

# Single Board Computer 583

PBAS5305



The SBC 583 is a 5.25" embedded board computer supports VIA Eden™ or VIA C7 with V4 bus processors with different frequencies and L2 caches, which contribute up to 40% of performance upgrade compare to VIA C3 family. Incorporates VIA CN700 and 8327R+ chipsets, the SBC 583 supports main stream un-buffered non-ECC DDR 333/400 with maximum memory size up to 1GB. The low power consumption of South Bridge 8327R+ supports one standard 32-bit/33MHz PCI slot, parallel port, 44-pin IDE connector, Compact Flash socket, and versatile I/O ports, such as serial ports, and USB 2.0 ports. The SBC 583 and SBC 563 are mechanical compatible. In addition, they share most of the major components and can fit into existing Chassis design. To ensure the software compatibility, the Ethernet Controller on SBC 583 follows original RTL8139C+ RoHS version and design.



## Main Features

- ❑ VIA Eden™/C7 with V4 bus at 400MHz processors  
Support CPU Speed from 400MHz to 1.5GHz
- ❑ VIA CN700 and 8327R+ chipsets
- ❑ 2x SATA, supports RAID 0, 1
- ❑ 3x Realtek 8139C+(L) 10/100 Ethernet
- ❑ Supports CompactFlash and SATA/IDE 2.5" HDD
- ❑ Supports One PCI expansion slot

## Technical Specifications

### CPU Support

- VIA Eden™/C7 with V4bus at 400MHz Processors support CPU Speed from 400MHz to 1.5 GHz

### Main Memory

- 1x 184-pin DIMM Socket, up to 1GB un-buffered non-ECC DDR 333/400

### Chipset

- VIA CN700
- VIA 8327R+

### BIOS

- AWARD system BIOS
- 4 Mbit Flash ROM

### On-board LAN

- 3x Realtek RTL8139C+ (L)10/100 Fast Ethernet Controller
- Supports PXE LAN boot ROM for Ethernet Boot up
- Supports Wake on LAN (LAN 1 only)
- Interface: 3x RJ45 connector

### Display

- VIA CN700 Integrated UniChrome Pro 3D/2D Graphics and Video Controller supports 16/32/64MB Frame Buffers size 64MB VGA shared memory
- Analog VGA Interface:  
1x DB-15 connector for CRT, supports max resolution 1.600x1.200 at 85Hz

### Storage

- 2x SATA ports, support RAID 0,1
- 1x IDE 44-pin connector, support Ultra ATA 33/66/100
- 1x CF internal socket

### Expansion

- 1x PCI slot (support up to 2x PCI devices)

### Audio

- AC' 97 Interface: one 2x5-pin header

### I/O Interface

- USB 2.0: 6x USB2.0, with 1x6 JST(2.0mm)
- Serial ports: 2x ports, with DB9, 2x5-pin header
- Parallel ports: 2x13-box header(2.0mm), Bi-directional, EPP/ECP
- PS/2: 1x external Mini-Din (or internal 2x4-pin header) for Keyboard/Mouse
- GPIO: 8 GPIO lines via header (4 IN and 4 Out); TTL Level (0/5V)
- FAN: 3x FAN WAFER connector for CPU and Chassis
- IrDA: 1x pin header for IrDA,TX,RX
- I2C: 1x pin header
- 1x on board buzzer
- 1x 2-pin header for reset
- 1x 2-pin header for ATX power switch
- 3-pin JST for the optional Power ( 5Vsb, PS\_ON, GND) Input

### Watchdog Timer

- Watchdog Timer is programmable by software from 1 to 64

### On-board RTC

- On-chip RTC with battery backup
- 1x External Li-Ion battery

### Power Input

- Supports both AT and ATX Mode (Factory default setting is AT mode)  
1x 3-pin header for AT/ATX mode switch  
+3.3V is converted from +5V  
1x Power Input Connector  
1x Jst connector to receive the 5Vsb input from Power Source
- AT Mode:  
Power Required:+5V/+12V (No Power On push Button, No Software Shutdown function and LAN1 remote wake up)
- ATX Mode:  
Power Required:+5V/+12V/-12V/-5V/5Vsb Power In  
Support Power On push Button, Software Shutdown function and LAN1 remote wake up only, 2-Pin Header for Power On Push Button



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**Power Requirements**

CPU: On Board VIA Eden (Source #2) 800MHz	+12V	+5V
Memory: 1x DDR 256MB		
Full-Loading Mode	0.70A	3.19A
Light-Loading Mode	0.74A	2.90A

