

EMProbe Solution

Comprehensive Setup Guide

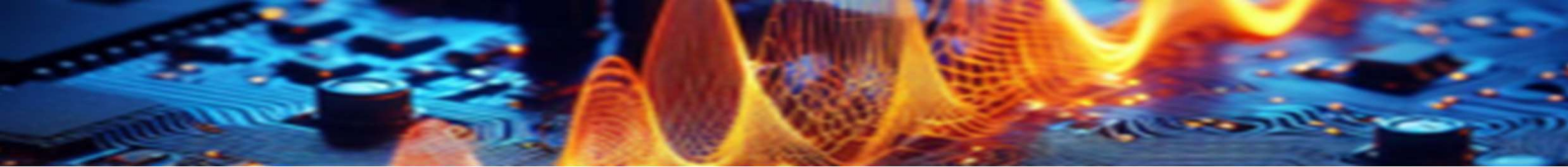


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Safety Notices

Caution

A **CAUTION** notice denotes a hazard. It calls attention to operating procedure, practice, or similar that, if not correctly performed or adhered to, could result in damage to the product or loss of important data. Do not proceed beyond a **CAUTION** notice until the indicated conditions are fully understood and met.




Warning

A **WARNING** notice denotes a hazard. It calls attention to an operating procedure, practice, or similar that, if not correctly performed or adhered to, could result in personal injury or death. Do not proceed beyond a **WARNING** notice until the indicated conditions are fully understood and met.

Components

Box Contents

EMProbe Solution

Magician	The robotic arm that will be holding the Near Field Probes during a scan.	1	
Power Supply	The power supply for the Magician	1	
NFPSet	The YIC Technologies Near Field Probe set. Comes with 5 probes.	1	
USB Cable	This connects the PC (laptop or desktop) to the Magician.	1	

User-Supplied Components

1. **Spectrum Analyzer:** This device measures the radio frequency (RF) signal received from a probe - generated by the very-near-field emissions of an adjacent activated PCB - and it outputs the data to the PC.
2. **PC:** A PC running Windows 11 or Windows 10 on an x86-64 processor is required. It is recommended the PC also meet the minimum system requirements to prevent graphical bugs, scanning slowdown and crashes.

Minimum System Requirements

Operating System: Windows 11 / Windows 10 (latest update)
CPU: 1 GHz or faster with two or more cores, on a compatible 64-bit processor
Memory: 8 GB or more
Storage: 200 MB for installation, and 1 GB for project saves
Graphics card: Compatible with OpenGL 4.2

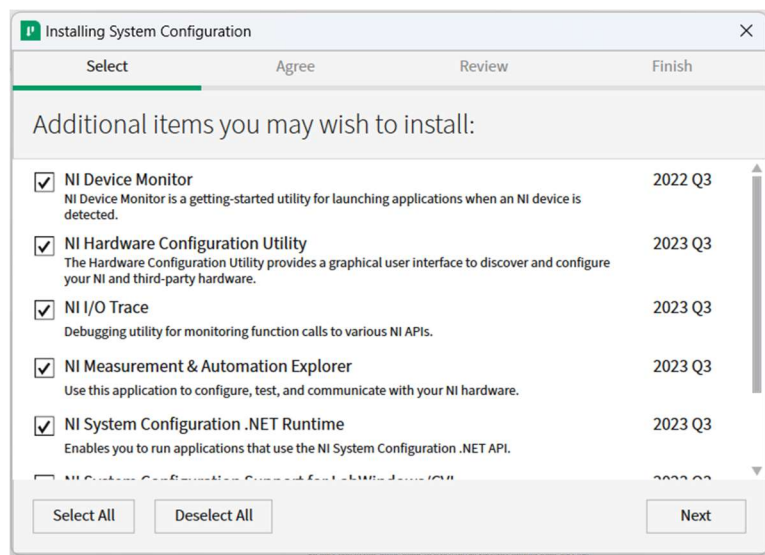
Installation and Hardware Setup

To safely and accurately setup the **EMProbe** solution, please refer closely to the following information regarding the full installation process.

