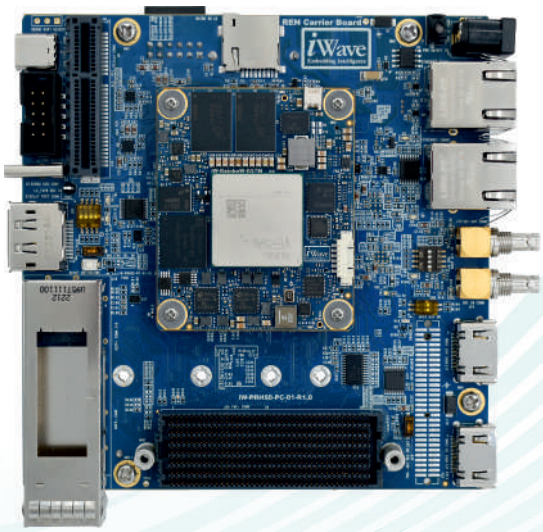
iWave
Embedding Intelligence

## Development Kit iW-RainboW-G57D

# Versal AI Edge/Prime SoC Development Kit



iWave's Versal AI Edge/Prime SoC development kit comprises of the Versal AI Edge/Prime SOM and REN Carrier board. The SOM is equipped with a 64-bit 4GB LPDDR4 RAM.

The Versal AI Edge/Prime SoC development kit carrier board supports a required set of feature like FMC+ (HSPC), HDMI IN/OUT, SDI Video IN/OUT and 12-pin PMOD connector to validate Versal AI Edge/Prime SoC PL interfaces.

**Applications:** Autonomous driving, Wire & Wireless application, Embedded computing, Application requiring AI Engine and AI Engine-ML.

## iW-RainboW-G57D HIGHLIGHTS

Versal AI Edge/Prime SoC with 328.72K Logic Cells

GTYP Transceiversx 8 @ 32 Gbps

FMC+ HSPC Connector

4K HDMI 2.0 IN Connector

4K HDMI 2.0 OUT Connector

12G SDI Video IN connector

12G SDI Video OUT Connector

12-Pin PMOD Connector

Duel 1G Ethernet

## SPECIFICATIONS

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|---|
| **Versal AI Edge/Prime SOM:** |
| Xilinx's Versal AI Edge/Prime SoC |
| Dual- Core Arm Cortex A72 @ 1.7GHz |
| Dual - Core Arm Cortex R5F upto 750MHz |
| Dual PMIC with one RTC support |
| 4GB LPDDR4 RAM |
| 16GB eMMC Flash (Upgradable) |
| 256MB QSPI Flash (Upgradable) |
| GTYP Transceiver x 8 @32Gbps |
| Gigabit Ethernet PHY Transceiver |
| USB2.0 PHY Transceiver |
| FAN Header |
| **REN Carrier Board:** |
| **PS-Interfaces:** |
| 1Gb Ethernet PHY with MagJack Connector x1 |
| 1Gb Ethernet MagJackConnector x1 |
| USB 2.0 Type-C Connector x1 |
| Debug/JTAG USB Type-C Connector x1 |
| Micro SD Connector x1 |
| 60-Pin GPIO Header x1 |
| RTC Holder x1 |

| |
|---|
| **PL-Interfaces:** |
| FMC+ HSPC Connector x1 |
| HDMI IN Connector x1 |
| HDMI OUT Conncetor x1 |
| SDI Video IN Connector x1 |
| SDI Video OUT Conncector x1 |
| 12-Pin PMOD Connector x1 |
| **Power Supply** |
| 12V Power Connector x1 |
| **Switches** |
| Reset Button x1 |
| Power ON/OFF Switch x1 |
| Boot Mode Selection Switch x1 |
| **Operating System** |
| Linux |
| **Form Factor** |
| 120mm x 120mm |
| **Operating Temperature** |
| 0°C to +70°C (Commercial Grade ) |
| **Compliance:** |
| RoHS Compliant , REACH Compliant & CE* |

