PMC-261

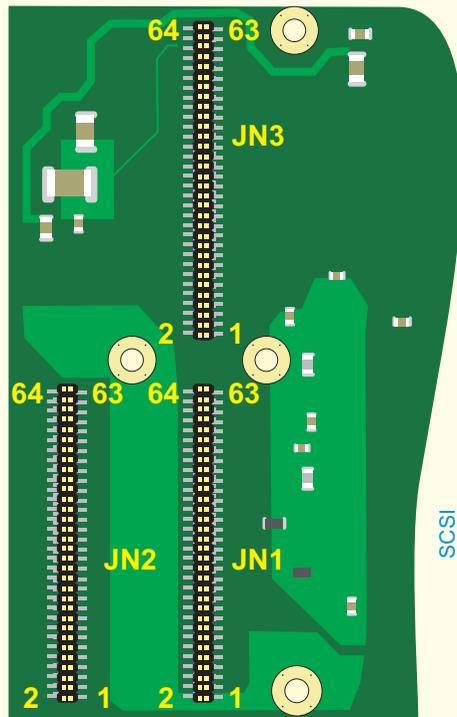**SINGLE/DUAL CHANNEL SCSI ULTRA-160/320**

kontron

Board Rev. **1** — **QUICK REFERENCE** —
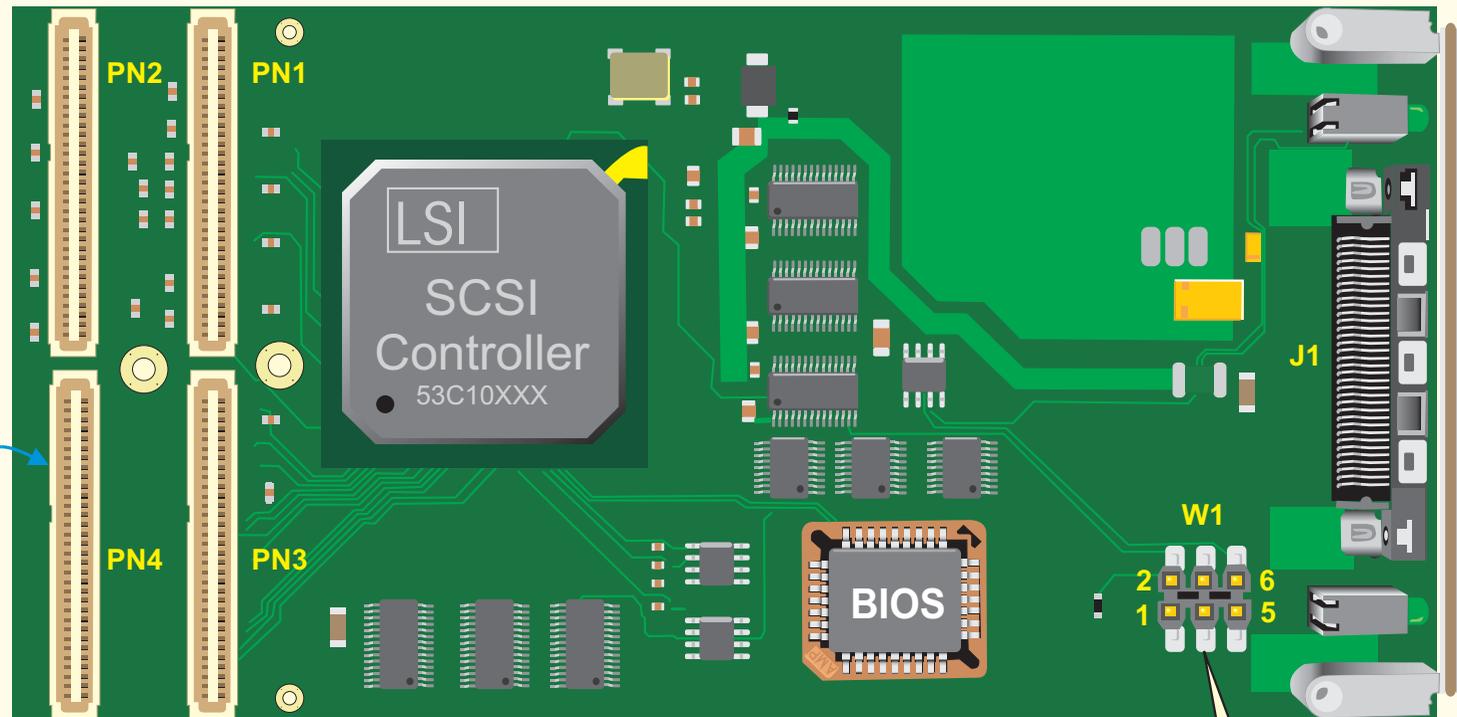Document version 1.2

