



Homebrew Group Newsletter
#55 October 2018

Compiled by Rob Whitmore
VK3MQ

With sunspots and HF propagation on the slide thoughts turn to weak signal communication modes to ignite the DX bug again. A new release of the popular WSJTX suite offers improved decoding on the FT8 mode. This new package is not however compatible with previous versions but as a transition measure it can be configured to send and receive as before.

VK3MQ chose to download the Debian Linux 64 bit version to install on Mint Linux 18.3 machine. Sadly the package was compiled against a newer C library and could not be installed. Fortunately using the source code and installing some additional applications and development libraries a working version was eventually built.

This is one of the great strengths of Open Source Software where anyone can modify the code or in this case build against available dependant packages.

Check out the new software suite at:

<https://physics.princeton.edu/pulsar/k1jt/wsjsx.html>

Count the dits with QRSS:

<https://www.qsl.net/m0ayf/What-is-QRSS.html>

FT8CALL may be on everyone lips at the moment but before that there was:

<https://www.qsl.net/zl1bpu/MFSK/FSQweb.htm>

On line calculators help evaluate complex and simple problems:

<http://www.sengpielaudio.com/calculator-amplification.htm>

The helix antenna was designed many years ago by John Kraus and can still provide a high gain broadband antenna solution for many applications:

<https://daycounter.com/Calculators/Helical-Antenna-Design-Calculator.phtml>

A useful calculator for designing magnetic loop tuning capacitors or parallel plate capacitors in general:

<https://daycounter.com/Calculators/Plate-Capacitor-Calculator.phtml>

Harmonic filters for QRP rigs:

http://www.gqrp.com/harmonic_filters.pdf

Forget an FT817 try this circuit for SOTA on 2meters:

https://www.qsl.net/va3iul/Homebrew_RF_Circuit_Design_Ideas/2m_DSB_TRX_P_Y2OHH.gif

A nice example of home brewing a replacement for the black box.

<https://www.ve7ca.net/Hbr200A.htm>

Something for portable!

<https://www.qsl.net/wb9ipa/Gen1.htm>

The summer DX season on six meters is fast approaching and this might be an antenna solution for you.

<https://www.qsl.net/g4aon/quad/>

A simple spectrum analyser.

<https://www.qsl.net/g4aon/ssa/>

A switch and pre-amplifier for receiving antennas.

<http://ik4auy.xoom.it/pdf%20files/IK4AUY%20QEX%20article%20%203-03%20.pdf>

Many people have purchased a BITX kit but here is its origins from the author who will shortly launch a cubesat.

<http://www.phonestack.com/farhan/bitx.html>

The cubesat story.

<https://amsat-uk.org/2018/09/24/exseedsat-amateur-radio-fm-transponder-satellite/>

Finally something to think about:

“Don't mistake activity for achievement”

73's

Rob VK3MQ