



Accelerate Your Trading Strategies: Introducing the New Alveo™ X3 Series

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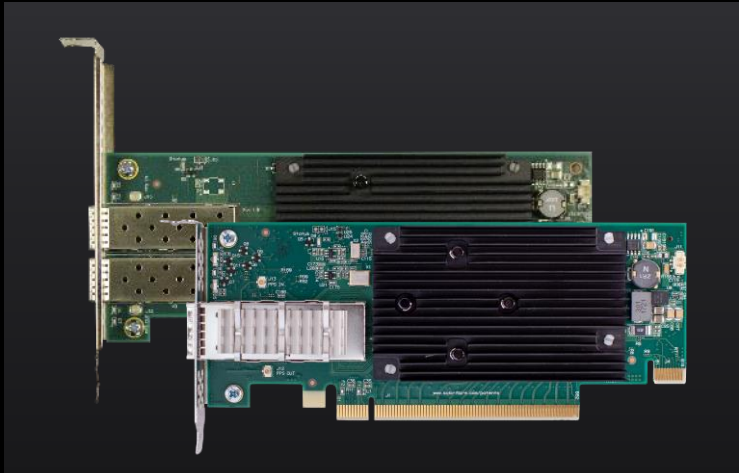
November 1st, 2022



Introducing the Alveo™ X3 Series Adapters

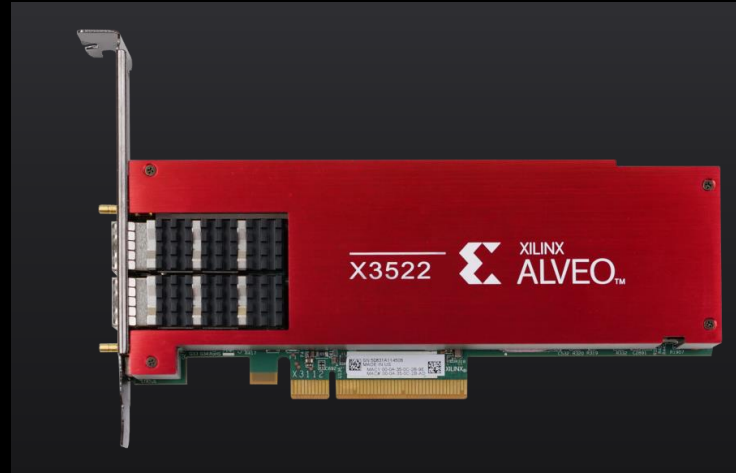
In Production

Alveo X3 Series



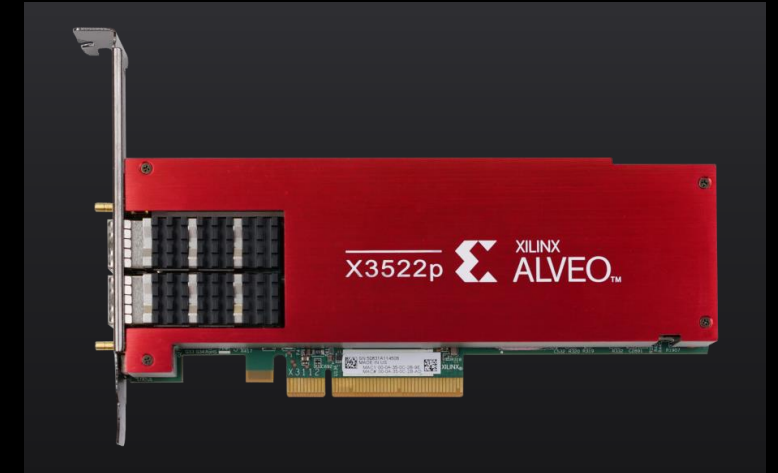
X2 Series
Offload NICs

- X2522 Low Latency NIC
2x10/25G
- X2541 Low Latency NIC
1x 10/25/40/50/100G



Alveo X3522
Low Latency Network Adapter

- 4x10/25G
- Lower latency
- Improved architecture
- Upgradeable
- Optional upgrade access to 400K LUTs

