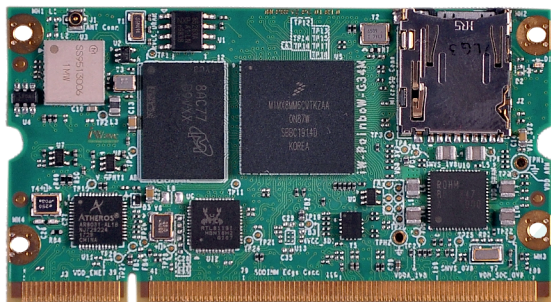


System On Module iW-RainboW-G37M

i.MX8M Nano Q/QL/D/DL/S/SL SODIMM Module



The i.MX8M Nano Q/QL/D/DL/S/SL SODIMM System On Module featuring the NXP i.MX8M, will be the new addition to iWave's i.MX8M SOM portfolio. The i.MX8M Nano SODIMM System On Module integrates that Quad Cortex A53 @ upto 1.5 GHz. MIPI-DSI display, MIPI-CSI camera and USB2.0 interface with on SOM 10/100/1000 Mbps Ethernet PHY and 802.11a/b/g/n/ac Wi-Fi & BLE5.0 module. The i.MX8M Nano SODIMM System On Module is aimed to offer applications such as Digital Signage, Industrial HMI, Home Automation, Audio/Video Streaming devices and optimized low power Embedded applications.

