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# Test & Measurement

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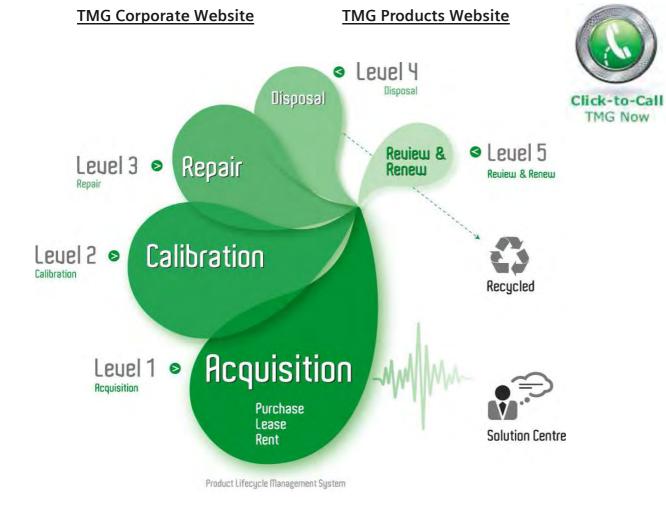
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## HZ540/HZ550 EMV Near-Field Probe Set up to 3GHz



#### 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 preamplifier 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  $\mu$ -magnetic field probe and a passive radiation probe. All probe outputs are matched to the  $50\Omega$  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 <sub>dc</sub> /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:	50Ω; SMA-connector
Power supply:	$6V_{dc}/50mA$
	(directly by HAMEG Spectrum
	Analyzer)
HZ553	High Impedance Probe
HZ553 Frequency range:	<1MHz to approx. 3GHz
Frequency range: Input capacity:	<1MHz to approx. 3GHz <2pF II approx. 250kΩ
Frequency range: Input capacity: Attenuation:	<1MHz to approx. 3GHz <2pF II approx. 250kΩ between 10:1 and 30:1
Frequency range: Input capacity: Attenuation: Max. input voltage:	<1MHz to approx. 3GHz <2pF II approx. 250kΩ
Frequency range: Input capacity: Attenuation: Max. input voltage: Max. voltage of a	<1MHz to approx. 3GHz <2pF II approx. 250kΩ between 10:1 and 30:1 10V <sub>pp</sub> (without significant distortion)
Frequency range: Input capacity: Attenuation: Max. input voltage: Max. voltage of a non-insulated conductor:	<1MHz to approx. 3GHz <2pF II approx. 250kΩ between 10:1 and 30:1 10V <sub>pp</sub> (without significant distortion) 30V
Frequency range: Input capacity: Attenuation: Max. input voltage: Max. voltage of a non-insulated conductor: Output impedance:	<1MHz to approx. 3GHz <2pF II approx. 250kΩ between 10:1 and 30:1 10V <sub>pp</sub> (without significant distortion) 30V 50Ω; SMA-connector
Frequency range: Input capacity: Attenuation: Max. input voltage: Max. voltage of a non-insulated conductor:	<1 MHz to approx. $3 \text{ GHz}$ <2 pF II approx. $250 \text{ k}\Omega$ between 10:1 and 30:1 $10 \text{ V}_{\text{pp}}$ (without significant distortion) 30  V $50 \Omega$ ; SMA-connector $6 \text{ V}_{\text{dc}}$ /80 mA
Frequency range: Input capacity: Attenuation: Max. input voltage: Max. voltage of a non-insulated conductor: Output impedance:	<1MHz to approx. 3GHz <2pF II approx. 250kΩ between 10:1 and 30:1 10V <sub>pp</sub> (without significant distortion) 30V 50Ω; SMA-connector 6V <sub>dc</sub> /80mA (directly by HAMEG Spectrum
Frequency range: Input capacity: Attenuation: Max. input voltage: Max. voltage of a non-insulated conductor: Output impedance:	<1 MHz to approx. $3 \text{ GHz}$ <2 pF II approx. $250 \text{ k}\Omega$ between 10:1 and 30:1 $10 \text{ V}_{\text{pp}}$ (without significant distortion) 30  V $50 \Omega$ ; SMA-connector $6 \text{ V}_{\text{dc}}$ /80 mA
Frequency range: Input capacity: Attenuation: Max. input voltage: Max. voltage of a non-insulated conductor: Output impedance: Power supply:	<1MHz to approx. 3GHz <2pF II approx. 250kΩ between 10:1 and 30:1 10V <sub>pp</sub> (without significant distortion) 30V 50Ω; SMA-connector 6V <sub>dc</sub> /80mA (directly by HAMEG Spectrum
