

iW-RainboW-G28M

Zynq 7000 SODIMM System on Module

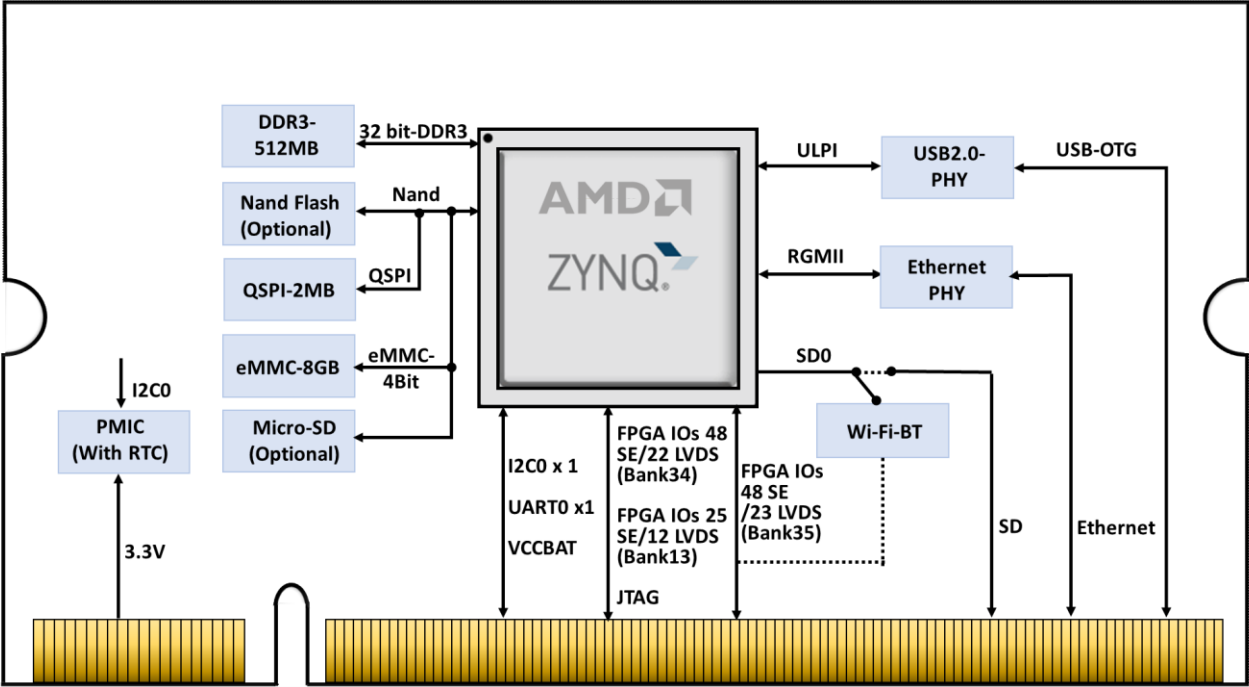
Zynq 7000 SoC based System On Module (SOM) features the Xilinx Zynq 7000 series SoC with Dual Cortex A9 CPU @ 866MHz, 85K FPGA logic cells and up to 120 FPGA I/Os. The SOM is equipped with on-board QSPI flash, eMMC, DDR3 RAM, Wi-Fi, BT and Gigabit Ethernet. This SOM is suitable for various industrial, embedded computing and medical applications.



