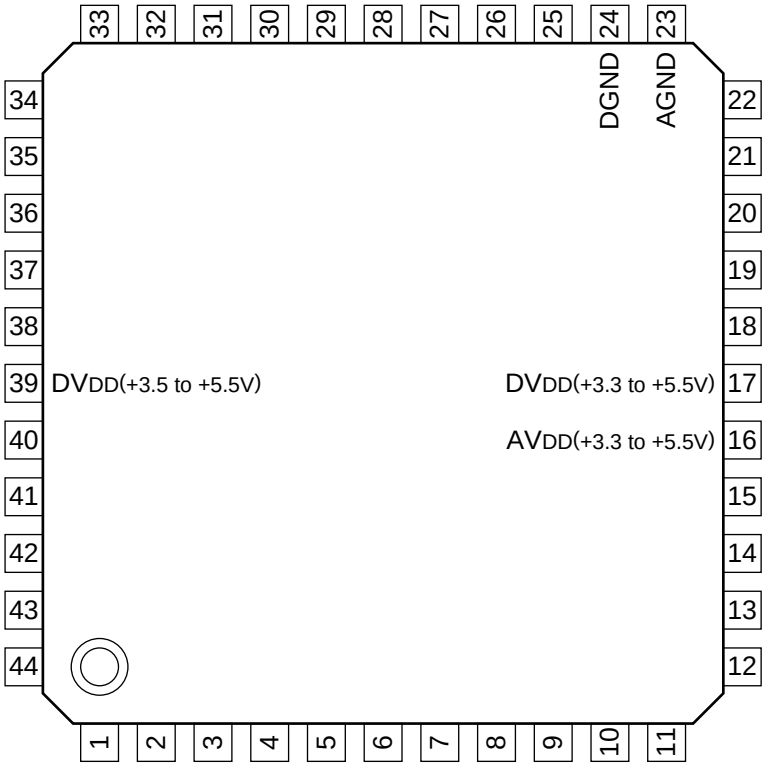
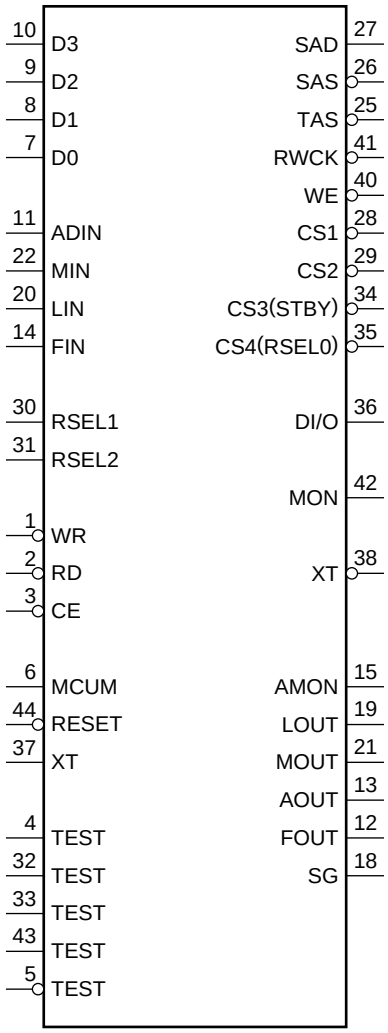
SILICON-GATE C-MOS IC (MICROCOMPUTER INTERFACE MODE)

-TOP VIEW-



(V_{DD} = +3.5 to +5.5V)

PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	I	$\overline{WR}$	12	O	FOUT	23	—	AGND	34	O	$\overline{CS3}$(STBY)
2	I	$\overline{RD}$	13	O	AOUT	24	—	DGND	35	I/O	CS4(RSEL0)
3	I	$\overline{CE}$	14	I	FIN	25	O	$\overline{TAS}$	36	I/O	DI/O
4	I	TEST	15	O	AMON	26	O	$\overline{SAS}$	37	I	XT
5	I	$\overline{TEST}$	16	—	AV_{DD}	27	O	SAD	38	O	$\overline{XT}$
6	I	MCUM	17	—	DV_{DD}	28	O	$\overline{CS1}$	39	—	DV_{DD}
7	I/O	D0	18	O	SG	29	O	$\overline{CS2}$	40	O	$\overline{WE}$
8	I/O	D1	19	O	LOUT	30	I	RSEL1	41	O	$\overline{RWCK}$
9	I/O	D2	20	I	LIN	31	I	RSEL2	42	O	MON
10	I/O	D3	21	O	MOUT	32	I	TEST	43	I	TEST
11	I	ADIN	22	I	MIN	33	I	TEST	44	I	$\overline{RESET}$



INPUT

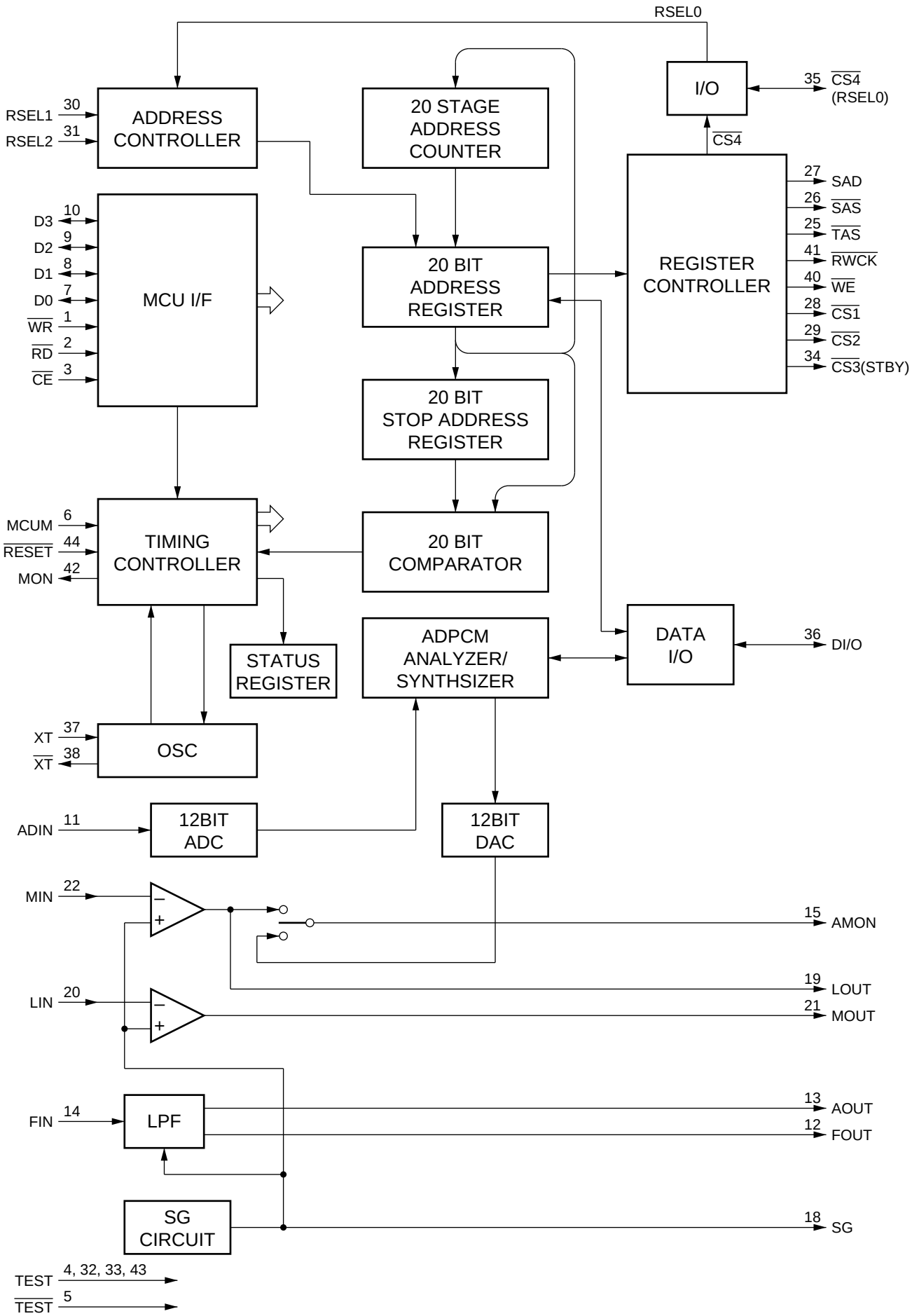
ADIN	;	INTERNAL 12-BIT A/D CONVERTER
$\overline{CE}$	;	CHIP ENABLE
FIN	;	INTERNAL LOW PASS FILTER
LIN	;	INTERNAL OP AMP INVERSION
MCUM	;	MODE SELECT
MIN	;	INTERNAL OP AMP INVERSION
$\overline{RD}$	;	READ
$\overline{RESET}$	;	RESET
RSEL1, RSEL2	;	REGISTER SELECT
TEST, $\overline{TEST}$	;	TEST
$\overline{WR}$	;	WRITE
XT	;	OSCILATOR CLOCK

