PULL-UP
RESISTORS

+5V

R16 10k
R15 10k
R14 10k
R13 10k
R12 10k
R11 10k
R10 10k
R9 10k

+5V

PULL-UP
RESISTORS

R8 10k
R7 10k
R6 10k
R5 10k
R4 10k
R3 10k
R2 10k
R1 10k

SW2
SW_DIP_x08

+5V
U4
74LS151

VCC
I0
I1
I2
I3
I4
I5
I6
I7
Z
Z

A16 S0
A17 S1
A18 S2
E
GND

GND

HIGH BANK ENABLE/DISABLE

SW1
SW_DIP_x08

+5V
U3
74LS151

VCC
I0
I1
I2
I3
I4
I5
I6
I7
Z
Z

A16 S0
A17 S1
A18 S2
E
GND

GND

LOW BANK ENABLE/DISABLE

LOW BANK

+5V
U5
74LS157

VCC
I0a
I1a
I0b
I1b
I0c
I1c
I0d
I1d
Za
Zb
Zc
Zd

CHIP_EN

HIGH BANK

A19 S
E
GND

GND

DECODING

+5V

BULK   DECOUPLING

C8 47uF   C7 10uF   C6 47uF   C1 100nF   C2 100nF   C3 100nF   C4 100nF   C5 100nF

GND

PWR_FLAG   +5V

GND   PWR_FLAG

SRAM
+5V
U1
AS6C4008-55PCN

A0   A0   DQ0   DQ0
A1   A1   DQ1   DQ1
A2   A2   DQ2   DQ2
A3   A3   DQ3   DQ3
A4   A4   DQ4   DQ4
A5   A5   DQ5   DQ5
A6   A6   DQ6   DQ6
A7   A7   DQ7   DQ7
A8   A8
A9   A9
A10 A10
A11 A11   CE#   CHIP_EN
A12 A12   OE#   SMEMR
A13 A13   WE#   SMEMW
A14 A14
A15 A15
A16 A16
A17 A17
A18 A18   VSS

GND

A0 - A15 : Offset within Bank (64K)
A16 - A18 : Bank Number (0 to 7)
A19   : Bank is mapped high or low

+5V
Bus_ISA_8bit

GND   IO
RESET   DB7   DB7
VCC   DB6   DB6
IRQ2   DB5   DB5
-5V   DB4   DB4
DRQ2   DB3   DB3
-12V   DB2   DB2
UNUSED   DB1   DB1
+12V   DB0   DB0
GND   IO_READY
SMEMW SMEMW   AEN
SMEMR SMEMR   BA19   A19
IOW   BA18   A18
IOR   BA17   A17
DACK3   BA16   A16
DRQ3   BA15   A15
DACK1   BA14   A14
DRQ1   BA13   A13
DACK0   BA12   A12
CLK   BA11   A11
IRQ7   BA10   A10
IRQ6   BA09   A9
IRQ5   BA08   A8
IRQ4   BA07   A7
IRQ3   BA06   A6
DACK2   BA05   A5
TC   BA04   A4
ALE   BA03   A3
VCC   BA02   A2
OSC   BA01   A1
GND   BA00   A0

CN1

GND

BUS TRANCEIVER

+5V
U2
74LS245

DQ0   A0   VCC   B0   DB0
DQ1   A1   B1   DB1
DQ2   A2   B2   DB2
DQ3   A3   B3   DB3
DQ4   A4   B4   DB4
DQ5   A5   B5   DB5
DQ6   A6   B6   DB6
DQ7   A7   B7   DB7

SMEMW   A->B
CHIP_EN CE   GND

HIGH: A->B READ
LOW: B->A WRITE

GND

Oddsocks b5s4
Sheet: /
File: XTra-RAM.kicad_sch
Title: XTra-RAM
Size: A3   Date: Rev: 1.0
KiCad E.D.A. 9.0.6   Id: 1/1