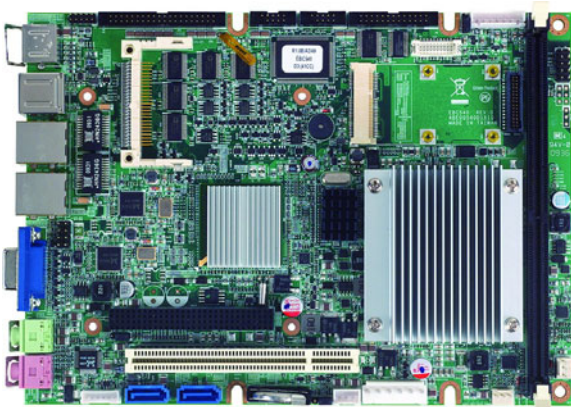


Single Board Computer 540

PBAS5303/-1/-2



The SBC 540 is a 5.25" embedded board with an on-board Intel® Atom™ N270 1.6GHz processor with 512KB L2 cache by 533MHz FSB. The SBC 540 features Intel® 945GSE and ICH7-M chipsets, which supports DDR2 400/533 memory, along with integrated GMA950 graphics for large display application to support independent CRT and LVDS interface. The South Bridge ICH7-M provides a Compact Flash socket, six serial ports, four USB 2.0 ports, two PCI Express Gigabit Ethernet LAN ports, two SATA ports, one PCI 104 interface and one PCI slot for application. The SBC 540 is a great solution featuring a low power consumption processor and small footprint with versatile displays and numerous I/O port support at industrial applications.



Main Features

- ❑ Support Intel® Atom™ N270 1.6GHz processor with 533MHz FSB
- ❑ Intel® 945GSE integrated 3D graphics engine GMA950 chipset with CRT and LVDS display
- ❑ 1x 240-pin DDR2 DIMM socket, up to 2GB non ECC 400/533MHz DDR2 memory
- ❑ 2x Realtek RTL8111C-GR PCI Express Gigabit Ethernet
- ❑ 1x Realtek ALC888 Audio CODEC
- ❑ 4x USB 2.0, 6x Serial port and 1x parallel port
- ❑ 1x Mini-PCIe/1x PCI 104 Interface/1x PCI slot
- ❑ 2x SATA, 1x Compact Flash Socket

Technical Specifications

CPU Support

- Support Intel® Longevity CPU Atom™ N270 1.6GHz processor with 533MHz FSB

Main Memory

- 1x 240-pin DDR2 DIMM socket, support up to 2GB non-ECC 400/533 DDR2 memory

Chipset

- Intel® 82945GSE Graphic Controller Hub (GMCH)
- Intel® 82801 GBM ICH7 Mobile (ICH7-M)

BIOS

- Award system BIOS
- Plug and Play support
- Advanced power management
- Advanced configuration and power interface
- 8Mbits SPI ROM

On-board LAN

- 2x Realtek RTL8111C-GR PCI Express Gigabit Ethernet
- Supports Boot From LAN (PXE)
- Wake on LAN (When 5Vsb power available) (LAN1 only)
- 2x RJ45 with LED

I/O Interface

- USB 2.0: 2 ports connector on front
- USB 2.0: 2 ports, with 1x6 JST (2.5 mm)
- Serial ports: 4x SIO, with 2x20 box header (2.0 mm) support RS-232 only; 1x jumper to switch 5V and 12V power source
- Parallel port: 1 port, with 2x13 box-header (2.0 mm)
- PS/2: 1x Mini-Din Keyboard/Mouse
- GPIO: Support 4 sets of general purpose I/O each with TTL level (5V) interface
- FAN: 3x 3-pin FAN connector (one for CPU, two for system)
- 1x on-board 5-pin header for IrDA, TX, RX
- On-board buzzer/SMBus2.0/Reset/On off switch button

Display

- Intel® 945GSE integrated 3D graphics engine, based on Intel® GMA950 architecture, delivers sophisticated graphics for large display application, dual independent display support, at graphics core speeds up to 166MHz, provides a wealth of options for high-resolution displays
- Analog VGA Interface:
 - 1x DB15 VGA port
 - Resolution up to 1.600x1.200 at 85Hz, 2.048x1.536 at 75Hz
- LVDS Interface:
 - Support 18-bit single channel LVDS, resolution up to 1.024x768 with maximum pixel depth of 18-bpp
- SDVO Interface (one 30-pin box header):
 - PBAS5303-1 or PBAS5303-2 daughter board for LVDS or DVI output
- CCFL Interface:
 - 1x CCFL for LCD Panel Backlight Inverter

Audio

- Realtek ALC888 CODEC for High Definition
- Mic-in and Line-out connector

Expansion

- 1x Mini-PCIe slot
- 1x PCI slot
- 1x PCI 104 slot

Watchdog Timer

- Watchdog timeout can be programmable by Software from 1 second to 255 seconds and from 1 minute to 255 minutes (Tolerance 15% under room temperature 25°C)

