



CW Skimmer

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For

QCWA Piedmont Chapter 126

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- Who are we?
 - Formed in July 1981 “...to advance the general interest, knowledge and welfare of amateur radio.”
 - 150 members mostly in NC and SC
 - ARRL affiliated
- What do we do?
 - Support DXpeditions - TI9K, TX5C, 9X0R, VK9DWX, TO5DX
 - Packet Network - 144.93, 144.91, 144.95, 441.00, and Internet
 - Repeater - 147.180 in Fort Mill
 - Sponsor SEDCO Conference
 - Encourage contesting - CWAC for CQWW and ARRL DX contests. Team competitions, club competitions.
 - DX King - CDXA competition for CQ’s DX Marathon
 - Field Day entry
 - NC QSO Party entry
 - Three major dinners annually - Christmas, Hamfest, BBQ
 - Weekly lunch gathering - Murphy’s in Charlotte
 - Newsletter - The Pileup
 - Web site - www.cdxa.org



Outline

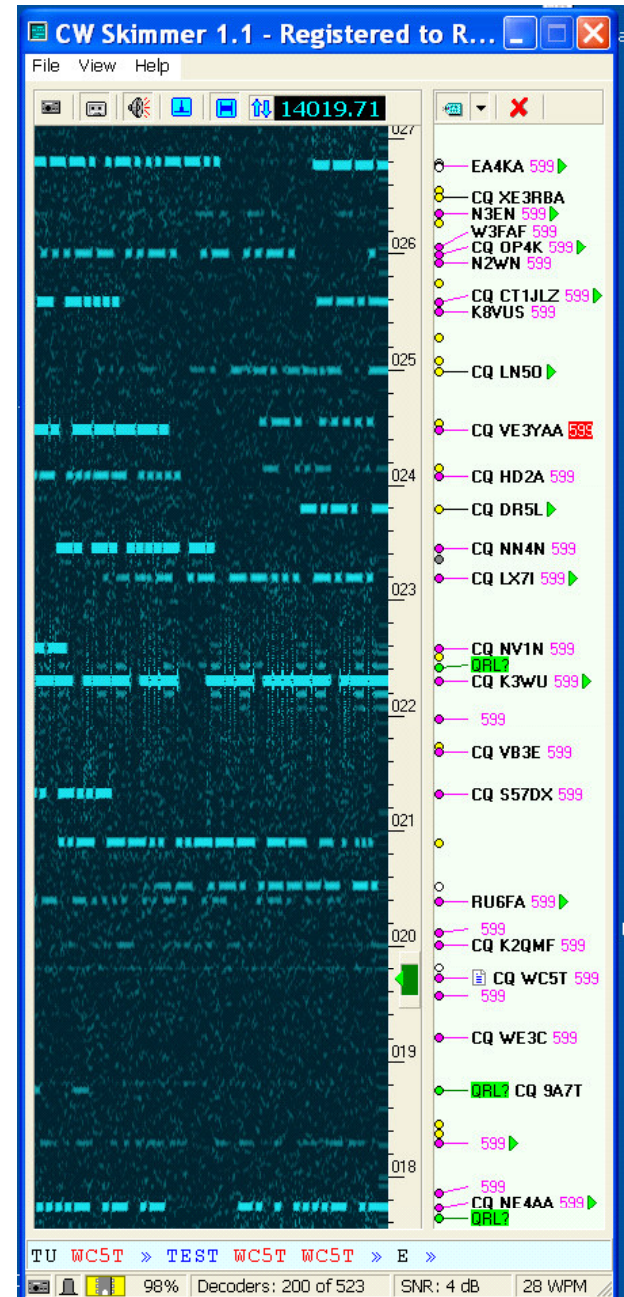
- What is CW Skimmer?
- What's it good for?
- What do I need to make it work?
- What's this SDR thing?
- Hardware setup at W3OA.
- Software setup at W3OA.
- Demonstration and features.

