

USB to TTL GALVANIC Isolation Serial Cable

FEATURES

- USB to TTL Level Serial UART with Digital Isolation
- Compatible with legacy software using Virtual COM port (VCP).
- Galvanic isolation of up to 4000V
- 4 kV ESD protection
- Compatibility with most operating systems.
- Supports baud rates up to 1Mbit.
- Supply voltage of +3v to +5v (inputs are 5v tolerant when powered at +3v).
- 1.8m cable with 4-way SIL 0.1" connector
- FCC, CE, ROHS compliant
- Can be customised with user USB descriptors, and custom Baud rates using software.
- Custom connectors available for volume orders.



DESCRIPTION

The AVIT Research USB to TTL Galvanic Isolated Serial cable is designed to allow quick and easy connection to sensitive circuitry without any need to be familiar with the USB specification. The cable contains a Silicon Labs¹ USB to serial converter chip that is galvanic isolated up to 4000V. The cable is 1.8m and terminated with a standard 0.1" pitch header. The galvanic isolation barrier isolates the ground and prevents noise currents on the data bus from entering the local ground and interfering with or damaging sensitive circuitry.

Virtual COM Port Driver software allows the cable to work with existing COM Port applications for Windows 7/Vista/XP, Mac OS-X/OS-9 and Linux. Direct Driver software is also available for MC Windows 7/Vista/XP and CE. Neither driver options require any need for familiarity with the USB specifications.

The USB to TTL Cable range are fully RoHS compliant as well as FCC and CE certified and fully compliant with the USB 2.0 specification.

Pin	Wire	Function
1	Black	Ground (isolated from USB ground)
2	Red	PC Serial Tx (TTL Rx)
3	Blue	PC Serial Rx (TTL Tx)
4	Yellow	Vcc +3v to +5v supply voltage (input)

RECOMMENDED OPERATING CONDITIONS

	Min	Typ	Max	Units
1/t Serial port speed	0.3		1000	kbps
V _{CC} Supply voltage	3.0		5.5	Volts
V _{IH} Input Voltage threshold (High)	2.0		V _{CC}	V
V _{IL} Input Voltage threshold (Low)	0		0.8	V
I _{OH} Output high drive current			4	mA
I _{OL} Output low drive current	-4			mA
T Operating Temperature	-40		+85	°C
Mating Connector	Harwin M20-9990405 or M20-9990406 Farnell 511-729 or 623-059			

¹ FTDI chip also available for volume orders