

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 PCle, 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

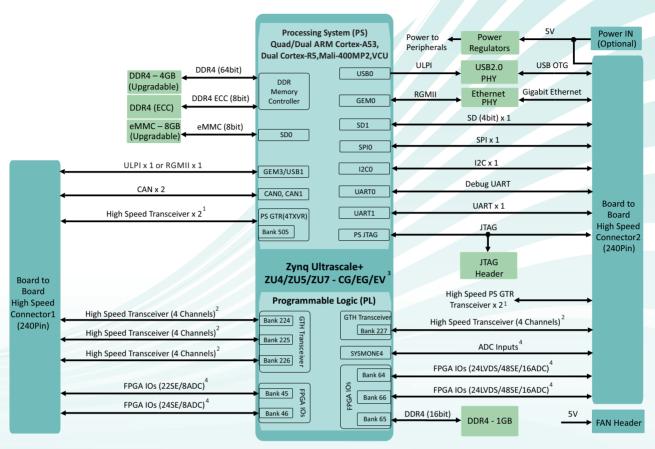
SPECIFICATIONS

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SoC:	Zynq Ultrascale+ MPSoC PS Interfaces:
Xilinx Zynq UltraScale+ ZU4/ZU5/ZU7	Gigabit Ethernet x 1 Port
Quad/Dual Cortex A53 @ 1.5GHz	USB 2.0 OTG x 1 Port
Dual Cortex R5, ARM Mali 400 MP2	SPI x 1 Port
H.265, H.264 Video Codecs	CAN x 2 Ports
Memory:	I2C x 1 Ports
4GB DDR4 for PS with ECC	SD x 1 Port
1GB DDR4 for PL	Debug UART
8GB eMMC Flash (Expandable)	UART x 1 Port
On SOM features:	
10/100/1000 Ethernet PHY For PS	JTAG
USB2.0 OTG Transceiver for PS	GEM 3 or USB1 2.0 x 1 Port
Headers:	PS Transceivers x4 @ 6Gbps
JTAG, FAN	OS Support: Linux
Dual Board to Board Connector Interfaces:	Power Supply:
	5V through Board to Board connector
Zynq Ultrascale+ MPSoC PL Interfaces:	•
PL Transceivers x 16 @ 16.3 Gbps	Temperature support:
48 LVDS/96 SE from HP BANK & 46 SE from	-40°C to +85°C (Industrial grade operation)
HD Banks	Form Factor: 95mm x 75mm





Zyng 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 SGMII.

Note 2: Pt. GITH Transceiver supports data rates up to 16.36b/s
Note 3: Ct. Getwices supports Dual ARM Cortex-453 & Dual ARM Cortex-R5 & Mali-400MP2 GPU. EV 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

Zyng Ultrascale+ Module **Board Support Package** User Manual

OPTIONAL KITS/Modules

Zyng 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.



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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

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