Disclaimer: PDAMHTSW



What is CW Skimmer?

- Software by VE3NEA, Alex.
- Fast waterfall display of receiver pass band.
- Simultaneous decode of all CW signals - up to 700 decoders in a 96 KHz bandwidth.
- Extracts and displays callsigns.
- Recognizes running status - "CQ" or "Test".
- DSP processor - noise blanker, AGC, variable width filter.
- Telnet capability sends spots.
- Available at www.dxatlas.com





What's it good for?

- DX Pileups - Identify where he's listening.
 - On waterfall display - calls and "599".
 - On callsign list.
- Contesting - Like your personal packet cluster
 - Puts out spots only for stations heard on your antenna.
 - Spots can go to band map in your logging software.
 - Others can access via Internet.
 - Use makes you "assisted".
- Fun

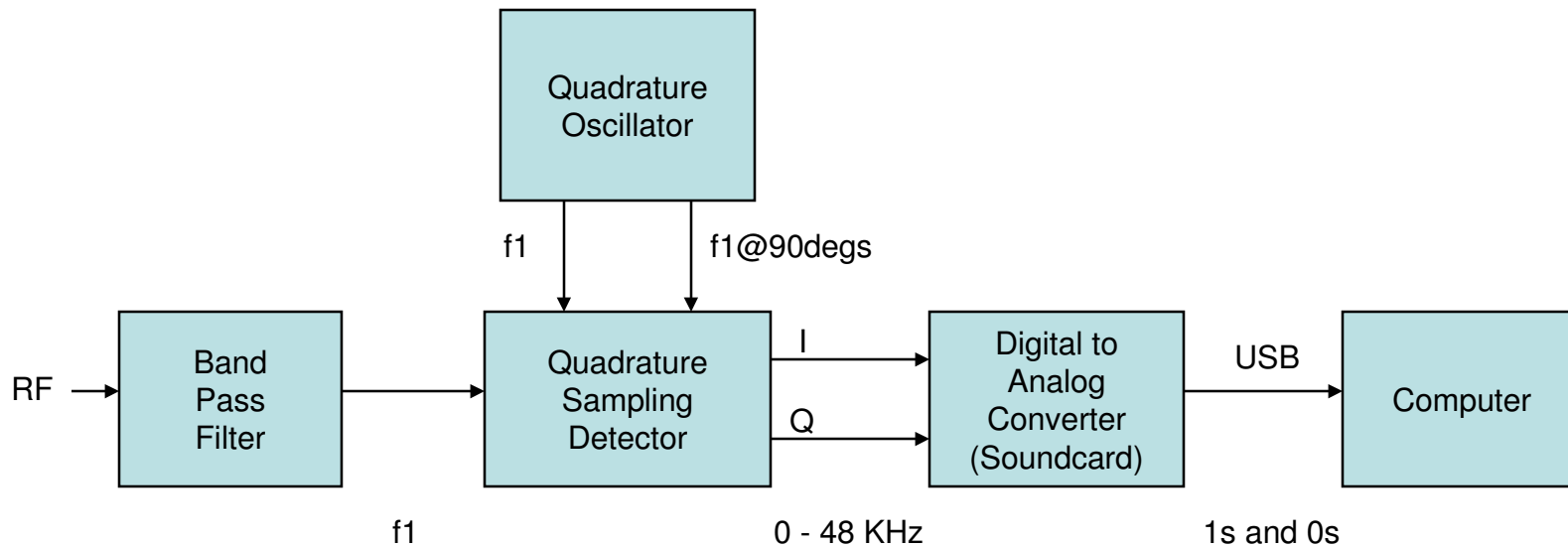


What do I need to make it work?

- First Step (no/low cost) - 3 KHz bandwidth
 - Computer (Pentium 4, 1 GHz, mono soundcard, Windows ME through XP).
 - Transceiver audio connected to soundcard.
 - CW Skimmer - Free for 30 days, \$70 to register.
- Getting Serious
 - Computer (Pentium 4, 2.5 GHz, stereo soundcard supporting at least 48 KHz sampling, 2nd soundcard for listening).
 - Software Defined Radio (SDR)
 - Connected to antenna or
 - Connected to transceiver wide band IF output.



