



# Matchstiq G20 & G40

High Performance

Space-Based Missions

Open Architecture

Spectrum Dominance

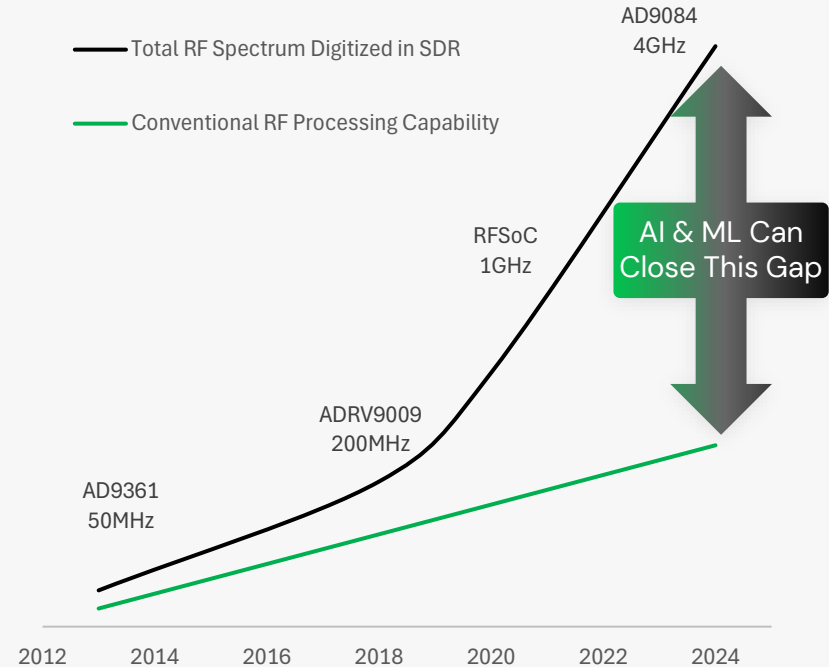
Small Form Factor

# Enabling AI & ML at the RF Edge



## RF Digitization is Outpacing Signal Processing

- The Last Decade has Seen an Exponential Growth in SDR Capability
  - Nearly 200x Increase in RF BW per SDR
- Conventional Signal Processing Has Not Kept Up
  - Moore's Law → Linear Growth, Not Exponential
- Epiq's Approach: **Embrace AI & ML**
  - Integrate Highly Capable GPU/CPU Devices into the SDR
  - Enable Power Scalable Processing
  - Partner with Industry Leaders like DeepSig
- The Result
  - Industry Leading SDRs Optimized for RF Sensing at the Edge



# Matchstiq G20, G40, and X40



## Scalable Product Family for AI & ML Applications

- Increasing RF Coverage, BW, and Processing with SWaP-C
- Two Form Factors
  - G20/G40: 7.6" x 4.4" x 1.0" & 2lbs
  - X40: 9.75" x 4.25" x 1.45" & 2.2lbs

### G20

One NV100 SDR  
2TB SSD for Record  
Nvidia Orin NX 16G  
2 RF Ports  
Coherent & Independent  
20W Typical



### G40

Two NV100 SDRs  
Nvidia Orin NX 16G  
4 RF Ports  
Coherent & Independent  
30W Typical

### X40, 6GHz

1MHz – 6GHz RF Range  
Up to 200MHz BW / Ch  
4 Receivers  
2 Transmitters  
Coherent & Independent  
Nvidia Orin NX 16G  
AMD ZU7 MPSoC  
45W Typical

### X40, 18GHz

1MHz – 18GHz RF Range  
Up to 450MHz BW / Ch  
4 Receivers  
1 Transmitter  
Coherent & Independent  
Nvidia Orin NX 16G  
AMD ZU7 MPSoC  
60W Typical

