

# EMX-7500 SERIES

PXIe DIGITAL INPUT/OUTPUT



The AMETEK VTI Instruments EMX-7500 Series is a family of high-performance PXIe modules consisting of multiple I/O configurations and logic levels. Dedicated input or output cards are available for high channel count applications while other cards provide ultimate flexibility with eight, 8-bit ports (64 channels) that can be configured as an input or output under programmatic control.

Models capable of sinking 300 mA include built-in clamping diodes, making these modules ideal for driving and sensing external devices such as relays, while all clamping diodes and open collector channels can be pulled up internally, rather than on a per channel basis, simplifying overall system cabling. Isolated models are also available for more demanding applications.

## FEATURES

- High Current
  - 300 mA Sink
- High Density
  - 64 Channels / Card
- Isolation
  - 1000 V
- Multiple Digital Logic Levels
  - LV TTL
  - TTL
  - 60 V Max, User Defined
- Flexible Configurations
  - Dedicated Input
  - Dedicated Output
  - Eight, 8-Bit Ports
- Flexible Software
  - Embedded Soft Front Panel
  - Common IVI Software Drivers

# EMX-7500 SERIES PXIe Digital Input/Output

## Specifications

EMX-7510	Digital Input/Output	Channels	64 (Eight 8-Bit Ports)
		V IN (high)	> 40% of Vclamp
		V IN (low)	< 14% of Vclamp
		V IN (max)	60 V
		V OUT (high)	> 2 V to 60 V
		V OUT (low)	< 1.5 V @ 300 mA max. (sink)
		Connector Type	ERNI 160-Pin
	Voltage Range	Internal Voltage Source (Vclamp)	3.3 V, 5.0 V, 12.0 V and 24.0 V
		User Voltage <sup>1</sup> (Vclamp)	> 2 V up to 60 V
EMX-7511	Digital Input/Output	Channels	64 (Eight 8-Bit Ports)
		Logical Level	Standard TTL @ 24 mA sink/source
		Connector Type	ERNI 160-Pin
EMX-7512	Digital Input/Output	Channels	64 (Eight 8-Bit Ports)
		Logical Level	Standard LVTTTL @ 24 mA sink/source
		Connector Type	ERNI 160-Pin
EMX-7513	Digital Input	Channels	32
		Logical High	2.8 V to 60 V
		Logical Low	< 2 V
		Isolation to Computer GND	1000 V
	Digital Output	Channels	32
		Maximum Switching Voltage	60 V (AC/DC)
		Maximum Switching Current	100 mA
		Potential Free	Yes
		Isolation to Computer GND	1000 V
		Connector Type	ERNI 160-Pin
EMX-7514	Digital Output	Channels	64
		Maximum Switching Voltage	60 V (AC/DC)
		Maximum Switching Current	100 mA
		Potential Free	Yes
		Isolation to Computer GND	1000 V
		Connector Type	ERNI 160-Pin
EMX-7515	Digital Input	Channels	64
		Logical High	2.8 V to 60 V
		Logical Low	< 2 V
		Isolation to Computer GND	1000 V
		Connector Type	ERNI 160-Pin
EMX-7519	Digital Output	Channels	64 (Eight 8-Bit Ports)
		V OUT (high)	> 2 V to 60 V
		V OUT (low)	< 1.5 V @ 300 mA
		Connector Type	ERNI 160-Pin
	Voltage Range	Internal Voltage Source (Vclamp)	3.3 V, 5.0 V, 12.0 V and 24.0 V
		User Voltage <sup>1</sup> (Vclamp)	> 2 V up to 60 V

<sup>1</sup> User voltage can be applied through the DIO Connection.

## Ordering Information

Model (Part No.)	Configuration
EMX-7510 (70-0409-190R)	64-CH DIO, Source/Sink, 60 V max Static I/O
EMX-7511 (70-0409-401R)	64-CH, DIO TTL, Static I/O
EMX-7512 (70-0409-402R)	64-CH, DIO LV TTL, Static I/O
EMX-7513 (70-0674-000R)	32DI/DO, Isolated Switch card, 60 V
EMX-7514 (70-0672-000R)	64DO, Isolated Switch card, 60 V
EMX-7515 (70-0673-000R)	64 DI, 60 V max, Isolated Static I/O
EMX-7519 (70-0409-400R)	64-CH DO, Source/Sink, 60 V max Static
70-0409-160R	Strain relief bracket kit (without connector)
27-0088-160	Mating connector housing 160 pin (without crimp pins)
52-0109-000R	Crimp Pins (one bag contains 100 nos crimp pins)
46-0010-000	Crimp tool (DIN)
46-0011-000	Extraction tool (DIN)
70-0367-205R	Terminal Block



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