HIGH-FREQUENCY TRADING SERVER
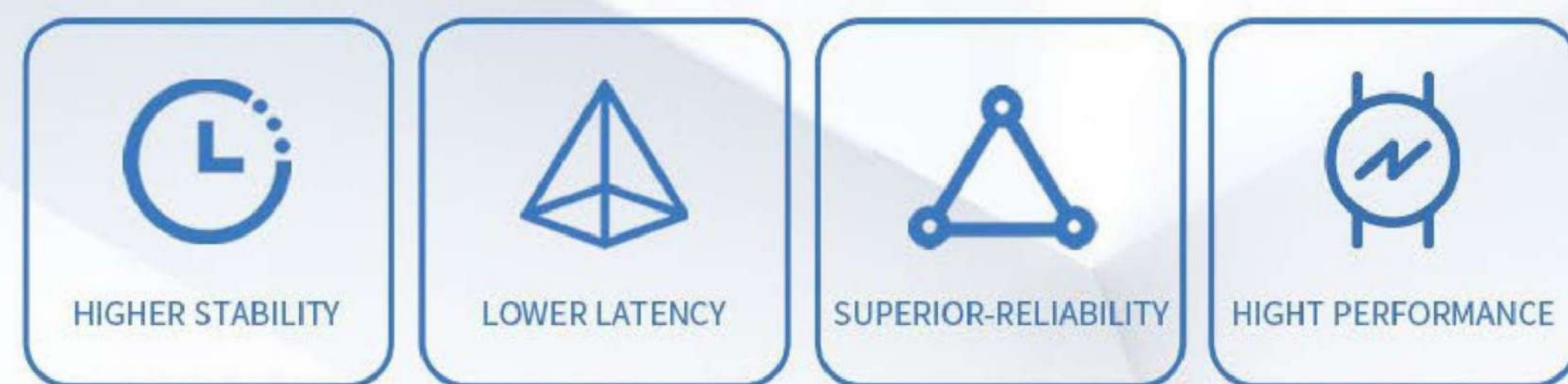
Main frequency up to 5.5GHz
The industry's first CDU cooling server
Direct access to the trading room

HIGHER STABILITY **LOWER LATENCY** **SUPERIOR-RELIABILITY** **HIGHT PERFORMANCE**

TDL

PRODUCT PARAMETERS

Product Series	ASA201-S08R-X670
Product Type	2U 4-bay
Size	695X433.4X87.6mm (D x W x H)
CPU	AMD Ryzen™ 9 7950X 16C:5.5GHz
MEM	Standard: 2x 32GB DDR5 5200MHz MAX: 4x 32G DDR5 3600MHz
Hard Drive	Standard: 2x 960G SSD MAX: ≥8x 3.5" /2.5" and 2x 2.5" 2x M.2 PCIe 4.0 / 2x M.2 PCIe 5.0
LAN	1x 10Gb RJ45 1x 2.5Gb RJ45
FPGA	AMD X3522-P08G-PQ-G 2x DSFP 10/25G
PCIe	2 x PCIe 5.0 x16 (@x16 or x8/x8) 1 x PCIe 4.0 x16 (@x2)
IO	Front: 2x USB 3.0 Rear: 8x USB 3.0 2x RJ45
Power	2x 800W (1600W) CRPS 80Plus Platinum AC110-220V/DC240V
Cooling	Cold Plate Liquid Cooling Optional CDU Integrated Solution
Management Port	1x 1Gb RJ45、IPMI2.0
Certification	CCC、RoHS 2.0
Operation Environment	Temperature: +5℃-30℃ Humidity: 20%-80% RH, non-condensing
Storage Environment	Short-term Storage（≤72H）: Temperature -40℃-70℃ Humidity 20%-90%RH non-condensing Long-term Storage（≥72H）: Temperature 20℃-28℃ Humidity 30%-70%RH non-condensing

