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Data Sheet

August 5, 2026

KEYSIGHT / AGILENT

Keysight (Agilent) E2900A Data Generator System Mainframe

Keysight (Agilent) E2900A Data Generator System Mainframe The Keysight/Agilent E2900A is the mainframe for the HP/Agilent 80000 Series modular Data Generator System. It provides a modular platform for precise data and clock generators used to characterize high-performance devices. Basic configuration includes boot/configuration software, microprocessor board, and internal clock board. Up to three E2901A expansion frames can connect to the mainframe. Plug-in modules include E2905A (1 GHz clock/strobe, 128 kbit) and E2906A (1 GHz data, 128 kbit). The Keysight/Agilent E2900A is the mainframe for the HP/Agilent 80000 Series modular Data Generator System. It provides a modular platform for precise data and clock generators used to characterize high-performance devices. Basic configuration includes boot/configuration software, microprocessor board, and internal clock board. Up to three E2901A expansion frames can connect to the mainframe. Plug-in modules include E2905A (1 GHz clock/strobe, 128 kbit) and E2906A (1 GHz data, 128 kbit). Fast DAC stimulus; multi-channel receiver testing; parallel-to-serial converters; custom LSI characterization; modular high-speed digital pattern generation.



MODEL

**Keysight / Agilent
E2900A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

E2900A

LISTING

<https://aumictechlabs.com/products/e2900a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight E2900A Data Generator System Mainframe is the central component of the HP 80000 series, a modular platform engineered to generate precise digital test patterns for device characterization. This mainframe accepts plug-in modules to configure stimulus and data generation capabilities, making it suitable for R&D, manufacturing, and quality assurance testing of DACs, multi-channel receivers, parallel-to-serial converters, and custom LSI circuits.

Technical Specifications
Maximum frequency: 1 GHz
Data rate: 1 Gbit/s per channel
Multiplexing capability: Up to 2 Gbit/s
Output impedance: 50 Ohms
Output data formats: NRZ (Non-Return-to-Zero) and RZ (Return-to-Zero)
Shipping weight: Approximately 30 lbs

Key Features
Modular architecture with configurable plug-in card structure
Supports connection of up to three E2901A Expansion Frames
Pattern generation modes: PRBS (Pseudo-Random Binary Sequence), Aero Substitution, and Variable Mark Density
Internal microprocessor board and clock board for autonomous operation
PC-based control and post-processing via external controller
RoHS compliant and CE labeled

Typical Applications
Data pattern generation for digital device testing, including high-speed serial characterization, parallel interface validation, and custom signal stimulus for integrated circuit qualification.

Compatibility & Integration
Accepts Keysight E2903A (1 GHz 4-Output Data Module) and E2902A (1 GHz Clock/Strobe Module) plug-in cards, along with third-party cPCI and CAMAC modules. System is controlled via PC connection; real-time processing occurs within the mainframe and plug-in modules. The E2900A is listed as obsolete but remains supported by Keysight for technical support, calibration, and repair services.

Features & description

From manufacturer datasheet

Features

- Modular 80000 Series data generator mainframe
- System data rate to 1 Gbit/s class; RZ/NRZ formats
- Up to ~80 channels class (with expansion)
- 50 Ω output impedance class
- Interfaces: GPIB, RS-232 (family published)
- Expansion via E2901A frames
- Hosts E2905A / E2906A plug-in modules

E2900A Characteristics / Specifications

PARAMETER	VALUE
Model	E2900A
Manufacturer	Keysight Technologies (Agilent)
Instrument Type	Data Generator System Mainframe
Family	80000 / E2900 Series
Alias	E2900A; Agilent E2900A; HP 80000 System
Form factor	Mainframe (modular plug-ins)
Maximum frequency / data rate	1 GHz / 1 Gbit/s class
Output formats	NRZ, RZ
Output impedance	50 Ω
Channels	scalable with modules / expansion frames Operational Notes Out of production historically. Prefer Agilent 80000 / E2900 Series system manuals for full timing and level tables.
Interfaces	HPIB, RS-232 (family published)
Data Rate	to 1 Gbit/s class; RZ/NRZ formats - Up to ~80 channels class (with expansion) - 50 Ω output impedance class - Interfaces: HPIB, RS-232 (family published) - Expansion via E2901A frames - Hosts E2905A / E2906A plug-in modules

E2900A Specifications

PARAMETER	VALUE
Key Features	- Modular 80000 Series data generator mainframe
Technical Specifications	Model: E2900A
Operational Notes	Out of production historically. Prefer Agilent 80000 / E2900 Series system manuals for full timing and level tables.

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.

performance devices. Basic configuration includes boot/configuration software, microprocessor board, and internal clock board. Up to three E2901A expansion frames can connect to the mainframe. Plug-in modules include E2905A (1 GHz clock/strobe, 128 kbit) and E2906A (1 GHz data, 128 kbit).

Applications

Fast DAC stimulus; multi-channel receiver testing; parallel-to-serial converters; custom LSI characterization; modular high-speed digital pattern generation.

Key Features

- Modular 80000 Series data generator mainframe
- System data rate to 1 Gbit/s class; RZ/NRZ formats
- Up to ~80 channels class (with expansion)
- 50 Ω output impedance class
- Interfaces: HP-IB, RS-232 (family published)
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Technical Specifications

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PARAMETER	VALUE
Model	E2900A
Manufacturer	Keysight Technologies (Agilent)
Instrument Type	Data Generator System Mainframe
Family	80000 / E2900 Series
Alias	E2900A; Agilent E2900A; HP 80000

System

Specifications

PARAMETER	VALUE
Form factor	Mainframe (modular plug-ins)
Maximum frequency / data rate	1 GHz / 1 Gbit/s class
Output formats	NRZ, RZ
Output impedance	50 Ω
Channels	scalable with modules / expansion frames

Operational Notes

Out of production historically. Prefer Agilent 80000 / E2900 Series system manuals for full timing and level tables.

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.