mm (1.25 in)	0.18 kg (0.4 lb)
1W High Power CW Sensors									
80320A	10 MHz to 18 GHz -60 to +30 dBm	+30 dBm (1 W)	-60 to -10 dBm: ±0.00 dB -10 to +30 dBm: ±0.05 dB/10 dB			Type K(m)[1] 50Ω	127 mm (5.0 in)	32 mm (1.25 in)	0.23 kg (0.5 lb)
80323A	10 MHz to 26.5 GHz -60 to +30 dBm		-60 to -10 dBm: ±0.00 dB -10 to +30 dBm: ±0.1 dB/10 dB	10 MHz - 2 GHz; 2 GHz - 12 GHz; 12 - 18 GHz; 18 GHz - 26.5 GHz; 26.5 GHz - 40 GHz;	1.11 1.12 1.18 1.22 1.36				
80324A	10 MHz to 40 GHz -60 to +10 dBm		-60 to -10 dBm: ±0.00 dB -10 to +10 dBm: ±0.2 dB/10 dB						
5W High Power CW Sensor [2]									
80321A	10 MHz to 18 GHz -50 to +37 dBm	+37 dBm (5 W)	-50 to 0 dBm: ±0.00 dB 0 to +37 dBm: ±0.05 dB/10 dB	10 MHz - 4 GHz; 4 GHz - 8 GHz; 8 GHz - 12.4 GHz; 12.4 GHz - 18 GHz;	1.15 1.20 1.25 1.35	Type N(m) 50Ω	150 mm (5.9 in)	32 mm (1.25 in)	0.23 kg (0.5 lb)
25W High Power CW Sensor [3]									
80322A	10 MHz to 18 GHz -40 to +44 dBm	+44 dBm (25 W)	-40 to +10 dBm: ±0.00 dB +10 to +44 dBm: ±0.05 dB/10 dB	10 MHz - 6 GHz; 6 GHz - 12.4 GHz; 12.4 GHz - 18 GHz;	1.20 1.30 1.40	Type N(m) 50Ω	230 mm (9.0 in)	104 mm (4.1 in)	0.3 kg (0.6 lb)
50W High Power CW Sensor [3]									
80325A	10 MHz to 18 GHz -40 to +47 dBm	+47 dBm (50 W)	-40 to +10 dBm: ±0.00 dB +10 to +47 dBm: ±0.05 dB/10 dB	10 MHz - 6 GHz; 6 GHz - 12.4 GHz; 12.4 GHz - 18 GHz;	1.25 1.35 1.45	Type N(m) 50Ω	230 mm (9.0 in)	104 mm (4.1 in)	0.3 kg (0.6 lb)
True RMS Sensors (-30 to +20 dBm)									
80330A 80333A 80334A	10 MHz to 18 GHz 10 MHz to 26.5 GHz 10 MHz to 40 GHz	+33 dBm (2 W)	-30 to +20 dBm: ±0.00 dB	10 MHz - 12 GHz; 12 GHz - 18 GHz; 18 GHz - 26.5 GHz; 26.5 GHz - 40 GHz;	1.12 1.15 1.18 1.29	Type K(m)[1] 50Ω	152.5 mm (6.0 in)	32 mm (1.25 in)	0.27 kg (0.6 lb)
Low VSWR CW Sensors									
80310A	10 MHz to 18 GHz -64 to +26 dBm	+29 dBm (800 mW)	-64 to -14 dBm: ±0.00 dB -14 to +26 dBm: ±0.05 dB/10 dB			Type K(m)[1] 50Ω	127 mm (5.0 in)	32 mm (1 25 in)	0.23 kg (0.5 lb)
80313A	10 MHz to 26.5 GHz -64 to +26 dBm		-64 to -14 dBm: ±0.00 dB -14 to +26 dBm: ±0.1 dB/10 dB	10 MHz - 2 GHz; 2 MHz - 12 GHz; 12 MHz - 18 GHz; 18 MHz - 26.5 GHz; 26.5 MHz - 40 GHz;	1.13 1.16 1.23 1.29 1.50				
80314A	10 MHz to 40 GHz -64 to +6 dBm		-64 to -14 dBm: ±0.00 dB -14 to +6 dBm: ±0.2 dB/10 dB						
Precision CW Return Loss Bridges						**Input**	**Test Port**	**Directivity**	
80501	10 MHz to 18 GHz -35 to +20 dBm	+27 dBm (0.5 W)	-35 to +10 dBm: ±0.1 dB +10 to +20 dBm: ±0.1 dB ±0.005 dB/dB	10 MHz - 8 GHz; 8 GHz - 18 GHz;	<1.17 <1.27	Type N(f) 50Ω	Type N(f) 50Ω	38 dB	0.340 kg (12 oz.)
80504	10 MHz to 40 GHz -35 to +20 dBm	+27 dBm (0.5 W)	-35 to +10 dBm: ±0.1 dB +10 to +20 dBm: ±0.1 dB ±0.005 dB/dB	10 MHz - 8 GHz; 8 GHz - 18 GHz; 18 GHz - 26.5 GHz; 26.5 GHz - 40 GHz;	<1.35 <1.35 <1.35 <1.44	Type K(f) 50Ω	Type K(f) 50Ω	30 dB	0.198 kg (7 oz.)

