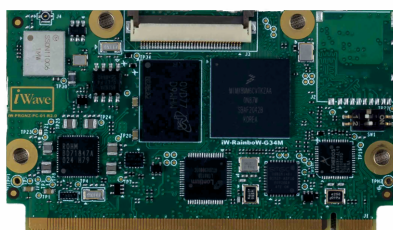


System On Module iW-RainboW-G34M/37M-Q7

i.MX 8M Mini or i.MX 8M Nano μ Qseven SOM



The NXP i.MX 8M Mini or i.MX 8M Nano μ Qseven System On Module featuring the NXP i.MX 8M Mini or i.MX 8M Nano CPU will be the new addition to iWave's i.MX 8 SOM portfolio. The i.MX 8M Mini or i.MX 8M Nano μ Qseven System On Module is aimed to offer applications such as low power embedded and edge computing, Ultra-compact and cost-effective industrial and IoT applications, Equipment monitoring, Digital Signage, Industrial HMI, Home Automation, Audio/Video Streaming devices, General Embedded applications and many more.

iW-RainboW-G34M/37M-Q7

HIGHLIGHTS

i.MX 8M Mini or i.MX 8M Nano
Q/QL/D/DL/S/SL CPU

64-bit ARMv8 Architecture

10+ years of Product Longevity Program

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

1000/100/10 Mbps Ethernet

Modular & Compact μ Qseven form factor

SPECIFICATIONS

SOC: i.MX 8M Mini

Quad: 4 x Cortex-A53, 1 x Cortex-M4, GPU & VPU

QuadLite: 4 x Cortex-A53, 1 x Cortex-M4 & GPU

Dual: 2 x Cortex-A53, 1 x Cortex-M4@, GPU & VPU

Dual Lite: 2 x Cortex-A53, 1 x Cortex-M4, GPU

Solo: 1 x Cortex-A53, 1 x Cortex-M4, GPU & VPU

Solo Lite: 1 x Cortex-A53, 1 x Cortex-M4, GPU

SOC: i.MX 8M Nano

Quad: 4 x Cortex-A53, 1 x Cortex-M7 & GPU

QuadLite: 4 x Cortex-A53 & 1 x Cortex-M7

Dual: 2 x Cortex-A53, 1 x Cortex-M7 & GPU

Dual Lite: 2 x Cortex-A53 & 1 x Cortex-M7

Solo: 1 x Cortex-A53, 1 x Cortex-M7 & GPU

Solo Lite: 1 x Cortex-A53 & 1 x Cortex-M7

Memory & Storage

LPDDR4 – 1GB (Expandable Up to 4GB (mini) / 2GB (nano))

eMMC Flash – 8GB (Expandable upto 128GB)

Micro SD slot (Optional)

QSPI Flash (Optional)

Edge Connector Features

Gigabit Ethernet x1

PCIe 2.0 x1 (Not available in Nano)

USB 2.0 Host x4

USB 2.0 OTG x1 (Optional in Nano)

