

SBC-3.5-MX8M

3.5" SBC with NXP i.MX 8M Applications Processors

A new generation of cost effective solutions for multimedia and industrial IoT applications





HIGHLIGHTS



GRAPHICS



CONNECTIVITY

WiFi ac/a/b/g/n + BT LE 5; M.2 WWAN slot; microSIM slot for M.2 modem



MEMORY

Soldered down DDR3L memory



Vivante GC7000Lite GPU Available in Industrial Temperature Range









MAIN FIELDS OF APPLICATION









Medical

Industrial **Automation**

Smart Devices

Digital Signage

FEATURES

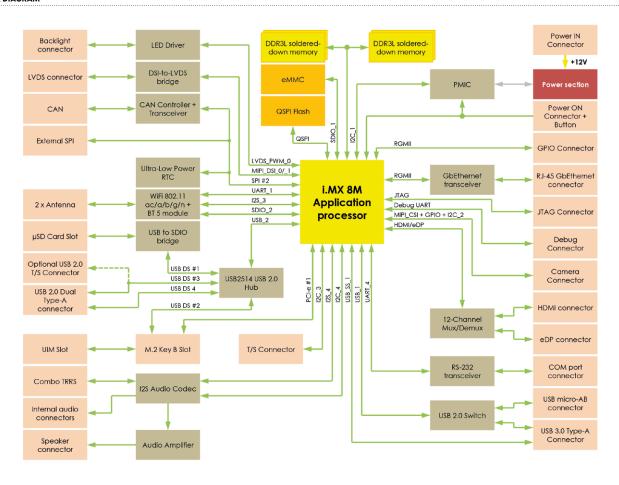
Processor	NXP i.MX 8M Family, based on Arm® Cortex®-A53 MPCore + Cortex-M4 core platform: i.MX 8M Quad - Quad core up to 1.5GHz i.MX 8M QuadLite - Quad core up to 1.5 GHz per core i.MX 8M Dual - Dual core up to 1.5 GHz per core
Memory	Soldered down DDR3L memory, up to 2GB
Graphics	Vivante GC7000Lite GPU, supporting OpenGL ES 1.1 / 2.0 / 3.0 / 3.1, Open CL 1.2 and Vulkan Dedicated VPU (not for QuadLite), supporting 4Kp60 HEVC/H.265 main and main 10 decoder, 4Kp60 VP9 decoder, 4Kp30 AVC/H.264 decoder, 1080p60 MPEG-2, MPEG-4p2, VC-1, VP8, RV9, AVS, MJPEG, H.263 decoder Dual Display support
Video Interfaces	embedded Display Port 1.4 connector (switched with HDMI®) Optional LVDS interface Optional HDMI® 1.4 / 2.0a interface (switched with eDP) 4-lane MIPI_CSI Camera interface
Video Resolution	HDMI®, eDP: up to 4096x2160 LVDS: up to 1920x1080
Mass Storage	Optional eMMC drive on-board, up to 16GB microSD Card slot
로움 Networking	Optional WiFi ac/a/b/g/n + BT 5 module with onboard U.FL antenna connectors Gigabit Ethernet port M.2 Socket 2 2260 / 3042 Key B slot for WWAN modules (modem)
•<- USB	USB Device on USB 2.0 micro-AB connector (interface shared with USB 3.0 port) USB 3.0 Type-A connector (interface shared with USB 2.0 micro-AB) USB 2.0 Dual Type-A connector Optional USB 2.0 internal T/S connector (excludes one USB 2.0 Type-A interface)

11.11	Audio	I2S Audio Codec Speaker + Microphone + Earphone interfaces on internal pin headers Line Out + Mic In combo TRRS audio jack Optional IOW for channel amplified Speaker connector
o o	Serial Ports	RS-232 Serial port connector Debug UART on internal pin header CAN Port
	Other Interfaces	microSIM slot for M.2 modems SPI interface I2C Touch Screen dedicated connector 8 x GPI/Os connector SPI Connector
	Power Supply	$+12V_{DC}$ Coin cell battery for RTC
OS	Operating System	Linux Android
	Operating Temperature*	0°C ÷ +60°C (Commercial version) -40°C ÷ +85°C (industrial version, only boards without optional WiFi module)
	Dimensions	1016 x 147 mm (4" x 5.78")

*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





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DATA ORCHESTRATION

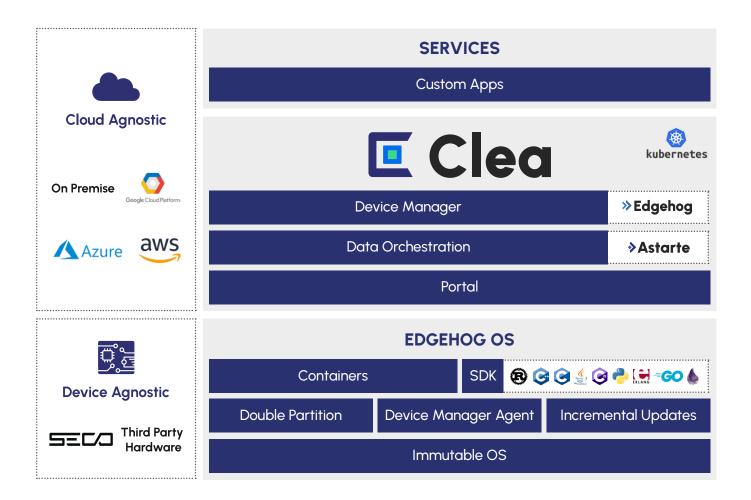
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