

**PICMG 1.0 SBC with Intel® Atom™ N270 1.6GHz wih Dual
PCIe GbE,VGA, SATA,CFII**

WSB-945GSE

Quick Installation Guide

Version 1.0

Mar. 11, 2009

Package Contents

WSB-945GSE-N270 package includes the following items:

- 1 x WSB-945GSE Single Board Computer
- 1 x Mini Jumper Pack
- 1 x Dual RS-232 cable
- 2 x SATA cable
- 1 x KB/MS Y cable
- 1 x USB cable
- 1 x Utility CD
- 1 x QIG (Quick Installation Guide)



©2006 Copyright by IEI Technology corp.
All rights reserved.

Specifications

- CPU: On board Intel® Atom™ N270 1.6GHz/512KB L2 Cache FSB 533MHz
- System Chipset: Intel® 945GSE + ICH7M
- BIOS: AMI Flash
- System Memory
 - 1 x 240-pin Daul channel DDRII 400/533 MHz up to 2GB
- Ethernet: Dual Realtek RTL8111CP PCIe GbE Chipsets
- I/O
 - I/O Interface
 - 2 x RS-232
 - 7 x USB 2.0 (1 on bracket, 6 by pin header)
 - 1 x IDE
 - 1 x LPT
 - 2 x SATA
 - 1 x CF Type II
 - 1 x Infrared Interface
 - 1 x PS/2 for KB/MS
 - 1 x 5-pin header for KB
 - Digital I/O: 8-bit digital I/O, 4-bit input / 4-bit output
 - Super I/O: ITE IT8718F
 - Expansion: PCI to Backplane
ISA to Backplane
 - Display:
 - VGA integrated in Intel® 945GSE
 - Audio:
 - 5.1 Channel Audio Kit with Realtek ALC655 codec
 - 7.1 Chanel HD Audio Kit with Realtek ALC883 supports dual audio stream
 - WDT: Software programmable supports 1-255 sec. System reset
 - Power Supply: AT/ATX Power
 - Power Consumption:
5V@2.55A,12V@0.22A(DDR2 800MHz 1GB) (Windows XP, 3D mark®2001)

- Operating Temperature: 0 ~ 60°C(32 ~ 140°F)

Ordering Information

WSB-945GSE-N270-R10

PICMG 1.0 SBC with Intel® Atom™ N270 1.6GHz with Dual PCIe GbE,VGA, SATA,CFII

AC-KIT08R-R10: 5.1 channel AC'97 Audio Kit with Realtek ALC655 codec

AC-KIT883HD-R10: 7.1 channel HD Audio Kit with Realtek ALC883 codec
support dual audio streams

19800-000066-RS: KB/MS with bracket

32200-000052-RS: ATA 66/100 Flat Cable

32100-088600-RS: SATA Power Cable

Jumpers setting and Connectors

LABEL	FUNCTION
J_CMOS1	CMOS state setting
JSPI1	Flash SPI ROM
JCF1	CF Card setting
VGA1	VGA 15-pin Female Connector
USB_C1	USB Port Connector
LAN1、LAN2	RJ45 LAN Connector
KB_MS1	PS/2 MOUSE & KEYBOARD Connector
COM1 COM2	Internal Serial Port Connectors (RS-232)
LPT1	Parallel Port Connector
USB1 USB2 USB3	Internal 6 Port USB Connectors
J_AUDIO1	Extend Audio Module Connector
SATA1 SATA2	Serial ATA Connectors
IDE1	IDE Connectors
IR1	IrDA Infrared Interface Connector
CPU_FAN1	CPU Fan Connector
DIO1	Digital I/O Connector
F_PANEL1	PWR & RST Buttons and Indicators
ATXCTL1	BP to Mainboard Connector
KB1	Internal 5-pin Header Keyboard Connector
BAT1	Coin Battery Holder
CF1	CF II Slot
DIMM2	DDR2 Slot
CPU12V1(Optional)	ATX-12V CPU Power Source

J_CMOS1 : Clear CMOS Setup	
J_CMOS1	DESCRIPTION
1-2 (Default)	Keep CMOS Setup (Normal Operation)
Short 2-3	Clear CMOS Setup

JCF1 : configure CF Card type	
JCF1	DESCRIPTION
Short 1-2 (Default)	Slave
Short 2-3	Master

ATXCTL1: BP to Mainboard Connector	
PIN	DESCRIPTION
1	GND
2	PS_ON#
3	5VSB

ATXCTL1: BP to Mainboard Connector	
Power	DESCRIPTION
AT (Default)	Short 1-2.
ATX	Connect "PS_ON# & 5VSB Cable".

