

Handling of unused terminals

Applicable devices : PCD4500,PCD4511

Terminal number	Terminal name	Handling when unused	Terminal number	Terminal name	Handling when unused
1	D0	Cannot be left unused	23	Vdd	Cannot be left unused
2	D1	Cannot be left unused	24	Vdd	Cannot be left unused
3	D2	Cannot be left unused	25	STA	Pull up to VDD or connect directly to VDD
4	D3	Cannot be left unused	26	STP	Pull up to VDD or connect directly to VDD
5	D4	Cannot be left unused	27	U/B	Pull up to VDD or connect directly to VDD
6	GND	Cannot be left unused	28	GND	Cannot be left unused
7	D5	Cannot be left unused	29	F/H	Pull up to VDD or connect directly to VDD
8	D6	Cannot be left unused	30	1st phase	Open
9	D7	Cannot be left unused	31	2nd phase	Open
10	GND	Cannot be left unused	32	3rd phase	Open
11	-SD	Pull up to VDD or connect directly to VDD	33	4th phase	Open
12	+SD	Pull up to VDD or connect directly to VDD	34	OTS	Open
13	-EL	Pull up to VDD or connect directly to VDD	35	GND	Cannot be left unused
14	+EL	Pull up to VDD or connect directly to VDD	36	CLK	Cannot be left unused
15	ORG	Pull up to VDD or connect directly to VDD	37	RST	Cannot be left unused
16	-PO	Open	38	INT	Open
17	Vdd	Cannot be left unused	39	Vdd	Cannot be left unused
18	+PO	Open	40	CS	Pull down to GND
19	BSY	Open	41	A1	Cannot be left unused
20	GND	Cannot be left unused	42	A0	Cannot be left unused
21	NC	Always open	43	WR	Cannot be left unused
22	NC	Always open	44	RD	Cannot be left unused

Pull up resistor value : 5 to 10 K-ohms

Pull down resistor value : 5 to 10 K-ohms

Handling of unused terminals

Applicable devices : PCD4521

Terminal number	Terminal name	Handling when unused
1	RST	Cannot be left unused
2	INT	Open
3	CS	Pull down to GND
4	WR	Cannot be left unused
5	RD	Cannot be left unused
6	A0	Cannot be left unused
7	A1	Cannot be left unused
8	A2	Cannot be left unused
9	D0	Cannot be left unused
10	GND	Cannot be left unused
11	D1	Cannot be left unused
12	D2	Cannot be left unused
13	D3	Cannot be left unused
14	D4	Cannot be left unused
15	VDD	Cannot be left unused
16	D5	Cannot be left unused
17	D6	Cannot be left unused
18	D7	Cannot be left unused
19	U/B x	Pull up to VDD or connect directly to VDD
20	F/H x	Pull up to VDD or connect directly to VDD
21	GND	Cannot be left unused
22	1st phase x	Open
23	2nd phase x	Open
24	3rd phase x	Open
25	4th phase x	Open
26	VDD	Cannot be left unused
27	VDD	Cannot be left unused
28	+PO x	Open
29	-PO x	Open
30	BSY x	Open
31	OTS x	Open
32	GND	Cannot be left unused

Terminal number	Terminal name	Handling when unused
33	STA x	Pull up to VDD or connect directly to VDD
34	STP x	Pull up to VDD or connect directly to VDD
35	ORG x	Pull up to VDD or connect directly to VDD
36	+EL x	Pull up to VDD or connect directly to VDD
37	-EL x	Pull up to VDD or connect directly to VDD
38	+SD x	Pull up to VDD or connect directly to VDD
39	-SD x	Pull up to VDD or connect directly to VDD
40	U/B y	Pull up to VDD or connect directly to VDD
41	F/H y	Pull up to VDD or connect directly to VDD
42	GND	Cannot be left unused
43	1st phase y	Open
44	2nd phase y	Open
45	3rd phase y	Open
46	4th phase y	Open
47	VDD	Cannot be left unused
48	+PO y	Open
49	-PO y	Open
50	BSY y	Open
51	OTS y	Open
52	GND	Cannot be left unused
53	STA y	Pull up to VDD or connect directly to VDD
54	STP y	Pull up to VDD or connect directly to VDD
55	ORG y	Pull up to VDD or connect directly to VDD
56	+EL y	Pull up to VDD or connect directly to VDD
57	-EL y	Pull up to VDD or connect directly to VDD
58	VDD	Cannot be left unused
59	VDD	Cannot be left unused
60	+SD y	Pull up to VDD or connect directly to VDD
61	-SD y	Pull up to VDD or connect directly to VDD
62	GND	Cannot be left unused
63	CLK	Cannot be left unused
64	VDD	Cannot be left unused

Pull up resistor value : 5 to 10 K-ohms

Pull down resistor value : 5 to 10 K-ohms

Handling of unused terminals

Applicable devices : PCD4541

Terminal number	Terminal name	Handling when unused
1	A0	Cannot be left unused
2	A1	Cannot be left unused
3	A2	Cannot be left unused
4	A3	Cannot be left unused
5	INT	Open
6	VDD	Cannot be left unused
7	D0	Cannot be left unused
8	D1	Cannot be left unused
9	D2	Cannot be left unused
10	D3	Cannot be left unused
11	D4	Cannot be left unused
12	D5	Cannot be left unused
13	D6	Cannot be left unused
14	D7	Cannot be left unused
15	GND	Cannot be left unused
16	VDD	Cannot be left unused
17	BSY x	Open
18	1st phase x	Open
19	2nd phase x	Open
20	3rd phase x	Open
21	4th phase x	Open
22	+PO x	Open
23	-PO x	Open
24	OTS x	Open
25	U/B x	Pull up to VDD or connect directly to VDD
26	F/H x	Pull up to VDD or connect directly to VDD
27	GND	Cannot be left unused
28	STA x	Pull up to VDD or connect directly to VDD
29	STP x	Pull up to VDD or connect directly to VDD
30	ORG x	Pull up to VDD or connect directly to VDD
31	+EL x	Pull up to VDD or connect directly to VDD
32	-EL x	Pull up to VDD or connect directly to VDD
33	+SD x	Pull up to VDD or connect directly to VDD
34	-SD x	Pull up to VDD or connect directly to VDD
35	BSY y	Open
36	1st phase y	Open
37	2nd phase y	Open
38	3rd phase y	Open
39	4th phase y	Open
40	GND	Cannot be left unused
41	VDD	Cannot be left unused
42	+PO y	Open
43	-PO y	Open
44	OTS y	Open
45	U/B y	Pull up to VDD or connect directly to VDD
46	F/H y	Pull up to VDD or connect directly to VDD
47	STA y	Pull up to VDD or connect directly to VDD
48	STP y	Pull up to VDD or connect directly to VDD
49	ORG y	Pull up to VDD or connect directly to VDD
50	+EL y	Pull up to VDD or connect directly to VDD

Terminal number	Terminal name	Handling when unused
51	-EL y	Pull up to VDD or connect directly to VDD
52	+SD y	Pull up to VDD or connect directly to VDD
53	-SD y	Pull up to VDD or connect directly to VDD
54	VDD	Cannot be left unused
55	STA z	Pull up to VDD or connect directly to VDD
56	STP z	Pull up to VDD or connect directly to VDD
57	ORG z	Pull up to VDD or connect directly to VDD
58	+EL z	Pull up to VDD or connect directly to VDD
59	-EL z	Pull up to VDD or connect directly to VDD
60	+SD z	Pull up to VDD or connect directly to VDD
61	-SD z	Pull up to VDD or connect directly to VDD
62	BSY z	Open
63	1st phase z	Open
64	2nd phase z	Open
65	3rd phase z	Open
66	GND	Cannot be left unused
67	VDD	Cannot be left unused
68	VDD	Cannot be left unused
69	4th phase z	Open
70	+PO z	Open
71	-PO z	Open
72	OTS z	Open
73	U/B z	Pull up to VDD or connect directly to VDD
74	F/H z	Pull up to VDD or connect directly to VDD
75	STA u	Pull up to VDD or connect directly to VDD
76	STP u	Pull up to VDD or connect directly to VDD
77	ORG u	Pull up to VDD or connect directly to VDD
78	+EL u	Pull up to VDD or connect directly to VDD
79	-EL u	Pull up to VDD or connect directly to VDD
80	+SD u	Pull up to VDD or connect directly to VDD
81	-SD u	Pull up to VDD or connect directly to VDD
82	BSY u	Open
83	1st phase u	Open
84	2nd phase u	Open
85	3rd phase u	Open
86	4th phase u	Open
87	+PO u	Open
88	-PO u	Open
89	OTS u	Open
90	GND	Cannot be left unused
91	VDD	Cannot be left unused
92	CLK	Cannot be left unused
93	GND	Cannot be left unused
94	RST	Cannot be left unused
95	VDD	Cannot be left unused
96	U/B u	Pull up to VDD or connect directly to VDD
97	F/H u	Pull up to VDD or connect directly to VDD
98	CS	Pull down to GND
99	RD	Cannot be left unused
100	WR	Cannot be left unused

Pull up resistor value : 5 to 10 K-ohms

Pull down resistor value : 5 to 10 K-ohms

Handling of unused terminals

Applicable devices : PCL-240AK,PCL-240AS

Terminal number	Terminal name	Handling when unused
1	OTS	Open
2	CLOCK	Cannot be left unused
3	GND	Cannot be left unused
4	RESET	Cannot be left unused
5	A1	Cannot be left unused
6	CS	Pull down to GND
7	GND	Cannot be left unused
8	RD	Cannot be left unused
9	A0	Cannot be left unused
10	WR	Cannot be left unused
11	SYNO/CLR	Open
12	D0	Cannot be left unused
13	D1	Cannot be left unused
14	D2	Cannot be left unused
15	D3	Cannot be left unused
16	D4	Cannot be left unused
17	D5	Cannot be left unused
18	D6	Cannot be left unused
19	D7	Cannot be left unused
20	GND	Cannot be left unused

