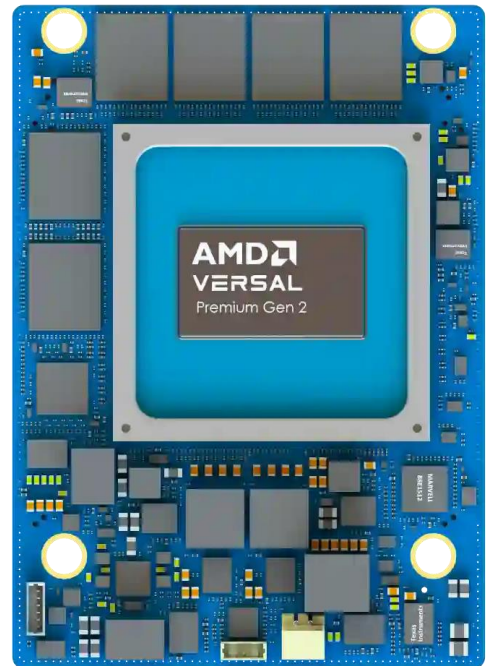


iG-G86M®

Versal™ Premium Gen2 System on Module

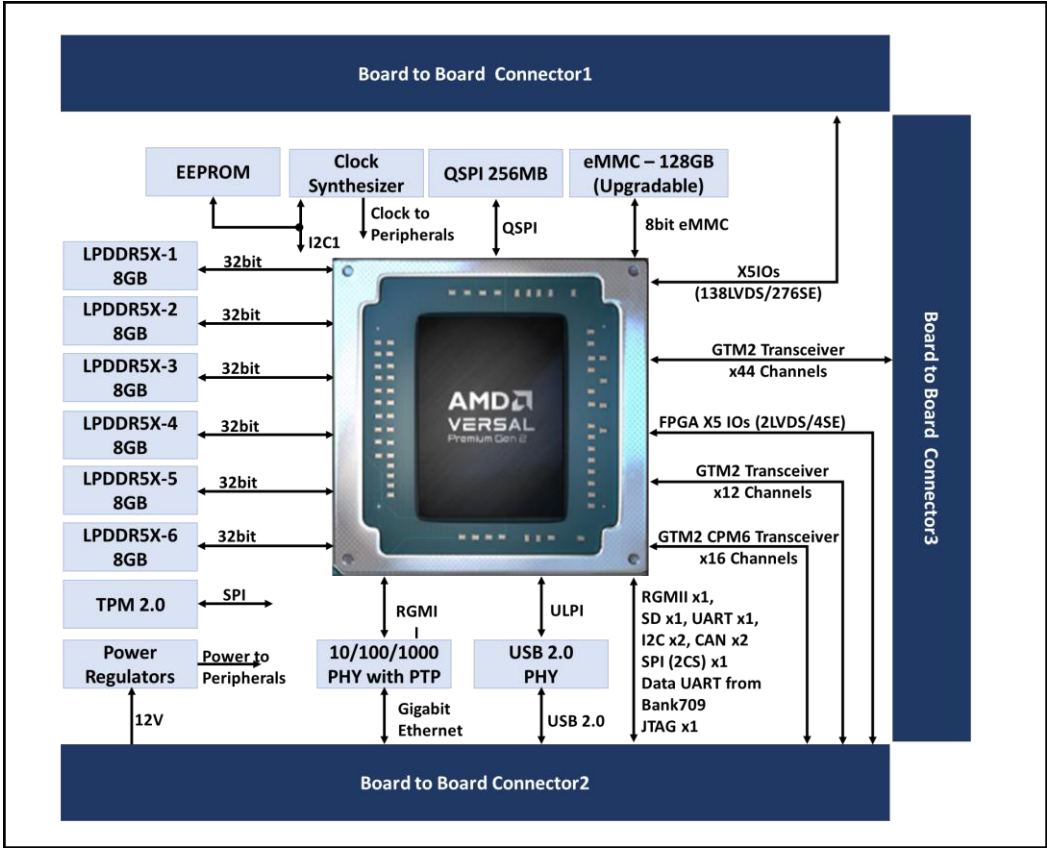
iWave's Versal™ Premium Gen 2 System on Module is a next-generation adaptive computing platform designed for data-intensive and high-performance applications across networking, communications, aerospace, defense, test & measurement, and data center infrastructure. Built on the AMD Versal™ Premium Gen 2 adaptive SoC, the module combines advanced programmable logic, high-speed connectivity, and integrated processing to deliver exceptional compute density, bandwidth, and system acceleration. The SoM integrates next-generation interfaces, high-bandwidth memory support, and scalable I/O in a production-ready form factor.



Highlights

- ❖ Versal™ Premium Gen2 SoC Compatible with 2VP3602, 2VP3502, 2VP3402 Devices
- ❖ Up to 3.3M Logic cells and 1.5M LUTs
- ❖ Six 32bit, 8GB LPDDR5x Memory
- ❖ 56 Channels of GTM2 Transceiver up to 112Gbps PAM4
- ❖ 16 Channels of GTM2 LPD transceivers for PCIe GEN6
- ❖ Up to 140LVDS/280SE from X5IOs

Block Diagram



Technical Specifications

SoC	- Compatible with 2VP3602, 2VP3502 and 2VP3402 Devices - Dual-core Arm Cortex-A72 @1.7GHz - Dual-core Arm Cortex-R5F @800MHz - Up to 3.3M Logic cells & 1.5M LUTs	Board to Board Connector Interfaces	- SD (4-bit) x 1 - SPI (with 2CS) x 1 - I2C x 2 - Debug UART x 1 - Data UART x1 - CAN FD x2 - JTAG x 1
Memory & Storage	- Six 32bit, 8GB LPDDR5x 32Kb EEPROM 256MB QSPI flash 128GB eMMC Flash (Upgradable)	Other On SoM Features	- TPM2.0 module 10/100/1000 Ethernet PHY with PTP - USB Transceiver PHY - Programmable Clock Synthesizer - Fan Header
Board to Board Connector Interfaces	From PL Block: 56 GTM2 Transceiver up to 112Gbps PAM4 data rate 16 GTM2 LPD transceivers for PCIe GEN6 Interface 140LVDS/280SE from X5IOs From PS Block: - USB 2.0 x 1 1G Ethernet x 1 - RGMII x 1	Power Input	12V through B2B Connector
		Operating Temperature	-40°C to +85°C (Industrial Grade)
		BSP Support	2025.2 Yocto-based AMD EDF Flow
		Form Factor	115mm x 82mm (BRYNc+)
		Environment Spec.	REACH & RoHS3 Compliant

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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