

Brief Test Report on Softrock 6 RXTX with Modified Daughter board

Author: Jan Verduyn G0BBL - Date of test 26/12/2006

RECEIVER

Sensitivity of RX measured at 7067 kHz (+11 KHz offset) SSB mode – 2.1 kHz BW for 10dB SINAD (C Weighted) PowerSDR software – PC = Dell Dimension 9150 with Sigmatel HD STAC92XX on board audio.

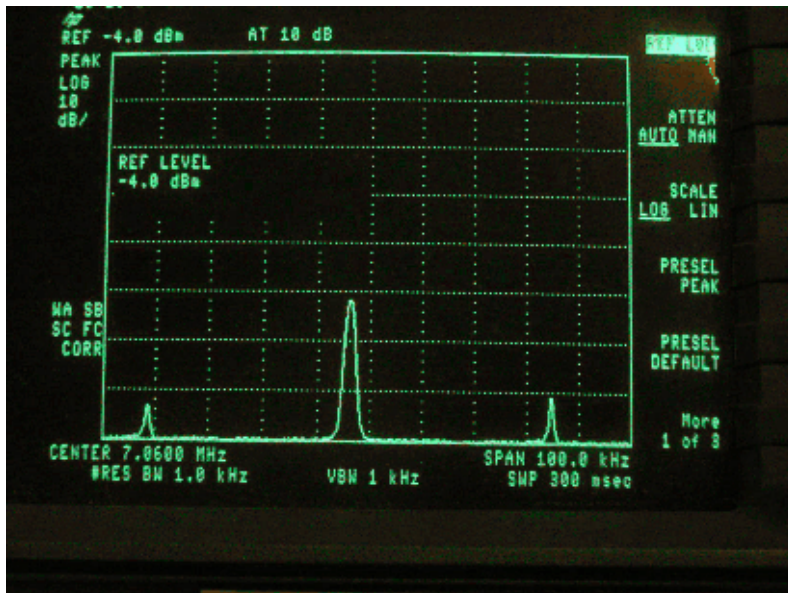
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|------------------------------|---------------------|
| 1) 7067 kHz (+11 kHz offset) | -106.5 dBm = 1.10uV |
| 2) 7077 kHz (+21 kHz offset) | -105.8 dBm = 1.15uV |
| 3) 7097 kHz (+41 kHz offset) | -108.7 dBm = 0.82uV |
| 4) 7016 kHz (-40 kHz offset) | -110.6 dBm = 0.66uV |

Sensitivity CWL mode PowerSDR in 500 Hz BW

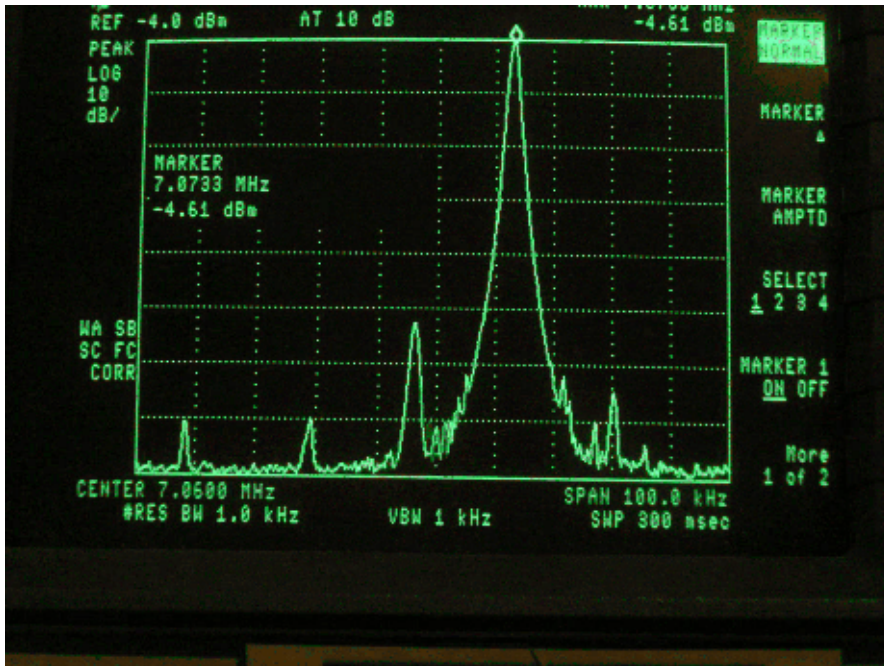
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|------------------------------|---------------------|
| 5) 7067 kHz (+11 kHz offset) | -118.5 dBm = 0.27uV |
|------------------------------|---------------------|

