HAMEG Instruments
A Rohde&Schwarz Company

HZ540/HZ550 EMV Near-Field Probe Set up to 3GHz

HZ550

Picture
HZ550L

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 an antenna. All probe outputs are matched to the 50Ω inputs of spectrum analyzers or RF-receivers.

Probe Set HZ540 (Basic Set)

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

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

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

Physical dimensions:	13 x 27 x 70mm (W x H x D) (+ 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:	<50MHz 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:	50Ω; SMA-connector
Power supply:	$6V_{dc}$/50mA

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

Physical dimensions:	13 x 27 x 70mm (W x H x D) (+ antenna at HZ551)
HZ550 consists of:	1 HZ540 Basic Set 1 HZ554 Magnetic Field Probe 1 HZ556 Active antenna 1 SMA to N-Cable 1.2m

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:	<0.2pF // 250kΩ
Attenuation:	10:1
Max. input voltage:	$5V_{pp}$
Max. voltage of a non-insulated conductor:	30V
Output impedance:	50Ω; SMA-connector
Power supply:	$6V_{dc}$/80mA

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HAMEG Instruments GmbH · Industriestr. 6 · D-63533 Mainhausen · Tel +49 (0) 6182 8000 · Fax +49 (0) 6182 800100 · www.hameg.com · info@hameg.com