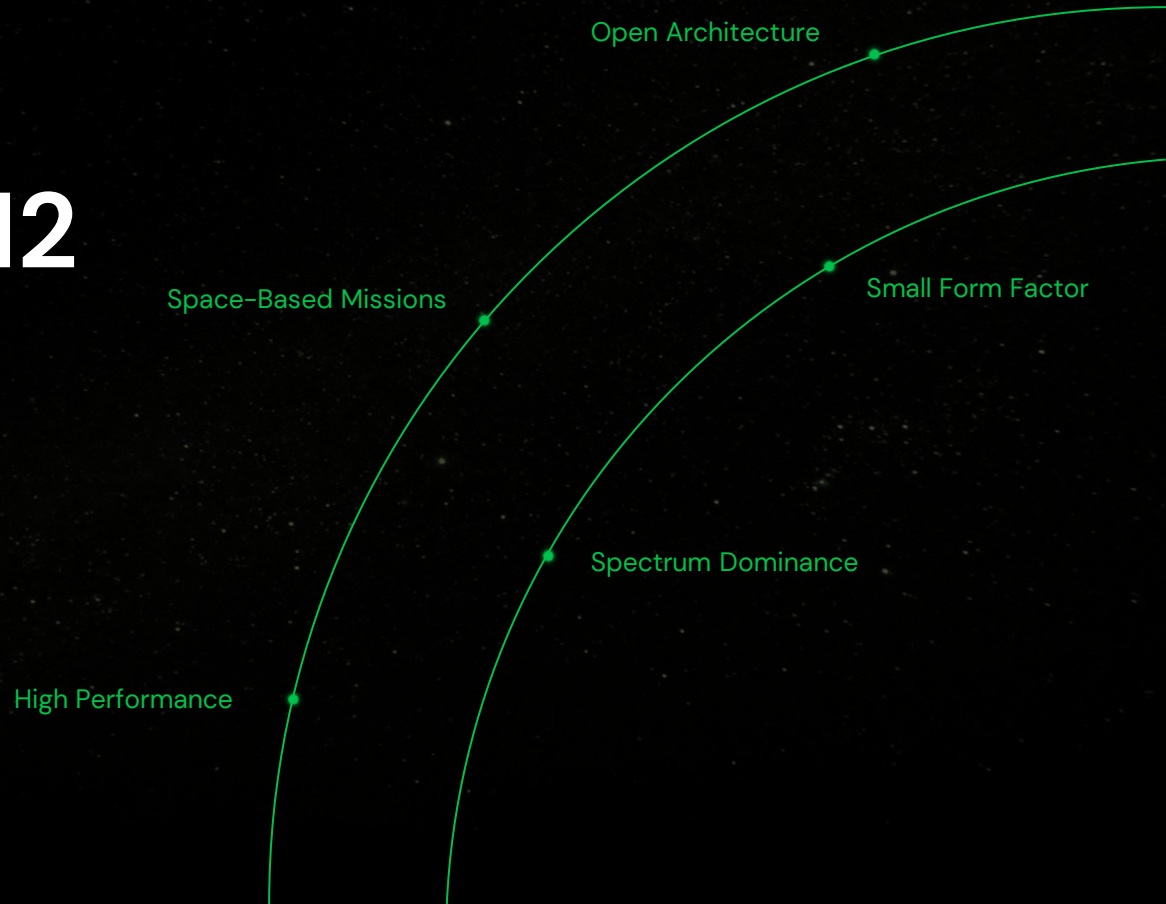
Sidekiq NVM2



Small Form Factor Portfolio

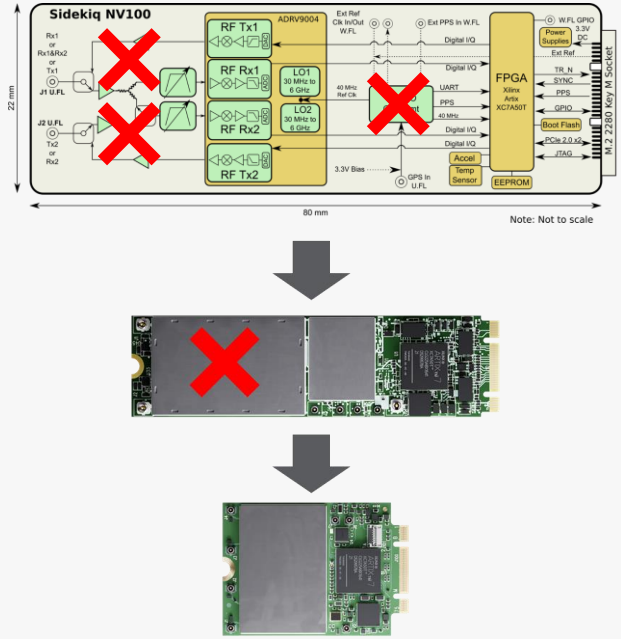
Industry's Smallest Complete SDR Platforms

Sidekiq Product	 MiniPCIe	 M.2	 Z2	 Stretch	 NV100
Max # Rx / Tx Channels	2 / 1	2 / 2	1 / 1	1 / 1	**2 / 2 Ind. Tunable**
Phase Coherence	2 Rx	2x2 MIMO	No	No	**2 Rx or 2 Tx**
RF Coverage	45MHz – 6GHz	45MHz – 6GHz	45MHz – 6GHz	45MHz – 6GHz	**10MHz – 6GHz**
Max Total BW	50MHz	50MHz	50MHz	50MHz	**50MHz / Ch 100MHz Total**
ADC / DAC Performance	12 bits	12 bits	12 bits	12 bits	**16 bits**
Typical Rx NF	<8dB	<8dB	<8dB	<8dB	**<5dB**
Typical Rx IIP3	-10dBm	-10dBm	-10dBm	-10dBm	**+2dBm**
Integrated Filters	No	No	Yes	Yes	**Yes**
On Board FPGA	Spartan 6	Artix 7	Zynq 7010	Artix 7	**Artix 7**
On Board Linux Computer	No	No	Yes, Dual Core ARM A9	No	**No**
On Board GPS	No	No	No	Yes	**Yes**
Host Interface	Gen1 PCIe x1 + USB2	Gen2 PCIe x1 + USB2	USB2	Gen2 PCIe x1	**Gen2 PCIe x2**
Typical Power Consumption	2 – 2.5W	2.5 – 3.5W	2 – 2.5W	2 – 2.5W	**4 – 6W**

