

# Development Platform iW-Rainbow G34D/37D-Q7 i.MX 8M Mini or i.MX 8M Nano $\mu$ Q7 Development Board



The i.MX 8M Mini or i.MX 8M Nano  $\mu$ Qseven development platform incorporates i.MX 8M Mini or i.MX 8M Nano CPU based  $\mu$ Qseven SOM and  $\mu$ Qseven 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,  $\mu$ Qseven 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  $\mu$ Qseven 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.

## iW-RainboW-G34D/37D-Q7 HIGHLIGHTS

Ideal for Quick Proof of concept (POC) development.

Shortens 60% of the new product development life cycle.

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

QSPI Flash (Expandable)

MicroSD

8GB eMMC Flash (Expandable)

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

Resistive Touch Controller

CAN - 1 Port

PCIe x 4 corrector (1 Lane) (Not available in Nano)

### 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

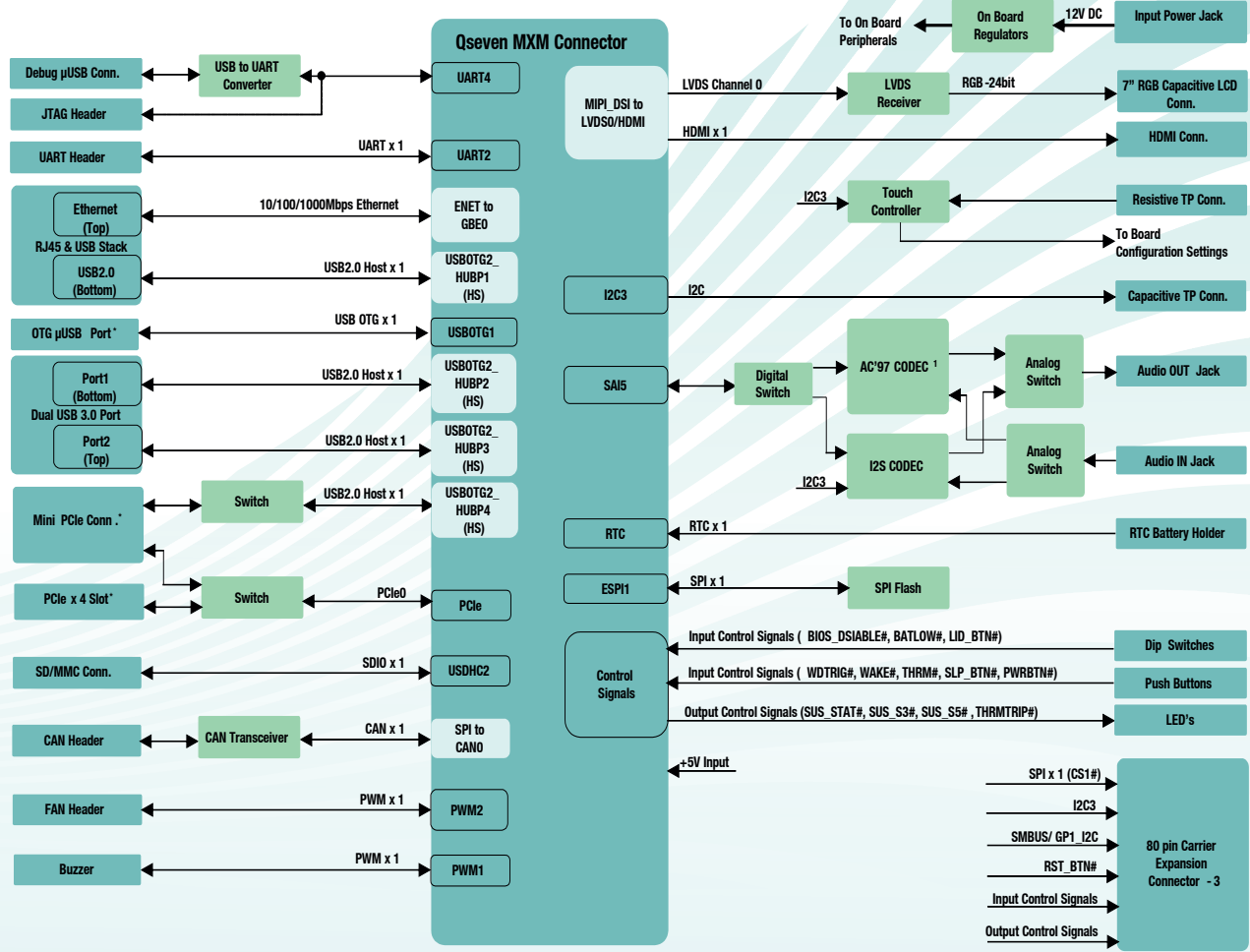
### Form Factor:

Nano ITX 120mmx120mm

### OS Support:

Linux 5.4.24, Android 10.0.0 or Higher

## i.MX 8M Mini or i.MX 8M Nano $\mu$ Qseven Development Board Block Diagram



### OS SUPPORT

Linux 5.4.24  
Android 10.0.0 or Higher

### 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

### 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.

\*Optional items not included in the standard deliverables.

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### i.MX 8M Mini or i.MX 8M Nano $\mu$ Qseven DevKit

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>