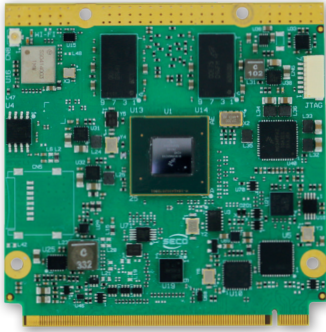




## MIRA Qseven® Rel. 2.1 compliant module with NXP i.MX 8M Applications Processors

Qseven® solution for next generation embedded systems



### HIGHLIGHTS

<b>CPU</b> NXP i.MX 8M Applications Processors	<b>CONNECTIVITY</b> 1x USB 3.0; 4x USB2.0; up to 2x PCI-e x1 Gen2; 1x CAN Bus; 2x UART; 8x GPIOs
<b>GRAPHICS</b> Integrated GPU, supports 2 independent displays	<b>MEMORY</b> 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

<b>Processor</b>	NXP i.MX 8M Family based on ARM Cortex®-A53 cores + general purpose Cortex®-M4 processor: <ul style="list-style-type: none"> <li>• <b>i.MX 8M Quad</b> - 4x Cortex®-A53 cores up to 1.5GHz</li> <li>• <b>i.MX 8M Dual</b> - 2x Cortex®-A53 cores up to 1.5GHz</li> <li>• <b>i.MX 8M QuadLite</b> - 4x Cortex®-A53 cores up to 1.5GHz, no VPU</li> </ul>	<b>Audio</b>	I2S Audio Interface
<b>Memory</b>	Soldered Down DDR4-2400 memory, dual-channel 32-bit interface, up to 4GB	<b>Serial Ports</b>	1x UART Tx/Rx/RTS/CTS (Optional) 1x Debug UART Optional CAN Bus interface (TTL Level)
<b>Graphics</b>	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	<b>Other Interfaces</b>	I2C Bus SM Bus Optional SPI interface 8 x GPIOs UltraLow Power RTC Power Management Signals Watchdog
<b>Video Interfaces</b>	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	<b>Power Supply</b>	+5V <sub>DC</sub> ±5% and +5V <sub>SB</sub> (optional) +3.3V <sub>RTC</sub>
<b>Video Resolution</b>	HDMI/DP up to 4096 x 2160p60 LVDS/eDP up to 1920 x 1080 @ 60Hz	<b>Operating System</b>	Linux Yocto Android
<b>Mass Storage</b>	eMMC 5.0 drive soldered on-board, up to 64GB Optional microSD slot on board QSPI Flash soldered-onboard	<b>Operating Temperature*</b>	0°C ÷ +60°C (Commercial version) -40°C ÷ +85°C (Industrial version)
<b>Networking</b>	1 x Gigabit Ethernet interface Optional WiFi + BT LE module onboard	<b>Dimensions</b>	70 x 70 mm (2.76" x 2.76")
<b>USB</b>	1 x USB 3.0 Host or Client Port Up to 4 x USB 2.0 Host Ports	*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.	
<b>PCI-e</b>	Up to 2 x PCI-e x1 Gen2 ports		

# MIRA

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### BLOCK DIAGRAM

