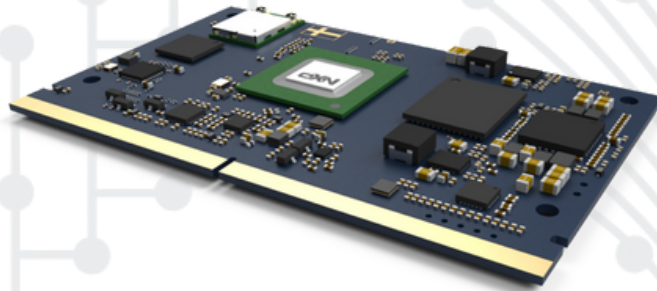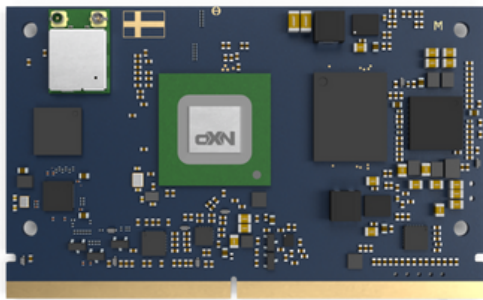# H6095

SMARC module with NXP® i.MX95

H6095 is a compact SMARC 2.2 compatible Computer on Module based on the i.MX 95 family of high performance processors from NXP® i.MX 95 features up to six ARM Cortex-A55 cores, dual Real-Time cores, powerful Graphics processor, NPU for AI applications and a fully featured set of I/Os. H6095 contains up to 16 GB LPDDR5 memory and up to 256 GB eMMC storage soldered on board. Optionally it can be equipped with a Wi-Fi/Bluetooth wireless module. It is available in industrial grade temperature range and has a longevity of up to 15 years.

industrial

Features

- SMARC 2.2 compliant
- 4-6 ARM Cortex-A55 cores up to 1.8 Ghz
- ARM Cortex-M7 Real Time core at 800 MHz
- ARM Cortex-M33 low power core at 333 MHz
- eIQ Neuron 2 TOPS Neural processor (NPU)
- ARM Mali-G310 Graphics processor (GPU)
- Video encoder/decoder (VPU) for up to 4Kp60 H.264 and H.265
- Up to 16 GB LPDDR5 memory on board

- Up to 256 GB eMMC storage on board
- Dual channel LVDS
- 4-lane MIPI-DSI
- HDMI
- 1x USB 3.0 Host and 1x USB 2.0 Host/Device ports
- 2x Gigabit Ethernet
- Up to 5x CAN-FD interfaces
- Optional Wi-Fi/Bluetooth wireless module

LOOKING FOR SOMETHING SLIGHTLY DIFFERENT?

In most cases standard products can be customized to specification. With small modifications to hardware and software, you can have the qualities and functions you need. Call us. We will be happy to suggest and implement changes in standard products to meet your requirements exactly.

HECTRONIC

SOC
- NXP i.MX 95 ARM Cortex-A55 Applications Processor
- MIMX9556CVZXNAC: Hexa core, 1.8 GHz, ISP, NPU, GPU, Display
- MIMX9554CVZXNAC: Quad core, 1.8 GHz, ISP, NPU, GPU, Display

MEMORY
- 2, 4, 8 or 16 GB LPDDR5 memory soldered on board

STORAGE
- 16, 32, 64, 128 or 256 GB eMMC soldered on board
- External SDIO interface for SD/MMC/SDIO

GRAPHICS
- ARM Mali-G310 Graphics processor
- Video encoder/decoder for up to 4Kp60 H.264 and H.265
- Dual channel LVDS interface usable as two separate 18/24-bit interfaces (max 720p) or one 48-bit (max 1080p)*
- 4-lane MIPI-DSI for panels up to 3840 x 1440*
- HDMI interface up to 4Kp60*
- 4-lane MIPI-CSI for camera

(*) Maximum two simultaneous displays can be used with multiplexing options

CAN
- 2x CAN-FD accoring to SMARC 2.2 specification
- 3x optional CAN-FD interfaces on GPIO pins

GPIO
- 12x GPIO

USB
- 1x USB 3.0 Host
- 1x USB 2.0 Host/Device

SERIAL INTERFACES
- 2x UART w. flow control
- 1x UART w. only RX/TX
- 1x Debug UART
- 2x I2C
- 2x SPI

PCI EXPRESS
- 2x 1-lane PCI Express 3.0

AUDIO
- 2x I2S interface

ETHERNET
- 2x Gigabyte Ethernet interfaces

WIRELESS
- Optional Wireless module supporting Wi-Fi 6 and Bluetooth LE 5.4

SECURITY
- EdgeLock secure enclave: root of trust, secure boot, keys, tamper, TRNG, crypto.
- DRAM encryption + ECC for data protection. (optional)
- Isolated domains with safety/RT MCUs and TrustZoneM.(optional)
- Secure provisioning, attestation, OTA via EdgeLock services.

SAFETY
- Hardware prepared for IEC61508 (SIL 2) for Industrial applications (optional)
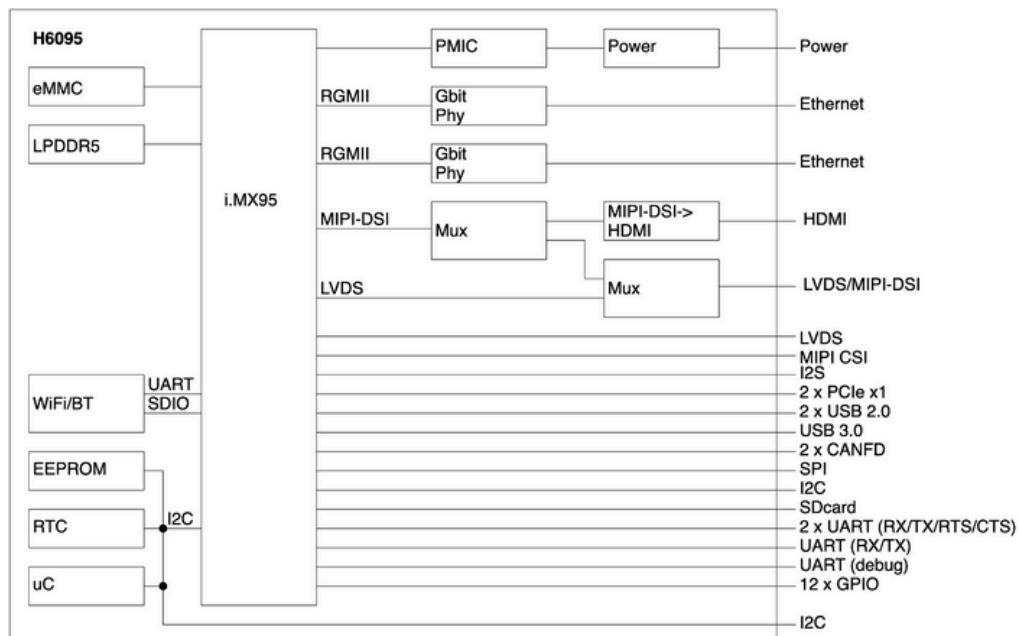
SOFTWARE
- Yocto 5.2 Board support package (6.0 LTS planned april 2026)
- Linux kernel 6.12

TEMPERATURE RANGE
- Industrial temperature range -40 to +85 °C

LONGEVITY
- Available up to 15 years from release