

**PICMG 1.0 Intel® Core® Duo/Solo CPU wih VGA / DVI,
Daul PCI-E GbE, SATAII and Audio**

WSB-9452

Quick Installation Guide

Version 1.01

Jun. 25, 2007

Package Contents

WSB-9452 package includes the following items:

- 1 x WSB-9452 single board computer
- 1 x mini jumper pack
- 1 x ATA 66/100 flat cable
- 1 x Dual RS232 cable
- 1 x SATA Power cable
- 1 x IO-KIT-001-R20 (DVI Model Only)
- 2 x SATA cable
- 1 x KB/MS Y cable
- 1 x USB cable
- 1 x Utility CD
- 1 x QIG (quick installation guide)



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Specifications

- CPU: Socket 479 Intel® Core™2 Duo, Core™ Duo/Solo with 533/667 MHz FSB
- System Chipset: Intel® 945GM + ICH7M
- BIOS: AMI Flash
- System Memory
 - 2x 240-pin Dual channel DDRII 400/533/667 MHz up to 2GB
- Ethernet: Dual Broadcom BCM5787 PCI express GbE with ASF2.0 remote control support
- I/O
 - I/O Interface
 - 2 x RS232
 - 7 x USB 2.0
 - 1 x IDE (2 x IDE, WSB-9452S/WSB-9452S-DVI Only)
 - 1 x FDD
 - 1 x LPT
 - 2 x SATAII (4 x SATAII by JMB363 WSB-9452S/9452S-DVI Only)
 - 1 x PCI Express Mini card
 - 1 x IrDA
 - 1 x PS/2 for KB/MS
 - 1 x 20-pin LPC (TPM Module)
 - Digital I/O:
 - 8 bit digital I/O, 4 input / 4 output
 - Display:
 - VGA integrated in Intel® 945GM
 - DVI (WSB-9452DVI / WSB-9452S-DVI)
 - LVDS: Dual Channel 18-bit LVDS
 - Audio:
 - 5.1 Channel Audio Kit with Realtek ALC655 codec
 - 7.1 Channel HD Audio Kit with Realtek ALC883 supports dual audio stream
- WTD: Software programmable supports 1-255 sec. System reset
- Power Supply: AT/ATX Power
- Power Consumption:

5V@4.15A,+12V@1.29A

(YONAHCore Duo T2700 2.33GHZ,DDR2 533MHz 1GB*2)

- Temperature: 0 ~ 60°C(32 ~ 140°F)
- Humidity: 5% ~ 95% non-condensing
- Dimension: (L)338mm x (W)122mm
- Weight: GW: 1.2Kg

Ordering Information

WSB-9452-R10

PICMG1.0 Intel Core™ 2 Duo 533/ 667MHz processor, CRT/LCD, Dual PCIE GbE, and 2xSATAII.

WSB-9452DVI-R10

PICMG1.0 Intel Core™ 2 Duo 533/ 667MHz processor, CRT/LCD/DVI, Dual PCIE GbE, and 2xSATAII.

WSB-9452S-R10

PICMG1.0 Intel Core™ 2 Duo 533/ 667MHz processor, CRT/LCD, Dual PCIE GbE, and 4xSATAII.

WSB-9452SDVI -R10

PICMG1.0 Intel Core™ 2 Duo 533/ 667MHz processor, CRT/LCD/DVI, Dual PCIE GbE, and 4xSATAII.

CF-479B-RS: CPU cooler

HDTV Cable Set-01:

HDTV Cable Set with Composite/ S-Video/ Component output

AC-KIT08R-R10

5.1 Channel Audio Kit with Realtek ALC655

AC-KIT-883HD-R10

7.1 Channel HD Audio Kit with Realtek ALC883 supports dual audio streams

32200-000017-RS: FDD cable

19800-000049-RS: LPT cable

Jumpers setting and Connectors

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

J_VLVDS1 : Set The Panel Voltage	
J_LVDS1	DESCRIPTION
1-2 (default)*	Set The Voltage Level Of Panel To VCC3
Short 2-3	Set The Voltage Level Of Panel To VCC

COM1, COM2 : External Serial Port Connector	
PIN	DESCRIPTION
1	DATA CARRIER DETECT (DCD1)
2	RECEIVE DATA (RXD1)
3	TRANSMIT DATA (TXD1)
4	DATA TERMINAL READY (DTR1)
5	GND (GND1)
6	DATA SET READY (DSR1)
7	REQUEST TO SEND (RTS1)
8	CLEAR TO SEND (CTS1)
9	RING INDICATOR (RI1)
10	N/C

