



Talk:HamRadio - Tx/Rx Switching

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Overview

- Requirements for TX/RX switching
- My solution
 - Hardware
 - GRC flowgraph
- Demo on 2m amateur repeater



Requirements

- Half-Duplex
 - Adjust frequency
 - Change mode
- All transceivers
 - Select antenna
 - Select filter
 - Enable/disable power amp

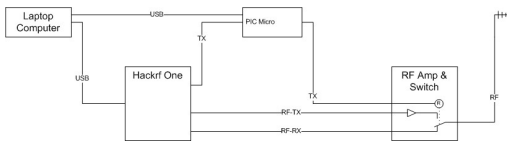


Solution

- Hackrf One – SDR transceiver
 - Hacked to bring out TX/RX logic level signal
 - Hacked to split TX RF & RX RF separate SMA
- Laptop Computer c/w
 - Ubuntu 18.04
 - GNU Radio 3.7.11
 - Osmocom Sink & Source Block
 - SoapyHackRF Driver – customized by VE7GSJ
 - StreamSelect switch – OOT module by VE7GSJ
- PIC Microcontroller – by VE7GSJ



Hardware Connections





Shack Photo