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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight 86116C 40 to 65 GHz Optical and 80 GHz Electrical Plug-in Modules

Electrical Bandwidth Characteristic: greater than 93 GHz Optical Fwhm Option 041: less than 7.4 ps FWHM characteristic, 86116C-041 Specified Temperature Range: +10 C to +40 C Modules Per Mainframe: up to two modules, four measurement channels Optical Fwhm Option 041: less than 7.4 ps FWHM characteristic, 86116C-041 Specified Temperature Range: +10 C to +40 C Modules Per Mainframe: up to two modules, four measurement channels Timebase Companion: 86107A precision timebase module



MODEL

**Agilent / Keysight
86116C**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

86116C

LISTING

<https://aumictechlabs.com/products/86116c-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 86116C is a plug-in module for the 86100C Digital Communication Analyzer that extends measurement capabilities to 40–65 GHz optical and 80 GHz electrical signals. It delivers precise characterization of high-speed optical and electrical signals across telecommunications, fiber optic R&D, and digital communication applications. The module performs eye diagram analysis, jitter measurement, pulse timing, amplitude and power analysis, extinction ratio, and BER testing. Technical Specifications Optical Channel Bandwidth: 40 to 65 GHz Wavelength Range: 750 nm to 1650 nm Input Type: Optical Connectors: FC/PC, LC (depends on installed optical interface) Return Loss: Better than 20 dB across specified wavelengths Input

Impedance: Determined by optical transceiver Electrical Channel Bandwidth: Up to 80 GHz Input Type: Electrical Connectors: 2.4 mm or V-type female Input Impedance: 50 Ohms Return Loss: Better than 15 dB to 65 GHz; better than 10 dB from 65–80 GHzKey Features Dual-channel optical and electrical measurement in one module Eye diagram capture and analysis Jitter decomposition (RJ, DJ, TJ) Rise/fall time and pulse width measurement Extinction ratio characterization Advanced triggering synchronized to optical and electrical inputs Internal and external calibration supportTypical Applications High-speed optical signal integrity testing Electrical channel characterization above 65 GHz Jitter and timing margin analysis for communication systems Fiber optic transceiver and component evaluationCompatibility & Integration Designed exclusively for Agilent/Keysight 86100C DCA mainframe Installs via proprietary module slot Supports user-configurable optical transceivers (SFP, SFP+, QSFP) Measurement results integrate with mainframe analysis software

86116C Characteristics / Specifications

PARAMETER	VALUE
Model	86116C
Instrument Type	Optical and electrical sampling oscilloscope plug-in
Series Family	Keysight 86100 DCA modules
Electrical Bandwidth Characteristic	greater than 93 GHz
Optical Fwhm Option 0	less than 7.4 ps FWHM characteristic, 86116C-041
Electrical System Risetime	3.9 ps
Specified Temperature Range	+10 C to +40 C
Host Mainframe	86100C Infiniium DCA-J
Modules Per Mainframe	up to two modules, four measurement channels
Timebase Companion	86107A precision timebase module
Target Symbol Rates	10 to 100 Gb/s class waveforms
Bandwidth Settings	user selectable to reduce instrumentation noise
Optical Channel Role	unfiltered best pulse-fidelity mode plus reduced-bandwidth settings
Electrical Channel Role	greater than 93 GHz with controlled frequency response
Form Factor	86100 plug-in module
Warranted Spec Temperature	+10 C to +40 C unless otherwise noted
Characteristic Notation	italic characteristics in the OEM specification table are non-warranted
Measurement Domain	equivalent-time sampling optical and electrical
Jitter Analysis Host	86100C jitter decomposition tools
Channel Count With Two Modules	four
Mainframe Slot Count	one plug-in slot in 86100C
Bandwidth	Characteristic: 45 GHz or 70 GHz characteristic depending on option

86116C Specifications

PARAMETER	VALUE
Applications	40/100 Gb/s optical pulse fidelity; 80 GHz-class electrical device waveforms; ultra-low-jitter eyes when paired with 86107A.
Two 86116C modules give four channels in an 86100C	Pairs with 86107A precision timebase for lowest residual jitter
Technical Specifications	Model: 86116C

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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Notes	
Numeric rows from Keysight 86116C 40 to 65 GHz Optical and 80 GHz Electrical Plug-in Modules brochure 5989-8359 (characteristic optical/electrical bandwidths, Option 041 FWHM, electrical risetime, +10 to +40 C). Full warranted noise and wavelength tables are in the 86116C specification table of that document.	

Ordering Information

OPTION	DESCRIPTION
Option 041	FWHM, electrical risetime, +10 to +40 C). Full warranted noise and wavelength tables are in the 86116C specification table of that document.

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.