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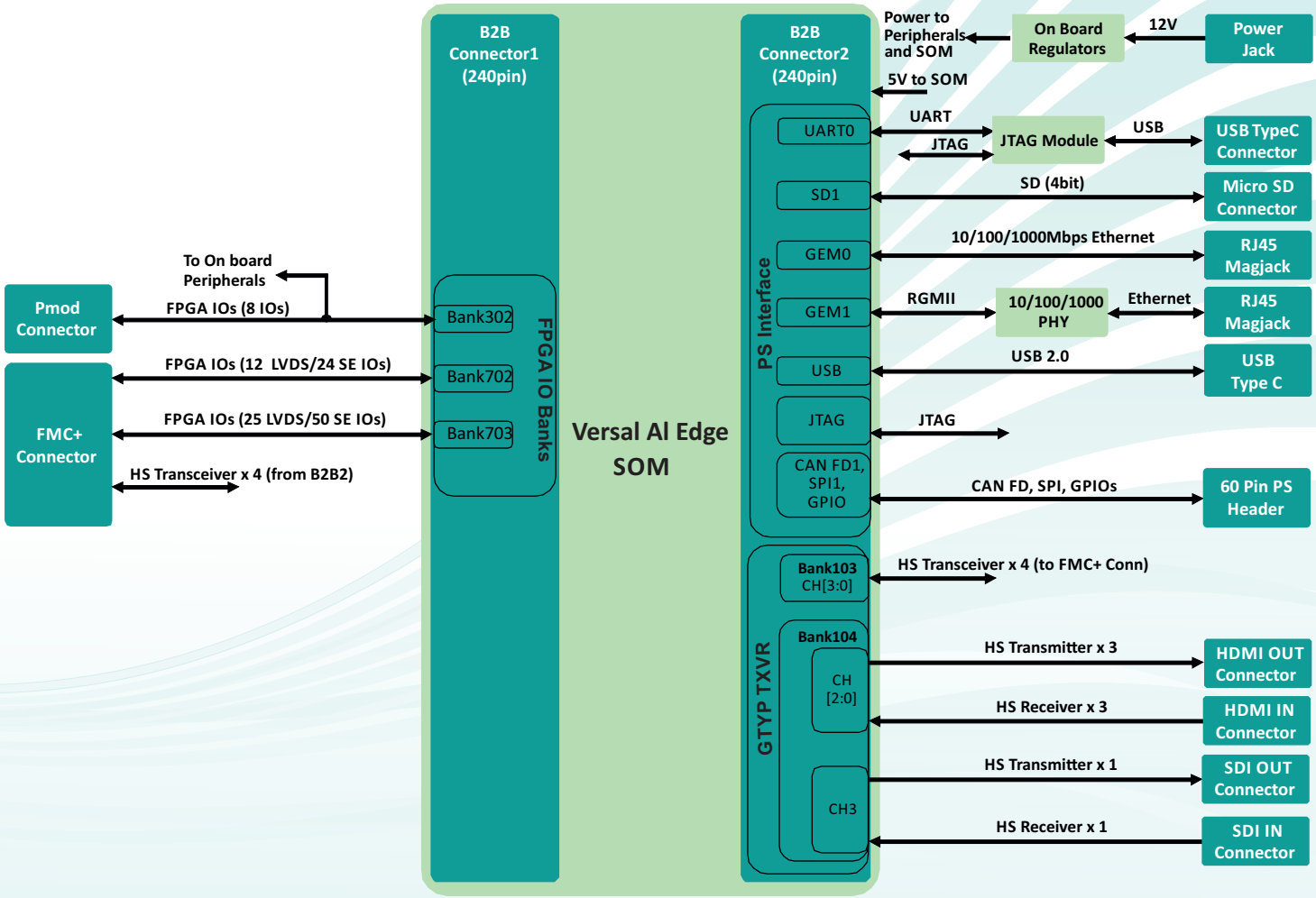
# Versal AI Edge/Prime SoM Development Kit Block Diagram




## OS SUPPORT

Linux version 6.1.5
Xilinx-v2023.1

## DELIVERABLES

Versal AI Edge/Prime Development Kit
Linux 6.1.30 BSP
12V AC-DC Adapter
HW/SW Data Sheets
Quick Start Guide

## OPTIONAL KITS/Modules

## CUSTOM DEVELOPMENT

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

iWave Systems Technologies is an ISO 9001:2015 certified company, head quartered in Bangalore India established in the year 1999. The company focuses on providing embedded solution and services for Industrial, Medical, Automotive and various other Embedded Computing applications. iWave Systems offers wide range of System On Modules and Single Board Computers built using wide range of CPU and FPGA SoC platforms with different form factors such as Qseven, SMARC, SODIMM and HPC by closely working with Tier-1 silicon companies such as NXP, Xilinx, Intel etc.

iWave Systems offers various state of art ready ODM solutions such as Connected Telematic Control Unit / OBD II devices for the automotive edge analytics, Comprehensive ARINC818 solutions for the low latency Aerospace applications and Rugged IP rated performance scalable HMI solutions for Industrial applications.

iWave Systems also provides comprehensive Engineering design services involving Embedded Hardware, FPGA and Software development. iWave offers carrier board and custom hardware development with manufacturing and certification services.iWave's Hardware expertise spans complex board design up to 30 layers; Analog, Digital & RF Designs; FPGA Development up to 3+ million gates and VHDL / Verilog RTL Development & Verification. Our Software expertise ranges from OS Porting, Firmware & Device Drivers Development and Wireless & Protocol

**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.*

## Versal AI Edge/Prime SOM & Development Kit

The device can be ordered online from the iWave Website
https://www.iwavesystems.com/product/versal ai edge or prime-som/
Or from our Local Partners in your region
http://www.iwavesystems.com/about-us/business-partner.html

iW-G57D-BR-R1.1

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