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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight 86107A Precision Timebase Reference Module

Ultra-low residual-jitter waveform and jitter analysis on 10/40 Gb/s signals when paired with 861xx electrical or optical modules. Does not consume measurement-channel slot function beyond the timebase slot Typical less than 100 fs rms at 10 GHz-class clocks Disabled if 86100D-PTB is present and 86107A is also installed (mainframe PTB takes precedence notes apply in reverse: module disables mainframe PTB) Does not consume measurement-channel slot function beyond the timebase slot Typical less than 100 fs rms at 10 GHz-class clocks Disabled if 86100D-PTB is present and 86107A is also installed (mainframe PTB takes precedence notes apply in reverse: module disables mainframe PTB) Instrument Type: Precision timebase reference plug-in



MODEL

**Agilent / Keysight
86107A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

86107A

LISTING

<https://aumictechlabs.com/products/86107a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 86107A Precision Timebase Reference Module delivers ultra-low jitter timing for high-speed signal characterization in the 86100 family oscilloscope platform. This plug-in module significantly improves timebase resolution and jitter performance, enabling precision measurements of electrical signals above 10 Gb/s and optical signals above 20 Gb/s. Technical Specifications Jitter Performance Less than 100 fs RMS for frequencies greater than 4 GHz Less

than 280 fs RMS for frequencies less than 4 GHz Overall jitter reduction of nearly one order of magnitude to less than 200 fs RMS Timebase Resolution Improved to 2 ps/division (5x enhancement over standard 10 ps/division) Input Signal Specifications Signal type: Synchronous clock, square wave to sine wave Amplitude: 0.2 – 1.5 Vpp Trigger range: 2 to 48 GHz (option-dependent) Maximum reference clock input: ± 2 V (16 dBm) Connectors: 3.5 mm male (standard), 2.4 mm male (>25 GHz bandwidth) Bandwidth Options 15 GHz, 20 GHz, and 48 GHz configurations available Signal Analysis Capability Precision jitter analysis of electrical signals above 10 Gb/s Optical signal jitter analysis above 20 Gb/s Waveform capture to 40 Gb/s Key Features Clock input options: 2.5/10 GHz (86107A-010), 10/20 GHz (86107A-020), 10/20/40 GHz (86107A-040) DC blocking capacitor option (86107A-021): 45 MHz – 26.5 GHz Commercial calibration certificate available (UK6 option) Precision timebase configuration via N1060A or 86107A setup dialog Operates in Free Run mode or with Pattern Lock/Jitter Mode Typical Applications High-speed digital design characterization Semiconductor device testing Telecommunications signal integrity analysis Aerospace and research timing applications Compatibility & Integration Designed for the Agilent/Keysight 86100 family: 86100A/B/C/D Infiniium DCA and DCA-X Wide-Bandwidth Oscilloscopes. Reference clock connects directly to the module's front-panel Precision Timebase Input. When installed, the internal precision timebase (N1000A-PTB) is automatically disabled.

86107A Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Precision timebase reference plug-in
Series Family	Agilent 86107A / 86100 DCA
Typical Jitter Option 010 At 2.4 Ghz	less than 150 fs rms (861xx electrical)
Typical Jitter Option 010 At 10 Ghz	less than 100 fs rms (861xx electrical)
Typical Jitter Option 020 At 10 20 Ghz	less than 100 fs rms (861xx electrical)
Typical Jitter Option 040 At 10 20 40 Ghz	less than 100 fs rms (861xx electrical)
Typical Jitter With 54xxx 8348x	2.4 GHz less than 280 fs; 10 GHz less than 200 fs (note 5 table)
Timebase Linearity Error	less than 200 fs
Input Signal Type	synchronous clock
Input Signal Level	0.5 to 1.0 Vpp (0.2 to 1.5 Vpp typical functional)
Dc Offset Range	plus or minus 200 mV
Required Snr	greater than or equal to 200:1
Trigger Impedance	50 ohm nominal
Connector Option 010 0	3.5 mm male
Connector Option 0	2.4 mm male
Mainframe Note	if 86107A is used in 86100D with Option PTB, the internal precision timebase is disabled
Literature	Keysight 86100D Infiniium DCA-X data sheet precision timebase table
Bandwidth	2.0 to 15.0 GHz

86107A Specifications

PARAMETER	VALUE
Agilent Keysight 86107A Precision Timebase Module	Overview
Applications	Ultra-low residual-jitter waveform and jitter analysis on 10/40 Gb/s signals when paired with 861xx electrical or optical modules.
Filtered clock bands per option	Typical less than 100 fs rms at 10 GHz-class clocks
Technical Specifications	Instrument Type: Precision timebase reference plug-in

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications

Instrument Type: Precision timebase reference plug-in

Series Family: Agilent 86107A / 86100 DCA

Option 010 Trigger Bandwidth: 2.0 to 15.0 GHz

Option 020 Trigger Bandwidth: 2.4 to 25.0 GHz

Option 040 Trigger Bandwidth: 2.4 to 48.0 GHz

Typical Jitter Option 010 At 2.4 Ghz: less than 150 fs rms (861xx electrical)

Typical Jitter Option 010 At 10 Ghz: less than 100 fs rms (861xx electrical)

Typical Jitter Option 020 At 10 20 Ghz: less than 100 fs rms (861xx electrical)

Typical Jitter Option 040 At 10 20 40 Ghz: less than 100 fs rms (861xx electrical)

Specifications

PARAMETER	VALUE
Typical Jitter With 54xxx 8348x	2.4 GHz less than 280 fs; 10 GHz less than 200 fs (note 5 table)
Timebase Linearity Error	less than 200 fs
Input Signal Type	synchronous clock
Input Signal Level	0.5 to 1.0 Vpp (0.2 to 1.5 Vpp typical functional)
Dc Offset Range	plus or minus 200 mV
Required Snr	greater than or equal to 200:1
Trigger Impedance	50 ohm nominal
Connector Option 010 020	3.5 mm male
Connector Option 040	2.4 mm male

Option 010 Filtered Bands: 2.4 to 4.0 GHz and 9.0 to 12.6 GHz

Option 020 Filtered Bands: 9.0 to 12.6 GHz and 18 to 25.0 GHz

Option 040 Filtered Bands: 9.0 to 12.6 GHz, 18.0 to 25.0 GHz, and 39.0 to 48.0 GHz

Mainframe Note: if 86107A is used in 86100D with Option PTB, the internal precision timebase is disabled

Literature: Keysight 86100D Infiniium DCA-X data sheet precision timebase table

Notes

Numeric rows from Keysight Infiniium DCA-X 86100D Wide-Bandwidth Oscilloscope Mainframe and Modules data sheet (86107A Option 010/020/040 trigger bandwidth, jitter, input level). Option 020 recommends 11742A DC block if DC offset exceeds 200 mV.

Ordering Information

OPTION	DESCRIPTION
Option 010	trigger bandwidth 2.0 to 15.0 GHz, Option 020 2.4 to 25.0 GHz, Option 040 2.4 to 48.0 GHz, typical jitter less than 100 fs at 10/20/40 GHz (Option 040 with 861x
Option 020	Trigger Bandwidth: 2.4 to 25.0 GHz
Option 040	Trigger Bandwidth: 2.4 to 48.0 GHz

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.