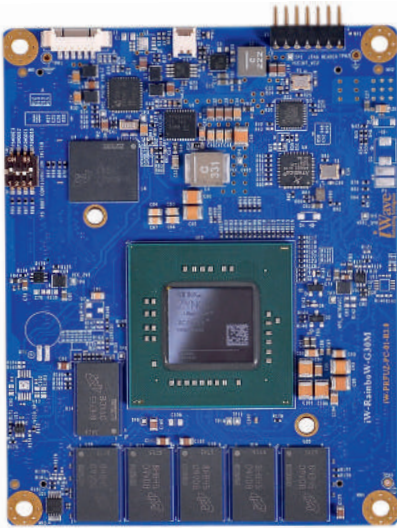


# System On Module iW-RainboW-G30M

## Zynq UltraScale+ MPSoC System On Module



Xilinx Zynq UltraScale+ SoC based System On Module features the Xilinx's Zynq UltraScale+ SoC CG/EG/EV devices with B900 package. The MPSoC supports Quad/Dual Cortex A53 up to 1.5GHz with programmable logic cells ranging from 192K to 504K. 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, ADAS/Embedded Vision, Industrial IoT, Cloud Computing, Networking, Data Center, Medical Endoscopy, Aerospace and Machine Vision.

### iW-RainboW-G30M

#### HIGHLIGHTS

- Quad/Dual Cortex A53 @ 1.5GHz
- Dual Cortex R5, 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:

Xilinx Zynq UltraScale+ ZU4/ZU5/ZU7  
Quad/Dual Cortex A53 @ 1.5GHz  
Dual Cortex R5, ARM Mali 400 MP2  
H.265, H.264 Video Codecs

##### Memory:

4GB DDR4 for PS with ECC  
1GB DDR4 for PL  
8GB eMMC Flash (Expandable)

##### On SOM features:

10/100/1000 Ethernet PHY For PS  
USB2.0 OTG Transceiver for PS

##### Headers:

JTAG, FAN

##### Dual Board to Board Connector Interfaces:

##### Zynq Ultrascale+ MPSoC PL Interfaces:

PL Transceivers x 16 @ 16.3 Gbps  
48 LVDS/96 SE from HP BANK & 46 SE from HD Banks

##### Zynq Ultrascale+ MPSoC PS Interfaces:

Gigabit Ethernet x 1 Port  
USB 2.0 OTG x 1 Port  
SPI x 1 Port  
CAN x 2 Ports  
I2C x 1 Ports  
SD x 1 Port  
Debug UART  
UART x 1 Port  
JTAG  
GEM 3 or USB1 2.0 x 1 Port  
PS Transceivers x4 @ 6Gbps

