ECP-6740E User's Manual

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ECP-6740E Socket 370 PIII® Coppermine™/ Celeron™ Embedded Platform with Audio, VGA/CRT/LCD, Ethernet , SSD, Digital I/O, and 4S1P

Startup Manual

Packing List **(option)**

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

• 1 ECP-6740E 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)
• 2 serial port cable (9-pin)
• 1 6-pin mini-DZN keyboard & PS/2 mouse adaptor
• 1 VGA and Audio card adaptor
• 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 ECP-6740E, 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

Embedded Platform Functions

• **CPU :** PentiumIII®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 :** ITE IT8661F/Winbond W83977F. Full 16-bit I/O decoded
• **Memory :** Onboard one 168-pin DIMM socket supports up to512Mbytes SDRAM
• **Enhanced IDE :** Support up to two IDE devices. Supports Ultra DMA/33 mode with data transfer rate up to 66MB/sec. Support one SIDE port.
• **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 :** Three RS-232 and one RS-232/422/485 serial ports. Ports can be configured as COM1, COM2, COM3, COM4, 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 timeout interval. 1 sec-255 sec, I/O port 441enable/disable, I/O port 443 Timer set
• **Digital I/O :** 4 channels input and 4 channels output,I/O port 220
• **Power management :** Supports ATX power supply. LAN wake up, 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

PCI Sound Interface

- **Chipset :** ESS ES1989S
- **Features :** Integrated high-fidelity AC'97 CODEC ,Supports Multi-stream DirectSound and DirectSound 3D acceleration

Sensate CRL Positional 3D Direct music support

Supports PC games and applications for SoundBlaster and SoundBlasterPro

Supports Microsoft Windows SoundSystem Internal MIC-in, Line-in and Speaker-out interface reserved

Full-duplex Operation for simultaneous record and playback

Ethernet Interface

- **Chipset :** Intel 82559XX 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
- **PCI slot :** One 32-bit PCI slot onboard

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 :** 8"(L) x 5.75"(W) (203mm x 146mm)

