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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight 86105B 15 GHz optical / 20 GHz electrical module 1000-1600 nm

Agilent 86105B 15 GHz Optical 20 GHz Electrical DCA Module The Agilent 86105B is an Infiniium DCA plug-in with 15 GHz optical and 20 GHz electrical channels. OEM Agilent 86105B 15 GHz Optical and 20 GHz Electrical Plug-In Module literature 5988-6929EN lists 1000 to 1600 nm, minus 12 dBm typical optical sensitivity, 5 μ W RMS noise, single-mode fiber input, and switchable reference-receiver filters from 155 Mb/s to 11.317 Gb/s. SONET/SDH, Ethernet, and Fibre Channel transmitter compliance from OC-3 through 10 GbE/10GFC; InfiniBand and XAUI mask tests with 86100A/B firmware; multi-rate manufacturing waveform characterization. The Agilent 86105B is an Infiniium DCA plug-in with 15 GHz optical and 20 GHz electrical channels. OEM Agilent 86105B 15 GHz Optical and 20 GHz Electrical Plug-In Module literature 5988-6929EN lists 1000 to 1600 nm, minus 12 dBm typical optical sensitivity, 5 μ W RMS noise, single-mode fiber input, and switchable reference-receiver filters from 155 Mb/s to 11.317 Gb/s. SONET/SDH, Ethernet, and Fibre Channel transmitter compliance from OC-3 through 10 GbE/10GFC; InfiniBand and XAUI mask tests with 86100A/B firmware; multi-rate manufacturing waveform characterization.



MODEL

**Agilent / Keysight
86105B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

86105B

LISTING

<https://aumictechlabs.com/products/86105b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight 86105B is a plug-in module for 86100 series oscilloscopes that combines optical and electrical measurement channels in a single instrument. It delivers 15 GHz optical bandwidth across the 1000–1600 nm wavelength range and 20 GHz electrical bandwidth, enabling signal integrity analysis and standards compliance verification for high-speed optical and electrical interfaces in telecommunications and datacom applications.

Technical Specifications

Optical
Channel Bandwidth: 15 GHz Wavelength range: 1000–1600 nm Fiber compatibility: 9/125 μm single-mode Characteristic RMS noise: 5 μW (10 GHz BW), 10 μW (15 GHz BW) Maximum average input power: 2 mW Sensitivity: -12 dBm @ 1310 nm Connector: FC/PC (2.5 mm keyway)

Electrical
Channel Bandwidth: 20 GHz Characteristic RMS noise: 0.25 mV (12.4 GHz BW), 0.5 mV (20 GHz BW) Maximum input signal: ± 2 V dc Connector: 3.5 mm male

Key Features

- Dual-channel architecture supports simultaneous optical and electrical measurements
- External filter ports on front panel for selectable bandwidth filtering
- Reference receiver capability with options for supported data rates
- Supports SONET, Ethernet, Fibre Channel, optical InfiniBand, and electrical XAUI signaling
- OTN G.709 compliance up to 10.71 Gb/s
- Data Rate Support Optical transmission characterization from 155 Mb/s through 10 Gb/s, including 622 Mb/s, 1.063 Gb/s, 1.25 Gb/s, 2.125 Gb/s, 2.488 Gb/s, 2.666 Gb/s, 9.953 Gb/s, 10.3125 Gb/s, 10.51875 Gb/s, 10.664 Gb/s, 10.709 Gb/s, and 11.317 Gb/s.

Compatibility & Integration The 86105B integrates with 86100A/B, 86100C, and 86100D Infiniium DCA mainframes. Firmware verification with specific mainframe revisions is recommended prior to deployment. The module is no longer in active production.

86105B Characteristics / Specifications

PARAMETER	VALUE
Model	86105B
Instrument Type	Optical and electrical sampling oscilloscope plug-in
Series Family	Agilent 86100 DCA modules
Electrical Bandwidth	20 GHz
Optical Wavelength Range	1000 nm to 1600 nm
Optical Sensitivity Typical	minus 12 dBm typical
Optical Sensitivity Spec At 1310 Nm	minus 12 dBm at 1310 nm
Rms Noise	5 μ W
Fibre Input	single-mode
Filter Option 111 Includes	155 Mb/s OC-3 and 622 Mb/s OC-12
Filter 1.063 Gbd	Fibre Channel
Filter 1.25 Gbd	Gigabit Ethernet
Filter 2.125 Gbd	2x Fibre Channel
Filter 2.488 Gbd	OC-48
Filter 2.500 Gbd	2x Gigabit Ethernet class
Filter 2.666 Gbd	OC-48 FEC
Filter 3.125 Gbd	InfiniBand
Filter 9.953 Gbd	OC-192
Filter 10.3125 Gbd	10 Gigabit Ethernet
Filter 10.51875 Gbd	10x Fibre Channel
Filter 10.664 Gbd	OC-192 FEC
Filter 10.709 Gbd	OC-192 ITU-T G.709
Filter 11.096 Gbd	10 Gigabit Ethernet FEC class
Filter 11.317 Gbd	10G Fibre Channel
Host Mainframe	86100A/B Infiniium DCA

PARAMETER	VALUE
Maximum Filter Rate	11.317 Gb/s
Wavelength range	1000 nm to 1600 nm
Bandwidth	15 GHz

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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PARAMETER	VALUE
Model	86105B
Instrument Type	Optical and electrical sampling oscilloscope plug-in
Series Family	Agilent 86100 DCA modules
Optical Bandwidth	15 GHz
Electrical Bandwidth	20 GHz
Optical Wavelength Range	1000 nm to 1600 nm
Optical Sensitivity Typical	minus 12 dBm typical
Optical Sensitivity Spec At 1310 Nm	minus 12 dBm at 1310 nm
Rms Noise	5 µW
Fibre Input	single-mode
Filter Option 111 Includes	155 Mb/s OC-3 and 622 Mb/s OC-12
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Filter 1.25 Gbd	Gigabit Ethernet
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Filter 10.709 Gbd	OC-192 ITU-T G.709
Filter 11.096 Gbd	10 Gigabit Ethernet FEC class
Filter 11.317 Gbd	10G Fibre Channel
Host Mainframe	86100A/B Infiniium DCA

PARAMETER	VALUE
Maximum Filter Rate	11.317 Gb/s

Notes

Numeric rows from Agilent 86105B 15 GHz Optical and 20 GHz Electrical Plug-In Module 5988-6929EN (including the option 111/112/113 filter coverage table). Some 5988-6929 pages are marked preliminary; confirm the installed option's filter list on the module faceplate.

Ordering Information

OPTION	DESCRIPTION
Option 111	Includes: 155 Mb/s OC-3 and 622 Mb/s OC-12
Includes	155 Mb/s OC-3 and 622 Mb/s OC-12

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 ·
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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.