

KEYSIGHT TECHNOLOGIES (AGILENT HP)

U2000B

The Keysight U2000B is a high-performance USB average power sensor designed to make fast, accurate, and reliable power measurements without requiring a separate power meter. Operating over a broad frequency range of 10 MHz to 18 GHz with an integrated 30 dB attenuator, it supports high-power measurements up to +44 dBm.

SPECIFICATIONS

General

Interfaces	USB 2.0 (custom sensor connector to USB Type-A)
Display	None (PC-controlled / software-dependent)
Warm-up Time	30 minutes

Physical

Power Supply	USB Bus Powered, 5 VDC, < 220 mA
Operating Temperature	0 to 55 °C °C
Dimensions (W×H×D)	46.0 mm × 35.9 mm × 163.7 mm (excluding RF connector) mm
Weight	< 0.421 kg kg

Measurement Ranges & Power Specifications

Frequency Range Minimum	10 MHz
Frequency Range Maximum	18 GHz
Power Measurement Range Minimum	-30 dBm
Power Measurement Range Maximum	+44 dBm
Maximum Continuous Input Power	+45 dBm
Maximum Peak Input Power	+47 dBm (for < 10 μs)
Maximum DC Input Voltage	20 VDC

Sensor Technology & Architecture

Sensor Detection Type	Diode-based average power sensor with integrated 30 dB attenuator
Measurement Modes Supported	Average power
Dynamic Range	74 dB

RF Port Characteristics

Input Impedance	50 Ω
RF Connector Type	N-type (male)
Maximum SWR (10 MHz to 2 GHz)	1.12
Maximum SWR (2 GHz to 12.4 GHz)	1.22
Maximum SWR (12.4 GHz to 18 GHz)	1.29

Accuracy, Calibration & Noise

Power Linearity (-30 to +35 dBm)	±3.0% (-30 to +20 dBm)
Power Linearity (+35 to +44 dBm)	±4.5% (+20 to +44 dBm)
Zero Set	50 µW
Zero Drift	15 µW
Measurement Noise	50 µW

Triggering & Sampling

Maximum Sampling Rate	1000 readings/s (buffered mode)
Measurement Speed (Free Run)	250 readings/s

Connectivity & Host Interfaces

Power Consumption	< 1.1 W
Typical Current Draw	160 mA
Command Set Support	SCPI
Driver Support	IVI-COM, IVI-C, LabVIEW
Software Compatibility	Keysight BenchVue, N1918A Power Analysis Manager

Environmental Parameters

Storage Temperature Range	-40 to 70 °C
Operating Humidity Range	95% RH at 40 °C (non-condensing)
Storage Humidity Range	90% RH at 65 °C (non-condensing)
Maximum Operating Altitude	4600 m (15,000 ft)
Maximum Storage Altitude	15240 m (50,000 ft)

Triggering

Trigger Sources	Internal, External, Bus
Trigger Delay Range	-0.15 s to +0.15 s
Trigger Delay Resolution	1 µs
External Trigger Input Level	TTL compatible (High > 2.0 V, Low < 0.8 V)
External Trigger Input Impedance	> 10 kΩ nominal

Compliance

Electromagnetic Compatibility (EMC)	Complies with IEC 61326-1 / EN 61326-1, CISPR 11 / EN 55011 Group 1 Class A, AS/NZS CISPR 11, ICES/NMB-001
Safety Standards	IEC 61010-1 / EN 61010-1, CAN/CSA-C22.2 No. 61010-1, ANSI/UL 61010-1

RF Specifications

Integrated Attenuator	30 dB
-----------------------	-------

Measurement

Averaging Range	1 to 1024 (manual or auto)
-----------------	----------------------------

Performance

Calibration Data Storage	Internal EEPROM
--------------------------	-----------------

TECHNOLOGY

Diode-based power sensing

APPLICATIONS

RF and microwave power measurements

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