

KEITHLEY

2016

The Keithley Model 2016 is a high-performance 6.5-digit audio analyzing digital multimeter (DMM). It combines standard high-accuracy DMM capabilities with high-quality audio band measurements, including Total Harmonic Distortion (THD), THD+Noise, and SINAD. Designed with a built-in 20Hz to 20kHz low-distortion sine wave generator, the Model 2016 provides dual output levels of up to 9.5Vrms single-ended or 19Vrms differential, making it ideal for characterizing audio-band devices, telecommunication systems, and automotive entertainment components.

SPECIFICATIONS

General

Interfaces	GPIB (IEEE-488.2), RS-232
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Physical

Operating Temperature	0 °C to 50 °C °C
Dimensions (W×H×D)	213 mm × 89 mm × 370 mm mm

DC Voltage Specifications

DCV Measurement Ranges	100 mV, 1 V, 10 V, 100 V, 1000 V
DCV Resolution	100 nV (6.5-digit resolution on 100 mV range)
Input Resistance	>10 GΩ on 100 mV, 1 V, 10 V ranges; 10 MΩ ±1% on 100 V, 1000 V ranges
Common Mode Rejection Ratio (CMRR)	>120 dB at DC, 50 Hz or 60 Hz (with 1 kΩ imbalance)
Normal Mode Rejection Ratio (NMRR)	>60 dB at 50 Hz or 60 Hz

AC Voltage Specifications

ACV Measurement Ranges	100 mV, 1 V, 10 V, 100 V, 750 V
ACV Resolution	100 nV
ACV Frequency Range	3 Hz to 300 kHz
ACV Crest Factor	5:1 at full scale
ACV Input Impedance	1 MΩ ±2% in parallel with <100 pF

Resistance Specifications

Resistance Measurement Ranges	100 Ω, 1 kΩ, 10 kΩ, 100 kΩ, 1 MΩ, 10 MΩ, 100 MΩ
Resistance Resolution	100 μΩ
Max Lead Resistance (4-Wire)	10% of range per lead (100 Ω range); 1 kΩ per lead (all other ranges)

Current Specifications

DCI Measurement Ranges	10 mA, 100 mA, 1 A, 3 A
ACI Measurement Ranges	1 A, 3 A
ACI Frequency Range	3 Hz to 5 kHz

Audio Band Sine Wave Generator

Frequency Range	20 Hz to 20 kHz
Output Voltage Range (Balanced)	0 to 19 Vrms differential
Output Voltage Range (Unbalanced)	0 to 9.5 Vrms single-ended

Audio Distortion Analyzer

THD Accuracy	±0.8 dB from 20 Hz to 20 kHz
THD+Noise Accuracy	±0.8 dB from 20 Hz to 20 kHz
SINAD Accuracy	±0.8 dB from 20 Hz to 20 kHz

System Speed and Memory

Reading Rate to Memory	Up to 2000 readings/s (at 4.5-digit resolution)
Reading Rate to GPIB	Up to 2000 readings/s (at 4.5-digit resolution)
Internal Buffer Capacity	1024 readings

Connectivity and Control

GPIB Interface	IEEE-488.2 conforming
Trigger Link Interface	8-pin micro-DIN

Environmental and Safety

Storage Temperature	-40 °C to 70 °C
Operating Humidity	80% R.H. non-condensing up to 35 °C
Warm-up Time	1 hour to rated specs

Audio Generator

Source Frequency Range	20 Hz - 20 kHz
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Power Specifications

Line Voltage Ranges	100 V / 120 V / 220 V / 240 V ±10%
Line Frequency Range	45 Hz - 66 Hz and 360 Hz - 440 Hz (automatically sensed)

DMM Measurements

Diode Test Current Source	1 mA
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Input Protection

Maximum Common Mode Voltage	500 V peak (LO to Earth)
Current Input Protection	3 A, 250 V fast-acting fuse

Temperature Measurement

RTD Temperature Measurement Range	-200 °C to +630 °C
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TECHNOLOGY

6.5-digit Audio Analyzing Digital Multimeter

APPLICATIONS

Audio-band device characterization, THD/SINAD testing, telecommunications hardware, and automotive infotainment testing

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