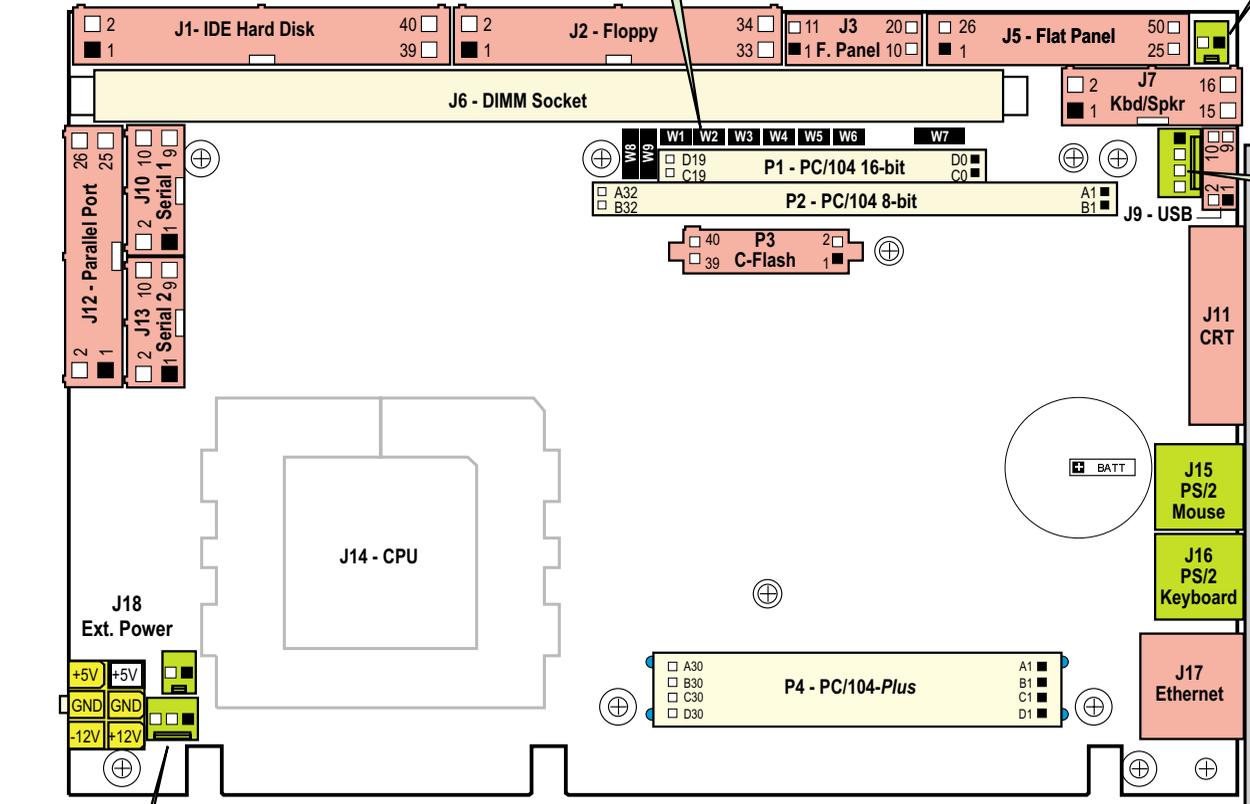
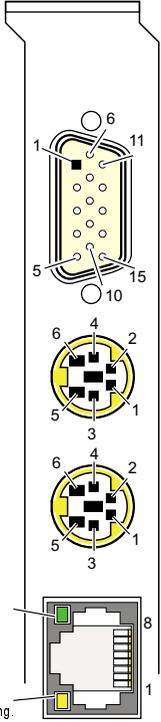
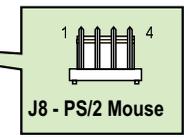
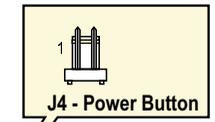
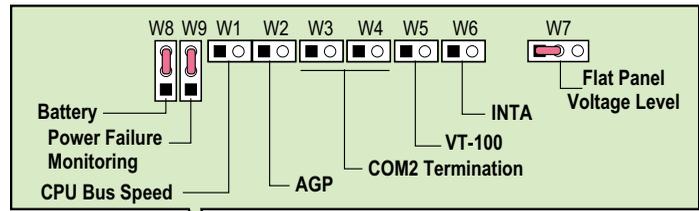


