Simplibox 485

RS422 / RS485 USB adaptor

zihatec

Features:

- RS485 mode (half duplex)

- RS422 mode (full duplex)

- galvanic isolation between USB-Port and connected RS485 bus

- Enhanced ESD protection

- adjustable automatic transceiver switching for RS485 mode

- adjustable control of transceiver/receiver via CBUS2 & 4 pin of FT232RL

- adjustable Pull-Up, Pull-Down und terminating resistors

- removable block terminal for bus connection

- Indicator LEDs for RX and TX signals

- many options adjustable via DIP switches

- No additional power supply needed (powered by the USB port)

- Optional 3 module din rail enclosure

- FTDI's royalty free Virtual Com Port (VCP) and Direct (D2XX) drivers eliminate the requirement for USB driver development in most cases

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Electrical Characteristics:

- Max. Datarate: 0.2 Mbps
- Number of nodes: 256
- ESD: 16 kV
- Isolation Rating: 1000 Vrms
- Working Voltage: 560 Vpk
- Operating Temp.:   -40°C to 85°C

Enclosure:

- Outside dimensions: 53,5mm x 90mm x 58mm (W x H x D)
- Material: Polycarbonate UL 94 V-0
- Finish top shell: RAL 7035 light grey
- Finish bottom shell: RAL 7016 anthracite grey

Ordering Information:

Part-No.	Description
SBX485B	Assembled PCB (without emclosure)
SBX485E	Assembled PCB mounted in cap rail enclosure

Applications:

- Smart Home
- Building Control
- Industrial Control
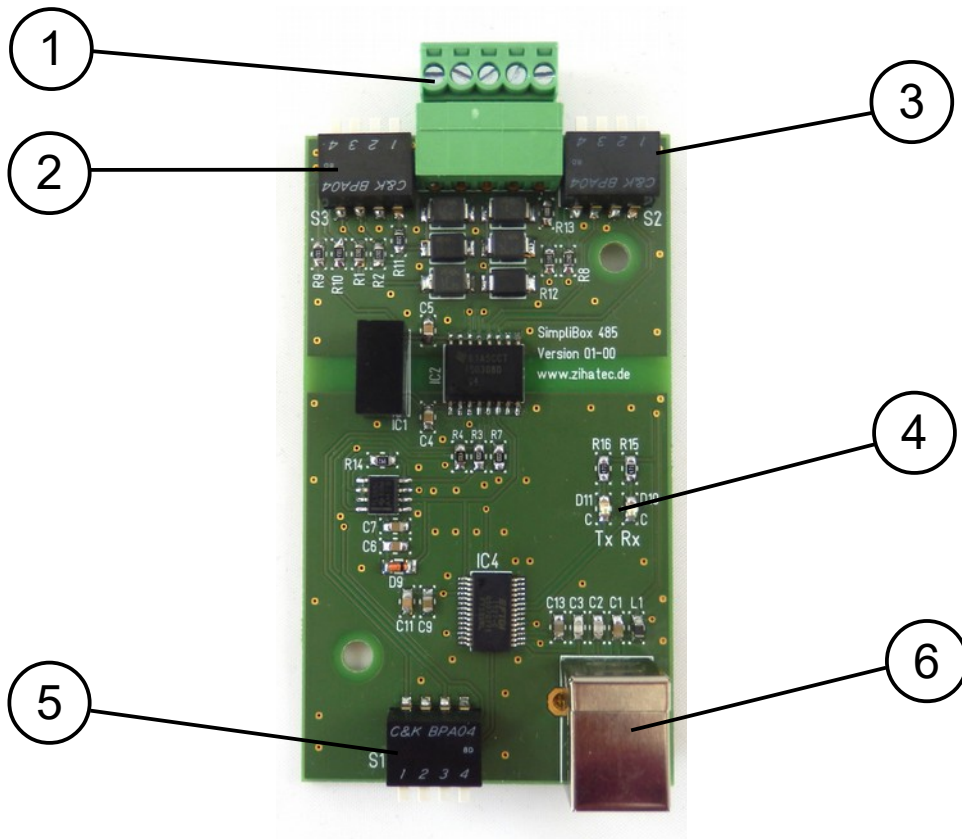- Lighting Control
- Video Surveillance
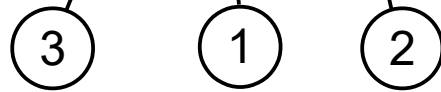- Access Control

Protocols:

- Modbus
- DMX
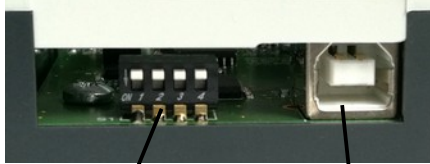- Pelco D
- Profibus
- OSDP (HID)
- etc

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Control Elements:

① Removable Terminal Block

② DIP Switch S3

③ DIP Switch S2

④ Indicator LEDs

⑤ DIP Switch S1

⑥ USB connector

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S1 - DIP Switch Configuration – send/receive control:

Channel	Description
1	RE always on or controlled via Pin CBUS4
2	Transmitter DE connected to Receiver RE
3	Automatic DE/RE control
4	DE control via Pin CBUS2

S2 - DIP Switch Configuration – RS422/485 mode:

Channel	Description
1	Connect Y to terminal K2
2	Connect Z to terminal K2
3	Connect internally Y to A
4	Connect internally Z to B

S3 - DIP Switch Configuration – termination resistors:

Channel	Description
1	4k7 Pull-up Resistor on A
2	4k7 Pull-down Resistor on B
3	Not used
4	Terminating Resistor On

Example RS422 mode:

SW1	
1	ON
2	OFF
3	OFF
4	ON

SW2	
1	ON
2	ON
3	OFF
4	OFF

SW3	
1	ON
2	OFF
3	OFF
4	OFF

Examples RS485 mode:

Send/receive control via FT232 CBUS2 and CBUS4, no terminating resistor

SW1	
1	OFF
2	ON
3	OFF
4	ON

SW2	
1	OFF
2	OFF
3	ON
4	ON

SW3	
1	OFF
2	OFF
3	OFF
4	OFF

automatic send/receive control, multipoint master

SW1	
1	OFF
2	ON
3	ON
4	OFF

SW2	
1	OFF
2	OFF
3	ON
4	ON

SW3	
1	ON
2	OFF
3	ON
4	ON

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Schematic: