

RF POWER METERS EMPOWER™ MODEL 7002-006



- EMPOWER 7002-006**
- Fully Compliant with ETSI 300 328 and 301 893
 - Fast, Accurate Performance
 - Easy Operation
 - Burst Mode

ETS-Lindgren's has extended its range of EMPower™ RF power meters to comply with the measurement requirements of the ETSI 300 328 and 301 893 standards for wideband data transmission systems, including IEEE 802.11™, Bluetooth® and Zigbee™. The model 7002-006 provides measurements over a frequency range from 10 MHz up to 6 GHz.

To achieve the measurement requirements of the standards, the sampling speed of the EMPower Pulse power heads has been increased to a maximum of 5 MS/s. A hardware trigger input/output has also been added to allow synchronous power measurements of wideband data transmission devices with multiple inputs/outputs (MIMO).

The EMPower is equipped with a USB interface which enables direct connection of the Power heads to a PC USB port.

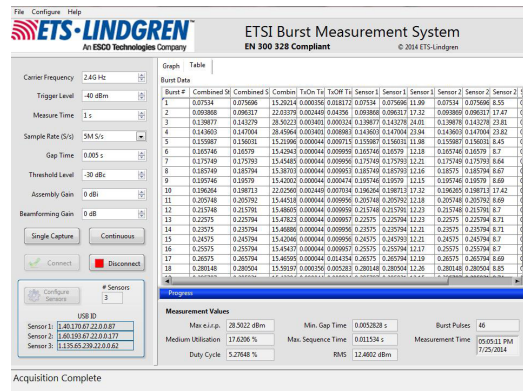
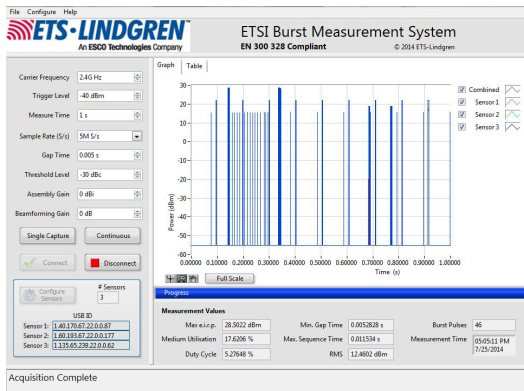
The EMPower model 7002-006 offers a burst mode, compliant with the measurement methods as defined in the ETSI standards for wideband data transmission systems EN 300 328 (2.4 GHz) and EN 301 893 (5 GHz).

In burst mode, the EMPower can store the information of 100.000 bursts and observation time up to 60 seconds. For each burst the average power and timing data is stored in the buffer. The model 7002-006 uses a sample speed of 1 or 5 MSps in combination with a RMS detector to ensure correct measurements on wideband modulating transceivers.

For MIMO devices multiple model 7002-006 power meters units can be daisy-chained using the MMCX connectors enabling synchronised triggering of the EMPower meters.

ETSI 300 328 AND 301 893

EMPower Viewer™ Comes Standard with the Model 7002-006



RF POWER METERS EMPOWER™ MODEL 7002-006

ETSI 300 328 AND 301 893

Technical Specifications

EMPower Head

Detector Type	RMS Log Detector
Measurement Function	RMS CW Power, Peak (Max Hold) and Burst Mode
Calibrated Frequency Range	10 MHz to 6 GHz
Power Measuring Range	-50 dBm to +10 dBm
Maximum SWR	1.10 @ Below 1 GHz 1.15 @ 1 GHz to 6 GHz
Frequency Response Accuracy (at 23° C ± 2° C)	± 0.25 dB
Deviation from CW for Wideband Modulated Signals with High Crest Factor	0.25 dB
Linearity Error	0.05 dB + 0.005 dB/dB
Input Damage Level	> +20 dB
Resolution	0.01 dB
RF Input Impedance	50 Ohm
Measuring Speed	Max. 5 MS/s
Temperature Effect	0.15 dB over Full Temperature Range
Zero Adjustment	Not Required
Frequency Response Correction	Stored Frequency Response Data is Taken into Account by Numerical Entry of the Measurement Frequency
Measurement Units	dBm/Watts

Mechanical

Dimensions of Measuring Device	124 mm (L) x 32 mm (W) x 32 mm (H) 4.8 in x 1.3 in x 1.3 in
RF Input Connector	Precision N-Type
Data Connector (Power Head Side)	USB Mini Type B
Trigger Input and Output	MMCX (Standard One Cable Supplied with Each Unit)

Environmental (Head)

Temperature Range (Use)	0° C to 40° C 32° F to 104° F
Temperature Range (Storage)	-20° C to 85° C -4° F to 185° F
Relative Humidity (Non-condensing)	10 to 90%

Interfaces and Supply (Head)

USB Communication	USB2, Drivers Supplied for Latest Windows® Versions
Supply Voltage	+5 VDC from USB Port (4.75 VDC to 5.25 VDC)
Current Consumption (USB)	Typical 180 mA (maximum 200 mA)
Warranty	3 Years



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