AIMB-253L µFC-PGA 478 Core™ 2 Duo / Core™ Duo / Core™ Solo mobile CPU Mini ITX Main Board

Startup Manual

Packing List

Before you begin installing your single board, please make sure that the following parts have been shipped.

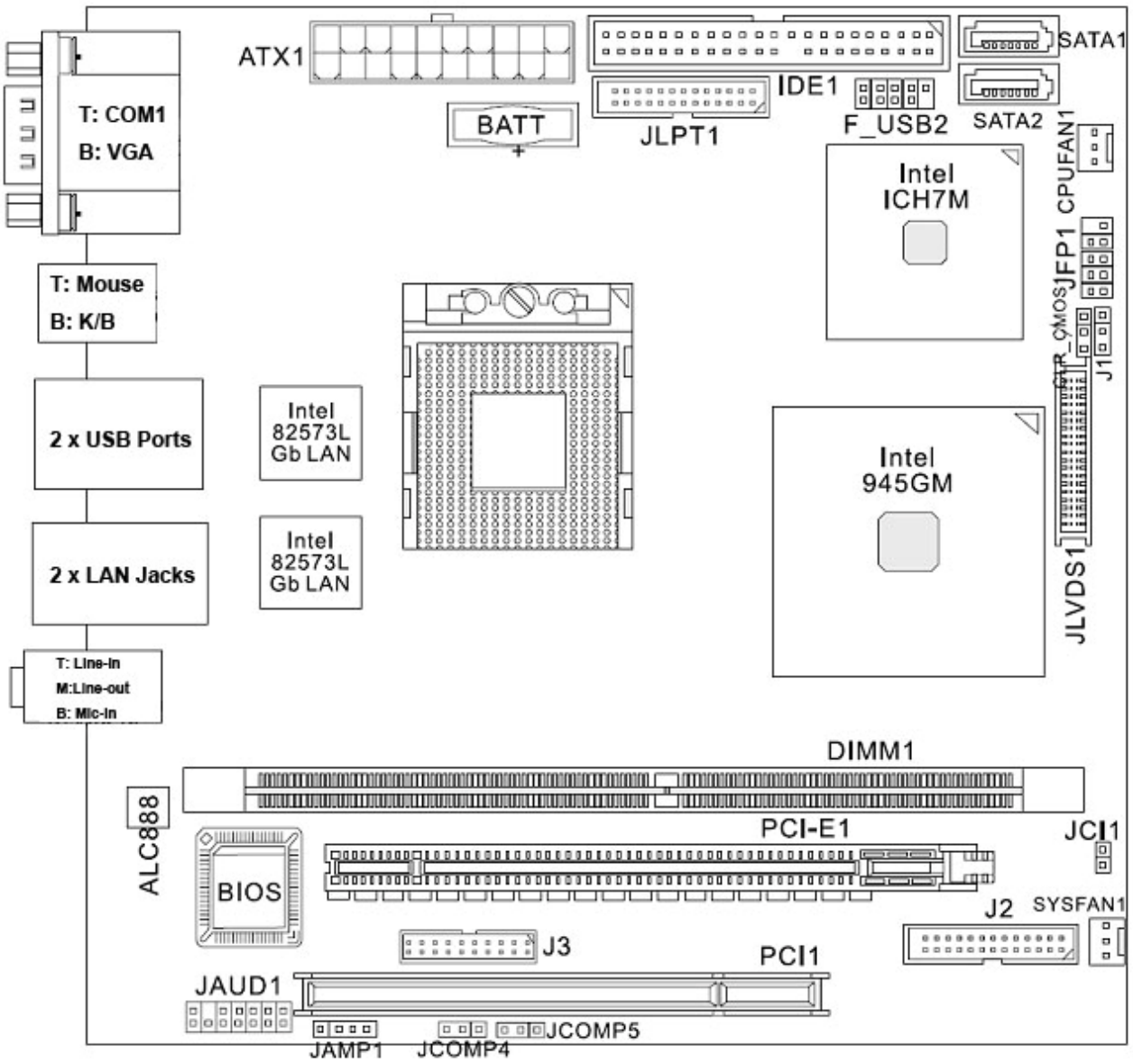
- 1 x AIMB-253L Mini ITX Motherboard
- 1 x CD-ROM contains the followings:
  - User's Manual (in PDF file)
  - Drivers
- 2 x SATA data cable
- 1 x IDE cable
- 1 x Serial port kits for 4 serial ports
- 1 x I/O bracket
- 1 x CPU cooler
- 1 x Startup Manual
- 1 x Warranty card

Disclaimer and Notice

The manufacturer reserves the right to make changes, without notice, to any product, including circuits and/or software described or contained in this manual in order to improve design and/or performance. The manufacturer assumes no responsibility or liability for the use of the described product(s), conveys no license or title under any patent, copyright, or masks work rights to these products, and makes no representations or warranties that these products are free from patent, copyright, or mask work right infringement, unless otherwise specified. For the detail product information, please refer to user's manual.

