

The USB Galvanic Digital Isolator for SDR radios is designed to break the galvanic connection between USB host PC and the attached SDR radio peripheral avoiding that whatever power and ground noise from the PC side do not influence the sensible radio on the other side.

The resultant galvanic isolation improves common-mode voltage, prevents ground loops, a common cause of interference and data distortion issues, improves reception, as the noise floor in the receiver is lowered, and removes spikes and birdies on the PC panoramic screen. In addition provides isolation of 1000V AC between the host PC and the radio peripheral that guard against surges that may come from the antenna connected to the receiver.

The USB Galvanic Digital Isolator complies with specifications USB 1.1, Low speed (1.5Mbit/s) and USB 2.0 Full Speed (12Mbit/s). The speed mode is set manually via two jumpers inside (default full speed). Most of the time it is not necessary change between modes but if automatic speed detection is desired, an external hub can be connected to the peripheral side configured for full speed.

The USB Galvanic Digital Isolator is self powered from the PC through the USB cable. An embedded DC/DC converter provides a galvanic isolated voltage of 5VDC/100mA to the peripheral side. It includes additionally ESD,EMC protection to the data lines and power transient short-circuit guard.



It is highly advisable not to power the connected radio from the Galvanic Digital Isolator, instead a 5VDC external dedicated power source must be used.

The USB Galvanic Digital Isolator behaves like an USB cable, no USB drivers are needed. It works on all operating systems, Mac, Windows, Linux, etc.



Features:

USB modes: Full speed (12 MBit/s) Low speed (1.5 MBit/s). Configurable.

No suitable for High Speed USB mode devices.

Isolation 1.000 Volt AC

Protection: EMC, ESD, Overvoltage Surge, Short-circuits.

Power supply:

- PC side: From USB cable, 5VDC. Attached signaling LED.

- Drawn power from peripheral radio max: Through USB cable, 5V DC/100mA, max.

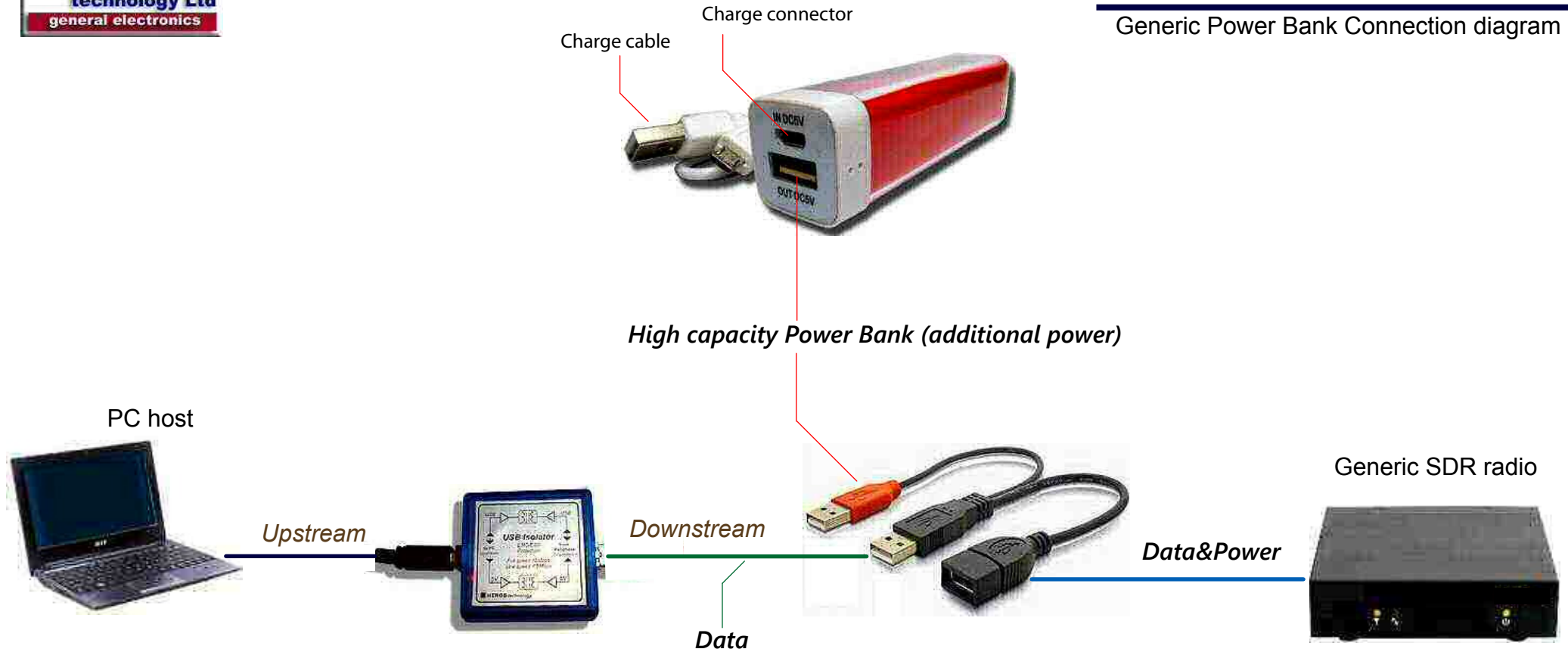
Standard socket connectors: PC side: USB type B, peripheral side: USB type A

Dimensions 67 mm x 66 mm x 28 mm.(2.638x2.598x1.102inch)

USB2 pair of cables included.

