

KEYSIGHT TECHNOLOGIES (AGILENT HP)

83480A

The Agilent/Keysight 83480A is a modular Digital Communications Analyzer mainframe designed for high-speed optical and electrical waveform analysis, eye-diagram characterization, and compliance mask testing. Operating as a high-bandwidth equivalent-time sampling oscilloscope, it accommodates up to two plug-in modules to support bandwidths up to 50 GHz, making it an industry-standard platform for SDH/SONET, Fibre Channel, and Ethernet transceiver characterization.

SPECIFICATIONS

Mainframe & Configuration

Number of Plug-in Slots	2 slots
Maximum Channels Supported	4 channels (using two dual-channel modules)
Backward Compatibility	All HP/Agilent 54750A plug-in modules
Plug-In Module Compatibility	83480 series and 54750 series optical and electrical modules
Mainframe Bandwidth Support	Up to 50 GHz (module dependent)

Vertical System (Optical & Electrical)

Vertical Scale Factor Range	Module-dependent (typically 1 mV/div to 100 mV/div)
Reference Receivers Support	Integrated within compatible optical plug-in modules

Horizontal System (Timebase)

Sampling Mode	Equivalent-time sampling
---------------	--------------------------

Triggering System

Standard Trigger Frequency Range	DC to 2.5 GHz
External Trigger Input Impedance	50 ohms (nominal)

Measurement & Analysis Capabilities

Eye-Diagram Parameter Measurements	Extinction ratio, eye height, eye width, crossing percentage, Q-factor, SNR, jitter (RMS and p-p)
Automatic Pulse Measurements	Rise/fall time, pulse width, period, frequency, overshoot, undershoot, duty cycle, peak-to-peak amplitude
Histogram Features	Vertical and horizontal histograms with automatic statistical reporting
Auto-scale Feature	One-button automatic vertical and horizontal scaling

Display & User Interface

Waveform Accumulation Modes	Infinite persistence, variable persistence, and color-graded display
Horizontal/Vertical Zoom	Supported (magnified waveform analysis)

Connectivity, I/O & Storage

GPIB Capability	IEEE-488.2 standard interface
Removable Storage Media Support	3.5-inch 1.44 MB floppy disk drive
Internal Waveform Storage Capacity	Up to 4 volatile waveforms
Programming Language Support	SCPI (Standard Commands for Programmable Instruments)

Environmental & Compliance

Operating Temperature (Specified Accuracy)	15 °C to 35 °C
Storage Temperature Range	-40 °C to +70 °C
Operating Altitude Limit	4,600 m (15,000 ft)
Recommended Calibration Cycle	1 year

Acquisition

Maximum Waveform Record Length	4096 points
--------------------------------	-------------

TECHNOLOGY

Equivalent-time sampling oscilloscope

APPLICATIONS

High-speed optical and electrical communication testing, eye-diagram analysis, and compliance mask testing

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.