

KEYSIGHT TECHNOLOGIES (AGILENT HP)

86106B

The Agilent/Keysight 86106B is a high-performance optical and electrical sampling oscilloscope plug-in module designed for the 86100 series Infiniium Digital Communications Analyzer (DCA) mainframes. It features an integrated, calibrated optical channel with a built-in, switchable OC-192/STM-64 reference receiver filter for transmitter compliance testing, along with 28 GHz of unfiltered optical bandwidth. Additionally, it offers a high-bandwidth 40 GHz electrical channel with a 2.4 mm male input, making it an ideal solution for precise characterization of high-speed telecommunication and data communication waveforms.

SPECIFICATIONS

Physical

Power Supply	Power supplied by mainframe slot
Operating Temperature	10 to 40 °C °C

Optical Channel

Wavelength Range	1000 to 1600 nm
Optical Bandwidth (Unfiltered)	28 GHz
Fiber Compatibility	9/125 µm (Single-mode fiber)
Maximum Average Input Power	2 mW (+3 dBm)
Supported Reference Receiver Filters	OC-192 / STM-64, 10G Ethernet
Supported Reference Receiver Data Rates	9.953 Gb/s, 10.3125 Gb/s, 10.664 Gb/s, 10.709 Gb/s
Detector Type	InGaAs PIN
Optical Return Loss	> 30 dB

Electrical Channel

Electrical Channel Bandwidth	40 GHz
Electrical Input Connector	2.4 mm (female)
RMS Noise (40 GHz Electrical BW)	0.5 mV (Characteristic)
Maximum Electrical Input Voltage	±2 Vdc
Electrical Input Impedance	50 Ω (nominal)

System Integration

Compatible Mainframes	86100A, 86100B, 86100C Infiniium DCA/DCA-J, 86100D Infiniium DCA-X
Required Module Slots	1 slot

Environmental

Storage Temperature	-40 °C to +70 °C
Operating Humidity	Up to 90% RH (non-condensing) at 40 °C

Electrical Channel Specifications

Vertical Scale Factor	1 mV/div to 100 mV/div
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TECHNOLOGY

Optical and Electrical Sampling Oscilloscope Module

APPLICATIONS

High-speed optical transceiver testing, telecom/datacom transmitter compliance testing, and high-bandwidth electrical waveform characterization

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