

PROBES MODEL EMSense 7007-001



MODEL EMSense 7007-001

- Provides an Interface for ETS-Lindgren Battery-Powered Electrical Field Probes
- Wide Frequency and Dynamic Ranges
- Compact Design

ETS-Lindgren EMSense EMF Probe Plug-in Card serves as the interface between ETS-Lindgren's battery-powered electric field probes and the EMCenter Modular RF Platform. Each plug-in card supports a single ETS-Lindgren electric field probe, ensuring dedicated and reliable operation. EMSense and other ETS-Lindgren EMC field probes are fully compatible with TILE!™ and a variety of leading test automation software packages for seamless integration into automated measurement workflow.

Features

Wide Frequency and Dynamic Ranges

EMSense is fully compatible with all ETS-Lindgren EMC battery-powered electric field probes, covering a frequency range of 10 kHz to 40 GHz and a dynamic range of 0.5 to 800 V/m.

Compact Design

Each EMSense plug-in card occupies one slot in the EMCenter platform, allowing additional slots to be occupied by modular plug-in cards for positioning controllers, multiple RF switches and more.

Technical Specifications

Electrical			
Specification	HI-6023 Optional E-Field Probe	HI-6006 Optional E-Field Probe	HI-6053 Optional E-Field Probe
Detection	Isotropic (X,Y, & Z Axis Readings)	Isotropic (X,Y, & Z Axis Readings)	Isotropic (X,Y, & Z Axis Readings)
Calibrated Frequency Range	10 kHz to 1 GHz	100 kHz to 6 GHz	10 MHz to 40 GHz
Frequency Response (Typical)	10 kHz to 30 kHz +0.5, -2.5 dB 30 kHz to 1 GHz dB	500 kHz to 2 GHz +1.0, -2.5 dB 2 to 5 GHz + 3.5, -4.0 dB 5 to 6 GHz + 1.0, -6.0 dB	10 to 100 MHz + 3.0, -4.0 dB 100 MHz to 1 GHz + 3.0, -0.50 dB 1 to 18 GHz +4.0, -2.0 dB 18 to 40 GHz +3.0, -4.5 dB
Frequency Response with Correction	0.9 dB	0.9 dB	10 MHz to 18 GHz 0.9 dB, 18 to 40 GHz 1.1 dB
Dynamic Range	2.0 to 800 V/m (Single Range)	0.5 to 800 V/m (Single Range)	2.0 to 800 V/m (Single Range)
Resolution	0.01 V/m	0.01 V/m	0.01 V/m
Isotropic Deviation	0.5 dB @ 400 MHz	0.5 dB @ 400 MHz	1.0 dB <18 GHz
Linearity	0.5 dB @ 27 MHz	0.5 dB @ 27 MHz	0.5 dB @ 1 GHz
Sample Rate	60 Samples/Second Maximum	60 Samples/Second Maximum	60 Samples/Second Maximum
Overload Withstand	>1500 V/m CW	>1500 V/m CW	>1500 V/m CW

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Technical Specifications

Physical				
Specification	7007-007 (Plug-in Card)	HI-6023 Optional E-Field Probe	HI-6006 Optional E-Field Probe	HI-6053 Optional E-Field Probe
Exterior Dimension	1 Slot	32 mm x 32 mm Housing (1.25 in x 1.25 in)	32 mm x 32 mm Housing (1.25 in x 1.25 in)	438 mm (17.24 in) (Includes electronic housing)
Sensor Protective Caps Height	n/a	36 mm (1.42 in)	43 mm (1.69 in)	348 mm x 58.4 mm (13.7 in probe length x 2.3 in width)
Weight	n/a	80 g (2.82 oz)	80 g (2.82 oz)	360 g (12.7 oz)
Mounting	n/a	1/4 20 - UC Internal Thread	1/4 20 - UC Internal Thread	1/4 20 - UC Internal Thread
Physical Interface	n/a	Duplex Optical Fiber (200 Micron Multi-mode) FSMA Connectors Integral 1m Optical Cable	Duplex Optical Fiber (200 Micron Multi-mode) FSMA Connectors Integral 1m Optical Cable	Duplex Optical Fiber (200 Micron Multi-mode) FSMA Connectors
Temperature Range	0 to + 35°C (32°F to +95°F)	+10 to + 40°C (+50°F to +95°F)	+10 to + 40°C (+50°F to +95°F)	+10 to + 40°C (+50°F to +95°F)
Relative Humidity	10 to 90% (Non-condensing)	5 to 95% (Non-condensing)	5 to 95% (Non-condensing)	5 to 95% (Non-condensing)
Battery (Field Replacable)	n/a	Rechargeable NiMH	Rechargeable NiMH	Rechargeable NiMH AAA 900 mA/hr
Battery Life	n/a	8 Hours	8 Hours	30 Hours
Battery Charger	n/a	100 - 240 VAC Universal Input 3-Hour Charge from Full Depletion	100 - 240 VAC Universal Input 3-Hour Charge from Full Depletion	100 - 240 VAC Universal Input 3-Hour Charge from Full Depletion



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