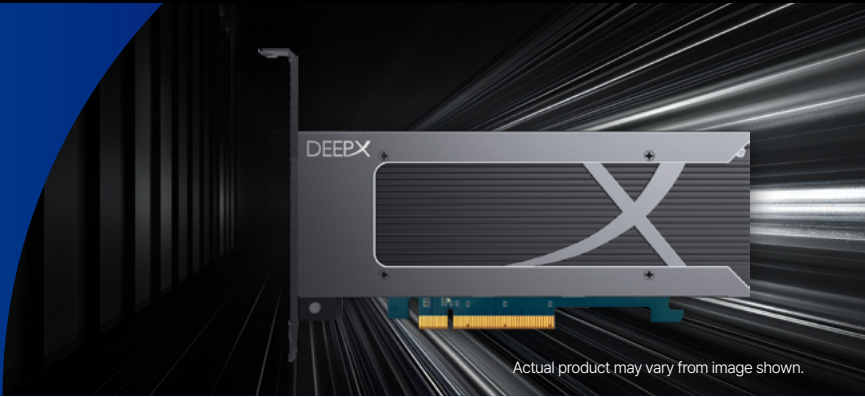


# DX-H1 V-NPU

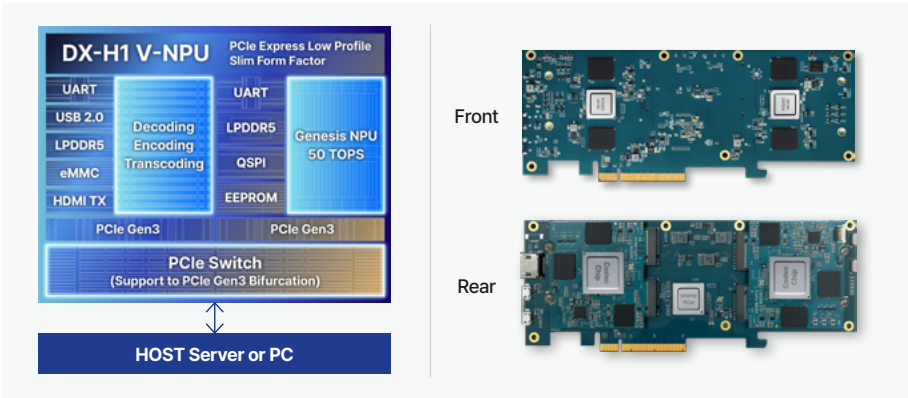
Integrated decoding, encoding, and transcoding turn the DX-H1 V-NPU into a complete foundation for real-time, large-scale monitoring. What once required rooms full of expensive, power-hungry servers can now be placed into the hands of any organization. The barrier to advanced AI falls away, and what remains is possibility, accessible, sustainable, and inevitable.



Actual product may vary from image shown.

Power redefined — massive AI video at 40W, making intelligence sustainable at scale

## Functional Block Diagram



Front

Rear

## Specifications

Feature	Details
AI Performance	50 TOPS (=200 eTOPS / INT8) for real-time AI inference
SRAM	Genesis NPU: Internal SRAM, Codec Chip: 256 KB to 512 KB
CPU	Codec Chip: 4x Cortex-A76 (up to 2.4 GHz )
	Codec Chip: 4x Cortex-A55 (up to 1.8 GHz)
Memory	Genesis NPU: Total = LPDDR5 8GB (4GB + 4GB)
	Codec Chip: Total = LPDDR5 16GB (8GB + 8GB)
Storage	eMMC 32GB
Power Consumption	40W / 12V
PCIe	PCI Express Gen3 16X
Video Decoding	H.264 64CH (1080P @ 30FPS)
Video Encoding	H.264 32CH (1080P @ 30FPS)
Display	HDMI 2.0
Dimensions	167mm x 56mm x 19mm (TBD)
Host Hardware	x86, ARM Based Architecture



## Key Benefits

- Cost-Effective:** Drastically lowers hardware and electricity costs.
- Integrated Design:** All-in-one architecture ensures stable 24/7 video processing on a single card.
- Efficient Monitoring:** Reduces bandwidth and storage by sending only key events and enables fast AI-powered video searches.
- Easy to Scale:** Compact, fanless design allows high-density deployment for maximum efficiency.

## 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

- Security
- Smart Buildings
- Smart Factory
- Smart Cities
- Smart Safety Monitoring
- Content Delivery Network (Smart Search)
- Logistics & Warehouses
- Smart Transportation
- Smart Retail

