

PDT-EPR v USB-PDT Comparison

Reason for New Design

The USB-IF have introduced new requirements in the Power Delivery Specification, which involve higher voltages and power levels in a PD product. Consequently they also require that Testers for such products should be able to cover these new power capabilities.

Detail of Changes Required

Essentially a Tester is now required to provide voltages of up to 48V, instead of the previous 20V, and load testing is required to sink 240W instead of the previous 100W. This has required a re-design of the USB-PDT, involving three new PCBs, a new higher powered external power supply, a new higher voltage Test Cable, and more efficient cooling arrangements.

From February onwards, it will be necessary to use a Tester with the higher capability, in order to be able to satisfy Compliance Requirements.

Even UUTs not implementing the higher voltages need to be tested with the new Tester Specification.

PDT-EPR v USB-PDT Comparison Table

Feature	USB-PDT	PDT-EPR	Comment
VBUS Generator Voltage Range	3V-20V	3V-48V	
VBUS Settable Current Limit	No	1A – 5A	Tester as PPS Source
Current Sink	0 – 5A 100W	0 – 5A 240W	
Protocol	SPR Only	EPR and SPR	
VBUS Voltage Measurement Range	0V – 21V	0V – 55V	
Cooling Arrangements	100W Capable	240W Capable	
Test Cable	Custom 20V/5A Cable	Custom 50V/5A Cable	
External Power Supply	24V/8.3A	24V/13.75A	

Order Codes

We have arranged that the new capabilities can be accommodated in the existing box size, to allow the possibility of upgrading existing units. The following table describes the possible upgrade paths.

Order Code	Description
PDT-EPR	Complete Power Delivery Compliance Tester with support for EPR, including BT3 and permanent registration for CTS software.
PDT-EPR-UPGD-CTS	Upgrade of existing USB-PDT to support EPR, including permanent registration for CTS software. Does not include BT3.
PDT-EPR-UPGD	Upgrade of existing USB-PDT to support EPR, for customers who already have permanent registration for CTS software. Does not include BT3.