AD9850 DDS VFO

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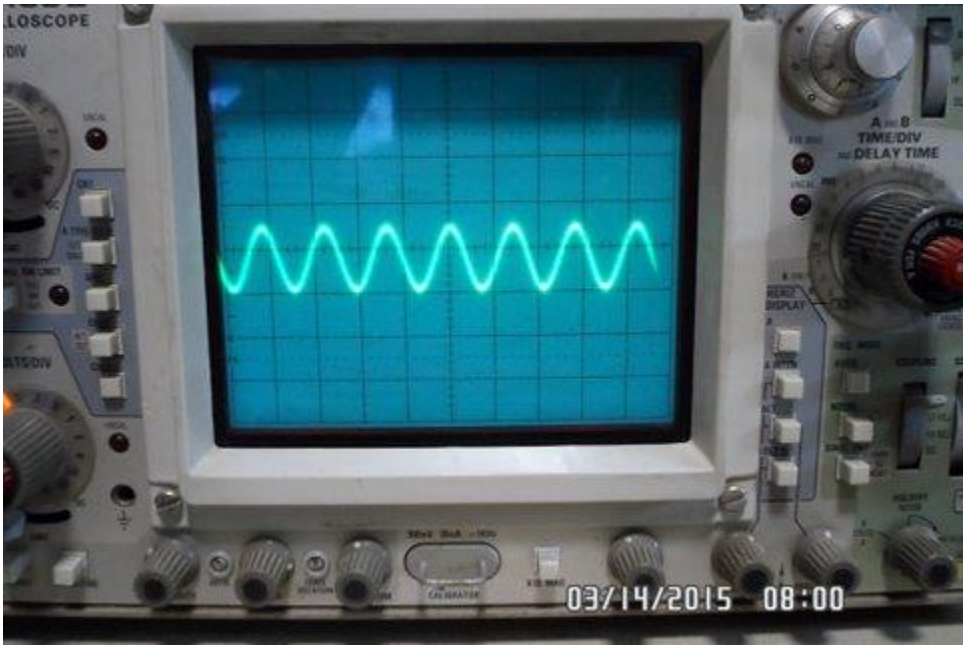
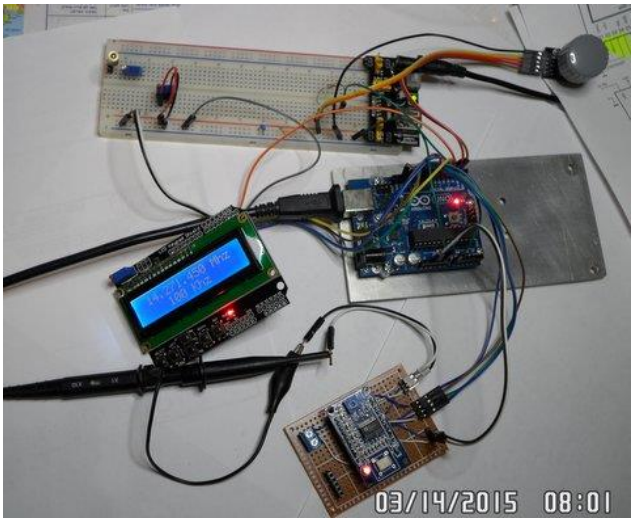
While shopping on line I came across a AD9850 DDS Signal Generator Module (http://www.banggood.com/AD9850-DDS-Signal-Generator-Module-0-40MHz-IC-Test-Equipment-p-915819.html) and, of course had to have it. After it arrived I started to look at the possible applications and came across Richard's website: http://www.ad7c.com/projects/ad9850-dds-vfo/ . I believe that this is a good module to work with because they are widely available on eBay at low price, there are many on line descriptions, you-tube videos and other information.

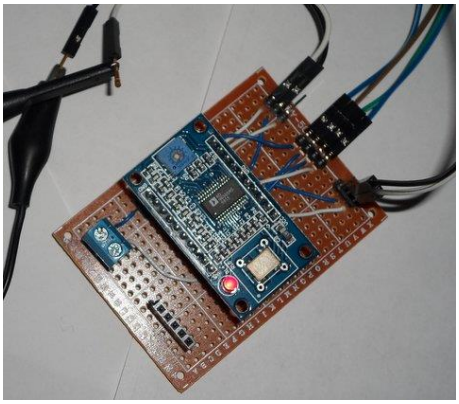
There were some conflicts with the LCD pins used in the project Arduino sketch and the LCD I had available, so I ordered an LCD without a shield. Then, when all the digital functions appeared to function properly I could find no RF output. After tracing the problem I discovered the 125 MHz oscillator on the DDS module was not functioning. So I ordered a second DDS module and replacement oscillators.

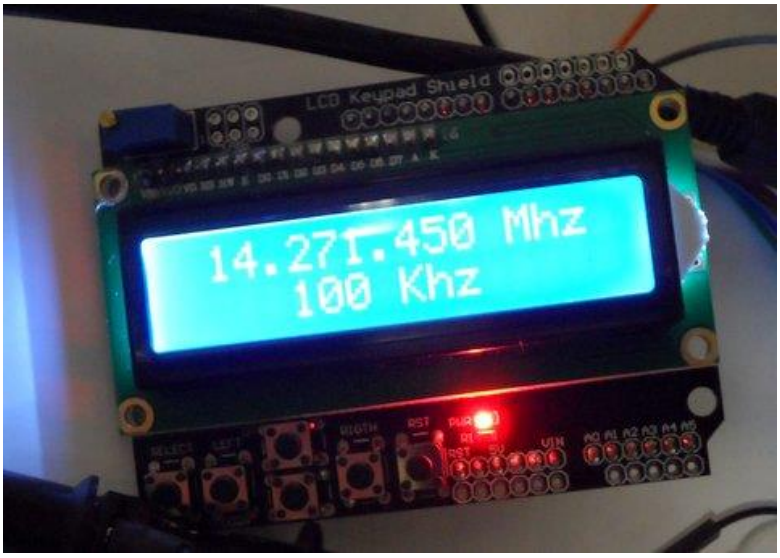
I finally got this all working yesterday. It is still a "spaghetti monster" but now that I know it works I can put it in a box.

As you can see from the scope there is a nice clean sine wave about 1 V P-P. I also watched the frequency change on the DSP receiver spectrum display. Nice sharp output that jumps with every click of the encoder.









I soldered a replacement oscillator into the first DDS module and it came to life. The oscillator modules are recommended for dongle down-converter receivers, so I will have more projects to work on.

First application I have in mind is VFO for a QRP CW transmitter. Then I will add a buffer amplifier and attenuators to one of the modules so it will become an RF signal generator on my workbench.