

SentinelEX

PXIe Test and Measurement Suite



SentinelEX continues to lead the way in modular test solutions by delivering uncompromised measurement integrity to the heart of every test system: signal switching. The new **VTI Instruments PXIe Switching Series by AMETEK** is built on 20 years of proven deployment in the most demanding aerospace, defense and automotive applications. The new series delivers exceptional performance and reliability by implementing extensive signal path shielding, isolation and built-in health monitoring. Its software-configurable switch subsystems increase flexibility and help control costs by allowing a single module to be easily used for different testing requirements.



ADVANTAGES

- Improved test reliability from extensive signal path shielding
- Lower switching costs through software-configurable multiplexer and matrix grouping
- Reduced downtime with embedded health monitoring

ADVANCED MODULE FEATURES

- Software-configurable
- Embedded health monitoring
- Exceptional noise immunity
- Efficient high-density packaging
- Interactive schematic control
- 3 Year warranty
- Next generation PXIe interface

ATE MARKETS & APPLICATIONS

- Avionics
- Electronics
- Oil and Gas
- Automotive
- Defense and Aerospace
- Energy / Power Generation

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AMETEK

RELIABLE DATA FIRST TIME EVERY TIME

SentinelEX PXIe Signal Switching Product Specifications & Details

Specifications | General Purpose

Models	Switched V/A		Switched Power		Typical Bandwidth (-3dB)
SMX-2xxx Discrete Power Switches	250 VAC/120 VDC	16 A	480 W	4000 VA	30 MHz
SMX-3xxx Multiplexers	300 VAC / 300 VDC	2 A	60 W	62.5 VA	100 MHz
SMX-4xxx Matrices	300 VAC / 300 VDC	2 A	60 W	62.5 VA	82 MHz
SMX-5xxx Discrete Switches	300 VAC / 300 VDC	2 A	60 W	62.5 VA	64 MHz
SMX-6xxx RF Multiplexers	250VAC / 220VDC	2 A	50 W	62.5 VA	3 GHz

Specifications | Microwave

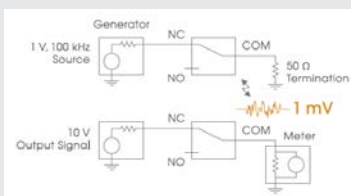
Models	VSWR (26.5 GHz)	Isolation	Bandwidth
SMX-7xxx Microwave Switches	1.60:1	-55 dB	DC-40 GHz

SIGNAL SWITCHING DRIVES TEST SYSTEM PERFORMANCE

The quality of a switch is not determined by what it does, rather, by what it doesn't do. Switching systems that lack signal transparency destroy signal integrity, thereby reducing the measurement capability of even the most precise measurement device. VTI switch cards incorporate advanced layout techniques and advanced shielding methods to ensure signal transparency.

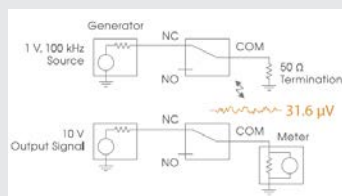
VTI's new PXIe switch cards provide more than **30X** better isolation than comparable cards, greatly improving overall performance and allowing test system engineers to maximize the full range of the measurement instrumentation. Test system performance is improved and costs lowered by reducing false pass/fail conditions and intermittent glitches often caused by marginal signal levels.

Typical PXIe Switch Card



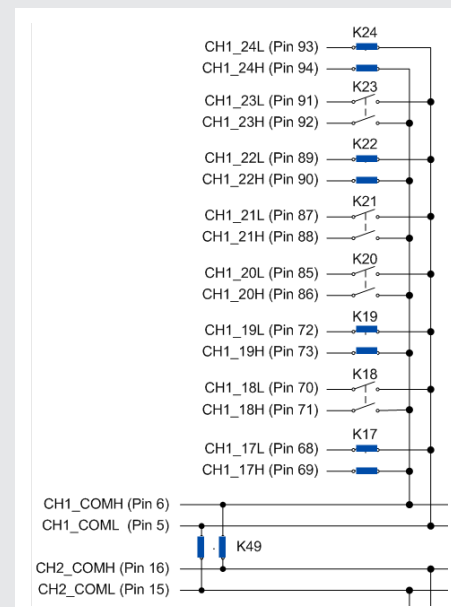
1 V aggressor adds 1 mV of noise to a 10 V signal

VTI PXIe Switch Card



1 V aggressor only adds 30 μV of noise to a 10 V signal

VIRTUAL SCHEMATIC CONTROL



Embedded virtual schematic control simplifies setup and debugging; allows all relays to be engaged independent of application software and device drivers.



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