/ ULTRAZED-EV™ SOM

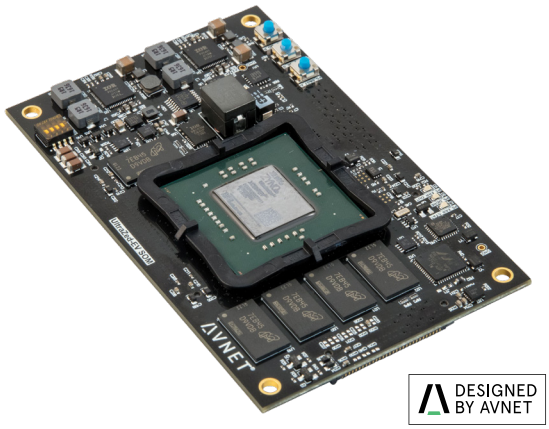
AVNET®

UltraZed-EV™ SOM is a high performance, full-featured, System-On-Module (SOM) based on the AMD-Xilinx Zynq® UltraScale+™ MPSoC EV family of devices. Designed in a small form factor, the UltraZed-EV SOM on-board dual system memory, high-speed transceivers, Ethernet, USB, and configuration memory provides an ideal platform for embedded video processing systems. The UltraZed-EV provides easy access to 152 user I/O pins, 26 PS MIO pins, 4 high-speed PS GTR transceivers along with 4 GTR reference clock inputs, and 16 PL high-speed GTH transceivers along with 8 GTH reference clock inputs through three I/O connectors on the backside of the module.

Designers can simply design their own carrier card, plug-in UltraZed-EV SOM, and start their application development with a proven Zynq UltraScale+MPSoC sub-system. Available with the Zynq UltraScale+ MPSoC XCZU7EV-FBVB900 device, the UltraZed-EV SOM enables designers to build multimedia, automotive ADAS, surveillance, and other embedded vision applications with confidence and ease. The MPSoC EV device with its integrated H.264 / H.265 video codec unit is capable of simultaneous encode and decode up to 4Kx2K (60fps).

Features

- AMD-Xilinx Zynq UltraScale+ MPSoC device
  - XCZU7EV-1FBVB900E
  - XCZU7EV-1FBVB900I
- PS DDR4 SDRAM (4GB, in x64 configuration)
- PL DDR4 SDRAM (1GB, in x16 configuration)
- 300 MHz LVDS system clock
- Dual QSPI Flash (64MB)
- I2C EEPROM (2Kb)
- eMMC Flash (8GB, x8)
- USB 2.0 ULPI PHY
- Gigabit Ethernet PHY
- I2C 8-bit I/O expander
- 2-channel I2C switch/mux
- PS reference clock input
- On-board voltage regulators
- Power-On Reset (POR) circuit
- Small 4-position boot mode DIP switch
- 3 JX connectors, providing the following:
  - 152 user PL I/O pins
  - 26 user PS MIO pins (one full MIO bank)
  - 4 PS GTR transceivers (support SATA 3.0, USB 3.0, PCIe Gen2, and DisplayPort interfaces)
  - 4 PS GTR reference clock inputs
  - 16 PL GTH transceivers
  - 8 PL GTH reference clock inputs
  - PS JTAG interface
  - PL SYSMON interface
  - USB 2.0 connector interface
  - Gigabit Ethernet RJ45 connector interface
  - PMBus interface
  - SOM PS VBATT battery input
  - Carrier Card I2C interface
  - SOM Reset input
  - Carrier Card Reset output
  - Carrier Card interrupt input
  - Power Good output, input voltages, and output sense pins



Kit includes

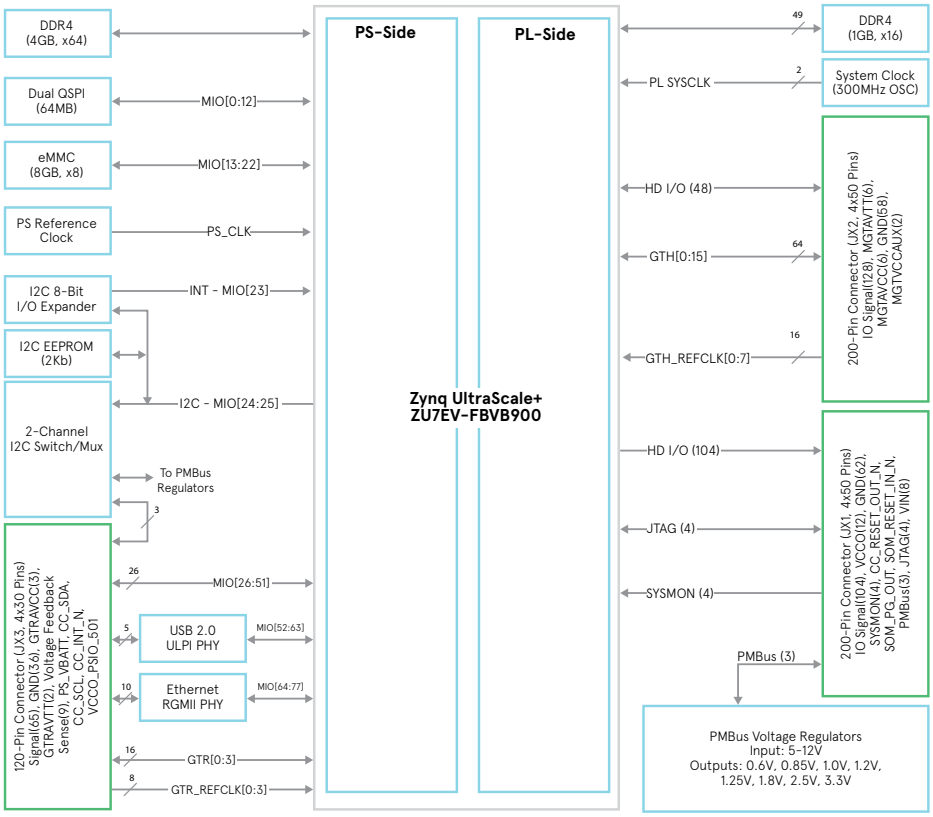
- UltraZed-EV SOM

Target apps

- Embedded system-on-module (SOM)
- Embedded vision
- Test & measurement
- Industrial automation

For more information visit: avnet.me/ultrazed-ev
For custom features, email customize@avnet.com

Block diagram



Featured manufacturers

AMD XILINX, Infineon, Micron, Microchip, Marvell, samtec

Parts

Part number	Description	Price and availability
AES-ZU7EV-1-SOM-G	UltraZed-EV SOM (Extended Temp)	avnet.me/ultrazed-ev-som-pdp
AES-ZU7EV-1-SOM-I-G	UltraZed-EV SOM (Industrial Temp)	avnet.me/ultrazed-ev-som-i-pdp

Related parts

Part number	Description	Price and availability
AES-ZUEV-CC-G	UltraZed-EV Carrier Card	avnet.me/ultrazed-ev-cc-pdp

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

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