ACCEL-VM500 is a Bridge of Human and Computer

ACCEL-VM500
Powerful AI Computing Unit

ACCEL-VM500 has dual-slot PCI Express[x16] for high end graphic care integration with up to 250W. Onyx has preselected high end NVIDIA Quadro RTX 4000 or RTX Geforce2080 Ti and entry level NVIDIA Quadro P400 so customer can choose either one for installation.

- Intel 9th Gen. Xeon/Core Processor
- One PCI Express[x16], two PCI Express[x4] and one PCI Express[x1] slots for AI accelerator card, high end graphic card with up to 250W and capture card
- Stylish design for AI application
- Support two 2.5" SATA storage and NVMe storage.
- Support video recording and video management software
- Support Three 4K Displays: HDMI x 2, DP x 1
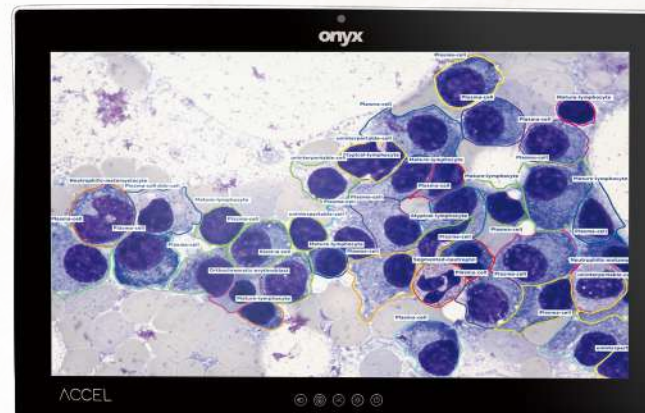
Symbol of Venting hole
Stand for the neural network of human brain

Venting Holes Design
0 & 1 is the combination of computer language

Application

aetherAI-Hema AI Module With Onyx Accel Series
Automatic Differential Counting of Bone Marrow Smear

Differential counting of blood cells is the basis of diagnostic hematology. In many circumstances, the identification of cells in bone marrow smears is the golden standard for diagnosis. However, morphological assessment and differential counting of bone marrow smears are still performed manually. Partnering with National Taiwan University Hospital, aetherAI is delivering the world's first bone marrow smear differential counting AI model, trained on the world's largest and most comprehensive image dataset. Each cell will be classified into one of the 13 main categories. However, AI testing requires high performance hardware in order to operate quickly and efficiently. Onyx Accel series is compatible with a variety of major AI computing models and provides support for the demanding hardware requirements that AI technology needs to perform well in medical applications. This helps medical personnel provide the best medical services possible, who would otherwise be affected by fatigue or environmental factors while overseeing prolonged periods of testing.

aetherAI Contact: sales@aetherai.com

Minimally invasive spinal surgery robot-assist system

Due to the spine has many nerves, patients are often worried about accidental injury caused during the operation. Surgeons have to be 100% attention and make sure their hand are steady during the spinal operations lasting three hours, on average. With a robotic arm, surgeons have the benefit of a tool that can be positioned to aid the physician while performing an operation and help with fatigue. Onyx Accel series all have medically certified and includes high-resolution image output and real-time image recognition by the combination of a variety of high performance AI modules. Our solution enables the AI system to immediately warn when the surgeon's operating range is slightly shifted to reduce the dangers to patients during spinal operations and to assist orthopedic physicians in performing higher-quality medical treatment.

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ACCELERATE INFERENCE

ACCEL Presents Highly Compatible AI Ready Solution

www.onyx-healthcare.com

Onyx AI Ready Platform

AI inference System

VPU

GPU

Deep Learning Tool Kit

OpenVINO

TensorRT

=

Onyx AI Ready Solution

Onyx AI Inference Platform

Intel® Openvino Movidius

intel

Intel® AI Accelerator:
Movidius™ Myriad™ X VPU

The Intel® Movidius™ Myriad™ X is a low-power high-performance VPU capable of a wide range of AI applications and is capable of processing speeds \up to 105 fps (80 typical) and 1 TOPS as a dedicated \neural network accelerator. The Intel® Movidius™ Myriad™ Xis compatible with Intel® Distribution of OpenVINO toolkit, making it easy to setup and run AI inference software.

AI Core XP4/XP8
4x/8x Myriad X

AI Core X
1 x Myriad X

Intel® Distribution of OpenVINO™ toolkit

The Intel® Distribution of OpenVINO™ toolkit helps accelerate deep learning inference across a variety of Intel® processors and accelerators. Rather than a one-size-fits-all solution, Intel offers a powerful portfolio of scalable hardware and software solutions, powered by the Intel® Distribution of OpenVINO™ toolkit, to meet the various performance, power, and price requirements of any use case.

