DX-M1M Chip

Real-time, on-device intelligence will be universal, affordable, and transformative

Type: AI Accelerator **Performance: 25 TOPS / 3W (Typical)**

Overview

Experience the future of on-device AI with the **DEEPX DX-M1M**. This AI processor delivers a stunning **25 TOPS** while maintaining an ultra-low power consumption of just 3W(Typical). We prioritize Inferences Per Second (IPS) per Watt, so every operation delivers maximum, real-world value.

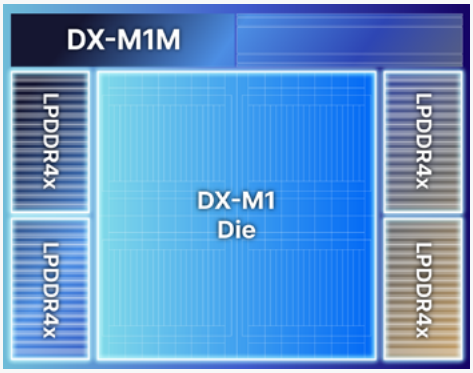
The **DX-M1M** integrates effortlessly with your host system, accelerating diverse applications like **computer vision and audio analysis**.

We believe that powerful AI should be accessible to all. Simply use your models from popular frameworks like Ultralytics Yolo26, TensorFlow, PyTorch or ONNX, and our tools will automatically optimize them for the DX-M1M. This allows you to focus on innovation, not integration.

Specifications

Features	Details
AI Performance	25 TOPS (INT8)
Host Interface	PCIe Gen3 ×4 (Supports Gen 1/2/3 & x1/x2/x4)
Memory	Integrated 2GB LPDDR4x
Power Consumption	3W (Typical)
Operating Temperature	0 ~ 70°C (Commercial)
	-40 ~ 85°C (Industrial)
Package	FCL-BGA, 21 × 21mm 396-ball, 1.0 mm Pitch
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

Functional Block Diagram



Target Applications

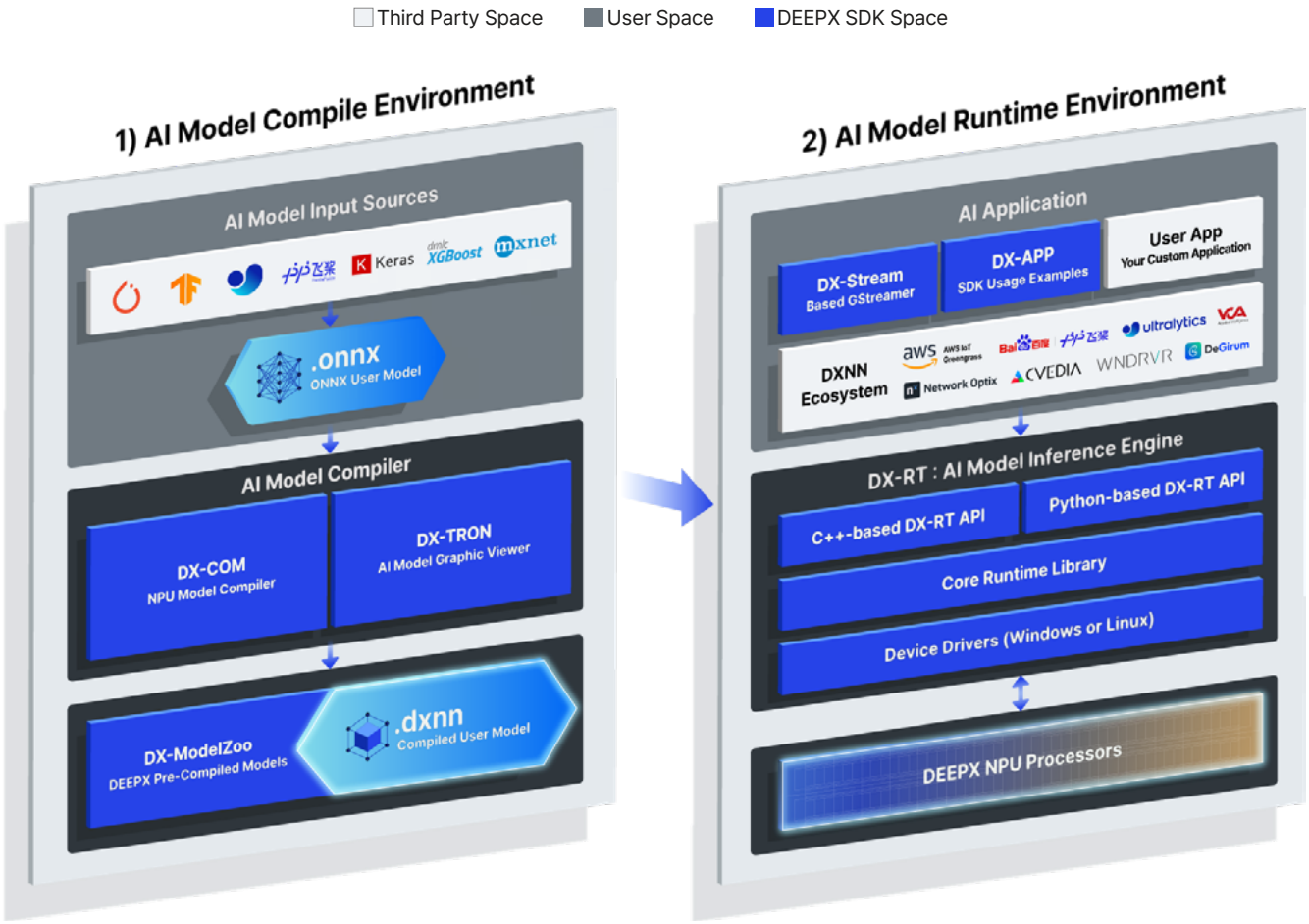
- AI CCTV
- ADAS
- Industrial Robot Arms
- AI Dashcams
- Autonomous Mobile Robots (AMRs)
- Drones
- Edge Servers
- AIoT Devices
- Remote Patient Monitoring (RPM)

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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