

820,000 MHz

300,000 MHz

-20,0 dBm

Configuration

Acquisition

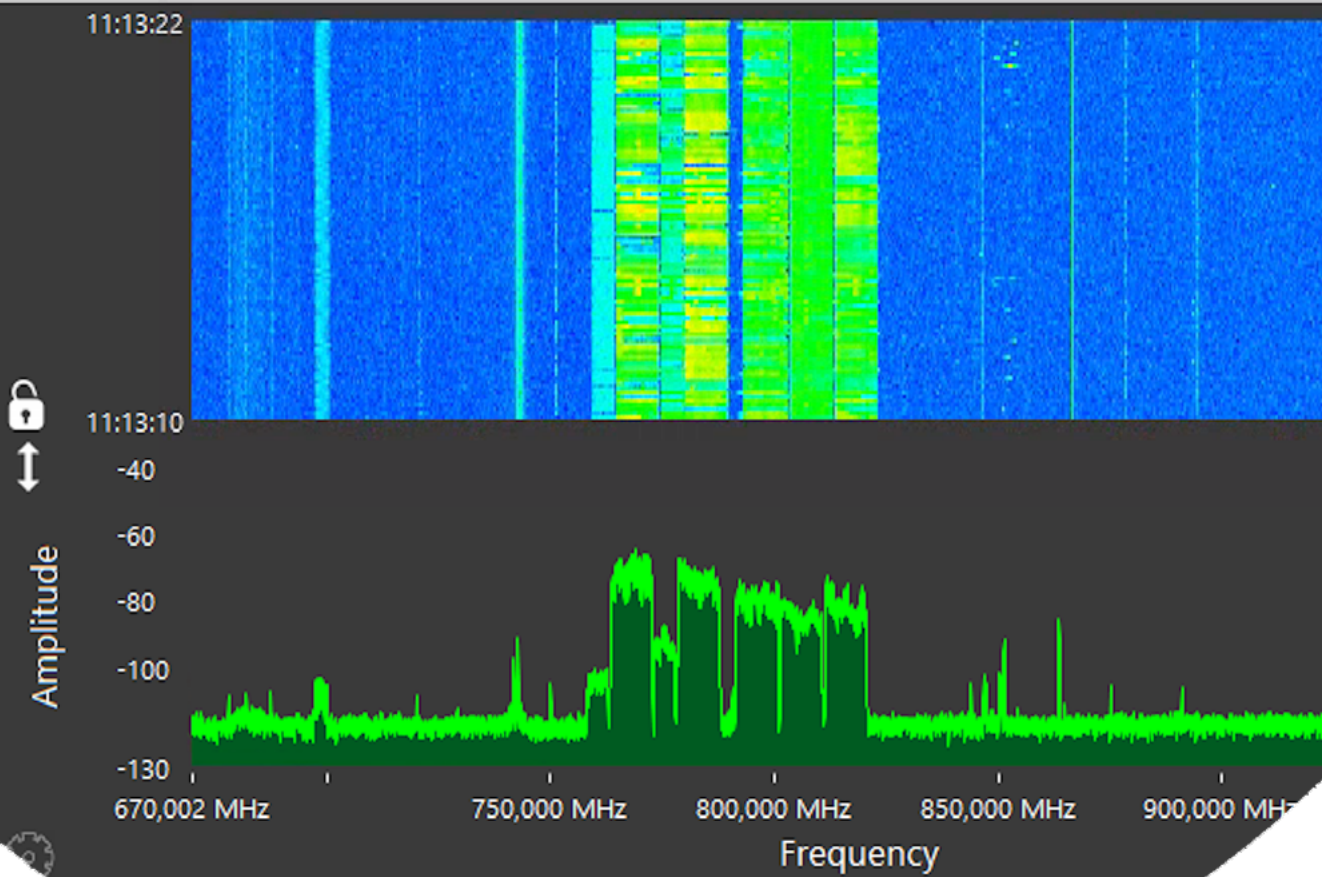
Recording

Stop

Power Trigger

Quiet Time

0



ARCALE RF SUITE

# ARCALE RF SUITE

YOUR NEW RADIO FREQUENCY BEST TOOL ON THE MARKET



**SPHEREA**  
POWER & INSTRUMENTATION

# INTRODUCTION

ARCALE RF Suite is a modular software allowing various tasks on RF signals.

