

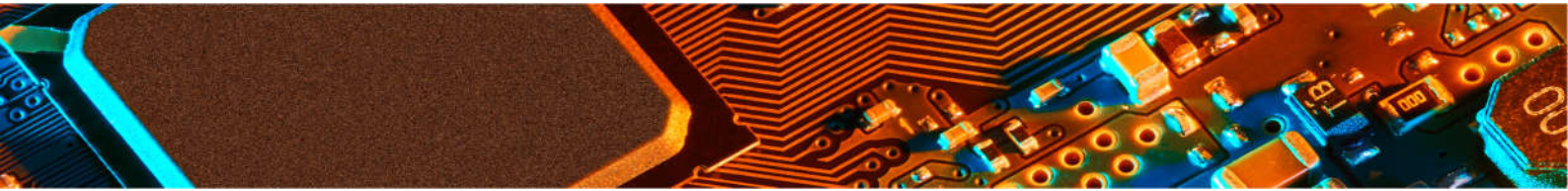
# EMScannerR

## Setup Guide

V0.9 18052020



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## Disclaimer

### ***Warranty***

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## Safety Notices






### ***Caution***

A CAUTION notice denotes a hazard. It calls attention to operating procedure, practice, or the like 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 the like 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 and Connection Overview

1	Scanner board	EMScannerR	
2	Adapter	The adapter controls the EMScanner	
3	RF SMA to type N coaxial cable	It is referred as the RF cable in this manual. It connects the scanner to the spectrum analyser and has a SMA connector for the scanner and a N connector for the spectrum analyser 50 ohm input port. It transmits RF output of the scanner to the spectrum analyser.	
4	Micro-D control cable	It connects the adapter to the scanner to enable control of the EMSCAN's patented scanner's switched probes and to power the scanner.	
5	USB Cable	It connects the PC (laptop or desktop) to the adaptor. The USB Cable provided with the system has ferrites on both ends of the cable	
6	SMB-BNC Trigger Cable	It connects the adaptor to the spectrum analyser	

### Required Components (Supplied by user)

1. **Spectrum Analyzer:** It must include the necessary options to work with the EMScanner (see [Supported Spectrum Analysers](#)). It measures the radio frequency (RF) signal received from the EMSCAN's patented scanner, generated by the very-near-field emissions of an adjacent activated PCB and it outputs the data to the PC.
2. **PC (Laptop / Desktop):** It must support a LAN 10/100 connection to the spectrum analyzer and a USB connection (version 2.0 or higher) to the adaptor or two USB connections, one for the spectrum analyzer and one for the adaptor. It runs the EMScanner software and receives data, which it can display and manipulate immediately or store for future data presentation.

## Installation and Hardware Setup

### 1. Install latest version of Keysight IO

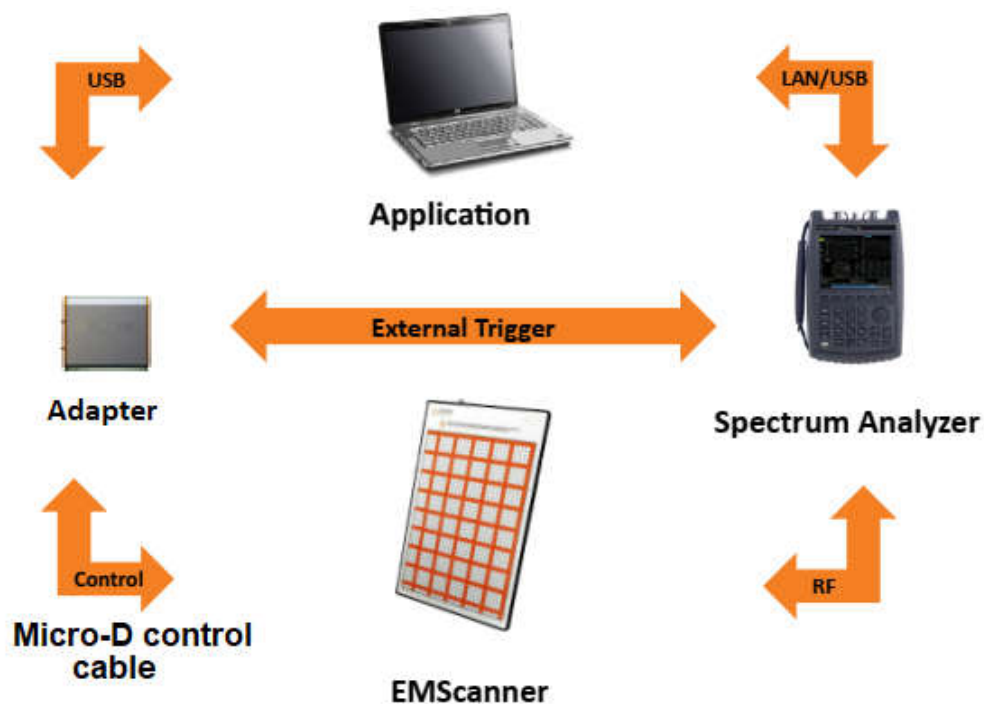
Click [here](#) to open the website to download the latest version. On the website click on the Download button and follow the steps.

