

iG-G36S

Zynq UltraScale+ MPSoC (ZU5/4/3/2) Single Board Computer

iWave's Zynq UltraScale+ MPSoC ZU5/ZU4/ZU3/ZU2 Single Board Computer is a high-performance embedded computing platform designed for advanced edge, vision, and real-time processing applications. Built on AMD's Zynq UltraScale+ MPSoC architecture, it combines multi-core Arm processing with programmable FPGA logic, enabling a powerful heterogeneous computing environment.

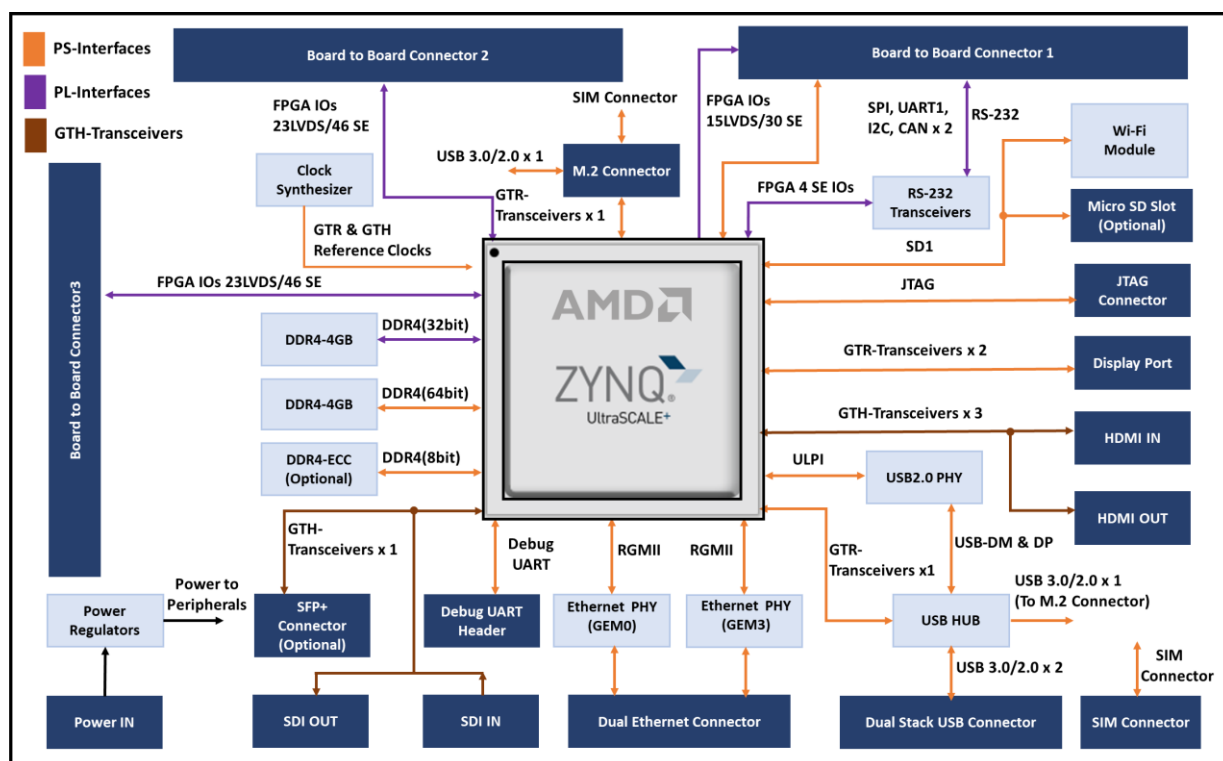


The SBC integrates high-speed connectivity, multimedia capabilities, and scalable memory in a compact form factor, making it suitable for rapid prototyping and deployment in demanding applications. With support for industrial-grade operation and robust software ecosystems, it enables faster development and reliable performance across diverse embedded systems.