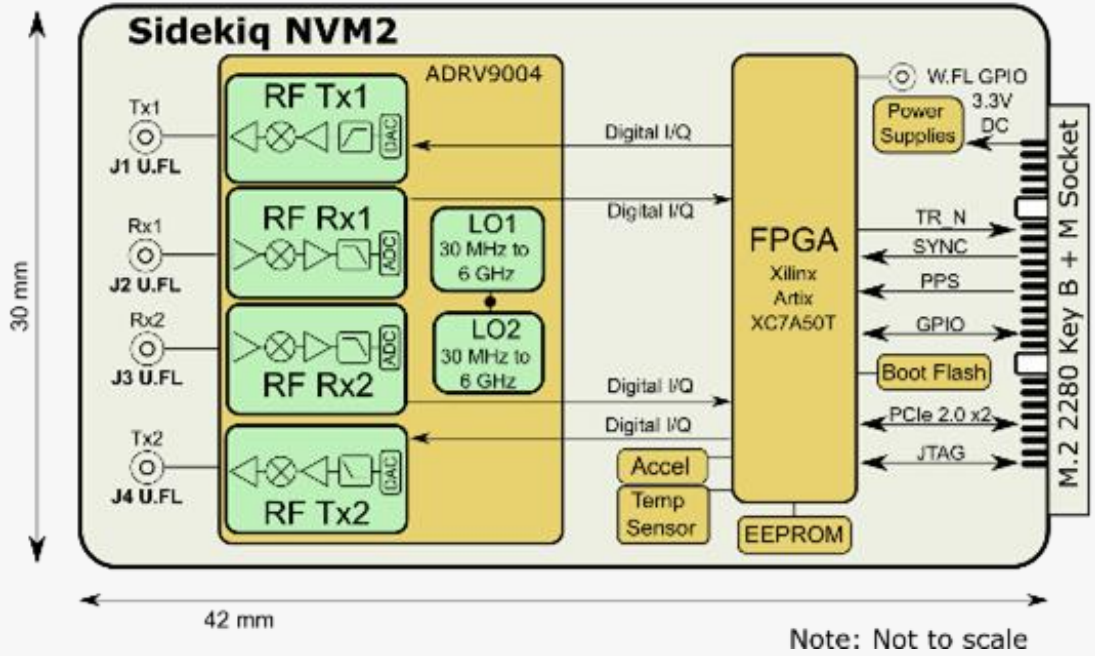
Sidekiq NVM2

NV100 Performance in the M.2 3042 Form Factor

- Extremely Low SWaP: Target 30% Reduction Compared to NV100
  - Remove RF Filtering & GPS Receiver
- Same Form Factor as Original Sidekiq M.2, with Updated Capability
  - Improved Rx Performance
  - 16b ADCs & DACs
  - Enhanced Frequency Hopping
  - Independent & Coherent Frequency Capability
- Supports Multiple Modes of Operation
  - 2 Rx + 2 Tx, FDD or TDD
  - 2 Rx, Independently or Coherently Tuned
  - 2 Tx, Independently or Coherently Tuned
- Features & Interfaces
  - AMD Artix 7 for Control & On Board Processing
  - Ext 10MHz Input + PPS Input via W.FL or Edge Connector
  - Gen2 PCIe x2 Interface to Host
  - FPGA GPIO + Sync Pins Accessible at the Key B/M Edge Connector

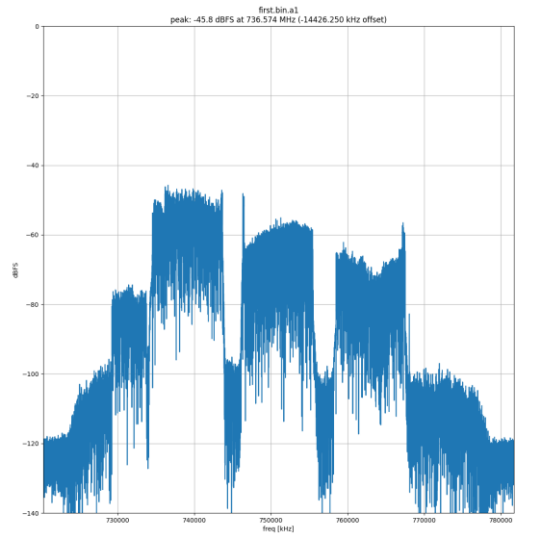


NVM2 Block Diagram



Sidekiq NVM2 Product Status

- First Boards Received at Epiq
  - IQ Data Streaming on First Day!
- Early Demo Units Available in 4Q24
- Production Release in 1H25
- Contact Epiq Solutions for More Information



SFF Evaluation & Development Environment

Sidekiq NUC PDK Platform

- Simplifies Development & Lab Use
- Compatible with Sidekiq MiniPCIe, M.2, Stretch, NV100, and NVM2
- Sidekiq SDR Card is Embedded in NUC Mini PC
- Development Software Environment Provided by Epiq
- Exposed Connectors for Easy Access
  - SMA x 5 for Rx, Tx, GPS, PPS, & Ref Clk
  - JTAG Header
  - GPIO Header
  - HDMI
  - USB
  - Ethernet

Thank You

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