

ePCI-100

Celeron Pentium III Single Board Computer



Board Rev. 1

QUICK REFERENCE
Document version 1.3

Connectors

J1	Serial Port 2	J10	Ethernet 0
J2	Serial Port 1	J11	USB 1
J3	Floppy	J12	USB 0
J4	EIDE - Primary	J14	DVI
J5	Parallel Port	J15	External Power
J6	Multifunction	J16	CPU Fan (monitored)
J7	Hardware Monitor	J17	Fan (monitored)
J8	EIDE - Secondary	J18	CompactFlash Disk
J9	Ethernet 1	P1	PC / 104 - PLUS



There is a 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.



First Level Debugging

1. Remove all peripheral boards and keep only the SBC.
2. Remove all cables from the SBC except the video cable.
3. Make sure the memory is working well and is properly inserted.

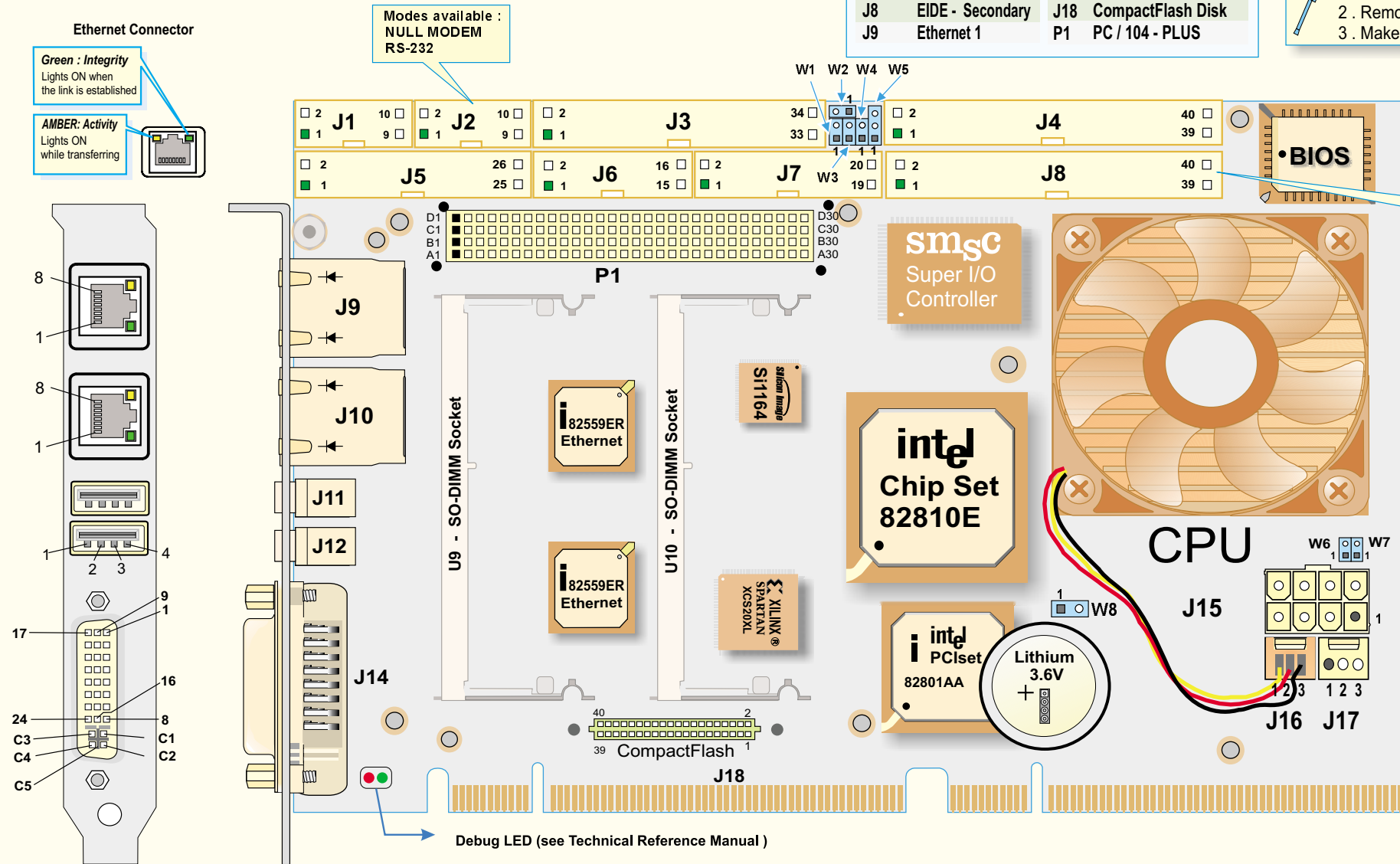
Notes for J8 (secondary)

- When using a CompactFlash Disk and a hard disk drive on the secondary EIDE channel (J8):
1. The ATA66 HDD mode is not available on J8.
 2. Use a cable (part # 150-050) in order to get proper detection.

