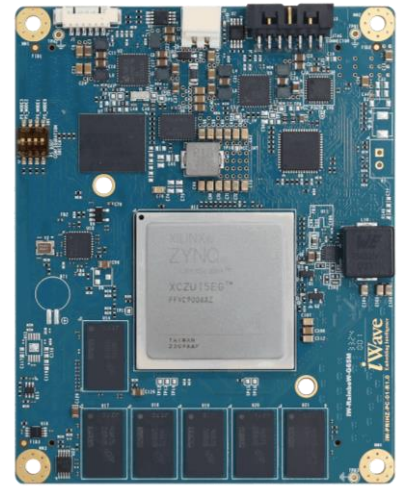


iG-G65M

ZU15/ZU9/ZU6 Zynq UltraScale+ MPSoC System on Module

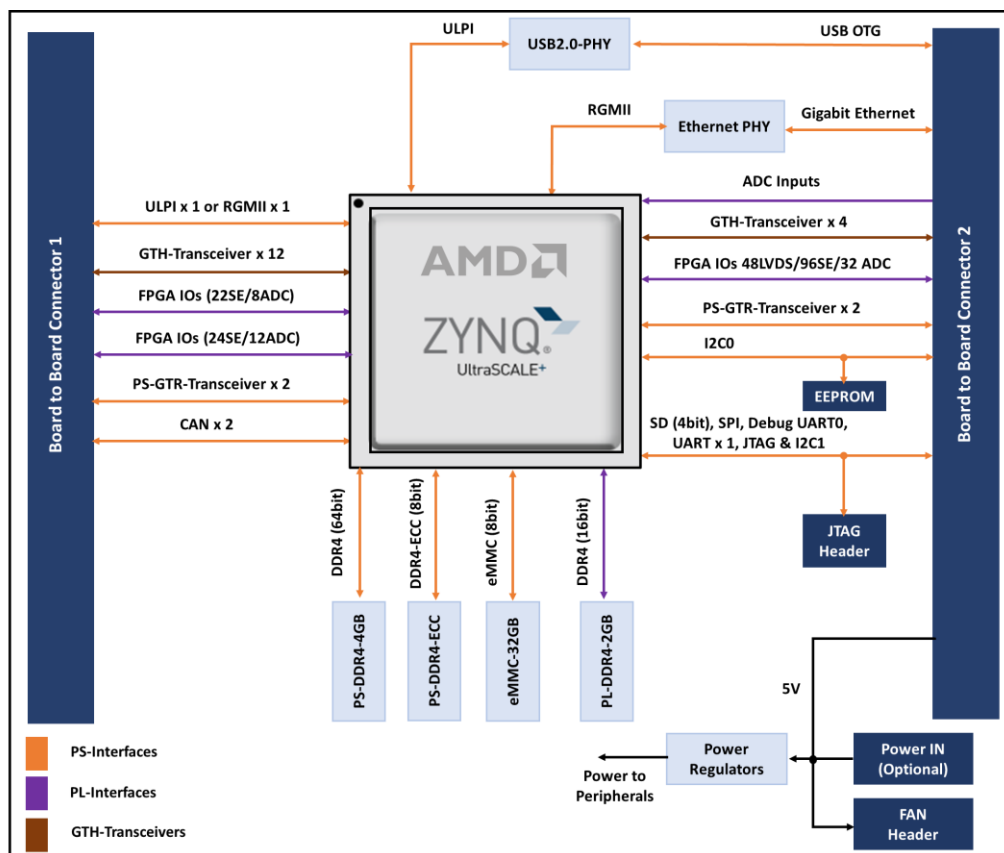
Xilinx Zynq UltraScale+ SoC based System On Module features the Xilinx's Zynq UltraScale+ SoC CG/EG devices with FFVC900 Package. The MPSoC Supports Quad/Dual Cortex A53 up to 1.5GHz with programmable logic cells Up to 746.550K. The SOM supports high speed connectivity peripherals such as PCIe, USB3.0, SATA3.1, Display port, Gigabit Ethernet through GTR high speed transceivers from MPSoC.



