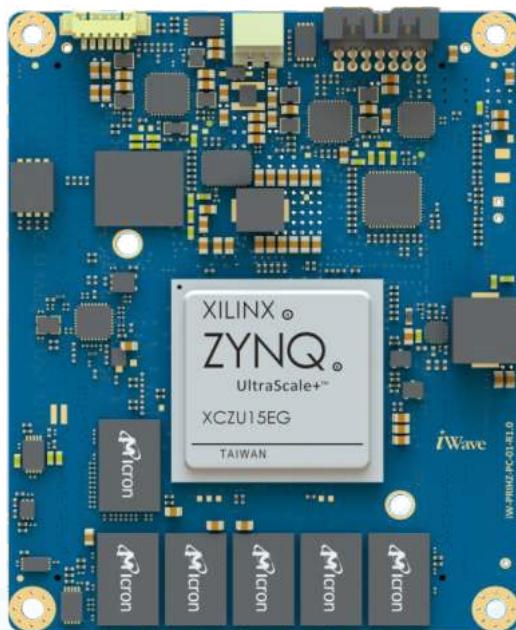


System On Module iW-Rainbow-G65M

Zynq UltraScale+ MPSoC System On Module



Xilinx Zynq UltraScale+ SoC based System On Module features the Xilinx's Zynq UltraScale+ SoC CG/EG devices with FFVC900 Package. The MPSoC Supports Quad/Dual Cortex A53 up to 1.5GHz with programmable logic cells ranging from 469K to 747K. 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.

Applications: Industrial Motor Control, Sensor Fusion, Traffic engineering, Flight Navigation, Missile & Munitions, Missile Construction, Cloud Computing, Networking, Data Center, Medical, Endoscopy, Machine Vision.

iW-Rainbow-G65M

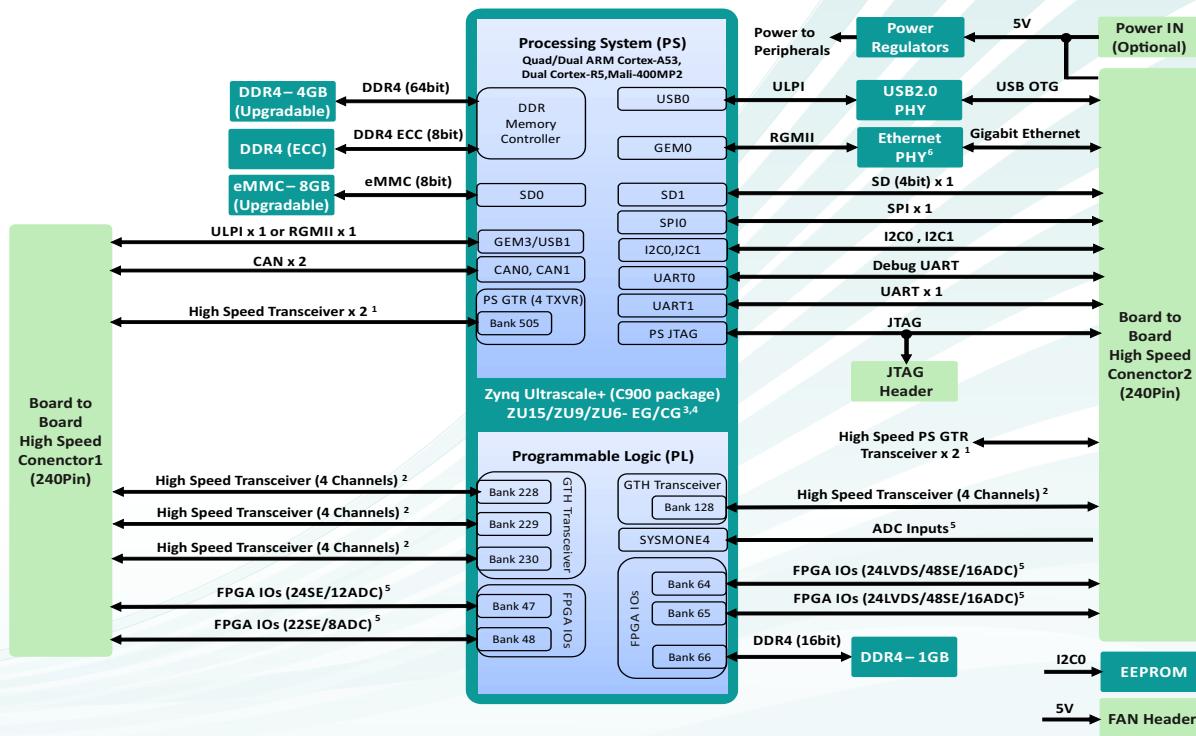
HIGHLIGHTS

- Quad/Dual Cortex A53 up to 1.5GHz
- Dual Cortex R5 up to 600MHz
- ARM Mali 400 MP2
- 16 Channels GTH Transceivers upto 16.3Gbps
- 4 Channels GTR Transceivers upto 6Gbps
- 48 LVDS Pairs/ 96 SE IOs, 46 SE FPGA IOs
- Industrial grade availability
- 10+ Years availability

