



.Isolation 3000VDC

.Industrial specification

.Fully compatible with PC serial COM ports

.DC power supply (10~30V) Built in Surge Protector

.Auto Toggling by hardware

.Communication status can be monitored through LEDs

.Dip switch for selecting RS422/485 modes, Terminal Resistance and Echo mode

.Max. 10 Device Connectivity for RS422 Multi-Drop Mode

.Max. 32 Device Connectivity for RS485 Mode

converts RS232 signals to RS422 or 485. It is an efficient solution for applying advantages of RS422/485 to legacy RS232 devices. The converter operates with no extra software installation. With simple DIP switch toggling, RS422 or RS485 can be selected. Also, the product is fully compatible with serial COM port in PC.

Auto RTS Control

Under 1:N communication environment, it is undesirable that multiple devices send data at once, causing electrical collision that leads to an error. In order to prevent this, only one device needs to send data at a time, which means that data I/O control is necessary at certain points. performs automatic toggling by hardware, saving extra programming work.

What is RS485 Echo Mode

The point which is different from the method for RS485 Non-echo mode is that the output signal line by itself is input again to the input signal line. Therefore, it is possible to confirm whether the data sent crashes with the data sent by another terminal or not by reading the echoed data. This operating mode is scarcely used except in some special purposes. On all operation is controlled by hardware circuit so no operation is required by application program.

Using 4-wire RS485

4-Wire RS485 Networking is same as RS422 Multi-Drop Networking. RS422 device is used as master and RS485 device is used as slave in 4-Wire RS485 bus. Although RS422 and RS485 have different electrical standards, most manufacturers make ICs that uses both RS422 and RS485 interface. Therefore, RS422 Multi-Drop and 4-Wire RS485 can be considered equal.

However, there can be difference in software that controls them. Since our device can operate regardless of the application software, it is ok to use without any trouble. In this case, set RS422 Multi-Drop mode.

Applications

- .RS-422/485 communication
- .Utility meters
- .Industrial process control
- .Building automation
- .Industrial-controlled Local Area Network
- .Industrial PCs and PC peripherals devices

Serial Converter

Mode	Asynchronous serial communication
Speed	Up to 230.4kbps
Connector	RS232 : DB9 Female ,RS422/485 : Terminal Block 7P 5.08mm
Signals	TXD, RXD, RTS, CTS, GND for RS232
Protection	15KV ESD Protection for all signals RS422/485 signals Surge Protection
Distance	Max 1.2Km 115.2Kbps,24AWG twisted pair cable
Data Bits	5,6,7,8
Stop Bits	1,1.5,2
Parity	None,Even,Odd,Space,Mark
RS422 mode	Point to Point,Multi Drop
RS485 mode	Echo, Non-Echo
RTS	Auto Toggling
Switch	RS422 Term.Resistor setting
	RS485 Term.Resistor setting
	RS485 Echo/non-Echo selection
	RS422/485 selection

Software

OS	No Software Required
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Hardware

Power Input	10~30VDC Terminal Block 7P 5.08mm
Power Consumption	45mA @24VDC
LED	Power, TXD, RXD
Isolation	Optical 3000 VDC max
Dimensions	42.5(W)x22.5(H)97(D)mm
Weight	83g
Terminal Block	12~24AWG

Terminal Block PIN Define

	RS422	RS422Multi-Drop/RS485 4W	RS485
1	TX+	TX+	
2	TX-	TX+	
3	RX+	RX+	DATA+
4	RX-	RX-	DATA-
5	SG	SG	SG
6	VCC	VCC	VCC
7	GND	GND	GND

DIP SW

DIP SW SET	1	2	3	4	
0=OFF,1=ON	0	0	0	x	RS422
	0	0	1	x	RS422
	1	0	1	x	RS485 4W,RS422 Multi Drop
	0	1	0	x	RS485 2W NO ECHO
	0	1	1	x	RS485 2W ECHO
	x	x	x	1	RS422/485 Term.Resistor ON

RS-232 DB9 Female

PIN	RS-323
1	DCD
2	TXD
3	RXD
4	DSR
5	GND
6	DTR
7	CTS
8	RTS

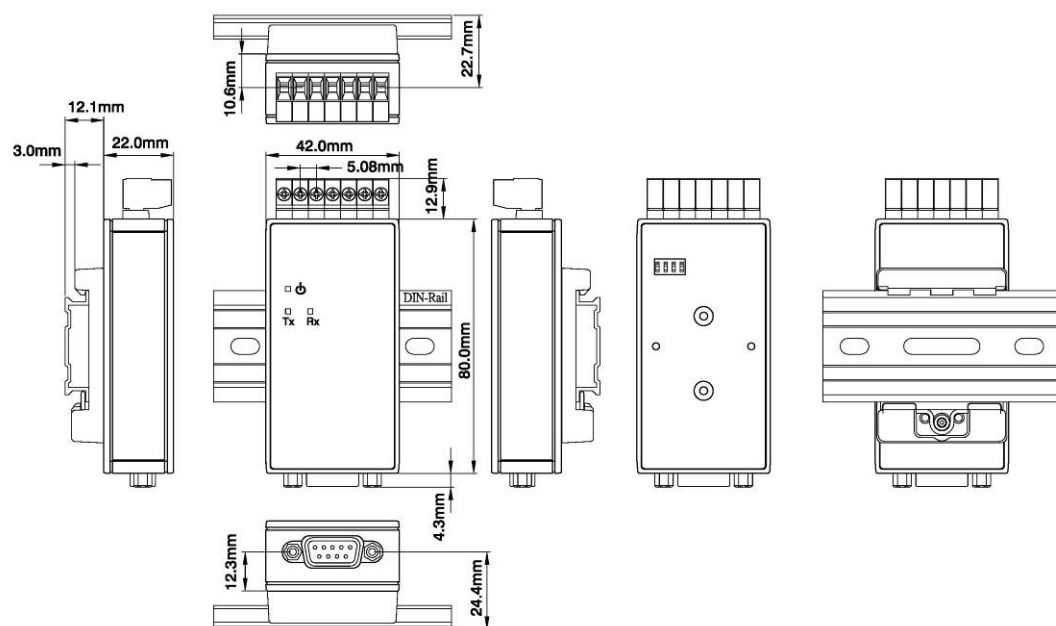
Environmental

Operating Temp	-30~75°C
Storage Temp	-40~85°C
Humidity	5~95% Non-Condensing
Case	PC

Approvals

CE ,FCC RoHs Compliant

Dimension



Ordering Information

Available Models

SD-101i : RS232 to RS422/485 converter with optical isolation

Website: www.atil.com.tw