

# R&S®TS7124M

## RF Shielded Box

From development  
to product optimization  
to production



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### At a glance

RF shielded boxes are essential for reliably testing radio interfaces. The R&S®TS7124M RF test boxes enable reliable and reproducible measurements when a shielded test environment is needed.

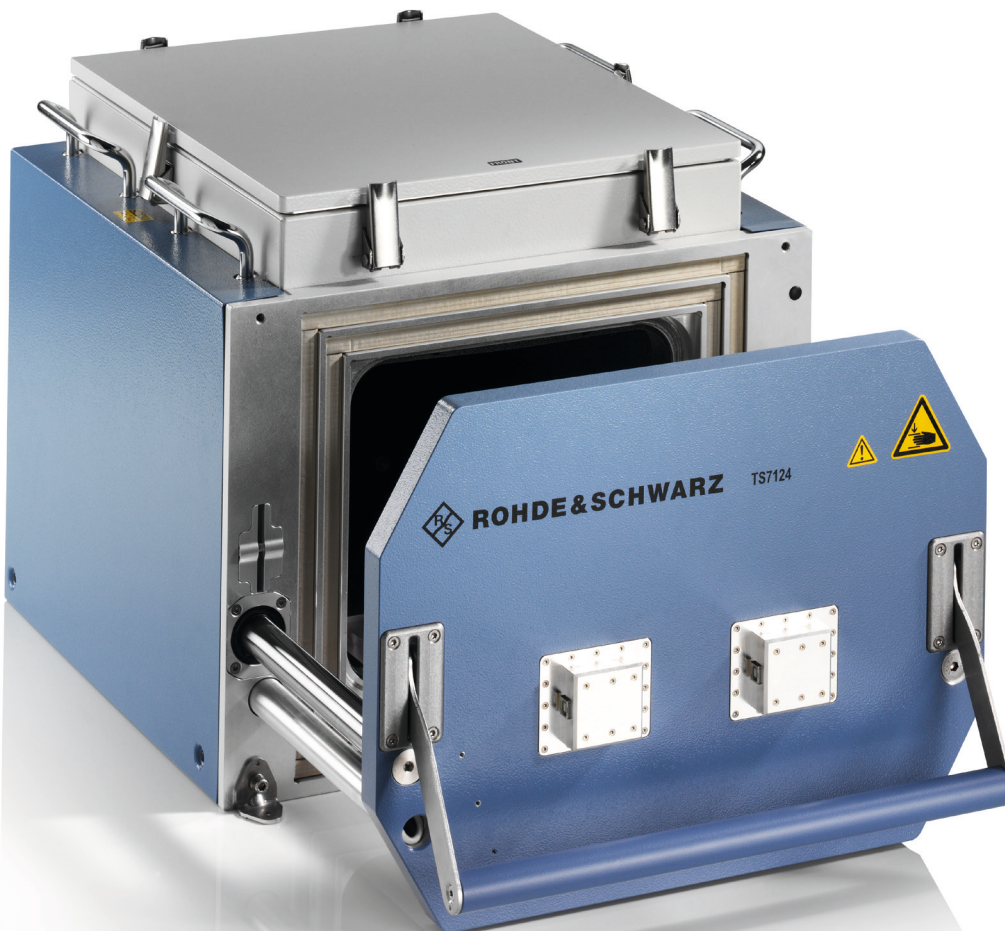
As diagnostic tools for a product designer or for product optimization, the R&S®TS7124M RF test boxes have been designed to meet the requirements for testing wireless devices under test (DUT).

The manual version for labs and the automatic version for production environments ensure comparable measurement conditions. Identical measurement scenarios are used in both instances to improve correlation between R&D labs and production factories. <sup>1)</sup>

The R&S®TS7124M features a large interior working space for measuring larger DUTs. It offers the possibility to integrate an antenna ring where numerous antennas might be placed, providing the possibility and flexibility to create a user-specific radiation pattern and measure radiated power at selected orientations.

Featuring high shielding effectiveness over a wide frequency range, the RF test boxes perform tests on modules and devices with a radio interface in line with a wide variety of standards, such as LTE, Wi-Fi, ISM, GSM/CDMA2000®/WCDMA, WLAN, GPS, Bluetooth®, WiMAX™ and Zigbee.

<sup>1)</sup> TS7124AS available on request.



R&S®TS7124M: robust and reliable.  
The inner dimensions enable  
measurement of larger DUTs.

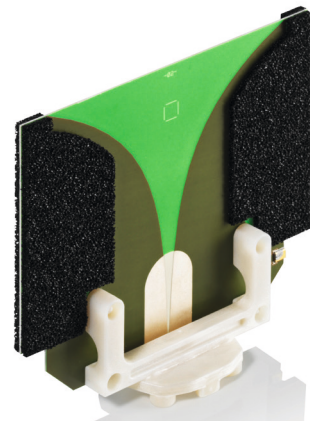
## Key facts

- Best shielding effectiveness in its class: > 80 dB
- Rugged design for long life
- Possibility to integrate the box into a 19" rack
- Integrated feedthroughs (filtered RF connectors): customized configuration
- Antenna configurations for any application: customized radiation patterns using the antenna ring
- Antenna couplers for diverse technologies: LTE, Wi-Fi, ISM, GSM/CDMA2000®/WCDMA, WLAN, GPS, Bluetooth®, WiMAX™, Zigbee

