

Chapter

2

Quick Installation Guide

Notice:

The Quick Installation Guide is derived from Chapter 2 of user manual. For other chapters and further installation instructions, please refer to the user manual CD-ROM that came with the product.



2.1 Safety Precautions

Warning!

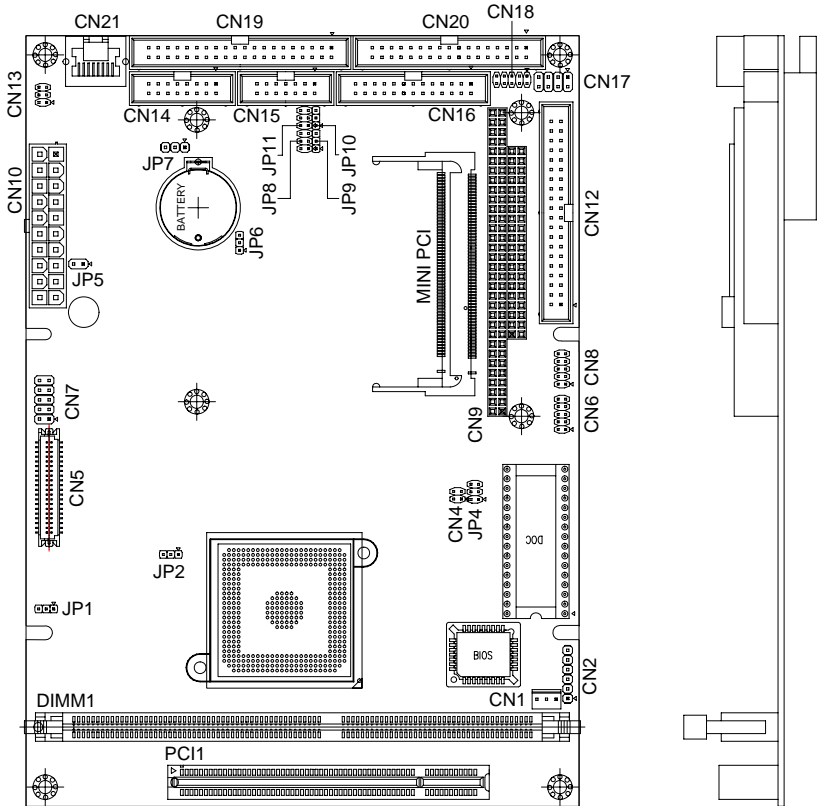
Always completely disconnect the power cord from your board whenever you are working on it. Do not make connections while the power is on, because a sudden rush of power can damage sensitive electronic components.

Caution!

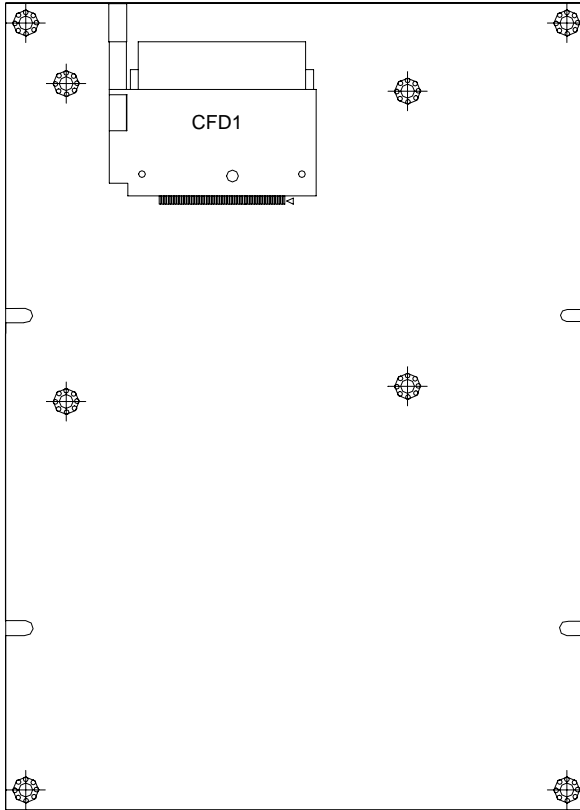
Always ground yourself to remove any static charge before touching the board. Modern electronic devices are very sensitive to static electric charges. Use a grounding wrist strap at all times. Place all electronic components on a static-dissipative surface or in a static-shielded bag when they are not in the chassis