ACCEL-A3201/2701/2401

- Intel 6th/9th Gen. Xeon/Core Processor
- One PCI Express[x16], one PCI Express[x4] and one PCI Express[x1] slots for AI accelerator card and I/O cards
- High brightness 32"/ 27" 4K UHD / 24" FHD LCD
- 4 x USB 3.0 / 2 x Isolated Gigabit LAN
- Supports two 2.5" storage devices with RAID 0/1

NVIDIA GPU with TensorRT

NVIDIA.

Telsa

Quadro

NVIDIA AI Accelerator:
Telsa/Quadro GPU

NVIDIA GPU provides an immediate path to greater deep learning performance. GPUs had evolved into highly parallel multi-core systems, allowing very efficient manipulation of large blocks of data. This design is more effective than general-purpose central processing unit (CPUs) for algorithms in situations where processing large blocks of data is done in parallel. Processing large blocks of data is basically what deep learning does.

⊙OpenVINO™ Toolkit

Video Decode → Image Pre-process → **Inference Engine** → Image Post-process → Video Encode

Intel® Accelerator
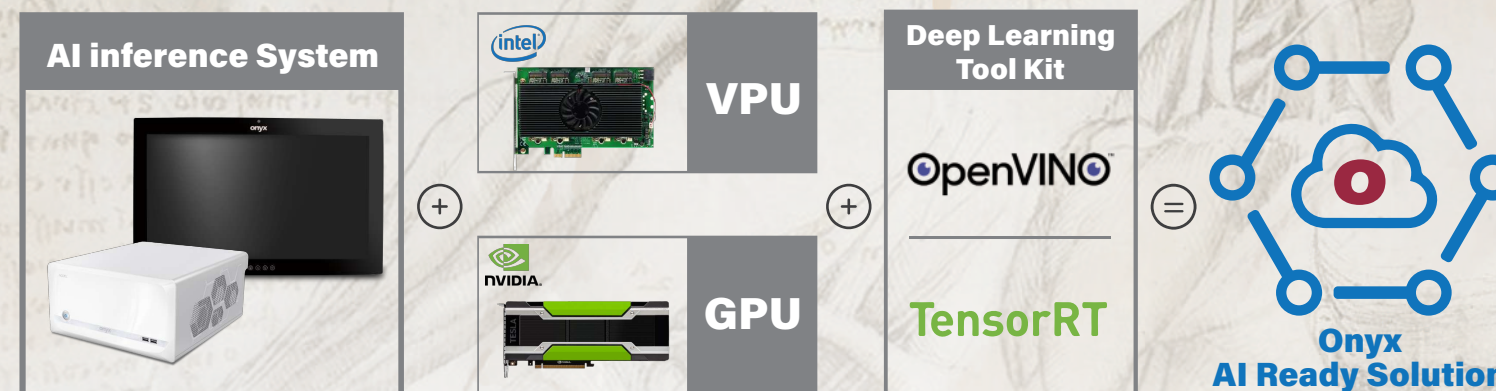
| CPU | GPU | VPU |

MEDPC-9200
The Small Form Factor with Big Power

The Onyx MEDPC-9200 is the slim, ultra-compact enclosure and is conveniently designed with a variety of expansion options to fit users innovative, like flexible storage, memory, and support for multiple peripheral devices. The Onyx MEDPC-9200 makes fulfilling your medical box PC requirements easy, anywhere you need them.

