



Cybernetic Micro Systems

Post Office Box 3000 • San Gregorio, California 94074 USA
Tel: 650-726-3000 • Fax: 650-726-3003 • ControlChips.com

CY527 Summary of Changes

The CY527 pins and commands maintain the same functionality as the CY525, except where noted.

PINOUTS

Although most of the CY525 pin names have been assigned to the CY527 per the pin diagram, only a subset has been implemented, as indicated in the following list.

CY527 PLCC	CY527 DIP	CY525 DIP	CY525 Function	Notes
15	13	1	I-O Request/	
21	19	2	Xtal1	CY525 @ 11 MHz = CY527 @ 8.823 MHz
20	18	3	Xtal2	
10	9	4	Reset/	inverted (CY527 reset=hi)
--	--	5	Unused	
7	6	6	Abort/	
--	--	7	Gnd	
--	--	8	Instrobe	
--	--	9	Unused	
--	--	10	Outstrobe/	
--	--	11	Clock/15	
43	39	12	DB0	
42	38	13	DB1	
41	37	14	DB2	
43	36	15	DB3	
39	35	16	DB4	
38	34	17	DB5	
37	33	18	DB6	
36	32	19	DB7	
22	20	20	Vss	

--	--	21	Motor Phase 1	
--	--	22	Motor Phase 2	
--	--	23	Motor Phase 3	
--	--	24	Motor Phase 4	
--	--	25	Unused	
35	31	26	+5v	
17	15	27	Busy/-Ready	
--	--	28	Dowhile	no program mode
8	7	29	Slew/	
9	8	30	Step Inhibit	
--	--	31	Prog/-Live/	no program mode
--	--	32	Run/ (Int Req 2)	no program mode
3	2	33	Direction	inverted
31	28	34	Program Output	labeled "control"
2	1	35	Pulse/	
--	--	36	ASCII-Binary/	binary data only
28	25	37	Motion Complete/	
--	--	38	Wait (Program)	no program mode
16	14	39	I/-O Select	
44	40	40	Vcc (+5v)	
Additional CY527 pins:				
4	3	--	Stopped	new (same as CY545)
5	4	--	CW_limit/	new (same as CY545)
6	5	--	CCW_Limit/	new (same as CY545)
14	12	--	DownRamp	new

Stopped - This signal may be used to indicate motion complete, by its high level. It may also control power selection for the stepper driver, switching between high power for stepping, and parking power while stopped.

CW_Limit, CCW Limit - If either signal is low, it indicates a limit has been reached. The CY527 will not continue stepping in that direction until the limit signal is removed. Normal stepping is allowed in the opposite direction.

