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AMD VERSAL AI Edge

PRODUCT BRIEF

VERSAL™ AI EDGE SERIES VEK280 EVALUATION KIT

OVERVIEW

The AMD Versal™ AI Edge VEK280 Evaluation Kit is a powerful, flexible, and feature-rich evaluation and development platform for targeting a variety of ML and compute-intensive applications. It features the largest device in the Versal AI Edge Series, the VE2802, boasting over 200 dense TOPs with its ML-optimized AI Engines, a rich programmable fabric, an Arm®-based processor subsystem, and a variety of hardened peripherals.

This kit comes with a breadth of connectivity options, software tools, and example designs to accelerate development of applications from sensor to AI to real-time control across multiple markets.



HIGHLIGHTS

Versal AI Edge VE2802 Device Capabilities

- AI Engines optimized for ML inference (AIE-MLs)
- DSP Engines
- Dual-core Arm Cortex®-A72
- Dual-core Arm Cortex-R5F
- 40G Multirate Ethernet MACs
- Video Decoder Engines (VDEs)
- GTYP transceivers

Breadth of Board-Level Connectivity Options

- SFP28 connector for high-speed data communication
- FPGA Mezzanine Card (FMC+) connector with 68 user-defined signals and 8 GTYPs
- 12 GB (6x 2 GB, 32-bit), 192-bit LPDDR4 component memory
- PCIe® edge connector supporting Gen4 x16
- HDMI™ 2.1 input and output
- MicroSD card interface

Development Tools and Enhanced Debug Methodology

- AMD Vivado™ Design Suite and the AMD Vitis™ unified software platform
- System Controller with the Board Evaluation and Management tool (BEAM)
- Example designs and tutorials to get started quickly

TARGET APPLICATIONS

VISION

- AI Edge Box
- Machine Vision Cameras
- Medical Imaging Devices

AUTOMOTIVE

- Edge Sensor (e.g., radar, LiDAR, vision)
- Domain Controller Offload
- Sensor Processing, Aggregation, and Fusion

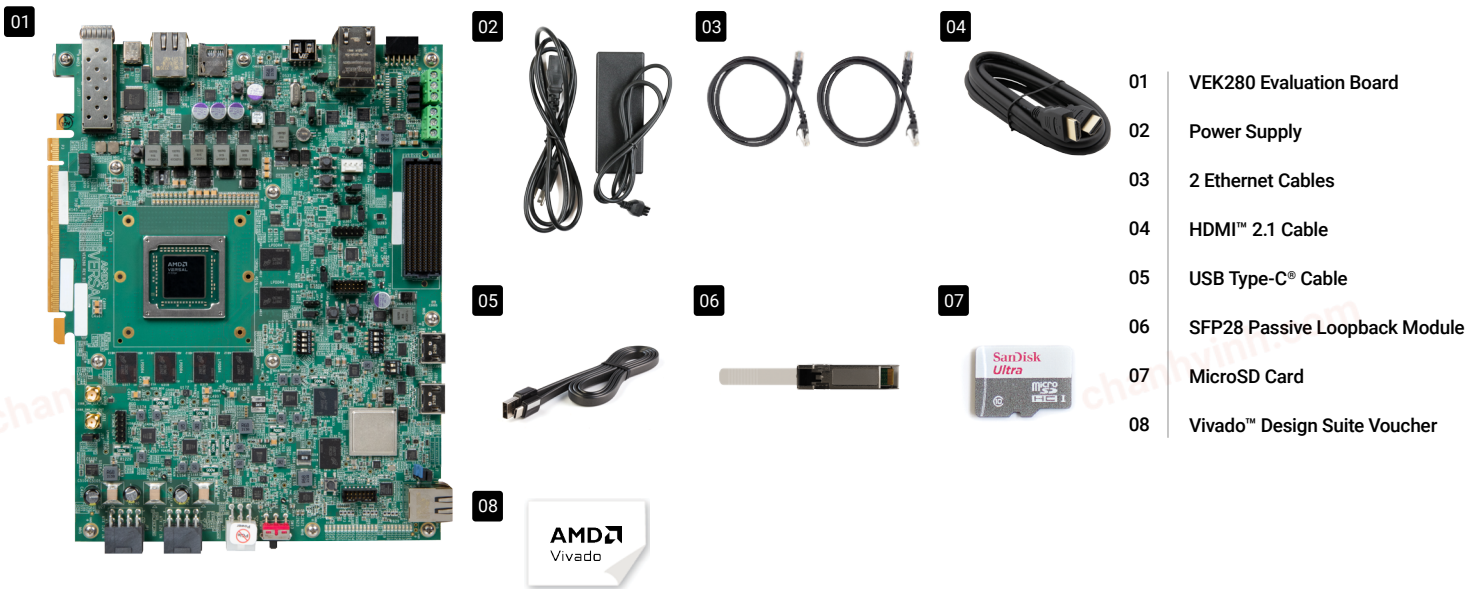
INDUSTRIAL

- Collaborative Robotics
- Converged Networking
- Industrial-Grade PCs

AEROSPACE AND DEFENSE

- Unmanned Aerial Vehicles
- MILCOM Radio
- Data and Signal Processing Systems

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01	VEK280 Evaluation Board
02	Power Supply
03	2 Ethernet Cables
04	HDMI™ 2.1 Cable
05	USB Type-C® Cable
06	SFP28 Passive Loopback Module
07	MicroSD Card
08	Vivado™ Design Suite Voucher

NEXT STEPS

- For more information, documents, and reference designs, or to purchase, visit www.amd.com/vek280.

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