

KEYSIGHT TECHNOLOGIES (AGILENT HP)

86106A

The Keysight/Agilent 86106A is a high-performance optical and electrical sampling receiver module designed for the Infiniium 86100 series Digital Communications Analyzer (DCA) mainframes. It features a 13 GHz optical channel optimized for 10 Gb/s transmitter testing and a 20 GHz electrical channel, providing precise waveform measurements and compliance testing capabilities.

SPECIFICATIONS

General

Display	None (utilizes host mainframe display)
Number of Channels	2 (1 optical, 1 electrical)

Physical

Power Supply	Powered directly from host mainframe slot
Operating Temperature	10 °C to 40 °C °C

Optical Channel Specifications

Wavelength Range	1000 nm to 1600 nm
Calibrated Wavelengths	1310 nm, 1550 nm
Unfiltered Bandwidth	13 GHz (typical)
Supported Reference Receiver Filter Rates	9.953 Gb/s (OC-192/STM-64), 10.664 Gb/s (10G Ethernet with FEC)
Optical Return Loss	> 30 dB
Optical Fiber Input Core Diameter Compatibility	9/125 µm (Single-mode)
Optical Connector Interface	Agilent/HP Universal Adapter (FC, SC, ST, etc.)

Electrical Channel Specifications

Electrical Bandwidth	12.4 GHz or 20 GHz (user-selectable)
Electrical Input Impedance	50 Ω
Electrical Input Connector Type	3.5 mm (female)
Maximum Operating Input Voltage	±2 V

System Compatibility & Integration

Compatible Mainframes	Keysight/Agilent 86100A, 86100B, 86100C Infiniium DCA Series
Slot Width Requirement	1 slot

Optical Channel

Typical RMS Noise (10 Gb/s Filter)	1.5 μ W
Typical RMS Noise (Unfiltered)	2.5 μ W
Maximum Peak Input Power	10 mW
Average Power Monitor Range	1 μ W to 2 mW (-30 dBm to +3 dBm)

Electrical Channel

Typical RMS Noise	0.25 mV (at 20 GHz)
Maximum RMS Noise	0.5 mV (at 20 GHz)
Calculated Rise Time	17.5 ps (10% to 90%)
Electrical Channel User Selectable Bandwidth	12.4 GHz or 20 GHz

Environmental

Storage Temperature	-40 °C to +70 °C
---------------------	------------------

TECHNOLOGY

Optical and Electrical Sampling Receiver

APPLICATIONS

10 Gb/s Optical Transmitter Compliance Testing, RF and High-Speed Electrical Signal 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.