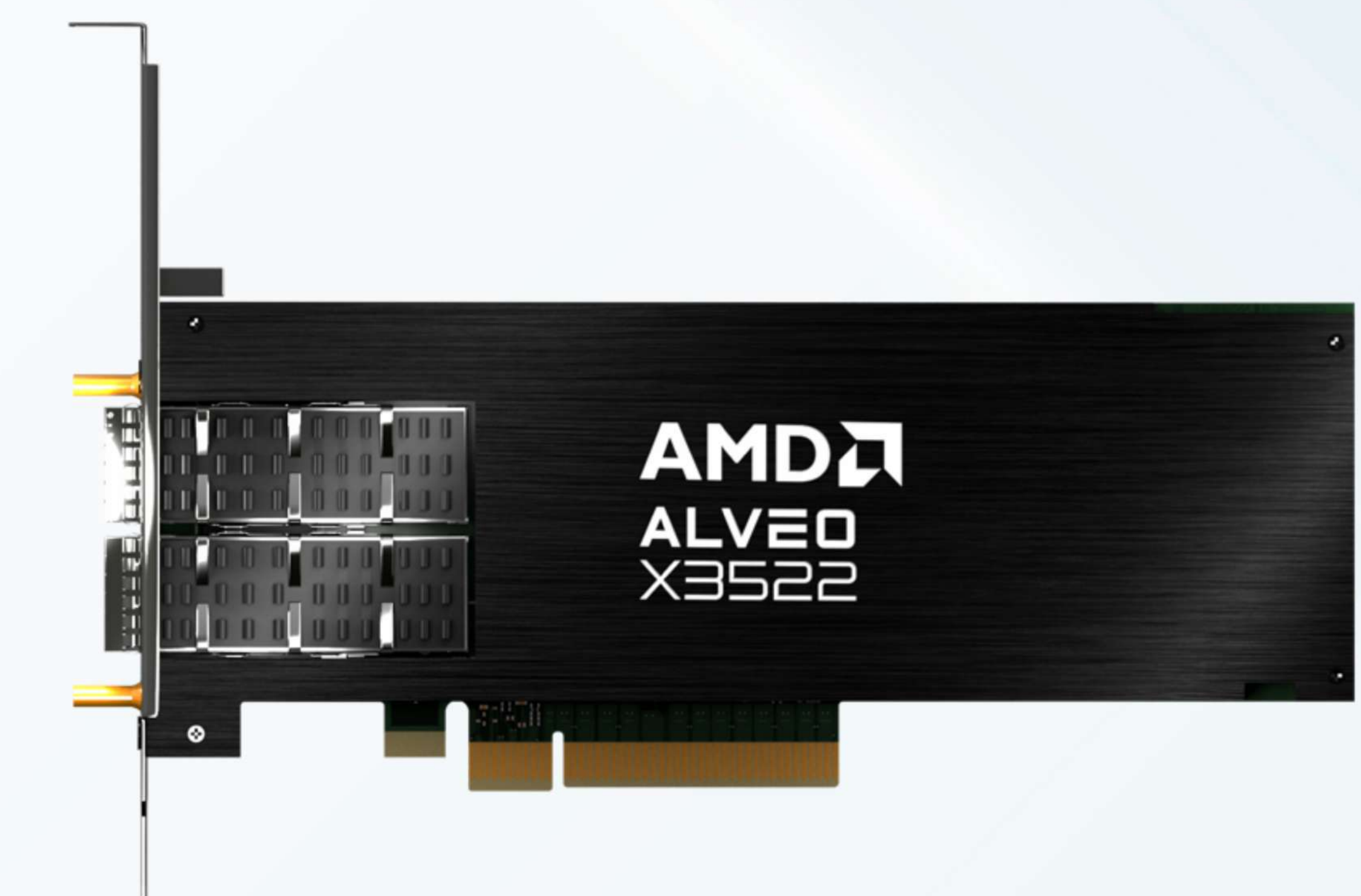## PAIRED WITH LATEST SOLARFLARE OR ALVEO LOW-LATENCY NIC

Solarflare Xtremescale X2522-25G-PLUS

Solarflare Xtremescale X2541-PLUS

AMD Xilinx X3522 Low Latency Adapter

AMD Xilinx X35222PV FPGA

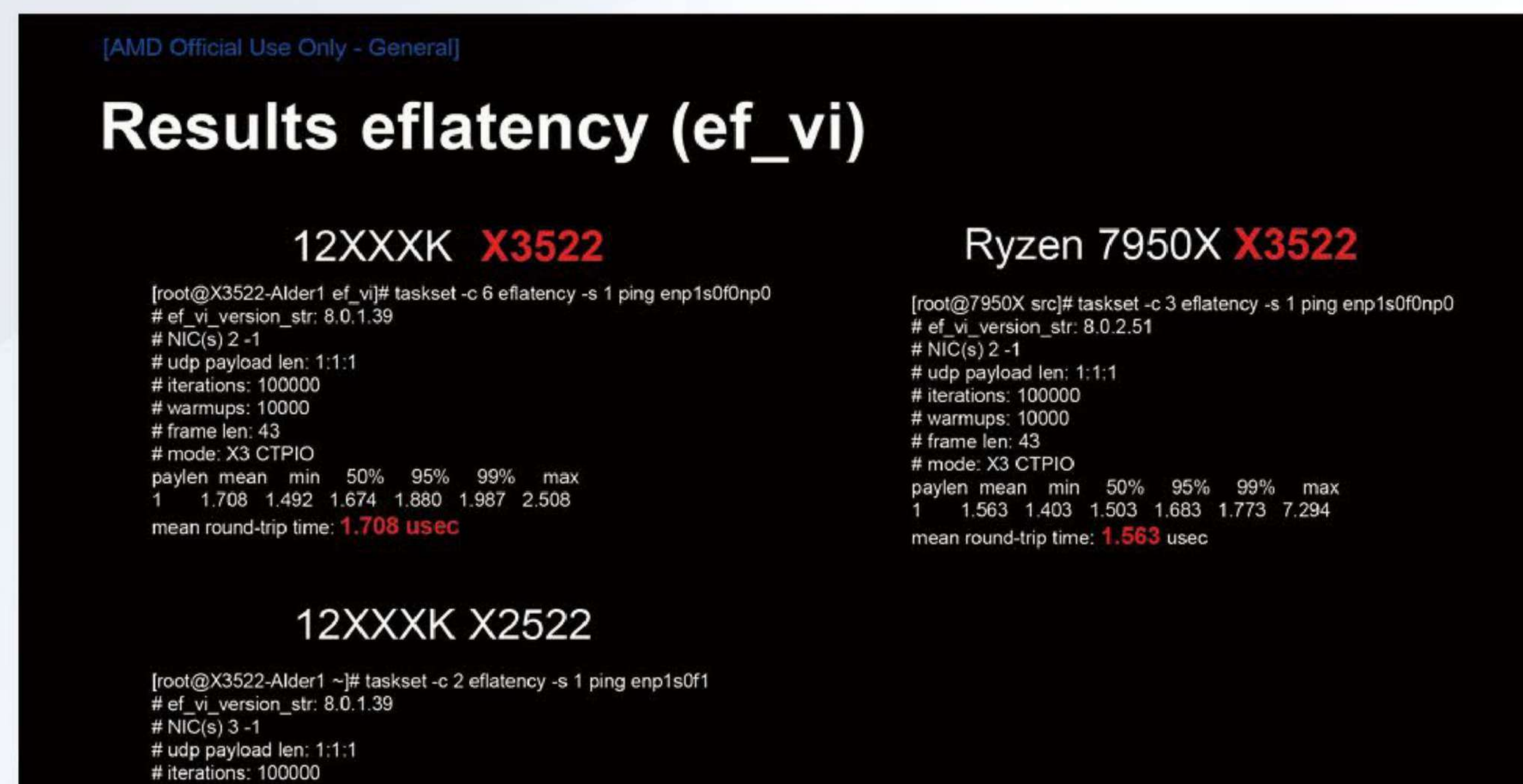For full list of cards available, please get in touch

Nanosecond-level advantage to avoid slippage and obtain real-time market data

Ultra-Low Latency	Nanosecond Response	Comprehensive Optimization
Enhancing performance by 15%	Striving for the ultimate advantage	Harnessing every Hz of performance

