



Features

- Qualcomm QCS610 SoC
- Up to 4GB LPDDR4, 32GB eMMC
- Qualcomm Adreno 612 GPU 3D graphics accelerator with 64-bit addressing 845 MHz
- 4K video capture and playback at 30fps
- 3.15 TOPS @Caffe
- Validated with Linux open Embedded
- Long-term availability with Qualcomm solution
- Compliant with SMARC™ 2.1
- Carrier board for RM-QCS610 SMARC™ 2.1 CPU module
- Supports 12V~24V DC-in jack, reset, power, LID button, RTC battery
- Supports Gigabit LAN, audio, USB OTG, HDMI, COM (RS232/422/485)
- With Micro SD socket, mPCI-E with USB on board
- Supports TTL, HDMI, MIPI-DSI Display, MIPI-CSI camera
- Wide-range operating temperature (-30°C~85°C)

Specifications

Form Factor	SMARC™ 2.1
Processor	QCS610 Kryo Gold: Dual high-performance cores 2.2 GHz Kryo Silver: Hexa low-power cores 1.8 GHz
System Memory	On board - 4GB LPDDR4/ 32GB eMMC
Flash Memory	32GB eMMC
Display	1x HDMI TX (Up to 1920 x 1080 at 60 Hz) 1x MIPI DSI TX (Up to 1920 x 1200 at 60 Hz) Controlled by SW1 switch
Video Codec	4K30 8-bit H.264/HEVC/VP8/VP9 Multi-format codec up to 4K30 video encode Multi-stream codec (4K30) (HEVC) + 720p30 (YUV) + 480p30 (VA-YUV) Dual 14-bit image signal processing (ISP) + Lite ISP: 24 MP (2x IFE + 1x IFE Lite, 16 + 16 + 2 MP), 4K30, MCTF, SHDR, C-PHY, DPHY 4K30 8-bit H.264/HEVC/VP8
Graphics	Adreno 612; 845 MHz, 3D graphics accelerator with 64-bit addressing
Audio Interface	1x I²S
LAN	1x GbE LAN
USB	3x USB 2.0 (Type-A) 1x USB3.0 (Micro-B, With OTG Support)
Image Capture Interface	1x MIPI CSI 2Lane (Up to 1920 x 1080 at 30 FPS) 1x MIPI CSI 4Lane (Up to 4208 x 3120 at 30 FPS)
Serial Interface	1x UART 2Wire, 2x UART 4Wire, 2x SPI
Media Interface	N/A
PCI-E	N/A
SATA	N/A
GPIO	12x GPIO
I²C	4x I²C
Others	RTC
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	-30°C ~ +80°C (-22°F ~ 176°F)
OS Support	Linux open embedded / Other OS (by request)
Certification	CE/ FCC Class-A

Ordering Information

RM-QCS610L	Industrial grade SMARC™ 2.1 CPU module, Qualcomm QCS610 SoC, 4GB LPDDR4, 32GB eMMC
HSRMQCS610-B	Heat sink for IBASE RM-QCS610 series module

Dimensions