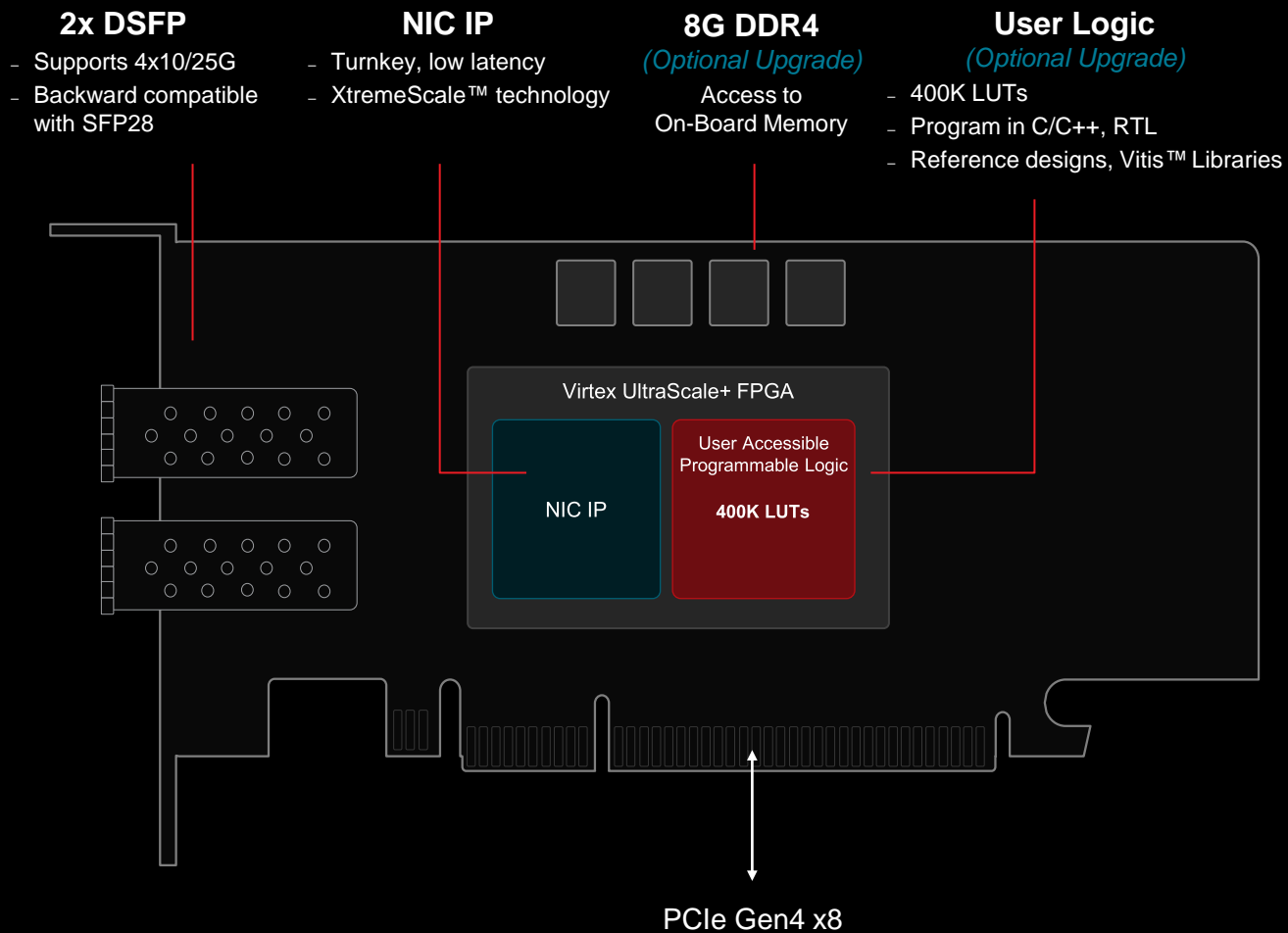


Alveo X3522PV
Accelerator Card

- 2x DSFP connectors
- Time synchronization (PPS In/Out)
- Access to ~1M LUTs
- -3 silicon enables up to 644MHz operation, 16b

