

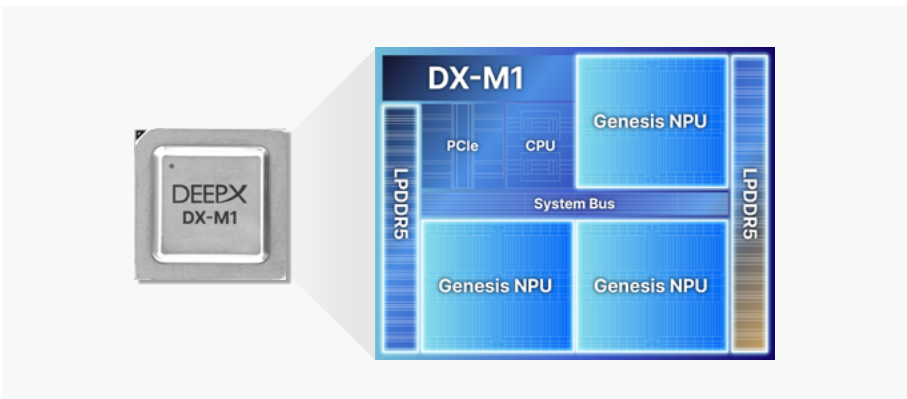
DX-M1 Chip for Every AIoT

DX-M1 delivers ultra-efficient AI performance, design achieves 25 TOPS (200 eTOPS) under 5W, significantly outperforming competitors in performance-to-power ratio.



“Integrating powerful AI vision processing and essential core features into a single chip, DEEPX drives innovative edge AI solutions for diverse intelligent systems.”

DX-M1 Chip: Functional Block Diagram



Specifications

Feature	AI Accelerator	Details
Processor	INT8 Performance	25 TOPS (=200 eTOPS / INT8)
Signal Interface	PCI Express	· PCIe Gen.3 ×4 / Bandwidth: 4GB/s (Compatible to PCIE x1) · LPDDR - x16 4channel / LPDDR4X upto 4266Mbps, LPDDR5 upto 6400Mbps · QSPI - NAND/NOR flash memory
Power	Power Consumption	2W min., 5W max. for DEEPX supported models
Operating	Temperature	-25 ~ 85°C (Throttling) -25 ~ 65°C (Non_Throttling)
Environment	Humidity	40 °C @ 85% relative humidity (non-condensing)
Thermal Solution	Cooling	Heatsink (Option)
PKG Data	Type	FC-BGA
	Size	17×17mm
	Ball	625ball 0.65 pitch
Software Support	Windows	Windows 11, 10 64 bit
	Linux	Ubuntu 22.04, 20.04 LTS Support Yocto Project and Docker
	Framework	Support TensorFlow, TensorFlow Lite, ONNX, Keras, PyTorch by Dataflow compiler converted
System Support	CPU Platform	x86, ARM Based Architecture



Key Features

- > Type: AI Accelerator
- > Interface: PCIe Gen.3 ×4
- > Memory: LPDDR4X/5 X16 4-channel, QSPI NAND/NOR Flash
- > Host HW: x86, ARM Based Architecture

Support DXNN® SDK

DXNN® SDK is a comprehensive SW development environment for deploying AI on DEEPX NPUs. It integrates tools for compiling, optimizing, simulating, and inferring the latest AI models, such as YOLO, ViT, and VLMs. And it provides an optimized, ready-to-use environment as the DX-All Suite package to support fast and efficient AI development.

Target Applications

- Edge Cameras Systems
- Smart Mobility
- Smart Factory
- Smart Cities
- Robotics
- Drones
- Edge Computing
- Smart Homes
- Smart Retail

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Europe
Coming Soon



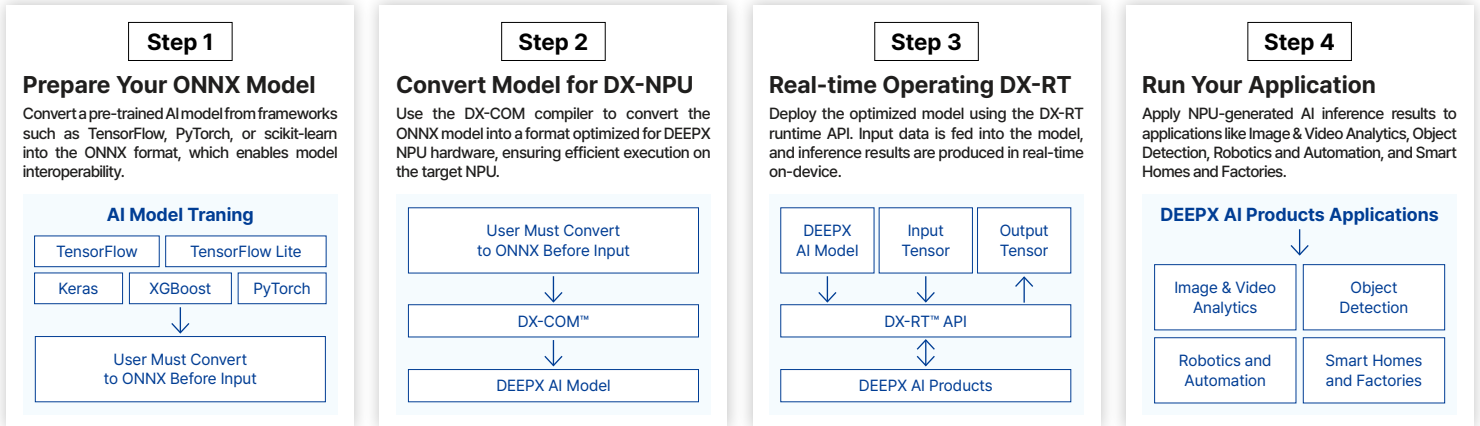
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DXNN® SDK