2.2 Location of Connectors and Jumpers

Component Side

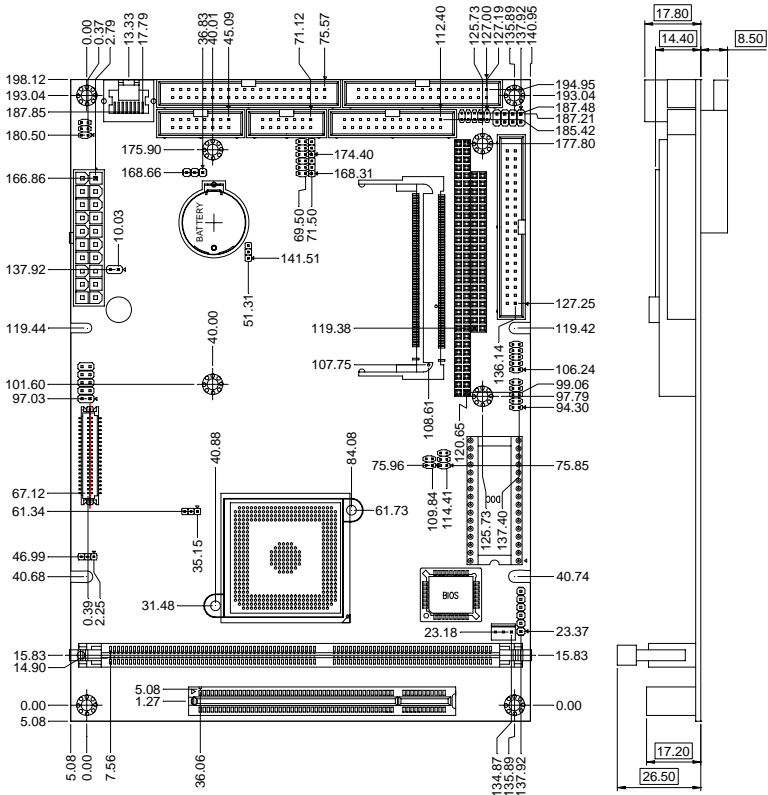


Solder Side

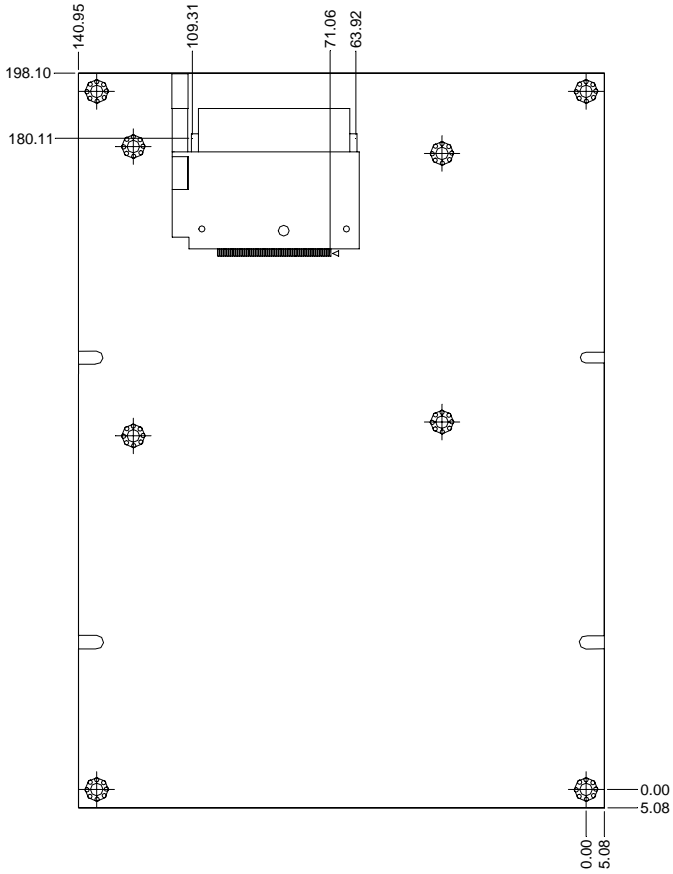


2.3 Mechanical Drawing

Component Side



Solder Side



2.4 List of Jumpers

The board has a number of jumpers that allow you to configure your system to suit your application.

