Quick start guide for USB-PD/QC Development Kit

1. Basic Kit

1.1 Contents

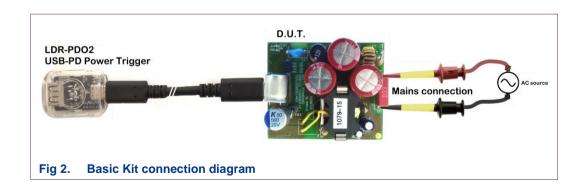


The Basic Kit contains:

- Demoboard with a TEO190x, i.e. a complete USB-PD source device
- Legendary LDR-PDO2 USB-PD power trigger
- Kewesi KWS-V20 USB tester
- TEA190xDB1471 Quick Charge Controller for QC-2.0/3.0
- Type-C male-male short cable

1.2 Basic Kit PD how-to

The diagram shown in Fig 2 shows how to connect an USB-PD Power Trigger to the demoboard.





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USB-PD/QC Development Kit

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The USB Tester can be connected to the USB-PD Power Trigger to monitor the voltage and current when a load is connected to the USB-A output of the USB Tester.

When mains power in switched on and the USB-PD power trigger is connected the board will step through all available PDOs. Each voltage stays for 3 seconds and then switch to the next voltage and stay in the last PDO voltage. The voltage is displayed on the USB-tester.

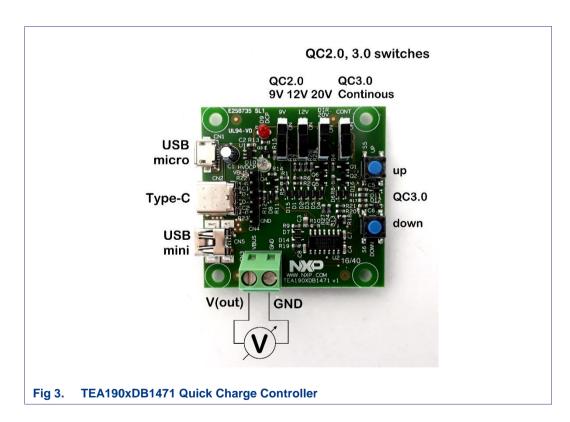
Pressing the power trigger's button will immediately enter the next PDO voltage. When pressing the power trigger's button when the board is operating at the last PDO voltage it will let the board step back to the first PDO voltage.

1.3 Basic Kit QC how-to

As mentioned in paragraph 1.1 the basic kit also contains a controller board that can be used for Quick Charge evaluation. A load and/or a voltage meter can be connected to CN3 to measure the output voltage and to draw current from the USB-PD demo board with a resistive or electronic load.

The board is connected to the demo board via the Type-C port, but also the USB-mini/micro ports can be used.

For Quick Charge 2.0 the fixed QC voltage can be selected with switches S1, S2 and S3 for 9 V, 12 V and 20 V as indicated in Fig 3.



For Quick Charge 3.0 testing S4 must be ON and the output voltage can be varied in steps of 200 mV. Pressing S5 (up) will increase the output voltage and pressing S6 (down) will decrease V(out).



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