

Features

- Intel® Atom™ N270 1.6GHz CPU
- Intel® 945GSE/ ICH7-M Chipset
- One 200-pin SODIMM Socket Up to 2GB DDR2 533MHz SDRAM
- Intel® Graphics Media Accelerator 950
- VGA, LVDS, HDMI
- Realtek ALC888 5.1-CH HD Audio Streams
- Dual Intel® 82574L Gigabit Ethernet
- 1 Mini PCIe, 1 CF, 1 PCI, 1 LPT
- 6 COM, 6 USB, 2 SATA II, 8-bit GPIO
- Fanless Operation
- +12V DC Input

Intel 945GSE	Dual Display	5.1-CH Audio	Dual GbE	HDMI
2-CH LVDS	Mini PCIe	PCI	CF	6 COM
6 USB	2 SATA II	8 GPIO	Fanless	+12V DC

Specifications

System

• CPU	Onboard Intel® Atom™ N270 1.6GHz CPU
• FSB	533MHz
• BIOS	Award 512KB SPI BIOS
• System Chipset	Intel® 82945GSE/ 82801GBM (ICH7-M)
• I/O Chip	Winbond W83627DHG-A
• System Memory	One 200-pin SODIMM Socket Supports Up to 2GB DDR2 533MHz SDRAM
• SSD	One Compact Flash Type I/II Socket
• Watchdog Timer	Reset: 1sec. ~ 255sec/min. and 1sec. or 1min./step
• H/W Status Monitor	Monitoring CPU Temperature, Voltage and Cooling Fan Status with Auto Throttling Control
• Expansion	1 Mini PCIe, 1 PCI
• Smart Fan Control	Yes (1 x Fan Connector)

I/O

• MIO	1 x EIDE, 2 x SATA, 4 x RS-232, 2 x RS232/ 422/ 485, 1 x LPT, 1 x K/B, 1 x Mouse, 1 x 5V/ 12V Power Connect
• USB	6 x USB 2.0
• DIO	8-bit General Purpose I/O for DI and DO

Display

• Chipset	Intel® 945GSE Integrated Graphics Media Accelerator 950
• Display Memory	Intel® DVM T 3.0 Supports Up to 224MB Shared Video Memory
• Resolution	2048 x 1536 @ 75MHz
• Dual Display	VGA + HDMI, LVDS + HDMI, VGA + LVDS
• VGA	1 External Port
• LVDS	Dual-channel 18-bit LVDS
• HDMI	1 x External Port (HDMI 1.3)

