

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



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

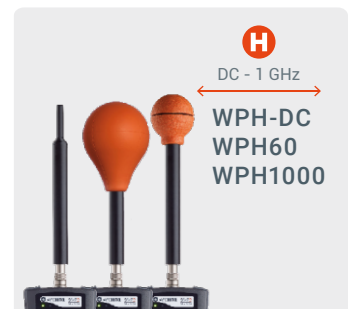
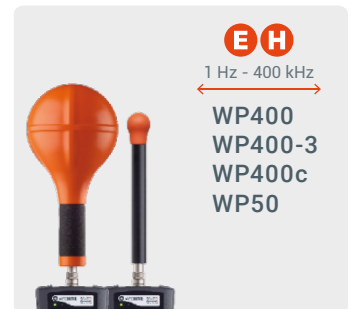
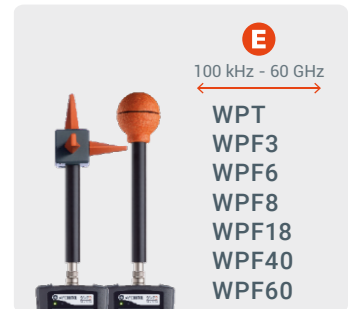
> 1 million registers
SQL data base

Screenshot function

Fibre optics (optional)

USB

Available field probes



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, $\mu\text{W}/\text{cm}^2$, mW/cm^2 , W/m^2 , %	
H Field units	nT, μT , 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.)

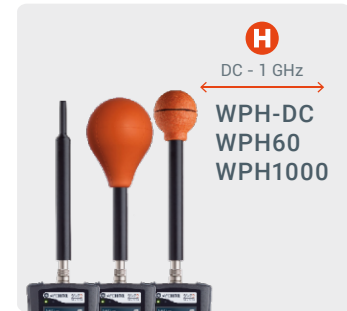
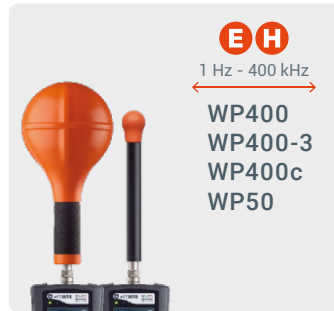
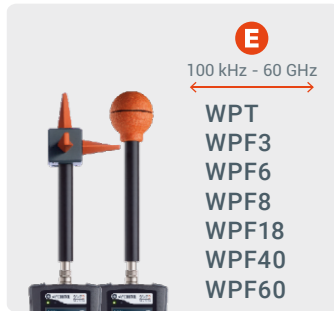
Product specifications and descriptions in this document subject to change without notice

