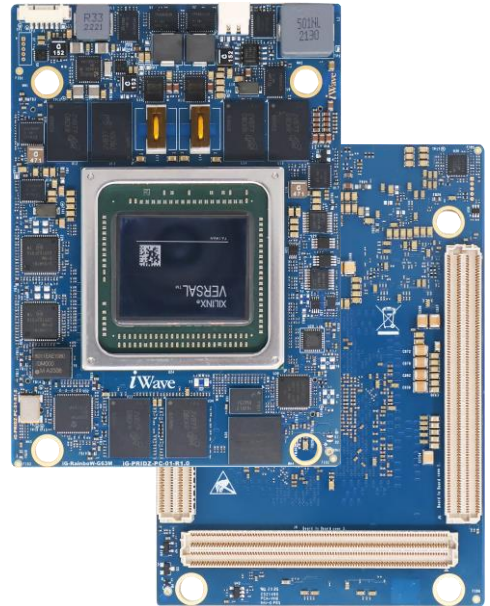


iG-G63M

Versal Premium System on Module

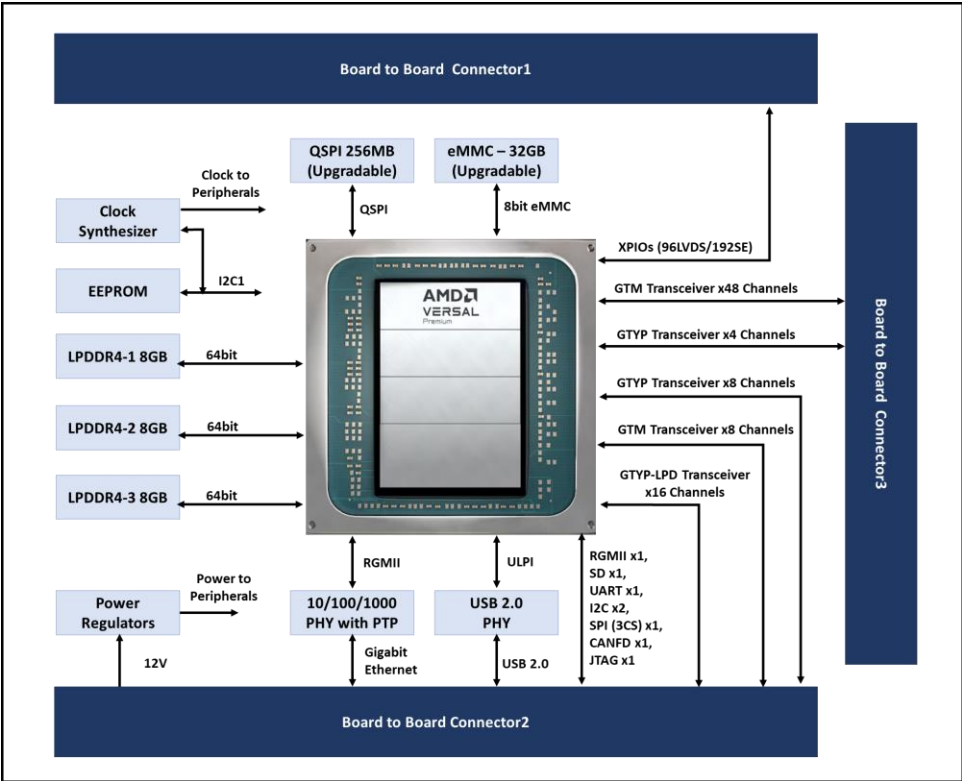
iWave's Versal™ Premium System-on-Module integrates the VP1552 / VP1502 / VP1402 / VP1202 / VP1102 devices in the VSVA2785 package. The SOM supports dual Arm® Cortex-A72 application processors operating up to 1.7 GHz, along with dual Arm® Cortex-R5F real-time processors up to 800 MHz speed. The module features up to 3.7M+ programmable logic cells, high-density memory interfaces, on-board storage, high-speed GTM transceivers and extended-performance I/Os, enabling flexible, compute-intensive system designs. All of this capability is designed in an 82mm×115mm size module for next-generation networking and acceleration platform.