Up to 256MB SDRAM on one 168-pin DIMM socket

- . Use 3.3V, PC100 single-sided or double-sided modules
- . Up to 32Mx64 DRAM with ECC support



Careful attention should be taken when installing a processor:
Faulty settings can damage both the processor and the board.

Danger of explosion if the battery is incorrectly replaced.
Replace only with the same or equivalent type. Dispose of used batteries according to the manufacturer's instructions.

GREEN: Link Integrity
Light ON when the link is established.

AMBER: Activity
Light ON while transferring.

QUICK REFERENCE

JUMPER SETTINGS (* : Default Setting)

● W1 - CPU Bus Speed	
66/100 MHz * (selected by CPU)	off
66 MHz	on

● W2 - Onboard Video	
Enabled *	off
Disabled	on

● W3, W4 - Serial Port 2 Termination		
	W3	W4
RS-485 with Termination	on	on
RS-485 without Termination *	off	off

No Termination required in RS-232 mode

● W5 - VT-100	
Disabled *	off
Enabled	on

● W6 - INTA to Video Controller	
Enabled	on
Disabled *	off

● W7 - Flat Panel Voltage Level		
5V signal level *	1-2	
3.3V signal level	2-3	

● W8 - Battery	
Onboard Battery	1-2
External Battery *	2-3
Battery Disconnected	off

● W9 - Power Failure Monitoring	
Onboard Battery *	2-3
External Battery	1-2

First Level Debugging

1. Remove all peripheral boards from the backplane. Only keep the SBC.
2. Remove all cables from the SBC except the video cable.
3. Make sure the memory is functional and properly inserted.

Before Powering ON the Board

1. Ensure the power supply connector is inserted properly (+5V, +12V, -12V).
2. Make sure all cables are connected to the adequate connector.
3. When using a flat panel, make sure the proper video BIOS is installed.

CONNECTOR PINOUTS

◆ J1 - Enhanced IDE				# Active Low Signal			
Odd Pin Number (Primary)							
1	RST#	29	DACK#	20	N.C.	28	CSEL
3-17	[D7-D0]	33 ; 35	A1 ; A0	30	GND	32	IOCS16#
19	GND	37	CS0#	34	DIAG#	36	A2
21	REQ	39	ACT#	38	CS1#	40	GND
23	IOW#	Even Pin Number (Primary)					
25	IOR#	2 ; 22-26	GND				
27	IORDY	4-18	[D8-D15]				

◆ J2 - Floppy Disk				# Active Low Signal			
Odd Pin Number							
1-15; 19-25; 31	GND	8	INDEX#	22	WDATA#	24	WGATE#
17; 27; 33	N.C.	10	MTR0#	24	TRK0#	26	WPROT#
29	FDETECT#	12	DSEL1#	28	RDATA#	30	HDSSEL#
Even Pin Number		14	DSEL0#	30	DIR#	32	STEP#
2	DENSEL#	16	MTR1#	32	DSKCHG #		
4 ; 6	N.C.	18	DIR#				
		20	STEP#				

