

HiCORE-i35Q

PICMG 1.0 Full size SBC

Quick Installation Guide

Version 1.0

Form Factor
<i>PICMG 1.0 Full size SBC</i>

CPU
<i>Supports Intel Core™ 2 Duo/ Conroe/ Conroe L/ Wolfdale-M/ Wolfdale-L LGA775 Processor</i>

Chipset
<i>Intel Q35 ICH9</i>

I/O
<i>PCI/ ISA/ USB/ IDE/ COM/ FDD/ SATA</i>

LAN
<i>RTL8111B 10/100/1000 Base-T Ethernet</i>

Video
<i>CRT</i>

Audio
<i>HDA CODEC, Line-in/ Line-out, MIC-in (Optional)</i>

◆ Technical Support

If you have any technical difficulties, please consult the user's manual first at:

<ftp://ftp.arbor.com.tw/pub/manual>

Please do not hesitate to call or e-mail our customer service when you still can not find out the answer.

<http://www.arbor.com.tw>

E-mail: info@arbor.com.tw

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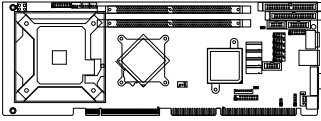


Specifications

Form Factor	PICMG 1.0 Full size SBC
Processor	Supports socket LGA775 for Intel® Core™ 2 Duo Conroe/ Conroe-L/ Wolfdale
Chipset	Intel® Q35 + ICH9
System Memory	Two 240-pin DDRII DIMM Sockets up to 4GB SDRAM
VGA Controller	Integrated with Intel® Graphics Media Accelerator (GMA3100)
Ethernet	One Realtek 8111B 10/100/1000 base-T PCIe Gb LAN
BIOS	AMI PnP Flash BIOS
I/O Controller	ITE-IT8718F
Audio	Supports Audio daughter board via connector
Serial ATA	2 x SATA II
IDE Interface	1 x IDE port connector supports 1 device
Serial Port	2 x COM port (COM1: RS-232, COM2: RS-232/422/485 selectable)
Floppy	1 x Floppy Drive Disk
Keyboard / Mouse	1 x Mini-DIN Keyboard and Mouse connector
Universal Serial Bus	12 x USB port 2.0 compliant
Watchdog Timer	255-Level Reset
DIO	4-bit Digital Input / 4-bit Digital Output
IrDA	1 x IrDA connector
Security	Supports TPM Daughter Board via connector
Operation Temp.	0°C - 60°C (32°F ~ 140°F)
Power Connector	4-pin ATX12V type and ATX feature
Dimension (L x W)	338 x 122 mm (13.3" x 4.8")

Packing List

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



1 x HiCORE-i35Q PICMG 1.0 full size SBC



1 x CD-ROM



1 x Quick Installation Guide

- 1 x COM port flat cable
- 1 x FDD flat cable
- 1 x IDE flat cable
- 1 x SATA cable
- 1 x USB cable
- 1 x Keyboard & Mouse cable
- 4 x Mini Jumper 2.54mm

If any of the above items is damaged or missing, contact your vendor immediately.

Ordering Information

HiCORE-i35Q	Full-Size Intel Core 2 Duo LGA775 SBC with Q35, VGA, SATA, Gigabit LAN
FCDB-1111	HD Audio Daughter Board
	CBK-06-035Q-00
Cable Kit	1 x COM port flat Cable
	1 x FDD flat Cable
	1 x IDE flat Cable
	1 x SATA Cable
	1 x USB Cable
	1 x Keyboard & Mouse Cable

