

# *SDRplay Webinar Series*

## *Setting up a Panadapter*

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*Steve Brightman, SDRplay Support Team*

*[www.sdrplay.com](http://www.sdrplay.com)*

*[support-usa@sdrplay.com](mailto:support-usa@sdrplay.com)*

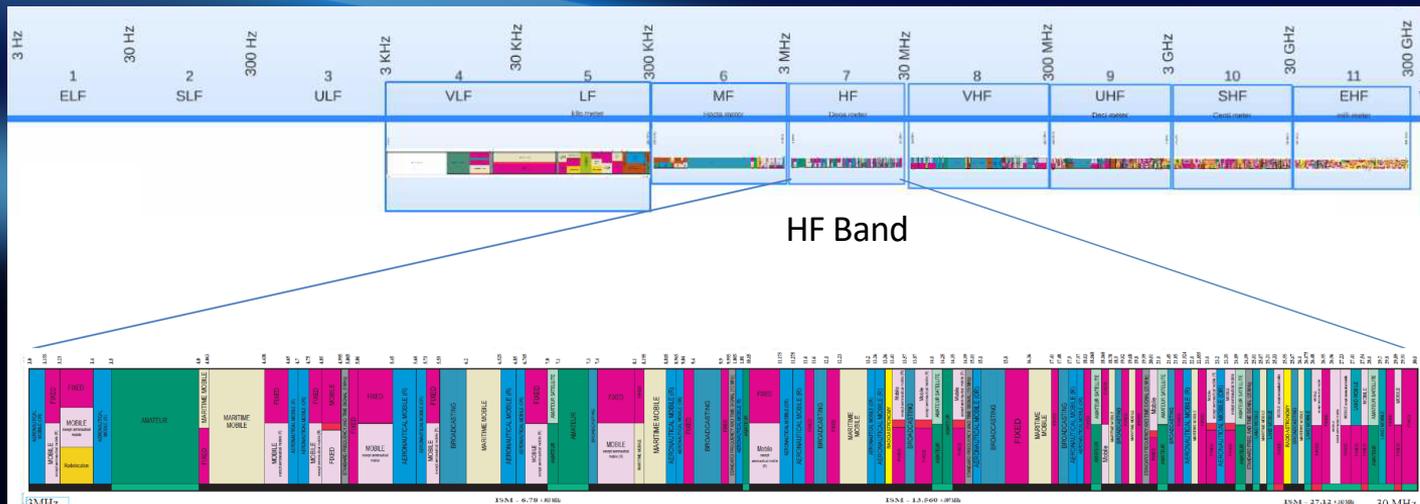


# Agenda

- *RF Signal Routing Considerations*
  - *Protecting the RSP*
- *PC Connections*
- *Software - Controlling / Synchronising the rig*
- *Use Cases*