JUMPER SETTINGS

(* : Default Setting)

W1, W3 - COM2 Terminations			
RS-422/485 modes only			
With termination resistors	W2	W3	
	On	On	
* Without termination resistors			
	Off	Off	
W2 - COM1 Mode		W4 - VT-100 Enable	
* Standard RS-232	Off	* Disabled	Off
NULL Modem	On	Enabled	On
W5 - VT-100 Remote Reset			
* Remote Reset on COM1	2-3		
Remote Reset on COM2	1-2		
W6 - Compact Flash Disk			
* Slave	Off		
Master	On		
W7 - Battery Source			
* Battery Disconnected	Off		
Battery Connected	On		
W8 - Test Mode			
* Reserved	Off		



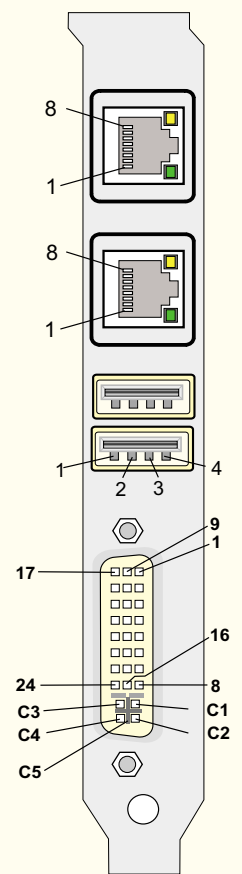
Ethernet Connector

Green : Integrity
Lights ON when the link is established

AMBER: Activity
Lights ON while transferring



Modes available :
NULL MODEM
RS-232



Debug LED (see Technical Reference Manual)

Connector Pinouts

ePCI-100

QR Rev. 1.3

Board Rev. 1

J2, J1 - Serial 1/2 - RS-232

DCD	1	2	DSR
RXD	3	4	RTS
TXD	5	6	CTS
DTR	7	8	RI
GND	9	10	N.C.

J1 - Serial Port 2 - RS-485

DRSV	1	2	RSV
RXB	3	4	RXA
TXB	5	6	TXA
RSV	7	8	RSV
GND	9	10	N.C.

J15 - External Power

VCC3	1	2	12V
GND	3	4	VCC3
GND	5	6	GND
VCC	7	8	VCC

P1 - PC/104-Plus

	ROW A	ROW B	ROW C	ROW D	# Active Low Signal
1	GND	RESERVED	VCC	AD0	
2	VCC	AD2	AD1	VCC	
3	AD5	GND	AD4	AD3	
4	C/BE0 #	AD7	GND	AD6	
5	GND	AD9	AD8	GND	
6	AD11	VCC	AD10	MM66EN	
7	AD14	AD13	GND	AD12	
8	VCC3	C/BE1 #	AD15	VCC3	
9	SERR #	GND	SBO #	PAR	
10	GND	PERR #	VCC3	N.C.	
11	STOP #	VCC3	LOCK #	GND	
12	VCC3	TRDY #	GND	DEVSEL #	
13	FRAME #	GND	IRDY #	VCC3	
14	GND	AD16	VCC3	C/BE2 #	
15	AD18	VCC3	AD17	GND	
16	AD21	AD20	GND	AD19	
17	VCC3	AD23	AD22	VCC3	
18	IDSEL0	GND	IDSEL1	IDSEL2	
19	AD24	C/BE3 #	VCC	IDSEL3	
20	GND	AD26	AD25	GND	
21	AD29	VCC	AD28	AD27	
22	VCC	AD30	GND	AD31	
23	REQ0 #	GND	REQ1 #	VCC	
24	GND	REQ2 #	VCC	GNT0 #	
25	GNT1 #	VCC	GNT2 #	GND	
26	VCC	CLK0	GND	CLK1	
27	CLK2	VCC	CLK3	GND	
28	GND	INTD #	VCC	RST #	
29	+12V	INTA #	INTB #	INTC #	
30	-12V	RESERVED	RESERVED	GND	

J18 - 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	CS1#
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

