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Data Sheet

August 13, 2026

HP / AGILENT

HP / Agilent 83485B 30 GHz optical / 40 GHz electrical module (9.953 Gb/s)

HP / Agilent 83485B 30 GHz Optical / 40 GHz Electrical DCA Module The HP/Agilent 83485B is an optical/electrical plug-in for 83480A and 86100A/B/C Infiniium DCA mainframes. It provides one 30 GHz optical channel (1000 to 1600 nm; 9/125 um SMF) and one electrical channel selectable 18 GHz or 40 GHz. Option 040 adds a fourth-order filter for 9.953 Gb/s reference-receiver testing; Option 050 is the fifth-order filter variant. 10 Gb/s optical transmitter compliance with switched SDH/SONET filter; 30 GHz optical eye diagrams; 40 GHz electrical tributary and receiver measurements; DCA systems needing combined O/E in one module. The HP/Agilent 83485B is an optical/electrical plug-in for 83480A and 86100A/B/C Infiniium DCA mainframes. It provides one 30 GHz optical channel (1000 to 1600 nm; 9/125 um SMF) and one electrical channel selectable 18 GHz or 40 GHz. Option 040 adds a fourth-order filter for 9.953 Gb/s reference-receiver testing; Option 050 is the fifth-order filter variant. 10 Gb/s optical transmitter compliance with switched SDH/SONET filter; 30 GHz optical eye diagrams; 40 GHz electrical tributary and receiver measurements; DCA systems needing combined O/E in one module.



MODEL

**HP / Agilent
83485B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

83485B

LISTING

<https://aumictechlabs.com/products/83485b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 83485B is a dual-channel plug-in module that integrates 30 GHz optical and 40 GHz electrical measurement capabilities into a single instrument. Designed for the Agilent/Keysight mainframe ecosystem, it supports data rates to 9.953 Gb/s and delivers waveform analysis, eye-diagram characterization, and jitter measurement for optical communications, transceiver validation, and high-speed digital design. Technical Specifications Optical Channel Bandwidth: 30 GHz Wavelength range: 1000–1600 nm (calibrated at 1310 nm and 1550 nm; user calibration available 1200–1600 nm) Fiber type: 9/125 single-mode Sensitivity: –8 dBm Reference receiver capability: 9.953 Gb/s with integrated 10 Gb/s optical filtered channel Integrated optical path minimizes signal distortion from external cabling Electrical Channel Bandwidth: 40 GHz (18 GHz reduced-bandwidth mode for improved noise performance) Input connectors: 2.4 mm male or 3.5 mm (sold separately) Compatible with external optical receivers Data Rate Support: Up to 9.953 Gb/s Key Features Switchable SDH/SONET filter for transceiver compliance testing Eye-diagram analysis with extinction-ratio measurements Integrated average optical power meter User-defined masks and custom templates for compliance validation Trigger channel input with selectable modes: Normal, High-sensitivity, and Bandwidth limit Fourth-order filter 10 Gb/s reference receiver (Option 040) Measurement Capabilities Waveform analysis, eye-diagram characterization, extinction-ratio measurement, jitter analysis (with compatible mainframes), and optical power monitoring. Compatibility & Integration Plug-in module compatible with the Agilent 83480A Digital Communications Analyzer, Agilent 86100A/B/C Infiniium DCA/DCA-J mainframes, and 54750A mainframe (with Option 002 firmware). Optional DIN 47256 optical interface available (Option 013).

Features & description

From manufacturer datasheet

Features

- Integrated calibrated optical channel at 1310 nm and 1550 nm • User cal 1200 to 1600 nm with source and power meter • Switchable SDH/SONET reference-receiver filter (Opt 040/050) • Electrical channel 18 GHz low-noise or 40 GHz full bandwidth • Trigger channel input to mainframe; probe power connectors

83485B Characteristics / Specifications

PARAMETER	VALUE
Model	83485B
Manufacturer	Hewlett Packard / Agilent / Keysight
Instrument Type	Optical/electrical DCA plug-in module
Alias	HP 83485B; Agilent 83485B; Keysight 83485B
Host Mainframes	83480A; 86100A; 86100B; 86100C
Optical Channels	1
Optical Wavelength Range	1000 nm to 1600 nm
Optical Fiber	9/125 um single-mode
Optical Calibration Wavelengths	1310 nm and 1550 nm
User Cal Wavelength Span	1200 nm to 1600 nm
Electrical Channels	1
Electrical Bandwidth High	40 GHz
Electrical Bandwidth Low Noise	18 GHz
Reference Receiver Rate Option 0	9.953 Gb/s fourth-order filter
Reference Receiver Option 0	fifth-order filter 10 Gb/s class
Electrical Connector Family	2.4 mm male
Trigger Bandwidth Family	2.5 GHz class
Trigger Connector Family	3.5 mm male
Nominal Impedance	50 ohm
Related Without Filter Switch	83482A same 30/40 GHz O/E without SONET filter
Related Lower Speed O/E	83481A family
Average Power Measurement	optical channel displays average power
Probe Power	one probe power connector
Auxiliary Power	one auxiliary power connector
Wavelength range	1000 nm to 1600 nm

PARAMETER	VALUE
Bandwidth	30 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	
Specifications	
PARAMETER	VALUE
Model	83485B
Manufacturer	Hewlett Packard / Agilent / Keysight
Instrument Type	Optical/electrical DCA plug-in module
Alias	HP 83485B; Agilent 83485B; Keysight 83485B
Host Mainframes	83480A; 86100A; 86100B; 86100C
Optical Channels	1
Optical Bandwidth	30 GHz
Optical Wavelength Range	1000 nm to 1600 nm
Optical Fiber	9/125 um single-mode
Optical Calibration Wavelengths	1310 nm and 1550 nm
User Cal Wavelength Span	1200 nm to 1600 nm
Electrical Channels	1
Electrical Bandwidth High	40 GHz
Electrical Bandwidth Low Noise	18 GHz
Reference Receiver Rate Option 040	9.953 Gb/s fourth-order filter
Reference Receiver Option 050	fifth-order filter 10 Gb/s class
Electrical Connector Family	2.4 mm male
Trigger Bandwidth Family	2.5 GHz class
Trigger Connector Family	3.5 mm male
Nominal Impedance	50 ohm
Related Without Filter Switch	83482A same 30/40 GHz O/E without SONET filter
Related Lower Speed O/E	83481A family
Option 011 Optical Connector: Diamond HMS-10/HP	
Option 012 Optical Connector: FC/PC	
Option 013 Optical Connector: DIN 47256	
Option 014 Optical Connector: ST	
Option 015 Optical Connector: Biconic	
Option 017 Optical Connector: SC	

Specifications

PARAMETER	VALUE
Average Power Measurement	optical channel displays average power
Probe Power	one probe power connector
Auxiliary Power	one auxiliary power connector

Notes
Specs from HP/Agilent 83485B product literature and 83482A/83485 family DCA module manuals. Confirm Option 040 versus 050 filter and optical connector option before compliance testing.

Ordering Information

OPTION	DESCRIPTION
Option 040	addsafourth-order filter for 9.953 Gb/s reference-receiver testing; Option 050 is the fifth-order filter variant.
Option 011	Optical Connector: Diamond HMS-10/HP
Option 012	Optical Connector: FC/PC
Option 013	Optical Connector: DIN 47256
Option 014	Optical Connector: ST
Option 015	Optical Connector: Biconic
Option 017	Optical Connector: SC

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 ·
30-day returns
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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.