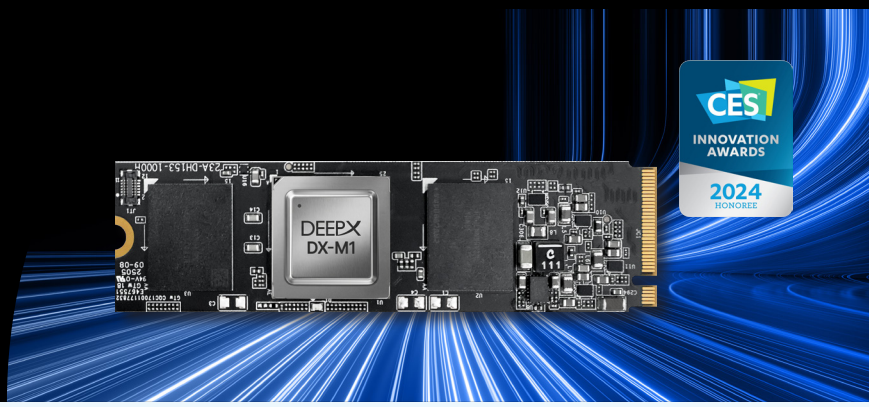
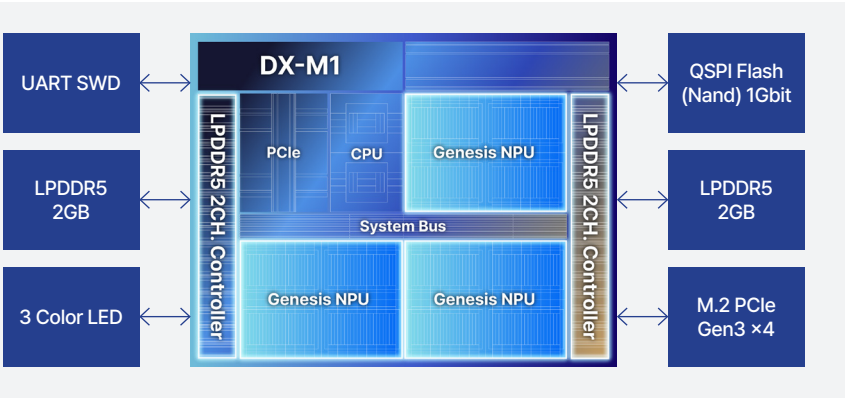
DX-M1 M.2 Module

Intelligence liberated — powerful, efficient, and universal at the edge



Type: AI Accelerator **Performance: 25 TOPS / 5W (Typical)**

Functional Block Diagram



Specifications

Features	Details
AI Performance	25 TOPS (INT8)
Host Interface	PCIe Gen3 ×4 (Supports Gen 1/2/3 & x1/x2/x4)
Memory	4GB LPDDR5
Power Consumption	5W (Typical)
Operating Temperature	0 ~ 70°C (Commercial)
	-25 ~ 85°C (Extended)
	-40 ~ 85°C (Industrial)
Thermal Solution	Heatsink (Option)
Form Factor	M.2 2280(M Key), 22 × 80 × 4.72mm
OS Support	Windows 11/10
	Debian-based Linux (Ubuntu 24.04/22.04/20.04 LTS), Docker
	Yocto Linux
	Android
AI Frameworks	Ultralytics, TensorFlow, PyTorch, ONNX, Keras
System Support	x86, ARM Based Architecture

Overview

The DX-M1 M.2 is more than silicon, it is the declaration that intelligence belongs everywhere, not just in the cloud. At only **5W (Typical), it delivers the force of 200 GPU-class TOPS**, transforming the edge from a passive receiver into an active decision-maker. at just 1-5W through breakthrough efficiency design.

Through its innovative memory design, DX-M1 allows **multiple AI models to work side** by side, not as a luxury but as a new standard. What once demanded costly, power-hungry systems is now within reach of **every device, every factory, every city.**