[AMD Official Use Only - General]

Results eflatency (ef_vi)

12XXXK X3522

```
[root@X3522-Alder1 ef_vi]# taskset -c 6 eflatency -s 1 ping enp1s0f0np0
# ef_vi_version_str: 8.0.1.39
# NIC(s) 2 -1
# udp payload len: 1:1:1
# iterations: 100000
# warmups: 10000
# frame len: 43
# mode: X3 CTPIO
   paylen mean   min   50%   95%   99%   max
   1  1.708 1.492 1.674 1.880 1.987 2.508
mean round-trip time: 1.708 usec
```

Ryzen 7950X X3522

```
[root@7950X src]# taskset -c 3 eflatency -s 1 ping enp1s0f0np0
# ef_vi_version_str: 8.0.2.51
# NIC(s) 2 -1
# udp payload len: 1:1:1
# iterations: 100000
# warmups: 10000
# frame len: 43
# mode: X3 CTPIO
   paylen mean   min   50%   95%   99%   max
   1  1.563 1.403 1.503 1.683 1.773 7.294
mean round-trip time: 1.563 usec
```

12XXXK X2522

```
[root@X3522-Alder1 ~]# taskset -c 2 eflatency -s 1 ping enp1s0f1
# NIC(s) 3 -1
# udp payload len: 1:1:1
# iterations: 100000
```

Diverse liquid cooling solutions push the boundaries of computational power

Multiple cooling solutions

CDU
- ⊘ Higher Density Deployment
- ⊘ Increased Computing Power
- ⊘ Larger Trading Volume

>>

Liquid cooling
- ⊘ Enhanced Computing Capability
- ⊘ Long-Term Stable Operation
- ⊘ Pushing Industry Limits

Employ liquid cooling or CDU heat dissipation solutions Guarantee pressure-free and highly efficient operation of the equipment in high-temperature environments up to 30°C, ensuring stability.