Highlights

- ❖ Zynq™ UltraScale+™ MPSoC family with FFVC900 package
- ❖ Compatible with ZU15/ZU9/ZU6 EG/CG devices
- ❖ Quad/Dual Cortex A53 up to 1.5GHz
- ❖ Dual Cortex R5 up to 600MHz
- ❖ Up to 746.550K Logic cells & 341.280K LUTs
- ❖ ARM Mali 400 MP2
- ❖ 16 Channels GTH Transceivers upto 16.3Gbps
- ❖ 4 Channels GTR Transceivers upto 6Gbps
- ❖ 48 LVDS Pairs/ 96 SE IOs, 46 SE FPGA IOs
- ❖ Industrial grade availability

Block Diagram



Technical Specifications

SoC	- Quad/Dual Cortex A53 @ 1.5GHz - Dual Cortex R5, ARM Mali 400 MP2
Memory	4GB DDR4 for PS with ECC (Expandable up to 8GB) 2GB DDR4 for PL 32GB eMMC Flash (Expandable up to 128GB)
On SOM Features	10/100/1000 Ethernet PHY For PS - USB2.0 OTG Transceiver for PS 4Kb EEPROM for board configuration
Headers	JTAG, FAN
Zynq Ultrascale+ MPSoC PL Interfaces	- PL Transceivers x 16 @16.3 Gbps 48 LVDS/96 SE from HP BANKs 46 SE from HD Banks
Zynq Ultrascale+ MPSoC PS Interfaces	- Gigabit Ethernet x 1 Port - USB2.0 OTG x 1 Port - SPI x 1 Port, CAN x 2 Ports

Zynq Ultrascale+ MPSoC PS Interfaces	- I2C x 2 Ports - SD x 1 Port - Debug UART - UART x 1 Port, JTAG - GEM 3 or USB1 2.0 x 1 Port - PS Transceivers x 4 @ 6Gbps
Software Features	- Multi OS Support: Linux, Ubuntu, VxWorks, PYNQ, Baremetal - Security: Secure boot, TPM, watchdog, multiboot - Docker & QEMU support - Dynamic FPGA configuration - Flexible boot options - BIST, 100G & video support
Operating Temp.	-40°C to +85°C (Industrial Grade)
Form Factor	95mm x 75mm (OREN)
Power Input	5V through B2B Connector 2
Environment Spec.	REACH & RoHS3 Compliant

Ordering Information

iG65M-15EG02-4E004G-E032G-IAA

Zynq US+ MPSoC (XCZU15EG-2FFVC900I) 4GB PS DDR4 with ECC, 2GB FPGA DDR4 and 32GB eMMC Flash

iG65M-09EG02-4E004G-E032G-IAA

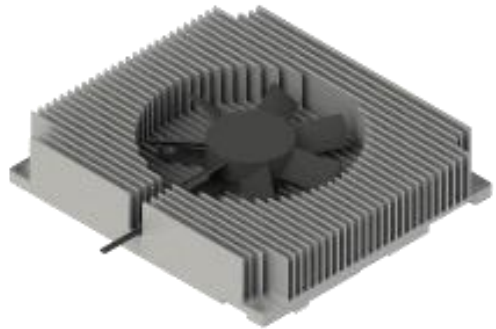
Zynq US+ MPSoC (XCZU9EG-2FFVC900I) 4GB PS DDR4 with ECC, 2GB FPGA DDR4 and 32GB eMMC Flash

Product accessories



Development Kit

Zynq Ultrасcale+ SoC DevKit supports FMC (HPC), SATA, SFP+, DisplayPort, USB Type-C, PCIe x4, and SDI IN/OUT for high-speed transceiver and PS interface validation.



Thermal Solutions

For any highly integrated System on Modules, thermal design is very important factor. iWave Supports heat Spreader and Fan Sink solution for MPSoC based SOM.

Applications

Industrial Motor Control

Ideal for Industrial Motor Control, enabling precise real-time processing, high-speed communication, and efficient power management.

Sensor Fusion

Enables advanced Sensor Fusion with real-time data processing, integration of multiple sensors, and high-speed connectivity for precise decision

Flight Navigation

Optimized for Flight Navigation, offering real-time data processing, sensor integration, and high-speed connectivity for precise airborne guidance.

Missile Construction

Designed for Missile Construction, providing high-speed processing, real-time sensor fusion, and reliable communication for precision guidance and control.

Machine Vision

Enables Machine Vision with high-speed image processing, real-time analytics, & advanced AI/ML capabilities for accurate inspection and automation.

A Global Leader in Embedded Systems Engineering and Solutions

Since 1999, we have pioneered leadership in embedded systems technology, establishing ourselves as a strategic embedded technology partner for advanced solutions. Our comprehensive portfolio encompasses ARM and FPGA System on Modules, COTS FPGA solutions, and ODM solutions which include Telematics, Gateways & HMI Solutions.

Beyond our robust product ecosystem, we provide comprehensive ODM support with specialized custom design and manufacturing capabilities, enabling customers to accelerate and optimize their product development roadmaps. With a strategic focus on industrial, automotive, medical, and avionics markets, we deliver innovative technology solutions to global clients.

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