

# Beagle™

## USB 480 Power Protocol Analyzer - Standard(在庫あり) / Ultimate Edition

USB2.0 バス通信のプロトコル解析に加えVbusの電圧/電流のモニタができるツールです。GUIからデバイスへのバスパワーをON/OFFできるので開発時の頻繁なデバイス着脱を減らせます。Standard版では簡単な、Ultimate版では複雑なトリガが使えます。Beagle USB 480との違いなど、詳細は立野電脳(株)へお問い合わせください。sales@dsp-tdi.com

### Key Features

#### Current/Voltage Monitor

- Real-time graphing of  $V_{BUS}$  current and voltage values
- Interactive and bi-directional correlation of current/voltage values with USB data

#### USB 2.0 Advanced Triggers<sup>1</sup>

- Create state-based and flexible trigger conditions based on data patterns, packet types, error types, events, and other criteria
- Hardware packet filtering
- Up to eight independent states and six matches per state for USB 2.0 captures
- Digital inputs and outputs to synchronize with oscilloscopes or logic analyzers

#### High-Performance HW Buffer

- 256 MB capacity
- Large circular buffer

#### Real-Time Non-Intrusive Monitoring

- Real-time data analysis and display
- Automatic bus speed detection
- Low/Full/High-Speed USB 2.0
- Capture traces to >25 GB

#### Real-Time USB Class-Level Decoding

- HID, Audio, Video, Still Image, Printer
- Mass Storage, Hub
- Network, Mobile, CDC

#### Quality

- CE, REACH, RoHS, ISO9001
- One year warranty



As USB devices continue to grow in number and complexity, developers need their monitoring and analysis tools to keep pace. The Beagle™ USB 480 Power Protocol Analyzer enables your competitive edge with its unique, powerful features and a price that is a fraction of competing equipment.

The Beagle USB 480 Power Protocol Analyzer enables  $V_{BUS}$  current and voltage measurement within our industry-leading Data Center Software. The enhanced USB 2.0 triggering, extra-large hardware buffer, and one-click correlation of voltage and current measurement to protocol-level activity ensures that engineers can take advantage of our unique real-time data analysis and display, enabling them to easily debug the functionality of their embedded systems while also optimizing the power profile of their applications.

#### Link $V_{BUS}$ Current/Voltage Measurements with USB Data

Other than DMMs and oscilloscopes, few tools are dedicated to measuring current and voltage of USB  $V_{BUS}$  and even fewer link these measurements with captured USB data. The Beagle USB 480 Power Protocol Analyzer - Ultimate Edition correlates current and voltage data with USB traffic at the click of a mouse button.

#### Host-Side Use Case

Developers of host-related products such as rechargeable batteries, tablets, and laptops can verify their  $V_{BUS}$  current/voltage output, and monitor any effects caused by the attachment of various peripheral devices.

#### Create USB 2.0 Advanced Triggers and Filters (ultimate only)

Build flexible state-based event triggers with up to eight independent states and six matches per state for USB 2.0 captures. Developers can now trigger the capture, filter data, or set external triggers by matching data patterns, packet types, error types, events, and other criteria.

#### Device-Side Use Case

There is a plethora of USB peripherals on the market, each with its own specific power consumption profile. Developers of peripherals such as web cameras, HID devices, mobile devices, and portable mass storage devices can verify how much current and voltage their devices consume, with respect to timing and USB data.

<sup>1</sup> Available with USB 2.0 Advanced Triggers Upgrade or Beagle USB 480 Power Protocol Analyzer - Ultimate Edition



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## Applications

Audio  
Bridges  
Cameras

HID  
Hubs  
Mass Storage

Mobile Broadband  
Mobile Phones  
Music Players

Tablets  
Video

Scan for Video



## Specifications

### Software

The Data Center™ Software is a bus monitoring software application that displays captured USB, I2C, SPI, and CAN bus data in true real-time through the Beagle™ line of hardware protocol analyzers and the Komodo™ CAN Duo Interface.

#### Data Center Software Features

- Real-time  $V_{BUS}$  current/voltage monitoring
- Interactive correlation of current/voltage with USB data
- USB 2.0 advanced user-defined triggers available
- LiveDisplay™ technology allows for capture and display of current/voltage readings and USB traffic
- LiveFilter™ and LiveSearch™ tools allow for real-time interactive filtering and searching
- Real-time USB class-level decoding
- Collaborate easily by sharing capture files

#### Beagle API

- Create your own custom applications using the flexible, powerful, and well-documented Beagle API
- Supported languages: C/C++/C#, Python, .NET, VB.NET, Visual Basic 6

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

- Windows: 7, 10, 11, and later
- Linux: Red Hat, SuSE, Ubuntu, Fedora
- macOS: 13 and later

### Hardware

#### USB 2.0 Monitoring:

High Speed, 480 Mbps  
Full Speed, 12 Mbps  
Low Speed, 1.5 Mbps

#### Target Device Port:

USB 2.0 Type A receptacle

#### Target Host Port:

USB 2.0 Type B receptacle

#### Analysis Port (connects to PC):

USB 2.0 Type B receptacle  
Analyzer is bus-powered

#### Digital I/O Port:

Mini DIN 9 connector  
4 inputs, 4 outputs, 1 ground  
Digital inputs are rated for 3.3 V and max 30 MHz  
Digital outputs are rated for 3.3 V and 10 mA

#### Current/Voltage Measurement:

Peak Current: 3 A (transient)  
Peak Voltage: 20 V (transient)

注意：ただし定期的にVbusに流せる最大電流は1Aです。1A以上流さないように利用しなければなりません。

#### Dimensions:

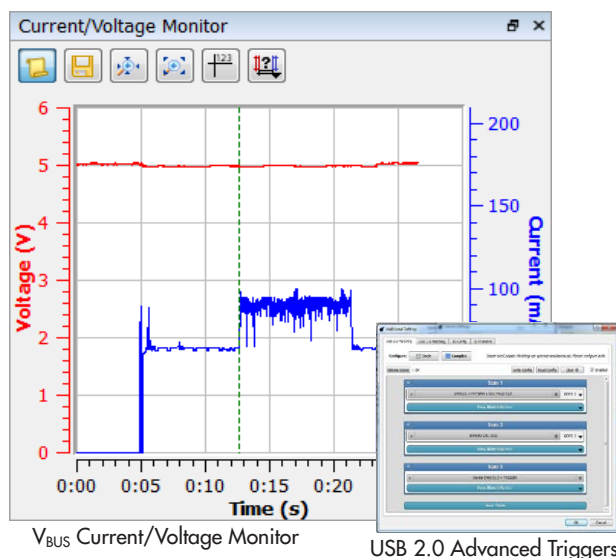
W x D x L: 70 mm x 26 mm x 114 mm  
(2.76 in x 1.02 in x 4.49 in)

#### Weight:

97.5 g (0.21 lbs)

#### Operating Temperature:

10 to 35 °C (50 to 95 °F)



お問い合わせは、  
TotalPhase 国内代理店 立野電脳(株)へ  
USB3.0/USB2.0/I2C/SPI/CAN/MDIOアナライザや、  
I2C/SPIコントローラ、ROM書き込み治具 標準在庫

- Beagle USB 480 Power Standard TP323510 在庫品
- Beagle USB 480 Power Ultimate TP323610
- USB2.0 Advanced Triggers Upgrade  
(Standard からUltimateへのUpgradeオプション)

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