Jumpers/ Connectors Quick Reference

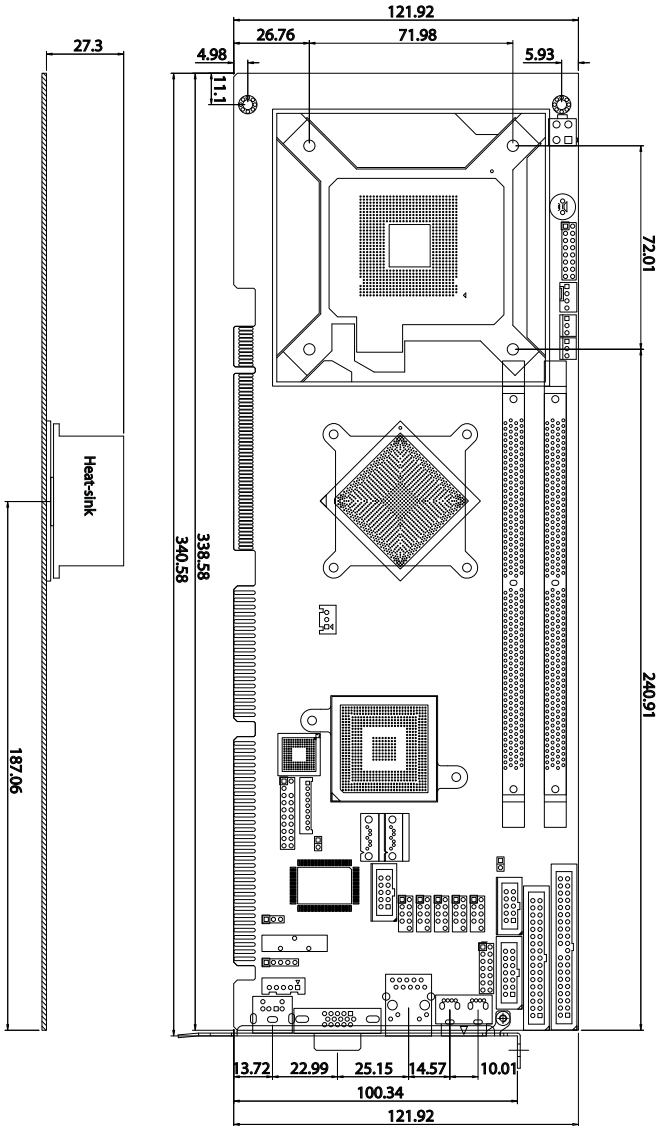
Jumpers

Label	Description
AT1	AT/ATX Power Mode Select
JP1	PATA IDE Enable/ Disable Select
JBAT1	Clear CMOS Setup
JRS1	COM2 RS-232/422/485 Mode Select

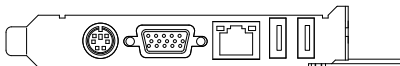
Connectors

Label	Description
ATX12V1	ATX 12V Connector
JFRT1	Switches and Indicators
CPUF1	CPU Fan Power Connector
SYSF1, SYSF2	Fan Power Connector
EATX1	ATX Feature Connector
TPM1	Trusted Platform Module Connector
CN3	AUDIO connector
SATA1~2	Serial ATA Connectors
COM1	RS-232 Connectors
FDD1	FDD Connector
IDE1	IDE Connector
DIO1	Digital I/O Connector
USB2~6	USB Connector
IR1	Infrared Connector
EKB1	External Keyboard Connector
COM2	RS-232/422/485 Connector
KBM1	Keyboard & Mouse
VGA1	CRT Connector
LAN1	RJ-45 Connector
USB1	Double Stack USB type A Connector

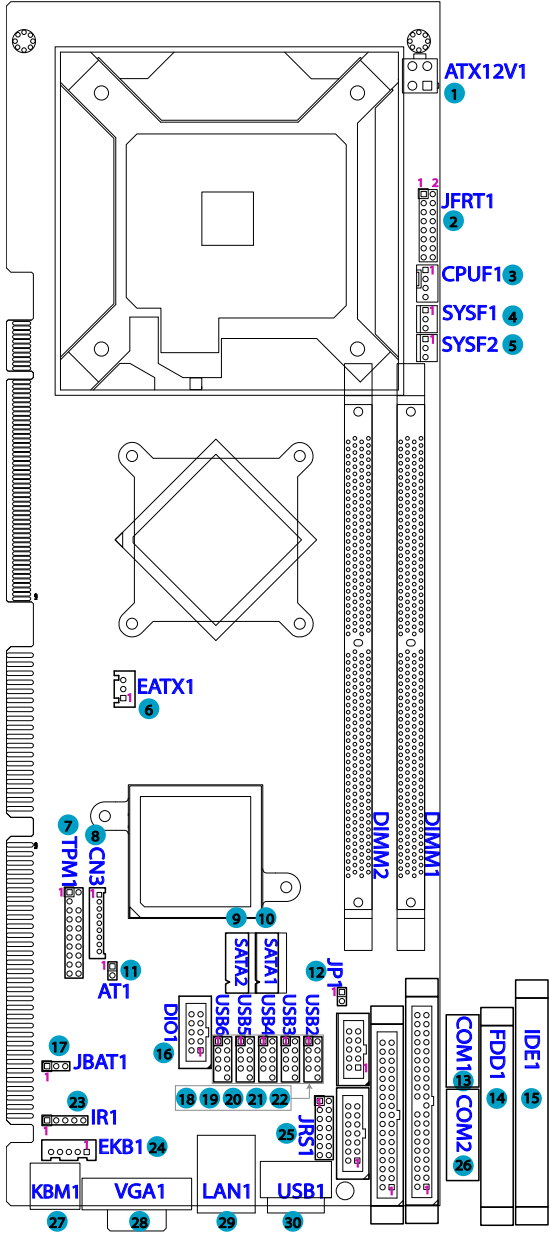
Board Dimensions



Unit:mm





Jumpers & Connectors



Jumpers



AT1: AT/ATX Power Mode Select (11)

Connector type: 2.54mm pitch 1x2 pin header.

