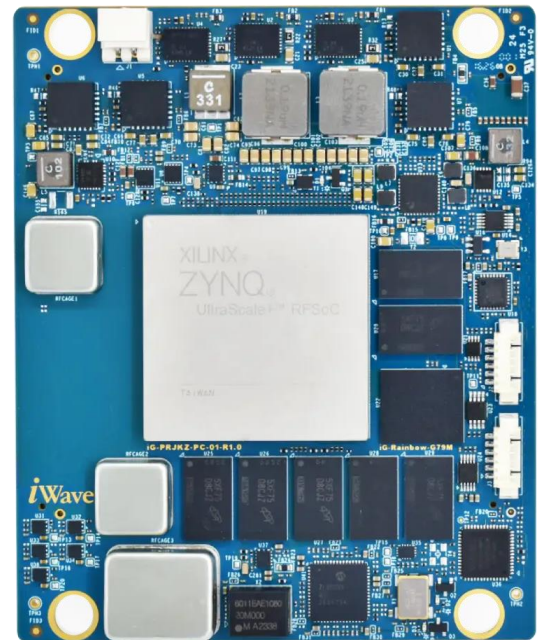


iG-G79M®

ZU67/ZU65/ZU64/ZU63DR RFSoc System on Module

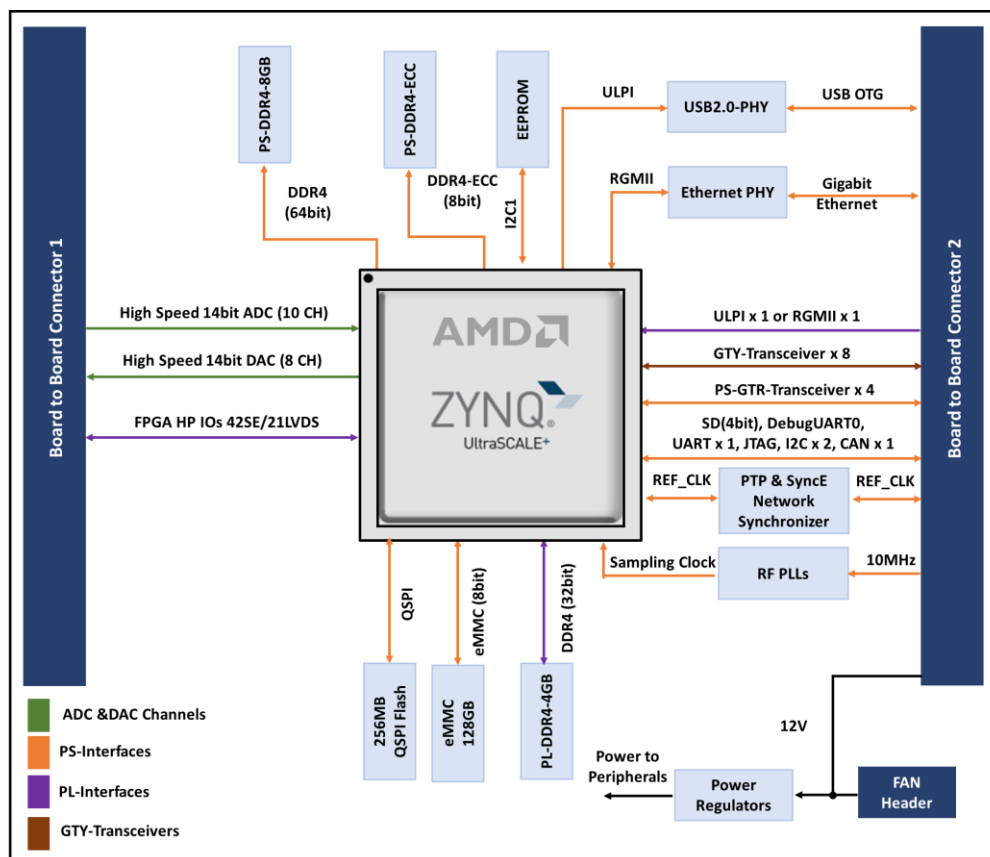
iWave's ZU67/ZU65/ZU64/ZU63DR RFSoc System on Module is a high-performance RF processing platform based on the AMD Zynq™ UltraScale+™ RFSoc DFE family, the SoM combines integrated RF data converters, programmable FPGA logic & Arm® processing in a compact, production-ready module for low-latency, real-time signal processing. The module integrates multi-core Arm Cortex®-A53 and Cortex®-R5 processors, high-speed GTY transceivers, onboard memory & extensive high-speed I/O to simplify RF system design while reducing board complexity & development time. Its scalable architecture enables rapid deployment of high-bandwidth embedded systems, making it an ideal platform for demanding RF & communication applications.



