

SMP2 User's Quick Guide

Definitions:

DC (Static Field): 0 Hz (WPH-DC)

LF (Low Frequencies): 1 Hz – 400 kHz (WP400, WP400-3, WP50, WPH-DC)

HF (High Frequencies): 100 kHz – 300 GHz (WPF3, -6, -8, -18, -40, WPH60, -1000, WPT)

Static Field Human Exposure Assessment

- Select the **Field** type to **DC** (Button AC/DC).
- Move the SMP2 around and **look for maximum levels or place it at the desired position.**
- Set **MODE** to "**Time**".
- Go to **MENU → MEASUREMENT OPTIONS.**
- Set "**Measurement time**" to "**Not limited**".
- Press **LOG** to start the measurement.
- Your **Max** value will appear in the **Max/Min** set of results.
- **Leave** your unit stationary and **wait** for a reasonable time **until you see** the max value not increasing any more.
- Press **LOG** to save the measurement.
- **Compare the maximum DC value with your standard.**

LF Human Exposure Assessment

- Select **FIELD (E or H).**
- Select applicable **LIMIT.**
- Set **MODE** to "**FFT**".
- **Move the SMP2 around** to have a first view of the existing levels.
- Set **HOLD** to "**Max**".
- Your **Max value** result will appear as the main big number on the screen.
- **Move the SMP2 around** to get the maximum level, and/or, **leave your unit stationary** and wait for a reasonable time.
- Do it until you see the max value not increasing any more.
- Press **LOG** to save the final result.
- If **Peak and RMS values are below 100%** you are below the limit.
- Find your measurement in **MENU → MEASUREMENT LOG.**

HF Human Exposure Assessment

- Go to **MENU** → **MEASUREMENT OPTIONS** → "**Standards**", and select the applicable standard configuration ⁽¹⁾.
- If you need a "**Spatial average**" set it to "**Yes**".
- Scroll down to the **POST-PROCESSING** section and set "**Limit value for results in %**" to "**Lowest value**".
- Press the **HOME** or **BACK** button to return to the main screen.
- Set "**LIMIT**" to the applicable limit.
- Move the SMP2 around and **look for the maximum value**.
- At that point, **place the SMP2 on a tripod at the correct height** ⁽²⁾.
- Press the **LOG** button.
- The SMP2 will ask you to **move away**.
- A beep will warn you when the measurement is finished ⁽³⁾.
- If the **final average value is below 100%** you are below the limit.
- Find your measurement in **MENU** → **MEASUREMENT LOG**.

- (1) This will set the key measurement parameters to the selected standard values. It is also possible to manually set them all to custom values by selecting "None."
- (2) Please check your applicable standard for the correct height.
- (3) If you have set the "Spatial average" option to "Yes", change the height at the end of each measurement.

LF Spectrum Investigation

- Select applicable **LIMIT** (optional).
 - Select **FIELD (E or H)**.
 - Set the unit **MODE** to "**FFT**".
 - Set **FILTER** to "**10 Hz**" ⁽⁴⁾.
 - Set **AXIS** to "**Total**" (or any axis you want to investigate).
 - Set **SPAN** to "**400 kHz**" ⁽⁵⁾.
 - Moving the cursor:
 - **Right arrow**: next frequency.
 - **Left arrow**: previous frequency.
 - **Up arrow**: next peak.
 - **Down arrow**: previous peak.
 - Change **MODE** to "**Freq Log**" in case you want to have a time evolution graph of the field level at the cursor frequency.
- (4) If you suspect there is field below 10 Hz, use a filter of 1 Hz. In this case, always take the measurement with the device mounted on a tripod to prevent movement. If you want to investigate the mains 50/60 Hz and harmonics, you can set the filter to "10 Hz".
 - (5) If there is no signal in high frequencies, you may want to change the SPAN to a lower value for a more detailed FFT view.