Terminal number	Terminal name	Handling when unused
21	SD-	Pull up to VDD or connect directly to VDD
22	SD+	Pull up to VDD or connect directly to VDD
23	EL-	Pull up to VDD or connect directly to VDD
24	EL+	Pull up to VDD or connect directly to VDD
25	SUBCLK	Pull down to GND
26	GND	Cannot be left unused
27	POUT	Open
28	PDIR	Open
29	HOLD	Open
30	FDOWN	Open
31	FKEEP	Open
32	FUP	Open
33	LT	Open
34	ZERO	Open
35	INT	Open
36	EXTP/EC-A	Pull up to VDD or connect directly to VDD
37	INS/EC-B	Pull up to VDD or connect directly to VDD
38	ORG	Pull up to VDD or connect directly to VDD
39	SYNI/INP	Pull up to VDD or connect directly to VDD
40	VDD	Cannot be left unused

Pull up resistor value : 5 to 10 K-ohms

Pull down resistor value : 5 to 10 K-ohms

Handling of unused terminals

Applicable devices : PCL-240MK,PCL-240MS

Terminal number	Terminal name	Handling when unused	Terminal number	Terminal name	Handling when unused
1	OTS	Open	23	SD+	Pull up to VDD or connect directly to VDD
2	CLOCK	Cannot be left unused	24	EL-	Pull up to VDD or connect directly to VDD
3	RESET	Cannot be left unused	25	EL+	Pull up to VDD or connect directly to VDD
4	A1	Cannot be left unused	26	SUBCLK/ALM	Pull down to GND
5	CS	Pull down to GND	27	POUT	Open
6	GND	Cannot be left unused	28	GND	Cannot be left unused
7	GND	Cannot be left unused	29	PDIR	Open
8	RD	Cannot be left unused	30	HOLD	Open
9	A0	Cannot be left unused	31	FDOWN	Open
10	WR	Cannot be left unused	32	FKEEP	Open
11	SYNO/CLR	Open	33	FUP	Open
12	D0	Cannot be left unused	34	LT	Open
13	D1	Cannot be left unused	35	ZERO	Open
14	D2	Cannot be left unused	36	INT	Open
15	D3	Cannot be left unused	37	EXTP	Pull up to VDD or connect directly to VDD
16	D4	Cannot be left unused	38	INS	Pull up to VDD or connect directly to VDD
17	VDD	Cannot be left unused	39	VDD	Cannot be left unused
18	D5	Cannot be left unused	40	ORG	Pull up to VDD or connect directly to VDD
19	D6	Cannot be left unused	41	SYNI/INP	Pull up to VDD or connect directly to VDD
20	D7	Cannot be left unused	42	EC-A	Pull up to VDD or connect directly to VDD
21	GND	Cannot be left unused	43	EC-B	Pull up to VDD or connect directly to VDD
22	SD-	Pull up to VDD or connect directly to VDD	44	EC-Z	Pull up to VDD or connect directly to VDD

Pull up resistor value : 5 to 10 K-ohms

Pull down resistor value : 5 to 10 K-ohms

Handling of unused terminals

Applicable devices : PCL3013,PCL5014

Terminal number	Terminal name	Handling when unused
1	CS	Pull down to GND
2	RD (E)	Cannot be left unused
3	WR (R/W)	Cannot be left unused
4	US	Pull up to VDD or connect directly to VDD
5	A0 (LS)	Cannot be left unused
6	A1	Cannot be left unused
7	A2	Cannot be left unused
8	A3	Cannot be left unused
9	D0	Cannot be left unused
10	GND	Cannot be left unused
11	D1	Cannot be left unused
12	D2	Cannot be left unused
13	D3	Cannot be left unused
14	D4	Cannot be left unused
15	D5	Cannot be left unused
16	D6	Cannot be left unused
17	D7	Cannot be left unused
18	D8 (BP0)	Pull up to VDD
19	D9 (BP1)	Pull up to VDD
20	D10 (BP2)	Pull up to VDD
21	D11 (BP3)	Pull up to VDD
22	D12 (BP4)	Pull up to VDD
23	D13 (BP5)	Pull up to VDD
24	D14 (BP6)	Pull up to VDD
25	D15 (BP7)	Pull up to VDD
26	Vdd	Cannot be left unused
27	AP0	Pull up to VDD
28	AP1	Pull up to VDD
29	AP2	Pull up to VDD
30	GND	Cannot be left unused
31	CLR	Pull up to VDD or connect directly to VDD
32	EA	Pull up to VDD or connect directly to VDD

Terminal number	Terminal name	Handling when unused
33	EB	Pull up to VDD or connect directly to VDD
34	EZ	Pull up to VDD or connect directly to VDD
35	PA	Pull up to VDD or connect directly to VDD
36	PB	Pull up to VDD or connect directly to VDD
37	ERA	Pull up to VDD or connect directly to VDD
38	ERB	Pull up to VDD or connect directly to VDD
39	ALM	Pull up to VDD or connect directly to VDD
40	INP	Pull up to VDD or connect directly to VDD
41	ERC	Open
42	GND	Cannot be left unused
43	OUT	Open
44	DIR	Open
45	+EL	Pull up to VDD or connect directly to VDD
46	-EL	Pull up to VDD or connect directly to VDD
47	+SD	Pull up to VDD or connect directly to VDD
48	-SD	Pull up to VDD or connect directly to VDD
49	ORG	Pull up to VDD or connect directly to VDD
50	STA	Pull up to VDD
51	STP	Pull up to VDD
52	CMP	Open
53	BSY	Open
54	FUP	Open
55	FDW	Open
56	I/M	Cannot be left unused
57	B/W	Cannot be left unused
58	Vdd	Cannot be left unused
59	Vdd	Cannot be left unused
60	CLK	Cannot be left unused
61	GND	Cannot be left unused
62	RST	Cannot be left unused
63	INT	Open
64	WRQ	Open

Pull up resistor value : 5 to 10 K-ohms

Pull down resistor value : 5 to 10 K-ohms

Handling of unused terminals

Applicable devices : PCL5022

Terminal number	Terminal name	Handling when unused
1	RST	Cannot be left unused
2	INT	Open
3	WRQ	Open
4	CS	Pull down to GND
5	RD (E)	Cannot be left unused
6	WR (R/W)	Cannot be left unused
7	US	Pull up to +5V or connect directly to +5V
8	A0 (LS)	Cannot be left unused
9	A1	Cannot be left unused
10	A2	Cannot be left unused
11	(NC)	Always open
12	D0	Cannot be left unused
13	D1	Cannot be left unused
14	D2	Cannot be left unused
15	GND	Cannot be left unused
16	D3	Cannot be left unused
17	D4	Cannot be left unused
18	D5	Cannot be left unused
19	D6	Cannot be left unused
20	D7	Cannot be left unused
21	D8	Pull up to +5V
22	D9	Pull up to +5V
23	D10	Pull up to +5V
24	D11	Pull up to +5V
25	D12	Pull up to +5V
26	D13	Pull up to +5V
27	D14	Pull up to +5V
28	D15	Pull up to +5V
29	+5V	Cannot be left unused
30	ELL a	Cannot be left unused
31	ELL b	Cannot be left unused
32	AP0 a	Pull up to +5V
33	AP1 a	Pull up to +5V
34	AP2 a	Pull up to +5V
35	AP3 a	Pull up to +5V
36	AP0 b	Pull up to +5V
37	AP1 b	Pull up to +5V
38	AP2 b	Pull up to +5V
39	AP3 b	Pull up to +5V
40	GND	Cannot be left unused
41	+5V	Cannot be left unused
42	OUT a	Open
43	DIR a	Open
44	(NC)	Always open
45	OUT b	Open
46	DIR b	Open
47	(NC)	Always open
48	GND	Cannot be left unused
49	+EL a	Pull up to +5V or connect directly to +5V
50	-EL a	Pull up to +5V or connect directly to +5V

Terminal number	Terminal name	Handling when unused
51	+SD a	Pull up to +5V or connect directly to +5V
52	-SD a	Pull up to +5V or connect directly to +5V
53	ORG a	Pull up to +5V or connect directly to +5V
54	+EL b	Pull up to +5V or connect directly to +5V
55	-EL b	Pull up to +5V or connect directly to +5V
56	+SD b	Pull up to +5V or connect directly to +5V
57	-SD b	Pull up to +5V or connect directly to +5V
58	ORG b	Pull up to +5V or connect directly to +5V
59	ALM a	Pull up to +5V or connect directly to +5V
60	INP a	Pull up to +5V or connect directly to +5V
61	ERC a	Open
62	ALM b	Pull up to +5V or connect directly to +5V
63	INP b	Pull up to +5V or connect directly to +5V
64	ERC b	Open
65	CLR a	Pull up to +5V or connect directly to +5V
66	GND	Cannot be left unused
67	CLR b	Pull up to +5V or connect directly to +5V
68	EA a	Pull up to +5V or connect directly to +5V
69	EB a	Pull up to +5V or connect directly to +5V
70	EZ a	Pull up to +5V or connect directly to +5V
71	ERA a	Pull up to +5V or connect directly to +5V
72	ERB a	Pull up to +5V or connect directly to +5V
73	EA b	Pull up to +5V or connect directly to +5V
74	EB b	Pull up to +5V or connect directly to +5V
75	EZ b	Pull up to +5V or connect directly to +5V
76	ERA b	Pull up to +5V or connect directly to +5V
77	ERB b	Pull up to +5V or connect directly to +5V
78	PA a	Pull up to +5V or connect directly to +5V
79	PB a	Pull up to +5V or connect directly to +5V
80	PA b	Pull up to +5V or connect directly to +5V
81	PB b	Pull up to +5V or connect directly to +5V
82	GND	Cannot be left unused
83	BSY a	Open
84	FUP a	Open
85	FDW a	Open
86	(NC)	Always open
87	BSY b	Open
88	FUP b	Open
89	FDW b	Open
90	GND	Cannot be left unused
91	+5V	Cannot be left unused
92	+5V	Cannot be left unused
93	(NC)	Always open
94	STA	Open
95	STP	Open
96	I/M	Cannot be left unused
97	B/W	Cannot be left unused
98	GND	Cannot be left unused
99	CLK	Cannot be left unused
100	+5V	Cannot be left unused

