USB
Power Delivery
Analyzer

Key Features

USB Power Delivery Analyzer
- Lightweight footprint, highly portable
- Sniff Power Delivery (PD) traffic on both Control Channel Lines (CC1/CC2)
- Message decoding, including power negotiation, alternate mode negotiation, VDM data display, etc.
- Capture and display PD 3.0 Extended Messages
- Decode DisplayPort VDMs

Performance
- Pass through of all USB 2.0, USB 3.1 Gen2 data
- Easy visualization for your power delivery packets
- Simultaneous view/capture in true real-time

Included Software
- Total Phase Data Center™ Software

USB Bus-powered
- Portable
- No extra power adapters needed

Cost/Performance Benefits
- Competitive price
- Compact capture files are easily shared and viewable with the free Data Center Software

Quality
- REACH, RoHS
- Manufacturing: ISO 9001, ISO 13485, AS9100C ITAR certified
- Six month warranty

The USB Type-C connector and Power Delivery (PD) are the two most impactful developments in USB technology in many years. These developments are revolutionary: the Type-C connector has a much smaller footprint, reversible architecture, support for higher speed communications, more power, and alternate protocols. PD takes advantage of this new connector and further expands USB's appeal by enabling the delivery of power and data in more flexible ways. The new features build upon the strong foundation of prior generations of USB technology and allow the superior communications to be combined with high power, video and more.

The combination of our USB Power Delivery Analyzer with the free Data Center™ Software enables you to monitor and decode Power Delivery protocol traffic on the CC1/CC2 (configuration channel) pins while concurrently passing through USB 2.0 and USB 3.1 (up to Gen2) data lines. Additionally, VBUS and VCONN are both monitored, graphing their current and voltage correlated in real-time to the captured data.

Fast simple and portable, this is the most streamlined solution to test and debug your USB Power Delivery sources and sinks.

Visibility for Power Delivery
- Monitor power delivery negotiation
- Visualize PD packets
- Decode PD packets

Excerciser Capabilities
(Hardware capable, software not supported)
- Inject BMC encoded PD packets on the CC1 or CC2 lines
- Switch in Rd/Rp/Ra resistors on CC1 and CC2
- When connected to a power source adapter can negotiate a power contract at 5 – 20V

Implement Type-C Power Delivery in Your Device, Host, or Hub
- Monitor detailed sink/source charging level negotiation
- See PD negotiation between multiple initiators
- Confirm sequence when testing interoperability of your device interactions with other Type-C PD solutions
- Test the interaction between source and sink
- Verify electronically marked cable responses
- Monitor upstream/downstream port data and power role swap
- View entrance/exit sequences for Alternate Modes

USB Power Delivery Analyzer

Applications

- Port Replicators
- Electronically marked cables
- Type-C hubs
- Type-C device negotiation
- Type-C host negotiation
- Dual Role Port (DRP) monitoring
- Type-C chargers and power supplies
- Type-C adapters

Scan for Video

Specifications
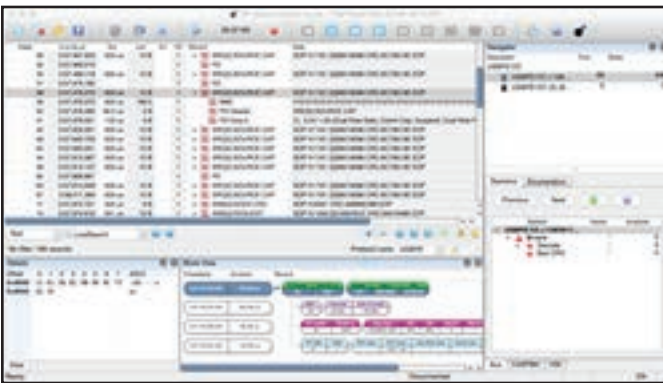
Software

Total Phase Data Center Software

Data Center Software is a bus monitoring software application that displays captured USB, USB Power Delivery, I2C, SPI and CAN bus data in true real-time.

Data Center Features

- Real-time Type-C VBUS/VCONN current/voltage monitoring
- Interactive correlation of current/voltage with captured data
- LiveDisplay™ technology allows for capture and display of current/voltage readings and PD traffic
- Collaborate easily by sharing capture files.

Operating Systems Supported (32-bit and 64-bit)

- Windows: 7, 8, 8.1, 10
- Linux: Ubuntu, Fedora, SuSE, Red Hat
- Mac OS X: 10.7 - 10.14

USB Power Delivery data capture
using Data Center Software

Hardware

USB Pass Through

- SuperSpeed Generation 2, 10 Gbps
- SuperSpeed Generation 1, 5 Gbps
- High Speed, 480 Mbps
- Full Speed, 12 Mbps
- Low Speed, 1.5 Mbps

VBus Support (Maximum)**:**

- 20 volts, 5 amps

Target Port (DUT)

- USB Type-C receptacle
- USB Type-C plug

Analysis Port (Connects to PC)

- USB 2.0 Micro-B receptacle
- Analyzer is bus-powered

Included Cables

- (1) 6 foot USB Standard-A to Micro-B cable
- (1) 6 inch Micro USB OTG Adaptor (Micro B male right-angle to Standard-A female)
- (1) 3 foot USB 2.0 Cable (Standard-A male to Standard-A male)

Dimensions (W x D x L)

- 25.4 x 38.1 x 6.4 mm (1.00 x 1.50 x 0.25 in)

Weight

- 42 g (1.5 oz)

Operating Temperature

- 10° – 35° C (50° – 95° F)

Ordering information

Power Delivery Analyzer

Part Number	TP350110
Country of Origin	USA
HTS	9030890100
ECCN	EAR99