

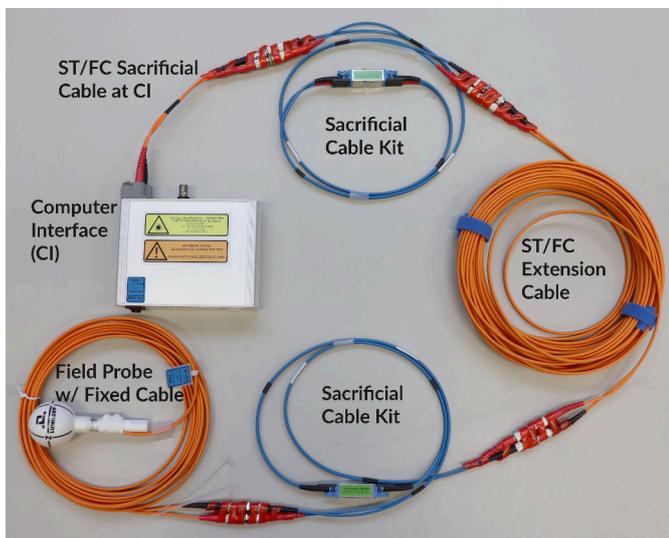
LSProbe Quick Start Guide

LUMILOOP GmbH

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

1 System Overview



The LSProbe system consists of the optically powered E-Field Probe and the Computer Interface shown above. The Computer Interface is connected to the host computer via USB 2.0.

The LUMILOOP TCP Server handles all USB communication. The LUMILOOP GUI and other third party EMC software access the LUMILOOP TCP Server using SCPI commands exchanged via a TCP/IP connection.

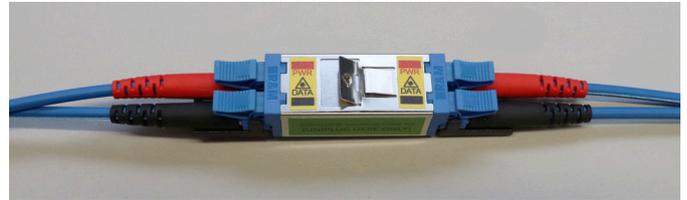
2 Software Installation

1. Run LUMILOOP_Installer.exe found on the USB thumb drive and follow the installation instructions.
2. Copy the supplied calibration data into the directory selected during TCP Server and GUI installation. E.g. if the calibration data directory is C:\ProgramFiles(x86)\LUMILOOP\cal\lprobe and the serial number of the E-Field Probe is 42, please copy the whole directory

named 1v2sn42 / 2v0sn42 from the installation medium into the cal\lprobe directory.

3 Making Optical Connections

Note: Every LSProbe is delivered with plugged optical connectors and ready to use.



Sacrificial optical cables are supplied with each LSProbe E-Field Probe. Always use the E2000 connectors shown above for breaking and making the optical connection. The E2000 connectors of the sacrificial cable assembly include automatic shutters preventing contamination and resulting optical fiber burn-in. Nevertheless, all optical connectors must be kept in a perfectly clean condition at all times.

In case of a fiber connector burn-in only a pair of sacrificial cables need to be replaced, allowing for rapid and cost-effective fault recovery without requiring external service.

For detailed instructions, consult the LSProbe User's Manual, Section 5.1.1.

4 System Startup

1. Connect the included mains adapter to the Computer Interface.
2. Connect the Computer Interface to the host computer using the included USB cable.
3. Switch on the Computer Interface setting the front panel switch to 1 and observe the green power LED starting to flash. If the host computer has access to the on-line Microsoft Windows Update, the USB driver will be installed automatically.
4. Start the LUMILOOP TCP Server via the Windows Start Menu and check that the green power LED is constantly on. The LUMILOOP TCP Server will display a list of detected calibration data sets and a list of all detected Computer Interfaces as shown above.

If this step fails, consult the LSProbe User's Manual, Section 4.