Pull up resistor value : 5 to 10 K-ohms

Pull down resistor value : 5 to 10 K-ohms

Handling of unused terminals

Applicable devices : PCL5023

Terminal number	Terminal name	Handling when unused
1	RST	Cannot be left unused
2	INT	Open
3	WRQ	Open
4	CS	Pull down to GND
5	RD (E)	Pull up to +5V or connect directly to +5V
6	WR (R/W)	Cannot be left unused
7	US	Pull up to +5V or connect directly to +5V
8	A0 (LS)	Cannot be left unused
9	A1	Cannot be left unused
10	A2	Cannot be left unused
11	(NC)	Always open
12	D0	Cannot be left unused
13	D1	Cannot be left unused
14	D2	Cannot be left unused
15	GND	Cannot be left unused
16	D3	Cannot be left unused
17	D4	Cannot be left unused
18	D5	Cannot be left unused
19	D6	Cannot be left unused
20	D7	Cannot be left unused
21	D8	Pull up to +5V
22	D9	Pull up to +5V
23	D10	Pull up to +5V
24	D11	Pull up to +5V
25	D12	Pull up to +5V
26	D13	Pull up to +5V
27	D14	Pull up to +5V
28	D15	Pull up to +5V
29	+5V	Cannot be left unused
30	ELL a	Cannot be left unused
31	ELL b	Cannot be left unused
32	AP0 a	Pull up to +5V
33	AP1 a	Pull up to +5V
34	AP2 a	Pull up to +5V
35	AP3 a	Pull up to +5V
36	AP0 b	Pull up to +5V
37	AP1 b	Pull up to +5V
38	AP2 b	Pull up to +5V
39	AP3 b	Pull up to +5V
40	GND	Cannot be left unused
41	+5V	Cannot be left unused
42	OUT a	Open
43	DIR a	Open
44	(NC)	Always open
45	OUT b	Open
46	DIR b	Open
47	(NC)	Always open
48	GND	Cannot be left unused
49	+EL a	Pull up to +5V or connect directly to +5V
50	-EL a	Pull up to +5V or connect directly to +5V

Terminal number	Terminal name	Handling when unused
51	+SD a	Pull up to +5V or connect directly to +5V
52	-SD a	Pull up to +5V or connect directly to +5V
53	ORG a	Pull up to +5V or connect directly to +5V
54	+EL b	Pull up to +5V or connect directly to +5V
55	-EL b	Pull up to +5V or connect directly to +5V
56	+SD b	Pull up to +5V or connect directly to +5V
57	-SD b	Pull up to +5V or connect directly to +5V
58	ORG b	Pull up to +5V or connect directly to +5V
59	ALM a	Pull up to +5V or connect directly to +5V
60	INP a	Pull up to +5V or connect directly to +5V
61	ERC a	Open
62	ALM b	Pull up to +5V or connect directly to +5V
63	INP b	Pull up to +5V or connect directly to +5V
64	ERC b	Open
65	CLR a	Pull up to +5V or connect directly to +5V
66	GND	Cannot be left unused
67	CLR b	Pull up to +5V or connect directly to +5V
68	EA a	Pull up to +5V or connect directly to +5V
69	EB a	Pull up to +5V or connect directly to +5V
70	EZ a	Pull up to +5V or connect directly to +5V
71	ERA a	Pull up to +5V or connect directly to +5V
72	ERB a	Pull up to +5V or connect directly to +5V
73	EA b	Pull up to +5V or connect directly to +5V
74	EB b	Pull up to +5V or connect directly to +5V
75	EZ b	Pull up to +5V or connect directly to +5V
76	ERA b	Pull up to +5V or connect directly to +5V
77	ERB b	Pull up to +5V or connect directly to +5V
78	PA a	Pull up to +5V or connect directly to +5V
79	PB a	Pull up to +5V or connect directly to +5V
80	PA b	Pull up to +5V or connect directly to +5V
81	PB b	Pull up to +5V or connect directly to +5V
82	GND	Cannot be left unused
83	BSY a	Open
84	FUP a	Open
85	FDW a	Open
86	(NC)	Always open
87	BSY b	Open
88	FUP b	Open
89	FDW b	Open
90	GND	Cannot be left unused
91	+5V	Cannot be left unused
92	+5V	Cannot be left unused
93	(NC)	Always open
94	STA	Open
95	STP	Open
96	I/M	Cannot be left unused
97	B/W	Cannot be left unused
98	GND	Cannot be left unused
99	CLK	Cannot be left unused
100	+5V	Cannot be left unused

Pull up resistor value : 5 to 10 K-ohms

Pull down resistor value : 5 to 10 K-ohms

Handling of unused terminals

Applicable devices : PCL6113

Terminal number	Terminal name	Handling when unused
1	IF0	Cannot be left unused
2	IF1	Cannot be left unused
3	VDD	Cannot be left unused
4	CS	Pull down to GND
5	RD	Pull up to VDD or connect directly to VDD
6	WR	Cannot be left unused
7	A0	Pull down to GND
8	A1	Cannot be left unused
9	A2	Cannot be left unused
10	GND	Cannot be left unused
11	INT	Open
12	WRQ	Open
13	IFB	Open
14	VDD	Cannot be left unused
15	D0	Cannot be left unused
16	D1	Cannot be left unused
17	D2	Cannot be left unused
18	D3	Cannot be left unused
19	GND	Cannot be left unused
20	D4	Cannot be left unused
21	D5	Cannot be left unused
22	D6	Cannot be left unused
23	D7	Cannot be left unused
24	VDD	Cannot be left unused
25	D8	Pull up to VDD
26	D9	Pull up to VDD
27	D10	Pull up to VDD
28	D11	Pull up to VDD
29	GND	Cannot be left unused
30	D12	Pull up to VDD
31	D13	Pull up to VDD
32	D14	Pull up to VDD
33	D15	Pull up to VDD
34	VDD	Cannot be left unused
35	+EL	Pull up to VDD or connect directly to VDD
36	-EL	Pull up to VDD or connect directly to VDD
37	SD	Pull up to VDD or connect directly to VDD
38	ORG	Pull up to VDD or connect directly to VDD
39	ALM	Pull up to VDD or connect directly to VDD
40	PCS	Pull up to VDD or connect directly to VDD

Terminal number	Terminal name	Handling when unused
41	INP	Pull up to VDD or connect directly to VDD
42	LTC	Pull up to VDD or connect directly to VDD
43	GND	Cannot be left unused
44	EA	Pull up to VDD or connect directly to VDD
45	EB	Pull up to VDD or connect directly to VDD
46	EZ	Pull up to VDD or connect directly to VDD
47	PA/+DR	Pull up to VDD or connect directly to VDD
48	PB/-DR	Pull up to VDD or connect directly to VDD
49	PE	Pull down to GND
50	VDD	Cannot be left unused
51	P0/FUP	Pull up to VDD
52	P1/FDW	Pull up to VDD
53	P2/MVC	Pull up to VDD
54	P3/CP1	Pull up to VDD
55	GND	Cannot be left unused
56	P4/CP2	Pull up to VDD
57	P5	Pull up to VDD
58	P6	Pull up to VDD
59	P7	Pull up to VDD
60	VDD	Cannot be left unused
61	OUT	Open
62	DIR	Open
63	ERC	Open
64	BSY	Open
65	GND	Cannot be left unused
66	GND	Cannot be left unused
67	GND	Cannot be left unused
68	VDD	Cannot be left unused
69	CLK	Cannot be left unused
70	GND	Cannot be left unused
71	GND	Cannot be left unused
72	GND	Cannot be left unused
73	VDD	Cannot be left unused
74	CSD	Pull up to VDD
75	CSTA	Pull up to VDD
76	CSTP	Pull up to VDD
77	CEMG	Pull up to VDD or connect directly to VDD
78	ELL	Cannot be left unused
79	RST	Cannot be left unused
80	GND	Cannot be left unused

Pull up resistor value : 5 to 10 K-ohms

Handling of unused terminals

Applicable devices : PCL6123

Terminal number	Terminal name	Handling when unused
1	IF0	Cannot be left unused
2	IF1	Cannot be left unused
3	VDD	Cannot be left unused
4	CS	Pull down to GND
5	RD	Pull up to VDD or connect directly to VDD
6	WR	Cannot be left unused
7	A0	Pull down to GND
8	A1	Cannot be left unused
9	A2	Cannot be left unused
10	A3	Cannot be left unused
11	GND	Cannot be left unused
12	INT	Open
13	WRQ	Open
14	IFB	Open
15	VDD	Cannot be left unused
16	D0	Cannot be left unused
17	D1	Cannot be left unused
18	D2	Cannot be left unused
19	D3	Cannot be left unused
20	GND	Cannot be left unused
21	D4	Cannot be left unused
22	D5	Cannot be left unused
23	D6	Cannot be left unused
24	D7	Cannot be left unused
25	VDD	Cannot be left unused
26	D8	Pull up to VDD
27	D9	Pull up to VDD
28	D10	Pull up to VDD
29	D11	Pull up to VDD
30	GND	Cannot be left unused
31	D12	Pull up to VDD
32	D13	Pull up to VDD
33	D14	Pull up to VDD
34	D15	Pull up to VDD
35	VDD	Cannot be left unused
36	+EL x	Pull up to VDD or connect directly to VDD
37	-EL x	Pull up to VDD or connect directly to VDD
38	SD x	Pull up to VDD or connect directly to VDD
39	ORG x	Pull up to VDD or connect directly to VDD
40	ALM x	Pull up to VDD or connect directly to VDD
41	PCS x	Pull up to VDD or connect directly to VDD
42	INP x	Pull up to VDD or connect directly to VDD
43	LTC x	Pull up to VDD or connect directly to VDD
44	GND	Cannot be left unused
45	EA x	Pull up to VDD or connect directly to VDD
46	EB x	Pull up to VDD or connect directly to VDD
47	EZ x	Pull up to VDD or connect directly to VDD
48	PA x / +DR x	Pull up to VDD or connect directly to VDD
49	PB x / -DR x	Pull up to VDD or connect directly to VDD
50	PE x	Pull down to GND
51	VDD	Cannot be left unused
52	P0 x / FUP x	Pull up to VDD
53	P1 x / FDW x	Pull up to VDD
54	P2 x / MVC x	Pull up to VDD

