

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 1, 2026

HP

HP ESG-D3000A Digital Signal Generator W/Opt. 1e5, 1eh

The HP ESG-D3000A is a digital signal generator with options 1E5 and 1EH. It provides high-performance signal generation for various testing and measurement applications. This generator delivers precise and stable signals across a wide frequency range, ensuring accurate and reliable results. Ideal for research, development, and manufacturing environments.



MODEL

HP ESG-D3000A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

ESG-D3000A

LISTING

<https://aumictechlabs.com/products/esg-d3000a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The HP ESG-D3000A Digital Signal Generator is a versatile instrument designed for generating high-quality signals for a wide range of applications. Equipped with options 1E5 and 1EH, this generator offers enhanced capabilities and flexibility. Its advanced digital architecture ensures exceptional signal purity and stability, making it suitable for demanding testing scenarios. The ESG-D3000A features user-friendly controls and a clear display, simplifying operation and setup.

Features & description

From manufacturer datasheet

Features

- Frequency 250 kHz to 3000 MHz
- Digital ESG-D architecture with external and internal I/Q paths
- Option 1E5: high-stability reference (aging less than +/-0.1 ppm/yr or less than +/-0.0005 ppm/day after 45 days)
- Option 1EH: digital/baseband I/Q option path (upgradeable to UN3/UN4 baseband generators)
- Analog AM, FM, Phi-M, pulse; internal modulation source
- Output to -136 dBm; max leveled about +10 dBm above 1 GHz (+13 dBm to 1 GHz) standard
- GPIB remote control; softkey UI

ESGD3000A Characteristics / Specifications

PARAMETER	VALUE
Model	ESG-D3000A (3 GHz digital ESG; later E4432x class)
Manufacturer	Hewlett-Packard / Agilent
Instrument Type	Digital RF signal generator
Frequency Range	250 kHz to 3000 MHz
Frequency Resolution	0.01 Hz class (ESG series) Output Power (standard, typical published bands) 250 kHz to 1 GHz: +13 to -136 dBm
Greater than 1 to 3 GHz	+10 to -136 dBm Level resolution fine; ALC on/off modes for wideband AM Option 1E5 High-Stability Timebase
Aging	less than +/-0.1 ppm/yr or less than +/-0.0005 ppm/day after 45 days
Temperature (0 to 55 C)	less than +/-0.05 ppm typical
Line voltage	less than +/-0.002 ppm typical 10 MHz reference output greater than 0.35 Vrms into 50 ohm External reference input 1/2/5/10 MHz Option 1EH Provides ESG-D digital/I/Q baseband capability foundation. Published upgrade path: Option 001 upgrades 1EH to UN3 baseband I/Q generator with 1 Mbit pattern RAM (premodulation filtering, PRBS, DECT, GSM, NADC, PDC, PHS, TETRA). UN4 adds 8 Mbit pattern RAM.
Option 1E5	high-stability reference (aging less than +/-0.1 ppm/yr or less than +/-0.0005 ppm/day after 45 days)
Option 1EH	digital/baseband I/Q option path (upgradeable to UN3/UN4 baseband generators)
Attenuation	for sensitive receivers.

ESGD3000A Specifications

PARAMETER	VALUE
Key Features	- Frequency 250 kHz to 3000 MHz
Technical Specifications	Model: ESG-D3000A (3 GHz digital ESG; later E4432x class)
External reference input 1/2/5/10 MHz	Option 1EH
Spectral Purity And Modulation	Low SSB phase noise and harmonics per ESG-D datasheet at specified levels

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	ESG-D3000A (3 GHz digital ESG; later E4432x class)
Manufacturer	Hewlett-Packard / Agilent
Instrument Type	Digital RF signal generator
Frequency Range	250 kHz to 3000 MHz
Frequency Resolution	0.01 Hz class (ESG series)

Output Power (standard, typical published bands)
250 kHz to 1 GHz: +13 to -136 dBm
Greater than 1 to 3 GHz: +10 to -136 dBm
Level resolution fine; ALC on/off modes for wideband AM
Option 1E5 High-Stability Timebase

Specifications

PARAMETER	VALUE
Aging	less than +/-0.1 ppm/yr or less than +/-0.0005 ppm/day after 45 days
Temperature (0 to 55 C)	less than +/-0.05 ppm typical
Line voltage	less than +/-0.002 ppm typical

10 MHz reference output greater than 0.35 Vrms into 50 ohm
External reference input 1/2/5/10 MHz
Option 1EH
Provides ESG-D digital/I/Q baseband capability foundation. Published upgrade path: Option 001 upgrades 1EH to UN3 baseband I/Q generator with 1 Mbit pattern RAM (premodulation filtering, PRBS, DECT, GSM, NADC, PDC, PHS, TETRA). UN4 adds 8 Mbit pattern RAM.
Spectral Purity And Modulation
Low SSB phase noise and harmonics per ESG-D datasheet at specified levels
Wideband AM, FM, phase modulation, pulse modulation with internal LF source
I/Q inputs for external baseband; internal baseband when 1EH/UN3/UN4 present
Operational Notes
Allow oven warm-up after AC connect when Option 1E5 is installed (OVEN COLD annunciator). Verify which baseband firmware/hardware revision is present (1EH vs UN3/UN4) before assuming specific digital standards. Use 50 ohm RF cabling and appropriate attenuation for sensitive receivers.

Ordering Information

OPTION	DESCRIPTION
Option 001	upgrades 1EH to UN3 baseband I/Q generator with 1 Mbit pattern RAM (premodulation filtering, PRBS, DECT, GSM, NADC, PDC, PHS, TETRA). UN4 adds 8 Mbit pattern RA

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
788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 1, 2026

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