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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent / Keysight E7402A EMC Spectrum Analyzer, 9 kHz to 3 GHz

The Agilent E7402A is a member of the E7400A-series EMC spectrum analyzers intended for precompliance and EMI evaluation. OEM E7400 A-series data sheets list quasi-peak and average detector support, optional tracking generators, and shared RBW architecture across the family with model-specific upper frequency limits. Precompliance EMI scans, radiated and conducted emissions troubleshooting, and general-purpose spectrum analysis on the EMC analyzer platform. Quasi-peak and average detectors for EMI-oriented measurements Form Factor: portable benchtop EMC analyzer Measurement Detectors: peak quasi-peak and average class Documentation Scope: OEM E7400 A-series numeric tables From Agilent E7400 A-series EMC Analyzers data sheet tables for E7402A. DANL and phase-noise warrants are frequency-, attenuator-, and preamp-dependent; cite the full sheet for amplitude accuracy.



MODEL

**Agilent / Keysight
E7402A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

E7402A

LISTING

<https://aumictechlabs.com/products/e7402a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight E7402A is a portable EMC spectrum analyzer operating from 9 kHz to 3 GHz, purpose-built for pre-compliance testing and radiated/conducted emissions evaluation. This instrument delivers DANL performance to -150 dBm, resolution bandwidth from 1 Hz to 5 MHz with dedicated EMI bandwidths (200 Hz, 9 kHz, 120 kHz, 1 MHz), and a built-in 20 dB preamplifier

for enhanced sensitivity in low-level measurements. The analyzer includes factory-programmed limit lines covering CISPR, FCC, and EN EMC standards, eliminating manual threshold entry for routine compliance workflows.

Technical Specifications

Frequency Coverage 9 kHz to 3 GHz (primary) 100 Hz to 3.0 GHz (DC coupled) 100 kHz to 3.0 GHz (AC coupled) 30 Hz to 3 GHz (DC coupled) 30 Hz to 9 kHz available with UKB option

Dynamic Range & Linearity Displayed Average Noise Level: ≤ -150 dBm Third Order Intercept: +12.5 dBm Second Harmonic Distortion: +45 dBm

Input Attenuator: 0 to 65 dB (75 dB with option)

Resolution & Video Bandwidth RBW: 1 Hz to 5 MHz in 1-3-10 sequence, with 200 Hz, 9 kHz, 120 kHz, and 1 MHz EMI bandwidths Option 1D5 provides 1 Hz to 300 Hz RBW Option 1DN tracking generator limits minimum RBW to 1 kHz VBW: 30 Hz to 1 MHz (1-3-10 sequence); 1, 3, 10 Hz for RBW < 1 kHz

Power & Environmental AC: 90–132 Vrms (47–440 Hz) or 195–250 Vrms (47–66 Hz); < 300 W operating, < 5 W standby DC: 12–20 Vdc; < 200 W

Operating Temperature: 0 °C to +55 °C **Weight:** 14.9 kg; **Dimensions:** 222 mm (H) × 409 mm (D) × 373 mm (W)

Key Features Automatic EMI measurement algorithms Log sweep acquisition mode Built-in preamplifier with 20 dB nominal gain Close field probe support (11940A, 11941A) for near-field diagnostics GPIB, parallel (Centronics), and optional RS-232 interfaces 3.5" disk drive for measurement storage

Compatibility & Integration Agilent E7415A EMI measurement software BenchLink Web Remote software for remote operation Broadband antennas and external probe accessories

Typical Applications EMC pre-compliance testing per CISPR, FCC, and EN standards Radiated and conducted emissions characterization Problem isolation and field diagnostics

