The i.MX 8M Mini or i.MX 8M Nano μQseven development platform incorporates i.MX 8M Mini or i.MX 8M Nano CPU based μQseven SOM and μQseven Carrier board for complete validation of i.MX 8M Mini or i.MX 8M Nano CPU functionality. The development board can be used for quick prototyping of various applications targeted by the i.MX 8M Mini or i.MX 8M Nano processor. With the 120mmx120mm Nano ITX size, μQseven carrier board is highly packed with all the necessary on-board connectors to validate the features of i.MX 8M Mini or i.MX 8M Nano μQseven SOM.

APPLICATION: 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 and General Embedded applications.

HIGHLIGHTS

Ideal for Quick Proof of concept (POC) development.

Shortens 60% of the new product development lifecycle.

Quick customization services in a very shorter period.

Wide range of BSP support available.

### SPECIFICATIONS

**CPU**
- **Mini:** NXP i.MX 8M Mini Q/QL/D/DL/S/SL
- **Up to 4 x Cortex-A53 & 1 x Cortex-M4F**
- **Nano:** NXP i.MX 8M Nano Q/QL/D/DL/S/SL
- **Up to 4 x Cortex-A53 & 1 x Cortex-M**

**RAM**
- **Mini:** 2GB LPDDR4 (Expandable up to 4GB)
- **Nano:** 1GB LPDDR4 (Expandable up to 24GB)

**Storage**
- SPI Flash
- MicroSD
- 8GB eMMC Flash
- Standard SD/MMC

**Communication Interfaces**
- SPI Flash x 1
- USB 2.0 Host - 2 Ports
- USB 2.0 OTG - 1 Port
- Gigabit Ethernet - 1 Port
- Debug UART x 1 Port

**Audio and Video**
- Audio Codec, In/Out Jack
- HDMI v1.4 - Port
- LVDS - 7” Display with Capacitive TP
- Backlight PWM Control

**On-Board Headers**
- 20 Pin JTAG Header
- RTC Coin cell Holder
- Data UART Header

**Operating Temperature:**
- 0 to 50°C

**Power Input:**
- 12V, 2A DC Input

**Form Factor:**
- Nano ITX 120mmx120mm

**OS Support:**
- Linux 5.4.24, Android 10.0.0 or Higher
i.MX 8M Mini or i.MX 8M Nano µQseven Development Board Block Diagram

**DELIVERABLES**
- i.MX 8M Mini or i.MX 8M Nano Qseven Dev Kit
- Board Support Packages
- 12V, 2A AC-DC Adapter
- HW/SW User Manual

**OS SUPPORT**
- Linux 5.4.24
- Android 10.0.0 or Higher

**OPTIONAL KITS/MODULES**
- Heatsink
- 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.

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*Optional items not included in the standard deliverables.*

*Note: Wave 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.*