



Full Speed Industrial USB Isolator User Guide

Model : USB-ISO-M

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Introduction & Features of Industrial Full Speed USB Isolator

Introduction of USB-ISO-M

The USB-ISO-M is a rugged, industrial-grade full / low speed USB isolator that provides high-voltage 3 kV isolation to protect the host computer and expensive USB equipment connected. This Industrial USB Isolator is designed to build protective isolation barriers to the power and USB signals between a host computer and any connected USB devices. Both the computer and the connected USB device are protected from power surges, EMI/RFI interferences, and transient voltage spikes that may cause damage. The isolator is very efficient and secured to eliminate ground loop currents and protect against overvoltage.

The USB-ISO-M can be configured for data transfer rate to either USB 2.0 full speed 12 Mbps or low speed 1.5 Mbps. The isolator is bus-powered and provides up to 420 mA current to downstream devices. There is no need for any driver or software installation. Just plug the cable from the USB isolator to the host USB port of the PC, and connect the USB device to the downstream port of the isolator, the host PC and USB device are immediately protected by isolation to prevent from harmful voltage, ESD shock and noise.

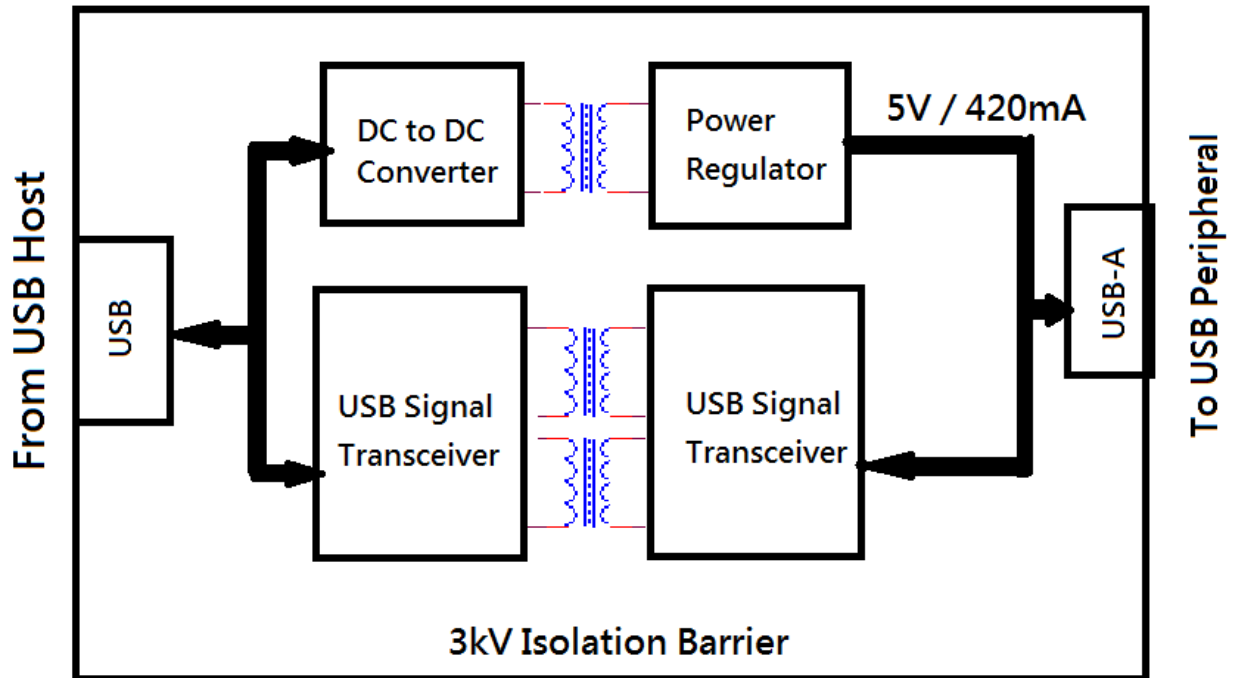
The USB Isolator helps improve the system stability and protect the valuable industrial and medical equipment. When the USB host and USB devices operate at different ground voltages, the USB-ISO-M is an ideal protector to prevent destructive damage.

Features of USB-ISO-M

- Isolates and protects any USB devices from a USB Host
- Electrical isolation up to 3000 Vrms upstream to downstream USB port
- Common mode filtering on all data lines
- 5V isolated pass-thru power up to 420 mA to downstream device
- Support USB2.0 full speed 12 Mbps by default setting
- USB1.1 low speed 1.5 Mbps data rate selectable by jumpers
- High speed USB devices works in full speed mode
- No software or drivers installation required
- Short circuit protection
- LED for power indication
- Wide ambient temperature operation -40 to 70°C (-40 to 158°F)
- USB bus-powered
- Packed in rugged metal case with USB cable securely locked to the case
- Metal case with DIN rail brackets
- Dimensions : 73 mm X 52 mm X 25 mm (L x W x H)
73 mm X 75 mm X 25 mm (L x W x H) with DIN rail bracket
- CE, FCC approval
- RoHS and RoHS2 compliant

Block Diagram of USB-ISO-M

USB-ISO-M Block Diagram



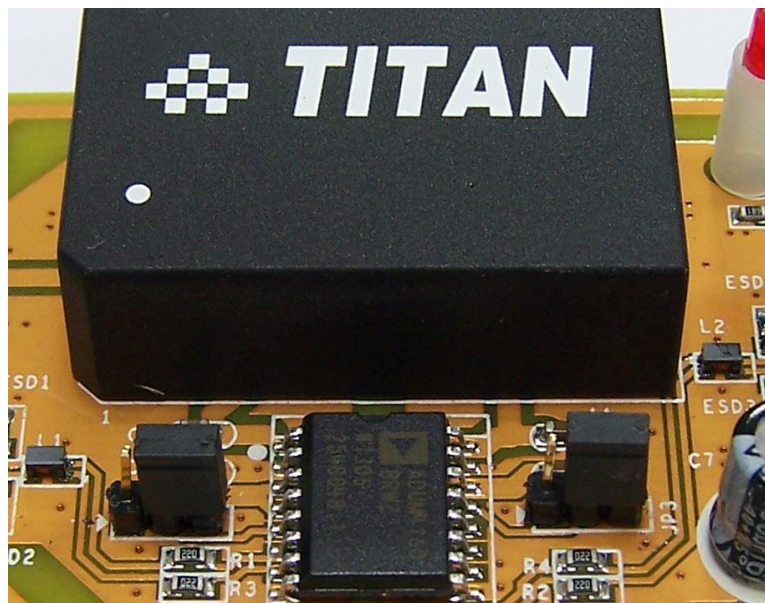
Setting USB operation speed

USB-ISO-M has two 1x3 header blocks (JP2, JP3), which have jumpers to set the speed to USB2.0 full speed (12 Mbps) or USB1.1 low speed (1.5 Mbps) data rate operation. The data rate by default setting is set to full speed 12 Mbps.

Jumper	Function
JP2 1-2 JP3 1-2	USB2.0 full speed (12 Mbps) data rate operation (default setting).
JP2 2-3 JP3 2-3	USB1.1 low speed (1.5 Mbps) data rate operation. (Only for keyboard, mouse or other low speed USB peripheral devices).



JP2, JP3: Pin1 and Pin2 short for USB2.0 full speed (factory default setting)



JP2, JP3: Pin2 and Pin3 short for USB1.1 low speed