



Analog Devices DataX: APIs to the Physical World

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analog.com

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ADI ADVANTAGES

Solving complex problems
to speed time to market

ANALOG DEVICES

- ▶ Broad portfolio of leading technologies and solutions
- ▶ Deep technical expertise and industry domain knowledge
- ▶ Earned reputation as a trusted partner

ADI by the numbers



Founded

1965

Headquarters

Wilmington, MA

Employees

~24,000

Countries

20+

Products

>45,000 SKUs

Customers

>125,000

Publicly Listed

NASDAQ:ADI

Part of S&P 500 and NASDAQ 100

Design Centers

45

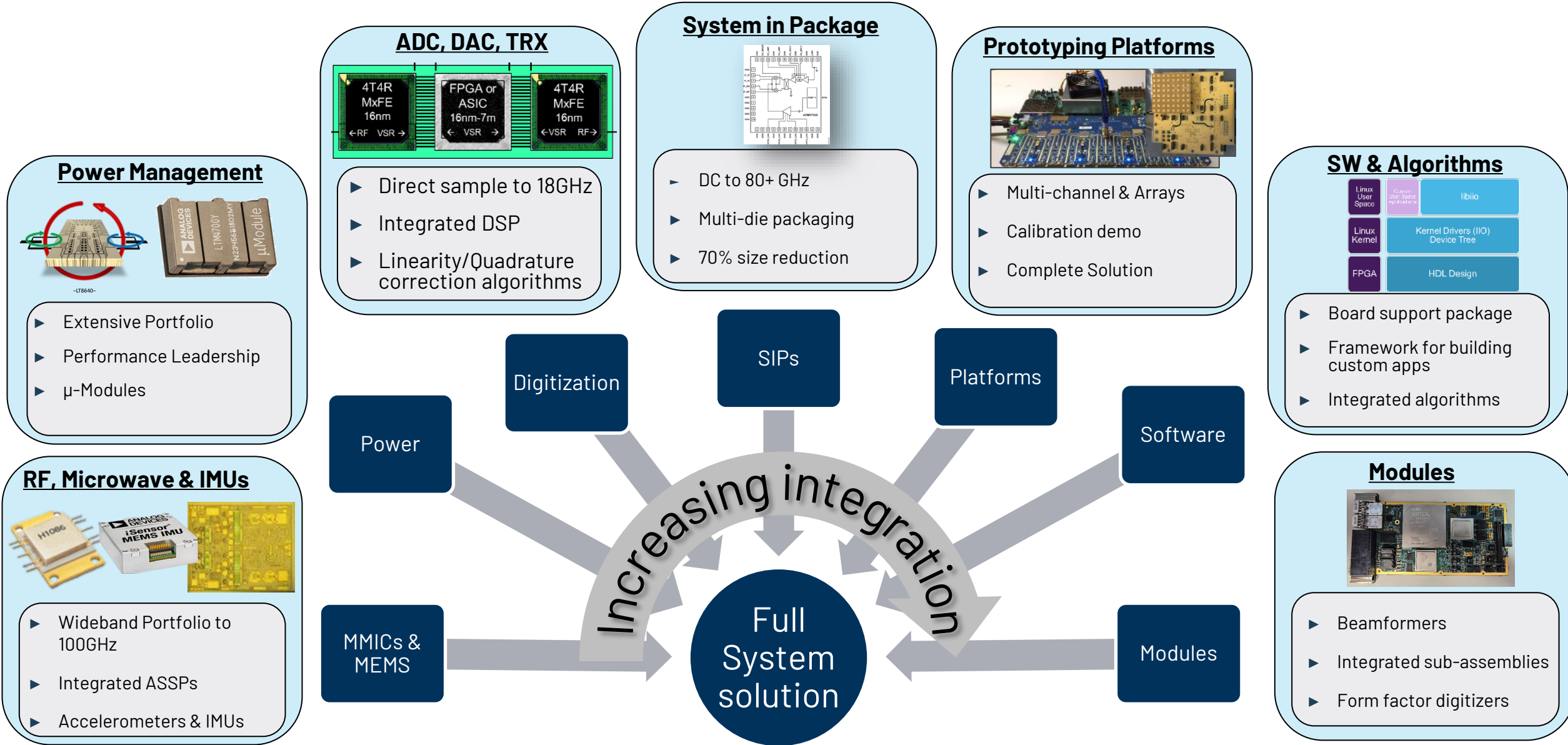
Global Manufacturing

U.S. (Massachusetts, California, Washington), Ireland, Philippines

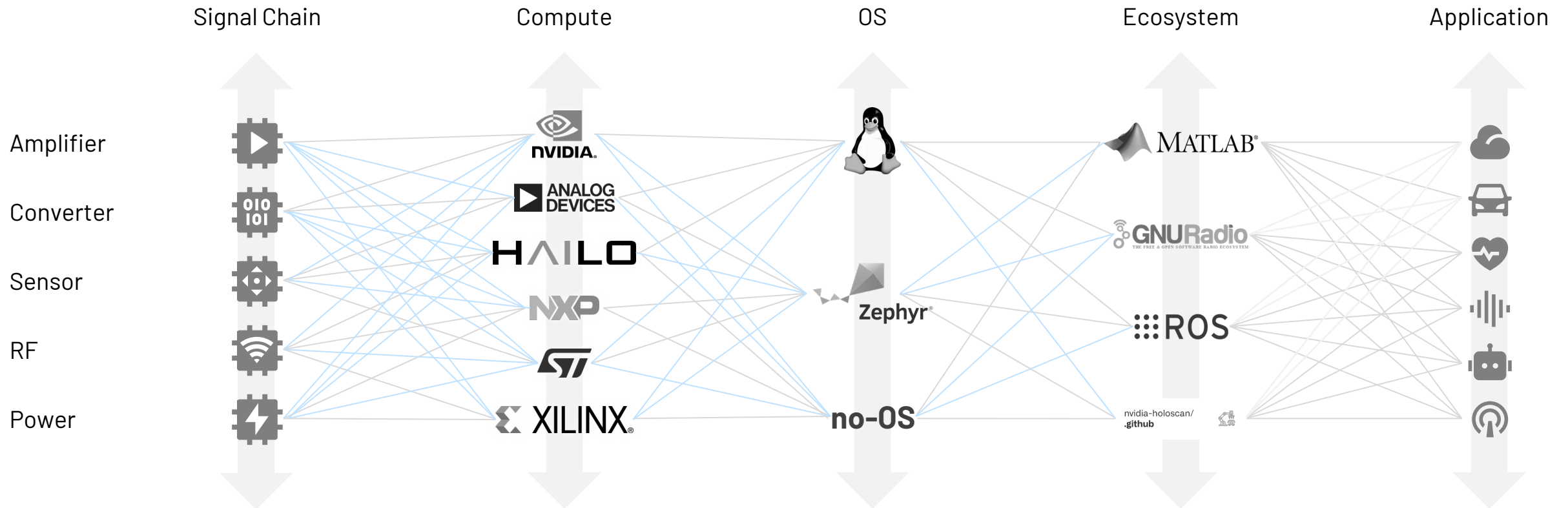


**Over 4700 patents and
>\$4 billion R&D investment in the
past 10 years.**

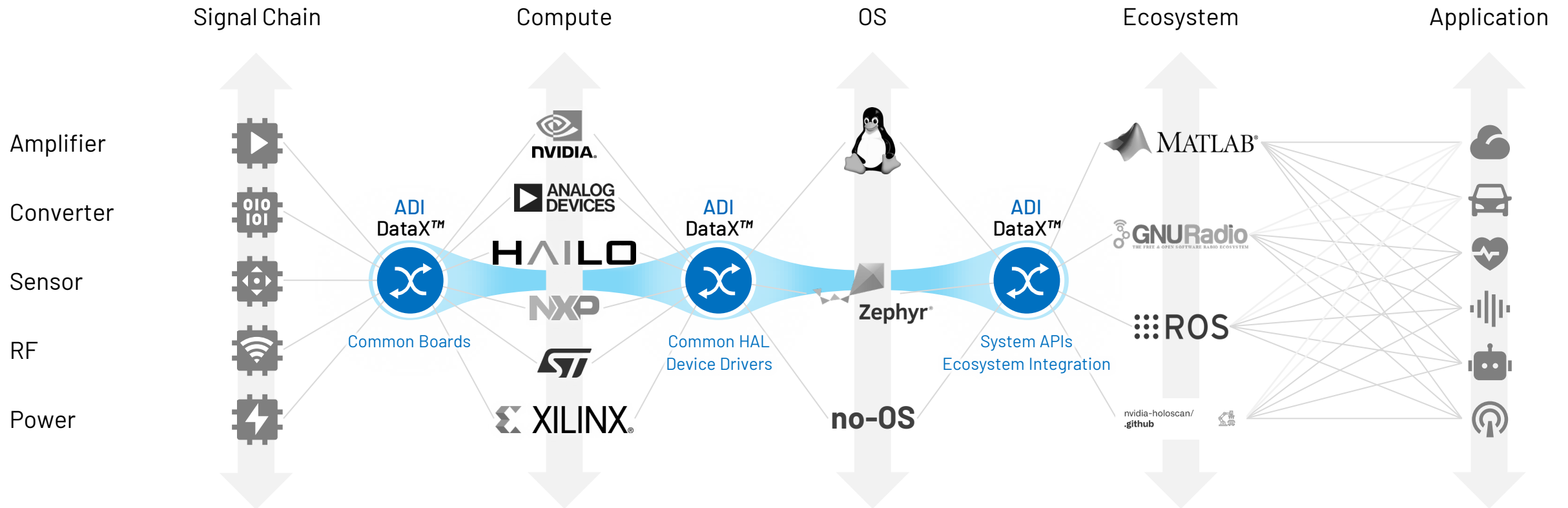
ADI Technology Enables Complete Solutions



