

# 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

**5G  
READY**



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



**BROADBAND MEASUREMENT**  
(0 Hz - 60 GHz)

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

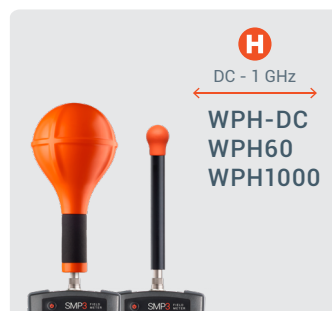
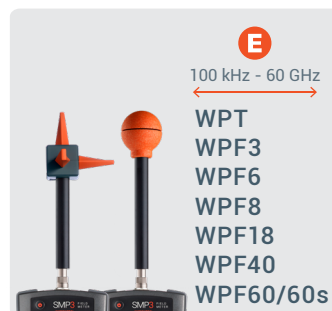
**> 1 million registers**  
SQL data base

**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)<br>Field components (X, Y, Z)          |                                                                                                       |
| E Field units        | V/m, kV/m, $\mu\text{W}/\text{cm}^2$ , $\text{mW}/\text{cm}^2$ , $\text{W}/\text{m}^2$ , % |                                                                                                       |
| H Field units        | nT, $\mu\text{T}$ , mT, T, A/m, %, mG, G                                                   |                                                                                                       |
| Log time             | Configurable (from 0.5 s to 6 min)                                                         |                                                                                                       |
| Average modes        | Fixed or 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.)                                                                                      |

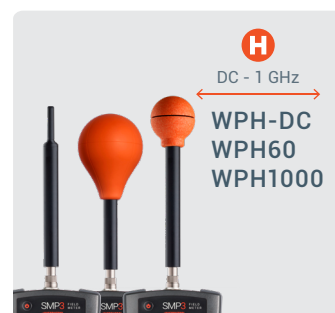
Product specifications and descriptions in this document subject to change without notice

# SMP3

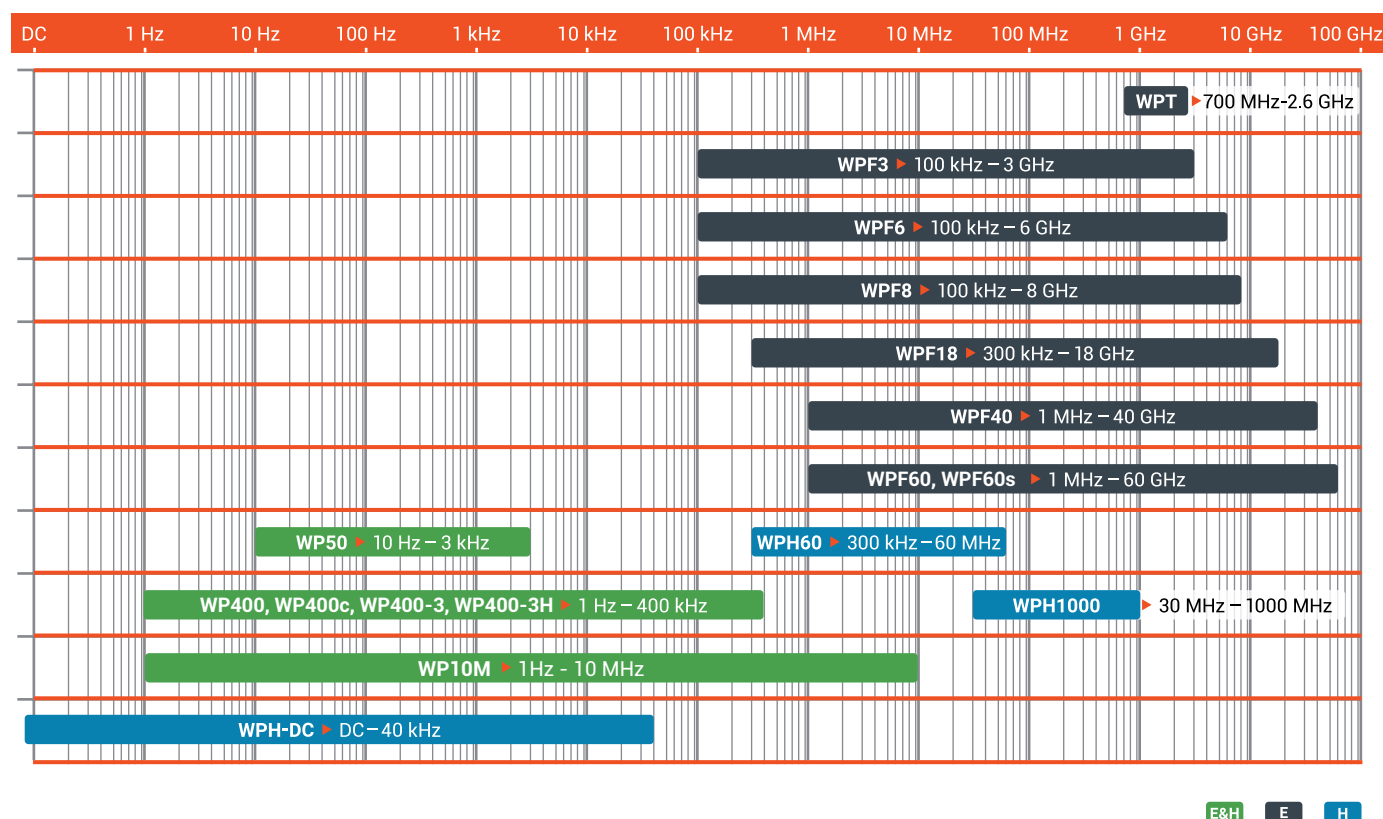
## Electromagnetic field meter. Compatible field probes