◆ J3 - Flat Panel				◆ J5 - Flat Panel				# Active Low Signal			
1	FP24	11	FP32	1	ENAVCC	15, 16, 18, 19	FP0-FP3	15, 16, 18, 19	FP0-FP3		
2	FP25	12	FP33	2, 8	VCC	20, 23, 26, 29, 32	GND	20, 23, 26, 29, 32	GND		
3	FP26	13	FP34	3	ENVEE	21, 22, 24, 25	FP4-FP7	21, 22, 24, 25	FP4-FP7		
4	FP27	14	FP35	4	STANDBY#	27, 28, 30, 31	FP8-FP11	27, 28, 30, 31	FP8-FP11		
5	GND	15	GND	5	ENABKL	33, 34, 36, 37	FP12-FP15	33, 34, 36, 37	FP12-FP15		
6	FP28	16	/SHFCLK	6, 9, 12, 14, 17	GND	35, 38, 41, 44,	GND	35, 38, 41, 44,	GND		
7	FP29	17	GP1	7	M/DE	39, 40, 42, 43	FP16-FP19	39, 40, 42, 43	FP16-FP19		
8	FP30	18	GP2	10	LP/DE	45, 46	FP20-FP21	45, 46	FP20-FP21		
9	FP31	19	ACT1	11	FLM	47, 50	GND	47, 50	GND		
10	GND	20	VCC	13	SHFCLK	48, 49	FP22-FP23	48, 49	FP22-FP23		

◆ J4 - Power Button				◆ J7 - Keyboard/Speaker				# Active Low Signal			
PWRBT#	1	2	GND	Odd Pin Number		7	SPEAKER	15	IDE:ACT#	Even Pin Number	
◆ J8 - PS/2 Mouse				1	KB:CLK	9	N.C.	2-4 ; 10-14	GND		
1	MOUSE:CLK	3	MOUSE:DATA	3	KB:DATA	11	DOWNLD#	6-8 ; 16	VCC		
2	GND	4	VCC	5	VCC	13	PBRES#				

◆ J9 - USB				◆ J10 - Serial Port 1				◆ J11 - CRT SVGA			
1	USB0:VCC	2	USB1:VCC	DCD	1	2	DSR	1	RED	6-8	A_GND
3	USB0:DATA-	4	USB1:DATA-	RXD	3	4	RTS	2	GREEN	12	SDATA
5	USB0:DATA+	6	USB1:DATA+	TXD	5	6	CTS	3	BLUE	13	HSYNC
7	USB0:GND	8	USB1:GND	DTR	7	8	RI	4; 9;11	N.C.	14	VSYSN
9	GND	10	GND	GND	9	10	N.C.	5 ; 10	GND	15	SCLK

◆ J12 - Parallel Port (Std Mode)				◆ J13 - Serial Port 2 (RS-232)				◆ J13 - Serial Port 2 (RS-422/485)			
Odd Pin Number		Even Pin Number		DCD	1	2	DSR	RSV	1	2	RSV
STB#	1	2	ALF#*	RXD	3	4	RTS	RX(-)	3	4	RX(+)
[D0-D7]	3-17	4	ERR#	TXD	5	6	CTS	TX(+)	5	6	TX(+)
ACK #	19	6	INIT#	DTR	7	8	RI	RSV	7	8	RSV
BUSY	21	8	SLCTIN#	GND	9	10	N.C.	GND	9	10	N.C.
PE	23	10-18	GND	# Active Low Signal				# Active Low Signal			
SLCT	25	20-26	GND								

Active Low Signal

◆ J15 - PS/2 Mouse (Mini DIN)			
MOUSE:DATA	1	4	VCC
N.C.	2	5	MOUSE:CLK
GND	3	6	GND

◆ J16 - PS/2 Keyboard (Mini DIN)			
KB:DATA	1	4	VCC
N.C.	2	5	KB:CLK
GND	3	6	GND

◆ J17 - Ethernet 10/100Base-TX			
1	TX+	5	N.C.
2	TX-	6	RX-
3	RX+	7	N.C.
4	N.C.	8	N.C.