Enablement in a rapidly evolving ecosystems and applications space



Enablement in a rapidly evolving ecosystems and applications space

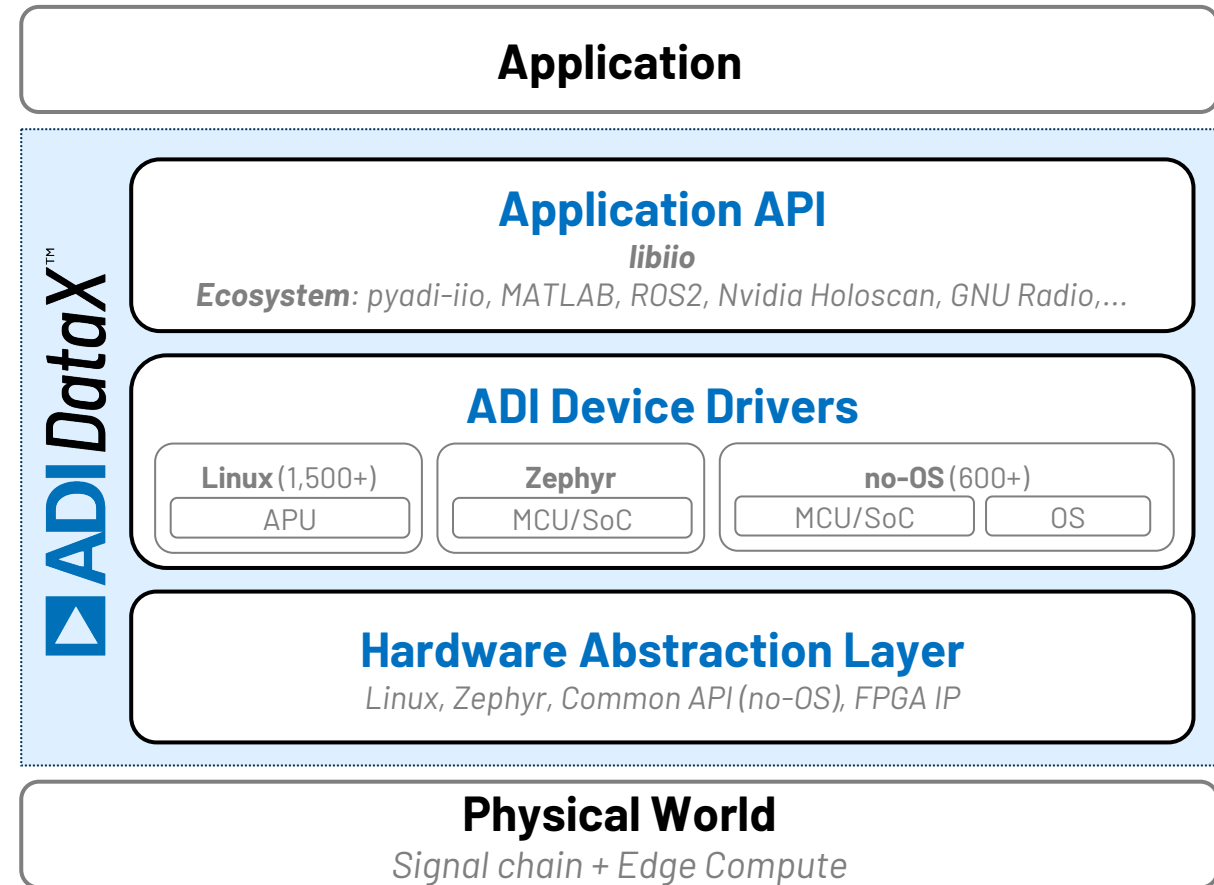




API into the Physical World

ADI DataX™ is highly adaptable, open **technology stack**, bridging the gap between signal chains and applications across a wide range of processing platforms, operating systems, and software ecosystems, to enable **physical intelligence**

It provides the fabric connecting applications to the physical world through **industry-standard APIs**, enabling portability across processing platforms and operating systems, and ease of integration into the customer's ecosystem of choice



Goal: Any signal chain to **Any** application on **Any** platform

ADI DataX™ - Building Blocks

ADI DataX™

Middleware



<https://github.com/analogdevicesinc/libiio>
<https://github.com/analogdevicesinc/pyadi-iio>
<https://github.com/analogdevicesinc/TransceiverToolbox>
https://github.com/analogdevicesinc/adi_ros2



Device drivers



<https://github.com/analogdevicesinc/linux>
<https://github.com/analogdevicesinc/no-OS>
<https://github.com/analogdevicesinc/zephyr>



1,500+ Linux drivers
 600+ no-OS drivers



FPGA IP library and reference designs

<https://github.com/analogdevicesinc/hdl>



80+ ADI IPs
 100+ Reference Designs
 40+ Converters in **ADI JESD204 IP Framework**
 30+ Converters in **ADI SPI Engine**
 20+ Carriers (AMD, Altera, Lattice, Microchip)

