WAVECONTROL

Safety, Quality, Service

GENERAL CATALOG

Datasheets

Wavecontrol S.L.
Barcelona, Spain
+34 933 208 055
info@wavecontrol.com

Wavecontrol Inc.
New Jersey, USA
+1 201 479 9022
sales@wavecontrol.com

GENERAL CATALOG

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SMP3

Electromagnetic field meter

3X1 — 3 INSTRUMENTS IN 1:
Static field measurement, Spectrum analysis & Broadband field meter

FFT-BASED TIME-DOMAIN SPECTRUM ANALYSIS from 1 Hz to 10 MHz

101 — DIGITAL OUTPUT
For real time external measurements

EMF WORKER'S SAFETY
ICNIRP, EU Directive, FCC, SC6 (2015),...

BROADBAND MEASUREMENT
(0 Hz - 60 GHz)

5G READ

Ready for 5G measurements

Field probe range
from 0 Hz to 60 GHz

Spectrum analysis [FFT]
(up to 10 MHz)

Broadband measurements
(0 Hz - 60 GHz)

Field values:
X, Y, Z and Total

Graphical display
in real time

Dynamic menu

Weighted Peak Method (WPM)
Real time comparison with limits

> 1 million registers
SQL data base

Screenshot function

Fibre optics (optional)

USB-C
Digital Output

Available field probes

SMP3 Applications

INDUSTRY · TELECOMMUNICATIONS · ENERGY · RAILWAY · MEDICAL

LABS · AERONAUTICAL · WORKER'S SAFETY · DEFENSE · AUTOMOTIVE

Technical specifications

Versions	Broadband	For broadband measurements using the following probes: WPFx, WPT, WP50, WPH60 and WPH1000.
	Selective	For frequency selective measurements from 0 to 10 MHz using WP400, WP400c, WP400-3, WP10M and WPH-DC.
	Dual	For both kinds of measurements using all field probes.
Field probes		Automatic detection and recognition
Broadband		0 Hz – 60 GHz (depending on field probe)
Spectrum analysis		up to 10 MHz
Weighted Peak Method		1 Hz – 10 MHz (Real time WPM for direct comparison with limits)
Readout values		Total field (instantaneous, max., min. and average) Field components (X, Y, Z)
E Field units		V/m, kV/m, µW/cm², mW/cm², W/m², %
H Field units		nT, µT, mT, T, A/m, %, mG, G
Log time		Configurable (from 0.5 s to 6 min)
Average modes		Fixed o Sliding, according to international standards
Average intervals		10 s, 15 s, 30 s, 1 min, 2 min, 5 min, 6 min, 10 min, 15 min, 30 min
Schedule measurement		Customized (up to 24 hours)
Memory capacity		More than 1 million samples
Data downloading		USB-C and fibre optics
Firmware updating		USB-C
Alarm		2400 Hz audible signal (adjustable threshold)
Display type		Color transmissive TFT (480 x 272 pixels)
GPS (optional)		Built-in u-blox 8 (56 independent tracking channels)
Digital Output		Probe direct output // Digital output through USB-C for WP400 family probes
Battery		Internal rechargeable Li-ion
Autonomy		> 24 hours
Temperature range		-10 °C to +50 °C
Humidity		5% to 95%, non-condensing
Size		100 x 215 x 40 mm (3.9 x 8.4 x 1.5 “)
Weight	Broadband	560 g (19.7 oz.)
	Selective	635 g (22.4 oz.)
	Dual	635 g (22.4 oz.)

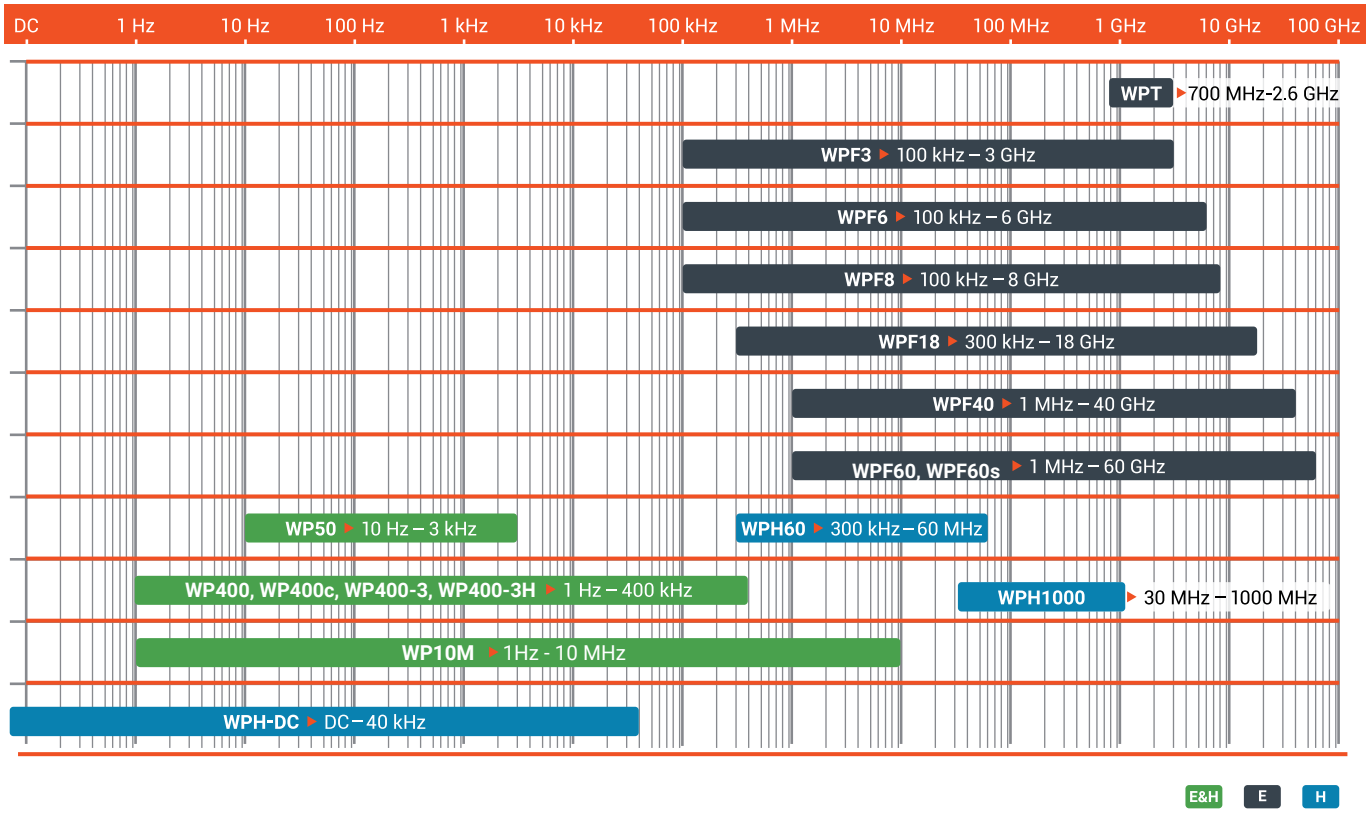
SMP3

Electromagnetic field meter. Compatible field probes

Wavecontrol provides a full range of E-Field, H-Field and E&H Field probes covering different frequency ranges starting at 0 Hz and up to 60 GHz.

Probes are plug and play and come with an individual ISO 17025 accredited calibration. All sensors are isotropic, RMS and highly accurate.

Frequency range of compatible field probes



SMP3

Model	Frequency range	Response	Measurement range	Linearity	Size
WPH-DC Selective & Broadband	0 – 40 kHz	Flat	H-Field: 10 µT – 10 T	0.6% (100 uT – 1 T) 1% (100 uT – 2.4 T)	27.3 cm x 2.1 cm Ø 10.8 " x 0.8 " Ø Sensor stick: 0.94 cm Ø 0,37 " Ø
WP400 Selective & Broadband	1 Hz – 400 kHz	Flat / Shaped (Weighted Peak Method)	E-Field: 1 V/m – 100 kV/m H-Field: 50 nT – 30 mT @50 Hz 50 nT – 10 mT (100 Hz – 10 kHz)*	±1% (Typical) ±2% (Maximum)	28 cm x 12.8 cm Ø 11 " x 5 " Ø
WP400c Selective & Broadband	1 Hz – 400 kHz	Flat / Shaped (Weighted Peak Method)	E-Field: 1 V/m – 100 kV/m H-Field: 50 nT – 30 mT @50 Hz 50 nT – 1.5 mT (820 Hz – 40 kHz)*	±1% (Typical) ±2% (Maximum)	28 cm x 12.8 cm Ø 11 " x 5 " Ø
WP400-3 Selective & Broadband	1 Hz – 400 kHz	Flat / Shaped (Weighted Peak Method)	E-Field: 10 V/m – 400 kV/m H-Field: 200 nT – 50 mT (100 Hz – 10 kHz)*	±1% (Typical) ±2% (Maximum)	27.5 x 3.3 cm Ø 10.8 " x 1.3 " Ø
WP10M Selective & Broadband	1 Hz - 10 MHz	Flat / Shaped (Weighted Peak Method)	E-Field: 2 V/m - 100 kV/m 2 V/m - 47 kV/m (160 kHz-10 MHz) H Field: 100 nT - 47 mT @50 Hz 400 nT - 4,7 mT (500 Hz - 10 MHz)	+/- 1% (Typical) +/- 2% (Maximum)	28 cm x 12.8 cm Ø 11" x 5" Ø
WP50	10 Hz – 3 kHz	Flat / Shaped	E-Field: 2.5 V/m – 20,000 V/m H-Field: 0.05 µT – 2,000 µT	±1% (Typical) ±2% (Maximum)	27 cm x 11.5 cm Ø 10.6 " x 4.5 " Ø
WPH60	300 kHz – 60 MHz	Flat	H-Field: 0.018 – 1 A/m (RMS) 0.018 – 20 A/m (CW)	±1 dB (0.04 – 4 A/m)	27 cm x 9 cm Ø 10.6 " x 3.5 " Ø
WPH1000	30 MHz – 1000 MHz	Flat	H-Field: 0.018 – 20 A/m	±1 dB (0.04 – 4 A/m)	28.4 cm x 6 cm Ø 11.2 " x 2.4 " Ø
WPF3	100 kHz – 3 GHz	Flat	E-Field: 0.2 – 20 V/m (RMS) 0.2 – 130 V/m (CW)	±0.5 dB (0.5 – 100 V/m)	28.4 cm x 6 cm Ø 11.2 " x 2.4 " Ø
WPF3-HP		Flat	E-Field: 0.2 – 20 V/m (RMS) 0.2 – 1,000 V/m (CW)	±0.5 dB (0.5 – 100 V/m)	28.4 cm x 6 cm Ø 11.2 " x 2.4 " Ø
WPF6	100 kHz – 6 GHz	Flat	E-Field: 0.2 – 20 V/m (RMS) 0.2 – 130 V/m (CW)	±0.5 dB (0.5 – 100 V/m)	28.4 cm x 6 cm Ø 11.2 " x 2.4 " Ø
WPF6-HP		Flat	E-Field: 0.2 – 20 V/m (RMS) 0.2 – 1,000 V/m (CW)	±0.5 dB (0.5 – 100 V/m)	28.4 cm x 6 cm Ø 11.2 " x 2.4 " Ø
WPF8	100 kHz – 8 GHz	Flat	E-Field: 0.2 – 20 V/m (RMS) 0.2 – 130 V/m (CW)	±0.5 dB (0.5 – 100 V/m)	28.4 cm x 6 cm Ø 11.2 " x 2.4 " Ø
WPF8-HP		Flat	E-Field: 0.2 – 20 V/m (RMS) 0.2 – 1,000 V/m (CW)	±0.5 dB (0.5 – 100 V/m)	28.4 cm x 6 cm Ø 11.2 " x 2.4 " Ø
WPF18	300 kHz – 18 GHz	Flat	E-Field: 0.5 – 30 V/m (RMS) 0.5 – 250 V/m (CW)	±0.5 dB (0.5 – 100 V/m)	28.4 cm x 6 cm Ø 11.2 " x 2.4 " Ø
WPF18-HP		Flat	E-Field: 0.5 – 30 V/m (RMS) 0.5 – 1,000 V/m (CW)	±0.5 dB (0.5 – 100 V/m)	28.4 cm x 6 cm Ø 11.2 " x 2.4 " Ø
WPF40	1MHz – 40 GHz	Flat	E-Field: 1 – 55 V/m (RMS) 1 – 1,000 V/m (CW)	±2 dB (1 – 2 V/m) ±1 dB (2 – 250 V/m)	28.4 cm x 6 cm Ø 11.2 " x 2.4 " Ø
WPF60	1MHz – 60 GHz	Flat	E-Field: 1 – 55 V/m (RMS) 1 – 1,000 V/m (CW)	±2 dB (1 – 2 V/m) ±1 dB (2 – 250 V/m)	28.4 cm x 6 cm Ø 11.2 " x 2.4 " Ø
WPF60S	1MHz – 60 GHz	Shaped (ICNIRP 1998/2020, FCC)	E-Field: 0.1% – 35% (RMS) 0.1% – 800% (CW)	±2 dB (1 – 2 V/m) ±1 dB (2 – 250 V/m)	28.4 cm x 6 cm Ø 11.2 " x 2.4 " Ø
WPT	Selective: 700 – 900, 1800 – 1900, 2100, 2600 MHz	Flat	E-Field: 0.04 – 65 V/m (RMS)	<±0.4 dB (0.2 – 50 V/m)	28.5 x 10.5 x 10.5 cm 11.2 x 4.1 x 4.1 "
WP-WIFI	WiFi 2.45 GHz	Flat	E-Field: 0.04 – 65 V/m (RMS)	<±0.5 dB (0.2 – 50 V/m)	28.5 x 10.5 x 10.5 cm 11.2 x 4.1 x 4.1 "

*Below and above the stated frequency range, upper limit of the measurement range changes (See datasheets for more information).

