iWave
Embedding Intelligence

System On Module iW-RainboW-G35M

ZU19/17/11 Zynq UltraScale+ MPSoC SOM



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.

APPLICATIONS: Video Surveillance, Cloud Computing, Artificial Intelligence/ Machine Learning, 5G Wireless, High Precision Test Instrument.

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

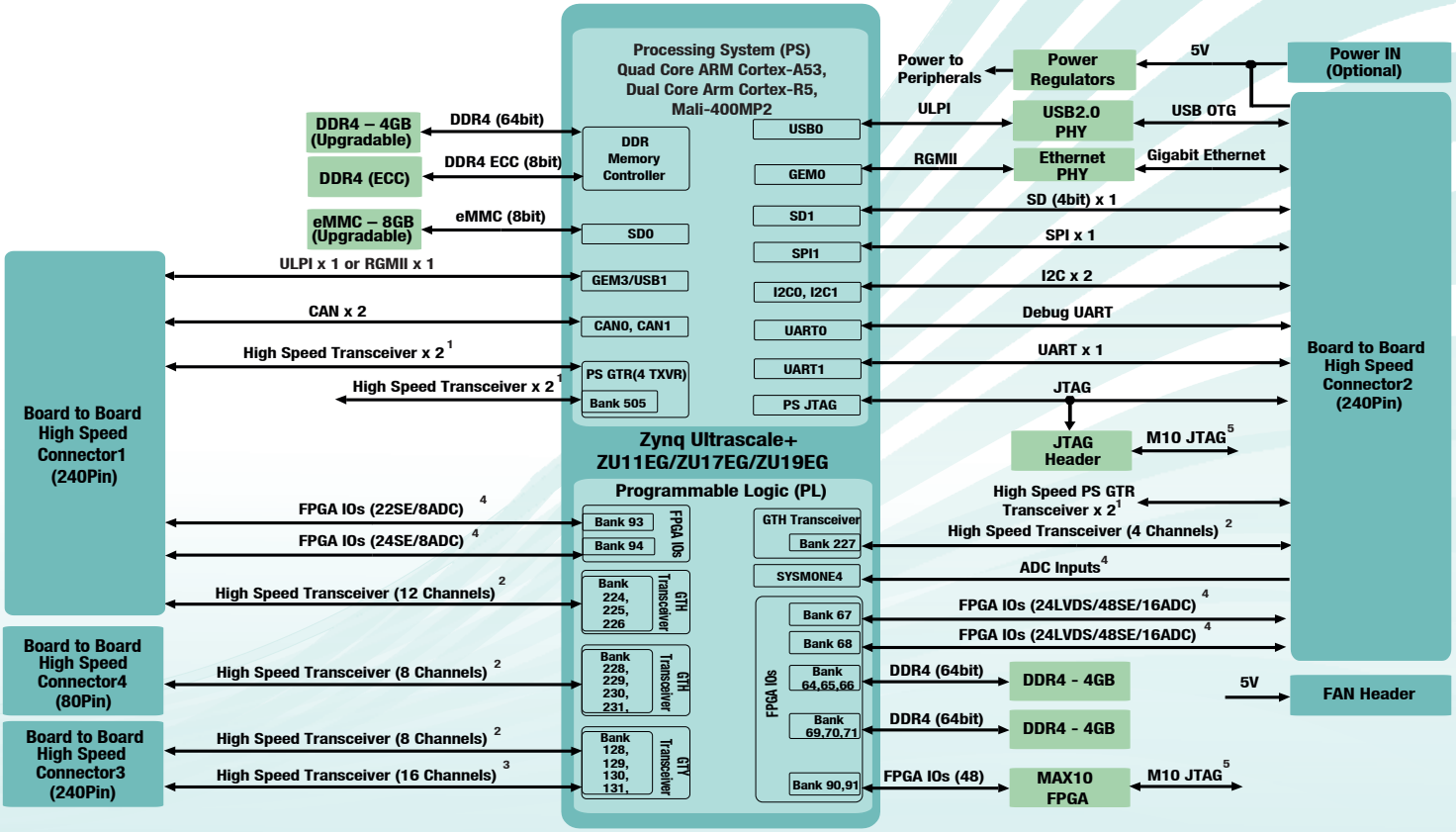
SPECIFICATIONS

SoC:
Xilinx Zynq US+ EG ZU19/ZU17/ZU11
Quad Cortex A53@1.5GHz
Dual Cortex R5 MPCore upto 600MHz
ARM Mali 400MP2
Memory:
4GB DDR4 for PS with ECC
4GB DDR4 (64 Bit) for PL from BANK 64,65,66
4GB DDR4 (64 Bit) for PL from BANK 69,70,71
8GB eMMC Flash (Expandable)
On SOM Features:
10/100/1000 Ethernet PHY for PS
USB2.0 OTG Transceiver for PS
MAX10 FPGA for PL
JTAG Header
FAN Header
Dual Board to Board Connector Interfaces:
Zynq Ultrascale+ MPSoC PL Interfaces:
PL GTY Transceivers x 16 @ 32.7Gbps
PL GTY Transceivers x 32 @16.3Gbps
48 LVDS/96 SE/32 ADC from HP BANKs
46 SE/16 ADC 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 x 4 @ 6Gbps
OS Support: Linux
Power Supply:
5V through Board to Board Connector 2
Temperature: -40°C to +85°C (Industrial Grade)
Form Factor: 110mm x 75mm

iWave
Embedding Intelligence

XILINX
ALLIANCE PROGRAM
CERTIFIED MEMBER — BASE

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



Notes:
[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] PI GTY Transceiver supports data rates up to 32.75Gb/s.
[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)
[5] The MAX10 JTAG Signals and the PS JTAG Signals are connected to JTAG Connector in JTAG Chain mode.

OS SUPPORT
Linux 4.14.0

DELIVERABLES
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

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.

ZU19/17/11 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-G35M-BR-R1.0

iWave Systems Tech. Pvt. Ltd.,
7/B, 29thMain, BTM Layout 2 nd Stage,
Bangalore-560076, India.
Ph:+91-80-26683700, 26786245
Email: mktg@iwavesystems.com
www.iwavesystems.com

iWave Japan, Inc.
8F-B, Kannai Sumiyoshi Building,
3-29, Sumiyoshi-cho, Naka-ku,
Yokohama, Kanagawa, Japan.
Ph: +81-45-227-7626
Email: info@iwavejapan.co.jp
www.iwavejapan.co.jp

iWave Europe
Postbus 6197
3130 DD Vlaardingen
The Netherlands
Ph: +31 10 28403383
Email: info@iwavesystems.eu