Low Latency NIC Features and Capabilities

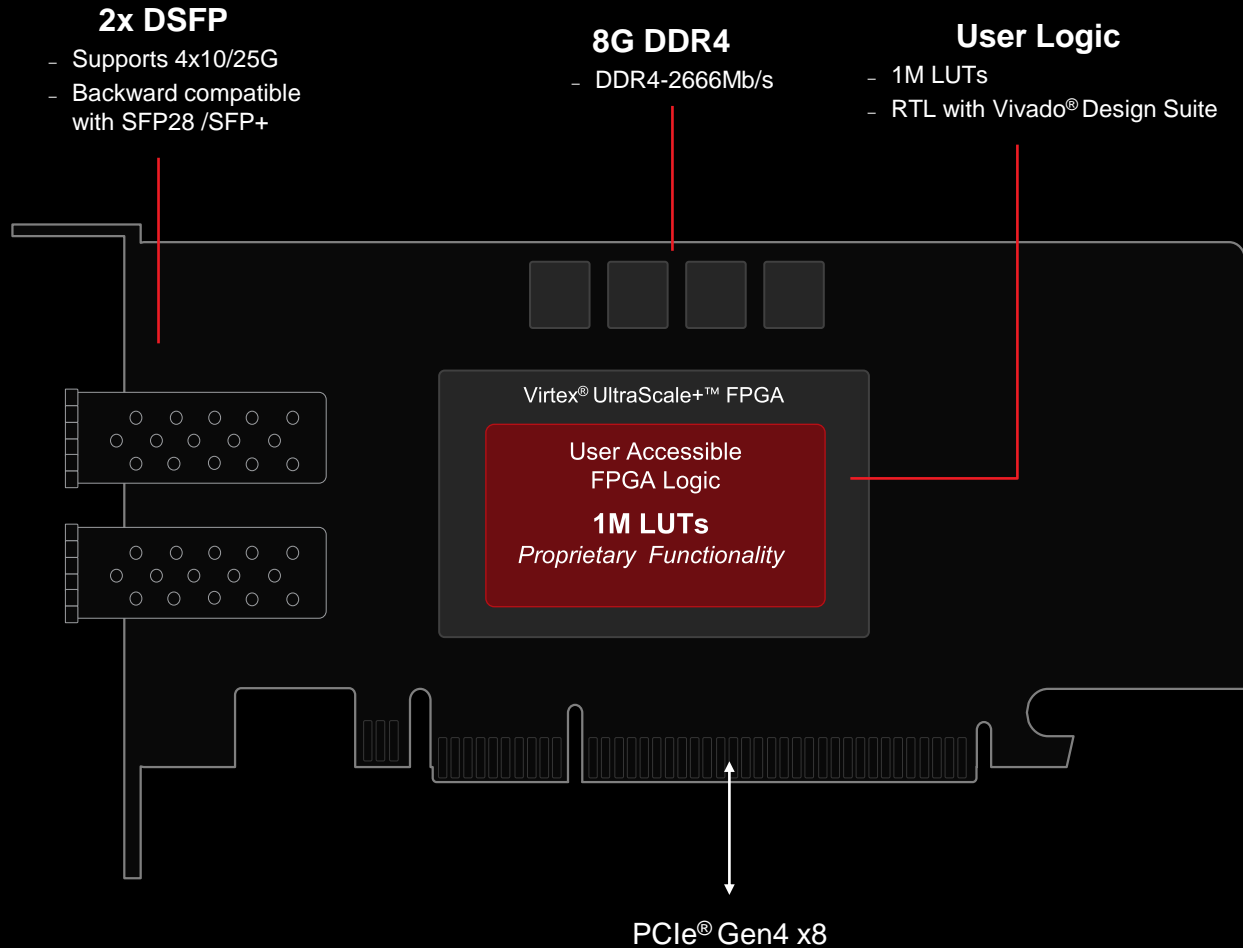
Alveo™ X3522



FEATURES	SPECIFICATION
Power	<ul style="list-style-type: none"> • 35W (NIC mode) • Up 75W max power (hybrid mode) (PL dependent)
User Functional Space	400K LUTs (hybrid upgrade package)
Programmability	<ul style="list-style-type: none"> • C/C++ High-Level Synchess (HLS) • RTL (hardware design) • ULL Framework IP from Orthogone Technologies • ANTS reference design (utilizes Onload®) • Delegated Send
Memory	8GB DDR4 (hybrid upgrade package)
PCIe® Config	Gen4 x8
Network Port Config	4 x 10GbE/25GbE
1PPS Support	SMA connector, through IO bracket
PTP	Stratum 3 oscillator, PTPv2 support
Software	<ul style="list-style-type: none"> • Vitis® SW Environment (C/C++, libraries) • Onload SW for kernel bypass • TCPDirect • ef_vi API for latency optimization • XRT runtime SW

