

3.5" SBC Series

VIA VAB-630

Cost effective single board computer with flexible I/O and rich connectivity

Features

- Compact 3.5" SBC Form Factor
- Hardware acceleration for smooth 1080p video playback
- Android solution pack available
- Optional 12V(default) or 5V power input
- Support for 3G, Wi-Fi, & BT wireless connectivity



Board Placement

Ethernet

COM

USB Connector

SIM Card Slot

miniPCIe Slot

Line-out

Mic-in

Micro SD Card Slot

Micro USB 2.0

USB 2.0

HDMI

DC-in

Battery Charger

VIA Dual-core SoC

DDR3

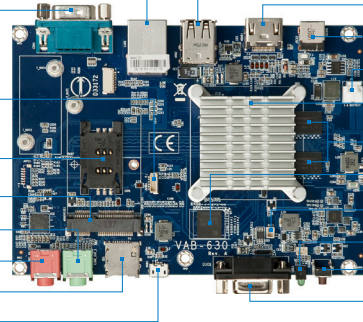
eMMC

RTC Battery Connector

Power LED

Power Button

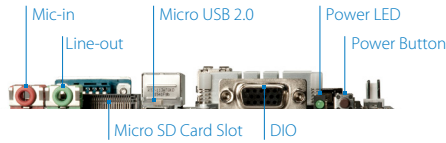
DIO



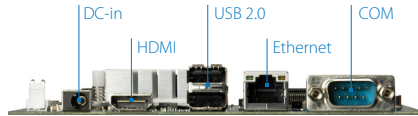
Specifications

Model Name	VAB-630
Processor	1.0GHz VIA Cortex-A9 dual-core SoC
System Memory	1GB DDR3 SDRAM onboard
Storage	4GB eMMC flash memory
Boot Loader	512KB SPI Flash ROM
Graphics	Mali-400 SP GPU 2 integrated, independent 3D/2D graphics processing units Graphics engine supporting OpenGL® ES 2.0 hardware acceleration Supports MPEG-2 and H.264 video decoding up to 1080p
LAN	ASIC AX88772CLF
Audio	VIA VT1603A I2S Audio Codec
HDMI	Integrated HDMI 1.4 Transmitter
USB	ASIC USB2514B-AEZC USB 2.0 hi speed 4-port hub controller
Expansion I/O	1 miniPCIe slot
Onboard I/O	1 Single-channel LVDS connector 1 miscellaneous pin header for I ² C touch screen interface 1 USB connector 1 UART (console port connector) 1 RTC battery connector 1 Battery charger connector 1 Reset connector 1 SIM card slot (supports 3G module without built-in SIM card slot) 1 miniPCIe slot
Front Panel I/O	1 Micro USB 2.0 OTG port 1 DIO port supporting 10 GPIO with 3.3V power 1 Micro SD card slot 2 Audio jacks : Line-out and Mic-in 1 Power LED 1 Power Button
Back Panel I/O	1 HDMI port 2 USB 2.0 ports 1 COM port for RS-232 (TX/RX) 1 10/100Mbps Ethernet port 1 DC-in jack
Power Supply	12V DC-in (5V DC-in optional)
Operating System	Android 5.0, Linux Kernel 3.4.5
VIA Smart ETK	Watchdog timer, GPIO, UART
Operating Temperature	0°C ~ 60°C
Operating Humidity	0 ~ 90% @ 40°C (non-condensing)
Form Factor	14.6cm x 10.2cm (5.75" x 4.02")
Compliance	CE, FCC

Front Panel I/O



Back Panel I/O



Accessories



EMIO-5531 USB Wi-Fi + BT Module
802.11b/g/n standards
Bluetooth 2.1 + EDR specification



EMIO-2550 3G HSPA/UMTS Mobile Broadband Module



EMIO-2531 miniPCIe Wi-Fi + BT Module
802.11b/g/n standards
Bluetooth 2.1 + EDR specification

Ordering Information

Part Number	SoC Frequency	Description
10GHL126000A0	VIA Cortex-A9 dual-core SoC @ 1.0GHz	3.5" SBC with 1.0GHz VIA Cortex-A9 dual-core SoC, 4GB eMMC, 1GB DDR3 SDRAM, HDMI, 2 USB 2.0, 1 Micro USB 2.0 OTG, COM, DIO, 10/100Mbps Ethernet, miniPCIe slot, Micro SD card slot, 12V DC-in

Optional Accessories

Power Accessories

Part Number	Description
99G63-02033A	12V 36W power adapter (power plug not included)

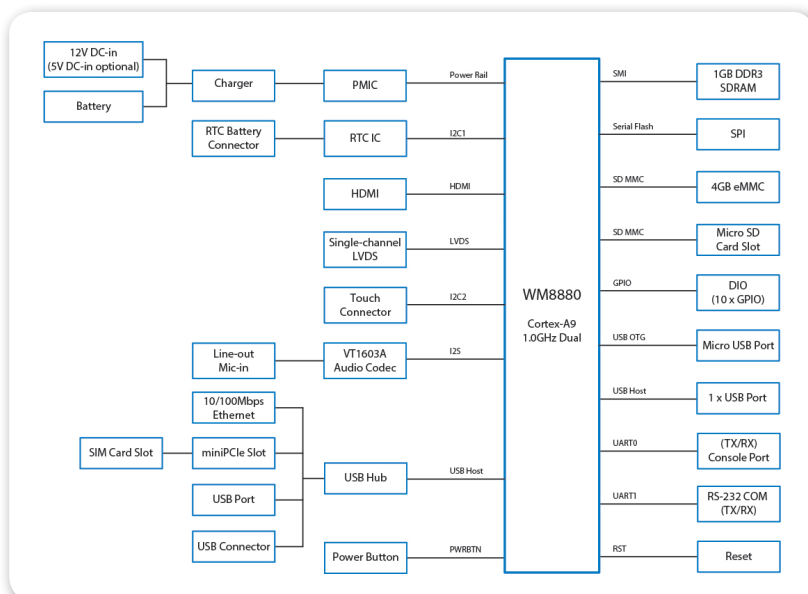
Touch Panel

Part Number	Description
STK-10630-00A0	10.1" LVDS LCD Touch panel with LVDS and touch cables

Wireless Accessories

Part Number	Description
EMIO-5531-00A1	VAB-820-W IEEE 802.11 b/g/n USB Wi-Fi + Bluetooth module with assembly kit and antenna
EMIO-2531-00A1	VAB-820-W-M IEEE 802.11 b/g/n miniPCIe Wi-Fi & Bluetooth module with assembly kit and antenna
EMIO-2550-01A1	3.75G HSPA/UMTS mobile broadband full size miniPCIe module with assembly kit and antenna

Dimensions



Packing List

Items
VAB-630 Board
RTC battery