

ATX Form Factor with Intel® Core 2 Duo, Pentium® D/Pentium® 4/Celeron® D CPU FSB 533/800/1066MHz, VGA, Dual Channel DDR2, FDD, LPT, 4 x SATA II, 8 x USB2.0 and 6 x COM

IMBA-9454

Quick Installation Guide

Version 1.0

Feb 27, 2007

Package Contents

IMBA-9454 package includes the following items:

- 1 x IMBA-9454 single board computer
- 1 x IDE Cable
- 2 x SATA Cable
- 1 x SATA Power Cable
- 2 x Dual RS-232 Cable
- 1 x I/O Shielding
- 1 x mini jumper pack
- 1 x Utility CD
- 1 x QIG (Quick Installation Guide)



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Specifications

- CPU: LGA 775 Intel® Core 2 Duo, Pentium® 4/ Celeron® D processor, FSB 533/800/1066MHz
- System Chipset: Intel® 945G + ICH7
- BIOS : AMI BIOS Label
- System memory:
 - 4 x 240-pin Dual channel DDR2 400/533/667MHz up to 4GB
- Ethernet: Dual Broadcom BCM5787M for PCI express GbE (LAN1 with ASF2.0 remote control support)
- I/O Interface:
 - 8 x USB 2.0
 - 4 x SATA II
 - 1 x LPT
 - 1 x FDD
 - 1 x CF Type II
 - 5 x RS-232, 1 x RS-232/422/485
 - 1 x 20-pin LPC for TPM modules support
 - 2 x PS/2 for KB / MS
 - 1x IDE
 - Expansion** 1 x PCI-E*16 (Support PCIe x 1/2/4/8/16 PCIe add-on cards)
 - 6 x PCI
- Digital I/O: 8 bit digital I/O, 4-bit input / 4-bit output
- IrDA: 1 x IrDA by pin header
- Super I/O: IT8712F
- Audio: Realtek ALC655 AC'97 codec
- Display: VGA integrated in Intel® 945G
- WDT: Software programmable 1-255 sec. System reset
- Power Supply: ATX support
- Power Consumption:
 - 5V@4.25A, 12V@10.17A, 3.3V@ 6.07A
 - (Pentium 4 3.73GHz/1066 MHz CPU with 1GB DDR2 667MHz)
- Temperature: Operation: 0 ~ 60° C (32 ~ 140° F)
- Humidity: Operation: 5% ~ 95% non-condensing
- Dimension: 305(L) mm x 244(W) mm
- Weight: GW: 1200g; NW: 650g

Ordering Information

IMBA-9454G-R10

ATX Motherboard with Intel® LGA 775, Core 2 Duo, Pentium® D/
Pentium® 4/ Celeron® D processor FSB 533/800/1066MHz, PCIe GbE,
SATA II and Audio

32200-000017-RS: FDD Cable

CB-USB02-RS: Dual USB Cable

CB-USB14-RS: Four USB Cable

CF-520-RS: CPU Cooler

CF-775A-RS: CPU Cooler

TPM-SI01-R10: 20-pin SINOSUN TPM Module, S/W Management Tool

TPM-WI01-R10: 20-pin WINBOND TPM Module, S/W Management Tool

TPM-IN01-R10: 20-pin INFINEON TPM Module, S/W Management Tool

SDVO-100VGA-R10: PCIe x 16 VGA Output SDVO Card supports dual
display (IEI CPU board only)

SDVO-100DVI-R10: PCIe x 16 DVI Output SDVO Card supports dual
display (IEI CPU board only)

Jumpers setting and Connectors

JP1: Clear CMOS Setup	
PIN	Description
1-2	Normal Operation
2-3	Clear CMOS Setup

JP2 : CF Master/Slave Selection	
JP2	Description
Open	Slave
Short	Master

JP4 : COM2 Mode Selection	
PIN	Description
1-3	RS-232
3-5	RS-422/RS-485

CN1: RS422/485 1 x 4 Pin Header Connector	
PIN	Description
1	TXD1+
2	TXD1-
3	RXD1+
4	RXD1-

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

CN2: Multi Panel			
PIN	Description	PIN	Description
1	ACPILED+	2	SPEAKER+
3	N/C	4	N/C
5	ACPILED-	6	N/C
7	ATX POWER BUTTON	8	SPEAKER-
9	GND	10	N/C
11	IDE LED+	12	RESET SW
13	IDE LED -	14	GND

CN3: Front Panel Audio Connector (2.54mm)			
PIN	Description	PIN	Description
1	MIC IN	2	GND AUDIO
3	MIC BIAS	4	5V
5	LINE OUT(R)	6	LINE OUT(R) Return
7	NC	8	NC
9	LINE OUT(L)	10	LINE OUT(L) Return

CN4: Audio Connector (2.54mm)			
PIN	Description	PIN	Description
1	SUROUT_L	2	CENOUT
3	GND AUDIO	4	GND AUDIO
5	SUROUT_R	6	LFEOOUT
7	GND AUDIO	8	NC

CN5: SPDIF Connector (2.54mm)			
PIN	Description	PIN	Description
1	VCC AUDIO	2	NC
3	SPDIF OUT	4	GND AUDIO
5	SPDIF IN		

CD_IN1: Audio CD IN (2.54mm)			
PIN	Description	PIN	Description
1	CD IN_L	2	GND
3	GND	4	CD IN_R

FAN1: CPU Fan Connector	
PIN	Description
1	GND
2	+12V
3	Linear control
4	Fan Sensor

FAN2~3: CPU Fan Connector	
PIN	Description
1	GND
2	Linear control
3	Fan Sensor

AUX1: Audio AUX IN (2.54mm)			
PIN	Description	PIN	Description
1	AUX IN_L	2	GND
3	GND	4	AUX IN_R

IDE1 (Blue): 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	GND
29	IDE DACK	30	GND
31	INTERRUPT	32	N/C
33	SA 1	34	N/C
35	SA 0	36	SA 2
37	HDC CS0#	38	HDC CS1#
39	HDD ACTIVE#	40	GND

COM3~6: Serial Port 2 x 5 Box Header 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

COM2: Serial Port 2 x 7 Pin Header 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
11	TXD1+	12	TXD1-
13	RXD1+	14	RXD1-

USB3,USB4: 8-PIN Header USB Connectors		
PIN		Description
1	8	VCC
3	6	USBD-
5	4	USBD+
7	2	GND

DIO1: Digital Input / Output			
PIN	Description	PIN	Description
1	GND	2	+5V
3	Output0	4	Output1
5	Output2	6	Output3
7	Input0	8	Input1
9	Input2	10	Input3

Board Layout: Jumper and Connector Locations



