

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 FEATURES

- 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
 - High Speed IQ Data Streaming in VITA49 Packets Over 10GbE
- **Embedded RF Server (ERFS)** Restful API for Command and Control Over 1GbE
 - Typical Power Consumption Under 25W; POE++ or DC Input
 - Support for WhiteRabbit Synchronization of < 1ns

GENERAL SPECIFICATIONS

Environmental Options

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

RF RECEIVER SPECIFICATIONS

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

RF TRANSMITTER SPECIFICATIONS

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

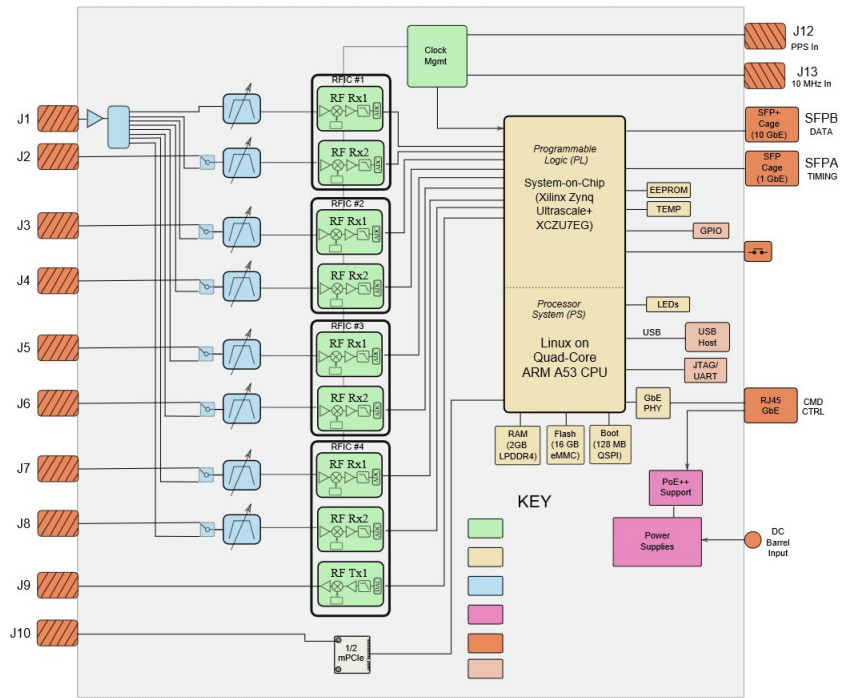
Typical RF Output Power

Up to +0 dBm

D/A Number of Bits

16

BLOCK DIAGRAM



FORM FACTOR SPECIFICATIONS

Dimensions

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

Weight

3.68 lbs

DIGITAL SPECIFICATIONS

FPGA

AMD® UltraScale™ XCZUEG FPGA

All specifications are subject to change without notice.

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Epiq Solutions is a business dedicated to advancing RF technology through products designed and manufactured in the U.S.A.



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