DXNN® (DEEPX Neural Network) SDK streamlines AI deployment on DEEPX NPUs by integrating version-aligned tools for compilation, optimization, simulation, and inference. For **efficient development**, it's offered as the **DX-AS (All Suite)**, a fully integrated and optimized package.

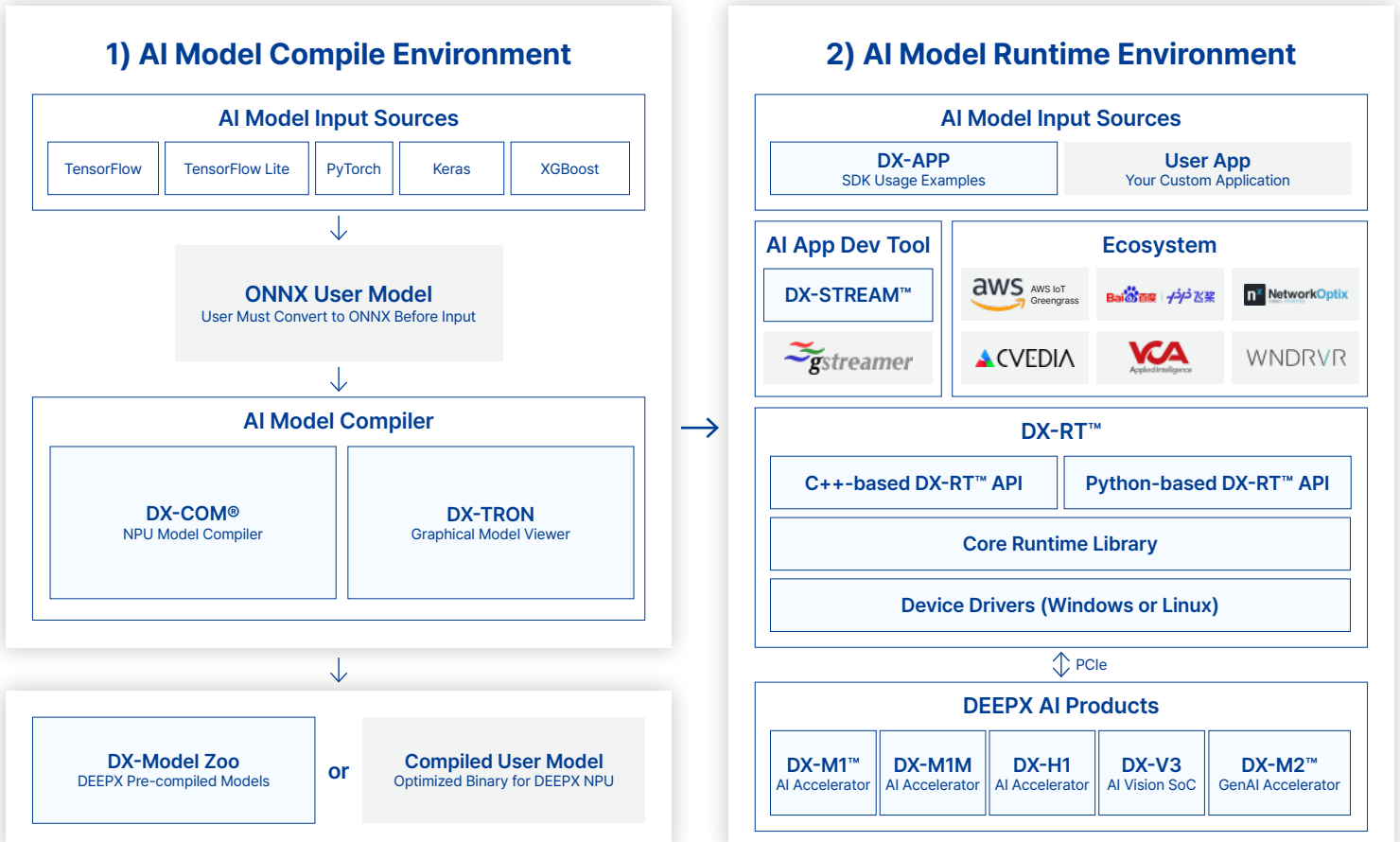


How It Works: 4-Step AI Deployment with DXNN® SDK



DXNN® Full Stack Architecture

DXNN® Full Stack Architecture streamlines AI model deployment onto DEEPX products using its two-stage AI Model Compile and Runtime Environments.



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