

R&S®TS8977

WiMAX™

Regulatory Test System

Assuring conformity
with the R&TTE directive
and FCC regulations



Years of
Driving
Innovation



ROHDE & SCHWARZ

R&S®TS8977

At a glance

Fast, reliable qualification in line with the R&TTE directive and the FCC regulations



The Radio & Telecommunications Terminal Equipment (R&TTE) directive and the FCC regulations specify basic technical requirements that have to be met to launch radio systems. Every manufacturer of WiMAX™¹⁾ mobile stations therefore has to make sure that other radio services are not impaired. Only when the product complies with the limits defined in the ETSI EN 302 544-2 and ETSI EN 302 623 standards or in the FCC, 47 CFR part 27 regulation can it be launched in the corresponding countries. The R&S®TS8977 WiMAX™ regulatory test system is the efficient and automatic test solution for assuring that WiMAX™ products comply with the above standards.

Reliable results by reproducible, standard-compliant measurements

The R&S®TS8977 makes use of the measurement concept already established on the market and used by RF conformance test systems such as the R&S®TS895x and R&S®TS8970. The predefined automatic test sequences comply with the test specifications of the R&TTE directive and FCC guidelines. Users are thus freed from tedious extra work, and incorrect settings can be avoided right from the start. Automatic system calibration helps ensure optimum measurement accuracy.

Efficient due to automation

Since a wide frequency range from 9 kHz to 26.5 GHz has to be covered due to spurious emissions, measurements may take several hours. Automation is therefore a key feature: The R&S®TS8977 automates processes, thus reducing the use of resources and minimizing the risk of errors. The tried-and-tested and intuitive operating concept already used in the Rohde & Schwarz conformance test systems yields time-optimized measurements and reduces training requirements — an important aspect for manufacturers and test houses alike.

Future-ready

Since the R&S®TS8977 has a modular system concept, expansions to new standards and technologies — for example, WiMAX™ base station measurements and tests in line with the LTE standard — are no problem.

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Specifications/ordering information

Specifications in brief

RF parameters		
Frequency range		0.1 MHz to 26.5 GHz
Maximum cable loss to DUT		3.5 dB
DUT TX RX 1, 2	max. RF output power	−15 dBm RMS
	max. input power	+43 dBm
	max. DC input voltage	0 V DC
	impedance	50 Ω
	VSWR	<1.30 : 1 (0.1 MHz ≤ f < 18 GHz) <1.35 : 1 (18 GHz ≤ f < 26.5 GHz)
DUT TX	RF connector	PC3.5 (female), N precision (female)
	max. RF output power	−15 dBm RMS
	max. DC input voltage	0 V DC
	impedance	50 Ω
	VSWR	<1.30 : 1 (0.1 MHz ≤ f < 18 GHz) <1.35 : 1 (18 GHz ≤ f < 26.5 GHz)
REF OUT	RF connector	PC3.5 (female)
	max. RF output power	−15 dBm RMS
	max. DC input voltage	0 V DC
	impedance	50 Ω
	VSWR	<1.30 : 1 (0.1 MHz ≤ f < 18 GHz) <1.35 : 1 (18 GHz ≤ f < 26.5 GHz)
	RF connector	PC3.5 (female)

Power supply		
Input voltage, AC		100 V to 240 V
AC frequency		47 Hz to 63 Hz
Input current		<16 A, single-phase
AC supply fuse		16 A, type C
AC power plug		CEE7 (grounding contact)
Storage temperature range		0°C to 40°C
Operating temperature range		20°C to 26°C
Temperature range of valid calibration		±2°C around calibration temperature
Relative humidity, no condensation		20% to 80%
Electrical safety	measuring instruments	IEC 61010-1, EN 61010-1
Electromagnetic compatibility	emission	EN 55011 group 1, class B EN 55022 class B
	immunity	EN 61326

Mechanical parameters		
Dimensions (W × H × D)		600 mm × 2000 mm × 800 mm (23.6 in × 78.7 in × 31.5 in)
Weight		approx. 250 kg (550 lb)

Ordering information

Designation	Type	Order No.
RF Test System for WiMAX™ IEEE 802.16e Regulatory Testing	R&S®TS8977	1162.0018.02

Service you can rely on

- In 70 countries
- Person-to-person
- Customized and flexible
- Quality with a warranty
- No hidden terms

About Rohde & Schwarz

Rohde & Schwarz is an independent group of companies specializing in electronics. It is a leading supplier of solutions in the fields of test and measurement, broadcasting, radiomonitoring and radiolocation, as well as secure communications. Established 75 years ago, Rohde & Schwarz has a global presence and a dedicated service network in over 70 countries. Company headquarters are in Munich, Germany.

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Certified Quality System
ISO 9001
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ISO 14001
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