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Data Sheet

August 13, 2026

ROHDE & SCHWARZ

Rohde & Schwarz ESIB40 EMI Test receiver.

Rohde & Schwarz ESIB40 EMI Test Receiver 20 Hz to 40 GHz The R&S ESIB40 is the 40 GHz member of the ESIB EMI test receiver family (order 1088.7490.40). Input 1 covers 20 Hz to 40 GHz; input 2 covers 20 Hz to 1 GHz with pulse protection. It combines a CISPR 16-1-1 compliant receiver with a high-end spectrum analyzer. Preselection uses three fixed-tuned and six or seven tracking filters. A 20 dB preamplifier to 7 GHz is standard (ESIB-B2 extends 7 GHz to 40 GHz). External mixers (FSE-B21) extend coverage toward 110 GHz. The R&S ESIB40 is the 40 GHz member of the ESIB EMI test receiver family (order 1088.7490.40). Input 1 covers 20 Hz to 40 GHz; input 2 covers 20 Hz to 1 GHz with pulse protection. It combines a CISPR 16-1-1 compliant receiver with a high-end spectrum analyzer. Preselection uses three fixed-tuned and six or seven tracking filters. A 20 dB preamplifier to 7 GHz is standard (ESIB-B2 extends 7 GHz to 40 GHz). External mixers (FSE-B21) extend coverage toward 110 GHz.



MODEL

Rohde & Schwarz ESIB40

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

ESIB40

LISTING

<https://aumictechlabs.com/products/esib40-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Rohde & Schwarz ESIB40 is a EMI test receiver and spectrum analyzer engineered for electromagnetic compatibility (EMC) testing across CISPR, EN, VDE, ANSI, FCC, BS, ETS, VCCI, MIL-STD, VG, and DEF-STAN standards. Compliant with CISPR 16-1-1, it combines receiver sensitivity with spectrum analyzer flexibility for product development from functional measurements through final certification. Technical Specifications Frequency Coverage Input 1: 20

Hz to 40 GHz Input 2: 20 Hz to 1 GHz with integrated pulse protection Expandable to 110 GHz using external mixers (Option FSE-B21) Sensitivity & Dynamic Range Noise figure: 10 dB typical Inherent noise: <-3 dB μ V typical 1 dB compression point: +10 dBm Level display range: noise floor to 137 dB μ V Measurement uncertainty: <1 dB up to 1 GHz Resolution & Speed CISPR 16-1-1 resolution bandwidths: 200 Hz, 9 kHz, 120 kHz Analyzer mode: 1 Hz to 10 MHz selectable (-3 dB and -6 dB variants) Receiver and analyzer mode: 10 Hz to 10 MHz in decadic steps Minimum measurement time: 100 μ s Detection & Measurement Parallel detectors: up to 4 simultaneously Available detectors: Peak, Average, Quasi-Peak, CISPR Average, RMS Time-domain measurement resolution: 50 ns minimum Fast scanning in receiver mode; sweep capability in analyzer mode Preselection & Amplification Fixed preselection in receiver mode; selectable in analyzer mode Three fixed-tuned and six or seven tracking filters (models 26 and 40) Integrated 20 dB preamplifier (selectable): 1 kHz to 7 GHz standard; option R&S ESIB-B2 extends to 40 GHz Pulse Handling Input 2 withstands pulses up to 1500 V and powers up to 30 mWs (20 Hz to 1 GHz) Pulse weighting compliant with CISPR 16-1-1 and VDE 0876

Key Features Dual-input architecture with dedicated pulse protection on Input 2 Noise measurement, phase noise measurement, and channel power analysis Time-domain zero-span capability for transient analysis RF preselection positioned ahead of preamplifier for overload protection

Typical Applications Product EMC validation, conducted and radiated emissions testing, pre-compliance assessment, regulatory certification support, and broadband interference characterization.

Features & description

From manufacturer datasheet

Features

- Parallel detectors: peak, average, CISPR-average, quasi-peak, RMS (up to 4) • CISPR bandwidths 200 Hz, 9 kHz, 120 kHz, 1 MHz plus 10 MHz • Analyzer RBW 1 Hz to 10 MHz in 1/2/3/5 steps • Four traces, up to 80 000 values each (250 000 with one trace) • 24 cm color LCD; Windows NT internal controller • Level accuracy plus/minus 1 dB to 1 GHz

Applications

- Commercial and military EMI to CISPR, EN, FCC, MIL-STD, DO-160, VG • CISPR 25 vehicle-antenna measurements with the 20 dB preamp • Spectrum analysis: noise, phase noise, ACP, time domain • Preview peak scan plus final QP / CISPR-average measurements • mm-wave EMI with external mixers

