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Data Sheet

August 14, 2026

HP / AGILENT

HP / Agilent 54620C Color 16 Channel Logic Analyzer

HP Agilent 54620C 16 Channel Color Logic Timing Analyzer The Agilent/HP 54620C is a 16-channel logic timing analyzer with a color active-matrix LCD sharing the 54620 family 500 MSa/s timing engine. It provides 2 ns timing resolution on all channels with oscilloscope-like controls and Autoscale. Digital timing debug next to an oscilloscope, glitch detection on buses, and TTL CMOS ECL threshold troubleshooting on embedded boards. 500 MSa/s maximum sample rate 2 ns resolution The Agilent/HP 54620C is a 16-channel logic timing analyzer with a color active-matrix LCD sharing the 54620 family 500 MSa/s timing engine. It provides 2 ns timing resolution on all channels with oscilloscope-like controls and Autoscale. Digital timing debug next to an oscilloscope, glitch detection on buses, and TTL CMOS ECL threshold troubleshooting on embedded boards. 500 MSa/s maximum sample rate 2 ns resolution Color LCD for channel grouping and highlighting



MODEL

**HP / Agilent
54620C**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

54620C

LISTING

<https://aumictechlabs.com/products/54620c-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The HP/Agilent 54620C is a 16-channel logic analyzer built around a color active matrix LCD display and scope-like control interface for intuitive digital signal capture and analysis. Operating

at 500 MSa/s with configurable record lengths up to 8K samples, it delivers fast signal acquisition paired with automatic glitch detection down to 3.5 ns. Advanced triggering - edge, pattern, and dual-term logic with operators including Or, Then, Duration, and N-occurrence counting - enables capture of complex digital events. The timebase spans 5 ns/div to 1 s/div with 0.01% accuracy, supporting both main and delayed sweeps. Cursor-based measurements extract frequency, period, duty cycle, setup/hold time, and signal delays, with readout in hexadecimal or binary notation. Sixteen front-panel setups store configuration and trigger states in non-volatile memory, while dual volatile pixel memories preserve waveform displays for comparison. Channel labeling from a library of 75 presets plus user definitions streamlines multi-signal interpretation. The analyzer accepts all 16 channels or external trigger inputs and operates in Auto or Normal trigger modes. Timebase cursor accuracy reaches $\pm(\text{sample period} + 0.01\% \text{ of reading} + 0.2\% \text{ of screen width})$ for single-channel measurements, with dual-channel accuracy accounting for channel-to-channel skew. Compliance with CISPR 11 Class A and EC EMC Directive 89/336/EEC ensures reliable operation in industrial and laboratory environments.

54620C Characteristics / Specifications

PARAMETER	VALUE
Number of Channels	16 numbered 0 to 15
Maximum Sample Rate	500 MSa/s
Timing Resolution	2 ns
Input Resistance Capacitance	about 100 kOhm and 8 pF
Maximum Input Voltage	plus or minus 40 V
Dynamic Range About Threshold	plus or minus 10 V
Minimum Input Swing	500 mV peak to peak about threshold
Threshold Groups	channels 0 to 7 channels 8 to 15 and external trigger
Threshold Accuracy	plus or minus (13 percent of setting plus 100 mV)
Preset Threshold TTL	1.5 V
Preset Threshold CMOS	2.5 V
Preset Threshold ECL	minus 1.3 V
Channel to Channel Skew Typical	2.0 ns
Channel to Channel Skew Maximum	3.0 ns
Sweep Speeds	5 ns/div to 1 s/div
Delayed Sweep Minimum	5 ns/div and at least 2X main
Maximum Update Rate	15 full screens per second
Display	5.8 in active matrix color LCD
Display Resolution Class	256 vertical by 500 horizontal points class
Record Length Modes	glitch or normal Autoglitch selectable
Form Factor	Portable benchtop companion to 54600 scopes
Cable	Dual 8 channel micro grabber assembly

54620C Specifications

PARAMETER	VALUE
HP Agilent 54620C 16 Channel Color Logic Timing Analyzer	Overview
Applications	Digital timing debug next to an oscilloscope, glitch detection on buses, and TTL CMOS ECL threshold troubleshooting on embedded boards.
Key Features	16 simultaneous timing channels
Technical Specifications	Number of Channels: 16 numbered 0 to 15
Notes	Specs from Agilent 54620A/C Logic Analyzers data sheet. 54620C is the color-display variant of the 54620A monochrome model.

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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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.