LSPM 1.0⁺/2.0⁺ Quick Start Guide

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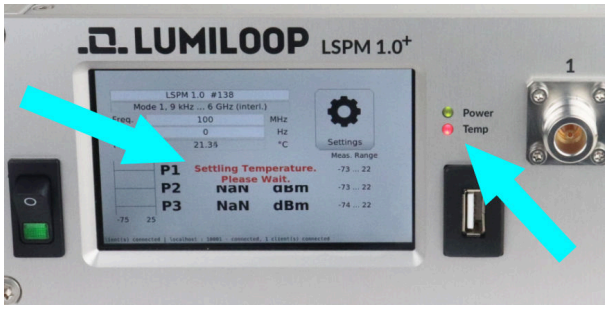
The most recent version of this document and the full length LSPM(+) User's Manual can be found at www.lumiloop.de.

1 System Overview

The LSPM 1.0⁺/2.0⁺ system consists of a single board computer with an integrated high-speed RF power meter and a touchscreen display, a power cord and a USB flash drive.
The LSPM 1.0⁺/2.0⁺ device is delivered with a pre-installed LUMILOOP TCP Server, LUMILOOP GUI, manufacturer calibration data and optionally accredited calibration data.
The USB flash drive contains the LUMILOOP Windows Installer, including the LUMILOOP GUI for remote "+"device access, as well as a copy of the calibration data.
Third party EMC software communicates with LSPM 1.0⁺/2.0⁺ using SCPI commands exchanged over TCP/IP.

2 System Startup

1. Connect the included mains power cord to the LSPM⁺.
2. Switch on the LSPM 1.0⁺/2.0⁺ by setting the front panel switch to "green" and observe the green "Power" LED next to the RF connectors starting to flash. The LUMILOOP TCP Server and the LUMILOOP "+"Device GUI will start automatically. The green "Power" LED will light up constantly to show correct operation.
3. The system will be cooled down or heated to its operating temperature. This is indicated by the red "Temperature" LED. Additionally, the "+"Device GUI will show the message "Settling Temperature. Please wait.". After reaching the required operating temperature, the red "Temperature" LED will turn off and the notification will disappear.



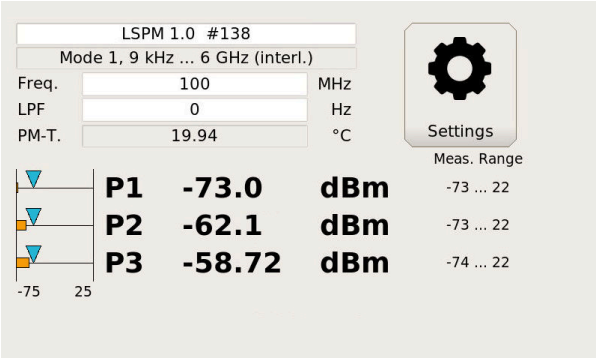
4. Additional LUMILOOP LSProbe and/or LSPM devices can be connected to the LSPM⁺ via USB.

3 LUMILOOP "+"Device GUI

The LUMILOOP "+"Device GUI is started automatically after system boot, communicating with the LUMILOOP TCP Server running in the background.

1. The GUI indicates proper operation after reaching the operating temperature by displaying RF power values.

2. As shown below, the RF power values of all available channels are displayed by the GUI. The maximum and minimum calibrated power value for the set mode and frequency are displayed at the right edge of the screen.



3. For accurate RF power measurements the operating frequency must be set.

   An on-screen keyboard for setting the desired frequency can be opened by:

   (a) Tapping the “Freq.” input field.

   (b) Opening the “Settings” dialog by clicking on the gear button on the top right and selecting the “Frequency” button.

   Values are entered in Hertz. SI unit prefixes are supported, e.g. “100M” for 100 MHz, as shown above.

4 Remote Control and Third Party Software Access

For advanced software features of LSPM$^+$ devices, i.e., waveform recording, pulse evaluation, statistics, etc., remote access via TCP/IP is needed. Third party software access is realized in the same way.

1. Connect the LSPM 1.0$^+$/2.0$^+$ and the host computer via a network switch or directly using a patch cable.

2. The network settings of the LSPM 1.0$^+$/2.0$^+$ can be viewed and changed via the “Network Configuration” Dialog. Tap on the gear button on the top right, select “System” in the “Settings” dialog and choose “Network Settings”. Static (default) or DHCP network configuration is supported, the active settings are highlighted in green. The active IP address is displayed below the settings, the TCP port is 10001. The default address and network mask are: 192.168.0.42 and 255.255.255.0 .

3. Configure the network of the host computer accordingly and set the IP address and the TCP port in the third party software.

4. To use the LUMILOOP GUI from a remote computer, install the LUMILOOP Windows Installer contained on the USB thumb drive. Start the LUMILOOP GUI and configure its connection settings accordingly.

For more detailed instructions, please consult the LSPM User’s Manual, Section 6.3.

Personal Notes: