

USB to TTL Serial Cable

- Interface embedded processors to a PC through the USB port.
- Allows devices that previously used a MAX232 type level shifter to connect to a PC through a USB connector and appear as a standard COM port.
- Compatible with legacy software.
- Cheap and simple way of upgrading existing products.
- Supports data rates up to 921.6 kbaud allowing a significant performance increase over a standard serial port.
- Allows devices to be powered from the USB port.



The AVIT Research USB to TTL Serial Cable is designed to allow legacy products using PC serial ports to be easily upgraded to a USB interface. The cable contains a USB to serial converter chip and is terminated in a standard 0.1" pitch header. The serial data is at standard TTL levels allowing it to interface directly to the micro-processor of the intended application.

Driver software for the PC is provided and is compatible with Windows 98se, 2000, ME and XP. The drivers cause the USB device to appear as a standard serial port capable of baud rates up to 921600. This allows all windows programs to access the serial device exactly as if it were a built-in serial port.

The USB to TTL Serial Cable also provides a 5 volt supply to the target system which can supply up to 50mA. This allows many embedded applications to be run without a separate power supply. The output is fully protected against short circuits.

Pin	Wire	Function
1	Black	Ground
2	Red	PC Serial Tx (TTL Rx)
3	Blue	PC Serial Rx (TTL Tx)
4	Yellow	+ 5v

Parameters	Min	Typ	Max	Units
Serial port speed	300		921600	baud
Power output voltage*	4.25	5.0	5.25	Volts
Power output current			50	mA
Operating Temperature	-40		+85	°C
Input Voltage threshold (High)	2.0			V
Input Voltage threshold (Low)			0.8	V
Output high drive current			8	mA
Output low drive current			-8	mA
Mating Connector	Harwin M20-9990405 or M20-9990406 Farnell 511-729 or 623-059			

*Power supply voltage is dependant on the USB port to which the cable is connected. The minimum specified is the expected worst case when connected through a bus-powered hub that conforms to the USB specification.