# AMD FINANCIAL ANALYST DAY 2025

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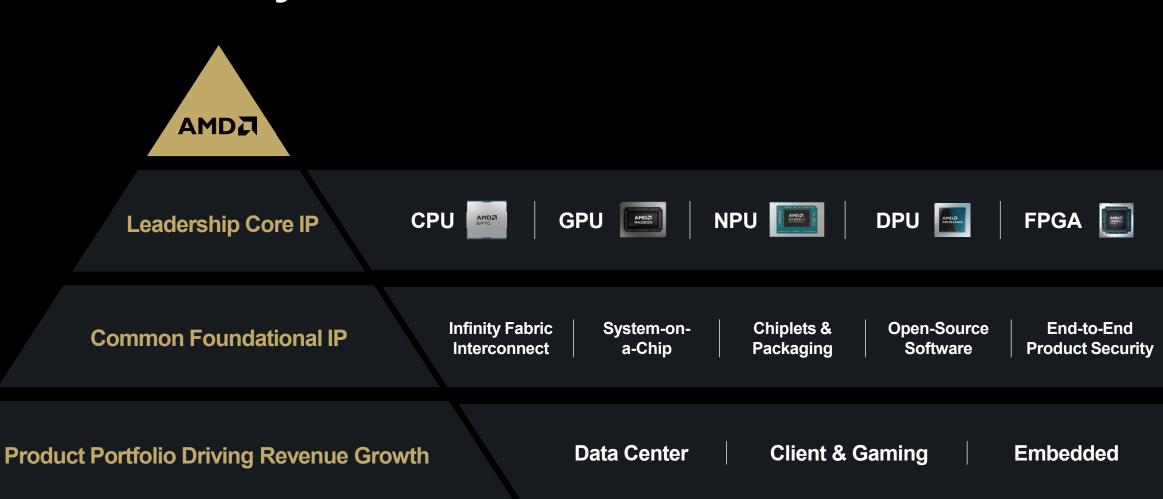
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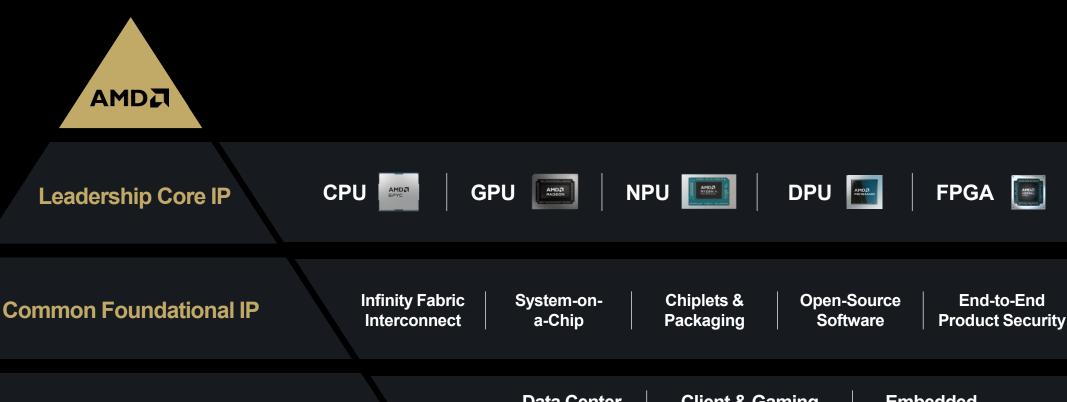


### Industry's Broadest Solution Portfolio





### Industry's Broadest Solution Portfolio



**Product Portfolio Driving Revenue Growth** 

Data Center Client & Gaming Embedded

Semi-Custom

### We Called the Play



Financial Analyst Day • 2015

### We Delivered

### Industry Leadership "Zen" x86 CPU

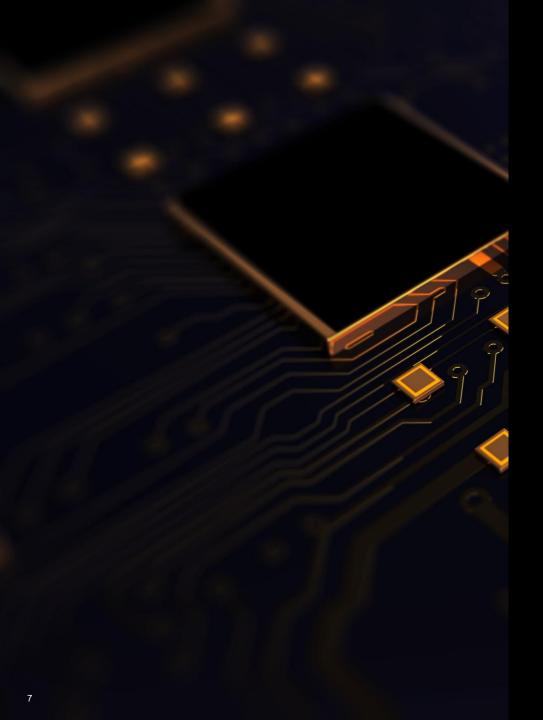
- Consistent Leadership Performance
- Chiplet Enabled Core Density Leadership
- High-Performance & Energy Optimized

