PRODUCT
PORTFOLIO

Extend RF Boundaries.

RF INSTRUMENTS
AND EMBEDDED RF SYSTEMS
UP TO 40 GHz



KAROGIC

HAROGIC

Extend RF Boundaries.

RF INSTRUMENTS
AND EMBEDDED RF SYSTEMS
UP TO 40 GHz

HAROGIC combines compact, robust RF hardware with agile, intelligent software to help customers extend RF boundaries. We deliver innovative, flexible RF instruments and embedded RF systems up to 40 GHz, enabling engineers, researchers, and developers to build RF systems of their own.

PX Series
SA Series
PG Series
SG Series
PM Series
PN Series
VN Series
HD Series
HO Series

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PX Series SA Series

- Compact USB Spectrum Analyzer/Receiver
- Portable Handheld Spectrum Analyzer
- IP68 Rugged Spectrum Analyzer

PG Series SG Series

- Compact USB Vector Signal Generator
- Portable Handheld Vector Signal Generator

PN Series VN Series

- Compact USB Vector Network Analyzer
- Portable Handheld Vector Network Analyzer

HD Series HO Series

- Omnidirectional Antenna
- Active Directional Antenna

PM Series

- Average Power Meter

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Next-Gen Spectrum Analyzer.

REAL-TIME
SPECTRUM ANALYZER
UP TO 40 GHz
WITH EXTENDER UP TO THz



Portable Handheld Spectrum Analyzer

The PX Series brings a high-performance superheterodyne receiver architecture to a portable handheld platform. It delivers typical phase noise of -110 dBc/Hz at a 10 kHz offset from a 1 GHz carrier and up to 100 MHz analysis bandwidth.

IP68 Rugged Spectrum Analyzer

PX Rugged series spectrum analyzer is designed for durability with an IP68 rating. It offers a 100 MHz analysis bandwidth as standard and supports frequency from 9 kHz to 9/20/40 GHz, with a sweep speed surpassing 500 GHz/s. Additionally, it includes the Orin NX 8G option, providing up to 117 TOPS of AI computing power.

Compact USB Spectrum Analyzer/Receiver

This series is based on the SWaP-C optimized design concept. Its compact size and weight are comparable to mainstream smartphones, supporting flexible deployment for spectrum testing in various scenarios, embedded RF systems and mobile spectrum monitoring systems.

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PX
Next-Gen Spectrum Analyzer.

PORTABLE HANDHELD
SPECTRUM ANALYZER
UP TO 40 GHz



PX
Comparison Table

Model	New PXN-45/60/90	New PXN-200	New PXN-400
Frequency range	9 kHz-4.5/6/9 GHz	9 kHz-20 GHz	9 kHz-40 GHz
Analysis bandwidth	50 MHz/100 MHz (opt.)	100 MHz	100 MHz
Phase noise 1 GHz@10 kHz	-110 dBc/Hz	-110 dBc/Hz	-110 dBc/Hz
1 GHz DANL	-168 dBm/Hz	-166 dBm/Hz	-166 dBm/Hz
Sweep speed (RBW=250 kHz)	About 1 THz/s	About 1 THz/s	About 1 THz/s
Data Interface	USB-A / USB-C / LAN		
Touchscreen and weight	10.1-inch, 1.5 kg		
Typical battery life	About 2.5 h		
Standard measurement functions	Advanced measurements including channel power, OBW, automatic phase noise, automatic harmonic, SEM, AM/FM demodulation		
Option code	50: 100 MHz analysis bandwidth (for new PXN-45/60/90) 60-64: tracking generator, up to 40 GHz 69: LO output 71: basic digital demodulation: 2ASK, 2/4FSK, GMSK, BPSK, QPSK, 8PSK, 16/64/128/256QAM 72: pulse detection, auto pulse width, PRI and duty cycle 74: EMI pre-compliance test		
Programmability	C / C++ / C# / MATLAB / LabVIEW / Python / GNU Radio		

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PX Rugged
Rigid Performance
Reliable Measurements.