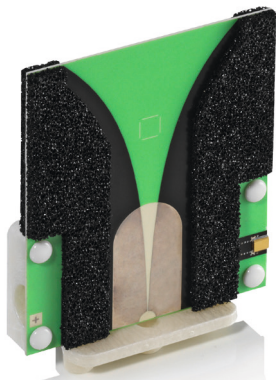
## Multiple antennas available, suitable for any application



R&S®TS-F24WA1  
broadband spiral antenna coupler  
300 MHz to 6 GHz



R&S®TS-F24-V1  
broadband Vivaldi antenna  
0.7 GHz to 6 GHz (cellular + Wi-Fi measurements)



R&S®TS-F24-V2  
broadband Vivaldi antenna  
2.4 GHz to 6 GHz (Wi-Fi measurements)



R&S®TS-F24-V3  
cross-polarized Vivaldi antenna  
2.4 GHz to 6 GHz



# Specifications in brief

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<b>Frequency range</b>		300 MHz to 6 GHz
<b>Shielding effectiveness</b>		> 80 dB at 6 GHz
<b>Interfaces</b>		
Standard feedthroughs	RF connector	4 × N (outside) to SMA (inside)
Optional feedthroughs		filtered D-Sub25 + filtered D-Sub9
		filtered USB 2.0
		fiber-optic
		pneumatic
<b>General data</b>		
Temperature ranges	operating temperature range	+5°C to +40°C
	storage temperature range	-20°C to +60°C
Relative humidity	operation	90% noncondensing at +10°C to +30°C, 75% noncondensing at +10°C to +40°C
<b>Dimensions</b>		
	W × H × D	
	outer dimensions	450 mm × 400 mm × 480 mm (17.72 in × 15.75 in × 18.90 in)
	inner dimensions (with absorbers)	300 mm × 334 mm × 355 mm (11.81 in × 13.15 in × 13.89 in)
	rackmounting	19", 10 HU
<b>Weight</b>		approx. 35 kg (77.2 lb)

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R&S®TS7124M: feedthroughs at the front enable fast and direct communications to the DUT.

# Ordering information

Designation	Type	Order No.
RF shielded box, manual version, RF 4 × N, without front feedthroughs	R&S°TS7124M	1525.8564.02
RF shielded box, manual version, soft close, RF 4 × N, with 2 × front feedthroughs	R&S°TS7124M	1525.8564.12
Absorber kit	R&S°TS-F24ABS	1525.8593.02
Broadband spiral antenna coupler (300 MHz to 6 GHz)	R&S°TS-F24WA1	1525.8670.02
Broadband Vivaldi antenna, 0.7 GHz to 6 GHz (cellular + Wi-Fi measurements)	R&S°TS-F24-V1	1525.8964.02
Broadband Vivaldi antenna, 2.4 GHz to 6 GHz (Wi-Fi measurements)	R&S°TS-F24-V2	1525.8970.02
Cross-Polarized Vivaldi antenna, 2.4 GHz to 6 GHz	R&S°TS-F24-V3	1525.8987.02
Narrow-Band ISM antenna, 700 MHz to 960 MHz	R&S°TS-F24NB2	1525.8793.02
Low frequency RFID antenna, 20 KHz to 1 MHz	R&S°TS-F24HLF1	1530.8446.02
Additional RF feedthrough, 2 × N-SMA	R&S°TS-F24FN1	1525.8870.02
Additional RF feedthrough, 4 × SMA-SMA	R&S°TS-F24FS1	1530.1058.02
Fiber-Optic feedthrough, 4 × FSMA	R&S°TS-F24FP1	1525.8864.02
USB 2.0 filtered feedthrough	R&S°TS-F24FU1	1525.8735.02
Ethernet filtered feedthrough (1 Gbps)	R&S°TS-F24FET	1525.8729.02
D-Sub filtered feedthrough, D-Sub25 and D-Sub9	R&S°TS-F24FD1	1525.8835.02
Pneumatic feedthrough	R&S°TS-F24FF1	1525.8858.02
Power filter, 100 V to 240 V AC	R&S°TS-F24FAC1	1526.4840.02
Antenna ring	R&S°TS-F24-AR	1525.8906.02
Half antenna ring	R&S°TS-F24-AH1	1525.8887.02
Half antenna ring, with three built-in R&S°TS-F24-V1 antennas	R&S°TS-F24-AH3	1530.5999.02
Half antenna ring, with three built-in R&S°TS-F24-V2 antennas	R&S°TS-F24-AH3	1530.5999.04
Antenna ring, with three built-in R&S°TS-F24-V1 antennas	R&S°TS-F24-AR3	1530.6008.02
Antenna ring, with three built-in R&S°TS-F24-V2 antennas	R&S°TS-F24-AR3	1530.6008.04
Antenna holder, for one Vivaldi antenna	R&S°TS-F24-AH2	1525.8893.02
Antenna holder, with a built-in R&S°TS-F24-V1 antenna	R&S°TS-F24-AH2	1525.8893.12
Antenna holder, with a built-in R&S°TS-F24-V2 antenna	R&S°TS-F24-AH2	1525.8893.22
Adapter, for additional tilt of the Vivaldi antennas	R&S°TS-F2X-VH4	1525.8758.02
DUT holder	R&S°TS-F24P1	1525.8664.02
Magnetic Helmholtz coil (automotive)	R&S°TS-F24HML1	1530.8430.02
19" rackmounting kit	R&S°TS-F24-Z1	1526.6942.02

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