

R&S® HE202

ACTIVE RECEIVING DIPOLE

Specifications



Specifications
Version 01.00

ROHDE & SCHWARZ

Make ideas real



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Definitions

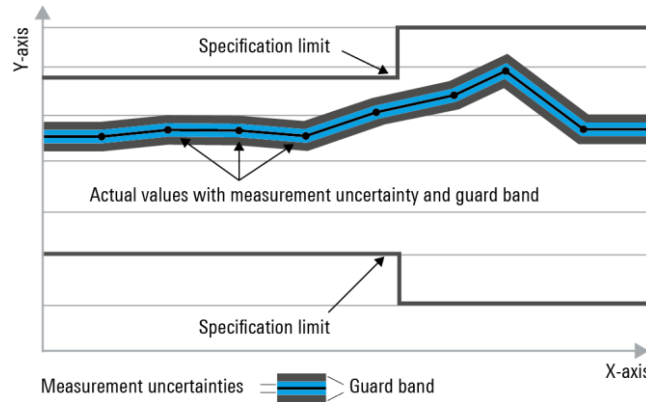
General

Product data applies under the following conditions:

- Specified environmental conditions met
- Recommended maintenance is done according to manual

Specifications with limits

Represent warranted product performance by means of a range of values for the specified parameter. These specifications are marked with limiting symbols such as $<$, \leq , $>$, \geq , \pm or descriptions such as maximum, limit of, minimum. Compliance is ensured by testing or is derived from the design. Test limits are narrowed by guard bands to take into account measurement uncertainties, drift and aging, if applicable.



Specifications without limits

Represent warranted product performance for the specified parameter. These specifications are not specially marked and represent values with no or negligible deviations from the given value, e.g. dimensions or resolution of a setting parameter. Compliance is ensured by design.

Typical data (typ.)

Characterizes product performance by means of representative information for the given parameter. When marked with $<$, $>$ or as a range, it represents the performance met over more than 80 % of the specified product frequency range. Otherwise, it represents the mean value.

Nominal values (nom.)

Characterize product performance by means of a representative value for the given parameter, e.g. nominal impedance. A statistical evaluation does not take place and the parameter is not tested during production.

Measured values (meas.)

Characterize expected product performance by means of measurement results gained from individual samples.

Uncertainties

Represent limits of measurement uncertainty for a given measurand. Uncertainty is defined with a coverage factor of 2 and has been calculated in line with the rules of the Guide to the Expression of Uncertainty in Measurement (GUM), taking into account environmental conditions, aging, wear and tear.

Device settings and GUI parameters are designated with the format "parameter: value".

Specifications

Electrical specifications

Frequency range		200 MHz to 1 GHz
Antenna transmission directions		receiving only
Polarization		linear
Nominal impedance		50 Ω
RF connector		N female
VSWR	200 MHz to 500 MHz	< 2
	500 MHz to 1 GHz	< 2.5
Antenna realized gain	includes internal amplification	see Fig. 1
Antenna factor	includes internal amplification	see Fig. 2
Radiation pattern	H plane	omnidirectional
	E plane	see Fig. 3
Output third-order intercept point (TOI) IP3		≥ 30 dBm (typ.)
Output second-order intercept point (SOI) IP2		≥ 60 dBm (typ.)
Output 1 dB compression point		≥ 10 dBm (typ.)
Destructive field strength		> 30 V/m
Field strength sensitivity		see Fig. 4
Noise figure		≤ 8 dB
Power supply	connector	RF connector, e.g. with R&S®IN600 bias unit
	supply voltage	18 V to 25 V DC, max. 200 mA (nom.)
MTBF		> 50.000 h

Environmental specifications

Operating temperature range		-40°C to +75°C
Maximum wind speed	without ice deposit	180 km/h

Mechanical specifications

Dimensions	L × H × D	approx. 512 mm × 238 mm × 120 mm (20.16 in × 9.37 in × 4.72 in)
Weight		approx. 2.1 kg (4.63 lb)