IP68 RUGGED SPECTRUM ANALYZER
UP TO 40 GHZ



PX Rugged
Comparison Table

Model	New PXN-90R	New PXN-200R	New PXN-400R
Frequency range	9 kHz-9 GHz	9 kHz-20 GHz	9 kHz-40 GHz
Analysis bandwidth	100 MHz	100 MHz	100 MHz
Sweep speed (RBW=250 kHz)	About 1 THz/s	About 1 THz/s	About 1 THz/s
Environmental adaptability	IEC IP68 certified, MIL-STD-810H method-512.6/514.8/516.8 certified		
Touchscreen and weight	10.1-inch, 2.5 kg		
Typical battery life	About 4 h		
Standard measurement functions	Advanced measurements including channel power, OBW, automatic phase noise, automatic harmonic, SEM, AM/FM demodulation and more.		
Option code	08: Jetson Orin NX, 117TOPS 71: basic digital demodulation: 2ASK, 2/4FSK, GMSK, BPSK, QPSK, 8PSK, 16/64/128/256QAM 72: pulse detection, auto pulse width, PRI and duty cycle 74: EMI pre-compliance test		
Programmability	C / C++ / C# / MATLAB / LabVIEW / Python / GNU Radio		

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SA
Create Your RF System Now.

COMPACT USB
SPECTRUM ANALYZER/RECEIVER
UP TO 40 GHz



SA Series
Comparison Table

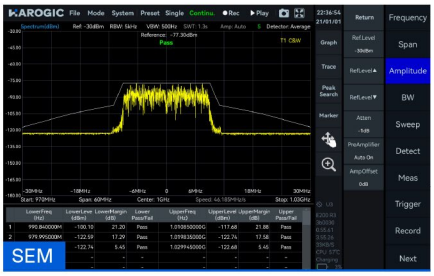
Series	New SAN-45/60/90	SAN-200	SAN-400
Frequency range	9 kHz-4.5/6/9 GHz	9 kHz-20 GHz	9 kHz-40 GHz
Analysis bandwidth	50 MHz/100 MHz (opt.)	100 MHz	100 MHz
Phase noise 1 GHz@10 kHz	-110 dBc/Hz	-110 dBc/Hz	-110 dBc/Hz
Interface	USB3.0/2.0	USB3.0/2.0	USB3.0/2.0
Preselect filters	Up to 14	14	14
Standard measurement functions	Advanced measurements including channel power, OBW, automatic phase noise, automatic harmonic, SEM, AM/FM demodulation and more.		
Option code	50: 100 MHz analysis bandwidth (for new SAN-45/60/90) 71: basic digital demodulation: 2ASK, 2/4FSK, GMSK, BPSK, QPSK, 8PSK, 16/64/128/256QAM 72: pulse detection, auto pulse width, PRI and duty cycle 74: EMI pre-compliance test		
Programmability	C / C++ / C# / MATLAB / LabVIEW / Python / GNU Radio		

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SAStudio4 Measurement Functions Overview.

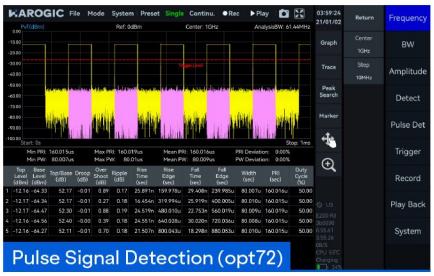








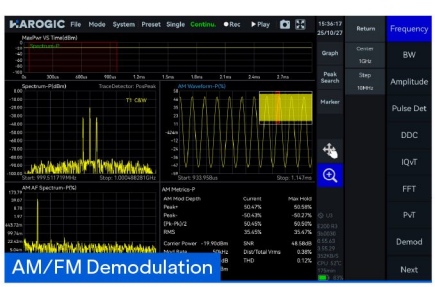




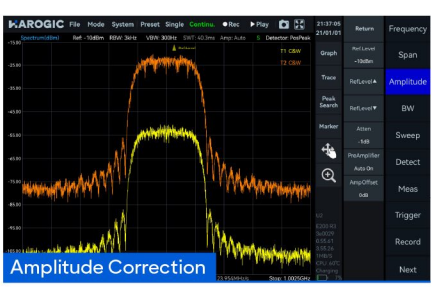












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API and SCPI
VITA 49 Overview



HAROGIC provides the HTRA API with the following features

- Most API functions are provided at no additional charge, excluding optional functions.
- Compatible with all HAROGIC spectrum analyzers for easier code migration.
- Supports C, C++, C#, LabVIEW, MATLAB, and Python.
- Supports Windows and Linux.

