

# Are You Satisfied With Your Existing Switch System?

Are you satisfied with the signal quality, bandwidth, and flexibility of your existing switching system? A system based on legacy PXI technology with lacking configurability can have many shortcomings. It can be more costly to buy multiple products when a single card can be re-configured to meet the requirements of a multiple of test scenarios, and be at risk of obsolescence issues due to aging bus design.

The VTI Instruments SMX PXIe switch is a better choice.



## SMX PXIe Switch

## PXI Switch

### The Basics

	SMX PXIe Switch	PXI Switch
Bus Standard	PXIe taking full advantage of PXIe trigger system, and enabling the mix of modern instrumentation and switching in a single chassis	Legacy PXI and PXIh standard, slowly being phased out, no new instrumentation cards in this format
Re-configurable Cards	Software configurable designs add increased functionality and flexibility to allow users the ability to reduce inventory and cost. These features are available in the SMX Matrix and Multiplexer cards.	No configurability, requiring multiple separate part numbers to cover the same functionality
Relay Technology	High quality mechanical relays and multilayer low noise PCB design	Densely populated Reed relays resulting in higher resistance switching, cross talk, switching noise, and reduced signal bandwidth
Front Panel Connectivity	Commercially available 160 pin connector to DIN 41612 standard, available from multiple vendors reducing obsolescence risk. Easy assembly 2.54mm pitch termination. Plus, options for pre-assembled connectors and breakout boxes.	High density 1.27mm pitch SCSI or single vendor LFH connector, not recommended for customer termination due to complexity and density of the connector. Such high density connectors also limit voltage, current, and bandwidth capabilities of a switch card. The Molex LFH 200 is now obsolete, avoid cards using this connector, connector was only produced by Molex.
Signal Quality	High quality board design using multiple PCB ground planes and good selection of components and mating connector ensure a high bandwidth capability and minimal crosstalk maximizing signal quality	Bandwidth not always mentioned on datasheets or manuals
PXIe Trigger Bus	Makes full use of the PXIe trigger bus	No connection to trigger bus for PXI cards

### Software

Path Level Switching	Built into the web interface and driver are the capability to select an input and output and have the driver or web interface determine the required relay path to complete the circuit. Along with full path discovery.	Path level switching is a extra software package that has to be purchased. Result is extra cost for the customer.
IVI Drivers	One driver (VTEXSwitch) covers both the PXIe platform and the EX1200 LXI platform, making it easier for the user to transition between platforms reducing software development costs	IVI drivers are separate for PXI and LXI
IEEE 1588	Full IEEE 1588 support to eliminate the need for dedicated trigger and clock cables for synchronizing multiple chassis	Designed to operate as a single unit, does support external triggering but no synchronization over time

The SMX switching cards offer many top-of-the-line features and benefits while keeping operating costs low. Now is the time to reduce your operating expenses by moving from your legacy PXI based system to one based on the VTI Instruments SMX Series.