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Data Sheet
August 13, 2026

AGILENT / KEYSIGHT

Agilent / Keysight 83480A Digital Communications Analyzer, up to 50 GHz bandwidths

Keysight 83480A Digital Communications Analyzer Mainframe The Agilent/HP/Keysight 83480A isamodular digital communications analyzer mainframe for high speed telecom and data com waveform characterization with automated eye diagram and pulse mask testing. It accepts up to two plug-in modules for four channels total, supports electrical bandwidths to 50 GHz depending on module, integrated optical reference receivers, and HP-IB remote programming. SONET/SDH Fibre Channel and Gigabit Ethernet transmitter test; optical eye diagram and extinction ratio measurements; low rate tributary through 10 Gb/s optical waveform analysis; TDR/TDT module based impedance measurements. The Agilent/HP/Keysight 83480A isamodular digital communications analyzer mainframe for high speed telecom and data com waveform characterization with automated eye diagram and pulse mask testing. It accepts up to two plug-in modules for four channels total, supports electrical bandwidths to 50 GHz depending on module, integrated optical reference receivers, and HP-IB remote programming. SONET/SDH Fibre Channel and Gigabit Ethernet transmitter test; optical eye diagram and extinction ratio measurements; low rate tributary through 10 Gb/s optical waveform analysis; TDR/TDT module based impedance measurements.

MODEL **Agilent / Keysight 83480A**	CALIBRATION **Available on request**
CONDITION **Used**	STATUS **In stock**
RFQ / SKU **83480A**	LISTING **https://aumictechlabs.com/products/83480a-2/**

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NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 83480A Digital Communications Analyzer is a modular instrument for characterization of high-speed digital communication signals up to 50 GHz bandwidth. Its plug-in architecture supports up to two dual-channel modules, enabling simultaneous optical and electrical measurements. The instrument delivers calibrated waveform analysis, jitter characterization, and conformance testing against user-defined and industry-standard masks - making it essential for telecommunications and datacom development, production, and validation.Technical Specifications Electrical Channels Bandwidth up to 50 GHz Calibrated measurement in volts Selectable bandwidth settings for sensitivity and fidelity optimization TDR and TDT measurement support via dedicated modules Optical Channels Optical bandwidth >2.85 GHz (83486A module) Wavelength range 1000 nm to 1600 nm Calibrated measurement in optical power units Multimode fiber support (maximum 62.5/125 µm) Specific optical filters for 155/622 Mb/s SONET/SDH and 1063/1250 Mb/s datacom applications Mainframe Up to two plug-in modules accommodated Parallel data acquisition and measurement analysis MS-DOS compatible floppy drive for firmware and data storage Backward compatible with 54750A High-Bandwidth Digitizing Oscilloscope Mainframe modulesKey Features Automated eye-diagram and pulse-template statistical measurements Built-in mask editor for custom mask creation and storage Failure logging against defined masks Extinction ratio measurements using histogram-based algorithms Predefined masks and templates for OC-1, STM4/OC-12, STM16/OC-48, STS-1, DS1, Gigabit Ethernet, OC-24, STM-64/OC-192, PDH E-1, and additional standards Support for 155, 622, 1063, 1250, 2488, and 9953 Mbit/s data ratesTypical Applications SDH/SONET transmitter testing Fibre Channel signal characterization Gigabit Ethernet compliance verification Jitter measurement and analysis High-speed waveform validation in research and production environmentsCompatibility & Integration Backward compatible with predecessor modules from the 54750A mainframe family. Jitter transfer and jitter tolerance measurements may require complementary instruments such as the HP 71501B/C or HP 75000 Series 90/95.

