

**Aumictech**

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

KEITHLEY

Keithley 3390 Arbitrary Waveform Generator

Keithley 3390 50 MHz Arbitrary Waveform / Function Generator The Model 3390 is a 50 MHz arbitrary waveform and function generator with 14-bit, 125 MSa/s, 256k-point ARB memory, 1 uHz frequency resolution, and AM/FM/PM/FSK/PWM plus sweep and burst. Sine to 50 MHz, square to 25 MHz, pulse to 10 MHz with 20 ns minimum width, and a 16-bit pattern output to 50 MHz are specified. USB, LAN (LXI-C), and GPIB with SCPI-1993 are standard. KiWAVE waveform software is included in product literature. General-purpose analog stimulus to 50 MHz; pulse and square with fast edges; multi-unit 10 MHz reference lock; pattern-mode digital stimulus; modulated and burst production test. The Model 3390 is a 50 MHz arbitrary waveform and function generator with 14-bit, 125 MSa/s, 256k-point ARB memory, 1 uHz frequency resolution, and AM/FM/PM/FSK/PWM plus sweep and burst. Sine to 50 MHz, square to 25 MHz, pulse to 10 MHz with 20 ns minimum width, and a 16-bit pattern output to 50 MHz are specified. USB, LAN (LXI-C), and GPIB with SCPI-1993 are standard. KiWAVE waveform software is included in product literature. General-purpose analog stimulus to 50 MHz; pulse and square with fast edges; multi-unit 10 MHz reference lock; pattern-mode digital stimulus; modulated and burst production test.



MODEL

Keithley 3390

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

3390

LISTING

<https://aumictechlabs.com/products/3390-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keithley 3390 Arbitrary Waveform Generator combines Direct Digital Synthesis technology with flexible signal creation to deliver precise, low-distortion waveforms across a broad frequency spectrum. It generates standard function waveforms and user-defined arbitrary signals up to 256,000 points with 14-bit resolution, supporting applications from DC to 50 MHz. The instrument includes 4 MB of non-volatile memory for waveform storage and KiWAVE software for waveform design and management.

Technical Specifications

Arbitrary Waveform Capability

Waveform points: up to 256,000 Resolution: 14-bit (including sign) Sampling rate: 125 MSamples/second Non-volatile storage: 4 user-defined waveforms, each up to 256K points Includes KiWAVE software for waveform creation

Sine Wave Frequency range: 1 μ Hz to 50 MHz Amplitude flatness: 0.1 dB (DC–100 kHz), 0.15 dB (100 kHz–5 MHz), 0.3 dB (5–20 MHz), 0.5 dB (20–50 MHz) THD: $\leq 0.06\%$ typical (DC–20 kHz, ≥ 0.5 Vpp) Phase noise: -115 dBc/Hz typical (10 kHz offset, ≥ 1 MHz)

Square Wave Frequency range: 1 μ Hz to 25 MHz Rise/fall time: <10 ns Duty cycle: 20–80% (to 10 MHz), 40–60% (to 25 MHz) Jitter (RMS): 1 ns + 100 ppm of period

Ramp & Triangle Frequency range: 1 μ Hz to 200 kHz Linearity: $<0.25\%$ of peak output

Pulse Frequency range: 500 μ Hz to 10 MHz Pulse width: 20 ns minimum (10 ns resolution) Rise/fall time: 5 ns

Key Features

Eleven standard waveforms: Sine, Square, Ramp, Triangle, Pulse, Noise, DC, Exponential Rise, Exponential Fall, Negative Ramp, $\sin(x)/x$, and Cardiac

Modulation types: AM, FM, PM, FSK, PWM, Sweep, and Burst

One-button waveform generation for standard functions

Typical Applications

Signal generation for device characterization, circuit validation, audio testing, RF component evaluation, and custom waveform testing up to 50 MHz.

Compatibility & Integration

KiWAVE software enables waveform design, editing, and transfer to instrument memory.