What's this SDR thing?

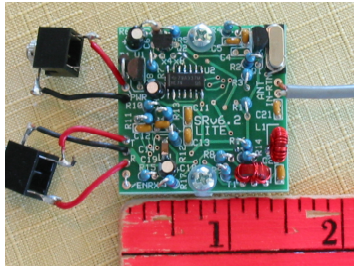


Digital Signal Processing
Tuning
Filtering
Demodulation
etc.



What's this SDR thing?

A Wide Variety of Choices



- Softrock Lite
 - One of a range of SDR kits sold by KB9YIG.
 - Single band version is \$12.
 - Other models are multi-band, some with transmitter
 - <http://groups.yahoo.com/group/softrock40/>



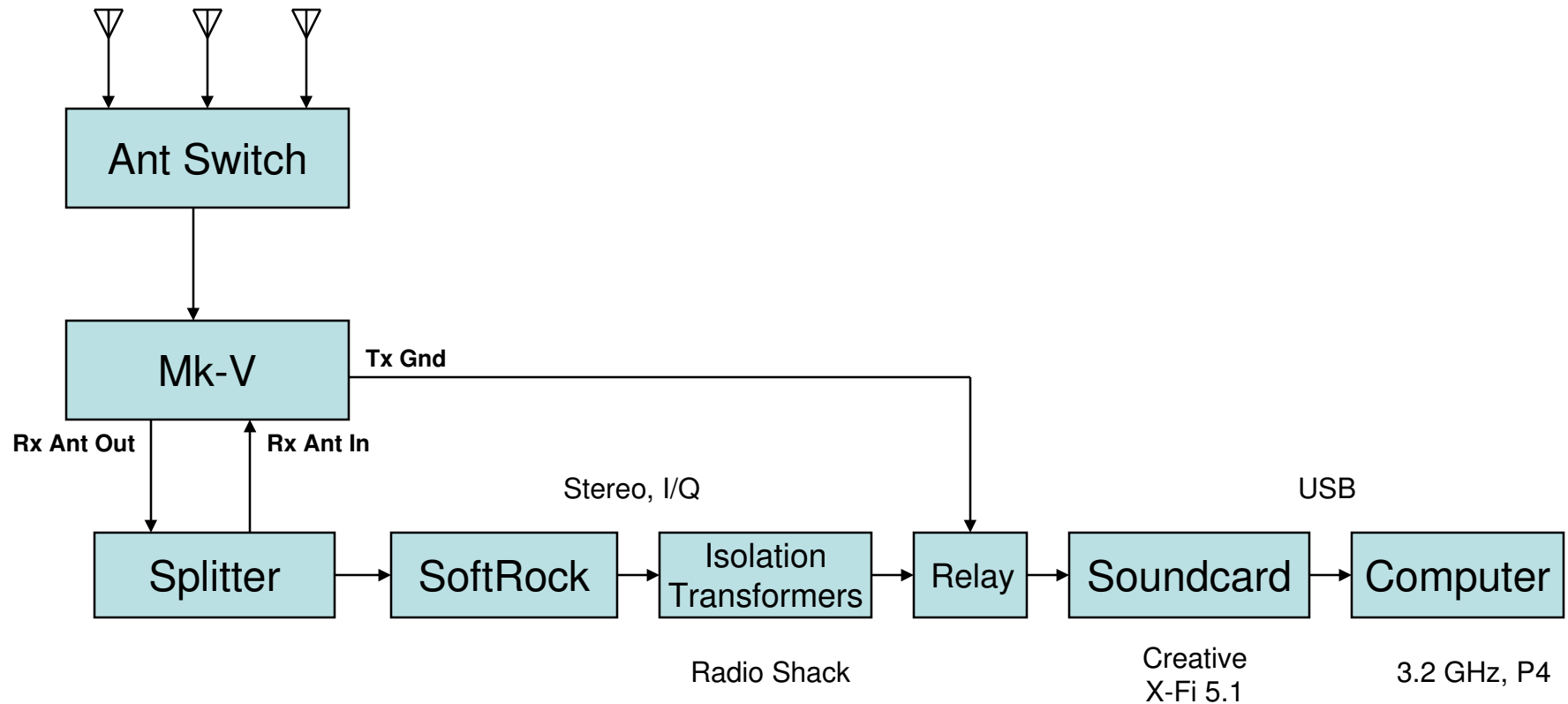
- \$500 - \$1500 Options
 - SDR-IQ from RFspace.
 - Perseus from Microtelecom.
 - QS1R from N8VB
 - Many others