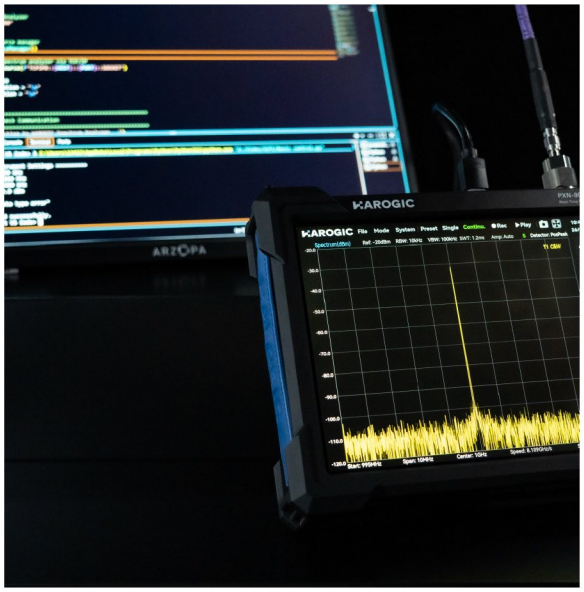
In addition to the HTRA API, HAROGIC provides a SCPI-compatible command set for instrument control and automated testing

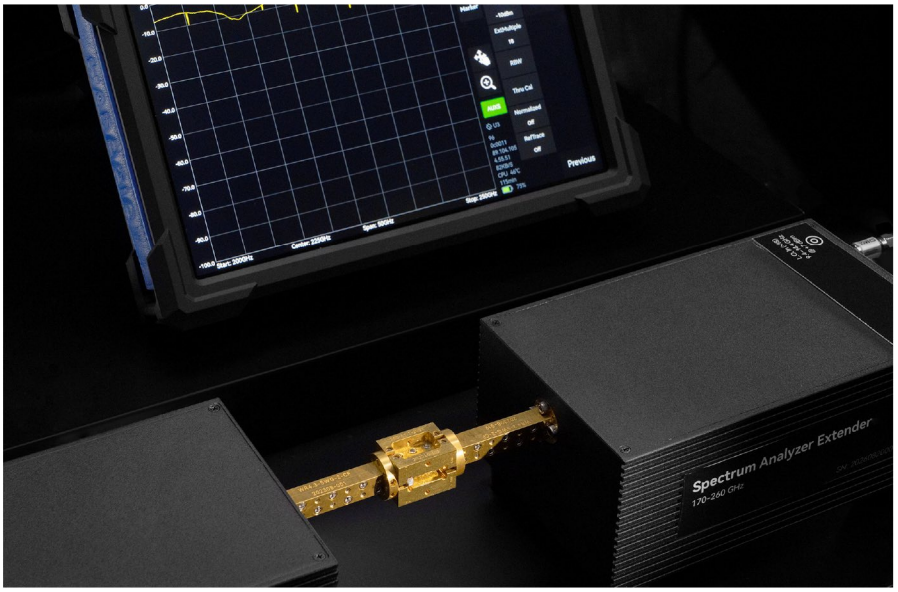
- Supports SCPI control.
- Supports remote control via LAN (PX series).
- Supports VITA49 data format.