SMP3

Electromagnetic field meter. Accessories

SMP3 included accessories

'SMP3 Reader' PC software
Included / Downloadable from **wavecontrol.com**

Compatible with Windows 7 or later versions

SMP3 carrying case
Part # WSN0001-2-3

Robust case to fit the SMP3 and up to 5 probes

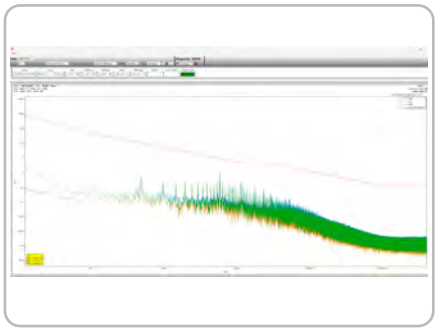
USB cable

USB to USB-C cable

AC/DC charger

International plug types available

SMP3 optional accessories



SMP3-Streamer option
Part # W-SMP3-STREAMER

Advanced real time processing and multi-probe use

Non-reflective wooden tripod
Part # WSNA0001

Including transport cover

Tripod extension
Part # WSNA0002

Horizontal extension for LF vertical E-field measurements

Probe support for tripod
Part # WSNA0013

Recommended with the probe extension cable

Probe extension cable
Part #WSNA0011 and #WSNA0014

2 or 5 meters extension cable

GPS
Part # WSNO0001

Internal embedded GPS

Fibre optics interface
Part # WSNA0004, WSNA0010, and WSNA0015

10, 20, or 45 meters fibre optics + USB converter to PC

Vehicle DC charger
Part # WSNA0007

Charge SMP3 from a vehicle DC connector

SMP3 protective pouch
Part # WSNA0009

Easily portable protective soft sheath

SMP3 backpack
Part # WSNA0008

Soft backpack to fit up to 3 probes

SMP3_EN_2103_v1.7

SMP3 Case

The SMP3 case is specially designed to safely transport the SMP3 field meter, its accessories and up to 5 electromagnetic probes.

The exterior of the case is highly resistant, has an IP67 environmental protection and pressure valve. The interior is composed of foam compartments and pockets that provide full protection of the equipment.

The case has two latches that allow quick opening of the lid and a front handle and a polyester strap to ensure ease of transport and use onsite.

IP67 environmental protection
Waterproof, Crushproof, Dustproof, Corrosion-proof

Foam lid pouch
Protects the contents and allows storage of documents and accessories

SMP3 organizer
Two-level foam organizer for the SMP3 AC/DC charger slot, USB cable and other accessories

Additional accessories organizer
Foam organiser for accessories such as USB Drive or Mini Zero Gauss Chamber

Automatic pressure valve
Balances interior pressure and prevents water filtration

Easy open latches
Double security latches with easy-opening system

High density foam
Lightweight, durable foam provides maximum safety for equipment transportation

Electromagnetic probes organizer
Space to store up to 5 probes, compatible with all Wavecontrol models

Carrying strap
Strong polyester strap to easily handle the case and hang it on the shoulder

SMP3 Case

Technical Specifications

Interior	Length	437 mm
	Width	304 mm
	Depth	157 mm
Exterior	Length	465 mm
	Width	360 mm
	Depth	157 mm
Weight, empty		3.7 kg (attached foam included)
Protection		Waterproof, crushproof, dustproof, corrosion-proof
IP Rating		IP67 (depth of 1 meter for 30 minutes)
Pressure valve		Automatic pressure equalization valve
Handle		Collapsible front handle
Latches		2 easy-open latches
Strap		Heavy-duty polyester carrying strap
Color		Black
Nameplate		Yes

SMP3-Case_EN_2108_v1.0

MonitEM

Electromagnetic field monitoring

- 24/7 Monitoring of electromagnetic field levels and verification that they meet the safety standards established by the competent authorities.
- Any source, any sector: Cellular, Broadcast, 50/60 Hz Power Systems, Industry, Defense…
- Measurements can be published on the Internet.

ITU K.83

Compliance with ITU K.83

5G READY

Ready for 5G measurements

24/7 EMF monitoring

Broadband measurements
from 10 Hz to 60 GHz depending on the field probe

Control centre
Remote system & data management

Easy to install
Solar Power + Wireless Communication

IP66 protection rating
Resistant to harsh weather conditions: heavy rainfall, high temperatures, dust,...

ITU-T K.83 / 5G ready
K.83 compliant and ready for the measurement of 5G bands

MonitEM Application

Measurement of EMF radiation in:

INDUSTRY · TELECOMMUNICATIONS · ENERGY · DEFENSE · MEDICAL

How does it work?

EMISSION SOURCE · MONITEM · CONTROL CENTRE

ISO 9001 · Quality management ·

Technical specifications

Sensor type	Isotropic, RMS. Simultaneous 3-axis measurement	
Field Probes	See available field probes in next page	
Sampling frequency	500 ms	
Averaging	Custom sliding window (Default: 6 minutes)	
Data retention period	Online: from 1 to 60 minutes Offline: configurable from 1 second to 60 minutes	
Memory	Eeprom + 32GB MicroSD	
Wireless communications	3G/GPRS Modem	4G/3G/GPRS Modem
	Modem radiation rejection	
Programmable alarms	Field level, low battery, hibernation, opening, calibration, communication error, probe error, temperature	
Operating log	Temperature, communications, power supply, operating modes, etc.	
Power supply	3 models: MonitEM Solar: Solar + battery MonitEM AC: 110 - 220V (50 - 60 Hz) MonitEM Hybrid: Solar + battery + AC	
Battery life	>20 days (without sun; **sample @0.5 s**; 1 daily transmission, No alarms)	
Watchdog	Smart power control unit	
Temperature	- 25 ºC to + 60 ºC	
Dimensions	253 mm x 292 mm x 385 mm	
Weight	3.6 kg (including solar panel)	
Environmental protection	IP66	
Installation kits	Wall, mast or tripod	
GPS	High-sensitivity WGS84 device (built-in)	

Control Centre (optional)

Platform	On a server with Internet access
Administration interface	Web browser
Public interface	Web browser
Alarms	Receives and manages alarms from installed MonitEM units
Customization	Language, client's logo, general information
Reports	Automatic PDF, CSV reports sent by e-mail
Compatibility	Management of data from MonitEM units and portable SMP2 device

Additional services

Hosted Control Centre:
Eliminate infrastructure and server costs by using Wavecontrol's cloud server

Warranty extension:
The 2-year standard warranty can be extended to 3, 4 or 5 years.

Calibration plans:
Plan future calibrations now for 24 and 48 months with further discounts.

Update plans:
Keep the system up to date with the latest firmware versions and software development.

Training courses:
EMF theory and practical sessions at Wavecontrol or the client's offices.

MonitEM

Compatible field probes

Wavecontrol provides a full range of E-Field, H-Field and E&H Field probes covering different frequency ranges starting at 10 Hz and up to 60 GHz.

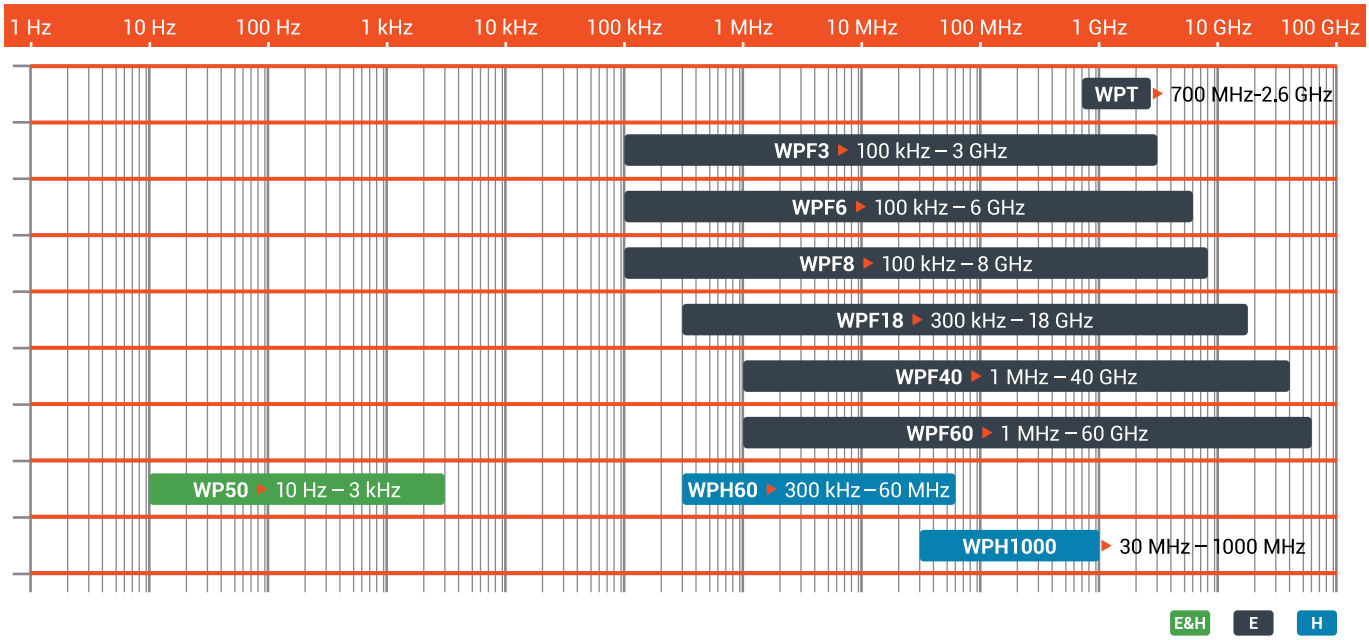
Probes are plug and play and come with an individual ISO 17025 accredited calibration. All sensors are isotropic, RMS and highly accurate.

E
100 kHz - 60 GHz
WPT
WPF3
WPF6/8
WPF18
WPF40/60

E H
10 Hz - 3 kHz
WP50

H
300 kHz - 1 GHz
WPH60
WPH1000

Frequency range of compatible field probes



Control Center (optional)

MonitEM devices can be optionally used together with a web server using software that is unique on the market and allows:

- Management and configuration of equipment
- Data reception, consultation and storage
- Report generation and automatic delivery
- Display of photographs and diagrams
- User friendly, with Google Maps positioning

Monit**EM** Case

The MonitEM case is specially designed to safely transport the MonitEM area EMF monitor, a solar panel, accessories and up to 3 electromagnetic probes.

The exterior of the case is highly resistant, has an IP65 environmental protection and pressure valve. The interior is composed of foam compartments and pockets that provide full protection of the equipment.

The case has four latches that allow a quick lid opening. A frontal handle and two lateral handles allow ease of manipulation. The rear retractable handle and the wheels make possible the rolling transportation of the case.

