

SBC-815ET-VE Family

PN 932-0023-01

Quick Reference

Safety Instructions

Before handling the SBC-815ET-VE read the following instructions and safety guidelines to prevent damage to the product and to ensure your own personal safety. Refer to the installation instructions in this User's Guide for all precautions and procedures.



WARNING



High voltages are present inside a computer chassis when it's power cord is plugged into an electrical outlet. Turn off system power and disconnect the power cord from its source before removing the chassis cover. Turning off the system power switch does not remove power to the components. High voltage is still present.



WARNING



The battery can explode if it is incorrectly replaced. Use an equivalent battery when replacing an old one. Properly dispose of used batteries.

Preventing Electrostatic Discharge

Static electricity can harm system boards. Perform service at an ESD workstation and follow proper ESD procedure to reduce the risk of damage to components. Kontron strongly encourages you to follow proper ESD procedure, which can include wrist straps and smocks, when servicing equipment. You can also take the following steps to prevent damage from electrostatic discharge (ESD):

- When unpacking a static-sensitive component from its shipping carton, do not remove the component's antistatic packing material until you are ready to install the component in a computer. Just before unwrapping the antistatic packaging, be sure you are at an ESD workstation or grounded. This will discharge any static electricity that may have built up in your body.
- When transporting a sensitive component, first place it in an antistatic container or packaging.
- If possible, use antistatic floor pads and workbench pads.
- Don't touch the components or contacts on a board. Hold a board by its edges or by its metal mounting bracket.
- Do not handle or store system boards near strong electrostatic, electromagnetic, magnetic, or radioactive fields.

Thank you for purchasing your new computer from Kontron.

Connectors

Connector	Function	Connector	Function
J1	IDE1 (primary)	J14	Keyboard lock and power indicator
J2	Floppy	J15	IDE1/IDE2 active status LED
J3	IDE2 (secondary)	J16	Ethernet interface
J4	Parallel Port	J17	USB port
J5	ATX power control	J18	PS/2 keyboard/mouse connector
J6	ATX power button	J19	CPU fan power
J7	COM1 serial port	J20	68-pin PCI option connector
J8	COM2 serial port	J21	Standard 5-1/4" disk-drive power
J9	IrDA (infrared) port	J22	External keyboard interface
J10	System fan power	J23	Onboard VGA
J11	USB2 / USB3	U13	Socket 370
J12	System reset	U27	Disk-on-Chip Socket
J13	External speaker	DIMM 1 & 2	DIMM socket

Jumpers

*denotes default setting

Safe Mode (JP1)

JP1	Function
Short	Enabled
NC	Disabled *

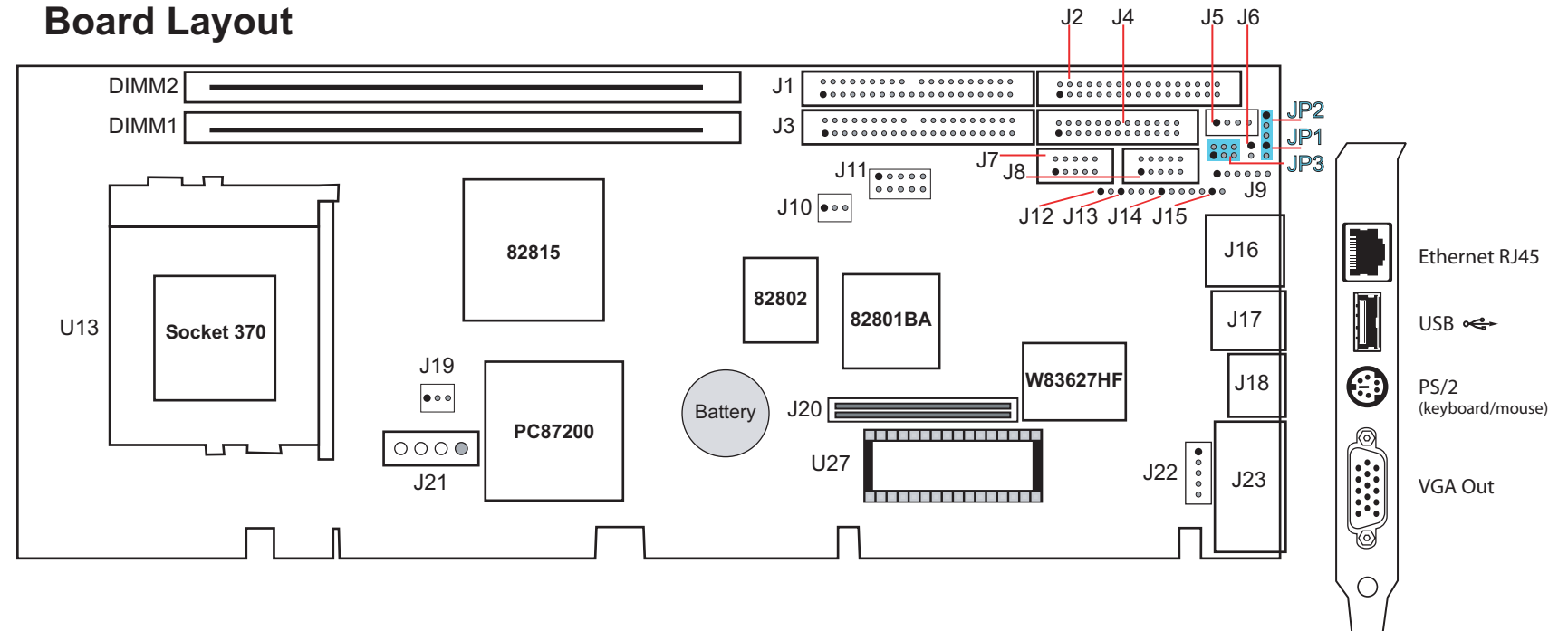
RTC CMOS Clear (JP2)

JP2	Function
1-2	Normal Operation*
2-3	Clear CMOS contents

AT/ATX Power Selection (JP3)

JP3	Function
3-5,4-6	Select ATX Power Supply*
1-3, 2-4	Select AT Power Supply

Board Layout



Connector Pinouts

IDE1/IDE2 (J1/J3)

Pin	Signal Description	Pin	Signal Description
1	RESET#	2	Ground
3	Data 7	4	Data 8
5	Data 6	6	Data 9
7	Data 5	8	Data 10
9	Data 4	10	Data 11
11	Data 3	12	Data 12
13	Data 2	14	Data 13
15	Data 1	16	Data 14
17	Data 0	18	Data 15
19	Ground	20	N/C
21	DMA REQ	22	Ground
23	IOW#	24	Ground
25	IOR#	26	Ground
27	IOCHRDY	28	Pull-down
29	DMA ACK#	30	Ground
31	INT REQ	32	N/C
33	SA1	34	CBLID#
35	SA0	36	SA2
37	HDC CS0#	38	HDC CS1#
39	HDD Active#	40	Ground

Floppy Driver Interface (J2)

Pin	Signal Description	Pin	Signal Description
1	Ground	2	Density Select 0
3	Ground	4	N/C
5	Ground	6	Density Select 1
7	Ground	8	Index#
9	Ground	10	Motor ENA#
11	Ground	12	Drive Select B#
13	Ground	14	Drive Select A#
15	Ground	16	Motor ENB#
17	Ground	18	Direction#
19	Ground	20	Step#
21	Ground	22	Write Data#
23	Ground	24	Write Gate#
25	Ground	26	Track 0#
27	Ground	28	Write Protect#
29	Ground	30	Read Data#
31	Ground	32	Head Select#
33	N/C	34	Disk Change#

USB Connector (J11)

Pin	Signal Description	Pin	Signal Description
1	+5V	2	N/C
3	SBD2-(USBP2-)	4	Ground
5	SBD2+(USBP2+)	6	SBD3+(USBP3+)
7	Ground#	8	SBD3-(USBP3-)
9	N/C	10	+5V

ATX Power Control Connector (J5)

Pin	Signal Description
1	ATX Power Good Signal
2	ATX 5V Stand-by
3	ATX Power On Control
4	Ground

ATX Power Button Interface(J6)

Pin	Signal Description
1	Pull-high 100 Ohm to +5V
2	Power Button Control Signal

Serial Port 1 and 2 (J7 and J8)

2x5 shrouded header.