Terminal number	Terminal name	Handling when unused
55	P3 x / CP1 x	Pull up to VDD
56	GND	Cannot be left unused
57	P4 x / CP2 x	Pull up to VDD
58	P5 x	Pull up to VDD
59	P6 x	Pull up to VDD
60	P7 x	Pull up to VDD
61	VDD	Cannot be left unused
62	OUT x	Open
63	DIR x	Open
64	ERC x	Open
65	BSY x	Open
66	GND	Cannot be left unused
67	FUP x	Open
68	FDW x	Open
69	MVC x	Open
70	CP1 x	Open
71	CP2 x	Open
72	VDD	Cannot be left unused
73	+EL y	Pull up to VDD or connect directly to VDD
74	-EL y	Pull up to VDD or connect directly to VDD
75	SD y	Pull up to VDD or connect directly to VDD
76	ORG y	Pull up to VDD or connect directly to VDD
77	ALM y	Pull up to VDD or connect directly to VDD
78	PCS y	Pull up to VDD or connect directly to VDD
79	INP y	Pull up to VDD or connect directly to VDD
80	LTC y	Pull up to VDD or connect directly to VDD
81	GND	Cannot be left unused
82	EA y	Pull up to VDD or connect directly to VDD
83	EB y	Pull up to VDD or connect directly to VDD
84	EZ y	Pull up to VDD or connect directly to VDD
85	PA y / +DR y	Pull up to VDD or connect directly to VDD
86	PB y / -DR y	Pull up to VDD or connect directly to VDD
87	PE y	Pull down to GND
88	VDD	Cannot be left unused
89	P0 y / FUP y	Pull up to VDD
90	P1 y / FDW y	Pull up to VDD
91	P2 y / MVC y	Pull up to VDD
92	P3 y / CP1 y	Pull up to VDD
93	GND	Cannot be left unused
94	P4 y / CP2 y	Pull up to VDD
95	P5 y	Pull up to VDD
96	P6 y	Pull up to VDD
97	P7 y	Pull up to VDD
98	VDD	Cannot be left unused
99	OUT y	Open
100	DIR y	Open
101	ERC y	Open
102	BSY y	Open
103	GND	Cannot be left unused
104	FUP y	Open
105	FDW y	Open
106	MVC y	Open
107	CP1 y	Open
108	CP2 y	Open

Terminal number	Terminal name	Handling when unused
109	OPEN	Open
110	OPEN	Open
111	OPEN	Open
112	VDD	Cannot be left unused
113	CLK	Cannot be left unused
114	GND	Cannot be left unused
115	GND	Cannot be left unused
116	GND	Cannot be left unused
117	GND	Cannot be left unused
118	GND	Cannot be left unused

Terminal number	Terminal name	Handling when unused
119	GND	Cannot be left unused
120	VDD	Cannot be left unused
121	CSD	Pull up to VDD
122	CSTA	Pull up to VDD
123	CSTP	Pull up to VDD
124	CEMG	Pull up to VDD or connect directly to VDD
125	ELL x	Cannot be left unused
126	ELL y	Cannot be left unused
127	RST	Cannot be left unused
128	GND	Cannot be left unused

Pull up resistor value : 5 to 10 K-ohms

Pull down resistor value : 5 to 10 K-ohms

Handling of unused terminals

Applicable devices : PCL6143

Terminal number	Terminal name	Handling when unused	Terminal number	Terminal name	Handling when unused
1	IF0	Cannot be left unused	55	P2 x / MVC x	Pull up to VDD
2	IF1	Cannot be left unused	56	P3 x / CP1 x	Pull up to VDD
3	VDD	Cannot be left unused	57	GND	Cannot be left unused
4	CS	Pull down to GND	58	P4 x / CP2 x	Pull up to VDD
5	RD	Pull up to VDD or connect directly to VDD	59	P5 x	Pull up to VDD
6	WR	Cannot be left unused	60	P6 x	Pull up to VDD
7	A0	Pull down to GND	61	P7 x	Pull up to VDD
8	A1	Cannot be left unused	62	VDD	Cannot be left unused
9	A2	Cannot be left unused	63	OUT x	Open
10	A3	Cannot be left unused	64	DIR x	Open
11	A4	Cannot be left unused	65	ERC x	Open
12	GND	Cannot be left unused	66	BSY x	Open
13	INT	Open	67	GND	Cannot be left unused
14	WRQ	Open	68	+EL y	Pull up to VDD or connect directly to VDD
15	IFB	Open	69	-EL y	Pull up to VDD or connect directly to VDD
16	VDD	Cannot be left unused	70	SD y	Pull up to VDD or connect directly to VDD
17	D0	Cannot be left unused	71	ORG y	Pull up to VDD or connect directly to VDD
18	D1	Cannot be left unused	72	ALM y	Pull up to VDD or connect directly to VDD
19	D2	Cannot be left unused	73	PCS y	Pull up to VDD or connect directly to VDD
20	D3	Cannot be left unused	74	INP y	Pull up to VDD or connect directly to VDD
21	GND	Cannot be left unused	75	LTC y	Pull up to VDD or connect directly to VDD
22	D4	Cannot be left unused	76	VDD	Cannot be left unused
23	D5	Cannot be left unused	77	EA y	Pull up to VDD or connect directly to VDD
24	D6	Cannot be left unused	78	EB y	Pull up to VDD or connect directly to VDD
25	D7	Cannot be left unused	79	EZ y	Pull up to VDD or connect directly to VDD
26	VDD	Cannot be left unused	80	PA y / +DR y	Pull up to VDD or connect directly to VDD
27	D8	Pull up to VDD	81	PB y / -DR y	Pull up to VDD or connect directly to VDD
28	D9	Pull up to VDD	82	PE y	Pull down to GND
29	D10	Pull up to VDD	83	GND	Cannot be left unused
30	D11	Pull up to VDD	84	P0 y / FUP y	Pull up to VDD
31	GND	Cannot be left unused	85	P1 y / FDW y	Pull up to VDD
32	D12	Pull up to VDD	86	P2 y / MVC y	Pull up to VDD
33	D13	Pull up to VDD	87	P3 y / CP1 y	Pull up to VDD
34	D14	Pull up to VDD	88	VDD	Cannot be left unused
35	D15	Pull up to VDD	89	P4 y / CP2 y	Pull up to VDD
36	VDD	Cannot be left unused	90	P5 y	Pull up to VDD
37	+EL x	Pull up to VDD or connect directly to VDD	91	P6 y	Pull up to VDD
38	-EL x	Pull up to VDD or connect directly to VDD	92	P7 y	Pull up to VDD
39	SD x	Pull up to VDD or connect directly to VDD	93	GND	Cannot be left unused
40	ORG x	Pull up to VDD or connect directly to VDD	94	OUT y	Open
41	ALM x	Pull up to VDD or connect directly to VDD	95	DIR y	Open
42	PCS x	Pull up to VDD or connect directly to VDD	96	ERC y	Open
43	INP x	Pull up to VDD or connect directly to VDD	97	BSY y	Open
44	LTC x	Pull up to VDD or connect directly to VDD	98	VDD	Cannot be left unused
45	GND	Cannot be left unused	99	+EL z	Pull up to VDD or connect directly to VDD
46	EA x	Pull up to VDD or connect directly to VDD	100	-EL z	Pull up to VDD or connect directly to VDD
47	EB x	Pull up to VDD or connect directly to VDD	101	SD z	Pull up to VDD or connect directly to VDD
48	EZ x	Pull up to VDD or connect directly to VDD	102	ORG z	Pull up to VDD or connect directly to VDD
49	PA x / +DR x	Pull up to VDD or connect directly to VDD	103	ALM z	Pull up to VDD or connect directly to VDD
50	PB x / -DR x	Pull up to VDD or connect directly to VDD	104	PCS z	Pull up to VDD or connect directly to VDD
51	PE x	Pull down to GND	105	INP z	Pull up to VDD or connect directly to VDD
52	VDD	Cannot be left unused	106	LTC z	Pull up to VDD or connect directly to VDD
53	P0 x / FUP x	Pull up to VDD	107	GND	Cannot be left unused
54	P1 x / FDW x	Pull up to VDD	108	EA z	Pull up to VDD or connect directly to VDD

Terminal number	Terminal name	Handling when unused	Terminal number	Terminal name	Handling when unused
109	EB z	Pull up to VDD or connect directly to VDD	143	PB u / -DR u	Pull up to VDD or connect directly to VDD
110	EZ z	Pull up to VDD or connect directly to VDD	144	PE u	Pull down to GND
111	PA z / +DR z	Pull up to VDD or connect directly to VDD	145	GND	Cannot be left unused
112	PB z / -DR z	Pull up to VDD or connect directly to VDD	146	P0 u / FUP u	Pull up to VDD
113	PE z	Pull down to GND	147	P1 u / FDW u	Pull up to VDD
114	VDD	Cannot be left unused	148	P2 u / MVC u	Pull up to VDD
115	P0 z / FUP z	Pull up to VDD	149	P3 u / CP1 u	Pull up to VDD
116	P1 z / FDW z	Pull up to VDD	150	VDD	Cannot be left unused
117	P2 z / MVC z	Pull up to VDD	151	P4 u / CP2 u	Pull up to VDD
118	P3 z / CP1 z	Pull up to VDD	152	P5 u	Pull up to VDD
119	GND	Cannot be left unused	153	P6 u	Pull up to VDD
120	P4 z / CP2 z	Pull up to VDD	154	P7 u	Pull up to VDD
121	P5 z	Pull up to VDD	155	GND	Cannot be left unused
122	P6 z	Pull up to VDD	156	OUT u	Open
123	P7 z	Pull up to VDD	157	DIR u	Open
124	VDD	Cannot be left unused	158	ERC u	Open
125	OUT z	Open	159	BSY u	Open
126	DIR z	Open	160	VDD	Cannot be left unused
127	ERC z	Open	161	GND	Cannot be left unused
128	BSY z	Open	162	GND	Cannot be left unused
129	GND	Cannot be left unused	163	CLK	Cannot be left unused
130	+EL u	Pull up to VDD or connect directly to VDD	164	VDD	Cannot be left unused
131	-EL u	Pull up to VDD or connect directly to VDD	165	GND	Cannot be left unused
132	SD u	Pull up to VDD or connect directly to VDD	166	GND	Cannot be left unused
133	ORG u	Pull up to VDD or connect directly to VDD	167	CSD	Pull up to VDD
134	ALM u	Pull up to VDD or connect directly to VDD	168	CSTA	Pull up to VDD
135	PCS u	Pull up to VDD or connect directly to VDD	169	CSTP	Pull up to VDD
136	INP u	Pull up to VDD or connect directly to VDD	170	CEMG	Pull up to VDD or connect directly to VDD
137	LTC u	Pull up to VDD or connect directly to VDD	171	ELL x	Cannot be left unused
138	VDD	Cannot be left unused	172	ELL y	Cannot be left unused
139	EA u	Pull up to VDD or connect directly to VDD	173	ELL z	Cannot be left unused
140	EB u	Pull up to VDD or connect directly to VDD	174	ELL u	Cannot be left unused
141	EZ u	Pull up to VDD or connect directly to VDD	175	RST	Cannot be left unused
142	PA u / +DR u	Pull up to VDD or connect directly to VDD	176	GND	Cannot be left unused

