

Development Platform iW-RainboW-G21D-Q7 RZ/G1H Q7 Development Kit



iWave's RZ/G1H development board incorporates RZ/G1H Qseven SOM which is based on Renesas' high performance RZ/G1H Quad ARM Cortex A15 MPU and the carrier board with optional 7" capacitive display kit. The development board can be used for quick prototyping of various applications targeted by the RZ/G1H processor. With the 120mm x120 mm Nano ITX size, the kit is highly packed with all the necessary on-board connectors to validate the RZ/G1H MPU features.

APPLICATIONS: High vision network Camera, Video Analytics & security, Real time image recognition, Industrial HMI & Access Control, Industrial automation, Infotainment & Digital signage, Home & office automation, Office equipment & Smart terminals.

iW-RainboW-G21D-Q7

HIGHLIGHTS

Quad Cortex-A15 @ 1.4GHz, Quad Cortex-A7 @ 780MHz

PowerVR G6400 3D Graphic core @ 520MHz

USB3.0, Gigabit Ethernet, PCIe, SATA, LVDS IOs

Simultaneous Full HD Encode & Decode

Four channel Video input

7" display Kit with cap touch screen

SPECIFICATIONS

RZ/G1H Qseven SOM :	
RZ/G1H Quad A15 @ 1.4GHz + Quad A7 @ 780MHz MPU	SD Slot – 1 Port
2GB DDR3 RAM	7" Display with CAP touch
2MB SPI NOR Flash	Audio Codec, In/Out Jack
4GB eMMC Flash	Serial Console on USB port
Gigabit Ethernet PHY	Data UART – 1 Port
10/100 Ethernet PHY	CAN PHY – 1 Port
HDMI transmitter	IO expansion connectors
Qseven Carrier Board :	
SATA – 1 Port ¹	Nano ITX Size: 120mm x 120mm
PCIe – 1 Port ¹	12V, 2A DC Input
Gigabit Ethernet – 1 Port ²	Camera daughter Board ⁴ :
LVDS display – 2 Ports ³	8-Bit Camera – 4 Ports ⁵
HDMI display – 1 Port ³	Optional 16-Bit Camera – 2 Ports ⁵
USB3.0 Host – 1 Port	CAN PHY – 2 nd Port
USB 2.0 Host – 2 Ports	Optional RS232 – 4 Ports
USB 2.0 OTG – 1 Port	Temperature support : 0°C to +60°C
	OS Support :
	Linux 3.10.31

Note1 : SATA and PCIe are multiplexed in the RZ/G1H MPU. Only one can be supported at a time. SATA is supported in the default configuration

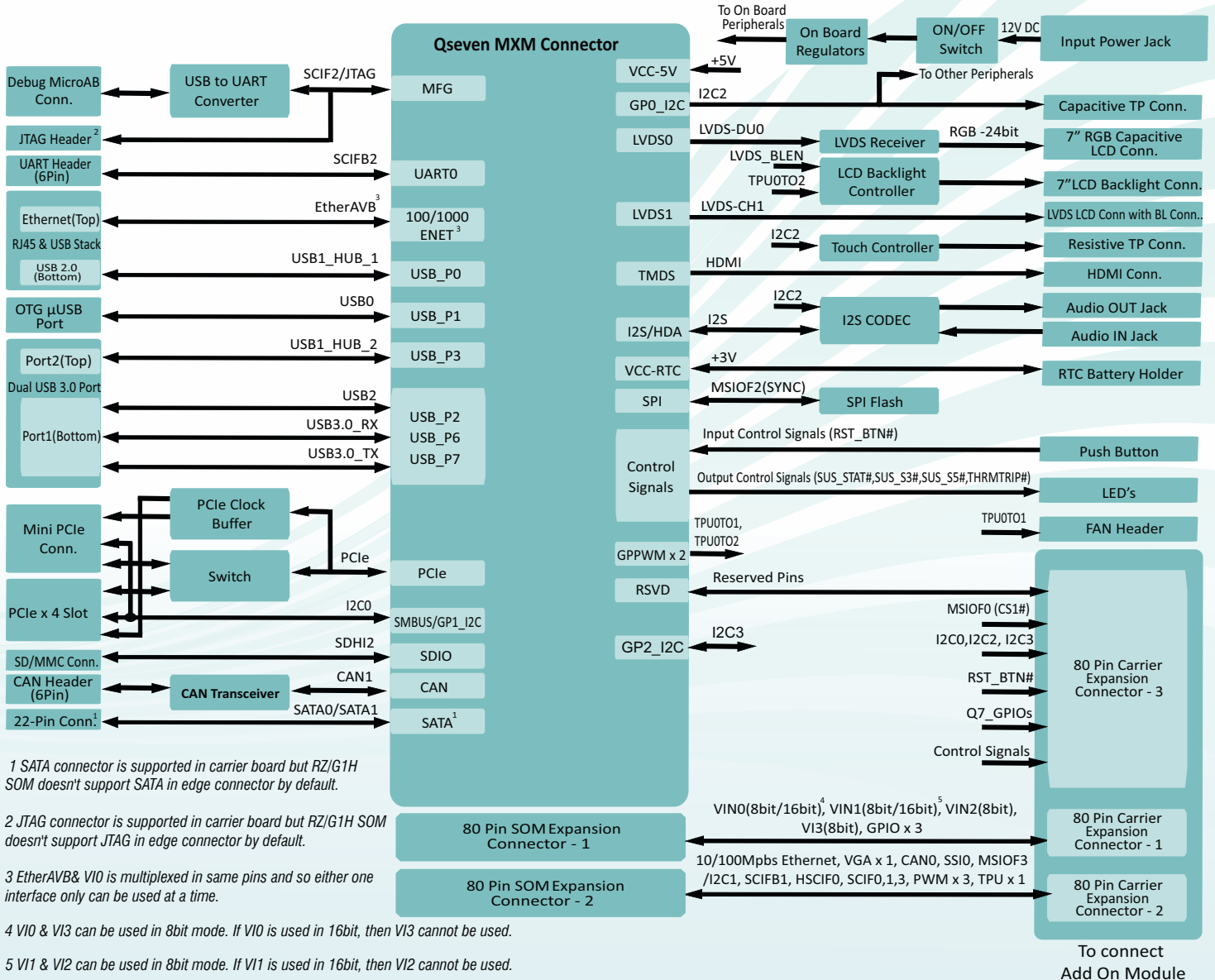
Note2 : EtherAVB& VIO is multiplexed in same pins and so either one interface only can be used at a time.

Note3 : LVDS 2nd port is multiplexed with HDMI. Only one can be supported at a time. HDMI port is supported in the default configuration

Note4 : Camera daughter board is optional feature

Note5 : Dual 16-Bit Camera ports are multiplexed with the 8-bit camera ports. By default, 8-Bit Camera port is supported.

RZ/G1H Development Board - BLOCK DIAGRAM



OS SUPPORT

Linux 3.10.31

DELIVERABLES

RZ/G1H Qseven Development Kit
Board Support Package
Hardware & Software user Manuals

OPTIONAL KITS/Modules

7" LCD Display Kit with Cap touch screen
Camera Daughter Board
Camera 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 an innovator in the development of highly integrated, high performance, low power and low cost System On Modules and Development Platforms. iWave's expertise has brought out multiple SOMs based on ARM NXP, Renesas, Qualcomm, Altera, Intel and TI Processors.

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's continuous effort to meet the best in breed specification. The registered trademarks are proprietary of their respective owners.

Ordering the RZ/G1H Qseven Development Kit

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

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