# RF Spectrum

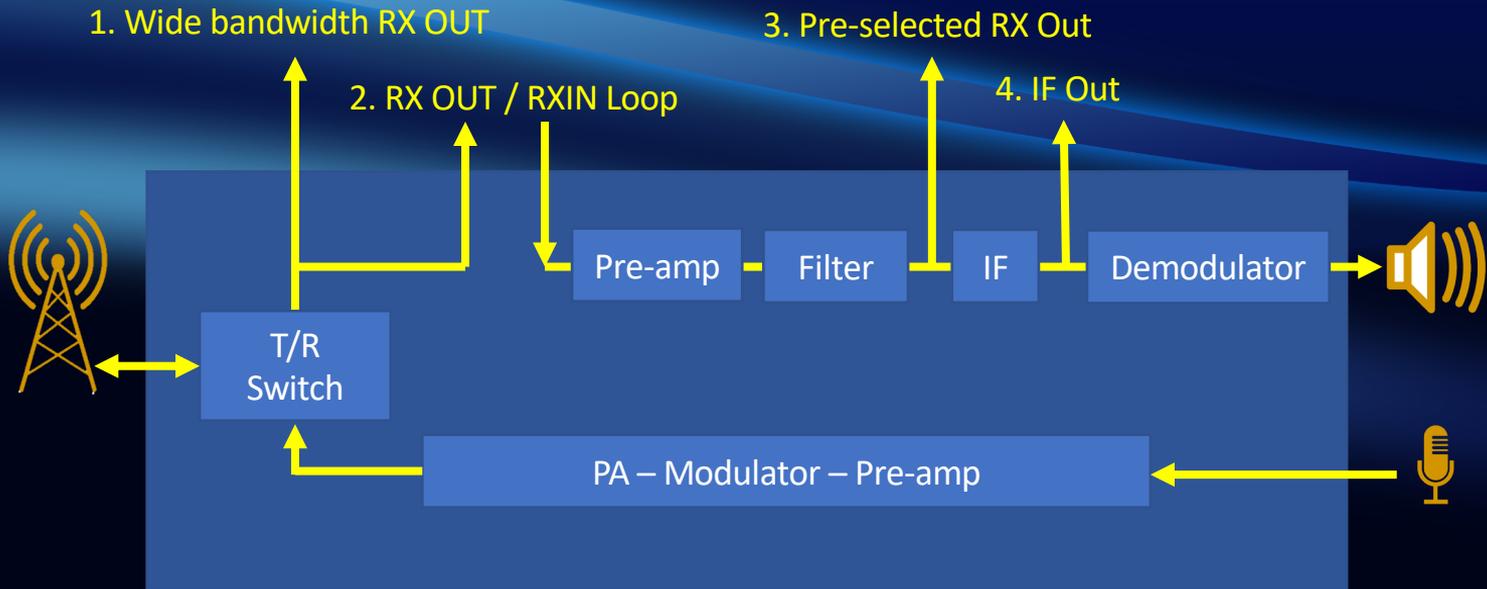
1kHz ← → 2GHz RSP Coverage Range



*In a panadapter configuration the amount of the spectrum that can be seen by the RSP depends on how the RF signal routing is configured...*

*...which in turn determines the capabilities of the completed system!*

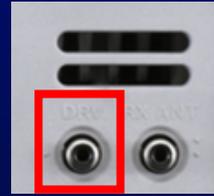
# Rig Configurations



*Availability of various configurations varies by manufacturer and model*

## 1. Wide Bandwidth Output

- Internal T/R Switch protects the RSP
- Available bandwidth to RSP very high



## 2. RX OUT to RX IN Loopthrough

- Internal T/R Switch protects the RSP
- Requires external splitter to enable RX path on both the RSP and the rig



## 3. Pre-selected RX OUT

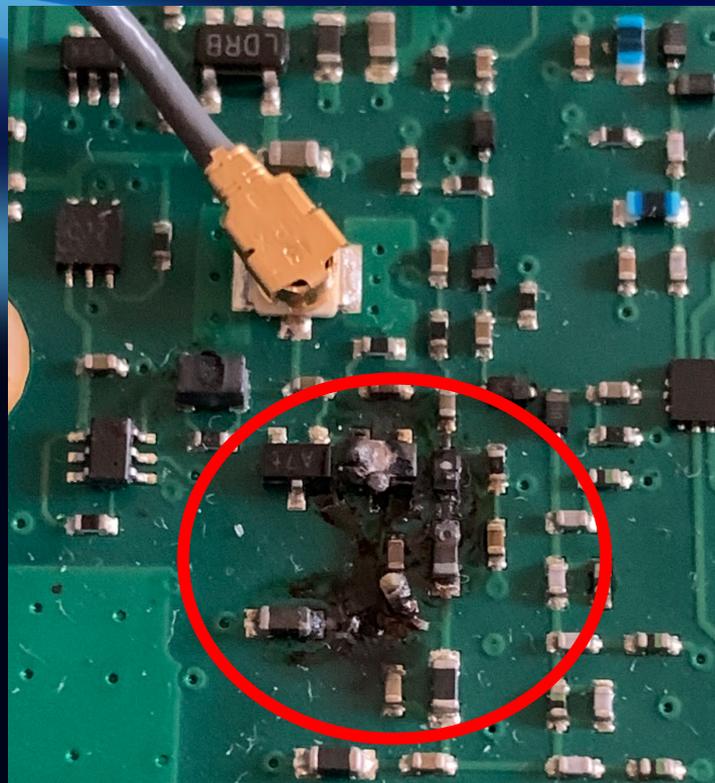
- Internal T/R Switch protects the RSP
- Available bandwidth to RSP limited



## 4. IF OUT

- Internal T/R Switch protects the RSP
- Very limited Bandwidth, perhaps only part of selected band

*Practice Safe Transmission!*



# “Universal” Configuration



Examples:  
MFJ-1708B-SDR  
DXE RTR-2

- External T/R switch protects the RSP and shares the antenna with the rig.
- Allows maximum bandwidth to the RSP (limited only by antenna)
- Works with any rig

# Controlling the Switch



Rig Transmit Control line

e.g. TX GND (Yaesu)  
SEND (Icom)  
RL CONT (Kenwood)



*This control signal must connect to GND during TX*





# PC Connections



Use available connector

PC  
USB  
Port

RS-232 to USB  
Converter

Install appropriate drivers:

- You may already have them, or
- Download from manufacturers site, or
- Install drivers supplied with the interface
- Allow windows to find an appropriate driver



# *Basic Software*

- Your SDR software of choice: SDRUno, SDR Console, HDSDR, CubicSDR
- Rig sync: OmniRig (windows), Hamlib (other platforms)

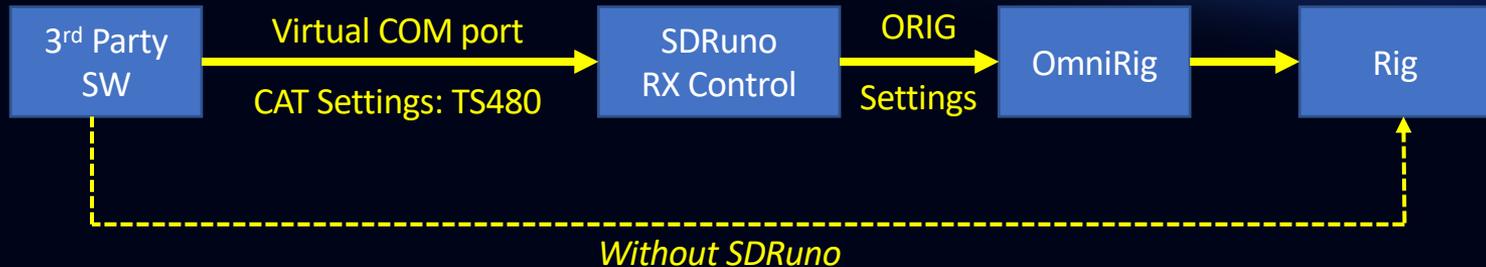


# Add-on Software

- Your SDR software of choice: SDRuno, SDR Console, HDSDR, CubicSDR
- Rig sync: OmniRig (windows), Hamlib (other platforms)

## Other 3rd Party software with Rig Control:

- Loggers, digital decoders etc



# 3rd Party Software / HRD

The screenshot displays the SDRplay software interface with several windows open. The main window shows 'RX Settings 0-0' with 'COM6' selected as the device and '115200' as the baud rate. A 'Connect' dialog box is open, showing a table of radio presets. A yellow arrow points from the 'COM6' selection in the RX Settings window to the 'COM6' entry in the 'Connect' dialog table. Another yellow arrow points from the 'COM6' entry in the table to the 'COM6' entry in the 'Setup for com0com' window. A third yellow arrow points from the 'COM6' entry in the table to the 'COM6' entry in the 'Setup for com0com' window. The 'Connect' dialog box has a yellow box around the 'COM6' entry and the text 'Standalone (without SDRuno)' is written below it. The 'Setup for com0com' window shows 'Virtual Port Pair 1' with 'COM5' and 'COM6' selected. The main window shows a frequency display of 14120 kHz and a spectrum plot.

Connect: WA5095SWL in

Select a Preset or New definition and press 'Connect'

Company	Radio	Port	Speed	CI-V Address	CTS	DT
Kenwood	TS-480	COM5	115,200	-	X	
Kenwood	TS-590SG	COM4	57,600	-	X	

Standalone  
(without SDRuno)

Setup for com0com

Virtual Port Pair 1

- COM5
- COM6

COM DEVICE: COM6

BAUD RATE: 115200

ENABLE & CONNECT

STATUS: CONNECTED

use Ports class  use Ports class

emulate baud rate  emulate baud rate

enable buffer overrun  enable buffer overrun

enable plug-in mode  enable plug-in mode

enable exclusive mode  enable exclusive mode

enable hidden mode  enable hidden mode

RX TX DTR DSR DCD RTS CTS RI OUT1 OUT2 OPEN

Apply

Welcome to SDRplay V1.4 Build 0320 - Click here to see latest changes

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# Further Support

## Website

- Applications catalog: <https://www.sdrplay.com/apps-catalogue/>
- Software downloads: <https://www.sdrplay.com/downloads/>
- Support: <https://www.sdrplay.com/supportmenu/>

## Facebook Groups

- SDRplay <https://www.facebook.com/groups/sdrplay/>
- SDRuno <https://www.facebook.com/groups/sdruno/>

IO User Group: [SDRPlayUsers@groups.io](mailto:SDRPlayUsers@groups.io)

## Links

- Omnirig: <http://www.dxatlas.com/OmniRig/>
- Com0com: <http://com0com.sourceforge.net>
- Ham Radio Deluxe: <https://www.hamradiodeluxe.com>