Overall performance optimization for stable frequency running at 5.5 GHz

PSU | Instant heat dissipation | BIOS tuning
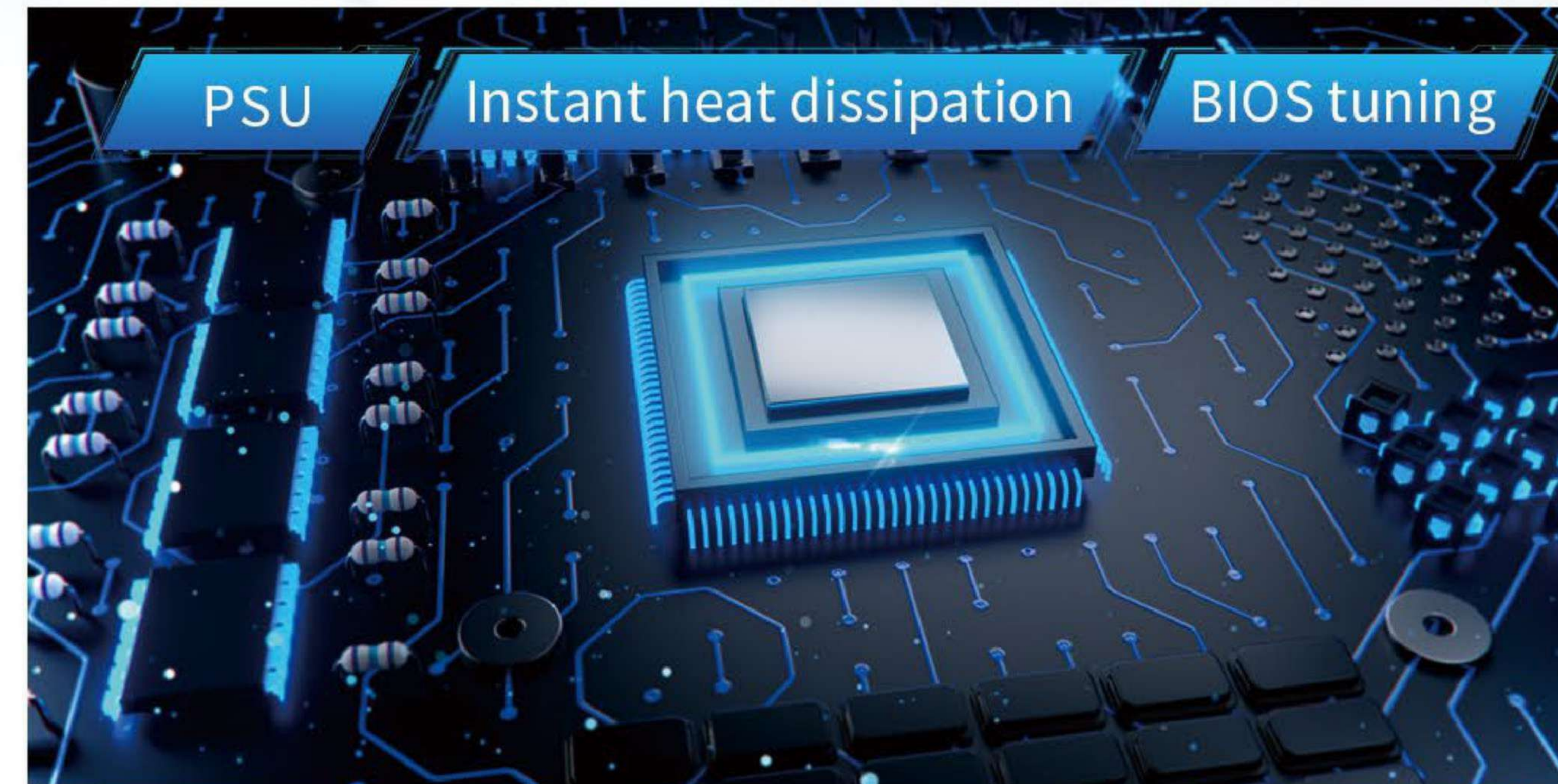
Undergoes rigorous 100% pressure testing during the manufacturing process, ensuring reliable CPU operation at the maximum frequency of 5.5 GHz without experiencing frequency throttling or inconsistent performance.
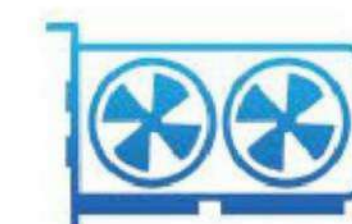
Flexible and scalable design to support more complex applications