Storage

- 2x SATA ports
- 1x CF socket



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System Monitor

- Monitoring of 5 voltages and 3 temperatures
- 5 Voltage (+5V, Vcore, +12V, +3.3V, +2.5V)
- 3 Temperatures (CPU, two external Temperature Sensor)

On-board RTC

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

Power Requirements

- Supports both AT and ATX Mode (default setting is AT mode)
- Power Supply must provide +12V, +5V at least for AT mode
- Power Supply must provide +12V, +5V, +5Vsb for ATX mode
- Power On CON 6P (Standard) + PS_On JST 3P CON

Dimensions

- 5.25" form factor 203 x 146 mm (LxW)

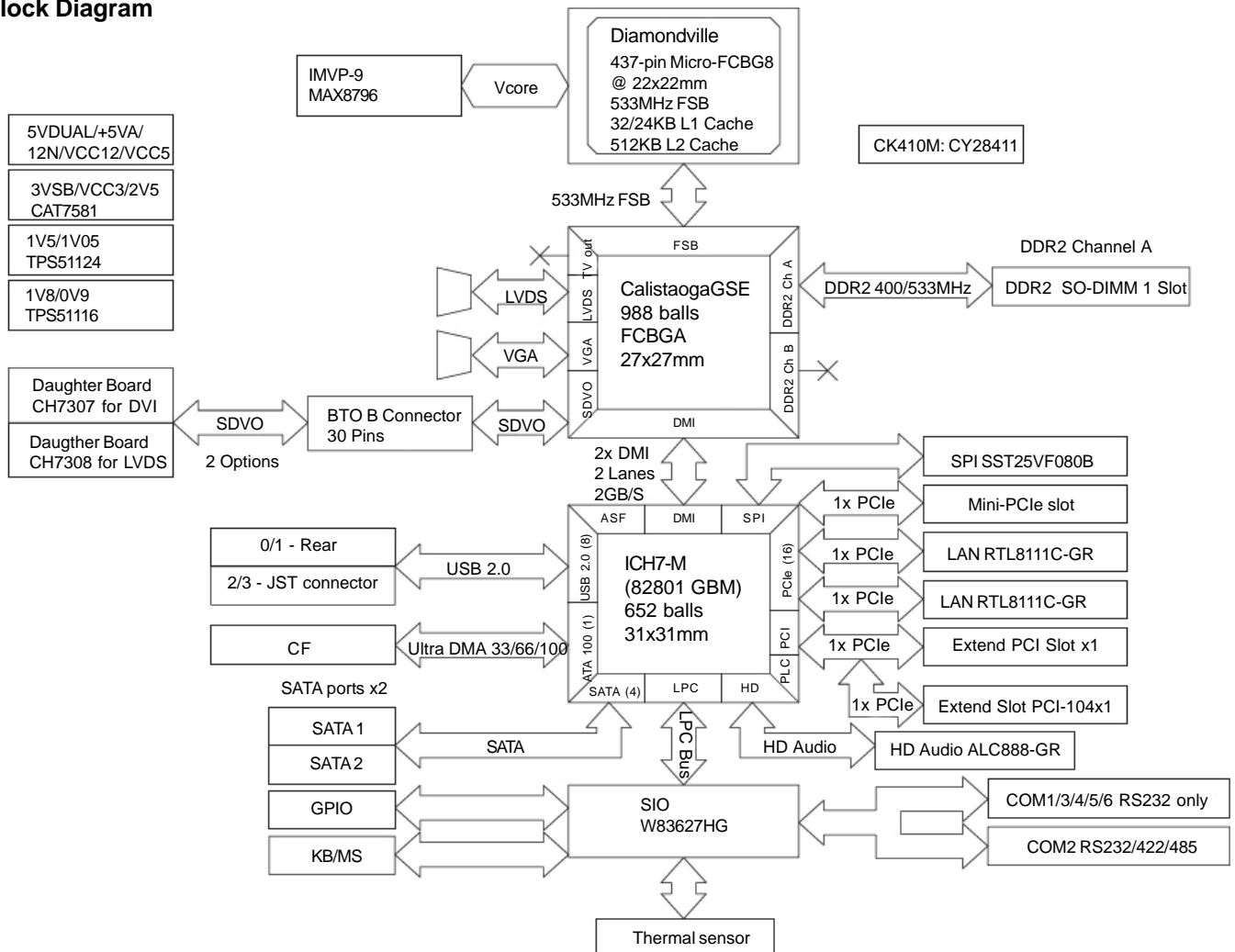
Environment

- Operating Temperature: 0°C to 60°C
- Storage Temperature.: -20 C to 80 C
- Relative Humidity: 10% to 90%, non-condensing

Certification

- CE approval
- FCC Class A

Block Diagram



Ordering Information

PBAS5303 Singel Board Computer 540 w/Intel Atom N270 1.6GHz

PBAS5303-1 Daughter Board w/DVI-Single link for DVI input for Single Board Computer 540

PBAS5303-2 Daughter Board for LVDS output for Single Board Computer 540