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Data Sheet

August 13, 2026

IFR

IFR 6844A 10 MHz to 24 GHz Scalar Analyzer with 24 GHz Spectrum Analyzer

IFR / Aeroflex 6844A Microwave System Analyzer, 10 MHz–24 GHz The IFR (Aeroflex / Marconi) 6844A is a 6840-series microwave system analyzer integrating a synthesized source, three-input scalar analyzer, and synthesized spectrum analyzer to 24 GHz. One instrument supports CW, swept scalar, tracking-generator spectrum, and offset-tracking network measurements for RF/microwave component and subsystem characterization. The IFR (Aeroflex / Marconi) 6844A is a 6840-series microwave system analyzer integrating a synthesized source, three-input scalar analyzer, and synthesized spectrum analyzer to 24 GHz. One instrument supports CW, swept scalar, tracking-generator spectrum, and offset-tracking network measurements for RF/microwave component and subsystem characterization.



MODEL

IFR 6844A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

6844A

LISTING

<https://aumictechlabs.com/products/6844a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The IFR 6844A is a dual-function system analyzer covering 10 MHz to 24 GHz, combining scalar analysis with spectrum analysis in a single integrated instrument. Built around a synthesized source, the 6844A delivers CW output, swept-source capability for scalar measurements, and tracking generator functionality for spectrum analysis. The receiver operates as a tuned input for

high dynamic range scalar measurements, while an offset tracking source accommodates frequency translation device characterization. This consolidation eliminates the need for separate test equipment, reducing bench space and setup complexity.

Technical Specifications

Frequency Range: 10 MHz to 24 GHz

Scalar Analysis: Included

Spectrum Analysis: Up to 24 GHz

Synthesized Source: CW output, swept source, tracking generator, offset tracking source

Receiver: Tuned input for high dynamic range scalar measurements

Key Features

- Single-unit integration of source, scalar analyzer, and spectrum analyzer eliminates multiple instruments
- Synthesized source operates in multiple modes: CW, swept, tracking, and offset tracking - for diverse measurement scenarios
- Spectrum analyzer receiver doubles as a precision input stage for scalar measurements requiring extended dynamic range
- Optional FM modulation extends source capabilities for modulated signal characterization
- Optional Group Delay module enables simultaneous amplitude and group delay measurement with integrated FM functionality
- Fault location support for field diagnostics and maintenance

Typical Applications

- RF and microwave component characterization
- Network analysis on frequency translation devices
- Scalar gain/loss and reflection measurements
- Spectrum monitoring and analysis
- Group delay and phase response measurement (with option)

Compatibility & Integration

The 6844A functions as a general-purpose RF/microwave system analyzer, supporting a broad measurement portfolio across laboratory and field environments. Its modular option structure allows configuration tailored to specific application requirements without unnecessary cost.

Features & description

From manufacturer datasheet

Features

- Scalar analyzer 10 MHz–24 GHz with spectrum analyzer to 24 GHz • Integrated synthesized source (1 Hz settable resolution class) • 3 detector inputs plus tuned input • AC/DC detection; averaging and smoothing • Optional group delay, step attenuators, FM • Color LCD; floppy / optional SD; GPIB programmable

Applications

- Scalar insertion / return loss and fault location to 24 GHz • Spectrum analysis with full-band sweeps and tracking generator • Amplifier gain compression via power sweep • Automated component test via IEEE-488

6844A Characteristics / Specifications

PARAMETER	VALUE
Model	6844A
Manufacturer	IFR / Aeroflex (Marconi 6840 series)
Instrument Type	Microwave System Analyzer (Scalar + Spectrum + Source)
Scalar Frequency Range	10 MHz to 24 GHz
Spectrum Analyzer Frequency Range	to 24 GHz
Source Frequency Range	10 MHz to 24 GHz
Source Frequency Resolution	1 Hz (settable class)
CW Accuracy	(Frequency Standard error × Frequency) ± 10 Hz
Scalar Detector Inputs	3 plus tuned input
Measurement Points	User selectable 2 to 1601
Detection Modes	AC and DC
Noise Reduction Averaging	1 to 1000
Smoothing	0.01 to 20%
Leveled Power Standard 1 MHz	3 GHz: -10 dBm to +10 dBm
Leveled Power Standard	24 GHz: -10 dBm to +5 dBm
Settable Power Resolution	0.01 dB
Power Sweep Range	>20 dB (without attenuator)
Spectrum RBW Filters	3 MHz to 1 kHz
Spectrum Instantaneous Dynamic Range	>80 dB
RF Connector Class (6844)	Precision 3.5 mm female
Harmonic Performance Source	<-55 dBc class (filtered)
Remote Control	IEEE-488 (GPIB)
Display	Color LCD
Weight Class	~24 kg (variant/option dependent)
Dimensions with Handle Class	230 × 430 × 570 mm Notes Specs from IFR/Aeroflex 6840 Series Microwave System Analyzers data sheet (6844 = 10 MHz–24 GHz)

PARAMETER

VALUE

scalar with 24 GHz spectrum). Confirm 6844 vs 6844A option set and connectors on the unit.

Return loss

and fault location to 24 GHz - Spectrum analysis with full-band sweeps and tracking generator - Amplifier gain compression via power sweep
- Automated component test via IEEE-488

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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Dimensions with Handle Class	230 × 430 × 570 mm
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Notes

Specs from IFR/Aeroflex 6840 Series Microwave System Analyzers data sheet (6844 = 10 MHz-24 GHz scalar with 24 GHz spectrum). Confirm 6844 vs 6844A option set and connectors on the unit.

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 ·
30-day returns
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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.