

6K-ERB08

Specifications



**MEASUREMENT
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Specifications

Typical for 25 °C unless otherwise specified.

Specifications in *italic text* are guaranteed by design.

Power consumption

Table 1. Power consumption specifications

5 V PC auxiliary power / PCI bus power / external regulated	All relays off	15 mA typical, 20 mA max.
	All relays on	480 mA typical, 550 mA max.
External 7.5 V to 15 V unregulated supply	All relays off	20 mA typical, 25 mA max.
	All relays on	500 mA typical, 580 mA max.

Output specification

Table 2. Output specifications

Number	8
Contact configuration	8 Form C (SPDT) NO, NC and Common available at screw terminals
<i>Contact rating</i>	<i>6 A @ 120 VAC or 28 VDC resistive</i>
Contact resistance	100 milliohms max (initial value)
<i>Operate time</i>	<i>10 milliseconds max</i>
<i>Release time</i>	<i>5 milliseconds max</i>
<i>Vibration</i>	<i>10 to 55 Hz (amplitude 1.5 mm)</i>
<i>Shock</i>	<i>10 G (11 milliseconds)</i>
<i>Dielectric isolation (between open contact)</i>	<i>300 VAC, 50/60 Hz (1 minute)</i>
<i>Life expectancy</i>	<i>10 million mechanical operations, min</i>
Power on state (no connection to DIO)	Not energized. NC in contact to Common. (JP2 in NON-INVERT position)

Environmental

Table 3. Environmental specifications

Operating temperature range	0 to 70 °C
Storage temperature range	-40 to 100 °C
Humidity	0 to 95% non-condensing

Mechanical

Table 4. Mechanical specifications

Card dimensions (without standoff)	229 mm (L) x 102 mm (W) x 20 mm (H) 9" (L) x 4" (W) x 0.8" (H)
Weight	0.6 lb.

Relay screw terminals

Table 5. Relay screw terminal specifications

Wire gauge range	12 AWG to 20 AWG
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Table 6. Screw terminal pin out

Pin	Signal Name
1-NO	Relay 1 Normally Open contact
1-C	Relay 1 Common contact
1-NC	Relay 1 Normally Closed contact
2-NO	Relay 2 Normally Open contact
2-C	Relay 2 Common contact
2-NC	Relay 2 Normally Closed contact
3-NO	Relay 3 Normally Open contact
3-C	Relay 3 Common contact
3-NC	Relay 3 Normally Closed contact
4-NO	Relay 4 Normally Open contact
4-C	Relay 4 Common contact
4-NC	Relay 4 Normally Closed contact
5-NO	Relay 5 Normally Open contact
5-C	Relay 5 Common contact
5-NC	Relay 5 Normally Closed contact
6-NO	Relay 6 Normally Open contact
6-C	Relay 6 Common contact
6-NC	Relay 6 Normally Closed contact
7-NO	Relay 7 Normally Open contact
7-C	Relay 7 Common contact
7-NC	Relay 7 Normally Closed contact
8-NO	Relay 8 Normally Open contact
8-C	Relay 8 Common contact
8-NC	Relay 8 Normally Closed contact

Relay logic jumper (JP2)

Table 7. JP2 specifications

Invert (1-2)	Relay activates when DIO is LOW
Non-invert (2-3) (default)	Relay activates when DIO is HIGH

Power-in jumper (JP1)

Table 8. JP1 specifications

+5PC	Use cable C-PCPOWER-10
+9V EXT	Use Adapter CB-PWR-9
+5BD (default)	Powered from 100-pin connector

Relays pull-up/down option

Table 9. Relay pull-up/down specifications

R21,23,25,27,29,31,33,35	Relays NC pin pull-up/down
R20,22,24,26,28,30,32,34	Relays NO pin pull-up/down

Compatible products

Table 10. Compatible product specifications

Analog input boards	<ul style="list-style-type: none"> ▪ PCI-DAS6013 ▪ PCI-DAS6014 ▪ PCI-DAS6030 ▪ PCI-DAS6031 ▪ PCI-DAS6032 ▪ PCI-DAS6033 ▪ PCI-DAS6034 ▪ PCI-DAS6035 ▪ PCI-DAS6036 ▪ PCI-DAS6052 ▪ PCI-DAS6023 ▪ PCI-DAS6025 ▪ PCI-DAS6040 ▪ PCI-DAS6070 ▪ PCI-DAS6071
Analog output boards	<ul style="list-style-type: none"> ▪ PCI-DAC6702 ▪ PCI-DAC6703

Note 1: The 6K-ERB08 requires external power (for all products above) when used with C100HD50 (pins 51-100) ribbon cable.

