

# *SBC-6743H User's Manual*

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# SBC-6743H Socket 370 PIII®Coppermine™ Celeron™Single Board Computer with 2S1P 232/422/485,VGA/CRT/LCD,Ethernet,SSD,WatchDog,Digital I/O,HDD,FDD PISA BUS Supports four PCI secondary master

## Startup Manual

### Packing List (option)

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

- 1 SBC-6743H 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 COM port cable (9-pin)
- 1 startup 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-6743H, 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](http://www.adobe.com/Prodindex/acrobat/readstep.html)

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## Specifications

### SBC-6743H (PISA) 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 370 socket
- **BIOS** : Award Flash BIOS
- **Chipset** : Intel 440/443BX
- **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 four 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** : 4 x 2 header onboard supports dual USB ports
- **Battery** : Lithium battery for data retention
- **Watchdog Timer** : Can generate a system reset ( IRQ11or RESET). Support software selectable time out interval. 1 sec-255 sec, I/O port 440 enable/disable, I/O port 441 timer set
- **Digital I/O** : 4 channels input and 4 channels ,I/O port 220 out, 221 in
- **Power management** : Supports ATX and ATx HDD power supply. Lan wake up,and 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

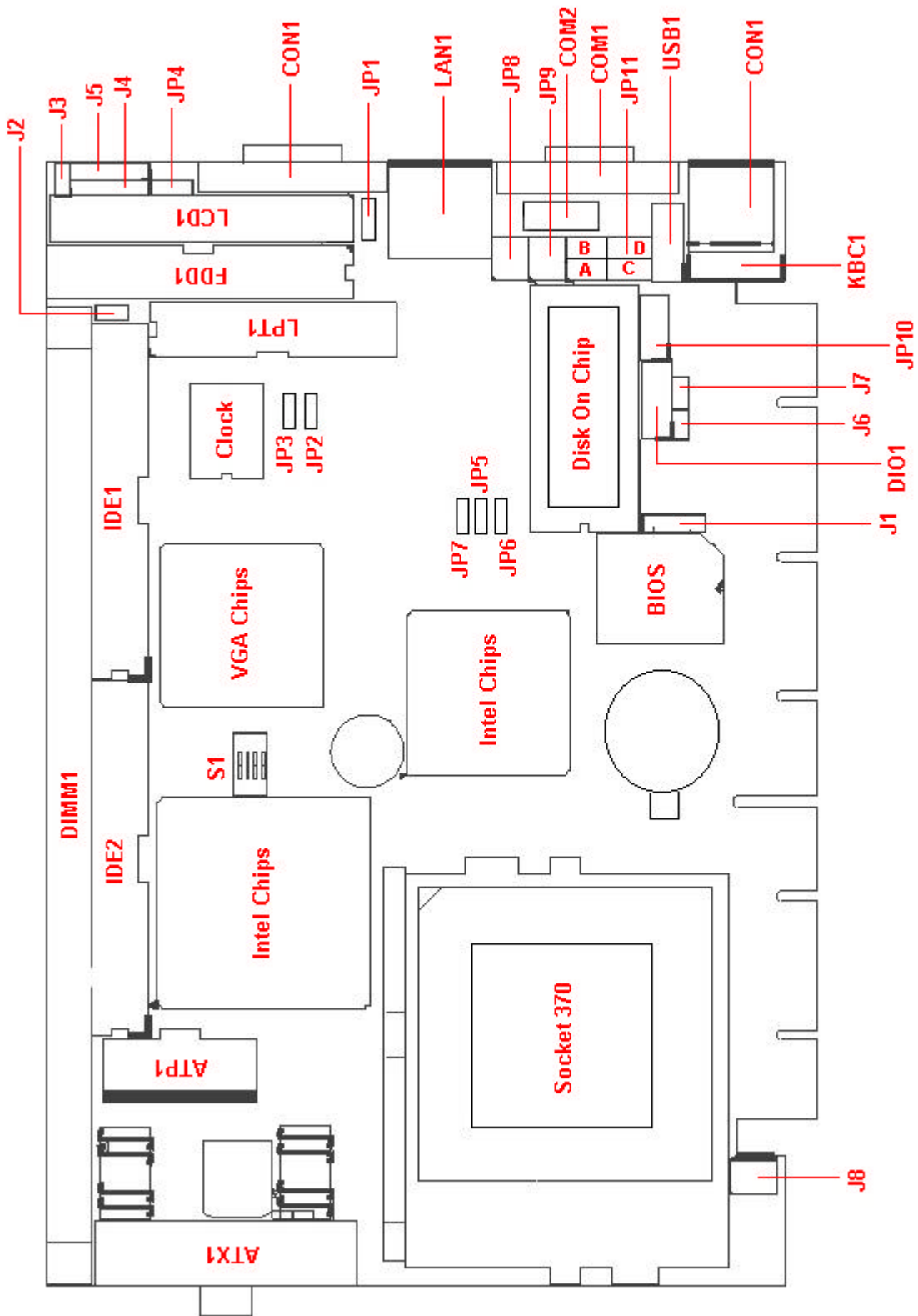
## Expansion Slots

- **PISA BUS Golden Finger**
- **ISA BUS** : 16-bit ISA golden finger
- **PCI BUS** : 32-bit PCI golden finger
- **Supports four PCI Secondary master**

## Mechanical and environmental

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

# JUMPERS AND CONNECTORS



## Jumpers Function

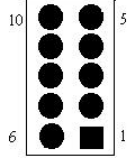
Connectors on the board link it to external devices such as hard disk drives, a keyboard, or floppy drives. In addition, the board has a number of jumpers that allow you to configure your system to suit your application. The following tables list the function of each of the board's jumpers and connectors.

**ATP1** AT(X) HDD power 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  
**IDE2** 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 and 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** EXT.Keyboard input pin  
**LAN1** 100Base-T Ethernet connector  
**LCD1** LCD display connector  
**LPT1** Printer ports connector  
**S1** (1~4) LCD panel type select  
**USB1** USB ports connector

### COM2 232 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

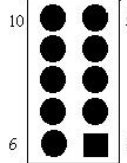


### COM2 422/ 485 PIN LIST

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

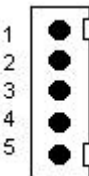
### USB1 PIN LIST

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



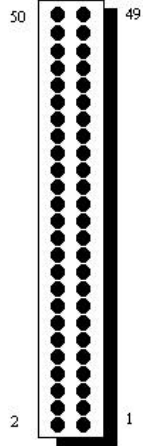
### KBC1 PIN LIST

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



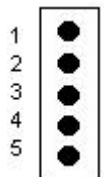
### LCD1

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



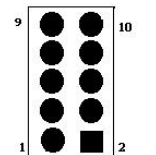
### J4 POWER LED PIN LIST

Pin Number	Signal
1	PLED+
2	X
3	PLED-
4	KLOCK
5	GND



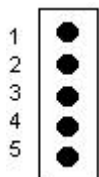
### DIO1 DIGITAL I/O PIN LIST

Pin Number	Signal	Pin Number	Signal
1	GND	2	GND
3	DOUT4	4	DIN1
5	DOUT3	6	DIN2
7	DOUT2	8	DIN3
9	DOUT1	10	DIN4



### J5 IrDA PIN LIST

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



**JP5**

JP5	CONFIG
1-2	Normal
2-3	Clear CMOS

**JP9/JP11**

RS232 / RS422 / RS485 Select					
JP11	A	B	C	D	JP9
RS232	1-2	1-2	1-2	1-2	1-2
RS422	2-3	2-3	2-3	2-3	3-4
RS485	2-3	2-3	X	X	5-6

**JP8**

JP8	RS232/422/485
1-2	RS232
3-4	RS422/485 +5V
5-6	RS422/485 +12V

**JP2/3**

CPU SPEED Select			
	66	100	AUTO
JP3	X	2-3	1-2
JP2	2-3	1-2	1-2

**R89 0 OHM**

CPU TYPE Select	
0	FOR INTEL CPU
X	FOR OTHER CPU

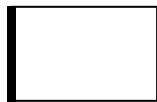
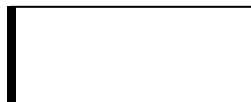
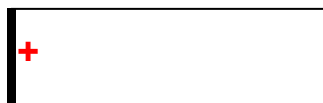
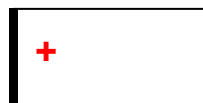
**RA1 33 OHM**

On board VGA Select	
33	Enable
X	Disable

**J6**

RESET PIN Select	
1	RESET
2	GND

default

**J6 RESET****J1 SPEAKER****J5 IrDA****J2 HDD LED****JP7**

JP7	WatchDog Select
1-2	IRQ11
2-3	System RESET

**JP4**

JP4	LCD Voltage Select
1-2	5 Voltage
2-3	3.3 Voltage

**JP6**

JP6	DOC Voltage Select
1-2	5 Voltage
2-3	3.3 Voltage

**JP1**

JP1	LCD Shift Clock Select
1-2	SHF +
2-3	SHF -

**JP10**

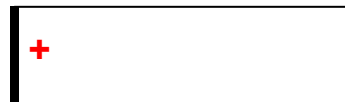
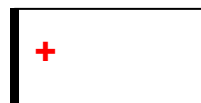
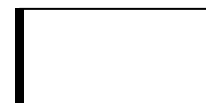
JP10	DOC Address Select
1-2	CC-CD
3-4	D0-D1
5-6	D4-D5
7-8	D8-D9
9-10	DC-DD

**J7**




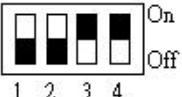




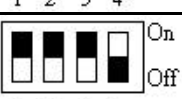

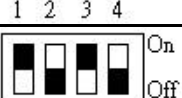
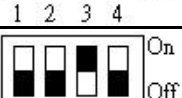




POWER ON	
1	5V_5VSB
2	POWER ON

**J2**

HDD LED	
1	IDE LED +
2	IDE LED -

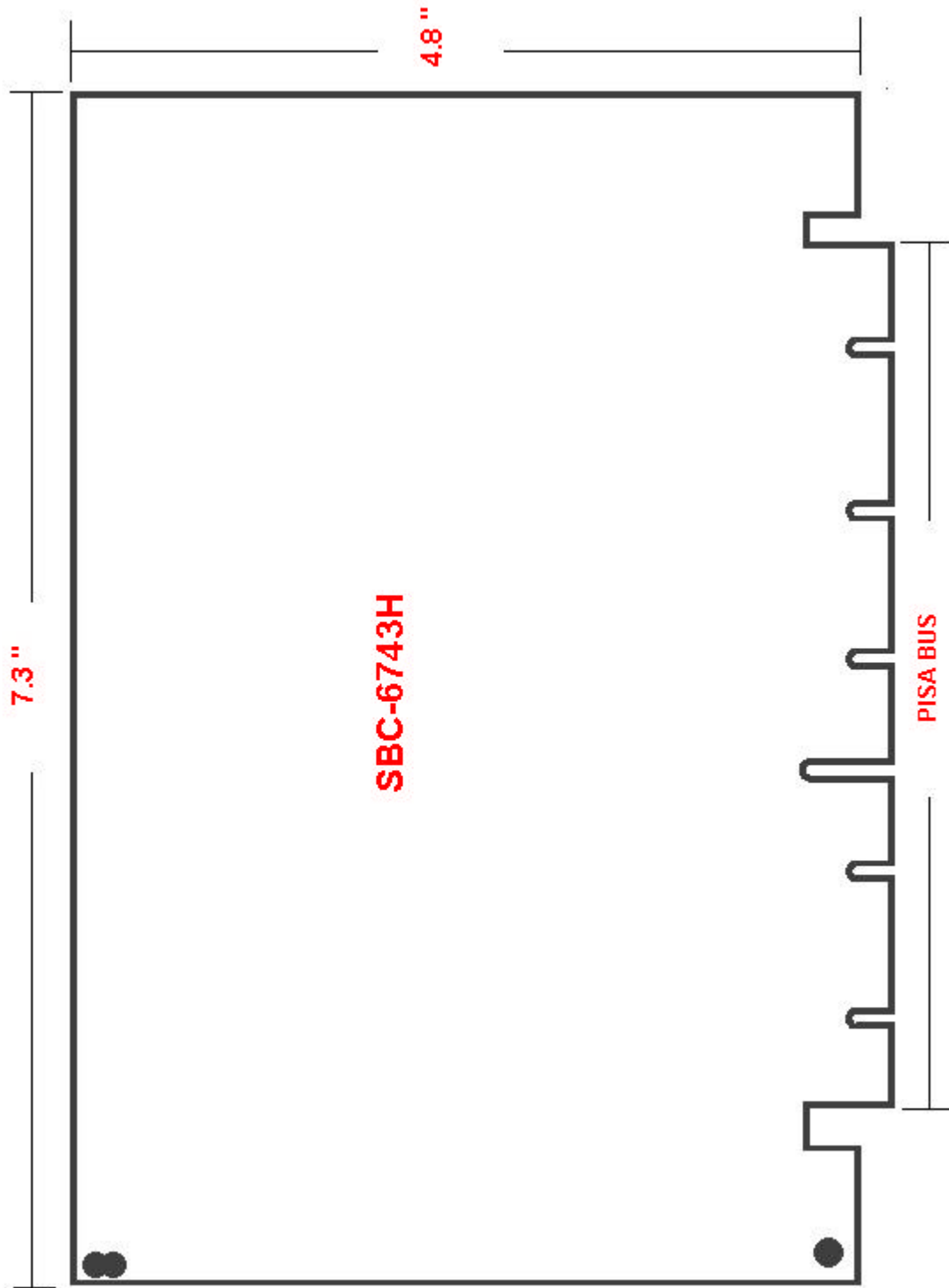
**J4 PW LED/KEY LOCK****J3 TB LED****J7 PW ON**

## SW1: LCD PANEL TYPE SELECT

DISPLAY	TYPE	Setting (SW1)
1024*768	Dual scan STN	
1280*1024	TFT color	
640*480	Dual scan STN	
800*600 36bits	Dual scan STN	
640*480	Sharp TFT color	
640*480	18-bits TFT color	
1024*768	TFT color	
800*600	TFT color	
800*600 <b>default</b>	TFT color	
800*600	TFT color	
800*600	Dual scan STN color	
800*600	Dual scan STN color	
1024*768	TFT color	
1280*1024	Dual scan STN	
1024*600	Dual scan STN	
1024*600	TFT color	



# BOARD DIMENSIONS



## Notice

Dear Customer,

Thank you for purchasing the SBC-6743H 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.