ADAM-3952/PMA Panasonic Minas A Series

Introduction

The ADAM-3952/PMA terminal board provides convenient and reliable signal wiring for PCI-1240/ PCM-3240. Its 50 pin SCSI ribbon type connectors give you the quick and easy way to connect to the Panasonic Minas A series motors.

Features

• Low-cost terminal board for PCI-1240/ PCM-3240 with 100-pin SCSI-II connector.

• 50 pin SCSI ribbon type connectors for easy connection to Panasonic Minas A motors

• Onboard LED indicator

• Industrial-grade screw-clamp terminal blocks for heavy-duty and reliable connections.

• DIN-rail mounting case for easy mounting.

• Dimensions (W x L x H):121 x 202 x 45mm

(4.76" x 7.95" x 1.77")

Declaration of Conformity

FCC Class A

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reason-able protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residen-tial area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CE

This equipment is CE certified.

Board Components
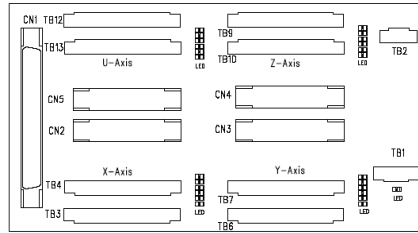
ADAM-3952/PMA

Slot	Description
CN1:	100-pin SCSI-II connector for connection with PCI-1240U/PCM-3240
TB1:	Detachable screw terminal for emergency signal
TB2:	Detachable screw terminal for ADAM-3952/ PMA power source
TB3~TB4:	Detachable screw terminal for X-axis wiring
TB6~TB7:	Detachable screw terminal for Y-axis wiring
TB9~TB10:	Detachable screw terminal for Z-axis wiring
TB12~TB13:	Detachable screw terminal for U-axis wiring
CN2:	50 pin SCSI ribbon type connector for X-axis
CN3:	50 pin SCSI ribbon type connector for Y-axis
CN4:	50 pin SCSI ribbon type connector for Z-axis
CN5:	50 pin SCSI ribbon type connector for U-axis
LED:	LED status display

Optional Cables

• PCL-101100M-1: SCSI-100 Shielded Cable, 1m

• PCL-101100M-3: SCSI-100 Shielded Cable, 3m

• PCL-10150M-2: SCSI-50 Shielded Cable, 2m

Notes

For more information on this and other Advantech products, please visit our websites at:

http://www.advantech.com

http://www.advantech.com/eAutomation

For technical support and service:
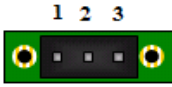
http://www.advantech.com.tw/eservice

This manual is for ADAM-3952/PMA.

Part No: 2003395210 (1st Ed)   October 2006

Component Descriptions and Settings
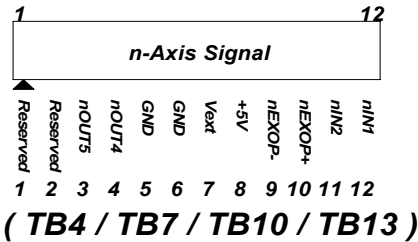
TB1 Emergency Stop Input Connector

Pin	Label	Description
1	Vext	12~24V
2	EMG	Emergency Input
3	GND	GND

TB2 External Power Input Connector

Pin	Label	Description
1	Vext	12~24V
2	GND	GND

Detachable Screw Terminals

n-Axis Signal

| | Reserved | Reserved | nOUT5 | nOUT4 | GND | GND | Vext | +5V | nEXOP- | nEXOP+ | nIN2 | nIN1 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |

(TB4 / TB7 / TB10 / TB13)
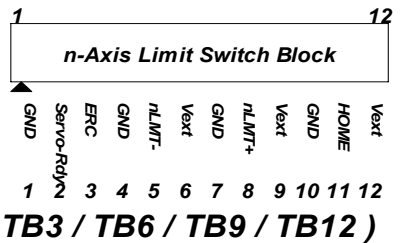
Pin	Label	Direction	Description
1	Reserved	-	-
2	Reserved	-	-
3	nOUT5	Output	General Output at n axis
4	nOUT4	Output	General Output at n axis
5	GND	-	Ground
6	GND	-	Ground
7	Vext	Input	External Power (12~24V_{DC})
8	+5V	Output	+5V Output
9	nEXOP-	Input	Jog at the + Direction of n axis
10	nEXOP+	Input	Jog at the - Direction of n axis
11	nIN2	Input	Deceleration/Instant Stop at n axis
12	nIN1	Input	Deceleration/Instant Stop at n axis
Note: n=X, Y, Z, U			

Note: Do not use any reserved signal.