- Flex-5000A
 - \$2800 from FlexRadio.
 - 100 watt, 160 - 6 meters, all mode transceiver.
 - Less expensive model due next year.

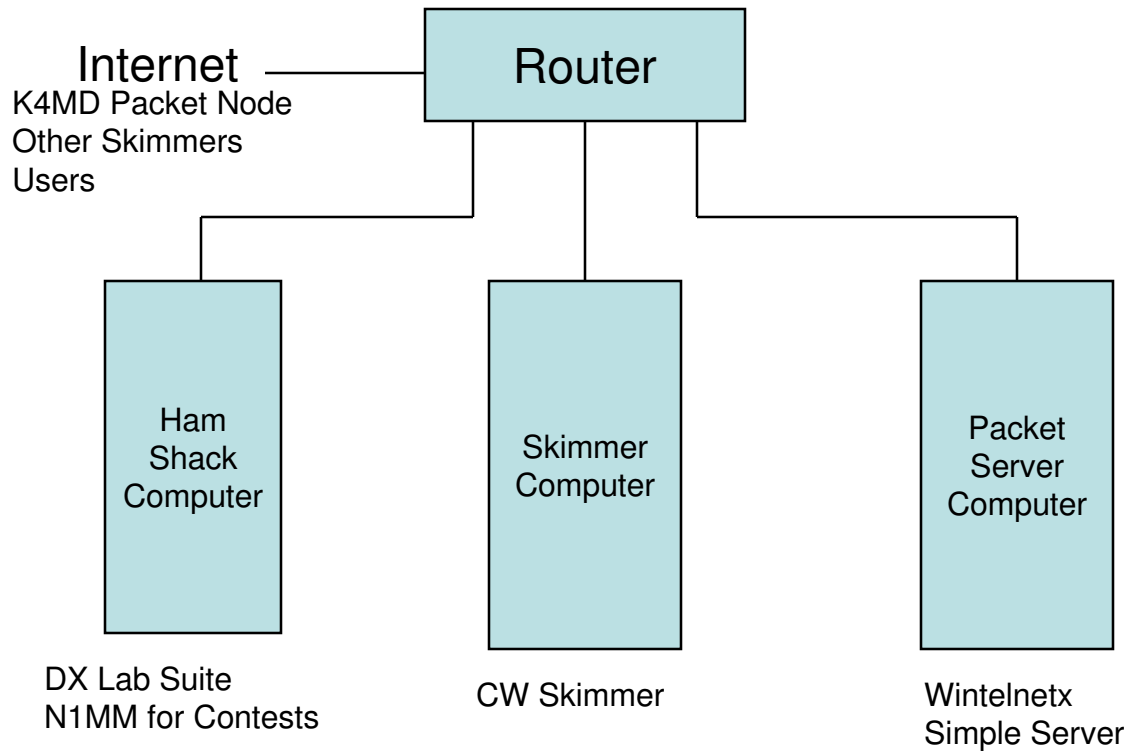


Hardware Setup at W3OA





Software Setup at W3OA





Demonstration and Features

- Waterfall Display
- Callsigns Window
- Settings