OUTPUT

AMON	;	REC = LOUT PIN, PB = D/A CONVERTER OUT
AOUT	;	INTERNAL LOW PASS FILTER
$\overline{CS1}$, $\overline{CS2}$	;	CHIP SELECT
$\overline{CS3}$(STBY)	;	CHIP SELECT(STANDBY)
FOUT	;	INTERNAL LOW PASS FILTER
LOUT	;	INTERNAL OP AMP
MON	;	NC(PB = HIGH LEVEL OUTPUT, EXT COMMAND PB = SYNCHRONIZED CLOCK OUTPUT)
MOUT	;	INTERNAL OP AMP
$\overline{RWCK}$	;	READ/WRITE CLOCK
SAD	;	SERIAL ADDRESS DATA
$\overline{SAS}$	;	SERIAL ADDRESS STROBE
SG	;	ANALOG CIRCUIT REFERENCE VOLTAGE
$\overline{TAS}$	;	TRANSFER ADDRESS STROBE
$\overline{WE}$	;	WRITE ENABLE
$\overline{XT}$	;	OSCILLATOR CLOCK

INPUT/OUTPUT

$\overline{CS4}$(RSEL0)	;	CHIP SELECT(REGISTER SELECT)
D0-D3	;	DATA
DI/O	;	DATA I/O
AGND	;	ANALOG GROUND
AV_{DD}	;	ANALOG POWER SUPPLY
DGND	;	DIGITAL GROUND
DV_{DD}	;	DIGITAL POWER SUPPLY


RSEL0
ADDRESS CONTROLLER
RSEL1 30
RSEL2 31
20 STAGE ADDRESS COUNTER
I/O
35 CS4 (RSEL0)
CS4
REGISTER CONTROLLER
27 SAD
26 SAS
25 TAS
41 RWCK
40 WE
28 CS1
29 CS2
34 CS3(STBY)
MCU I/F
D3 10
D2 9
D1 8
D0 7
WR 1
RD 2
CE 3
20 BIT ADDRESS REGISTER
20 BIT STOP ADDRESS REGISTER
TIMING CONTROLLER
MCUM 6
RESET 44
MON 42
20 BIT COMPARATOR
STATUS REGISTER
ADPCM ANALYZER/ SYNTHSIZER
DATA I/O
36 DI/O
XT 37
XT 38
OSC
ADIN 11
12BIT ADC
12BIT DAC
MIN 22
15 AMON
LIN 20
19 LOUT
21 MOUT
FIN 14
LPF
13 AOUT
12 FOUT
SG CIRCUIT
18 SG
TEST 4, 32, 33, 43
TEST 5