1. **GENERAL**

1.1. **PURPOSE**

1.1.1. To provide detailed instructions for TIDA-0890 USB Type-A Plug to USB TypeC™ Receptacle SS (SuperSpeed) MUX with DFP Controller Reference Design.

1.2. **SCOPE**

1.2.1. This document describes the steps required to perform a general TIDA-0890 USB Type-A Plug to USB TypeC™ Receptacle SS (SuperSpeed) MUX with DFP Controller Reference Design functional test.

1.3. **REFERENCE DOCUMENTATION**

1.3.1. Schematic TIDA-00890 SCH.DSN
1.3.2. Assembly TIDA-00891 PCB.brd
1.3.3. TIDA-00891 User’s Guide.pdf

1.4. **MATERIALS**

- Type-C to Type-A adaptor.

1.5. **DEFINITIONS**

1.5.1. USB – Universal Serial Bus.
1.5.2. EVM – Evaluation Module.
1.5.3. REV – Revision.
1.5.4. UFP– Upstream Facing Port.
1.5.5. DFP– Downstream Facing Port.

2. **EQUIPMENT**

- TIDA-00890 dongle.
- USB3 capable host Type-A receptacle port.
- USB3 device.
- Type-C UFP device.
- Type-C to Type-A adaptor.
- USB UFP device.

3. **EQUIPMENT SETUP**

3.1. **USB Connection Test.**

3.1.1. Connect the TIDA-00890 dongle to a USB3 capable host Type-A receptacle port.
3.1.2. Upon connection, the green LEDs (D2) should illuminate.
3.1.3. Connect a USB3 device to/through the USB Type-C™ receptacle port of the TIDA-00890 dongle. Upon connection to a USB Type-C™ UFP device, orange LED (D7) should illuminate.
The figure below describes an example configuration. Two test configurations are possible.

One connecting to a Type-C UFP device directly to the Type-C receptacle port(J4) of the TIDA-00890. The other connecting to a legacy USB UFP device through a Type-C to Type-A adaptor.

4. PROCEDURE

4.1. Check USB3 connection through USB view or device manager of the USB Host system. MUST verify connection is SUPER in both USB Type-C connection orientations.

Figure 1 Checking USB connection Speed using USBVIEW
4.2. Connect a USB2 device to/through the Type-C receptacle port (J4) of the TIDA-00890 dongle using either configuration described in step 3.

4.3. Check USB2 connection through USB view or device manager of the USB Host system. Check USB2 connection in both USB Type-C orientations.

5. **EQUIPMENT SHUTDOWN**

5.1.1. Disconnect the TIDA-0890 dongle to a USB3 capable host Type-A receptacle port.
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