JUMPERS AND CONNECTORS
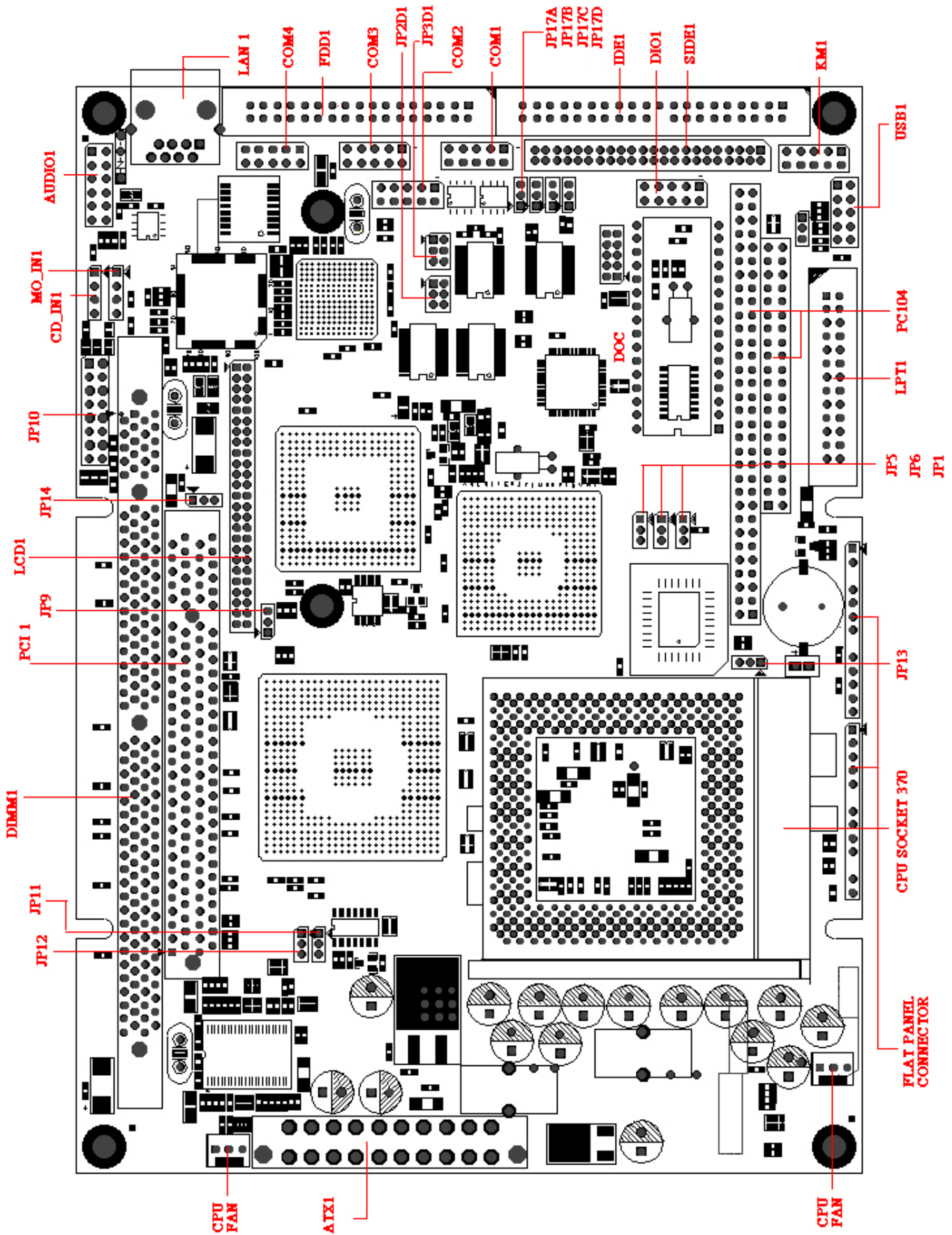
Jumpers Function

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.

AUDIO1 SOUND interface connector
ATX1 ATX power connector
CD_IN1 CD_ROM signal input connector
COM1/2/3/4 Serial ports connector
DIO1 Digital I/O ports connector
DIMM1 DIMM socket
FDD1 Floppy drive connector
IDE1 HDD drive connector
J1/2 CPU fan power connector
J3 Front panel connector KEY LOCK/SPEAKER
J4 Front panel connector Power switch /HDD_LED/IrDA/Turbo_LED
JP1 Clear CMOS
JP2D1 RS-232/422/485 function select
JP3D1 RS-232/422/485 function select
JP5 Watch Dog IRQ11/RESET select
JP6 DOC(SSD) voltage 3.3/5V select /RESET/Power_LED

JP7 DOC(SSD) address select
JP9 Panel voltage select
JP10 VGA CRT/DDC interface connector
JP11/12 CPU speed select
JP13 CPU type select
JP14 LCD SHF CLOCK select
JP17A/B/C/D RS-232/422/485 function select
SW1 (1~4) LCD panel type select
LAN1 100Base-T Ethernet connector
LCD1 LCD display connector
LPT1 Printer ports connector
MO_IN1 Modem signal input connector
P104A1/A2 PC/104 connector
PCI1 PCI slot
SIDE1 Sandisk connector
USB1 USB ports connector

COM1~COM3 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
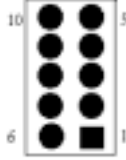
COM4 PIN LIST

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

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
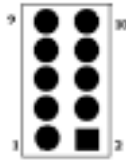
USB1 PIN LIST

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
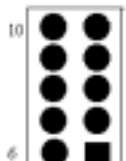
KM1 PS/2 KEY-BOARD & MOUSE

Pin Number	Signal	Pin Number	Signal
1	VCC	6	N.C
2	KCLK	7	GND
3	KDATA	8	MDATA
4	GND	9	MCLK
5	N.C	10	VCC
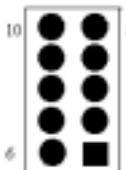
LCD1

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
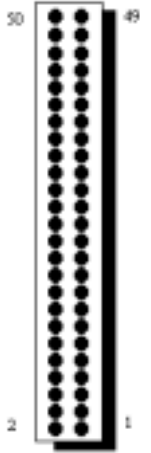
VGA (JP10)

