

Development Platform iW-RainboW-G34D/G37D

i.MX8M Mini/Nano SODIMM Dev Kit



iWave's i.MX8M Mini/Nano SODIMM Development Board incorporates i.MX8M Mini/Nano SODIMM SOM which is based on NXP's power efficient i.MX8M Mini/Nano ARM Cortex A53 processor and M4F MCU and the carrier board with 5.5" HD AMOLED MIPI DSI display Kit. The development board can be used for quick prototyping of various applications targeted by the i.MX8M Mini/Nano processor. With the 100mmx72mm Pico ITX size, the kit is highly packed with all the necessary on-board connectors to validate the i.MX8M Mini/Nano CPU features.

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

iW-RainboW-G34D/G37D HIGHLIGHTS

i.MX8M Mini SoC

Dual Band WiFi -IEEE 802.11 a/b/g/n/ac with Bluetooth 5.0

5.5" HD AMOLED MIPI DSI Display

GBE, PCIe, 2x USB, 4x UART, 3x ECSPI, GPIOs

SPECIFICATIONS

i.MX 8M Mini/Nano SODIMM SOM:

Processor:

i.MX 8M M/N Quad: 4 x Cortex- A53, 1 x Cortex-M4, GPU & VPU Decode

i.MX 8M M/N Quad Lite: 4 x Cortex- A53,

1 x Cortex-M4 & GPU

i.MX 8M M/N Dual: 2 x Cortex- A53,

1 x Cortex-M4, GPU & VPU Decode

i.MX 8M M/N Dual Lite: 2 x Cortex- A53,

1 x Cortex-M4 & GPU

i.MX 8M M/N Solo: 1 x Cortex- A53,

1 x Cortex-M4, GPU & VPU Decode

i.MX 8M M/N Solo Lite: 1 x Cortex- A53,

1 x Cortex-M4 & GPU

LPDDR4 - 1GB (Expandable)

eMMC Flash - 8GB (Expandable)

Micro SD slot (Optional)

QSPI Flash - 2MB (Optional)

Gigabit Ethernet PHY Transceiverx2(1 is Optional)

Wi-Fi 802.11 a/b/g/n/ac & BT 5.0

OS Support:

Linux 5.10.72, Android 11, Ubuntu 20.04 LTS, Buildroot 2021.02.8 LTS

SODIMM Carrier board:

Gigabit Ethernet - 2 Port (One is Optional)

USB 2.0 host - 2 Ports

USB2.0 device - 1 Port

MicroSD Slot - 1 Port

12S Audio Codec-Audio In/Out Jack

Mini PCle slot - 1 Port

General Purpose I2C-2 Port

ECSPI x 3 Port (One is Optional)

RTC with backup battery

Debug Micro USB Port

Data UART- 1 Port

Data UART(with CTS, RTS) - 1 Port

Control switches

20-Pin JTAG Connector

GPIOs

SODIMM MIPI Daughter board:

5.5" HD AMOLED MIPI DSI display

MIPI CSI Camera

Power Input: 5V@2.5A DC Input

Operating Temperature: 0°C to +60°C

Form Factor:

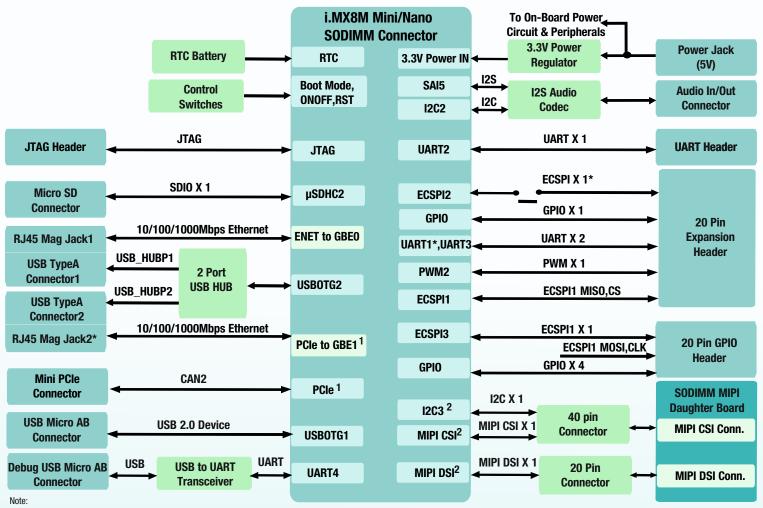
67.6mm x 37mm







i.MX8M Mini/Nano SODIMM DEVELOPMENT BOARD BLOCK DIAGRAM



^{1.}IMX 8M Mini PCle interface is shared with Mini PCle Connector and on-SOM PCle to Ethernet PHY.By default Mini PCle is supported and RJ45 Mag Jack2 is optional.

2.12C3,MIPI CSI and DSI interface can be validated only with an add on board-SODIMM MIPI daughter board.

*Optional

OS SUPPORT

Linux 5.10.72 Android 11 Ubuntu 20.04 LTS Buildroot 2021.02.8 LTS

DELIVERABLES

i.MX8M Mini/Nano SODIMM Kit Kit Board Support Packages 5V AC-DC Adapter HW/SW User Manual

OPTIONAL KITS

SODIMM Heatsink Camera Module Security Suite (Optional)

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, Freescale, Intel Atom, Marvell 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.

*Optional items not included in the standard deliverables.

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i.MX8M Mini/Nano SODIMM Devkit

The device can be ordered online from the iWave Website https://www.iwavesystems.com/product/i-mx-8m-mini-nano-sodimm-som/ Or from our Local Partners in your region

http://www.iwavesystems.com/about-us/business-partner.html

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