1. **Install communication software for the spectrum analyzer:** You must determine which software to install from the manufacturer's website. For SCPI controlled spectrum analyzers, any software which installs NI-VISA can be used. This includes NI MAX, Keysight Connection Expert and RIGOL UltraSigma. It is recommended to install **one** of the following:

a.  **NI-MAX**

Recommended for most SCPI-controlled spectrum analyzers. Download NI System Configuration from the National Instruments website: www.ni.com. When "Additional items you may wish to install" is shown, you must have **at least** NI Measurement & Automation Explorer selected. Other items do not affect the EMViewer runtime and can be enabled at the user's discretion.



b.  **Keysight Connection Expert**

Recommended to use with Keysight spectrum analyzers.

Go to www.keysight.com and search for 'IO Libraries Suite', or [click here](#) to open the website to download the latest version. On the website, click on the 'Download' button and follow the steps as instructed.

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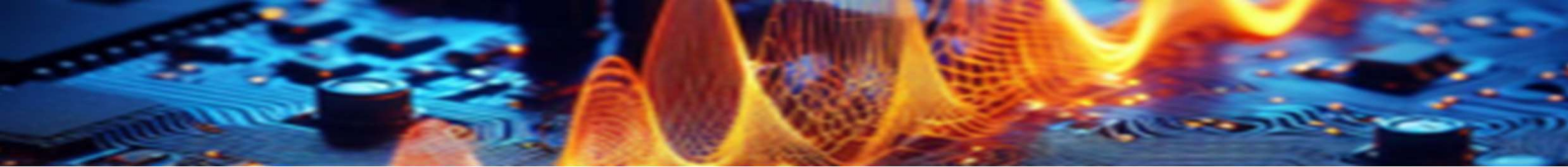
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c.  **RIGOL UltraSigma**

Recommended to use with RIGOL spectrum analyzers. Some RIGOL analyzers (such as the RSA5000) require additional downloads to use with this software. Please refer to the user manual for your spectrum analyzer.

2.  **Install the EMViewer software application:**

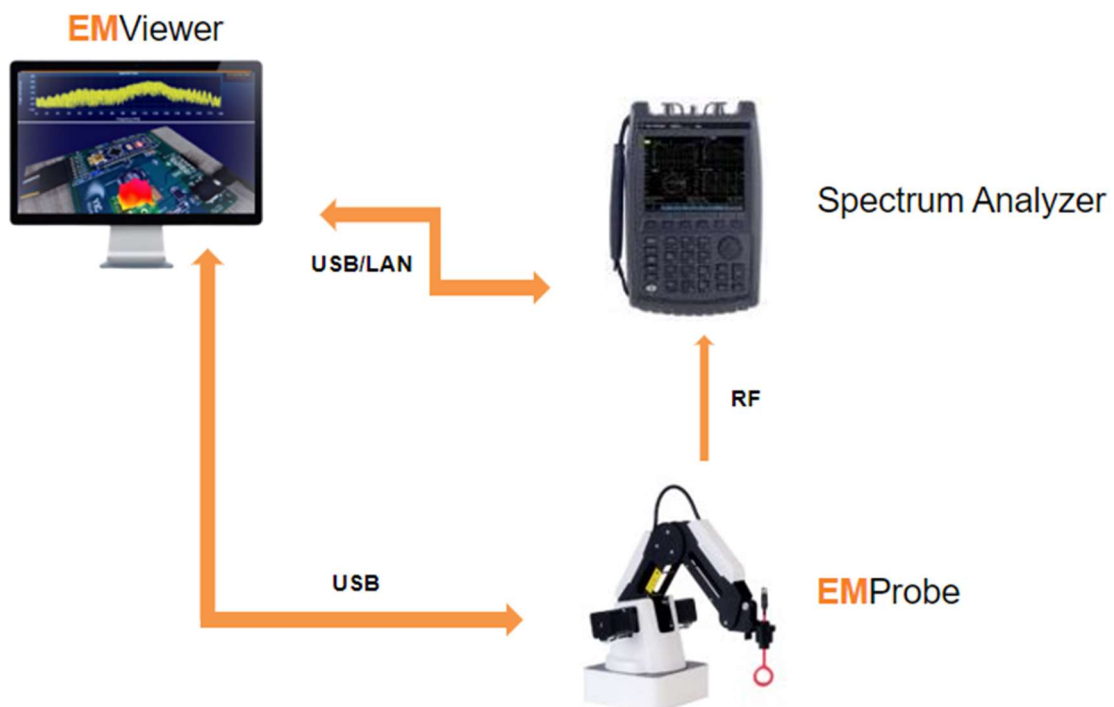
You can download the **EMViewer** software by going to the following linked page: <https://yictechnologies.com/emviewer/>