IP65 environmental protection
Protection against the dust and water condensation

Foam lid protection
To ensure that the equipment won't move

Solar panel organizer
Space for the solar panel, connection cable and accessories

Accessories organizer
To storage installation tools and other useful items

Auxiliary wheels
Allow the rolling transportation

Easy open latches
Double security latches with easy-opening system

Electromagnetic probes organizer

MonitEM main organizer
Ensures that the MonitEM is protected during transportation

Rear retractable handle
for rolling transportation

Automatic pressure valve
Balances interior pressure and prevents water filtration

Monit**EM** Case

Technical Specifications

Interior	**Length**	560 mm
	Width	430 mm
	Depth	315 mm
Exterior	**Length**	630 mm
	Width	500 mm
	Depth	345 mm
Weight, empty		9.45 kg
Protection		Crushproof, dustproof, avoids water condensation
IP Rating		IP65
Pressure valve		Automatic pressure equalization valve
Handles		1 collapsible front handle 2 collapsible lateral handles 1 retractable rear handle
Wheels		2 auxiliary wheels incorporated into the structure of the case
Latches		4 easy-open latches
Color		Black

MonitEM-Case_EN_2108_v1.0

Monit**EM**-Lab

Indoors electromagnetic field monitoring

- Indoors 24/7 monitoring of electromagnetic field levels.
- Used in Labs, Manufacturing and other facilities to check emitters performance, warn of unwanted emissions and verify human safety levels.
- Measurements can be locally stored or remotely managed.

ITU K.83

Compliance with ITU K.83

5G READY

Ready for 5G measurements

24/7 EMF monitoring
of electromagnetic fields in facilities, laboratories, etc.

Broadband measurements
from 100 kHz to 60 GHz depending on the field probe

Control centre
remote system & data management

Ethernet communication

Easy to install
stand-alone or to wall

Visual and audible alarms
Realtime alarms

ITU-T K.83 / 5G ready
K.83 compliant and ready for the monitoring of 5G bands

Visual alarm

MonitEM-Lab Application

Measurement of EMF radiation in:

INDUSTRY · TELECOMMUNICATIONS · ENERGY · LABS · MEDICAL

How does it work?

EMISSION SOURCE · MONITEM · CONTROL CENTRE

ISO9001 · Quality management ·

Technical Specifications

Sensor type	Isotropic, RMS. Simultaneous 3-axis measurement
Probe system	Interchangeable, 100 kHz to 60 GHz
Sampling frequency	500 ms
Averaging	6-minute or custom sliding window
Data retention period	Online: from 1 to 60 minutes Offline: configurable from 1 second to 60 minutes
Memory	Eeprom + MicroSD card
Communications	Ethernet
Operating log	Temperature, communications, power supply, operating modes, etc.
Power supply	AC 110 - 220V
Watchdog	Smart power control unit with ON/OFF button
Dimensions	445 x Ø 120 mm (17.5 x Ø 4.72 in.)
Weight	2.4 kg
Environmental protection	Not yet available
Installation kits	Wall, mast or tripod
Alarms	Audible and visual alarm (configurable). The sound can be stopped by an external switch.

Control Centre (optional)

Platform	On server with internet/intranet access
Administration interface	Web browser
Public interface	Web browser
Remote alarms	Field level, calibration, communication error, probe error, temperature
Customization	Language, client's logo, general information
Reports	Automatic PDF, CSV reports sent by e-mail
Compatibility	Management of data from MonitEM units and portable SMP3 device

Additional services

Warranty extension: The 2-year standard warranty can be extended to 3, 4 or 5 years.
Calibration plans: Plan future calibrations now for 24 and 48 months with further discounts.
Update plans: Keep the system up to date with the latest firmware versions and software development.
Training courses: EMF theory and practical sessions at Wavecontrol or the client's offices.

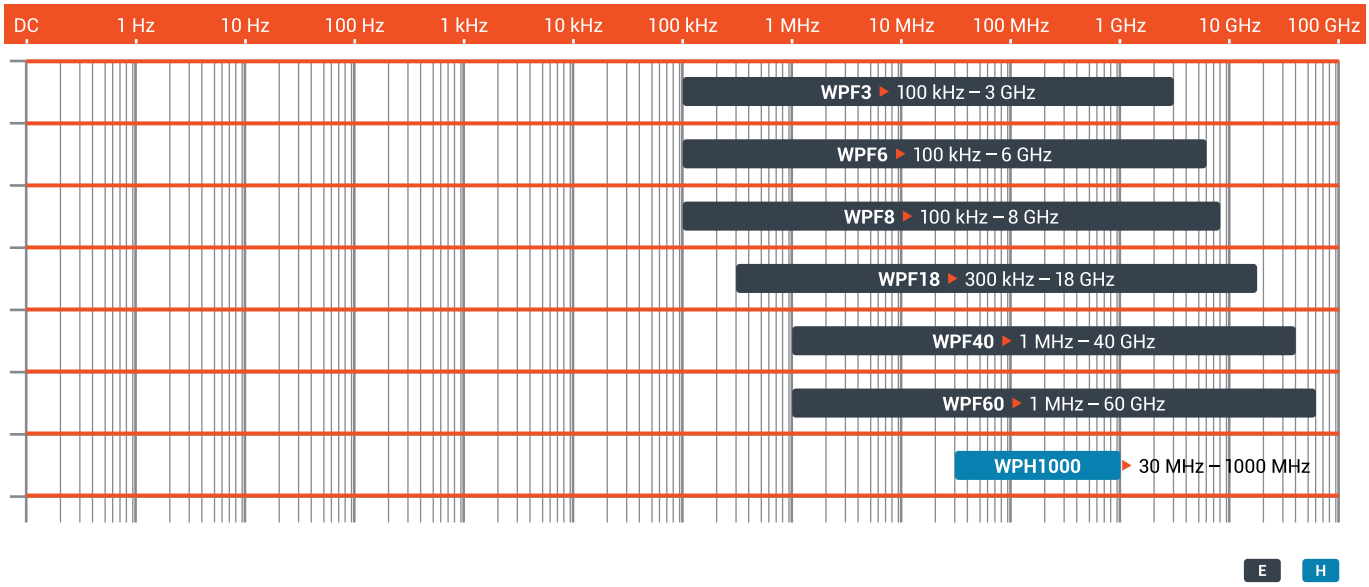
MonitEM-Lab

Compatible field probes

Wavecontrol provides a full range of E-Field, H-Field and E&H Field probes covering different frequency ranges starting at 10 Hz and up to 60 GHz.

Probes are plug and play and come with an individual ISO 17025 accredited calibration. All sensors are isotropic, RMS and highly accurate.

Frequency range of compatible field probes



Control Center (optional)

MonitEM devices can be optionally used together with a web server using software that is unique on the market and allows:

- Management and configuration of equipment
- Data reception, consultation and storage
- Report generation and automatic delivery
- Display of photographs and diagrams
- User friendly, with Google Maps positioning

MonitEM_Lab_EN_1904_v2.1

Monit**EM**-Lab (Outdoors)

Continuous measurement of electromagnetic fields

A permanent monitoring system that allows on-going scrutiny of the emission levels of electromagnetic radiation sources (mobile telephony, WiFi, RF generators, etc.) and verification that they meet the safety standards established by the competent authorities and regulations in each country. The measurements taken can be published via the Intranet/Internet.

ITU-T K.83

Compliance with ITU K.83

Continuous monitoring (24/365) of electromagnetic fields in facilities, laboratories, etc

Broadband measurement that allows an easy monitoring of EMF human exposure

Control centre with web interface for remote management of monitoring stations and display of electromagnetic field levels on any computer with Intranet/Internet connection

Easy to install AC supply and ethernet communication

Visual and audible alarms Realtime alarms

Complies with ITU-T K.83 recommendation which specifies standards for implementation of networks for continuous measurement of electromagnetic emissions

Visual alarm

MonitEM-Lab Application

Measurement of EMF radiation in:

INDUSTRY · TELECOMMUNICATIONS · LABS · DEFENSE · MEDICAL

How does it work?

Technical Specifications

Sensor type	Isotropic, RMS. Simultaneous 3-axis measurement
Probe system	Interchangeable, 10 Hz to 40 GHz
Sampling frequency	500 ms
Averaging	6-minute sliding window
Data retention period	Online: from 1 to 60 minutes Offline: from 1 second to 60 minutes
Memory	Eeprom + MicroSD card
Communications	Ethernet
Programmable alarms	Field level, low battery, hibernation, opening, calibration, communication error, probe error, temperature
Operating log	Temperature, communications, power supply, operating modes, etc.
Power supply	AC 110-220V
Watchdog	Smart power control unit
Dimensions	253 mm x 292 mm x 385 mm
Weight	3.6 kg
Environmental protection	IP66
Installation kits	Wall, mast or tripod
Alarms	Audible and visual alarm
Output (optional)	Output alarm connector with internal relay up to 240 Vac or 30 Vdc, 5A (normally closed)

Control Centre (optional)

Platform	On server with internet/intranet access
Administration interface	Web browser
Public interface	Web browser
Remote alarms	Field level, calibration, communication error, probe error, temperature
Customization	Language, client's logo, general information
Reports	Automatic PDF, CSV reports sent by e-mail
Compatibility	Management of data from MonitEM units and portable SMP3 device

Additional services

Warranty extension:
The 2-year standard warranty can be extended to 3, 4 or 5 years.

Calibration plans:
Plan future calibrations now for 24 and 48 months with further discounts.

Update plans:
Keep the system up to date with the latest firmware versions and software development.

Training courses:
EMF theory and practical sessions at Wavecontrol or the client's offices.

MonitEM_Lab_Outdoors_EN_1810_v1.2

Control Centre

Control Centre is a web-based application that allows remote configuration, data consultation, report generation, and management of MonitEM and MonitEM-Lab continuous monitors, among other functions.

The Control Centre is accessible from any computer with a web browser and offers the option of a public Internet page to display data and compare it easily with regulated limits.

Better geopositioning

User friendly interface
(Web browser)

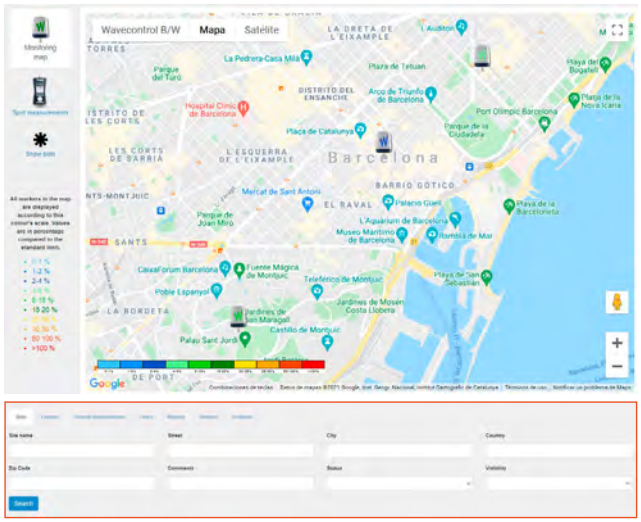
Alarm notification and management
- Remote alarm configuration
- Alarm notification via email

Data management
- Save data sent to each unit
- Historical data (filtered)
- Automatic reporting

Data visualization
- Live view of all units
- Graph visualization
- Public page display

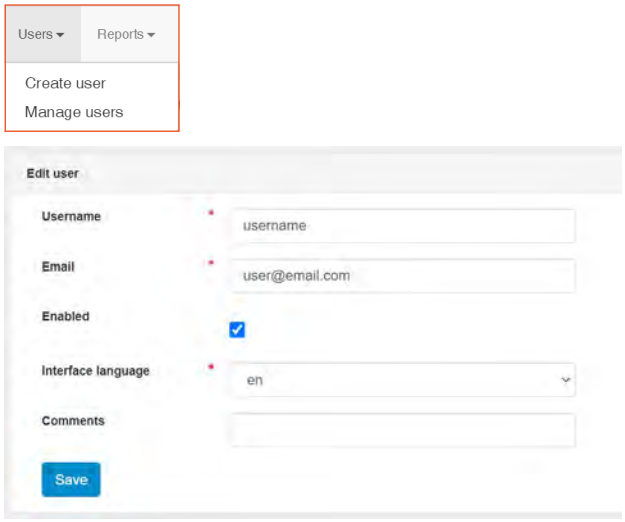
Management of units
- MonitEM and MonitEM-Lab
- Remote configuration of units

Control Centre Features



User-friendly interface

The Control Centre is designed for a web browser interface with powerful parametric search functions. Users can easily position units and measurement sites on Google map and easily monitor the status of each sites and their units, if they are active, inactive or with any incident.