Highlights

- ❖ Zynq™ UltraScale™+ RFSoc family Compatible with ZU67/ZU65/ZU64/ZU63DR devices
- ❖ Up to 489K Logic cells & 223K LUTs
- ❖ ADC: 8 x ADC Channels up to 2.95 GSPS and 2 x ADC Channels up to 5.9 GSPS
- ❖ DAC: 8 x DAC Channels up to 10 GSPS
- ❖ PL GTY High Speed Transceivers x 8 @28.21 Gbps
- ❖ Integrated DFE IP Block

Block Diagram



Technical Specifications

CPU	AMD Zynq US+ RFSoc ZU67/ZU65/ZU64/ZU63DR Processing System (PS) - Quad-core ARM Cortex-A53 MPCore up to 1.3GHz - Dual-core ARM Cortex-R5 MPCore up to 600MHz Programming Logic (PL) - Up to 489K Logic cells & 223K LUTs - PL GTY High Speed Transceivers x 8 @28.21 Gbps
Memory & Storage	64bit, 8GB DDR4 RAM for PS with ECC 32bit, 4GB DDR4 RAM for PL 128GB eMMC Flash 256MB QSPI Flash
Board to Board Connector1 Interfaces (400pin)	- ADC: 8 x ADC Channels up to 2.95 GSPS and 2 x ADC Channels up to 5.9 GSPS - DAC: 8 x DAC Channels up to 10 GSPS - PL IOs: HP Bank IOs – Up to 21 LVDS/42 SE

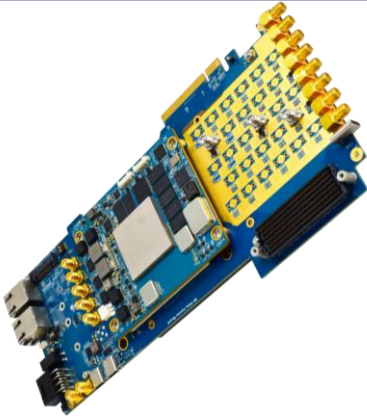
Board to Board Connector2 Interfaces (400pin)	From PL Block 8 x PL-GTY High Speed Transceivers (up to 28.21Gbps) From PS Block - Gigabit Ethernet x 1 Port - USB 2.0 OTG x 1 - SPI/QSPI X 1 Port (Optional) - CAN x 1, I2C x 2, SD x 1, Debug UART x 1, Data UART x 1, PS JTAG - RGMII Interface or ULPI Interface x 1 - PS -GTR High speed Transceivers x 4 (up to 6Gbps) - PS-Control Signals Clock signals 10MHz Clock IN, 1 PPS IN 10 MHz Clock out, 1 PPS Clock Out
Operating System	Yocto Linux BSP with Vivado support
Operating Temp.	-40°C to +85°C (Industrial Grade)
Form Factor	82mm x 100mm (BRYNc)
Power Input	12 V through B2B Connector 2
Environment Spec.	REACH & RoHS3 Compliant

Ordering Information

iG79M-ZU67R2-4E012G-E128G-IAA

ZU67DR -2 RFSoc with 8GB PS DDR4 with ECC, 4GB FPGA DDR4, 128GB eMMC SOM, Industrial grade

Product accessories



Development Kit

The development kit integrates up to 10 ADC and 8 DAC RF channels, PCIe Gen2, FMC+ expansion, external clock synchronization, and onboard UART/JTAG debugging, providing a complete platform for rapid RFSoc application development and evaluation.



Thermal Solutions

Thermal design is a crucial factor for highly integrated System on Modules. iWave offers Heat Spreader and Fan Sink solutions for RFSoc-based SoMs to ensure optimal thermal management.

Applications

5G & Wireless Infrastructure

5G massive-MIMO, sub-6 GHz and mmWave radio transceivers, and multi-mode macrocells.

Test & Measurement

High-bandwidth instrumentation and multi-channel RF prototyping

Aerospace & Defense

Phased-array radars, secure communications, and software-defined radios (SDR)

A Global Leader in Embedded Systems Engineering and Solutions

Since 1999, we have pioneered leadership in embedded systems technology, establishing ourselves as a strategic embedded technology partner for advanced solutions. Our comprehensive portfolio encompasses ARM and FPGA System on Modules, COTS FPGA solutions, and ODM solutions which include Telematics, Gateways & HMI Solutions.

Beyond our robust product ecosystem, we provide comprehensive ODM support with specialized custom design and manufacturing capabilities, enabling customers to accelerate and optimize their product development roadmaps. With a strategic focus on industrial, automotive, medical, and avionics markets, we deliver innovative technology solutions to global clients.

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