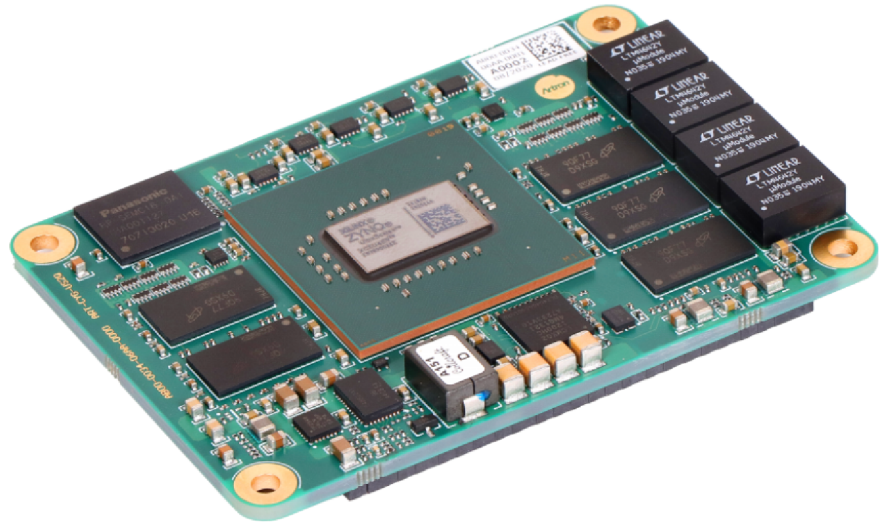


Design to function

www.artron.com.tr



CYGNUS-US2 System-on-Module



Description

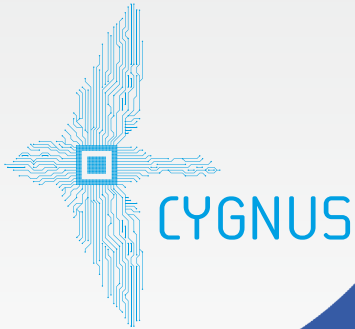
Artron Cygnus-US2 SoM is a board-level circuit that combines Zynq Ultrascale+ MPSoC device with DDR4 SDRAM with ECC, eMMC Flash and Quad SPI Flash. Cygnus-US2 SoM presents solid, flexible and cost-effective embedded platform for building the products that require high performance and reliability.

Cygnus-US2 is populated entirely with industrial grade electronic components and is suitable for use in applications demanding harsh environmental requirements. Cygnus-US2 SoM is equipped with a Flash-based FPGA to serve as Board Management Controller (BMC). BMC drives the power-up and power-down sequences of the UltraScale+ SoC and controls the power interface between the carrier and SoM such that all bank voltages are switched on only if they are valid, thus preventing voltage swings on bank voltage rails.

This architecture prevents unintentional design errors of the carrier to harm the SoC. Xilinx Zynq Ultrascale+ MPSoC family integrates a feature-rich Quad-core ARM Cortex-A53 MPCore up to 1.5 GHz of Application processor, Dual-core ARM Cortex-R5 MPCore up to 600MHz, Mali™-400 MP2 of Graphics Processor and H.264/H.265 of Video Codec based processing system (PS) and Xilinx programmable logic (PL) in a single device.

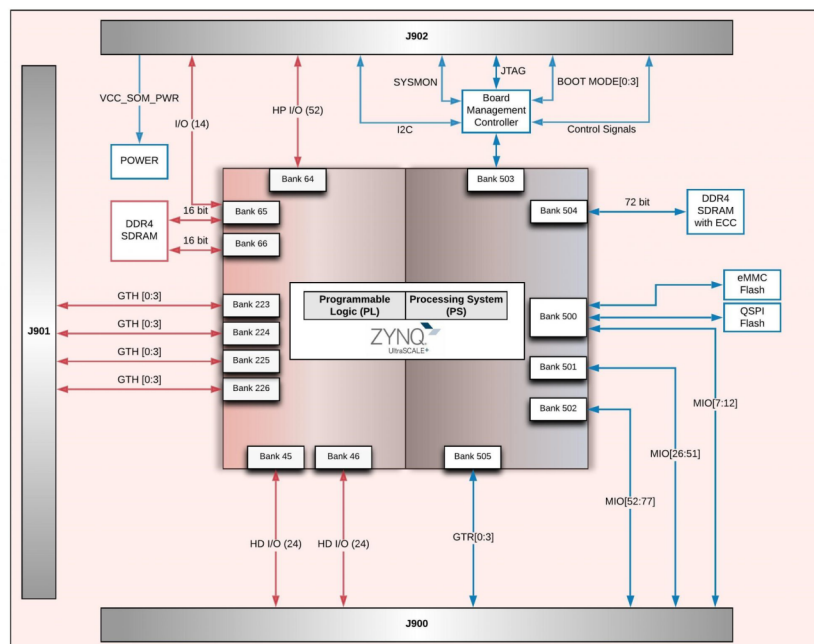
Features

- Available SoC Models
 - XCZU7EV-2FBVB900I
 - XCZU4EV-2FBVB900I
 - XCZU7EG-2FBVB900I
 - XCZU4EG-2FBVB900I
 - XCZU7CG-2FBVB900I
 - XCZU4CG-2FBVB900I
- 3 connectors, 2x180 pin (Samtec QSH-090), 1x120 pin (Samtec QSH-060)
- Wide Operating Input Voltage Range (4.5V – 15V)
- Wide Operating Temperature Range (-40°C to 85°C)
- Flash-based Board Management Controller
- Gbit Ethernet Ready
- USB 2.0/3.0 ready
- DDR4 SDRAM with ECC connected to PS 8Gbit (up to 16Gbit)
- DDR4 SDRAM (32-bit data width) connected to PL
- 4bit QSPI NOR Flash 256 Mbit (up to 1Gbit)
- 128Gb eMMC Flash (up to 1024Gbit) for non-volatile user data and boot storage
- 58x User Configurable PS I/O
- 48x User Configurable HD I/O
- 66x User Configurable HP I/O
- 16x GTH Transceivers with data rates up to 16.3Gbps
- 4x GTR Transceivers with data rates up to 6.0Gbps
- Petalinux compiled BSP and reference designs available on our website

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Ordering Information

Block Diagram



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Çankaya 06800
Ankara / TURKEY