

EMX-7000 SERIES

PXIe PRECISION PROGRAMMABLE
RESISTOR LADDER



FEATURES

- (4) Independent Channels
- 1 Ω Resistance Increments
- Precision Sensor Simulation Capability
- Low Thermal Offset
- Independent Sense Feedback
- Parallel and Series Operation
- Dynamic Soft Front Panel
- IVI-COM, IVI-C, LabVIEW™ Drivers
- 3-Year Warranty

APPLICATIONS

- Sensor Simulation
- Process Control
- ATE Calibration
- Device Loading
- Potentiometer Control

EMX-7000 SERIES PXIe PRECISION PROGRAMMABLE RESISTOR LADDER

Overview

The EMX-7000 SERIES PXIe Precision Programmable Resistor Ladder modules provide four independent channels of programmable resistors, each with four decades per channel. The EMX-7004 is capable delivering exceptional stability and accuracy for any resistance value between 1 Ω to 16,383 Ω , and can be adjusted in 1 Ω increments through the software application programming interface (API) or dynamic soft front panel. The EMX-7005, EMX-7006 and EMX-7007 are perfect for applications requiring higher resistance values, with programmable settings ranging from 163 k Ω to 16,383 M Ω , while the EMX-7014, 7015 and 7016 are ideal for general purpose applications not requiring ultra high accuracies.

Specifications

Range	EMX-7004, EMX-7014	0 Ω to 16,383 Ω
	EMX-7005, EMX-7015	10 Ω to 163,830 Ω
	EMX-7006, EMX-7016	100 Ω to 1,638,300 Ω
	EMX-7007	1000 Ω to 16,383,000 Ω
Step Size	EMX-7004, EMX-7014	1 Ω
	EMX-7005, EMX-7015	10 Ω
	EMX-7006, EMX-7016	100 Ω
	EMX-7007	1000 Ω
Accuracy	EMX-7004	$\pm 0.02\%$ of programmed value $\pm 0.5 \Omega$
	EMX-7005	$\pm 0.02\%$ of programmed value $\pm 0.5 \Omega$
	EMX-7006	$\pm 0.02\%$ of programmed value $\pm 0.5 \Omega$ for values less than 200 k $\pm 0.05\%$ of programmed value $\pm 0.5 \Omega$ for values greater than or equal to 200 k
	EMX-7007	$\pm 0.02\%$ of programmed value $\pm 0.5 \Omega$ for values less than 200 k $\pm 0.08\%$ of programmed value $\pm 0.5 \Omega$ for values greater than or equal to 200 k
	EMX-7014	$\pm 2\%$ of programmed value up to 512 Ω , $\pm 1.5\%$ for all other values
	EMX-7015	$\pm 2\%$ of programmed value up to 2550 Ω , $\pm 1.5\%$ for all other values
	EMX-7016	$\pm 1.5\%$ of programmed value
Maximum Power	EMX-7004 EMX-7005 EMX-7006 EMX-7007	0.5 W to 40°C Thermal
	EMX-7014 EMX-7015 EMX-7016	0.25 W to 40°C Thermal
Thermal Offset		$\leq \pm 25 \mu V$

Specifications subject to change without notice.

Ordering Information

Model	Configuration
EMX-7004	4-Channel, 1 Ω – 16,383 Ω Precision Programmable Resistor Ladder Card, 0.5 W
EMX-7005	4-Channel, 1 Ω – 163,830 Ω Precision Programmable Resistor Ladder Card, 0.5 W
EMX-7006	4-Channel, 1 Ω – 1,638,300 Ω Precision Programmable Resistor Ladder Card, 0.5 W
EMX-7007	4-Channel, 1 Ω – 16,383,000 Ω Precision Programmable Resistor Ladder Card, 0.5 W
EMX-7014	4-Channel, 1 Ω – 16,383 Ω Precision Programmable Resistor Ladder Card, 0.25 W
EMX-7015	4-Channel, 1 Ω – 163,830 Ω Precision Programmable Resistor Ladder Card, 0.25 W
EMX-7016	4-Channel, 1 Ω – 1,638,300 Ω Precision Programmable Resistor Ladder Card, 0.25 W



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