

A Wideband Field Meter to Monitor and Record EMF Exposure



Main features

User profile

- Workers near antennas, including installers, maintenance workers, broadcasters, and cellular carrier employees: for the control of the compliance of the exposure level with the standards and safety perimeter definition
- Certification laboratory, regulatory body: for control and monitoring of the exposure in public or private locations and site certification

Measurement capabilities

• Continuous EM field level measurements

Frequency bands

• 100 KHz to 6.5 GHz

Related recommendations

- ICNIRP
- 2013/35/EU Directive Exposure thresholds are user-definable
- FCC 96-326 Safety Code 6
- and can be adapted

to any recommendation

Product Configuration

Software

EME Wide Analysis Software

Equipment

- Case
- Optical cable
- USB adapter
- USB cable
- Battery charger
- USB key for software installation
- User manual
- Wood tripod

Services

- Calibration report
- Initial calibration
- Additional calibration
- Training
- Extended warranty

KEY FEATURES

EME Wide Applications in:



Telecommunications



Industry



Laboratory







Radar equipment







> Measurements and results

- Isotropic or single axis (X, Y, Z) instantaneous field value
- Maximum, RMS or Time/Spatial average of isotropic field value • Selectable unit (V/m, A/m, W/m²)
 - Alarm function (buzzer) with programmable field threshold
 - Measurements stored in a non-volatile memory (up to 20000 points)

> Equipment interfaces

- Easy use from the 5 keys membrane keypad
 - 7 cm (2.8") LCD display with led backlight
 - Optical link for communication with PC and remote control
 - Other information: date & time, temperature, battery charge status

> Battery and charge

- AA rechargeable NiMH battery
 - External wall charger with set of plugs
 - Automatic shutdown for very low battery or during recharge

High performance probe for accurate measurements

The EME Wide is equipped with a triaxial probe which guarantees measurement isotropy. Each device comes with a calibration report. The performance of this sensor has been optimized to ensure excellent isotropy.



A user friendly and flexible software

The EME Wide Analysis software enables two usages:

- Importation mode enables download and visualization of measurements recorded in the embedded memory of the device.
- Real time mode enables measurement start from the PC, visualization in real time of measurements, and exporting data to a file.

STEP 1: start the device (ON/OFF button) and plug it to the PC.

STEP 2: configure the internal alarm threshold, define measurement unit, clear memory, set window length time for RMS mean calculation, update date and time.

STEP 3: perform measurements. 3 types of measurements exist:

- Screenshot: recording from the probe at any time of each information indicated on the main screen of the probe (X, Y, Z, & total E-field, RMS, mean, spatial averaging, maximum value, temperature) into 200 memory cases max.
- **Recording:** start from the probe. Enables to perform 5 time measurements with 5 second period, containing 20 000 points max where X, Y, Z, total E-field, and temperature are saved.
- Real time: start from the PC. Enables to perform real time measurements with 1 second period, where X, Y, Z, total E-field, and temperature are saved.

STEP 4: import screenshot and recording measurements in the form of secure files using optical link and display the results.











Specification

TECHNICAL CHARACTERISTICS

Frequency range	100 KHz - 6.5 GHz
Upper detection limit	350 V/m
Lower detection limit	0.35 V/m
Damage level (CW)	> 600 V/m

MEASUREMENT UNCERTAINTY

Frequency response @ 10 V/m	± 1 dB (100 MHz – 2.7 GHz) ± 1,5 dB (2.7 GHz – 6.5 GHz)
Axial isotropy @ 60 V/m	± 0.5 dB @ 100 MHz
Linearity [2 V/m – 250 V/m]	± 0.5 dB @ 100 MHz
Temperature sensor	± 2°C

MEASUREMENT CONFIGURATION

Unit	V/m, A/m, W/m²
Measurement mode	Isotropic or single axis (X, Y, Z)
Measurement type	RMS, Maximum, Time/Spatial Average
RMS average	From 1 to 10 minutes
Spatial average	Discrete
Screenshot capacity	200 measurements MAX
Recording capacity	20 000 measurements MAX
Min. measurement period	5 sec for RECORDING mode 1 sec for REAL TIME mode
Alarm function	Single tone buzzer

DISPLAY

Display type	Transflective LCD
Display size	7 cm (2.8''), 128 x 64 dots
Backlight	White leds (Off or permanent)
Refresh rate	200 ms

INTERFACES

Optical interface	Serial, full duplex Optical/USB adapter for PC connection
Probe interface	Plug and play auto detection

CONDITIONS FOR USE

Battery	4 x AA rechargeable NiMH
Battery charger	External wall charger
Operation time	> 48 hours (backlight off)
Charging time	6 hours
Battery level (on display)	5 voltage levels (bar graph)
Operating temperature/humidity	-10°C/+50°C, 5%/95% non condensing
Storage temperature	-20°C/+70°C

MECHANICAL CHARACTERISTICS

Dimensions	435 x 116 x 60 mm (H, L, W)
Weight	600 g
Protection	IP44

PC SOFTWARE

Operating systems compatibility Windows XP, 7, 8, 10

About Microwave Vision Group (MVG)

Since its creation in 1986, The Microwave Vision Group (MVG) has developed a unique expertise in the visualization of electromagnetic waves. These waves are at the heart of our daily lives: Smartphones, computers, tablets, cars, trains, planes - none of these devices and vehicles would work without them. Year after year, the Group develops and markets systems that allow for the visualization of these waves, while evaluating the characteristics of antennas, and helping speed up the development of products using microwave frequencies.

The Group's mission is to extend this unique technology to all sectors where it will bring strong added value. Since 2012, MVG is structured around 3 departments: AMS (Antenna Measurement Systems), EMC (Electro-Magnetic Compatibility), EIC (Environmental & Industrial Control).

MVG is present in 10 countries, and generates 90% of sales from exports. The Group has over 350 employees and a loyal customer base of international companies.

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