

Development Platform iW-RainboW G35D

Zynq Ultrascale+ MPSoC Development kit



iWave's Zynq Ultrascale+ SoC Development kit comprises of Xilinx's Ultrascale+ MPSoC SOM and Ultra-High-Performance carrier card. The SOM is equipped with 64-bit 4GB DDR4 RAM with ECC for PS & 64-bit 4GB Dual DDR4 RAM for PL. The Zynq Ultrascale+ MPSoC development kit carrier board supports required set of features like FMC+ (HPC), FMC (HPC), FireFly, QSFP, SFP+, 12-Pin Pmod, and HDMI- IN/OUT connectors to validate Zynq Ultrascale+ MPSoC high-speed PL interfaces and PCIe x4, SATA, USB-Type-C, Display Port, Gigabit Ethernet and SDI Video IN/OUT on-board connectors to validate the Zynq Ultrascale+ MPSoC high-speed PS interfaces.

Applications: Artificial intelligence, Broadcast audio/video, HPC, Deseggregated computing, 5G wireless, 100G connectivity

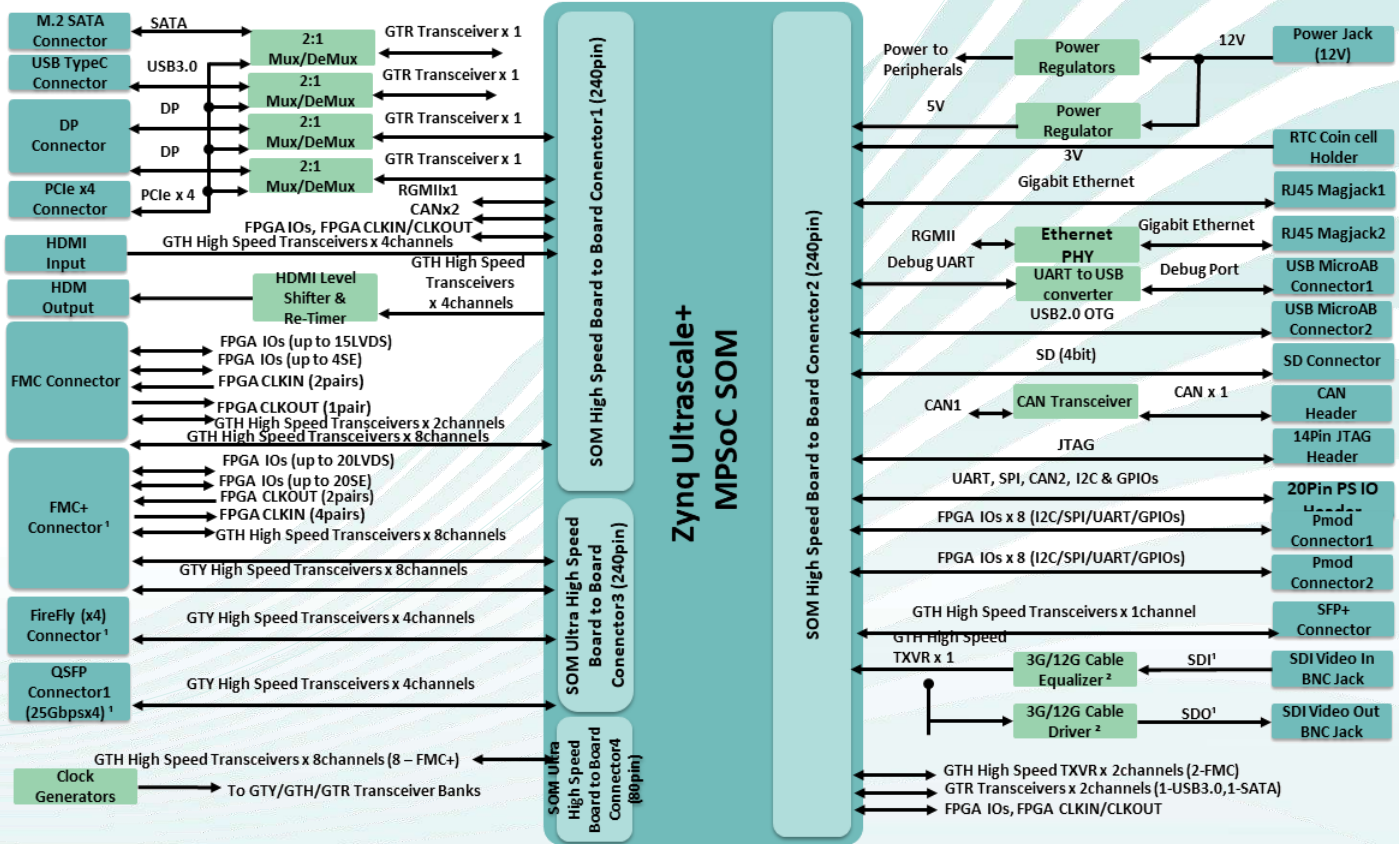
iW-RainboW G35D HIGHLIGHTS

- Zynq Ultrascale+ MPSoC with 1143K Logic Cells
- PS -GTR Transceivers x 4 @ 6Gbps
- PL -GTH Transceivers x 32 @ 16.3Gbps
- PL -GTY Transceivers x 16 @ 32.735Gbps
- FireFly Connector
- FMC+ HPC Connector
- FMC HPC Connector
- QSFP & SFP+ Connector
- Dual 12 -Bit Pmod Connectors
- HDMI - IN/OUT
- SDI Video IN/OUT
- Dual 1G Ethernet

SPECIFICATIONS

Zynq Ultrascale+ MPSoC SOM:	GPIOHeaderx1
Zynq Ultrascale+(ZCU19EG)MPSOC(-1speed)@1200MHz	RTCHeaderx1
PMICwith RTC	JTAGConnectorx1
8GB eMMC Flash (for bootcode)	PL- Interface
4GB DDR4 RAM for PS	PmodConnectorx2
4GB Dual DDR4 RAM for PL	SFP+ Connectorx1
PS-GTR Transceivers x4 @ 6Gbps	QSFP+ Connectorx1
PL-GTH Transceivers x32 @ 16.3Gbps	SDI Video IN Connectorx1