Pin Number	Signal	Pin Number	Signal
1	R	9	GND
2	GND	10	HSYNC
3	G	11	GND
4	GND	12	VSYNC
5	B	13	GND
6	GND	14	DDCDAT
7	DDCCLK	15	GND
8	GND	16	X
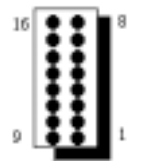
AUDIO1

Pin Number	Signal	Pin Number	Signal
1	MIC_IN	7	GND
2	GND	8	X
3	LINE IN_L	9	GND
4	GND	10	LINE OUT_L
5	LINE IN_R	11	GND
6	GND	12	LINE OUT_R

Clear CMOS (JP1)

	★Protect	Clear CMOS
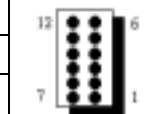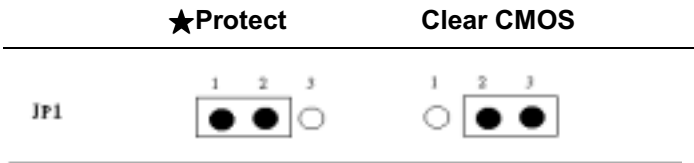
★ **default**

RS232/422/485 JUMPER SELECT

(JP2D1/JP3D1/JP17A,B,C,D)

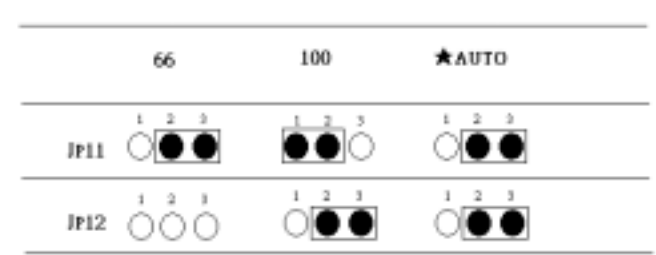|	★RS232	RS422	RS485
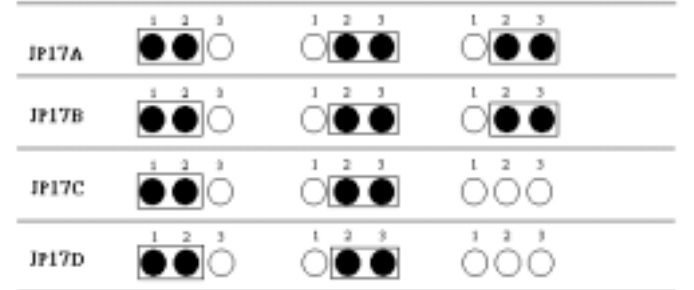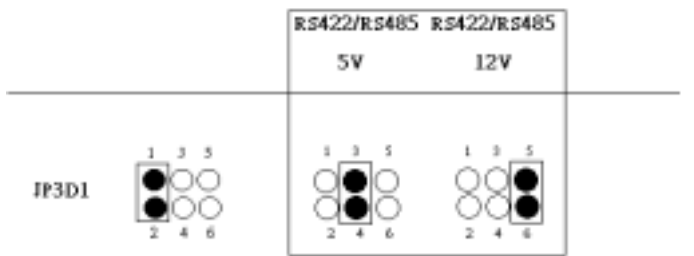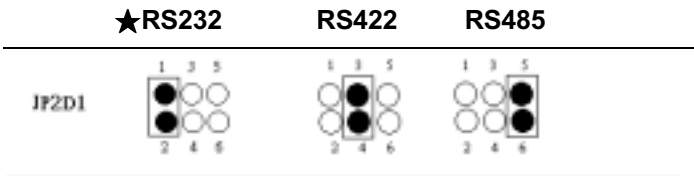
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CPU TYPE SELECT (JP13)

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CPU SPEED SELECT (JP11/JP12)

★**default**

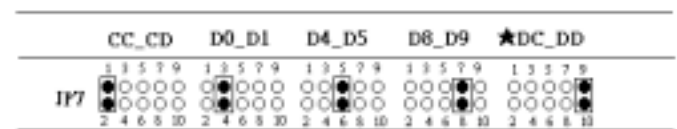## DISK ON CHIP VCC SELECT (JP6)

★ **default**

WATCH DOG SELECT (JP5)

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DISK ON CHIP ADDRESS SELECT (JP7)

