PMA SERIES
PRODUCT MANUAL



USB/LAN AVERAGE POWER SENSOR

PMA Series
20/40 GHz

V1.0
18/11/2026

HAROGIC

PM Series

PMA Series Overview.

The PMA series average power sensors cover a frequency range of 100 kHz to 20/40 GHz. They connect directly to a PC or other host via USB or LAN, enabling convenient RF power measurements through application software or SCPI commands. Power over Ethernet (PoE) is also supported for easier deployment.

With a 70 dB dynamic range and a compact form factor, the PMA series is ideally suited for laboratory measurements, EMC/EMI testing, production testing, and embedded applications. It can also be used with HAROGIC spectrum analyzers and vector signal generators for secondary calibration and a wide range of test applications.

Key Features

- Frequency range: 100 kHz to 20/40 GHz
- Power measurement range:
  -50 dBm to +20 dBm
- Measurement speed: > 100 times/s
- Connectivity: USB and LAN, PoE supported
- SCPI command support
- Intuitive PMStudio software

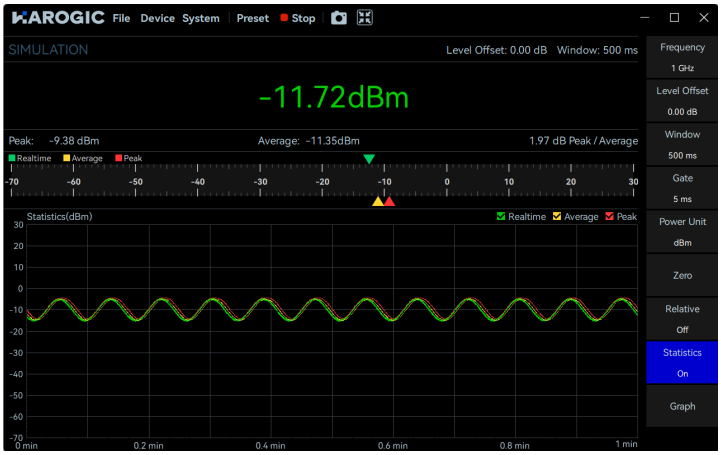


Device Interfaces



PMStudio

PMStudio features a concise and efficient user interface. It provides in-window peak, average, and peak-to-average ratio analysis, enabling the real-time display of Power-Time curves for a specified duration. It supports level offset, gate time settings, unit switching, zero calibration, and other functions. It also supports multi-language and light/dark theme switching, as well as a minimized display mode to minimize obstruction of the workstation desktop.



Specifications*

		PMA-200	PMA-400
Frequency range		100 kHz to 20 GHz	100 kHz to 40 GHz
Input VSWR		≤ 1.5:1	≤ 1.7:1
Power measurement range		-50 dBm to +20 dBm	
Power measurement accuracy	-45 to +20 dBm	100 kHz to 6 GHz	±0.6 dB, ±0.3 dB (typ.)
		6 GHz to 18 GHz	±0.7 dB, ±0.4 dB (typ.)
		18 GHz to 40 GHz	±0.8 dB, ±0.5 dB (typ.)
	-50 to -45 dBm	100 kHz to 40 GHz	±1.0 dB, ±0.8 dB (typ.)
Power resolution		0.01 dB	
Measurement Speed		> 100 times/s	

GENERAL

RF input connector		N (M)	2.92 mm NMD (M)
Impedance		50 Ω	
Power measurement units		dBm, W	
Communication/Power interfaces		USB and LAN, PoE supported	
Dimensions (L × W × H)		114 × 73 × 37 mm	
Weight		≤ 350 g	
Operating/Storage temperature (ambient)		-10 to +50 °C / -40 to +70 °C	
Operating relative humidity		Ambient Temp.: 0 to 40 °C	5 to 75%
		Ambient Temp.: > 40 °C	5 to 45%
Packaging accessories		Power sensor * 1, 1.5 m USB cable * 1	

*Specifications apply under the following conditions:

(1) Start up and warm up for 10 minutes

(2) Ambient temperature: 25 °C

(3) Specifications may vary with hardware and software versions without prior notice

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