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Data Sheet
August 14, 2026

HP / AGILENT

HP / Agilent 3563A Control Systems Analyzer

HP Agilent 3563A Dual Channel Control Systems Analyzer The HP/Agilent 3563A isadual-channel control systems / FFT analyzer covering 64 uHz to 100 kHz for analog, digital, and mixed-signal control and filter characterization. OEM product literature describes single- or dual-channel operation for digital filters and devices with mixed analog/digital inputs and outputs. Control loop analysis, digital filter characterization, vibration and acoustics related baseband FFT work, and mixed-signal device response measurements to 100 kHz. The HP/Agilent 3563A isadual-channel control systems / FFT analyzer covering 64 uHz to 100 kHz for analog, digital, and mixed-signal control and filter characterization. OEM product literature describes single- or dual-channel operation for digital filters and devices with mixed analog/digital inputs and outputs. Control loop analysis, digital filter characterization, vibration and acoustics related baseband FFT work, and mixed-signal device response measurements to 100 kHz. Dual channel FFT control systems analyzer

MODEL HP / Agilent 3563A	CALIBRATION Available on request
CONDITION Used	STATUS In stock
RFQ / SKU 3563A	LISTING https://aumictechlabs.com/products/3563a-2/

NIST-traceable cal · SAM registered · 30-day returns

NAICS 423690 · 811210 · 541380

This unit

The HP/Agilent 3563A Control Systems Analyzer is an FFT-based instrument for comprehensive analysis and optimization of control systems across time and frequency domains. Dual-channel operation enables simultaneous measurement of analog signals (DC to 100 kHz) and digital signals (up to 256 kHz sample rate), making it ideal for mixed-signal system characterization. The

analyzer performs spectrum analysis, network analysis, transient analysis, frequency response measurement, waveform analysis, curve fitting in S- and Z-domains, vector averaging, and waveform math. Internal signal sources generate random noise, burst random, sine chirp, burst chirp, fixed sine, and swept sine stimuli. AM, FM, and PM demodulation capability supports modulation analysis. Auto-calibration ensures measurement accuracy of ±0.15 dB across an 80 dB or 150 dB dynamic range with 26.5 µHz resolution. Digital signals accept 16-bit parallel data (two's complement or offset binary) with eight qualifier lines, trigger, and clock inputs. Analog output delivers ±5 V peak AC (±10 V peak AC + DC) at up to 20 mA into ≥10 kΩ, <1000 pF loads. Digital TTL source supports up to 8 LSTTL loads at 256 kHz maximum rate. HP-IB programmable interface enables remote control and data acquisition. Technical Specifications Frequency range: 64 µHz to 100 kHz Dynamic range: 80 dB, 150 dB Resolution: 26.5 µHz across entire frequency range Amplitude accuracy: ±0.15 dB Dual-channel operation with simultaneous analog and digital measurements Analog measurements: DC to 100 kHz Digital measurements: Sample rates to 256 kHz, 16-bit parallel format Analog output: +10 to −10 V peak (AC + DC), ±5 V peak AC, ±10 V DC offset (100 mV steps) Maximum output current: 20 mA Digital TTL output: 8 LSTTL loads, 256 kHz maximum rate Power: 86–127 Vac or 196–253 Vac, 48–66 Hz, 450 VA maximum Dimensions: 426 mm W × 222 mm H × 578 mm D Weight: 27 kg (net), 36 kg (shipping) Key Features Internal signal sources: random noise, burst random, sine chirp, burst chirp, fixed sine, swept sine Measurement types: spectrum, network, transient, frequency response, waveform analysis, curve fitting, vector averaging, waveform math Modulation demodulation: AM, FM, PM Mixed analog/digital signal analysis Auto-calibration HP-IB programmable control Typical Applications Control system design and optimization Mixed-signal circuit testing and troubleshooting Frequency response characterization Modulation analysis Digital and analog stimulus-response measurement Compatibility & Integration HP-IB interface for controllers, plotters, and disk drives Compatible superset of HP 3562A dynamic signal analyzer

3563A Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Dual channel control systems analyzer
Frequency Range	64 uHz to 100 kHz
Channel Count	2
Operation Modes	Single or dual channel
Signal Domains	Analog digital and mixed signal
Primary Analysis	FFT control systems measurements
Form Factor	Benchtop analyzer
Series Family	HP 3563A
Remote Interface Class	HP IB class
Display Class	CRT analyzer display class
Source Capability Class	Built in source for stimulus response class
Dynamic Range Class	High dynamic range FFT class
Resolution Bandwidth Class	Selectable FFT resolution class
Averaging Modes Class	Linear and exponential averaging class
Marker Functions Class	Multi marker with delta class
Storage Class	Internal setup and trace memory class
Operating Temperature Class	Laboratory ambient class
Primary Power Class	Universal AC mains class
Warmup Time Class	30 minutes typical class
Weight Class	Benchtop analyzer weight class
Calibration Interval Class	One year class
Related Platform	Evolved from 3562A functionality class
Bandwidth	Class: Selectable FFT resolution class
Operating temperature	Class: Laboratory ambient class

3563A Specifications

PARAMETER	VALUE
HP Agilent 3563A Dual Channel Control Systems Analyzer	Overview
Dual channel FFT control systems analyzer	64 uHz to 100 kHz coverage
Technical Specifications	Instrument Type: Dual channel control systems analyzer

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Class: Laboratory ambient class
Operating Temperature	Class: Laboratory ambient class
Operating Temperature Class	Laboratory ambient class
Primary Power Class	Universal AC mains class
Warmup Time Class	30 minutes typical class
Weight Class	Benchtop analyzer weight class
Calibration Interval Class	One year class
Related Platform	Evolved from 3562A functionality class Notes From HP/Agilent 3563A control systems analyzer product documentation (64 uHz to 100 kHz dual channel). Confirm digital interface options on the faceplate and manuals.

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

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Notes
From HP/Agilent 3563A control systems analyzer product documentation (64 uHz to 100 kHz dual channel).
Confirm digital interface options on the faceplate and manuals.

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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