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

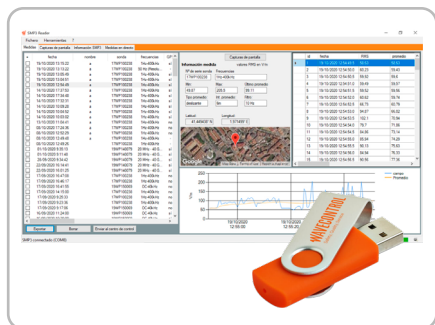


| Model                                            | Frequency range                                         | Response                                   | Measurement range                                                                                                                          | Linearity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

# SMP3

## Electromagnetic field meter. Accessories

### SMP3 included accessories



**'SMP3 Reader' PC software**  
Included / Downloadable from [wavecontrol.com](http://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**

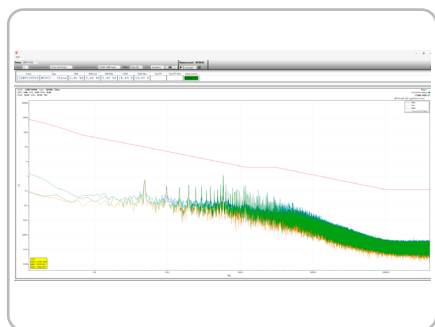
USB to USB-C cable



**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 # WSN0001

Including transport cover



**Tripod extension**  
Part # WSN0002

Horizontal extension for LF vertical E-field measurements



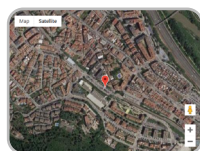
**Probe support for tripod**  
Part # WSN0013

Recommended with the probe extension cable



**Probe extension cable**  
Part # WSN0001 and # WSN0014

2 or 5 meters extension cable



**GPS**  
Part # WSN00001

Internal embedded GPS



**Fibre optics interface**  
Part # WSN0004, WSN0010, and WSN0015

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



**Vehicle DC charger**  
Part # WSN0007

Charge SMP3 from a vehicle DC connector



**SMP3 protective pouch**  
Part # WSN0009

Easily portable protective soft sheath



**SMP3 backpack**  
Part # WSN0008

Soft backpack to fit up to 3 probes