◆ J18 - External Power			
1	VCC	4	VCC
2	GND	5	GND
3	+12V	6	-12V

◆ J19 - CPU Fan			
1	VCC	2	GND

◆ J20 - External Battery			
1	External Battery (3.6V)		
2	GND		
3	External Battery (3.6V)		

◆ P3 - CompactFlash			
1	D11	2	GND
3	D12	4	D3
5	D13	6	D4
7	D14	8	D5
9	D15	10	D6
11	CS1#	12	D7
13	DMACK#	14	CS0#*
15	DMARQ	16	IOR#
17	PDIAG #	18	IOW#
19	IRQ15	20	VCC
21	VCC	22	VCC
23	GND	24	GND
25	RESET#	26	GND
27	CSEL	28	A2
29	A1	30	DASP#
31	A0	32	IORDY
33	D0	34	D8
35	D1	36	D9
37	D2	38	D10
39	IOCS16#	40	GND

◆ P4 - PC/104-Plus								# Active Low Signal			
		ROW A		ROW B		ROW C		ROW D			
1	5V KEY	N.C.	N.C.	VCC	VCC	AD0	AD0				
2	V/I/O (5V)	AD2	AD1	AD1	AD1	VCC	VCC				
3	AD5	GND	AD4	AD4	AD4	AD3	AD3				
4	C/BE0#	AD7	GND	GND	GND	AD6	AD6				
5	GND	AD9	AD8	AD8	AD8	GND	GND				
6	AD11	VCC	AD10	AD10	AD10	N.C.	N.C.				
7	AD14	AD13	GND	GND	GND	AD12	AD12				
8	+3.3V	C/BE1#	AD15	AD15	AD15	+3.3V	+3.3V				
9	SERR#	GND	SB0#	SB0#	SB0#	PAR	PAR				
10	GND	PERR#	+3.3V	+3.3V	+3.3V	SDONE	SDONE				
11	STOP#	+3.3V	LOCK#	LOCK#	LOCK#	GND	GND				
12	+3.3V	TRDY#	GND	GND	GND	DEVSEL#	DEVSEL#				
13	FRAME#	GND	IRDY#	IRDY#	IRDY#	+3.3V	+3.3V				
14	GND	AD16	+3.3V	+3.3V	+3.3V	C/BE2#	C/BE2#				
15	AD18	+3.3V	AD17	AD17	AD17	GND	GND				
16	AD21	AD20	GND	GND	GND	AD19	AD19				
17	+3.3V	AD23	AD22	AD22	AD22	+3.3V	+3.3V				
18	IDSEL0	GND	IDSEL1	IDSEL1	IDSEL1	IDSEL2	IDSEL2				
19	AD24	C/BE3#	V/I/O	V/I/O	V/I/O	IDSEL3	IDSEL3				
20	GND	AD26	AD25	AD25	AD25	GND	GND				
21	AD29	VCC	AD28	AD28	AD28	AD27	AD27				
22	VCC	AD30	GND	GND	GND	AD31	AD31				
23	REQ0#	GND	REQ#	REQ#	REQ#	VCC	VCC				
24	GND	REQ2#	VCC	VCC	VCC	GNT0#	GNT0#				
25	GNT1#	VCC	GNT2#	GNT2#	GNT2#	GND	GND				
26	VCC	CLK0	GND	GND	GND	CLK1	CLK1				
27	CLK2	VCC	CLK3	CLK3	CLK3	GND	GND				
28	GND	INTD#	VCC	VCC	VCC	RST#	RST#				
29	+12V	INTA#*	INTB#	INTB#	INTB#	INTC#	INTC#				
30	-12V	N.C.	N.C.	N.C.	N.C.	3.3V KEY	3.3V KEY				

