

## Mini-ITX Series

# VIA VB7009

Flexible Mini-ITX board with advanced multimedia, I/O, and connectivity features

## Features

- Compact 17cm x 17cm Mini-ITX form factor
- Choice of VIA Eden® X4, VIA C7®-D, and VIA C7® processors
- DX9 graphics with MPEG-2/WMV9/VC-1/H.264 decoding acceleration
- Rich I/O and connectivity features
- Supports up to six onboard COM ports



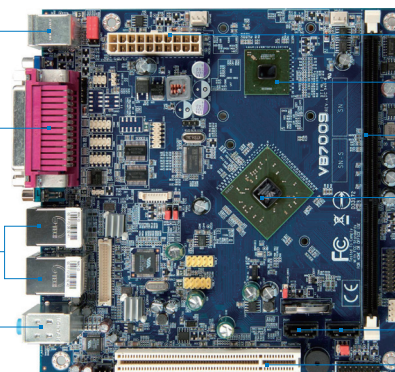
## Board Placement

PS2 Keyboard/Mouse

Parallel Port/COM/VGA

Gigabit Ethernet/USB

Audio Jacks



ATX Power Connector

VIA CPU

DDR3 DIMM

VIA VX900 Chipset

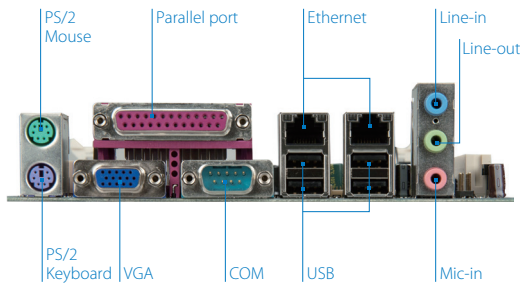
SATA

PCI

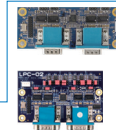
## Specifications

Model Name	VB7009-12QCE	VB7009-16	VB7009-10E
<b>Processor</b>	1.2GHz VIA Eden® X4 (Fanless)	1.6GHz VIA C7®-D (with fan)	1.0GHz VIA C7® (Fanless)
<b>Chipset</b>	VIA VX900 Media System Processor		
<b>BIOS</b>	AMI BIOS, 8Mbit Flash memory		
<b>System Memory</b>	1 DDR3 1066 DIMM slot Up to 4GB memory size		
<b>Storage</b>	2 SATA connectors		
<b>Graphics</b>	Integrated VIA C-9 HD DX9 3D/2D graphics with MPEG-2, WMV9, VC-1 and H.264 video decoding acceleration		
<b>LAN</b>	2 VIA VT6130 PCIe Gigabit Ethernet controllers		
<b>Audio</b>	VIA VT1708S High Definition Audio Codec		
<b>Super I/O</b>	Fintek F81865F-I		
<b>Expansion I/O</b>	1 PCI slot		
<b>Onboard I/O</b>	2 SATA connectors 2 USB 2.0 pin headers for 4 ports 1 Dual-channel 18/24 bit LVDS panel connector 1 LVDS panel power selector (5V/3.3V) 1 LVDS inverter pin header 1 LVDS inverter power selector (5V/12V) 5 COM port pin headers 2 optional (powered with selectable 5V/12V) 1 LPC pin header 1 SMBus pin header 1 S/PDIF-out connector 1 Digital I/O pin header (4 GPI + 4 GPO) 1 Front audio pin header for Line-out and Mic-in 2 Smart Fan pin headers for CPU and system 1 ATX power connector 1 PCI slot		
<b>Back Panel I/O</b>	4 USB 2.0 ports 1 VGA port 1 COM port 1 Parallel port 2 Gigabit Ethernet ports 3 Audio jacks: Line-in, Line-out, and Mic-in 2 PS/2 keyboard/mouse ports		
<b>Power Supply</b>	ATX power connector		
<b>Operating System</b>	Windows 7, WES 7, Windows CE, Linux, POSReady 7		
<b>System Monitoring &amp; Management</b>	AC power failure recovery, RTC timer to power on, Wake-on LAN, Wake-on keyboard, Wake-on mouse		
<b>Operating Temperature</b>	0°C ~ 60°C		
<b>Operating Humidity</b>	0% ~ 95% (non-condensing)		
<b>Form Factor</b>	Mini-ITX (17cm x 17cm, 6.7" x 6.7")		
<b>Compliance</b>	CE/FCC		

