

R&S®ATS800B

CATR Benchtop

Antenna Test System

Specifications



ROHDE & SCHWARZ

Description

The R&S®ATS800B is an accurate solution for RF testing of antennas, modules or devices in the 5G NR FR2 frequency bands.

R&S®ATS800B CATR benchtop antenna test system

Frequency range ¹	reflector	20 GHz to 50 GHz
	feed antenna	18 GHz to 87 GHz
Polarization	feed antenna	dual polarized
RF connectors	feed antenna	2 × 2.4 mm
Impedance	feed antenna	50 Ω
Quiet zone quality ²	∅	20 cm (7.87 in)
	mean amplitude error	< 1.0 dB
	standard deviation of amplitude error	< 0.75 dB
DUT load capability	centered	2.5 kg (5.52 lb)
Absorber capabilities	reflectivity	up to -20 dB (20 GHz to 50 GHz)
	size behind DUT	60 cm × 60 cm (23.62 in × 23.62 in)
Temperature range	operating temperature range	+10 °C to +40 °C
	storage temperature range	-10 °C to +50 °C
Dimensions (W × H × D)		approx. 1.20 m × 0.60 m × 0.80 m (47.24 in × 23.62 in × 31.50 in)
Weight		approx. 50 kg (110.23 lb)
Recommended operating environment	for accurate measurements	shielded room with climate control

R&S®CATR-P2D1 2D positioner for R&S®ATS800B (optional)

Angular resolution	azimuth	0.1°
Positioning repeatability	azimuth, unidirectional	0.5°
Rotating angle	azimuth	360°, continuous
DUT load capability	centered	2.5 kg (5.52 lb)
DUT RF rotary joint		1 GHz to 50 GHz
RF connector		1 × 2.4 mm
Communications interface		USB, RS-232 (D-Sub-9 male)
Application programming interfaces		API for C, C++, C#, VB.NET, MATLAB, Python, drivers for NI LabVIEW
Power supply		100 V to 230 V, max. 2 A
Temperature range	operating temperature range	+5 °C to +40 °C
	storage temperature range	-10 °C to +50 °C
Weight		2.76 kg (6.09 lb)

¹ Higher/lower frequencies are possible with higher mean error inside the quiet zone.

² Values may differ according to external environment (measured with 15 dBi circular horn antenna from 24 GHz to 42 GHz).

Ordering information

Basic configuration

Designation	Type	Order No.
CATR benchtop antenna test system, version B for benchtop installation	R&S®ATS800B	1534.2707K02
CATR benchtop antenna test system, version B for benchtop installation	R&S®ATS800B	1534.2707.02
Absorber set, for benchtop CATR systems	R&S®CATR-ABS1	1534.2407.02
Alignment structure, for benchtop CATR systems	R&S®CATR-ALIB1	1534.1900.02
Feed antenna, for CATR systems	R&S®CATR-FEED1	1534.2207.02
Reflector for benchtop CATR, gold-plated, medium size	R&S®CATR-REFL3	1534.2807.02

Additional options

Designation	Type	Order No.
2D positioner, for benchtop CATR systems, motorized azimuth	R&S®CATR-P2D1	1534.2507.02
Additional accessories for calibration		
Standard gain horn antenna for calibration, 18 GHz to 26.5 GHz	R&S®TC-SGH26	1530.8630.02
Standard gain horn antenna for calibration, 26.5 GHz to 40 GHz	R&S®TC-SGH40	1530.8617.02
Standard gain horn antenna for calibration, 40 GHz to 60 GHz	R&S®TC-SGH60	1530.8623.02

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Rohde & Schwarz

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