Pull up resistor value : 5 to 10 K-ohms

Pull down resistor value : 5 to 10 K-ohms

Handling of unused terminals

Applicable devices : PCL6025

Terminal number	Terminal name	Handling when unused
1	VDD5	Cannot be left unused
2	RST	Cannot be left unused
3	IF0	Cannot be left unused
4	IF1	Cannot be left unused
5	CS	Pull down to GND
6	RD	Pull up to VDD5 or connect directly to VDD5
7	WR	Cannot be left unused
8	A0	Pull down to GND
9	A1	Cannot be left unused
10	A2	Cannot be left unused
11	A3	Cannot be left unused
12	GND	Cannot be left unused
13	INT	Open
14	WRQ	Open
15	VDD3	Cannot be left unused
16	IFB	Open
17	GND	Cannot be left unused
18	D0	Cannot be left unused
19	D1	Cannot be left unused
20	D2	Cannot be left unused
21	D3	Cannot be left unused
22	D4	Cannot be left unused
23	D5	Cannot be left unused
24	D6	Cannot be left unused
25	D7	Cannot be left unused
26	VDD5	Cannot be left unused
27	D8	Pull up to VDD5
28	D9	Pull up to VDD5
29	D10	Pull up to VDD5
30	D11	Pull up to VDD5
31	D12	Pull up to VDD5
32	D13	Pull up to VDD5
33	D14	Pull up to VDD5
34	D15	Pull up to VDD5
35	GND	Cannot be left unused
36	CSTA	Pull up to VDD5
37	CSTP	Pull up to VDD5
38	CEMG	Pull up to VDD5 or connect directly to VDD5
39	VDD5	Cannot be left unused
40	+EL x	Pull up to VDD5 or connect directly to VDD5
41	-EL x	Pull up to VDD5 or connect directly to VDD5
42	SD x	Pull up to VDD5 or connect directly to VDD5
43	ORG x	Pull up to VDD5 or connect directly to VDD5
44	ALM x	Pull up to VDD5 or connect directly to VDD5
45	INP x	Pull up to VDD5 or connect directly to VDD5
46	CLR x	Pull up to VDD5 or connect directly to VDD5
47	LTC x	Pull up to VDD5 or connect directly to VDD5
48	GND	Cannot be left unused
49	STA x	Pull up to VDD5 or connect directly to VDD5
50	PCS x	Pull up to VDD5 or connect directly to VDD5
51	VDD3	Cannot be left unused
52	+DR x	Pull up to VDD5 or connect directly to VDD5
53	-DR x	Pull up to VDD5 or connect directly to VDD5
54	PE x	Pull down to GND

Terminal number	Terminal name	Handling when unused
55	GND	Cannot be left unused
56	PA x	Pull up to VDD5 or connect directly to VDD5
57	PB x	Pull up to VDD5 or connect directly to VDD5
58	EA x	Pull up to VDD5 or connect directly to VDD5
59	EB x	Pull up to VDD5 or connect directly to VDD5
60	EZ x	Pull up to VDD5 or connect directly to VDD5
61	VDD5	Cannot be left unused
62	OUT x	Open
63	DIR x	Open
64	GND	Cannot be left unused
65	FUP x	Open
66	FDW x	Open
67	MVC x	Open
68	BSY x	Open
69	ERC x	Open
70	VDD5	Cannot be left unused
71	P0 x	Pull up to VDD5
72	P1 x	Pull up to VDD5
73	P2 x	Pull up to VDD5
74	P3 x	Pull up to VDD5
75	P4 x	Pull up to VDD5
76	P5 x	Pull up to VDD5
77	P6 x	Pull up to VDD5
78	P7 x	Pull up to VDD5
79	GND	Cannot be left unused
80	+EL y	Pull up to VDD5 or connect directly to VDD5
81	-EL y	Pull up to VDD5 or connect directly to VDD5
82	SD y	Pull up to VDD5 or connect directly to VDD5
83	ORG y	Pull up to VDD5 or connect directly to VDD5
84	ALM y	Pull up to VDD5 or connect directly to VDD5
85	INP y	Pull up to VDD5 or connect directly to VDD5
86	CLR y	Pull up to VDD5 or connect directly to VDD5
87	LTC y	Pull up to VDD5 or connect directly to VDD5
88	STA y	Pull up to VDD5 or connect directly to VDD5
89	PCS y	Pull up to VDD5 or connect directly to VDD5
90	VDD3	Cannot be left unused
91	+DR y	Pull up to VDD5 or connect directly to VDD5
92	-DR y	Pull up to VDD5 or connect directly to VDD5
93	PE y	Pull down to GND
94	GND	Cannot be left unused
95	PA y	Pull up to VDD5 or connect directly to VDD5
96	PB y	Pull up to VDD5 or connect directly to VDD5
97	EA y	Pull up to VDD5 or connect directly to VDD5
98	EB y	Pull up to VDD5 or connect directly to VDD5
99	EZ y	Pull up to VDD5 or connect directly to VDD5
100	VDD5	Cannot be left unused
101	OUT y	Open
102	DIR y	Open
103	GND	Cannot be left unused
104	FUP y	Open
105	FDW y	Open
106	MVC y	Open
107	BSY y	Open
108	ERC y	Open

Terminal number	Terminal name	Handling when unused
109	VDD5	Cannot be left unused
110	P0 y	Pull up to VDD5
111	P1 y	Pull up to VDD5
112	P2 y	Pull up to VDD5
113	P3 y	Pull up to VDD5
114	P4 y	Pull up to VDD5
115	P5 y	Pull up to VDD5
116	P6 y	Pull up to VDD5
117	P7 y	Pull up to VDD5
118	GND	Cannot be left unused

Terminal number	Terminal name	Handling when unused
119	CLK	Cannot be left unused
120	VDD5	Cannot be left unused
121	GND	Cannot be left unused
122	GND	Cannot be left unused
123	GND	Cannot be left unused
124	GND	Cannot be left unused
125	GND	Cannot be left unused
126	VDD3	Cannot be left unused
127	ELL x	Cannot be left unused
128	ELL y	Cannot be left unused

Pull up resistor value : 5 to 10 K-ohms

Pull down resistor value : 5 to 10 K-ohms

Handling of unused terminals

Applicable devices : PCL6045B

Terminal number	Terminal name	Handling when unused
1	IF0	Cannot be left unused
2	IF1	Cannot be left unused
3	CS	Pull down to GND
4	RD	Pull up to VDD5 or connect directly to VDD5
5	WR	Cannot be left unused
6	A0	Pull down to GND
7	A1	Cannot be left unused
8	A2	Cannot be left unused
9	A3	Cannot be left unused
10	A4	Cannot be left unused
11	INT	Open
12	VDD3	Cannot be left unused
13	WRQ	Open
14	IFB	Open
15	D0	Cannot be left unused
16	D1	Cannot be left unused
17	GND	Cannot be left unused
18	D2	Cannot be left unused
19	D3	Cannot be left unused
20	D4	Cannot be left unused
21	D5	Cannot be left unused
22	D6	Cannot be left unused
23	D7	Cannot be left unused
24	D8	Pull up to VDD5
25	GND	Cannot be left unused
26	D9	Pull up to VDD5
27	D10	Pull up to VDD5
28	D11	Pull up to VDD5
29	D12	Pull up to VDD5
30	D13	Pull up to VDD5
31	D14	Pull up to VDD5
32	D15	Pull up to VDD5
33	VDD5	Cannot be left unused
34	+EL x	Pull up to VDD5 or connect directly to VDD5
35	-EL x	Pull up to VDD5 or connect directly to VDD5
36	SD x	Pull up to VDD5 or connect directly to VDD5
37	ORG x	Pull up to VDD5 or connect directly to VDD5
38	ALM x	Pull up to VDD5 or connect directly to VDD5
39	GND	Cannot be left unused
40	EA x	Pull up to VDD5 or connect directly to VDD5
41	EB x	Pull up to VDD5 or connect directly to VDD5
42	EZ x	Pull up to VDD5 or connect directly to VDD5
43	PA x	Pull up to VDD5 or connect directly to VDD5
44	PB x	Pull up to VDD5 or connect directly to VDD5
45	PE x	Pull down to GND
46	+DR x	Pull up to VDD5 or connect directly to VDD5
47	-DR x	Pull up to VDD5 or connect directly to VDD5
48	PCS x	Pull up to VDD5 or connect directly to VDD5
49	INP x	Pull up to VDD5 or connect directly to VDD5
50	CLR x	Pull up to VDD5 or connect directly to VDD5
51	LTC x	Pull up to VDD5 or connect directly to VDD5
52	P0 x	Pull up to VDD5
53	P1 x	Pull up to VDD5
54	P2 x	Pull up to VDD5

