

Digital Modes

Getting Started Tips & Tricks

- Sound Cards
- Radio Setup
- Communications Software
- Time Sync
- Windows Issues
- Signal Identification

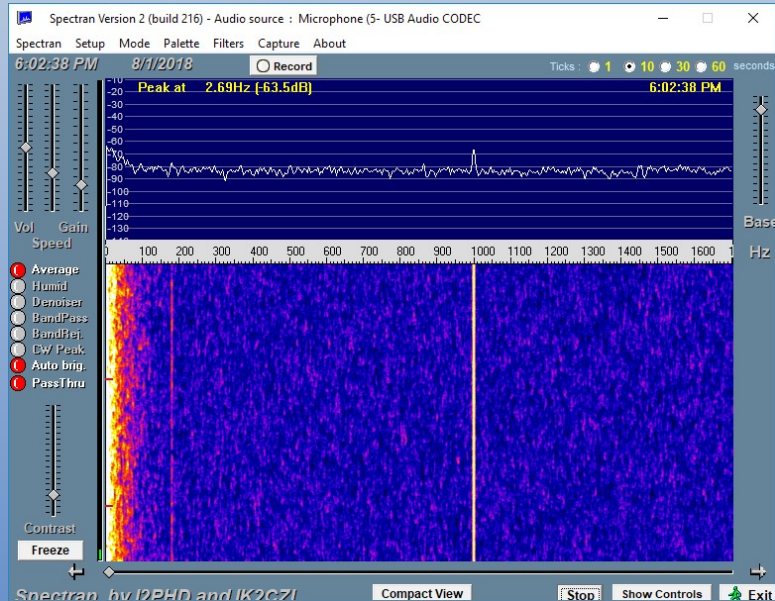
Sound Cards

- Newer Radios
 - Built-in Sound Cards
 - Rig Control via USB Port
- DIY External Sound Cards
 - Cheap (\$10 and under)
 - uGreen USB Sound Card (Low Noise Floor, No Birdies)
 - DIY Interface Cables
 - May Require Signal Attenuation (Hardware or Software)
 - Use Rig Control or VOX to Key Radio
- Other External Options
 - Signalink USB (Easy Mod Reduces Noise Floor)
 - RigBlaster

