User Button - RIT Adjust

+3.3

R   R   R

D   D   User LEDs

SW

+3.3

Reset

R

SW

+3.3

R

+3.3

R

+3.3

U2
1 VIN
2 GND
3 SDA
4 SCK
5 OUT2
6 OUT1
7 OUT0

Si5351 VFO

Amplifier???

U1

+3.3

VCC
1

2 P1.0 (LED)   (NC) XIN/P2.6   19
3 P1.1 (LED)   (NC) XOUT/P2.7 18
4 P1.2 (MOSI)   (NC) TEST   17
5 P1.3 (BUTTON)   RST   16
6 P1.4 (SCLK)   P1.7 (I2C-SDA) 15
7 P1.5 (CS)   P1.6 (I2C-SCL) 14
8 P2.0 (LCD_DC)   P2.5 (ENC-BUTTON) 13
9 P2.1 (LCD_RST)   P2.4 (ENC BIT1) 12
10 P2.2 (RIT)   P2.3 (ENC BIT0) 11

GND
20

U3
VCC 1
GND 2
SCE 3
RST 4
DC 5
MOSI 6
SCL 7
LED 8

NOKIA DISPLAY

+3.3

+3.3

R   Frequency Adjust Increment

SW

+3.3   +3.3

R   R

SW

RIT Enable Switch

Frequency Adjust
U4
1 BIT1
2 BIT0
3 GND

ENCODER

Variable Frequency Oscillator Board
Display - Nokia 511XXX display from Amazon, Digikey, etc. SPI interface
Si5351 - VFO Breakout board from Adafruit
Rotary Encoder - Frequency Tuning
LEDs - Two user LEDs, red and green
User Button - Hold and to set the RIT offset
RIT - Receive Increment Tuning - Used to listen on a different frequency than transmitting
Resistors - All led resistors 330 ohms, pullups 10k, i2c pullups 3.3k
Source Code: https://github.com/danaolcott/MSP430/msp430_vfo

Dana's Boatshop		
MSP430 VFO Board		
Dana Olcott	Rev 1.0	Page # 1
	1/18/2018	