

**ATX Motherboard with Intel® Core™ 2 Duo, Pentium® D,  
Pentium® 4, Celeron® D CPU FSB 533/800/1066MHz**

# **IMBA-9454ISA**

## **Quick Installation Guide**

### **Version 1.0**

Mar 26, 2008

### **Package Contents**

IMBA-9454ISA package includes the following items:

- 1 x IMBA-9454ISA single board computer
- 1 x IDE Cable
- 2 x Dual RS-232 Cable
- 2 x SATA Cable
- 1 x SATA Power 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

- ATX Motherboard with Intel® Core™ 2 Duo, Pentium® D, Pentium® 4, Celeron® D CPU 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 PCIe 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
  - 2 x PS/2 for KB / MS
  - 1 x IDE
- Expansion
  - 1 x PCIe x16
  - 4 x PCI
  - 1 x PCI/ISA
  - 1 x ISA
- Digital I/O: 8 bit digital I/O, 4-bit input / 4-bit output
- TPM: 1 x TPM by pin header
- Super I/O: ITE IT8712F
- Audio: Realtek ALC883 HD Audio codec
- Display: VGA integrated in Intel® 945G
- WDT: Software programmable 1-255 sec. System reset
- Power Supply: ATX support
- Power Consumption:
  - 3.3V@6A , 5V@4.65A, 12V@4.15A, 5Vsb@ 0.42A
  - (Core™ 2 Duo E6700 2.66GHz/1066MHz CPU with 4GB DDR2 in 3DMark 2001)

3.3V@6.17A ,5V@4.09A, 12V@10.23A, 5Vsb@ 0.59A  
(Pentium® 4 3.73GHz/1066MHz CPU with 4GB DDR2 in 3DMark  
2001 )

- Temperature: Operation: 0 ~ 60 °C (32 ~ 140 °F)
- Humidity: Operation: 5% ~ 95% non-condensing
- Dimension: 305 mm x 244 mm
- Weight: GW: 1200g; NW: 650g

## Ordering Information

### IMBA-9454ISA-R10

ATX Motherboard with Intel® Core™ 2 Duo, Pentium® D,  
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CB-USB02-RS: Dual USB Cable

CB-USB14-RS: Four USB Cable

32200-000017-RS: FDD Cable

32200-000063-RS: RS-232/422/485 Cable

CF-520-RS: CPU Cooler

CF-775A-RS: CPU Cooler

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

TPM-IN01-R10: 20-pin INFINEON TPM Modules, 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 (Default)	Normal Operation
2-3	Clear CMOS Setup

JP2 : CF Master/Slave Selection	
PIN	Description
Open (Default)	Slave
Short	Master

JP3 : AT/ATX Power Selection	
PIN	Description
1-2 (Default)	ATX
2-3	AT

JP4 : COM2 Mode Selection	
PIN	Description
1-2 (Default)	RS-232
2-3	RS-422/RS-485

CN1 : COM2 RS422/485 Select (2.54mm)	
PIN	Description
1	TXD1+
2	TXD1-
3	RXD1+
4	RXD1-

CN2 : 2x7 Front Panel Connector (2.54mm)					
Function	PIN	Description	Function	PIN	Description
POWER LED	1	LED+	BUZZER	2	BEEP_PWR
	3	NC		4	NC
	5	LED-		6	NC
POWER BUTTON	7	POWER BUTTON		8	PC_BEEP
	9	GND	RESET	10	NC
HDD LED	11	IDE LED+		12	RESET
	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: 2x4 Pin Audio Connector (2.54mm)			
PIN	Description	PIN	Description
1	SUROUT_L	2	CENOUT
3	GND AUDIO	4	GND AUDIO
5	SUROUT_R	6	LFEOUT
7	GND AUDIO	8	NC

CN5: SPDIF Connector	
PIN	Description
1	+5V
2	NC
3	SPDIF OUT
4	GND
5	SPDIF IN

COM2: Serial Port 2 x 7 Pin 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
11	TX+	12	TX-
13	RX+	14	RX-

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

USB3/USB4 : 2x4 Pin USB Connector (2.54mm)			
PIN	Description	PIN	Description
1	VCC	2	GND
3	USBP0-	4	USBP1+
5	USBP0+	6	USBP2+
7	GND	8	VCC

CPU12V1 : CPU Power Connector			
PIN	Description	PIN	Description
1	GND	2	GND
3	+12V	4	+12V

FAN2, FAN3 : SYSTEM Fan Connector	
PIN	Description
1	GND
2	+12V (Control)
3	Rotation Signal

FAN1 : CPU Fan Connector	
PIN	Description
1	GND
2	+12V
3	Rotation Signal
4	Control

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

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

TPM1: 2x 10 Pin TPM Connector (2.54mm)			
PIN	Description	PIN	Description
1	Clock	2	GND
3	Frame	4	KEY
5	Reset	6	+5V
7	LAD3	8	LAD2
9	+3.3V	10	LAD1
11	LAD0	12	GND
13	SCL	14	SDA
15	+3.3V SBY	16	Serial IRQ
17	GND	18	NC
19	Power Down#	20	DRQ

DIO1: 2x5 Pin Digital Input / Output Connector (2.54mm)			
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