ESIB40 Characteristics / Specifications

PARAMETER	VALUE
Model	ESIB40
Manufacturer	Rohde & Schwarz
Instrument Type	EMI test receiver / spectrum analyzer
Alias	ESIB 40; R&S ESIB40
Order Number	1088.7490.40
Frequency Range Input	20 Hz to 40 GHz
Frequency Resolution	0.01 Hz
External Mixer Extension	to 110 GHz with FSE-B21
CISPR Bandwidths	200 Hz, 9 kHz, 120 kHz, 1 MHz
Analyzer Bandwidths	1 Hz to 10 MHz, 1/2/3/5 steps
MIL Bandwidths	10 Hz to 1 MHz plus 10 MHz
Preamplifier Gain	20 dB, 9 kHz to 7 GHz (B2 to 40 GHz)
Preselection	3 fixed + 6 or 7 tracking filters
Detectors	PK, AV, CISPR AV, QP, RMS (max 4 parallel)
Display Range	noise floor to 137 dB μ V
RF Attenuator	0 dB to 70 dB in 10 dB steps
Level Error to 1 GHz	plus/minus 1 dB
Frequency Response to 1 GHz	plus/minus 0.5 dB (analyzer, 10 dB att)
VSWR Receiver att 10 dB to 1 GHz	less than 1.2
VSWR to 7 GHz att 10 dB	less than 2.0
VSWR to 37 GHz att 10 dB	less than 2.5
VSWR to 40 GHz att 10 dB	typically 2.5
Max Pulse Voltage att 10 dB	50 V (10 μ s) on 26/40 models
Max Pulse Energy att 10 dB	0.5 mWs (10 μ s) on 26/40 models
Input 2 Connector	N female, 50 ohm

PARAMETER	VALUE
Display	24 cm LC color
Time Domain Resolution	50 ns
Trace Memory	4 traces x 80 000 (or 1 × 250 000)
Reference Aging per Day	1e-9
Reference Aging per Year	2e-7
Preamplifier Option ESIB B	20 dB, 7 GHz to 40 GHz, 1137.4494.40
Sibling ESIB7 Range	20 Hz to 7 GHz, 1088.7490.07
Sibling ESIB26 Range	20 Hz to 26.5 GHz, 1088.7490.26
Mixer Option	FSE-B21 Notes Specs from the R&S ESIB EMI Test Receivers data sheet. Confirm ESIB-B2 microwave preamp, FSE-B21 mixer option, and firmware. This file is the 40 GHz ESIB40, not ESIB7 or ESIB26.
Spectrum analysis	noise, phase noise, ACP, time domain
Parallel detectors	peak, average, CISPR-average, quasi-peak, RMS (up to 4)

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	ESIB40
Manufacturer	Rohde & Schwarz
Instrument Type	EMI test receiver / spectrum analyzer
Alias	ESIB 40; R&S ESIB40
Order Number	1088.7490.40
Frequency Range Input 1	20 Hz to 40 GHz
Frequency Range Input 2	20 Hz to 1 GHz
Frequency Resolution	0.01 Hz
External Mixer Extension	to 110 GHz with FSE-B21
CISPR Bandwidths	200 Hz, 9 kHz, 120 kHz, 1 MHz
Analyzer Bandwidths	1 Hz to 10 MHz, 1/2/3/5 steps
MIL Bandwidths	10 Hz to 1 MHz plus 10 MHz
Preamplifier Gain	20 dB, 9 kHz to 7 GHz (B2 to 40 GHz)
Preselection	3 fixed + 6 or 7 tracking filters
Detectors	PK, AV, CISPR AV, QP, RMS (max 4 parallel)
Display Range	noise floor to 137 dBµV
RF Attenuator	0 dB to 70 dB in 10 dB steps
Level Error to 1 GHz	plus/minus 1 dB
Frequency Response to 1 GHz	plus/minus 0.5 dB (analyzer, 10 dB att)
VSWR Receiver att 10 dB to 1 GHz: less than 1.2	
Specifications	
PARAMETER	VALUE
VSWR to 7 GHz att 10 dB	less than 2.0
VSWR to 37 GHz att 10 dB	less than 2.5
VSWR to 40 GHz att 10 dB	typically 2.5

PARAMETER	VALUE
Max Pulse Voltage att 10 dB	50 V (10 μ s) on 26/40 models
Max Pulse Energy att 10 dB	0.5 mWs (10 μ s) on 26/40 models
Input 2 Connector	N female, 50 ohm
Display	24 cm LC color
Time Domain Resolution	50 ns
Trace Memory	4 traces x 80 000 (or 1 x 250 000)
Reference Aging per Day	1e-9
Reference Aging per Year	2e-7
Preamplifier Option ESIB B2	20 dB, 7 GHz to 40 GHz, 1137.4494.40
Sibling ESIB7 Range	20 Hz to 7 GHz, 1088.7490.07
Sibling ESIB26 Range	20 Hz to 26.5 GHz, 1088.7490.26
Mixer Option	FSE-B21

Notes

Specs from the R&S ESIB EMI Test Receivers data sheet. Confirm ESIB-B2 microwave preamp, FSE-B21 mixer option, and firmware. This file is the 40 GHz ESIB40, not ESIB7 or ESIB26.

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.