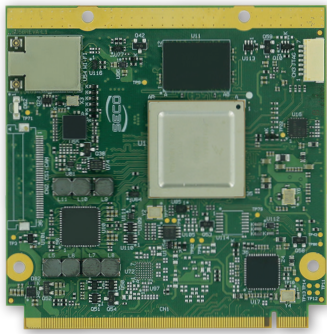




Q7-C58 Qseven® Rel. 2.1 compliant module with NXP i.MX 8X Applications Processors

Highly-efficient architecture in a compact, safety-certifiable Qseven® module



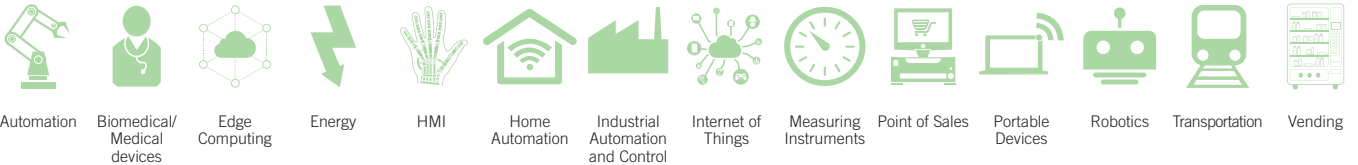
HIGHLIGHTS

CPU NXP i.MX 8X Applications Processors	CONNECTIVITY 1x Gigabit Ethernet; opt. Wi-Fi +BT 5.0; CSI camera; 2x USB 3.0; 2x USB2.0; 1x PCI-e x1; 1x CAN Bus; 1xUART; 8x GPIOs
GRAPHICS Integrated GPU, supports 2 independent displays	MEMORY up to 4GB soldered down LPDDR4-2400 memory

Available in Industrial Temperature Range



MAIN FIELDS OF APPLICATION



FEATURES

Processor	NXP i.MX 8X family SoCs: Dual or Quad ARM Cortex®-A35 Cores + 1x Cortex® M4F core for real-time processing <ul style="list-style-type: none"> NXP i.MX8 QuadXplus, 4x ARM Cortex®-A35 Cores + 1x Cortex® M4F core for real-time processing NXP i.MX8 DualXplus, 2x ARM Cortex®-A35 Cores + 1x Cortex® M4F core for real-time processing NXP i.MX8 DualX, 2x ARM Cortex®-A35 Cores 	USB	2 x USB 2.0 Host Ports 2 x USB 3.0 Host Ports
Max Cores	4+1	PCI-e	1x PCI-e 3.0 x1 port
Memory	Soldered down LPDDR4 memory @ 1200MHz, 32-bit interface, up to 4GB	Audio	1x I2S Audio interface
Graphics	Embedded GC7000Lite GPU Supports OpenGL 3.0, 2.1, OpenGL ES 3.1, OpenCL 1.2 Full Profile and 1.1, OpenVG 1.1, and Vulkan Embedded VPU, supports HW decoding of HEVC/H.265, AVC/H.264, MPEG-2, VC-1, RV10, VP8, H.263 and MPEG4.2t, HW encoding of AVC/H.264 2 independent displays supported	Serial Ports	1x 4-wires UART
Video Interfaces	Factory alternatives: <ul style="list-style-type: none"> 2x LVDS Single Channel / 1x LVDS Dual Channel 18-/24-bit interface LVDS Single Channel 18-/24-bit interface + HDMI interface eDP 4-lane interface + LVDS single Channel 18-/24-bit interface eDP 4-lane interface + HDMI interface 	CAN	1x CAN interfaces
Video Resolution	MIPI-DSI, LVDS, eDP, HDMI: Up to 1920 x 1080 @ 60Hz	Other Interfaces	1x 4-lanes CSI camera interface 2x PWM Up to 8x GPIOs I2C bus SM bus SPI interface Watchdog Boot select signals Power Management Signals
Mass Storage	Optional Soldered onboard eMMC 5.1 Drive, up to 64GB SD 4-bit interface QSPI NOR Flash soldered on-board	Power Supply	+5V _{DC} and +3.3V _{RTC}
Networking	1 x Gigabit Ethernet interface On-board WiFi 802.11 a/b/g/n + BT LE 5.0 module, optional	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.

BLOCK DIAGRAM

