Keysight U2000
Series USB Power Sensors

Configuration Guide

U2000 Series USB Power Sensor

– U2000A (10 MHz to 18 GHz)
– U2001A (10 MHz to 6 GHz)
– U2002A (50 MHz to 24 GHz)
– U2004A (9 kHz to 6 GHz)

– U2000H (10 MHz to 18 GHz)
– U2001H (10 MHz to 6 GHz)
– U2002H (50 MHz to 24 GHz)

– U2000B (10 MHz to 18 GHz)
– U2001B (10 MHz to 6 GHz)

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Introduction

This configuration guide describes the standard configurations, options, and compatible accessories for the U2000 Series USB power sensors. Contact your local Keysight Technologies, Inc. representative for more information.

U2000 Series Models

Sensor model	Description
U2000A	10 MHz to 18 GHz, –60 dBm to +20 dBm USB Power Sensor, N-type (m)
U2001A	10 MHz to 6 GHz, –60 dBm to +20 dBm USB Power Sensor, N-type (m)
U2002A	50 MHz to 24 GHz, –60 dBm to +20 dBm USB Power Sensor, 3.5 mm (m)
U2004A	9 kHz to 6 GHz, –60 dBm to +20 dBm USB Power Sensor, N-type (m)
U2000H	10 MHz to 18 GHz, –50 dBm to +30 dBm USB Power Sensor, N-type (m)
U2001H	10 MHz to 6 GHz , –50 dBm to +30 dBm USB Power Sensor, N-type (m)
U2002H	50 MHz to 24 GHz, –50 dBm to +30 dBm USB Power Sensor, 3.5 mm (m)
U2000B	10 MHz to 18 GHz, –30 dBm to +44 dBm USB Power Sensor, N-type (m)
U2001B	10 MHz to 6 GHz, –30 dBm to +44 dBm USB Power Sensor, N-type (m)

Standard Shipped Components

– USB power sensor unit
– Power sensor cable: 1.5 m, 3.0 m, or 5.0 m length (Option 301, 302, or 303) [1]
– Trigger Cable BNC male to SMB female 50 W, 1.5 m length
– Certificate of Calibration
– Documentation CD-ROM
– Keysight Instrument Control DVD
  – IO libraries suite
  – Command expert
  – BenchVue software platform
  – 30-day free trial of BenchVue power meter/sensor control and analysis app

1. A 1.5 m (Option 301) USB 2.0 compliant (power sensor) cable with USB Mini-B connector and locking mechanism to the sensor is provided. The default 1.5 m cable can be replaced with 3.0 m (Option 302) or 5.0 m (Option 303) for fee.

Options and Accessories

Special options

Option number	Description
U2001A-H03	U2001A sensor with extended frequency range, 3 MHz to 6 GHz
U2001A-H16	With 1 K ohms input trigger impedance. Higher impedance is typically required when several instruments' input trigger ports are connected in parallel for triggering purpose. Standard option has 50 ohms input trigger impedance.
U2001A-H25	U2001A sensor with extended power range, –60 dBm to +25 dBm
U2002A-H26	U2002A sensor with extended frequency range, 10 MHz to 26.5 GHz

Calibration certificates

Option number	Description
Option U200xx-A6J	ANSI Z540 compliance calibration test data including measurement uncertainties
Option U200xx-1A7	ISO17025 compliance calibration test data including measurement uncertainties

Software Application

The U2000 Series is supported by the Keysight BenchVue software and BV0007B Power Meter/ Sensor Control and Analysis app. Once you plug the USB power sensor into a PC and run the software you can see measurement results in a wide array of display formats and log data without any programming.

Option number	Description
BV0007B	Power Meter/Sensor Control and Analysis app

For more information, **www.keysight.com/find/BenchVue**

Additional Documentation

Selection can be made for the localized languages of the operating and service guide. The table below lists out the available languages.