Powerful User Roles

User roles can be effectively assigned with different levels of control over the management over the Control Centre, to configure the data sent, create, and manage a single or multiple Control Centres or just able to use the basic general features of the Control Centre. Different languages can be assigned also.

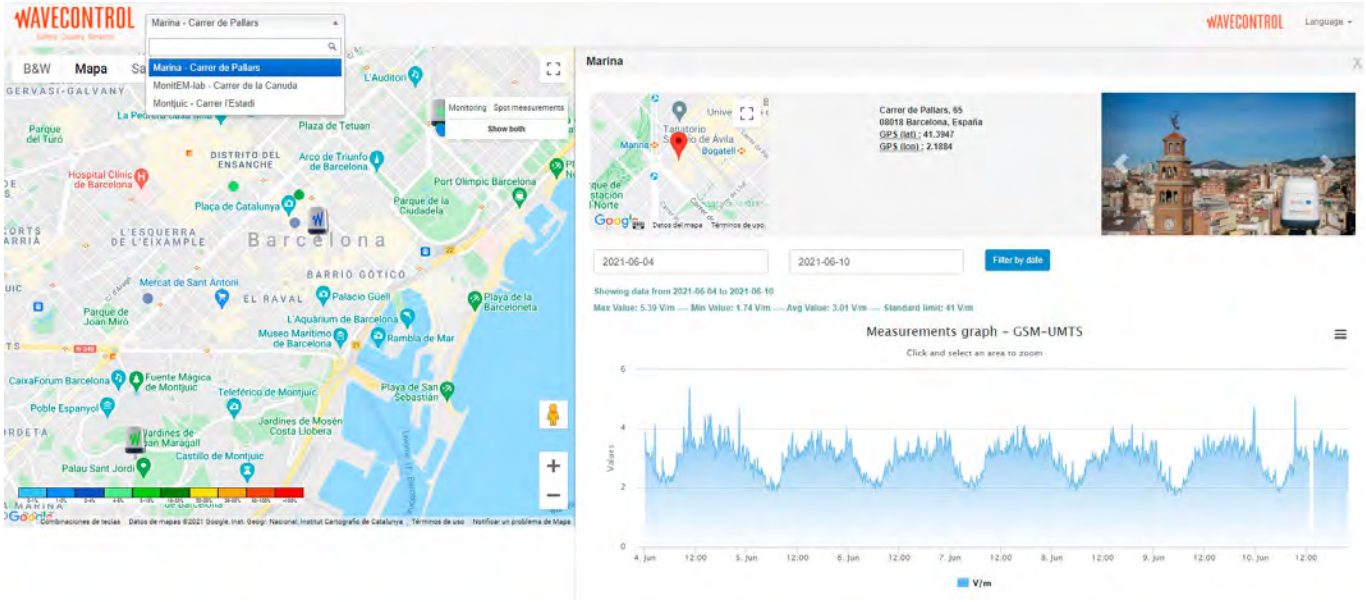
Management of Units

Unlimited number of MonitEM and MonitEM-Lab units can be remotely configured and managed through the Control Centre. Data from the MonitEM, MonitEM-Lab and the portable SMP3 devices can be sent to the Control Centre easily. Intelligent and global search for units, sites, users, reports, and incidents.

Visualization Tools

The Control Centre has excellent visualization of the measurement data and battery information. The user has a live view of their measurement from the available units. The graphs of individual units can be viewed as well as the graphs of all units simultaneously. Indication of the weather history in battery graphs.

Control Centre Features



Public Page Display

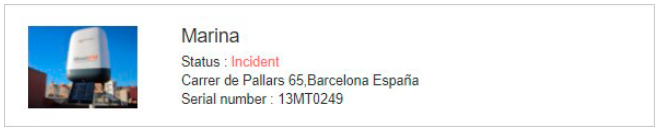
The Control Centre provides a public page, where the public can have access to the EMF levels in the areas near them and see how these EMF levels compare to the standard limits.

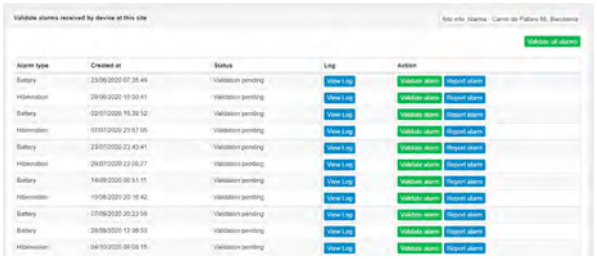
Open API for customized pages

Availability of open API for easy creation and customization of pages effectively with an external service.

Data Management

Access to all the measurement historical data and device logs saved on the Control Centre. User can filter the data by dates and manage measurement results and graphs of all units on the Control Centre... Easy configuration of parameters such as device and site settings, alarm levels, communication parameters and Control Centre settings.





Automatic Reports and Notification

Automatic reports (in different formats) sent weekly or monthly via email. Manage notification contacts for reports and incidences for any measurement site. Easy creation and customization of user-friendly report templates. Reports can also be obtained at any time upon request.

Alarms and Events

The Control Centre provides a quick way to check whether any alarm has been raised at any of the registered measurement sites, which are sent via email to the administrator of each site for validation.

MapEM

RF Electromagnetic Field Level Maps

The MapEM system consists of a MonitEM monitoring device and a control software. It allows the creation of a comprehensive map of electromagnetic field levels covering a large area, such as a city.

The monitoring device can be easily installed on a vehicle to measure the electric field strength (V/m) as it drives around the streets, providing a clear view of the RF field levels throughout the area.

RF EXPOSURE DRIVE TEST

Comprehensive assessment of electromagnetic radiation at street level in large areas (cities).

Detection of sensitive points with high radiation to take corrective measures.

Year-on-year comparison to assess developments in electromagnetic fields depending on changes to infraestructure or technology.

Visual communication tool to allow simple presentation of the public's exposure to electromagnetic fields

ITU-T K.113

Compliance with ITU-T K.113

How does it work?

MONITEM ON VEHICLE

ELECTROMAGNETIC MAPPING SOFTWARE

Operating characteristics

Data transfer	External USB connector
Memory	Micro SD (1 GByte) + Eeprom
Power supply	12 Volt DC connected to vehicle and internal battery
Software	Compatible with Windows O.S.
Results	Display software / database

Mechanical properties

Dimensions	70 x 40 x 8 cm
Weight	8 Kg
Environmental protection	IP66
Installation kit	Magnetic base Easily installation and removal from vehicle roof

Measurement equipment

Sensor type	Isotropic, RMS
Frequency range	Depending on field probe (see next page)
Probe system	Interchangeable, 100 kHz to 60 GHz
Sampling frequency	1 measurement per second
Calibration	ISO 17025 accredited
Operating temperature	- 25 ºC to + 60 ºC

Results

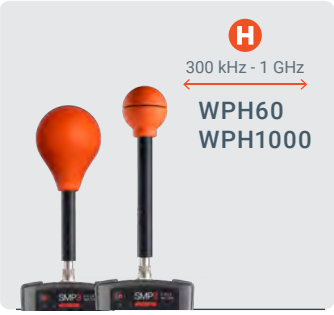
Display software	Display interface that superimposes measurement levels on the map
Coding	Editable scale: by colour and values
Data downloading	Georeferenced data in Access, KML, or CSV format
Exportation	Level map images in JPG format

MapEM

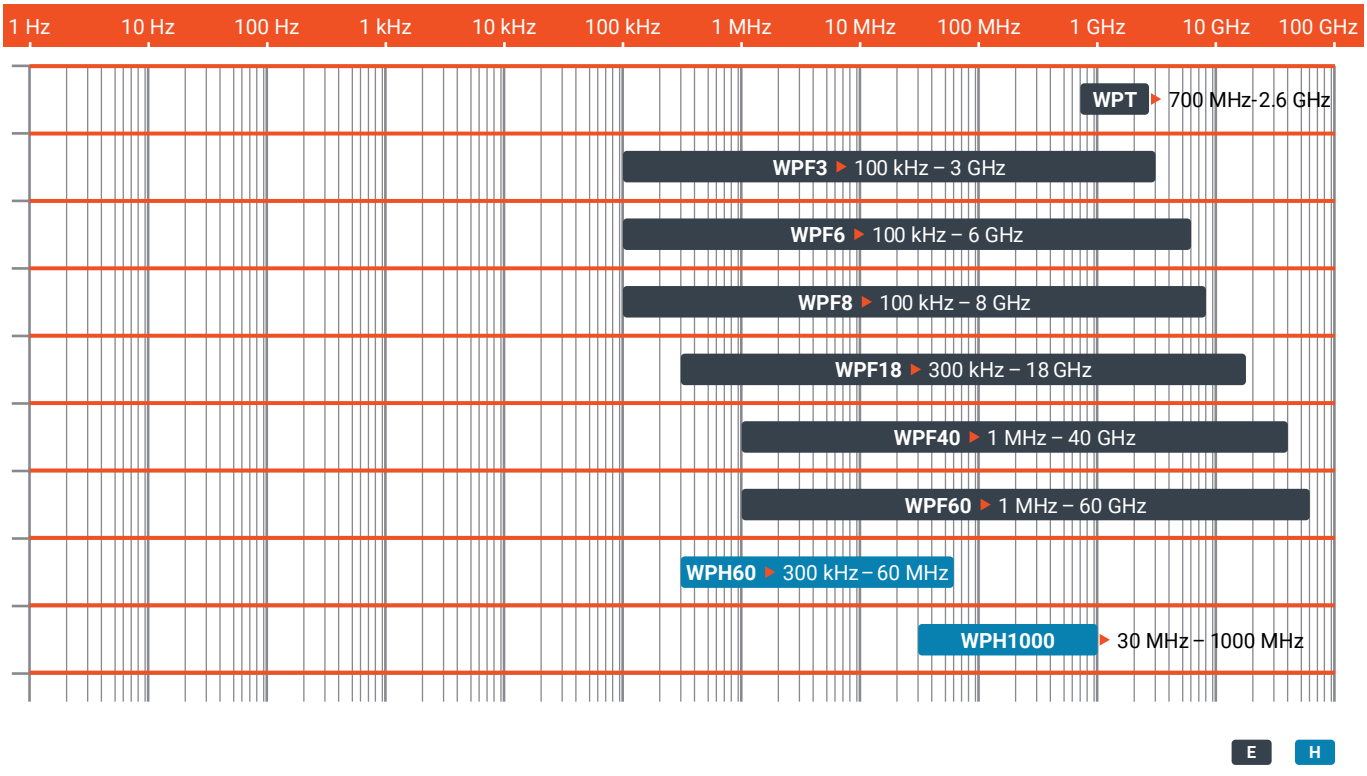
RF Electromagnetic Field Level Maps. Compatible Field Probes

Wavecontrol provides a full range of E-Field and H-Field probes covering different frequency ranges starting at 100 kHz and up to 60 GHz.

Probes are plug and play and come with an individual ISO 17025 accredited calibration. All sensors are isotropic, RMS and highly accurate.



Frequency range of compatible field probes

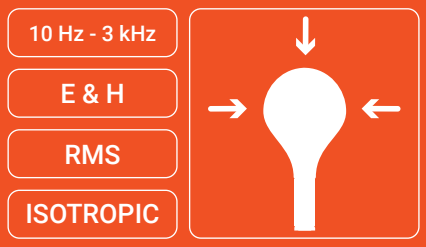


MapEM_EN_2012_v1.3

Field probes

WP50 Probe
10 Hz - 3 kHz

- Electric & Magnetic field measurement
- Isotropic & True RMS measurement
- Probe weighted dependant on the selected limit
- Measurements in accordance with IEC 62110 and IEC 61786



POWER GRID
Measurement of the exposure to EM fields at transformer stations and high-voltage lines.

RAILWAY
Measurement of EM fields in trains and in the railway environment with respect to human exposure.

INDUSTRY
Assessment of workers' exposure to EM fields in all kind of manufacturing facilities.

