

### 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
- Included Doptional

### 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** 





**Public safety** 

### > 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/m<sup>2</sup>)
  - Alarm function (buzzer) with programmable field threshold
  - Measurements stored in a non-volatile memory (up to 20000 points)

### > Equipment interfaces

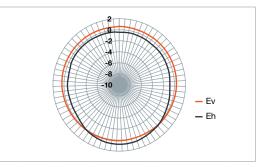
- Easy use from the 5 keys membrane keypad
  - 7 cm (2.8") LCD display with led backlight
  - Optical link for communication with PC and remote control
  - Other information: date & time, temperature, battery charge status

### > 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.

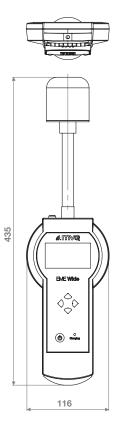
**STEP 3:** perform measurements. 3 types of measurements exist:

- 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.

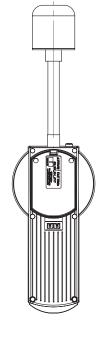
**STEP 4:** import screenshot and recording measurements in the form of secure files using optical link and display the results.











## 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)<br>± 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/m <sup>2</sup>                           |
|-------------------------|--|
| 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<br>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<br>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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