Terminal number	Terminal name	Handling when unused
55	P3 x	Pull up to VDD5
56	GND	Cannot be left unused
57	OUT x	Open
58	DIR x	Open
59	ERC x	Open
60	BSY x	Open
61	VDD5	Cannot be left unused
62	P4 x	Pull up to VDD5
63	P5 x	Pull up to VDD5
64	P6 x	Pull up to VDD5
65	P7 x	Pull up to VDD5
66	+EL y	Pull up to VDD5 or connect directly to VDD5
67	-EL y	Pull up to VDD5 or connect directly to VDD5
68	SD y	Pull up to VDD5 or connect directly to VDD5
69	ORG y	Pull up to VDD5 or connect directly to VDD5
70	ALM y	Pull up to VDD5 or connect directly to VDD5
71	EA y	Pull up to VDD5 or connect directly to VDD5
72	EB y	Pull up to VDD5 or connect directly to VDD5
73	EZ y	Pull up to VDD5 or connect directly to VDD5
74	PA y	Pull up to VDD5 or connect directly to VDD5
75	PB y	Pull up to VDD5 or connect directly to VDD5
76	PE y	Pull down to GND
77	GND	Cannot be left unused
78	OUT y	Open
79	DIR y	Open
80	ERC y	Open
81	BSY y	Open
82	+DR y	Pull up to VDD5 or connect directly to VDD5
83	-DR y	Pull up to VDD5 or connect directly to VDD5
84	PCS y	Pull up to VDD5 or connect directly to VDD5
85	INP y	Pull up to VDD5 or connect directly to VDD5
86	CLR y	Pull up to VDD5 or connect directly to VDD5
87	LTC y	Pull up to VDD5 or connect directly to VDD5
88	VDD3	Cannot be left unused
89	P0 y	Pull up to VDD5
90	P1 y	Pull up to VDD5
91	P2 y	Pull up to VDD5
92	P3 y	Pull up to VDD5
93	P4 y	Pull up to VDD5
94	P5 y	Pull up to VDD5
95	P6 y	Pull up to VDD5
96	P7 y	Pull up to VDD5
97	+EL z	Pull up to VDD5 or connect directly to VDD5
98	-EL z	Pull up to VDD5 or connect directly to VDD5
99	SD z	Pull up to VDD5 or connect directly to VDD5
100	VDD5	Cannot be left unused
101	ORG z	Pull up to VDD5 or connect directly to VDD5
102	ALM z	Pull up to VDD5 or connect directly to VDD5
103	EA z	Pull up to VDD5 or connect directly to VDD5
104	EB z	Pull up to VDD5 or connect directly to VDD5
105	GND	Cannot be left unused
106	EZ z	Pull up to VDD5 or connect directly to VDD5
107	PA z	Pull up to VDD5 or connect directly to VDD5
108	PB z	Pull up to VDD5 or connect directly to VDD5

Terminal number	Terminal name	Handling when unused
109	PE z	Pull down to GND
110	+DR z	Pull up to VDD5 or connect directly to VDD5
111	-DR z	Pull up to VDD5 or connect directly to VDD5
112	PCS z	Pull up to VDD5 or connect directly to VDD5
113	INP z	Pull up to VDD5 or connect directly to VDD5
114	CLR z	Pull up to VDD5 or connect directly to VDD5
115	LTC z	Pull up to VDD5 or connect directly to VDD5
116	P0 z	Pull up to VDD5
117	P1 z	Pull up to VDD5
118	P2 z	Pull up to VDD5
119	P3 z	Pull up to VDD5
120	P4 z	Pull up to VDD5
121	VDD5	Cannot be left unused
122	OUT z	Open
123	DIR z	Open
124	ERC z	Open
125	BSY z	Open
126	P5 z	Pull up to VDD5
127	GND	Cannot be left unused
128	P6 z	Pull up to VDD5
129	P7 z	Pull up to VDD5
130	+EL u	Pull up to VDD5 or connect directly to VDD5
131	-EL u	Pull up to VDD5 or connect directly to VDD5
132	SD u	Pull up to VDD5 or connect directly to VDD5
133	ORG u	Pull up to VDD5 or connect directly to VDD5
134	ALM u	Pull up to VDD5 or connect directly to VDD5
135	EA u	Pull up to VDD5 or connect directly to VDD5
136	EB u	Pull up to VDD5 or connect directly to VDD5
137	EZ u	Pull up to VDD5 or connect directly to VDD5
138	PA u	Pull up to VDD5 or connect directly to VDD5
139	PB u	Pull up to VDD5 or connect directly to VDD5
140	PE u	Pull down to GND
141	+DR u	Pull up to VDD5 or connect directly to VDD5
142	-DR u	Pull up to VDD5 or connect directly to VDD5

Terminal number	Terminal name	Handling when unused
143	PCS u	Pull up to VDD5 or connect directly to VDD5
144	VDD3	Cannot be left unused
145	OUT u	Open
146	DIR u	Open
147	ERC u	Open
148	BSY u	Open
149	VDD5	Cannot be left unused
150	INP u	Pull up to VDD5 or connect directly to VDD5
151	CLR u	Pull up to VDD5 or connect directly to VDD5
152	LTC u	Pull up to VDD5 or connect directly to VDD5
153	P0 u	Pull up to VDD5
154	P1 u	Pull up to VDD5
155	P2 u	Pull up to VDD5
156	P3 u	Pull up to VDD5
157	P4 u	Pull up to VDD5
158	P5 u	Pull up to VDD5
159	P6 u	Pull up to VDD5
160	P7 u	Pull up to VDD5
161	VDD5	Cannot be left unused
162	VDD5	Cannot be left unused
163	GND	Cannot be left unused
164	CLK	Cannot be left unused
165	VDD5	Cannot be left unused
166	VDD5	Cannot be left unused
167	VDD5	Cannot be left unused
168	CSTA	Pull up to VDD5
169	CSTP	Pull up to VDD5
170	CEMG	Pull up to VDD5 or connect directly to VDD5
171	ELL x	Cannot be left unused
172	ELL y	Cannot be left unused
173	ELL z	Cannot be left unused
174	ELL u	Cannot be left unused
175	RST	Cannot be left unused
176	GND	Cannot be left unused

Pull up resistor value : 5 to 10 K-ohms
Pull down resistor value : 5 to 10 K-ohms

Handling of unused terminals

Applicable devices : G8014C

Terminal number	Terminal name	Handling when unused
1	INVT	Cannot be left unused
2	PEN0	Cannot be left unused
3	VDD	Cannot be left unused
4	IOM0	Cannot be left unused
5	RDY0	Pull down to GND
6	STB0	Open
7	P00	Pull up to VDD
8	P01	Pull up to VDD
9	P02	Pull up to VDD
10	P03	Pull up to VDD
11	P04	Pull up to VDD
12	P05	Pull up to VDD
13	P06	Pull up to VDD
14	P07	Pull up to VDD
15	VSS	Cannot be left unused
16	P17	Pull up to VDD
17	P16	Pull up to VDD
18	P15	Pull up to VDD
19	P14	Pull up to VDD
20	P13	Pull up to VDD
21	P12	Pull up to VDD
22	P11	Pull up to VDD
23	P10	Pull up to VDD
24	STB1	Open
25	RDY1	Pull down to GND
26	IOM1	Cannot be left unused
27	PEN1	Cannot be left unused
28	VDD	Cannot be left unused
29	VSS	Cannot be left unused
30	VSS	Cannot be left unused
31	A4	Cannot be left unused
32	A3	Cannot be left unused
33	A2	Cannot be left unused
34	A1	Cannot be left unused
35	A0	Cannot be left unused
36	CS	Pull down to GND
37	DS	Pull down to GND
38	WR	Pull down to GND
39	IRQ	Open
40	VSS	Cannot be left unused
41	DACK	Cannot be left unused
42	DB7	Pull down to GND
43	DB6	Pull down to GND
44	DB5	Pull down to GND
45	DB4	Pull down to GND
46	DB3	Pull down to GND
47	DB2	Pull down to GND
48	DB1	Pull down to GND
49	DB0	Pull down to GND
50	SYCK	Open

Terminal number	Terminal name	Handling when unused
51	CKHF	Open
52	PEN2	Cannot be left unused
53	VDD	Cannot be left unused
54	IOM2	Cannot be left unused
55	RDY2	Pull down to GND
56	STB2	Open
57	P20	Pull up to VDD
58	P21	Pull up to VDD
59	P22	Pull up to VDD
60	P23	Pull up to VDD
61	P24	Pull up to VDD
62	P25	Pull up to VDD
63	P26	Pull up to VDD
64	P27	Pull up to VDD
65	VSS	Cannot be left unused
66	P37	Pull up to VDD
67	P36	Pull up to VDD
68	P35	Pull up to VDD
69	P34	Pull up to VDD
70	P33	Pull up to VDD
71	P32	Pull up to VDD
72	P31	Pull up to VDD
73	P30	Pull up to VDD
74	STB3	Open
75	RDY3	Pull down to GND
76	IOM3	Cannot be left unused
77	PEN3	Cannot be left unused
78	VDD	Cannot be left unused
79	CA4	Cannot be left unused
80	CA3	Cannot be left unused
81	CA2	Cannot be left unused
82	CA1	Cannot be left unused
83	CA0	Cannot be left unused
84	MODE	Cannot be left unused
85	CLKS	Cannot be left unused
86	CLK1	Pull down to GND
87	CLK2	Open
88	CLKO	Open
89	CLKI	Cannot be left unused
90	VSS	Cannot be left unused
91	SO	Cannot be left unused
92	SOEL	Open
93	SOEH	Open
94	SI	Cannot be left unused
95	RSTI	Cannot be left unused
96	RSTO	Open
97	PERR	Open
98	TERR	Open
99	TXER	Open
100	RUN	Open

Pull up resistor value : 5 to 10 K-ohms

Pull down resistor value : 5 to 10 K-ohms

Handling of unused terminals

Applicable devices : G8015

Terminal number	Terminal name	Handling when unused
1	VDD	Cannot be left unused
2	RST	Cannot be left unused
3	CA0	Cannot be left unused
4	CA1	Cannot be left unused
5	CA2	Cannot be left unused
6	CA3	Cannot be left unused
7	CA4	Cannot be left unused
8	GND	Cannot be left unused
9	AXS0	Cannot be left unused
10	AXS1	Cannot be left unused
11	AXS2	Cannot be left unused
12	CLKS	Cannot be left unused
13	H/F	Pull up to VDD or connect directly to VDD
14	B/U	Pull up to VDD or connect directly to VDD
15	P0	Pull up to VDD
16	P1	Pull up to VDD
17	P2	Pull up to VDD
18	P3	Pull up to VDD
19	P4	Pull up to VDD
20	P5	Pull up to VDD
21	P6	Pull up to VDD
22	P7	Pull up to VDD
23	VDD	Cannot be left unused
24	+EL	Pull up to VDD or connect directly to VDD
25	-EL	Pull up to VDD or connect directly to VDD
26	ORG	Pull up to VDD or connect directly to VDD
27	GND	Cannot be left unused
28	OUT	Open
29	DIR	Open
30	MS1	Open

