



Quick Guide

VIA IVT01

Overview

The VIA IVT01 is an 8.0" tablet with Android™ and an FHD capacitive touch screen. It is powered by the 2.0GHz MediaTek500 octa-core processor with 4GB LPDDR4 SDRAM and 16GB eMMC storage.

Measuring just 220mm (W) x 56mm (H) x 145mm (D), the system integrates a set of I/O features through the side panel, including a Micro USB 2.0 connector, Micro SIM card slot, 3.5mm audio jack, connectors to support CAN, RS-232, GPIO and power input.

Key Features

- High-performance octa-core MediaTek i500 processor
- 8.0" FHD capacitive touch screen
- Support for 4G, GPS, Wi-Fi, and Bluetooth wireless connectivity
- MIPI DSI display support
- Wide input voltage range supporting 9V~36V DC-in



Specifications

| | | |
|------------------------|--|--|
| SOM-9X50 Module | Processor | MediaTek i500 octa-core Processor - FourCortex-A73 @ 2.0GHz - FourCortex-A53 @ 2.0GHz |
| | System Memory | 4GB LPDDR4 SDRAM |
| | Storage | 16GB eMMC Flash memory |
| | Graphics | ARM Mali-G72 high-performance GPU 3Dgraphics accelerator capable of processing 2400M pixel/sec @ 800MHz Graphics engine supporting OpenGL® ES 3.1, OpenCL ES 1.1, and Vulkan 1.0 hardware acceleration |
| | Video Decoder | 1080p@30fps H.264/265 |
| | Video Encoder | 1080p@30fps H.264 |
| | DSP | Cadence Tensilica Vision P6 x2 |
| | PMIC/Audio Codec | MediaTek MT6358 Over current and thermal overload protection Under voltage lockout protection |
| | Wireless Connectivity | MediaTek MT7668 supports integrated Wi-Fi and Bluetooth |
| | MCU | STMicroelectronics STM32F103RCT6 ARM Cortex-M3 MCU with 256KB Flash, 72MHz CPU |
| Display | 8.0" FHD, 1920x1200 TFT LCD with LED Backlight, MIPI DSI interface and capacitive touch screen | |

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|---|---|
| Audio | Nuvoton NAU8223 Stereo Filter-Free Class-D Audio Amplifier |
| Light Sensor | Victory OE T348 3mm Round Ambient Light Sensor |
| Accelerometer Sensor | Bosch BMA253 Triaxial, Low-g Accelerometer |
| USB Switch | TI TS3USB21 High-speed USB 2.0 (480Mbps) 1:2 Multiplexer/Demultiplexer Switch with Single Enable |
| USB Hub | SMSC USB2514BI USB 2.0 High-Speed 4-Port Hub Controller |
| Onboard I/O | <p>2 Digital MEMS microphones</p> <p>2 1W speaker</p> <p>1 MIPI DSI connector</p> <p>1 MIPI CSI-2 connector (optional)</p> <p>1 Touch screen connector</p> <p>1 MiniPCIe slot (supports USB 2.0)</p> <p>1 USB 2.0 host connector</p> <p>1 Debug UART connector (supports TX/RX)</p> <p>4 IPEX connectors (for internal RF antennas)</p> <p>1 Battery charging connector (supports I²C and Gas gauge)</p> |
| Coastline I/O | <p>1 Connector to supports:</p> <ul style="list-style-type: none"> - Power input (ACC/IGN/BAT(DCIN)/GND) - RS-232 (TX/RX/CTS/RTS) - GPI (Speed) <p>1 Connector (optional) to supports:</p> <ul style="list-style-type: none"> - CAN - RS-232 (TX/RX/CTS/RTS) - GPIO (4GPI + 1GPO) <p>1 Micro USB 2.0 connector (supports Host mode)</p> <p>1 Micro SIM card slot</p> <p>1 Reset switch</p> <p>4 Hardware keys (volume up, volume down, reserved, and power buttons)</p> <p>2 Microphones</p> <p>1 Light sensor</p> <p>1 Power LED</p> <p>1 3.5mm audio jack (supports Headphone-out and Mic-in)</p> |
| Battery | Re-Energy 3.7V 7800mAh 1S3P battery pack |
| Watchdog | Supports Watchdog Timer |
| Power Supply | <p>9V~36V DC-in, 36W</p> <p>Supports intelligent vehicle power management: ACC/IGN on/off delay and power protection</p> <p>Supports Input Over Voltage Protection and Short Voltage Protection</p> <p>Battery-powered design for detachable/mobile capability</p> |
| Operating System | Android 10 (GMS) |
| Operating Temperature | -10°C ~ 60°C |
| Vibration Loading During Operation | Meets Japan government (MLIT) standard requirements |
| Dimensions | 220mm (W) x 56mm (H) x 145mm (D) (8.66" x 2.20" x 5.71") |
| Compliance | CE, FCC Class A |

Layout Diagram

Front Side



Left Side



Rear Side



Right Side



Bottom Side

