



The i.MX 8 QM/QP (Quad Max/Quad Plus) Qseven Development platform combines the NXP i.MX 8 QM/QP application processor based Qseven SOM and iWave's Generic Qseven Carrier Card to offer maximum performance with higher efficiency for complex consumer, medical and industrial embedded computing applications. The board is highly packed with all necessary onboard connectors to validate i.MX 8 QM/QP SoC features to the fullest.

APPLICATIONS: Intelligent Industrial Control Systems, Industrial Human-Machine interface, Ultra-Portable Devices, Home Energy Management Systems, Portable Medical Devices, 4K Digital Signage, Media streaming, Augmented & Virtual Reality, Home Automation & Entertainment, Drones, Secure POS and Video analytics.

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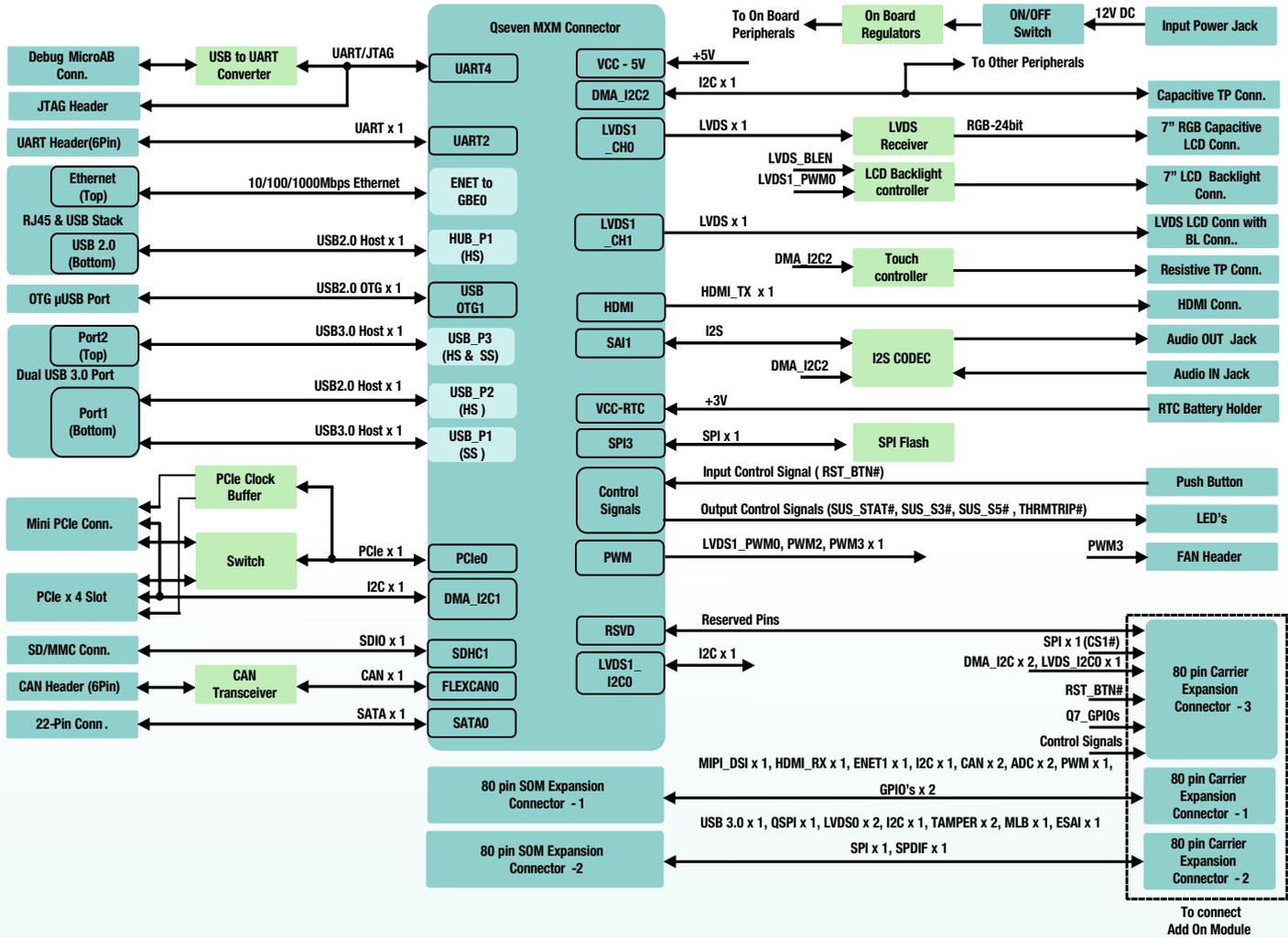
HIGHLIGHTS