#### AMD Instinct<sup>™</sup> GPU with Leadership Inference Performance

- 2.5D Integrated HBM & 3D Chiplets Drove Memory & Compute Density Leadership
- TCO Advantages for Key Al Workloads

### Breakthrough SoC Approach

- Scalable Infinity Fabric Enabled Modular Architecture
- First Chiplet Design Methodology



## We Are Accelerating Optimizing Al Across Portfolio

- Compute Leadership Roadmap from Laptops to Rack-Scale
- Driving a Truly Open Software & Hardware Al Ecosystem
- SerDes, Optical & Networking Investments
- Confidential Computing for Trusted Al Processing

### **Leadership CPU Core Roadmap**

5nm • 4nm
Performance & Density

"Zen 4"
"Zen 4c"

AVX-512 AI ISA Support
Dual Core Design Points
Larger L2 Cache

"Zen 5"
"Zen 5c"

Wider/Deeper Compute
Full 512 Bit AI Vectors
Re-optimized Cache Hierarchy

4nm • 3nm

**New Foundation** 

**Industry-First 2nm Extension of Leadership** "Zen 6" "Zen 6c" New Al Data Type Support More Al Pipelines



### AMD Instinct™: Data Center GPU Architecture Roadmap

MI300
Al-Centric Design



Leadership 8-Stack HBM3 Capacity & Bandwidth

3.5D Chiplet Construction

Industry Standard Subsystem

MI325

**Gen Al Performance** 



Increased HBM3e Capacity & Bandwidth

Higher Compute Throughput

**Platform Compatibility** 

MI350 Series

**Gen Al Inferencing & Training** 



Increased HBM3e Capacity & Bandwidth

**Block Scaled AI Formats** 

**Optimized Platform Solutions** 

MI400 Series

**Rack-Scale Architecture** 



Increased HBM4
Capacity & Bandwidth

Expanded AI Formats with Higher Throughput

Standard-Based Rack-Scale Networking (UALoE, UAL, UEC) MI500 Series

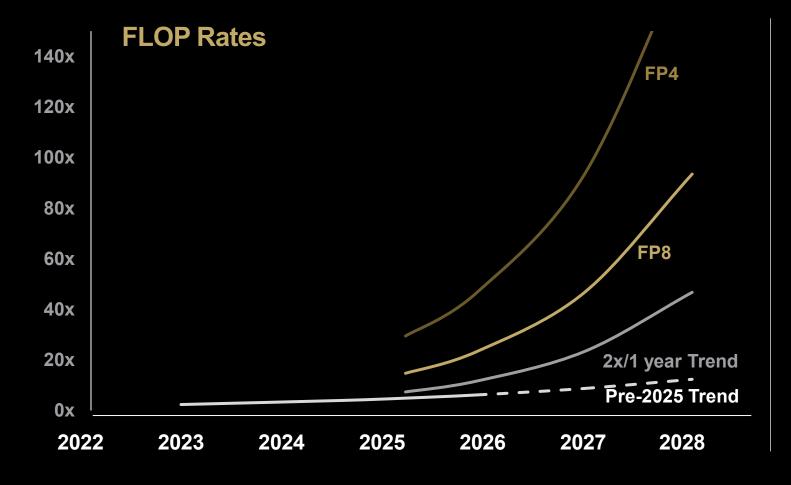


Next-Gen Compute, Memory & Interconnect

2023



#### **Accelerated GPU Performance Gains**



- 2x Per Two Year Performance Trend Pre-2025 (16b Math)
- 2x Per One Year Performance
   Trend Commences in 2025
- Al-Optimized Low Precision Math (FP8 & FP4) Provide Even Higher Gains

### **High-Speed SerDes Interconnect**

40 Gb/s

First Server PCle® 5.0

10s of Millions in Production

112 Gb/s

First 112G Ethernet FPGA
Leading Edge PCle 6.0
PAM4

224 Gb/s

Leading Edge PCle 7.0 PAM4

2026 "Helios" Rack Interconnect

**Next Gen** 

Rack Transition Point

Copper & Optical Solutions

### **AMD Infinity Fabric Roadmap**

#### **3rd Generation**

Up to 8-Way GPU Connectivity

**Coherent Memory for Exascale Computing** 

**PCle® 5.0** 

#### 4th Generation

**Heterogeneous Chiplet** 

**CXL™ 2.0 Memory Expansion** 

**Support for Neural Engine** 

### Introducing 5th Generation

Scale Up & Scale Out Leadership

**Unified System Level Coherency** 

Standard Based Open Ecosystem (UALink™, CXL 3.1 & UCle™)