Frequency range: Input capacity: Attenuation: Max. input voltage: Max. voltage of a non-insulated conductor: Output impedance:	<1MHz to approx. 3GHz <2pF II approx. 250kΩ between 10:1 and 30:1 10V <sub>pp</sub> (without significant distortion) 30V 50Ω; SMA-connector 6V <sub>dc</sub> /80mA (directly by HAMEG Spectrum Analyzer)
Frequency range: Input capacity: Attenuation: Max. input voltage: Max. voltage of a non-insulated conductor: Output impedance: Power supply:	<1MHz to approx. 3GHz <2pF II approx. 250kΩ between 10:1 and 30:1 10V <sub>pp</sub> (without significant distortion) 30V 50Ω; SMA-connector 6V <sub>dc</sub> /80mA (directly by HAMEG Spectrum Analyzer) 13 x 27 x 70mm (W x H x D)
Frequency range: Input capacity: Attenuation: Max. input voltage: Max. voltage of a non-insulated conductor: Output impedance: Power supply: Physical dimensions:	<1MHz to approx. 3GHz <2pF II approx. 250kΩ between 10:1 and 30:1 10V <sub>pp</sub> (without significant distortion) 30V 50Ω; SMA-connector 6V <sub>dc</sub> /80mA (directly by HAMEG Spectrum Analyzer) 13 x 27 x 70mm (W x H x D) (+ antenna at HZ551)
Frequency range: Input capacity: Attenuation: Max. input voltage: Max. voltage of a non-insulated conductor: Output impedance: Power supply: Physical dimensions:	<1MHz to approx. 3GHz <2pF II approx. 250kΩ between 10:1 and 30:1 10V <sub>pp</sub> (without significant distortion) 30V 50Ω; SMA-connector 6V <sub>dc</sub> /80mA (directly by HAMEG Spectrum Analyzer) 13 x 27 x 70mm (W x H x D) (+ antenna at HZ551) HZ551 Electrical Field Probe
Frequency range: Input capacity: Attenuation: Max. input voltage: Max. voltage of a non-insulated conductor: Output impedance: Power supply: Physical dimensions:	<1 MHz to approx. $3 \text{GHz}$ <2 pF II approx. $250 \text{k}\Omega$ between 10:1 and 30:1 $10 \text{V}_{\text{pp}}$ (without significant distortion) 30 V 50 Ω; SMA-connector $6 \text{V}_{dc}$ /80 mA (directly by HAMEG Spectrum Analyzer) 13 x 27 x 70 mm (W x H x D) (+ antenna at HZ551) HZ551 Electrical Field Probe HZ552 Magnetic Field Probe
Frequency range: Input capacity: Attenuation: Max. input voltage: Max. voltage of a non-insulated conductor: Output impedance: Power supply: Physical dimensions:	<1 MHz to approx. $3$ GHz <2 pF II approx. $250$ kΩ between 10:1 and 30:1 $10V_{pp}$ (without significant distortion) 30V 50Ω; SMA-connector $6V_{dc}$ /80mA (directly by HAMEG Spectrum Analyzer) 13 x 27 x 70mm (W x H x D) (+ antenna at HZ551) HZ551 Electrical Field Probe HZ552 Magnetic Field Probe HZ553 High Impedance Probe

#### 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 <sub>dc</sub> /50mA	
HZ556	Radiation Probe	
Frequency range:	<30MHz to approx. 3GHz	
Directional sensitivity:	like 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 Radiation Probe 1 SMA to N-Cable 1.2m	
Probe Set H75/01 and H75501		

### Probe Set HZ540L and HZ550L

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

HZ555	Low Capacitance Probe
Frequency range:	approx. 400kHz3GHz
Input impedance:	<0.2pF // 250kΩ
Attenuation:	10:1
Max. input voltage:	5V <sub>pp</sub>
Max. voltage of a	
non-insulated conductor:	30V
Output impedance:	50Ω; SMA-connector
Power supply:	6V <sub>dc</sub> /80mA

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