

**Granite River Labs**  
**Addendum**  
**for Hardware Setup with GRL-USB-PD-FRS Fixture Set and**  
**GRL USB Type-C Power Delivery Tester and Analyzer (GRL-**  
**USB-PD-C2)**



This material is provided as a reference to set up the hardware for Fast Role Swap based testing using the Granite River Labs GRL-USB-PD-FRS fixture set and GRL-USB-PD-C2 test controller.

For software support, contact [support@graniteriverlabs.com](mailto:support@graniteriverlabs.com).

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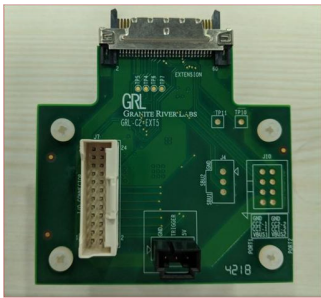
# 1 Scope of this Addendum

This Addendum serves as the supplementary documentation for how to connect the GRL Fast Role Swap (FRSWAP) Board (GRL-USB-PD-FRS) to the GRL-USB-PD-C2 USB Type-C Test Controller for Fast Role Swap based testing.

The GRL-USB-PD-FRS fixture set comprises the following boards/accessory:



- **GRL-C2-FR-SWAP-AUTO Box Board** – Fixture for GRL-USB-PD-C2 test controller, used to automate Fast Role Swap based testing. Connects to DUT to remove External AC power from DUT.



- **GRL-C2-EXT5 Extension Board** – EXT5 extension fixture for GRL-USB-PD-C2 test controller, used to:
  - Control inputs/outputs from C2.
  - Provide signal triggering for FRSWAP, GRL-USB-PD-SHT extension fixture and other peripherals.



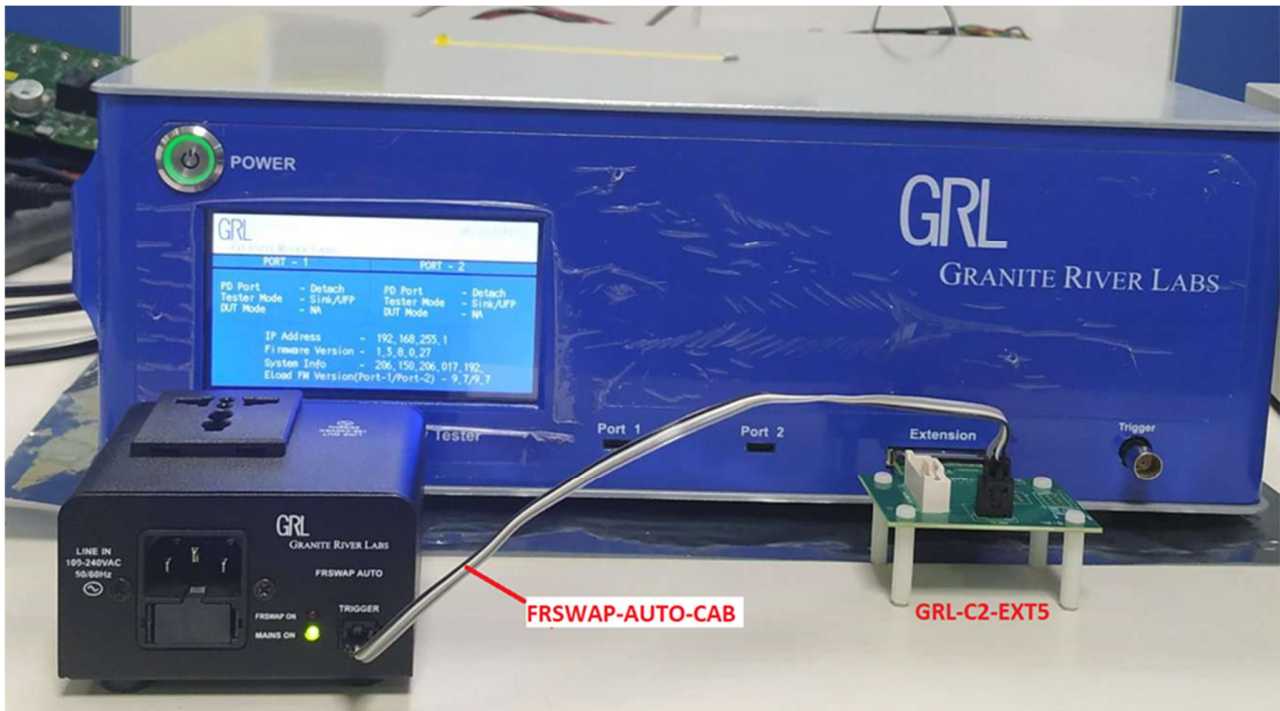
- **FR-SWAP-CAB** – FRSWAP test cable, used for connecting GRL-C2-EXT5 extension board with GRL-C2-FR-SWAP-AUTO fixture.
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## 2 Setup of GRL-USB-PD-FRS Test Fixtures

Below is the procedure to set up and attach the GRL-USB-PD-FRS fixtures to the GRL-USB-PD-C2 controller.