Development platforms / SoMs



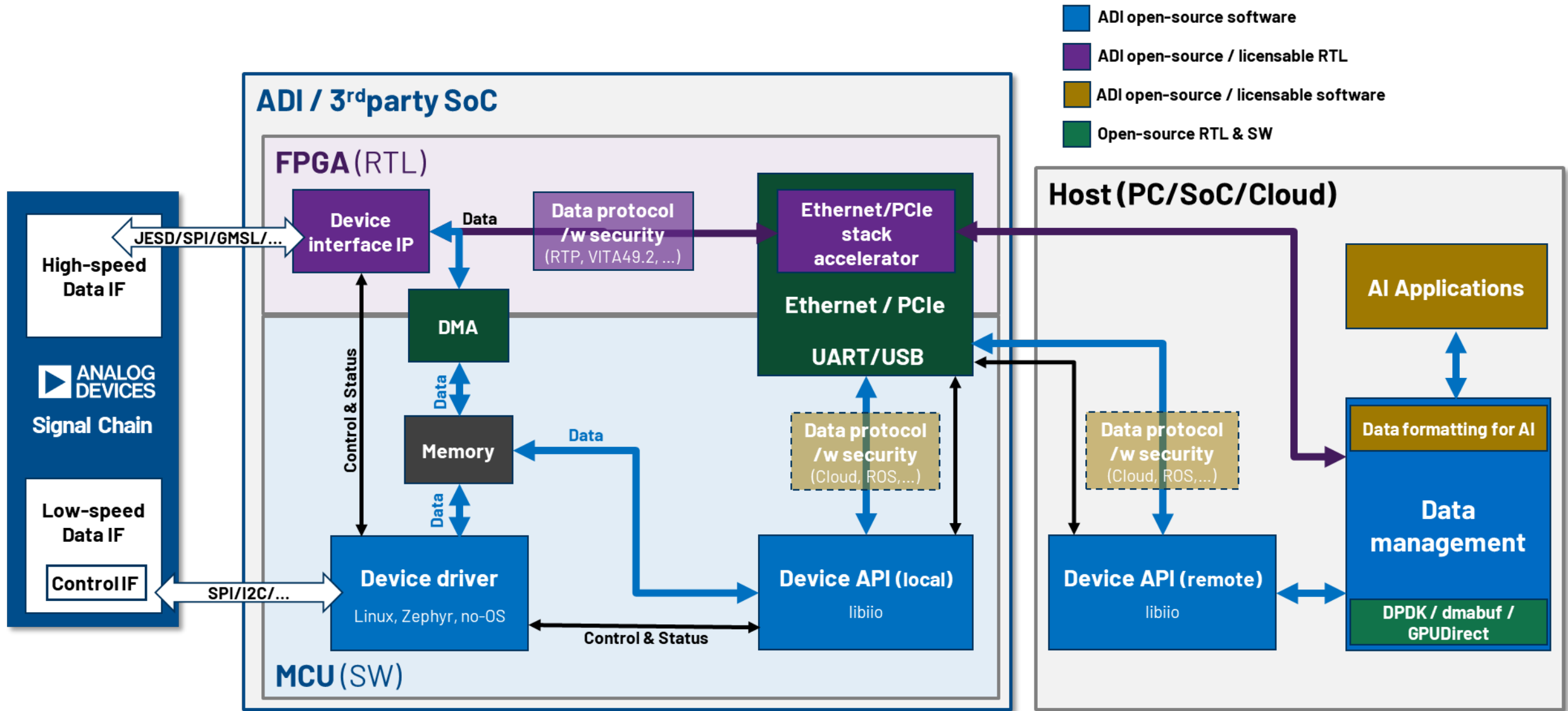
100s Hardware platforms

Scales across applications and end-markets