Accelerator Card Features and Capabilities

Alveo™ X3522PV



FEATURES

SPECIFICATION

Power	75W Max Power
Device	<ul style="list-style-type: none"> • Virtex UltraScale+ XCUX35 • -3 speed grade
SerDes (GTY) Capability	16b, 644MHz operation supported
Programmability	Vivado Design Suite
Memory	8GB DDR4
PCIe Config	Gen4 x8
Network Port Config	4 x 10GbE/25GbE
1PPS Support	SMA connector, through IO bracket
Software	Vivado Design Suite
Sideband Support	PLDM over MCTP over SMBus
LUTs	1,030K
Embedded RAM	<ul style="list-style-type: none"> • 99 Mb UltraRAM • 74.3Mb Block RAM

Alveo™ X3 Series Advantages



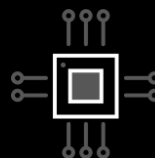
Low latency, plug-and-play NIC

High port density (4x 10/25GbE), based on Xtremescale™ NIC technology



Determinism for reliable trade execution

Reordering, underruns, collisions handled by NIC



CPU offload for hybrid trading

Offload business logic to NIC



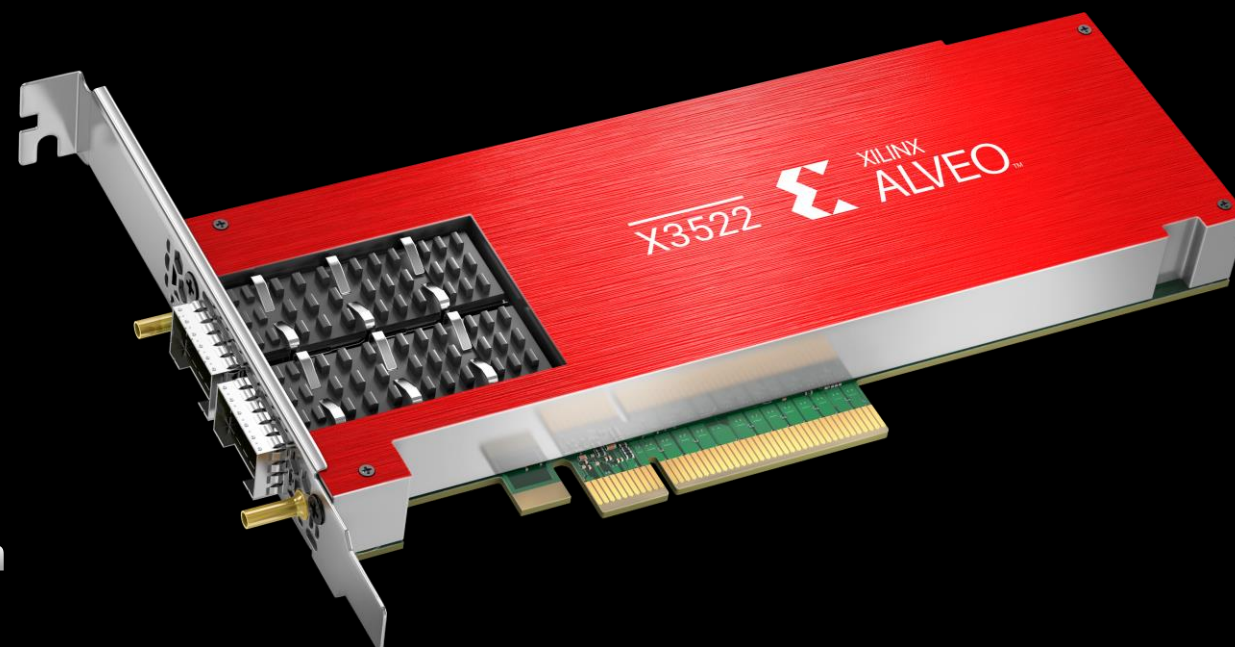
HW upgradeable after deployment

Integrate new features from AMD



Adaptable Acceleration and Customization

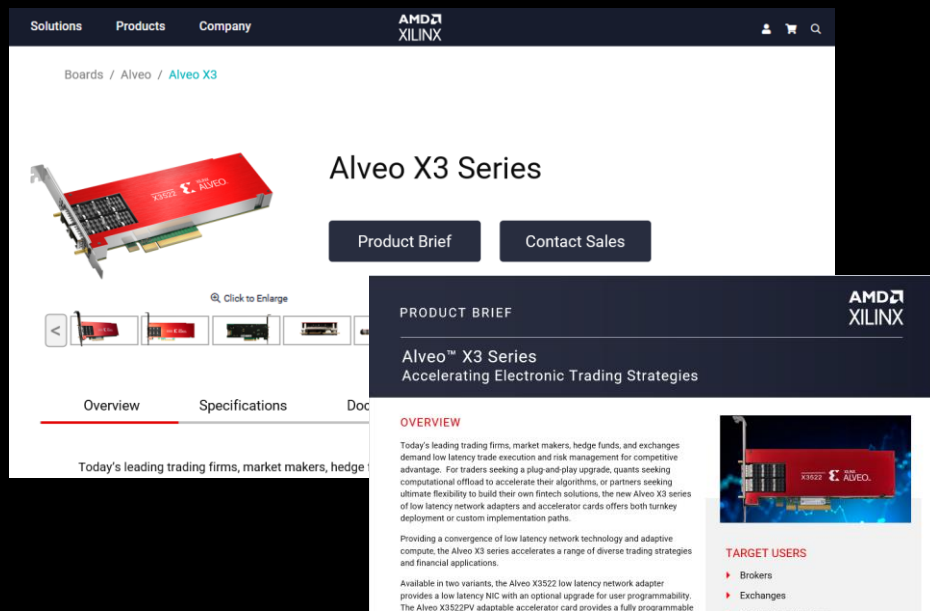
Hardware flexibility for custom fintech solutions



Get Started Now

Learn More

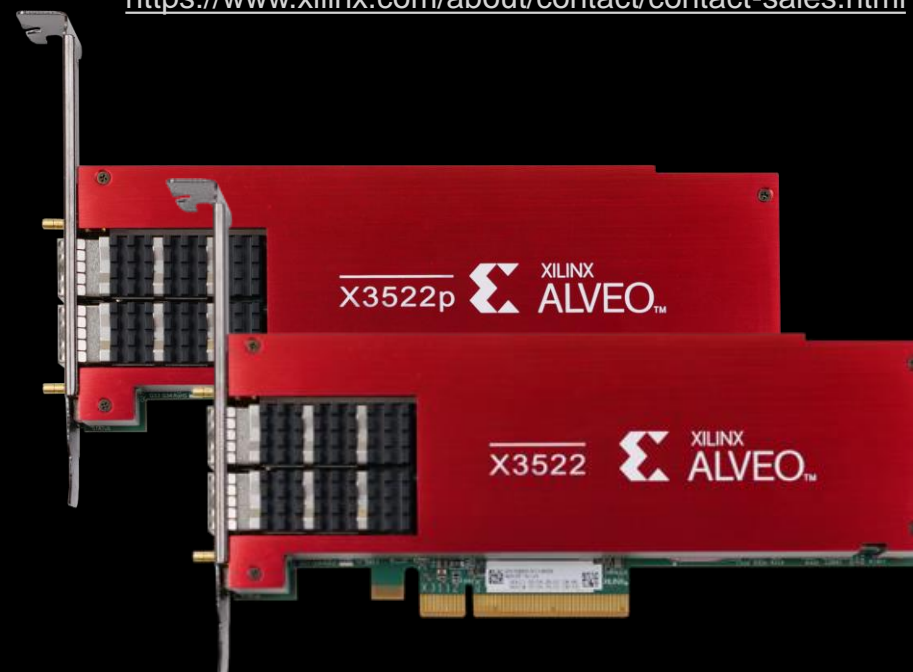
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