RS-232 Isolater Line Booster

ATC-155 User's Manual

1.0 General Description

The ATC-155 performs full-duplex transmission of asynchronous data over four wires (two twisted pairs). The data transmission between each line driver utilizes differential signaling that is immune to electrical interference and therefore makes it ideal for use in light manufacturing and industrial office areas. It can run up to speeds of 57.6 kbps

2.0 Product features:

・Prolong the communication distance of serial port RS-232 to 12 kilometers

・Balance current transmission, powerful anti-jamming capacity

・Adopt photoelectric isolation to prevent devices damaged by ground loop and surge

・ Isolation voltage up to 3500V

・ Support RS-232asynchronous communication standard

・ Directly insert RS-232interface, convenient operation

・Need no external power supply

・ Use special communication line and common lead.

・Transmission speed up to 57.6kbps

・Full duplex or simplex mode, compact size

3.0 Performance parameters:

・Interface: one port conforms to EIA RS-232 and CCITT V.24

・Asynchronous protocol, the other uses special 4-core cooper wire

・ Connector: one side of RS-232 uses DB9 hole connector
   The circuit side uses DB9 pin connector

・Transmission mode: asynchronous, full duplex or simplex

・ Distance: 24AWG lead for 12KM @600BPS

24AWG lead for 1KM @38.4KBPS

24AWG lead for 100M @57.6KBPS

・ Isolation voltage : 3500@1S or 7500V impulse

・ Speed: maximum asynchronous 57.6KBPS

・ Power supply: serial port self power supply

・ Size: 6.8x3.4x1.6cm

・ Weight: 40g

・ Working environment: -20 to 65C0 (0%to95%RH)

4.0   Connectors and signals

The ATC-155 has a DB-9 female connector on the RS-232 side and DB-9 male connector on the line side.

RS-232 Side:

Connector: DB-9 Female.

Signals: Use Pins 3 (RD) and Pin 2(TD also called SD) Pins 7 (RTS) and Pin 8 (CTS) are tied together Pins 4 (DTR), 6 (DSR), and 1 (CD) are tied together.

Line Side:Use Pin2(R+),Pin3(T+),Pin4(T-),Pin5(R-)

4.1 RS-232 Pin Assignments(DCE)

Pin	EIA	CCITT	Name
2	BA	103	Transmit Data
3	BB	104	Receive Data
4	CA	105	Request to Send
5	CB	106	Clear to Send
6	CC	107	Data Set Ready
7	AB	102	Signal Ground
8	CF	109	Data Carrier Detect
20	CD	108.2	DataTerminal Ready

5.0 ATC-155 connecting to ATC-155 on line side

ATC-155(Male)   ATC-155(Male)

PIN2(R+) <-----//---- PIN3(T+)

PIN3(T+) -----//----à PIN2(R+)

PIN4(T-) -----//-----à PIN5(R-)

PIN5(R-) ß---//----- PIN4(T-)