Provides a consistent experience across the product development journey

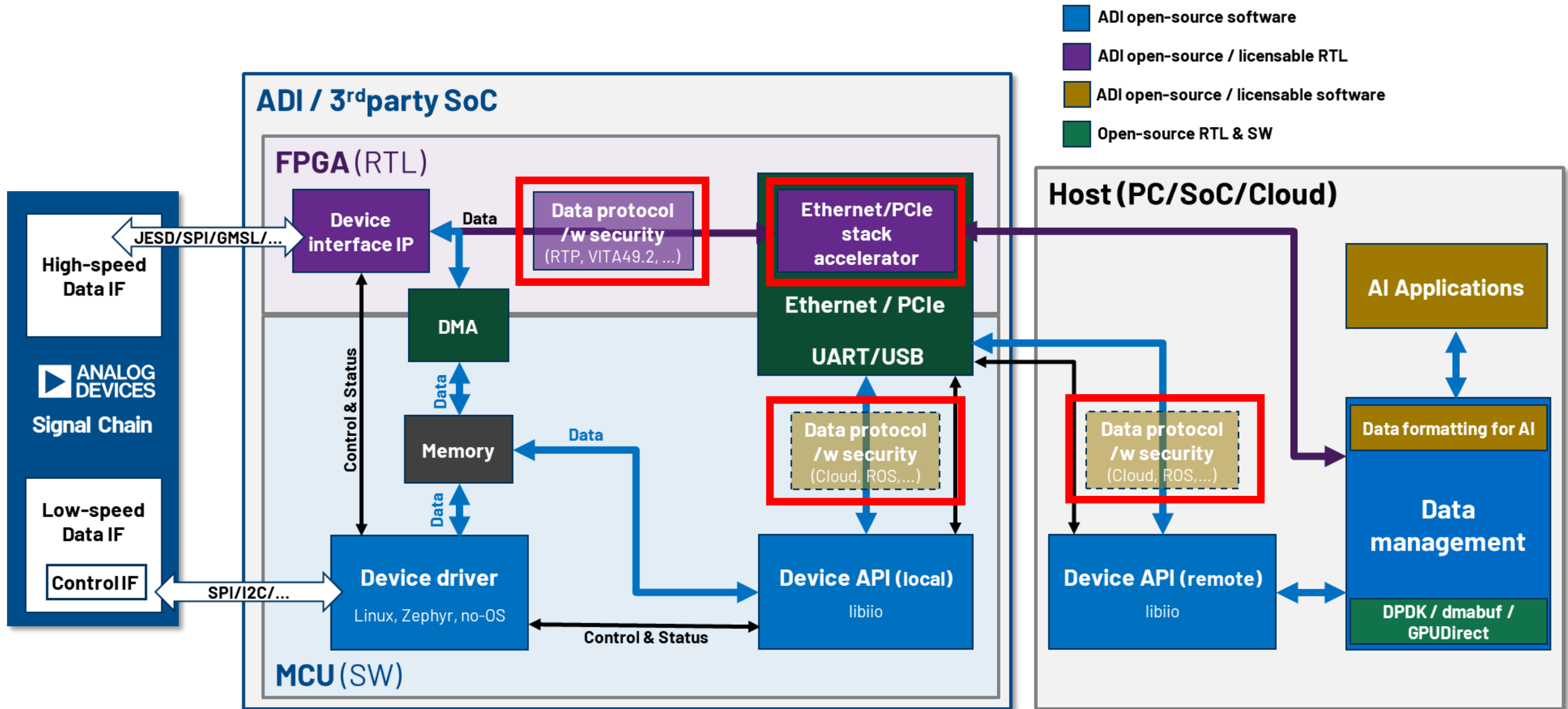
Ensures extensibility for future standards and ecosystems

