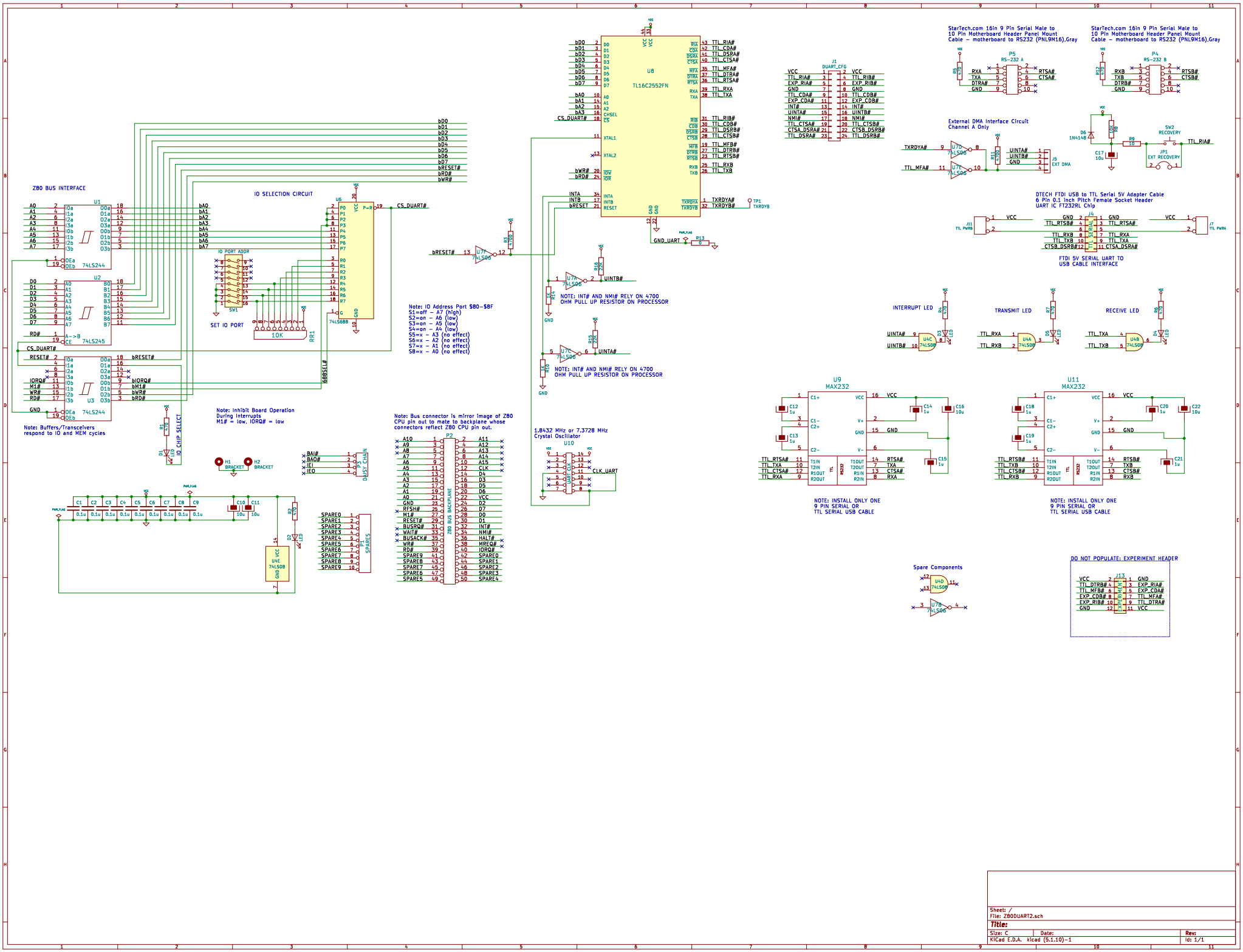
Z80 BUS INTERFACE
U1
74LS244
U2
74LS245
U3
74LS244
Note: Buffers/Transceivers respond to IO and MEM cycles
IO SELECTION CIRCUIT
U6
74LS688
IO PORT ADDR
SW1
SET IO PORT
10K
RX1
CS_UART#
Note: IO Address Port $B0-$BF
S1=off - A7 (high)
S2=on - A6 (low)
S3=on - A5 (low)
S4=on - A4 (low)
S5=x - A3 (no effect)
S6=x - A2 (no effect)
S7=x - A1 (no effect)
S8=x - A0 (no effect)
IO CHIP SELECT
Note: Inhibit Board Operation
During Interrupts
M1# = low, IORQ# = low
H1 BRACKET
H2 BRACKET
DAISY CHAIN
U4E
74LS08
SPARES
Note: Bus connector is mirror image of Z80
CPU pin out to mate to backplane whose
connectors reflect Z80 CPU pin out.
P2
Z80 BUS BACKPLANE
U8
TL16C2552FN
J1
DUART_CFG
1.8432 MHz or 7.3728 MHz
Crystal Oscillator
U10
CLK_UART
NOTE: INT# AND NMI# RELY ON 4700
OHM PULL UP RESISTOR ON PROCESSOR
NOTE: INT# AND NMI# RELY ON 4700
OHM PULL UP RESISTOR ON PROCESSOR
GND_UART
TP1
TXRDYB
StarTech.com 16in 9 Pin Serial Male to
10 Pin Motherboard Header Panel Mount
Cable - motherboard to RS232 (PNL9M16),Gray
P5
RS-232 A
P4
RS-232 B
External DMA Interface Circuit
Channel A Only
J5
EXT DMA
D6
1N4148
SW2
RECOVERY
JP1
EXT RECOVERY
DTECH FTDI USB to TTL Serial 5V Adapter Cable
6 Pin 0.1 inch Pitch Female Socket Header
UART IC FT232RL Chip
J11
TTL PWRB
J4
TTL SERIAL
J7
TTL PWRA
FTDI 5V SERIAL UART TO
USB CABLE INTERFACE
INTERRUPT LED
TRANSMIT LED
RECEIVE LED
U9
MAX232
U11
MAX232
NOTE: INSTALL ONLY ONE
9 PIN SERIAL OR
TTL SERIAL USB CABLE
NOTE: INSTALL ONLY ONE
9 PIN SERIAL OR
TTL SERIAL USB CABLE
Spare Components
DO NOT POPULATE: EXPERIMENT HEADER
J13
Sheet: /
File: Z80DUART2.sch
Title:
Size: C
Date:
Rev:
KiCad E.D.A. kicad (5.1.10)-1
Id: 1/1