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Data Sheet
August 13, 2026

AGILENT / KEYSIGHT

Agilent / Keysight 86103B 10 GHz optical / 20 GHz range: 1000-1600 nm

Keysight 86103B 10 GHz Optical / 20 GHz Electrical DCA Module The HP/Agilent/Keysight 86103B isaplug-in module for 86100A/B/C Infiniium DCA providing a 10 GHz amplified optical channel (1000–1600 nm) and a 20 GHz electrical channel with selectable 12.4 GHz or 20 GHz bandwidth. Switchable reference filters support OC-3, OC-12, Fibre Channel, and Gigabit Ethernet compliance testing. The HP/Agilent/Keysight 86103B isaplug-in module for 86100A/B/C Infiniium DCA providing a 10 GHz amplified optical channel (1000–1600 nm) and a 20 GHz electrical channel with selectable 12.4 GHz or 20 GHz bandwidth. Switchable reference filters support OC-3, OC-12, Fibre Channel, and Gigabit Ethernet compliance testing.

MODEL **Agilent / Keysight 86103B**	CALIBRATION **Available on request**
CONDITION **Used**	STATUS **In stock**
RFQ / SKU **86103B**	LISTING **https://aumictechlabs.com/products/86103b-2/**

NIST-traceable cal · SAM registered · 30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 86103B is a 10 GHz optical and 20 GHz electrical plug-in module for the 86100 series Infiniium DCA oscilloscopes. It delivers waveform characterization, eye diagram analysis, and timing jitter evaluation across the 1000–1600 nm wavelength range, with calibrated responses at 1310 nm and 1550 nm. The dual-channel architecture supports simultaneous optical and electrical signal acquisition, enabling transceiver compliance testing and high-speed datacom/telecom signal analysis.Technical Specifications Optical Channel Bandwidth: 10 GHz

Wavelength range: 1000 nm to 1600 nm (calibrated at 1310 nm / 1550 nm) Sensitivity (mask test): –15 dBm Transition time (10%–90%): 48 ps Characteristic RMS noise: 2.2 µW Maximum RMS noise: 3.7 µW Scale factor: 5 µW/div to 100 mW/div CW accuracy: ±6 mW ±2.4% of full scale ±3% of (reading – offset) Offset range: +0.2 mW to –0.6 mW Average power monitor range: –30 dBm to 0 dBm Factory calibrated accuracy (single mode): ±5% ±100 nW ± connector uncertainty (20°C–30°C) Factory calibrated accuracy (multimode): ±10% ±100 nW ± connector uncertainty (20°C–30°C) Fiber compatibility: 9/125 to 62.5/125 Electrical Channel Bandwidth: 12.4 GHz or 20 GHz (selectable) Characteristic RMS noise: 0.25 mV (12.4 GHz) / 0.5 mV (20 GHz) Maximum input: ±2 Vdc Input connector: 3.5 mm male Reference Receiver Switchable reference filters for compliance testing Supported rates: 622 Mb/s, 1.063 Gb/s, 1.25 Gb/s, 2.125 Gb/s, 2.488/2.5 Gb/s (via options)Key Features Dual optical and electrical channels in single module Amplified optical channel for low-power signal detection Selectable electrical bandwidth for noise/fidelity optimization Factory calibration recommended every 12 months Warranted performance: +10°C to +40°C Stabilization time: 1 hourTypical Applications Optical transceiver characterization and compliance verification High-speed electrical and optical signal analysis Eye diagram and jitter measurement in telecom/datacom systems Single-mode and multimode fiber signal evaluationCompatibility & Integration Plugin module for 86100A/B, 86100C, and 86100D Infiniium DCA mainframes. Standard FC/PC optical connector (Option 012); reference receiver options available for specific data rate standards.

Features & description

From manufacturer datasheet

Features

• 10 GHz optical channel 1000 to 1600 nm • 20 GHz electrical channel 12.4 or 20 GHz bandwidth modes • Switchable reference filters Options 201 202 203 • Calibrated integrated optical channel • 3.5 mm male electrical input • Works in 86100A/B/C DCA mainframes

Applications

• Multimode and singlemode optical eye diagrams to 10 GHz • Transceiver compliance at OC-3/OC-12 FC and GigE rates • High-speed electrical TDR/eye on 3.5 mm input • Research and production optical component characterization

86103B Characteristics / Specifications

PARAMETER	VALUE
Model	86103B
Manufacturer	Keysight / Agilent / Hewlett Packard
Instrument Type	DCA Plug-In Module
Alias	86103B; HP 86103B; Agilent 86103B
Mainframe compatibility	86100A 86100B 86100C DCA
Electrical bandwidth setting	12.4 GHz
Wavelength range optical	1000 to 1600 nm
Calibrated wavelengths	1310 nm and 1550 nm
Optical sensitivity typical	-15 dBm
Optical transition time 10 to 90 percent	48 ps at 10 GHz BW
Optical RMS noise characteristic 10 GHz	2.2 uW
Optical RMS noise Option 2	2 uW class
Electrical RMS noise 12.4 GHz BW	0.25 mV typical
Electrical RMS noise 20 GHz BW	0.5 mV typical
Maximum electrical input	plus or minus 2 Vdc
Fiber types supported	9/125 and 62.5/125 um
Electrical connector	3.5 mm male
Optical connector	user-selectable fiber adapter Notes Specs from Agilent 86100B wide-bandwidth oscilloscope module specifications for 86103B. Confirm installed filter options (201/202/203) and mainframe (86100A/B/C) on the system.
Wavelength range	optical: 1000 to 1600 nm
Bandwidth	modes - Switchable reference filters Options 201 202 203

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

Specifications

PARAMETER	VALUE
Model	86103B
Manufacturer	Keysight / Agilent / Hewlett Packard
Instrument Type	DCA Plug-In Module
Alias	86103B; HP 86103B; Agilent 86103B
Mainframe compatibility	86100A 86100B 86100C DCA
Optical bandwidth unfiltered	10 GHz
Electrical bandwidth setting 1	12.4 GHz
Electrical bandwidth setting 2	20 GHz
Wavelength range optical	1000 to 1600 nm
Calibrated wavelengths	1310 nm and 1550 nm
Optical sensitivity typical	-15 dBm
Optical transition time 10 to 90 percent	48 ps at 10 GHz BW
Optical RMS noise characteristic 10 GHz	2.2 uW
Optical RMS noise Option 201	2 uW class
Electrical RMS noise 12.4 GHz BW	0.25 mV typical
Electrical RMS noise 20 GHz BW	0.5 mV typical
Maximum electrical input	plus or minus 2 Vdc

Maximum non-destruct average optical power: 0.8 mW (-1 dBm) class
Maximum non-destruct peak optical power: 10 mW (+10 dBm)
Fiber types supported: 9/125 and 62.5/125 um
Option 201: 622 Mb/s and 2488/2500 Mb/s filters
Option 202: 1.063 Gb/s and 1.25 Gb/s filters
Option 203: 2125 Mb/s and 2488/2500 Mb/s filters
Electrical connector: 3.5 mm male
Optical connector: user-selectable fiber adapter

Notes
Specs from Agilent 86100B wide-bandwidth oscilloscope module specifications for 86103B. Confirm installed filter options (201/202/203) and mainframe (86100A/B/C) on the system.

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

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