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LimeSuiteGUI Operation

Procedure

- Connect board to USB3
- Option/Connection Select LimeSDR
- Reset
- Load Settings
- Modules/ADF4002 Lock to external 10MHz
- Modules/FPGA Load Waveform
- Connect RF connections
- Modules/FFT Viewer
 - Hanning Window, Average, Channel Power

SXR/SXT Changes

- Calculate MHz
- Tune

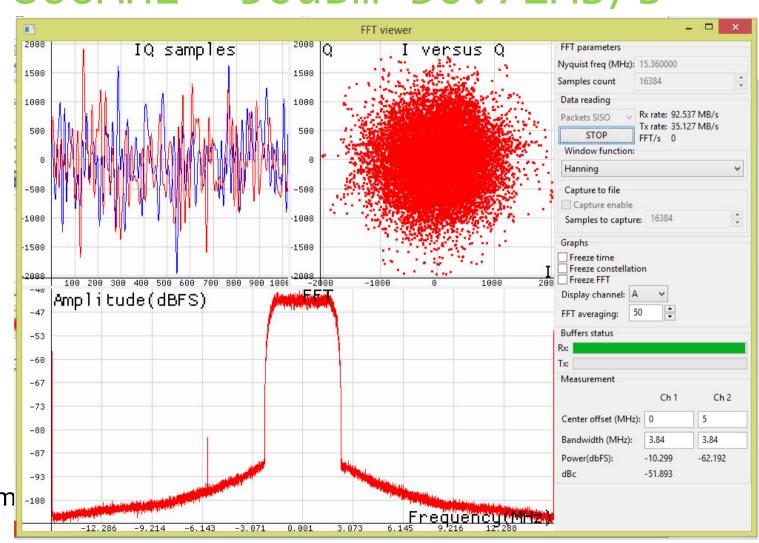
Interface speed changes

- CLKGEN
- Interpolation
- Decimation
- Switch off FFT viewer
- CLKGEN Calculate, tune will update any additional functions.
- Resume FFT viewer



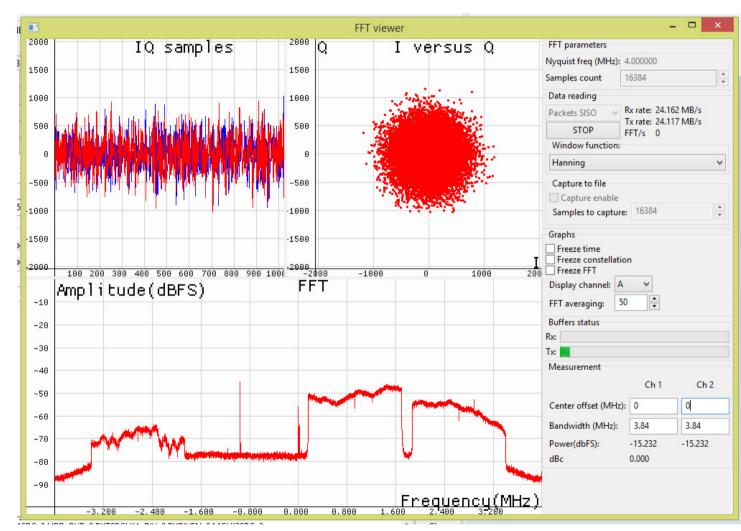
W-CDMA at 866MHz -50dBm 30.72Ms/s

- W-CDMA DL TM 2
- 866MHz
- -50dBm
- CLKGEN/DAC 245.76Ms/s
- ADC Rate 61.44Ms/s
- USB Rate 30.72Ms/s
- Direct Connection between TX and RX
- State



