

KEYSIGHT TECHNOLOGIES (AGILENT HP)

54751A

The Keysight (Agilent/HP) 54751A is a dual-channel, 20 GHz electrical sampling module designed for use with the HP/Agilent 54750A and 83480A digital communications analyzer mainframes. It features user-selectable bandwidth modes (20 GHz and 12.4 GHz) to optimize the balance between high-frequency response and low noise floor.

SPECIFICATIONS

General

Interfaces	Mainframe backplane connector
Display	None (uses mainframe display)

Physical

Power Supply	Powered by mainframe plug-in slot
Operating Temperature	15 °C to 35 °C (specified); 10 °C to 40 °C (operating) °C
Dimensions (W×H×D)	97 mm × 89 mm × 318 mm mm

Module Overview & Compatibility

Module Type	Electrical Sampling Module
Supported Mainframe Series	HP / Agilent 54750A, 83480A
Slot Width Requirement	1 slot
Number of Input Channels	2

Electrical Channel Specifications

Electrical Bandwidth	20 GHz (High Bandwidth Mode) / 12.4 GHz (Low Noise Mode)
Risetime (10% to 90%)	17.5 ps (20 GHz Mode) / 28.2 ps (12.4 GHz Mode)
Vertical Sensitivity Range	1 mV/div to 100 mV/div
Input Impedance	50 Ohm
Input Connector Type	3.5 mm (female)

Signal Integrity & Noise Performance

RMS Noise Floor (Maximum)	1.0 mV (20 GHz Mode) / 0.5 mV (12.4 GHz Mode)
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Vertical System

Offset Range	±1.0 V
Dynamic Range	±400 mV relative to channel offset
Vertical Scale Factor Range	1 mV/div to 100 mV/div
Selectable Bandwidth Limits	12.4 GHz, 20 GHz
Calculated Risetime (20 GHz Mode)	17.5 ps
Calculated Risetime (12.4 GHz Mode)	28.2 ps
RMS Noise (Typical, 12.4 GHz Mode)	0.3 mV
RMS Noise (Typical, 20 GHz Mode)	0.7 mV
RMS Noise (Maximum, 12.4 GHz Mode)	0.5 mV
RMS Noise (Maximum, 20 GHz Mode)	1.0 mV

TECHNOLOGY

Electrical Sampling

APPLICATIONS

High-speed digital signal analysis, optical transceiver testing, and TDR 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.