First Level Debugging

1. If the hard drive detection fails, check if the SCSI cable is properly terminated and verify the HDD configuration in the BIOS setting.
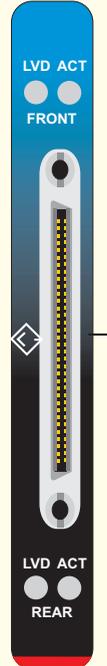
Top View

64 63
JN3
2 1
64 63 64 63
JN2 JN1
2 1 2 1

SCSI CHANNEL A

Bottom View

PN2 PN1

LSI
SCSI
Controller
53C10XXX

PN4 PN3

BIOS

J1

W1
2 6
1 5

SCSI CHANNEL B — J1

Dual Channel

LVD ACT
FRONT

J1

LVD ACT
REAR

Side View

JN JN
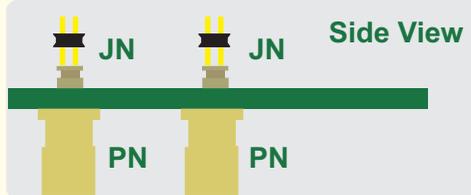
JN connectors used with 8HP Mezzanine only.

PN PN

JUMPER SETTINGS

W1 - SCSI TERMINATION		* Default setting
FRONT	REAR	
NONE	NONE	Disable
2-4	1-3	Software Enable / Disable
* 4-6	* 3-5	Enable

LEDs description:

LVD LED is always on when an LVD drive is connected.
ACT LED is flashing when there is activity on the drive.

Connector Pinouts

PMC-261
SINGLE/DUAL CHANNEL SCSI ULTRA-160/320

Board Rev. 1

Document version 1.2

J1 - HD68 SCSI ULTRA-160 CHANNEL B

#	Signal	#	Signal
1	D12+	35	D12-
2	D13+	36	D13-
3	D14+	37	D14-
4	D15+	38	D15-
5	DPH+	39	DPH-
6	D0+	40	D0-
7	D1+	41	D1-
8	D2+	42	D2-
9	D3+	43	D3-
10	D4+	44	D4-
11	D5+	45	D5-
12	D6+	46	D6-
13	D7+	47	D7-
14	DPL+	48	DPL-
15	GND	49	GND
16	DIFFSENS	50	GND
17	TERMPWR	51	TERMPWR
18	TERMPWR	52	TERMPWR
19	N.C.	53	N.C.
20	GND	54	GND
21	ATN+	55	ATN-
22	GND	56	GND
23	BSY+	57	BSY-
24	ACK+	58	ACK-
25	RESET+	59	RESET-
26	MSG+	60	MSG-
27	SEL+	61	SEL-
28	CD+	62	CD-
29	REQ+	63	REQ-
30	IO+	64	IO-
31	D8+	65	D8-
32	D9+	66	D9-
33	D10+	67	D10-
34	D11+	68	D11-

PN1 / JN1 (see note)

