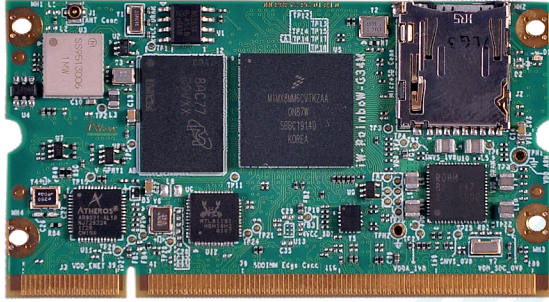


System On Module iW-RainboW-G37M

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:

NXP i.MX8M Nano Q/QL/D/DL/S/SL
Up to 4 X Cortex-A53 & 1 X Cortex-M7

PMIC:

BD71847AMWV

Memory:

1GB LPDDR4 (Expandable)
8GB eMMC Flash (Expandable)
2MB QSPI Flash (Optional)
Micro SD slot (Optional)

Communication:

Wi-Fi 802.11a/b/g/n/ac + BLE v5.0
Gigabit Ethernet PHY Transceiver x 1

SODIMM Edge Connector Interfaces:

Gigabit Ethernet x 1 Port
USB2.0 OTG x 1 Port
SD (4bit) x 1 Port
SAI/I2S (Audio Interface) x 1 Port
Data UART (with CTS & RTS) x 2 Port
(One is optional)

Debug UART

Data UART (without CTS & RTS) x 1 Port
SPI x 2 Ports
I2C x 2 Ports
PWM x 2 Ports
JTAG
MIPI DSI x 1 Channel
MIPI CSI x 1 Channel
SPDIF x 1 Port
GPIOs

Power Supply:

3.3V, 4A Input from SODIMM Edge Connector

Form Factor:

67.6mm X 37mm

Temperature support:

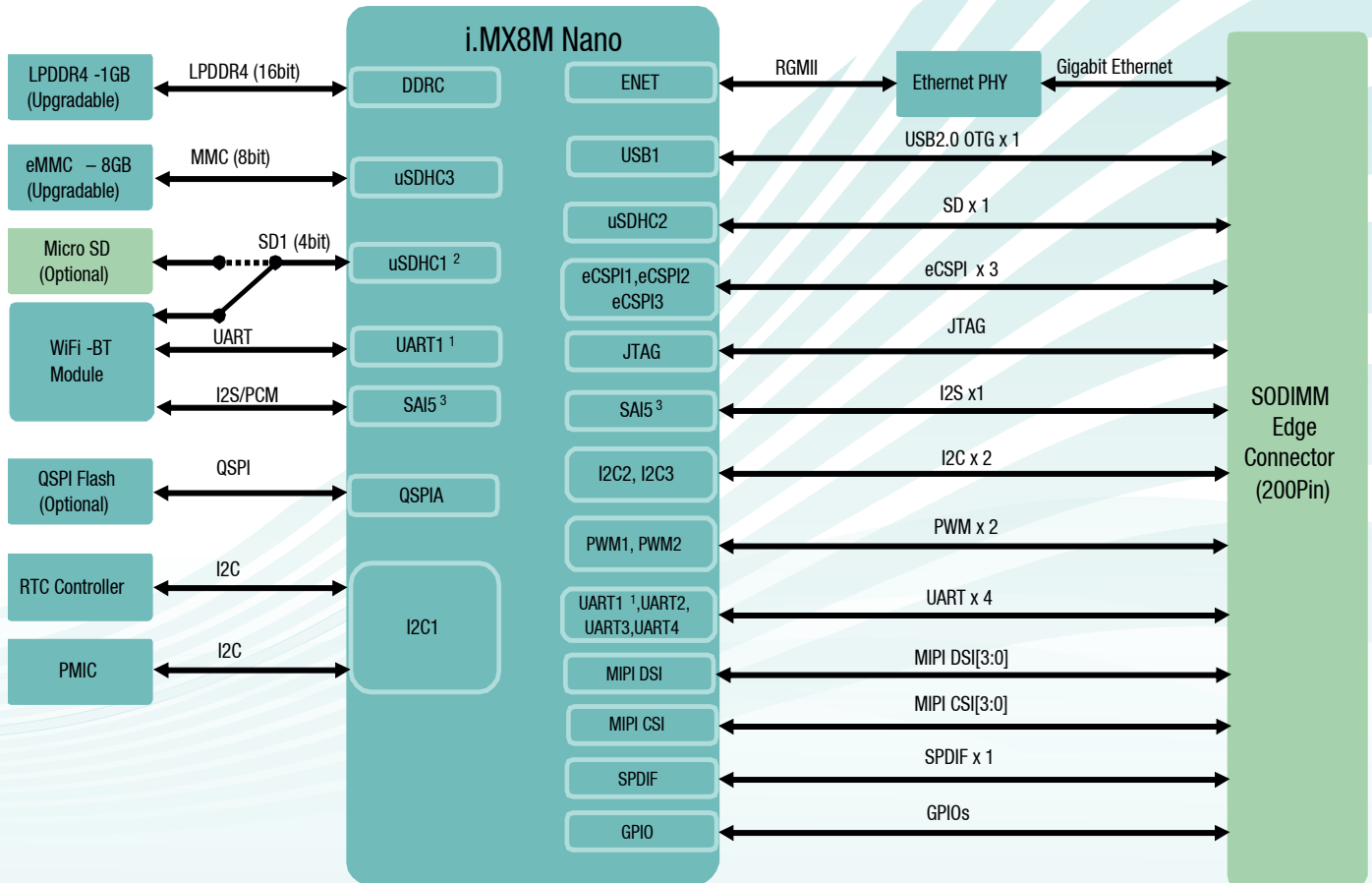
Industrial: -40°C to +85°C
Commercial: 0°C to +70°C

OS Support:

Linux 4.14.98, Android Pie 9.0.0*

REACH & RoHS Complaint

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>

iWave Systems Tech. Pvt. Ltd.,

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

iWave Europe

Postbus 6197
3130 DD Vlaardingen
The Netherlands
Ph: +31 10 28403383
Email: info@iwavesystems.eu

Mouser Electronics

Authorized Distributor

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

[iWave Systems:](#)

[iW-G37M-SM04-4L001G-E008G-BIA](#) [iW-G37M-SM04-4L002G-E008G-BIA](#)