DataX Common Data Extraction Infrastructure



Scales across applications and data rates enabling SW & IP reuse

DataX Common Data Extraction Infrastructure



Scales across applications and data rates enabling SW & IP reuse

DataX Embedded World 2025 High-Speed Demo



DataX

2x RF, Multiple modulation schemes



DataX

2x RF, Multiple modulation schemes



DataX

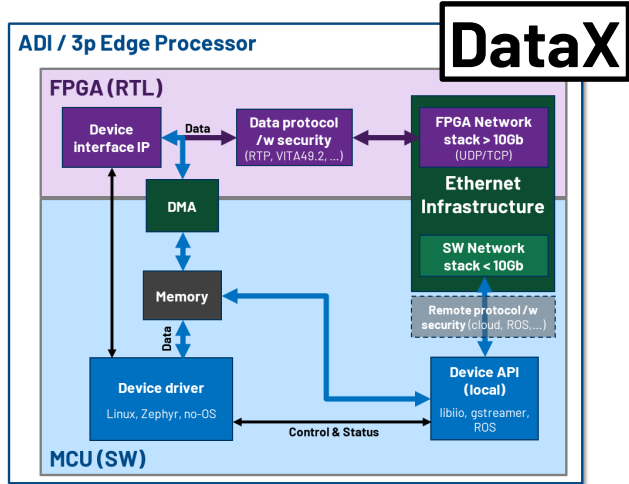
2x RF, Multiple modulation schemes



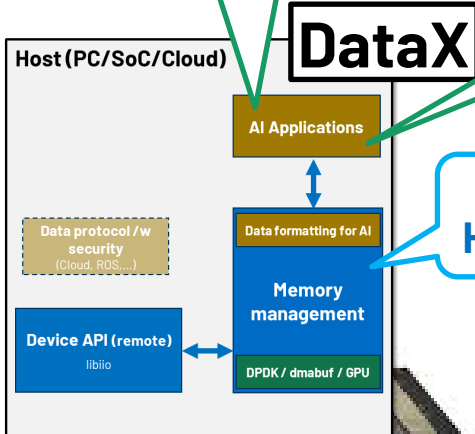
DataX

2x RF, Multiple modulation schemes

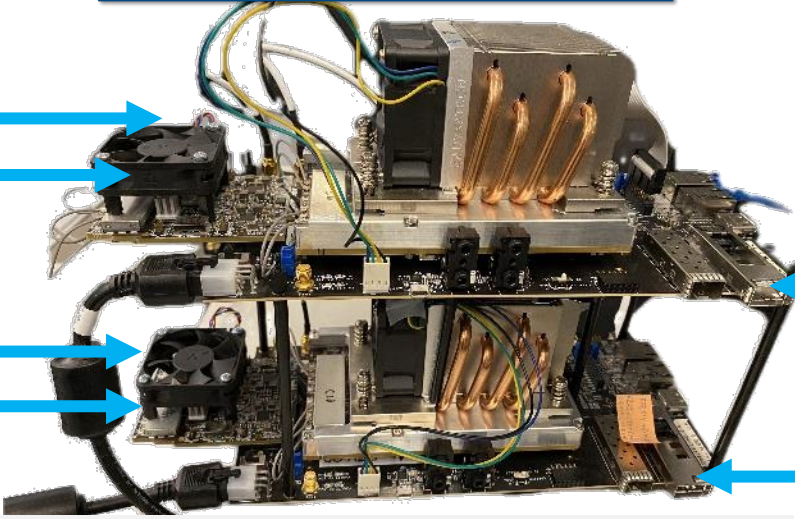
AD-JUPITER-EBZ



DataX



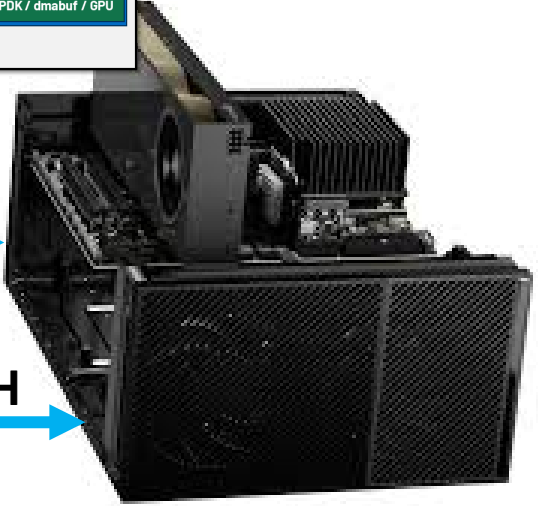
DataX



ADRV9009-ZU11EG

10Gb ETH

10Gb ETH



Nvidia IGX Orin

DataX High-Speed Demo (IMS2025)