The table below shows the function of each of the board's jumpers:

Jumpers

Label	Function
JP1	LCD Clock
JP2	CRT/TFT LCD mode Selection (Option)
JP5	AT/ATX Power Type Selection
JP6	CFD Master/Slave Selection
JP7	Clear CMOS
JP8, JP10	COM Ports RI/+5V/+12V Selection
JP9, JP11	COM Ports +5V/+12V Selection

2.5 List of Connectors

The board has a number of connectors that allow you to configure your system to suit your application. The table below shows the function of each board's connectors:

Connectors

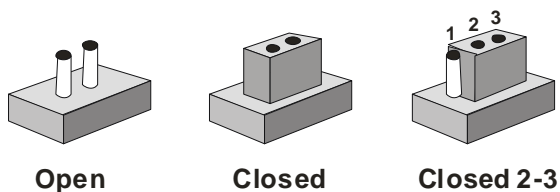
Label	Function
CN1	System FAN
CN2	IrDA
CN4	CAN BUS
CN5	TFT LCD
CN6	USB Port #1 and Port #2
CN7	Front Panel
CN8	USB Port #3 and Port #4
CN9	PC/104 ISA Interface
CN10	ATX Power Socket
CN11	AT Power Socket
CN12	IDE Hard Drive
CN14	CRT Display
CN15	Audio Input/Output/CD-in/MIC
CN16	Parallel Port
CN17	KB/MS CONNECTOR
CN18	Digital I/O
CN19	Serial Port

CN20	Floppy
CN21	Ethernet 10/100 Base-TX RJ-45 Phone Jack
MPCI1	Mini PCI
CFD1	Compact Flash Disk
PCI1	PCI Slot
CN13	LAN LED
U11	DOC

2.6 Setting Jumpers

You configure your card to match the needs of your application by setting jumpers. A jumper is the simplest kind of electric switch. It consists of two metal pins and a small metal clip (often protected by a plastic cover) that slides over the pins to connect them. To “close” a jumper you connect the pins with the clip.

To “open” a jumper you remove the clip. Sometimes a jumper will have three pins, labeled 1, 2 and 3. In this case you would connect either pins 1 and 2 or 2 and 3.



A pair of needle-nose pliers may be helpful when working with jumpers.

If you have any doubts about the best hardware configuration for your application, contact your local distributor or sales representative before you make any change.

Generally, you simply need a standard cable to make most connections.

2.7 LCD Clock and LVDS Supply Voltage Selection (JP1)

JP2	Function
1-2	Normal
2-3	Shift Clock (default)

2.8 CRT/TFT LCD mode Selection (JP2) (Optional function)

JP3	Function
1-2	TFT LCD
2-3	CRT (default)

Note: The display mode could be selected by BIOS

2.9 AT/ATX Power Type Selection (JP5)

JP5	Function
1-2(short)	ATX Power Supply (default)
1-2(open)	AT Power Supply

2.10 CFD Master/ Slave Selection (JP6)

J6	Function
1-2	Slave (default)
2-3	Master

2.11 Clear CMOS (JP7)

JP7	Function
1-2	Normal (default)
2-3	Clear CMOS

2.12 COM Ports RI/+5V/+12V Selection

COM1 (JP8)

JP8	Function
1-2	+12V
3-4	+5V
5-6	RI (default)

COM2 (JP10)

JP10	Function
7-8	+12V
9-10	+5V
11-12	RI (default)

COM3 (JP9)

JP11	Function
1-2	+12V
2-3	+5V (default)

COM4 (JP11)

JP11	Function
1-2	+12V

2-3	+5V (default)
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2.13 Fan Connector (CN1)

Pin	Signal
1	GND
2	+12V
3	FAN Sense

2.14 IrDA (CN2)

Pin	Signal
1	+5V
2	CIR_TX (Optional)
3	RX
4	GND
5	TX
6	CIR_RX (Optional)

2.15 CAN BUS (CN4)

Pin	Signal	Pin	Signal
1	CANH	2	CANL
3	GND	4	N/C

2.16 TFT LCD (CN5)

Pin	Signal	Pin	Signal
1	+5V	2	+5V

Compact Board**PCM-5893L**

3	GND	4	GND
5	+3.3V	6	+3.3V
7	Back-Light Enable	8	GND
9	B0	10	B1
11	B2	12	B3
13	B4	14	B5
15	B6	16	B7
17	G0	18	G1
19	G2	20	G3
21	G4	22	G5
23	G6	24	G7
25	R0	26	R1
27	R2	28	R3
29	R4	30	R5
31	R6	32	R7
33	GND	34	GND
35	Clock	36	VSYNC
37	DE	38	HSYNC
39	N/C	40	VEE Enable