Technical Specifications

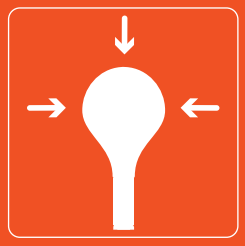
Frequency range	10 Hz - 3 kHz
Sensor type	Isotropic, RMS Combined measurement of electric and magnetic field
Type of frequency response	1) Weighted (Results displayed in % of the selected standard) 2) Flat response (Results in V/m, µT, etc.)
Exposure limits (probe in weighted mode)	Public and occupational ICNIRP 2010 Customizable to other standards
Measurement range Weighted mode (ICNIRP 2010) → Field Strength Mode →	 E field: 0.025 % - 200 % of limit (RMS value) H field: 0.025 % - 200 % of limit (RMS value) E field: 2.5 V/m - 20000 V/m (RMS) H field: 0.05 µT - 2000 µT (RMS)
Dynamic range	92 db
Sensitivity	Weighted (E, H) 0.025 % Flat response E field 2.5 V/m Flat response H field 0.05 µT
Frequency response	± 20 % (typ.) of standard (25 Hz - 1 kHz) ± 25 % (max.)
Linearity	± 1 % (typ.) (1 % - 100 % of standard) ± 2 % (max.)
Isotropic response	± 5 % (typ.)
Calibration	ISO 17025 Accredited Calibration (ILAC)
Calibration period	24 months (recommended)
Operating temperature	- 15 ºC to 50 ºC
Dimensions	270 mm x 115 mm Ø
Field sensor area	100 cm^2
Weight	210 g

WP50_EN_1905_v2.1

WP400 Probe
1 Hz - 400 kHz

- Electric & Magnetic field measurement
- Isotropic & True RMS measurement
- Spectrum analysis probe
- Measurements in accordance with International Standards
- 100 cm² sensor

1 Hz - 400 kHz
E & H
RMS
ISOTROPIC



POWER GRID
Measurement of the exposure to EM fields at transformer stations and high-voltage lines.

RAILWAY
Measurement of EM fields in trains and in the railway environment with respect to human exposure.

INDUSTRY
Assessment of workers' exposure to EM fields in all kind of manufacturing facilities.

Technical Specifications

	Electric Field	Magnetic Field
Sensor type	Isotropic patented electrodes	
Frequency range	1 Hz – 400 kHz	1 Hz – 400 kHz
Field Strength Mode		
Measurement range	1 V/m to 100 kV/m	50 nT - 30 mT @ 50 Hz 50 nT - 10 mT (100 Hz - 10 kHz) · Upper range increases linearly with decreasing frequency below 100 Hz. · Upper range decreases linearly with increasing frequency above 10 kHz.
Graphical display	RMS, Axis Values, AVG, MAX, MIN, PEAK, RMS time graph	
Peak value	Digital realtime	Digital realtime
Resolution	< 0.4 mV/m above 8 Hz	< 0.1 nT (at 50 Hz) and < 0.05 nT above 100 Hz
Noise level	< 1 V/m (10 Hz - 400 kHz)	< 50 nT (10 Hz – 400 kHz)
Weigthed Peak Method mode		
Measurement range	200 % (min)	200 % (min)
Graphical display	PEAK (%), AXIS VALUES (%), AVG (%), MAX (%), MIN (%), RMS (%), Time graph	
Standards/Limits	EU Directive 2013/35/EU, IEEE, ICNIRP, BGV B11. Easy software update to future modifications and to other limits.	

WP400_EN_2005_v2.3

WP400 Probe
1 Hz - 400 kHz

Technical Specifications

	Electric Field	Magnetic Field
FFT Mode		
Measurement range	4 mV/m – 100 kV/m	0.5 nT - 30 mT @ 50 Hz 0.5 nT - 10 mT (100 Hz - 10 kHz) · Upper range increases linearly with decreasing frequency below 100 Hz. · Upper range decreases linearly with increasing frequency above 10 kHz.
Graphical display	Frequency analysis, total field and axis	
SPAN (Resolution)	400 Hz (1 Hz) - 4 kHz (10 Hz) - 40 kHz (100 Hz) - 400 kHz (1 kHz)	
Noise level	< 4 mV/m	< 0.5 nT
FFT	1024 point FFT	
General specifications		
Isotropy	± 5 %	± 4 %
Typical Uncertainty (1)	0.67 dB	0.60 dB
Temperature deviation [typ. At 50/60 Hz] (referred to 25 °C, 50 % relative humidity)	- 0.005 dB/°C (- 15 °C to 40 °C)	- 0.003 dB/°C (- 15 °C to 25 °C) + 0.003 dB/°C (25 °C to 40 °C)
Damage level	> 200 kV/m	> 2000 mT up to 60 Hz Damage level decreases linearly with increasing frequency above 60 Hz
Linearity	± 1 % (typ.) ± 2 % (max.)	
Weight	220 g	
Probe size	280 mm x 128 mm Ø	

(1) Total, counting isotropy, temperature deviation, resolution, frequency response, linearity, repetability.

WP400-3 Probe
1 Hz - 400 kHz

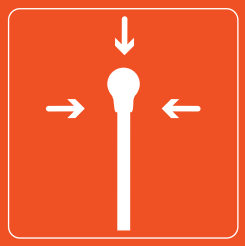
- Electric & Magnetic field measurement
- Isotropic & True RMS measurement
- Spectrum analysis probe
- Measurements in accordance with International Standards

1 Hz - 400 kHz

E & H

RMS

ISOTROPIC



IEC/EN 62233
Household appliances and similar apparatus: Measurement methods for electromagnetic fields with regard to human exposure.

IEC/EN 62822
Electric welding equipment: Assessment of restrictions related to human exposure to electromagnetic fields.

IEC/EN 62311
Assessment of electronic and electrical equipment for which no dedicated product- or product family standard regarding human exposure to electromagnetic fields applies.

Technical Specifications

	Electric Field	Magnetic Field
Sensor type	Isotropic electrode	Isotropic 3 cm² coils
Frequency range	1 Hz – 400 kHz	1 Hz – 400 kHz
Field Strength Mode		
Measurement range	10 V/m to 400 kV/m	200 nT - 50 mT (100 Hz - 10 kHz) · Upper range increases linearly with decreasing frequency below 100 Hz. · Upper range decreases linearly with increasing frequency above 10 kHz.
Graphical display	RMS, Axis Values, AVG, MAX, MIN, PEAK, RMS time graph	
Peak value	Digital realtime	Digital realtime
Resolution	< 0.4 mV/m above 8 Hz	< 0.3 nT (at 50 Hz) and < 0.15 nT above 100 Hz
Noise level	< 10 V/m (10 Hz - 400 kHz)	< 200 nT (10 Hz - 400 kHz)
Typical Uncertainty (10 Hz - 100 kHz) (1)	0.67 dB	0.60 dB
Weigthed Peak Method mode		
Measurement range	200 % (min)	200 % (min)
Graphical display	PEAK (%), AXIS VALUES (%), AVG (%), MAX (%), MIN (%), RMS (%), Time graph	
Standards/Limits	Standards / Limits EU Directive 2013/35/EU, FCC/IEEE, ICNIRP 1998 workers, ICNIRP 2010 workers, BGV B11 Easy software update to future modifications and to other limits.	
Typical Uncertainty (10 Hz - 100 kHz) (1)	0.67 dB	0.60 dB

(1) Total, counting isotropy, temperature deviation, resolution, frequency response, linearity, repetability.

WP400-3_EN_1808_v1.1

WP400-3 Probe
1 Hz - 400 kHz

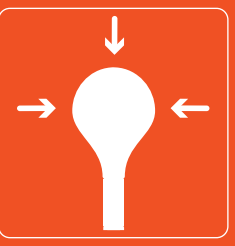
Technical Specifications

	Electric Field	Magnetic Field
FFT Mode		
Measurement range	40 mV/m to 400 kV/m	2 nT to 50 mT (100 Hz - 10 kHz) · Upper range increases linearly with decreasing frequency below 100 Hz. · Upper range decreases linearly with increasing frequency above 10 kHz.
Graphical display	Frequency analysis, total field and axis	
SPAN (Resolution)	400 Hz (1 Hz) - 4 kHz (10 Hz) - 40 kHz (100 Hz) - 400 kHz (1 kHz)	
Noise level	< 40 mV/m	< 1.8 nT
FFT	1024 point FFT	
General specifications		
Isotropy	± 5 %	± 4 %
Temperature deviation [typ. at 50/60 Hz] (referred to 25 °C, 50 % relative humidity)	- 0.005 dB/°C (- 15 °C to 40 °C)	- 0.003 dB/°C (- 15 °C to 25 °C) + 0.003 dB/°C (25 °C to 40 °C)
Damage level	> 600 kV/m	> 5000 mT up to 60 Hz Damage level decreases linearly with increasing frequency above 60 Hz
Linearity	± 1 % (typ.) ± 2 % (max.)	
Weight	125 g	
Probe size	275 x 33 mm Ø	

WP400c Probe
1 Hz - 400 kHz

- Electric & Magnetic field measurement
- Isotropic & True RMS measurement
- Spectrum analysis probe
- Measurements in accordance with International Standards
- 100 cm² sensor

1 Hz - 400 kHz
E & H
RMS
ISOTROPIC



POWER GRID
Measurement of the exposure to EM fields at transformer stations and high-voltage lines.

RAILWAY
Measurement of EM fields in trains and in the railway environment with respect to human exposure.

INDUSTRY
Assessment of workers' exposure to EM fields in all kind of manufacturing facilities.

Technical Specifications

	Electric Field	Magnetic Field
Sensor type	Isotropic patented electrodes	
Frequency range	1 Hz – 400 kHz	1 Hz – 400 kHz
Field Strength Mode		
Measurement range	1 V/m to 100 kV/m	50 nT - 30 mT @ 50 Hz 50 nT - 1.5 mT (820 Hz - 40 kHz) · Upper range increases linearly with decreasing frequency below 820 Hz. · Upper range decreases linearly with increasing frequency above 40 kHz.
Graphical display	RMS, Axis Values, AVG, MAX, MIN, PEAK, RMS time graph	
Peak value	digital realtime	digital realtime
Resolution	< 0.4 mV/m above 8 Hz	< 0.1 nT (at 50 Hz) and < 0.05 nT above 100 Hz
Noise level	< 1 V/m (10 Hz - 400 kHz)	< 50 nT (10 Hz – 400 kHz)
Weigthed Peak Method mode		
Measurement range	200 % (min)	200 % (min)
Graphical display	PEAK (%), AXIS VALUES (%), AVG (%), MAX (%), MIN (%), RMS (%), Time graph	
Standards/Limits	EU Directive 2013/35/EU, IEEE (except Restricted and Limb), ICNIRP, BGV B11, GB 8702-2014. Easy software update to future modifications and to other limits.	

WP400c_EN_2106_v2.3

WP400c Probe
1 Hz - 400 kHz

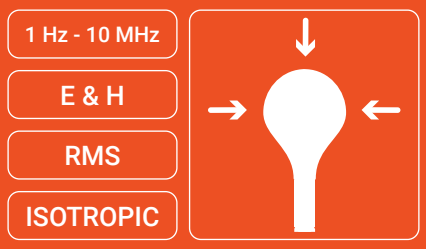
Technical Specifications

	Electric Field	Magnetic Field
FFT Mode		
Measurement range	4 mV/m – 100 kV/m	0.5 nT - 30 mT @ 50 Hz 0.5 nT - 1.5 mT (820 Hz - 40 kHz) · Upper range increases linearly with decreasing frequency below 820 Hz. · Upper range decreases linearly with increasing frequency above 40 kHz.
Graphical display	Frequency analysis, total field and axis	
SPAN (Resolution)	400 Hz (1 Hz) - 4 kHz (10 Hz) - 40 kHz (100 Hz) - 400 kHz (1 kHz)	
Noise level	< 4 mV/m	< 0.5 nT
FFT	1024 point FFT	
General specifications		
Isotropy	± 5 %	± 4 %
Typical Uncertainty (1)	0.67 dB	0.60 dB
Temperature deviation [typ. at 50/60 Hz] (referred to 25 °C, 50 % relative humidity)	- 0.005 dB/°C (- 15 °C to 40 °C)	- 0.003 dB/°C (- 15 °C to 25 °C) + 0.003 dB/°C (25 °C to 40 °C)
Damage level	> 200 kV/m	> 2000 mT up to 60 Hz Damage level decreases linearly with increasing frequency above 60 Hz
Linearity	± 1 % (typ.) ± 2 % (max.)	
Weight	220 g	
Probe size	280 mm x 128 mm Ø	

(1) Total, counting isotropy, temperature deviation, resolution, frequency response, linearity, repetability.

WP10M Probe
1 Hz - 10 MHz

- Electric & Magnetic field measurement
- Isotropic & True RMS measurement
- Spectrum analysis probe
- Measurements in accordance with International Standards
- 100 cm² sensor



POWER GRID
Measurement of the exposure to EM fields at transformer stations and high-voltage lines.