Main connectors and pin out

User connector P20

Table 11. Connector P20 specifications

Connector type	Shielded SCSI 100 D-type
Compatible cables	C100MMS-x, shielded round cable. x = 1, 2 or 3 meters

Table 12. P20 pin out

Pin	Signal name	Pin	Signal name
1	P21 Pass Through 1	51	P21 Pass Through 51
2	P21 Pass Through 2	52	P21 Pass Through 52
3	P21 Pass Through 3	53	P21 Pass Through 53
4	P21 Pass Through 4	54	P21 Pass Through 54
5	P21 Pass Through 5	55	P21 Pass Through 55
6	P21 Pass Through 6	56	P21 Pass Through 56
7	P21 Pass Through 7	57	P21 Pass Through 57
8	P21 Pass Through 8	58	P21 Pass Through 58
9	P21 Pass Through 9	59	P21 Pass Through 59
10	P21 Pass Through 10	60	P21 Pass Through 60
11	P21 Pass Through 11	61	P21 Pass Through 61
12	P21 Pass Through 12	62	P21 Pass Through 62
13	P21 Pass Through 13	63	P21 Pass Through 63
14	P21 Pass Through 14	64	P21 Pass Through 64
15	P21 Pass Through 15	65	P21 Pass Through 65
16	P21 Pass Through 16	66	P21 Pass Through 66
17	P21 Pass Through 17	67	P21 Pass Through 67
18	P21 Pass Through 18	68	P21 Pass Through 68
19	P21 Pass Through 19	69	P21 Pass Through 69
20	P21 Pass Through 20	70	P21 Pass Through 70
21	P21 Pass Through 21	71	P21 Pass Through 71
22	P21 Pass Through 22	72	P21 Pass Through 72
23	P21 Pass Through 23	73	P21 Pass Through 73
24	P21 Pass Through 24	74	P21 Pass Through 74
25	P21 Pass Through 25	75	P21 Pass Through 75
26	P21 Pass Through 26	76	P21 Pass Through 76
27	P21 Pass Through 27	77	P21 Pass Through 77
28	P21 Pass Through 28	78	P21 Pass Through 78
29	P21 Pass Through 29	79	P21 Pass Through 79
30	P21 Pass Through 30	80	P21 Pass Through 80
31	P21 Pass Through 31	81	P21 Pass Through 81
32	P21 Pass Through 32	82	P21 Pass Through 82
33	P21 Pass Through 33	83	P21 Pass Through 83
34	P21 Pass Through 34	84	P21 Pass Through 84
35	P21 Pass Through 35	85	DIO0
36	P21 Pass Through 36	86	DIO1
37	P21 Pass Through 37	87	DIO2
38	P21 Pass Through 38	88	DIO3
39	PC +5V	89	DIO4
40	P21 Pass Through 40	90	DIO5
41	P21 Pass Through 41	91	DIO6
42	P21 Pass Through 42	92	DIO7
43	P21 Pass Through 43	93	P21 Pass Through 93
44	P21 Pass Through 44	94	P21 Pass Through 94
45	P21 Pass Through 45	95	P21 Pass Through 95
46	P21 Pass Through 46	96	P21 Pass Through 96
47	P21 Pass Through 47	97	P21 Pass Through 97
48	P21 Pass Through 48	98	P21 Pass Through 98
49	P21 Pass Through 49	99	P21 Pass Through 99
50	GND	100	GND

User connector P21

Table 13. Connector P21 specifications

Connector type	Shielded SCSI 100 D-type
Compatible cables	C100MMS-x, shielded round cable. x =1, 2 or 3 meters

Table 14. P21 pin out

Pin	Signal name	Pin	Signal name
1	P20 Pass Through 1	51	P20 Pass Through 51
2	P20 Pass Through 2	52	P20 Pass Through 52
3	P20 Pass Through 3	53	P20 Pass Through 53
4	P20 Pass Through 4	54	P20 Pass Through 54
5	P20 Pass Through 5	55	P20 Pass Through 55
6	P20 Pass Through 6	56	P20 Pass Through 56
7	P20 Pass Through 7	57	P20 Pass Through 57
8	P20 Pass Through 8	58	P20 Pass Through 58
9	P20 Pass Through 9	59	P20 Pass Through 59
10	P20 Pass Through 10	60	P20 Pass Through 60
11	P20 Pass Through 11	61	P20 Pass Through 61
12	P20 Pass Through 12	62	P20 Pass Through 62
13	P20 Pass Through 13	63	P20 Pass Through 63
14	P20 Pass Through 14	64	P20 Pass Through 64
15	P20 Pass Through 15	65	P20 Pass Through 65
16	P20 Pass Through 16	66	P20 Pass Through 66
17	P20 Pass Through 17	67	P20 Pass Through 67
18	P20 Pass Through 18	68	P20 Pass Through 68
19	P20 Pass Through 19	69	P20 Pass Through 69
20	P20 Pass Through 20	70	P20 Pass Through 70
21	P20 Pass Through 21	71	P20 Pass Through 71
22	P20 Pass Through 22	72	P20 Pass Through 72
23	P20 Pass Through 23	73	P20 Pass Through 73
24	P20 Pass Through 24	74	P20 Pass Through 74
25	P20 Pass Through 25	75	P20 Pass Through 75
26	P20 Pass Through 26	76	P20 Pass Through 76
27	P20 Pass Through 27	77	P20 Pass Through 77
28	P20 Pass Through 28	78	P20 Pass Through 78
29	P20 Pass Through 29	79	P20 Pass Through 79
30	P20 Pass Through 30	80	P20 Pass Through 80
31	P20 Pass Through 31	81	P20 Pass Through 81
32	P20 Pass Through 32	82	P20 Pass Through 82
33	P20 Pass Through 33	83	P20 Pass Through 83
34	P20 Pass Through 34	84	P20 Pass Through 84
35	P20 Pass Through 35	85	DIO0
36	P20 Pass Through 36	86	DIO1
37	P20 Pass Through 37	87	DIO2
38	P20 Pass Through 38	88	DIO3
39	PC +5V	89	DIO4
40	P20 Pass Through 40	90	DIO5
41	P20 Pass Through 41	91	DIO6
42	P20 Pass Through 42	92	DIO7
43	P20 Pass Through 43	93	P20 Pass Through 93
44	P20 Pass Through 44	94	P20 Pass Through 94
45	P20 Pass Through 45	95	P20 Pass Through 95
46	P20 Pass Through 46	96	P20 Pass Through 96
47	P20 Pass Through 47	97	P20 Pass Through 97
48	P20 Pass Through 48	98	P20 Pass Through 98
49	P20 Pass Through 49	99	P20 Pass Through 99
50	GND	100	GND

