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Data Sheet

August 13, 2026

FLUKE

Fluke 96270A Low Phase Noise Reference Source, 27 GHz

Fluke 96270A Low Phase Noise Reference Source 27 GHz The Fluke Calibration 96270A is a dedicated RF reference source for calibrating spectrum analyzers, RF power sensors, and related instruments to 27 GHz. It combines a precision leveling-head output to 4 GHz with microwave output to 27 GHz, low phase noise, precision level/attenuation, and low-distortion modulation. Designed specifically for RF metrology and MET/CAL automation rather than as a general-purpose signal generator. The Fluke Calibration 96270A is a dedicated RF reference source for calibrating spectrum analyzers, RF power sensors, and related instruments to 27 GHz. It combines a precision leveling-head output to 4 GHz with microwave output to 27 GHz, low phase noise, precision level/attenuation, and low-distortion modulation. Designed specifically for RF metrology and MET/CAL automation rather than as a general-purpose signal generator.



MODEL

Fluke 96270A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

96270A

LISTING

<https://aumictechlabs.com/products/96270a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Fluke 96270A Low Phase Noise Reference Source operates up to 27 GHz and delivers ultra-low phase noise signals for demanding metrology, calibration, and research applications. This

instrument generates exceptionally clean, stable signals with high accuracy and reliability, serving as a cost-effective precision solution for calibrating spectrum analyzers, RF power sensors, and related equipment. Its "what you set is what get" signal delivery eliminates correction factors and simplifies complex RF calibration tasks.

Technical Specifications

Frequency Range: Up to 27 GHz

Phase Noise: Ultra-low phase noise performance with specifications available from 1 Hz to 10 MHz offsets

Signal Purity: High signal purity with low distortion modulation

Output Levels: Precision signal level and attenuation control. Set output levels in power (watts or dBm) or voltage (RMS or peak to peak). Dynamic range extends to -130 dBm with leveling head (154 dB total dynamic range)

Frequency Counter: Integrated 300 MHz counter measures UUT reference clock and 50 MHz or 300 MHz CAL output frequencies

Power Meter: Dual power meter display functions as RF power meter for calibrations

Power Requirements: 115/230 V ac (50/60 Hz) at +10% / -14%, with maximum voltage difference between neutral and protective earth not exceeding 15 V

Key Features

- Self-characterization eliminates need for correction factors in signal delivery system components
- Output level settings convert between voltage, power, and dBm units without loss of accuracy
- Calibration-specific user interface with dedicated function keys, context-sensitive softkeys, and color display
- Parameter offset, stepping, relative, and UUT/DUT error readout modes
- Covers over 80% of test points for spectrum analyzer calibration; delivers full calibration for many models below 27 GHz

Typical Applications

- Spectrum analyzer calibration and verification
- RF power sensor calibration
- Precision signal generation for metrology and research
- RF equipment characterization and testing

Compatibility & Integration

MET/CAL Plus Calibration Management Software compatible for automated calibration (potential efficiency gains of 50% or more versus manual methods)

GPIO emulation of HP3335A, HP8662/3A, HP8663A, HP8340A, HP8360 B-Series, Agilent E8257 Series, and Fluke Calibration 9640A, 9640A-LPN, 9640A-LPNX models

Includes sample calibration procedures and MET/CAL procedures compatible with 9640A models

Features & description

From manufacturer datasheet

Features

- Microwave output to 27 GHz; leveling head to 4 GHz

Applications

- Spectrum analyzer calibration to 27 GHz

96270A Characteristics / Specifications

PARAMETER	VALUE
Model	96270A
Manufacturer	Fluke Calibration
Instrument Type	Low Phase Noise RF Reference Source
Alias	Fluke 96270A; 96270A 27 GHz RF Reference Source
Leveling head frequency	1 mHz to 4 GHz
Microwave output frequency	1 mHz to 27 GHz
Frequency accuracy internal	+/-0.05 ppm +/-5 uHz
Phase noise at 1 GHz typical	-144 dBc/Hz at 10 kHz to 100 kHz offset
Leveling head level to 125 MHz	-130 to +24 dBm class
Leveling head level at 4 GHz	+14 dBm class upper
Microwave direct level	-4 to +24 dBm class with LL option deeper
Level accuracy leveling head to 100 kHz	+/-0.03 dB down to -48 dBm
Level accuracy leveling head to 128 MHz	+/-0.05 dB down to -48 dBm
Attenuation accuracy leveling head to 49 dB	+/-0.02 dB relative +10 dBm
Spurious at 1 GHz	<= -78 dBc
Spurious at 27 GHz	<= -48 dBc
Frequency sweep	linear or log stop-start or center-span
Microwave connector	PC 2.92 mm female class
Target coverage	over 80% of SA calibration test points class Notes Specs from Fluke 96270A datasheet and extended specification summaries. Confirm LL/HF options, leveling-head ohmage (50/75), and latest cal factors on the unit.
Attenuation	at leveling head

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	
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Attenuation accuracy leveling head to 49 dB: +/-0.02 dB relative +10 dBm	
Harmonics <=1 GHz: -60 dBc	
Harmonics >1 GHz: -55 dBc	
Spurious at 1 GHz: <= -78 dBc	
Spurious at 27 GHz: <= -48 dBc	
VSWR leveling head <=2 GHz: <=1.1 class	

Specifications

PARAMETER	VALUE
Frequency sweep	linear or log stop-start or center-span
Microwave connector	PC 2.92 mm female class
Target coverage	over 80% of SA calibration test points class

Notes

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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.