

System On Module iW-RainboW-G34M

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



The i.MX8M Mini 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 Mini/Nano SODIMM System On Module integrates that Quad Cortex A53 @ upto 1.8 GHz, 1080p60 H.265, H.264, VP8, VP9 Decode, 1080p60 H.264, VP8 Encode. MIPI-DSI (4-lane) display interface and MIPI-CSI (4-lane) camera interface USB2.0, PCIe interface with on SOM 10/100/1000 Mbps Ethernet PHY and 802.11n Wi-Fi & BLE5.0 module. The i.MX8M Mini SODIMM System On Module is aimed to offer applications such as Digital Signage, Industrial HMI, Home Automation, Audio/Video Streaming devices and General Embedded applications.

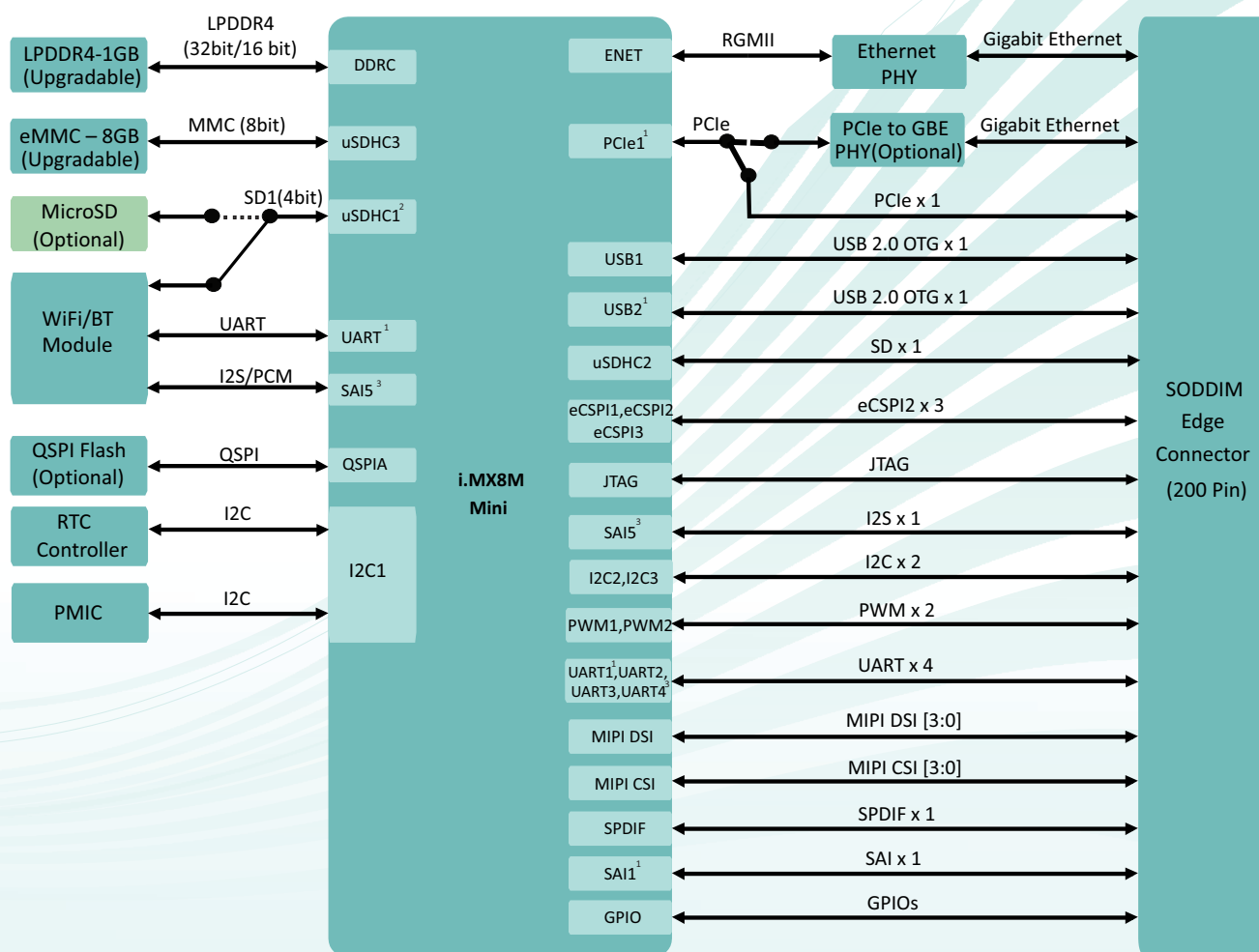
iW-RainboW-G34M HIGHLIGHTS

- Quad Cortex-A53 @ upto 1.8 GHz
- Dual/Quad Cortex-M4F @ 400 MHz
- 64-bit Armv8-A architecture
- H.265, H.264 Video Decode
- H.264, VP8 Video Encode
- 2D and 3D Graphics Processing Unit
- Wi-Fi 802.11a/b/g/n/ac + BLE v5.0
- Dual 1000/100/10 Mbps Ethernet

SPECIFICATIONS

SOC:	Debug UART
NXP i.MX8M Mini/Nano Q/QL/D/DL/S/SL	Data UART (with CTS & RTS) x 2 Port (One is optional)
Upto 4 X Cortex-A53 & 1 X Cortex-M4F	Data UART (without CTS & RTS) x 1 Port
PMIC:	SPI x 3 Ports
BD71847MWV	I2C x 2 Ports
Memory:	PWM x 2 Ports
1GB LPDDR4 (Expandable)	JTAG
8GB eMMC Flash (Expandable)	MIPI DSI 4 lane x 1 Channel
2MB QSPI Flash (Optional)	MIPI CSI 4 lane x 1 Channel
Micro SD slot	SPDIF x 1 Port
Communication:	GPIOs
Wi-Fi 802.11a/b/g/n/ac + BLE v5.0	Power Supply:
Gigabit Ethernet PHY Transceivers x 1	3.3V, 4A Input from SODIMM Edge Connector
PCIe to Gigabit Ethernet PHY Transceivers x 1 (Optional)	Form Factor:
SODIMM Edge Connector Interfaces:	67.6mm X 37mm
Gigabit Ethernet x 2 Port (One is optional)	Temperature support:
PCIe x 1 Port	Industrial, Commercial: -40°C to +85°C
USB2.0 OTG x 2 Ports	OS Support:
SD (4bit) x 1 Port	Linux 4.14.98, Android Pie 9.0.0
SAI/I2S (Audio Interface) x 1 Port	REACH & RoHS2 Compliant

i.MX8M Mini 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 connected to SODIMM Edge connector and Bluetooth Audio, by default it will be connected to SODIMM Edge.
1. Not supported in i.MX8M Nano

OS SUPPORT

Linux 4.14.98
Android Pie 9.0.0

DELIVERABLES

i.MX8M Mini SODIMM Module
Board Support Package
User Manual

OPTIONAL KITS/Modules

i.MX8M Mini Development Kit
Touch Display
Heat Sink
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 Mini 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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