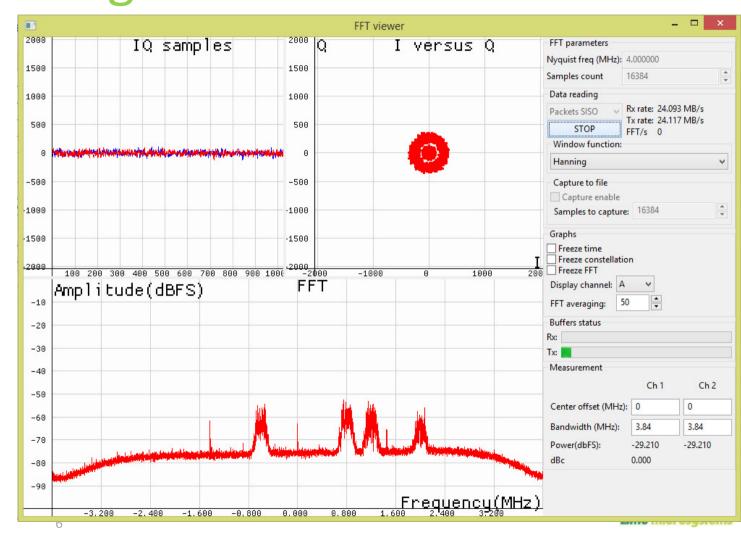
DAB Scanning with LimeSDR

- DAB
- LNAL
- 216MHz
- CLKGEN 64MHz
- ADC Rate 16Ms/s
- USB Rate 8Ms/s
- Live Antenna
- State
 - DEMO_DAB_8Msps _216MHz_Rx.ini



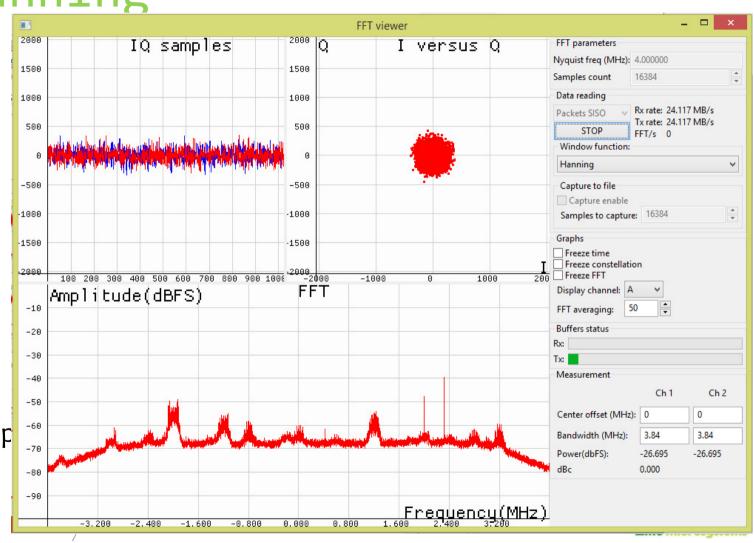
GSM UL Scanning

- GSM UL
- LNAL
- 900MHz
- CLKGEN 64MHz
- ADC Rate 16Ms/s
- USB Rate 8Ms/s
- Live Antenna
- State
 - DEMO_GSMUL_8Msps _900MHz_Rx.ini



GSM DL Scanning

- GSM DL
- LNAL
- 950MHz
- CLKGEN 64MHz
- ADC Rate 16Ms/s
- USB Rate 8Ms/s
- Live Antenna
- State
 - DEMO_GSMDL_8Msp 950MHz Rx.ini



W-CDMA/LTE Band 1 DL Scan

- W-CDMA/LTE
- LNAH
- 2145MHz
- CLKGEN 640MHz
- ADC Rate 160Ms/s
- USB Rate 40Ms/s
- Live Antenna
- State
 - DEMO_WCDMADL_ 40Msps_2145MHz_ RxLNAH.ini

FFT viewer ²⁰⁰⁰ |Q 2000 IQ samples I versus Q FFT parameters Nyquist freq (MHz): 20.000000 1500 1500 Samples count Data reading 1000 1000 Rx rate: 120,586 MB/s Packets SISO Tx rate: 44.299 MB/s 500 500 STOP FFT/s 0 Window function: Hanning ٧ -500 -500 Capture to file Capture enable -1000 Samples to capture: 16384 -1000 Graphs -1500 -1500 Freeze time Freeze constellation Freeze FFT 100 200 300 400 500 600 700 800 900 1000 -1000 1000 FFT Display channel: A Amplitude(dBFS) FFT averaging: Buffers status -20 -30 Tx: Measurement -40 Ch 1 Ch 2 -50 Center offset (MHz): 0 0 -60 Bandwidth (MHz): 3.84 -70 -36.840 Power(dbFS): -36.840 0.000 -80 -90 <u> Frequency(MHz)</u> -12.000 -8.000

WiFi Scanning

- WiFi
- LNAH
- 2450MHz
- CLKGEN 640Ms/s
- ADC Clock 160Ms/s
- USB Rate 40Ms/s
- Live Antenna
- State
 - DEMO_WiFi_4oMsps _2450MHz_RxLNAH. ini