[1] The K connector is electrically and mechanically compatible with the APC-3.5 and SMA connectors. [2] Power coefficient equals dB/Watt.
[3] Power coefficient equals <0.015 dB/Watt. [4] For frequencies above 8 GHz, add power linearity to system linearity.

Peak Power Sensor Selection Guide[13]

	Frequency Range/ Power Range	Maximum Power	Power Linearity [8] (Freq.>8 GHz)	VSWR		RF Connector	Dimensions Length	Dimensions Diameter	Weight
Standard Peak Power Sensors									
80350A	45 MHz to 18 GHz -20 to +20 dBm, Peak -30 to +20 dBm, CW	+23 dBm (200 mW) CW or Peak	-30 to -20 dBm: ±0.00 dB -20 to +20 dBm: ±0.05 dB/10 dB	45 MHz - 2 GHz; 2 GHz - 12.4 GHz; 12.4 GHz - 18 GHz;	1.12 1.22 1.37	Type N(m) 50Ω	165 mm (6.5 in)	37 mm (1.25 in)	0.3 kg (0.7 lb)
80353A	45 MHz to 26.5 GHz -20 to +20 dBm, Peak -30 to +20 dBm, CW	+23 dBm (200 mW) CW or Peak	-30 to -20 dBm: ±0.00 dB -20 to +20 dBm: ±0.1 dB/10 dB	45 MHz- 2 GHz; 2 GHz - 12.4 GHz; 12.4 GHz - 18 GHz; 18 GHz - 26.5 GHz;	1.12 1.22 1.37 1.50	Type K(m) [5] 50Ω	165 mm (6.5 in)	37 mm (1.25 in)	0.3 kg (0.7 lb)
80354A	45 MHz to 40 GHz -20 to +0.0 dBm, Peak -30 to +0.0 dBm, CW	+23 dBm (200 mW) CW or Peak	-30 to -20 dBm: ±0.00 dB -20 to 0.0 dBm: ±0.2 dB/10 dB	45 MHz - 2 GHz; 2 GHz - 12.4 GHz; 12.4 GHz - 18 GHz; 18 GHz - 26.5 GHz; 26.5 GHz - 40 GHz;	1.12 1.22 1.37 1.50 1.92	Type K(m) [5] 50Ω	165 mm (6.5 in)	37 mm (1.25 in)	0.3 kg (0.7 lb)
5W Peak Power Sensor [6, 9]									
80351A	45 MHz to 18 GHz 0.0 to +40 dBm, Peak -10 to +37 dBm, CW	CW: +37 dBm (5 W Avg.) Peak: +43 dBm	-10 to +0 dBm: ±0.00 dB +0 to +40 dBm: ±0.05 dB/10 dB	45 MHz - 4 GHz; 4 GHz - 12.4 GHz; 12.4 GHz - 18 GHz;	1.15 1.25 1.35	Type N(m) 50Ω	200 mm (7.9 in)	37 mm (1.25 in)	0.3 kg (0.7 lb)
25W Peak Power Sensor [7, 9]									
80352A	45 MHz to 18 GHz +10 to +50 dBm, Peak 0.0 to +44 dBm, CW	CW: +44 dBm (25 W Avg) Peak: +53 dBm	0.0 to +10 dBm: ±0.00 dB +10 to +50 dBm: ±0.05 dB/10 dB	45 MHz - 6 GHz; 6 GHz - 12.4 GHz; 12.4 GHz - 18 GHz;	1.20 1.30 1.40	Type N(m) 50Ω	280 mm (11.0 in)	104 mm (4.1 in)	0.3 kg (0.7 lb)
50W Peak Power Sensor [7, 9]									
80355A	45 MHz to 18 GHz +10 to +50 dBm, Peak 0.0 to +47 dBm, CW	CW: +47 dBm (50 W Avg) Peak: +53 dBm	0.0 to +10 dBm: ±0.00 dB +10 to +50 dBm:: ±0.05 dB/10 dB	45 MHz - 6 GHz; 6 GHz - 12.4 GHz; 12.4 GHz - 18 GHz;	1.25 1.31 1.45	Type N(m) 50Ω	280 mm (11.0 in)	104 mm (4.1 in)	0.3 kg (0.7 lb)