Pin 1-2	Power Mode Select	
Short	AT Mode	
Open	ATX Mode (Default)	



JP1: PATA IDE Enable/ Disable Select (12)

Connector type: 2.54mm pitch 1x2 pin header.

Pin 1-2	Function Select	
Short	Disable	
Open	Enable (Default)	

JBAT1: Clear CMOS Setup (17)

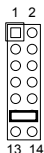
Connector type: 2.54mm pitch 1x3 pin header.

Pin	Mode	
1-2	Keep CMOS (Default)	
2-3	Clear CMOS	

JRS1: COM2 RS-232/422/485 Mode Select (25)

Connector type: 2.54mm pitch 2x7 pin header

Mode	RS-232 (Default)	RS-422	RS-485
1-2	Off	On	On
3-4	Off	On	On
5-6	Off	Off	On
7-8	Off	On	Off
9-10	Off	On	On
11-12	On	Off	Off
13-14	Off	Off	On




Connectors

ATX12V1: ATX +12V Connector (1)

ATX12V1 supplies the CPU operation ATX +12V (Vcore).

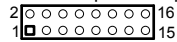
Pin	Desc.	Pin	Desc.
2	GND	1	GND
4	+12V	3	+12V



JFRT1: Switches and Indicators (2)

It provides connectors for system indicators that provides light indication of the computer activities and switches to change the computer status.

Connector type: 2.54mm pitch 2x8 pin header.




Pin	Description	Pin	Description
1	Power LED+	2	PWRBTN-
3	GND	4	PWRBTN+
5	GND	6	RESET+
7	HDD LED+	8	RESET-
9	HDD LED-	10	SPKR
11	SMB_CLK	12	SPEAKER-
13	SMB_DATA	14	GND
15	GND	16	+5V

CPUF1: CPU Fan Power Connector (3)

Connector type: 2.54mm pitch 1x4 wafer one wall connector.


Pin	Description
1	GND
2	+12V
3	Fan_Detect
4	Fan Speed Control



SYSF1, SYSF2: Fan Power Connector (4), (5)

SYSF1 and SYSF2 are a 3-pin header for the CPU fan. The fan must be a +12V fan.

Pin	Description
1	GND
2	+12V
3	FAN_CTL



EATX1: ATX Feature Connector (6)

Connector type: 2.54mm pitch 1x3-pin box wafer connector

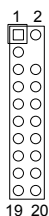
Pin	Description
1	PS-ON
2	GND
3	5V_SB



TPM1: Trusted Platform Module Connector (7)

Connector type: 2.54mm pitch 2x10 pin header

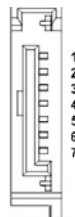
Pin	Desc.	Pin	Desc.
1	CLK	2	GND
3	LFRAME#	4	N/C (Key)
5	LRESET#	6	N/C
7	LAD3	8	LAD2
9	+3.3V	10	LAD1
11	LAD0	12	GND
13	N/C	14	N/C
15	+3.3V_SB	16	SERIRQ
17	GND	18	CLKRUN#
19	PD#	20	N/C



SATA1~2: SATA Connectors (9)~ (10)

High speed transfer rates (300MB/s).

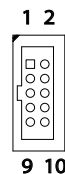
Pin	Description
1	GND
2	TX+
3	TX-
4	GND
5	RX-
6	RX+
7	GND



COM1: RS-232 Connectors (13)

Connector type: 2.54mm pitch 2x5 box header.

Pin	Desc.	Pin	Desc.
1	DCD1#	2	DSR1#
3	RXD1	4	RTS1#
5	TXD1	6	CTS1#
7	DTR1#	8	RI1#
9	GND	10	GND



CN3: HD AUDIO daughter board connector (8)

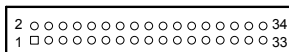
Connector type: 2.00mm pitch 1x9 box wafer connector.

