KEYSIGHT TECHNOLOGIES (AGILENT HP)

E9323A

The Keysight E9323A (formerly Agilent) is a high-performance peak and average diode power sensor designed for use with EPM-P and P-Series power meters. With a 5 MHz video bandwidth, it is specifically optimized for time-gated peak, average, and peak-to-average ratio power measurements on wideband wireless formats such as W-CDMA and cdma2000.

SPECIFICATIONS

General

Interfaces	Proprietary sensor interface cable; GPIB/LAN/USB (dependent on host power meter)
Display	No integrated display; uses host power meter screen
Sensor Cable Compatibility	Keysight E9288A, E9288B, and E9288C cable assemblies

Physical

Power Supply	Power supplied by host power meter via sensor cable
Operating Temperature	0 to 55 °C °C
Dimensions (W×H×D)	38 mm × 30 mm × 150 mm mm
Weight	0.108 kg

Measurement Ranges & Power Specifications

Frequency Range	50 MHz to 6 GHz
Power Measurement Range (Average-Only Mode)	-60 dBm to +20 dBm
Power Measurement Range (Normal Mode)	-40 dBm to +20 dBm
Maximum Continuous Input Power	+23 dBm average
Maximum Peak Input Power	+30 dBm peak

Sensor Technology & Architecture

Sensor Detection Type	Diode
Measurement Modes Supported	Peak, average, peak-to-average ratio
Video Bandwidth	5 MHz
Rise Time	<0.2 µs (high video bandwidth setting)
Fall Time	<0.2 µs (high video bandwidth setting)
Minimum Pulse Width	0.5 µs

RF Port Characteristics

Input Impedance	50 Ω
RF Connector Type	Precision Type-N
Connector Sex	Male
Maximum SWR (50 MHz to 2 GHz)	1.14
Maximum SWR (2 GHz to 6 GHz)	1.25

Accuracy, Calibration & Noise

Zero Drift (Normal Mode)	<±40 nW
Zero Drift (Average-Only Mode)	<±100 pW
Measurement Noise (Normal Mode)	<25 nW (free run acquisition mode)
Measurement Noise (Average-Only Mode)	<400 pW
Calibration Factor Storage	Internal EEPROM
Stored Calibration Parameters	Calibration factors, linearity, temperature, and bandwidth correction

Triggering & Sampling

Maximum Sampling Rate	20 MSa/s (via EPM-P series power meter)
Time Resolution	50 ns (when used with EPM-P series power meter)

Connectivity & Host Interfaces

Measurement Speed	Up to 1000 corrected readings per second (via GPIB)

Meter Compatibility & System Integration

Compatible Power Meter Models	Keysight EPM-P series (E4416A, E4417A), P-Series (N1911A, N1912A)

Environmental Parameters

Storage Temperature Range	-40 to +75 °C
Operating Humidity Range	Up to 95% RH at 40 °C (non-condensing)

Physical Dimensions & Weight

Sensor Width	38 mm
Sensor Height	30 mm
Sensor Depth	150 mm

Performance

Zero Set (Normal Mode, Low Video Bandwidth)	5 nW
Zero Set (Normal Mode, Medium Video Bandwidth)	15 nW
Zero Set (Normal Mode, High Video Bandwidth)	200 nW
Zero Set (Average-Only Mode)	20 nW
Power Linearity (Normal Mode)	±3.0% (-32 to +10 dBm), ±4.5% (+10 to +20 dBm)
Power Linearity (Average-Only Mode)	±3.0% (-50 to +10 dBm), ±4.0% (+10 to +20 dBm)
Maximum DC Input Voltage	5 V
Rise Time (High Video Bandwidth)	< 0.2 µs
Rise Time (Medium Video Bandwidth)	< 0.4 µs
Rise Time (Low Video Bandwidth)	< 0.9 µs
Fall Time (High Video Bandwidth)	< 0.2 µs
Fall Time (Medium Video Bandwidth)	< 0.4 µs
Fall Time (Low Video Bandwidth)	< 0.9 µs
Minimum Pulse Width (High Video Bandwidth)	1.5 µs
Minimum Pulse Width (Medium Video Bandwidth)	3 µs
Minimum Pulse Width (Low Video Bandwidth)	15 µs
Warm-up Time	30 minutes

Accuracy & Calibration

Calibration Factor Uncertainty (50 MHz to 100 MHz)	±1.8%
Calibration Factor Uncertainty (100 MHz to 2 GHz)	±1.6%
Calibration Factor Uncertainty (2 GHz to 6 GHz)	±1.8%
Recommended Calibration Cycle	1 year

Environmental

Operating Altitude	Up to 4,600 m (15,000 ft)
Storage Altitude	Up to 15,240 m (50,000 ft)

Compliance

Vibration Standard	Complies with MIL-T-28800D Type III, Class 5
Shock Standard	Complies with MIL-T-28800D Type III, Class 5
EMC Compliance	Complies with EN 55011, Group 1, Class A and EN 50082-1

TECHNOLOGY

Diode Power Sensor

APPLICATIONS

RF and Microwave Power Measurement

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.