



ABN 43 064 478 842

231 Osborne Avenue Clayton South, VIC 3169  
PO Box 1548, Clayton South, VIC 3169  
t 03 9265 7400 f 03 9558 0875  
freecall 1800 680 680  
www.tmgtestequipment.com.au

## Test & Measurement

- > sales
- > rentals
- > calibration
- > repair
- > disposal

## Complimentary Reference Material

This PDF has been made available as a complimentary service for you to assist in evaluating this model for your testing requirements.

TMG offers a wide range of test equipment solutions, from renting short to long term, buying refurbished and purchasing new. Financing options, such as Financial Rental, and Leasing are also available on application.

TMG will assist if you are unsure whether this model will suit your requirements.

Call TMG if you need to organise repair and/or calibrate your unit.

If you click on the "Click-to-Call" logo below, you can call us for FREE!

TMG Corporate Website

TMG Products Website



Click-to-Call  
TMG Now



Product Lifecycle Management System

### Disclaimer:

All trademarks appearing within this PDF are trademarks of their respective owners.



# VHF/UHF Antennas

## Active Receiving Dipole

### R&S® HE 302



**20 MHz to 500 MHz**

**Optimized for very small dimensions**

#### Features

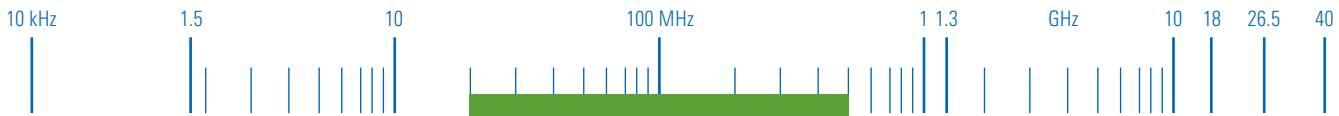
- ◆ High sensitivity despite small dimensions
- ◆ Wide frequency range
- ◆ High immunity to nonlinear distortion
- ◆ High immunity to lightning strokes in the vicinity
- ◆ Low weight
- ◆ Extremely small dimensions
- ◆ Shock- and vibration-proof

#### Brief description

The Active Receiving Dipole R&S® HE302 features a very wide frequency range despite its small dimensions. Its high input sensitivity is the result of optimized matching of the passive antenna structure to the active circuitry.

These characteristics allow several passive antennas to be replaced by an Active Receiving Dipole R&S® HE302.

Similar to a passive antenna with high-grade preamplifiers, the active antenna is highly insensitive to nonlinear distortion.



## Specifications

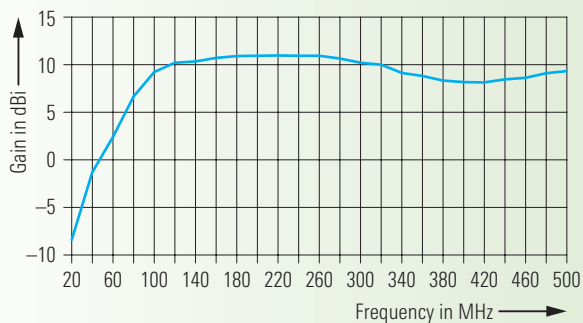
Frequency range	20 MHz to 500 MHz	IP2	>60 dBm
Polarization	linear	IP3	>30 dBm
Input impedance	50 $\Omega$	Power supply	
VSWR	<2.5	Up to +40 °C	18 V to 30 V DC, approx. 170 mA
Electronic gain	-11 dB to +8 dB	Up to +75 °C	18 V to 25 V DC, approx. 170 mA
Practical gain	-9 dBi to +10 dBi	Connector	N female
Directivity	2 dB (average)	MTBF	>50 000 h
Antenna factor	0 dB to 14 dB	Operating	
Noise figure		temperature range	-40 °C to +75 °C
20 MHz	28 dB	Max. wind speed	180 km/h (without ice deposit)
500 MHz	9 dB	Dimensions (L x H)	approx. 1 m x 240 mm
Field strength sensitivity ( $\Delta f = 1$ kHz)		Weight	approx. 2.5 kg
20 MHz	-15 dB( $\mu$ V/m)		
500 MHz	-6 dB( $\mu$ V/m)		

## Ordering information

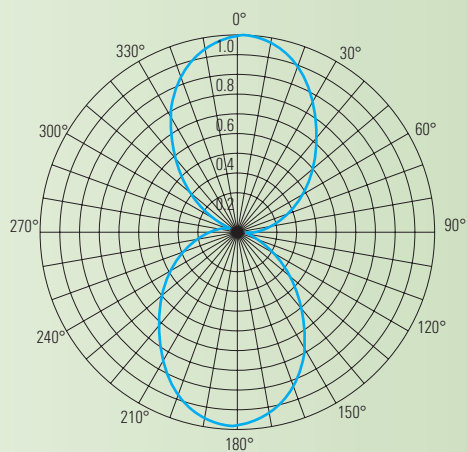
**Active Receiving Dipole** R&S®HE302 0644.1114.02

### Recommended extras

Power Supply Unit	R&S®IN 115	4004.1707.02
Mast Adapter (for special polarization alignment only)	R&S®HE 202Z1	0649.7510.02
RF Cable	R&S®HE 202Z2	0649.7785.02



**Typical practical gain**



**Typical radiation pattern in the E plane at 200 MHz**