Figures

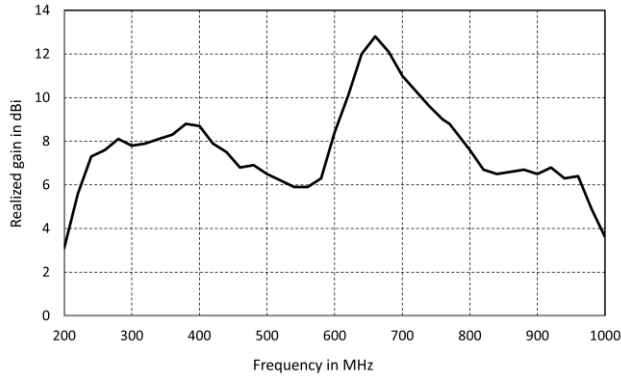


Fig. 1: Antenna realized gain (meas.)

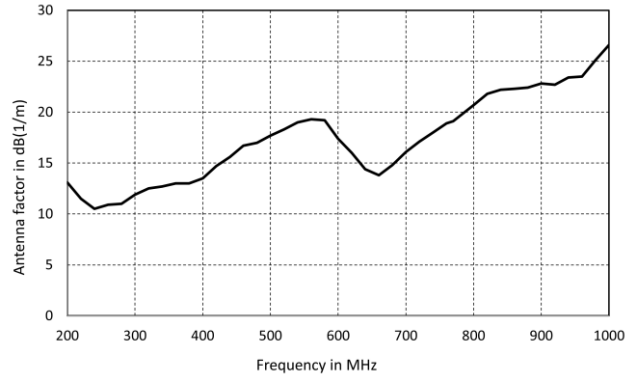


Fig. 2: Antenna factor (meas.)

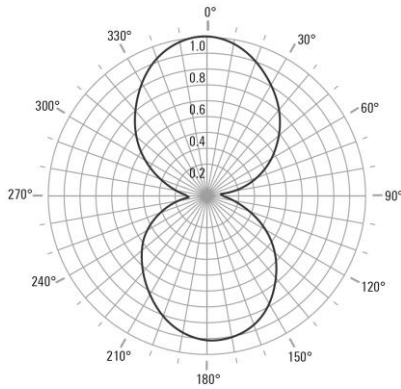


Fig. 3: Radiation pattern in E plane at 500 MHz (typ.)

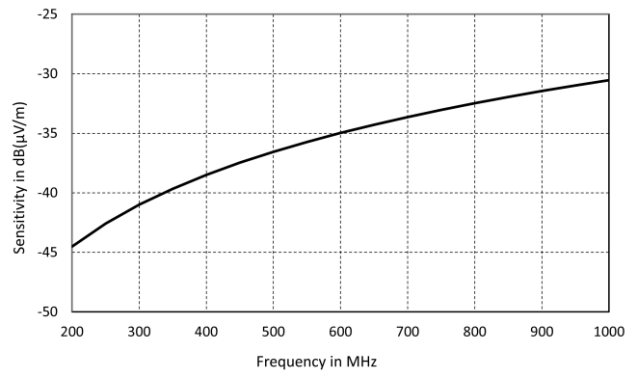


Fig. 4: Field strength sensitivity for SNR = 0 dB referred to 1 Hz bandwidth (typ.)

Ordering information

Designation	Type	Order No.
Active receiving dipole	R&S®HE202	0630.0310.02
Active receiving dipole, calibrated	R&S®HE202	0630.0310.03
Recommended extra		
Bias unit	R&S®IN600	4094.3004.xx

Warranty and service

Warranty		
Base unit		1 year
All other items		1 year
Service options		
	Service plans	On demand
Calibration	up to five years ¹	pay per calibration
Warranty and repair	up to five years ¹	standard price repair
Contact your Rohde & Schwarz sales office for further details.		

¹ For extended periods, contact your Rohde & Schwarz sales office.

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Certified Environmental Management

ISO 14001

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