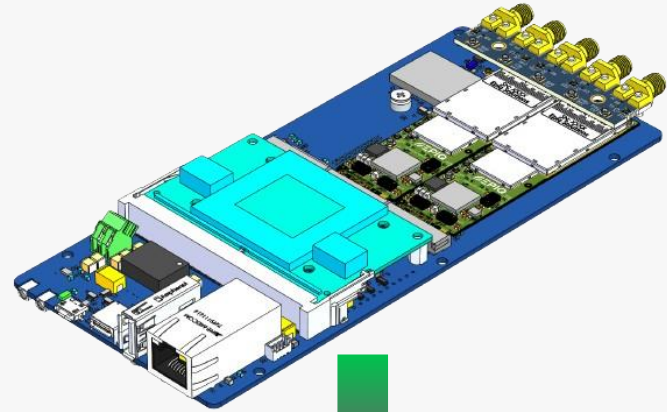


# Matchstiq G20 & G40

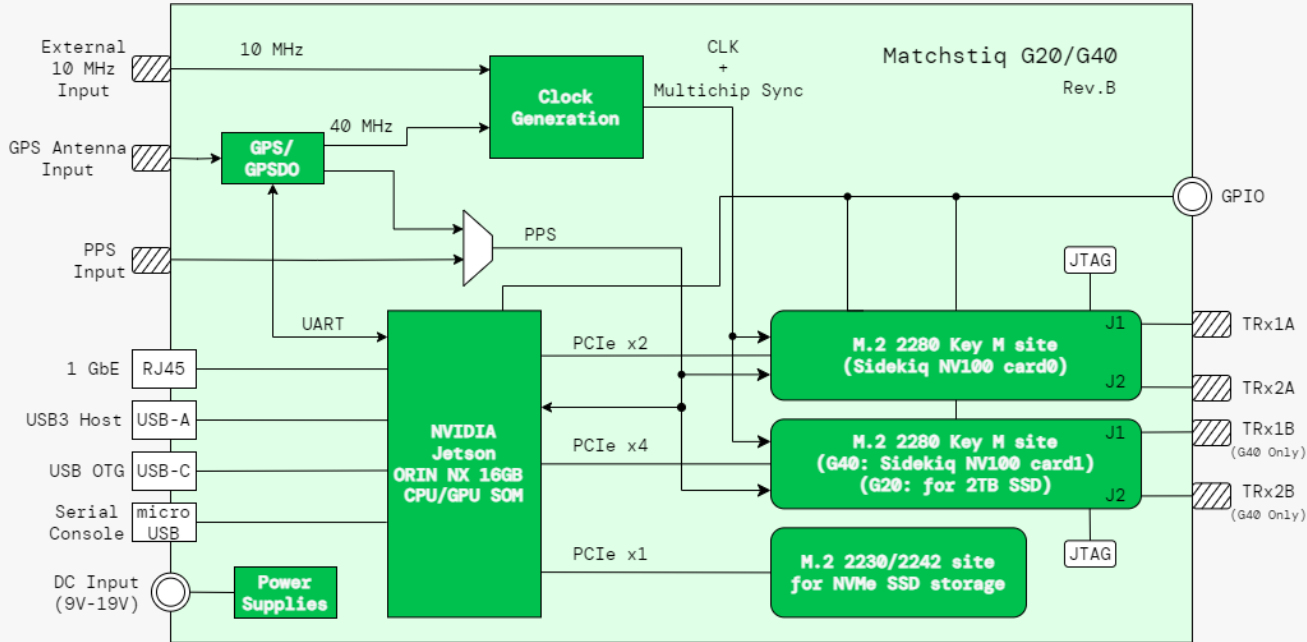


## Standalone GPU+SDR Platform Based on Epiq NV100

- Integrates the NVIDIA Orin NX 16G GPU/CPU SOM
- Exposed Interfaces
  - GbE, USB, Micro USB, GPIO, DC Power
  - GPS Rx or Ref & PPS
  - Up to 4 Total RF Inputs & Output
- G20: 1x NV100 + 1x M.2 SSD
  - Enables RF Record in Platform for 2 RF Channels
- G40: 2x NV100
  - Enables 4 Coherent or Independent RF Channels



# Matchstiq G20 & G40 Block Diagram



# Matchstiq G20 & G40 Development Details



- Dimension Estimate: 7.75" x 4.4" x 1.0"
- Volume Estimate: 34.1in<sup>3</sup>; 559cm<sup>3</sup>
- Weight Estimate: 2lbs; 0.9kg
- Early Units Available in Mid 2024
- Production Release in 4Q24



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# Thank You

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