



Version
02.00

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R&S® HM020 Triple-Loop Antenna

Fully automatic measurement of magnetic field strength in the frequency range 9 kHz to 30 MHz

- ◆ Measurement method in line with CISPR/A (Secretariat) 103, 104, 105 and CISPR/F (Central Office) 66, 67
- ◆ More sensitive, faster and cheaper than previous measurement methods in line with CISPR Publication 16
- ◆ Mobile loop system, foldable in one plane
- ◆ Wooden pedestal for 100 kg load available (permitting antenna loops to be moved as required)
- ◆ Calibration certificate supplied with antenna



ROHDE & SCHWARZ

Brief description

The R&S® HM020 allows fully automatic measurements of the magnetic field strength in the X, Y and Z planes of a centrally placed EUT.

The antenna operates in accordance with the van Veen/ Bergervoet principle. Measurements are fully automatic and controlled by a test receiver or controller.

Specifications

| | |
|---------------------------------|--|
| Frequency range | 9 kHz to 30 MHz |
| Loop planes | switchable between X, Y and Z |
| Input impedance | 50 Ω |
| Antenna factor of current probe | 0 dB, referenced to 1 S (in line with CISPR/A (Secretariat) 103, 104, 105) |
| RF connector | N female |
| Control connector | 9-contact, D-Sub, female |
| Ground connector | terminal strip for copper foil |
| MTBF | >1 000 000 h |
| Operating temperature range | -10 °C to +55 °C |

General data

| | |
|---|--|
| Dimensions (W × H × D) | |
| Loops set up | approx. 2.49 m × 2.57 m ¹⁾ × 2.07 m (98.03 in × 101.18 in × 81.5 in) |
| Loops in transport crate | approx. 2.68 m × 2.32 m × 0.57 m (105.51 in × 91.34 in × 22.44 in) |
| Basic pedestal (load capacity 100 kg/220.5 lb) | approx. 0.9 m × 1.0 m × 0.9 m (35.43 in × 39.37 in × 35.43 in) |
| Adapter pedestal (load capacity 100 kg/220.5 lb) | approx. 0.9 m × 0.5 m (max.) × 0.9 m (35.43 in × 19.69 in (max.) × 35.43 in) |
| Weight | |
| Loop system | approx. 45 kg (99.2 lb) |
| Basic pedestal | approx. 40 kg (88.2 lb) |
| Adapter pedestal | approx. 30 kg (66.1 lb) |

Ordering information

| Designation | Type | Order No. |
|---|--------------|--------------|
| Triple-Loop Antenna | R&S® HM020 | 4023.4508.02 |
| Recommended extras | | |
| Basic Pedestal | R&S® HM020Z1 | 4023.5504.02 |
| Adapter Pedestal | R&S® HM020Z2 | 4023.5604.02 |
| Calibration Dipole | R&S® HM020Z3 | 4023.5704.02 |
| Control Unit (only required for receivers without user port) | R&S® BG020 | 4024.1002.02 |



R&S® HM020 set up for measurement with antenna height reduced

¹⁾ Height reduced to 2.09 m for operation in low-ceiling rooms.



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