Features & description

From manufacturer datasheet

Features

- Graph-mode display for visual verification of settings

3390 Characteristics / Specifications

PARAMETER	VALUE
Model	3390
Manufacturer	Keithley / Tektronix
Instrument Type	50 MHz arbitrary waveform and function generator
Alias	3390
Sine frequency	1 uHz to 50 MHz
Square frequency	1 uHz to 25 MHz
Ramp triangle frequency	1 uHz to 200 kHz
Pulse frequency	500 uHz to 10 MHz
ARB frequency	1 uHz to 10 MHz
Frequency resolution	1 uHz
ARB length	2 to 256k points
ARB resolution	14 bits including sign
Sample rate	125 MSa/s
ARB memory nonvolatile	4 waveforms × 256k points
Amplitude into 50 ohm	10 mVpp to 10 Vpp
Amplitude into high Z	20 mVpp to 20 Vpp
Amplitude accuracy at 1 kHz	±1% of setting ±1 mVpp
DC offset into 50 ohm	±5 V peak AC+DC
DC offset accuracy	±2% of offset ±0.5% of amplitude
Internal reference 90 day	±10 ppm
Internal reference one year	±20 ppm
Pulse width minimum	20 ns, 10 ns resolution (period ≤10 s)
Square rise fall	less than 10 ns
Pulse jitter RMS	300 ps + 0.1 ppm of period
Sine THD	≤0.06% typical DC to 20 kHz, V ≥0.5 Vpp

PARAMETER	VALUE
Phase offset	-360 deg to +360 deg, 0.001 deg resolution
Modulation	AM, FM, PM, FSK, PWM, sweep, burst
Sweep time	1 ms to 500 s linear or logarithmic
Pattern clock	up to 50 MHz
Interfaces	USB, LAN LXI-C, GPIB
Power	110 to 240 VAC $\pm 10\%$, 50 to 60 Hz, 50 VA max
Operating	0 C to 50 C
Dimensions	107 mm $\times$ 224 mm $\times$ 380 mm
Weight	4.08 kg
Warm up	1 hour Notes Specs from Keithley Model 3390 specifications SPEC-3390 Rev. D. Amplitude/offset specified with autorange; add 10%/C of spec outside 18 C to 28 C. Confirm GPIB presence on the rear panel of the specific unit.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
Specifications	
PARAMETER	VALUE
Model	3390
Manufacturer	Keithley / Tektronix
Instrument Type	50 MHz arbitrary waveform and function generator
Specifications	
PARAMETER	VALUE
Alias	3390
Sine frequency	1 uHz to 50 MHz
Square frequency	1 uHz to 25 MHz
Specifications	
PARAMETER	VALUE
Ramp triangle frequency	1 uHz to 200 kHz
Pulse frequency	500 uHz to 10 MHz
ARB frequency	1 uHz to 10 MHz
Specifications	
PARAMETER	VALUE
Frequency resolution	1 uHz
ARB length	2 to 256k points
ARB resolution	14 bits including sign
Specifications	
PARAMETER	VALUE
Sample rate	125 MSa/s
ARB memory nonvolatile	4 waveforms × 256k points
Amplitude into 50 ohm	10 mVpp to 10 Vpp

Specifications

PARAMETER	VALUE
Amplitude into high Z	20 mVpp to 20 Vpp
Amplitude accuracy at 1 kHz	±1% of setting ±1 mVpp
DC offset into 50 ohm	±5 V peak AC+DC

Specifications

PARAMETER	VALUE
DC offset accuracy	±2% of offset ±0.5% of amplitude
Internal reference 90 day	±10 ppm
Internal reference one year	±20 ppm

Specifications

PARAMETER	VALUE
Pulse width minimum	20 ns, 10 ns resolution (period ≤10 s)
Square rise fall	less than 10 ns
Pulse jitter RMS	300 ps + 0.1 ppm of period

Specifications

PARAMETER	VALUE
Sine THD	≤0.06% typical DC to 20 kHz, V ≥0.5 Vpp
Phase offset	-360 deg to +360 deg, 0.001 deg resolution
Modulation	AM, FM, PM, FSK, PWM, sweep, burst

Specifications

PARAMETER	VALUE
Sweep time	1 ms to 500 s linear or logarithmic
Pattern clock	up to 50 MHz
Interfaces	USB, LAN LXI-C, GPIB

Specifications

PARAMETER	VALUE
Power	110 to 240 VAC ±10%, 50 to 60 Hz, 50 VA max
Operating	0 C to 50 C
Dimensions	107 mm × 224 mm × 380 mm

Weight: 4.08 kg

Warm up: 1 hour

Notes

Specs from Keithley Model 3390 specifications SPEC-3390 Rev. D. Amplitude/offset specified with autorange; add 10%/C of spec outside 18 C to 28 C. Confirm GPIB presence on the rear panel of the specific unit.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 13, 2026

Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.