

EMV Near-Field Probe Set up to 3 GHz

HZ540 and HZ550 EMI-Near Field Probe Sets

The HZ540/550 are the ideal toolkits for the investigation of RF electromagnetic fields. They are indispensable for EMI pre-compliance testing during product development, prior to third party testing. The sets include 3 or 5 hand-held probes with built-in pre-amplifier covering the frequency range from < 1MHz to approx. 3000MHz.

The probes of the basic set HZ540 include one magnetic field probe, one electric field probe, and a high impedance probe. In addition to the HZ550 features an optional μ -magnetic field probe and a passive radiation probe. All probe outputs are matched to the 50 Ω inputs of spectrum analyzers or RF-receivers.



Image
HZ550L

HZ540/550

Probe set HZ540 (Basic set)

HZ551	Electrical Field Probe
Frequency range:	< 1 MHz to approx. 3GHz
Directional sensitivity:	omnidirectional Sensitive to electrical fields
Output impedance:	50 Ω ; SMA-connector
Power supply:	6VDC/80mA (directly by HAMEG Spectrum Analyzer)

HZ552	Magnetic Field Probe
Frequency range:	< 30MHz to approx. 3GHz
Directional sensitivity:	similar to frame antenna Sensitive to changing magnetic fields
Output impedance:	50 Ω ; SMA-connector
Power supply:	6VDC/50mA (directly by HAMEG Spectrum Analyzer)

HZ553	High Impedance Probe
Frequency range:	< 1MHz to approx. 3GHz
Input capacity:	< 2pF // approx. 250k Ω
Attenuation:	between 10:1 and 30:1
Max. input voltage:	10V _{pp} (without significant distortion)
Max. voltage of an un-insulated conductor:	30V
Output impedance:	50 Ω ; SMA-connector
Power supply:	6VDC/80mA (directly by HAMEG Spectrum Analyzer)

Physical dimensions: (H x W x L): 13 x 27 x 70 mm (+ antenna at HZ551)

HZ540 consists of: HZ551 Electrical Field Probe
HZ552 Magnetic Field Probe
HZ553 High Impedance Probe
1 SMA to N-Cable 1.2m
Case
Manual

Probe set HZ550

HZ554	Magnetic Field Probe (small sensor)
Frequency range:	< 50 MHz to approx. 3GHz
Directional sensitivity:	Sensitive to changing magnetic fields High spatial resolution due to very small sensor area
Max. voltage of a non-insulated conductor:	30V
Output impedance:	50 Ω ; SMA-connector
Power supply:	6VDC/50mA

HZ556	Radiation Probe
Frequency range:	< 30MHz to approx. 3GHz
Directional sensitivity:	like frame antenna Radiation of changing magnetic fields
Max. input power:	0.5 W (short term)
Output impedance:	50 Ω ; SMA-connector
Power supply:	not required; passive probe

Physical dimensions: (H x W x L): 13 x 27 x 70 mm (+ antenna at HZ551)

HZ550 consists of: 1 HZ540 basic set
1 HZ554 Magnetic Field Probe
1 HZ556 Radiation Probe

Probe set HZ540L and HZ550L

HZ540L = HZ540 (without HZ553) + HZ555 Low Capacitance Probe
HZ550L = HZ550 (without HZ553) + HZ555 Low Capacitance Probe

HZ555	Low Capacitance Probe
Frequency range:	approx. 400kHz...3GHz
Input impedance:	< 0.2 pF // 250k Ω
Attenuation:	10:1
Max. input voltage:	5V _{pp}
Max. voltage of a non-insulated conductor:	30V
Output impedance:	50 Ω ; SMA-connector
Power supply:	6VDC/80mA