



# SMP2

## Electromagnetic field meter



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



**FFT-BASED TIME-DOMAIN SPECTRUM ANALYSIS**  
From 1 Hz to 400 kHz



**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 400 kHz)

**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**

Available field probes

**E**  
100 kHz - 60 GHz

- WPT
- WPF3
- WPF6
- WPF8
- WPF18
- WPF40
- WPF60

**EH**  
1 Hz - 400 kHz

- WP400
- WP400-3
- WP400c
- WP50

**H**  
DC - 1 GHz

- WPH-DC
- WPH60
- WPH1000

# SMP2 Applications



Industry



Telecommunications



Energy



Railway



Medical



Labs



Aeronautical



Worker's safety



Defense



## 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 400 kHz using WP400, WP400-3, WP400c 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 400 kHz	
Weighted Peak Method	1 Hz – 400 kHz (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, $\mu\text{W}/\text{cm}^2$ , $\text{mW}/\text{cm}^2$ , $\text{W}/\text{m}^2$ , %	
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	Mini-USB and Fibre Optics	
Firmware updating	Mini-USB	
Alarm	2400 Hz audible signal (adjustable threshold)	
Display type	Color transmissive TFT (480 x 272 pixels)	
GPS (optional)	Built-in u-blox 7 (56 independent tracking channels)	
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.)

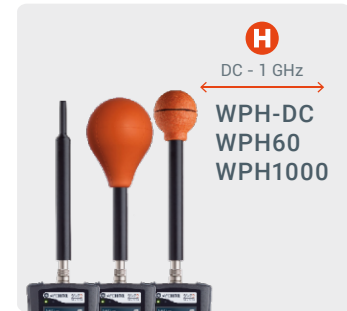
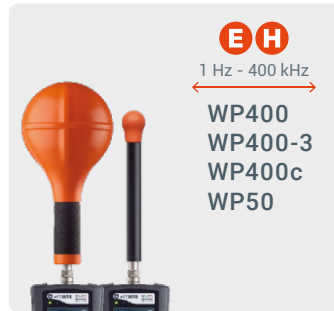
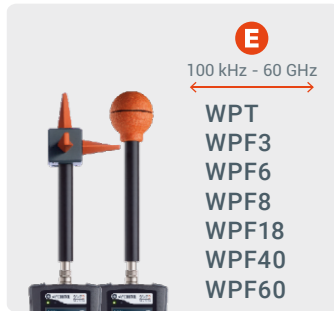
Product specifications and descriptions in this document subject to change without notice

# SMP2

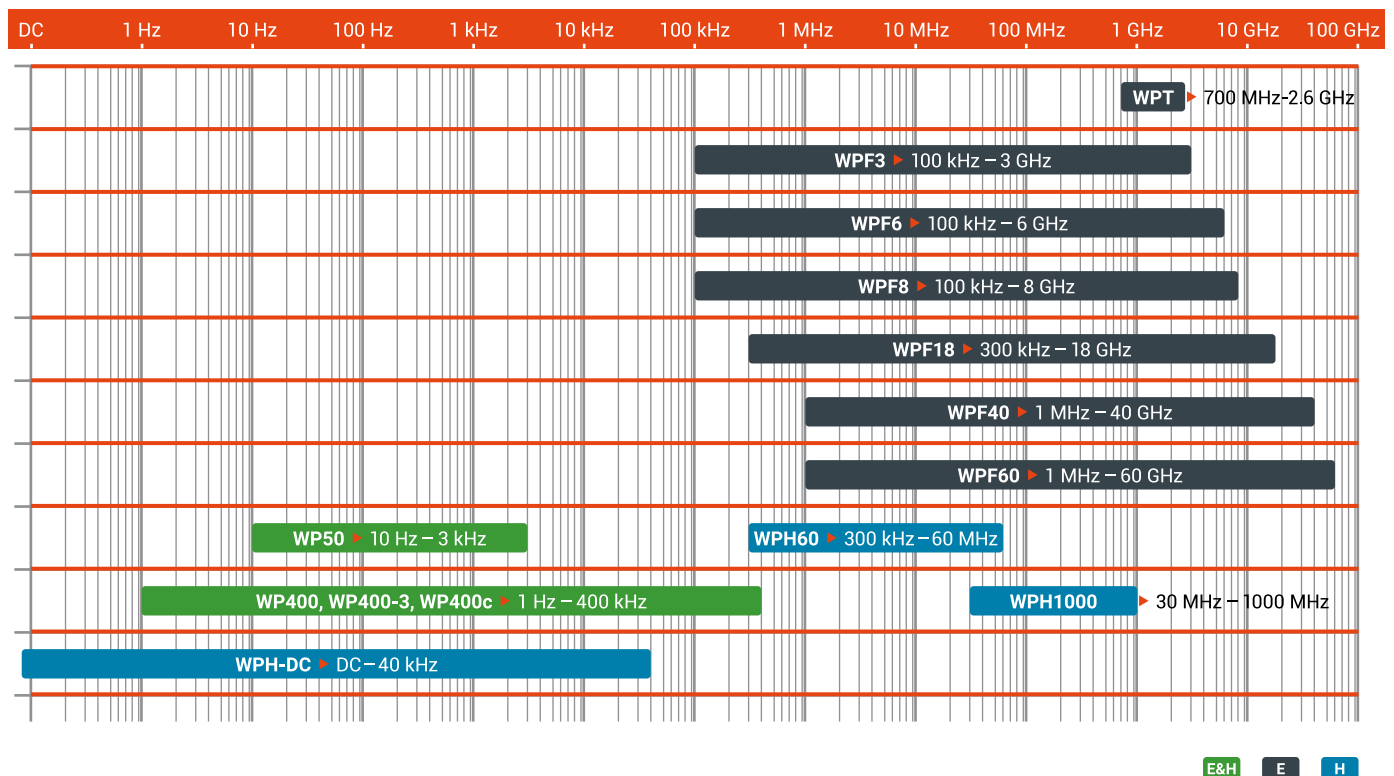
## Electromagnetic field meter. Compatible field probes

