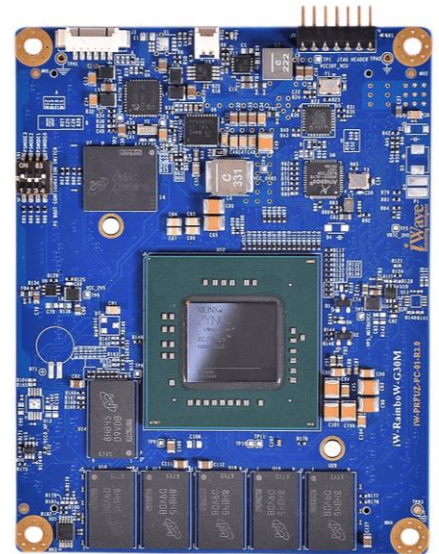


iG-G30M

ZU7/ZU5/ZU4 Zynq UltraScale+ MPSoC System on Module

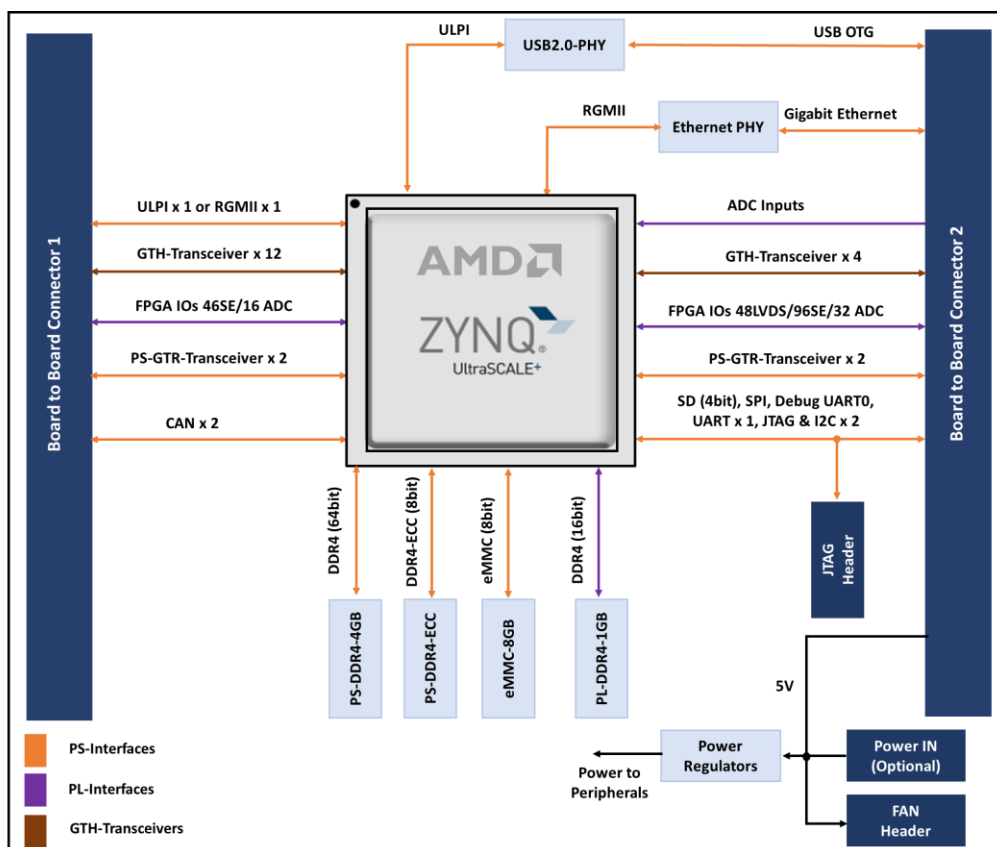
Zynq UltraScale+ SoC based System On Module features the Zynq UltraScale+ SoC CG/EG/EV devices with B900 package. The MPSoC supports Quad/Dual Cortex A53 up to 1.5GHz with programmable logic cells ranging from 192K to 504K. The SOM supports high speed connectivity peripherals such as PCIe, USB3.0, SATA3.1, Display port, Gigabit Ethernet through GTR high speed transceivers from MPSoC. Furthermore, it supports 16 Channels GTH Transceivers up to 16.3Gbps and 4 Channels GTR Transceivers up to 6Gbps which can run demanding applications.



