

# System On Module iW-RainboW-G18M-SM i.MX6UL SODIMM Module



iWave's i.MX6UL based SODIMM CPU module integrates power efficient high performance ARM Cortex A7 CPU core operating up to 528MHz speed. The SOM is ultra-compact in size and integrated with on-board PMIC, Flash, DDR3 and dual Ethernet PHY. The SOM is ideally suitable for the cost & power optimized general embedded and industrial applications.

**APPLICATIONS:** Industrial HMI, Access Control, Mobile POS, Secure e-commerce, Energy Management, IOT gateway, Industrial control & automation, Medical & Healthcare equipment, White goods and Smart appliances

## iW-RainboW-G18M-SM HIGHLIGHTS

Power efficient Cortex-A7 @ 528MHz

Compatible with Cortex A9 i.MX6Q/D/S SODIMM SOM

Ultra Compact form factor 67.6mm X 29mm

Advanced hardware enabled security

PMIC with DVFS support

Industrial temperature support available

Technical and quick customization support

10+ years, long term support

CE, FCC Certified

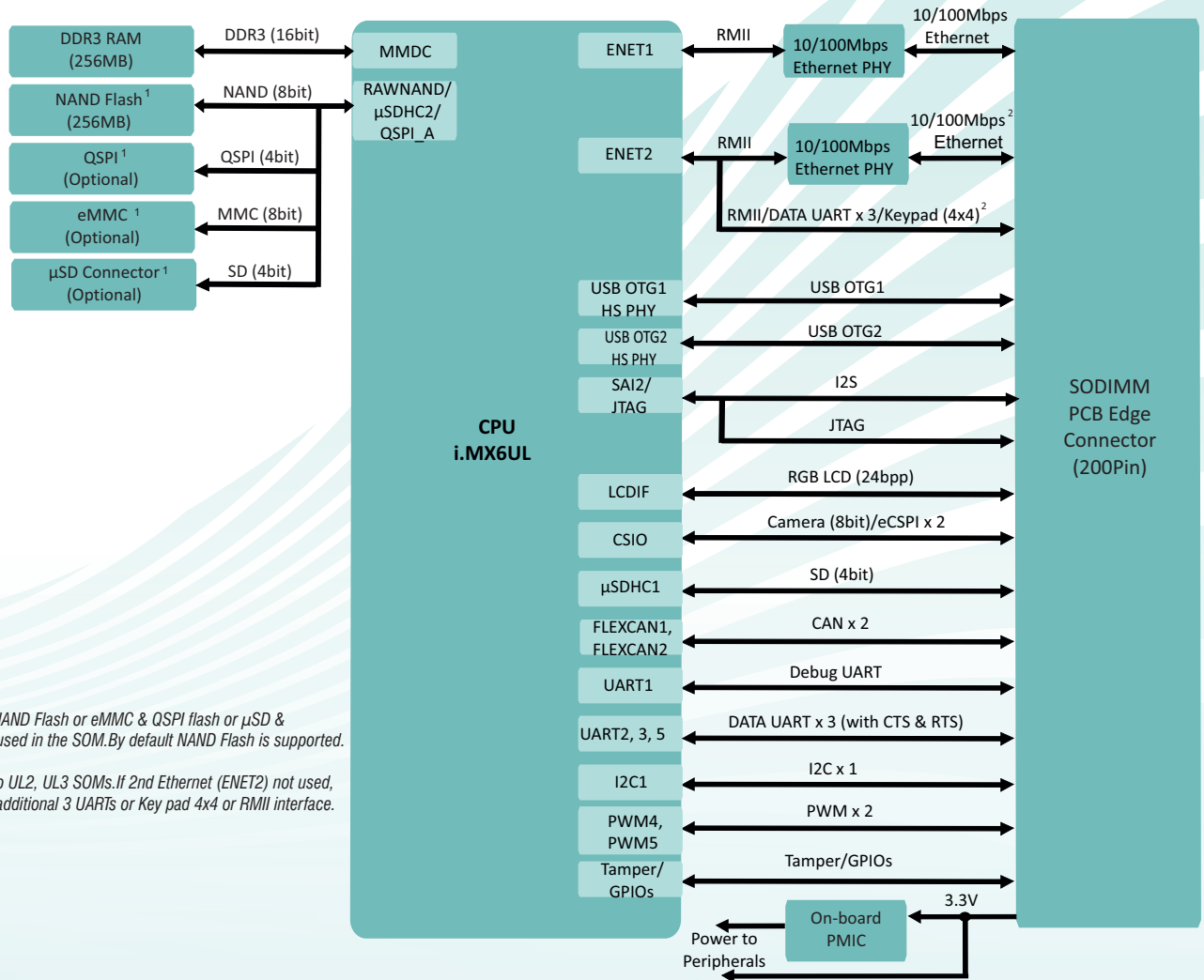
## SPECIFICATIONS

<b>CPU:</b>	<b>SODIMM Edge Interfaces:</b>
i.MX6UL1/2/3 @ 528MHz	Debug UART
ARM Cortex A7 Core	Data UART - 2 Ports
<b>PMIC:</b>	CAN - 2 Ports
PF3001	SD(4-Bit) - 1 Port
<b>RAM:</b>	10/100 Ethernet - Up to 2 Ports <sup>2</sup>
256MB DDR3 (Expandable)	USB OTG - 2 Ports
256MB NAND Flash (Expandable)	24bpp RGB display port
Micro SD Slot (Optional) <sup>1</sup>	8Bit Parallel Camera Port
eMMC Flash (Optional)	I2S Audio or JTAG
QSPI Flash (Optional) <sup>1</sup>	I2C Port
<b>Power Input:</b>	PWM - 2 Ports
3.3V @ 1A through SODIMM Edge	GPIOs
<b>Operating Temperature:</b>	Boot mode signals
0°C to +70°C Commercial	<b>Operating System:</b>
-40°C to +85°C Industrial	Linux 4.1.15
<b>Form Factor:</b> 67.6mm x 29mm	

Note1: At a time either NAND Flash or eMMC & QSPI flash or  $\mu$ SD & QSPI flash can be used in the SOM. By default NAND Flash is supported.

Note2: Applicable only to UL2, UL3 SOMs. If 2nd Ethernet (ENET2) not used, it can be used as additional 3 UARTs or Key pad 4x4 or RMII interface.

## i.MX6UL SODIMM Module BLOCK DIAGRAM



1 At a time either NAND Flash or eMMC & QSPI flash or μSD & QSPI flash can be used in the SOM. By default NAND Flash is supported.

2 Applicable only to UL2, UL3 SOMs. If 2nd Ethernet (ENET2) not used, it can be used as additional 3 UARTs or Key pad 4x4 or RMII interface.

### OS SUPPORT

Linux 4.1.15

### DELIVERABLES

i.MX6UL SODIMM Module  
Board Support Packages  
User Manual

### OPTIONAL KITS

i.MX6UL Development Kit  
4.3" LCD Display Kit  
Camera Module

### 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, Altera, Qaulcomm, Intel and TI Processors.

iWave Systems 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.

*Note: iWave reserves the right to change these specifications without notice as part of iWave's continuous effort to meet the best of breed specification. The registered trademarks are proprietary of their respective owners.*

\*Optional items not included in the standard deliverables

### Ordering the i.MX6UL SODIMM SOM

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

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