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Data Sheet

August 3, 2026

KEYSIGHT

Keysight 33512B 20MHz Waveform Generator

Keysight 33512B 20 MHz Waveform Generator Overview The Keysight 33512B is a two-channel 20 MHz Trueform waveform generator with arbitrary waveform capability in the 33500B Series. It provides 250 MSa/s sampling, 16-bit amplitude resolution, standard 1 MSa/channel arb memory (16 MSa optional via MEM), jitter < 40 ps, and THD < 0.04%. Optional IQP baseband IQ player is available on 33512B. Applications Dual-channel function and arbitrary waveform generation at 20 MHz; IQ baseband playback (IQP); embedded and mixed-signal stimulus. Overview The Keysight 33512B is a two-channel 20 MHz Trueform waveform generator with arbitrary waveform capability in the 33500B Series. It provides 250 MSa/s sampling, 16-bit amplitude resolution, standard 1 MSa/channel arb memory (16 MSa optional via MEM), jitter < 40 ps, and THD < 0.04%. Optional IQP baseband IQ player is available on 33512B. Applications Dual-channel function and arbitrary waveform generation at 20 MHz; IQ baseband playback (IQP); embedded and mixed-signal stimulus. Key Features - Bandwidth: 20 MHz; 2 channels with arbitrary waveforms - Trueform; jitter < 40 ps; THD < 0.04% - Amplitude: 1 mVpp to 10 Vpp - Sample rate: 250 MSa/s; 16-bit resolution - Arb memory: 1 MSa/channel standard; 16 MSa with Option MEM - Optional: OCX, SEC, IQP



MODEL

Keysight 33512B

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

33512B

LISTING

<https://aumictechlabs.com/products/33512b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight 33512B 20 MHz Waveform Generator is a versatile instrument designed for generating a wide variety of signals with high fidelity. It has sine, square, ramp, pulse, and arbitrary waveforms, along with modulation features like AM, FM, and PM. With its arbitrary waveform generation capability, users can create custom waveforms to meet specific testing needs. The generator provides excellent signal quality and stability, ensuring accurate and reliable results in electronic design, testing, and research applications.

Features & description

From manufacturer datasheet

Features

- Bandwidth: 20 MHz; 2 channels with arbitrary waveforms - Trueform; jitter < 40 ps; THD < 0.04% - Amplitude: 1 mVpp to 10 Vpp - Sample rate: 250 MSa/s; 16-bit resolution - Arb memory: 1 MSa/channel standard; 16 MSa with Option MEM - Optional: OCX, SEC, IQP

33512B Characteristics / Specifications

PARAMETER	VALUE
Technical Specifications Model	33512B Manufacturer: Keysight Technologies Instrument Type: Waveform / Arbitrary Waveform Generator (Trueform) Family: 33500B Series Alias: 33512B; Keysight 33512B; Agilent 33512B
Bandwidth and Channels Bandwidth	20 MHz Number of Channels: 2 Arbitrary Waveforms: Yes
Trueform Performance Jitter	< 40 ps THD: < 0.04% Amplitude Range: 1 mVpp to 10 Vpp Sample Rate: 250 MSa/s Amplitude Resolution: 16-bit Memory: 1 MSa/channel standard; 16 MSa/channel with Option MEM
Model Contrast 33510B	20 MHz, 2 ch, no arb 33512B: 20 MHz, 2 ch, with arb 33511B: 20 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.
Bandwidth	20 MHz; 2 channels with arbitrary waveforms - Trueform; jitter < 40 ps; THD < 0.04% - Amplitude: 1 mVpp to 10 Vpp - Sample rate: 250 MSa/s; 16-bit resolution - Arb memory: 1 MSa/channel standard; 16 MSa with Option MEM - Optional: OCX, SEC, IQP

33512B Specifications

PARAMETER	VALUE
Keysight 33512B 20 MHz Waveform Generator	Overview
Applications	Dual-channel function and arbitrary waveform generation at 20 MHz; IQ baseband playback (IQP); embedded and mixed-signal stimulus.
Key Features	- Bandwidth: 20 MHz; 2 channels with arbitrary waveforms
Technical Specifications	Model: 33512B
Bandwidth and Channels	Bandwidth: 20 MHz
Trueform Performance	Jitter: < 40 ps
Options	MEM: 16 MSa memory per channel
Model Contrast	33510B: 20 MHz, 2 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.

Specifications Model: 33512B Manufacturer: Keysight Technologies Instrument Type: Waveform / Arbitrary Waveform Generator (Trueform) Family: 33500B Series Alias: 33512B; Keysight 33512B; Agilent 33512B

Bandwidth and Channels Bandwidth: 20 MHz Number of Channels: 2 Arbitrary Waveforms: Yes

Trueform Performance Jitter: < 40 ps THD: < 0.04% Amplitude Range: 1 mVpp to 10 Vpp Sample Rate: 250 MSa/s Amplitude Resolution: 16-bit Memory: 1 MSa/channel standard; 16 MSa/channel with Option MEM

Options MEM: 16 MSa memory per channel OCX: High-stability OCXO timebase SEC: NISPOM and file security IQP: IQ baseband signal player (33512B/33522B)

Model Contrast 33510B: 20 MHz, 2 ch, no arb 33512B: 20 MHz, 2 ch, with arb 33511B: 20 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.

Specifications

PARAMETER	VALUE
MEM	16 MSa memory per channel
OCX	High-stability OCXO timebase
SEC	NISPOM and file security
IQP	IQ baseband signal player (33512B/33522B)

Trueform Performance

PARAMETER	VALUE
Jitter	< 40 ps
THD	< 0.04%
Amplitude Range	1 mVpp to 10 Vpp
Sample Rate	250 MSa/s
Amplitude Resolution	16-bit
Memory	1 MSa/channel standard; 16 MSa/channel with Option MEM

Technical Specifications

PARAMETER	VALUE
Model	33512B
Manufacturer	Keysight Technologies
Instrument Type	Waveform / Arbitrary Waveform Generator (Trueform)
Family	33500B Series

PARAMETER

VALUE

Alias

33512B; Keysight 33512B; Agilent 33512B

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

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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.