[5] The K connector is electrically and mechanically compatible with the APC-3.5 and SMA connectors. [6] Power coefficient equals <0.01 dB/Watt (Avg.)
[7] Power coefficient equals <0.015 dB/Watt (Avg.) [8] For frequencies above 8 GHz, add power linearity to system linearity. [9] Peak operating range above CW maximum range is limited to <10% duty cycle.



Giga-tronics has a wide range of CW Sensors, Peak Power Sensors and Return Loss Bridges for accurate measurements over a wide dynamic range.

Power Sensor Calibration Factor Uncertainties

Freq. (GHz)		Sum of Uncertainties (%) [10]						Probable Uncertainties (%) [11]					
Lower	Upper	80301A 80302A 80350A	80303A 80304A 80353A 80354A	80310A 80313A 80314A	80320A 80323A 80324A	80321A [12] 80322A [12] 80325A [12]	80330A 80333A 80334A	80301A 80302A 80350A	80303A 80304A 80353A 80354A	80310A 80313A 80314A	80320A 80323A 80324A	80321A [12] 80322A [12] 80325A [12]	80330A 80333A 80334A
0.1	1	1.61	3.06	2.98	2.96	7.61	2.95	1.04	1.64	1.58	1.58	4.54	1.58
1	2	1.95	3.51	3.58	3.57	7.95	3.55	1.20	1.73	1.73	1.73	4.67	1.73
2	4	2.44	4.42	4.33	4.29	8.44	4.27	1.33	1.93	1.91	1.91	4.89	1.90
4	6	2.67	4.74	4.67	4.63	8.67	4.60	1.41	2.03	2.02	2.01	5.01	2.01
6	8	2.86	4.94	4.87	4.82	8.86	4.80	1.52	2.08	2.07	2.06	5.12	2.06
8	12.4	3.59	6.04	5.95	5.90	9.59	5.87	1.92	2.55	2.54	2.53	5.56	2.53
12.4	18	4.09	6.86	6.76	6.69	10.09	6.64	2.11	2.83	2.80	2.79	5.89	2.78
18	26.5	—	9.27	9.43	9.28	—	9.21	—	3.63	3.68	3.62	—	3.59
26.5	40	—	15.19	14.20	13.86	—	13.66	—	6.05	5.54	5.39	—	5.30

[10] Includes uncertainty of reference standard and transfer uncertainty. Directly traceable to NIST. [11] Square root of the sum of the individual uncertainties squared (RSS).
[12] Cal Factor numbers allow for 3% repeatability when reconnecting attenuator to sensor and 3% for attenuator measurement uncertainty.
[13] See the 80350A Series Power Sensor data sheet for complete CW and Peak power specifications.

8540 Series Universal Power Meter Specifications

Specifications describe the instrument's warranted performance, and apply when using 80300A Series sensors.

Typical performance, (shown in *italics*), is non-warranted.

METER

Frequency Range: 10 MHz to 40 GHz [14]

Power Range: -70 dBm to +47 dBm (100 pW to 50 Watt) [14]

Single Sensor Dynamic Range:

CW Sensors: 90 dB [14]

Peak Power Sensors:

40 dB, Peak

50 dB, CW

Display Resolution: User selectable from 1 dB to 0.001 dB in Log mode, and from 1 to 4 digits of display resolution in Linear mode.