Easy to configure and set-up, ARCALE RF Suite supports AirSpy, SignalHound, Tektronix, Harogic and National Instruments hardware.

The Suite consists of different software modules :



**RECORDER** - Supports multiple hardware platforms



**SEEKER** - Signal seeker based on spectrum parameters



**PLAYER** - RF Signal Generator



**RADAR** - Generation of radars signals with hardware optimization



**ANALYZER** - Signal analysis of IQ files or from hardware



**DDC SERVER** - CPU or FPGA Up to 512 ch included IQ recorder



**SPECTRUM** - Easy to use RF Spectrum analyzer with GPS timestamp & position

# APPLICATION FIELDS

- Spectrum monitoring : recording and replaying a band of interest or event
- Signal intelligence : detection, recording and analysis
- R&D laboratory : recording and replaying a mastered scenario in order to test your systems
- RADAR : very wide band recording
- IOT : scenario recording and replay

# SPECIFICATIONS

## Supported hardwares

National Instruments VSA :

- NI PXI-5661
- NI PXIe-5663/65/67/68
- SCOPE (5142, 5622, 5624)

National Instruments VSG :

- NI PXI-5671/72/73

National Instruments VST :

- NI PXIe-5644/45/46
- NI PXIe-5840/41
- NI PXIe-5830/31

National Instruments FlexRIO :

- NI PXIe-5745/75/85/64

National Instruments Amplifiers :

- NI PXI(e)-5690/91/98 & SCT SC2215

National Instruments USRP :

- NI USRP X410
- NI USRP 292x / 293x
- NI USRP 294x / 295x
- NI USRP 2974



FlexRIO Coprocessing :

- NI PXIe-6592
- NI PXIe-7915/75/76

Ettus Research USRP :

- B205 Mini

Signal Hound :

- SA44B/124B
- BB60C
- SM200x

Harogic :

- SAM-60, SAM-80, SAE-90
- SAE-200 & SAN-400

Tektronix :

- RSA306B
- RSA5xxA

AirSpy :

- HF+, R2, Mini via Spyserver

## System requirements

- Intel Core i5 CPU
- 8 GB RAM

## Performances

- Up to 1GHz bandwidth streaming
- Multi Rx/Tx synchronization (if available)
- Timestamp and trigger GPS (if available)

## Typical configuration



### RF System 1U :

- 1Tx + 1Rx 12MHz Bw or 1 or 2 Rx 100MHz Bw
- 9k-6G/8G/20G/40GHz
- Up to 8TB SSD
- Core i7, 16Go RAM, 2.5Gb Ethernet



### RF System 3U :

- 2Tx + 2Rx 160MHz Bw or 4Rx 80MHz Bw
- 10M-6GHz (HF optional)
- Up to 8TB SSD (96TB external)
- Core i7, 16Go RAM, 2.5Gb Ethernet



# SPHEREA

POWER & INSTRUMENTATION

## ***Design of test benches***

A suitable technical solution and project management to transform it into a success.

## ***Custom software***

Our teams are certified LabVIEW RT & FPGA, TestStand, VeriStand, CVI, etc.

## ***Power***

DC Power Supplies, AC Sources, AC DC Loads, Analyzers  
**Chroma, Regatron, Zimmer**

## ***Functional test***

Switching, Generators, Modular instrumentation  
**Astronics, 6TL**

## ***Data acquisition***

Measuring unit & signal conditioning  
**NI, Bustec**

## ***RF & Hyper***

Phase noise measurement, Up / Down converter, Signal processing, SDR  
**NoiseXT**

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