It is the first in the industry to adopt the design of dual full-height PCIe card, and specifically designed to support Xilinx FPGA acceleration cards. It can accommodate up to 3 PCIe, meeting the requirements for configuring intricate network environments and significantly enhancing data transmission efficiency.
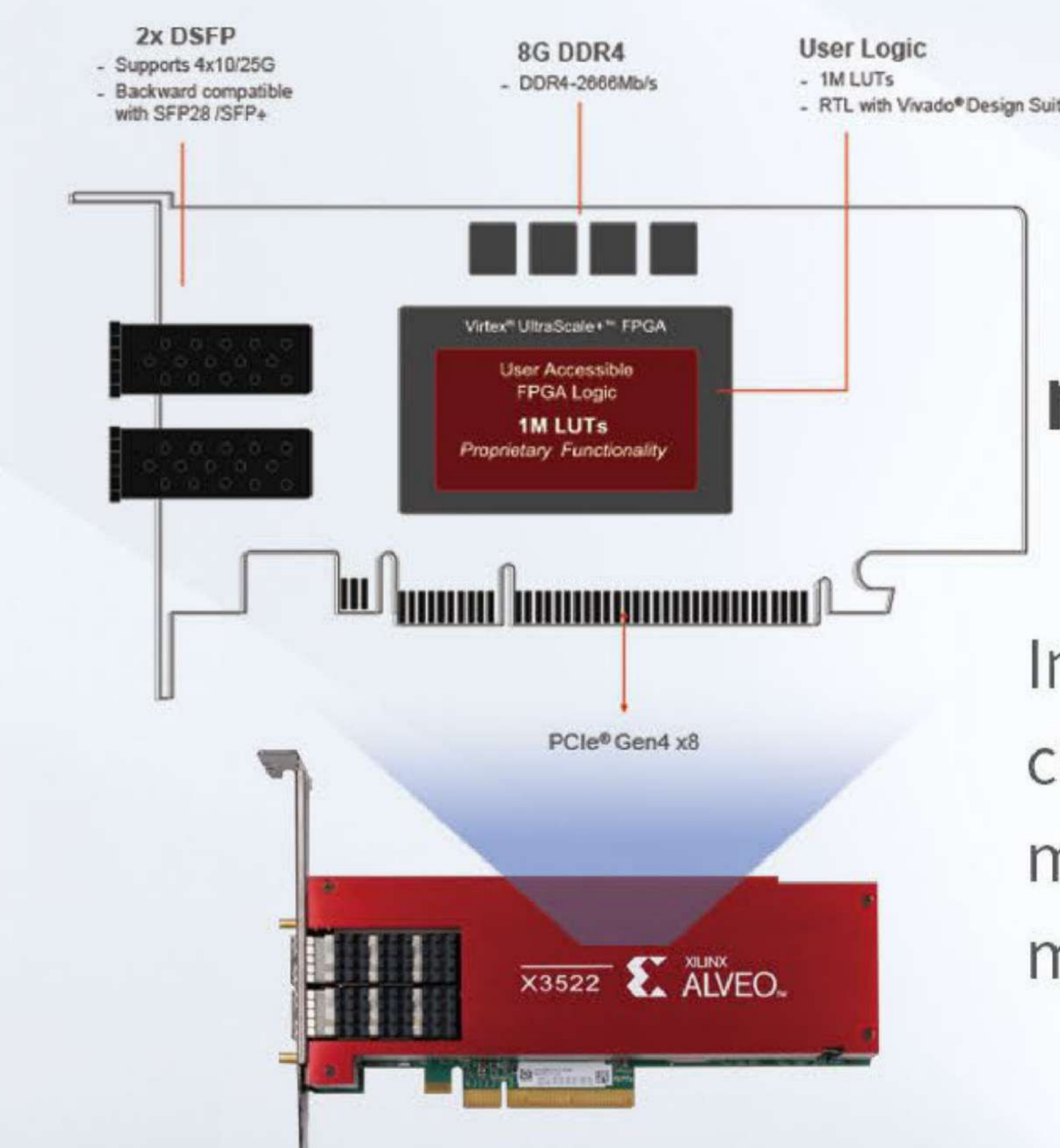
Build an ultra-low latency network to achieve minimal delay at its utmost level

Incorporating ultra-low latency network cards and implementing significant optimizations in BIOS and low-level drivers, maximizing the potential of low latency.