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 Selective &amp; Broadband</b>	0 – 40 kHz	Flat	H-Field: 10 $\mu$ T – 10 T	0.6% (100 $\mu$ T – 1 T) 1% (100 $\mu$ T – 2.4 T)	27.3 cm x 2.1 cm $\emptyset$ 10.8 " x 0.8 " $\emptyset$ Sensor stick: 0.94 cm $\emptyset$ 0,37 " $\emptyset$
<b>WP400 Selective &amp; Broadband</b>	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)*	$\pm$ 1% (Typical) $\pm$ 2% (Maximum)	28 cm x 12.8 cm $\emptyset$ 11 " x 5 " $\emptyset$
<b>WP400-3 Selective &amp; Broadband</b>	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)*	$\pm$ 1% (Typical) $\pm$ 2% (Maximum)	27.5 x 3.3 cm $\emptyset$ 10.8 " x 1.3 " $\emptyset$
<b>WP400c Selective &amp; Broadband</b>	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)*	$\pm$ 1% (Typical) $\pm$ 2% (Maximum)	28 cm x 12.8 cm $\emptyset$ 11 " x 5 " $\emptyset$
<b>WP50</b>	10 Hz – 3 kHz	Flat / Shaped	E-Field: 2.5 V/m – 20,000 V/m H-Field: 0.05 $\mu$ T – 2,000 $\mu$ T	$\pm$ 1% (Typical) $\pm$ 2% (Maximum)	27 cm x 11.5 cm $\emptyset$ 10.6 " x 4.5 " $\emptyset$
<b>WPH60</b>	300 kHz – 60 MHz	Flat	H-Field: 0.018 – 1 A/m (RMS) 0.018 – 20 A/m (CW)	$\pm$ 1 dB (0.04 – 4 A/m)	27 cm x 9 cm $\emptyset$ 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 $\emptyset$ 11.2 " x 2.4 " $\emptyset$
<b>WPF3</b>	100 kHz – 3 GHz	Flat	E-Field: 0.2 – 20 V/m (RMS) 0.2 – 130 V/m (CW)	$\pm$ 0.5 dB (0.5 – 100 V/m)	28.4 cm x 6 cm $\emptyset$ 11.2 " x 2.4 " $\emptyset$
<b>WPF3-HP</b>		Flat	E-Field: 0.2 – 20 V/m (RMS) 0.2 – 1,000 V/m (CW)	$\pm$ 0.5 dB (0.5 – 100 V/m)	28.4 cm x 6 cm $\emptyset$ 11.2 " x 2.4 " $\emptyset$
<b>WPF6</b>	100 kHz – 6 GHz	Flat	E-Field: 0.2 – 20 V/m (RMS) 0.2 – 130 V/m (CW)	$\pm$ 0.5 dB (0.5 – 100 V/m)	28.4 cm x 6 cm $\emptyset$ 11.2 " x 2.4 " $\emptyset$
<b>WPF6-HP</b>		Flat	E-Field: 0.2 – 20 V/m (RMS) 0.2 – 1,000 V/m (CW)	$\pm$ 0.5 dB (0.5 – 100 V/m)	28.4 cm x 6 cm $\emptyset$ 11.2 " x 2.4 " $\emptyset$
<b>WPF8</b>	100 kHz – 8 GHz	Flat	E-Field: 0.2 – 20 V/m (RMS) 0.2 – 130 V/m (CW)	$\pm$ 0.5 dB (0.5 – 100 V/m)	28.4 cm x 6 cm $\emptyset$ 11.2 " x 2.4 " $\emptyset$
<b>WPF8-HP</b>		Flat	E-Field: 0.2 – 20 V/m (RMS) 0.2 – 1,000 V/m (CW)	$\pm$ 0.5 dB (0.5 – 100 V/m)	28.4 cm x 6 cm $\emptyset$ 11.2 " x 2.4 " $\emptyset$
<b>WPF18</b>	300 kHz – 18 GHz	Flat	E-Field: 0.5 – 30 V/m (RMS) 0.5 – 250 V/m (CW)	$\pm$ 0.5 dB (0.5 – 100 V/m)	28.4 cm x 6 cm $\emptyset$ 11.2 " x 2.4 " $\emptyset$
<b>WPF18-HP</b>		Flat	E-Field: 0.5 – 30 V/m (RMS) 0.5 – 1,000 V/m (CW)	$\pm$ 0.5 dB (0.5 – 100 V/m)	28.4 cm x 6 cm $\emptyset$ 11.2 " x 2.4 " $\emptyset$
<b>WPF40</b>	1MHz – 40 GHz	Flat	E-Field: 1 – 55 V/m (RMS) 1 – 1,000 V/m (CW)	$\pm$ 2 dB (1 – 2 V/m) $\pm$ 1 dB (2 – 250 V/m)	28.4 cm x 6 cm $\emptyset$ 11.2 " x 2.4 " $\emptyset$
<b>WPF60</b>	1MHz – 60 GHz	Flat	E-Field: 1 – 55 V/m (RMS) 1 – 1,000 V/m (CW)	$\pm$ 2 dB (1 – 2 V/m) $\pm$ 1 dB (2 – 250 V/m)	28.4 cm x 6 cm $\emptyset$ 11.2 " x 2.4 " $\emptyset$
<b>WPF60S</b>	1MHz – 60 GHz	Shaped (ICNIRP 1998/2020, FCC)	E-Field: 0.1% – 35% (RMS) 0.1 – 800% (CW)	$\pm$ 2 dB (1 – 2 V/m) $\pm$ 1 dB (2 – 250 V/m)	28.4 cm x 6 cm $\emptyset$ 11.2 " x 2.4 " $\emptyset$
<b>WPT</b>	Selective: 700 – 900, 1800 – 1900, 2100, 2600 Hz	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 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 11.2 x 4.1 x 4.1 "