SD 3.0 x1

LVDS/HDMI x1

Debug UART x1

SPI x1

SAI/I2S x1

CAN x1

I2C x2

PWM x2

JTAG x1

GPIOs

Other

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

MIPI CSI Connector : 4 lane MIPI_CSI x 1

OS Support

Linux 5.4.70

General Features

Power Input: 5V, 2.5A

Form Factor: 70mm x 40mm

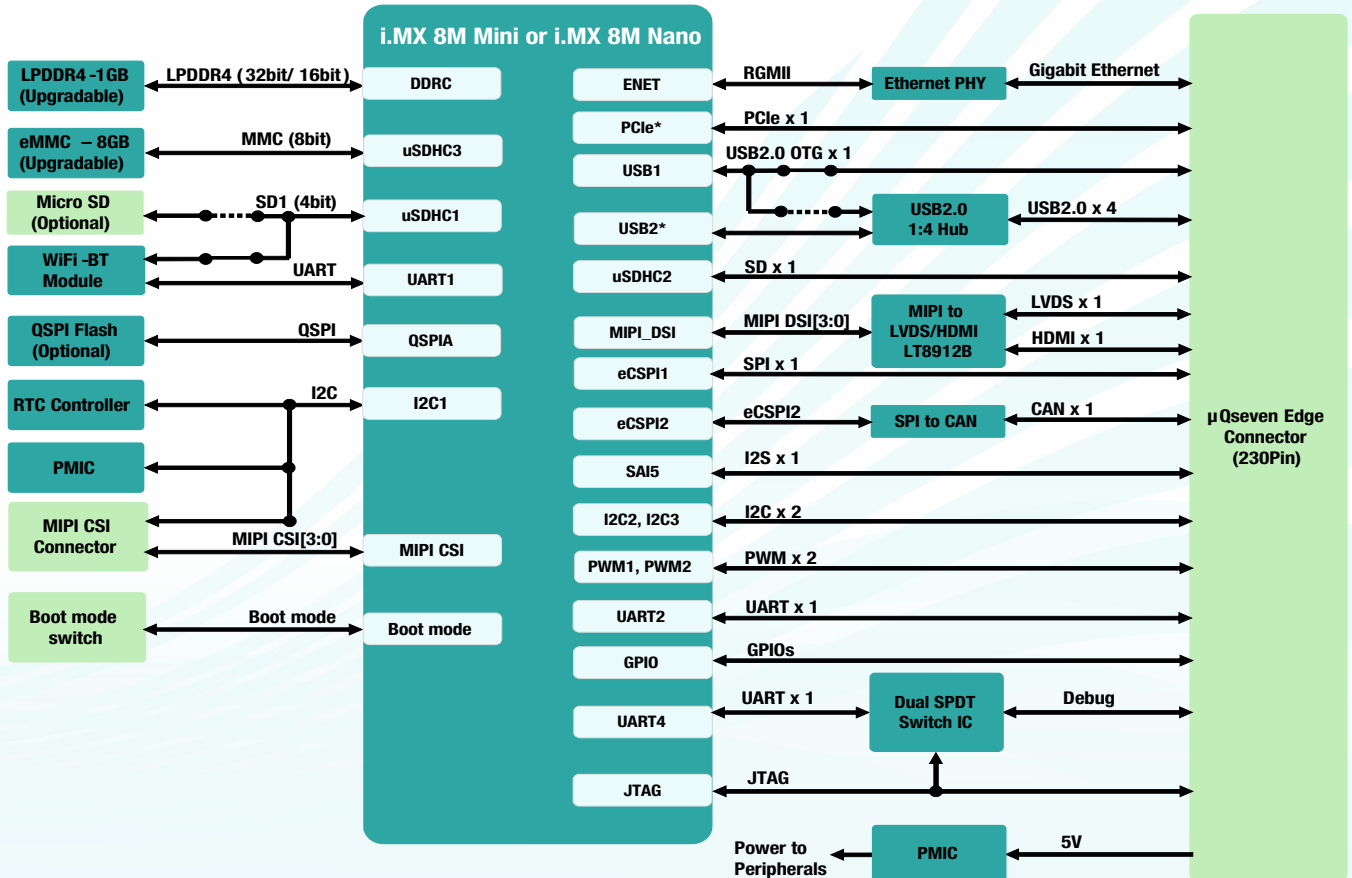
Operating Temperature

-40°C to +85°C (Industrial)

0°C to +70°C (Commercial)

Environment Specification:

REACH & RoHS3



Note:

*Not supported in i.MX 8M Nano

OS SUPPORT

Linux 5.4.70

DELIVERABLES

i.MX 8M Mini or i.MX 8M Nano Q7 Module
Board Support Package
User Manual

OPTIONAL KITS/MODULES

i.MX 8M Mini or i.MX 8M Nano Q7 Development Kit
7" RGB LCD with CAP Touch
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 is an ISO 9001:2015 certified company, head quartered in Bangalore India established in the year 1999. The company focuses on providing embedded solution and services for Industrial, Medical, Automotive and various other Embedded Computing applications. iWave Systems offers wide range of System On Modules and Single Board Computers built using wide range of CPU and FPGA SoC platforms with different form factors such as Qseven, SMARC, SODIMM and HPC by closely working with Tier-1 silicon companies such as NXP, Xilinx, Intel etc.

iWave Systems offers various state of art ready ODM solutions such as Connected Telematic Control Unit / OBD II devices for the automotive edge analytics, Comprehensive ARINC818 solutions for the low latency Aerospace applications and Rugged IP rated performance scalable HMI solutions for Industrial applications.

iWave Systems also provides comprehensive Engineering design services involving Embedded Hardware, FPGA and Software development. iWave offers carrier board and custom hardware development with manufacturing and certification services. iWave's Hardware expertise spans complex board design up to 30 layers; Analog, Digital & RF Designs; FPGA Development up to 3+ million gates and VHDL / Verilog RTL Development & Verification. Our Software expertise ranges from OS Porting, Firmware & Device Drivers Development and Wireless & Protocol Stacks.

*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.MX 8M Mini or i.MX 8M Nano µQseven Module

The device can be ordered online from the iWave Website
<https://www.iwavesystems.com/product/i-mx-8m-mini-nano-uqseven-som/>
Or from our Local Partners in your region
<http://www.iwavesystems.com/about-us/business-partner.html>

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