

Development Platform iW-RainboW-G34D i.MX8M Mini SODIMM Development Board



iWave's i.MX8M Mini SODIMM Development Board incorporates i.MX8M Mini SODIMM SOM which is based on NXP's power efficient i.MX8M Mini 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 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 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-SODIMM 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

Ultra-compact form size 100mm x 72mm

SPECIFICATIONS

i.MX 8M Mini SODIMM SOM:

Processor:

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

i.MX 8M Mini Quad Lite: 4 x Cortex- A53, 1 x Cortex-M4 & GPU

i.MX 8M Mini Dual: 2 x Cortex- A53, 1 x Cortex-M4, GPU & VPU Decode

i.MX 8M Mini Dual Lite: 2 x Cortex- A53, 1 x Cortex-M4 & GPU

i.MX 8M Mini Solo: 1 x Cortex- A53, 1 x Cortex-M4, GPU & VPU Decode

i.MX 8M Mini 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 4.14.98, Android Pie 9.0.0

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

I2S Audio Codec-Audio In/Out Jack

Mini PCIe 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

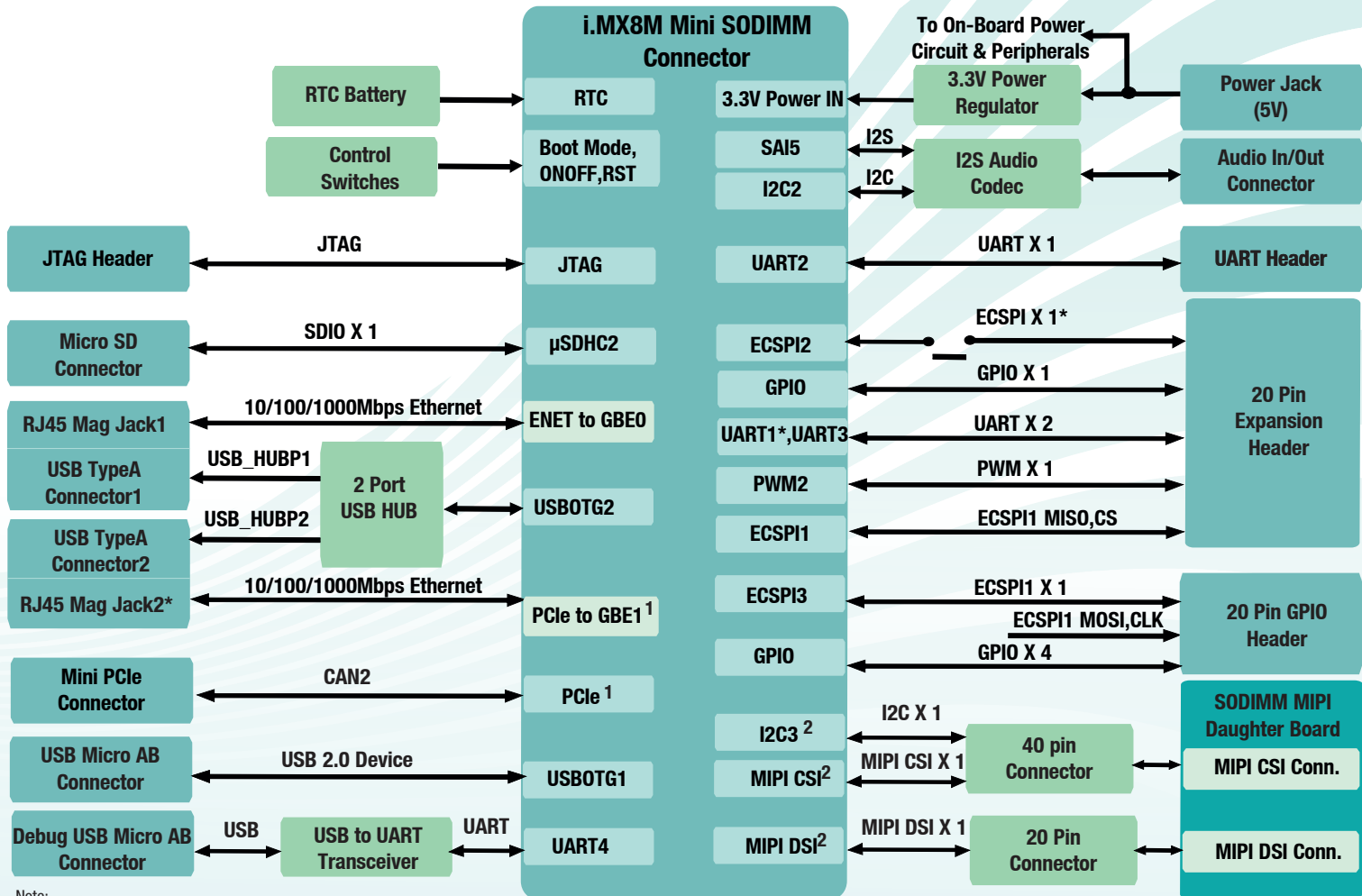
MIPI CSI Camera

Power Input: 5V@2.5A DC Input

Operating Temperature: 0°C to +60°C

Form Factor: Pico ITX : 100mm x 72mm

i.MX8M Mini SODIMM DEVELOPMENT BOARD BLOCK DIAGRAM



Note:
 1. iMX 8M Mini PCIe interface is shared with Mini PCIe Connector and on-SOM PCIe to Ethernet PHY. By default Mini PCIe is supported and RJ45 Mag Jack2 is optional.
 2. I2C3, MIPI CSI and DSI interface can be validated only with an add on board-SODIMM MIPI daughter board.
 *Optional

OS SUPPORT

Linux 4.14.98
 Android Pie 9.0.0

DELIVERABLES

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

OPTIONAL KITS

SODIMM Heatsink
 Camera Module

CUSTOM DEVELOPMENT

BSP Development/OS Porting
 Custom SOM/Carrier development
 Custom application/GUI development
 Design review and support

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*Optional items not included in the standard deliverables

Ordering the i.MX8M Mini SODIMM Dev Kit
 The board can be ordered online from the iWave Website
<http://www.iwavesystems.com/webforms>

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