iW-RainboW-G37M HIGHLIGHTS

Cortex-A53 @ up to 1.5 GHz

Cortex-M7 @ 750 MHz

Heterogeneous Multicore Processing Architecture

GC7000UL with OpenCL and Vulkan support 3D GPU

Wi-Fi 802.11a/b/g/n/ac + BLE v5.0

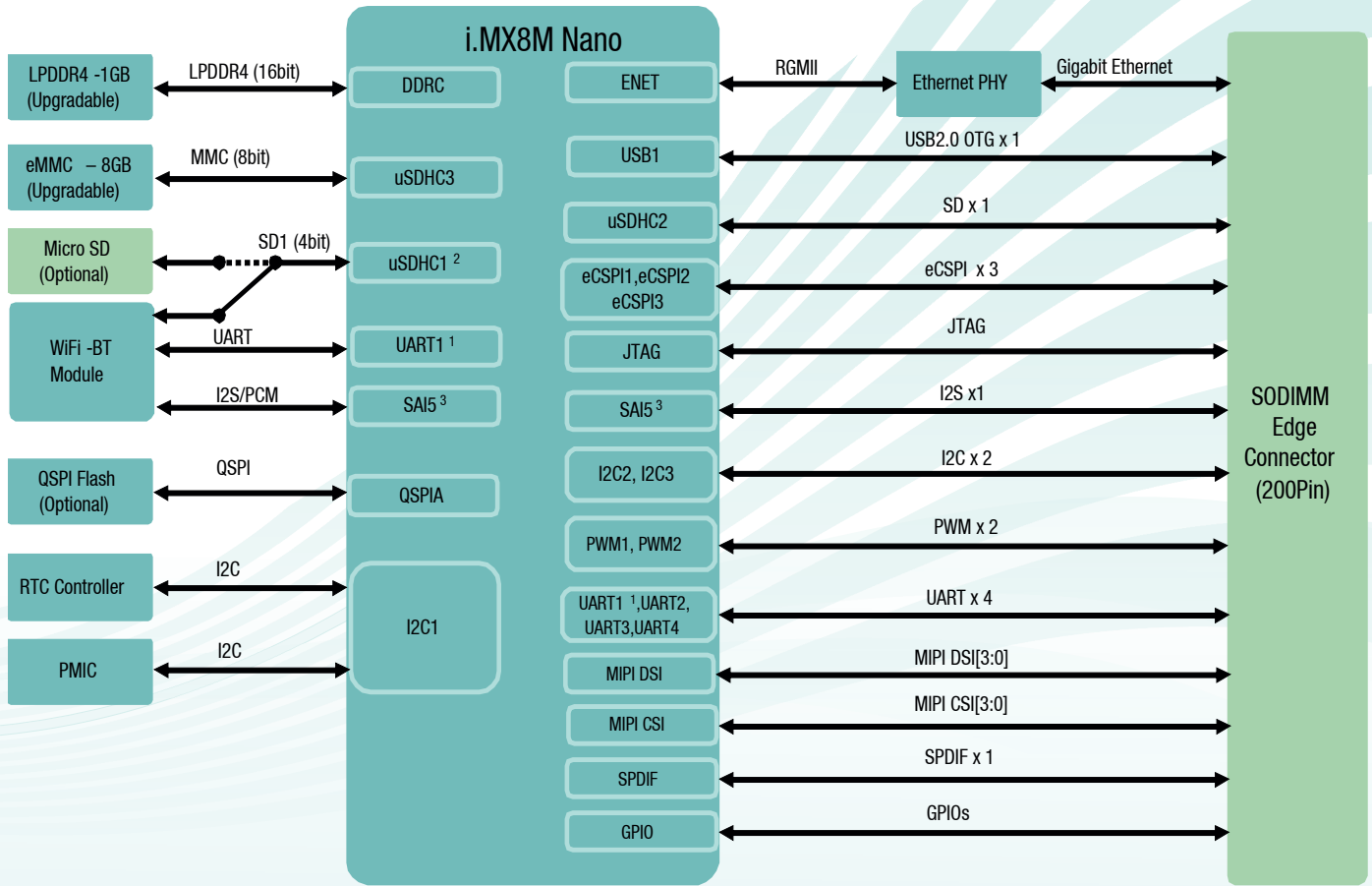
Power and Cost Optimised

Modular & Compact SODIMM form factor 67.6mm x 37mm

SPECIFICATIONS

SOC:	Debug UART
NXP i.MX8M Nano Q/QL/D/DL/S/SL	Data UART (without CTS & RTS) x 1 Port
Up to 4 X Cortex-A53 & 1 X Cortex-M7	SPI x 2 Ports
PMIC:	I2C x 2 Ports
BD71847AMWV	PWM x 2 Ports
Memory:	JTAG
1GB LPDDR4 (Expandable)	MIPI DSI x 1 Channel
8GB eMMC Flash (Expandable)	MIPI CSI x 1 Channel
2MB QSPI Flash (Optional)	SPDIF x 1 Port
Micro SD slot (Optional)	GPIOs
Communication:	Power Supply:
Wi-Fi 802.11a/b/g/n/ac + BLE v5.0	3.3V, 4A Input from SODIMM Edge Connector
Gigabit Ethernet PHY Transceiver x 1	Form Factor:
SODIMM Edge Connector Interfaces:	67.6mm X 37mm
Gigabit Ethernet x 1 Port	Temperature support:
USB2.0 OTG x 1 Port	Industrial: -40°C to +85°C
SD (4bit) x 1 Port	Commercial: 0°C to +70°C
SAI/I2S (Audio Interface) x 1 Port	OS Support:
Data UART (with CTS & RTS) x 2 Port (One is optional)	Linux 4.14.98, Android Pie 9.0.0*
	REACH & RoHS Compliant

i.MX8M Nano SODIMM SOM Block Diagram



Note:

1. UART1 is shared between SODIMM Edge connector and Bluetooth Module, by default it will be connected to Bluetooth Module
2. uSDHC1 is shared between Wi-Fi module and micro SD connector, by default it will be connected to Wi-Fi Module.
3. SAI5 is shared between SODIMM Edge connector and Bluetooth Audio, by default it will be connected to SODIMM Edge.

OS SUPPORT

Linux 4.14.98
Android Pie 9.0.0*

DELIVERABLES

i.MX8M Nano SODIMM Module
Board Support Package
User Manual

OPTIONAL KITS/Modules

i.MX8M Nano Development Kit
Touch Display
Heat Sink
MIPI 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, 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.



i.MX8M Nano SODIMM 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>

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