

ON Semiconductor

Is Now

onsemi™

To learn more about onsemi™, please visit our website at
www.onsemi.com

onsemi and **onsemi** and other names, marks, and brands are registered and/or common law trademarks of Semiconductor Components Industries, LLC dba "**onsemi**" or its affiliates and/or subsidiaries in the United States and/or other countries. **onsemi** owns the rights to a number of patents, trademarks, copyrights, trade secrets, and other intellectual property. A listing of **onsemi** product/patent coverage may be accessed at www.onsemi.com/site/pdf/Patent-Marking.pdf. **onsemi** reserves the right to make changes at any time to any products or information herein, without notice. The information herein is provided "as-is" and **onsemi** makes no warranty, representation or guarantee regarding the accuracy of the information, product features, availability, functionality, or suitability of its products for any particular purpose, nor does **onsemi** assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. Buyer is responsible for its products and applications using **onsemi** products, including compliance with all laws, regulations and safety requirements or standards, regardless of any support or applications information provided by **onsemi**. "Typical" parameters which may be provided in **onsemi** data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. **onsemi** does not convey any license under any of its intellectual property rights nor the rights of others. **onsemi** products are not designed, intended, or authorized for use as a critical component in life support systems or any FDA Class 3 medical devices or medical devices with a same or similar classification in a foreign jurisdiction or any devices intended for implantation in the human body. Should Buyer purchase or use **onsemi** products for any such unintended or unauthorized application, Buyer shall indemnify and hold **onsemi** and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that **onsemi** was negligent regarding the design or manufacture of the part. **onsemi** is an Equal Opportunity/Affirmative Action Employer. This literature is subject to all applicable copyright laws and is not for resale in any manner. Other names and brands may be claimed as the property of others.



FUSB252 Evaluation Board Users Guide

Version 1.1 – 4/6/2018

Overview

The FUSB252 evaluation board is designed to be inserted between a board that contains a Type-C controller (such as FUSB301 or FUSB302) and a source of voltage for OVP testing. Test points on the CC pins will allow OVP test scenarios to test the devices intended function. An LED indicator will show an OVP condition and the device should break connection to the USB host. If there isn't access to a Type-C voltage source, test points (GND and VDD) are available on the board for direct power supply connections.

After performing OVP testing, the Type-C receptacle can accept a Type-C device such as a memory stick to demonstrate normal USB functionality (with SEL=L).



Figure 1 – Board Top View and DP/DM Select Pin Map

Board Operation:

- The FUSB252 datasheet should be consulted for proper voltages.
- Power should be provided via the VDD and GND test points.
- Jumpers are provided for operation of the DP/DM switch. Switch needs to be enabled ($OE\backslash=0$) to pass through the switch.
- The jumpers also provide the direction of the switch (see above illustration).
(SEL=L: HS1D+/HS1D-, SEL=H: HS2DP/HS2DM)
- Zero Ohm resistors (R1, R2) connect the SBU pins to the Type-C plug. They can be removed if desired for testing needs.