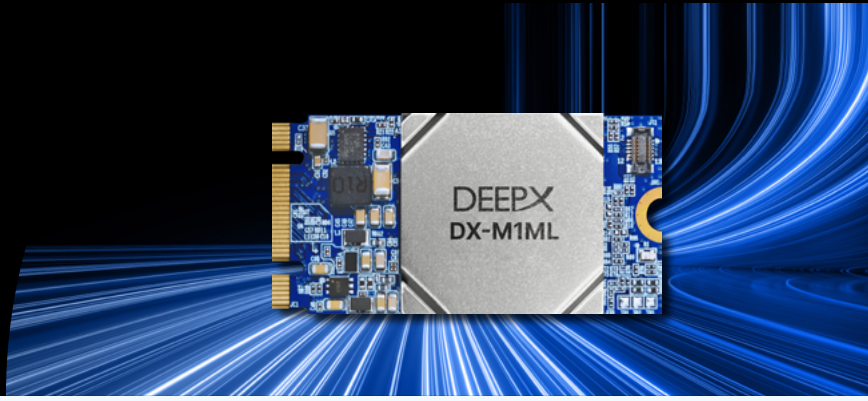


DX-M1ML M.2 Module

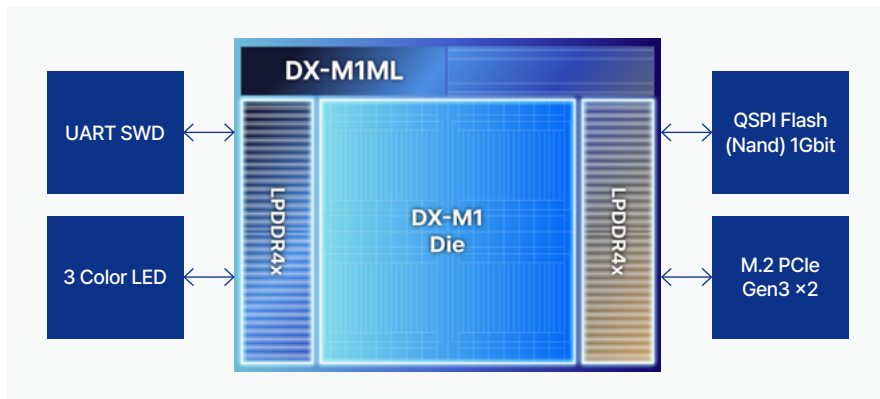
Real-time, on-device intelligence will be universal, affordable, and transformative



Type: AI Accelerator

Performance: 13 TOPS / 3W (Typical)

Functional Block Diagram



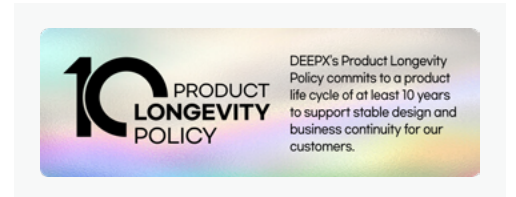
Specifications

Features	Details
AI Performance	13 TOPS (INT8)
Host Interface	PCIe Gen3 x2 (Supports Gen 1/2/3 & x1/x2)
Memory	Integrated 512MB LPDDR4x (4266 MT/s)
Power Consumption	3W (Typical)
Operating Temperature	-40 ~ 85°C (Industrial)
Thermal Solution	Heatsink (Option)
Form Factor	M.2 2242 (M+B Key), 22 x 42mm
OS Support	Windows 11/10
	Debian-based Linux (Ubuntu 24.04/22.04/20.04 LTS)
	Yocto Project
	Docker
AI Frameworks	Ultralytics, TensorFlow, PyTorch, ONNX, Keras
System Support	x86, ARM Based Architecture

Overview

Experience the future of on-device AI with the DEEPX DX-M1ML. This AI processor delivers a stunning 13 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-M1ML integrates effortlessly with your host system, accelerating diverse applications like computer vision and audio analysis.



