iWave
Embedding Intelligence

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

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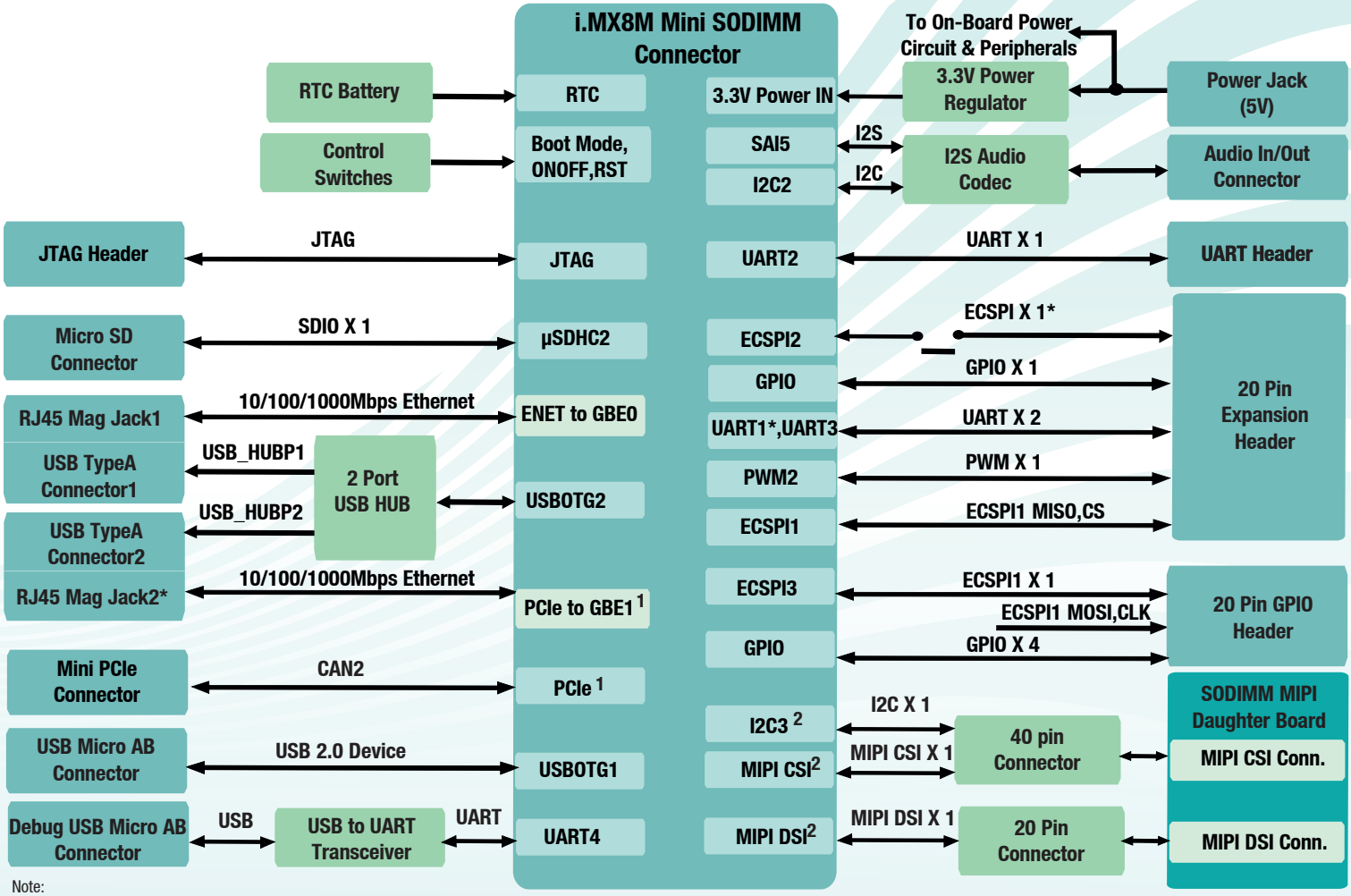
Proven Partner
NXP

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

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.

Note: iWave reserves the right to change these specifications without notice as part of iWave's continous effort to meet the best in class specification. The registered trademarks are proprietary of their respective owners.

**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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