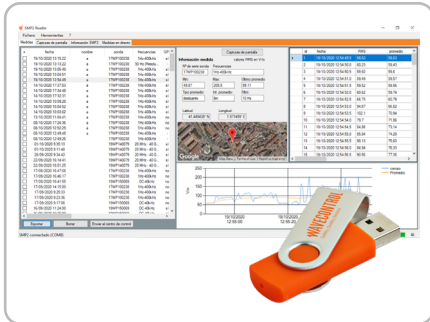
\*Below and above the stated frequency range, upper limit of the measurement range changes (See datasheets for more information).

Visit [www.wavecontrol.com/rfsafety/en/products/probes](http://www.wavecontrol.com/rfsafety/en/products/probes), for detailed datasheets of each field probe model.

# SMP2

## Electromagnetic field meter. Accessories

### SMP2 included accessories



**'SMP2 Reader' PC software**  
Included / Downloadable from [wavecontrol.com](http://wavecontrol.com)

Compatible with Windows 7 or later versions



**SMP2 carrying case**  
Part # WSN0001-2-3

Robust case to fit the SMP2 and up to 5 probes



**USB cable**

USB to mini-USB  
cable



**AC/DC charger**

International plug  
types available

### SMP2 optional accessories



**Non-reflective wooden tripod**  
Part # WSA0001

Including transport cover



**Tripod extension**  
Part # WSA0002

Horizontal extension for LF vertical E-field  
measurements



**Probe support for  
tripod**

Part # WSA0013

Recommended with  
the probe extension  
cable



**Probe extension  
cable**

Part # WSA0011

5-meter extension  
cable



**GPS**  
Part # WSN0001

Internal embedded  
GPS



**Fiber optics  
interface**  
Part # WSA0004

10-meter fiber optics  
+ Converter USB  
to PC



**Vehicle DC  
charger**  
Part # WSA0007

Charge SMP2 from a  
vehicle DC connector



**SMP2 protective  
pouch**  
Part # WSA0009

Easily portable  
protective soft  
sheath



**SMP2 backpack**  
Part # WSA0008

Soft backpack to fit up to 3 probes