Highlights

- ❖ Dual Cortex A9 @ up to 866MHz
- ❖ Compatible Zynq 7000 SoC – 7007S, Z-7014S, Z-7010, Z-7020
- ❖ Up to 85K FPGA logic cells
- ❖ Up to 120 FPGA I/Os
- ❖ Wi-Fi/BT Support
- ❖ 512MB DDR3 RAM Expandable up to 1GB and 8GB eMMC
- ❖ 8GB-eMMC
- ❖ 200pin SODIMM Edge Connector
- ❖ Industrial grade availability
- ❖ Linux BSP support

Block Diagram



Technical Specifications

SoC	• Zynq 7000 SoC • Single/Dual Cortex A9 @ up to 866MHz • Up to 85K logic cells • Compatible devices: Z-7007S, Z-7014S, Z-7010, Z-7020 (CLG400 package)	SODIMM Edge Connector Interfaces:	Zynq SoC PS Interfaces: • Gigabit Ethernet x 1 Port • USB 2.0 OTG x 1 Port • SD (4bit) x 1 Port(Optional) • Debug UART • JTAG Port
Memory	• 512MB DDR3 (Expandable to 1GB) • 512MB NAND Flash(Optional) • 2MB QSPI Flash(Boot Device) • Micro SD Slot /8GB-eMMC (Secondary Boot Device)	SODIMM Edge Connector Interfaces:	Zynq SoC PL Interfaces: • 60LVDS/120 SE FPGA Ios
On SOM Features	• PMIC with RTC • Gigabit Ethernet Transceiver • USB2.0 Transceiver • Wi-Fi/BT Module	Operating System	Linux 4.14.0
		Operating Temp.	-40°C to +85°C (Industrial Grade)
		Form Factor	67.6mm x37mm
		Power Input	3.3V through SODIMM Edge Connector
		Environment Spec.	REACH & RoHS3 Compliant

Ordering Information

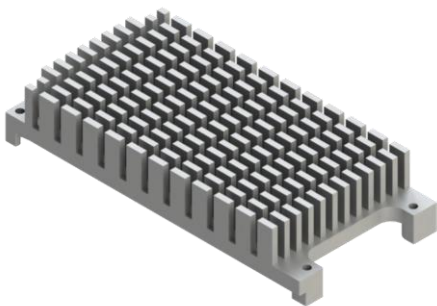
iW-G28M-SM20-3D512M-E008G-LIB	With Zynq 7020 SOC (-1), 512MB DDR3, 8GB eMMC Flash, without Wi-Fi/BT – Linux, Industrial Grade Temperature
iW-G28M-SM20-3D512M-E008G-BIF	With Zynq 7020 SOC (-1), 512MB DDR3, 8GB eMMC Flash, Wi-Fi/BT - Boot code, Industrial Grade Temperature
iW-G28M-SM10-3D512M-E008G-LIB	With Zynq 7010SOC (-1), 512MB DDR3, 8GB eMMC Flash, without Wi-Fi/BT - Linux, Industrial Grade Temperature
iW-G28M-SM10-3D512M-E008G-BIF	With Zynq 7010 SOC (-1), 512MB DDR3, 8GB eMMC Flash, Wi-Fi/BT - Boot code, Industrial Grade Temperature
iW-G28M-SM14-3D512M-E008G-LIB	With Zynq 7014S SOC (-1), 512MB DDR3, 8GB eMMC Flash, without Wi-Fi/BT – Linux, Industrial Grade Temperature
iW-G28M-SM07-3D512M-E008G-BIB	With Zynq 7007S SOC (-1), 512MB DDR3, 8GB eMMC Flash, without Wi-Fi/BT - Boot code, Industrial Grade Temperature

Product accessories



Development Kit

iWave's Zynq 7000 DevKit includes a SOM featuring FMC High Pin Count (HPC) Connector with up to 98 Single ended (SE) IOs/34 LVDS Ios, Dual PMOD Connector & JTAG Connector



Thermal Solutions

For any highly integrated System On Modules, thermal design is very important factor. iWave supports Heat Sink and Heat Spreader Solution for Zynq 7000 SoM

Applications

- Multi-Axis Motor Control
- Machine Vision
- Programmable Logic Controller
- ADAS
- Medical Endoscope
- Small Cell Baseband
- Professional Cameras
- Machine Vision
- Carrier Ethernet Backhaul
- Multi-Function Printers

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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