

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

ROHDE & SCHWARZ

Rohde and Schwarz TS-EMF EMF Measurement System/Antenna

Instrument Type: Portable isotropic EMF measurement system Order Number System: 1158.9295.05 (portable system, hard case) Frequency Coverage System: 9 kHz to 8 GHz (antenna option dependent) Antenna TSEMF B2E Range: 700 MHz to 8 GHz Dimensions TSEMF B3: 550 mm x 146 mm (Lxdiameter) Weight TSEMF B2 B2E: 0.95 kg including cable Recommended Analyzer Option: FSH-K105 or FPH-K105 EMF application Specs from the R&S TS-EMF Portable EMF Measurement System data sheet Version 03.00 (March 2023). Confirm installed isotropic antenna (B1/B2/B2E/B3), cable set, and analyzer firmware/K105 license. Isotropy figures for B1/B2 exclude a 30 degree cone around the handle.



MODEL	CALIBRATION
Rohde & Schwarz TS-EMF	Available on request
CONDITION	STATUS
Used	In stock
RFQ / SKU	LISTING
TS-EMF	https://aumictechlabs.com/products/ts-emf-2/

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Rohde & Schwarz TS-EMF is a portable electromagnetic field measurement system for precise, frequency-selective analysis of EMF emissions across complex RF environments. Integrated with Rohde & Schwarz spectrum analyzers, it evaluates total and individual emissions while maintaining compliance with ICNIRP, EN 50400, and EN 50499 standards. The system operates across 9 kHz to 6 GHz using three calibrated isotropic antennas, each covering discrete frequency bands with documented isotropic deviations. Field measurements are performed using

multiple methods - fast overview, average/peak value over time, grid, stirring, and long-term measurement - with automated test routines and integrated report generation enabling efficient on-site operation.

Technical Specifications

Frequency Coverage Overall range: 9 kHz to 6 GHz
Isotropic loop antenna: 9 kHz to 200 MHz
Isotropic antenna: 30 MHz to 3 GHz
Isotropic antenna: 700 MHz to 6 GHz

Deviation Performance General: $\leq \pm 2.1$ dB
0.6 GHz to 2 GHz: $\leq \pm 2.5$ dB (± 1.0 dB at 900 MHz)
2 GHz to 3.6 GHz: $\leq \pm 2.2$ dB (± 1.7 dB at 1800 MHz)
3.6 GHz to 6 GHz: $\leq \pm 3.0$ dB

TS-EMF-B3 (9 kHz to 200 MHz): ± 1.37 dB
TS-EMF-B1 (30 MHz to 3 GHz): ± 1.0 dB to ± 2.1 dB

Measurement Capabilities Frequency-selective EMF spectrum measurements
Complex RF signal scenarios with varied bandwidths, modulation schemes, and timing structures
Total and individual emissions evaluation
Fast overview, average/peak, grid, stirring, and long-term measurement methods

Key Features Three-antenna isotropic configuration for omni-directional field detection independent of polarization
Individual antenna calibration data stored on USB dongle and/or CD
Compliant with ICNIRP, EN 50400, and EN 50499 standards
On-site automated testing with integrated reporting

Compatibility & Integration Designed for integration with Rohde & Schwarz spectrum analyzers including R&S FPL, R&S FSH, R&S FPH, and R&S FSL. Supported by R&S RFEX measurement software including R&S RFEX-Fast for standard measurement routines.

Features & description

From manufacturer datasheet

Features

- Isotropic reception by electronically switched orthogonal elements
- Four antenna options: TSEMF-B3, B1, B2, B2E
- Direct FSH power-sensor port control; TSEMF-CV USB adapter for FPH
- Individual factory calibration data on CD (B1/B2/B2E); typical data on B3
- Tripod adapter with 1/4 inch thread and quick connector

Applications

- On-site EMF exposure measurements to national and international limits
- Frequency-selective spectrum of complex RF environments
- Automated EMF with FSH-K105 or FPH-K105
- 3G and 4G decoding with related FSH options
- Transmitter compliance communication to the public