◆ P2/P1 - PC/104								# Active Low Signal			
		ROW A		ROW B		ROW C		ROW D			
0						GND	GND	GND	GND		
1	IOCHK#	GND	SBHE#	SBHE#	SBHE#	MEMCS16#	MEMCS16#				
2	SD7	RESET DRV	LA23	LA23	LA23	IOCS16#	IOCS16#				
3	SD6	VCC	LA22	LA22	LA22	IRQ10	IRQ10				
4	SD5	IRQ9	LA21	LA21	LA21	IRQ11	IRQ11				
5	SD4	-5V	LA20	LA20	LA20	IRQ12	IRQ12				
6	SD3	DRQ2	LA19	LA19	LA19	IRQ15	IRQ15				
7	SD2	-12V	LA18	LA18	LA18	IRQ14	IRQ14				
8	SD1	0WS#	LA17	LA17	LA17	DACK0#	DACK0#				
9	SD0	+12V	MEMR#	MEMR#	MEMR#	DRO0	DRO0				
10	IOCHRDY	GND	MEMW#	MEMW#	MEMW#	DACK5#	DACK5#				
11	AEN	SMEMW#	Sd8	Sd8	Sd8	DRQ5	DRQ5				
12	SA19	SMEMR#	SD9	SD9	SD9	DACK6#	DACK6#				
13	SA18	IOW#	SD10	SD10	SD10	DRQ6	DRQ6				
14	SA17	IOR#	SD11	SD11	SD11	DACK7#	DACK7#				
15	SA16	DACK3#	SD12	SD12	SD12	DRQ7	DRQ7				
16	SA15	DRQ3	SD13	SD13	SD13	VCC	VCC				
17	SA14	DACK1#	SD14	SD14	SD14	MASTER#	MASTER#				
18	SA13	DRQ1	SD15	SD15	SD15	GND	GND				
19	SA12	REFRESH#	N.C.	N.C.	N.C.	GND	GND				
20	SA11	SYSCLK									
21	SA10	IRQ7									
22	SA9	IRQ6									
23	SA8	IRQ5									
24	SA7	IRQ4									
25	SA6	IRQ3									
26	SA5	DACK2#									
27	SA4	T/C									
28	SA3	BALE									
29	SA2	VCC									
30	SA1	OSC									
31	SA0	GND									
32	GND	GND									

The Technical Reference Manual can be downloaded from the Kontron FTP site at:
ftp://ftp.kontron.ca/Support/Product_Manuals/
 The Quick Reference can be downloaded from:
ftp://ftp.kontron.ca/Support/Product_Manuals/QuickRef/
 To order a hard copy of the Technical Reference Manual, contact Customer Service at (450) 437-5682.

VIPer830 TECHNICAL SPECIFICATIONS

CPU TYPE & SPEED
 Pentium II Celeron at 300A/66MHz to 500/66MHz, and future processor speeds (100MHz)
 + INTEL 440BX and 82443 chipset

SYSTEM MEMORY
 Up to 256MB SDRAM or RSDRAM on one 168-pin DIMM socket ; ECC support
 66MHz SDRAM bus with 100MHz capability ; 128KB of CPU internal L2 pipelined burst
 CompactFlash Module on the secondary IDE interface ; unique silicon ID ; 4KB user EEPROM

BUS INTERFACE
 PC/AT bus or stand-alone operation ; compatibility: 100% IBM PC/AT ; PC/104 ; PCI Rev2.1

DATA PATH
 64-bit on CPU bus ; 64-bit AGP video bus ; 16-bit on ISA bus ; 32-bit on PCI bus (internal)

VIDEO
 Chips & Technologies 69000 AGP display adapter chip with 2MB of integrated video SDRAM
 Flat panel support for monochrome, S/S and D/D STN, EL, TFT, and plasma displays
 CRT and FP up to 1280x1024x256 colors ; direct support of 1024x768 XGA panels
 Simultaneous CRT/flat panel support ; 36-bit flat panel (18-bit 2 pixel per clock)
 5V and 3.3V panel support (power is provide by the flat cable)

I/O
 SMC 37C67X Ultra I/O controller ; PnP compatible
 SERIAL: two RS-232 ports with RS-422/485 available on COM2 (BIOS configurable)
 PARALLEL: Multimode IEEE 1284 enhanced parallel port, EPP and ECP support
 HARD DISK: one Enhanced IDE interface supporting up to two drives, ATA/33, LS120, Zip Drives
 FLOPPY DISK: one interface for up to two 1.44MB floppy drives
 USB: two Universal Serial Bus port protected by self-resetting fuse
 ETHERNET: PCI 10/100Base-TX interface (INTEL 82559), PCI rev. 2.1, bootable from LAN
 COMPACTFLASH: IDE compatible w/o driver ; Secondary Master, bootable ; upgradeable

BIOS FEATURES
 Batteryless operation with CMOS copy in flash BIOS device
 Serial port 2 configuration (RS232/422/4