

**Aumictech**

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Data Sheet

August 5, 2026

KEYSIGHT

Keysight (Agilent) E4727A Advanced Low-Frequency Noise Analyzer

Keysight (Agilent) E4727A Advanced Low-Frequency Noise Analyzer The Keysight E4727A Advanced Low-Frequency Noise Analyzer (A-LFNA) measures low-frequency electrical noise of components, discrete devices, and ICs—packaged or on-wafer. Industry-leading noise sensitivity class about $-183 \text{ dBV}^2/\text{Hz}$, high-voltage bias capability to about 200 V, and ultra-low frequency coverage down to about 0.03 Hz. Hardware modules pair with a PXI computer/digitizer and an SMU such as the B1500A. Software integrates with WaferPro Express for automated multi-bias, multi-device sequences and prober control. Selectable source/load impedances from 0Ω to $100 \text{ M}\Omega$ (about 25 values). The Keysight E4727A Advanced Low-Frequency Noise Analyzer (A-LFNA) measures low-frequency electrical noise of components, discrete devices, and ICs—packaged or on-wafer. Industry-leading noise sensitivity class about $-183 \text{ dBV}^2/\text{Hz}$, high-voltage bias capability to about 200 V, and ultra-low frequency coverage down to about 0.03 Hz. Hardware modules pair with a PXI computer/digitizer and an SMU such as the B1500A. Software integrates with WaferPro Express for automated multi-bias, multi-device sequences and prober control. Selectable source/load impedances from 0Ω to $100 \text{ M}\Omega$ (about 25 values). 1/f and LF noise of FETs, BJTs, diodes, sensors, passives; device modeling; on-wafer noise characterization; high-voltage LF noise.

No photo

MODEL

Keysight E4727A

CALIBRATION

**N/A — off-catalog
OEM datasheet**

CONDITION

**See OEM
documentation**

STATUS

**Not listed on
Aumictech
inventory**

RFQ / SKU

E4727A

LISTING

**Off-catalog — OEM dat
asheet only**

NIST-traceable cal

SAM registered

30-day returns

Features & description

From manufacturer datasheet

Features

- Sensitivity class: $-183 \text{ dBV}^2/\text{Hz}$ • Frequency down to $\sim 0.03 \text{ Hz}$ • Bias/high-voltage class to $\sim 200 \text{ V}$ (with SMU) • ~ 25 impedance terminations, 0Ω to $100 \text{ M}\Omega$ • On-wafer and discrete DUT paths • Works with B1500A-class SMU for clean bias • WaferPro Express integration / prober automation

E4727A Characteristics / Specifications

PARAMETER	VALUE
Model	E4727A
Manufacturer	Keysight Technologies (Agilent)
Instrument Type	Advanced Low-Frequency Noise Analyzer (A-LFNA)
Alias	E4727A; A-LFNA Noise / Bias
Noise sensitivity	-183 dBV ² /Hz class
Source/load impedances	0 Ω to 100 MΩ (~25 values) System Modules + PXI digitizer/computer; SMU companion (e.g. B1500A)
Software	WaferPro Express integration for sequenced DC/C/RF + noise Operational Notes Prefer Keysight E4727A datasheet 5991-4280 for full noise floor vs frequency and configuration options.
Sensitivity class	-183 dBV ² /Hz

E4727A Specifications

PARAMETER	VALUE
Applications	1/f and LF noise of FETs, BJTs, diodes, sensors, passives; device modeling; on-wafer noise characterization; high-voltage LF noise.
Key Features	- Sensitivity class: $-183 \text{ dBV}^2/\text{Hz}$
Technical Specifications	Model: E4727A
Noise / Bias	Noise sensitivity: $-183 \text{ dBV}^2/\text{Hz}$ class
System	Modules + PXI digitizer/computer; SMU companion (e.g. B1500A)
Operational Notes	Prefer Keysight E4727A datasheet 5991-4280 for full noise floor vs frequency and configuration options.

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	E4727A
Manufacturer	Keysight Technologies (Agilent)
Instrument Type	Advanced Low-Frequency Noise Analyzer (A-LFNA)
Alias	E4727A; A-LFNA

Noise / Bias
Noise sensitivity: -183 dBV²/Hz class
Low-frequency coverage: to approximately 0.03 Hz
High-voltage capability: to approximately 200 V
Source/load impedances: 0 Ω to 100 MΩ (~25 values)

System
Modules + PXI digitizer/computer; SMU companion (e.g. B1500A)
Software: WaferPro Express integration for sequenced DC/C/RF + noise

Operational Notes
Prefer Keysight E4727A datasheet 5991-4280 for full noise floor vs frequency and configuration options.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: N/A — off-catalog OEM datasheet. See OEM documentation · Not listed on Aumictech inventory.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
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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.