

# VE2302 DEVELOPMENT KIT



The VE2302 Development Kit (DK) is specifically designed to evaluate Tria's VE2302 System-on-Module (SOM) and AI Edge IO Carrier Card. With a VE2302 DK a designer can assess the capabilities of the AMD Versal™ AI Edge Adaptive SoC with a combination of versatile peripherals. This combination helps designers to kick-start product development giving access to the feature set of the Versal AI Edge Adaptive SoC.

The VE2302-DK uses the 80 XPIO, 22 HDIO, 13 PMC MIO, 12 LPD MIO and 8 GTYP transceivers that are available from the VE2302 SOM via three 160-pin Samtec AcceleRate® HD High-Density 4-Row connectors that mount to the AI Edge IO Carrier Card. The first Samtec AcceleRate HD connector on the AI Edge IO Carrier Card is mapped to various processor-based interfaces such as USB2.0, Gigabit Ethernet, CAN, microSD, push buttons, and LEDs. This connector also contains support interfaces such as the JTAG, UART, and SYSMON. The last interface of this connector comes from an HDIO bank on the VE2302 device and is mapped to one HSIO TXR2 expansion site. The second connector on the AI Edge IO Carrier Card is mapped to four 22-pin MIPI interfaces (CSI or DSI), push buttons, dipswitch, and LEDs using XPIO banks from the VE2302 device. The last Samtec HD connector is dedicated to GTYP transceiver interfaces. The GTYP transceivers are mapped to HDMI 2.1 compliant TX and RX interfaces, 2 zSFP+ interfaces, and the HSIO TXR2 expansion site transceiver locations. These GTYP interfaces have clocks provided by an on-board programmable clock generator from Renesas.

The VE2302-DK is a combination of a VE2302 SOM, AI Edge IO Carrier Card, and a power supply with an Out-of-Box reference design, downloadable Hardware User Guide, Board Definition File (BDF), and Board-Support-Package (BSP) along with example designs to help developers get started in the development of custom applications.

The VE2302-DK is a great vehicle for bringing up initial designs targeting Tria's VE2302 SOM and provides an excellent starting point for creating your own custom carrier card.

## Features

- 3 Samtec AcceleRate® High-Density 4-Row connectors
- HSIO TXR2 PL Connector
- Gigabit Ethernet Connector
- MicroSD Card Slot
- USB 2.0 Connector
- MIPI (CSI2 or DSI) 22 pin Connectors (4)
- CAN Terminals (2)
- HDMI Tx
- HDMI Rx
- zSFP+ (2)
- USB Type-C (JTAG/USB UART and PC4 JTAG Interface)
- SYSMON Connector
- User LEDs
- User Slide Switch and Push Button I/O



## Kit includes

- VE2302-SOM
- AI Edge I/O Carrier Card
- Power Supply 12V
- Quick-Start card

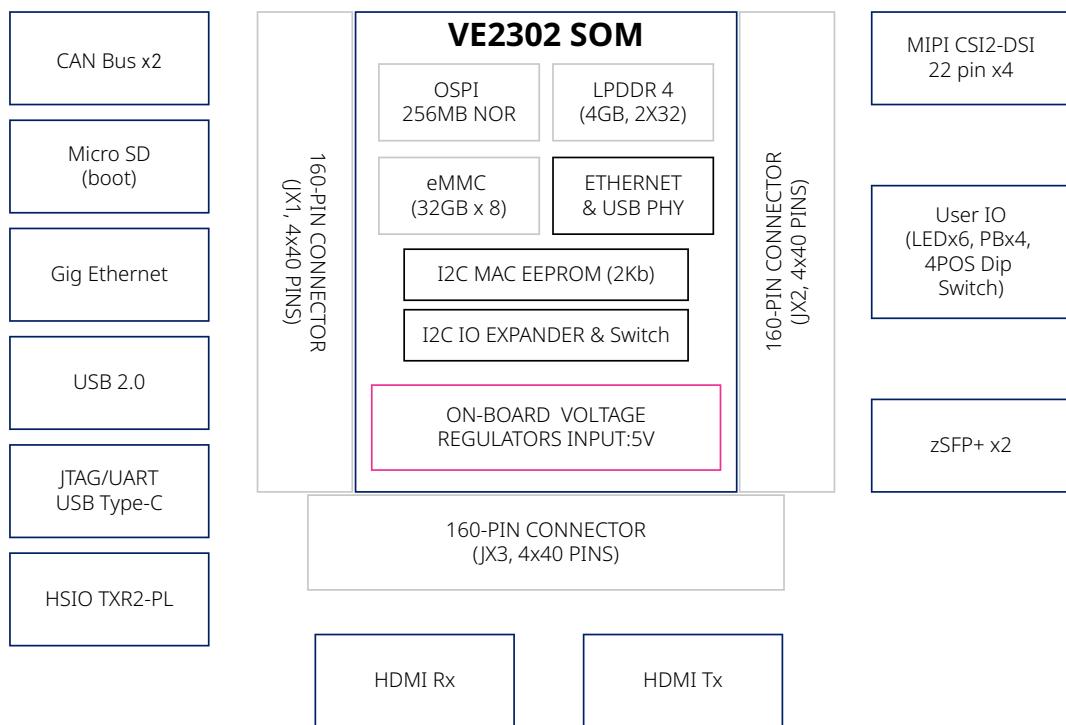
## Target apps

- Artificial intelligence
- Machine learning
- Embedded Compute
- Edge Sensor (e.g., Radar, LiDAR, Vision)
- Automotive
- Robotics

## Markets

- Communications
- Healthcare
- Embedded Vision
- Home & Building Automation
- Industrial
- Computer Vision
- Security & Surveillance
- IoT Design

## Block diagram



## Featured manufacturers



## Parts

Part number	Description	For more information
AES-VE2302-DK-G	Versal AI Edge SOM and I/O Carrier Card Development Kit	<a href="http://avnet.me/VE2302-DK">avnet.me/VE2302-DK</a>

## Related parts

Part number	Description	For more information
AES-VE2302-1L-SOM-E-G	VE2302 SOM with Versal AI Edge (XCVE2302-1LSESFVA784)	<a href="http://avnet.me/ve2302-som">avnet.me/ve2302-som</a>

Regions available for purchase: Americas, EMEA, Asia, Japan

## Global Headquarters

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