

Mecha Comet

Handheld programmable computer

FEATURES

- ✓ 1.8 GHz ARM 64-bit Quad-core
- ✓ 4GB LPDDR4
- ✓ Wireless, BT 5.0, BLE
- ✓ Onboard PCIe 2.0 support
- ✓ 32GB eMMC onboard (high speed)
- ✓ Rich peripheral I/O support
- ✓ 40-pogo pins
- ✓ Mechanix OS (Debian 12), Yocto



HARDWARE SPECIFICATIONS

Parameters	Description
SOC	NXP i.MX 8M Mini (64-bit) Quad-Core ARM Cortex-A53 (1.8 GHz per core) 32KB L1 Cache, 512 kB L2 Cache Cortex-M4 core up to 400MHz
RAM	4GB DDR4 LPDDR4
Disk	32 GB eMMC NAND Flash (110 MB/s write, 250 MB/s read)
GPU	Vivante GC NanoUltra 3D (1 shader), GC30 2D
VPU	Encoding - 1080p60 H.264, VP8 Decoding - 1080p60 H.265, H.264, VP8, VP9
Wireless	2.4 GHz and 5.0 GHz IEEE 802.11ac wireless
Bluetooth	Bluetooth 5.0, BLE
Display	3.4", LED with IPS TFT Display 480 x 480, 200 pixels per inch Capacitive 2-finger touch
Audio	High-Performance, Ultra-low Power Consumption 1.2 W rated power, 6 Ohm rated impedance Dual - 100 Hz ~ 10 kHz Digital, PDM Microphone MEMS



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Camera	OV5640 5 MP Sensor, Autofocus 1080p: 30 fps, 960p: 45 fps, 720p: 60 fps
PCIe	PCIe 2.0 (5 Gbps), M.2 slot with M-key for 2230 cards
USB	1x USB Type-A 2.0 with OTG, 1x USB Type-A 2.0
Ethernet	1x Gigabit Ethernet
Power	USB Type-C, 5V DC (2-3A) 3000 MaH LiPO Battery Fast Charging, 0 to 50% in 25 mins 2.5 - 10 W Consumption

RTC	Secure RTC with Onboard Coin-Cell
ADC	16-bit, Single Channel
Motion	6-Axis Gyroscope
LED	1x RGB Programmable LED
Crypto	ARM Hardware Crypto Accelerator Isolated Trust anchor for RSA, ECC, AES keys Accelerated engine for OpenSSL 3.0, 1.1.1g
Pins	40 pogo pins with - 14x GPIO, 4x ADC, 2x UART, 2x I2C, 1x SPI, 2x PWM, 1x USB, 1x RTC



Dimensions	70 mm x 150 mm x 16.5 mm
Weight	215 grams (7.5 Oz)
Screws	M2.5 Socket Head (Allen) Bolt



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