**Dimensions**

- 5.25" form factor  
203 x 146 mm (L x W)

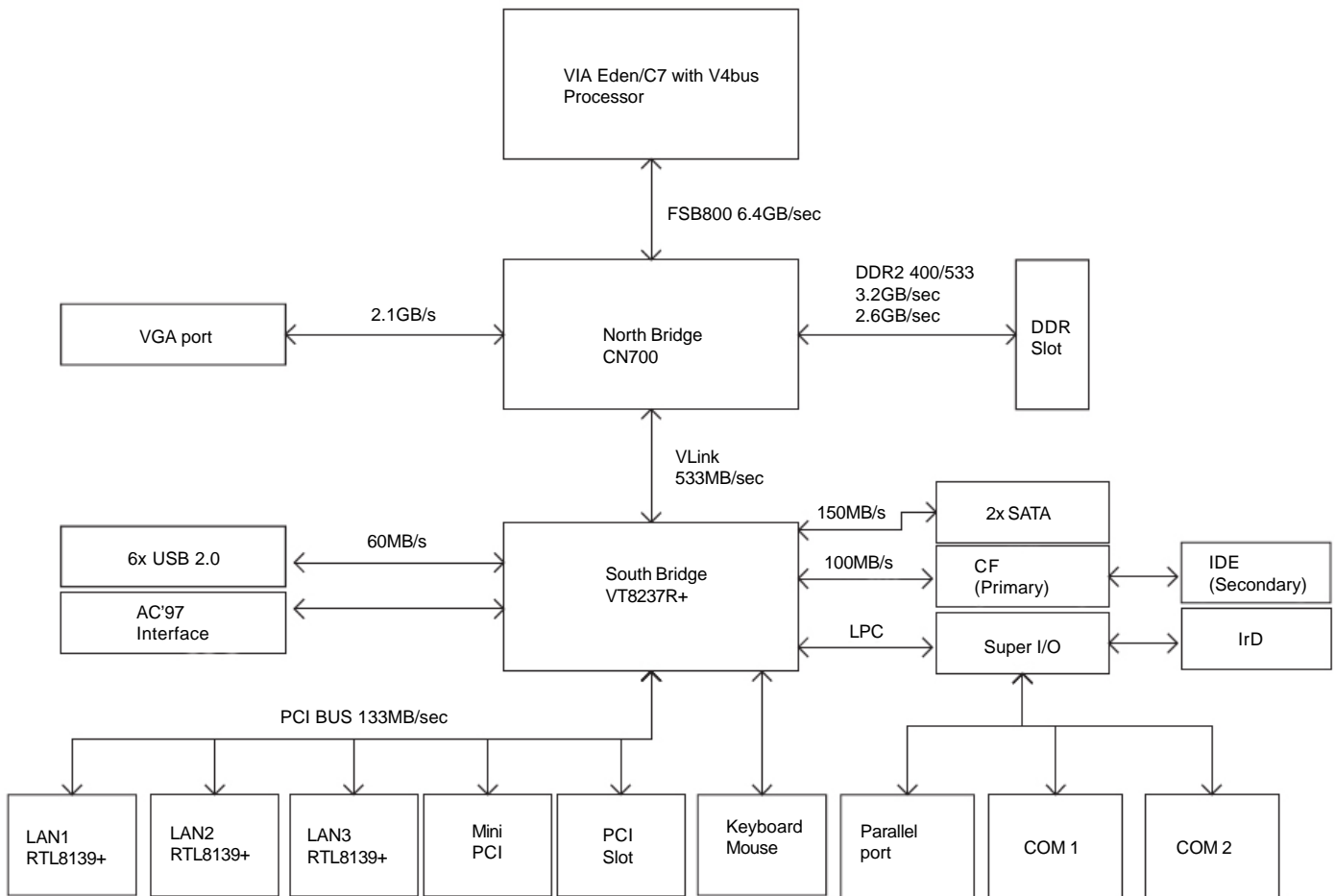
**Environment**

- Board level operating Temp: 0°C to 60°C
- Storage Temp.: -20°C to 80°C
- Relative Humidity: 10% to 90%, non-condensing

**Certification**

- CE approval
- FCC Class A

**Block Diagram**



**Ordering Information**

PBAS5305 Single Board Computer 583  
w/VIA C7-D 1.5GHz