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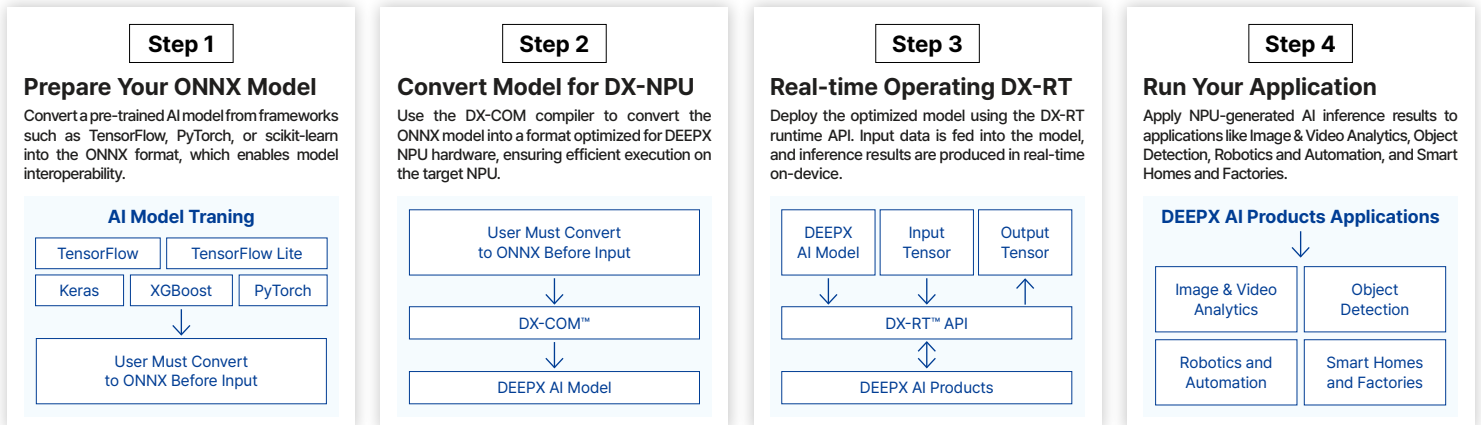
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# DXNN® SDK

**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.**

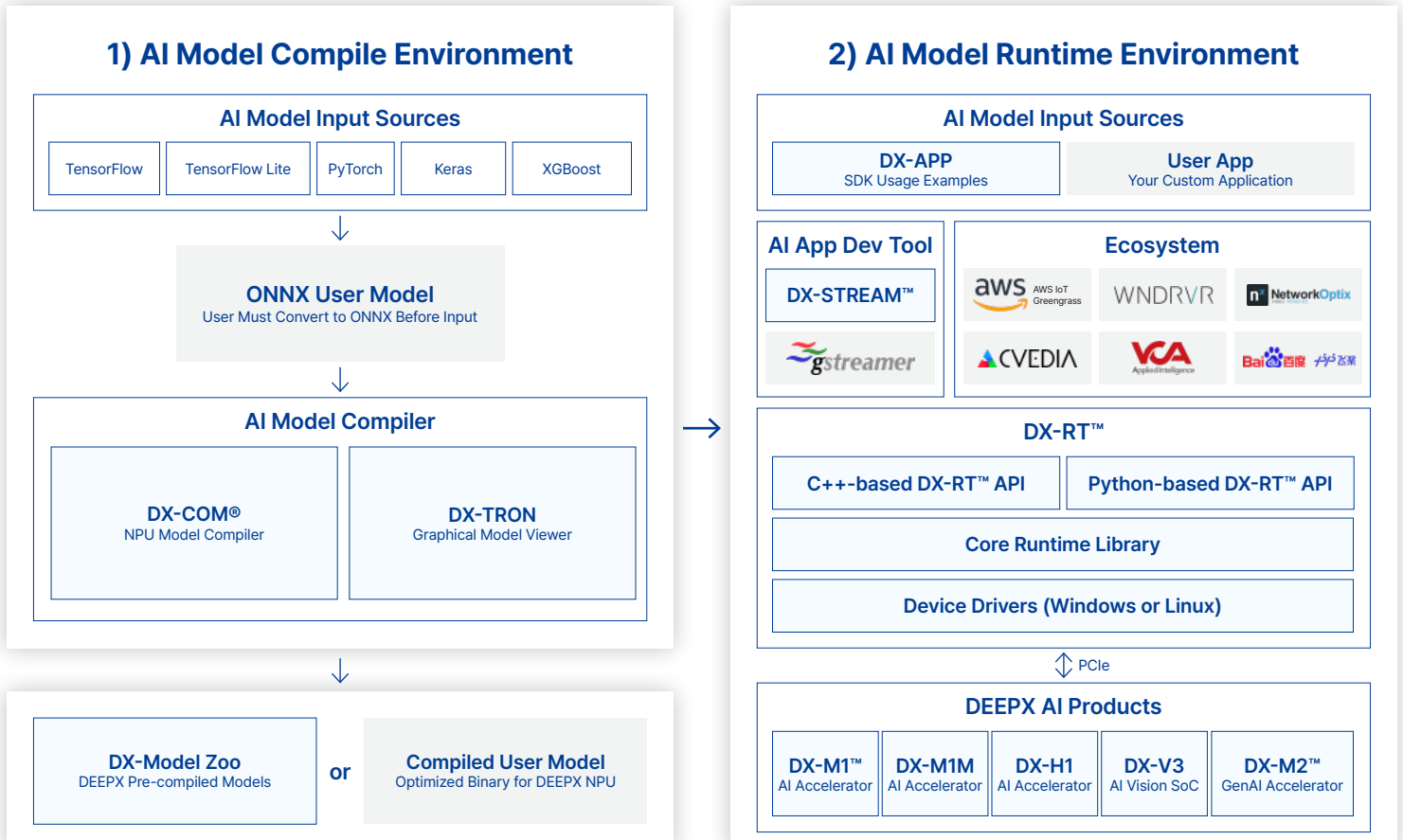


## How It Works: 4-Step AI Deployment with DXNN® SDK



## 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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