**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
- 24 LVDS Pairs/ 48 SE IOs, 48 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
  - 2GB DDR4 for PL
  - 8GB eMMC Flash (Expandable)

**On SOM features:**
  - 1G/1G/1G 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
      - 24 LVDS/48 SE from HP BANK & 48 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 2 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

OS SUPPORT
- Linux

OPTIONAL KITS/Modules
- Zynq Ultrascale+ Development Kit
- Heat Sink

DELIVERABLES

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

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

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

*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.