TRANSMITTER

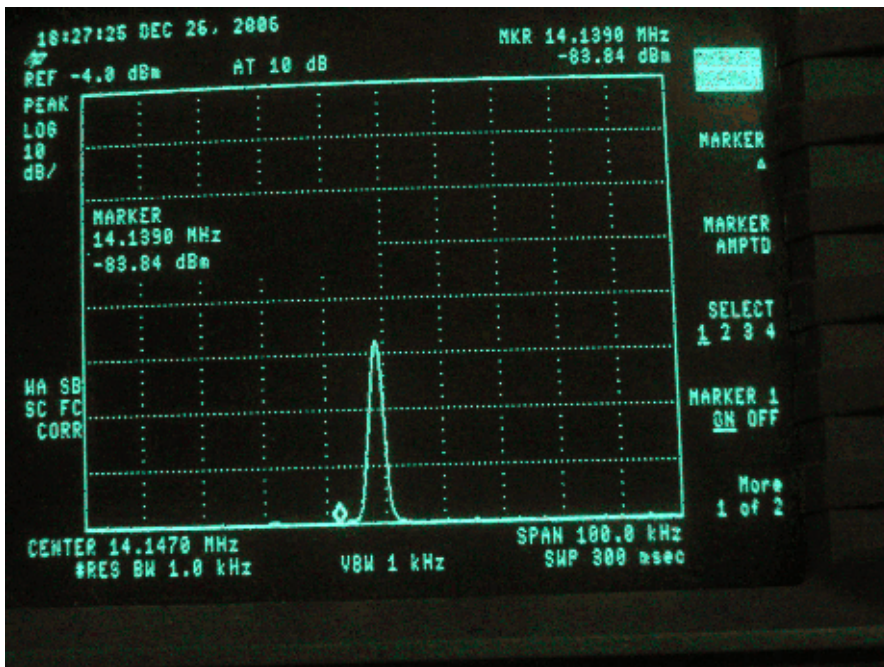
- 1) Carrier Leakage at 7056 kHz -52dB below 1W RF output Reference



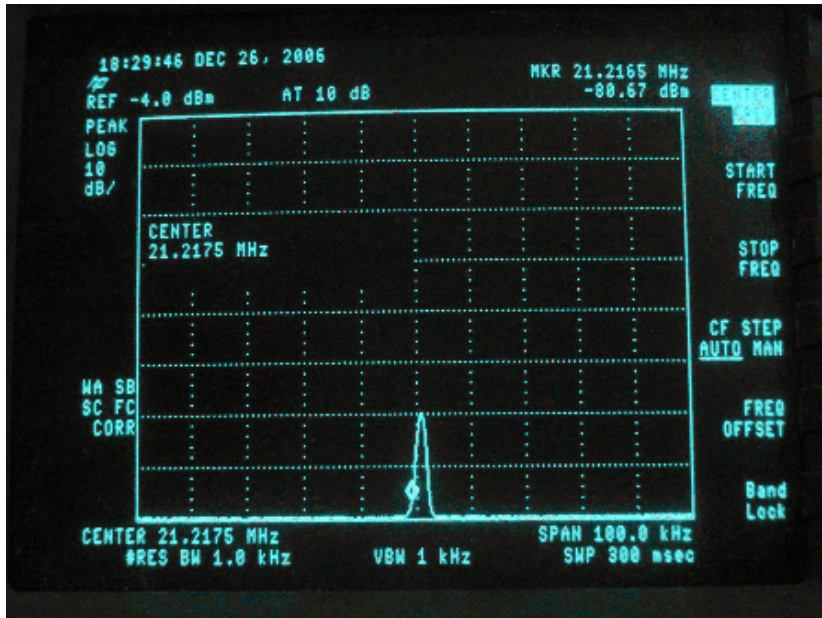
- 2) Single tone 17 kHz output 1W RF Output 700mV pkpk IQ input - Carrier Suppression on 7056 kHz = -52dB below 1W RF Output



