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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight N1077A

Keysight N1077A Optical Electrical Clock Recovery up to 32 GBd The Keysight N1077A integrates amplified optical-to-electrical conversion with clock recovery up to 32 GBd for optical and electrical NRZ/PAM4 waveform analysis in the DCA-M family. Optical transceiver TX testing, clock-less optical DUT analysis, standards-compliant optical eye and jitter. Optional integrated optical splitter configurations The Keysight N1077A integrates amplified optical-to-electrical conversion with clock recovery up to 32 GBd for optical and electrical NRZ/PAM4 waveform analysis in the DCA-M family. Optical transceiver TX testing, clock-less optical DUT analysis, standards-compliant optical eye and jitter. Optional integrated optical splitter configurations USB FlexDCA control identical to DCA-X UI



MODEL

**Agilent / Keysight
N1077A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

N1077A

LISTING

<https://aumictechlabs.com/products/n1077a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight N1077A is an optical and electrical clock recovery module that extracts stable clock signals from high-speed data and clock streams via an integrated phase-locked loop (PLL) circuit. The recovered clock is a precise timing reference for oscilloscopes and bit error rate testers, enabling standards compliance testing, characterization of clock-less devices, and clock-to-data delay compensation. The module supports both NRZ and PAM4 signal types across data rates from 50 MBd to 32 GBd. Technical Specifications Clock Recovery Performance Data rate range: 50 MBd to 32 GBd (continuous) Recovered clock output: 50 MHz to 16 GHz Recovered clock

amplitude: ≥ 320 mVpp at 5 GHz Random jitter (recovered clock): 220 fs maximum at ≥ 2 Gbd
Auxiliary clock output: 4 GHz to 8 GHz with 550 mVpp characteristic amplitude and < 50 fs RMS
jitter Intrinsic jitter: Low PLL adjustable loop bandwidth and selectable peaking Input/Output
Interfaces Electrical data input: Single-ended and differential, 2.92 mm (f) connector, AC coupled
50 Ω Optical data input: Single-mode and multimode fiber, FC/PC connector Electrical data
output: 2.92 mm (f) connector (optical-to-electrical conversion) Auxiliary clock output: 2.92 mm
(f) connector, DC coupled 50 Ω , single-ended Recovered clock output: Connects to oscilloscope
clock or trigger input Configuration Options Option SMS: Integrated 70-30 multimode and 50-50
single-mode splitters with bulk optics coupler; optical data output available Option SXT: No
integrated splitter Jitter Spectrum Analysis (JSA): Optional capability for jitter distribution analysis
FlexPLL Application Software (N1010300A): Supports compliant PLL bandwidth and peaking
measurements PCI Express PLL Test Application (N1081PLCA): Available for PCI Express PLL
testingKey Features Supports NRZ and PAM4 modulation formats Low intrinsic jitter with 220 fs
maximum random jitter at high data rates Tunable PLL parameters for application-specific
optimization Optional jitter spectrum analysis for detailed troubleshooting Dual clock outputs
(primary recovered clock and auxiliary clock)Typical Applications Standards compliance testing
High-speed digital interface characterization Component testing for clock-less devices Timing
recovery and synchronization Jitter analysis and measurementCompatibility & Integration The
N1077A integrates with Keysight DCA-X, N1090A, and N1092/N1094-series DCA-M oscilloscopes
for seamless timing reference integration in automated test environments.

N1077A Characteristics / Specifications

PARAMETER	VALUE
Model	N1077A
Instrument Type	DCA-M optical and electrical clock recovery
Max Symbol Rate	32 GBd
Signal Formats	NRZ and PAM4
Optical Path	integrated amplifiedOEconverter with clock recovery
Electrical Path	electrical clock recovery inputs
Optical Splitter	integrated or external user supplied
Residual Random Jitter Family Headline	less than 100 fs rms
Loop Bandwidth	adjustable
Peaking	selectable
Control Interface	USB to N1000A 86100D or PC with N1010A FlexDCA
User Interface	FlexDCA
Jitter Spectrum Analysis	available with JSA
Primary Application	optical and electrical waveform analysis clock recovery
Standards Examples	IEEE 802.3 Fibre Channel OIF-CEI
Form Factor	DCA-M compact clock recovery instrument
Host Software	N1010A FlexDCA
Mainframe Compatibility	N1000A or 86100D DCA-X
Golden PII	standards compliant configurable PLL
Phase Locked Loop Analysis	FlexPLL N1010300A compatible receiver role
Integrated Oe Design	optical to electrical with clock recovery in one instrument
Clock Output	recovered clock for scope or BERT trigger
Sensitivity	high sensitivity low intrinsic jitter design
Bandwidth	adjustable

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	
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Notes	
Symbol rate, optical/electrical roles, jitter, and interface features from Keysight N1076B/7A/7B/8A DCA-M data sheet 5992-1620.	

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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30-day returns
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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.