Pin	Signal Description
1	DCD (Data Carrier Detect)
2	RXD (Receive Data)
3	TXD (Transmit Data)
4	DTR (Data Transmission)
5	GND (Ground)
6	DSR (Data Set Ready)
7	RTS (Request to Send)
8	CTS (Clear to Send)
9	RI (Ring Indicator)
10	N/C

IrDA Header (J9)

Pin	Signal Description
1	VCC (+5V)
2	IOVSB
3	IRRX
4	Ground
5	IRTX
6	OVCROFF (Over Current Off)

Reset Header (J12)

Pin	Signal Description
1	Reset
2	Ground

External Speaker Header (J13)

Pin	Signal Description
1	Speaker
2	N/C
3	Ground
4	+5V

Parallel Port Connector (J4)

Pin	Signal Description	Pin	Signal Description
1	Strobe#	14	Auto Form Feed
2	Data 0	15	Error #
3	Data 1	16	Initialization#
4	Data 2	17	Printer Select IN#
5	Data3	18	Ground
6	Data 4	19	Ground
7	Data 5	20	Ground
8	Data 6	21	Ground
9	Data 7	22	Ground
10	Acknowledge#	23	Ground
11	Busy	24	Ground
12	Paper Empty	25	Ground
13	Printer Select	26	NC

PCI (J20)

Pin	Signal Description	Pin	Signal Description
1	VCC	2	AD0
3	AD1	4	AD2
5	AD3	6	AD4
7	AD5	8	AD6
9	AD7	10	GND
11	VCC	12	AD8
13	AD9	14	AD10
15	AD11	16	AD12
17	AD13	18	AD14
19	AD15	20	GND
21	VCC	22	AD16
23	AD17	24	AD18
25	AD19	26	AD20
27	AD21	28	AD22
29	AD23	30	GND
31	VCC	32	AD24
33	AD25	34	AD26
35	AD27	36	AD28
37	AD29	38	AD30
39	AD31	40	GND
41	VCC	42	BE#0
43	BE#1	44	BE#2
45	BE#3	46	PAR
47	Frame#	48	TRDY#
49	IRDY#	50	GND
51	VCC	52	STOP#
53	Devsel#	54	Reserved for PERR#
55	SERR#	56	REQ#4
57	GNT#4	58	Reserved for REQ#3
59	Reserved for GNT#3	60	GND
61	PCI CLOCK1	62	PCI CLOCK2
63	PCIRST#	64	LOCK#
65	IRQ#A	66	IRQ#B
67	IRQ#C	68	IRQ#D

Ethernet RJ-45 (J16)

Pin	Signal Description
1	TX+
2	TX-
3	RX+
4	Termination to Ground
5	Termination to Ground
6	RX-
7	Termination to Ground
8	Termination to Ground

PS/2 Keyboard-Mouse (J18)

Six-pin Mini-Din.

Pin	Signal Description
1	Mouse Data
2	Keyboard Data
3	Ground
4	+5V
5	Mouse Clock
6	Keyboard Clock

Chassis/CPU Fan Power (J19)

Pin	Signal Description
1	Ground
2	+12V
3	Pull-up 5V

(tachometer sense signal)

Keyboard Lock Header (J14)

Pin	Signal Description
1	+5V (220 Ohm pull-up for power LED)
2	N/C
3	Ground
4	Keyboard inhibit
5	Ground

IDE1/IDE2 Active LED Header (J15)

Pin	Signal Description
1	+5V (470 Ohm pull-up for power HDD LED)
2	HDD Active # (LED cathode terminal)

Standard 5-1/4 Disk Power (J21)

Pin	Signal Description
1	+12V
2	GND
3	GND
4	+5V

External Keyboard (J22)

Pin	Signal Description
1	Keyboard clock
2	Keyboard data
3	N/C
4	Ground
5	+5V

VGA (J23)

Pin	Signal Description
1	R
2	G
3	B
4	N/C
5	Ground
6	Ground
7	Ground
8	Ground
9	N/C
10	Ground
11	N/C
12	MONID1
13	HSYNC
14	VSYNC
15	MONID2

