SBC-6741H User's Manual

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SBC-6741H Socket 370 PIII® Coppermine™/ Celeron™ Single Board Computer with 2S1P, VGA/CRT/LCD, Ethernet and SSD

Startup Manual

Packing List **(option)**

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

• 1 SBC-6741H all-in-one single board computer
• 1 hard disk drive (IDE) interface cable (40-pin)
• 1 floppy disk drive interface cable (34-pin)
• 1 parallel port cable (26-pin)
• 1 serial port cable (9-pin)
• 1 user's manual
• CD-ROM or disks for utility, drivers, and manual (in DOC/PDF format)
• Warranty certificate

If any of these items are missing or damaged, contact your distributor or sales representative immediately.

Note 1: For detailed contents of the SBC-6741H, please refer to the enclosed CD-ROM or disk (in DOC/PDF format).

Note 2: Acrobat Reader is acquired to view any PDF file. Acrobat Reader can be downloaded at: **www.adobe.com/Prodindex/acrobat/readstep .html**

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Specifications

SBC-6741H Functions

•**CPU :**Pentium®III Coppermine™ and Celeron™ supported (With system bus frequencies of 66/100MHz),Jumper select to AUTO for 66/100/133 MHz.
• **CPU socket :** Intel socket 370
• **BIOS :** Award Flash BIOS
• **Chipset :** Intel 443BX
• **I/O Chipset :**Winbond W83977F. Full 16-bit I/O decoded
• **Memory :** Onboard one 168-pin DIMM socket supports up to512Mbytes SDRAM
• **Enhanced IDE :** Support two IDE devices. Supports Ultra DMA/33 mode with data transfer rate up to 66MB/sec.
• **FDD interface :** Supports up to two floppy disk drives, 5.25" (360KB and 1.2MB) and /or 3.5" (720KB, 1.44MB, and 2.88MB)
• **Parallel port :** One parallel port. Supports SPP, ECP and EPP modes
• **Serial ports :** COM1 RS-232 and COM2 RS-232/422/485 serial ports. Ports can be configured as COM1, COM2, or disabled individually.
• **IR interface :**Supports one IrDA Tx/Rx header
• **Keyboard/mouse connector :** supports PC/AT keyboard and PS/2 mouse
• **USB connectors :** 5 x 2 header onboard supports dual USB ports
• **Battery :** Lithium battery for data retention
• **Watchdog Timer :** Can generate a system reset, IRQ11, or RESET. Support software selectable time out interval. 1 sec-255 sec, I/O port 441enable/disable, I/O port 443 timer set
• **Power management :** Supports ATX and AT(P8) power supply. LAN wake up, and External modem ring-in functions. I/O Peripheral devices, support power saving And doze/standby/suspend modes. APM 1.2compliant
• **H/W status monitoring :** Winbond W83782D H/W status monitoring IC, supports power supply voltage and temperatures monitoring

Flat Panel/CRT Interface

- **Chipset :** C&T 69000
- **Display memory :** Built-in 2MB SDRAM
- **Display type :** Supports non-interlaced CRT and LCD (TFT, DSTN, and Mono) displays. Can display both CRT and Flat Panel simultaneously
- **Resolution :** Up to 1024x768@64K colors

Ethernet interface

- **Chipset :** RTL8139C 100Base-T Fast Ethernet controller
- **Ethernet interface :** 100Base-T RJ-45 connector.

