

AXELERA AI MINI PC

with M.2 Max



MEETIS



Security



Industry 4.0



Retail



Mobility



Logistics



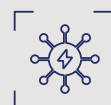
Robotics



Medical



Hospitality



Utilities

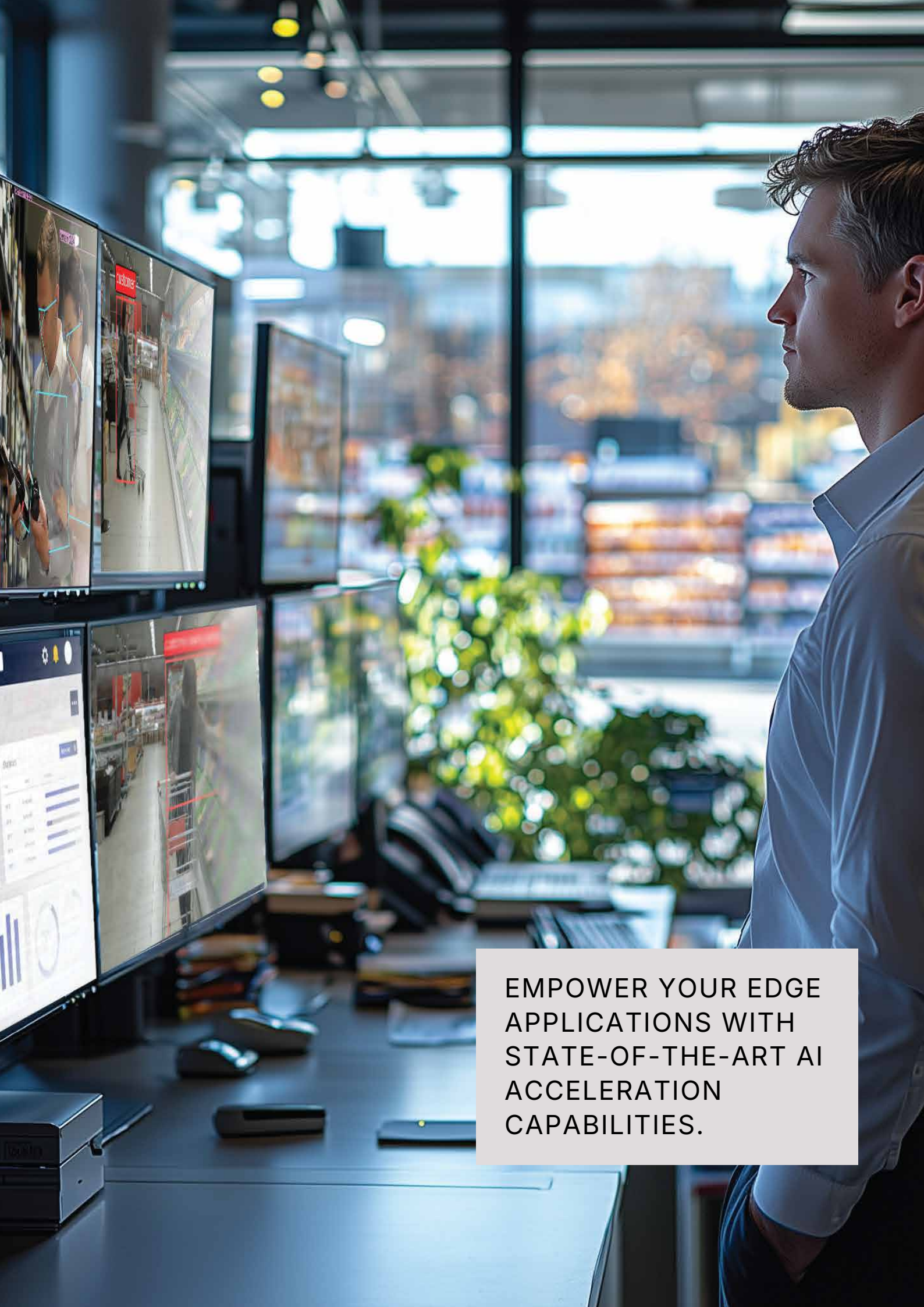


Agritech



AXELERA[®]
ARTIFICIAL INTELLIGENCE

ASRock[®]



EMPOWER YOUR EDGE
APPLICATIONS WITH
STATE-OF-THE-ART AI
ACCELERATION
CAPABILITIES.

KEY FEATURES

- Supported by ASRock NUC Box-125H, a versatile and powerful computational platform in a compact NUC form factor.
- Inference at the Edge powered by Metis® AIPU delivering state-of-the-art performance with industry-leading energy-efficiency.
- A wide range of end-to-end AI pipelines and models are available out of the box.
- Hassle free evaluation and software integration thanks to Voyager® SDK.
- Uncompromised prediction accuracy thanks to advanced quantization tools.

KEY TECHNICAL SPECIFICATIONS

Metis	1x Metis M.2 Max with 8 GB memory, 214 TOPS
Processor	Intel® Core™ Ultra 5 125H (Meteor Lake-H)
Memory	32 GB DDR5, up to 5600 MT/s
Storage	256GB (NVMe SSD)
Operating System	Linux Ubuntu 24.04
M.2 Slot	M Key, 2242/2280 with PCIe Gen 4.0 x4
Operating Temp	0 ~ 40C

For more information, please visit or scan the QR code:

<https://www.asrockind.com/en-gb/NUC%20BOX-125H>



PROVEN IN KEY MARKETS

Companies in multiple market segments have already adopted Metis M.2 Max-based AI acceleration for different applications such as:



Security: provide multi-camera AI processing capabilities in small form factors for easy computer vision/surveillance deployment in shops, building sites, factories, venues.



