TIDA-00890 Test Results

1. GENERAL

1.1. PURPOSE

1.1.1. To provide detailed instructions for TIDA-0890 USB Type-A Plug to USB TypeC^{TM} 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^{TM} Receptacle SS (SuperSpeed) MUX with DFP Controller Reference Designfunctional 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.
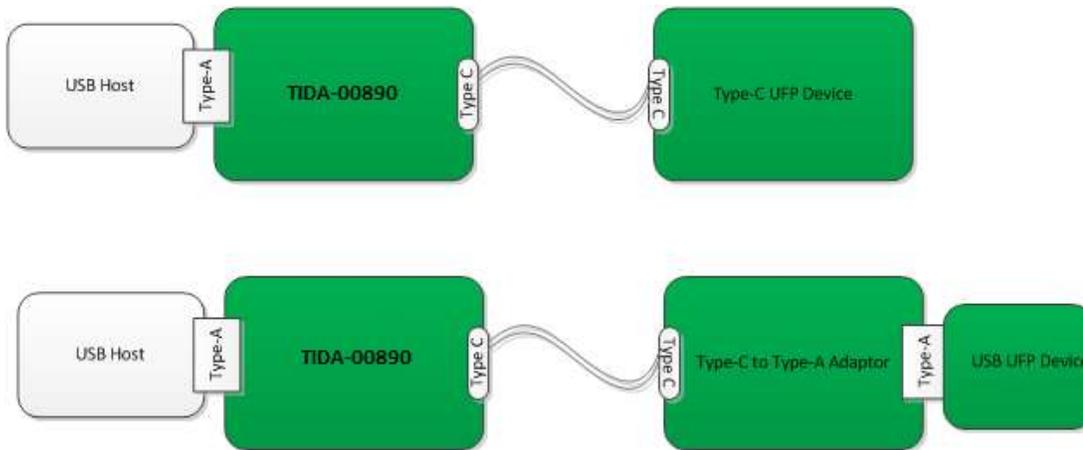
4. PROCEDURE

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.
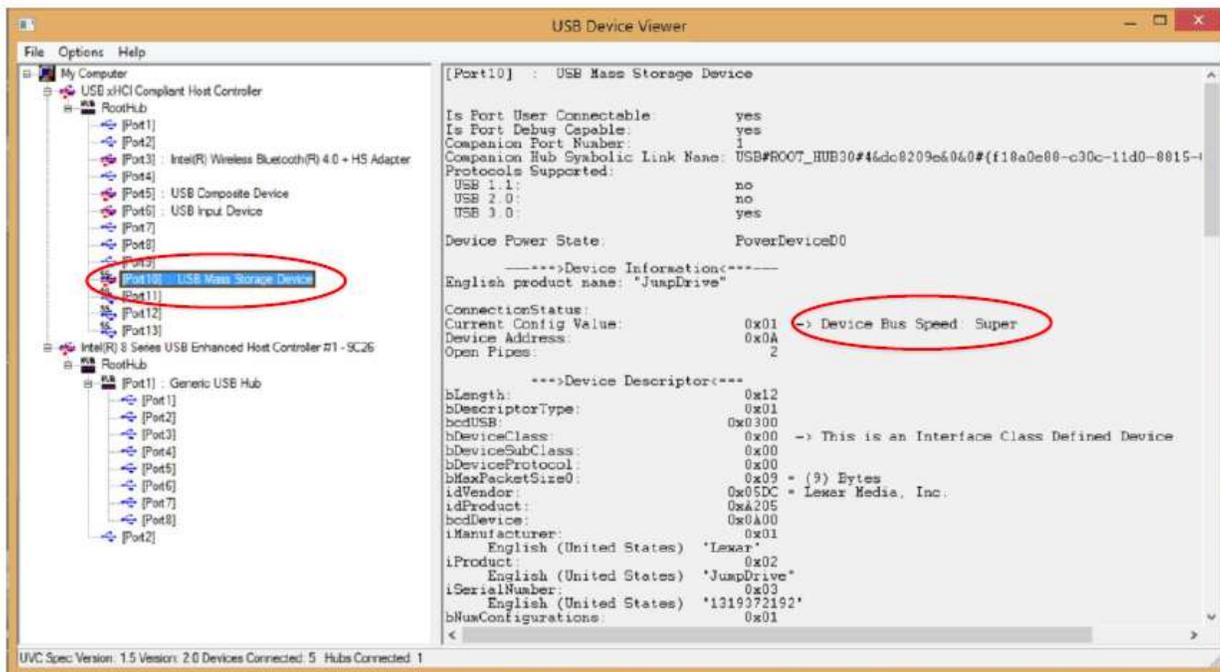

