ETS·LINDGREN
An ESCO Technologies Company

RF Test Solutions

EMSense™ EMF Probe Plug-in Card

Model 7007-001

Features:

- Provides Interface for ETS-Lindgren Battery-Powered E-field Probes
- Wide Frequency and Dynamic Ranges
- Compact Design

ETS-Lindgren's EMSense EMF Probe Plug-in Card for Battery-Powered E-field Probes

ETS-LINDGREN'S EMSense EMF PROBE PLUG-IN CARD provides an interface for ETS-Lindgren's battery-powered E-field probes.

Each EMSense plug-in card supports one ETS-Lindgren E-field probe.

EMSense and ETS-Lindgren probes are fully supported by TILE™ and other test automation software packages. Please contact ETS-Lindgren for additional information.

FEATURES

Wide Frequency and Dynamic Ranges

EMSense is fully compatible with all ETS-Lindgren E-field battery-powered probes, covering a frequency range of 10 kHz - 40 GHz and a dynamic range of 0.5 - 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.

Please contact ETS-Lindgren for further information.

STANDARD CONFIGURATION

- EMSense EMF Probe Plug-in Card

OPTIONS

- EMCenter Modular RF Platform (Model 7000-001, required for operation)
- EMCenter 7-Slot RF System + IEEE-488 (GPIB) (Model 7000-010)
- ETS-Lindgren Battery-Powered E-field Probes

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Physical Specifications

MODEL FEATURE	7007-001 (Plug-in Card)	HI-6022 (Optional E-Field Probe)	HI-6005 (Optional E-Field Probe)	HI-6053 (Optional E-Field Probe)
Exterior Dimension	1 Slot	32 mm x 32 mm x 32 mm Housing (1.25 in. x 1.25 in. x 1.25 in.)	32 mm x 32 mm x 32 mm Housing (1.25 in. x 1.25 in. x 1.25 in.)	438 mm x 57 mm Housing (17.24 in. x 2.24 in.)
Sensor Protective Caps Height	n/a	43 mm (1.69 in)	43 mm (1.69 in)	n/a
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° C – +35° C	+10º to +40° C	+10º to +40° C	+10º to +40° C
Relative Humidity	10 – 90% (Non-condensing)	5 – 95% (Non-condensing)	5 – 95% (Non-condensing)	5 – 95% (Non-condensing)
Battery	n/a	Rechargeable NiMH	Rechargeable NiMH	Rechargeable NiMH AAA 900mA/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

Performance Specifications (E-Field Probes)

MODEL FEATURE	HI-6022	HI-6005	HI-6053
Detection	Isotropic (X, Y and Z Axis Readings)	Isotropic (X, Y and Z Axis Readings)	Isotropic (X, Y and 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 ± 1.0 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 – 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

Phone + 1.512.531.6400 ● info@ets-lindgren.com ● www.ets-lindgren.com
Offices in the US, Brazil, Germany, Finland, UK, France, India, Japan, Singapore, China, Taiwan

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