Meter Functions

Averaging: User selectable, auto-averaging or manual from 1 to 512 readings.

dB Rel and Offset: Power display can be offset by -99.999 to +99.999 dB to account for external loss/gain.

Configuration Storage Registers: Allows up to 20 front panel setups.

Power Measurements and Display Configuration: Any two of the following channel configurations, simultaneously: A, B, A/B, B/A, A-B, B-A, DLYA, DLYB.

ACCURACY

Calibrator: Power Sweep Calibration signal to dynamically linearize the sensors.

Frequency: 50 MHz, nominal

0.0 dBm Accuracy: ±1.2% worst case for one year, over temperature range of 5° to 35°C.

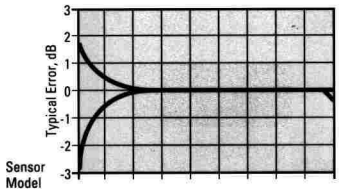
VSWR: < 1.05 (Return Loss > 33 dB).

System Linearity at 50 MHz for Standard CW Sensors:

±0.02 dB over any 20 dB range from –70 to +16 dBm.

±0.02 dB + (+0 dB, –0.05 dB/dB) from +16 to +20 dBm.

±0.04 dB from -70 to +16 dBm.



Sensor Model										
80301A	-70	-60	-50	-40	-30	-20	-10	0	10	20
80310A	-64	-54	-44	-34	-24	-14	-4	6	16	26
80320A	-60	-50	-40	-30	-20	-10	0	10	20	30
80321A	-50	-40	-30	-20	-10	0	10	20	30	40
80322A	-40	-30	-20	-10	0	10	20	30	40	44
80325A	-40	-30	-20	-10	0	10	20	30	40	50
80330A	-30	-20	-10	0	10	20				

Input, dBm

Graph shows linearity plus zero set and noise vs. input power

Zeroing Accuracy: (Standard Sensors)

Zero Set: < ±*50 pW* [15]

Zero Drift: < ±*100 pW* during 1 hour [15]

Noise Uncertainty: < ±*50 pW* measured over a 1 minute interval. [15]

REMOTE INPUTS/OUTPUTS

V Prop F Input (BNC): Used to correct power readings for sensor frequency response using source VpropF output. [16]

Analog Output (BNC): Provides an output voltage of 0 to 10V from either Channel 1 or 2 in either Lin or Log units. Does not operate in Swift or Burst Modes. [16]

Blanking Output (BNC): TTL High during power meter zero. Can be used to shut off signal generator RF output during sensor zero. [15]

Trigger Input (BNC): TTL trigger input signal for Swift and Burst modes.

GPIB Interface: IEEE-488 and IEC-625 remote programming.

GENERAL SPECIFICATIONS

Temperature Range:

Operating: 0° to 50°C (+32° to +122°F)

Storage: –40°C to 70°C (–40° to +158°F)

Power Requirements:

100/120/220/240V ±10%,
48 to 440 Hz, 20VA typical

Physical Characteristics:

Dimensions: 215 mm (8.4 in) wide, 89 mm (3.5 in) high, 368 mm (14.5 in) deep

Weight: 4.55 kg (10 lbs)

ORDERING INFORMATION

POWER METERS

8541 Single Input Digital Power Meter (includes 1 each sensor cable)

8542 Two Input Digital Power Meter (includes 2 each sensor cable)

ACCESSORIES

One manual, one power cord, one (8451) or two (8452) detachable sensor cables.

POWER METER OPTIONS

01 Rack mount kit

02 Add 256K buffer for Burst Mode Power Readings. Stores 128,000 readings

03 8541 Rear Panel Connections (Sensor and Calibrator, deletes front panel connections)

04 8542 Rear Panel Connections (Sensors and Calibrator, deletes front panel connections)

05 Soft Carry Case

06 Second Analog Output on 8542, -10V to +10V

07 Side Mounted Carrying Handle

08 Transit Case, (Includes Soft Carry Case)

[14] Depending on sensor used. [15] Specified performance applies with maximum averaging and 24 hour warm-up at constant temperature. [16] Operates in Normal Mode only.

Specifications subject to change without notice.

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