CPU_FAN1 : CPU Fan Connector	
PIN	DESCRIPTION
1	Ground
2	+12V
3	Rotation Signal
4	Control

ATXCTL1 : Backplane Power Connector	
PIN	DESCRIPTION
1	Ground
2	PS_ON
3	5V Dual

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

INVERTER1: Panel Power Supply	
PIN	DESCRIPTION
1	BRIGHTNESS
2	GND1
3	12V
4	GND2
5	BL_EN

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

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_PCBEAP (HD_AS_PCBEAP)
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)

FDD1: FDC Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	GND	2	REDUCE WRITE
3	GND	4	N/C
5	N/C	6	N/C
7	GND	8	INDEX#
9	GND	10	MOTOR ENABLE A#
11	GND	12	DRIVE SELECT B#
13	GND	14	DRIVE SELECT A#
15	GND	16	MOTOR ENABLE B#
17	GND	18	DIRECTION#
19	GND	20	STEP#
21	GND	22	WRITE DATA#
23	GND	24	WRITE GATE#
25	GND	26	TRACK 0#
27	GND	28	WRITE PROTECT#
29	GND	30	READ DATA#
31	GND	32	SIDE 1 SELECT#
33	GND	34	DISK CHANGE#

USB01, USB23, USB45: Internal USB Connector			
USB01, USB23, USB45			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	VCC	2	GND
3	DATA-	4	DATA+
5	DATA+	6	DATA-
7	GND	8	VCC

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

CN1: PCI-E Mini Card Connector			
DVI Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	PCIE_WAKE#	2	VCC3
3	N/C	4	GND
5	N/C	6	1.5V
7	CLKREQ#	8	LFRAME#
9	GND	10	LAD3
11	CLK-	12	LAD2
13	CLK+	14	LAD1
15	GND	16	LAD0
17	PCIRST#	18	GND
19	LPC	20	VCC3
21	GND	22	PCIRST#
23	PERN2	24	3VDual
25	PERP2	26	GND
27	GND	28	1.5V
29	GND	30	SMBCLK
31	PETN2	32	SMBDATA
33	PETP2	34	GND
35	GND	36	USB-
37	N/C	38	USB+
39	N/C	40	GND
41	N/C	42	N/C
43	N/C	44	RF_LINK#
45	N/C	46	BLUELED#
47	N/C	48	1.5V
49	N/C	50	GND
51	N/C	52	VCC3

CPU12V1 : CPU POWER Connector			
ATX-12V1 (CPU)			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	GND	2	GND
3	+12V	4	+12V

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

TPM1: Trusted Platform Module connector			
DVI Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	FWHPCLK	2	GND
3	LFRAME#	4	KEY
5	PCIRST#	6	VCC
7	LAD3	8	LAD2
9	VCC3	10	LAD1
11	LAD0	12	GND
13	SMBCLK	14	SMBDATA
15	3VDUAL	16	SERIRQ
17	GND	18	CLKRUN#
19	LPCPD#	20	LDRQ#

DVI1 : DVI Connector			
DVI Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	Data 2-	14	+5V Power
2	Data 2+	15	GND
3	GND	16	Hot Plug Detect.
4	N/C	17	Data 0-
5	N/C	18	Data 0+
6	DDC Clock	19	GND
7	DDC Data	20	N/C
8	N/C	21	N/C
9	Data 1-	22	GND
10	Data 1+	23	Clock +
11	GND	24	Clock -
12	N/C	25	GND
13	N/C		

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, IDE2: 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

LVDS1: LVDS Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	GND1	2	GND2
3	A_Y0	4	A_Y0#
5	A_Y1	6	A_Y1#
7	A_Y2	8	A_Y2#
9	A_CK	10	A_CK#
11	A_Y3	12	A_Y3#
13	GND3	14	GND4
15	B_Y0	16	B_Y0#
17	B_Y1	18	B_Y1#
19	B_Y2	20	B_Y2#
21	B_CK	22	B_CK#
23	B_Y3	24	B_Y3#
25	GND5	26	GND6
27	VCC1	28	VCC2
29	VCC3	30	VCC4

Board Layout: Jumper and Connector Locations