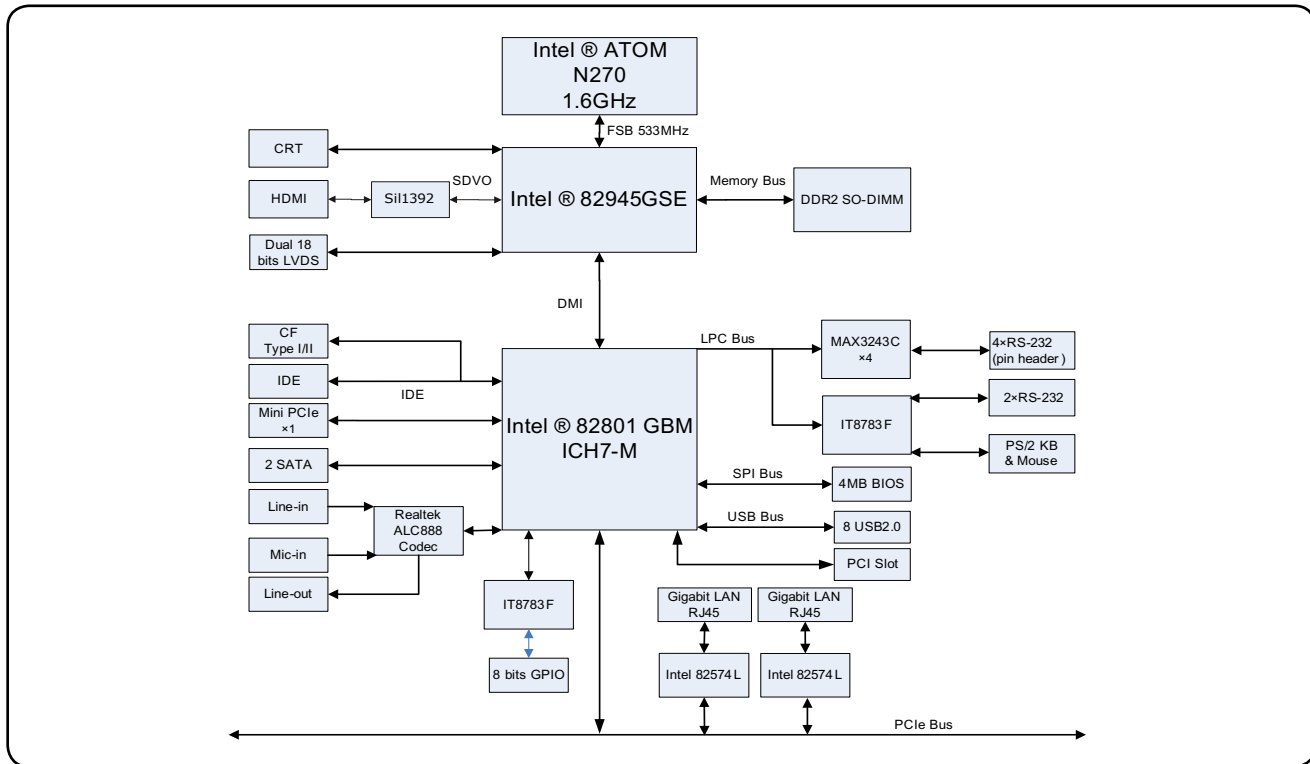
Audio

• AC97 Codec	Realtek ALC888 Supports 5.1-CH Audio Streams
• Audio Interface	Mic-in, Line-in, Line-out

Ethernet

• LAN 1	Intel® 82574L Gigabit Ethernet
• LAN 2	Intel® 82574L Gigabit Ethernet

Block Diagram



Rear Panel I/O Port

- **Rear Panel I/O Port**
 - 1 x PS/2 Keyboard
 - 1 x PS/2 Mouse
 - 2 x RS-232
 - 1 x VGA Port
 - 1 x HDMI Port
 - 4 x USB 2.0
 - 2 x RJ-45 Port
 - 5.1-CH Audio I/O (3 Jacks)

Internal Panel I/O Port

- **Internal Panel I/O Port**
 - 1 x USB Connector Support Additional 2 USB Ports
 - 1 x IDE Connector
 - 2 x SATA Connectors
 - 1 x 4 Pins 5V/ 12V Power Connector
 - 1 x 2 Pins +12V DC-in Power Connector
 - 1 x SPDIF-out Header
 - 1 x Chassis FAN Connector
 - 1 x LVDS Connector
 - 1 x Inverter Connector
 - 2 x USB Header
 - 1 x GPIO Header

Mechanical & Environmental

- **Power Requirement** +12V DC Input
- **Power Type** ATX
- **Operating Temperature** 0 ~ 60°C (32 ~ 140°F)
- **Storage Temperature** -40 ~ 75°C (-40 ~ 167°F)
- **Operating Humidity** 0% ~ 90% Relative Humidity, Non-condensing
- **Size (L x W)** 6.69" x 6.69" (170mm x 170mm)
- **Weight** 0.88lbs (0.4Kg)

1 Embedded System

2 ETX/XTX/COM Express

3 3.5" SBC

4 EPIC

5 5.25" SBC

6 PC/104

7 ATX

8 Micro ATX

9 Mini ITX

10 Nano ITX

11 ACP

12 Mini ITX System

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Ordering Information

• ACP-945GDS-A1R

Intel® Atom™ N270 Mini ITX Motherboard with Intel® 945GSE + ICH7-M Chipset and VGA, HDMI, 2 x 18-bit LVDS, 5.1-CH Audio, Dual GbE, Mini PCIe, PCI, CF, 6 USB, 2 SATA, 6 COM, 8-bit GPIO