2x RF, Multiple modulation schemes



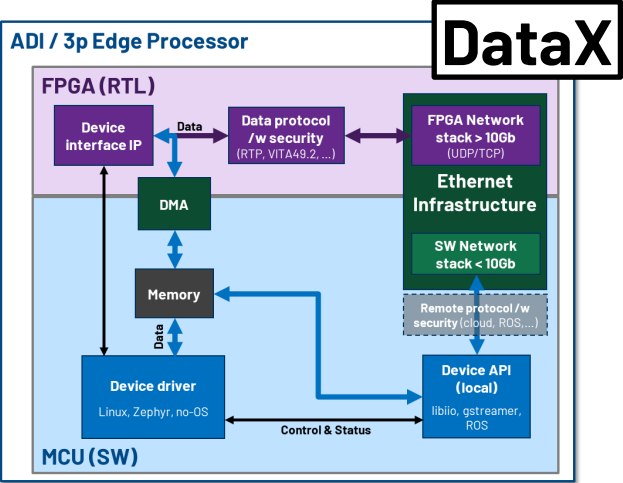
2x RF, Multiple modulation schemes



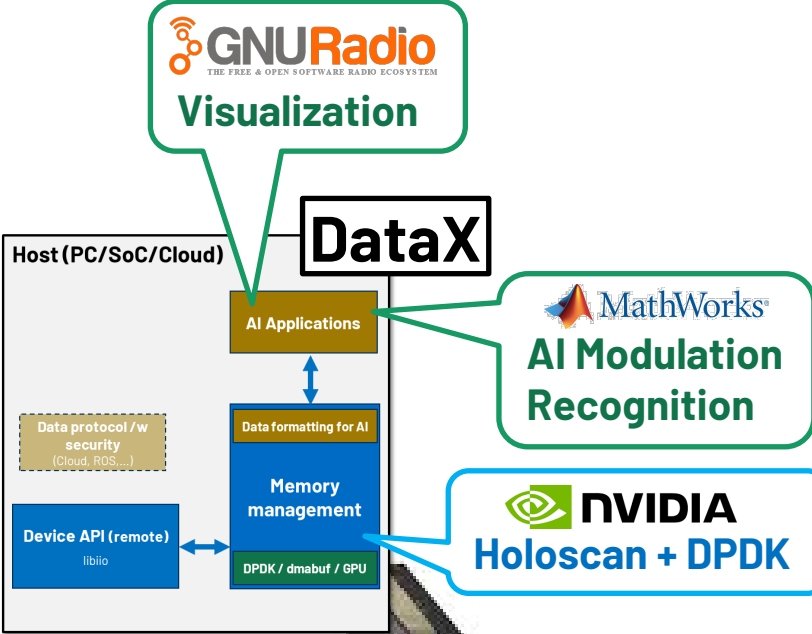
2x RF, Multiple modulation schemes



2x RF, Multiple modulation schemes



ADS1100



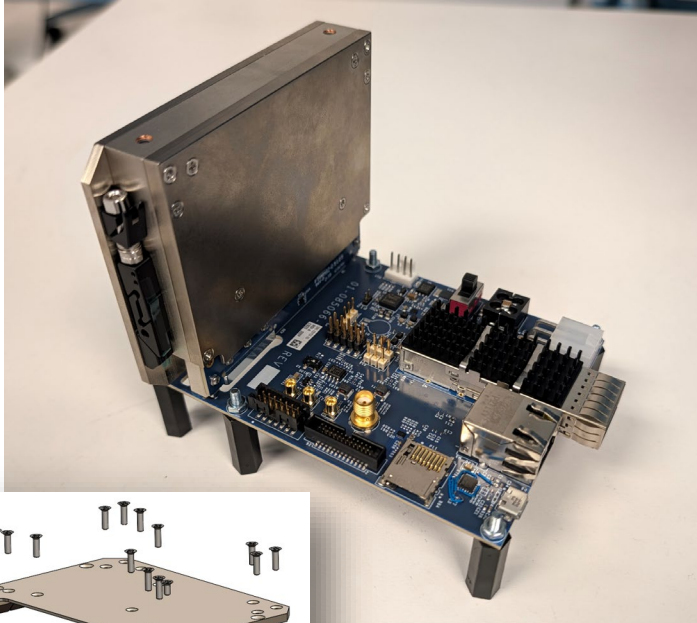
Nvidia IGX Orin

100Gb ETH

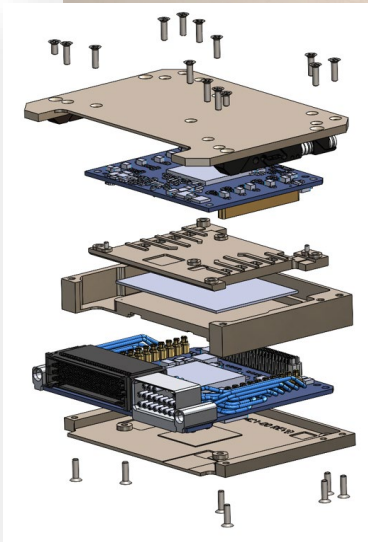
Raw IQ Data

AD-JUPITER-EBZ

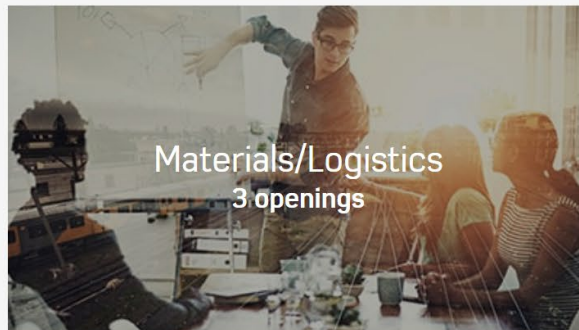
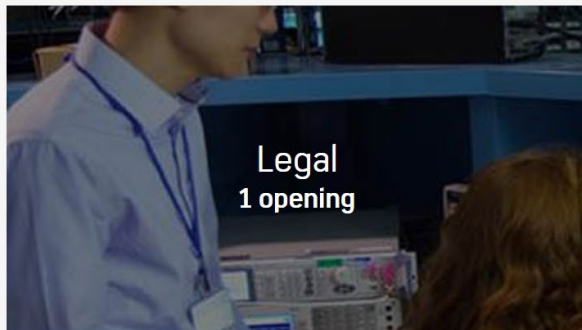
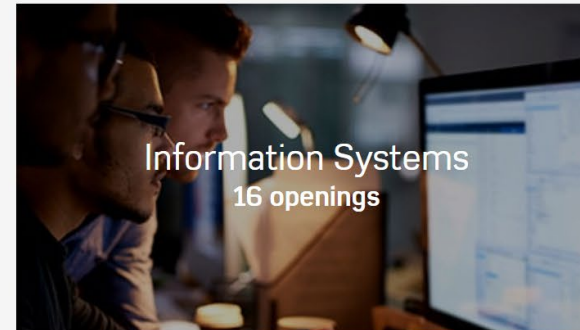
DataX ADSY1201: 8-Channel VNX+ SDR Module



- VNX+ small-form-factor module
- ADRV9038R (4R4T/8R8T) transceiver
- VE2202 Versal FPGA
- 4x 25G Ethernet
- DataX support
 - Linux and No-OS drivers
 - HDL reference design
 - JESD204 Interface Framework support
 - GNU-Radio support through gri-iio and gr-adi



<https://careers.analog.com/>



- ▶ United States
- ▶ Ireland
- ▶ Philippines
- ▶ India
- ▶ Malaysia
- ▶ Great Britain
- ▶ Romania
- ▶ Germany
- ▶ Spain
- ▶ Canada
- ▶ ...

AHEAD OF WHAT'S POSSIBLE

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