

VVDN EDGE AI APPLIANCE

Powered by AMD and KINARA

VVDN, together with AMD and Kinara, offers VVDN-EAIA an edge AI appliance optimized for high-quality, real-time video analytics for smart retail, smart cities, and industrial use cases.

VVDN-EAIA includes a power-efficient, compact AMD Kria™ K26 SOM (based on AMD Zynq™ UltraScale+™ MPSoC) integrated with 4 Kinara Ara-1 AI processors to support advanced AI analytics on up to 8 parallel video streams with a resolution of 1080P@30fps.

The edge appliance comes with a PetaLinux embedded SDK and Kinara SDK, which can seamlessly port user's AI models and customize video pipelines. It is tailored to provide a solution that is out of the box and ready for deployment with minimal FPGA programming required.

Highlights

- Ability to handle 8 concurrent 1080p@30fps
- End-to-End Hardware Acceleration of AI inference models enabling real-time analytics for the 8 parallel streams
- AMD Kria™ K26 SOM with quad-core Arm Cortex-A53, up to 4K60 H.264/H.265 video codec unit, 256K programmable logic cells
- 4GB 64-bit DDR4 (non-ECC) and 16GB eMMC on SOM
- Up to 4 Ara-1 800 MHz AI Accelerators
- AMD Vitis™ SDK with prebuilt FPGA images for edge deployments
- Kinara SDK with support for 100's of neural network models
- Support for state-of-the-art AI models including vision transformers
- Performance: Resnet-50: 400 IPS



Technical Specifications

System on Module <ul style="list-style-type: none"> - AMD Kria™ K26 SOM 	Vision Accelerator <ul style="list-style-type: none"> - Up to 4 Kinara Ara-1 AI Accelerator - 1GB LDDDR4 (additional)
GPU <ul style="list-style-type: none"> - Arm Mali™-400 MP2 based graphics processing unit with an FMAX = 600 MHz 	Camera <ul style="list-style-type: none"> - Up to x8 RTSP Cameras through External Router
CPU <ul style="list-style-type: none"> - Arm® Cortex®-A53 based application processing unit (APU) consisting of quad-core Cortex-A53 processors 	Form factor <ul style="list-style-type: none"> - 150 x 130mm
Memory <ul style="list-style-type: none"> - 4GB DDR4 & 512Mb QSPI 	USB <ul style="list-style-type: none"> - 3 x USB 3.0
Network Connectivity <ul style="list-style-type: none"> - 2x GBE LAN, supported by Ethernet Controllers 	Storage <ul style="list-style-type: none"> - 16GB eMMC - SSD up to 2 TB(Optional)
Video Encode <ul style="list-style-type: none"> - 4K @ 30 8x 1080p @ 30 (H.265/H.264) 	Video Decode <ul style="list-style-type: none"> - 4I@30fps 8x1080p@30fps
Display <ul style="list-style-type: none"> - 1xDP 1.2a and 1xHDMI 1.4 	Power Supply <ul style="list-style-type: none"> - DC supply, Adapter 12V@8.5A
Certification <ul style="list-style-type: none"> - FCC & CE 	Dimensions <ul style="list-style-type: none"> - 255.2mm x 205mm x 42mm
	Other Interfaces <ul style="list-style-type: none"> - Alarm out, Status LED

To know more/any sales inquiry write us at info@vvdntech.com

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