15GS0600085T26

Product Overview



Specifications

System

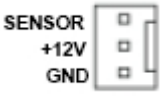
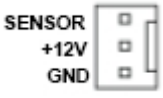
CPU	Supports Intel µFC-PGA 478 Core 2 Duo / Core Duo / Core Solo mobile CPU with 65nm process technology
FSB	533/667 MHz
BIOS	Award 4 Mb Flash ROM BIOS
System Chipset	Intel 82945GM(E) GMCH/82801GM(E) ICH7-M
I/O Chipset	Winbond W83627EHG
Memory	One 240-pin DIMM sockets support up to 2 GB Dual Channel DDR2 533/667 SDRAM
Watchdog Timer	Reset: 1 sec.~255 min. and 1 sec. or 1 min./step
H/W Status Monitor	Monitoring CPU temperature, voltage, and cooling fan status. Auto throttling control when CPU overheats
Expansion Slots	One PCI Express X16, One PCI slot (PCI Rev. 2.2 compliant)
S3	S3 Support
Smart Fan Control	Yes

I/O	
MIO	1 x EIDE (Ultra DMA 100), 1 x LPT, 2 x SATA, 1 x RS-232 (D-sub), 2 x RS-232 & 2 x RS-422/485 (Through 26-pin extension cable), 1 x K/B, 1 x Mouse
USB	4 x USB 2.0 ports
DIO	16-bit General Purpose I/O for DI and DO
Display	
Chipset	Intel® 82945GM(E) GMCH integrated Graphics Media Accelerator 950
Display Memory	Intel® DVMT 3.0 supports 224 MB video memory
Resolution	2048 x 1536 @ 32 bpp (85 Hz)
Dual Display	CRT + LVDS
LVDS	Intel® 945GM(E) Dual 18-bit/24-bit LVDS
DVI / Onboard DVI Chips	Through ADD2 DVI Card
Secondary VGA	Through ADD2 VGA Card
Audio	
AC97 Codec	Realtek ALC888 5.1+2 CH high definition audio codec
Audio Interface	Mic. in, Line in, Line out, S/PDIF
Ethernet	
LAN1 / LAN2	Intel 82573L Gigabit LAN

Jumpers

Label	Function	Note
CLR_CMOS1	Clear CMOS	Normal *  Clear CMOS 
J1	LVDS Power Selection 	Pin 1: VCC3 Pin 2: LCD_SRC (default VCC3) Pin 3: VCC5
JCOMP4, JCOMP5	COM Port Power	+5V  +12V 

Connectors

Label	Function	Note
CPUFAN1, SYSFAN1	Fan Power Connectors	CPUFAN1  SYSFAN1 

Connectors

Label	Function	Note

J2 — Serial Port Connector

	RS232	RS422	RS485
COM2	X	V	V
COM3	X	V	V
COM4	V	X	X
COM5	V	X	X

V = supported X = not supported

J3 — Digital IO Connector

PIN	SIGNAL	PIN	SIGNAL
1	VCC3	2	VCC5
3	N_GPIO10	4	N_GPIO20
5	N_GPIO11	6	N_GPIO21
7	N_GPIO12	8	N_GPIO22
9	N_GPIO13	10	N_GPIO23
11	N_GPIO14	12	N_GPIO24
13	N_GPIO15	14	N_GPIO25
15	N_GPIO16	16	N_GPIO26
17	N_GPIO17	18	N_GPIO27
19	GND	20	NC

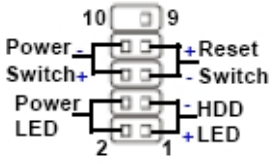
JAMP1 — Audio Amplifier Connector

PIN	SIGNAL
1	AMP_L-
2	AMP_L+
3	AMP_R-
4	AMP_R+

JAUD1 — Front Audio Connector

PIN	SIGNAL	PIN	SIGNAL
1	5V_SB	2	VCC3
3	SPDF0	4	NA
5	GND	6	SPDF1
7	LEF_OUT	8	SURR_OUT_R
9	CEN_OUT	10	SURR_OUT_L
11	AUD_GPIO21	12	AUDIO GND
13	SIDE_L	14	SIDE_R

JFP1 — Front Panel Connector



JLVDS1 — LVDS Flat Panel Connector

SIGNAL	PIN		SIGNAL
+12V	2	1	+12V
+12V	4	3	+12V
GND	6	5	+12V
GND	8	7	+3V
LCDVCC	10	9	LCDVCC
DCC DATA	12	11	DDC CLK
VDD ENABLE	14	13	BKLTCTL
GND	16	15	BKLTEN
LVDS A0+	18	17	LVDS A0-
LVDS A1+	20	19	LVDS A1-
LVDS A2+	22	21	LVDS A2-
LVDS ACLK+	24	23	LVDS ACLK-
NC	26	25	NC
GND	28	27	GND
LVDS B0+	30	29	LVDS B0-
LVDS B1+	32	31	LVDS B1-
LVDS B2+	34	33	LVDS B2-
LVDS BCLK+	36	35	LVDS BCLK-
NC	38	37	NC
GND	40	39	GND

Note: The RS-232 from COM2/3 signal and the RS-422/485 from COM4/5 can be output concurrently one at a time. AIMB-253L supports 3 serial ports output the most.