Highlights

- ❖ Zynq™ UltraScale+™ MPSoC Family with FBVB900 Package
- ❖ Compatible with Zynq UltraScale+ ZU7/ZU5/ZU4 CG/EG/EV Devices
- ❖ Quad/Dual Cortex A53 @ 1.5GHz
- ❖ Dual Cortex R5, ARM Mali 400 MP2
- ❖ 4GB DDR4 with ECC for PS, 1GB DDR4 for PL & 8GB eMMC Flash
- ❖ Up to 504K Logic Cells & 230K LUTs
- ❖ 4 PS GTR Transceivers & 16 GTH Transceivers
- ❖ 48 LVDS Pairs/ 96 SE IOs, 46 SE FPGA IOs
- ❖ 2 x 240pin High Speed Connectors with 142 user IOs

Block Diagram



Technical Specifications

SoC	- Zynq UltraScale+ ZU4/ZU5/ZU7 MPSoC - Quad/Dual Cortex A53 @ 1.5GHz - Dual Cortex R5, ARM Mali 400 MP2 - H.265, H.264 Video Codecs
Memory	4GB DDR4 for PS with ECC 1GB DDR4 for PL 8GB eMMC Flash (Expandable)
On SOM Features	10/100/1000 Ethernet PHY For PS - USB2.0 OTG Transceiver for PS
Headers	JTAG, FAN
Dual Board to Board Connector Interfaces	Zynq Ultrascale+ MPSoC PL Interfaces: - PL Transceivers x 16 @ 16.3 Gbps 48 LVDS/96 SE from HP BANK & 46 SE from HD Banks Zynq Ultrascale+ MPSoC PS Interfaces: - Gigabit Ethernet x 1 Port

Dual Board to Board Connector Interfaces	- USB 2.0 OTG x 1 Port - SPI x 1 Port - CAN x 2 Ports - I2C x 1 Ports - SD x 1 Port - Debug UART - UART x 1 Port - JTAG - GEM 3 or USB1 2.0 x 1 Port - PS Transceivers x4 @ 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

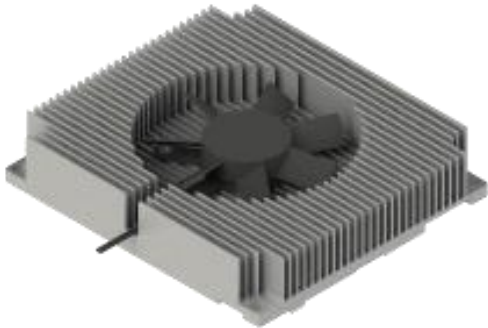
iW-G30M-C7EV-4E004G-E008G-BIA	ZU7EV (-1) MPSOC(XCZU7EV-1FBVB900I), 4GB PS DDR4 with ECC, 1GB PL DDR4, 8GB EMMC - Boot code
iW-G30M-C7CG-4E004G-E008G-LIA	ZU7CG (-1) MPSOC (XCZU7CG-1FBVB900I), 4GB PS DDR4 with ECC, 1GB PL DDR4, 8GB EMMC - Linux
iW-G30M-C5EV-4E002G-E008G-LIA	ZU5EV (-1) MPSOC (XCZU5EV-1FBVB900I), 2GB PS DDR4 with ECC, 1GB PL DDR4, 8GB EMMC - Linux
iW-G30M-C5EV-4E002G-E008G-LEA	ZU5EV (-1) MPSOC (XCZU5EV-1FBVB900E), 2GB PS DDR4 with ECC, 1GB PL DDR4, 8GB EMMC - Linux
iW-G30M-C4EV-4E002G-E008G-BIA	ZU4EV (-1) MPSOC (XCZU4EV-1FBVB900I), 2GB PS DDR4 with ECC, 1GB PL DDR4, 8GB EMMC - Boot code
iW-G30M-C4CG-4E002G-E008G-LIA	ZU4CG (-1) MPSOC (XCZU4CG-1FBVB900I), 2GB PS DDR4 with ECC, 1GB PL DDR4, 8GB EMMC - Linux

Product accessories



Development Kit

iWave's Zynq UltraScale+ SoC DevKit features an MPSoC SOM plus a high-performance carrier board with FMC, SATA, SFP+, DisplayPort, USB Type-C, PCIe x 4, and SDI IN/OUT for interface validation.



Thermal Solutions

For any highly integrated System On Modules, thermal design is very important factor. iWave Supports Heat Sink and Fan Sink Solution for ZU7/5/4 Zynq UltraScale+ MPSoC SOM.

Applications

Industrial Motor Control

Enables precise and efficient Industrial Motor Control with real-time processing, high-speed communication, and advanced power management.

Sensor Fusion

Enables advanced Sensor Fusion with real-time data integration, high-speed processing, and enhanced accuracy for intelligent decision-making.

ADAS/Embedded vision

Powers ADAS/Embedded Vision with real-time image processing, AI-driven analytics, and high-speed sensor fusion for enhanced safety 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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