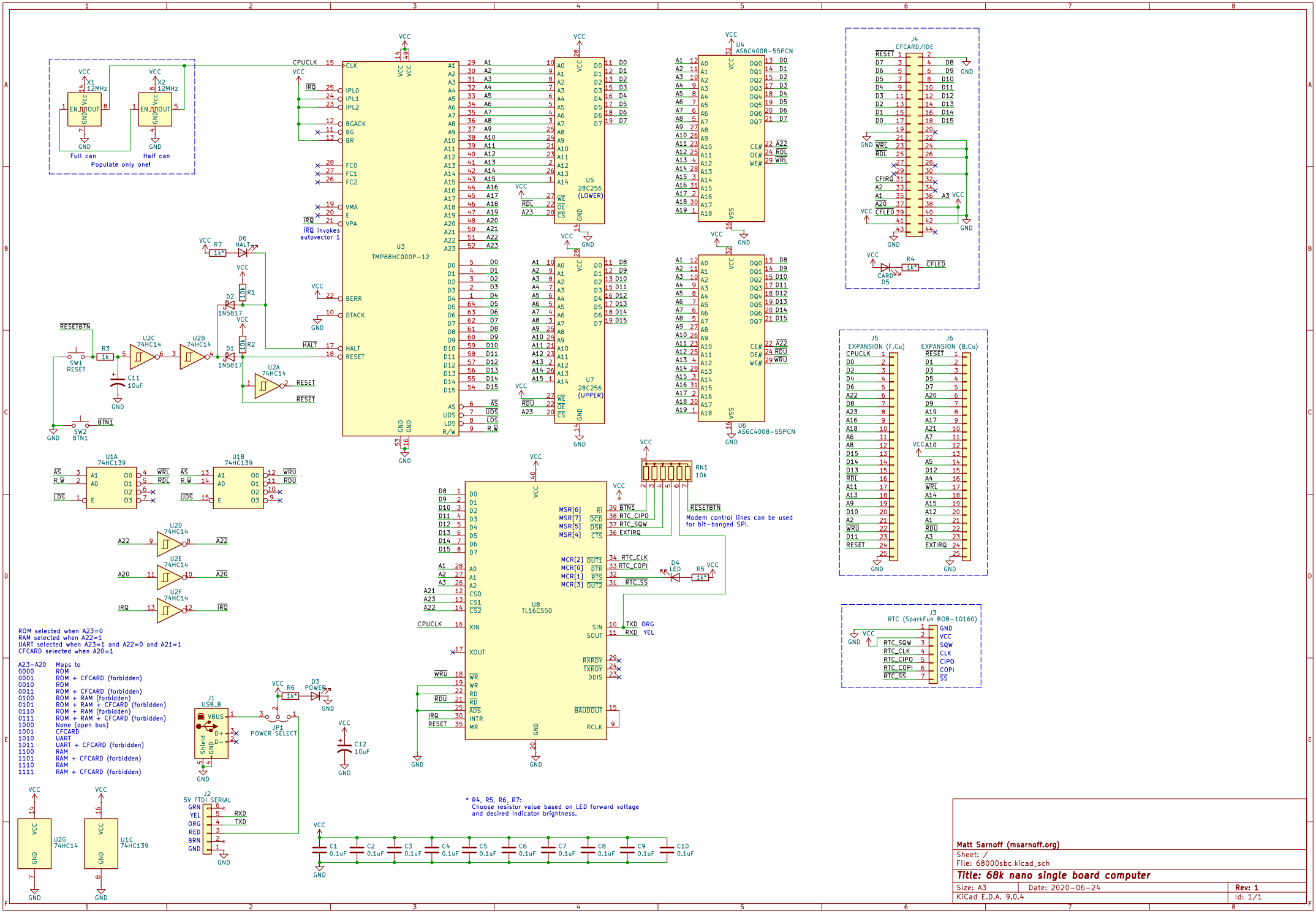
X1 12MHz
X2 12MHz
Full can
Half can
Populate only one!
U3 TMP68HC000P-12
U5 28C256 (LOWER)
U7 28C256 (UPPER)
U4 AS6C4008-55PCN
U6 AS6C4008-55PCN
IRQ invokes autovector 1
U8 TL16C550
Modem control lines can be used for bit-banged SPI.
RN1 10k
J4 CFCARD/IDE
J5 EXPANSION (F.Cu)
J6 EXPANSION (B.Cu)
J3 RTC (SparkFun BOB-10160)
J1 USB_B
JP1 POWER SELECT
J2 5V FTDI SERIAL
U1A 74HC139
U1B 74HC139
U2A 74HC14
U2B 74HC14
U2C 74HC14
U2D 74HC14
U2E 74HC14
U2F 74HC14
U2G 74HC14
U1C 74HC139
SW1 RESET
SW2 BTN1
ROM selected when A23=0
RAM selected when A22=1
UART selected when A23=1 and A22=0 and A21=1
CFCARD selected when A20=1
A23–A20 Maps to
0000 ROM
0001 ROM + CFCARD (forbidden)
0010 ROM
0011 ROM + CFCARD (forbidden)
0100 ROM + RAM (forbidden)
0101 ROM + RAM + CFCARD (forbidden)
0110 ROM + RAM (forbidden)
0111 ROM + RAM + CFCARD (forbidden)
1000 None (open bus)
1001 CFCARD
1010 UART
1011 UART + CFCARD (forbidden)
1100 RAM
1101 RAM + CFCARD (forbidden)
1110 RAM
1111 RAM + CFCARD (forbidden)
* R4, R5, R6, R7:
Choose resistor value based on LED forward voltage and desired indicator brightness.
Matt Sarnoff (msarnoff.org)
Sheet: /
File: 68000sbc.kicad_sch
Title: 68k nano single board computer
Size: A3
Date: 2020-06-24
Rev: 1
KiCad E.D.A. 9.0.4
Id: 1/1