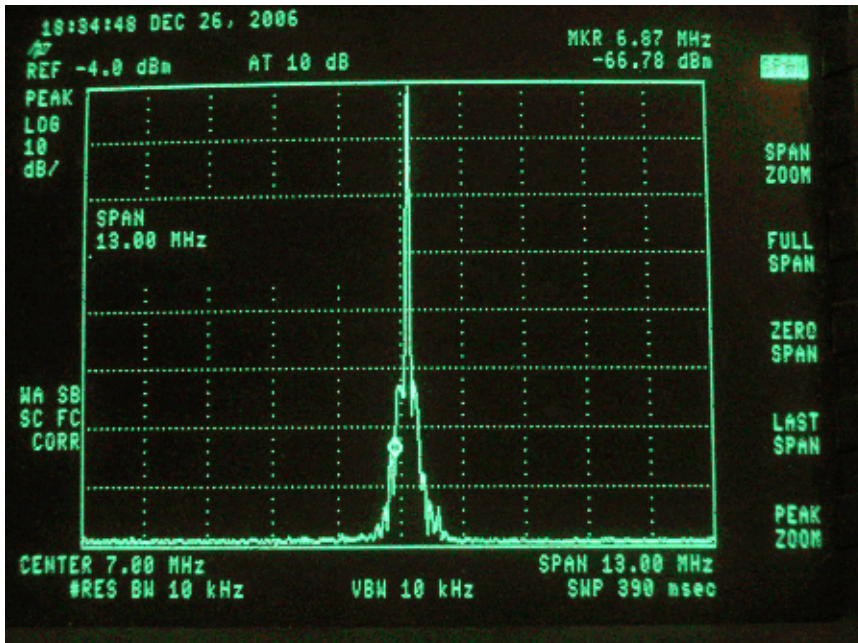
- 3) 2nd Harmonic suppression -47dB below 1 W RF output



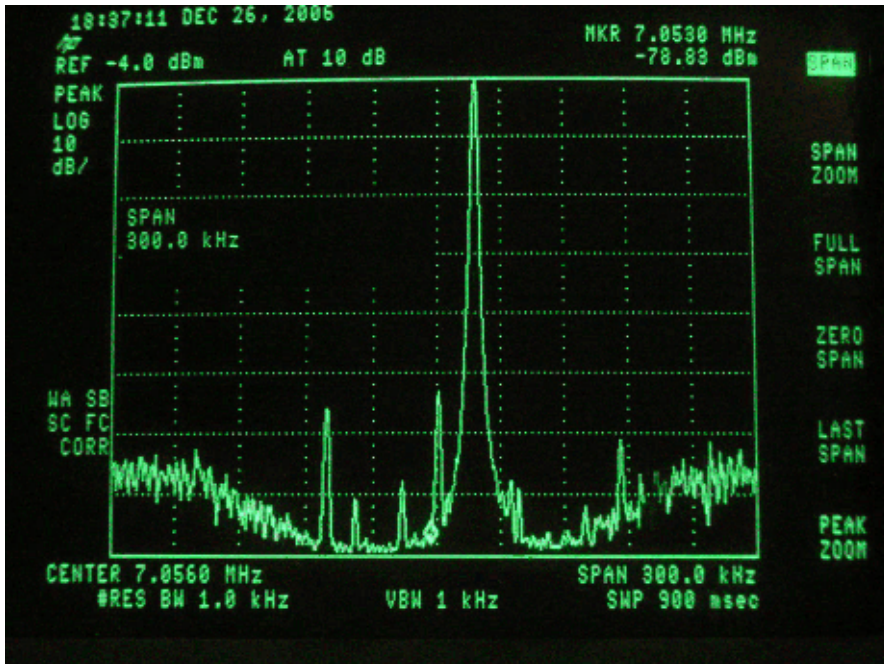
4. 3rd Harmonic Suppression on -60dB below 1W RF Output



4) Wideband Spectrum sweep from 500 kHz – 13.5 MHz at 1 W RF Output



6. Narrowband RF Spectrum sweep from 6900 kHz to 7200 kHz – All spurious at least 52dB below 1W RF output.



7. Two Tone RF Output Spectrum – Tones 11 and 17 kHz 1 Watt PEP RF output
 F1 = 7067 kHz and F2 = 7073 kHz
 7067 and 7079 kHz – 27dB below 1 W PEP RF Output
 7061 and 7085 kHz - 36dB below 1 W PEP RF Output