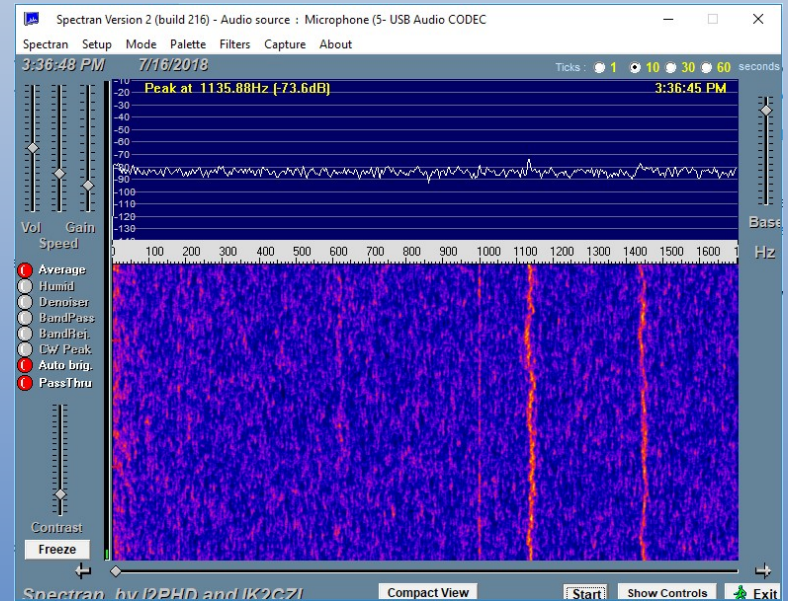


Sound Cards

SignalLinkUSB Unmodded
PC USB Port: -63.5dB

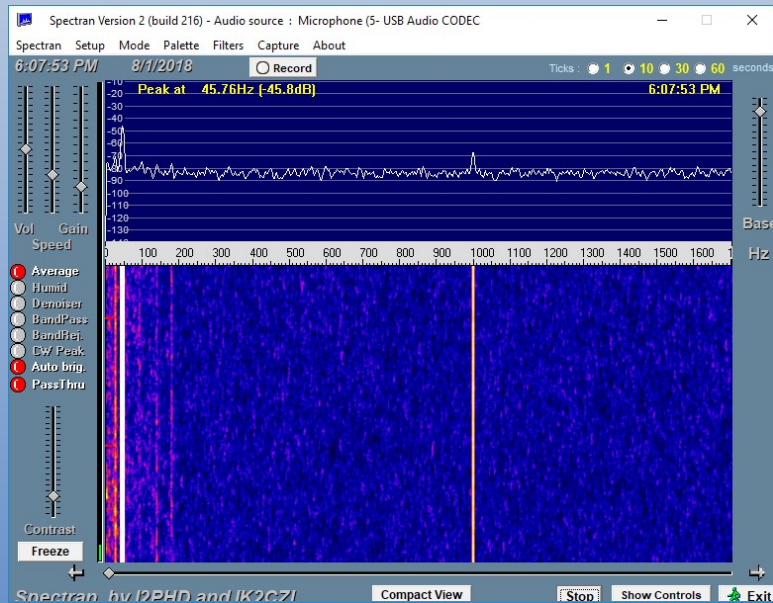


SignalLinkUSB Modded
PC USB Port: -73.6dB

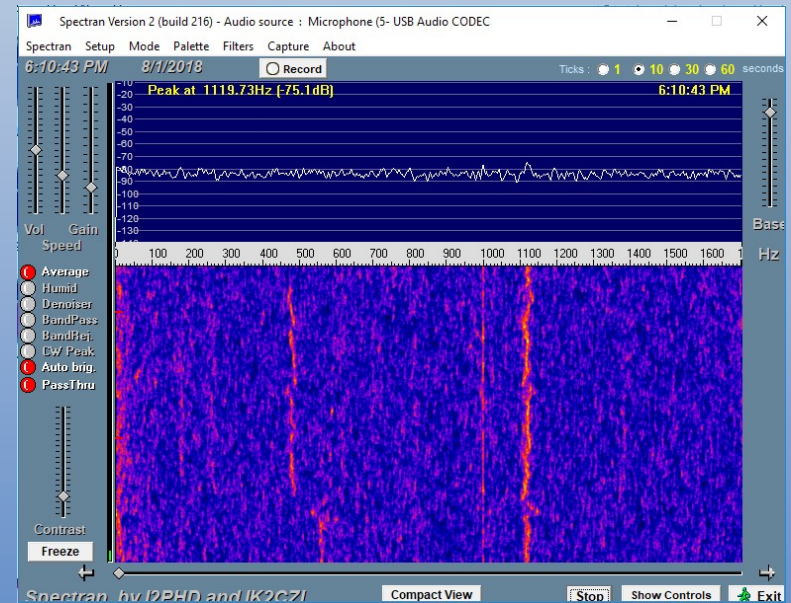


Sound Cards

SignalLinkUSB Unmodded
USB Hub Port: -45.8dB



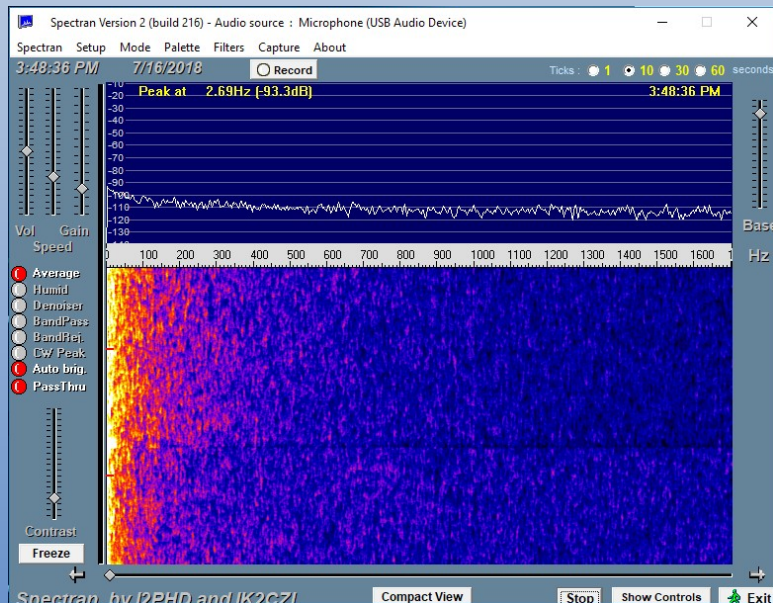
SignalLinkUSB Modded
USB Hub Port: -75.1dB



