UP **AI CORE X**
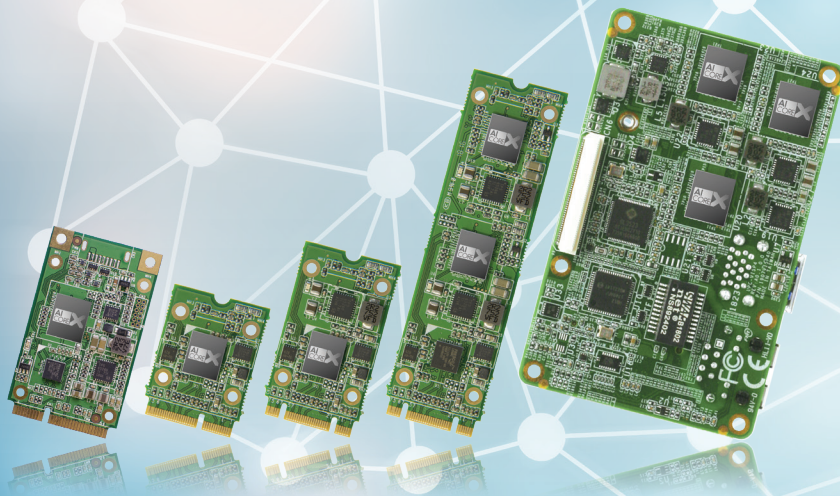
bridge
the gap

AI CORE X

Deep Neural Networks Hardware accelators

UP AI Core X series, powered by Intel® Movidius™ Myriad™ X VPUs, drive the demanding workloads of modern computer vision and AI applications at ultra-low power.

CONVOLUTIONAL **NEURAL** NETWORKS
What type of Deep Neural networks can I run?

CAFFE

GoogleNet V1	LeNet
Age/Gender Net	CaffeNet
AlexNet	VGG Soumith VGG_A
SqueezeNet V1.1	MobileNet V1

TENSORFLOW

Inception V1	Inception Resnet V2
Inception V3	AlexNet
Inception V4	MobileNet V1
Inception ResNet V1	
(facenet)	

TRAINING **VS** INFERENCE

TRAINING

= bird ✓

= bird ✗
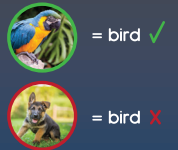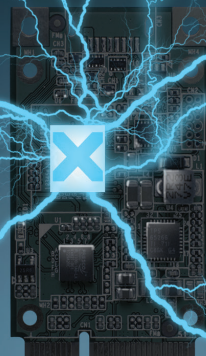
AI CORE X

INFERENCE

= bird

UP **AI CORE X**

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intel

Movidius
an Intel company

UP AI Core X Neural Acellerator Family

	UP AI Core X	UP AI Core XM 2230	UP AI Core XM 2242	UP AI Core XM 2280	UP AI Vision Plus X*
VPU	Intel® Movidius™ Myriad™ X 2485	Intel® Movidius™ Myriad™ X 2485	Intel® Movidius™ Myriad™ X 2485	Intel® Movidius™ Myriad™ X 2485	Intel® Movidius™ Myriad™ X 2485
Amount of VPU	1	1	1	2	3
Form factor	mPCIe	M.2 2230 B+M key	M.2 2242 B+M key	M.2 2280 B+M key	Credit card
Dimensions	30 x 51 mm	22 x 30 mm	22 x 42 mm	22 x 80 mm	90 x 56.5 mm
Supported frameworks	Caffe, TensorFlow	Caffe, TensorFlow	Caffe, TensorFlow	Caffe, TensorFlow	Caffe, TensorFlow
Memory	4Gb LPDDR4	4Gb LPDDR4	4Gb LPDDR4	4Gb LPDDR4	4Gb LPDDR4
Thermal	Fanless heatsink	Fanless heatsink	Fanless heatsink	Heatsink with active fan	Fanless heatsink
System requirements	x86_64 computer running Ubuntu 16.04, 1GB memory, 4GB Free storage, vacant expansion slot				
Software tool	NCS SDK, OpenVINO toolkit				

An ultra-low power design	Performing high demanding tasks at 2.5W per chip	**Neural Compute Engine**	A dedicated hardware accelerator for running on-device deep neural network applications
Best performance and efficiency	Best performance per dollar and watts. Linear performance increase in multiple chip solutions	**A small-area footprint**	Very small footprint that can easily be integrated into existing products

* Works exclusively with UP Core Plus

10X ** **HIGHER PERFORMANCE**
On Deep Neural Networks

4 TOPS *
Trillion Operations Per Second

1 TERAOPS
1 Trillion Operations Per Second of Dedicated Neural Networks Compute

ULTRA LOW POWER

Movidius MA2485 Myriad X

Qualified eco-partners for vertical markets

Qualified AI Software Partners

UP is a brand of AAEON Technology Europe, an associate company of ASUS group, focused on Embedded Computing, Artificial Intelligence on the Edge, Internet Of Things and Industry 4.0. UP's mission is to spread the intelligence in all the world around us. UP bridges the gap between the world of prototypes and the world of high-grade mass-produced intelligent systems solutions. UP gives affordable and easily accessible and support of all the latest technologies to embedded industry.

UP
bridge the gap
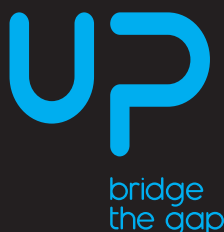
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