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Data Sheet

August 15, 2026

AEROFLEX

Aeroflex 6825A Microwave Scalar Analyzer

Fm Option: internal modulation generator FM and pulse on family options Use Case: microwave scalar network measurements Literature: Aeroflex 6820A series RF and microwave scalar analyzer listings Documentation Type: OEM 6820/6825A family table Use Case: microwave scalar network measurements Literature: Aeroflex 6820A series RF and microwave scalar analyzer listings Documentation Type: OEM 6820/6825A family table Form Factor: portable/benchtop microwave test set



MODEL

Aeroflex 6825A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

6825A

LISTING

<https://aumictechlabs.com/products/6825a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Aeroflex 6825A Microwave Scalar Analyzer delivers scalar network measurements from 10 MHz to 46 GHz. This integrated instrument combines a synthesized signal source with precision scalar analysis capability, enabling efficient characterization of transmission lines, microwave components, and complete systems without the complexity of vector network analyzers. The 6825A is engineered for aerospace, defense, telecommunications, and communications testing where accurate scalar measurements and real-time diagnostics are critical.

Technical Specifications Frequency & Source Performance Frequency range: 10 MHz to 46 GHz

Synthesized source with 1 Hz frequency resolution VCOs for frequencies above 3 GHz; integrated RF synthesizer for 1 MHz to 3 GHz Harmonic suppression better than -50 dBc from 70 MHz to 24 GHz Low phase noise architecture Measurement & Detection Dynamic range: +5 dBm to -65 dBm

Linearity: ± 0.2 dB Measurement accuracy: $\pm 2\%$ EEPROM-corrected scalar detectors Four display traces; three standard detectors (seven available) Real-time transmission line fault location with 0.1% accuracy Power & Modulation Optional increased output power from 3 to 24 GHz Optional step attenuators for low output power testing Power sweep capability for amplifier gain compression characterization Internal modulation generator (FM & Pulse) available (Option 023) Internal pulse modulator option (Option 025B) External FM and pulse modulation support CW mode for local oscillator substitution Physical Weight: 35 lbs Dimensions: 24 × 18 × 16 in Operating temperature: +5 to +45°C Storage/transportation temperature: -40 to +71°C Operating humidity: up to 93% RH at +40°C Maximum operating altitude: 4570 mKey Features Scalar measurement approach reduces test complexity and cost versus VNA solutions Multiple frequency versions available: 3 GHz, 8.4 GHz, 20 GHz, 24 GHz, 40 GHz, and 46 GHz upper limits Calibration services available Comprehensive accessory ecosystemTypical Applications Transmission line and component testing Microwave sub-assembly characterization Amplifier and receiver evaluation Communication system calibration Aerospace and defense subsystem validation

6825A Characteristics / Specifications

PARAMETER	VALUE
Model	6825A
Instrument Type	Microwave scalar analyzer
Frequency Range	10 MHz to 46 GHz
Frequency Resolution	1 Hz
Source Architecture	VCOs above 3 GHz; integrated RF synthesizer 1 MHz to 3 GHz
Harmonics	less than -50 dBc from 70 MHz to 24 GHz with internal filtering
Dynamic Range	+5 dBm to -65 dBm
Detector Inputs	3 detector inputs
Fault Location Accuracy	0.1 percent
Related 3 Ghz	6821A 1 MHz to 3 GHz
Related 8.4 Ghz	6822A 10 MHz to 8.4 GHz
Related 20 Ghz	6823A 10 MHz to 20 GHz
Related 24 Ghz	6824A 10 MHz to 24 GHz
Related 40 Ghz	6825AR 10 MHz to 40 GHz
Detector Correction	EEPROM corrected scalar detectors
Remote Interface	GPIB
Storage	3.5 inch disk drive for results
Fm Option	internal modulation generator FM and pulse on family options
Manufacturer	Aeroflex IFR Marconi
Use Case	microwave scalar network measurements
Literature	Aeroflex 6820A series RF and microwave scalar analyzer listings
Family	IFR/Aeroflex 6820 series
Documentation Type	OEM 6820/6825A family table
Brand Lineage	Marconi IFR Aeroflex
System Role	synthesized scalar analyzer

PARAMETER	VALUE
Form Factor	portable/benchtop microwave test set
Power Sweep	power sweep for amplifier gain compression testing
Cw Use	CW mode for local oscillator substitution

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 is less than -50 dBc (70 MHz to 24 GHz) with internal filtering. Product listings cite dynamic range +5 dBm to -65 dBm and three detector inputs. Fault location is specified at 0.1 percent accuracy. EEPROM-corrected scalar detectors, optional step attenuator, FM option, 3.5-inch disk, and GPIB are family features.

Applications

Factory and field scalar insertion/return-loss, amplifier compression, and transmission-line fault location to 46 GHz.

Key Features

10 MHz to 46 GHz scalar analyzer

1 Hz synthesized source

+5 dBm to -65 dBm dynamic range

Fault location 0.1 percent

EEPROM corrected detectors

Technical Specifications

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Notes
From Aeroflex/IFR 6820A series listings for 6825A (10 MHz-46 GHz, 1 Hz, +5 to -65 dBm, 3 detectors, 0.1 percent fault location, harmonics less than -50 dBc 70 MHz-24 GHz). Levelled power versus band and residual FM are on the 6825A specification sheet.

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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NIST-traceable calibration · SAM registered ·
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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.