RS-232 TO TTL CONVERTER
ATC-102 User's Manual

1.0 General Description

The ATC-102 adapter provides the designer a low cost solution to change serial comport signals into CMOS/TTL level signals for prototype or testing of low level microprocessor or microcontroller based systems. The RS-232C side mates directly with a PC's DB-9 serial port connector. This makes the adapter a great solution for connecting external CMOS/TTL equipment being prototyped up to your PC or portable Computer. The adapters are powered by the host computer system's signal lines. This eliminates the need for an additional external power supply making the adapter an ideal choice for portable use.

High baud rates require more current than the serial port power can provide, the CMOS/TTL DB-9 connector can accept +5 to +12v DC at 50 milliamps to provide the added power to the adapter.

2.0 Features

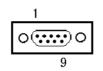• RoHS Compliant - Lead Free parts and manufacturing

• Plugs into DB-9 PC serial comport

• Input CMOS/TTL protected (-7v to +12v)

• Latest Surface Mount Technology (SMT) for low power and small size.

• Powered from serial port for most installations.

• Baud rates to 115.2KBaud

3.0 Connectors and signals

RS-232（DB9F-male）   TTL（DB9 Male）

3.1 DB-9 RS-232 Serial Port Pinouts

Pin	Signal	Dir	Function
1	DCD/RLSD	IN	Carrier Detect
2	TXD	OUT	Transmit Data
3	RXD	IN	Receive Data
4	DTR	OUT	Data Term Ready
5	GND		Ground
6	DSR	IN	Data Set Ready
7	RTS	OUT	Request to Send
8	CTS	IN	Clear to Send
9	RI	IN	Ring Indicator

3.2 TTL PINOUT:

DB9 Male (PIN)	TTL
1	TXD
2	RXD
5	GND

3.3 RS-232、TTL Signal Level

TTL/CMOS Input	RS-232 Output
Low (< 0.8V)	+5V minimum, +9V typical
High (> 2V)	-5V minimum, +9V typical
RS-232 Input	TTL/CMOS Output

Low (< 0.2V)	+3.45V minimum, +4.6V typical
High (> 2.4V)	+.55V maximum, +0.1V typical