

KEYSIGHT TECHNOLOGIES (AGILENT HP)

86100D

The Keysight (formerly Agilent) 86100D Infiniium DCA-X is a wide-bandwidth oscilloscope and digital communication analyzer mainframe. Engineered for high-speed digital design characterization, it offers exceptional accuracy, insight, and ease of use. The modular DCA-X platform can be configured with optical, electrical, TDR/TDT, and S-parameter modules, and is capable of analyzing signals from 50 Mb/s to more than 40 Gb/s. It features dual user interfaces, integrated signal conditioning (de-embedding and equalization), and supports up to 16 parallel channels.

SPECIFICATIONS

General

Interfaces	USB, LAN, GPIB
Display	10.4-inch color XGA touchscreen

Physical

Operating Temperature	+10 to +40 °C
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Mainframe Characteristics

Supported Module Families	100% backwards compatible with all previous DCA modules
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Signal Processing and Analysis

Operating Modes	Scope, Eye/Mask, TDR/TDT, Jitter and Amplitude
Maximum Simultaneous Measurements	Up to 64
Signal Conditioning	Integrated de-embedding, embedding, and equalization
Jitter Analysis	Jitter Spectrum, Phase Locked Loop (PLL) Analysis, Uncorrelated Jitter (UJ), Long patterns (e.g., PRBS31)
Impedance & S-Parameter Measurements	Precision TDR/TDT with S-Parameter capability
Mathematical Functions	Graphical signal processing, Custom analysis via MATLAB

System and Display

User Interfaces	Dual UI: FlexDCA (customizable vector-based) and DCA-J (classic)
Front Panel Controls	User-defined multipurpose button, User-defined analog control knob, Vertical gain/offset controls

Connectivity and Interfaces

Remote Programming Interfaces	100% code compatible with 86100C
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Performance

Precision Timebase Jitter (Option PTB)	< 100 fs rms (maximum), < 50 fs rms (typical)
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System

Data Storage	Removable Hard Disk Drive or Solid State Drive
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Compliance

LXI Compliance	LXI Class C
Safety Compliance	IEC 61010-1

Environmental

Storage Temperature	-40 °C to +70 °C
Operating Altitude	Up to 4,600 meters (15,000 feet)

Software Options

PAM-N Analysis	Available via Option 9FP (PAM4 analysis)
Advanced Amplitude / Noise Analysis	Available via Option 300
PLL and Jitter Spectrum Measurement	Available via Option 400
InfiniiSim Waveform Transformation	Available via Option SIM (De-embedding toolset)
Advanced Waveform Analysis	Available via Option 201
Productivity Package	Available via Option 500

TECHNOLOGY

Wide-Bandwidth Sampling Oscilloscope / DCA

APPLICATIONS

High-Speed Digital Design Characterization, Transceiver Compliance Testing, Precision Impedance (TDR/TDT) Measurements

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