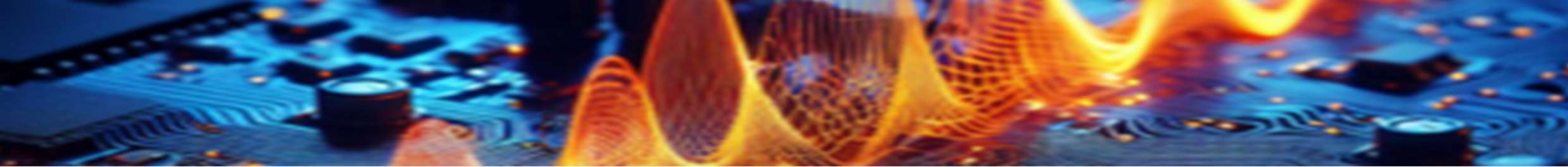
Install the **EMViewer** software by running the downloaded setup application. The application should be installed on the C: drive.

A license is required to use the **EMViewer** software. All licenses are provided by YIC Technologies. To obtain your license file, please email your PC's unique hash code (found in the menu Help->About in the **EMViewer** software) to support@yictechnologies.com.

3. **Setup:**

Set up your devices as described in the diagram below.



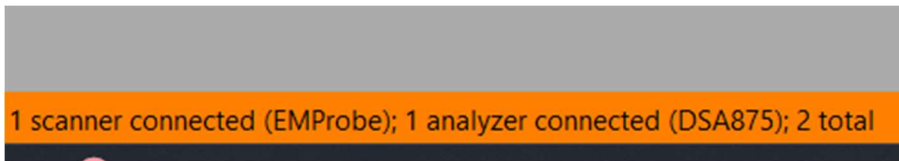


EMProbe Connections:

- **RF Connection:** connect the SMA side of the RF Cable to the probe held by the Magician and the N Type side to the **spectrum analyzer** (RF Input).
- **USB Connection:** connect the Magician to a PC using the USB cable.

Establish a Connection

After you have connected the Magician to the PC and powered it on, wait at least 30 seconds for the software to detect it. You will see the EMProbe be detected by the software:



In some cases, the driver required **may not** be installed automatically. If the EMViewer software cannot detect the scanner, the driver will need to be installed manually. A copy of the USB driver can be found on the PC in the following location:

C:\Program Files\YIC Technologies\EMViewer2\drivers\EMProbe

To manually install, copy the EMProbe folder to the desktop. Inside the copied folder, right click on:

silabser.inf - > Install

You may delete the folder from your desktop once the driver is installed.



Technical Support

For fast and seamless technical support, please gather the following information and contact Y.I.C. Technologies technical support as instructed further below:

1. *Serial number of your unit (Shown in the device list).*
2. *Software version (Menu: Help -> About).*
3. *Your analyzer control software (e.g. NI-MAX or Keysight Connection Expert)*
4. *Spectrum Analyzer model and manufacturer (or *IDN)*
5. *The log file stored in %appdata%/YIC Technologies/EMViewer2/log.txt*
6. *A detailed description of the problem, including screenshots and video footage.*

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