

# TB2016B

## Acute TravelBus 2 in 1 Analyzer (Protocol & Logic)

TravelBus TB2016Bは、CAN-FD,RS-422/485をサポートするプロトコルアナライザと紹介するのがわかりやすいが、実はUSB3.0接続で利用するロジックアナライザとプロトコルアナライザの両方の機能を備えた高性能ツール。CAN-FD,RS422/485をサポートする専用ポートを備えているのが特徴。ハードウェアデコードで20種類以上のバスプロトコルをサポートするプロアナモードと70種類のプロトコルデコードができるロジアナモードで利用できる。

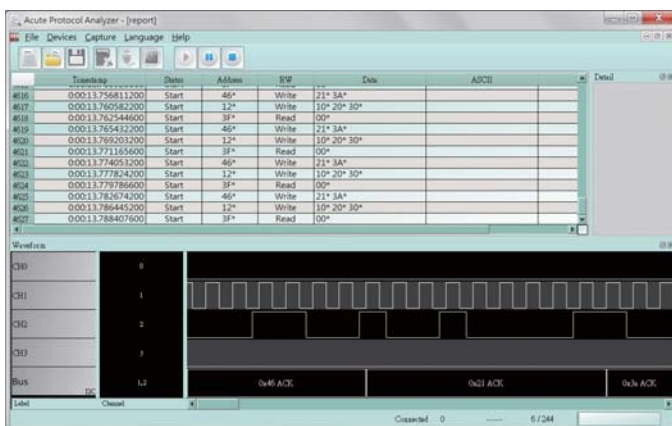


96 x 74 x 24 mm<sup>3</sup>

- Model : TB2016B
- PC-based, USB 3.0 interface/powered
- 25 Channels
  - Digital : 16 (Data(低電圧I/O対応)), 1 (Clock)
  - Aux. : 2 ( I<sup>2</sup>C/DP AUX)
  - Differential : 2 (CAN2.0/CAN-FD), 4 (RS422/485)  
Isolated (>1000Vrms)
- 200 MHz\* timing/state analysis
- Memory : PC RAM
- Real time data display and post-capture waveform display
- Protocol Analyzer : Biss-C, CAN2.0, CAN-FD, DALI, DP AUX, HID over I<sup>2</sup>C, I<sup>2</sup>C, I<sup>2</sup>S, LIN2.2, MDIO, Modbus, PMbus, Profibus, PWM, RS232, RS422, RS485, SMBus, SPI, USB1.1, USB PD 3.0
- Stackable with Acute TravelScope DSO to form an MSO
- Bus Decode : I<sup>2</sup>C, I<sup>2</sup>S, LIN2.2, SMBus, PWM, SMBus, SPI, UART, USB PD 3.0, ... (70+ decodes)

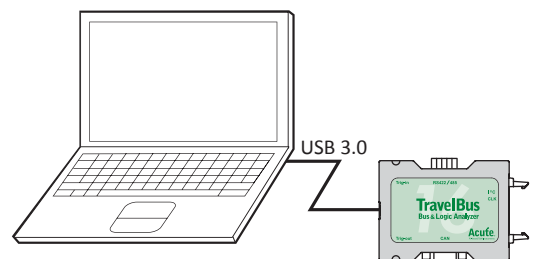
TB2016Bに一つのバスをキャプチャしながら順次プロトコルをデコードして表示していくプロアナモードと、トリガを設定してキャプチャし、キャプチャ停止後波形とプロトコルデコード結果を表示するロジアナモードの2動作モードがある。

### Software Window



### System Requirements

- USB 3.0 port
- Windows 7/10/11 32/64bit



立野電脳(株)はAcute Technologyの国内正規代理店です。  
お問い合わせはsales@dsp-tdi.comへどうぞ

# Acute

PC-based T&M Instruments

Acute Technology Inc.