Detachable Screw Terminals

n-Axis Limit Switch Block

| | GND | Servo-Rdy | ERC | GND | nLMT- | Vext | GND | nLMT+ | Vext | GND | HOME | Vext |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |

(TB3 / TB6 / TB9 / TB12)

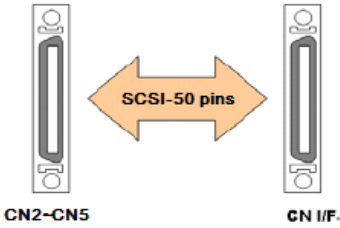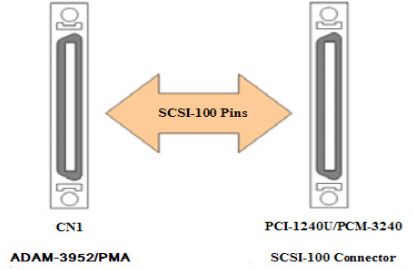| Pin	Label	Direction	Description
1	GND	-	Ground
2	Servo-Rdy	Output	Servo Ready
3	ERC	Output	Driver Error Counter Clear
4	GND	-	Ground
5	nLMT-	Input	-Direction Limit at n axis
6	Vext	Input	External Power (12~24V_{DC})
7	GND	-	Ground
8	nLMT+	Input	+Direction Limit at n axis
9	Vext	Input	External Power (12~24V_{DC})
10	GND	-	Ground
11	HOME	Input	Home
12	Vext	Input	External Power (12~24V_{DC})
Note: n=X, Y, Z, U			

Note:

Servo-Rdy: This output(transistor) turns on, when the main power is on(for both the driver and motor) and no alarm is active.

ERC: Clears the position error counter. Connect this signal to nOUT4 or nOUT5 to control this signal.

CN2~CN5 Connector to Servo Driver

CN1 Connector to PCI-1240U/PCM-3240

CN2~CN5 Pin Descriptions

Pin	Label	Used	Pin	Label	Used
1		No	26	ZEROSPD	No
2		No	27	GAIN	No
3	PULS1	Yes	28	DIV	No
4	PULS2	Yes	29	SRV-ON	Yes
5	SIGN1	Yes	30	CL	Yes
6	SIGN2	Yes	31	A-CLR	Yes
7	COM+	Yes	32	C-MODE	No
8	CWL	No	33	INH	No
9	CCWL	No	34	S-RDY-	Yes
10	BRKOFF-	No	35	S-RDY+	Yes
11	BRKOFF+	No	36	ALM-	Yes
12	ZSP	No	37	ALM+	Yes
13	GND	No	38	COIN-	Yes
14	SPR/TRQR	No	39	COIN+	Yes
15	GND	No	40	TLC	No
16	CCWTL/TRQR	No	41	COM-	No
17	GND	No	42	IM	No
18	CWTL	No	43	SPM	No
19	CZ	No	44	BATT+	No
20		No	45	BATT-	No
21	OA+	Yes	46		No
22	OA-	Yes	47		No
23	OZ+	Yes	48	OB+	Yes
24	OZ-	Yes	49	OB-	Yes
25	GND	No	50	FG	No

Note:
SRV-ON is connected to PCI-1240U's OUT6.
A-CLR is connected to PCI-1240U's OUT7.

LED Status Display

Label	Description
INPOS	Servo In Position
SVON	Servo On
ALARM	Servo Alarm
HOME	Home Signal Input
LMT+	Plus End Limit
LMT-	Minus End Limit
PWR	Power
EMG	Emergency

CN1 Pin Descriptions

Y P-N	50	100	UP-N
Y P-P	49	99	UP-P
Y P+N	48	98	UP+N
Y P+P	47	97	UP+P
Y OUT7	46	96	UOUT7
Y OUT6	48	95	UOUT6
Y OUT5	44	94	UOUT5
Y OUT4	43	93	UOUT4
GND	42	92	GND
X P-N	41	91	ZP-N
X P-P	40	90	ZP-P
X P+N	39	89	ZP+N
X P+P	38	88	ZP+P
X OUT7	37	87	ZOUT7
X OUT6	36	86	ZOUT6
X OUT5	35	85	ZOUT5
X OUT4	34	84	ZOUT4
GND	33	83	GND
Y EX OP-	32	82	UEX OP-
Y EX OP+	31	81	UEX OP+
X EX OP-	30	80	ZEX OP-
X EX OP+	29	79	ZEX OP+
Y INON	28	78	UINON
Y INOP	27	77	UINOP
Y ECBN	26	76	UECBN
Y ECBP	25	75	UECBP
Y ECAN	24	74	UECAN
Y ECAP	23	73	UECAP
Y_ALARM	22	72	U_ALARM
Y_INPOS	21	71	U_INPOS
X INON	20	70	ZINON
X INOP	19	69	ZINOP
X ECBN	18	68	ZECBN
X ECBP	17	67	ZECBP
X ECAN	16	66	ZECAN
X ECAP	15	65	ZECAP
X_ALARM	14	64	Z_ALARM
X_INPOS	13	63	Z_INPOS
Y_IN3	12	62	U_IN3
Y_IN2	11	61	U_IN2
Y_IN1	10	60	U_IN1
Y LMT-	9	59	ULMT-
Y LMT+	8	58	ULMT+
X_IN3	7	57	Z_IN3
X_IN2	6	56	Z_IN2
X_IN1	5	55	Z_IN1
X LMT-	4	54	ZLMT-
X LMT+	3	53	ZLMT+
EMG	2	52	NC
VEX	1	51	VEX