RAILWAY
Measurement of EM fields in trains and in the railway environment with respect to human exposure.

INDUSTRY
Assessment of workers' exposure to EM fields in all kind of manufacturing facilities.

Technical Specifications

	Electric Field	Magnetic Field
Sensor type	Sensor type Isotropic patented coil (100cm2) and dipole arrangement	
Frequency range	1 Hz – 400 kHz	1 Hz – 10 MHz
Field Strength Mode		
Measurement range	2 V/m - 100 kV/m up to 160 kHz 2 V/m - 47 kV/m 160 kHz -10MHz	100 nT - 47 mT @ 50 Hz 100 nT - 4,7 mT (500 Hz – 10 MHz) · Upper range increases linearly with decreasing frequency below 500 Hz.
Graphical display	RMS, Axis Values, AVG, MAX, MIN, PEAK, RMS time graph	
Peak value	digital realtime	digital realtime
Noise level (10Hz – 10MHz)	< 2 V/m	< 100 nT
Weigthed Peak Method mode		
Measurement range	200 % (min)	200 % (min)
Graphical display	PEAK (%), AXIS VALUES (%), AVG (%), MAX (%), MIN (%), RMS (%), Time graph	
Standards/Limits	EU Directive 2013/35/EU, IEEE, ICNIRP, BGV B11. Easy software update to future modifications and to other limits.	

WP10M_EN_2005_v2.3

WP10M Probe
1 Hz - 10 MHz

Technical Specifications

	Electric Field	Magnetic Field
FFT Mode		
Measurement range	2 mV/m – 100 kV/m	1 nT - 47 mT @ 50 Hz 1 nT – 4,7 mT (500 Hz – 10 MHz) · Upper range increases linearly with decreasing frequency below 500 Hz.
Graphical display	Frequency analysis, total field and axis	
SPAN (Resolution)	10 kHz (25 Hz) - 100 kHz (250 Hz) - 1 MHz (2,5 kHz) - 10 MHz (25 kHz) With 400kHz Low pass filter) 400 Hz (1 Hz) - 4 kHz (10 Hz) - 40 kHz (100 Hz) - 400 kHz (1 kHz)	
Noise level	< 2 mV/m	< 1 nT
Frequency Resolution: 1024 point FFT (standalone with SMP2 / SMP3 meter)	1024 point FFT	
General specifications		
Isotropy	± 5 %	± 4 %
Typical Uncertainty (1)	0.67 dB	0.60 dB
Temperature deviation [typ. at 60 Hz] (referred to 25 °C, 50 % relative humidity)	- 0.005 dB/°C (- 15 °C to 40 °C)	- 0.003 dB/°C (- 15 °C to 25 °C) + 0.003 dB/°C (25 °C to 40 °C)
Damage level with CW field (level increase as duty cylce decrease)	200 kV/m up to 80 kHz 47 kV/m 80 kHz to 10 MHz	100 mT @ 50 Hz 8 mT (600 Hz – 1 kHz) 2 mT (4 kHz – 200 kHz) · Damage level increases linearly with decreasing frequency below 600 Hz · Damage level decreases linearly between 600 Hz and 200 kHz · Damage level decreases linearly with increasing frequency above 200 kHz
Linearity	± 1 % (typ.) ± 2 % (max.)	
Weight	425 g / 0.94 lbs	
Probe size	280 mm x 128 mm Ø / 11.02 in x 5.04 in Ø	

(*) The frequency response can be corrected with the SMP3 by using the correction factors stored in the probe (ISO 17025 accredited calibration).

WPF3 Probe
100 kHz - 3 GHz

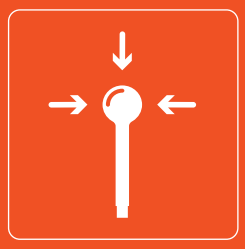
- Electric field measurement
- Isotropic & True RMS measurement
- High sensitivity from 0.2 V/m
- Excellent attenuation at 50/60 Hz
- Measurements in accordance with International Standards

100 kHz - 3 GHz

E

RMS

ISOTROPIC



TELECOMMUNICATIONS
Certification and audit of telecommunication services (GSM, 3G, LTE, TDT, FM, WiFi, etc.).

INDUSTRY
Assessment of industrial processes for worker's exposure protection.

DEFENCE
Assessment of military sites and personnel exposure protection.

LABS/R&D
RF exposure protection of R&D and labs personnel.

Technical Specifications

	WPF3	WPF3-HP High Power version
Frequency range	100 kHz - 3 GHz	
Sensor type	Isotropic RMS diode technology	
Type of frequency response	Flat	
Measurement range	0.2 - 130 V/m (CW) 0.2 - 20 V/m (RMS)	0.2 – 1000 V/m (CW) 0.2 - 20 V/m (RMS)
Dynamic range	52 dB	74 dB
Sensitivity	0.2 V/m	
Resolution	0.02 V/m (until 7.5 V/m) < 2% (starting from 7.5 V/m)	
Frequency response (*)	± 1.5 dB (250 kHz – 3 GHz) - 3 dB (100 kHz)	
Linearity	± 0.5 dB (0.5 V/m - 100 V/m)	
Isotropic deviation	± 1.2 dB (@ 2 GHz)	
Calibration	ISO 17025 Accredited Calibration (ILAC)	
Calibration period	24 months (recommended)	
Temperature range	- 20 °C to 50 °C	
Temperature response	+ 0.1 / - 1 dB (related to 20 °C)	
Dimensions	28.4 cm x 6 cm Ø	
Weight	95 g	
Attenuation at 50/60 Hz	> 80 dB	

(*) The frequency response can be corrected with the SMP3 by using the correction factors stored in the probe (ISO 17025 accredited calibration).

WPF3_EN_1806_v1.1

WPF6 Probe
100 kHz - 6 GHz

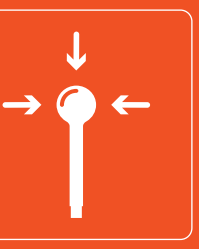
- **High sensitivity from 0.2 V/m**
- **Isotropic & True RMS measurement**
- **Excellent attenuation at 50/60 Hz**
- **Measurements in accordance with International Standards**

100 kHz - 6 GHz

E

RMS

ISOTROPIC



TELECOMMUNICATIONS
Certification and audit of telecommunication services (GSM, 3G, LTE, TDT, FM, WiFi, etc.).

INDUSTRY
Assessment of industrial processes for worker's exposure protection.

DEFENCE
Assessment of military sites and personnel exposure protection.

LABS/R&D
RF exposure protection of R&D and labs personnel.

Technical Specifications

	WPF6	WPF6-HP High Power version
Frequency range	100 kHz – 6 GHz	
Sensor type	Isotropic RMS diode technology	
Type of frequency response	Flat	
Measurement range	0.2 – 130 V/m (CW) 0.2 – 20 V/m (RMS)	0.2 – 1000 V/m (CW) 0.2 – 20 V/m (RMS)
Dynamic range	56 dB	73 dB
Sensitivity	0.2 V/m	
Resolution	0.02 V/m (until 7.5 V/m) 0.1 V/m (from 7.5 V/m to 130 V/m)	
Frequency response (*)	better than -3 dB @ 100 kHz ±1.5 dB (250 kHz – 5.5 GHz) better than -2 dB (5.5 – 6 GHz)	
Linearity	± 0.5 dB (0.5 V/m – 100 V/m)	
Isotropic deviation	±0.3 dB (1 GHz) ±1 dB (6 GHz)	
Calibration	ISO 17025 Accredited Calibration (ILAC)	
Calibration period	24 months (recommended)	
Temperature range	- 20 °C to 50 °C	
Temperature response	+ 0.1 / - 1 dB (related to 20 °C)	
Dimensions	28.4 cm x 6 cm Ø	
Weight	95 g	
Attenuation at 50/60 Hz	> 80 dB	

(*) The frequency response can be corrected with the SMP3 by using the correction factors stored in the probe (ISO 17025 accredited calibration).

WPF6_EN_2009_v2.2

WPF8 Probe
100 kHz - 8 GHz

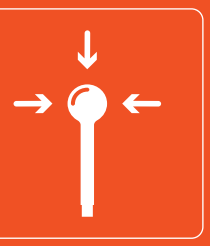
- **High sensitivity from 0.2 V/m**
- **Isotropic & True RMS measurement**
- **Excellent attenuation at 50/60 Hz**
- **Measurements in accordance with International Standards**

100 kHz - 8 GHz

E

RMS

ISOTROPIC



TELECOMMUNICATIONS
Certification and audit of telecommunication services (GSM, 3G, LTE, TDT, FM, WiFi, etc.).

INDUSTRY
Assessment of industrial processes for worker's exposure protection.

DEFENCE
Assessment of military sites and personnel exposure protection.

LABS/R&D
RF exposure protection of R&D and labs personnel.

Technical Specifications

	WPF8	WPF8-HP High Power version
Frequency range	100 kHz – 8 GHz	
Sensor type	Isotropic RMS diode technology	
Type of frequency response	Flat	
Measurement range	0.2 – 130 V/m (CW) 0.2 – 20 V/m (RMS)	0.2 – 1000 V/m (CW) 0.2 – 20 V/m (RMS)
Dynamic range	52 dB	70 dB
Sensitivity	0.2 V/m	
Resolution	0.02 V/m (until 7.5 V/m) 0.1 V/m (from 7.5 V/m to 130 V/m)	
Frequency response (*)	± 1.5 dB (250 kHz – 6 GHz) + 0.5 / - 2.5 dB (6.5 GHz - 8 GHz) - 3 dB (100 kHz)	
Linearity	± 0.5 dB (0.5 V/m – 100 V/m)	
Isotropic deviation	± 1 dB (@ 2 GHz)	
Calibration	ISO 17025 Accredited Calibration (ILAC)	
Calibration period	24 months (recommended)	
Temperature range	- 20 ºC to 50 ºC	
Temperature response	+ 0.1 / - 1 dB (related to 20 ºC)	
Dimensions	28.4 cm x 6 cm Ø	
Weight	95 g	
Attenuation at 50/60 Hz	> 80 dB	

(*) The frequency response can be corrected with the SMP3 by using the correction factors stored in the probe (ISO 17025 accredited calibration).

WPF8_EN_1806_v1.1

WPF18 Probe
300 kHz – 18 GHz

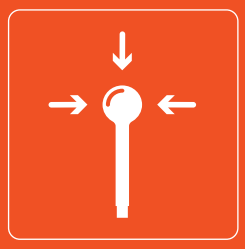
- Electric field measurement
- Isotropic & True RMS measurement
- High sensitivity from 0.5 V/m
- Excellent attenuation at 50/60 Hz
- Measurements in accordance with International Standards

300 kHz – 18 GHz

E

RMS

ISOTROPIC



TELECOMMUNICATIONS
Certification and audit of telecommunication services (GSM, 3G, LTE, TDT, FM, WiFi, etc.).

INDUSTRY
Assessment of industrial processes for worker's exposure protection.

DEFENCE
Assessment of military sites and personnel exposure protection.

LABS/R&D
RF exposure protection of R&D and labs personnel.

Technical Specifications

	WPF18	WPF18-HP High Power version
Frequency range	300 kHz – 18 GHz	
Sensor type	Isotropic RMS diode technology	
Type of frequency response	Flat	
Measurement range	0.5 – 250 V/m (CW) 0.5 – 30 V/m (RMS)	0.5 – 1000 V/m (CW) 0.5 – 30 V/m (RMS)
Dynamic range	54 dB	66 dB
Sensitivity	0.5 V/m	
Resolution	0.1 V/m (from 10 V/m to 250 V/m)	
Frequency response (*)	±2 dB (1 MHz – 5 GHz) +0 / -6 dB (5 GHz – 18 GHz)	
Linearity	±0.5 dB (1 V/m – 150 V/m)	
Isotropic deviation	±1.2 dB (up to 10 GHz) ±3 dB (10 GHz – 18 GHz)	
Calibration	ISO 17025 Accredited Calibration (ILAC)	
Calibration period	24 months (recommended)	
Temperature range	-20 ºC to 50 ºC	
Temperature response	+0.1 / -1 dB (related to 20 ºC)	
Dimensions	28.4 cm x 6 cm Ø	
Weight	95 g	
Attenuation at 50/60 Hz	> 60 dB	

(*) The frequency response can be corrected with the SMP3 by using the correction factors stored in the probe (ISO 17025 accredited calibration).