83480A Characteristics / Specifications

PARAMETER	VALUE
Model	83480A
Manufacturer	Agilent / HP / Keysight
Instrument Type	Digital Communications Analyzer Mainframe
Alias	83480A; HP 83480A; Agilent 83480A; Keysight 83480A
Module slots	2 plug-in modules maximum
Channel capacity	up to 4 measurement channels
Electrical bandwidth maximum	50 GHz (module dependent)
Horizontal range	10 ps/div to 1 s/div
Interval accuracy	8 ps
Trigger bandwidth normal mode	DC to 2.5 GHz
Trigger bandwidth Option 1	2.0 to 12 GHz (1 to 15 GHz typical)
Trigger sensitivity normal	40 mVpp at 100 MHz to 200 mV at 2.5 GHz
Trigger level range	plus/minus 1 V
Maximum trigger signal	less than 2 V DC plus AC peak (+16 dBm)
Trigger jitter normal mode	less than 2.5 ps rms plus 5E-5 times delay at 2.5 GHz
Trigger jitter Option 1	less than 2 ps rms typical (short delay)
Display resolution	451 horizontal by 256 vertical points
Averaging depth	1 to 4096 acquisitions
Programmability	HP-IB IEEE 488.2
Optical module example 83481A	20 GHz electrical plus 2.5 GHz optical 155/622 Mb/s filters
Optical module example 83482A	40 GHz electrical plus 30 GHz optical
Optical module example 83485B	40 GHz electrical plus 10 Gb/s filtered optical
Optical module example 83486A	2.5 GHz optical SM/MM 155/622 and 1063/1250 Mb/s filters
Optical module example 83487A	850 nm 2.5 GHz 1063/1250 Mb/s filters
Mask standards	SONET/SDH; Fibre Channel; Gigabit Ethernet templates

PARAMETER	VALUE
Reference receivers	calibrated filter switched for standard rates
Related TDR modules	54754A differential TDR/TDT module family compatible Notes Mainframe specs from Agilent 83480A datasheet; optical/electrical limits depend on installed 8348x plug in module. Confirm module set, Option 100 trigger, and calibration on the system.
Bandwidth	maximum: 50 GHz (module dependent)

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	83480A
Manufacturer	Agilent / HP / Keysight
Instrument Type	Digital Communications Analyzer Mainframe
Alias	83480A; HP 83480A; Agilent 83480A; Keysight 83480A
Module slots	2 plug-in modules maximum
Channel capacity	up to 4 measurement channels
Electrical bandwidth maximum	50 GHz (module dependent)
Optical bandwidth examples	2.5 GHz; 10 Gb/s filtered; 20 GHz; 30 GHz modules
Horizontal range	10 ps/div to 1 s/div
Interval accuracy	8 ps
Trigger bandwidth normal mode	DC to 2.5 GHz
Trigger bandwidth Option 100	2.0 to 12 GHz (1 to 15 GHz typical)
Trigger sensitivity normal	40 mVpp at 100 MHz to 200 mV at 2.5 GHz
Trigger level range	plus/minus 1 V
Maximum trigger signal	less than 2 V DC plus AC peak (+16 dBm)
Trigger jitter normal mode	less than 2.5 ps rms plus 5E-5 times delay at 2.5 GHz
Trigger jitter Option 100	less than 2 ps rms typical (short delay)
Display resolution	451 horizontal by 256 vertical points
Averaging depth	1 to 4096 acquisitions
Programmability	HP-IB IEEE 488.2
Optical module example 83481A	20 GHz electrical plus 2.5 GHz optical 155/622 Mb/s filters
Optical module example 83482A	40 GHz electrical plus 30 GHz optical
Optical module example 83485B	40 GHz electrical plus 10 Gb/s filtered optical
Optical module example 83486A	2.5 GHz optical SM/MM 155/622 and 1063/1250 Mb/s filters
Optical module example 83487A	850 nm 2.5 GHz 1063/1250 Mb/s filters
Mask standards	SONET/SDH; Fibre Channel; Gigabit Ethernet templates

PARAMETER	VALUE
Reference receivers	calibrated filter switched for standard rates
Related TDR modules	54754A differential TDR/TDT module family compatible

Notes

Mainframe specs from Agilent 83480A datasheet; optical/electrical limits depend on installed 8348x plug in module. Confirm module set, Option 100 trigger, and calibration on the system.

Ordering Information

OPTION	DESCRIPTION
Option 100	trigger, and calibration 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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