User connector P5

Table 15. Connector P5 specifications

Connector type	Unshielded 50-pin ribbon connector - male
Compatible cables	C100HD50-x, C50FF-x, unshielded ribbon cable. x = 3 or 6 feet

Table 16. P5 pin out

Pin	Signal name	Pin	Signal name
1	P6 Pass Through 51	26	P6 Pass Through 76
2	P6 Pass Through 52	27	P6 Pass Through 77
3	P6 Pass Through 53	28	P6 Pass Through 78
4	P6 Pass Through 54	29	P6 Pass Through 79
5	P6 Pass Through 55	30	P6 Pass Through 80
6	P6 Pass Through 56	31	P6 Pass Through 81
7	P6 Pass Through 57	32	P6 Pass Through 82
8	P6 Pass Through 58	33	P6 Pass Through 83
9	P6 Pass Through 59	34	P6 Pass Through 84
10	P6 Pass Through 60	35	DIO0
11	P6 Pass Through 61	36	DIO1
12	P6 Pass Through 62	37	DIO2
13	P6 Pass Through 63	38	DIO3
14	P6 Pass Through 64	39	DIO4
15	P6 Pass Through 65	40	DIO5
16	P6 Pass Through 66	41	DIO6
17	P6 Pass Through 67	42	DIO7
18	P6 Pass Through 68	43	P6 Pass Through 93
19	P6 Pass Through 69	44	P6 Pass Through 94
20	P6 Pass Through 70	45	P6 Pass Through 95
21	P6 Pass Through 71	46	P6 Pass Through 96
22	P6 Pass Through 72	47	P6 Pass Through 97
23	P6 Pass Through 73	48	P6 Pass Through 98
24	P6 Pass Through 74	49	P6 Pass Through 99
25	P6 Pass Through 75	50	GND

User connector P6

Table 17. Connector P6 specifications

Connector type	Unshielded 50 pin ribbon connector - male
Compatible cables	C100HD50-x, C50FF-x, unshielded ribbon cable. x = 3 or 6 feet

Table 18. P6 pin out

Pin	Signal name	Pin	Signal name
1	P5 Pass Through 51	26	P5 Pass Through 76
2	P5 Pass Through 52	27	P5 Pass Through 77
3	P5 Pass Through 53	28	P5 Pass Through 78
4	P5 Pass Through 54	29	P5 Pass Through 79
5	P5 Pass Through 55	30	P5 Pass Through 80
6	P5 Pass Through 56	31	P5 Pass Through 81
7	P5 Pass Through 57	32	P5 Pass Through 82
8	P5 Pass Through 58	33	P5 Pass Through 83
9	P5 Pass Through 59	34	P5 Pass Through 84
10	P5 Pass Through 60	35	DIO0
11	P5 Pass Through 61	36	DIO1
12	P5 Pass Through 62	37	DIO2
13	P5 Pass Through 63	38	DIO3
14	P5 Pass Through 64	39	DIO4
15	P5 Pass Through 65	40	DIO5
16	P5 Pass Through 66	41	DIO6
17	P5 Pass Through 67	42	DIO7
18	P5 Pass Through 68	43	P5 Pass Through 93
19	P5 Pass Through 69	44	P5 Pass Through 94
20	P5 Pass Through 70	45	P5 Pass Through 95
21	P5 Pass Through 71	46	P5 Pass Through 96
22	P5 Pass Through 72	47	P5 Pass Through 97
23	P5 Pass Through 73	48	P5 Pass Through 98
24	P5 Pass Through 74	49	P5 Pass Through 99
25	P5 Pass Through 75	50	GND

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