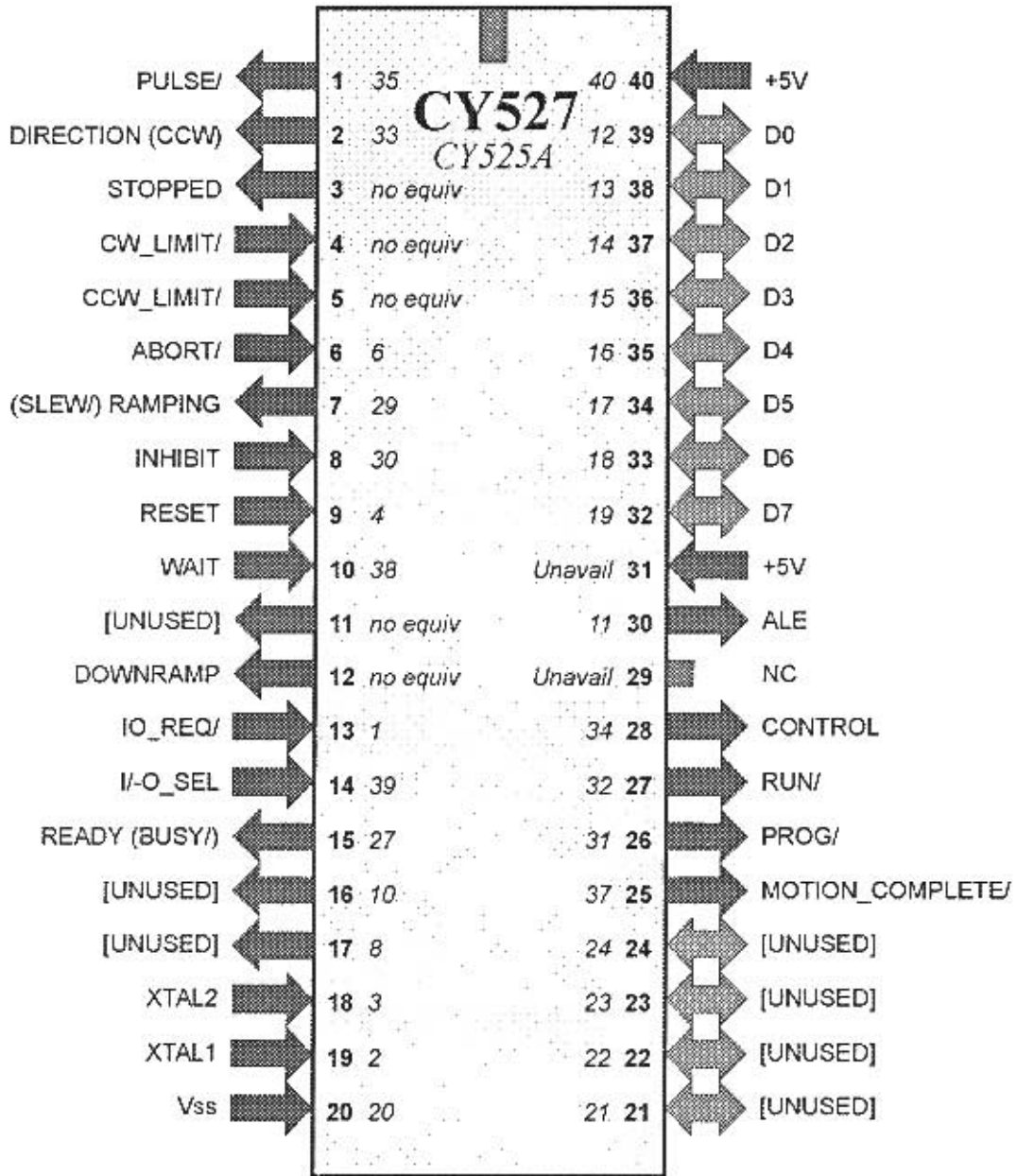
DownRamp - a high signal indicates that the CY527 is ramping down or decelerating.

COMMANDS

Because Stored Program Mode has been eliminated in the CY527, all the commands used in program mode are also eliminated. On-the-fly features (position readout and rate change) are not implemented.

CY527	CY525 Commands	
yes	A a	Absolute location specified
yes	B	Bitset programmable line high
yes	C	Clearbit programmable line low
--	D d	Delay milliseconds
--	E	Enter program code
yes	F f	Firstrate, beginning step rate
yes	G	Go, step relative
--	H	Haltmode, for continuous run
yes	I	Initialize
--	J j	Jump to address
--	L c,a	Loop to addr for count
yes	N n	Number of steps
--	O o	Offset stepper drive phase signals
yes	P p	Position for stepping
--	Q	quit entering program code
yes	R r	Rate, maximum step rate
yes	S s	Slope of accel/decel
--	T t	Til pin 28 low, branch to addr
--	U	Until pin 38 low, wait here
yes	V v	Verify internal register values
--	W	Wait for pin 38 to go high
--	X	eXecute stored program
yes	Z z	Slope divisor for slower accel
yes	+	CW direction
yes	-	CCW direction
--	0	Resume Command mode
--	n \$	Label designator for jump/loop