2.17 USB Port #1 and Port #2 (CN6)

Pin	Signal	Pin	Signal
1	VDD0	2	GND
3	D0-	4	GND
5	D0+	6	D1+
7	GND	8	D1-
9	GND	10	VDD1

2.18 Front Panel (CN7)

Pin	Signal
1-2	ATX Power-on Button
3-4	HDD Active LED
5-6	External Speaker
7-8	Power LED
9-10	System Reset Button

2.19 USB Port #3 ad Port #4 (CN8)

Pin	Signal	Pin	Signal
1	VDD3	2	GND
3	D3-	4	GND
5	D3+	6	D4+
7	GND	8	D4-
9	GND	10	VDD4

2.20 PC/104 ISA Interface (CN9)

J2/P2		
Pin	D	C
1	GND	GND
2	MEMCS16*	SBHE*
3	IOCS16*	LA23
4	IRQ10	LA22
5	IRQ11	LS21
6	IRQ12	LS20
7	IRQ15	LS19
8	IRQ14	LA18

9	DACK0*	LA17
10	DRQ0	MEMR*
11	DACK5*	MEMW*
12	DRQ5	SD8
13	DACK6*	SD9
14	DRQ6	SD10
15	DACK7*	SD11
16	DRQ7	SD12
17	+5V	SD13
18	MASTER*	SD14
19	GND	SD15
20	GND	GND/KEY

J1/P1		
Pin	A	B
1	IOCHCK*	GND
2	D7	RSTDRV
3	D6	+5V
4	D5	IRQ9
5	D4	-5V
6	D3	DRQ2
7	D2	-12V
8	D1	ENDXFR*
9	D0	+12V
10	IOCHRDY	GND/KEY
11	AEN	SMEMW*
12	A19	SMEMR*
13	A18	IOW*
14	A17	IOR*
15	A16	DACK3*
16	A15	DRQ3

17	A14	DACK1*
18	A13	DRQ1
19	A12	REFRESH*
20	A11	SYSCLK
21	A10	IRQ7
22	A9	IRQ6
23	A8	IRQ5
24	A7	IRQ4
25	A6	IRQ3
26	A5	DACK2*
27	A4	TC
28	A3	BALE
29	A2	+5V
30	A1	OSC
31	A0	GND
32	GND	GND

2.21 ATX Power Socket (CN10)

Pin	Signal	Pin	Signal
1	+3.3V	11	+3.3V
2	+3.3V	12	-12V
3	GND	13	GND
4	+5V	14	PS-ON
5	GND	15	GND
6	+5V	16	GND
7	GND	17	GND
8	N.C	18	-5V
9	5VSB	19	+5V
10	+12V	20	+5V

2.22 AT Power Socket (CN11)

Pin	Signal
1	N/C
2	+5V
3	+12V
4	-12V
5	GND
6	GND
7	GND
8	GND
9	-5V
10	+5V
11	+5V
12	+5V

2.23 IDE Hard Drive (CN12)

Pin	Signal	Pin	Signal
1	RESET#	2	GND
3	D7	4	D8
5	D6	6	D9
7	D5	8	D10
9	D4	10	D11
11	D3	12	D12
13	D2	14	D13
15	D1	16	D14
17	D0	18	D15
19	GND	20	N/C

Compact Board**PCM-5893L**

21	DREQ	22	GND
23	IOW#	24	GND
25	IOR#	26	GND
27	IORDY	28	GND
29	DACK#	30	GND
31	IRQ14	32	N/C
33	DA1	34	PDIAG#
35	DA0	36	DA2
37	CS#1	38	CS#3
39	Active LED#	40	GND

2.24 CRT Display (CN14)

Pin	Signal	Pin	Signal
1	RED	2	+5V
3	GREEN	4	GND
5	BLUE	6	N/C
7	N/C	8	DDCSDA
9	GND	10	HSYNC
11	GND	12	VSYNC
13	GND	14	DDCSCL
15	GND	16	GND