LLM Assistant: provide voice, video and text-based LLM capabilities for smart home, elderly monitoring, and industrial machine maintenance.



Robotics: enable advanced cooperation between human and robots thanks to high resolution advanced gesture recognition, pose estimation and human intention decoding.



Medical: improve accuracy of real time diagnostics, monitoring, imaging and analysis.



Agritech: enhance precision in agricultural practices with crop analysis, smart irrigation/pest control, automated harvesting.

PERFORMANCE BENCHMARK

See how Metis M.2 Max Card compares against other AI accelerators across real-world neural networks. Scan to view the latest results.



<https://axelera.ai/ai-accelerators/metis-m2-ai-acceleration-card#benchmark2>

EASY TO INTEGRATE

Axelera® AI's Metis technology integrates seamlessly with host CPUs based on both x86 and ARM architectures. Our team actively tests different systems from vendors making it easy for embedded developers to prototype AI applications.

VOYAGER.SDK

Thanks to Voyager® Software Development Kit (SDK), users have a simple software integration path for AI inference at the edge:

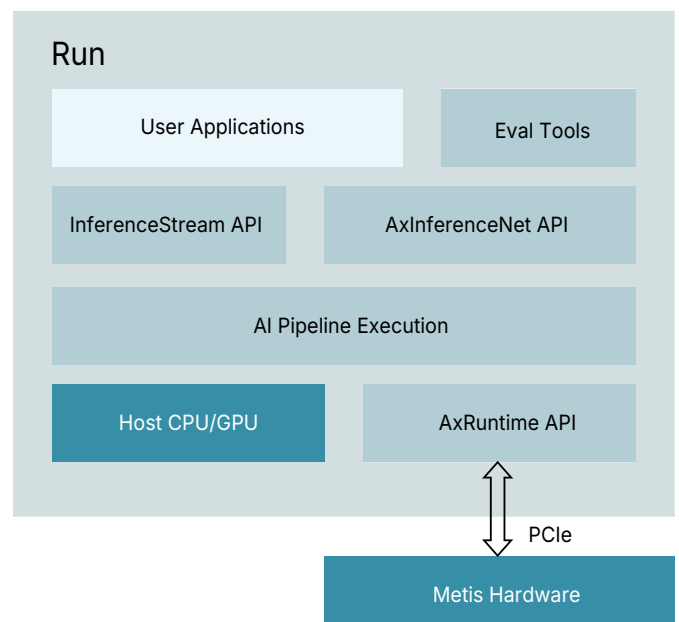
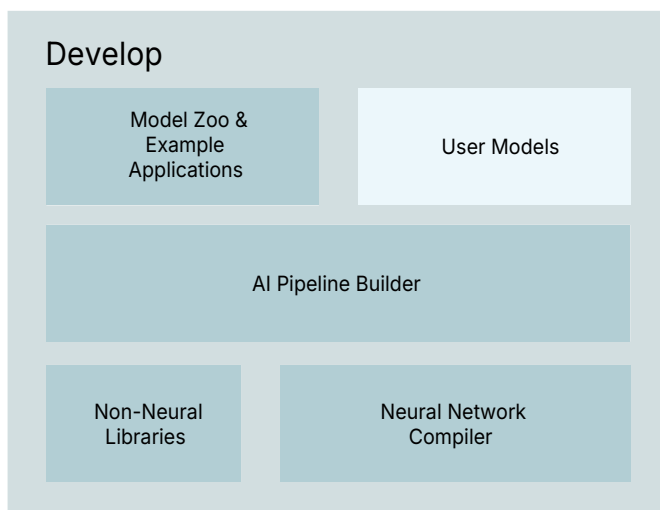
- **Great out-of-the-box experience:** The SDK's built-in tools and models allows evaluating Metis® performance, accuracy and power consumption in a few minutes.
- **Fast end-to-end integration path:** The SDK provides a high-level pipeline description framework that allows building optimized end-to-end AI applications with custom inputs, datasets, models and business logic with very few lines of code.
- **Low-level knobs and APIs:** For users that have their own pipelines and software infrastructure, the SDK includes low-level APIs to directly control the inference hardware.

Voyager is a simple yet feature rich SDK:

- Large [Model Zoo](#) supporting, among others:
 - Small Language Models (Phi3-mini, Llama-3.1 8B etc.)
 - Image Classification (EfficientNet, ResNet etc.)
 - Object Detection (YOLO models, RetinaFace etc.)
 - Semantic Segmentation (U-Net FCN)
 - Instance Segmentation (YOLO models)
 - Keypoint Detection (YOLO models)
- Compiler support for models from PyTorch and ONNX. The compiler automatically manages quantization and graph optimization without user intervention and achieves optimal performance and accuracy.



- Libraries including all pre- and post-processing required to run end-to-end pipelines: scaling; cropping; normalization; format conversion; non-maximal suppression (NMS) and more.
- A YAML description file is used to automatically generate the AI pipelines. The pipeline can then be run as a plugin to GStreamer or within an inference server.
- Built-in tools to test accuracy and performance of models running on Metis AIPU.



SCAN ME

Ordering information

To order the Axelera AI Mini PC with M.2 Max, please visit: store.axelera.ai/products

Description: ASRock NUC Box-125H using M.2 Max with 8GB of memory. Rev 1.