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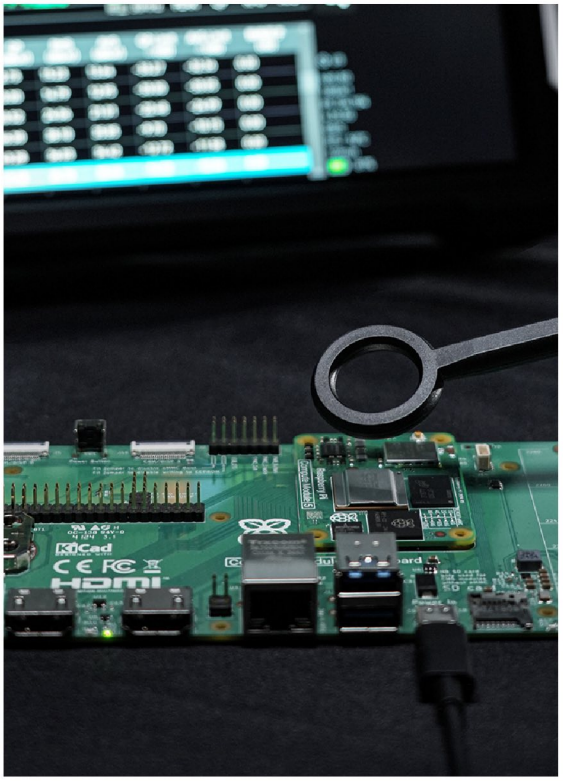
HAROGIC

Case Study









Benchtop-precision
Measurement Anywhere

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PG Series

SG Series

Generate Without Limits.

VECTOR SIGNAL GENERATOR
9 kHz TO 6 GHz



Portable HandheldVector Signal Generator

The PG Series brings vector signal generation to a 10.1-inch handheld platform. It covers 9 kHz to 6 GHz and supports CW, AM/FM/PM, pulse, chirp, multitone, OFDM, IQ playback, and IQ streaming. PGA and PGF models provide 100 MHz standard bandwidth, with optional 320 MHz bandwidth on PGF-60.

Compact USB Vector Signal Generator

The SG Series is a compact USB vector signal generator covering 9 kHz to 6 GHz. It provides 100 MHz standard bandwidth, with optional 320 MHz bandwidth on SGF-60, plus 50 MHz real-time IQ streaming. It supports CW, AM/FM/PM, pulse, chirp, OFDM, digital modulated signals, and frequency/level sweeps.

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PG Series
Generate Without Limits.

PORTABLE
HANDHELD VECTOR SIGNAL GENERATOR
UP TO 6 GHz





PG Series
Comparison Table

Model	PGA-60	PGF-60
Size and weight	10.1-inch and 1.5 kg	
Battery life	2.5 h	
Frequency range	9 kHz-6 GHz	9 kHz-6 GHz
Maximum Level Output	7-14 dBm, 25 dBm (opt.)	9-16 dBm, 25 dBm (opt.)
Minimum Level Output	<-100 dBm	<-100 dBm
Modulation bandwidth	100 MHz	100 MHz std/320 MHz (opt53)
1 GHz phase noise, @10 kHz	<-124 dBc/Hz	<-134 dBc/Hz
Standard measurement functions	CW, Multitone, Frequency/Level sweep, OFDM, AWGN, Ramp/Chirp, Pulse, AM/FM/PM IQ playback, IQ streaming, 16/64/256/1024 QAM, ASK, FSK, QPSK, BPSK and more.	
Option code	10: 25 dBm output port; 53: 320 MHz bandwidth, 1 GB RAM only for PGF series.	

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SG Series
Compact Form Massive Capability.