##### OS Support: Linux

##### Power Supply:

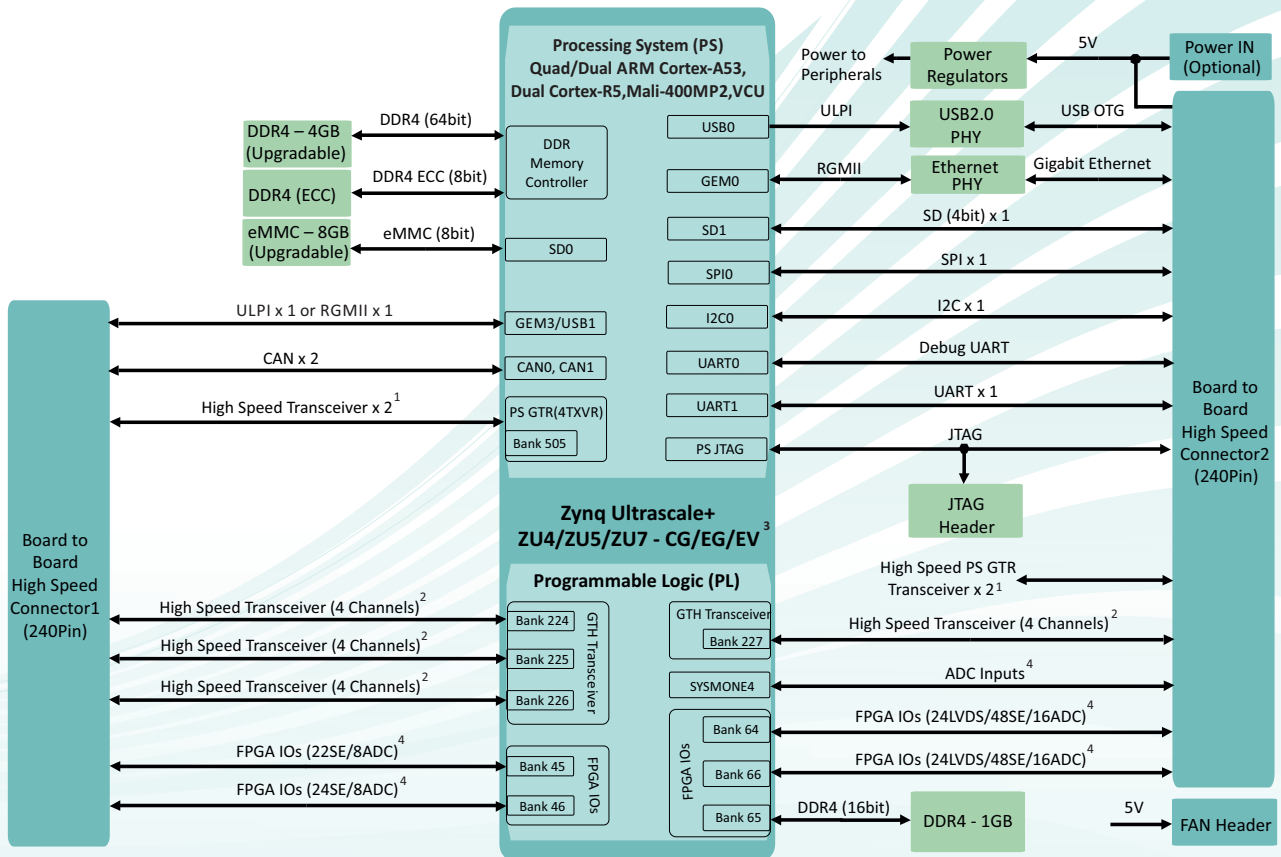
5V through Board to Board connector

##### Temperature support:

-40°C to +85°C (Industrial grade operation)

**Form Factor:** 95mm x 75mm

## Zynq Ultrascale+ MPSoC SOM Block Diagram



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

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

Note 3: CG devices supports Dual ARM Cortex-A53 & Dual ARM Cortex-R5. EG devices supports Quad ARM Cortex-A53, Dual ARM Cortex-R5 & Mali-400MP2 GPU. EV devices supports Quad ARM Cortex-A53, Dual ARM Cortex-R5, Mali-400MP2 GPU & H.264/H.265 VCU.

Note 4: SYSMONE4 supports 10bit 200KSPS ADC and supports upto 17 Analog Inputs (One dedicated Analog Input and 16 auxiliary analog input from any PL BANKS).

### OS SUPPORT

Linux 4.14.0

### DELIVERABLES

Zynq Ultrascale+ Module  
Board Support Package  
User Manual

### 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, established in 1999, focuses on Product Engineering Services involving Embedded Hardware, Software & FPGA. The company designs and develops cutting edge products and solutions. iWave has been an innovator in the development of highly integrated, high performance, low power and low cost System On Modules and Development Platforms.

iWave System has won the confidence of its customers over the years by being a reliable partner in developing innovative products. Our engineers combine outstanding System design experience to deliver Quality Solutions. iWave specializes across Industrial, Automotive and Medical domains. We support our customers by being time efficient, which in turn helps our customers accelerate time to market their products. iWave is a Windows embedded Silver partner and a winner of the Partner Excellence Award.

\*Optional items not included in the standard deliverables.

Note: iWave reserves the right to change these specifications without notice as part of iWave 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

<http://www.iwavesystems.com/webforms>

Or from our Local Partners in your region

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

iw-G30M-BR-R2.0

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