Highlights

- ❖ Versal™ Premium System-on-Module
- ❖ Dual Arm Cortex-A72 APU and Dual Arm Cortex-R5F RPU
- ❖ Up to 3.7M+ Logic cells and 7.4M DSP slices
- ❖ Triple 64bit 8GB LPDDR4 with bandwidth of 34.128GBps
- ❖ 256MB QSPI Flash and 32GB eMMC Flash
- ❖ Board to Board connector for high speed GTYP/GTM transceiver and XPIOs
- ❖ Supports Integrated PCIe® Gen5 from PS and PL controller
- ❖ 112G PAM4 capable transceivers for 100G/400G/600G Ethernet
- ❖ 10+ Years long term support

Block Diagram



Technical Specifications

SoC/FPGA	- Versal™ Premium SoC with VSVA2785 package - Compatible with VP1552/1502/1402/1202/1102 Devices - Dual-core Arm Cortex-A72 @1.7GHz - Dual-core Arm Cortex-R5F @800MHz - Up to 3763Logic cells and 1720K LUTs	From PL Block 56 GTM Transceiver up to 112Gbps PAM4 data rate 12 GTYP Transceiver up to 32Gbps NRZ data rate 16 GTYP LPD Transceiver for PCIe Gen5 Interface 96 LVDS and 192 SE XPIOs From PS Block - USB2.0 x 1, 1G Ethernet x 1 - RGMII x 1, SD (4-bit) x 1 - SPI (with 3CS) x 1 - I2C x 2 - Debug UART x 1, JTAG x 1
Memory	- Three 64bit, 8GB LPDDR4 from PS 256MB QSPI flash 32GB eMMC Flash 2Kb EEPROM	
Other On SoM Features	10/100/1000 Ethernet PHY with PTP - USB Transceiver PHY - Programmable Clock Synthesizer 32.768KHz crystal for RTC - FAN Header	
Board to Board Connector Interfaces		
BSP Support		Linux 6.6.40 and Vivado2024 or above
Operating Temp.		-40°C to +85°C
Form Factor		115mm x 82mm (BRYNc+)
Power Input		12V through B2B Connector
Environment Spec.		REACH & RoHS3 Compliant

Ordering Information

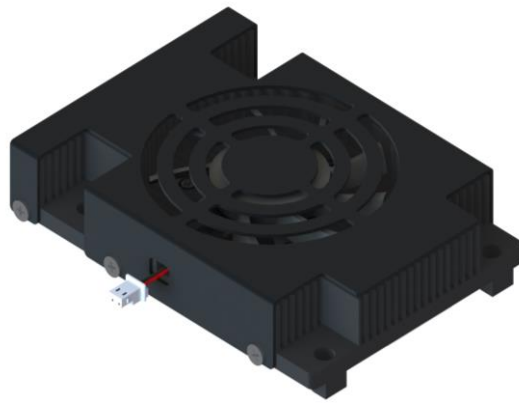
iG63M-1502M2-4E008G-E032G-IAA

VP1502 (-2MSI) Versal Premium SOM with 8GB PS RAM, Dual 8GB PL RAM, 256MB QSPI, 32GB eMMC.

iG63M-1202M2-4E008G-E032G-IAA

VP1202 (-2MSI) Versal Premium SOM with 8GB PS RAM, Dual 8GB PL RAM, 256MB QSPI, 32GB eMMC.

Product accessories



Thermal Solutions

Versal Premium SOM is high power and high-performance device, thermal design is very important factor. iWave Supports Heat Sink Solutions for the SOM.

Applications

- High-bandwidth network infrastructure
- Data centers for high performance computation
- Network and Storage module
- High Speed Protocol validation
- Test and Measurement instruments
- I/O modules and IoT devices
- ASIC prototype modules

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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