

ARM-based Pico-ITX Series

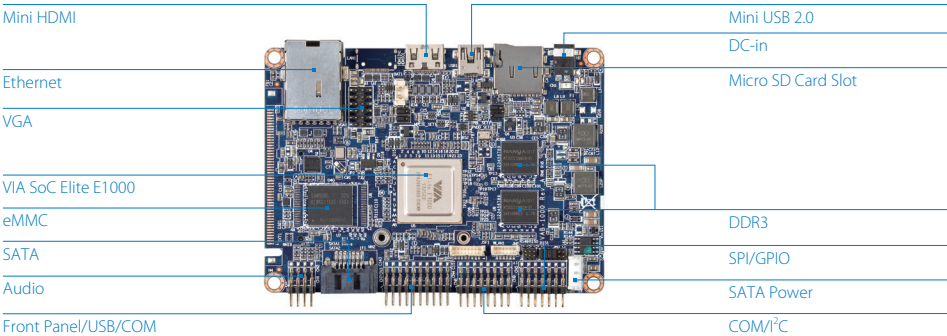
NEW

VIA
VAB-1000

Advanced graphics and video capabilities with a rich I/O feature set for interactive multimedia applications

Features

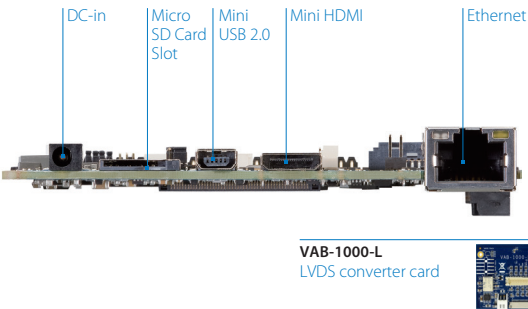
- Compact 10cm x 7.2cm Pico-ITX form factor
- 1.0GHz VIA Elite E1000 Cortex-A9 dual-core SoC
- Dual display support including full HD content and dual channel LVDS
- Graphics powerhouse
- Android software solution pack available



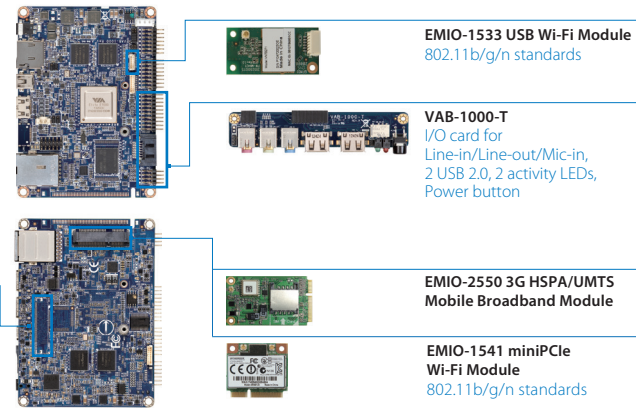
Specifications

Model Name	VAB-1000
Processor	1.0GHz VIA Elite E1000 Cortex-A9 dual-core SoC
System Memory	2GB DDR3 SDRAM onboard
Storage	4GB eMMC Flash memory 1 SATA connector
Graphics	3 integrated, independent 3D/2D and video processing units VIA Chrome® graphics engine supporting OpenGL® ES 3.0 hardware acceleration Supports MPEG-2, VC-1 and H.264 video decoding up to 1080p
LAN	Realtek RTL8111G Gigabit Ethernet controller
Audio	Wolfson WM8960 Audio Codec
HDMI	Integrated HDMI 1.4 transmitter
Expansion I/O	1 miniPCIe slot
Onboard I/O	1 SATA connector 1 SATA power connector with +12V/+5V select jumper for SSD 1 USB pin header for Wi-Fi module 1 Dual-channel 18/24-bit LVDS panel connector 1 Front panel pin header for 2 USB 2.0 ports, 1 COM (TX/RX) port, power-on and 2 activity LED indicators 1 Miscellaneous pin header for 2 COM (TX/RX) ports and 3 I ² C 1 Miscellaneous pin header for Digital I/O (4 GPIO) 1 JTAG pin header (for debugging) 1 SPI Flash pin header 1 Audio pin header for Line-in, Line-out, Mic-in 1 miniPCIe slot
Front Panel I/O (with VAB-1000-T)	2 USB 2.0 ports 3 Audio jacks: Line-in, Line-out and Mic-in 1 Power on/off button with built-in LED 1 SSD activity LED indicator 1 USB/COM LED indicator
Back Panel I/O	1 Mini USB 2.0 port 1 Mini HDMI 1 Gigabit Ethernet port 1 Micro SD card slot 1 DC-in jack
Power Supply	12V DC-in
Operating System	Android 4.4.2
Operating Temperature	0°C ~ 60°C
Operating Humidity	0% ~ 95% (non-condensing)
Form Factor	Pico-ITX (10cm x 7.2cm, 3.9" x 2.8")

