

KEYSIGHT TECHNOLOGIES (AGILENT HP)

83483A

The Keysight (Agilent/HP) 83483A is a dual-channel 20 GHz electrical sampling oscilloscope plug-in module designed for use with the 83480A and 54750A Digital Communications Analyzer mainframes. It offers selectable bandwidth settings (20 GHz for fast transition times and 12.4 GHz for low-noise measurements) making it ideal for high-speed digital telecom and datacom waveform analysis.

SPECIFICATIONS

General

Interfaces	Proprietary mainframe plug-in interface slot connector
Display	None (utilizes mainframe display)

Physical

Power Supply	Powered directly by the mainframe slot
Operating Temperature	15 °C to 35 °C (for full accuracy) / 10 °C to 40 °C (operating) °C
Weight	1.2 kg

Electrical Channel Specifications

Number of Channels	2
Electrical Bandwidth (-3 dB)	20 GHz (High Bandwidth mode) / 12.4 GHz (Low Noise mode)
Transition Time (10% to 90%)	≤ 17.5 ps (20 GHz mode) / ≤ 28.2 ps (12.4 GHz mode)
Maximum RMS Noise	≤ 0.5 mV (20 GHz mode) / ≤ 0.25 mV (12.4 GHz mode)
Typical RMS Noise	0.3 mV (20 GHz mode) / 0.15 mV (12.4 GHz mode)
Input Impedance	50 Ω
Electrical Connector Type	3.5 mm (male)
Maximum Safe Input Voltage	±2.0 V (DC + peak AC) or 16 dBm
Vertical Scale Factor Range	1 mV/div to 100 mV/div
DC Gain Accuracy	±2% of full scale
Dynamic Range	±400 mV relative to channel offset

System Performance

Compatible Mainframes	HP / Agilent 83480A, 54750A
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Physical Specifications

Form Factor	Single-slot plug-in module
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Performance

Selectable Bandwidth Settings	12.4 GHz / 20 GHz
DC Offset Range	±2 V
Input Reflection	≤ 5% (for 30 ps rise time)
Channel-to-Channel Isolation	≥ 40 dB (DC to 12.4 GHz), ≥ 34 dB (12.4 GHz to 20 GHz)

Environmental

Operating Humidity	Up to 95% RH at 40 °C (non-condensing)
Operating Altitude	Up to 4,600 m (15,000 ft)
Non-operating Altitude	Up to 15,300 m (50,000 ft)

Vertical System

DC Offset Accuracy	±2 mV ± 0.5% of offset setting
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Inputs

Maximum Safe RF Power	+16 dBm
Input Connector Gender	Male

TECHNOLOGY

Sampling Oscilloscope

APPLICATIONS

High-speed electrical digital communications analysis

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