2.25 Audio Input/ Output/ CD-in/ MIC (CN15)

Pin	Signal	Pin	Signal
1	MIC	2	MIC Vcc
3	Audio Ground	4	CD_GND
5	LINE_IN L	6	CD_L

7	LINE_IN R	8	CD_GND
9	Audio Ground	10	CD_R
11	LINE_OUT L	12	LINE_OUT R
13	Audio Ground	14	Audio Ground

2.26 Parallel Port (CN16)

Pin	Signal	Pin	Signal
1	STB#	2	AFD#
3	PTD0	4	ERR#
5	PTD1	6	PINIT#
7	PTD2	8	SLIN#
9	PTD3	10	GND
11	PTD4	12	GND
13	PTD5	14	GND
15	PTD6	16	GND
17	PTD7	18	GND
19	ACK#	20	GND
21	BUSY	22	GND
23	PE	24	GND
25	SLCT	26	N/C

2.27 KB/MS Connector (CN17)

Pin	Signal	Pin	Signal
1	Keyboard Data	2	Keyboard Clock
3	GND	4	+5V
5	Mouse Data	6	Mouse Clock
7	N/C		

2.28 Digital I/O (CN18)

Pin	Signal	Pin	Signal
1	IN0	2	IN1
3	IN2	4	IN3
5	OUT0	6	OUT1
7	OUT2	8	OUT3
9	+5V	10	GND

2.29 Serial Port (CN19)

COM / RS232 mode			
Pin	Signal	Pin	Signal
1	DCD1	2	DSR1
3	RXD1	4	RTS1
5	TXD1	6	CTS1
7	DTR1	8	RI1/+5V/+12V
9	GND	10	N/C
11	DCD2	12	DSR2
13	RXD2	14	RTS2
15	TXD2	16	CTS2
17	DTR2	18	RI2/+5V/+12V
19	GND	20	N/C
21	N/C	22	N/C
23	RXD3	24	N/C
25	TXD3	26	N/C
27	N/C	28	+5V/+12V
29	GND	30	N/C
31	N/C	32	N/C

33	RXD4	34	N/C
35	TXD4	36	N/C
37	N/C	38	+5V/+12V
39	GND	40	N/C

COM / RS-422 mode

Pin	Signal	Pin	Signal
11	TXD-	12	N/C
13	RXD+	14	N/C
15	TXD+	16	N/C
17	RXD-	18	N/C
19	GND	20	N/C

COM / RS-485 mode

Pin	Signal	Pin	Signal
11	TXD-	12	N/C
13	N/C	14	N/C
15	TXD+	16	N/C
17	N/C	18	N/C
19	GND	20	N/C

2.30 Floppy (CN20)

Pin	Signal	Pin	Signal
1	GND	2	DENSEL#
3	GND	4	N/C
5	GND	6	N/C
7	GND	8	INDEX#
9	GND	10	MTRA#

11	GND	12	DRVB#
13	GND	14	DRVA#
15	GND	16	MTRB#
17	GND	18	DIR#
19	GND	20	STEP#
21	GND	22	WDATA#
23	GND	24	WGATE#
25	GND	26	TRK0#
27	GND	28	WPT#
29	N/C	30	RDATA#
31	GND	32	HDSEL#
33	N/C	34	DSKCHG#

2.31 Ethernet 10/100 Base-TX RJ-45 Phone Jack (CN21)

Pin	Signal	Pin	Signal
1	TXD+	2	TXD-
3	RXD+	4	N/C (N GND)
5	N/C(N GND)	6	RXD-
7	N/C(C GND)	8	N/C (C GND)
9	GND	10	GND

2.32 Mini PCI Slot (MPC11)

Standard Specification.

2.33 Compact Flash Disk Slot (CFD1)

Pin	Signal	Pin	Signal
1	GND	26	GND
2	D3	27	D11
3	D4	28	D12
4	D5	29	D13
5	D6	30	D14
6	D7	31	D15
7	CS#1	32	CS#3
8	GND	33	GND
9	GND	34	IOR#
10	GND	35	IOW#
11	GND	36	+5V.
12	GND	37	IRQ14
13	+5V	38	+5V
14	GND	39	CSEL#
15	GND	40	N/C
16	GND	41	RESET#
17	GND	42	IORDY
18	DA2	43	DREQ
19	DA1	44	DACK#
20	DA0	45	DASP#
21	D0	46	PDIAG#
22	D1	47	D8
23	D2	48	D9
24	IO16#	49	D10
25	GND	50	GND

2.34 PCI Slot (PCI1)

Standard Specification.

2.35 LAN LED (CN13) (EEPROM 10)

Pin	Signal	Pin	Signal
1	RX	2	+3.3V
3	LNK	4	+3.3V
5	TX	6	+3.3V

2.36 DOC (U11)

Standard Specification.