You hold in your hands an evaluation board package for the MM5120/MM5130 Switch. The board is intended for evaluation of RF performance such as insertion loss, return loss and isolation over frequency.

**Evaluation kit is shipped with the following material:**

- MM5120/MM5130 Evaluation board, packaged in protective ESD bag.
- Mini-USB cable – for controlling the board.
- Control Software on USB memory stick.
- Printed Documentation.
  - MM5120/MM5130 Datasheet
  - Quick Start Guide (this document)

**Step by Step Procedure:**

1. On the USB memory stick you will find an installer that transfers all the necessary files to the computer. Go ahead and install the software.

2. In an ESD protected environment, open the ESD bag and take out the MM5120/MM5130 board. Ensure that the jumper J17/J16 is installed (as delivered). Observe handling procedures for ESD sensitive components such as conductive work surface and wrist strap at all times.

   ![Figure 1: Jumper J17 is installed on MM5120 EVK (J16 for MM5130)](image)

3. Install the USB cable between the Evaluation Board and the Computer. The kit comes with an angled mini-USB to provide clearance between the connector and RF measurement cables. When the EVK is connected to the Computer, the Power LED lights up to indicate presence of 5.0 V supply voltage from the computer.

4. Start the software. The software will scan attached USB ports to find the Evaluation Board and connect to it. Once it finds the EVK, it will be listed. Click on the “MM5120/MM5130 EVK button” to confirm the correct board. If the USB
cable is connected after the software is started, push the button “Retry Port Scan”.

![Retry Port Scan](image)

*Figure 2: Software with no EVK Connected*

5. The control GUI for the MM5120 or MM5130 will be shown and you can now control each of the 4 switches on the EVK. Note that LED indicators now indicate which switch is closed. Make sure there is no more than 0.5 V over the switch when it is closing or opening.

![Switch Control Panel](image)

*Figure 3: Control panel for MM5120 EVK*
Note on Measurement Instrumentation

It is recommended to measure the evaluation board using a VNA.
During evaluation it is best practice to open or close the device with zero voltage across the terminals. It is possible to open or close switches with up to 0.5 V across the terminals without lifetime degradation. See datasheet for full hot switching specification details. Opening or closing the switch with a VNA sweep active in generally a safe practice.

Note: Even using a common digital multimeter to check the resistance can lead to device damage if the measurement is active during the actual state transition. Voltages between 3.0 V and 7.0 V from Multi-Meters (DMM) have been observed.