



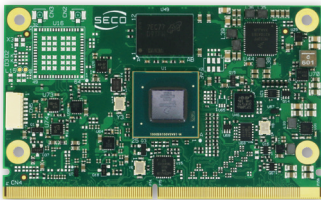
LEXELL

SMARC® Rel. 2.1.1 module with NXP i.MX 8M Applications Processors

Standard solution for next generation multimedia applications



HIGHLIGHTS



CPU NXP i.MX 8M Applications Processors	CONNECTIVITY WiFi + BT LE; CSI camera; QuadSPI interface; 14 x GPIOs
GRAPHICS Integrated Graphics Processing Unit, supports 2 independent displays	MEMORY Up to 4GB soldered down LPDDR4-3200 memory, 32-bit interface

Available in Industrial Temperature Range



MAIN FIELDS OF APPLICATION



FEATURES

Processor NXP i.MX 8M Family based on Arm Cortex®-A53 cores + general purpose Cortex®-M4 processor: <ul style="list-style-type: none"> • 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 	Other Interfaces 1x 4-lanes + 1x 2-lanes CSI camera interfaces I2C Bus SM Bus 2x SPI interfaces QuadSPI interface 14 x GPIOs Boot select signals Power Management Signals
Memory Soldered Down LPDDR4-3200 memory, 32-bit interface, up to 4GB	Power Supply +5V _{DC} +3.3V _{RTC}
Graphics Integrated Graphics Processing Unit, supports 2 independent displays Embedded VPU, supports HW decoding of HEVC (H.265), H.264, H.263, MPEG-4, MPEG-2, AVC, VC-1, RV, DivX, VP6, VP8, VP9, JPEG Supports OpenGL ES 3.1, Open CL 1.2. OpenGL 2.X, Vulkan, DirectX, Open VG 1.1	Operating System Linux Yocto Android
Video Interfaces HDMI 2.0a interface, supporting HDCP 2.2 and HDCP 1.4 18- / 24-bit Dual Channel LVDS interface (factory option)	Operating Temperature* 0°C ÷ +60°C (Commercial version) -40°C ÷ +85°C (Industrial version)
Video Resolution HDMI: Up to 4096 x 2160 @ 60 (4K) LVDS: Up to 1920 x 1080 @ 60Hz	Dimensions 50 x 82 mm (1.97" x 3.23")
Mass Storage Optional SD 4-bit interface QSPI Flash soldered-on-board eMMC 5.0 drive soldered on-board	*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.
Networking 1 x Gigabit Ethernet interface Optional WiFi + BT LE module onboard	
USB 2 USB 3.0 Host ports 2 USB 2.0 Host ports 1 USB 2.0 OTG port	
PCI-e 2x PCI-e x1 ports	
Audio I2S Audio Interface	
Serial Ports Up to 2x UART Tx/Rx/RTS/CTS 2x UART Tx/Rx 1x CAN Bus (TTL level)	

BLOCK DIAGRAM