IPMI remote control further enhances reliability

Enabling a series of remote control functions such as remote power on/off of servers, KVM management, system heath monitoring, system operation logs, and more. Ensuring higher controllability and reliability of the equipment.
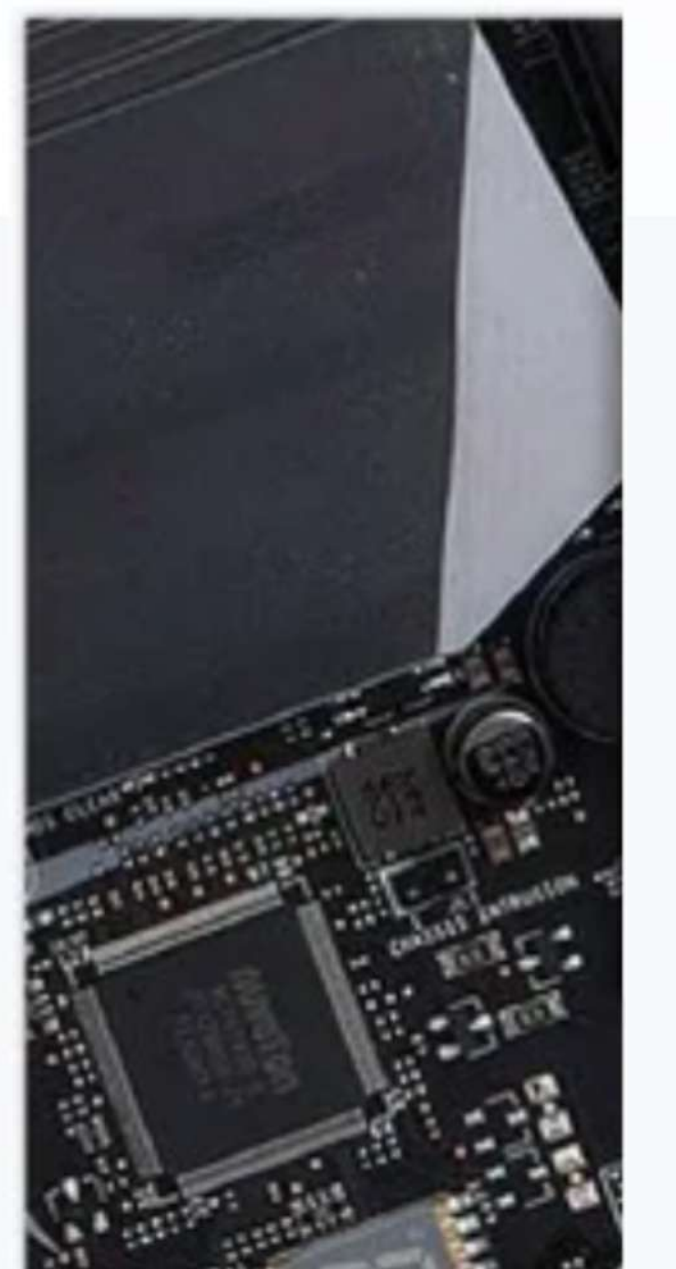
Scenario Applications

TDL's high-frequency servers have passed rigorous whole-machine testing and can be directly deployed in trading data centers.

The product is widely applicable to electronic trading, accelerating Tick-to-Trade, DMA, pre-trade risk checks, market data processing, latency monitoring, and accelerated algorithmic trading. It can be used in scenarios such as high-frequency trading, rapid order placement, trend tracking, cross-period arbitrage, and market-making.
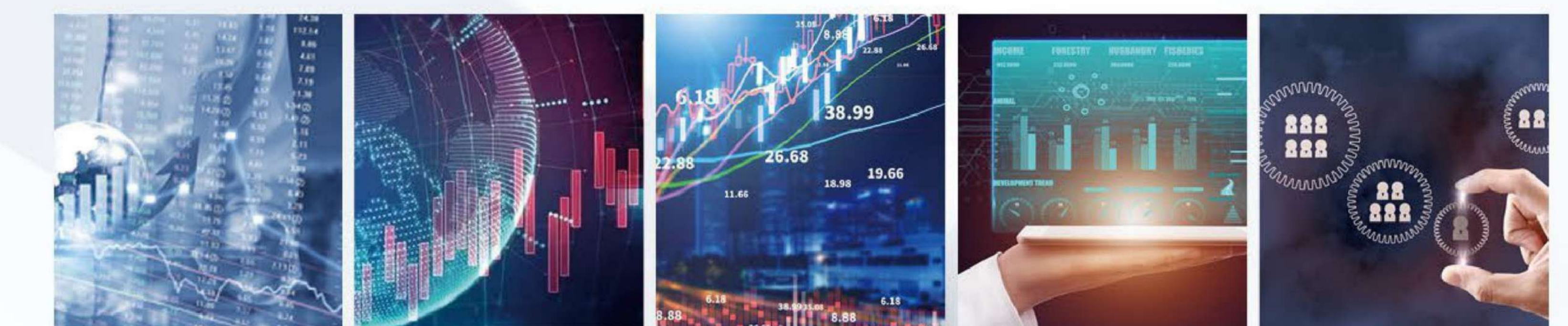
High-frequency trading | Speedy declaration | Trend tracking | Inter-period arbitrage | Market maker