TSEMF Characteristics / Specifications

PARAMETER	VALUE
Model	TS-EMF
Manufacturer	Rohde & Schwarz
Instrument Type	Portable isotropic EMF measurement system
Alias	TS EMF; R&S TS-EMF; TSEMF
Order Number System	1158.9295.05 (portable system, hard case)
Frequency Coverage System	9 kHz to 8 GHz (antenna option dependent)
Antenna TSEMF B3 Range	9 kHz to 200 MHz
Antenna TSEMF B1 Range	30 MHz to 3 GHz
Antenna TSEMF B2 Range	700 MHz to 6 GHz
Antenna TSEMF B2E Range	700 MHz to 8 GHz
Minimum Detectable Field	approx. 1 mV/m
Isotropy TSEMF B	less than or equal to plus/minus 2.1 dB; plus/minus 1.0 dB at 900 MHz; plus/minus 1.7 dB at 1800 MHz
Isotropy TSEMF B2 B2E 0.6 to 2 GHz	less than or equal to plus/minus 2.5 dB
Isotropy TSEMF B2 B2E 2 to 3.6 GHz	less than or equal to plus/minus 2.2 dB
Isotropy TSEMF B2 B2E 3.6 to 7.5 GHz	less than or equal to plus/minus 3.0 dB
Isotropy TSEMF B2 B2E 7.5 to 8 GHz	less than or equal to plus/minus 3.5 dB
Expanded Uncertainty with FSH at 0.9 GHz	plus/minus 2.3 dB (95 percent, k=2)
Expanded Uncertainty FSH 0.7 to 1 GHz	less than or equal to plus/minus 3.15 dB
Expanded Uncertainty FSH 1 to 3.6 GHz	less than or equal to plus/minus 3.4 dB
Expanded Uncertainty FSH 3.6 to 7.125 GHz	less than or equal to plus/minus 3.9 dB
Expanded Uncertainty FSH 7.5 to 8 GHz	less than or equal to plus/minus 4.6 dB
RF Connector	N male
Control Connector	7 pin Binder; FSH power sensor port or FPH via TSEMF-CV
Integrated Cable Length	2 m (B1/B2/B2E)

PARAMETER	VALUE
Extension Cable Length	8 m (TS-EMFZ2, to 8 GHz)
Ambient Temperature	minus 10 C to plus 50 C
Protection Class	IP54
Dimensions TSEMF B	550 mm x 146 mm (Lxdiameter)
Dimensions TSEMF B2 B2E	415 mm x 87 mm
Weight TSEMF B	0.85 kg including cable
Weight TSEMF B2 B2E	0.95 kg including cable
Order TSEMF B	1074.5719.02
Order TSEMF B2E	1074.5702.03
Axis Switching	RF solid state switch
Recommended Analyzer Option	FSH-K105 or FPH-K105 EMF application Notes Specs from the R&S TS-EMF Portable EMF Measurement System data sheet Version 03.00 (March 2023). Confirm installed isotropic antenna (B1/B2/B2E/B3), cable set, and analyzer firmware/K105 license. Isotropy figures for B1/B2 exclude a 30 degree cone around the handle.
Four antenna options	TSEMF-B3, B1, B2, B2E

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	TS-EMF
Manufacturer	Rohde & Schwarz
Instrument Type	Portable isotropic EMF measurement system
Alias	TS EMF; R&S TS-EMF; TSEMF
Order Number System	1158.9295.05 (portable system, hard case)
Frequency Coverage System	9 kHz to 8 GHz (antenna option dependent)
Antenna TSEMF B3 Range	9 kHz to 200 MHz
Antenna TSEMF B1 Range	30 MHz to 3 GHz
Antenna TSEMF B2 Range	700 MHz to 6 GHz
Antenna TSEMF B2E Range	700 MHz to 8 GHz
Minimum Detectable Field	approx. 1 mV/m
Isotropy TSEMF B3	less than or equal to plus/minus 1.37 dB
Isotropy TSEMF B1	less than or equal to plus/minus 2.1 dB; plus/minus 1.0 dB at 900 MHz; plus/minus 1.7 dB at 1800 MHz
Isotropy TSEMF B2 B2E 0.6 to 2 GHz: less than or equal to plus/minus 2.5 dB Isotropy TSEMF B2 B2E 2 to 3.6 GHz: less than or equal to plus/minus 2.2 dB Isotropy TSEMF B2 B2E 3.6 to 7.5 GHz: less than or equal to plus/minus 3.0 dB Isotropy TSEMF B2 B2E 7.5 to 8 GHz: less than or equal to plus/minus 3.5 dB	
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RF Connector	N male
Control Connector	7 pin Binder; FSH power sensor port or FPH via TSEMF-CV

PARAMETER	VALUE
Integrated Cable Length	2 m (B1/B2/B2E)
Extension Cable Length	8 m (TS-EMFZ2, to 8 GHz)
Ambient Temperature	minus 10 C to plus 50 C
Protection Class	IP54
Dimensions TSEMF B3	550 mm x 146 mm (Lxdiameter)
Dimensions TSEMF B1	475 mm x 170 mm
Dimensions TSEMF B2 B2E	415 mm x 87 mm
Weight TSEMF B3	0.85 kg including cable
Weight TSEMF B1	1.3 kg including cable
Weight TSEMF B2 B2E	0.95 kg including cable
Order TSEMF B1	1074.5719.02
Order TSEMF B2	1074.5702.02
Order TSEMF B2E	1074.5702.03
Order TSEMF B3	1074.5690.02
Axis Switching	RF solid state switch
Recommended Analyzer Option	FSH-K105 or FPH-K105 EMF application

Notes

Specs from the R&S TS-EMF Portable EMF Measurement System data sheet Version 03.00 (March 2023). Confirm installed isotropic antenna (B1/B2/B2E/B3), cable set, and analyzer firmware/K105 license. Isotropy figures for B1/B2 exclude a 30 degree cone around the handle.

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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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.