Target Applications

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

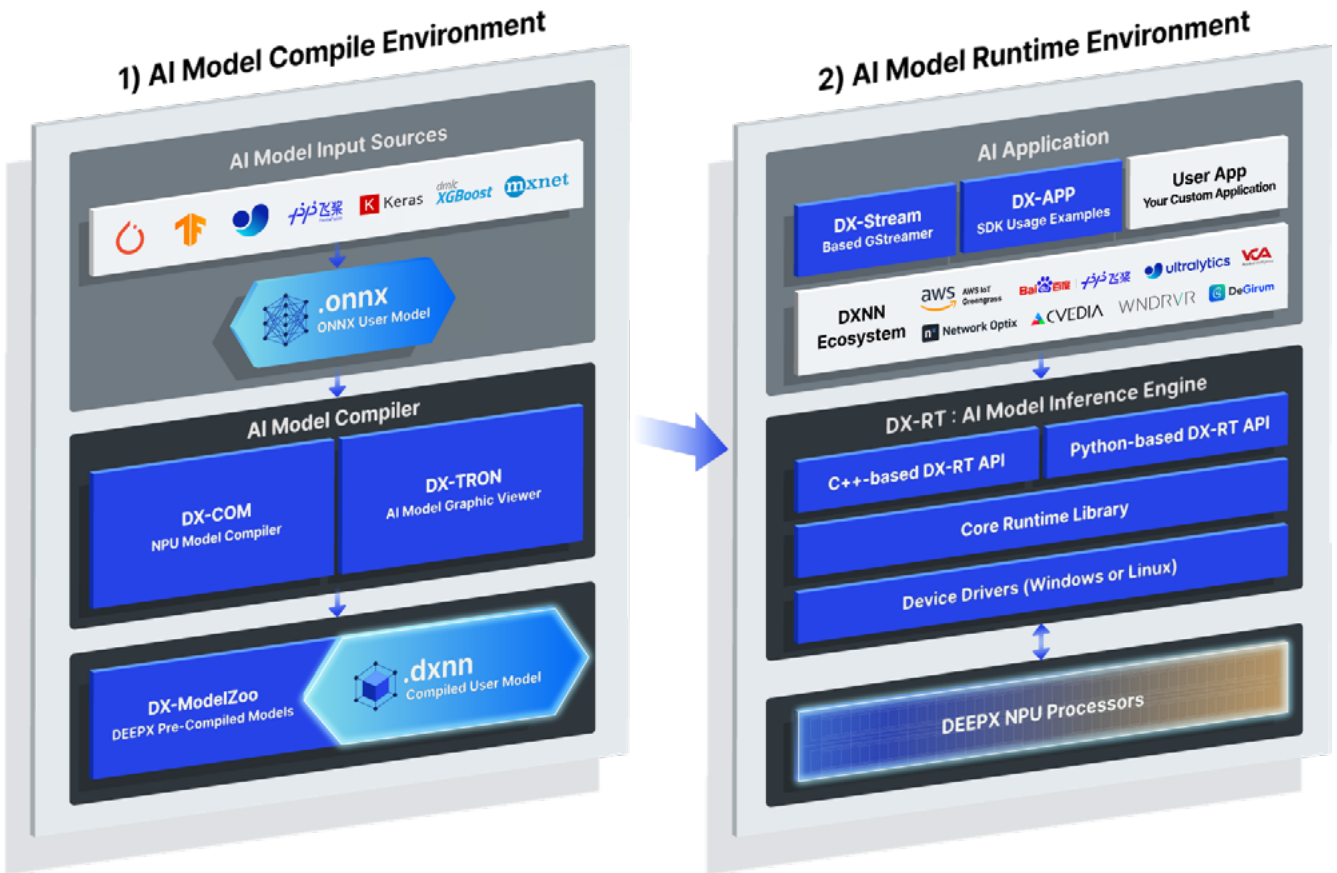


DXNN® - DEEPX SW Development Kit

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

Third Party Space
 User Space
 DEEPX SDK Space



1) AI Model Compile Environment

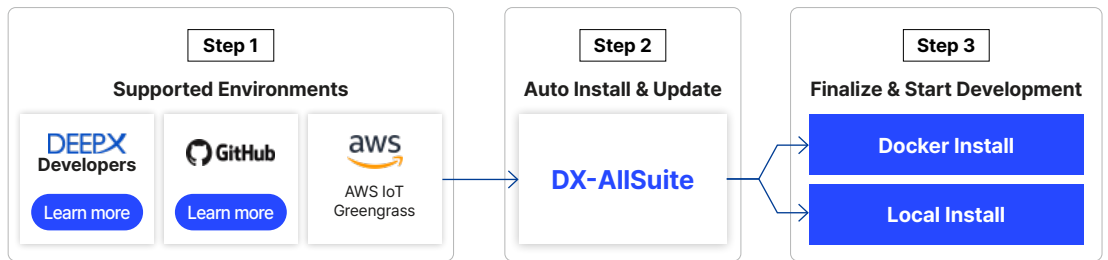
Optimizes models from various sources into DEEPX-specific .dxnn formats via the ONNX framework.

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.



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