



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 Open Linux Embedded 5.4 and Android 12 (2023/2, CS)
- Long life time supply with Qualcomm solution
- Compliant with SMARC™ 2.1

Specifications

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|-------------------------|---|
| 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 - 2GB LPDDR4 - 4GB LPDDR4 (optional) |
| Flash Memory | 32GB eMMC |
| Display | 1x HDMI up to 1920 x 1080 at 60 Hz 1x MIPI DSI |
| 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 I ² S |
| LAN | 1x GbE Lan |
| USB | 3x USB 2.0 (Type-A) 1x USB 3.0 (Gen-1 with OTG support) |
| Image Capture Interface | 1x MIPI CSI (2 lane) + 1x MIPI CSI (2 or 4 lane) |
| Serial Interface | 1x UART, 2x SPI |
| Media Interface | N/A |
| PCI-E | N/A |
| SATA | N/A |
| GPIO | 12x GPIO |
| I ² C | 4x I ² C |
| 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 | -30°C ~ +85°C |
| OS Support | Linux open embedded / Other OS (by request) |
| Certification | CE/ FCC Class-A |

Ordering Information

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|------------|--|
| RM-QCS610L | Industrial grade SMARC™ 2.1 CPU module, Qualcomm QCS610 SoC, 2GB LPDDR4, 16GB TLC eMMC |
| RM-HSK-Q | Heat sink for IBASE RM-QCS610 series module |

Dimensions