SSD Interface

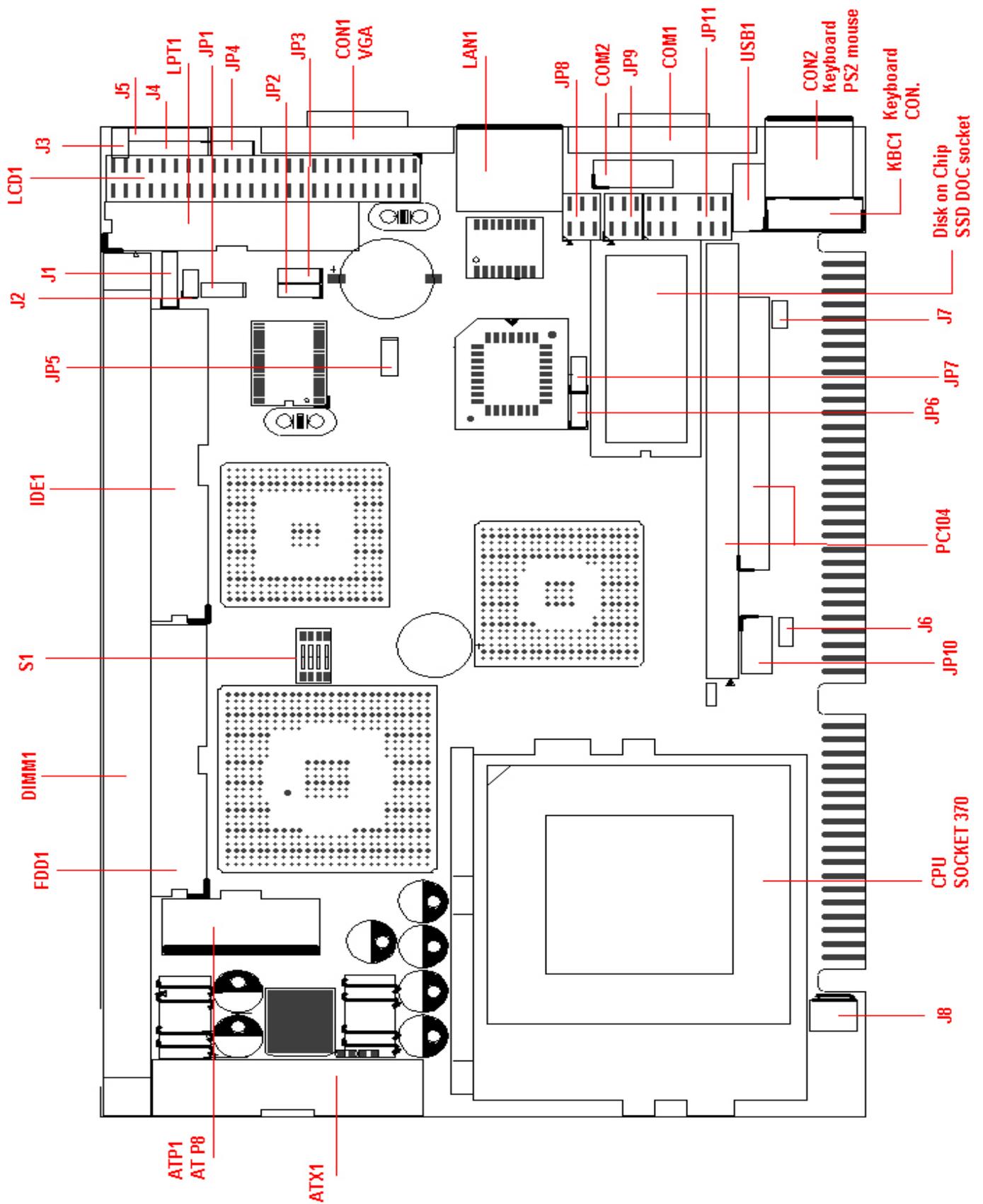One 32-pin DIP socket supports M-systems DiskOnChip 2000 Series up to 288MB

Expansion Slots

- **PC/104 connector :** One 16-bit 104-pin connector onboard
- **ISA BUS :** One 16-bit ISA golden finger slot

Mechanical and environmental

- **Power supply voltage :** +5V (4.75V to 5.25V), +12V (11.4V to 12.6V)
- **Operating temperature :** 32 to 140 o F (0 to 60 o C)
- **Board size :** 7.3"(L)X4.8"(W)

JUMPERS AND CONNECTORS

Jumpers Function

Connectors on the board link it to external devices such as hard disk drives, a keyboard, or floppy drives. In addition, the board has a number of jumpers that allow you to configure your system to suit your application. The following tables list the function of each of the board's jumpers and connectors.

