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Data Sheet

August 3, 2026

KEYSIGHT

Keysight 33519B 30MHz Waveform Generator

Keysight 33519B 30 MHz Waveform Generator The Keysight 33519B is a single-channel 30 MHz Trueform waveform generator in the 33500B Series without arbitrary waveform capability. It shares the Trueform performance envelope: jitter < 40 ps, THD < 0.04%, amplitude 1 mVpp to 10 Vpp, 250 MSa/s sampling, and 16-bit amplitude resolution. Optional OCX and SEC are available. Single-channel sine, square, pulse, ramp, and modulated function generation for design validation and ATE where arb memory is not required (use 33521B for 1-ch arb). The Keysight 33519B is a single-channel 30 MHz Trueform waveform generator in the 33500B Series without arbitrary waveform capability. It shares the Trueform performance envelope: jitter < 40 ps, THD < 0.04%, amplitude 1 mVpp to 10 Vpp, 250 MSa/s sampling, and 16-bit amplitude resolution. Optional OCX and SEC are available. Single-channel sine, square, pulse, ramp, and modulated function generation for design validation and ATE where arb memory is not required (use 33521B for 1-ch arb).



MODEL

Keysight 33519B

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

33519B

LISTING

<https://aumictechlabs.com/products/33519b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight 33519B is a single-channel waveform generator delivering 30 MHz maximum frequency for electronic testing, design validation, and signal characterization. Built on Trueform technology - a hybrid architecture combining point-to-point and DDS methods - it achieves 0.04% THD on sine waves and 10x lower jitter than conventional DDS generators, ensuring high signal

fidelity for precision measurements. The instrument generates standard waveforms (sine, square, ramp, pulse, triangle, Gaussian noise, PRBS, DC) and supports optional arbitrary waveform capability with up to 16 MSa/channel memory and point-by-point sequencing. A large color graphical display enables real-time parameter adjustment, waveform visualization, and front-panel editing without external software.

Technical Specifications

Maximum Frequency: 30 MHz (sine wave) Sampling Rate: 250 MSa/s Vertical Resolution: 16-bit Amplitude Range: 1 mVpp to 10 Vpp Harmonic Distortion (Sine): 0.04% THD typical Jitter (Pulses): Up to 10x lower than traditional DDS generators Waveform Memory: 1 MSa/channel standard; optional 16 MSa/channel upgrade

Dimensions: 261.1 mm × 103.8 mm × 303.2 mm (with bumpers); 212.8 mm × 88.3 mm × 272.3 mm (without bumpers)

Key Features

- Trueform hybrid architecture for reduced harmonic distortion and jitter
- Built-in modulation: AM, FM, PM, FSK, BPSK, PWM, Sum FM variable sweep capability
- Waveform summing and dual-tone multifrequency signal generation
- On dual-channel models: four-signal summation and combining
- Optional arbitrary waveform memory expansion to 16 MSa/channel
- Direct waveform import from oscilloscope or external software (MATLAB, Excel)
- Front-panel waveform creation and editing

Typical Applications

- Characterization of analog and digital circuits
- Design validation and prototyping
- Pulse and timing measurements
- Modulated signal generation for RF/communications testing
- Arbitrary waveform synthesis for custom test scenarios

Compatibility & Integration

- USB, LAN (LXI-C), and optional GPIB connectivity
- Front-panel USB thumb drive port for file transfer
- BenchVue-enabled for PC-based instrument control and automated sequences
- Software support: Keysight I/O Library, IVI-COM, VEE, and LabVIEW compatibility
- Built-in help system for on-device assistance

Features & description

From manufacturer datasheet

Features

• Bandwidth: 30 MHz; 1 channel • No arbitrary waveforms (contrast 33521B) • Trueform; jitter < 40 ps; THD < 0.04% • Amplitude: 1 mVpp to 10 Vpp • Sample rate: 250 MSa/s; 16-bit resolution • Options: OCX, SEC

33519B Characteristics / Specifications

PARAMETER	VALUE
Model	33519B
Manufacturer	Keysight Technologies
Instrument Type	Waveform Generator (Trueform; no arb)
Family	33500B Series
Alias	33519B; Keysight 33519B Bandwidth and Channels
Bandwidth	30 MHz; 1 channel
Number of Channels	1
Arbitrary Waveforms	No
Sine / Pulse	Up to 30 MHz Trueform Performance
Jitter	< 40 ps
THD	< 0.04%
Amplitude Range	1 mVpp to 10 Vpp
Sample Rate	250 MSa/s; 16-bit resolution
Amplitude Resolution	16-bit Options
OCX	High-stability OCXO timebase
SEC	NISPOM and file security Model Contrast 33519B: 30 MHz, 1 ch, no arb 33520B: 30 MHz, 2 ch, no arb 33521B: 30 MHz, 1 ch, with arb 33522B: 30 MHz, 2 ch, with arb Operational Notes Prefer Keysight 33500B Series fact sheet 5991-0757 and full datasheet for modulation and accuracy tables.
Amplitude	1 mVpp to 10 Vpp
Options	OCX, SEC

33519B Specifications

PARAMETER	VALUE
Keysight 33519B 30 MHz Waveform Generator	Overview
Key Features	- Bandwidth: 30 MHz; 1 channel
Technical Specifications	Model: 33519B
Bandwidth and Channels	Bandwidth: 30 MHz
Trueform Performance	Jitter: < 40 ps
Model Contrast	33519B: 30 MHz, 1 ch, no arb
Operational Notes	Prefer Keysight 33500B Series fact sheet 5991-0757 and full datasheet for modulation and accuracy tables.

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.

performance envelope: jitter < 40 ps, THD < 0.04%, amplitude 1 mVpp to 10 Vpp, 250 MSa/s sampling, and 16-bit amplitude resolution. Optional OCX and SEC are available.

Applications

Single-channel sine, square, pulse, ramp, and modulated function generation for design validation and ATE where arb memory is not required (use 33521B for 1-ch arb).

Key Features

- Bandwidth: 30 MHz; 1 channel
- No arbitrary waveforms (contrast 33521B)
- Trueform; jitter < 40 ps; THD < 0.04%
- Amplitude: 1 mVpp to 10 Vpp
- Sample rate: 250 MSa/s; 16-bit resolution
- Options: OCX, SEC

Technical Specifications

Technical Specifications

PARAMETER	VALUE
Model	33519B
Manufacturer	Keysight Technologies
Instrument Type	Waveform Generator (Trueform; no arb)
Family	33500B Series
Alias	33519B; Keysight 33519B

Bandwidth and Channels

Specifications

PARAMETER	VALUE
Bandwidth	30 MHz
Number of Channels	1
Arbitrary Waveforms	No
Sine / Pulse	Up to 30 MHz

Trueform Performance

Trueform Performance

PARAMETER	VALUE
Jitter	< 40 ps
THD	< 0.04%
Amplitude Range	1 mVpp to 10 Vpp

PARAMETER	VALUE
Sample Rate	250 MSa/s
Amplitude Resolution	16-bit

Options

Specifications

PARAMETER	VALUE
OCX	High-stability OCXO timebase
SEC	NISPOM and file security
Model Contrast	33519B: 30 MHz, 1 ch, no arb

33520B: 30 MHz, 2 ch, no arb
33521B: 30 MHz, 1 ch, with arb
33522B: 30 MHz, 2 ch, with arb

Operational Notes
Prefer Keysight 33500B Series fact sheet 5991-0757 and full datasheet for modulation and accuracy tables.

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

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NIST-traceable calibration · SAM registered ·
30-day returns
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.