

RF Test Solutions
EMPower Pulse™
RF/Burst Power Meter
Model 7002-00X

Features:

- **Fast Performance:**
Up to 1 Million Samples per Second
- **Accurate Measurements with Dynamic Range of:**
 - 65 dB for 6 GHz Model (Model 7002-003)
 - 55 dB for 18 GHz Model (Model 7002-005)
- **Pulse-shaped Recording Mode**
- **Suitable for Ford Radar Pulse Test**



*ETS-Lindgren's EMPower Pulse Plug-in Card with
EMPower Pulse RF/Burst Power Meter*

ETS-LINDGREN'S EMPower PULSE

RF/BURST POWER METER is designed to perform very fast measurements on high-frequency pulse-shaped signals (RF bursts).

The EMPower modular plug-in card occupies one slot in the EMCenter™, and includes four USB ports, accommodating any combination of up to four EMPower™ or EMPower Pulse sensors. Alternatively, an EMPower Pulse sensor can be connected directly to a PC using a standard USB port and included software.

Both power meters have an accuracy of 0.25 dB, making them suitable for measurements in accordance to automotive, military, telecom, and basic EMC standards.

EMPower Pulse is fully supported by TILE!™, EMQuest™, and other test automation software packages. Please contact ETS-Lindgren for additional information.

FEATURES

Fast Performance

The EMPower Pulse RF/Burst Power Meters perform power measurements at a maximum sampling speed of one million samples per second. By using such a high sampling rate, the power meter is able to measure RF burst/pulse signals with a duration time as low as 2 µsec. Both power meters are also capable of measuring CW.

Accurate Measurements

EMPower Pulse allows high precision RF measurements with high dynamic range of 65 dB for the 6 GHz model, and 55 dB for the 18 GHz model.

Pulse-shape Recording Mode

In addition to the fast performance, the EMPower Pulse also has an internal measurement buffer that can store 4,000 samples. This enables the user to easily visualize RF burst signals.

Ford Radar Pulse Test

Fast speed and the record mode make the EMPower Pulse suitable for mea-

surements in accordance to the Automotive Ford Standard EMC-CS-2009.

STANDARD CONFIGURATION

- EMPower Meter Plug-in Card
- EMPower RF Power Pulse Sensor (Please Specify Model)
- 2 m Shielded USB Cable
- Installation CD

OPTIONS

- EMCenter Modular RF Test Platform (Model 7000-001, Required for Operation)
- I/O Interface Plug-in Module (Model 7000-002)
- Additional RF Power Sensors
- ISO 17025 Accredited Calibration for EMPower (Model 7002-003)
- ISO 17025 Accredited Calibration for EMPower (Model 7002-005)

Physical Specifications

MODEL FEATURE	7002-001 (MODULAR PLUG-IN CARD)	7002-003 (SENSOR)	7002-005 (SENSOR)
Temperature Range (Use)	0° C to +40° C	0° C to +40° C	0° C to +40° C
Temperature Range (Storage)	-20° C to +85° C	-20° C to +85° C	-20° C to +85° C
Relative Humidity	10 to 90% (Non-condensing)	10 to 90% (Non-condensing)	10 to 90% (Non-condensing)
Connector to Plug-in Card or PC (Data)	n/a	USB-B	USB-B
USB Communication	n/a	USB 1.1	USB 1.1
USB Power Consumption	n/a	< 200 mA	< 200 mA
RF Input Connector	n/a	N-type Precision	N-type Precision

Performance Specifications (EMPower Pulse Sensors)

MODEL FEATURE	7002-003 (SENSOR)	7002-005 (SENSOR)
Detector Type	Diode	Diode
Measurement Function	Peak Power	Peak Power
Calibrated Frequency Range	9 kHz to 6 GHz	80 MHz to 18 GHz
Power Measuring Range	-55 dBm to +10 dBm	- 45 dBm to +10 dBm
Input Damage Level	> 20 dBm	> 20 dBm
Resolution	0.01 dB	0.01 dB
VSWR	< 1.05 @ 10 MHz to 100 MHz < 1.15 @ 100 MHz to 2 GHz < 1.35 @ 2 GHz to 6 GHz	< 1.20 @ 80 MHz to 10 GHz < 1.35 @ 10 GHz to 18 GHz
Maximum Linearity Error (0 dBm ref)	0.05 dB / 10 dB	0.5 db / 10 dB
Measuring Speed (Per Second)	1 MSps (10 MSps for CW), 100 kSps or 20 kSps (Software Selectable)	1 MSps (10 MSps for CW), 100 kSps or 20 kSps (Software Selectable)
Logging Buffer Record Mode	4,000 Samples (Maximum 2,000 Pre-trigger and 2,000 Post-trigger)	4,000 Samples (Maximum 2,000 Pre-trigger and 2,000 Post-trigger)
Accuracy (23° ± 2° C)	0.25 dB	0.25 dB (≤ 10 GHz) 0.50 dB (> 10 GHz)
Temperature Effect	< 0.15 dB Over Full Temperature Range	< 0.15 dB Over Full Temperature Range
Measurement Units	dBm	dBm