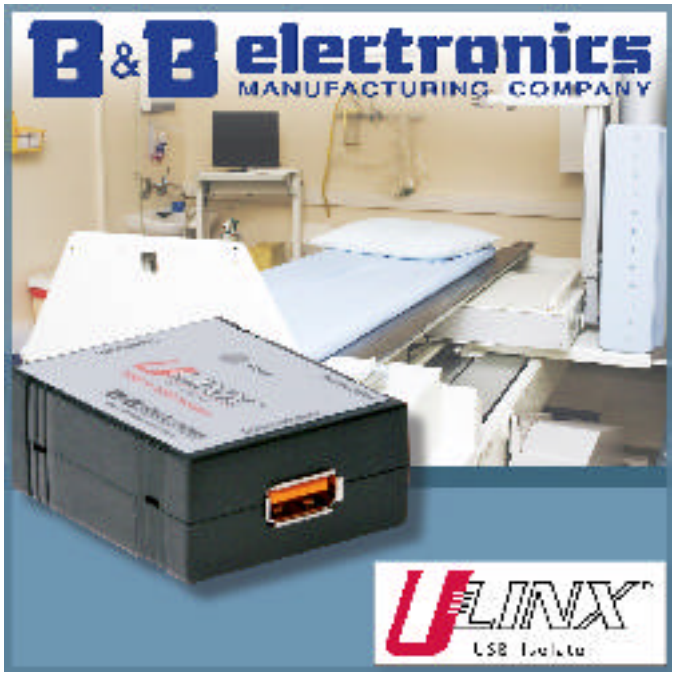
USB Isolation Is Strong Enough for Medical Applications



Every second counts in a hospital environment. And so does isolation safety. Medical systems require at least two independent isolation systems to protect patients and personnel. Some systems must comply with the IEC60601 standard--isolation of all interfaces, peripherals, or data collection devices that come in contact with the patient. B&B Electronics' Ulinx USB isolator, with 4kV isolation, conforms to IEC60601 specifications for hospital and medical applications.

Most medical networks include an array of standard personal computers, laptops, networking devices, and peripherals (printers, monitors, keyboards). Readily available, these devices are economical and easy to implement. Yet, RS-232 serial ports on earlier PCs and laptops have given way to USB's growing popularity. This presents a challenge to medical system designers who want to take advantage of USB's plug-n-play, hot-swapping, and robust peripheral support but must factor in isolation safety requirements. While RS-232 ports are easy to isolate, USB often requires USB controllers, isolators, and other devices, adding time and cost. B&B Electronics' USB isolator, model UH401, features up to 4 kV isolation, ensuring high reliability and protection from damaging electrical storms, spikes, power surges, and other high EMI/RFI disturbances. The isolation barrier eliminates disruptive ground loops in measurement applications. The ultra-compact design inserts directly into the USB signal lines of existing medical applications without additional components or software modifications. High retention USB connectors provide solid connections that won't pull loose easily. Operating temperature of -40 to 80°C adapts to a wide range of applications. Up LED indicates power supplied via upstream USB port to 100 mA of current to attached downstream devices. With USB bus powering, no external power is needed. Includes one-meter, Type A to Type B

USB cable.

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