COMPACT USB
VECTOR SIGNAL GENERATOR
9 kHz TO 6 GHz

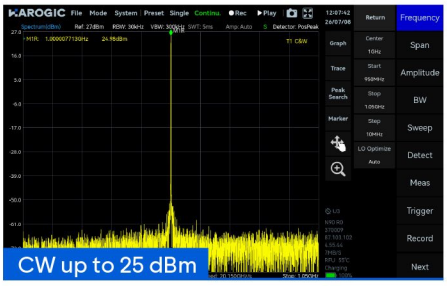


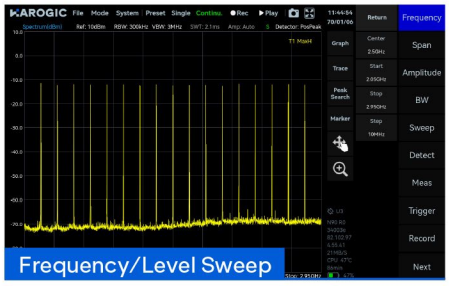
SG Series
Comparison Table

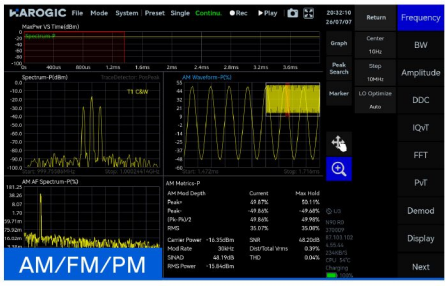
Model	SGA-60	SGF-60
Frequency range	9 kHz-6 GHz	9 kHz-6 GHz
Maximum Level Output	7-14 dBm, 25 dBm (opt.)	9-16 dBm, 25 dBm (opt.)
Minimum Level Output	<-100 dBm	<-100 dBm
Modulation bandwidth	100 MHz	100 MHz std/320 MHz (opt53)
1 GHz phase noise, @10 kHz	<-124 dBc/Hz	<-134 dBc/Hz
Standard measurement functions	CW, Multitone, Frequency/Level sweep, OFDM, AWGN, Ramp/Chirp, Pulse, AM/FM/PM IQ playback, IQ streaming, 16/64/256/1024 QAM, ASK, FSK, QPSK, BPSK and more.	
Option code	10: 25 dBm output port; 53: 320 MHz bandwidth, 1 GB RAM only for SGF series.	

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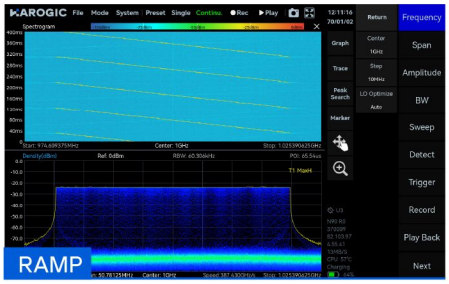
SGStudio
Vector Signal Generator Software

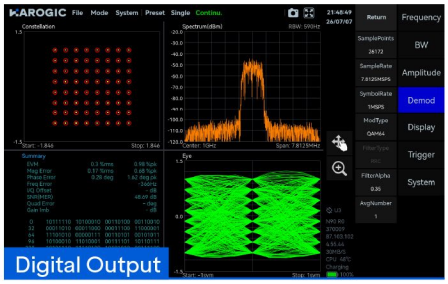


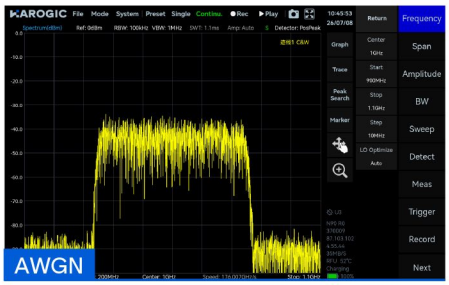


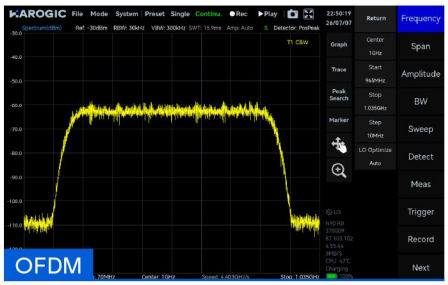




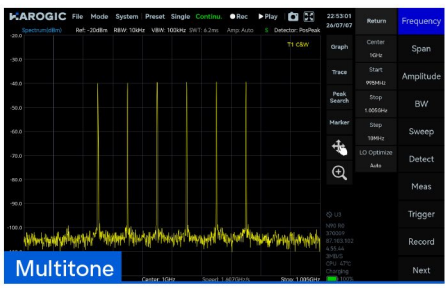












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Case Study







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Without Limits

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PG Series

SG Series

Extend RF Boundaries.

VECTOR NETWORK ANALYZER
100 kHz TO 6 GHz



PORTABLE HANDHELD VECTOR NETWORK ANALYZER

HAROGIC PNB-60 is a portable handheld vector network analyzer covering 100 kHz to 6 GHz. It delivers dynamic range of 100-120 dB over whole frequency range and a sweep speed of 150 µs/point at 75 kHz IFBW for two-port S-parameter measurements.