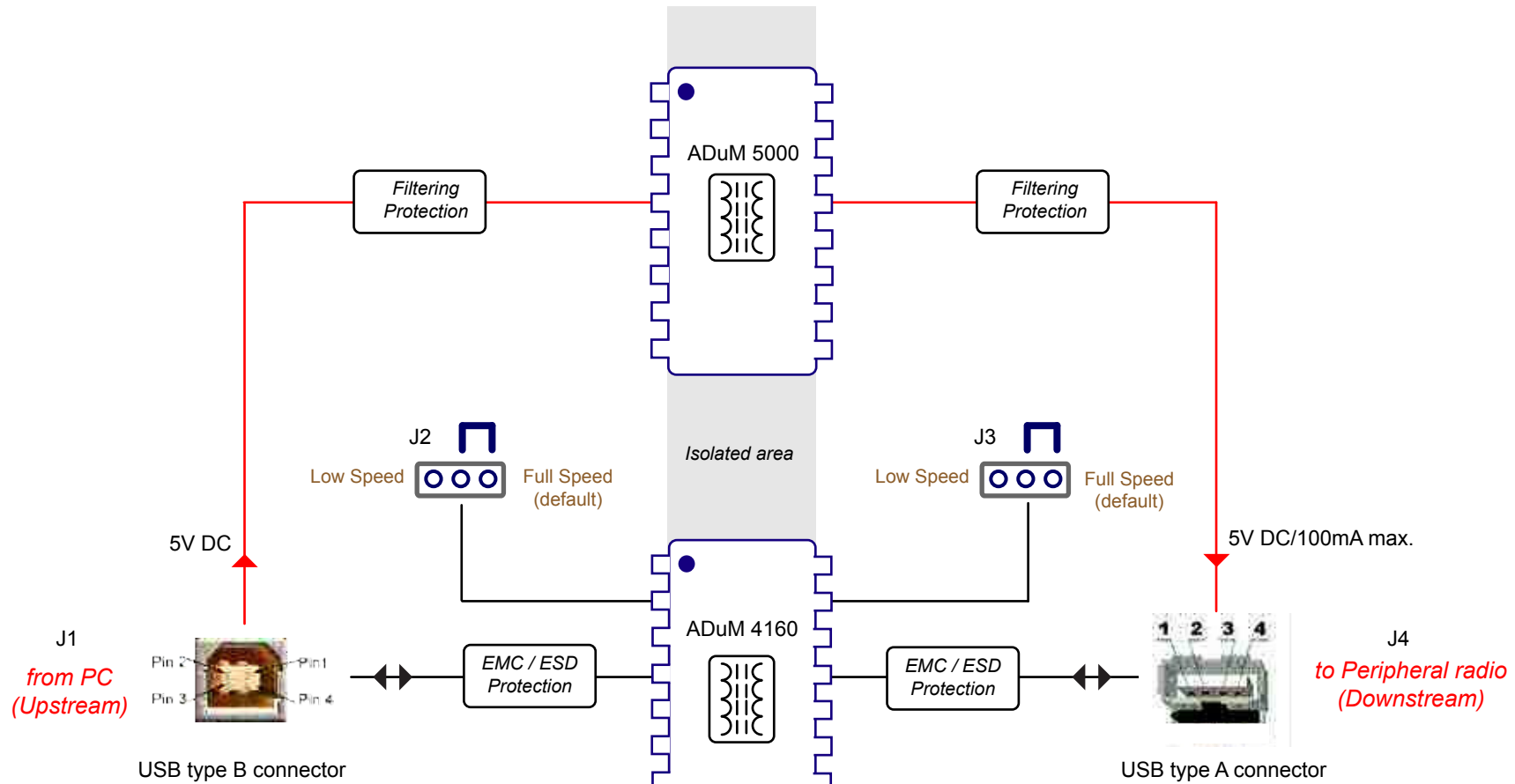


Peripheral downstream side view
Type A USB socket



NOTE:

If the radio and/or peripheral connected on the Downstream side of the USB Galvanic Insulator draws more than 100mA a " Y " USB cable together a power bank must be used in order to power it properly.



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NOTES:

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