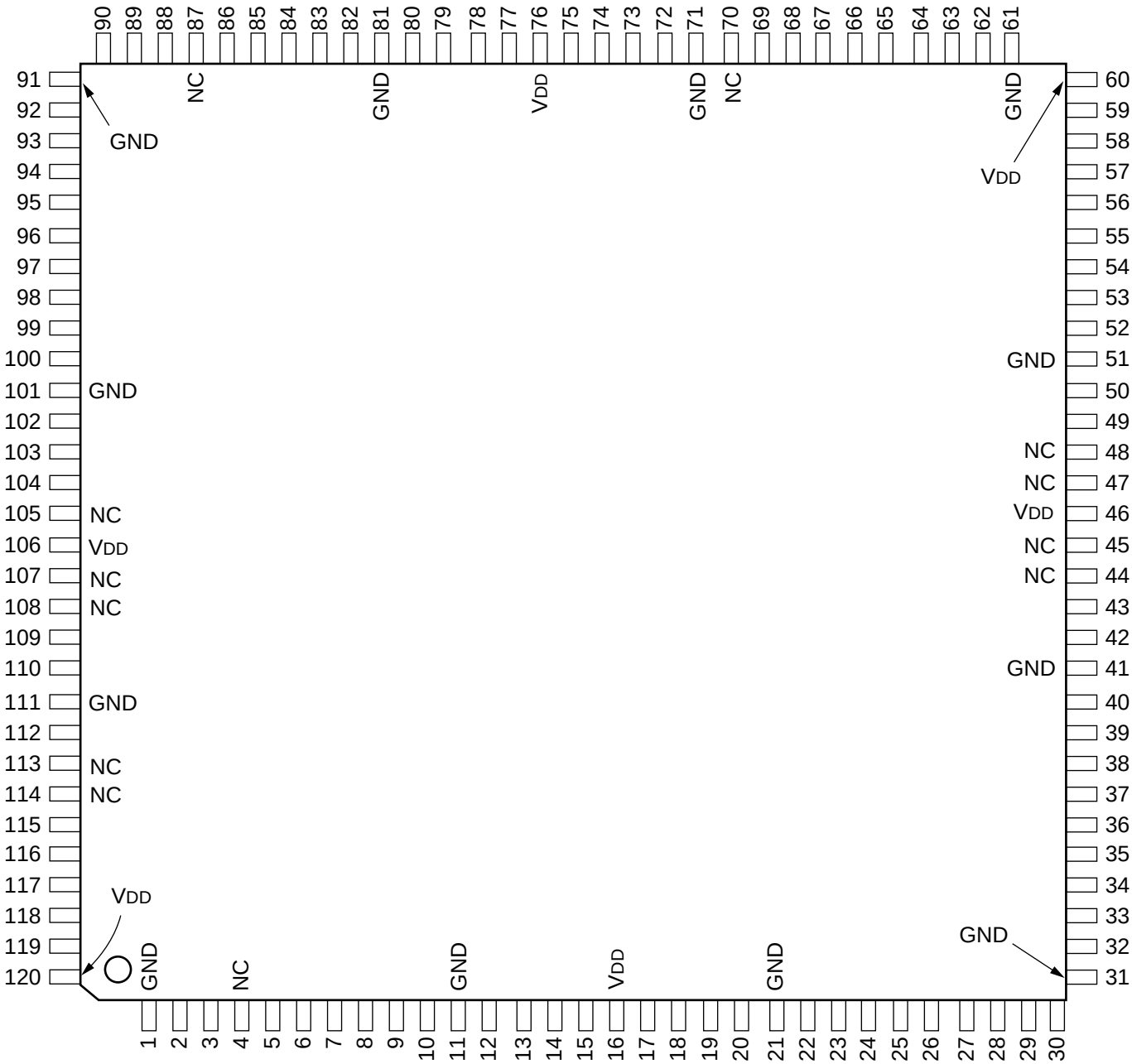
C-MOS DIGITAL AUDIO TIME BASE COMPRESSION FOR SIF TRANSMITER

—TOP VIEW—



PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	—	GND	31	—	GND	61	—	GND	91	—	GND
2	IU	$\overline{IT1}$	32	ID	C3/4	62	IU	CWA0 (LSB)	92	OT	AUX0 (LSB)
3	IU	$\overline{CLR}$	33	ID	C1/2	63	IU	CWA1	93	OT	AUX1
4	—	NC	34	ID	U3/4	64	IU	CWA2	94	OT	AUX2
5	O	OT1	35	ID	U1/2	65	IU	CWA3 (MSB)	95	OT	AUX3
6	O	OT2	36	ID	V3/4	66	IU	CWEN	96	OT	AUX4
7	O	OT3	37	ID	V1/2	67	IU	$\overline{IT3}$	97	OT	AUX5
8	O	OT4	38	ID	AD3/4	68	IU	$\overline{IT4}$	98	OT	AUX6
9	O	OT5	39	ID	AD1/2	69	IU	$\overline{IT5}$	99	OT	AUX7
10	O	OT6	40	ID	BCK	70	—	NC	100	OT	AUX8
11	—	GND	41	—	GND	71	—	GND	101	—	GND
12	O	OT7	42	ID	128CK	72	IU	DID0	102	OT	AUX9 (MSB)
13	O	OT8	43	IU	LRCK	73	IU	DID1	103	O	ADBT
14	O	OT9	44	—	NC	74	IU	LIM0	104	ID	$\overline{OEAUX}$
15	O	OT10	45	—	NC	75	IU	LIM1	105	—	NC
16	—	V_{DD}	46	—	V_{DD}	76	—	V_{DD}	106	—	V_{DD}
17	O	OT11	47	—	NC	77	IU	$\overline{CHS1}$	107	—	NC
18	O	OT12	48	—	NC	78	IU	$\overline{CHS2}$	108	—	NC
19	O	OT13	49	IU	$\overline{IT2}$	79	IU	$\overline{CHS3}$	109	IU	SYNC
20	O	OT14	50	IU	CWCK	80	IU	$\overline{CHS4}$	110	ID	VCK
21	—	GND	51	—	GND	81	—	GND	111	—	GND