Figure 1 Checking USB connection Speed using USBVIEW
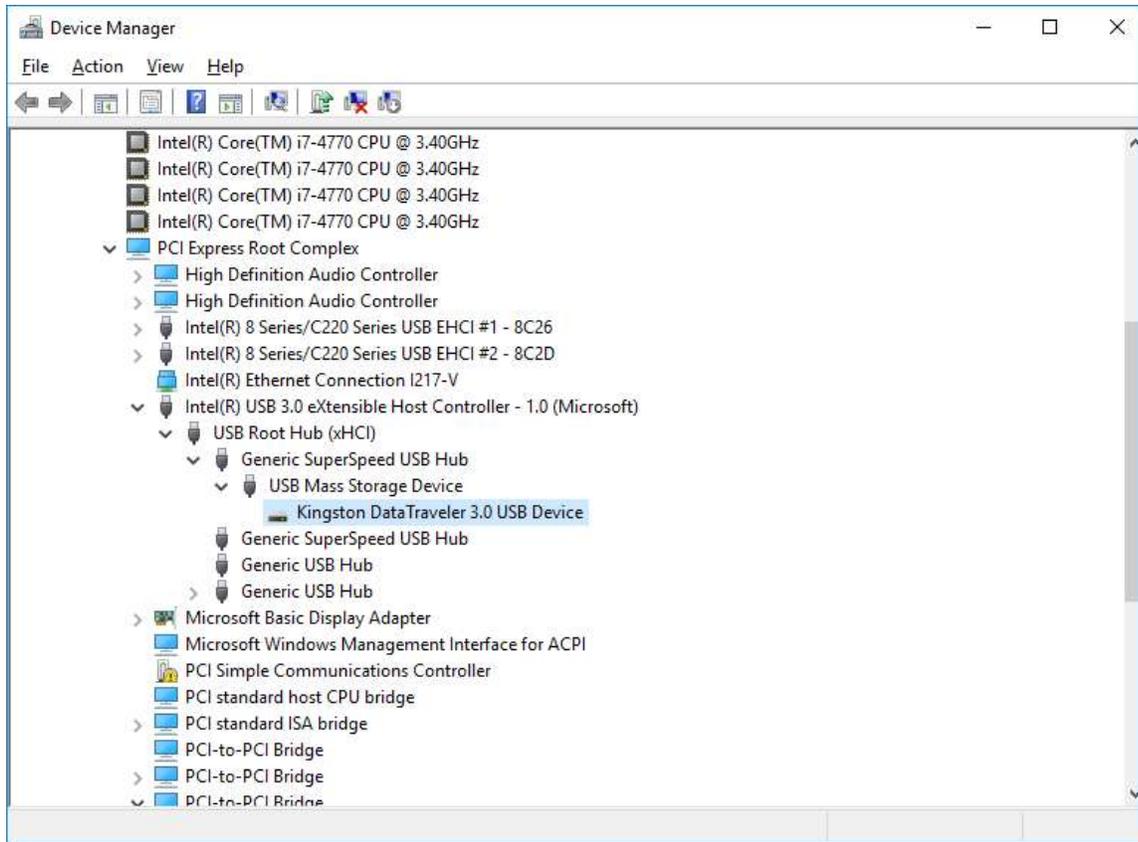
Figure 2 Checking USB connection on Device Manager.

4.2. Connect a USB2 device to/through the Type-C receptacle port(J4) of the TIDA-00890 dongle using either configuration described in step3.

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.

Figure 3 TIDA-00890 Test Setup example

5. EQUIPMENT SHUTDOWN

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

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