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LUMILOOP TCP Server, FP#:CI921
LUMILOOP TCP Server, 64 bit, built Mar 19 2024 08:47:21.
LUMILOOP Install Path: 'C:\Program Files (x86)\LUMILOOP'
Configuration file: 'C:\Users\lenovo\AppData\Local\LUMILOOP.ini'
-----
Configuration Summary
-----
Name | Value
-----|-----
PORT | 10000 |----- LSProbe
CAL_PATH | C:\Program Files (x86)\LUMILOOP\cal\lsprobe
SAVE_PATH | E:\LUMILOOP_DATA\lsprobe
LEGACY_IDN | 0
CON_PORT | 10
-----
PORT | 10001 |----- LSPM
CAL_PATH | C:\Program Files (x86)\LUMILOOP\cal\lspm
SAVE_PATH | E:\LUMILOOP_DATA\lspm
LEGACY_IDN | 0
-----
UPDATE_CHECK | 1 |----- LSProbe & LSPM
TIMEOUT_DIALOG | 1
-----
LSPM Wideband Calibration Data Summary
-----
LSPM Vers. | Check, Widebands | Factory Cal.
1v0 | Pass: 0: 10, 20, 80, 100, 160 | 2023-06-06
2v0 | Pass: 0: 10, 20, 80, 100, 160 | 2023-06-06
-----
Connect from host 192.168.55.70, 1 client connected to LSProbe port 10000.
Connection to 192.168.55.70 closed, 0 clients connected to LSProbe port 10000.
Connect from host 192.168.55.70, 1 client connected to LSProbe port 10000.
-----
LSPM Calibration Data Summary
-----
LSPM# | Check | Factory Cal. | Accr. Cal.
1 | 1v0 | Pass: 0,2,3 | 2018-10-11 | None
2 | 1v0 | Pass: 0,2,3 | 2018-10-11 | None
-----
LSProbe Calibration Data Summary
-----
LSProbe# | Check | Factory Cal. | Accr. Cal.
1 | 1v2 | Pass: 0,2,3,4,6,7,(,8) | 2018-09-05 | 2018-10-06
2 | 1v2 | Pass: 0,2,3,4,6,7,(,8) | 2018-09-05 | 2018-10-06
45 | 2v0 | Pass: 0,2,3,4,(,6,7,8) | 2024-02-03 | None
-----
LSProbe Device List Summary
-----
Device# | Hardware Rev. | Serial Number | Firmware
0 | CI250 1.2 | I921 | Z7984

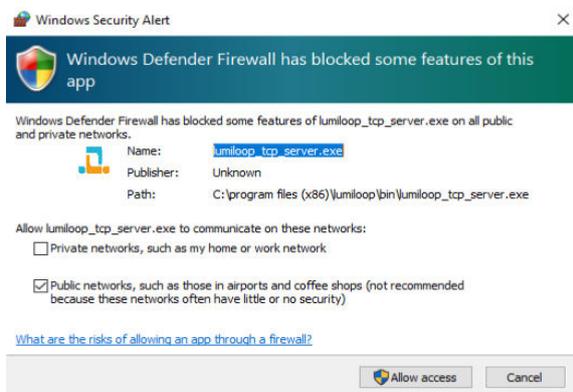
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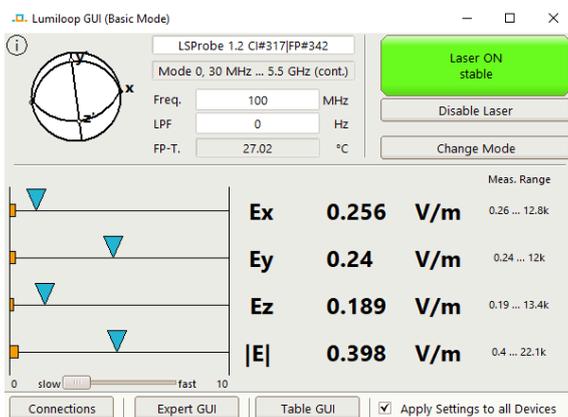
The GUI indicates proper operation by displaying a green “Laser Status” indicator as shown above. Stable operation is indicated by the Computer Interface’s continuously on “Power”, “Laser on” and “Data Link” LEDs as shown below.



- Since the LUMILOOP TCP Server needs to open a TCP port, the system’s firewall may ask for permission for network access. Access must be granted as shown below in order to run the LUMILOOP TCP Server, the default TCP port number is 10,000.



- As shown below, the E-field strength values for x, y, z components and the isotropic field strength are displayed by the GUI, maximum and minimum calibrated field strength for the set mode and frequency are displayed below.



- For accurate E-field strength measurements the field’s frequency must be specified using the “Freq./Hz” input field. Values are entered in Hertz, SI unit prefixes may be used, e.g. “1G” for 1 GHz, as shown above.
- For advanced features use the “Expert GUI” button.

5 LUMILOOP GUI Operation

- Start the LUMILOOP GUI via the Windows Start Menu.
- Click the “Enable Laser” button to activate the supply laser and turn the E-Field Probe on. The Computer Interface’s orange “Laser on” indicator LED will show the activity of the supply laser.

Warning: When the orange LED is flashing, Automatic Power Reduction (APR) is disabled. Interrupting optical connections is dangerous!

lumiloop.de/support/register

Register your LUMILOOP device and get a free one year warranty extension!
Applicable to all devices, which are currently covered by a warranty.

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absolute-emc.com
Phone: 703-774-7505
info@absolute-emc.com