★ **default**

LCD PANEL VCC SELECT (JP9)
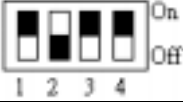
★ **default**

LCD PANEL SHF CLOCK SELECT (JP14)

★**default**

SW1: LCD PANEL TYPE SELECT

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

BOARD DIMENSIONS
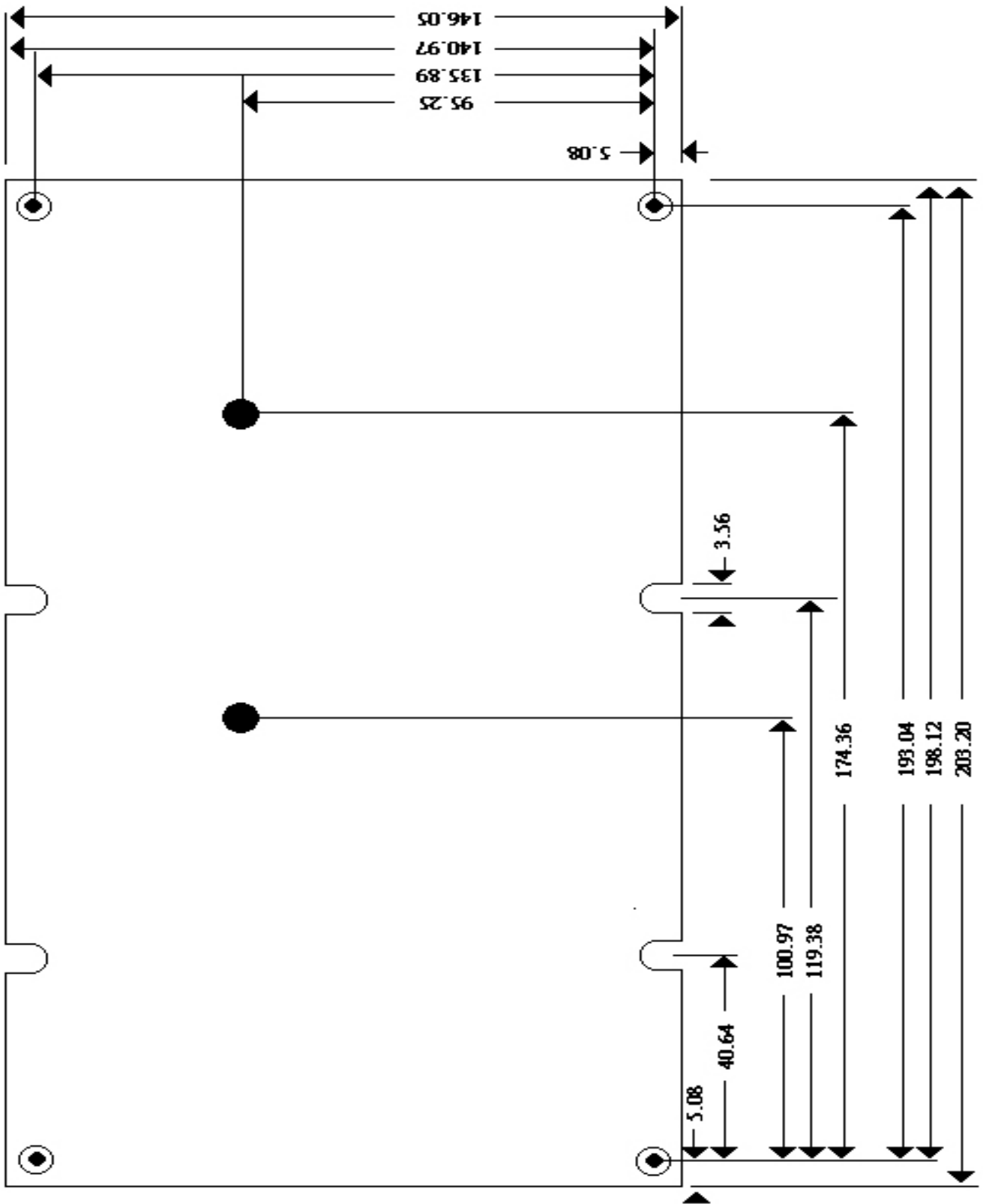
Notice

Dear Customer,

Thank you for purchasing the ECP-6740E 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.