Target Applications

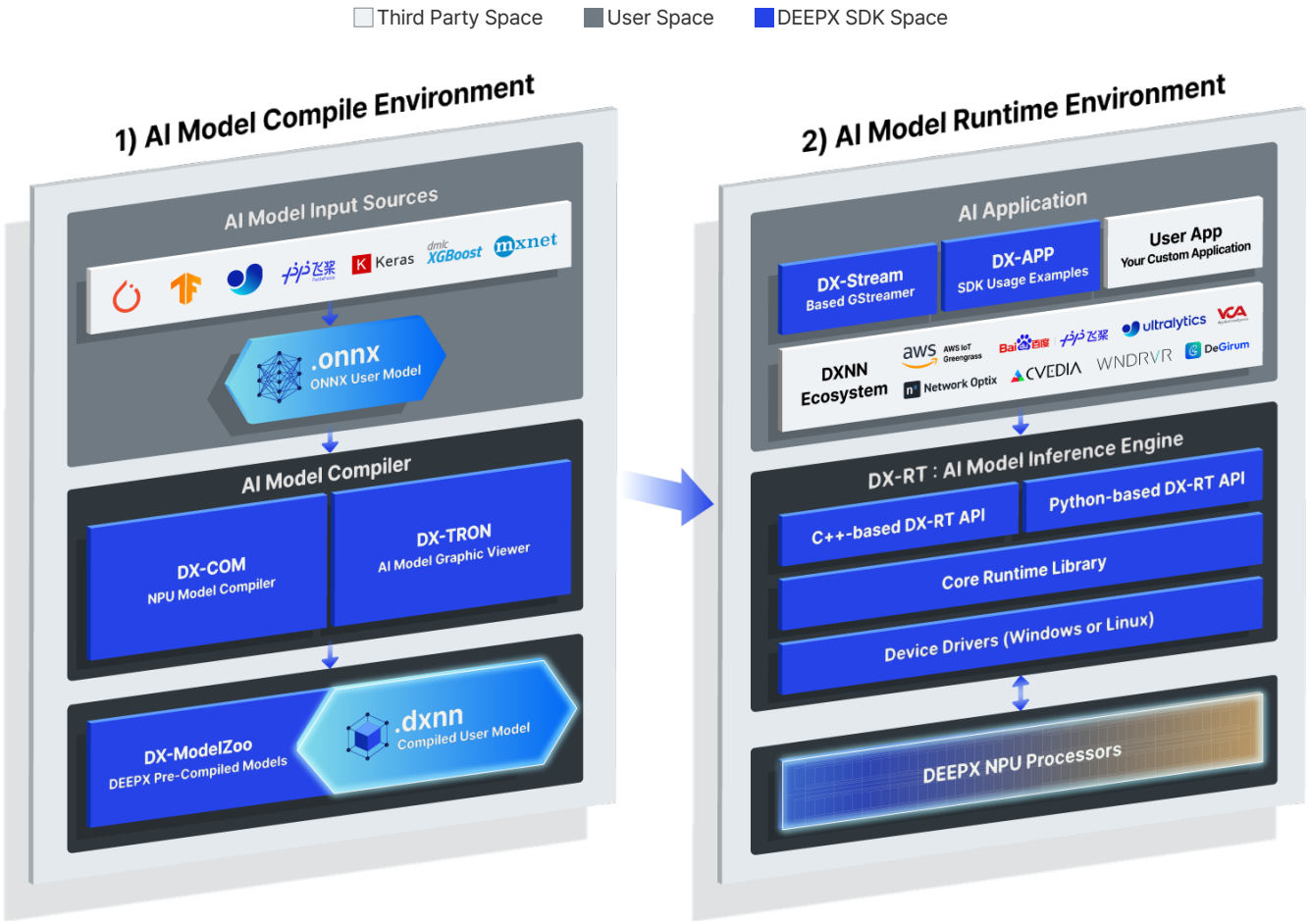
- Edge Cameras Systems
- Smart Mobility
- Smart Factory
- Smart Cities
- Robotics
- Drones
- Edge Computing
- Smart Homes
- Smart Retail

DEEPX

DXNN® - DEEPX SW Development Kit

DXNN® (DEEPX Neural Network) SDK streamlines the AI deployment pipeline on DEEPX NPUs. By integrating essential tools for compilation, optimization, simulation, and inference, it ensures high development efficiency. Experience a ready-to-use development environment with DX-AS (All Suite), a fully integrated and version-aligned package designed for rapid scaling.

DXNN SDK Full Stack Architecture



1) AI Model Compile Environment

Optimizes models from various sources into DEEPX-specific .dxnn formats via the ONNX framework.

2) AI Model Runtime Environment

Deploys optimized models onto hardware via DX-Stream and DX-RT engines using C++ or Python APIs.

DX-AllSuite

DX-AllSuite: The Single Package for Your Complete DXNN Environment. Simplify setup, installation, and updates across local machines and Docker.

Step 1
Supported Environments

- DEEPX Developers — Learn more
- GitHub — Learn more
- aws AWS IoT Greengrass

Step 2
Auto Install & Update

DX-AllSuite

Step 3
Finalize & Start Development

- Docker Install
- Local Install

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