#	Signal	#	Signal
1	TCK	2	-12V
3	GND	4	INTA#
5	INTB#	6	INTC#
7	BUSMODE1#	8	+5V
9	INTD#	10	PCI-RSVD
11	GND	12	3.3VAUX
13	CLK	14	GND
15	GND	16	GNT#
17	REQ#	18	+5V
*19	VIO	20	AD31
21	AD28	22	AD27
23	AD25	24	GND
25	GND	26	C/BE3#
27	AD22	28	AD21
29	AD19	30	+5V
31	VIO	32	AD17
33	FRAME#	34	GND
35	GND	36	IRDY#
37	DEVSEL#	38	+5V
39	GND	40	LOCK#
41	PCI-RSVD	42	PCI-RSVD
43	PAR	44	GND
45	VIO	46	AD15
47	AD12	48	AD11
49	AD9	50	+5V
51	GND	52	C/BE0#
53	AD6	54	AD5
55	AD4	56	GND
57	VIO	58	AD3
59	AD2	60	AD1
61	AD0	62	+5V
63	GND	64	REQ64#

PN2 / JN2 (see note)

#	Signal	#	Signal
1	+12V	2	TRST#
3	TMS	4	TDO
5	TDI	6	GND
7	GND	8	PCI-RSVD
9	PCI-RSVD	10	PCI-RSVD
11	BUSMODE2#	12	+3.3V
13	RST#	14	BUSMODE3#
15	+3.3V	16	BUSMODE4#
17	PME#	18	GND
19	AD30	20	AD29
21	GND	22	AD26
23	AD24	24	+3.3V
25	IDSEL	26	AD23
27	+3.3V	28	AD20
29	AD18	30	GND
31	AD16	32	C/BE2#
33	GND	34	PMC-RSVD
35	TRDY#	36	+3.3V
37	GND	38	STOP#
39	PERR#	40	GND
41	+3.3V	42	SERR#
43	C/BE1#	44	GND
45	AD14	46	AD13
47	M66EN	48	AD10
49	AD8	50	+3.3V
51	AD7	52	PMC-RSVD
53	+3.3V	54	PMC-RSVD
55	PMC-RSVD	56	GND
57	PMC-RSVD	58	PMC-RSVD
59	GND	60	PMC-RSVD
61	ACK64#	62	+3.3V
63	GND	64	PMC-RSVD

PN3 / JN3 (see note)

#	Signal	#	Signal
1	PCI-RSVD	2	GND
3	GND	4	C/BE7#
5	C/BE6#	6	C/BE5#
7	C/BE4#	8	GND
9	VIO	10	PAR64
11	AD63	12	AD62
13	AD61	14	GND
15	GND	16	AD60
17	AD59	18	AD58
19	AD57	20	GND
21	VIO	22	AD56
23	AD55	24	AD54
25	AD53	26	GND
27	GND	28	AD52
29	AD51	30	AD50
31	AD49	32	GND
33	GND	34	AD48
35	AD47	36	AD46
37	AD45	38	GND
39	VIO	40	AD44
41	AD43	42	AD42
43	AD41	44	GND
45	GND	46	AD40
47	AD39	48	AD38
49	AD37	50	GND
51	GND	52	AD36
53	AD35	54	AD34
55	AD33	56	GND
57	VIO	58	AD32
59	PCI-RSVD	60	PCI-RSVD
61	PCI-RSVD	62	GND
63	GND	64	PCI-RSVD

