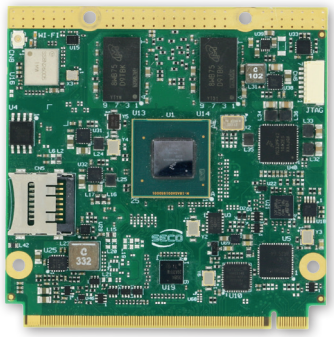
Qseven®

Q7-C25

Qseven® Rel. 2.1 compliant module with NXP i.MX 8M Applications Processors

Qseven® solution for next generation embedded systems

early access



DEVELOPMENT SAMPLING PRODUCTION

HIGHLIGHTS

CPU
NXP i.MX 8M Applications Processors

CONNECTIVITY
1x USB 3.0; 4x USB2.0; 1x PCI-e x1; 1x CAN Bus; 2x UART; 8x GPI/Os

GRAPHICS
Integrated GPU, supports 2 independent displays

MEMORY
up to 4GB soldered down DDR4-2400 memory

Available in Industrial Temperature Range

MAIN FIELDS OF APPLICATION

- Digital Signage - Infotainment
- Home Automation
- Multimedia devices
- Transportation
- Vending

FEATURES

Processor	NXP i.MX 8M Family based on ARM Cortex®-A53 cores + general purpose Cortex®-M4 processor: • **i.MX 8M Quad** - 4x Cortex®-A53 cores up to 1.5GHz • **i.MX 8M Dual** - 2x Cortex®-A53 cores up to 1.5GHz • **i.MX 8M QuadLite** - 4x Cortex®-A53 cores up to 1.5GHz, no VPU
Memory	Soldered Down DDR4-2400 memory, dual-channel 32-bit interface, up to 4GB
Graphics	Integrated Graphics Processing Unit, supports 2 independent displays. Embedded VPU, supports HW decoding of HEVC,H.264, H.263, MPEG-4, MPEG-2, AVC, VC-1, RV, DivX, VP6, VP8, VP9, JPEG (not for i.MX8M QuadLite). Supports OpenGL ES 3.1, Open CL 1.2, OpenGL 2.x, DirectX 11
Video Interfaces	HDMI 2.0a / Display Port 1.3 interface, supporting HDCP 2.2 and HDCP 1.4/1.3 eDP interface or 18- / 24-bit Dual Channel LVDS interface
Video Resolution	HDMI/DP up to 4096 x 2160p60 LVDS/eDP up to 1920 x 1080 @ 60Hz
Mass Storage	eMMC 5.0 drive soldered on-board, up to 64GB Optional microSD slot on board QSPI Flash soldered-onboard
Networking	1 x Gigabit Ethernet interface Optional WiFi + BT LE module onboard
USB	1 x USB 3.0 OTG Ports Up to 4 x USB 2.0 Host Ports
PCI-e	1x PCI-e x1 port, optional
Audio	I2S Audio Interface
Serial Ports	1x UART Tx/Rx/RTS/CTS (Optional) 1x Debug UART Optional CAN Bus interface (TTL Level)
Other Interfaces	I2C Bus SM Bus Optional SPI interface 8 x GPI/Os UltraLow Power RTC Power Management Signals Watchdog
Power Supply	$+5V_{DC}$ ±5% and $+5V_{SB}$ (optional) +3.3V_RTC
Operating System	Linux Android
Operating Temperature*	0°C ÷ +60°C (Commercial version) -40°C ÷ +85°C (Industrial version)
Dimensions	70 x 70 mm (2.76” x 2.76”)

*Measured at any point of SECO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider application-specific cooling solutions for the final system to keep the heatspreader temperature in the range indicated.

Information subject to change. Please visit www.seco.com to find the latest version of this datasheet

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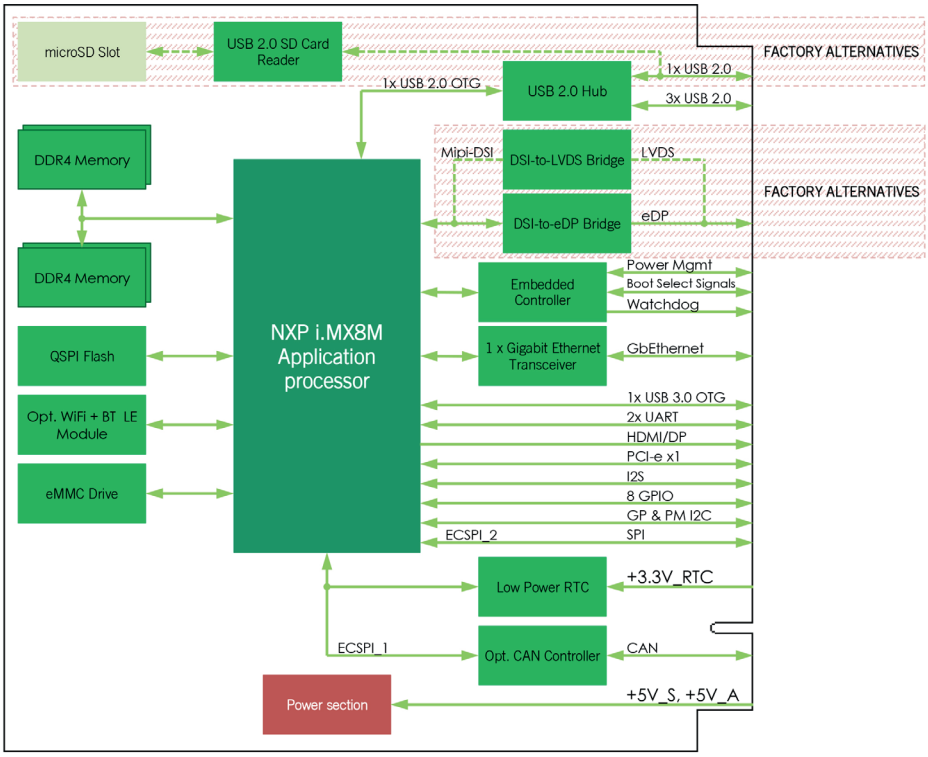
BLOCK DIAGRAM



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