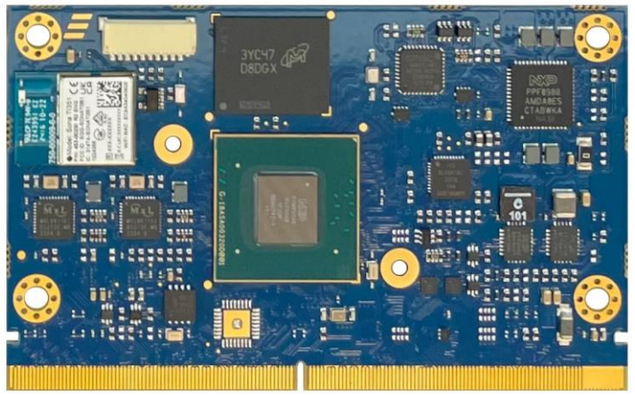
SmarCore MX95

The new Engicam module for a wide range of edge applications from Automotive connectivity to Industry 4.0 and IoT platforms, is based on SMARC® standard. SmarCore MX95 is based on NXP® i.MX95 processor with 2.0 TOPS NPU, 3D GPU for real-time, safety/low-power and high performance applications.



HIGHLIGHTS

- Standard SMARC 2.1.1
- Powerful NXP ® i.MX95 processor with GPU, NPU and VPU
- Suitable for machine learning, vision and advanced multimedia applications

APPLICATIONS

Artificial Intelligence · Industrial · Digital Signage Infotainment · Transportation · Automotive · Avionics · Surveillance · Robotics · Biomedical/ Medical devices · Gaming · Home Automation

FEATURES

CPU	NXP® i.MX95
CORES	• 6x Arm Cortex-A55, up to 1.8 GHz • 1x Arm Cortex-M7, up to 800 MHz • 1x Arm Cortex-M33, up to 333 MHz
MEMORY	Up to 16GB (@ 6400 MT/s) LPDDR5
GRAPHICS	Arm Mali-G310 3D GPU supporting 50 GFLOPs FP32. • OpenGL® ES 3.2 • Vulkan® 1.3 • OpenCL 3.0
VIDEO INTERFACES	• LVDS • MIPI-DSI • MIPI-CSI
VIDEO PROCESSING	• 4Kp30 H.265/H.264 decode and encode • 1x JPEG Encoder • 1x JPEG Decoder
AUDIO	• I²S interface • SAI Interface
NETWORKING	2x 1Gb Ethernet interfaces 1x 10 Gb Ethernet interface (SGMII)
USB	• 1x USB 3.0 (Optional Type C) • 4x USB 2.0 (HUB option)
MASS STORAGE	Starting from 4GB eMMC drive soldered on-board
PERIPHERAL INTERFACES	UART, LPSPI, I²C, CAN Bus, GPIOs
PCIE	2x PCIe 3.0
OPERATING SYSTEM	• Linux Yocto • Android
POWER SUPPLY	+5V DC
DIMENSIONS	Standard SMARC short size module
OPERATING TEMPERATURE*	Extended Industrial qualified

* Valid for all components except CPU. Customer shall consider junction temperature for CPU. Temperature will widely depend on application. Specific cooling solutions could be necessary for the final system.

NXP Gold Partner

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BLOCK DIAGRAM