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

• Vivado™ design suite and the 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
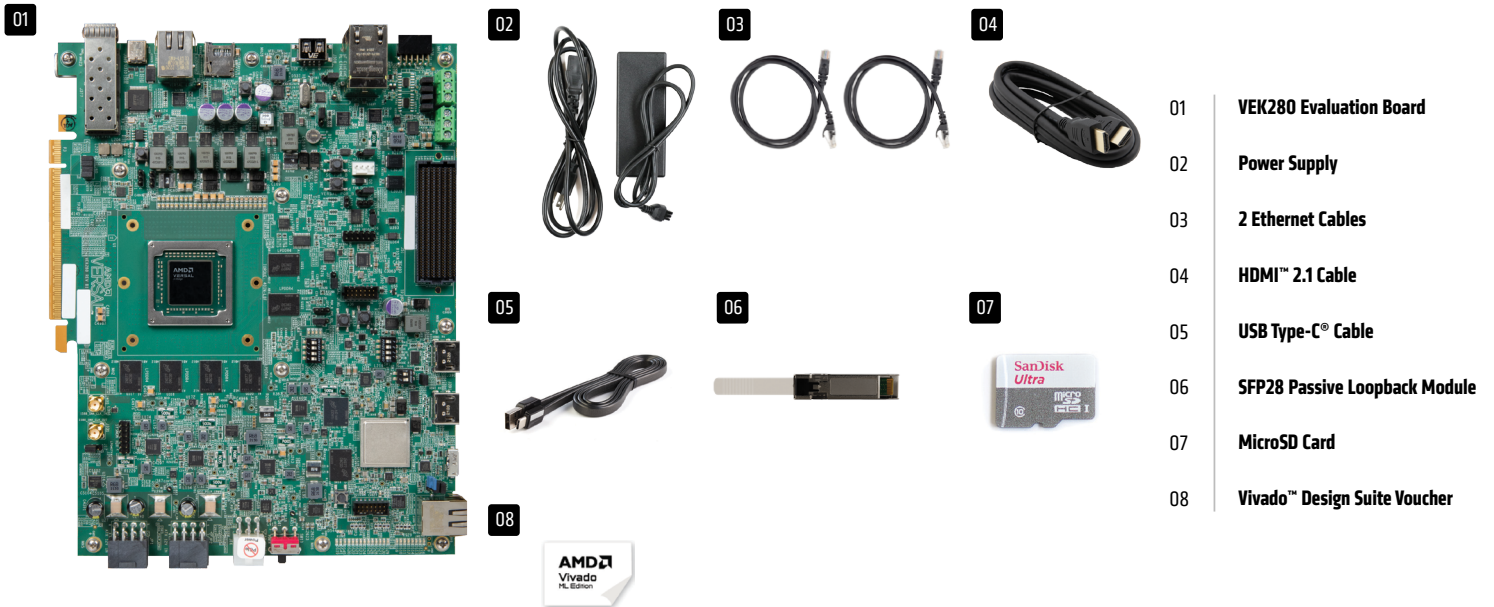
• Medical Imaging Devices

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

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

TAKE THE NEXT STEP

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