SPECIFICATIONS

SoC:	Zynq UltraScale+ ZU15EG ZU6/9 CG/EG	Zynq Ultrascale+ MPSoC PS Interfaces:
	Quad/Dual Cortex A53 @ 1.5GHz	Gigabit Ethernet x1 Port
	Dual Cortex R5, ARM Mali 400 MP2	USB2.0 OTG x1 Port
Memory:	4GB DDR4 for PS with ECC(Expandable up to 8GB)	SPI x 1 Port
	1GB DDR4 for PL(Expandable up to 2GB)	CAN x 2 Ports
	8GB eMMC Flash(Expandable up to 128GB)	I2C x 2 Ports
On SOM Features:	10/100/1000 Ethernet PHY For PS	SD x 1 Port
	USB2.0 OTG Transceiver for PS	Debug UART
	4Kb EEPROM for board configuration	UART x 1 Port
Headers:	JTAG, FAN	JTAG
Dual Board to Board Connector interfaces		GEM 3 or USB1 2.0 x 1 Port
Zynq Ultrascale+ MPSoC PL Interfaces:	PL Transceivers x 16 @ 16.3 Gbps	PS Transceivers x4 @ 6Gbps
	48 LVDS/96 SE from HP BANKs	Operating System: Linux
	46 SE from HD Banks	Power Supply:
		5V through Board to Board connector2
		Temperature Support:
		-40°C to +85°C (Industrial grade operation)
		Form Factor:
		95mm x 75mm

Zynq Ultrascale+ MPSoC SOM Block Diagram



¹ PS GTR Transceiver supports data rates up to 6Gb/s and can be configured as PCIe/SATA/USB3.0/DisplayPort/Ethernet SGMII.

² PL GTH Transceiver supports data rates up to 16.3Gb/s

³ EG devices supports Quad ARM CortexA53, Dual ARM Cortex-R5 & Mali-400MP2 GPU. CG devices supports Dual ARM CortexA53 & Dual ARM Cortex-R5 and doesn't support Mali GPU.

⁴ ZU6 & ZU9 supports both CG & EG. ZU15 supports only EG.

⁵ SYSMONE4 supports 10bit 200KSPS ADC and supports upto 17 Analog Inputs (One dedicated Analog input and 16 auxiliary analog input from any PL BANKS)

⁶ On-SOM Ethernet PHY have feature of PTP controlled in it.

OS SUPPORT

Linux version 6.1.30
Xilinx-v2023.2

DELIVERABLES

Zynq Ultrascale+ Module
Board Support Package
Datasheet

OPTIONAL KITS/Modules

Zynq Ultrascale+ Development Kit
Heat Sink

CUSTOM DEVELOPMENT

BSP Development/OS Porting
Custom SOM/Carrier Development
Custom Application/GUI Development
Design Review and Support

iWave Systems Technologies is an ISO 9001:2015 certified company, headquartered in Bangalore India established in the year 1999. The company focuses on providing embedded solution and services for Industrial, Medical, Automotive and various other Embedded Computing applications. iWave Systems offers wide range of System On Modules and Single Board Computers built using wide range of CPU and FPGA SoC platforms with different form factors such as Qseven, SMARC, SODIMM and HPC by closely working with Tier-1 silicon companies such as NXP, Xilinx, Intel etc.

iWave Systems offers various state of art ready ODM solutions such as Connected Telematic Control Unit / OBD II devices for the automotive edge analytics, Comprehensive ARINC818 solutions for the low latency Aerospace applications and Rugged IP rated performance scalable HMI solutions for Industrial applications.

iWave Systems also provides comprehensive Engineering design services involving Embedded Hardware, FPGA and Software development. iWave offers carrier board and custom hardware development with manufacturing and certification services. iWave's Hardware expertise spans complex board design up to 30 layers; Analog, Digital & RF Designs; FPGA Development up to 3+ million gates and VHDL / Verilog RTL Development & Verification. Our Software expertise ranges from OS Porting, Firmware & Device Drivers Development and Wireless & Protocol

*Optional items not included in the standard deliverables.

Note: iWave reserves the right to change these specifications without notice as part of iWave's continuous effort to meet the best in breed specification. The registered trademarks are proprietary of their respective owners.

Zynq Ultrascale+ Module

The device can be ordered online from the iWave Website

<https://www.iwavesystems.com>

Or from our Local Partners in your region

<http://www.iwavesystems.com/about-us/business-partner.html>

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