22	IU	CHEX1	52	IU	CWD7 (MSB)	82	IU	DLY0 (LSB)	112	IU	D2/D1
23	IU	CHEX0	53	IU	CWD6	83	IU	DLY1	113	—	NC
24	IU	AFS	54	IU	CWD5	84	IU	DLY2	114	—	NC
25	IU	LRS	55	IU	CWD4	85	IU	DLY3	115	O	OT15
26	IU	DIR	56	IU	CWD3	86	IU	DLY4 (MSB)	116	O	OT16
27	IU	20/16	57	IU	CWD2	87	—	NC	117	O	OT17
28	IU	ZCS	58	IU	CWD1	88	O	AUXT	118	O	OT18
29	ID	Z3/4	59	IU	CWD0 (LSB)	89	O	UDT	119	O	OY19
30	ID	Z1/2	60	—	V_{DD}	90	O	ADFT	120	—	V_{DD}

U ; INPUT WITH PULL-UP REGISTER

D ; INPUT WITH PULL-DOWN REGISTER

OT ; TRI-STATE OUTPUT

INPUT (WITH PULL-DOWN REGISTER)

128CK	;	DIGITAL AUDIO 128 x Fs CLOCK
AD1/2	;	DIGITAL AUDIO CH-1/2 DATA
AD3/4	;	DIGITAL AUDIO CH-3/4 DATA
BCK	;	DIGITAL AUDIO BIT CLOCK (=64 x Fs)
C1/2	;	DIGITAL AUDIO CH-1/2 CHANNEL STATUS BIT
C3/4	;	DIGITAL AUDIO CH-3/4 CHANNEL STATUS BIT
$\overline{\text{OEAUX}}$	;	OUTPUT ENABLE FOR AUX0–9 (L)
U1/2	:	DIGITAL AUDIO CH-1/2 USER DATA BIT
U3/4	:	DIGITAL AUDIO CH-3/4 USER DATA BIT
V1/2	:	DIGITAL AUDIO CH-1/2 VALIDITY FLAG
V3/4	:	DIGITAL AUDIO CH-3/4 VALIDITY FLAG
VCK	;	VIDEO CLOCK (=4Fsc) INPUT
Z1/2	:	DIGITAL AUDIO CH-1/2 BLOCK SYNC (Z-FLAG)
Z3/4	:	DIGITAL AUDIO CH-3/4 BLOCK SYNC (Z-FLAG)

INPUT (WITH PULL-UP REGISTER)