COMPACT USB VECTOR NETWORK ANALYZER

HAROGIC VNB-60 is a compact USB vector network analyzer covering 100 kHz to 6 GHz.It delivers dynamic range of 100-120 dB over whole frequency range and a sweep speed of 150 µs/point at 75 kHz IFBW in a 246 g form factor for two-port S-parameter measurements.

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PN Series
Benchtop Experience
Handheld Freedom.

PORTABLE
HANDHELD VECTOR NETWORK ANALYZER
100 kHz TO 6 GHz



PN Series
Comparison Table

Model	PNB-60
Screen size and weight	10.1-inch, 1.5 kg
Battery life	5 h
Frequency	100 kHz-6 GHz
Number of Ports	2 ports
Directivity	≥ 40 dB
Dynamic range	100 kHz-10 MHz: 100 dB 10 MHz-3 GHz: 120 dB 3 GHz-6 GHz: 115 dB (Typical @ 15 Hz IFBW)
Output Power	-40 dBm ~ +5 dBm
Sweep speed	150 μs/point，IFBW: 75 kHz

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VN Series
Tiny Footprint Big Capability.

COMPACT USB
VECTOR NETWORK ANALYZER
100 kHz TO 6 GHz



VN Series
Comparison Table

Series	VNB-60
Frequency	100 kHz-6 GHz
Number of Ports	2 ports
Directivity	≥ 40 dB
Dynamic range	100 kHz-10 MHz: 100 dB 10 MHz-3 GHz: 120 dB 3 GHz-6 GHz: 115 dB (Typical @ 15 Hz IFBW)
Output Power	-40 dBm ~ +5 dBm
Sweep speed	150 μs/point，IFBW: 75 kHz
Weight and size	246 g; ≤ 86 × 70 × 36 mm

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HAROGIC

Extend RF Boundaries.

OMNIDIRECTIONAL ANTENNA
ACTIVE DIRECTIONAL ANTENNA
AVERAGE POWER METER



HD Series HO Series PM Series

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HD&HO Series
Track Smarter See Higher.

HANDHELD ACTIVE DIRECTIONAL ANTENNA
UP TO 20 GHz



The HD Series handheld active directional antennas cover frequency up to 20 GHz in a 680 g form factor. Their optimized directional pattern and switchable bypass/active modes support wideband signal hunting, while the built-in electronic compass assists field direction finding.

HD Series
Comparison Table

Model	HDA-100	HDA-200
Frequency range	500 MHz-10 GHz	500 MHz-20 GHz
Gain	Passive gain 5 dBi Active gain up to 25 dBi	Passive gain 5 dBi Active gain up to 16 dBi
VSWR	<2.0 (typ.)	<2.0 (typ.)
RF connection	N(F), 50 Ω	N(F), 50 Ω
Internal Electronic Compass	Std	Std

OMNIDIRECTIONAL ANTENNA
UP TO 9 GHz



The HO Series omnidirectional antennas cover frequency up to 9 GHz. Linear polarization and compact design support wideband monitoring and general RF reception in laboratory and field measurement setups.

HO Series
Comparison Table

Model	HOA-80	HOA-90
Frequency range	400 MHz-8 GHz	150 MHz-9 GHz
Passive gain	2 dBi	3 dBi
VSWR	<3.0 (typ.)	<2.5 (typ.)
Polarization	Linear	Linear
RF connection	SMA (M)	SMA (M)

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PM Series
Power
Measured Precisely.

AVERAGE POWER METER
UP TO 40 GHz





The PM Series measures average RF power from 10 MHz to 40 GHz, with a standard power range of -50 dBm to +20 dBm. USB and PoE connectivity simplify integration into benchtop and automated test systems, while multiple RF input options support different frequency ranges.

PM Series
Comparison Table

Series	PMA-200	PMA-400
Frequency	10 MHz-20 GHz	10 MHz-40 GHz
Power range	-50 dBm ~ +20 dBm Standard	
Power accuracy (typ.)	±0.3 dB -40 dBm~+20 dBm	±0.5 dB ＜-40 dBm
VSWR	<1.5:1	<1.7:1
RF Input	N (M)	2.92 mm-NMD (M)
Data Port	PoE & USB	

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Global Sales Network

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