Terminal number	Terminal name	Handling when unused
31	MS2	Open
32	MS3	Open
33	MS4	Open
34	VDD	Cannot be left unused
35	FUD	Open
36	FC	Open
37	BSY	Open
38	GND	Cannot be left unused
39	ERC	Open
40	ALM	Pull up to VDD or connect directly to VDD
41	INP	Pull up to VDD or connect directly to VDD
42	EA	Pull up to VDD or connect directly to VDD
43	EB	Pull up to VDD or connect directly to VDD
44	EZ	Pull up to VDD or connect directly to VDD
45	VDD	Cannot be left unused
46	SERR	Open
47	RUN	Open
48	GND	Cannot be left unused
49	SI	Cannot be left unused
50	SOEL	Open
51	SOEH	Open
52	SO	Cannot be left unused
53	VDD	Cannot be left unused
54	CLK	Cannot be left unused
55	GND	Cannot be left unused
56	VDD	Cannot be left unused
57	VDD	Cannot be left unused
58	STAI	Pull up to VDD or connect directly to VDD
59	STAO	Open
60	END	Open

Pull up resistor value : 5 to 10 K-ohms

Handling of unused terminals

Applicable devices : G9001

Terminal number	Terminal name	Handling when unused
1	IF0	Cannot be left unused
2	IF1	Cannot be left unused
3	CS	Pull down to GND
4	WR	Cannot be left unused
5	RD	Pull up to VDD or connect directly to VDD
6	A0	Pull down to GND
7	A1	Cannot be left unused
8	A2	Cannot be left unused
9	A3	Pull up (or down) to VDD (or GND), or connect directly to VDD (or GND)*
10	GND	Cannot be left unused
11	A4	Pull up (or down) to VDD (or GND), or connect directly to VDD (or GND)*
12	A5	Pull up (or down) to VDD (or GND), or connect directly to VDD (or GND)*
13	A6	Pull up (or down) to VDD (or GND), or connect directly to VDD (or GND)*
14	A7	Pull up (or down) to VDD (or GND), or connect directly to VDD (or GND)*
15	A8	Pull up (or down) to VDD (or GND), or connect directly to VDD (or GND)*
16	VDD	Cannot be left unused
17	D0	Cannot be left unused
18	D1	Cannot be left unused
19	D2	Cannot be left unused
20	D3	Cannot be left unused
21	GND	Cannot be left unused
22	D4	Cannot be left unused
23	D5	Cannot be left unused
24	D6	Cannot be left unused
25	D7	Cannot be left unused
26	VDD	Cannot be left unused
27	D8	Pull up to VDD
28	D9	Pull up to VDD
29	D10	Pull up to VDD

Terminal number	Terminal name	Handling when unused
30	D11	Pull up to VDD
31	GND	Cannot be left unused
32	D12	Pull up to VDD
33	D13	Pull up to VDD
34	D14	Pull up to VDD
35	D15	Pull up to VDD
36	VDD	Cannot be left unused
37	INT	Open
38	WRQ	Open
39	IFB	Open
40	MCRY	Open
41	MERR	Open
42	GND	Cannot be left unused
43	MERF	Open
44	MSYN	Open
45	SOEL	Open
46	SOEH	Open
47	SO	Cannot be left unused
48	VDD	Cannot be left unused
49	SPD0	Cannot be left unused
50	SPD1	Cannot be left unused
51	SIA	Pull up to VDD or connect directly to VDD
52	GND	Cannot be left unused
53	VDD	Cannot be left unused
54	SIB	Pull up to VDD or connect directly to VDD
55	GND	Cannot be left unused
56	CKSL	Cannot be left unused
57	GND	Cannot be left unused
58	CLK	Cannot be left unused
59	VDD	Cannot be left unused
60	GND	Cannot be left unused
61	GND	Cannot be left unused
62	GND	Cannot be left unused
63	RST	Cannot be left unused
64	VDD	Cannot be left unused

Pull up resistor value : 5 to 10 K-ohms

* As per the IF model selection

Handling of unused terminals

Applicable devices : G9002

Terminal number	Terminal name	Handling when unused
1	MRER	Open
2	MSEL	Open
3	TOUT	Open
4	TMD	Cannot be left unused
5	TUD	Cannot be left unused
6	SI	Cannot be left unused
7	SOEL	Open
8	SOEH	Open
9	SO	Cannot be left unused
10	PON	Cannot be left unused
11	VDD	Cannot be left unused
12	GND	Cannot be left unused
13	P00	Leave open for use as an output, pull it up for use as an input
14	P01	Leave open for use as an output, pull it up for use as an input
15	P02	Leave open for use as an output, pull it up for use as an input
16	P03	Leave open for use as an output, pull it up for use as an input
17	P04	Leave open for use as an output, pull it up for use as an input
18	P05	Leave open for use as an output, pull it up for use as an input
19	P06	Leave open for use as an output, pull it up for use as an input
20	P07	Leave open for use as an output, pull it up for use as an input
21	VDD	Cannot be left unused
22	GND	Cannot be left unused
23	P1N	Cannot be left unused
24	P10	Leave open for use as an output, pull it up for use as an input
25	P11	Leave open for use as an output, pull it up for use as an input
26	P12	Leave open for use as an output, pull it up for use as an input
27	P13	Leave open for use as an output, pull it up for use as an input
28	P14	Leave open for use as an output, pull it up for use as an input
29	P15	Leave open for use as an output, pull it up for use as an input
30	P16	Leave open for use as an output, pull it up for use as an input
31	P17	Leave open for use as an output, pull it up for use as an input
32	GND	Cannot be left unused
33	VDD	Cannot be left unused
34	P20	Leave open for use as an output, pull it up for use as an input
35	P21	Leave open for use as an output, pull it up for use as an input
36	P22	Leave open for use as an output, pull it up for use as an input
37	P23	Leave open for use as an output, pull it up for use as an input

Terminal number	Terminal name	Handling when unused
38	P24	Leave open for use as an output, pull it up for use as an input
39	P25	Leave open for use as an output, pull it up for use as an input
40	P26	Leave open for use as an output, pull it up for use as an input
41	P27	Leave open for use as an output, pull it up for use as an input
42	VDD	Cannot be left unused
43	GND	Cannot be left unused
44	P30	Leave open for use as an output, pull it up for use as an input
45	P31	Leave open for use as an output, pull it up for use as an input
46	P32	Leave open for use as an output, pull it up for use as an input
47	P33	Leave open for use as an output, pull it up for use as an input
48	P34	Leave open for use as an output, pull it up for use as an input
49	P35	Leave open for use as an output, pull it up for use as an input
50	P36	Leave open for use as an output, pull it up for use as an input
51	P37	Leave open for use as an output, pull it up for use as an input
52	GND	Cannot be left unused
53	VDD	Cannot be left unused
54	P2N	Cannot be left unused
55	P3N	Cannot be left unused
56	SOEI	Connect to GND
57	BRK	Connect to GND
58	RST	Cannot be left unused
59	DNSM	Cannot be left unused
60	DNSO	Open
61	GND	Cannot be left unused
62	CKSL	Cannot be left unused
63	VDD	Cannot be left unused
64	GND	Cannot be left unused
65	PMD0	Cannot be left unused
66	PMD1	Cannot be left unused
67	PMD2	Cannot be left unused
68	SPD0	Cannot be left unused
69	SPD1	Cannot be left unused
70	VDD	Cannot be left unused
71	GND	Cannot be left unused
72	CLK	Cannot be left unused
73	VDD	Cannot be left unused
74	GND	Cannot be left unused
75	DN5	Connect to GND
76	DN4	Connect to GND
77	DN3	Connect to GND
78	DN2	Connect to GND
79	DN1	Connect to GND
80	DN0	Cannot be left unused

Pull up resistor value : 5 to 10 K-ohms

Handling of unused terminals

Applicable devices : G9003

Terminal number	Terminal name	Handling when unused
1	VDD	Cannot be left unused
2	DN0	Cannot be left unused
3	DN1	Connect to GND
4	DN2	Connect to GND
5	DN3	Connect to GND
6	DN4	Connect to GND
7	DN5	Connect to GND
8	VDD	Cannot be left unused
9	VDD	Cannot be left unused
10	VDD	Cannot be left unused
11	VDD	Cannot be left unused
12	GND	Cannot be left unused
13	DNSO	Open
14	DNSM	Cannot be left unused
15	SOEI	Connect to GND
16	SOEL	Open
17	SOEH	Open
18	SO	Cannot be left unused
19	GND	Cannot be left unused
20	SI	Cannot be left unused
21	GND	Cannot be left unused
22	VDD	Cannot be left unused
23	VDD	Cannot be left unused
24	EA	Pull up to VDD or connect it directly to VDD. Can be left open.
25	EB	Pull up to VDD or connect it directly to VDD. Can be left open.
26	EZ	Pull up to VDD or connect it directly to VDD. Can be left open.
27	PA	Pull up to VDD or connect it directly to VDD. Can be left open.
28	PB	Pull up to VDD or connect it directly to VDD. Can be left open.
29	GND	Cannot be left unused
30	ERC	Open
31	OUT	Open
32	DIR	Open
33	VDD	Cannot be left unused
34	CP1	Open
35	CP2	Open
36	CP3	Open
37	PCS	Pull up to VDD or connect it directly to VDD. Can be left open.
38	LTC	Pull up to VDD or connect it directly to VDD. Can be left open.
39	CLR	Pull up to VDD or connect it directly to VDD. Can be left open.