SMP2

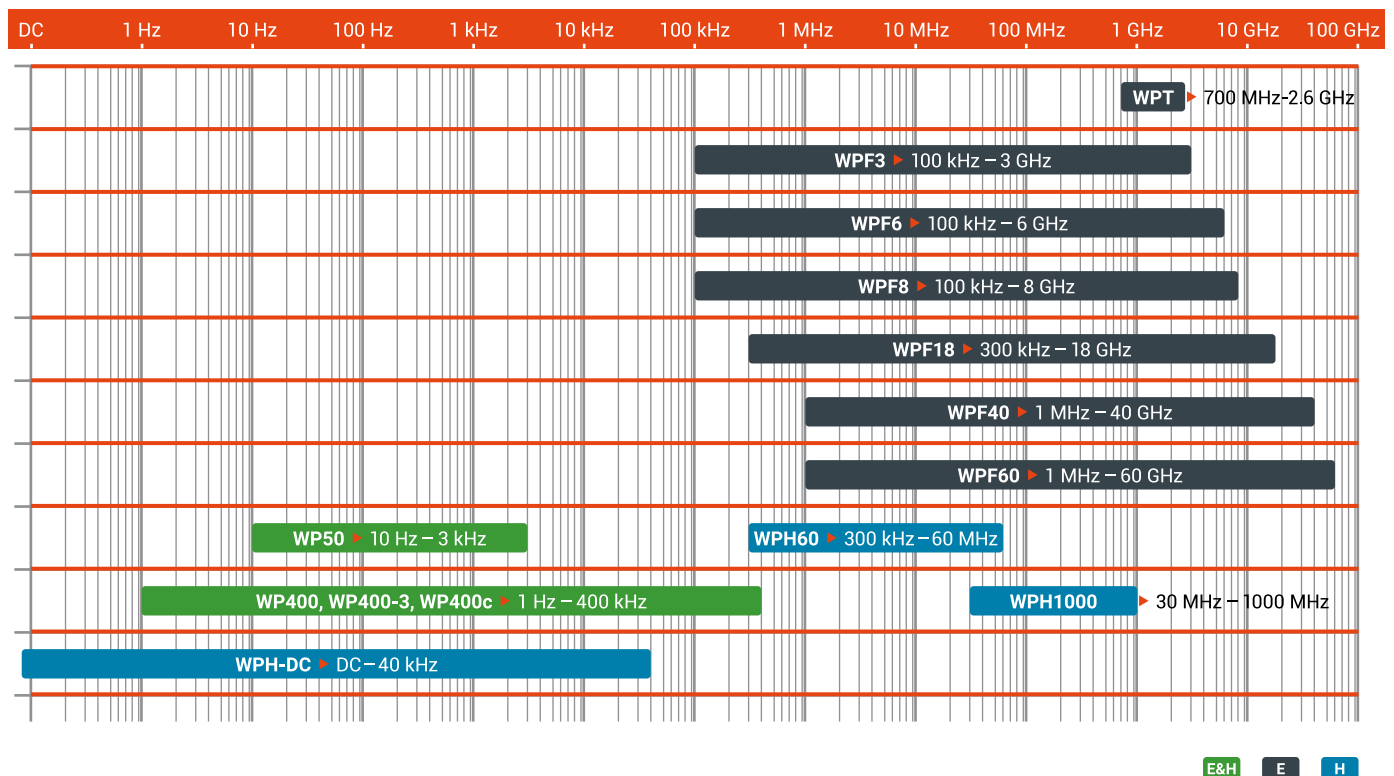
Electromagnetic field meter. Compatible field probes

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
WPH-DC Selective & Broadband	0 – 40 kHz	Flat	H-Field: 10 μ T – 10 T	0.6% (100 μ T – 1 T) 1% (100 μ 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
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)*	\pm 1% (Typical) \pm 2% (Maximum)	28 cm x 12.8 cm \emptyset 11 " x 5 " \emptyset
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)*	\pm 1% (Typical) \pm 2% (Maximum)	27.5 x 3.3 cm \emptyset 10.8 " x 1.3 " \emptyset
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)*	\pm 1% (Typical) \pm 2% (Maximum)	28 cm x 12.8 cm \emptyset 11 " x 5 " \emptyset
WP50	10 Hz – 3 kHz	Flat / Shaped	E-Field: 2.5 V/m – 20,000 V/m H-Field: 0.05 μ T – 2,000 μ T	\pm 1% (Typical) \pm 2% (Maximum)	27 cm x 11.5 cm \emptyset 10.6 " x 4.5 " \emptyset
WPH60	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
WPH1000	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
WPF3	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
WPF3-HP		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
WPF6	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
WPF6-HP		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
WPF8	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
WPF8-HP		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
WPF18	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
WPF18-HP		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
WPF40	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
WPF60	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
WPF60S	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
WPT	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 "
WP-WIFI	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 "

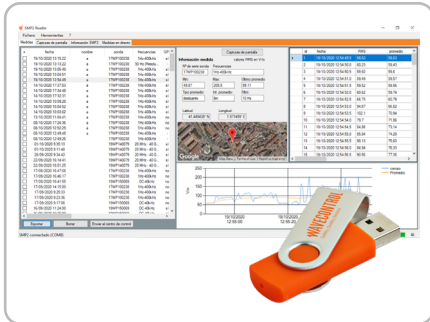
*Below and above the stated frequency range, upper limit of the measurement range changes (See datasheets for more information).

Visit www.wavecontrol.com/rfsafety/en/products/probes, 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

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 # 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

5-meter extension
cable



GPS
Part # WSN00001

Internal embedded
GPS



**Fiber optics
interface**
Part # WSNA0004

10-meter fiber optics
+ Converter USB
to PC



**Vehicle DC
charger**
Part # WSNA0007

Charge SMP2 from a
vehicle DC connector



**SMP2 protective
pouch**
Part # WSNA0009

Easily portable
protective soft
sheath



SMP2 backpack
Part # WSNA0008

Soft backpack to fit up to 3 probes