Highlights

- ❖ Zynq Ultrascale+ MPSoC (ZU5/ZU4/ZU3/ZU2)
- ❖ 64bit PS DDR4 with ECC & 32bit PL DDR4
- ❖ Board to Board Connector with 120 FPGA IOs
- ❖ 4K HDMI Input & Output Ports, Display Port
- ❖ Dual Gigabit Ethernet & USB3.0 ports
- ❖ M.2 KeyB port with SATA/PCIe & USB3.0
- ❖ 802.11 a/b/g/n/ac Wi-Fi & BT 5.0
- ❖ Compact form factor 100mm x 72mm

11



1001

Zynq Ultrascale + MPSoC	Processing System (PS): - Quad/Dual Arm Cortex -A53 @ 1.5GHz - Dual Cortex-R5 @ 600MHz - H.264/H.265 Video Encoder/Decoder (VCU) - ARM Mali-400 MP2 GPU @677MHz Programmable Logic (PL/FPGA): - Up to 256K Logic Cells - PL GTH Transceivers x 4 @ 12.5 Gbps
Memory	64bit PS DDR4 with ECC 32bit PL DDR4 - eMMC Flash - Micro SD Connector (Optional) - EEPROM for MAC Address
Features from PS	- WLAN & BT with Antenna Conn. - Dual Gigabit Ethernet through RJ45 Magjack, Dual USB3.0 Type A Jack, Display Port Connector - M.2 Key B Connector with SATA/PCIe & USB3.0 - Debug UART Header - JTAG & RTC Coin Cell Header

Features from PL	4K HDMI Output Connector 4K HDMI Input Connector - SFP+ Connector 12G SDI In. through HD BNC Jack 12G SDI Out. through HD BNC Jack
Board to Board Connectors	PS Interfaces - UART x 1 - SPI x 1 - CAN x 2 - I2C x 1 PL Interfaces - FPGA IOs from HP Bank – 20LVDS/40SE - FPGA IOs from HD Bank – 41LVDS/82SE
Operating System	- Linux - QNX (Optional)
Form Factor	100mm x 72mm
Power Input	12V input through 2.5mm Jack
Operating Temp.	-40°C to +85°C (Industrial Grade)
Environment Spec.	RoHS2 and REACH Compliance

Ordering Information

iW-G36S-5EV1-4D004G-E016G-BEA	ZU5EV (-1) MPSOC, 4GB PS DDR4, 2GB PL DDR4, 16GB eMMC, Extended
iW-G36S-4EV1-4D004G-E016G-BEA	ZU4EV (-1) MPSOC, 4GB PS DDR4, 2GB PL DDR4, 16GB eMMC, Extended
iW-G36S-3TC1-4D004G-E016G-BEA	ZU3TCG (-1) MPSOC, 4GB PS DDR4, 16GB eMMC, extended
iW-G36S-3EG1-4D004G-E016G-BIA	ZU3EG (-1) MPSOC, 4GB PS DDR4, 16GB eMMC, Industrial
iW-G36S-2CG1-4D004G-E016G-BEA	ZU2CG (-1) MPSOC, 4GB PS DDR4 16GB eMMC, extended

Product accessories



Thermal Solutions

For any highly integrated System on Modules, thermal design is a very important factor. iWave supports a Fan sink for MPSoC based SBC

Applications

- **Video Processing**
Video processing applications enhance, analyze, and manipulate video content for tasks like encoding, streaming, object detection, and real-time editing.
- **Sensor Fusion**
Enables advanced Sensor Fusion with real-time data processing, integration of multiple sensors, and high-speed connectivity for precise decision
- **Secure Solutions**
Secure solutions applications ensure data protection, encryption, authentication, and cybersecurity for secure communication and system integrity.
- **Networking**
Networking applications enable high-speed data transfer, connectivity, and communication across devices, systems, and infrastructures.
- **Military Construction**
Military construction applications involve designing and building secure, resilient infrastructure to support defense operations and strategic missions.

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.

mktg@iwave-global.com

iWave Global

Bangalore, India

iWave USA

Campbell, California

iWave Global East Coast LLC

New Jersey, USA

iWave Global

Ras Al Khaimah, UAE

iWave Global GmbH

Ratingen, Germany

iWave Europe

Rotterdam, Netherlands

iWave APAC

Taipei City, Taiwan

iWave Korea

Gyeonggi,-do, Korea

iWave Japan

Yokohama, Kanagawa

**iWave
Global**