

# Test Procedure for the FUSB3307MX-PPS-GEVB and FUSB3307MPX-PPS-GEVB

Required Equipment:

- FUSB3307MX-PPS-GEVB or FUSB3307MPX-PPS-GEVB
- 12V DC Power Supply
- USB Type-A to USB micro-B cable
- USB Type-C<sup>®</sup> cable
- FUSB302 EVB (FUSB302BGEVB)
- FUSB302 EVB GUI
- PC or laptop used for FUSB302 GUI and FUSB302 EVB
- voltmeter
- 1. Start the FUSB302 GUI on the PC being used.
- 2. Connect the FUSB302 EVB to the PC using the USB Type-A to USB micro-B cable.



Figure 1 – FUSB302 EVB connected to PC



3. Make sure the FUSB302 EVB is connected and communicating with the GUI as indicated in the status bar on the bottom of the GUI as shown in Figure 3. The version should be at least 4.1.2.

Looking for VID:0x1057, PID:0x012E		
	Figure 2 – FUSB302 EVB not attached to PC	
USB Device: VID:0x1057, PID:0x012E		Device Connected v4.1.2
Figure 3 -	- FUSB302 EVB attached to PC and recognized by GUI	
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Looking for VID:0x1057, PID:0x012E	GUI is newer than firmware. <u>Please update firmware.</u>	
Figure 4 – 1	FUSB302 EVB attached to PC but not recognized by GUI	

If the GUI is not recognizing the EVB, as in Figure 4, then re-program the EVB to ensure the most current firmware is present on the EVB. The most current FUSB302 GUI and programming file (firmware) can be downloaded from the FUSB302 product page at <u>www.onsemi.com</u> under the Software link.



4. Connect the 21V DC power supply to the VBAT and GND terminals of the FUSB3307 EVB. The FUSB3307 EVB is shown in Figure 5.



Figure 5 - FUSB3307 EVB



5. Connect the Type-C cable between the FUSB3307 EVB and the FUSB302 EVB. The entire test setup is shown in Figure 6.



Figure 6 - FUSB3307 and FUSB302 setup

6. Using the FUSB302 GUI, click on the PD Control tab and verify that the Capabilities Advertised look like Figure 7.

Capabilities Advertised		
FPDO 5 V, 3 A FPDO 9 V, 3 A FPDO 12 V, 3 A	GiveBack	USB Com
FPDO 15 V, 3 A FPDO 20 V, 3 A	Operating Current	0.100 🖨 A
PPS 3.3 V - 21 V, 3 A	Maximum Current	0.10 A
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Figure 7 - FUSB3307 capabilities



7. Select the "PPS 3.3 V - 21 V. 3 A" power object, click the Request Selected Object button, and verify that the Current Contract shown in the USB PD Contract window changes to match the selection requested. See Figure 8.

USB PD Contract Current Contract	Sink PPS 20 V, 3 A			
USB PD Control	✓ Send Control Message			
Capabilities Advert	<ul> <li>GiveBack USB Com</li> <li>Mismatch Allow Suspend</li> <li>Operating Current 3.00 A A</li> <li>A</li> <li>Operating Votlage 20.00 V A</li> </ul>			
Request Selected Object				
Figure 8 - Select PPS object and verify new contract				

8. Finally, as shown in Figure 9, use a voltmeter measure VBUS on the FUSB302 EVB to verify that 20V is present.



Figure 9 - Measure VBUS on FUSB302 EVB