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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight N1077B

HP Agilent Keysight N1077B Optical Electrical Clock Recovery DCA-M 64 GBd The Keysight N1077B is an optical/electrical clock recovery DCA-M supporting multimode and single-mode inputs with amplified O/E and optional integrated splitter. OEM N1076B/7A/7B/8A data sheet 5992-1620EN rates recovery up to 64 GBd with Option 264, adjustable loop bandwidth, selectable peaking, variable equalizers on electrical inputs, and USB control from N1000A/86100D or FlexDCA PC. NRZ and PAM4 optical and electrical transmitter analysis needing standards-compliant recovered clocks for DCA-X and DCA-M sampling scopes. The Keysight N1077B is an optical/electrical clock recovery DCA-M supporting multimode and single-mode inputs with amplified O/E and optional integrated splitter. OEM N1076B/7A/7B/8A data sheet 5992-1620EN rates recovery up to 64 GBd with Option 264, adjustable loop bandwidth, selectable peaking, variable equalizers on electrical inputs, and USB control from N1000A/86100D or FlexDCA PC. NRZ and PAM4 optical and electrical transmitter analysis needing standards-compliant recovered clocks for DCA-X and DCA-M sampling scopes.



MODEL

**Agilent / Keysight
N1077B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

N1077B

LISTING

<https://aumictechlabs.com/products/n1077b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight N1077B is a clock recovery module that extracts precise timing signals from high-speed electrical and optical data streams. Operating across 125 MBd to 64 GBd, it supports NRZ and PAM4 signal formats and integrates a standards-compliant phase-locked loop (PLL) for

reliable lock acquisition on both open-eye and degraded signals. The module delivers recovered clock outputs from 8 GHz to 16 GHz, serving as a timing reference for oscilloscopes and BERT systems in optical communications, high-speed digital design, and compliance testing.

Technical Specifications

Data Rate Coverage 125 MBd to 64 GBd continuous operation NRZ and PAM4 signal support Specific options support narrower ranges, including 125 MBd to 32 GBd, 24 GBd to 29 GBd, and 125 MBd to 16 GBd configurations

Input & Output Interfaces

Electrical: Single-ended and differential data inputs

Optical: Multimode and single-mode input connectors

Recovered Clock Output: 8 GHz to 16 GHz auxiliary output range

Acquisition Performance Minimum input level to lock (NRZ/PAM4, single-ended, open eye): Option 264: 30 mV pp (≤ 53.125 GBd), 60 mV pp (> 53.125 GBd) Option 253: 60 mV pp Option 216: 125 MBd to 16 GBd range Option 225: 24 GBd to 29 GBd range

Key Features Adjustable peaking and loop bandwidth up to 20 MHz Integrated equalizer (Option EVA) enables locking onto closed-eye signals Jitter Spectrum Analysis (Option JSA) for root cause assessment Compatibility with N1010300A FlexPLL Application software and N1081PLCA PCI Express PLL Test Application for standards-compliant bandwidth and peaking measurements

Typical Applications Optical communications testing and validation High-speed digital design verification Compliance testing for advanced standards Jitter characterization and analysis

Compatibility & Integration Mounts in DCA-M oscilloscopes and integrates with N1000A DCA-X and N1090A, N1092-series, N1094-series DCA-M platforms. Control via USB connection to N1000A or 86100D DCA-X mainframes or PC-based N1010A FlexDCA software. Requires FlexDCA firmware version A.06.90 or above.

N1077B Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Optical/electrical clock recovery DCA-M
Max Data Rate Option 2	125 MBd to 64 GBd (65.6 GBd characteristic)
Splitter Class Smm	Integrated 70/30 multimode splitter FC/PC 50/125 μ m
Splitter Class Sxt	No internal splitter user supplied
Wavelength Range Smm	830 to 950 nm and 1260 to 1340 nm
Wavelength Range Sxt	830 to 1340 nm
Insertion Loss Smm	4.0 dB (2.5 dB characteristic)
Return Loss Characteristic	16 dB
Maximum Input Power Smm	8 mW
Maximum Input Power Sxt	5 mW
Oma Lock Smm Option 2	200 μ W rate less than or equal to 53.125 GBd; 400 μ W above to 59 GBd
Electrical Input Connector	2.92 mm female
Optical Connector	FC/PC 50/125 μ m
Oe Data Output Connector	2.92 mm female
Recovered Clock Random Jitter	280 fs maximum (greater than or equal to 2.5 GHz); 150 fs at 26 GHz characteristic
Loop Bandwidth Range	0.015 to 20 MHz (depends on baud rate)
Tracking Range Characteristic	plus or minus 2500 ppm
Aux Clock Output Frequency	8 GHz to 16 GHz
Aux Clock Output Jitter Characteristic	less than 80 fs RMS
Control Interface	USB to N1000A 86100D or N1010A FlexDCA PC
Operating Temperature	10 C to 40 C
Weight Typical	6.4 kg
Line Power Max	290 W
Dimensions Without Connectors	88.26 mmHx 212.5 mmWx 485 mmDLiterature: Keysight 5992-1620EN

PARAMETER	VALUE
Wavelength range	Smm: 830 to 950 nm and 1260 to 1340 nm
Bandwidth	Range: 0.015 to 20 MHz (depends on baud rate)
Data Rate	Option 264: 125 MBd to 64 GBd (65.6 GBd characteristic)
Return loss	Characteristic: 16 dB

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	10 C to 40 C
Operating Temperature	10 C to 40 C
Weight Typical	6.4 kg
Line Power Max	290 W
Dimensions Without Connectors	88.26 mmHx 212.5 mmWx 485 mmDLiterature: Keysight 5992-1620EN Notes From Keysight N1076B/7A/7B/8A DCA-M data sheet 5992-1620EN N1077B sections. Exact rate and splitter configuration depend on ordered options (216/232/253/264, SMM/SXT, JSA).

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	
Specifications	
PARAMETER	VALUE
Instrument Type	Optical/electrical clock recovery DCA-M
Max Data Rate Option 264	125 MBd to 64 GBd (65.6 GBd characteristic)
Max Data Rate Option 232	125 MBd to 32 GBd (32.8 GBd characteristic)
Max Data Rate Option 216	125 MBd to 16 GBd (16.4 GBd characteristic)
Splitter Class Smm	Integrated 70/30 multimode splitter FC/PC 50/125 um
Splitter Class Sxt	No internal splitter user supplied
Wavelength Range Smm	830 to 950 nm and 1260 to 1340 nm
Wavelength Range Sxt	830 to 1340 nm
Insertion Loss Smm	4.0 dB (2.5 dB characteristic)
Return Loss Characteristic	16 dB
Maximum Input Power Smm	8 mW
Maximum Input Power Sxt	5 mW
Oma Lock Smm Option 264	200 uW rate less than or equal to 53.125 GBd; 400 uW above to 59 GBd
Electrical Input Connector	2.92 mm female
Optical Connector	FC/PC 50/125 um
Oe Data Output Connector	2.92 mm female
Recovered Clock Random Jitter	280 fs maximum (greater than or equal to 2.5 GHz); 150 fs at 26 GHz characteristic
Loop Bandwidth Range	0.015 to 20 MHz (depends on baud rate)
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Notes
From Keysight N1076B/7A/7B/8A DCA-M data sheet 5992-1620EN N1077B sections. Exact rate and splitter configuration depend on ordered options (216/232/253/264, SMM/SXT, JSA).

Ordering Information

OPTION	DESCRIPTION
Option 264	Integrated variable equalizers for closed eyes

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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NIST-traceable calibration · SAM registered ·
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.