### 2. Install the software application

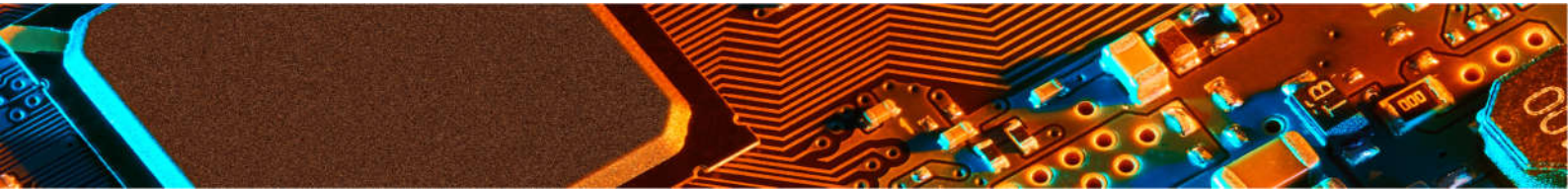
Install the EMScanner software by clicking on the Setup application icon. The application must always be installed on the C: drive.

EMScanner software can be found at [www.yictechnologies.com](http://www.yictechnologies.com)

3. Connect PC, scanner, adapter and spectrum analyser as per the diagram below. If you are using Ethernet between the PC and the spectrum analyser, use a crossover Ethernet cable. If the spectrum analyser has multiple trigger ports, always connect to Trigger 1 IN.



Connection Diagram

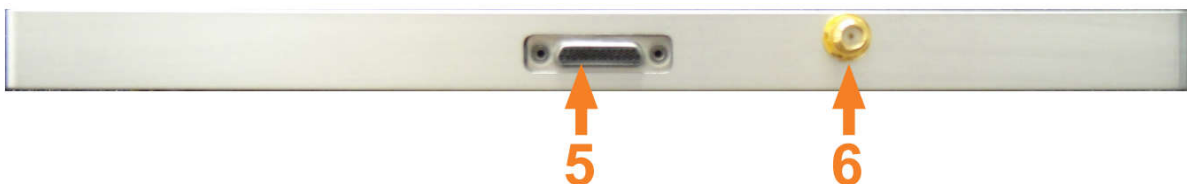
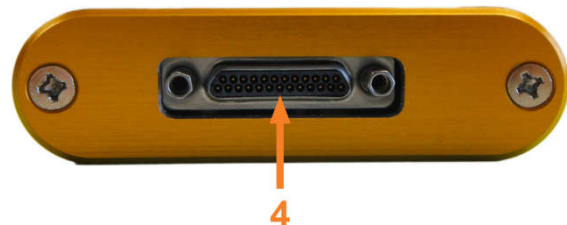
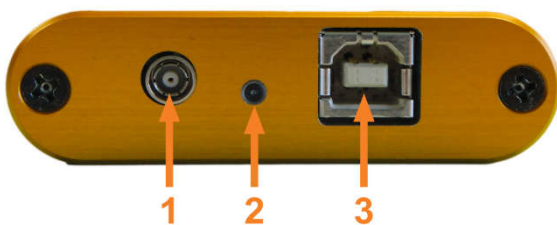


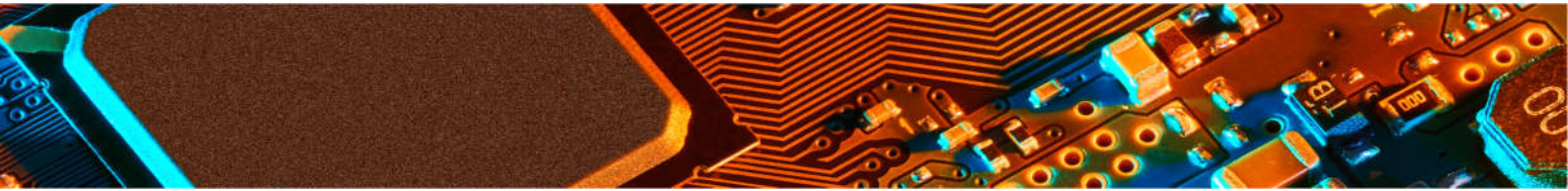
1. Connect the SMB connector to the Adapter and the BNC connector to the external trigger port on the rear panel of the spectrum analyser
2. Connect the B-end of the USB cable to the USB port on the Adaptor and A-end to any USB port on the computer.



### EMScanner and Adapter ports

1. SMB external trigger cable port
2. LED light shows three stages:
  - Red: Boot mode (this stage is fast; you may not even notice it)
  - Orange: Initiation mode (checking adaptor's firmware)
  - Green: User mode (adaptor is connected and ready)
3. USB connection port
4. Micro-D control cable connector - Adapter
5. Micro-D control cable connector - Scanner
6. RF output port





## Technical Support

*To help us provide fast and seamless technical support, kindly gather the following information and contact Technical Support as instructed further below:*

1. Serial number of your unit.
2. Software and firmware versions:
3. Windows OS information
4. Keysight IO version
5. Spectrum analyser model and firmware level
6. Information View data saved as a text file
7. Description of the problem including screen shots and videos

**support@yictechnologies.com**  
**www.yictechnologies.com**