



Automated Power Sensor Calibration System

From **ADVANCED ENERGY / TEGAM**, the leaders in power sensor calibration.

TRUST is an essential feature in any measurement tool and TEGAM's new PMX18-CS turnkey power sensor calibration system is a tool you can **rely on every day** with confidence.

Built around the proven [TEGAM 2505A RF Power Standard](#) and [1830A RF Power Meter](#), the PMX18-CS leverages TEGAM's 30+ years of RF power measurement expertise into a turnkey system designed to increase your RF power sensor calibration capability and throughput. The PMX18-CS **simplifies** the tedious process of power sensor calibration, providing cost-effective calibrations in a fraction of the time required for manual calibrations.

Packaged in a compact benchtop rack cabinet, the PMX18-CS includes the hardware, accessories, and tools necessary to perform automated calibrations for a **broad range of power sensors** from Keysight, Rohde & Schwarz, Ladybug, Anritsu, and more. PS-Cal® power sensor calibration automation software is included, making the PMX18-CS ideal for both experienced and new calibration technicians alike.



Ready to Work: The PMX18-CS comes packaged with everything necessary to calibrate reflection and cal factors for 9 kHz to 18 GHz power sensors. The system includes an RF standard, RF power meter, RF signal source, VNA, plus an assortment of accessories to increase your calibration capability.

Accurate: The TEGAM 2505A RF Power Standard provides uncertainties typically found only in primary standards laboratories.

Automated: PS-Cal provides calibration automation and EEPROM read/write capability for a variety of power sensors from major manufacturers such as Keysight, Rohde & Schwarz, Ladybug, Anritsu, and more. See our PMX Series datasheet for details.

Convenient: The system is configured in a compact rack cabinet for use on a benchtop or cart, or wherever you need it.

Mobile: Add the optional ruggedized cabinet and the PMX18-CS becomes mobile – perfect for military mobile calibration labs and commercial on-site applications.

All instrumentation and accessories arrive configured and ready to use. PS-Cal and the required drivers are pre-installed on the included system controller, and each PMX18-CS is fully tested before leaving our factory. Onsite installation and training are also available. Inquire at time of purchase for more information.

TEGAM's 30 years of microwave power measurement experience and field-proven instruments provide **measurements you can trust.**

When the Measurement Matters, Be Certain with TEGAM.

**PMX18-CS Configuration and Specifications**

Key System Components		
RF Power Standard	2505A Microwave Calibration Feedthrough Standard (datasheet)	
RF Power Meter	1830A RF Power Meter (datasheet)	
Automation Software	PS-Cal Power Sensor Calibration Automation Software (details) (Version 4.8 or higher)	
RF Signal Source	Keysight EXG5173B-series Microwave Analog Signal Generator	
Vector Network Analyzer	Keysight P9374B-series Streamline VNA	
Additional Components	VNA Calibration Kit System Controller 20 dB and 30dB Attenuator Torque Wrenches Label Printer USB Hub, Ethernet switch, and required cables 2505A Transport Case Line Power Distribution Unit and AC power cords Benchtop Rack cabinet (Ruggedized option available)	
Specifications ¹		
Frequency	9 kHz to 18 GHz	
Power	-20 to +10 dBm (0.01 to 10mW) use the included calibrated attenuator(s) to extend the system dynamic range for calibration of low-power sensors	
Accuracy¹		
1830A RF Power Meter	± 0.05% of reading + 0.5 μW (0.1 % at 1 mW)	
2505A Power Linearity	< 0.1% from 1 to 10 mW	
2505A Cal Factor Drift	< 0.5% per year	
2505A Calibration Factor Accuracy (typical)	9 kHz to <10 MHz	±0.70%
	10 MHz to <10 GHz	±0.80%
	10 GHz to 18 GHz	±1.0%
2505A Equivalent Source Match at Test Port (typical) Γ (V/V)	9 kHz to <6 GHz	0.03
	6 GHz to <15 GHz	0.05
	15 GHz to 18 GHz	0.07
RF Impedance (nominal)	50 Ω	
Test Port Connector	Type N Female	
Comm Interfaces	Ethernet and USB (USB to GPIB converter optional)	
Input Power	100 – 240 VAC, 50 to 60 Hz (user to specify AC power cord plug style at time of purchase)	
Dimensions (W x H x D)	56.2 x 58.5 x 60.198 cm	22.1 x 23 x 23.7 in. (excludes controller and Accy's)
Operating Temp/Humidity³	15 to 30 °C / 20 to 75%RH	59 to 86 °F
Storage Temp/Humidity³	-40 to +70 °C / 20 to 90%RH	-40 to +158 °F
Minimum Warm-up Time	2 Hours, or until bias voltage stability is < 50 μV / 30 minutes	
Weight (approximate)	36.3 kg	80 lbs
Warranty²	3-year parts and workmanship for TEGAM 2505A and 1830A, signal source, and VNA.	

1 Specifications apply to the PMX18-CS system unless otherwise stated. For detailed individual component specifications, see the applicable datasheet.

2 Warranties for 3rd-party instruments and components are provided and administered solely by the applicable 3rd-party.

3 Additional limitations apply – See instruction manual for details.