

## KEYSIGHT TECHNOLOGIES (AGILENT HP)

# 86105A

The Keysight Agilent 86105A is a dual-channel optical and electrical oscilloscope plug-in module designed for use with the 86100A, 86100B, and 86100C Infiniium DCA and DCA-J mainframes. It features a 20 GHz amplified optical channel optimized for 9/125  $\mu\text{m}$  single-mode fibers and a 20 GHz electrical channel. Both channels support selectable 12.4 GHz and 20 GHz bandwidth modes to balance noise performance with signal fidelity, while integrated switchable filters enable SDH/SONET reference receiver compliance testing.

## SPECIFICATIONS

### General

|         |                                    |
|---------|------------------------------------|
| Display | None (uses host mainframe display) |
|---------|------------------------------------|

### Physical

|                       |                                                                             |
|-----------------------|-----------------------------------------------------------------------------|
| Power Supply          | Powered directly by host mainframe plug-in slot                             |
| Operating Temperature | 15 °C to 35 °C (for calibrated performance) / 10 °C to 40 °C (operating) °C |

### Optical Channel Performance

|                                                |                                   |
|------------------------------------------------|-----------------------------------|
| Optical Channel Bandwidth                      | 12.4 GHz / 20 GHz (selectable)    |
| Wavelength Range                               | 1000 nm to 1600 nm                |
| Calibrated Wavelengths                         | 1310 nm, 1550 nm                  |
| Compatible Fiber Type                          | 9/125 $\mu\text{m}$ (single-mode) |
| Optical Characteristic RMS Noise (12.4 GHz BW) | 8 $\mu\text{W}$                   |
| Optical Characteristic RMS Noise (20 GHz BW)   | 15 $\mu\text{W}$                  |

### Electrical Channel Performance

|                                                   |                                |
|---------------------------------------------------|--------------------------------|
| Electrical Channel Bandwidth                      | 12.4 GHz / 20 GHz (selectable) |
| Electrical Connector Type                         | 3.5 mm (male)                  |
| Electrical Characteristic RMS Noise (12.4 GHz BW) | 0.25 mV                        |
| Electrical Characteristic RMS Noise (20 GHz BW)   | 0.5 mV                         |
| Maximum Input Signal                              | $\pm 2$ Vdc                    |

### Compatibility and Compliance

|                       |                                              |
|-----------------------|----------------------------------------------|
| Compatible Mainframes | 86100A, 86100B, 86100C Infiniium DCA / DCA-J |
|-----------------------|----------------------------------------------|

**Electrical Channel**

|                                  |                       |
|----------------------------------|-----------------------|
| Electrical Input Impedance       | 50 $\Omega$ (nominal) |
| Maximum Electrical Input Voltage | $\pm 2$ V             |
| Electrical DC Offset Range       | $\pm 500$ mV          |

**TECHNOLOGY**

Optical & Electrical Oscilloscope Plug-in Module

**APPLICATIONS**

High-speed optical transceiver test, SDH/SONET compliance testing, and general-purpose 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.