- i.MX 8 QM/QP SoC
- 4GB LPDDR4 memory (Expandable)
- IEEE 802.11a/b/g/n/ac/ax Wi-Fi & BT 5.0
- USB3.0, Gigabit Ethernet, PCIe, SATA, LVDS Ios
- 7" display Kit with cap touch screen
- Qseven v2.1 compatible

SPECIFICATIONS

| | |
|---|--|
| i.MX 8 QM/QP Qseven SOM | |
| Processor: | |
| i.MX 8 QuadMax: 2 X Cortex-A72, 4 x Cortex-A53 & 2 x Cortex-M4F | |
| i.MX 8 QuadPlus: 1 X Cortex-A72, 4 x Cortex-A53 & 2 x Cortex-M4F | |
| LPDDR4 - 4GB (Expandable) | |
| eMMC Flash - 16GB (Expandable) | |
| Micro SD slot (Optional) | |
| Octa QSPI Flash - 256MB (Optional) | |
| Gigabit Ethernet PHY Transceiver | |
| USB 3.0 High Speed 4 - Port Hub | |
| IEEE 802.11a/b/g/n/ac/ax Wi-Fi & BT 5.0 | |
| MIPI CSI Connector | |
| OS Support: | |
| Linux 5.10.52 | |
| Android 9 | |
| Qseven Carrier Board: | |
| Gigabit Ethernet Jack- 1 Port | |
| PCIe x 1 slot / Mini PCIe slot - 1 Port | |
| SATA x 1 Port | |
| USB 3.0 Host Connector - 2 Ports | |
| USB 2.0 Host Connector - 3 Ports | |
| USB 2.0 OTG Connector - 1 Port | |
| SDIO x 1 Port | |
| CAN PHY - 1 Port | |
| 7" Cap touch Display | |
| Capacitive Touch screen | |
| SSI/I2S Codec, In/Out Jack | |
| Full Function UART - 1 Port | |
| RTC with backup battery | |
| Debug Micro USB Port | |
| Expansion Connector Interfaces | |
| MIPI DSI x 2 | |
| HDMI_RX | |
| ENET1 x 1 | |
| I2C x 2 | |
| CAN x 2 | |
| ADC x 2 | |
| PWM x 1 | |
| GPIO's | |
| LVDS x 2 | |
| USB Host 3.0 x 1 | |
| USB Host 2.0 x 1 | |
| QSPI x 1 | |
| TAMPER x 2 | |
| MLB x 1 | |
| ESAI x 1 | |
| SPI x 1 | |
| SPDIF x 1 | |
| Control Signals | |
| Power Input: 12V DC | |
| Operating Temperature: 0°C to +70°C | |
| Form Factor: 120mmx120mm Nano ITX Size | |

i.MX 8 QM/QP Qseven Development Kit Block Diagram



OS SUPPORT

Linux 5.10.52
Android 9

DELIVERABLES

i.MX 8 QM Qseven Development Kit
Hardware User Manuals

OPTIONAL KITS/Modules

Qseven HeatSink/ Heat Spreader

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 8 QuadMax Qseven DevKit

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

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