Terminal number	Terminal name	Handling when unused
40	INP	Pull up to VDD or connect it directly to VDD. Can be left open.
41	GND	Cannot be left unused
42	EMG	Pull up to VDD or connect it directly to VDD. Can be left open.
43	+EL	Pull up to VDD or connect it directly to VDD. Can be left open.
44	-EL	Pull up to VDD or connect it directly to VDD. Can be left open.
45	SD	Pull up to VDD or connect it directly to VDD. Can be left open.
46	ORG	Pull up to VDD or connect it directly to VDD. Can be left open.
47	ALM	Pull up to VDD or connect it directly to VDD. Can be left open.
48	VDD	Cannot be left unused
49	STA	Pull up to VDD, or it can be left open.
50	STP	Pull up to VDD, or it can be left open.
51	P0	Pull up to VDD, or it can be left open.
52	GND	Cannot be left unused
53	P1	Pull up to VDD, or it can be left open.
54	P2	Pull up to VDD, or it can be left open.
55	P3	Pull up to VDD, or it can be left open.
56	P4	Pull up to VDD, or it can be left open.
57	P5	Pull up to VDD, or it can be left open.
58	P6	Pull up to VDD, or it can be left open.
59	P7	Pull up to VDD, or it can be left open.
60	VDD	Cannot be left unused
61	BSY/PH1	Open
62	FUP/PH2	Open
63	FDW/PH3	Open
64	MVC/PH4	Open
65	ELL	Cannot be left unused
66	GND	Cannot be left unused
67	MSEL	Open
68	MRER	Open
69	TOUT	Open
70	BRK	Connect to GND
71	TUD	Cannot be left unused
72	TMD	Cannot be left unused
73	VDD	Cannot be left unused
74	CLK	Cannot be left unused
75	GND	Cannot be left unused
76	CKSL	Cannot be left unused
77	SPD0	Cannot be left unused
78	SPD1	Cannot be left unused
79	GND	Cannot be left unused
80	RST	Cannot be left unused

Pull up resistor value : 5 to 10 K-ohms

Handling of unused terminals

Applicable devices : G9004

Terminal number	Terminal name	Handling when unused
1	MOD	Cannot be left unused
2	TUD	Cannot be left unused
3	TMD	Cannot be left unused
4	LCK0	Pull up to VDD or connect directly to VDD
5	LCK1	Pull up to VDD or connect directly to VDD
6	LWT0	Pull up to VDD or connect directly to VDD
7	LWT1	Pull up to VDD or connect directly to VDD
8	LIF0	Cannot be left unused
9	LIF1	Cannot be left unused
10	VDD	Cannot be left unused
11	LCS	Leave open for use as an output, pull it down for use as an input/
12	LWR	Cannot be left unused
13	LRD	Cannot be left unused
14	LA0	Leave open for use as an output, pull it down for use as an input/
15	GND	Cannot be left unused
16	LA1	Leave open for use as an output, use as an input not allowed
17	LA2	Leave open for use as an output, pull it down for use as an input/
18	LA3	Leave open for use as an output, pull it down for use as an input/
19	LA4	Leave open for use as an output, pull it down for use as an input/
20	LA5	Leave open for use as an output, pull it down for use as an input/
21	VDD	Cannot be left unused
22	LD0	Cannot be left unused
23	LD1	Cannot be left unused
24	LD2	Cannot be left unused
25	LD3	Cannot be left unused
26	GND	Cannot be left unused
27	LD4	Cannot be left unused
28	LD5	Cannot be left unused
29	LD6	Cannot be left unused
30	LD7	Cannot be left unused
31	VDD	Cannot be left unused
32	LD8	Pull up to VDD or connect directly to VDD
33	LD9	Pull up to VDD or connect directly to VDD
34	LD10	Pull up to VDD or connect directly to VDD
35	LD11	Pull up to VDD or connect directly to VDD
36	GND	Cannot be left unused
37	LD12	Pull up to VDD or connect directly to VDD

Terminal number	Terminal name	Handling when unused
38	LD13	Pull up to VDD or connect directly to VDD
39	LD14	Pull up to VDD or connect directly to VDD
40	LD15	Pull up to VDD or connect directly to VDD
41	VDD	Cannot be left unused
42	LWRQ	Leave open for use as an output, pull it up for use as an input
43	LIRQ	Leave open for use as an output, pull it up for use as an input
44	LIFB	Open
45	LRST	Open
46	GND	Cannot be left unused
47	LCLK	Open
48	MRER	Open
49	MSEL	Open
50	VDD	Cannot be left unused
51	SOEH	Open
52	SOEL	Open
53	SO	Cannot be left unused
54	TOUT	Open
55	DNSO	Open
56	GND	Cannot be left unused
57	BRK	Connect to GND
58	SPD0	Cannot be left unused
59	SPD1	Cannot be left unused
60	CKSL	Cannot be left unused
61	DNSM	Cannot be left unused
62	DN0	Cannot be left unused
63	DN1	Connect to GND
64	DN2	Connect to GND
65	DN3	Connect to GND
66	DN4	Connect to GND
67	DN5	Connect to GND
68	VDD	Cannot be left unused
69	SI	Cannot be left unused
70	SOEI	Connect to GND
71	GND	Cannot be left unused
72	CLK	Cannot be left unused
73	VDD	Cannot be left unused
74	RST	Cannot be left unused
75	GND	Cannot be left unused
76	GND	Cannot be left unused
77	VDD	Cannot be left unused
78	GND	Cannot be left unused
79	GND	Cannot be left unused
80	GND	Cannot be left unused

Pull up resistor value : 5 to 10 K-ohms

Handling of unused terminals

Applicable devices : CCL-48M

Terminal number	Terminal name	Handling when unused
1	GND	Cannot be left unused
2	RESET	Cannot be left unused
3	INT	Open
4	CS	Pull down to GND
5	A0	Cannot be left unused
6	A1	Cannot be left unused
7	WR	Cannot be left unused
8	RD	Cannot be left unused
9	CLOCK	Cannot be left unused
10	GND	Cannot be left unused
11	D0	Cannot be left unused
12	D1	Cannot be left unused
13	D2	Cannot be left unused
14	D3	Cannot be left unused
15	D4	Cannot be left unused
16	D5	Cannot be left unused
17	D6	Cannot be left unused
18	D7	Cannot be left unused
19	POSI	Pull down to GND
20	BI	Pull down to GND
21	L16	Pull down to GND
22	EN1	Pull up to VDD or connect directly to VDD
23	EN2	Pull up to VDD or connect directly to VDD
24	CLEAR1	Pull up to VDD or connect directly to VDD
25	CLEAR2	Pull up to VDD or connect directly to VDD
26	GND	Cannot be left unused
27	VDD	Cannot be left unused
28	IN1U/A	Pull up to VDD or connect directly to VDD
29	IN1D/B	Pull up to VDD or connect directly to VDD
30	IN2U/A	Pull up to VDD or connect directly to VDD
31	IN2D/B	Pull up to VDD or connect directly to VDD
32	UP1	Open

Terminal number	Terminal name	Handling when unused
33	DOWN1	Open
34	UP2	Open
35	DOWN2	Open
36	DAD0	Open
37	DAD1	Open
38	DAD2	Open
39	DAD3	Open
40	DAD4	Open
41	DAD5	Open
42	GND	Cannot be left unused
43	DAD6	Open
44	DAD7	Open
45	DAD8	Open
46	DAD9	Open
47	DAD10	Open
48	DAD11	Open
49	DAD12	Open
50	DAD13	Open
51	DAD14	Open
52	DAD15	Open
53	OUT1	Open
54	OUT2	Open
55	OUT3	Open
56	OUT4	Open
57	VDD	Cannot be left unused
58	GND	Cannot be left unused
59	ZERO1	Open
60	ZERO2	Open
61	SAT	Open
62	DSPL	Open
63	DSPC	Open
64	DSPD	Open

Pull up resistor value : 5 to 10 K-ohms

Pull down resistor value : 5 to 10 K-ohms

Handling of unused terminals

Applicable devices : CCL3221

Terminal number	Terminal name	Handling when unused
1	VDD	Cannot be left unused
2	IF0	Cannot be left unused
3	IF1	Cannot be left unused
4	CS	Pull down to GND
5	WR	Cannot be left unused
6	RD	Pull up to VDD or connect directly to VDD
7	A0	Pull down to GND
8	A1	Cannot be left unused
9	A2	Cannot be left unused
10	GND	Cannot be left unused
11	D0	Cannot be left unused
12	D1	Cannot be left unused
13	D2	Cannot be left unused
14	D3	Cannot be left unused
15	D4	Cannot be left unused
16	D5	Cannot be left unused
17	D6	Cannot be left unused
18	D7	Cannot be left unused
19	GND	Cannot be left unused
20	D8	Pull up to VDD
21	D9	Pull up to VDD
22	D10	Pull up to VDD
23	D11	Pull up to VDD
24	D12	Pull up to VDD
25	D13	Pull up to VDD
26	VDD	Cannot be left unused
27	D14	Pull up to VDD
28	D15	Pull up to VDD
29	GND	Cannot be left unused
30	INT	Open
31	WRQ	Open
32	IFB	Open

Terminal number	Terminal name	Handling when unused
33	ITM	Open
34	OUT1	Open
35	OUT2	Open
36	OUT3	Open
37	OUT4	Open
38	VDD	Cannot be left unused
39	CLR1	Pull up to VDD or connect directly to VDD
40	LTC1	Pull up to VDD or connect directly to VDD
41	DSB1	Pull up to VDD or connect directly to VDD
42	GND	Cannot be left unused
43	IN1U/A	Pull up to VDD or connect directly to VDD
44	IN1D/B	Pull up to VDD or connect directly to VDD
45	VDD	Cannot be left unused
46	P0	Pull up to VDD
47	P1	Pull up to VDD
48	P2	Pull up to VDD
49	P3	Pull up to VDD
50	GND	Cannot be left unused
51	CLTC	Pull up to VDD
52	CLR2	Pull up to VDD or connect directly to VDD
53	LTC2	Pull up to VDD or connect directly to VDD
54	DSB2	Pull up to VDD or connect directly to VDD
55	VDD	Cannot be left unused
56	IN2U/A	Pull up to VDD or connect directly to VDD
57	IN2D/B	Pull up to VDD or connect directly to VDD
58	VDD	Cannot be left unused
59	CLK	Cannot be left unused
60	GND	Cannot be left unused
61	GND	Cannot be left unused
62	RST	Cannot be left unused
63	GND	Cannot be left unused
64	GND	Cannot be left unused

Pull up resistor value : 5 to 10 K-ohms

Pull down resistor value : 5 to 10 K-ohms