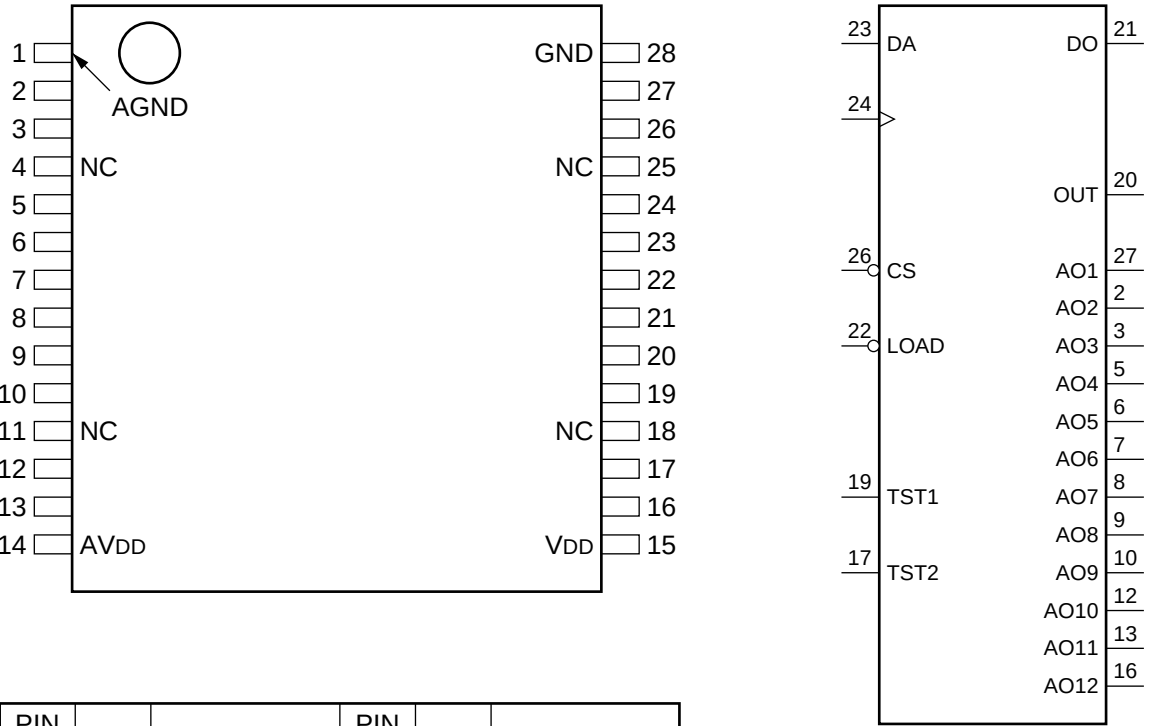


C-MOS 12 CHANNELS 8-BITS D-A CONVERTER WITH 96-BIT EEPROM

—TOP VIEW—



PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	—	A GND	15	—	V _{DD}
2	O	AO2	16	O	AO12
3	O	AO3	17	I	TST2
4	—	NC	18	—	NC
5	O	AO4	19	I	TST1
6	O	AO5	20	O	OUT
7	O	AO6	21	O	DO
8	O	AO7	22	I	LOAD
9	O	AO8	23	I	DA
10	O	AO9	24	I	CLK
11	—	NC	25	—	NC
12	O	AO10	26	I	CS
13	O	AO11	27	O	AO1
14	—	AV _{DD}	28	—	GND

INPUT

CLK ; SHIFT CLOCK
 CS ; WRITE MODE PROTECT
 DA ; SERIAL DATA
 LOAD ; LOAD INPUT OF 8-BIT SHIFT REGISTER
 TST1, TST2 ; TEST PINS

OUTPUT

AO0 - AO12 ; 8-BIT D/A OUTPUTS
 DO ; LSB BIT DATA OF 8-BIT SHIFT REGISTER
 OUT ; MONITOR PIN
 MODE (1) WRITE

1st BYTE								2nd BYTE							
D0	D1	D2	D3	D4	D5	D6	D7	D0	D1	D2	D3	D4	D5	D6	D7
1	0	0	1	A0	A1	A2	A3	10	11	12	13	14	15	16	17
MODE SELECT				ADDRESS SELECT				DA DATA SET							

MODE (2) LOAD

1st BYTE								2nd BYTE							
D0	D1	D2	D3	D4	D5	D6	D7	D0	D1	D2	D3	D4	D5	D6	D7
1	1	1	1	A0	A1	A2	A3	10	11	12	13	14	15	16	17
MODE SELECT				ADDRESS SELECT				DA DATA SET							

MODE (3) MEMORY TEST

1st BYTE								2nd BYTE							
D0	D1	D2	D3	D4	D5	D6	D7	D0	D1	D2	D3	D4	D5	D6	D7
0	0	1	1	A0	A1	A2	A3	O0	O1	O2	O3	O4	O5	O6	O7
MODE SELECT				ADDRESS SELECT				MEMORY DATA OUTPUT							

0 ; LOW LEVEL
 1 ; HIGH LEVEL

MODE SELECT

D0	D1	D2	D3	MODE SELECT
1	0	0	1	MODE1
1	1	1	1	MODE2
0	0	1	1	MODE3
OTHERS				DON'T CARE

ADDRESS SELECT

D4	D5	D6	D7	ADDRESS SELECT
A0	A1	A2	A3	
0	0	0	0	DON'T CARE
1	0	0	0	AO1
0	1	0	0	AO2
1	1	0	0	AO3
0	0	1	0	AO4
1	0	1	0	AO5
0	1	1	0	AO6
1	1	1	0	AO7
0	0	0	1	AO8
1	0	0	1	AO9
0	1	0	1	AO10
1	1	0	1	AO11
0	0	1	1	AO12
1	0	1	1	DON'T CARE
0	1	1	1	DON'T CARE
1	1	1	1	DON'T CARE

D/A OUTPUT

D0	D1	D2	D3	D4	D5	D6	D7	D/A OUTPUT
10	11	12	13	14	15	16	17	
0	0	0	0	0	0	0	0	$\approx VOLA + (VOHA - VOLA)/256 \times 1$
1	0	0	0	0	0	0	0	$\approx VOLA + (VOHA - VOLA)/256 \times 2$
0	1	0	0	0	0	0	0	$\approx VOLA + (VOHA - VOLA)/256 \times 3$
1	1	0	0	0	0	0	0	$\approx VOLA + (VOHA - VOLA)/256 \times 4$
0	0	1	0	0	0	0	0	$\approx VOLA + (VOHA - VOLA)/256 \times 5$
$\vdots$	$\vdots$	$\vdots$	$\vdots$	$\vdots$	$\vdots$	$\vdots$	$\vdots$	$\vdots$
1	0	1	1	1	1	1	1	$\approx VOLA + (VOHA - VOLA)/256 \times 256$
0	0	1	1	1	1	1	1	$\approx VOLA + (VOHA - VOLA)/256 \times 254$
1	1	1	1	1	1	1	1	$\approx VOLA + (VOHA - VOLA)/256 \times 255$
0	1	1	1	1	1	1	1	$\approx VOLH$

0 ; LOW LEVEL
1 ; HIGH LEVEL