## Back Panel I/O



## Accessories



**LPC-01/02/04**  
Up to 4 additional COM ports



**EXT-PCI**  
One to two PCI riser card



**EMIO-1533 USB Wi-Fi Module**  
802.11b/g/n standards



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

## Ordering Information

Part Number	CPU Frequency	Description
VB7009-12QCE	VIA Eden® X4 @ 1.2GHz	Mini-ITX Board with 1.2GHz VIA Eden® X4 E-Series CPU with VGA, LVDS, 8 USB 2.0, 6 COM, 2 Gigabit Ethernet, 2 SATA, PCI slot, ATX connector
VB7009-16	VIA C7®-D @ 1.6GHz	Mini-ITX Board with 1.6GHz VIA C7®-D CPU with VGA, LVDS, 8 USB 2.0, 4 COM, 2 Gigabit Ethernet, 2 SATA, PCI slot, ATX connector
VB7009-10E	VIA C7® @ 1.0GHz	Mini-ITX Board with 1.0GHz VIA C7® CPU with VGA, LVDS, 8 USB 2.0, 4 COM, 2 Gigabit Ethernet, 2 SATA, PCI slot, ATX connector

## Optional Accessories

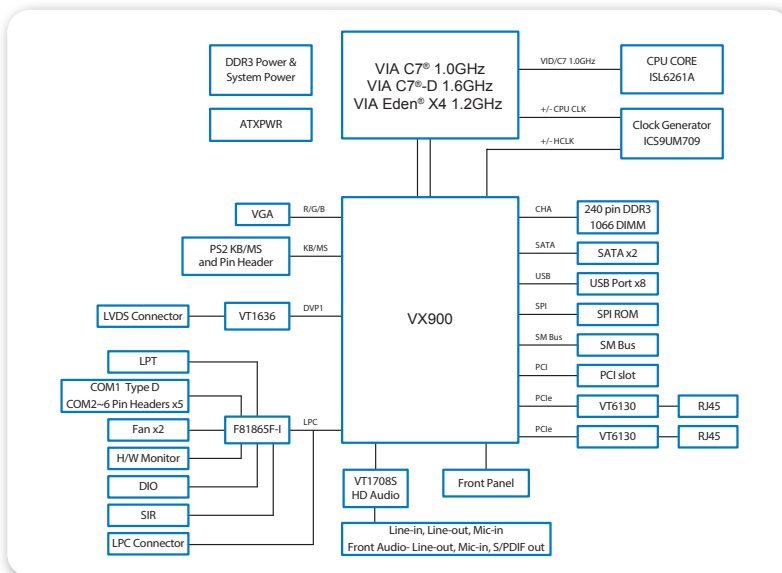
### I/O Expansion Cards

Part Number	Description
LPC-01	Expansion module for four COM ports
LPC-02	Expansion module for four COM ports (5V or 12V)
LPC-04	Expansion module for two or four COM ports (5V or 12V)
EXT-PCI	One to two PCI riser card

### Wireless Modules

Part Number	Description
EMIO-1533-00A2	VNT9271 IEEE 802.11b/g/n USB Wi-Fi module with assembly kit and antenna
EMIO-5531-00A1	VAB-820-W IEEE 802.11b/g/n USB Wi-Fi & Bluetooth module with assembly kit and antenna

## Block Diagram



## Packing List

Items
VB7009 board
SATA cable
I/O bracket