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Data Sheet

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KEYSIGHT / AGILENT

Keysight (Agilent) 80000 Data Generator System 1 GHz to 2 Gbits/s

Keysight (Agilent) 80000 Data Generator System 1 GHz to 2 Gbits/s The HP/Agilent 80000 Data Generator System is a modular high-speed pattern/clock stimulus platform. Mainframe E2900A with optional E2901A expansion frames (up to three). Plug-in modules provide 1 Gbit/s RZ/NRZ data and clock/strobe; multiplexing supports up to 2 Gbit/s. Pattern features include PRBS, error substitution, and variable mark-density. Memory on the order of 128 Kb per data channel (module dependent). Used to characterize fast DACs, multi-channel receivers, serializers, and custom LSI. The HP/Agilent 80000 Data Generator System is a modular high-speed pattern/clock stimulus platform. Mainframe E2900A with optional E2901A expansion frames (up to three). Plug-in modules provide 1 Gbit/s RZ/NRZ data and clock/strobe; multiplexing supports up to 2 Gbit/s. Pattern features include PRBS, error substitution, and variable mark-density. Memory on the order of 128 Kb per data channel (module dependent). Used to characterize fast DACs, multi-channel receivers, serializers, and custom LSI. High-speed digital device characterization; parallel/serial data stimulus; ATE pattern generation to 1-2 Gbit/s.



MODEL

**Keysight / Agilent
80000**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

80000

LISTING

<https://aumictechlabs.com/products/80000-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight (Agilent) 80000 Data Generator System is a modular instrument for generating digital test patterns at speeds up to 1 GHz, with multiplexed operation extending data rates to 2 Gbits/s. Built on the E2900A Mainframe and expandable with up to three E2901A Expansion Frames, the system accommodates plug-in data generation and clock modules to match specific test requirements. Engineers configure the platform to validate high-speed digital designs and communication systems through precise pattern generation and clock signal stimulus.

Technical Specifications
Maximum Frequency: 1 GHz
Data Rate (multiplexed): Up to 2 Gbits/s
Output Data Formats: RZ (Return-to-Zero) and NRZ (Non-Return-to-Zero)
Output Impedance: 50 Ohms
Channel Capacity: Up to 80 channels (configuration-dependent)
Mainframe: E2900A
Expansion Frames: E2901A (three maximum)

Key Features
Modular architecture with plug-in data generation and clock stimulus cards
PRBS (Pseudo-Random Binary Sequence) pattern generation
ABI (Alternate Bit Inversion) pattern support
VMD (Variable Mark Density) pattern capability
Customizable test patterns for device characterization
Scalable configuration from single mainframe to three expansion frames

Typical Applications
Fast DAC validation
Multi-channel receiver characterization
Parallel-to-serial converter testing
Custom IC performance validation
High-speed digital design verification

Compatibility & Integration
The system supports SCPI and IVI-COM drivers for remote control and automation. Standard interfaces including GPIB and LAN enable integration into automated test environments. The modular design adapts to diverse device-under-test (DUT) requirements across digital and communication applications.

Features & description

From manufacturer datasheet

Features

- Data rate: 1 Gbit/s RZ/NRZ; multiplex to 2 Gbit/s
- Architecture: E2900A mainframe + E2901A expansion frames
- Modular clock/strobe and data modules (e.g. E2902A/E2905A/E2906A class)
- PRBS, error substitution, variable mark density
- Channel count scales with modules/frames (tens of channels class configurations)
- Memory: ~128 Kb/channel class (module dependent)

80000 Characteristics / Specifications

PARAMETER	VALUE
Model / System	80000 (E2900A mainframe family)
Manufacturer	Keysight Technologies (Agilent / HP)
Instrument Type	Modular Data Generator System
Alias	80000; E2900A; Agilent 80000 Data Rate 1 Gbit/s native; up to 2 Gbit/s multiplexed Operational Notes Confirm installed modules and max configured rate on the specific system. Prefer Agilent 80000/E2900 series literature.
Data rate	1 Gbit/s RZ/NRZ; multiplex to 2 Gbit/s
Architecture	E2900A mainframe + E2901A expansion frames
Memory	~128 Kb/channel class (module dependent)

80000 Specifications

PARAMETER	VALUE
Applications	High-speed digital device characterization; parallel/serial data stimulus; ATE pattern generation to 1–2 Gbit/s.
Key Features	- Data rate: 1 Gbit/s RZ/NRZ; multiplex to 2 Gbit/s
Technical Specifications	Model / System: 80000 (E2900A mainframe family)
Operational Notes	Confirm installed modules and max configured rate on the specific system. Prefer Agilent 80000/E2900 series literature.

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
Model / System	80000 (E2900A mainframe family)
Manufacturer	Keysight Technologies (Agilent / HP)
Instrument Type	Modular Data Generator System
Alias	80000; E2900A; Agilent 80000

Data Rate

1 Gbit/s native; up to 2 Gbit/s multiplexed

Operational Notes

Confirm installed modules and max configured rate on the specific system. Prefer Agilent 80000/E2900 series literature.

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.