E7402A Characteristics / Specifications

PARAMETER	VALUE
Model	E7402A
Instrument Type	EMC spectrum analyzer
Frequency Range 50 Ohm	9 kHz to 3.0 GHz
Frequency Reference Aging Opt 1D	plus or minus 1e-7 per year class
Frequency Reference Temperature Stability Opt 1D	plus or minus 1e-8 class
Frequency Reference Settability Opt 1D	plus or minus 1e-8 class
Resolution Bandwidth Class	1 kHz to 5 MHz class ESA-derived architecture
Input Attenuator Range Class	0 to 60 dB in 5 dB steps class family
Maximum Safe Input Class	plus 30 dBm with adequate attenuation class
Dc Coupled Low Frequency Extension Available	UKB path to 30 Hz characteristic on applicable models
Ac Coupled Minimum Class On Microwave Models	100 kHz characteristic
Tracking Generator Available	1DN class family option
High Stability Timebase Available	1D5 class family option
Dc Coupled Range With Ukb	30 Hz to 3.0 GHz characteristic
Ac Coupled Range	100 kHz to 3.0 GHz characteristic
Band Coverage	RF coverage to 3.0 GHz
Operating Temperature Spec Condition	0 C to plus 55 C OEM warranty window
Warmup Align Class	Align Now RF within 24 hour period after 5 minute warm-up class
Remote Interface Class	GPIB standard; RS-232 alternate interface available
Display Log Scale Class	0.1 to 20 dB per division class family table
Calibrated Display Range Class	0 to -85 dB from reference level class family
Form Factor	portable benchtop EMC analyzer
Family Series	E7400A EMC analyzers
Measurement Detectors	peak quasi-peak and average class

PARAMETER	VALUE
Documentation Scope	OEM E7400 A-series numeric tables
Bandwidth	Class: 1 kHz to 5 MHz class ESA-derived architecture
Attenuation	class
Operating temperature	Spec Condition: 0 C to plus 55 C OEM warranty window

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Spec Condition: 0 C to plus 55 C OEM warranty window
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Operating Temperature Spec Condition	0 C to plus 55 C OEM warranty window
Warmup Align Class	Align Now RF within 24 hour period after 5 minute warm-up class
Remote Interface Class	GPIB standard; RS-232 alternate interface available
Display Log Scale Class	0.1 to 20 dB per division class family table
Calibrated Display Range Class	0 to -85 dB from reference level class family
Form Factor	portable benchtop EMC analyzer
Family Series	E7400A EMC analyzers
Measurement Detectors	peak quasi-peak and average class
Documentation Scope	OEM E7400 A-series numeric tables Notes From Agilent E7400 A-series EMC Analyzers data sheet tables for E7402A. DANL and phase-noise warrants are frequency-, attenuator-, and preamp-dependent; cite the full sheet for amplitude accuracy.

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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PARAMETER	VALUE
Model	E7402A
Instrument Type	EMC spectrum analyzer
Frequency Range 50 Ohm	9 kHz to 3.0 GHz
Frequency Reference Aging Opt 1D5	plus or minus 1e-7 per year class
Frequency Reference Temperature Stability Opt 1D5	plus or minus 1e-8 class
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Resolution Bandwidth Class	1 kHz to 5 MHz class ESA-derived architecture
Input Attenuator Range Class	0 to 60 dB in 5 dB steps class family
Maximum Safe Input Class	plus 30 dBm with adequate attenuation class
Dc Coupled Low Frequency Extension Available	UKB path to 30 Hz characteristic on applicable models
Ac Coupled Minimum Class On Microwave Models	100 kHz characteristic
Tracking Generator Available	1DN class family option
High Stability Timebase Available	1D5 class family option
Dc Coupled Range With Ukb	30 Hz to 3.0 GHz characteristic
Ac Coupled Range	100 kHz to 3.0 GHz characteristic
Band Coverage	RF coverage to 3.0 GHz
Operating Temperature Spec Condition	0 C to plus 55 C OEM warranty window
Warmup Align Class	Align Now RF within 24 hour period after 5 minute warm-up class
Remote Interface Class	GPIO standard; RS-232 alternate interface available
Display Log Scale Class	0.1 to 20 dB per division class family table
Calibrated Display Range Class	0 to -85 dB from reference level class family
Form Factor	portable benchtop EMC analyzer
Family Series	E7400A EMC analyzers
Measurement Detectors	peak quasi-peak and average class

PARAMETER	VALUE
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Documentation Scope	OEM E7400 A-series numeric tables
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Notes

From Agilent E7400 A-series EMC Analyzers data sheet tables for E7402A. DANL and phase-noise warrants are frequency-, attenuator-, and preamp-dependent; cite the full sheet for amplitude accuracy.

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.