

KEITHLEY

2015

The Keithley 2015 is a 6½-digit Total Harmonic Distortion (THD) Multimeter that combines standard high-performance digital multimeter capabilities with specialized audio band quality measurement and analysis. It integrates a dedicated sine wave generator and built-in processing to measure THD, THD+N, and SINAD across the audio frequency spectrum (20 Hz to 20 kHz). Sharing a foundation with the industry-standard Keithley 2000 DMM, it allows engineers to consolidate broad AC/DC voltage, current, resistance, frequency, and distortion measurements into a single compact, half-rack instrument.

SPECIFICATIONS

General

Interfaces	GPIB (IEEE-488.2), RS-232
Display	Vacuum Fluorescent Display (VFD)
Data Buffer Capacity	1024 readings
Warm-up Time	1 hour to rated accuracy

Physical

Power Supply	100 V / 120 V / 220 V / 240 V $\pm 10\%$, 45-66 Hz and 360-440 Hz
Operating Temperature	0 to 50 °C
Dimensions (W×H×D)	213 x 89 x 370 mm mm
Weight	4.2 kg

General Specifications

Multimeter Resolution	6½ Digits
Form Factor	Half-rack, 2U height

DC Voltage Characteristics

DC Voltage Ranges	100 mV, 1 V, 10 V, 100 V, 1000 V
Maximum Resolution (DCV)	100 nV
Input Resistance	>10 GΩ (100 mV, 1 V, 10 V ranges); 10 MΩ $\pm 1\%$ (100 V, 1000 V ranges)

AC Voltage Characteristics

AC Voltage Ranges	100 mV, 1 V, 10 V, 100 V, 750 V
Maximum Resolution (ACV)	100 nV
AC Bandwidth	3 Hz to 300 kHz

Current Characteristics

DC Current Ranges	10 mA, 100 mA, 1 A, 3 A
DC Current Resolution	10 nA
AC Current Ranges	1 A, 3 A

Resistance Characteristics

Measurement Method	2-Wire and 4-Wire
Resistance Ranges	100 Ω , 1 k Ω , 10 k Ω , 100 k Ω , 1 M Ω , 10 M Ω , 100 M Ω
Maximum Resolution (Resistance)	100 $\mu\Omega$

Additional Multimeter Functions

Frequency Measurement Range	3 Hz to 500 kHz
Built-in Math Operations	Rel, Min/Max/Average/StdDev, dB, dBm, Limit Test

Audio Distortion Analysis

Measurement Functions	THD, THD+N, SINAD
Distortion Frequency Range	20 Hz to 20 kHz
Fundamental Voltage Range	100 mV, 1 V, 10 V, 100 V, 750 V ranges

Audio Function Generator

Waveform Output Type	Sine wave
Amplitude Range	Up to 4 Vrms (single-ended) / Up to 8 Vrms (differential)
Frequency Range	20 Hz to 20 kHz

Measurement Speeds and Triggering

Maximum Reading Rate	2000 readings/s (at 4.5 digits)
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Audio Analysis

Distortion Measurement Types	THD, THD+N, SINAD
Digital Audio Filters	A-weighting, CCITT, CCIR, CCIR-ARM, C-message, 400Hz High-pass, 30kHz/80kHz Low-pass

Audio Generator

Generator Output Impedance	50 Ω or 600 Ω (selectable)
Generator Amplitude Resolution	0.5 mV

Inputs

Maximum DC Input Voltage	1000V
Maximum AC Input Voltage	750V rms
Maximum Input Current	3A (fuse protected)

Environmental

Storage Temperature	-40°C to +70°C
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Power

Line Frequency Options	50 Hz, 60 Hz, 400 Hz
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Performance

Common Mode Rejection Ratio (CMRR)	140 dB (DC, with 1 kΩ unbalance)
Normal Mode Rejection Ratio (NMRR)	60 dB (DC, at 50/60 Hz)
Input Bias Current	< 30 pA @ 25°C
Overrange Capability	120% of range except on 1000V, 750V, and 3A ranges

Inputs & Outputs

External Trigger Input	TTL compatible
Voltmeter Complete (VMC) Output	TTL compatible

Software/Control

Programming Language	SCPI (Standard Commands for Programmable Instruments)
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TECHNOLOGY

Digital Multimeter with DSP-based Audio Analysis

APPLICATIONS

Audio band quality measurements, Total Harmonic Distortion (THD) analysis, Telecommunications testing, General-purpose bench and automated 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.