

# USB Power Delivery Analyzer



## Key Features

### USB Power Delivery Analyzer

- Lightweight footprint, highly portable
- Monitor CC1/CC2, capture BMC data
- USB PD 2.0 Protocol Decoder
- Monitor VBUS and VCONN, log voltage/current
- Stream to disk for trace capture
- Large capture sizes supported

### 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 easily shared and viewable with 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) 2.0 are the two most impactful developments in USB technology in many years. These developments are evolutionary: the Type-C connector has a much smaller footprint, reversible architecture, support for higher speed communications, more power, and alternate protocols. PD 2.0 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.

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

- 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 the adapter negotiates 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
- Test interoperability of your device interactions with other Type-C PD solutions
- Test the interaction between source and sink
- Test/verify electronically marked cables
- Monitor upstream/downstream port data and power role swap
- View entrance/exit sequences for Alternate Mode

# 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

## 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 VBUS current/voltage monitoring
- Interactive correlation of current/voltage with captured data
- LiveDisplay™ technology allows for capture and display of current/voltage readings and USB traffic
- Collaborate easily by sharing capture files.

#### Operating Systems Supported (64-bit)

- Windows: 7, 10, 11
- Linux: Ubuntu, Fedora Arch, CentOS, Debian, SuSe, Red Hat
- macOS: 10.13 - Monterey 12

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

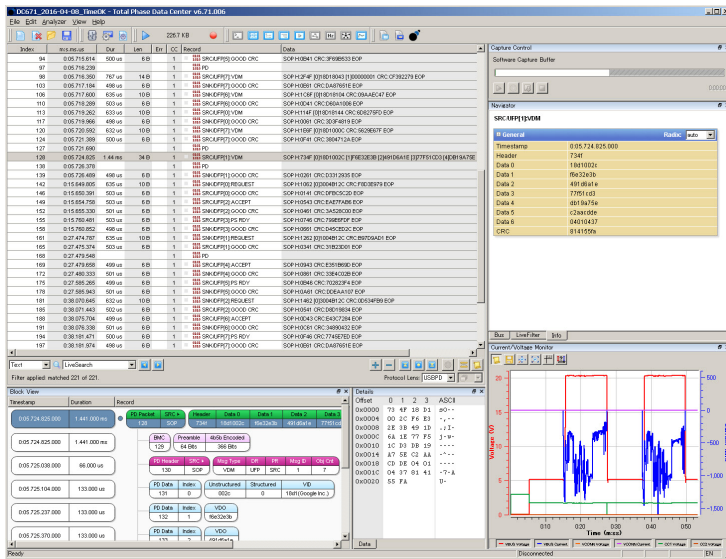
- 42 g (1.5 oz)

#### Operating Temperature

- 10° - 35° C (50° - 95° F)

### Ordering information

Power Delivery Analyzer	発注型番:USB-PDA
Part Number	TP350110
Country of Origin	USA
HTS	9030890100
ECCN	EAR99



USB Power Delivery data capture using Data Center software

## Total Phase 正規代理店

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