IR1: IrDA connector	
PIN	DESCRIPTION
1	+5V
2	NC
3	IR-RX
4	GND
5	IR-TX

KB1: 5-pin Mini-DIN Keyboard Connector	
PIN	DESCRIPTION
1	Keyboard Clock
2	Keyboard Data
3	NC
4	GND
5	+5V

CPU12V1 : CPU POWER Connector (Option)			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	GND	2	GND
3	+12V	4	+12V

J_AUDIO1 : Audio Source Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	AC97_SYNC (HD_AS_SYNC)	2	AC97_BITCLK (HD_AS_BITCLK)
3	AC97_SDOUT (HD_AS_SDOUT)	4	AC97_PCBEEP (HD_AS_PCBEEP)
5	AC97_SDIN (HD_AS_SDIN)	6	AC97_RST# (HD_AS_RST#)
7	AC97_VCC (HD_AS_VCC)	8	AC97_GND (HD_AS_GND)
9	AC97_12V (HD_AS_12V)	10	AC97_GND (HD_AS_GND)

JSPI1:FlashSPI ROM			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	3.3V	2	GND
3	CS0	4	CLK
5	SO0	6	SI
7	N/C	8	N/C

CPU_FAN1 : CPU Fan Connector	
PIN	DESCRIPTION
1	GND
2	+12V
3	Rotation Signal

F_PANEL1 : External Switches and Indicators panel					
	PIN	DESCRIPTION	PIN	DESCRIPTION	
Power LED	1	PWR_LED+	2	Speaker+	Speaker
	3	N/C	4	N/C	
	5	PWR_LED-	6	N/C	
PWRBTN	7	PWRBTN+	8	Speaker-	RESET
	9	PWRBTN-	10	N/C	
HDDLED	11	HDLED+	12	Reset+	
	13	HDLED-	14	Reset-	

DIO1 : Digital Input / Output Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	Ground	2	+5V
3	Output 3	4	Output 2
5	Output 1	6	Output 0
7	Input 3	8	Input 2
9	Input 1	10	Input 0

COM1,COM2: External Serial Port Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	DCD#	2	DSR#
3	RXD	4	RTS#
5	TXD	6	CTS#
7	DTR#	8	RI#
9	GND	10	NC

USB1, USB2, USB3: Internal USB Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	+5V	2	GND
3	DATA-	4	DATA+
5	DATA+	6	DATA-
7	GND	8	+5V

LPT1 : Parallel Port Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	STROBE#	14	AUTO FORM FEED #
2	DATA0	15	ERROR#
3	DATA1	16	INITIALIZE#
4	DATA2	17	PRINTER SELECT LN#
5	DATA3	18	GND
6	DATA4	19	GND
7	DATA5	20	GND
8	DATA6	21	GND
9	DATA7	22	GND
10	ACKNOWLEDGE#	23	GND
11	BUSY	24	GND
12	PAPER EMPTY	25	GND
13	PRINTER SELECT		

IDE1: IDE Interface Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	RESET#	2	GND
3	DATA 7	4	DATA 8
5	DATA 6	6	DATA 9
7	DATA 5	8	DATA 10
9	DATA 4	10	DATA 11
11	DATA 3	12	DATA 12
13	DATA 2	14	DATA 13
15	DATA 1	16	DATA 14
17	DATA 0	18	DATA 15
19	GND	20	N/C
21	IDE DRQ	22	GND
23	IOW#	24	GND
25	IOR#	26	GND
27	IDE CHRDY	28	BALE – DEFAULT
29	IDE DACK	30	GND
31	INTERRUPT	32	N/C
33	SA1	34	PDIAG#
35	SA0	36	SA2
37	HDC CS0#	38	HDC CS1#
39	HDD ACTIVE#	40	GND

Board Layout: Jumper and Connector Locations

