



STD1109S

RS-232 to RS-422/485

Serial Converting Board

DB9 Male



Introduction

The STD1109S is a compact serial converting board designed to be installed inside a PC chassis. It connects directly to the motherboard's RS-232 port and converts the signals to RS-422 or RS-485, allowing external devices to communicate with the PC over longer distances or multi-drop networks.

The board features 2 KV surge protection compliant with IEC61000-4-5 Level 3 and ESD protection up to ± 15 KV air / ± 8 KV contact, ensuring reliable operation in industrial environments. It is certified to meet international safety and EMC standards, including CE, FCC, VCCI, and BSMI, making it suitable for global deployment.

Ideal for industrial PCs, embedded systems, and control equipment, the STD1109S provides reliable serial communication while preserving the PC's existing RS-232 ports for other uses.

Features

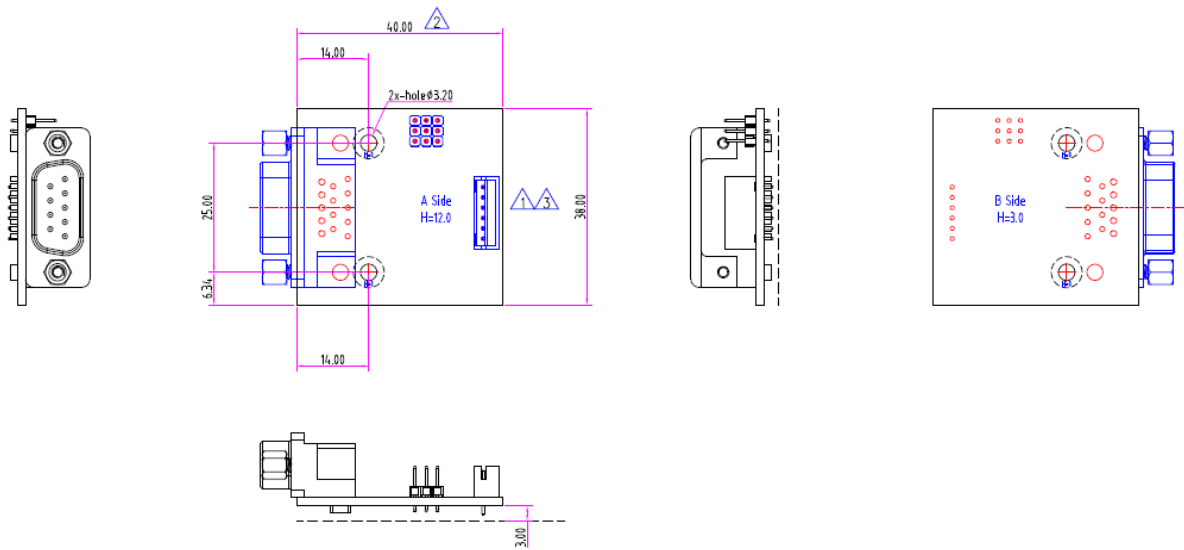
- Internal RS-232 to RS-422/485 conversion, connecting directly to the motherboard
- Supports full-duplex RS-422 and half-duplex RS-485
- High-speed data transfer up to 921.6 kbps
- RS485 Auto Flow Control
- Compact designed for easy installation in small PC chassis, preserving existing RS-232 ports for other uses
- 2 KV surge protection compliant with IEC61000-4-5 Level 3
- ESD protection: ± 15 KV air / ± 8 KV contact discharge
- Certified to meet CE, FCC, VCCI, and BSMI standards
- Operating temperature: -40°C to $+85^{\circ}\text{C}$, suitable for industrial environments

Specifications

Input	RS-232
Output	RS-422/485
Baud rate	300bps to 921.6kbps
No. of Port	1-port
Termination	No external resistor required
Signals	RS-422: TxD+, TxD-, RxD+, RxD-, GND RS-485: Data+, Data-, GND
Auto Flow Control	RS-485
Power	RS-232 port-powered or external 12V
Protections	ESD ±15KV Air / ±8KV Contact 2KV Surge
PCB Connector	RS-232 Wafer H1x6 pitch 2.0 RS-422/485 DB9 Male
EMC	UKCA/ CE/ FCC / VCCI / BSMI
Green	CE(RoHS)
Operation Temperature	-40°C to +85°C (-40°F to +185°F, industrial grade)
Operation Humidity	5 to 95% RH
Storage Temperature	-40°C to +85°C (-40°F to +185°F)
PCB Dimension	38 x 40 mm

Mechanical Drawing (Unit = mm)

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Pin Assignment

■ RS-422/485 (DB9M)

DB9M	RS-422	RS-485
1	TxD-	Data-
2	TxD+	Data+
3	RxD+	
4	RxD-	
5	GND	GND
6		
7		
8		
9		

■ RS-232 (H1x6 pin header)

H1x6	RS-232
1	RXD
2	TXD
3	RTS
4	DTR
5	GND
6	12V in

Cable plug reference

Terminal: WF-2.0-20006-PT

Receptacle housing: WF-2.0-20006-Y (1x6P, PH= 2.0mm)

Jumper Setting

Jumper	Pin1&2	Pin2&3	Default
J4	RS-422	RS-485	RS-485
J5	Echo	NonEcho	NonEcho
J6	Term ON	Term OFF	OFF

Package

- STD1109S – RS-232 to RS-422/485 Serial Converting Board x1
- Quick Installation Guide x1

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