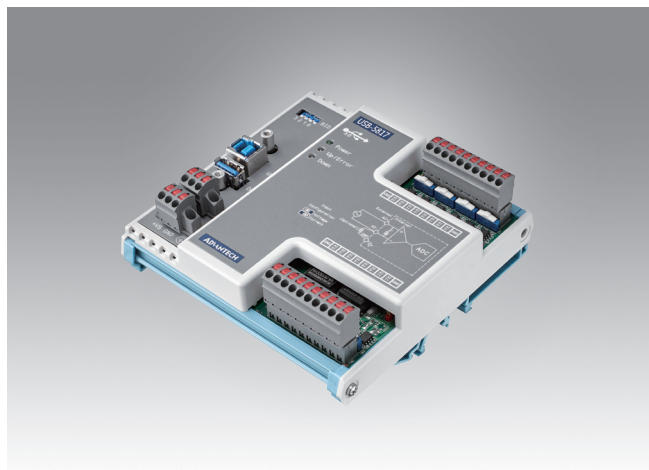


USB-5817

USB-5820

8-ch, 16-bit, 200 kS/s Isolated Analog Input USB 3.0 I/O Module

4-ch, 16-bit, 200 kS/s Isolated Analog Output USB 3.0 I/O Module



USB-5817



Features

- USB 3.0 SuperSpeed
- Daisy chainable by built-in USB hub
- 8 x 16-bit analog input channels with 2,500 V_{DC} isolation
- Support voltage and current measurement
- Wide common-mode voltage range (± 275 V)
- Removable European-type connector
- Supported operating systems: Windows XP/7/8/10

Introduction

USB-5817 is a 8-ch, 16-bit, 200 kS/s Isolated Analog Input USB 3.0 I/O Module. Its compact size and DIN-rail mount kit make it easily installed in a cabinet. Built in USB hub can support daisy chain topology. Euro type pluggable terminal blocks and LED indicator help users to maintain and set up their system. For safe and reliable operation, the controller (host) side is protected by a 2,500 V_{DC} isolation circuit. Furthermore, it supports both voltage and current measurement with common-mode voltage up to ± 275 V.

Specifications

Analog Input

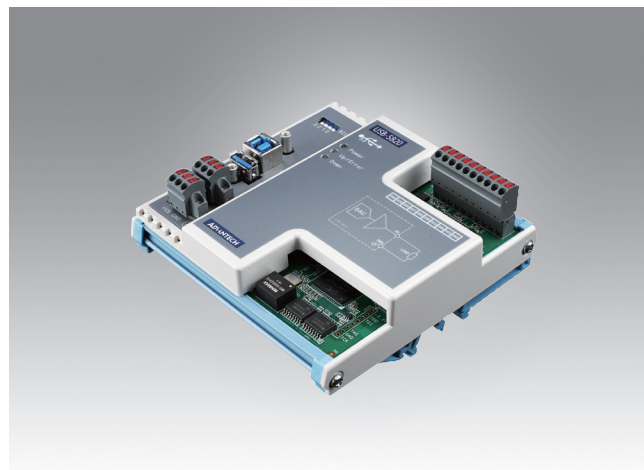
- | | |
|-----------------------------|--|
| ▪ Channels | 8 |
| ▪ Resolution | 16 bits |
| ▪ Input Voltage Range | ± 10 V, 0–20 mA |
| ▪ Common-Mode Voltage Range | ± 275 V |
| ▪ Measurement Error | $< \pm 0.01\%$ of full-scale range |
| ▪ Isolation Protection | 2,500 V _{DC} |
| ▪ Sampling rate | 200 kS/s (shared by all channels) |
| ▪ Input Impedance | Common-mode 200 k Ω , Differential 800 k Ω |

General

- | | |
|-------------------------|--|
| ▪ Interface | USB 3.0 |
| ▪ Data transfer rate | 5 Gbps |
| ▪ Connectors | 2 x 10-pin terminal block (3.81 mm, AI)
2 x 3-pin screw terminal block (3.81 mm, power)
USB 3.0 type A (downstream port)
USB 3.0 type B (upstream port) |
| ▪ Dimensions | 120 x 120 x 40 mm (4.72 x 4.72 x 1.57 in) |
| ▪ Operating Temperature | 0 ~ 60 °C (32 ~ 140 °F) |
| ▪ Storage Temperature | -40 ~ 70 °C (-40 ~ 158 °F) |
| ▪ Storage Humidity | 5 ~ 95% RH (non-condensing) |
| ▪ Power Supply | External 10 ~ 30 V _{DC} or USB bus power |
| ▪ Power Consumption | 100 mA typical @ 24 V external power
350 mA typical @ 5 V bus power |

Ordering Information

- | | |
|-------------------|---|
| ▪ USB-5817-AE | 8-ch, 16-bit, 200 kS/s Isolated Analog Input USB 3.0 I/O Module |
| ▪ 96PSD-A40W24-MM | DIN rail A/D 100 ~ 240 V, 40 W, 24 V |



USB-5820



Features

- USB 3.0 SuperSpeed
- Daisy chainable by built-in USB hub
- 4 x 16-bit analog output channels with 2,500 V_{DC} isolation
- Multiple voltage and current output ranges
- Removable European-type connector
- Supported operating systems: Windows XP/7/8/10

Introduction

USB-5820 is a 4-ch, 16-bit, 200 kS/s Isolated Analog Output USB 3.0 I/O Module. Its compact size and DIN-rail mount kit make it easily installed in a cabinet. Built in USB hub can support daisy chain topology. Euro type pluggable terminal blocks and LED indicator help users to maintain and set up their system. For safe and reliable operation, the controller (host) side is protected by a 2,500 V_{DC} isolation circuit. Furthermore, it supports multiple voltage and current output ranges.

Specifications

Analog Output

- | | |
|------------------------|--|
| ▪ Channels | 4 |
| ▪ Resolution | 16 bits |
| ▪ Output Voltage Range | 0 ~ 5 V, 0 ~ 10 V, ± 5 V, ± 10 V |
| ▪ Output Current Range | 0 ~ 20 mA, 4 ~ 20 mA (source type) |
| ▪ Load | > 1 k Ω (voltage output)
$< 625 \Omega$ (current output) |
| ▪ Output Error | $< \pm 0.1\%$ of full-scale range |
| ▪ Isolation Protection | 2,500 V _{DC} |
| ▪ Updating rate | 200/n kS/s, where n is number of enabled channel (n = 1 ~ 4) |
| ▪ Slew Rate | 1 V/ μ s |

General

- | | |
|-------------------------|--|
| ▪ Interface | USB 3.0 |
| ▪ Data transfer rate | 5 Gbps |
| ▪ Connectors | 1 x 10-pin terminal block (3.81 mm, A/O)
2 x 3-pin screw terminal blocks (3.81 mm, power)
1 x USB 3.0 type A (downstream port)
1 x USB 3.0 type B (upstream port) |
| ▪ Dimensions | 120 x 120 x 40 mm (4.72 x 4.72 x 1.57 in) |
| ▪ Operating Temperature | 0 ~ 60 °C (32 ~ 140 °F) |
| ▪ Storage Temperature | -40 ~ 70 °C (-40 ~ 158 °F) |
| ▪ Storage Humidity | 5 ~ 95% RH (non-condensing) |
| ▪ Power Supply | External 10 ~ 30 V _{DC} or USB bus power |
| ▪ Power Consumption | 100 mA typ./130 mA max. @24 V external power
450 mA typ./770 mA max. @5 V bus power |

Ordering Information

- | | |
|-------------------|--|
| ▪ USB-5820-AE | 4-ch, 16-bit, 200 kS/s Isolated Analog Output USB 3.0 I/O Module |
| ▪ 96PSD-A40W24-MM | DIN rail A/D 100 ~ 240 V, 40 W, 24 V |

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