
AMD Q2 2024 Data Center Earnings

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CONTEXT

AMD reported [strong Q2 financial results](#), with total revenue reaching \$5.8 billion, a 9% year-over-year increase. The Data Center segment, a key driver of this performance, achieved a record revenue of \$2.8 billion, reflecting a 115% year-over-year growth.

The increase in Data Center revenue was largely attributed to the ramp-up of Instinct MI300 GPU shipments and strong double-digit percentage growth in EPYC CPU sales.

Hyperscalers and leading cloud providers expanded their use of 4th Gen EPYC CPUs, leading to a 34% increase in AMD-powered cloud instances from major providers, totaling over 900 instances.

Let's examine AMD's performance during the quarter, with particular emphasis on its data center business.

OVERALL PERFORMANCE

Q2 2024 SUMMARY P&L NON-GAAP ¹					
\$ in millions, except per share data and %	Q2'24	Q2'23	Y/Y	Q1'24	Q/Q
Revenue	\$5,835	\$5,359	Up 9%	\$5,473	Up 7%
Gross Profit	\$3,101	\$2,665	Up 16%	\$2,861	Up 8%
Gross Margin	53%	50%	Up 3 pts	52%	Up 1 ppt
Operating Expenses	\$1,847	\$1,605	Up 15%	\$1,741	Up 6%
Operating Expense/Revenue %	32%	30%	Up 2 pts	32%	Flat
Operating Income	\$1,264	\$1,068	Up 18%	\$1,133	Up 12%
Operating Margin	22%	20%	Up 2 pts	21%	Up 1 ppt
Net Income	\$1,126	\$948	Up 19%	\$1,013	Up 11%
Earnings Per Share	\$0.69	\$0.58	Up 19%	\$0.62	Up 11%

Financial Highlights:

- **Revenue:** AMD's Q2 revenue increased by 9% year-over-year to \$5.8 billion, driven by strong sales of Data Center and Client processors.
- **Gross Margin:** Expanded by over three percentage points, with EPS growing 19%.
- **Data Center Segment:** Revenue reached a record \$2.8 billion, a 115% year-over-year increase due to the ramp-up of Instinct MI300 GPU shipments and EPYC CPU sales.

SEGMENT PERFORMANCE:

Q2 2024 SEGMENT RESULTS					
(\$ in millions)	Q2'24	Q2'23	YY	Q1'24	Q/Q
Data Center					
Net Revenue	\$2,834	\$1,321	Up 115%	\$2,337	Up 21%
Operating Income	\$743	\$147	Up 405%	\$541	Up 37%
Client					
Net Revenue	\$1,492	\$998	Up 49%	\$1,368	Up 9%
Operating Income (Loss)	\$89	\$(69)	Up 229%	\$86	Up 3%
Gaming					
Net Revenue	\$648	\$1,581	Down 59%	\$922	Down 30%
Operating Income	\$ 77	\$225	Down 66%	\$151	Down 49%
Embedded					
Net Revenue	\$861	\$1,459	Down 41%	\$846	Up 2%
Operating Income	\$345	\$757	Down 54%	\$342	Up 1%

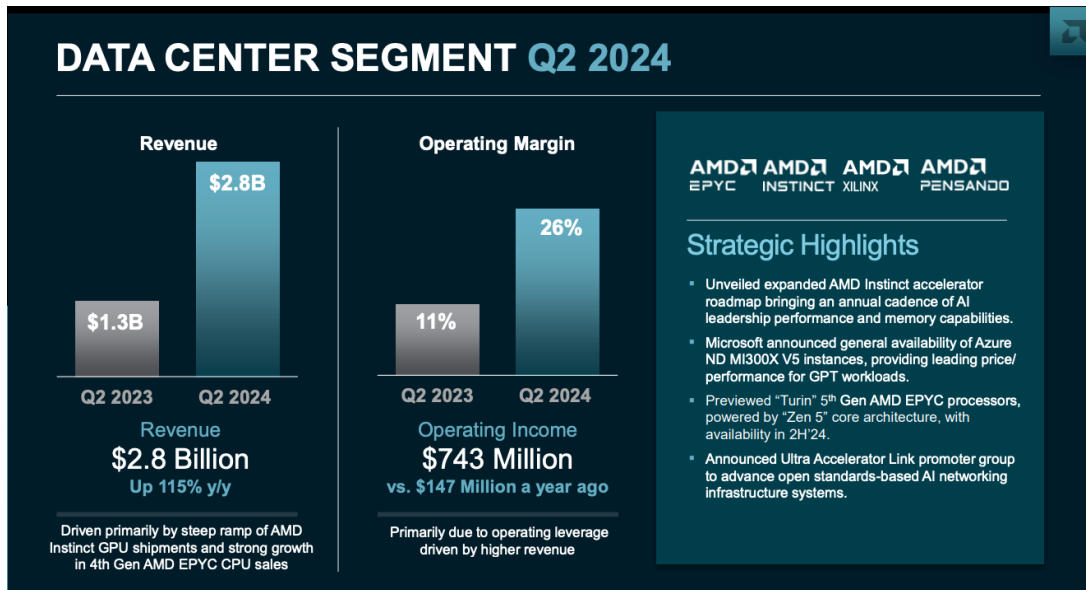
- **Data Center:** Hyperscalers are increasingly adopting 4th Gen EPYC CPUs. Key clients include Netflix, Uber, Adobe, Boeing, and Siemens. AMD introduced its next-generation Turin family with Zen 5 core, offering up to 192 cores and 384 threads.
- **AI Business:** Achieved a third straight quarter of record Data Center GPU revenue. MI300 quarterly revenue exceeded \$1 billion, with significant adoption by Microsoft and Hugging Face. Upcoming launches include MI325X and MI350 series.
- **Client Segment:** Revenue increased by 49% year over year, driven by Ryzen processors. AMD is launching next-generation Zen 5 processors, including the Ryzen 9000 series for desktops and the Ryzen AI 300 series for notebooks.
- **Gaming Segment:** Revenue declined by 59% year-over-year due to soft demand for semi-custom SoCs.
- **Embedded Segment:** Revenue decreased by 41% year-over-year, but design wins increased by over 40%.

