Model 1830A

RF CALIBRATION AND MEASUREMENT PRODUCTS

- **Replaces the HP432**
- **Compatible with thermistor power sensors from:**
  - **Agilent (HP)**
  - **TEGAM**
  - **Weinschel**
  - **Hughes**
  - **General Microwave**
  - **Millitech**
- **Supports 100 Ω and 200 Ω thermistors**
- **Integrates bridge balancer and power meter into one package**
- **Four digit calibration factor resolution**
- **Full remote programmability**
- **Heater control for ovenized sensors**

SUPPORTED SENSORS

Agilent
478A, 8478B, S486A, G486A, J486A, H486A, X486A, M486A,P486A, K486A, R486A

TEGAM/Weinschel
1107-8, 1807, M1110, M1111, M1118, M1120, M1125, M1130, M1135, F1109, F1116, F1117, F1119, F1125, F1130, F1135

Hughes, General Microwave, Millitech Mounts compatible with
Agilent 478A

RF Power Meter

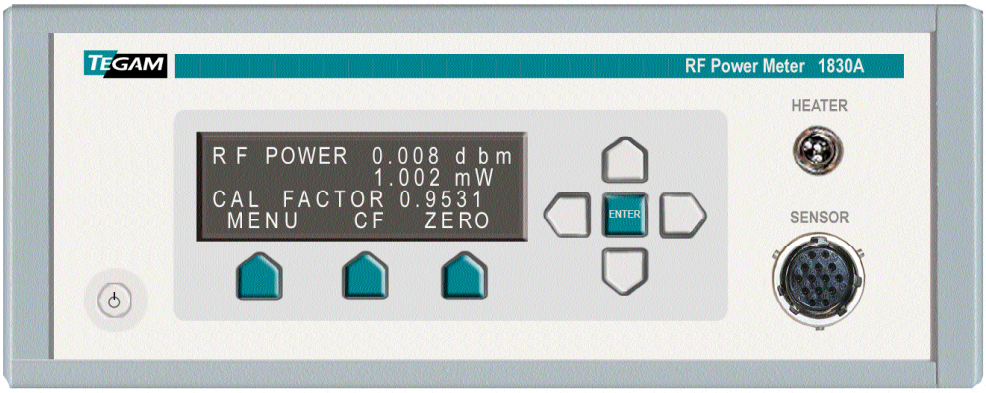
Thermistor based RF power sensors are universally recognized as the most accurate means to measure and transfer RF power. The TEGAM Model 1830A was designed to replace the venerable HP432 while further reducing uncertainties and accommodate a wider variety of RF power sensors. It combines a modern DC substitution bridge with a 6.5 digit measurement system to provide consistent normalized RF power readings manually or automatically.

Better Measurements

TEGAM used it's experience building Type IV bridges and developed a superior DC substitution power meter with advanced analog and digital electronics that provide the lowest uncertainties possible in a portable instrument. The rangeof substituted power extends from -30 to +14 dBm, dependent on the actual measurement sensor. Special attention was paid to the Common Mode performance to reject the applied RF signal across the entire measurement band. In addition to more accurate measurements, the TEGAM 1830A is also equipped with convenient features such as simultaneous reading dBm and mW displays as well as both USB and LXI communication interfaces.

Greater Flexibility

There are many thermistor based RF power sensors available. The Model 1830A is designed to bias either 100 Ω or 200 Ω mounts and has dual bridges for balancing both RF sense and compensation thermistors such as contained in the Agilent 478A and 8478B. It also is works with the Agilent 486A series of waveguide sensors and includes a heater circuit for all TEGAM and Weinschel ovenized thermistor mounts. The Model 1830A comes in a compact 2U ½ rack configuration and even works with your existing cables to support your existing workload without difficulty.



Prices and specifications subject to change without notice.

TEGAM®
YOUR GLOBAL SOURCE FOR TEST AND MEASUREMENT SOLUTIONS

Model 1830A

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Preliminary Specifications

Power Range	-30 to +14 dBm (0.001 mW to 30 mW)	
Uncertainty	+/-0.01 % +/- 10 nW	
Cal. Factor Resolution	0.0001	
Bridge Resistance	100 Ω or 200 Ω (user selectable)	
Heater Circuit	8 VDC @ 200 mA (compatible with all TEGAM and Weinschel thermistor mounts)	
Connectors		
	Sensor	14-pin JIS
	Heater	4-pin mini-microphone
Communication	USB Serial; 10/100 base T, LXI-C compliant	
Operating Temperature	0 ºC to +55 ºC	
Storage Temperature	-40 ºC to +75 ºC	
Humidity	0-95 % RH non-condensing	
Power Requirements	100 to 240 VAC, 49-61 Hz, 20 VA Max	
Weight	2.0 kg (4.4 lb)	
Dimensions	2U ½ Rack 8.89 cm x 21.59 cm x 33.02 cm (3.5 in x 8.5 in x 13 in)	
Supported Sensors	**Agilent:** 478A, 8478B, S486A, G486A, J486A, H486A, X486A, M486A, P486A, K486A, R486A **TEGAM/Weinschel:** 1107-7, 1107-8, 1807, M1110, M1111, M1118, M1120, M1125, M1130, M1135, F1109, F1116, F1117, F1119, F1125, F1130, F1135 **Any thermistor mounts compatible with Agilent 478A**	
Software Support	SureCal, IVI-compliant LabView driver	
Included Accessories	Power Cord	P/N 068-21
	Manual	P/N 1832-901-01A
Optional Accessories	Heater Cable	P/N CBL-F1125-48
	Rack Mount Kit	Contact TEGAM
	Power Meter to Bolometer Cable	Contact TEGAM

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