Tel: +886-2-2999-3275 E-mail: service@acute.com.tw <http://www.acute.com.tw>

# 立野電脳

EXT営業部

E-mail : sales@dsp-tdi.com

〒198-0063 東京都青梅市梅郷5-955 TEL.0428-77-7000

URL <http://www.dsp-tdi.com/>



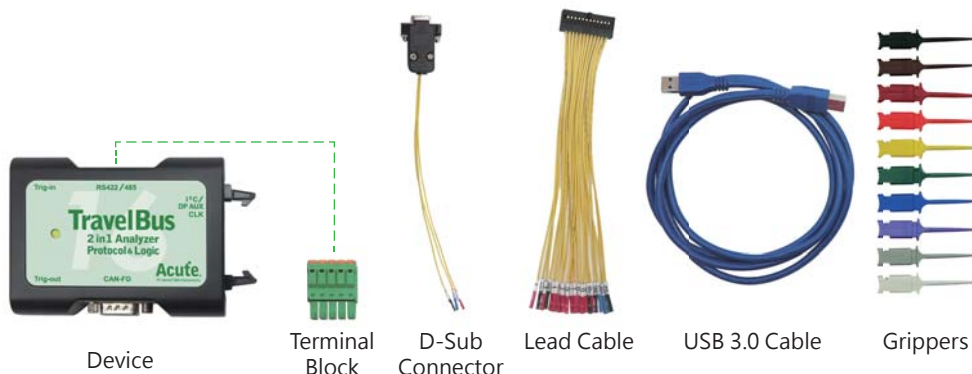
## TravelBus series

|  |  |   |
|--|--|---|
| Model  | TB2016B  |   |
| Power  | Power Source   | USB bus-power (+5V)   |
|  | Static Power Dissipation   | 0.75W   |
|  | Max Power Dissipation  | < 2.5W  |
| Hardware Interface   | USB 3.0  |   |
| Timing Analysis (Asynchronous, Max. Sample Rate)               | 200 MHz*   |   |
| State Clock Rate (Synchronous, External Clock)                 | 200 MHz*   |   |
| Channels (Data, CLK, I <sup>2</sup> C / DP AUX, CAN-FD, RS485) | 16 / 1 / 2 / 2 / 4   |   |
| Trigger  | Resolution   | 5 ns  |
|  | Channels   | 16 (Max.)   |
|  | Conditions   | Yes (4)   |
|  | Pre/Post Trigger Setting   | Yes   |
|  | Pass Counter   | Yes (0 ~ 65536 times)   |
|  | Event Types  | Channel, Pattern, Single, Width, Time-out, External   |
|  | Bus  | CAN2.0, CAN-FD, DALI, DP AUX, HID over I <sup>2</sup> C, I <sup>2</sup> C, I <sup>2</sup> S, LIN2.2, MDIO, Modbus, PMbus, Profibus, RS232, RS422, RS485, SMBus, SPI, USB1.1, USB PD 3.0   |
|  | Input port (for Stack)   | TTL 3.3V  |
|  | Output port (for Stack)  | TTL 3.3V  |
|  | Range  | -6V ~ +6V   |
| Threshold  | Resolution   | 50mV  |
|  | Accuracy   | ±100mV + 5%*Vth   |
|  | Maximum  | ±40V DC, 15Vpp AC   |
| Input Voltage  | Sensitivity  | 0.5Vpp @150MHz  |
|  | Impedance  | 200KΩ // <5pF   |
| Maximum input signal speed                                     | Data Port: 15MHz, CAN Port: 5Mbps, I <sup>2</sup> C Port: 400KHz, RS485 Port: Baud rate 20Mbps   |   |
| Temperature  | Operating Temperature  | 5° C ~ 45° C (41° F ~ 113° F)   |
|  | Storage Temperature  | -10° C ~ 65° C (-14° F ~ 149° F)  |
| Protocol Analyzer  | BiSS-C, CAN2.0, CAN-FD, DALI, DP AUX, HID over I <sup>2</sup> C, I <sup>2</sup> C, I <sup>2</sup> S, LIN2.2, MDIO, Modbus, PMbus, Profibus, PWM, RS232, RS422, RS485, SMBus, SPI, USB1.1, USB PD 3.0 |   |
| Software features  | Bus decode   | 1-Wire, 3-Wire, 7-Segment, AccMeter, ADC, APLM, BiSS-C, BSD, CAN 2.0/FD, CEC, Close Caption, CODEC_SSI, DALI 2.0, DMX512, DP Aux, EDID, Line Decoding, Line Encoding, HDLC, HDQ, HID over I <sup>2</sup> C, I <sup>2</sup> C, I <sup>2</sup> C EEPROM, I <sup>2</sup> S, ITU-R BT.656 (CCIR656), IrDA, JTAG, LCD1602, LED_Ctrl, LIN2.2, LPT, M-Bus, Math, MDIO, MHL Cbus, Microwire, Modbus, NEC IR, PECL, PMbus, Profibus, PS/2, PWM, QI, RC-5, RC-6, SGPIO, Smart Card, SMBus, SMI, SPI, SSI, ST7669, SWD, SWP, UART, UNI/O, USB 1.1, USB PD 3.0, Wiegand |
|  |  | Dimension L x W x H (mm <sup>3</sup> )  |
| Lead Cable   | 24-pin   |   |
| Grippers   | 20   |   |

\* Measure signal under 14 MHz ONLY due to data transmission limitation.

## Packing list

| Item                   | Quantity |
|------------------------|----------|
| 1. TB2016B device      | 1        |
| 2. Terminal Block      | 1        |
| 3. D-Sub Connector     | 1        |
| 4. Lead Cable (24-pin) | 1        |
| 5. USB 3.0 Cable       | 1        |
| 6. Grippers            | 20       |



Software download :  
<https://www.acute.com.tw>

立野電腦(株)はAcute Technologyの国内正規代理店です  
 お問い合わせはsales@dsp-tdi.comへどうぞ。

**Acute**

PC-based T&M Instruments

Acute Technology Inc.

Tel: +886-2-2999-3275

E-mail: service@acute.com.tw

<https://www.acute.com.tw>

**立野電腦**

EXT營業部

E-mail: sales@dsp-tdi.com

〒198-0063 東京都青梅市梅郷5-955 TEL.0428-77-7000

URL <http://www.dsp-tdi.com/>