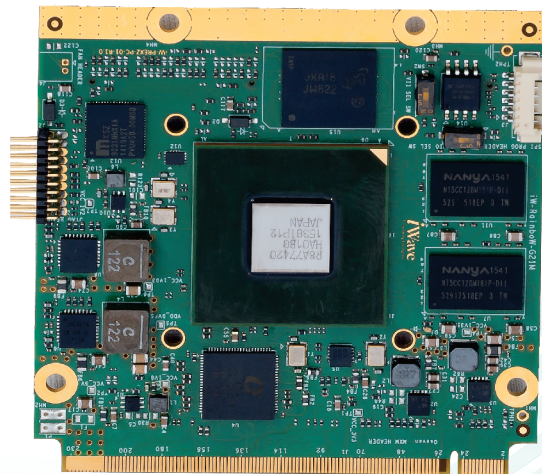


System On Module iW-RainboW-G21M-Q7 RZ/G1H Qseven Module



iWave's RZ/G1H based Qseven CPU module integrates Renesas RZ/G1H Quad core ARM Cortex A15 @1.4GHz & Quad core ARM Cortex A7 @ 780MHz CPU with rich set of features and IO peripherals. It integrates full HD hardware codecs, graphic acceleration, DDR3 RAM, eMMC Flash, Micro SD slot, USB HUB, HDMI transmitter and Gigabit Ethernet PHY. The SOM is ideally suitable for high performance video intensive and graphic rich applications.

APPLICATIONS: Video Surveillance, Digital Signage, Amusement, Vehicle infotainment & Navigation, Real time image recognition, Network & high vision Camera, Gaming console, Industrial control, Point of sale & ATM.

iW-RainboW-G21M-Q7 HIGHLIGHTS

- Quad Core ARM Cortex-A15 @ 1.4GHz
- Quad Core ARM Cortex-A7 @ 780MHz
- Dual channel HD encode & decode
- PowerVR G6400 hardware graphic accelerator
- Up to Four Channel Video input
- USB3.0 support
- Industrial temperature support available

SPECIFICATIONS

MPU :	I2S audio - 1 Port
Renesas RZ/G1H MPU	PWM - 2 Nos
Quad Core ARM Cortex A15 @ 1.4GHz	I2C - 3 Ports
Quad Core ARM Cortex A7 @ 780MHz	SPI - 1 Port
PowerVR G6400 Graphics core @ 520MHz	UART - 1 Port
Memory :	CAN - 1 Port
2GB DDR3 (Expandable ¹)	GPIO - 8 Nos
4GB eMMC Flash (Expandable ¹)	JTAG or UART console
2MB SPI NOR Flash (boot code)	Expansion connector Interfaces :
Communication :	Up to 4 x 8-bit CSI camera or 2 x 16-bit CSI camera
Gigabit Ethernet PHY - 1 Port ²	10/100 Ethernet or RMII - 1 Port
10/100 Ethernet PHY - 1 Port	UART - 2 Ports
2 Port USB HUB	SSI/I2S Audio - 1 Port
Qseven Edge Interfaces :	SPI - 1 Port
PCIe - 1 Port ³	CAN - 1 Port
SATA - 1 Port ³	PWM & GPIOs
USB3.0 host - 1 Port	Power Supply :
USB2.0 host - 3 Ports	5V @ 2.5A through Qseven Edge
USB2.0 device - 1 Port	Temperature Support :
LVDS display - 1 Port ⁴	-40°C to + 85°C Industrial
HDMI display - 1 Port ⁴	OS Support : Linux 3.10.31, QNX 7.0.0*
Gigabit Ethernet - 1 Port	Form Factor : 70mm x 70mm
SDHC - 1 Port	Qseven 2.0 compatible

