IC107
HSL0255AP
P.I.O

IC102
AY-3-8912
SOUND
GENERATOR

IC101
74LS145
DECODER
(D.C)

IC109
74LS153
MUX

IC104
74LS153

IC113
74LS153

IC105
74LS153

IC108
HD68459P
V.D.U
CONTROLLER

IC111
Z80A
C.P.U

IC103
32K BYTE
200n SEC
ROM
TMM 232561 1950

IC106
74LS273
PRINTER
PORT
LATCH

IC110
74LS132

IC112
74LS32

IC115
74LS244
DATA
BUFFER

IC114
74LS373
DATA
LATCH /
BUFFER

IC116
GATE
ARRAY
20RA043

IC124
IC123
IC122
IC121
IC117
IC119
IC120

8 OFF UPD4164-2
64K x 1BIT RAM
ALL PINS EXCEPT
DATA FULLY PARALLEL

IC125
ZN 7400E

Q101
2SC2120

Q102
2SC1815

Q103
ZTX312L

R101 22K
R102 2.2K
R103 2.2K
R104 2.2K
R105 2.2K
R106 2.2K
R107 2.2K
R108 2.2K
R109 2.2K
R110 2.2K
R113 1K
R114 10K
R115 10K
R116 10K
R117 10K
R118 22K
R119 22K
R120 10K
R121 1K
R122 1K
R123 1K
R124 2.2K
R125 680
R126 220
R127 680
R128 220
R129 680
R130 220
R131 3.3K
R132 1K
R133 10K
R134 100
R135 680
R136 220
R137 220
R140 100
R141 68
R142 10K
R143 390
R144 390
R145 1K
R146 120
R147 120
R148 120
R149 120
R150 120
R151 120
R152 120
R153 120

C101 10V47
C102 10V47
C104 0.1
C105–C128 0.1 X 24
C129 100P
C130 68P
C140 22P NPO
X101 16.0MHZ

D1 1N2472

SOUND CLOCK (1MHz)

CPU

CASADDR

PADDLE PORT
9 PIN 'D' CONNECTOR
J102

CON 2
SPARE
FIRE 1
FIRE 2
RIGHT
LEFT
DOWN
UP
COMMON

KEYBOARD CONNECTOR
(20 WAY 2.5MM IN LINE)
CP002

Y10 Y9 Y8 Y7 Y6 Y5 Y4 Y3 Y2 Y1

TAPE PORT
(8 WAY IN LINE 2.5MM)
CP001

MOTOR
SOUND
RD DATA
WR DATA
GND
+5V

STROBE
D6 D5 D4 D3 D2 D1 D0 D7
BUSY
GND

PRINTER PORT
36 WAY 0.1"ED CONN

IC111
Z80 DATA BUS

EXPANSION BUS

L PEN
CURSOR

VIDEO OUTPUT CONNECTOR
J101 (6PIN DIN)

RED
GREEN
BLUE
LUM
SYNC
GND

STERED SOUND CONNECTOR
J103 (STERED JACK)

SOUND
SOUND OUT
RESET
BUS RESET

VSYNC
HSYNC
VSYNC DISPEN
CURSOR
IORD
IOWR

CPU ADDR
CAS ADDR
MAD/CCLK

RAS CAS WE
MWE
CAS
RAS
244EN

RAMRD
RAMRD (BUS)
RAM DIS (BUS)
ROMEN
ROM DIS
READY (O.C.60OHM PULL UP)
RESET (PASSIVE PULL UP)
7K PULL UPS
INTERRUPT (O.C.5K PULL UP)

LINK4 LINK3 LINK2 LINK1
DS*LINKS

EXP (EXPANSION)

POWER CONNECTOR
CP001

DECOUPLING

CLOSE DECOUPLING

EXPANSION CONNECTOR 50WAY 0.1"EDGE CONN

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
SOUND	A15	A13	A11	A9	A7	A5	A3	A1	D7	D5	D3	D1	+5	M1	IORQ	WR	INT	BUSRQ	READY	RESET	ROMDIS	RAMDIS	L PEN	GND
GND	A14	A12	A10	A8	A6	A4	A2	A0	D6	D4	D2	D0	MREQ	RFSH	RD	HALT	NMI	BUSAK	BUS RESET	ROMEN	RAMRD	CURSOR	EXP	5V