Pin	Description
1	+12V
2	+3.3V
3	AC_SYNC
4	AC_SDOUT
5	GND
6	AC-BCLK
7	GND
8	AC_RST#
9	AC_SDIN0



FDD1: FDD Connector (14)

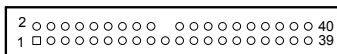
Connector type: 2.54mm pitch 2x17 box header.



Pin	Description	Pin	Description
1	GND	2	DRV DEN0
3	GND	4	N/C
5	GND	6	DRV DEN1
7	GND	8	INDEX#
9	GND	10	MOA#
11	GND	12	DSB#
13	GND	14	DSA#
15	GND	16	MOB#
17	GND	18	DIR#
19	GND	20	STEP#
21	GND	22	WDATA#
23	GND	24	WGATE#
25	GND	26	TRACK0#
27	GND	28	WP#
29	GND	30	RDATA#
31	GND	32	HEAD#
33	GND	34	DSKCHG#

IDE1: IDE Connector (15)

Connector type: 2.54mm pitch 2x20 box header.



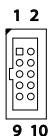
Pin	Description	Pin	Description
1	IDE RESET	2	GND
3	DATA7	4	DATA8
5	DATA6	6	DATA9
7	DATA5	8	DATA10
9	DATA4	10	DATA11
11	DATA3	12	DATA12
13	DATA2	14	DATA13
15	DATA1	16	DATA14
17	DATA0	18	DATA15
19	GND	20	N/C (Key)
21	REQ	22	GND
23	IO WRITE	24	GND
25	IO READ	26	GND
27	IO READY	28	IDESEL
29	DACK	30	GND
31	IRQ14	32	N/C
33	ADDR1	34	ATA66 DETECT
35	ADDR0	36	ADDR2
37	CS0#	38	CS1# (HD SELECT1#)
39	IDEACTP	40	GND

DIO1: Digital I/O Connector (16)

DIO1 supports 4-bit In/ 4-bit Out.

Connector type: 2.54mm pitch 2x5 box header

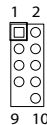
Pin	Description	Pin	Description
1	DO0	2	DI0
3	DO1	4	DI1
5	DO2	6	DI2
7	DO3	8	DI3
9	+5V	10	GND



USB2~6: USB Connector (18)~(22)

Connector type: 2.54mm pitch 2x5 pin header.

Pin	Desc.	Pin	Desc.
1	+5V	2	+5V
3	USBD-	4	USBD-
5	USBD+	6	USBD+
7	GND	8	GND
9	N/C (Key)	10	N/C



IR1: Infrared Connector (23)

Connector type: 2.54mm pitch 1x5 pin header.

Pin Description

1	+5V
2	N/C
3	IRRX
4	GND
5	IRTX

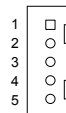


EKB1: External Keyboard Connector (24)

Connector type: 2.54mm pitch 1x5-pin box wafer connector.

Pin Description

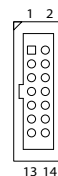
1	KB_CLK
2	KB_DATA
3	N/C
4	GND
5	+5V



COM2: RS-232/422/485 Connector (26)

Connector type: 2.54mm pitch 2x7 box header.

Pin	Desc.	Pin	Desc.
1	DCD2#	2	DSR2#
3	RXD2	4	RTS2#
5	TXD2	6	CTS2#
7	DTR2#	8	RI2#
9	GND	10	GND
11	TX+	12	TX-
13	RX+	14	RX-



Note:

If you configured the port to RS-485 mode, the signals TX and RX should be already connected.

KBM1: Keyboard & Mouse Connector (27)

Mini-Din Keyboard & Mouse connector

Pin	Description
1	KB Data
2	MS Data
3	GND
4	+5V
5	KB Clock
6	MS Clock



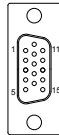
The Installation Paths of CD Driver

Driver	Path
CHIPSET	\\Chipset\Inte\INF 8.1
ISA	\\ISA\ITE8888
LAN	\\Ethernet\Realtek\8111B_WIN5640
VGA	\\Graphics\Intel_2K_XP_32\1431

VGA1: CRT Connector (28)

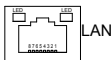
Connector type: D-Sub 15-pin female.

Pin	Desc.	Pin	Desc.
1	RED	9	N/C
2	GREEN	10	GND
3	BLUE	11	N/C
4	N/C	12	D-DATA
5	GND	13	H-SYNC
6	GND	14	V-SYNC
7	GND	15	D-DCLK
8	GND		



LAN1: RJ-45 Connector (29)

Connector type: RJ-45 connector.



USB1: Double Stack USB type A Connector (30)

Connector type: double stack USB type A connector.