ATP1 AT P8 CONNECTOR
ATX1 ATX power connector
COM1/2 Serial ports connector
CON1 VGA CRT/DDC interface connector
CON2 Keyboard / PS2 mouse
DIMM1 DIMM socket
FDD1 Floppy drive connector
IDE1 HDD drive connector
J1 SPEAKER
J2 HDD_LED
J3 Turbo_LED
J4 Power _LED/Key lock
J5 IrDA
J6 RESET
J7 Power on switch
J8 CPU fan power connector
JP1 LCD SHF CLOCK select

JP2/3 CPU speed select
JP4 Panel voltage select
JP5 Clear CMOS
JP6 DOC(SSD) voltage 3.3/5V select
JP7 Watch Dog IRQ11/RESET select
JP8 RS-232/422/485 voltage 5v/12v select
JP9 RS-232/422/485 function select
JP10 DOC(SSD) address select
JP11 RS-232/422/485 function select
KBC1 Keyboard input pin
LAN1 100Base-T Ethernet connector
LCD1 LCD display connector
LPT1 Printer ports connector
P104A1/A2 PC/104 connector
S1 (1~4) LCD panel type select
USB1 USB ports connector

COM2 PIN LIST

Pin Number	Signal	Pin Number	Signal
1	DCD	6	DSR
2	SIN(RXD)	7	RTS
3	SOUT (TXD)	8	CTS
4	DTR	9	RI(+5V, +12V)
5	GND	10	N.C
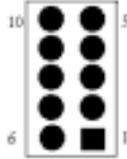
COM2 422/ 485 PIN LIST

Pin Number	Signal	Pin Number	Signal
1	DCD(422 TXD-485 DATA-)	6	DSR
2	RXD(422 RXD+)	7	RTS
3	SOUT(422TXD+/485DATA+)	8	CTS
4	DTR(422 RXD-)	9	RI(+5V, +12V)
5	GND	10	N.C

USB1 PIN LIST

Pin Number	Signal	Pin Number	Signal
1	USBV	6	GND
2	USBD0-	7	GND
3	USBD0+	8	USBD1+
4	GND	9	USBD1-
5	GND	10	USBV
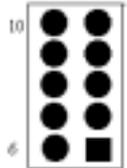
KBC1 PIN LIST

Pin Number	Signal
1	KCLK
2	KDATA
3	X
4	GND
5	KVCC
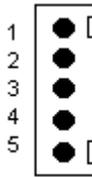
LCD1

Pin Number	Signal	Pin Number	Signal
1	+12v	2	+12V
3	GND	4	GND
5	+5V(+3V)	6	+5V(+3V)
7	ENAVEE	8	GND
9	P0	10	P1
11	P2	12	P3
13	P4	14	P5
15	P6	16	P7
17	P8	18	P9
19	P10	20	P11
21	P12	22	P13
23	P14	24	P15
25	P16	26	P17
27	P18	28	P19
29	P20	30	P21
31	P22	32	P23
33	P24	34	P25
35	SHFCLK	36	FLM (V-SYS)
37	M	38	LP (H-SYS)
39	GND	40	ENABKL
41	P26	42	P27
43	P28	44	P29
45	P30	46	P31
47	P32	48	P33
49	P34	50	P35
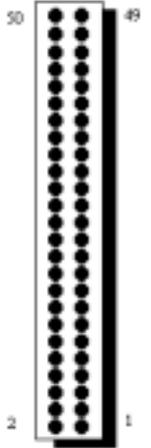
J4 POWER LED PIN LIST

Pin Number	Signal
1	PLED+
2	X
3	PLED-
4	KLOCK
5	GND
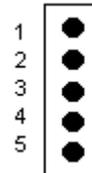
J5 IrDA PIN LIST

Pin Number	Signal
1	VCC
2	X
3	IRRX
4	GND
5	IRTX

Clear CMOS (JP5)

	★Protect	Clear CMOS
JP5	1● 2● 3○	1○ 2● 3●
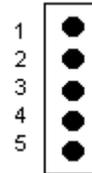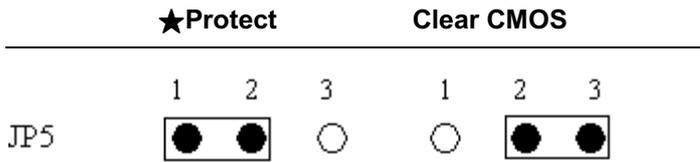
★ default

RS232/422/485 JUMPER SELECT (JP8 / JP9 / JP11)

	★RS232	RS422 (5V 422/485)	RS485 (12V 422/485)
JP8	●—● / ○ ○ / ○ ○	○ ○ / ●—● / ○ ○	○ ○ / ○ ○ / ●—●
JP9	●—● / ○ ○ / ○ ○	○ ○ / ●—● / ○ ○	○ ○ / ○ ○ / ●—●
JP11	● ● / ● ● / ○ ○ (top) and ● ● / ● ● / ○ ○ (bottom)	● ● / ● ● / ● ● (top) and ○ ○ / ● ● / ● ● (bottom)	● ● / ● ● / ● ● (top) and ○ ○ / ○ ○ / ○ ○ (bottom)
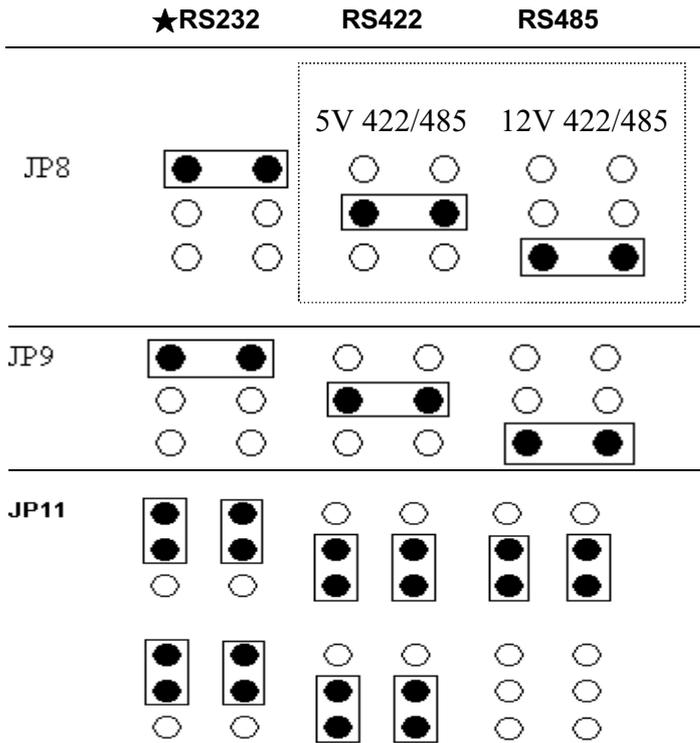
★ default

CPU SPEED SELECT (JP2 / JP3)

	★AUTO		100		66	
	JP2	JP3	JP2	JP3	JP2	JP3
1	●	●	●	○	○	○
2	●	●	●	●	●	○
3	○	○	○	●	●	○
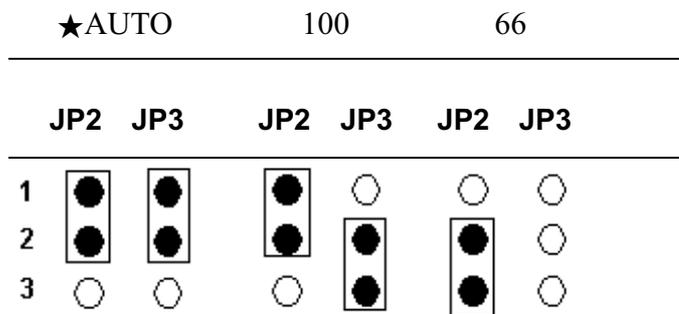
★default

WATCH DOG SELECT (JP7)

	IRQ11	★RESET
JP7	1● 2● 3○	1○ 2● 3●
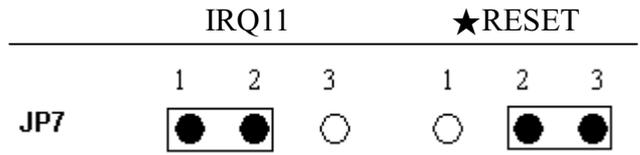
★ default

DISK ON CHIP VCC SELECT (JP6)

	★5V	3.3V
JP6	1● 2● 3○	1○ 2● 3●
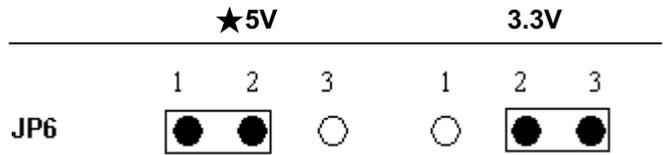
★default

DISK ON CHIP ADDRESS SELECT (JP10)

	DC-DD	D8-D9	D4-D5	D0-D1	★CC-CD
JP10	(jumper setting)	(jumper setting)	(jumper setting)	(jumper setting)	(jumper setting)
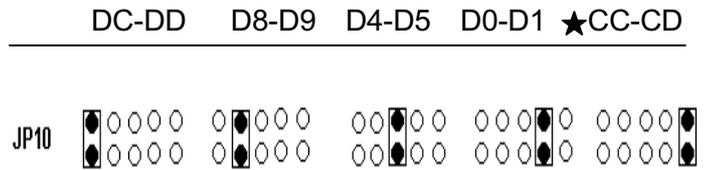
★default

LCD PANEL VCC SELECT (JP4)

	★5V	3.3V
	1 2 3	1 2 3
JP4	●—● ○	○ ●—●
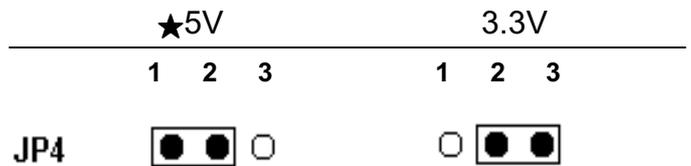
★ default

LCD PANEL SHF CLOCK SELECT (JP1)

	SHF+	★SHF-
	1 2 3	1 2 3
JP1	●—● ○	○ ●—●
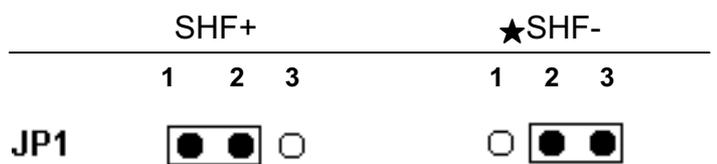
★default

SW1: LCD PANEL TYPE SELECT

DISPLAY	TYPE	Setting (SW1)
1024*768	Dual scan STN	1:On 2:On 3:On 4:On
1280*1024	TFT color	1:Off 2:On 3:On 4:On
640*480	Dual scan STN	1:On 2:Off 3:On 4:On
800*600 36bits	Dual scan STN	1:Off 2:Off 3:On 4:On
640*480	Sharp TFT color	1:On 2:On 3:Off 4:On
640*480	18-bits TFT color	1:Off 2:On 3:Off 4:On
1024*768	TFT color	1:On 2:Off 3:Off 4:On
800*600	TFT color	1:Off 2:Off 3:Off 4:On
800*600 ★default	TFT color	1:On 2:On 3:On 4:Off
800*600	TFT color	1:Off 2:On 3:On 4:Off
800*600	Dual scan STN color	1:On 2:Off 3:On 4:Off
800*600	Dual scan STN color	1:Off 2:Off 3:On 4:Off
1024*768	TFT color	1:On 2:On 3:Off 4:Off
1280*1024	Dual scan STN	1:Off 2:On 3:Off 4:Off
1024*600	Dual scan STN	1:On 2:Off 3:Off 4:Off
1024*600	TFT color	1:Off 2:Off 3:Off 4:Off

BOARD DIMENSIONS
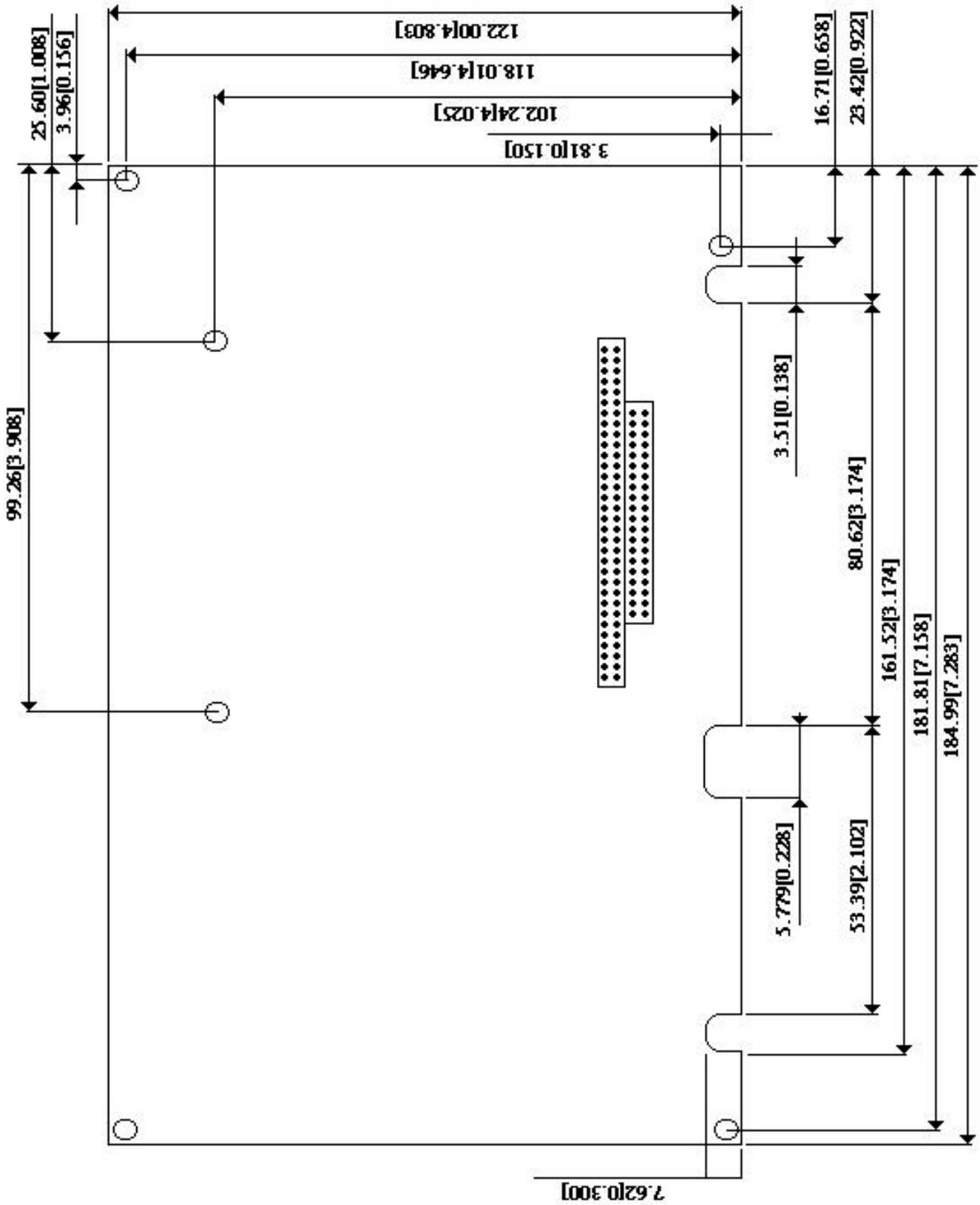
Notice

Dear Customer,

Thank you for purchasing the SBC-6741H board. Please read user's manual thoroughly before you install and use the board. The product that you have purchased comes with two-year warranty, but we will not be responsible for any misusing of the product. Therefore, we strongly urge you to read the manual first before using the product.