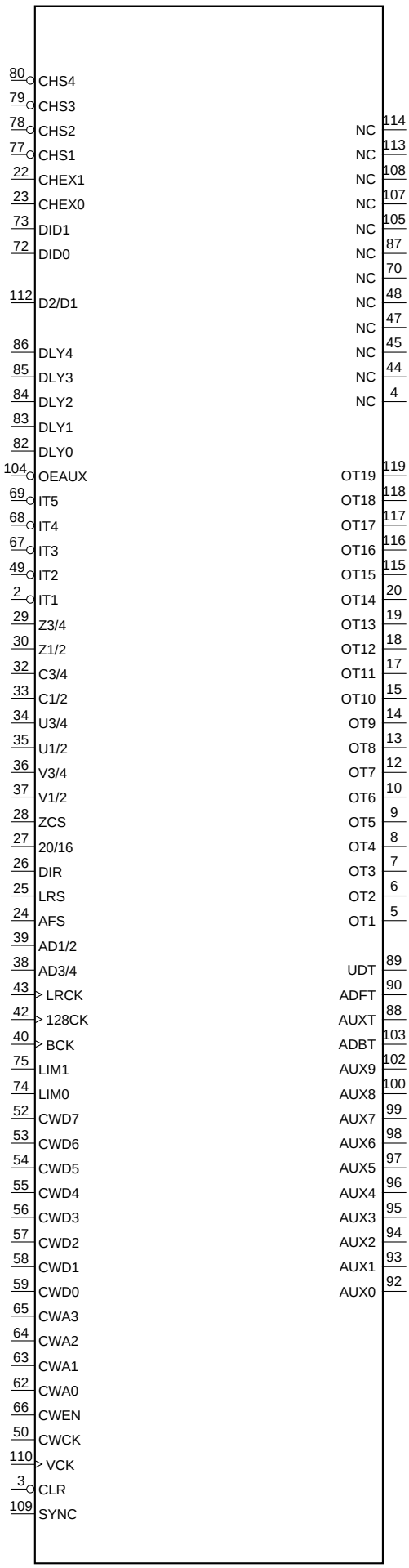
20/16	;	DIGITAL AUDIO 20BIT/16BIT SELECT
AFS	;	DIGITAL AUDIO FORMAT SELECT
CHEX0, 1	;	CHANNEL EXCHANGE 0, 1
$\overline{\text{CHS1}}$ - $\overline{\text{CHS4}}$	;	AUDIO CH1–CH4 OUTPUT SELECT (L)
$\overline{\text{CLR}}$	;	POWER ON CLEAR (L)
CWA0 - CWA3	;	CHANNEL STATUS REGISTER WRITE ADDRESS 0 - 3
CWCK	;	CHANNEL STATUS REGISTER WRITE CLOCK
CWD0 - CWD7	;	CHANNEL STATUS REGISTER WRITE DATA 0 - 7
CWEN	;	CHANNEL STATUS REGISTER WRITE ENABLE
D2/D1	;	VIDEO FORMAT D2/D1 SELECT
DID0, 1	;	DATA ID BIT0, 1
DIR	;	DIGITAL AUDIO MSB FIRST/LSB FIRST SELECT
DLY0 - DLY4	;	DELAY CONTROL BIT0 - BIT3
$\overline{\text{IT1}}$ - $\overline{\text{IT5}}$	;	TEST (L)
LIM0, 1	;	LINE MODE 0, 1
LRCK	;	DIGITAL AUDIO L/R CLOCK (=Fs)
LRS	;	DIGITAL AUDIO LEFT/RIGHT BIT POSITION SELECT
SYNC	;	VIDEO SYNC INPUT
ZCS	;	DIGITAL AUDIO Z-FLAG C-BIT SELECT

OUTPUT

ADBT	;	AUX. DATA BLOCK TIMING
ADFT	;	AUX. DATA FLAG TIMING
AUXT	;	AUX. DATA TIMING
OT1 = OT19	;	TEST
UDT	;	USER DATA TIMING

OUTPUT (TRI-STATE)

AUX0 - AUX9	;	AUX. DATA 0 - 9


80 CHS4
79 CHS3
78 CHS2
77 CHS1
22 CHEX1
23 CHEX0
73 DID1
72 DID0
112 D2/D1
86 DLY4
85 DLY3
84 DLY2
83 DLY1
82 DLY0
104 OEAUX
69 IT5
68 IT4
67 IT3
49 IT2
2 IT1
29 Z3/4
30 Z1/2
32 C3/4
33 C1/2
34 U3/4
35 U1/2
36 V3/4
37 V1/2
28 ZCS
27 20/16
26 DIR
25 LRS
24 AFS
39 AD1/2
38 AD3/4
43 LRCK
42 128CK
40 BCK
75 LIM1
74 LIM0
52 CWD7
53 CWD6
54 CWD5
55 CWD4
56 CWD3
57 CWD2
58 CWD1
59 CWD0
65 CWA3
64 CWA2
63 CWA1
62 CWA0
66 CWEN
50 CWCK
110 VCK
3 CLR
109 SYNC
NC 114
NC 113
NC 108
NC 107
NC 105
NC 87
NC 70
NC 48
NC 47
NC 45
NC 44
NC 4
OT19 119
OT18 118
OT17 117
OT16 116
OT15 115
OT14 20
OT13 19
OT12 18
OT11 17
OT10 15
OT9 14
OT8 13
OT7 12
OT6 10
OT5 9
OT4 8
OT3 7
OT2 6
OT1 5
UDT 89
ADFT 90
AUXT 88
ADBT 103
AUX9 102
AUX8 100
AUX7 99
AUX6 98
AUX5 97
AUX4 96
AUX3 95
AUX2 94
AUX1 93
AUX0 92