J3 - Floppy Disk

Odd Pin Number	8	INDEX #	22	WDATA #	
1-15, 19-25, 31	GND	10	MTR0#	24	WGATE#
17, 27, 33	N.C.	12	DSEL1#	26	TRK0 #
29	FDETECT	14	DSEL0#	28	WRPROT#
Even Pin Number	16	MTR1#	30	RDATA#	
2	DENSEL#	18	DIR#	32	HDSEL#
4, 6	N.C.	20	STEP #	34	DSKCHG#

J4 - Primary IDE. J8 - Secondary IDE

Odd Pin Number	25	IOR #	39	ACT#	30	GND	
1	RST#	27	IORDY	Even Pin Number	32	N.C.	
3-17	D7-D0	29	DACK#	2, 22-26, 30	GND	34	DIAG#
19	GND	31	IRQ14	J8	IRQ15	36	A2
21	REQ	33, 35	A1, A0	4-18	D8-D15	38	Cs1 #
23	IOW #	37	CS0 #	20	N.C.	38	Cs1 #
				28	PRIMPDI	40	GND

J5 - Parallel Port /Standard

STB#	1	2	ALF#
[D0-D7]	3-17	4	ERR#
ACK#	19	6	INIT#
BUSY	21	8	SLCTIN#
PE	23	Even	GND
SELECT	25	10-26	

J11, J12 - USB 0 & 1

1	VCC
2	DATA-
3	DATA+
4	GND

J6 - Multifunction

KB:CLK	1	2	GND
KB:DATA	3	4	GND
VCC	5	6	VCC
SPEAKER	7	8	VCC
MOUSE:CLK	9	10	GND
MOUSE:DATA	11	12	GND
PBRES#	13	14	GND
IDE:ACT#	15	16	VCC

J16, J17 - CPU FAN

1	Sense
2	+12V
3	GND

J7 - Hardware Monitor

GND	1	2	N.C.
N.C.	3	4	GND
GPIO1/SMBDATA	5	6	GPIO2/SMBCLK
APFLT#	7	8	CPUFLT#
EXTFLT#	9	10	GND
FANFLT#	11	12	GND
CHASINT#	13	14	GND
FAN_TACH1	15	16	FAN_TACH2
FAN_TACH3	17	18	FAN_TACH4
FAN_TACH5	19	20	FAN_TACH6

J9, J10 - Ethernet 0 & 1*

1	TX+	5	NU ¹
2	TX-	6	RX-
3	RX+	7	NU ¹
4	NU ¹	8	NU ¹

J14 - D V I

1	TMDS_2-	16	HP_DET
2	TMDS_2+	17	TMDS_0-
3	SHIELD_2-4	18	TMDS_0+
4	N.C.	19	SHIELD_0-5
5	N.C.	20	N.C.
6	DDC_CLK	21	N.C.
7	DDC_DATA	22	SHIELD_CLK
8	VSYSN	23	TMDS_CLK+
9	TMDS_1-	24	TMDS_CLK-
10	TMDS_1+		
11	SHIELD_1-3	C1	RED
12	N.C.	C2	GREEN
13	N.C.	C3	BLUE
14	VCC	C4	HSYNC
15	GND	C5	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.

I/O MAPPING

000-01F	DMA Controller 1
020-03F	Interrupt controller 1
040-05F	Timer
060-06F	Keyboard
070-07F	Real Time Clock
080-09F	DMA Page Register
0A0-0BF	Interrupt controller 2
0C0-0DF	DMA controller 2
0F0-0FF	Math Coprocessor
190-19F	Teknor Control Port
170-177, 376	Secondary IDE
1F0-1F7, 3F6	Primary IDE
278-27A	Parallel Port (option)
2F8-2FF	COM2
370-377	Floppy Disk (option)
378-37A	Parallel Port (LPT1)
3BC-3BE	Parallel Port (option)
3F0-3F7	Floppy Disk
3F8-3FF	COM1
3C0-3CF/3D0	Graphic Controller
3DF/3B0-3BB	

MEMORY MAPPING

00000-9FFFF	0-640KB DRAM
A0000-BFFFF	Video DRAM
C0000-CBFFF	Video BIOS
CC000-DFFFF	Optional BIOS
E0000-FFFFF	Main BIOS
100000 to top	1MB to top of RAM

M8002_QR

For Technical Support please contact:

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- E-Mail : support@ca.kontron.com
- Fax : (450) 437-8053
- Tel : (800) 354-4223

¹Lines terminated with 75 ohm resistors

*Pinout from the faceplate view