

CORNET ED-85EX Electromog meter is designed for quick measurement of high frequency (RF) Electromagnetic wave field strength and power level for living environment, excellent for individual or company with Electromagnetic wave safety concerns. It has broad bandwidth (1MHz to 8GHz), high sensitivity (-55dBm to 0dBm) and fast response time. The ED85EX has the External SMA connector to connect to the external RF signal source to be measured, or with coaxial cable or to the External Antenna, filters, and attenuators.

Applications:

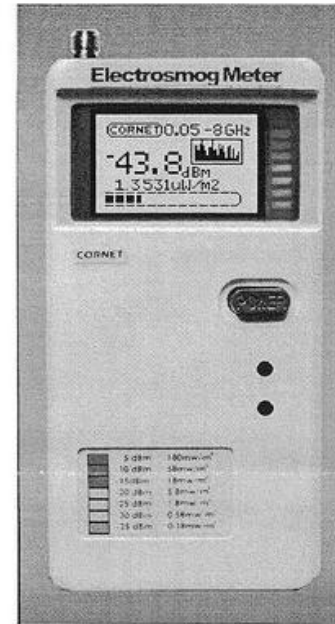
- High frequency (RF) Electromagnetic wave field strength and RF power measurement
- Mobile phone base station antenna radiation power density measurement
- Wireless communication applications (AM/FM, TDMA, GSM, DECT, CDMA)
- RF power level measurement for transmitters
- Wireless LAN (Wi-Fi, 2.4GHz/ 5.8GHz), Bluetooth, Ultra-wide-band detection, installation
- Spy camera, wireless bug finder
- Cellular/Cordless phone radiation safety level
- Microwave oven leakage detection
- Personal living environment EMF safety

Features:

- Broad Frequency range: 1MHz to 8GHz (SMA RF input)
- High Dynamic range: 60 dB
- High sensitivity: -55dBm to 0dBm (25mv/m to 14.8V/m)
- Peak power density measurement: 1.5uw/m² to 0.58w/m²
- External 50 ohms SMA connector for external Antenna, attenuator, and filter connection
- LCD digital power level and power density level display with auto scale
- Moving graphic Histogram, and Bar signal level display (5dBm/segment)
- 8 high brightness color LED to display power density level with 3 safety range indications
- Continues wave (AM/FM) and high speed burst RF (GSM, TDMA, PCS, CDMA, Wi-Fi)
- Super fast response time with easy reading color LED segment display (5dBm/segment)
- LCD back light (15 seconds auto-off) LCD on/off control, LCD reading Hold key
- Low battery indication
- Small, compact handheld design 13cmx6.5cmx3cm
- Battery operated (9V DC) *(9V alkaline battery recommended, not included in the package)

Usage guide:

- (1) Put the 9V battery in the ED85EX, push the power switch button to turn on the ED85EX.
- (2) The RF connector (SMA) is located on the top of ED85EX, connect the ED85EX to the RF source to be measured with 50ohms RF cable or External sensing Antenna. The Input impedance of ED85EX is 50 ohms.
- (3) Measured RF signal level /power density is shown on the digital LCD display (with dBm and mw/m²).
- (4) 8 color LED lights. With 3Red, 3Yellow, and 2Green color on the right hand side of LCD window is used for quick RF signal level indications. 3 Red LEDs are used to indicate the 3 safety range. The power level of each LED can be found in the table label on the ED85 front panel. (5 dBm/ LED segment)
- (5) Histogram of previous 32 signal level readings are recorded and shown as moving graph on the LCD display
- (6) LCD Bar (5dBm/segment) display can be used for relative signal strength indications.
- (7) Most high frequency RF antenna such as Mobile phone base station is vertical polarized (in vertical direction), therefore if ED85EX is connected to External sensing Antenna, the Antenna normally is in vertical direction. Please also rotate the Antenna to find the maximum power reading directions to take care of the high frequency RF wave reflections in real world environments.
- (8) Most of modern communication devices (Mobile phone, Wireless LAN, Wi-Fi, etc..) use digital communication technology with burst digital RF signals. When measuring digital RF signals, several LED lights may blinking at the same time. This is normal and can be used as an indication of burst type of digital RF signals. For continues waves (AM/FM) signals, the LED light will stable. ED85EX measures peak power level of signal with very quick response time. It is more accurate than the needle style of readout which only shown the average value of signal power most of the time.
- (9) ED85EX is a broadband High frequency RF signal power level measuring device. It is used for applications such as Mobile phone base station antenna radiation, Microwave oven, Cellular/cordless phone, Radio transmitters, and WiFi wireless LAN installation aid.
It is not for low frequency magnetic field measurement (AC power transformer, high voltage power transmission line, motor ...etc..) which should be measured with Gauss-meters such as CORNET ED25G RF/LF dual mode meter.



LED table and Field strength/power density readout:

-- ED85EX use 8 high brightness LED to indicate the measured power and power density. With 3 safety range indications.
 -- The power level and power density level conversion in the table is calculated based on the standard dipole antenna. Different external antenna may have different antenna gain comparing to the standard dipole antenna. The power level is the received RF power level at the RF input connector of ED85EX

LED color	Power level	Power density	Indication	Action
RED3	-5 dBm ↑	0.18 w/m ²	Safety range#3 Italy standard (0.1w/m-sq)	Caution!
RED2	-10 dBm	0.058 w/m ²	Safety range#2 Swiss standard (0.04w/m-sq)	Caution!
RED1	-15 dBm	0.018 w/m ²	Safety range#1 Russian standard (0.02w/m-sq)	Caution!
YELLOW3	-20 dBm	0.0058 w/m ²		safe
YELLOW2	-25 dBm	1.8 mw/m ²		safe
YELLOW1	-30 dBm	0.58 mw/m ²		safe
GREEN3	-35 dBm	0.18 mw/m ²	Wireless LAN, WiFi typically in this range	safe
GREEN2	-40 dBm ↓	0.06 mw/m ²	Some signal source around	safe