Xilinx Zynq UltraScale+ MPSoC based System On Module features the Zynq UltraScale+ MPSoC EG ZU11/ZU17/ZU19 devices with C1760 package. MPSoC supports Quad Cortex A53 up to 1.5GHz with programmable LEs up to 1 million. SOM supports high speed connectivity peripherals such as PCIe, USB3.0, SATA3.1, Display port, Gigabit Ethernet through GTR high speed transceivers from MPSoC. Furthermore, it supports 32 GTH high speed transceivers supports up to 16.375 and 16 GTY high speed Transceivers which can up to 32.725 Gbps to run demanding applications.


**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>SoC:</th>
<th>Xilinx Zynq UltraScale+ MPSoC EG ZU19/ZU17/ZU11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quad Cortex A53 @ 1.5GHz</td>
<td></td>
</tr>
<tr>
<td>Dual Cortex R5, ARM Mali 400 MP2</td>
<td></td>
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<tr>
<td>Memory:</td>
<td>4GB DDR4 for PS with ECC</td>
</tr>
<tr>
<td></td>
<td>4GB DDR4 (64 Bit) for PL from BANK 64,65,66</td>
</tr>
<tr>
<td></td>
<td>4GB DDR4 (64 Bit) for PL from BANK 69,70,71</td>
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<tr>
<td></td>
<td>8GB eMMC Flash (Expandable)</td>
</tr>
<tr>
<td>On SOM Features:</td>
<td>10/100/1000 Ethernet PHY for PS</td>
</tr>
<tr>
<td></td>
<td>USB2.0 OTG Transceiver for PS</td>
</tr>
<tr>
<td></td>
<td>MAX10 FPGA for PL</td>
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<tr>
<td></td>
<td>JTAG Header</td>
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<tr>
<td></td>
<td>FAN Header</td>
</tr>
<tr>
<td>Zynq UltraScale+ MPSoC PL Interfaces:</td>
<td>PL GTY Transceivers x 16 @ 32.7Gbps</td>
</tr>
<tr>
<td></td>
<td>PL GTY Transceivers x 32 @ 16.3Gbps</td>
</tr>
<tr>
<td>Zynq Ultrascale+ MPSoC PS Interfaces:</td>
<td>Gigabit Ethernet x 1 Port</td>
</tr>
<tr>
<td></td>
<td>USB 2.0 OTG x 1 Port</td>
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<tr>
<td></td>
<td>SPI x 1 Port</td>
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<tr>
<td></td>
<td>CAN x 2 Ports</td>
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<tr>
<td></td>
<td>I2C x 2 Ports</td>
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<tr>
<td></td>
<td>SD x 1 Port</td>
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<td></td>
<td>Debug UART</td>
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<tr>
<td></td>
<td>UART x 1 Port</td>
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<tr>
<td></td>
<td>JTAG</td>
</tr>
<tr>
<td></td>
<td>GEM 3 or USB1 2.0 x 1 Port</td>
</tr>
<tr>
<td></td>
<td>PS Transceivers x 4 @ 6Gbps</td>
</tr>
<tr>
<td>OS Support:</td>
<td>Linux</td>
</tr>
<tr>
<td>Power Supply:</td>
<td>5V through Board to Board Connector 2</td>
</tr>
<tr>
<td>Temperature:</td>
<td>-40°C to +85°C (Industrial Grade)</td>
</tr>
<tr>
<td>Form Factor:</td>
<td>110mm x 75mm</td>
</tr>
</tbody>
</table>

**iW-Rainbow-G35M HIGHLIGHTS**

- Quad Cortex A53 @ 1.5GHz
- Dual Cortex R5, ARM Mali 400 Mp2
- 16 Channels GTY Transceivers up to 32.75Gbps
- 32 Channels GTH Transceivers up to 16.3Gbps
- 4 Channels GTR Transceivers up to 6Gbps
- Industrial grade availability
- 10+ Years availability
**OS SUPPORT**
Linux 4.14.0

**DELRIVERABLES**
Zynq Ultrascale+ MPSoC 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

Zynq Ultrascale+
ZU11EG/ZU17EG/ZU19EG

Programmable Logic (PL)

- **BSP Development/OS Porting**
- **Custom SOM/CARRIER Development**
- **Custom Application/GUI Development**
- **Design Review and Support**

**Notes:**
1. PS GTR Transceiver supports data rates up to 66Gbps and can be configured as PCIe/SATA/USB3.0/DisplayPort/Ethernet SGMII.
2. PL GTH Transceiver supports data rates up to 16.3Gbps.
3. PL GTY Transceiver supports data rates up to 32.75Gbps.
4. SYSMON4 supports 104 200KSPS ADC and supports up to 17 Analog Inputs (One dedicated Analog input and 16 auxiliary analog input from any PL BANKs)
5. The MAX10 JTAG Signals and the PS JTAG Signals are connected to JTAG Connector in JTAG Chain mode.

*Optional items not included in the standard deliverables.

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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:

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.

- **Board to Board Connector1 (240Pin)**
- **Board to Board Connector2 (80Pin)**
- **Board to Board connector3 (240Pin)**

**ZU19/17/11 Zynq Ultrascale+ MPSoC SOM Block Diagram**

**OS SUPPORT**
Linux 4.14.0

**DELRIVERABLES**
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Board Support Package
User Manual

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