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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight 8542E EMI Receiver, 9 kHz to 2.9 GHz

The HP/Agilent 8542E isaCISPR 16-1 compliant EMI test receiver covering 9 kHz to 2.9 GHz. OEM Agilent 8542E and 8546A EMI Test Receivers data sheet 5965-7096E lists the 85422E RF section plus 85420E RF filter section, CISPR 200 Hz / 9 kHz / 120 kHz bandwidths, and the same peak/quasi-peak/average detector set as the 8546A without the 6.5 GHz third band. Commercial conducted and radiated EMI to 2.9 GHz; FCC/EN precompliance and compliance; diagnostic scans with the RF section stand-alone. CISPR Publication 16 receiver when paired with the RF filter section Cispr BandAExample: 9 kHz to 150 kHz with 200 Hz CISPR bandwidth Cispr BandBExample: 150 kHz to 30 MHz with 9 kHz CISPR bandwidth Cispr BandCExample: 30 MHz to 300 MHz with 120 kHz CISPR bandwidth Numeric rows from Agilent 8542E and 8546A EMI Test Receivers data sheet 5965-7096E. 8542E does not include the 1 GHz to 6.5 GHz Band 3 of the 8546A.



MODEL

**Agilent / Keysight
8542E**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

8542E

LISTING

<https://aumictechlabs.com/products/8542e-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 8542E EMI Receiver is a dual-band instrument engineered for electromagnetic interference testing across 9 kHz to 2.9 GHz. It delivers CISPR 16-1 compliance for conformance testing against international standards including CISPR, EN, FCC, VCCI, and VDE

regulations. Technical Specifications Frequency Coverage Band 1: 9 kHz to 50 MHz Band 2: 20 MHz to 2.9 GHz Bypass Mode: 9 kHz to 2.9 GHz Frequency reference aging: $< \pm 1 \times 10^{-7}$ /year Frequency settability: $< \pm 1 \times 10^{-8}$ Temperature stability: 20 dB input attenuation Peak pulse power (Input 2): 100 W peak at 10 μ sec, 1% duty cycle with ≥ 30 dB input attenuation Preamplification Bands 1 and 2: 12 dB Bypass: 27 dB Key Features Modular RF filter section supporting both full compliance and pre-compliance testing Broadband overload detection maintains measurement integrity Automated measurement routines and overload detection accelerate conformance workflows Counter resolution selectable from 10 Hz to 100 kHz depending on frequency span Quasi-Peak time constants conform to CISPR Publication 16 standards Typical Applications Commercial EMI conformance testing Pre-compliance EMI assessments Radiated and conducted emissions measurement Regulatory compliance validation to international standards Compatibility & Integration The modular RF filter design permits standalone use of the RF section (85422E) for pre-compliance applications or system integration into broader test configurations.

8542E Characteristics / Specifications

PARAMETER	VALUE
Model	8542E
Instrument Type	EMI test receiver
Series Family	Agilent 8542E/8546A
Frequency Range	9 kHz to 2.9 GHz
Tuning Band	20 MHz to 2.9 GHz
Bypass Tuning Range	9 kHz to 2.9 GHz
Rf Section Model	85422E
Filter Section Model	85420E
Cispr Measurement Bandwidths	200 Hz, 9 kHz, 120 kHz, 6 dB, CISPR Publication 16
Diagnostic If Bandwidths	30 Hz to 3 MHz in 1-3-10 sequence plus 5 MHz
Diagnostic Filter Shape Factor	15:1 or less generally
Detectors	simultaneous peak, quasi-peak, and average
Span Accuracy Span Greater 10 Mhz	±3 percent of span (data-sheet span table)
Operating Temperature	0 C to +55 C
Aux If Output Frequency	21.4 MHz, 50 ohm BNC
Aux If Amplitude Range	minus 10 to minus 60 dBm
Reference Output	10 MHz, 0 dBm minimum
External Reference Input	10 MHz, +2 dBm to +10 dBm
Width	458 mm
Height	368 mm
Depth	644 mm
Input 1 Frequency	9 kHz to 50 MHz
Input 2 Frequency	20 MHz to 2.9 GHz
Cispr BandAExample	9 kHz to 150 kHz with 200 Hz CISPR bandwidth
Cispr BandBExample	150 kHz to 30 MHz with 9 kHz CISPR bandwidth

PARAMETER	VALUE
Cispr BandCExample	30 MHz to 300 MHz with 120 kHz CISPR bandwidth
Bandwidth	Cispr BandBExample: 150 kHz to 30 MHz with 9 kHz CISPR bandwidth

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 C to +55 C
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Cispr BandAExample	9 kHz to 150 kHz with 200 Hz CISPR bandwidth
Cispr BandBExample	150 kHz to 30 MHz with 9 kHz CISPR bandwidth
Cispr BandCExample	30 MHz to 300 MHz with 120 kHz CISPR bandwidth Notes Numeric rows from Agilent 8542E and 8546A EMI Test Receivers data sheet 5965-7096E. 8542E does not include the 1 GHz to 6.5 GHz Band 3 of the 8546A.

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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Cispr BandAExample	9 kHz to 150 kHz with 200 Hz CISPR bandwidth
Cispr BandBExample	150 kHz to 30 MHz with 9 kHz CISPR bandwidth

PARAMETER

VALUE

Cispr BandCExample

30 MHz to 300 MHz with 120 kHz CISPR bandwidth

Notes

Numeric rows from Agilent 8542E and 8546A EMI Test Receivers data sheet 5965-7096E. 8542E does not include the 1 GHz to 6.5 GHz Band 3 of the 8546A.

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
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.