

iWave's RZ/G1E SODIMM development kit incorporates RZ/G1E SODIMM SOM which is based on Renesas power efficient Dual core ARM Cortex A7 CPU cores operating @1GHz speed. The development board can be used for quick prototyping of various applications targeted by the RZ/G1E processor. With the 100mm x 72 mm Pico ITX size, the kit is highly packed with all the necessary on-board connectors to validate the RZ/G1E CPU features.

**APPLICATIONS:** HMI & Access Control, Digital Signage, Industrial Control, IOT gateway, Healthcare devices, Point of sale, Network & high vision camera, Home & Office automation and White goods & appliances.

### iW-RainboW-G22D-SODIMM HIGHLIGHTS

- Dual Core ARM Cortex-A7 @ 1GHz
- Hardware HD encode & decode
- Built in SGX540 3D Graphic acceleration
- 4.3" display kit with resistive touch screen
- Ultra-compact form size 100mm x 72mm

### SPECIFICATIONS

#### RZ/G1E SODIMM SOM:

Renesas's RZ/G1E CPU @ 1GHz  
SGX540 Graphics core @ 260MHz  
512 MB DDR3  
4GB eMMC Flash  
100/1000 Ethernet PHY  
10/100 Ethernet PHY<sup>1</sup>  
Micro SD Slot

#### SODIMM Carrier board:

Gigabit Ethernet - 1 Port  
USB 2.0 host - 2 Ports  
USB2.0 device - 1 Port  
SD Slot - 1 Port  
8-bit CSI Camera - 1 Port<sup>1</sup>  
Audio Codec, In/Out Jack  
RGB display - 1 Port  
Resistive touch controller

Data UART - 1 Port

CAN PHY - 1 Port

Serial console on USB Port

IO expansion headers

JTAG header

#### Power Supply:

5V@2A DC Input

#### Operating Temperature:

0°C to 60°C

#### OS Support:

Linux 3.10.31

**Form Factor:** 100mm x 72mm

#### HDMI Daughter Board:

ADV7511 HDMI Transmitter

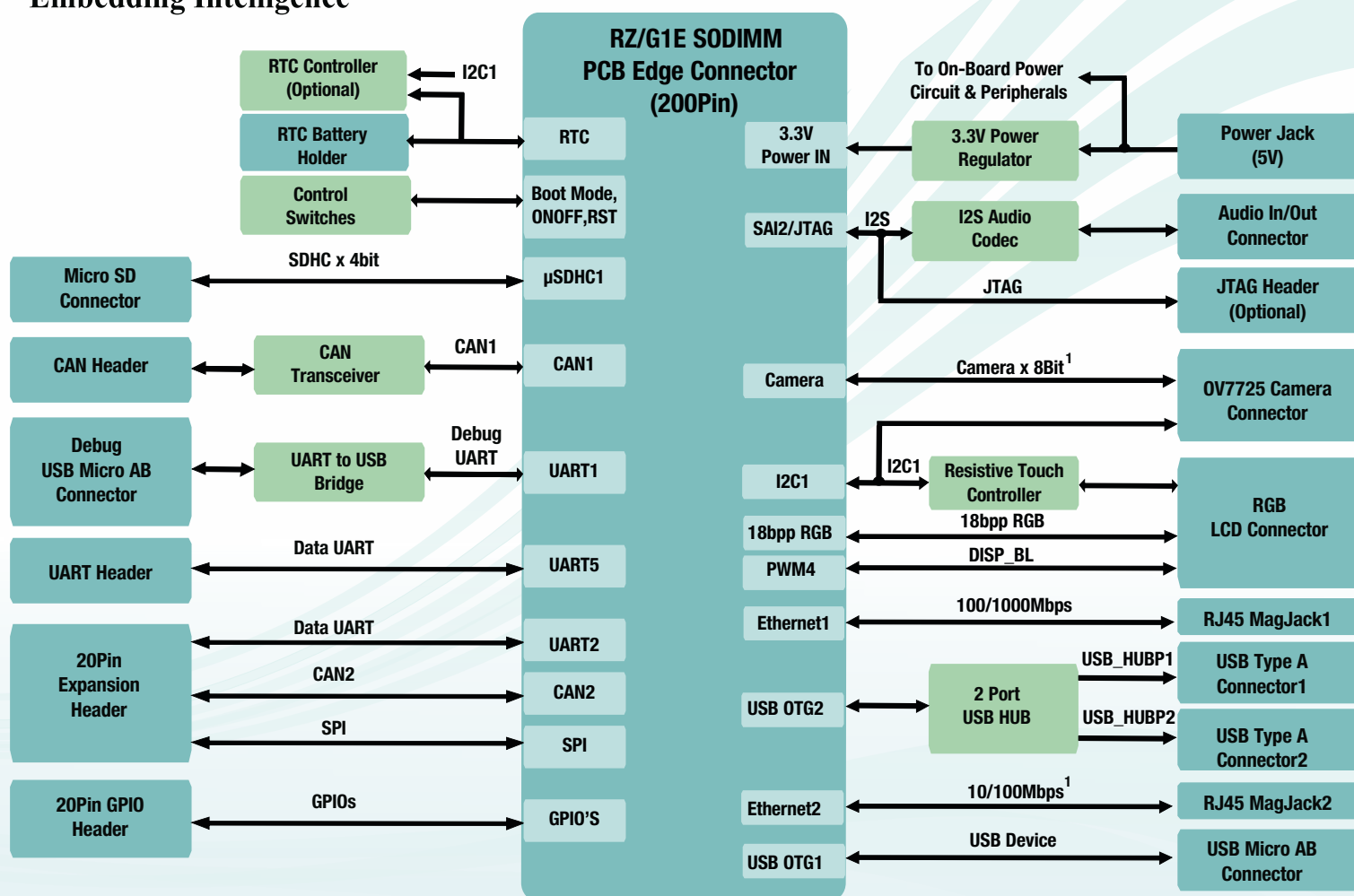
HDMI Output - 1 Port

CAN PHY - 2<sup>nd</sup> Port

RS232 - 3 Ports

Note1: 2<sup>nd</sup> Ethernet and 8-bit camera interface is multiplexed in the RZ/G1E CPU. At a time anyone can be used.  
By default 8-bit camera interface is supported in the development kit.

## RZ/G1E SODIMM Carrier Board - BLOCK DIAGRAM



Note1: 2<sup>nd</sup> Ethernet and 8-bit camera interface is multiplexed in the RZ/G1E CPU. At a time anyone can be used.  
By default 8-bit camera interface is supported in the development kit.

### OS SUPPORT

Linux 3.10.31

### DELIVERABLES

RZ/G1E SODIMM Development kit  
Board Support Package  
User Manual

### OPTIONAL KITS/Modules

4.3" RGB display Kit  
Camera Module  
HDMI Daughter Board

### 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/G1E SODIMM Development Kit

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, 29<sup>th</sup> Main, BTM Layout 2<sup>nd</sup> Stage,  
Bangalore-560076, India.  
Ph:+91-80-26683700, 26786245  
Email: [mktg@iwavesystems.com](mailto:mktg@iwavesystems.com)  
[www.iwavesystems.com](http://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](mailto:info@iwavejapan.co.jp)  
[www.iwavejapan.co.jp](http://www.iwavejapan.co.jp)

# Mouser Electronics

Authorized Distributor

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

[iWave Systems:](#)

[iW-G22D-SM02-3D512M-E008G-LCG](#) [iW-G22D-SM02-3D512M-E008G-LCI](#)