**Caution: Carefully insert and remove power cords to and from the fixture during setup.**

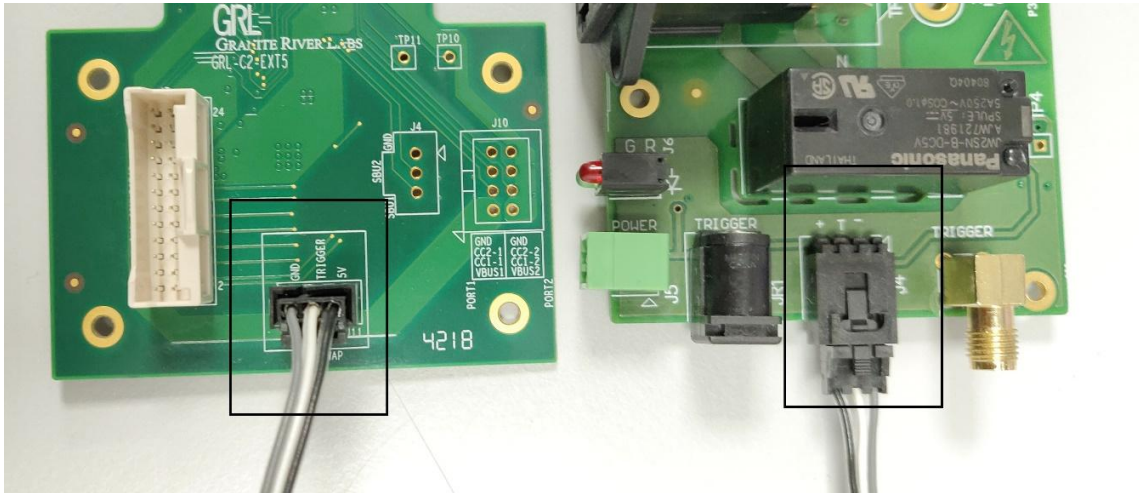
1. Connect the GRL-C2-EXT5 Extension Board to the Extension port of the GRL-USB-PD-C2 test controller and then connect the GRL-C2-FR-SWAP-AUTO Box Board using the FR-SWAP-CAB test cable as shown below:



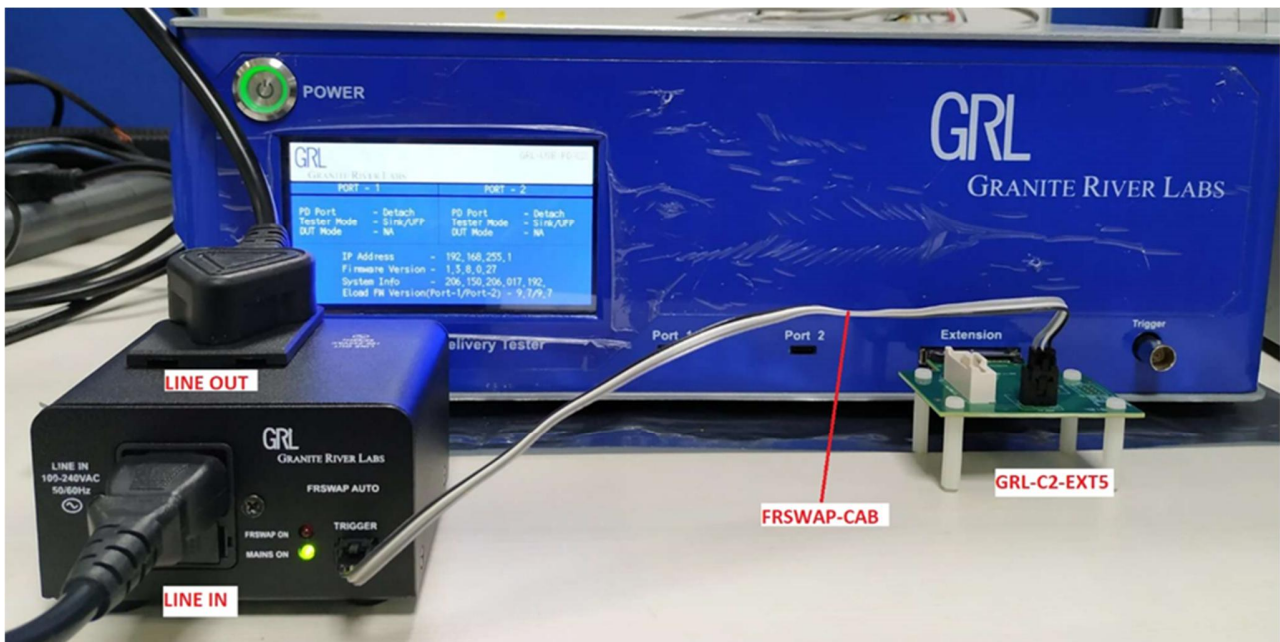
2. Insert the FR-SWAP-CAB test cable into the respective connectors as shown below. The connection should follow the table below.

GRL-C2-EXT5	GRL-C2-FR-SWAP-AUTO Box
GND	- [GND]
TRIGGER	T [TRIGGER]
5V	+ [5V]





3. Connect a AC power cord from a power socket to the LINE IN connector of the GRL-C2-FR-SWAP-AUTO Box Board and connect a laptop PC power adapter to the LINE OUT connector of the GRL-C2-FR-SWAP-AUTO Box Board as shown below. [Note: Make sure AC power is switched off during connection.]



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