PL-GTY Transceivers x16 @ 32.735Gbps	SDI Video OUT Connectorx1
Gigabit Ethernet PHY	HDMI IN Connectorx1
USB2.0 Transceiver	HDMI OUT Connectorx1
Ultra-High-Performance Carrier Board:	FMC+ Connectorx1
PS- Interface	FMC Connectorx1
10/100/1000 Ethernetx2	FireFly Connectorx1
CAN Headerx1	Power Supply
Debug Consolex1	4-Pin DIN Power Connector(12V)x1
SD Connectorx1	Switches
USB2.0 OTG Connectorx1	Reset Buttonx1
M.2 SATA Connectorx1	Power ON/OFF Switchx1
DP Connectorx1	PS-GTR Lane Selection Switch x1
USB-Type-C Connectorx1	Operating System
PCIe4 Connectorx1	Linux

ZU19/17/11 Zynq Ultrascale+ MPSoC Development Kit– BLOCK DIAGRAM



Note:
¹ These interfaces can be used only with ZU11/17/19EG based SOM
² By default, 3G SDI IN/OUT is supported. Optionally, 12G SDI IN/OUT can be supported on request.

OS SUPPORT

Linux 4.41.0

DELIVERABLES

Zynq Ultrascale+ MPSoC Development kit
 Linux 4.14.0 BSP
 12V AC-DC Adapter
 HW/SW user manuals
 Quick Start Guide

Optional KITS/Modules

Pmod Modules

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 innovator in development of highly integrated, high performance, low power and low cost System On Modules and Development Platforms. iWave's expertise brought out multiple SOMs based on ARM, NXP, Intel Atom, Marvell and TI Processors.

iWave Systems 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 windows embedded Silver Partner and winner of the Partner Excellence Award.

*Optional items not included in standard deliverables

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Zynq Ultrascale+ MPSoC Development Kit

The device can be ordered online from the iWave website
<http://www.iwavesystems.com/webforms>