- Intel® 6/7th Generation Core i, Processor
- Supports DDR4 up to 32GB
- Extension area: PCI-Express [x1] x 1(optional)
- Two Independent Display: DP/HDMI
- Supports TPM 2.0
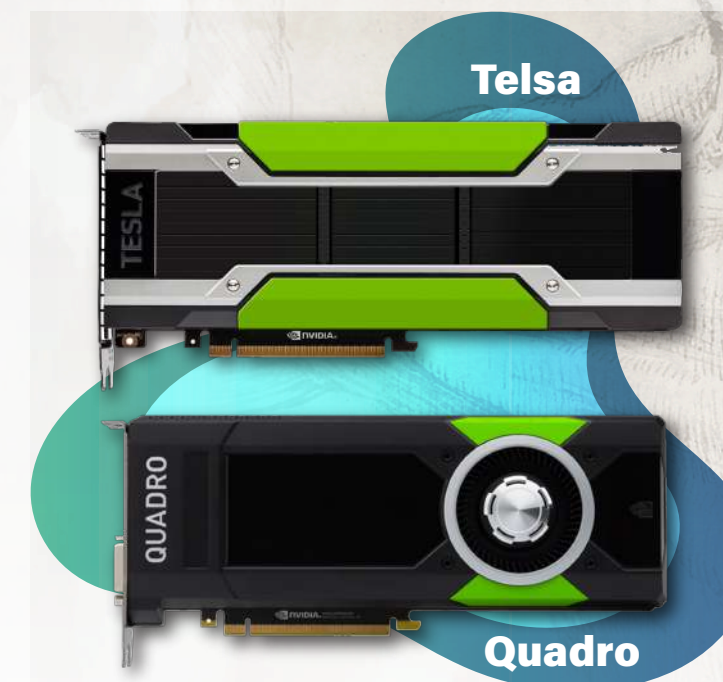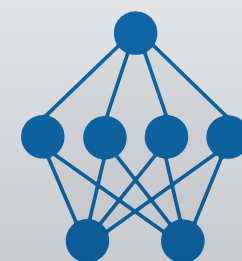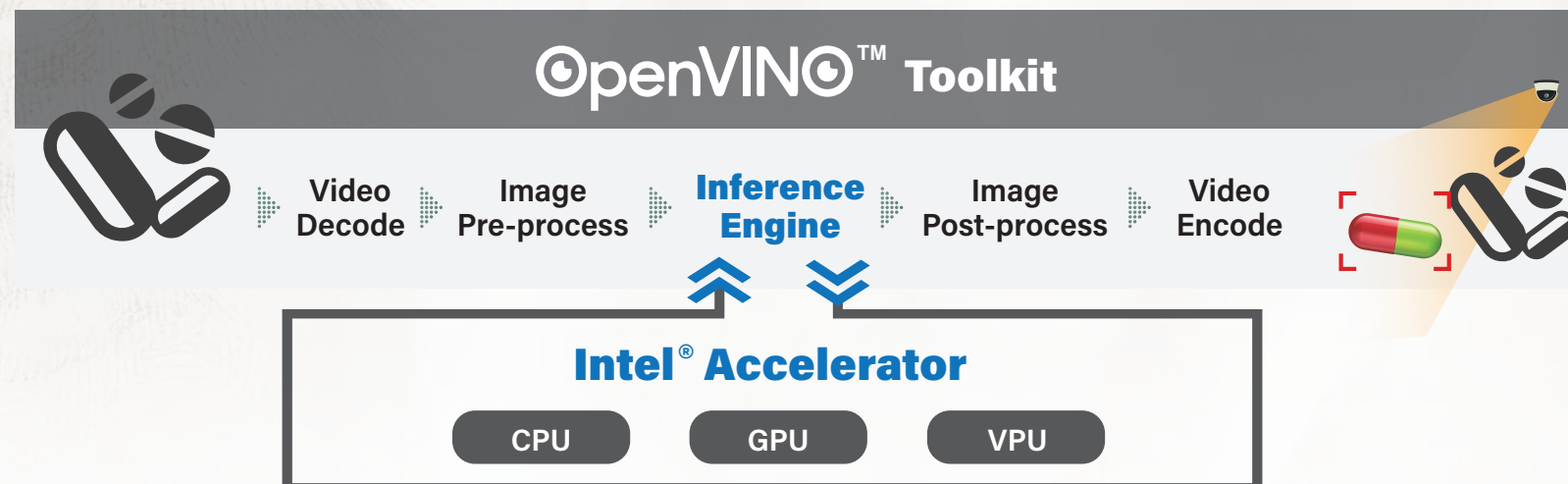- Modularize Design
- Intel Modivus AI Card integration

NVIDIA TensorRT™ - Programmable Inference Accelerator

NVIDIA TensorRT™ is an SDK for high-performance deep learning inference. It includes a deep learning inference optimizer and runtime that delivers low latency and high-throughput for deep learning inference applications. TensorRT-based applications perform up to 40x faster than CPU-only platforms during inference. With TensorRT, you can optimize neural network models trained in all major frameworks, calibrate for lower precision with high accuracy, and finally deploy to your product platforms.

Onyx is intel®AI : In Production Partner

YOU'RE APPROVED!

intel

Congratulations!
We are pleased to inform you that the Onyx ACCEL-A3201 solution has met the spirit and intent of Intel® AI: In Production. Welcome to the AI at the edge ecosystem!

Trained Neural Network → **TensorRT Optimizer** → **TensorRT Runtime Engine**

onyx
Smart Healthcare