

# MX3 M.2 AI Accelerator Module

The MemryX MX3 M.2 AI Accelerator Module is a powerful, energy efficient, and cost-effective Edge AI computing solution.

Engineered as a companion module, the MX3 M.2 Module alleviates the processing load of deep neural network (DNN) computer vision (CV) models from the host CPU. Excelling in real-time and low latency inferencing, the module's distinctive architecture significantly decreases system power.

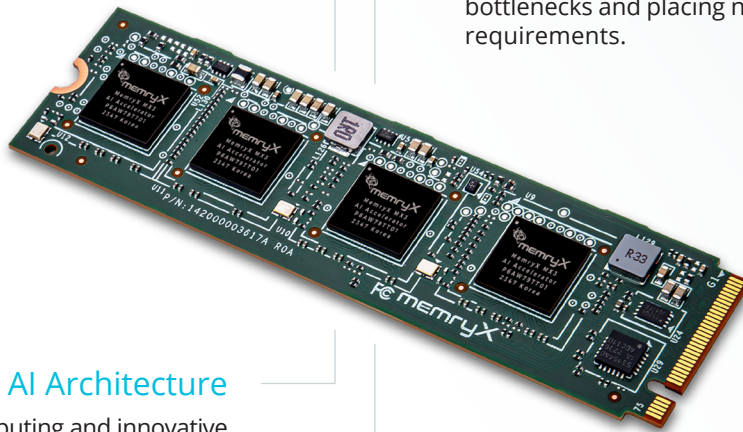
The MX3 M.2 Module is compatible with the M.2 form factor. With no hardware changes, the module can be plugged into existing systems with an M.2 socket. Each M.2 module contains four MemryX MX3 Edge AI Accelerators executing inferencing in real-time.

### Accuracy

Floating-point activations architected for high accuracy.

### Deterministic/Consistent

With low latency (Batch=1) pipelined dataflow design, all memory is included on the accelerator, fully mitigating system bottlenecks and placing no host processing requirements.



### Edge AI Architecture

At-memory computing and innovative dataflow architecture results in the **highest** throughput and **lowest** energy optimizing streaming inputs.

### Simplicity

With more than **50%** chip utilization, **1-click** performance and power optimization of trained models compile with no retraining, hand-tuning, or quantization necessary.

Video Management Systems

Industry 4.0 & Robotics

AgTech

Automotive

IoT

Medical



## Technical Specifications

Mechanical	Form Factor	M.2 2280 M Key Socket 3	
	Dimensions	3.15" x 0.87" (22 x 80 mm)	
Electrical	Input Voltage	3.3V +/- 5%	
	Power	Average Power Max: 10W Peak: 14W (M.2 limit)	
	Interface	PCIe Gen 3, 2x2-lanes	8 GT/s per PCIe lane
	IC	4 MemryX MX3's	
Ports	Frameworks	ONNX, PyTorch, TensorFlow, Keras, TensorFlow Lite	
	Weight parameters	80 million, 4-bit 40 million, 8-bit	
	Host Processor	Any including ARM, x86, and RISC-V	
	OS Support	Ubuntu 22.04 and 24.04, 64-bit Windows, 64-bit Android	
	SDK	MemryX Developer Hub	
	Certification	CE / FCC Class A	
Environmental	Operating Temperature	-40°C to 85°C Industrial	
	Operating Humidity	10% ~80% RH non-condensing	

Specifications subject to change without notice

Ordering Information	Part #	Description
	MX3-2280-M-4	4-chip M.2 module, 22x80 mm, M-Key
	MX3-2280-M-2	2-chip M.2 module, 22x80 mm, M-Key

For more information visit [MemryX.com](https://www.MemryX.com)



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MemryX Inc. is a fabless semiconductor company that designs Edge AI processing solutions powered by a proprietary compute-at-memory technology and dataflow architecture. By combining high performance and accuracy with low system power and a high-performance architecture, MemryX solutions are able to power AI needs for a number of industries, including transportation, IoT, and a wide range of industrial and consumer applications. MemryX is backed by leading investors including HarbourVest, Arm IoT Fund, eLab Ventures, M Ventures, and Motus Ventures. MemryX has headquarters in Ann Arbor, Mich., with offices in Bangalore, India, Taipei and Hsinchu, Taiwan.

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