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Data Sheet

August 31, 2026

AGILENT / KEYSIGHT

Agilent / Keysight 86100D Infiniium DCA-X Wide-Bandwidth Oscilloscope Mainframe

Agilent / Keysight 86100D Infiniium DCA-X Wideband Oscilloscope Mainframe The Agilent/Keysight 86100D is an Infiniium DCA-X digital communications analyzer mainframe. OEM 86100D data sheets list modular support for optical and electrical modules up to very high bandwidths (module dependent, including 70 GHz+ electrical modules), pattern lock trigger paths to 13 GHz (32 GHz with Option PTB), and analysis options for jitter, amplitude/RIN, and enhanced waveform analysis. Precision optical/electrical eye analysis, TDR/TDT, and multi-gigabit to millimeter-wave sampling scope measurements. The Agilent/Keysight 86100D is an Infiniium DCA-X digital communications analyzer mainframe. OEM 86100D data sheets list modular support for optical and electrical modules up to very high bandwidths (module dependent, including 70 GHz+ electrical modules), pattern lock trigger paths to 13 GHz (32 GHz with Option PTB), and analysis options for jitter, amplitude/RIN, and enhanced waveform analysis. Precision optical/electrical eye analysis, TDR/TDT, and multi-gigabit to millimeter-wave sampling scope measurements.



MODEL

**Agilent / Keysight
86100D**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

86100D

LISTING

<https://aumictechlabs.com/products/86100d-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight 86100D Infiniium DCA-X is a modular wide-bandwidth oscilloscope mainframe engineered for high-speed digital and optical signal analysis. It supports up to 16 channels simultaneously across data rates from 50 Mb/s to over 80 Gb/s, with extensible bandwidth configurations exceeding 100 GHz through plug-in modules. The platform delivers ultra-low intrinsic jitter - as low as 90 fs RMS at 44 GHz - and noise performance down to 250 μ V, making it ideal for optical transceiver characterization, ASIC/FPGA/IC testing, and serial bus analysis including TDR/TDT and S-parameter measurements.

Technical Specifications

Measurement Performance

Supported data rates: 50 Mb/s to over 80 Gb/s

Channel capacity: Up to 16 simultaneous channels

Bandwidth: Extensible with plug-in modules; configurations support >100 GHz

Jitter (typical RMS with 86100D mainframe and 86107A/86100D-PTB): <90 fs at 44 GHz

Jitter measurement capability: Down to 100 fs RMS

Noise floor: 250 μ V

Computing and Storage

Processor: Intel Core i5 3550S at 3.0 GHz

Hard drive: 80 GByte internal (standard) or 80 GByte removable (Option 090)

Operating system: Microsoft Windows 7 embedded standard (64-bit)

Display Screen: 10.4-inch color active matrix LCD (210.4 mm $\times$ 157.8 mm)

Resolution: 1024 $\times$ 768 pixels

Colors: Over 16 user-selectable waveform colors

Persistence modes: Gray scale, color grade, variable, infinite

Grid: Selectable on/off with 0–100% intensity

Connectivity

Front panel: Cal output (BNC female with test clip), trigger input (2.92 mm, 50 Ω , 2 Vpp max), three USB 2.0 ports (5.00 V $\pm$ 0.25 V, 100 mA each)

Rear panel: Gated trigger (TTL), video output (VGA, 15-pin D-sub female), GPIB (IEEE 488.2), RS-232 (9-pin D-sub male), four USB 2.0 ports (5.00 V $\pm$ 0.25 V, 500 mA each)

Key Features

Dual user interface options: FlexDCA (vector-based) and classic DCA

100% backwards compatible with all DCA modules and 86100C mainframe

Fully programmable GPIB interface

Grayscale and color persistence display modes

Typical Applications

Optical transceiver design and manufacturing

ASIC, FPGA, and IC characterization

Serial bus analysis and signal integrity

TDR/TDT and S-parameter measurements

Compatibility & Integration

The 86100D DCA-X maintains full backward compatibility with existing DCA modules and the 86100C mainframe, enabling seamless integration into established test environments.

86100D Characteristics / Specifications

PARAMETER	VALUE
Model	86100D
Instrument Type	Infiniium DCA-X wideband oscilloscope mainframe
Architecture	modular sampling oscilloscope mainframe
Module Capacity Class	up to 4 modules class
Compatible Modules	DCA optical electrical and TDR modules including 86100C family
Pattern Lock Frequency Range	50 MHz to 13 GHz (15 GHz characteristic)
Pattern Lock With Option PTB	50 MHz to 32 GHz
Clock Trigger Input Frequency Class	50 MHz to 13 GHz effective divide by 2 class
Clock Trigger With Option PTB	50 MHz to 32 GHz effective divide by 1
Trigger Sensitivity Class	200 mVpp for slew rate greater than 2 V/ns
Maximum Trigger Input	2 Vpp
Maximum PTB Input Option PTB	1.3 Vpp with DC offset up to +200 mV
Timebase Jitter Class	1.5 ps rms + 50 ppm of delay setting tested at 2.5 GHz 200 mVpp
Analysis Option 2	extended memory waveform analysis
Analysis Option 3	amplitude analysis RINQfactor
Analysis Option SIM	enhanced waveform analysis
Remote Interfaces	Ethernet GPIB
Form Factor	benchtop DCA-X mainframe
Brand Lineage	Agilent / Keysight
Series Family	Infiniium DCA-X 86100D
Operating Temperature Class	laboratory class
Power Mains Class	AC mains powered
Operating temperature	Class: laboratory class

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Class: laboratory class
Operating Temperature	Class: laboratory class
Operating Temperature Class	laboratory class
Power Mains Class	AC mains powered Notes From Keysight 86100D DCA-X Wide Bandwidth Oscilloscope Mainframe data sheet. Channel bandwidth and sensitivity are set by installed 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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Maximum Trigger Input	2 Vpp
Maximum PTB Input Option PTB	1.3 Vpp with DC offset up to +200 mV
Timebase Jitter Class	1.5 ps rms + 50 ppm of delay setting tested at 2.5 GHz 200 mVpp
Analysis Option 200	timing jitter analysis
Analysis Option 201	extended memory waveform analysis
Analysis Option 300	amplitude analysis RINQfactor
Analysis Option SIM	enhanced waveform analysis
Remote Interfaces	Ethernet GPIB
Form Factor	benchtop DCA-X mainframe
Brand Lineage	Agilent / Keysight
Series Family	Infiniium DCA-X 86100D
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Notes	
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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.