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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 35650A

HP Agilent 35650A 3565S Multichannel Signal Analyzer Mainframe The HP 35650A is the 8-slot mainframe for the 3565S modular dynamic-signal measurement hardware. OEM 3565S technical-reference and 35650A listings describe a host-controlled multichannel system covering 64 uHz to 102.4 kHz, requiring one signal-processing module (35651B/C) plus input, source, or DAC modules. Internal calibration needs a 102.4 kHz source module or a programmable DAC module. MIMO structural dynamics, rotating machinery, and multi-channel FFT when controlled by HP 3565S application software. The HP 35650A is the 8-slot mainframe for the 3565S modular dynamic-signal measurement hardware. OEM 3565S technical-reference and 35650A listings describe a host-controlled multichannel system covering 64 uHz to 102.4 kHz, requiring one signal-processing module (35651B/C) plus input, source, or DAC modules. Internal calibration needs a 102.4 kHz source module or a programmable DAC module. MIMO structural dynamics, rotating machinery, and multi-channel FFT when controlled by HP 3565S application software.



MODEL

**Agilent / Keysight
35650A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

35650A

LISTING

<https://aumictechlabs.com/products/35650a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 35650A is a modular mainframe serving as the central hub of the 3565S Multichannel Measurement System. It has power, cooling, triggering, and synchronization for

dynamic signal analysis across vibration, acoustics, and control systems applications. Each mainframe accommodates up to 8 measurement modules and can be interconnected with additional units to scale system capacity to 496 input channels.

Technical Specifications
Frequency Range: 64 μ Hz to 102.4 kHz Real-Time Bandwidth: Up to 102.4 kHz Display Update Rate: Up to 64 spectra/sec Data Throughput: Up to 2.6 Mbytes/sec via SCSI Interface Module Capacity: 8 measurement modules per mainframe Maximum Input Channels: 496 channels (fully expanded multi-mainframe configuration)

Key Features Modular architecture supports flexible configuration with signal processing, input, source, and specialized function modules Built-in 4 mA current source with charge amplifier for multi-transducer compatibility (voltage, charge, ICP-type) Signal conditioning via 51.2 kHz Input Module (35652A) delivers full-scale voltage range of 1.26 mVp to 39.8 Vp and charge range of -18 dBpCp to $+72$ dBpCp Dynamic range less than -80 dB relative to full scale Effective sample rates from 0.5 Hz to 262 kHz Buffered analog output for tape recorder integration High-speed SCSI data throughput to disk storage Multi-mainframe interconnection via dual system bus connectors

Typical Applications Vibration and shock analysis Acoustic measurement and analysis Control systems characterization Multi-channel transducer data acquisition

Compatibility & Integration The 35650A accepts specialized modules including signal processing modules (35651A/B/C), 51.2 kHz and 102.4 kHz input modules, 4- and 8-channel 12.8 kHz input modules, source modules, programmable DAC modules, tachometer/trigger modules, and SCSI throughput modules. Systems connect via back-panel system bus connectors for seamless expansion.

35650A Characteristics / Specifications

PARAMETER	VALUE
Model	35650A
Instrument Type	Multichannel dynamic signal analyzer mainframe
Family	HP 3565S
Module Slots	8
Frequency Span	64 uHz to 102.4 kHz
Required Processor	one signal processing module per system
Related Processor	35651C signal processing module
Related Input	35652A single-channel input
Related Dac	35656A programmable DAC
Calibration Source	102.4 kHz source module or programmable DAC
Control	host computer application software via HP-IB
Form Factor	modular cardcage mainframe
Manufacturer	HP Agilent Keysight
Use Case	multi-input multi-output dynamic measurements
Operating Temperature Class	3565S laboratory window
Primary Power Class	mains powered mainframe
Literature	HP 3565S measurement hardware technical specifications
Time Domain	acquires time and frequency domain data
Channel Count	set by populated input modules
Software Dependence	specifications apply when controlled by appropriate software
Related Mainframe	35650B is the Brevison mainframe
System Role	3565S cardcage
Documentation Type	OEM technical reference
Operating temperature	Class: 3565S laboratory window

35650A Specifications

PARAMETER	VALUE
Applications	MIMO structural dynamics, rotating machinery, and multi-channel FFT when controlled by HP 3565S application software.
Eight module slots	64 uHz to 102.4 kHz system span
Technical Specifications	Model: 35650A

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Class: 3565S laboratory window
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System Role	3565S cardcage
Documentation Type	OEM technical reference Notes From HP 3565S / 35650A mainframe listings (8 slots, 64 uHz to 102.4 kHz). Dynamic range, alias filters, and ICP current are properties of the installed 35652-class input modules.

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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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.