STRATEGIC INITIATIVES AND ACQUISITIONS:

- **AI Investments:** Acquired Silo AI and invested over \$125 million in AI companies to expand the AMD AI ecosystem.
- **Future Roadmap:** Accelerating Instinct roadmap with annual AI accelerator launches. Upcoming products include MI325X, MI350 series, and MI400 series.

DATA CENTER BUSINESS

AI and the Instinct MI300 substantially positively impacted AMD's performance, driving significant revenue growth, expanding customer adoption, enhancing the AI software ecosystem, and contributing to improved gross margins and profitability. AMD's strategic investments and collaborations further position it for continued success in the AI market.



Revenue Growth:

- The Data Center segment achieved record revenue of \$2.8 billion, marking a 115% year-over-year increase. This impressive growth was driven by the steep ramp-up of Instinct MI300 GPU shipments and a double-digit percentage increase in EPYC CPU sales.

Adoption and Deployment:

- Hyperscalers, including leading cloud providers, expanded their use of 4th Gen EPYC CPUs, deploying them for more internal workloads and public instances. This significantly increased AMD-powered cloud instances, which grew 34% from the previous year to over 900 instances.

AI ACCELERATOR / MI300 IMPACT

AI and the Instinct MI300 significantly contributed to AMD's revenue growth. The Data Center segment, which includes the AI business, saw a record revenue of \$2.8 billion, a 115% year-over-year increase.

The substantial ramp-up of Instinct MI300 GPU shipments was a major driver behind this growth. This helped AMD achieve its third consecutive quarter of record Data Center GPU revenue, with MI300 quarterly revenue exceeding \$1 billion for the first time.

CUSTOMER ADOPTION

Leading cloud providers and hyperscalers like Microsoft adopted MI300X accelerators for AI workloads. Microsoft expanded its use of MI300X for GPT-4 Turbo and multiple copilot services, including Microsoft 365 Chat, Word, and Teams.

Microsoft also announced the general availability of public MI300X instances on Azure, leveraging MI300X's industry-leading compute performance and memory capacity for AI inferencing.

SOFTWARE & ECOSYSTEM ENHANCEMENTS

AMD made significant progress in enhancing its AI software stack, making it easier for customers to deploy high-performance AI solutions on AMD platforms. The company worked with the open-source community to enable customers to implement the latest AI algorithms, such as Flash Attention 2, which can increase training and inference performance on large transformer models.

Collaborations with model communities led to the launch of new AI models and frameworks with day 1 support for AMD hardware, including Stable Diffusion's SD 3.0 Image Generation LLM and Llama 3.1 models.

ROADMAP & INVESTMENTS

AMD is accelerating its Instinct roadmap, planning to deliver an annual cadence of AI accelerators. The upcoming MI325X, launching later this year, and the MI350 series in 2025 are expected to enhance AMD's generative AI performance leadership.

The acquisition of Silo AI, Europe's largest private AI lab, and investments in AI companies totaling over \$125 million, furthers AMD's commitment to expanding its AI ecosystem and capabilities.

EPYC

EPYC processors contributed significantly to AMD's Data Center segment revenue. AMD reported a strong “double-digit” percentage increase in EPYC CPU sales, which was a major driver of this growth. EPYC processors were widely adopted by hyperscalers and enterprises.

CUSTOMER ADOPTION

Leading cloud providers, including hyperscalers, continued to deploy 4th Gen EPYC CPUs to power more internal workloads and public instances. This deployment helped AMD displace incumbent offerings across the infrastructure of these providers due to EPYC's performance and efficiency advantages.

The number of AMD-powered cloud instances from major providers increased by 34% from the previous year to more than 900, demonstrating strong demand for EPYC processors.

AMD secured multiple large wins in the enterprise sector, with notable customers in financial services, technology, healthcare, retail, manufacturing, and transportation.

Over one-third of AMD's enterprise server wins in the first half of the year were with new customers deploying EPYC in their data centers for the first time.

NEXT GENERATION TURIN FAMILY

AMD introduced the next-generation Turin family featuring the new Zen 5 core, optimized for leadership performance and efficiency. Turin processors offer up to 192 cores and 384 threads, support the latest memory and I/O technologies, and are compatible with existing 4th Gen EPYC platforms.

Production shipments of Turin to leading cloud customers began in the second quarter, with broader OEM and cloud availability expected later in the year.

ANALYSIS

AMD's Q2 2024 earnings demonstrate the company's strong and growing position in the data center and AI markets. The significant growth in its Data Center segment, driven by EPYC processors and Instinct MI300 GPUs, shows that AMD has a strong competitive position and is executing well.



AMD's continued investment in AI, software ecosystem enhancements, and new product launches position it for sustained growth and market leadership.

AMD's outlook for the coming quarters is positive, with solid growth expected in the Data Center and Client segments. The company's strategic focus on AI and computing, a robust product roadmap and significant investments in the AI ecosystem, positions AMD well for sustained revenue growth and market leadership.

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