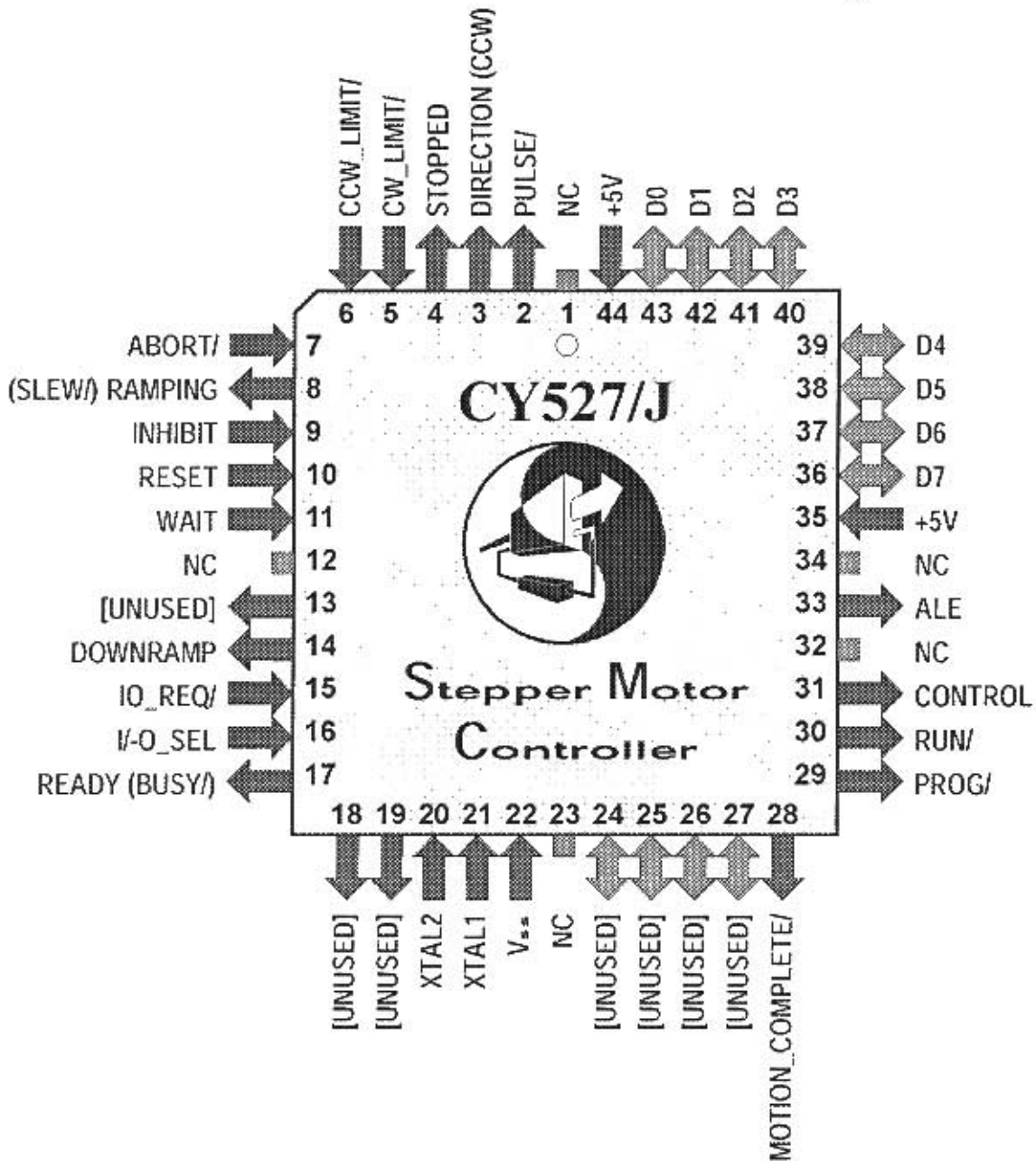
CY527 DIP Pinout Diagram



Cybernetic Micro Systems • San Gregorio CA 94074
 Tel: 650-726-3000 • Fax: 650-726-3003
www.ControlChips.com

PRELIMINARY 30 JAN 96
 Revised 22 SEP 96
 Revised 09 AUG 2000

CY527 PLCC Pinout Diagram



Cybernetic Micro Systems • San Gregorio CA 94074
 Tel: 650-726-3000 • Fax: 650-726-3003
www.ControlChips.com

PRELIMINARY 22 SEP 96
 Revised 09 AUG 2000