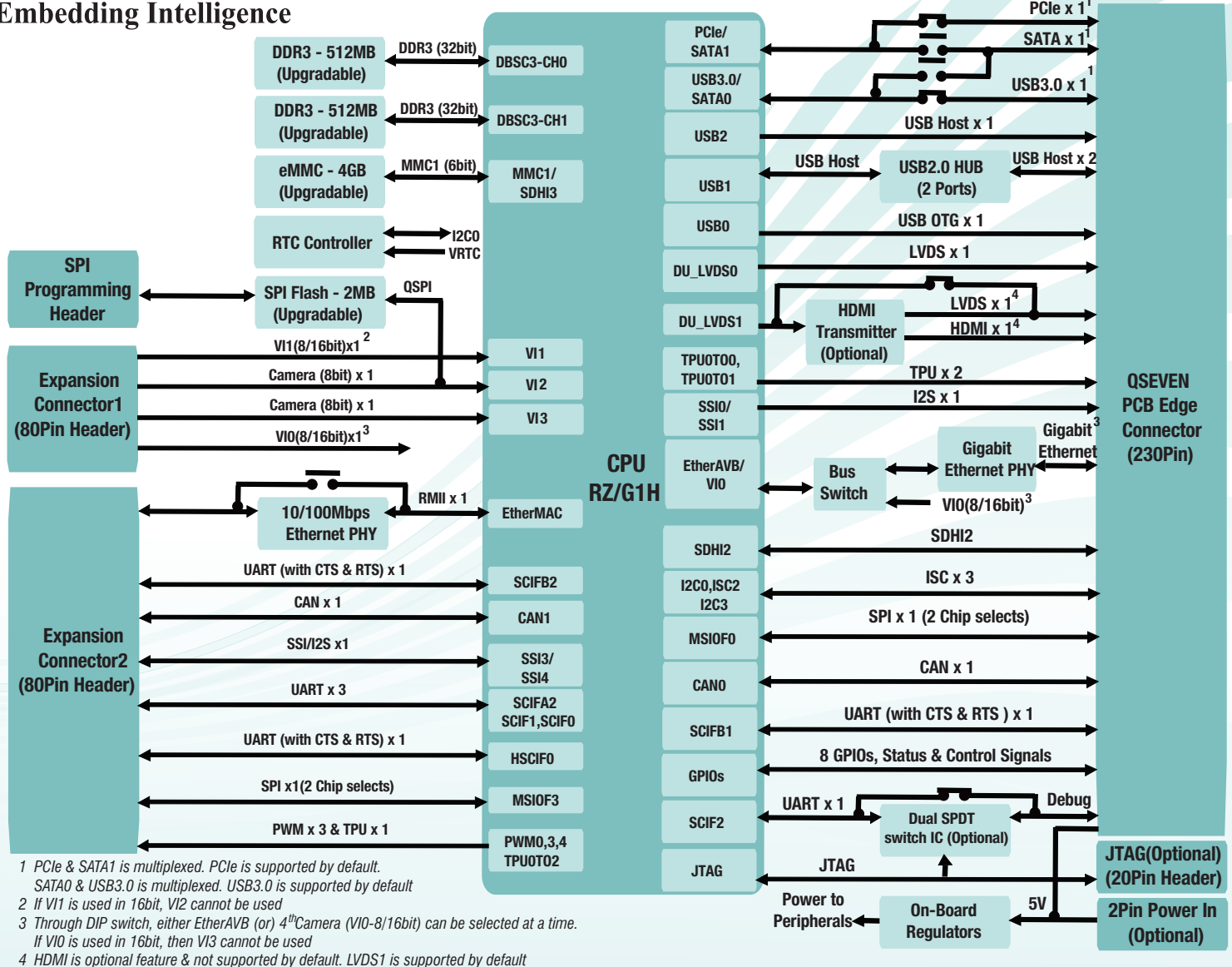
Note1 : By default 2GB DDR3 and 4GB eMMC only supported. Contact iWave systems for memory expansion support.
Note2: Through DIP switch, either EtherAVB (or) 4 Camera(VIO-8/16bit can be selected at a time. if VIO is used in 16bit, then VIO cannot be used.

Note3 : PCIe & SATA is multiplexed on the CPU. At a time anyone can be used. By default PCIe is supported.

Note4: Either LVDS 2nd port or HDMI can be supported by software configuration. By default HDMI is supported.

Note *:Optional features are not supported by default

RZ/G1H Qseven SOM - BLOCK DIAGRAM



OS SUPPORT

Linux 3.10.31,
QNX 7.0.0*

DELIVERABLES

RZ/G1H Qseven Module
Board Support Package
User Manual

OPTIONAL KITS/Modules

RZ/G1H Development kit
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, Intel Atom, Marvell 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 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>

iWave Systems Tech. Pvt. Ltd.,

7/B, 29th Main, BTM Layout 2nd Stage,
Bangalore-560076, India.
Ph: +91-80-26683700, 26786245
Email: mkgt@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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[iWave Global:](#)

[iW-G21M-Q74H-3D002G-E008G-BIK](#) [iW-G21M-Q74H-3D002G-E008G-BIL](#) [iW-G21M-Q74H-3D002G-E008G-BIM](#)