**PCIe 6.0** 

#### **Next-Gen**

**Continued Scale** 



### **Chiplet & Packaging Leadership**



2017

#### **Solution Example**

#### "Helios" Rack

#### Link at Rack-Scale – Scale Up & Scale Out

- AMD Infinity Fabric for CPU to GPU link
- UALink<sup>™</sup> Over Ethernet for Scale-Up
- UALink for GPU to Al Network Interface Card (NIC)
- Al NIC for Scale Out with Ultra Ethernet (UEC)

#### **Hardware-Software-Application Co-Optimization**

- AMD ROCm<sup>™</sup> Inference & Training Scale with Compute & Communication
- Day-0 Optimization of Most Popular Models & Frameworks



#### AMD Instinct™ GPUs

AMD INSTINCT

- CDNA 5
- 5th Gen Infinity Fabric at 112 Gb/s
- 3.5D Packaging
- 224 Gb/s SerDes



**EPYC™ CPUs** 

AMD

- "Zen" 6
- 5th Gen Infinity Fabric
- 2.5D Packaging
- 64 Gb/s SerDes

Al NICs

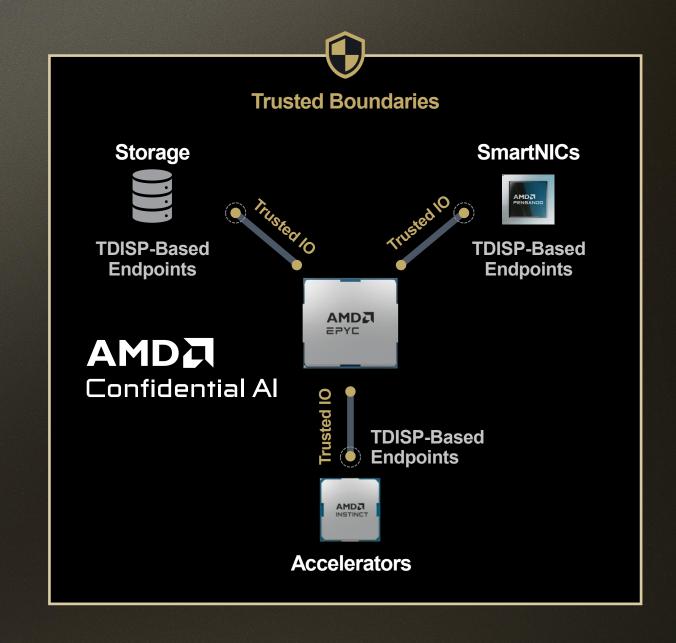
AMDA ODNAZNAS

- 800G Ethernet
- 224 Gb/s SerDes

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### **Trusted Computing**

- Top Priority for IT Administrators:
   Protecting Al Models, Data & Weights
- Solution Enables End-to-End Encryption
- Confidential Computing Including Memory, Storage & I/O Devices



### **Gaming GPU Architecture Roadmap**









### NPU Inference IP Roadmap for Client & Embedded





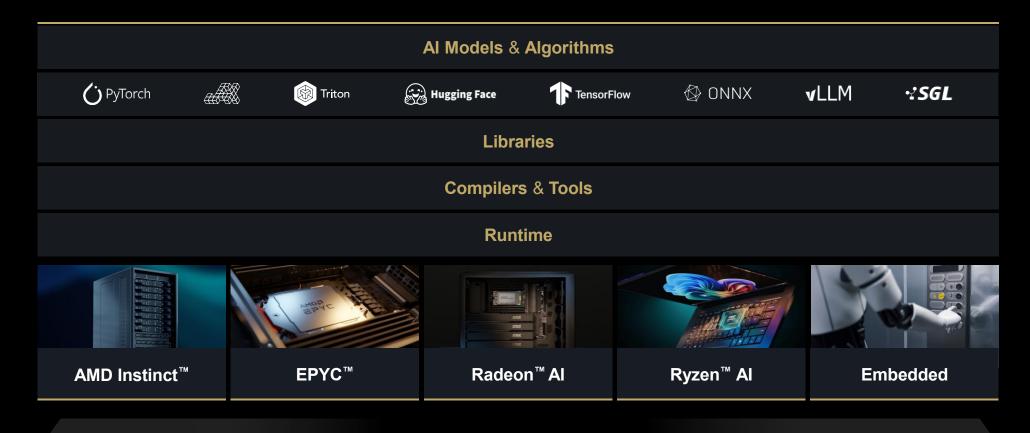






### Al Beyond the Data Center

#### One Software Stack Enables Al from Cloud to Edge



**Train Once** • Infer Everywhere

### Investments for the Future



Data Center Al
Compute Leadership

Rack-Scale GPU & Open Ecosystem



**Agentic Al** 

Leadership CPUs to Accelerate Agents



**Edge Al Explosion** 

Integrated CPU, GPU & NPU



**Physical Al** 

Leadership Embedded FPGA, CPU & GPU



Quantum Computing

Hybrid Quantum with AMD Compute Cluster

### Innovation for the Al Era

Product Leadership Broadest IP Portfolio

Open Ecosystems

Relentless **Execution** 

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