Back Panel I/O



Accessories



Ordering Information

Part Number	SoC Frequency	Description
10GBL100200A0	VIA Elite E1000 Cortex-A9 dual-core SoC @ 1.0GHz	Pico-ITX board with 1.0GHz VIA Elite E1000 Cortex-A9 dual-core SoC, 4GB eMMC, 2GB DDR3 SDRAM, Mini HDMI, LVDS, 2 USB 2.0, Mini USB 2.0, COM, Gigabit Ethernet, Micro SD card slot, miniPCle slot, 12V DC-in (Packed with VAB-1000-T I/O card)

Optional Accessories

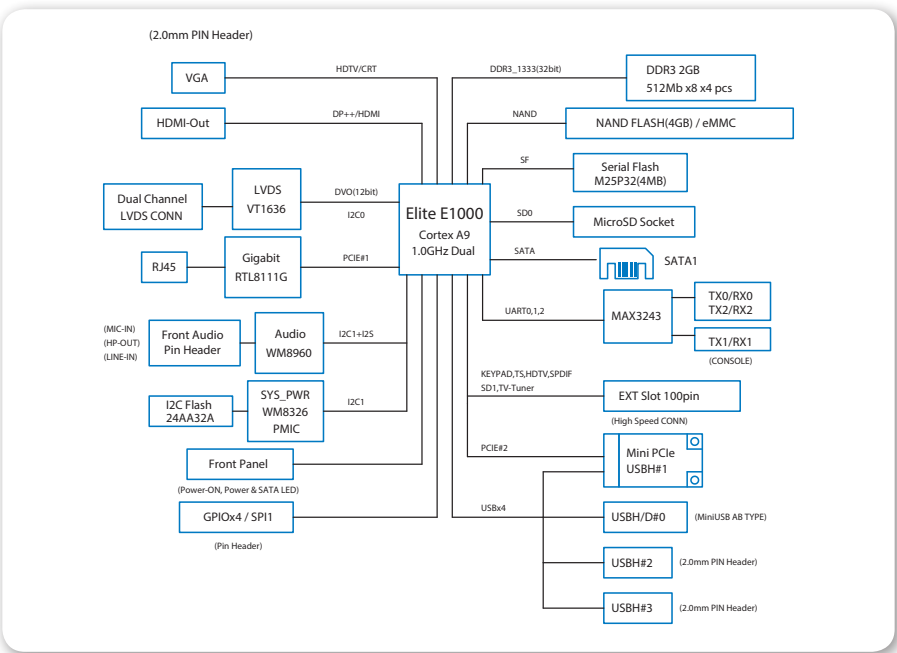
I/O Expansion Cards

Part Number	Description
10GBN00000020	VAB-1000-L LVDS converter card
10GBQ00000020	VAB-1000-T I/O card for Line-in/Line-out/Mic-in, 2 USB 2.0, 2 activity LEDs, Power button

Wireless Modules

Part Number	Description
EMIO-1533-00A2	VNT9271 IEEE 802.11 b/g/n USB Wi-Fi module with assembly kit
EMIO-1541-00A1	VNT9485 IEEE 802.11 b/g/n miniPCle Wi-Fi module with assembly kit and antenna
EMIO-2550-00A1	3.75G HSPA/UMTS mobile broadband full size miniPCle module with GPS and SIM card slot (*Note: GPS function is not currently supported for VAB-1000)

Block Diagram



Packing List

Items
VAB-1000 board
VAB-1000-T I/O card
Screw pack for miniPCle card
COM cable