



Specifications

Form Factor	SMARC™ 2.0
Processor	NXP i.MX 8M Quad Cortex™-A53/ Cortex™-M4 processor
System Memory	3GB LPDDR4 on board
Flash Memory	16GB eMMC on board
Display	1x MIPI-DSI 4-lane up to 1920 x 1080 at 60Hz 1x HDMI 2.0a, up to 4K
Video Codec	<ul style="list-style-type: none"> 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
Graphics	<ul style="list-style-type: none"> GC7000Lite OpenGL ES 1.1, 2.0, 3.0, 3.1, Open CL 1.2, and Vulkan
Audio Interface	2x I²S, 1x SPDIF
LAN	1x GbE LAN
USB	2x USB 3.0/USB 2.0 with OTG interface
Image Capture Interface	2x MIPI-CSI2 4-lane each
Serial Interface	4x UART, 2x SPI
Media Interface	2x High-speed MMC/SDIO (MMC 8-bit, SDIO 4-bit)
PCI-E	2x PCI-E (x1) Gen2
SATA	N/A
GPIO	12x GPIO
I²C	4x I²C
Others	wireless WCN3980 (optional)
CAN Bus	N/A
Dimensions	82mm x 50mm (3.2" x 2")
Environment	Humidity: 0 % to 90 % RH at 60° C (non-condensing) Shock: Non-operating: 1G, 15 mins (x-, y-, z-axis) Vibration: Non-operating: 3 Hz to 500 Hz, 15 mins
Operating Temperature	-25°C ~ 80°C (-13°F ~ 176°F)
OS Support	Yocto 2.5 Android 9 Other OS (by request)
Certification	CE/ FCC Class-B

Features

- NXP Cortex™-A53/Cortex™-M4, i.MX 8M Quad processor
- 3GB LPDDR4, 16GB eMMC on board
- Rich peripheral I/O support
- Validated with Yocto v2.5 and Android 9
- Long life time supply with NXP solution
- Compliant with SMARC™ 2.0

Ordering Information

RM-N8M-Q3161	NXP Cortex™-A53/Cortex™-M4, i.MX 8M Quad 1.3GHz processor , 3GB LPDDR4, 16GB TLC eMMC
--------------	---

Dimensions

