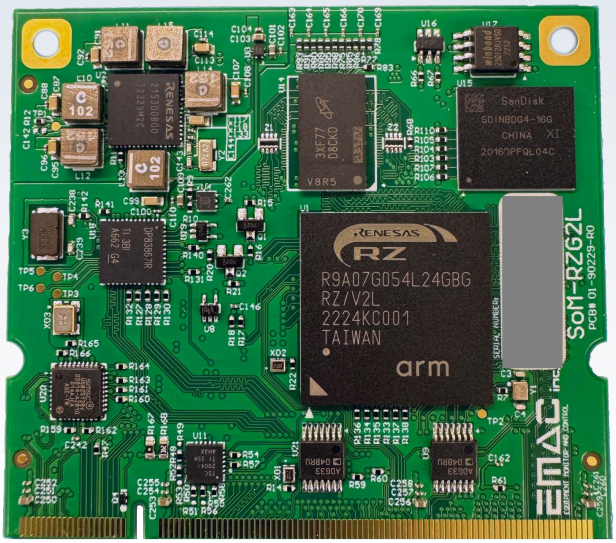
SoM-RZG2L

Embedded System on Module (SoM)



Features

- Renesas ARM Cortex A55 Dual Core & 200 MHz Cortex M33 Processor
- Up to 16 GB of eMMC Flash & 4 GB of DDR4 RAM
- Dual Ethernet, 4 Serial Ports, CAN, A/D, SPI, I2C, I2S
- 2x High Speed USB Ports & 1x USB OTG Port
- LCD with Resistive Touch Interfaces
- 3D GPU with H.264 Encoder/Decoder
- 4 Lane MIPI CSI & 4 Lane DSI

Specifications

Processor	Renesas RZ/G2L 64-bit ARM Cortex A55, 1.2 GHz, Single or Dual Core & 200 MHz Cortex M33 Processor
Memory	8 GB or 16 GB of eMMC Flash
	32MB of Serial Data Flash
	2 GB or 4 GB of DDR4 RAM
I/O	4 Serial ports (1 with full handshake, 3 with RTS/CTS handshake)
	2 USB 2.0 High Speed Host ports & 1 USB 2.0 High Speed Host/Device port (OTG)
	1 external SDIO port
	2 SPI Ports
	2 I2C Ports
	2 CAN Ports
	1 Synchronous Serial I/O (I2S) Audio Port
	16 GPIO (3.3V) Lines
	2 PWM Channels & 1 for LCD Backlight
	2 Timer/Counters
	2 Programmable Clock outputs
	1x 10/100/1000 BaseT Ethernet Port with Real Time PHY
	1x 10/100/1000 BaseT Ethernet MAC (requires external PHY on Carrier)
Camera	4 Lane MIPI CSI
Analog	4 channels of 12-bit A/D (0 to 1.8V)
Video	24-bit Parallel RGB LCD Controller with 3D GPU and H.264 Encoder/Decoder
	4 Lane MIPI DSI
Touch	4-wire Resistive Touch Controller
Dimensions	Small Standard 200 pin SODIMM form factor (2.66" x 2.375")
Power Req.	+3.3 volt board input voltage
Environment	Operating Temperature Range: Up to -40 to +85C

Last Updated: 5-26-25 / Product specifications are subject to change without notice.

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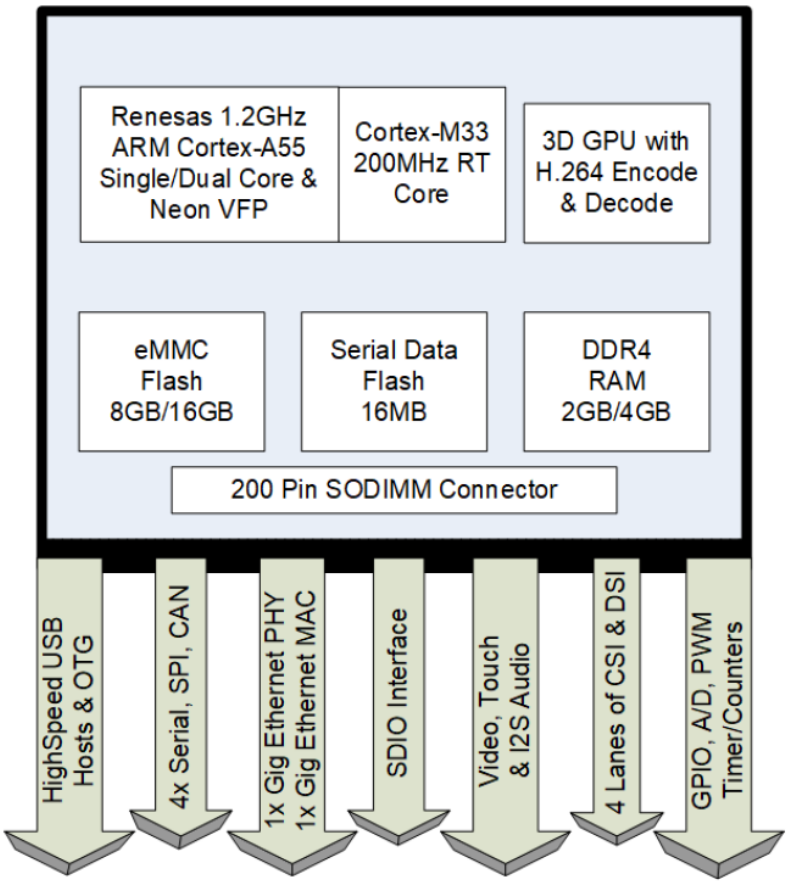

Ordering Information

Product #	CPU	Memory	Serial	GPIO	USB	Video	LAN	MIPI	Temperature
SOM-RZG2L-103	Renesas RZ/G2L	RAM 2GB DDR4 Flash: 8GB eMMC	4x	16x	2x USB2 Host 1x USB2 OTG	24 bit LCD TTL Parallel	2x	CSI 4 Lanes DSI 4 Lanes	-40 to 85°C
SOM-RZG2L-113	Renesas RZ/G2L	RAM 4GB DDR4 Flash: 8GB eMMC	4x	16x	2x USB2 Host 1x USB2 OTG	24 bit LCD TTL Parallel	2x	CSI 4 Lanes DSI 4 Lanes	0 to 85°C
SOM-RZV2L-113	Renesas RZ/V2L (AI)	RAM 4GB DDR4 Flash: 8GB eMMC	4x	16x	2x USB2 Host 1x USB2 OTG	24 bit LCD TTL Parallel	2x	CSI 4 Lanes DSI 4 Lanes	0 to 85°C

Carrier Board Options

PRODUCT #	DESCRIPTION
SOM-255GS-000	Standard Carrier with Dual Ethernet, Audio, Wi-Fi/Bluetooth & 7" LCD
SOM-255GS-001	Deluxe Carrier with Dual Ethernet, Audio, Wi-Fi/Bluetooth & 10" LCD
SOM-255GS-007	Carrier with Dual Ethernet, Audio, Wi-Fi/Bluetooth & No LCD