WPF18_EN_1811_v1.2

WPF40 Probe
1 MHz – 40 GHz

- Electric field measurement
- Isotropic & True RMS measurement
- High dynamic range of 60 dB
- Excellent attenuation at 50/60 Hz
- Measurements in accordance with International Standards

1 MHz - 40 GHz

E

RMS

ISOTROPIC

TELECOMMUNICATIONS
Certification and audit of telecommunication services (GSM, 3G, LTE, TDT, FM, WiFi, etc.).

INDUSTRY
Assessment of industrial processes for worker's exposure protection.

DEFENCE
Assessment of military sites and personnel exposure protection.

LABS/R&D
RF exposure protection of R&D and labs personnel.

Technical Specifications

Frequency range	1 MHz - 40 GHz
Sensor type	Isotropic RMS diode technology
Type of frequency response	Flat
Measurement range	1 – 1000 V/m (CW) 1 – 55 V/m (RMS)
Dynamic range	60 dB
Sensitivity	1 V/m
Frequency response (*)	± 2 dB (2 MHz – 17 GHz) ± 3 dB (17 GHz – 40 GHz) - 3 dB @ 1 MHz
Linearity	± 2 dB (1 – 2 V/m) ± 1 dB (2 – 250 V/m)
Isotropic deviation	± 1 dB (< 12 GHz) ± 2 dB (12 GHz to 40 GHz)
Damage level (CW)	1200 V/m
Calibration	ISO 17025 Accredited Calibration (ILAC)
Calibration period	24 months (recommended)
Temperature range	- 20 ºC to 50 ºC
Temperature response	+ 0.1 / - 1 dB (related to 20 ºC)
Dimensions	28.4 cm x 6 cm Ø
Weight	95 g
Attenuation at 50/60 Hz	> 40 dB

(*) The frequency response can be corrected with the SMP3 by using the correction factors stored in the probe (ISO 17025 accredited calibration).

WPF40_EN_1703_v1.1

WPF60 Probe
1 MHz – 60 GHz

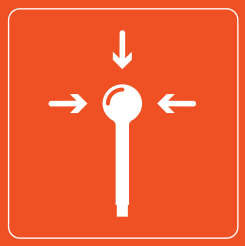
- Electric field measurement
- Isotropic & True RMS measurement
- High dynamic range of 60 dB
- Excellent attenuation at 50/60 Hz
- Measurements in accordance with International Standards

1 MHz - 60 GHz

E

RMS

ISOTROPIC



TELECOMMUNICATIONS
Certification and audit of telecommunication services (GSM, 3G, LTE, TDT, FM, WiFi, etc.).

INDUSTRY
Assessment of industrial processes for worker's exposure protection.

DEFENCE
Assessment of military sites and personnel exposure protection.

LABS/R&D
RF exposure protection of R&D and labs personnel.

Technical Specifications

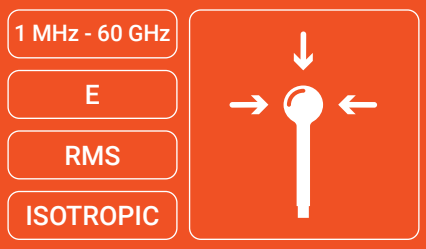
Frequency range	1 MHz - 60 GHz
Sensor type	Isotropic RMS diode technology
Type of frequency response	Flat
Measurement range	1 – 1000 V/m (CW) 1 – 55 V/m (RMS)
Dynamic range	60 dB
Sensitivity	1 V/m
Frequency response (*)	± 2 dB (2 MHz – 17 GHz) ± 3 dB (17 GHz – 40 GHz) ± 6 dB (40 GHz – 60 GHz) - 3 dB @ 1 MHz
Linearity	± 2 dB (1 – 2 V/m) ± 1 dB (2 – 250 V/m)
Isotropic deviation	± 1.1 dB (< 12 GHz) ± 2.2 dB typ. (12 GHz to 60 GHz)
Damage level (CW)	1200 V/m
Calibration	ISO 17025 Accredited Calibration (ILAC)
Calibration period	24 months (recommended)
Temperature range	- 20 °C to 50 °C
Temperature response	+ 0.1 / - 1 dB (related to 20 °C)
Dimensions	28.4 cm x 6 cm Ø
Weight	95 g
Attenuation at 50/60 Hz	> 40 dB

(*) The frequency response can be corrected with the SMP3 by using the correction factors stored in the probe (ISO 17025 accredited calibration).

WPF60_EN_2004_v1.0

WPF60S Probe
1 MHz – 60 GHz

- **Shaped**
- **Isotropic & True RMS measurement**
- **Excellent attenuation at 50/60 Hz**
- **Measurements in accordance with International Standards**



TELECOMMUNICATIONS
Certification and audit of telecommunication services (GSM, 3G, LTE, TDT, FM, WiFi, etc.).

INDUSTRY
Assessment of industrial processes for worker's exposure protection.

DEFENCE
Assessment of military sites and personnel exposure protection.

LABS/R&D
RF exposure protection of R&D and labs personnel.

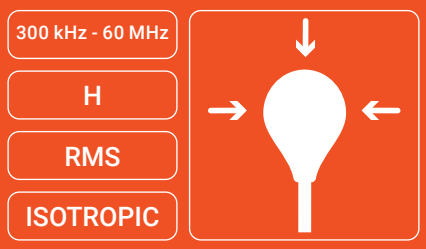
Technical Specifications

Frequency range	1 MHz - 60 GHz	
Sensor type	Isotropic RMS diode technology	
Type of frequency response	Shaped (FCC or ICNIRP 1998)	
Measurement range **Power density**	0.1 - 800 % (CW) 0.1% - 35% (RMS)	
Dynamic range	39 dB	
Sensitivity	0.1 %	
Frequency response (*)	ICNIRP 1998 1 MHz - 35 GHz: ±4 dB 35 GHz - 60 GHz: ±7 dB	FCC 1 MHz - 35 GHz: ±3.5 dB 35 GHz - 60 GHz: ±7 dB
Linearity	± 2 dB (1 – 2 V/m) ± 1 dB (2 – 250 V/m)	
Isotropic deviation	± 1.5 dB (< 16 GHz) ± 3 dB (16 GHz – 30 GHz) ± 5 dB (30 – 60 GHz)	
Damage level (CW)	2500 %	
Calibration	ISO 17025 Accredited Calibration (ILAC)	
Calibration period	24 months (recommended)	
Temperature range	- 20 ºC to 50 ºC	
Temperature response	+ 0.1 / - 1 dB (related to 20 ºC)	
Dimensions	28.4 cm x 6 cm Ø	
Weight	95 g	
Attenuation at 50/60 Hz	> 40 dB	

(*) The frequency response can be corrected with the SMP3 by using the correction factors stored in the probe (ISO 17025 accredited calibration).

WPH60 Probe
300 kHz - 60 MHz

- Magnetic field measurement
- Isotropic & True RMS measurement
- High sensitivity from 0.018 A/m
- Measurements in accordance with International Standards



TELECOMMUNICATIONS
Certification and audit of telecommunication services (GSM, 3G, LTE, TDT, FM, WiFi, etc.).

INDUSTRY
Assessment of industrial processes for worker's exposure protection.

DEFENCE
Assessment of military sites and personnel exposure protection.

LABS/R&D
RF exposure protection of R&D and labs personnel.

Technical Specifications

Frequency range	300 kHz - 60 MHz
Sensor type	Isotropic RMS diode technology
Type of frequency response	Flat
Measurement range	0.018 - 20 A/m (CW) 0.018 - 1 A/m (RMS)
Damage Level (CW)	35 A/m (350 A/m Peak 1 µs, period 100 µs)
Dynamic range	60 dB
Sensitivity	0.018 A/m
Frequency response (*)	± 0.5 dB (500 kHz - 30 MHz) - 3 / + 0.5 (300 kHz - 60 MHz)
Linearity	± 1 dB (0.04 to 4 A/m)
Axial isotropy	± 1 dB
Calibration period	24 months (recommended)
Temperature range	- 10 ºC to 50 ºC
Dimensions	270 mm x 90 mm Ø
Weight	170 g

(*) The frequency response can be corrected with the SMP3 by using the correction factors stored in the probe (ISO 17025 accredited calibration).

WPH60_EN_1804_v1.1

WPH1000 Probe
30 MHz - 1000 MHz

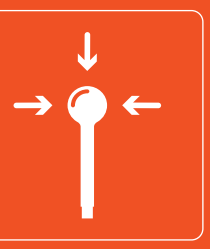
- Magnetic field measurement
- Isotropic & True RMS measurement
- High sensitivity from 0.018 A/m
- Measurements in accordance with International Standards

30 MHz - 1000 MHz

H

RMS

ISOTROPIC



TELECOMMUNICATIONS
Certification and audit of telecommunication services (GSM, 3G, LTE, TDT, FM, WiFi, etc.).

INDUSTRY
Assessment of industrial processes for worker's exposure protection.

DEFENCE
Assessment of military sites and personnel exposure protection.

LABS/R&D
RF exposure protection of R&D and labs personnel.

Technical Specifications

Frequency range	30 MHz - 1000 MHz
Sensor type	Isotropic RMS diode technology
Type of frequency response	Flat
Measurement range	0.018 - 20 A/m
Damage Level (CW)	35 A/m (350 A/m Peak 1 µs, period 100 µs)
Dynamic range	60 dB
Sensitivity	0.018 A/m
Frequency response (*)	± 0.5 dB (30 MHz -400 MHz) ± 1 dB (30 MHz - 1000 MHz) > -3 dB @ 25 MHz
Linearity	± 1 dB (0.04 to 4 A/m)
Axial isotropy	± 1 dB
Calibration period	24 months (recommended)
Temperature range	- 10 ºC to 50 ºC
Dimensions	28.4 cm x 6 cm Ø
Weight	95 g

(*) The frequency response can be corrected with the SMP3 by using the correction factors stored in the probe (ISO 17025 accredited calibration).

WPH-DC Probe
DC – 40 kHz

- Magnetic field measurement
- Isotropic & True RMS measurement
- Static and time-variable fields
- Spectrum analysis probe
- Measurements in accordance with International Standards

DC – 40 kHz
H
RMS
ISOTROPIC

MEDICAL
Magnetic resonance in hospitals.
Implants protection.

RAILWAY
High static field due to
DC powered railroads.

INDUSTRY
Exposure assessment of electrical vehicles, electrolysis,permanent magnets, DC generators, etc.

Technical Specifications

Sensor type	Triaxial Hall sensor		
Frequency range	0 – 40 kHz		
Measurement range	10 uT – 10 T		
Resolution	< 50 nT		
Noise	< 5 uT		
Overload	20 T		
Dynamic range	> 120 dB		
Field	Static	Static and Variable	Variable
Frequency range	0 – 1 Hz	0 – 40 kHz	1 Hz – 40 kHz
Linearity	0.6% (100 uT – 1 T) 1% (100 uT – 2.4 T)		
Low pass filter	1Hz	None	
FFT	–	SPAN 40 Hz – 400 Hz – 4 kHz – 40 kHz	
Graphical display	Static field, axis information	RMS, Peak, FFT, axis information	
Calibration period	24 months (recommended)		
Dimensions	273 x Ø 21 (mm) – Sensor stick Ø 9.4 (mm)		
Weight	90 g		

Recommended accesory: 5 meters extension cable

WPH-DC_EN_2111_v1.3

WaveMon LF-400

H field - DC to 400kHz

Personal EMF Monitor

OVEREXPOSURE WARNING
Custom alarms

LIMITS for workers and general public, including AIMD bearers

EMF EXPOSIMETER
With datalogger

ISOTROPIC RMS and PEAK magnetic field sensor

OPTIONAL
GPS + Altimeter
OPTIONAL
Data geolocation

Harness, Belt and Arm Holder

RF Absorber Integrated in Holder

Datalogger Instant Values

Rechargeable and Replaceable Batteries for 12 h Autonomy

GPS and Altimeter (Optional)

USB (for charging, downloading data and parameterizing the unit with included PC software)

H-field Isotropic Sensors DC and 10 Hz - 400 kHz

Exposure Level as a % of the Standard/Limit

ON/OFF Status Button

High Intensity Audible and Vibratory Warnings

Standard Tripod Thread

WaveMon Applications

Measurement of EMF radiation in:

INDUSTRY · ENERGY · RAILWAY · MEDICAL

LABS · WORKER'S SAFETY · DEFENSE · AIMD · ACTIVE IMPLANTABLE MEDICAL DEVICES

Optional accredited calibration

Technical Specifications

	DC (0 Hz)	10 Hz - 400 kHz
Sensor type	Isotropic hall sensors	Isotropic coils
Type of response and limits	% AIMD bearer (500 µT) Medium Warning (3 mT) High Warning (30 mT)	% (shaped) For workers and public
Dynamic range	100 µT to 40 mT	3-200% for workers limits 10-300% for public limits
Isotropic deviation	± 2%	± 5%
Interface	1 button on/off, status and low battery LED	
Indicators	6 LEDs + Audio + Vibration	
Alarm threshold	2 limits adjustable by user	
Connectivity	Waterproof USB (for downloading data and recharging)	
Falling detection	Yes	
Autonomy	12 hours	
Data logger	> 1 000 000 events	
Positioning	GPS and Altimeter (Optional)	
Logging Interval	1 second to 60 minutes (adjustable by user)	
Battery type	2 x AA NiMH battery rechargeable by USB	
Protection	IP 54	
Temperature range	-20 / +50 °C (-4 / +122 °F) Charging: 0 / +40 °C (+32 / + 104 °F)	
Size	174 x 42.5 x 33 mm (6.8 x 1.7 x 1.3 ")	
Weight	194 g (6.8 oz.)	
Software	Downloading data, changing parameters (requires Windows 7 or later)	

Versions	Response shaped to
WaveMon LF-400 EU	2013/35/EU for workers and 1999/519/EC for public
WaveMon LF-400 ICNIRP	ICNIRP 1998 and ICNIRP 2010
WaveMon LF-400 IEEE	IEEE C95 2019 for workers and public

WaveMon RF-8

Personal RF Monitor

OVEREXPOSURE WARNING
Audible, visual and vibratory alarm

ICNIRP, 2013/35/EU, FCC, SC6
Occupational/Shaped response

EMF EXPOSIMETER
Datalogger, instant & average values

ELECTRIC AND MAGNETIC FIELD
Isotropic, RMS

ITU-T K.145
Compliance with ITU-T K.145

OPTIONAL GPS + Altimeter OPTIONAL
Data geolocation

Harness, Belt, or Arm Holder

RF Absorber Integrated in Holder

Datalogger for exposure studies
Instant and average values

Rechargeable and Replaceable Batteries for 200 h Autonomy

GPS and Altimeter (Optional)

E & H-Field Isotropic Sensors with RMS Response

Exposure % of the Standard

ON/OFF Status Button

High Intensity Audible and Vibratory Warnings

USB and Tripod Connectors

WaveMon Applications

INDUSTRY | TELECOMMUNICATIONS | ENERGY | RAILWAY | MEDICAL

LABS | AERONAUTICAL | WORKER'S SAFETY | DEFENSE

Optional accredited calibration

Technical Specifications

Sensor type	Isotropic, RMS diode technology	
Response	Shaped (ICNIRP 1998/2020, Directive 2013/35/EU, FCC and Safety Code 6)	
Interface	1 button ON/OFF, status and low battery LED	
Indicators	6 LEDs + Audio + Vibration	
Alarm threshold	2 limits adjustable by user	
Connectivity	Waterproof USB (for downloading data and recharging)	
Falling detection	Yes	
Autonomy	> 1 month (at 8 h/day, 5 days/week)	
Data logger	> 1 000 000 events	
Positioning	GPS and Altimeter	
Logging Interval	1 second to 60 minutes (adjustable by user)	
Averaging Interval	1 second to 60 minutes (adjustable by user)	
Battery Type	2 x AA NiMH battery rechargeable by USB	
Protection	IP 54	
LF inmunity (50 – 60 Hz)	> 30 kV/m	
Temperature range	-20 / +50 °C (-4 / +122 °F) – Charging: 0 / +40 °C (+32 / + 104 °F)	
Size	174 x 42.5 x 33 mm (6.8 x 1.7 x 1.3 ")	
Weight	190 g (6.7 oz.)	
	E-field	**H-field**
Dynamic range	1 – 300 %	2 – 300 %
Linearity	±0.5 dB (2% – 200%)	±1 dB (5% – 200%)
Isotropic deviation	±1 dB @ 1GHz	±1 dB @ 400 MHz

WaveMon RF-8

		Frequency range and response	
Versions	**Response shaped to**	**E-field**	**H-field**
WaveMon RF-8 ICN WaveMon RF-8 EUD	ICNIRP EU Directive 2013/35	300 kHz – 8 GHz ±3.5 dB	25 MHz – 1 GHz ±1 dB (30 MHz – 700 MHz) +0 dB / -2.5 dB (700 MHz – 850 MHz) +0 dB / -5 dB (850 MHz – 1 GHz)
WaveMon RF-8 FCC	FCC	3 MHz – 8 GHz ±3.5 dB	3 MHz – 1 GHz ±1 dB (3 MHz – 400 MHz) ±2 dB (400 MHz – 850 MHz) +0 dB / -4 dB (500 MHz – 1 GHz)
WaveMon RF-8 SC6	Safety Code 6	10 MHz – 8 GHz ±3.5 dB	25 MHz – 1GHz ±2 dB (30 MHz – 800 MHz) +0 dB / -5 dB (800 MHz – 1 GHz)

WaveMon accessories

GPS
Part # W-WAVEMON-GPS

WaveMon Internal GPS

WaveStick
Part # WWMA0002

Adjustable extension stick (73 cm / 28,74 “)

Safety cable
Part # WWMA0001

WaveMon safety attachment cable

WaveMon Lanyard
Part # WWMA0003

Breakaway neck security lanyard

WaveMon RF-60

Personal RF Monitor 100 kHz – 60 GHz

OVEREXPOSURE WARNING
From instant and average values

DATALOGGER
Including GPS and altimeter data

OCCUPATIONAL & PUBLIC RF SAFETY STANDARDS ICNIRP, FCC, Directive 2013/35/EU, SC6, NATO

ELECTRIC AND MAGNETIC FIELD
Isotropic, RMS, shaped response

NEW ARPANSA LIMIT INTEGRATED!

ITU-T K.145
Compliance with ITU-T K.145

5G READY
Ready for 5G measurements

OPTIONAL **GPS + Altimeter** OPTIONAL
Data geolocation

Harness, Belt, or Arm Holder

RF Absorber Integrated in Holder

Datalogger for exposure studies
Instant and average values

Rechargeable and Replaceable Batteries for 200 h Autonomy

GPS and Altimeter (Optional)

E & H-Field Isotropic Sensors with RMS Response

Exposure % of the Standard

ON/OFF Status Button

High Intensity Audible and Vibratory Warnings

USB and Tripod Connectors

WaveMon Applications

INDUSTRY · TELECOMMUNICATIONS · ENERGY · RAILWAY · MEDICAL

LABS · AERONAUTICAL · WORKER'S SAFETY · DEFENSE

Optional accredited calibration

Technical Specifications

Sensor type	Isotropic, RMS diode technology
Frequency	**E-Field:** 100 kHz – 60 GHz (see version selection table in next page) **H-Field:** 3 MHz – 1 GHz (see version selection table in next page)
Response	Shaped to specific standards (see version selection table in next page)
Isotropic deviation	**E-Field:** ±1 dB (<4 GHz) **H-Field:** ±1 dB
Dynamic Range	Up to 1000% (see version selection table in next page)
Linearity	**E-Field:** 0.5 dB (2% – 200%) **H-Field:** 0.5 dB (5% – 200%)
Interface	1 button ON/OFF, status and low battery LED
Indicators	6 LEDs + Audio + Vibration
Alarm threshold	2 alarm thresholds adjustable by user
Connectivity	Waterproof USB (for downloading data and recharging)
Falling detection	Yes
Autonomy	>1 month (at 8 h/day, 5 days/week)
Data logger	>1 000 000 events
Positioning	GPS and Altimeter (Optional)
Logging Interval	1 second to 60 minutes (adjustable by user)
Averaging Interval	1 second to 60 minutes (adjustable by user)
Battery Type	2 x AA NiMH battery rechargeable by USB
Protection	IP 54
LF immunity (50 / 60 Hz)	> 30 kV/m
Temperature range	-20 / +50 °C (-4 / +122 °F) – Charging: 0 / +40 °C (+32 / + 104 °F)
Humidity	5% to 95%, non-condensing
Size	174 x 42.5 x 33 mm (6.8 x 1.7 x 1.3 '')
Weight	190 g (6.7 oz.)

WaveMon RF-60

WaveMon Version Selection Table

		E Field		H Field	
Versions	**Response shaped to**	**Frequency response**	**Dynamic range**	**Frequency response**	**Dynamic range**
RF-60 ICN	ICNIRP 1998/2020 * Occupational	±3.5 dB (100 kHz – 10 GHz) ±4 dB (10 GHz – 35 GHz) +10 / -6 dB (35 GHz – 60 GHz)	0.5 – 1000%	±3 dB (25 MHz – 1 GHz)	1 – 1000%
	ICNIRP 1998/2020 * General public	±3.5 dB (5 MHz – 10 GHz) ±4 dB (10 GHz – 35 GHz) +10 / -6 dB (35 GHz – 60 GHz)	1 – 1000%	±3 dB (25 MHz – 1 GHz)	3 – 1000%
RF-60 FCC	FCC 96-326 Occupational	±3.5 dB (100 kHz – 10 GHz) ±4 dB (10 GHz – 35 GHz) +10 / -6 dB (35 GHz – 60 GHz)	0.5 – 1000%	±2 dB (3 MHz – 1 GHz)	1 – 1000%
	FCC 96-326 General public	±5 dB (100 kHz – 2 MHz) ±3.5 dB (2 MHz – 10 GHz) ±4 dB (10 GHz – 35 GHz) +10 / -6 dB (35 GHz – 60 GHz)	1 – 1000%	±2 dB (3 MHz – 1 GHz)	3 – 1000%
RF-60 EUD	EU Directive 2013/35	±3.5 dB (100 kHz – 10 GHz) ±4 dB (10 GHz – 35 GHz) +10 / -6 dB (35 GHz – 60 GHz)	0.5 – 1000%	±3 dB (25 MHz – 1 GHz)	1 – 1000%
	Recommendation 1999/519/EC	±3.5 dB (5 MHz – 10 GHz) ±4 dB (10 GHz – 35 GHz) +10 / -6 dB (35 GHz – 60 GHz)	1 – 1000%	±3 dB (25 MHz – 1 GHz)	3 – 1000%
RF-60 SC6	Safety Code 6 Controlled	±3.5 dB (5 MHz – 10 GHz) ±4 dB (10 GHz – 35 GHz) +11 / -6 dB (35 GHz – 60 GHz)	0.5 – 1000%	±2 dB (25 MHz – 1 GHz)	1 – 1000%
	Safety Code 6 Uncontrolled	±3.5 dB (5 MHz – 10 GHz) ±4 dB (10 GHz – 35 GHz) +11 / -6 dB (35 GHz – 60 GHz)	1 – 1000%	±2 dB (25 MHz – 1 GHz)	3 – 1000%
RF-60 NATO	NATO standards Zone 1	±3.5 dB (100 kHz – 10 GHz) ±5 dB (10 GHz – 35 GHz) +12 / -6 dB (35 GHz – 60 GHz)	0.5 – 1000%	±2 dB (100 MHz – 1 GHz)	1 – 1000%
RF60 ARP	ARPANSA RPS – S1 Occupational	±3.5 dB (400 kHz - 10 GHz) ±5 dB (10 GHz - 35 GHz) +12/-6 dB (35 GHz - 60 GHz	0.5 – 1000%	25 MHz - 1 GHz: ±3 dB	1 – 1000%
	ARPANSA RPS – S1 General Public	±3.5 dB (400 kHz - 10 GHz) ±5 dB (10 GHz - 35 GHz) +12/-6 dB (35 GHz - 60 GHz)	1 – 1000%	25 MHz - 1 GHz: ±3 dB	3 – 1000%

* compliant with ICNIRP 2020 from 27 MHz

WaveMon accessories

GPS
Part # W-WAVEMON-GPS

WaveMon Internal GPS

WaveStick
Part # WWMA0002

Adjustable extension stick (73 cm / 28,74 “)

Safety cable
Part # WWMA0001

WaveMon safety attachment cable

WaveMon Lanyard
Part # WWMA0003

Breakaway neck security lanyard

WAVECONTROL
Safety, Quality, Service

+34 93 320 80 55
www.wavecontrol.com
info@wavecontrol.com