PN4 - USER I/O / SCSI, CHANNEL A

#	Signal	#	Signal
1	P1+_D10+	2	P2+_D11+
3	P1-_D10-	4	P2-_D11-
5	P3+_D8+	6	P4+_D9+
7	P3-_D8-	8	P4-_D9-
9	P5+_REQ+	10	P6+_I/O+
11	P5-_REQ-	12	P6-_I/O-
13	P7+_SEL+	14	P8+_C/D+
15	P7-_SEL-	16	P8-_C/D-
17	P9+_RST+	18	P10+_MSG+
19	P9-_RST-	20	P10-_MSG-
21	P11+_BSY+	22	P12+_ACK+
23	P11-_BSY-	24	P12-_ACK-
25	P13+_TERMPWR	26	P14+_ATN+
27	P13-_TERMPWR	28	P14-_ATN-
29	P15+_TERMPWR	30	P16+_TERMPWR
31	P15-_TERMPWR	32	P16-_TERMPWR
33	P17+_DIFFSENS	34	P18+_TERMPWR
35	P17-_TERMPWR	36	P18-_TERMPWR
37	P19+_D7+	38	P20+_DPL+
39	P19-_D7-	40	P20-_DPL-
41	P21+_D5+	42	P22+_D6+
43	P21-_D5-	44	P22-_D6-
45	P23+_D3+	46	P24+_D4+
47	P23-_D3-	48	P24-_D4-
49	P25+_D1+	50	P26+_D2+
51	P25-_D1-	52	P26-_D2-
53	P27+_DPH+	54	P28+_D0+
55	P27-_DPH-	56	P28-_D0-
57	P29+_D14+	58	P30+_D15+
59	P29-_D14-	60	P30-_D15-
61	P31+_D12+	62	P32+_D13+
63	P31-_D12-	64	P32-_D13-

* VIO can be either 5V or 3.3V according to the SBC in use.

* Note

JN1-JN3 as per PMC standard pinout.
JN4 is routed to J4 for the PIM adapter, using 32 differential pairs (100 ohms differential, 50 ohms single ended)

For Technical Support please contact:

1. Internet : www.kontron.com
2. E-Mail : support@ca.kontron.com
3. Fax : (450) 437-8053
4. Tel : (800) 354-4223

PCI Interface

- Ultra 160, up to PCI 64-bit / 66 MHz; Ultra 320, up to PCI-X 64-bit / 133 MHz
- 3.3V or 5V I/O compatible
- Option to stack a mezzanine over the PMC to bring the PCI signals up to a second PMC (only on a dual slot cPCI-DT64 board)

SCSI Interface

- Ultra 160 LSI 53C1010R SCSI chip / Ultra 320 LSI 53C1030 SCSI chip
- Dual channel: 1) 68 pins VHDCI SCSI connector on faceplate
  2) Rear access (cPCI J4), Rear I/O module
- Low Voltage Differential (LVD) or Single Ended (SE) signaling
- LVD and Activity LED's for Rear and Front channels
- 4Mbit Flash memory (BIOS)

OS Compatibility

Windows®2000, Windows®XP, Linux, FreeBSD

Compliancy

- PMC P1386.1 V2.4 with 64-bit/Up to 133 MHz PCI-X bus

Mechanical

- 5.86" x 2.91" (149 x 74 mm), Standard PMC board
- Weight: 90g

Power Requirements

- Supply Voltage Vcc = +3.3V ±5%, +5V ±5%
- ICC max: +3.3V   2.8A
- ICC max: + 5V   0.2A *

Environmental

	Operating	Storage and Transit
Temperature:	0-60°C/32-131°F	-40 to +70°C/-40 to 158°F
Humidity:	5% to 90% @ 40°C/104°F	5% to 95% @ 40°C/104°F
Altitude:	4000 m / 13 123 ft	15 000 m / 49 212 ft
Shock:	5G each axis	Belcore GR-63-CORE Section 4.3
Vibration:	1.0G, 5-500Hz each axis	2.0G, 5-50Hz; 3.0G, 50-500Hz each axis

Reliability

MTBF: 1 200 000 hours @30°C/86°F (Telcordia SR-232, Issue 1)

Safety /EMC

Designed to meet or exceed:
Safety: UL 60950 3rd ed.; CSA C22.2 No. 60950-00; EN 60950; IEC 60950-1
EMI/EMC: FCC 47 CFR Part 15, Class B; EN55022/EN55024

2 year limited warranty

* Based on power consumption from onboard termination only

M6506_QR_1