



# Sidekiq™ NV800

Eight-Channel, Phase Coherent, RF Receiver Supporting VITA49 Data Streaming and WhiteRabbit® Synchronization

## A HIGH PERFORMANCE, FAST HOPPING, MULTI-CHANNEL SDR FOR LOW POWER RF SPECTRUM AWARENESS

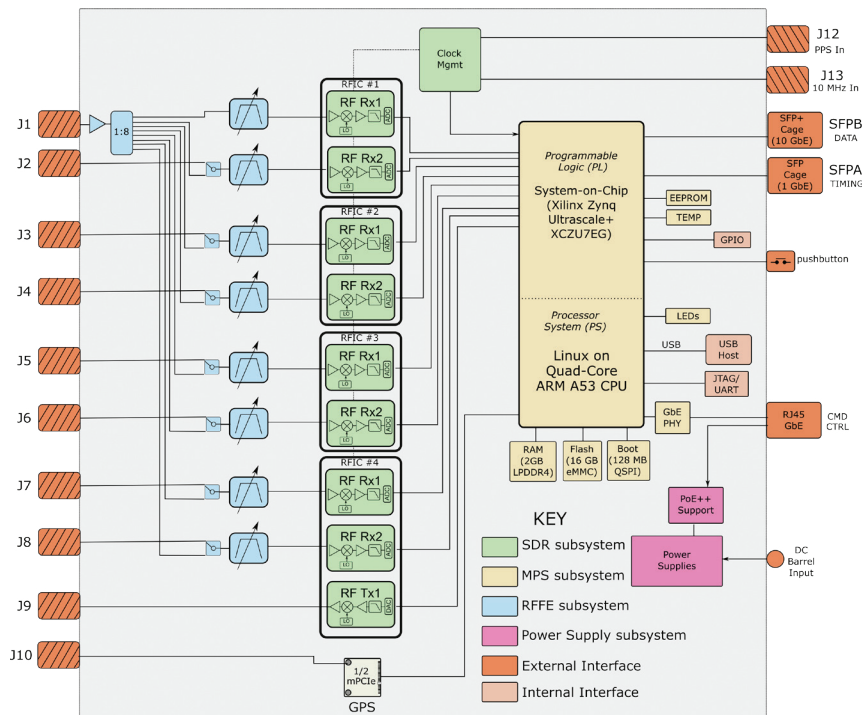
COMPLETE SOFTWARE-DEFINED RADIO PLATFORM FOR SPECTRUM MONITORING, WIRELESS DETECTION, SIGINT, C5ISR, AND COUNTER UAS AND OTHER MISSION CRITICAL APPLICATIONS

The NV800 is a high performance eight receive, one transmit SDR platform that enables rapid deployment for RF awareness applications. Capable of operating in either phase coherent or independent modes, the NV800 supports fixed frequency and fast frequency hopping modes of operation, both of which can support direction finding use cases. Fast frequency hopping on each channel can support total spectrum coverage of almost 500GHz-per-second. The NV800 is easy to install, only requiring a 1GbE connection for POE++ and command & control (DC power input is also an option), and a 10GbE for high speed data streaming using VITA49.

### KEY HIGHLIGHTS

- Standalone SDR Platform with Eight RF Receivers and One RF Transmitter
- Wide RF Tuning Range, Up To 6 GHz on All RF Channels with Future Extension to 18GHz on One RF Receiver Channel
- Up to 50MHz Instantaneous Bandwidth on All RF Channels
- Supports Frequency-Phase Coherent and Frequency-Phase Independent Operation Across All Eight Receivers
- Fast Frequency Hopping Supported on All RF Channels
- Typical Power Consumption Under 25W; POE++ or DC Input
- Support for WhiteRabbit Synchronization of < 1ns

### BLOCK DIAGRAM



## GENERAL SPECIFICATIONS

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### ENVIRONMENTAL OPTIONS

- Storage -40° to 85° C
- Operation, -40° to 70° C

## PHYSICAL SPECIFICATIONS

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### DIMENSIONS

- 9.92" x 7.24" x 2.0" (25.2cm x 18.4cm x 5.1cm)

### WEIGHT

- 3.68 lbs

## DIGITAL SPECIFICATIONS

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### FPGA

- AMD® UltraScale™ XCZUEG FPGA

### SYNCHRONIZATION

- WhiteRabbit IEEE 1588-2019

## RF TRANSMITTER SPECIFICATIONS

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### NUMBER OF TRANSMITTERS

- One

### RF TUNING RANGE

- 30 MHz to 6 GHz

### RF TUNING STEP SIZE

- < 5 Hz

### RF LO TUNING TIME

- < 70us

### RF CHANNEL BANDWIDTH

- Up to 50 MHz

### TYPICAL RF OUTPUT POWER

- Up to +0 dBm

### D/A NUMBER OF BITS

- 16

## RF RECEIVER SPECIFICATIONS

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### NUMBER OF RECEIVERS

- Eight

### RF TUNING RANGE

- 30 MHz to 6 GHz

### RF TUNING STEP SIZE

- < 5 Hz

### RF LO TUNING TIME

- < 70us

### RF CHANNEL BANDWIDTH

- Up to 50 MHz

### TYPICAL RX NOISE FIGURE

- 7 dB

### TYPICAL RX IIP3

- +13 dBm

### A/D NUMBER OF BITS

- 16

*Specifications subject to change without notice.*

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