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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 33502A

Agilent Keysight 33502A 2-Channel 50 Vpp Isolated Amplifier The Keysight 33502A is a dual-channel isolated high-voltage amplifier companion for function generators. OEM 33502A data sheet 5990-4826 lists 50 Vpp (plus or minus 25 V) output, 100 kHz full-power bandwidth at 50 Vpp, greater than 300 kHz small-signal bandwidth, 20 V/us minimum slew rate, THD+N less than 0.01 percent at 10 kHz 40 Vpp, 200 mA maximum drive, and isolation plus or minus 42 Vpk to earth. Boosting 33120A/33210A/33220A/33250A (and other ARBs) to 50 Vpp low-distortion isolated outputs. The Keysight 33502A is a dual-channel isolated high-voltage amplifier companion for function generators. OEM 33502A data sheet 5990-4826 lists 50 Vpp (plus or minus 25 V) output, 100 kHz full-power bandwidth at 50 Vpp, greater than 300 kHz small-signal bandwidth, 20 V/us minimum slew rate, THD+N less than 0.01 percent at 10 kHz 40 Vpp, 200 mA maximum drive, and isolation plus or minus 42 Vpk to earth. Boosting 33120A/33210A/33220A/33250A (and other ARBs) to 50 Vpp low-distortion isolated outputs. Independent AC/DC coupling and 50 ohm / 1 MOhm inputs



MODEL

**Agilent / Keysight
33502A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

33502A

LISTING

<https://aumictechlabs.com/products/33502a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 33502A is a dual-channel isolated amplifier that extends the output capabilities of function and arbitrary waveform generators. It delivers up to 50 Vpp (± 25 V) with

200 mA output current and greater than 20 V/ μ s slew rate, enabling high-power signal delivery to demanding test loads. Each channel floats ± 42 Vpk to earth, eliminating ground loop constraints while maintaining channel-to-channel isolation exceeding 75 dB at 5x gain.

Technical Specifications

Input Stage Programmable coupling: AC or DC (DC default) Selectable input impedance: 1 M Ω (default) or 50 Ω Gain options: 5x fixed non-inverting, 1x bypass, or off Gain accuracy: $\pm 0.1\%$ @ 1 kHz (≥ 1 M Ω load, 1 M Ω input) Maximum input voltage: ± 5 Vpk (5x gain); ± 30 Vpk (bypass) Input referred noise: 300 kHz Output current: 200 mA (150 mA continuous, -8 V to +8 V) Slew rate: >20 V/ μ s minimum THD+N: $<0.01\%$ @ 10 kHz, 40 Vpp DC output resistance: <2 Ω Output DC offset: <10 mV Transition time: 2.5 μ s + 50 ns/volt of output step

Waveform aberrations: $<5\%$ (inputs <3 V step or non-slewing outputs) Continuous short-circuit protection and thermal overload shutdown

Physical & Connectivity Form factor: 2U, half-rack (261.2 $\times$ 103.8 $\times$ 303.2 mm, 3.1 kg) LAN (LXI Class-C) and USB 2.0 interfaces SCPI 1994.0 and IEEE-488.2 command support Six front panel softkeys; USB thumb drive port Power supply: 100/120/220/240 VAC $\pm 10\%$

Key Features Isolated dual channels with floating ± 42 Vpk capability High output voltage swing and current drive for 50 Ω systems Low-distortion amplification with 20 V/ μ s slew rate LXI and USB remote control

Typical Applications High-voltage test signal conditioning Low-distortion waveform amplification Floating signal sourcing without ground references Power amplification of precision function generators

Compatibility & Integration Remote operation via LAN (LXI Class-C compliant) or USB 2.0. Full SCPI and IEEE-488.2 language support enables integration into automated test systems.

33502A Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Isolated dual-channel amplifier
Series Family	Keysight 33502A
Channel Count	2
Output Voltage Range	50 Vpp (plus or minus 25 V)
Full Power Bandwidth	100 kHz at 50 Vpp
Small Signal Bandwidth	greater than 300 kHz (minus 3 dB)
Slew Rate	20 V/us minimum
Thd Plus Noise	less than 0.01 percent at 10 kHz, 40 Vpp
Output Drive	200 mA maximum (0.2 Apk)
Isolation To Earth	plus or minus 42 Vpk
Gain	5x fixed, non-inverting (plus bypass 1x and off)
Gain Accuracy	plus or minus 0.1 percent at 1 kHz (greater than or equal to 1 MOhm load, 1 MOhm input)
Input Impedance	50 ohm or 1 MOhm selectable
Input Coupling	AC or DC selectable
Input Voltage Gain 5x	plus or minus 5 Vpk
Input Voltage Bypass	plus or minus 30 Vpk
Damage Level 50 Ohm Input	plus or minus 10 Vpk
Damage Level 1 MOhm Input	plus or minus 35 Vpk
Bypass Bandwidth 50 Ohm	greater than 300 MHz (minus 3 dB)
Remote Interface	LAN LXI ClassCand USB
Power Line	100/120/220/240 V plus or minus 10 percent, 50-60 Hz plus or minus 10 percent, 400 Hz plus or minus 10 percent
Power Consumption	100 VA peak typical
Form Factor	2-unit half-rack
Literature	Keysight 33502A data sheet 5990-4826

PARAMETER	VALUE
Bandwidth	100 kHz at 50 Vpp

33502A Specifications

PARAMETER	VALUE
Applications	Boosting 33120A/33210A/33220A/33250A (and other ARBs) to 50 Vpp low-distortion isolated outputs.
Key Features	Fixed 5x gain plus bypass (1x) and off
LAN (LXI Class C) and USB	2-unit half-rack
Technical Specifications	Instrument Type: Isolated dual-channel amplifier

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	
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Input Impedance	50 ohm or 1 MOhm selectable
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Input Voltage Gain 5x	plus or minus 5 Vpk
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Notes

Numeric rows from Keysight 33502A 2-Channel 50 Vpp Isolated Amplifier data sheet 5990-4826 and matching product-specification summaries (BW, slew, THD+N, isolation, I/O limits).

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
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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.