Option number	Description
U200xx-0B1	English language operating and service guide
U200xx-ABJ	Japanese language operating and service guide

Additional cables

Option number	Description
U2031A	USB 2.0 compliance cable with USB Mini-B connector and locking mechanism, length 1.5 m (5 ft)
U2031B	USB 2.0 compliance cable with USB Mini-B connector and locking mechanism, length 3 m (10 ft)
U2031C	USB 2.0 compliance cable with USB Mini-B connector and locking mechanism, length 5 m (16.7 ft)
U2032A	Trigger cable BNC male to SMB female 50 W, length 1.5 m (5 ft)

Accessories

Option number	Description
U2000A-201 Transit Case	To fit in 4 USB sensors, operating and service guide, programming guide, cables
U2000A-202 Soft Carrying Case	To carry the sensor for field applications
U2000A-203 Holster	To mount on test systems
U2000A-204 Soft Carry Pouch	To carry the sensor for field applications

Warranty and Calibration

Each of the U2000 Series USB Power Sensors comes with a standard 12-month return to Keysight warranty. For an extension of the initial warranty and service plan to 3 or 5 years, order from the listed options below:

R1280A Return-to-Keysight warranty and service plan

Option number	Description
R-51B-001-C	1 year Return-to-Keysight warranty
R-51B-001-3C	1 year Return-to-Keysight warranty extended to 3 years
R-51B-001-5C	1 year Return-to-Keysight warranty extended to 5 years

R1282A Return-to-Keysight calibration plan [1]

Option number	Description
R-50C-011-3	Keysight Calibration Upfront Support Plan 3 years coverage
R-50C-011-5	Keysight Calibration Upfront Support Plan 5 years coverage
R-50C-021-3	Z540 Calibration Upfront Support Plan 3 years coverage
R-50C-021-5	Z540 Calibration Upfront Support Plan 5 years coverage
R-50C-016-3	17025 Calibration Upfront Support Plan 3 years coverage
R-50C-016-5	17025 Calibration Upfront Support Plan 5 years coverage

1. Only applicable for U2000A, U2001A, U2002A, and U2004A models.

For More Information

Keysight provides free, detailed product and application notes:

1. Fundamentals of RF and Microwave Power Measurements (Part 1), Application Note, literature number 5988-9213EN
2. Fundamentals of RF and Microwave Power Measurements (Part 2), Application Note, literature number 5988-9214EN
3. Fundamentals of RF and Microwave Power Measurements (Part 3), Application Note, literature number 5988-9215EN
4. Fundamentals of RF and Microwave Power Measurements (Part 4) , Application Note, literature number 5988-9216EN
5. 4 Steps for Making Better Power Measurements, Application Note, literature number 5965-8167E
6. Choosing the Right Power Meter and Sensor, Application Note, literature number 5968-7150E

Related Literature

Publication title	Publication number
U2000 Series USB Power Sensors - Data Sheet	5989-6278EN
U2000 Series USB Power Sensor - Technical Overview	5989-6279EN
U2000 Series USB Power Sensors - Configuration Guide	5989-6281EN
USB Power Sensors: Single/Multi-Channel Power Measurement - Application Note	5989-6280EN

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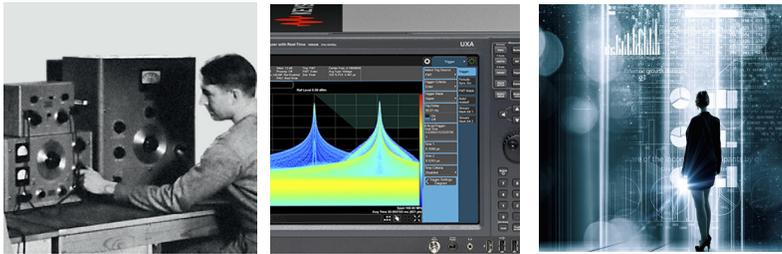|	
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For other unlisted countries:
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