Sound Cards

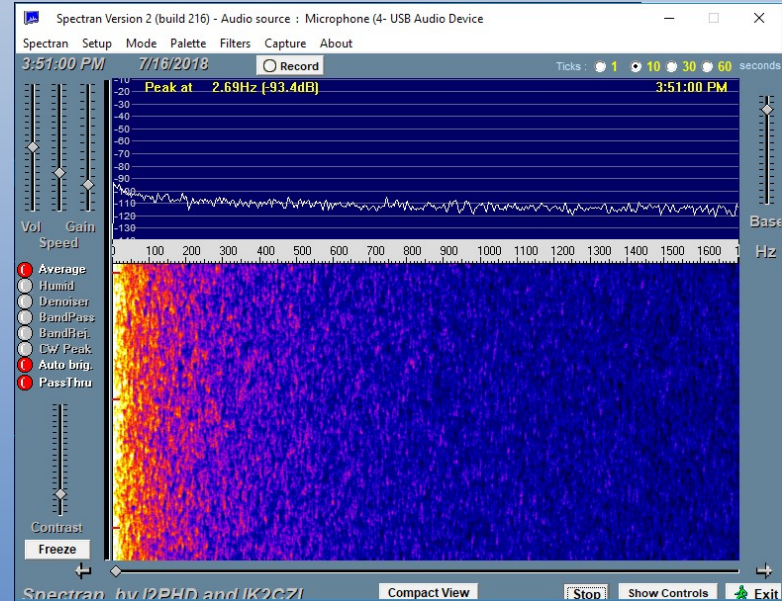
uGreen USB Sound Card

PC USB Port: -93.3dB



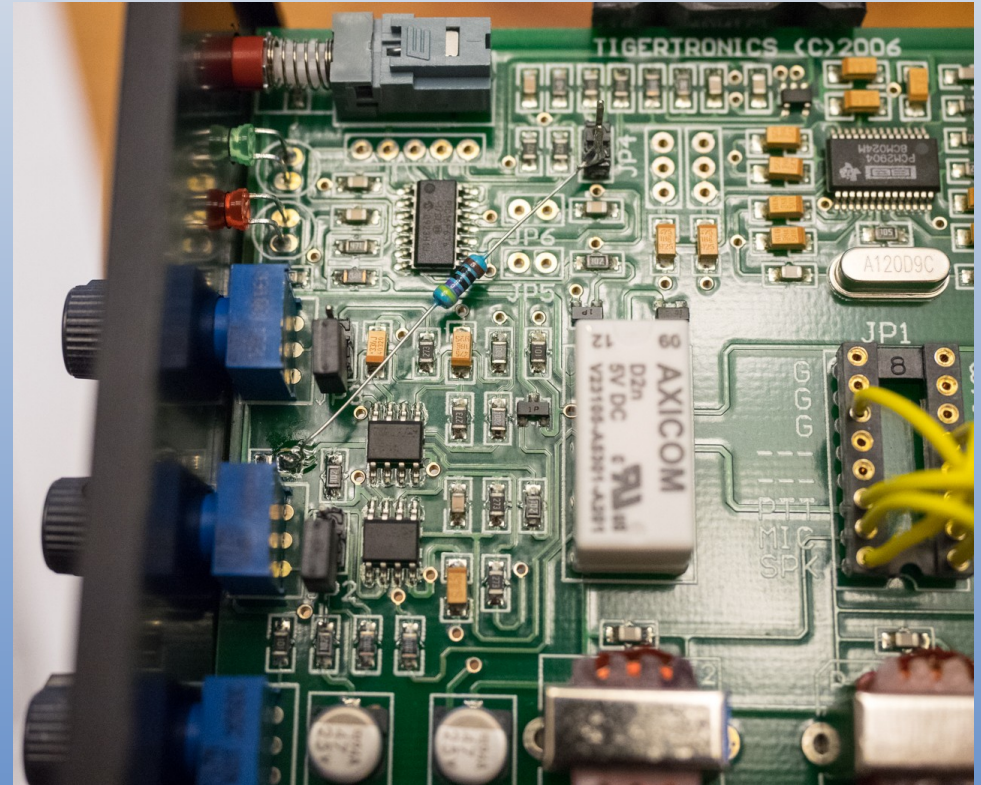
uGreen USB Sound Card

USB Hub Port: -93.4dB



Sound Cards

- SignalLink USB Mod (QST August 2014)
 - Remove 1K Ohm Surface Mount Resistor
 - Add 470 Ohm Resistor



Radio Setup

- AGC Settings – Slow or Off
- Don't Splatter
 - 1) No ALC Activation = No Overdriving
 - 2) Set transmit power higher than desired output and reduce audio for desired power level. Impossible to overdrive.
- Rig Control
 - Auto Band Switching
 - Auto Frequency Changes
 - Transmit Keying.

Communications Software

- FLDIGI
 - RTTY, PSK, MFSK, Olivia, THOR, & Virtually Every Other Non-JT Mode
 - NBEMS Integration
- WSJT-X
 - FT8, FT4, WSPR, & All Other JT Modes
- JT Alert
 - Sync WSJT-X to Logging Software (N3FJP, N1MM, etc.)
 - Custom Alert Settings for DX and other Desirable Stations
 - Many Other Features

Time Sync

- Required for FT8, WSPR, & All Other JT Modes
- NTP (Network Time Protocol) – Needs Internet
 - Dimension 4
 - Others
- GPS – No Internet
 - USB GPS Receiver (<\$20)
 - BktTimeSync – Free, but Buggy
 - VisualGPS NMEATime2 - \$20

Windows Issues

- Sound Settings Shortcut & Autostart
 - Quick Access to Sound Card Levels
 - Load Windows Sound Control Panel On Startup for Easy Access
- Default Sound Devices
 - Never Set Radio Sound Card As Default
 - Prevents Transmitting Windows Sounds and Other Audio
- Serial COM Ports
 - Rig Control & GPS
 - Windows Device Manager
 - FTDI Serial Adapters Preferred

Signal Identification

- What Mode Am I Hearing Right Now?
- FLDIGI
 - RXID & TXID
 - Automatically Switches Modes Based On What Other Station Sends
- Online Digital Mode Database
 - <https://www.sigidwiki.com/wiki/Category:Digital>