



Richard Gu, vice president, investor relations

Forward-Looking Statements and Non-GAAP Measures

The following discussion contains forward-looking statements, including our outlook on future business and operating results. Actual results may differ materially from expectations expressed or implied in the forward-looking statements due to risks, uncertainties and other factors, many of which are outside our control. All forward-looking statements in this discussion are made only as of April 22, 2024, are based on estimates and information available to us at that time, and we do not intend, and disclaim any obligation, to update them. For information on the factors that could cause a difference in our results, please refer to our filings with the Securities and Exchange Commission. These include our most recent reports on Form 10-K and Form 10-Q, the cautionary comments regarding forward-looking statements in the earnings release issued on April 22, 2024, as well as our future filings.

In addition, the following discussion contains non-GAAP measures, which should not be considered in isolation from, or as a substitute for, GAAP results. Reconciliations of non-GAAP measures with their most directly comparable GAAP results are available in the quarterly earnings section of the investor relations portion of our website.

A copy of the earnings release for the first quarter of fiscal 2024, related financial tables and CFO Commentary which was included in our Form 8-K filing on April 22, 2024, can also be found in the investor relations portion of our website.

Anirudh Devgan, president and chief executive officer

I'm pleased to report that Cadence had a strong start to the year delivering solid results for the first quarter of 2024. We came in at the upper end of our guidance range on all key financial metrics and are raising our financial outlook for the year. We exited Q1 with a better-than-expected record backlog of \$6 billion, which sets us up nicely for the year and beyond. John will provide more details in a moment.

Long term trends of hyperscale computing, autonomous driving and 5G, all turbo-charged by an AI super-cycle, are fueling strong broad-based design activity. We continue to execute our long-standing Intelligent System Design strategy as we systematically build out our portfolio to deliver differentiated end-to-end solutions to our growing customer base.

Technology leadership is foundational to Cadence and we are excited by the momentum of our product advancements over the past few years, and the promise of our newly unveiled products.

Generative AI is reshaping the entire chip and system development process, and our Cadence.AI portfolio provides customers with the most comprehensive and impactful solutions for chip-to-systems intelligent design acceleration. Built upon AI-enhanced core design engines, our Gen AI solutions boosted by foundational LLM co-pilots, are delivering unparalleled productivity, quality of results and time to market benefits for our customers. Last week, at CadenceLIVE Silicon Valley, several customers including Intel, Broadcom, Qualcomm, Juniper and Arm shared their remarkable successes with solutions in our Cadence.AI portfolio.

Last week we launched our third generation Dynamic Duo - the Palladium Z3 emulation and Protium X3 prototyping platforms, to address the insatiable demand for higher performance and increased capacity hardware accelerated verification solutions. Building upon the successes of the industry leading Z2/X2 systems, these new platforms set a new standard of excellence, delivering more than twice the capacity and 50% higher performance per rack than the previous generation. Palladium Z3 is powered by our next generation custom processor and was designed with Cadence AI tools and IP. The Z3 system is future proofed with its massive 48 billion gate capacity, enabling emulation of the industry's largest designs for the next several generations. The Z3/X3 systems have been deployed at select customers and were endorsed by NVIDIA, Arm and AMD at launch.

We also introduced the Cadence Reality Digital Twin Platform which virtualizes the entire data center and uses AI, high-performance computing and physics-based simulation to significantly improve data center energy efficiency by up to 30%.

Additionally, Cadence's cloud-native molecular design platform Orion will be supercharged with NVIDIA's BioNeMo and NVIDIA microservices for drug discovery, to broaden therapeutic design capabilities and shorten time to trusted results.

In Q1, we expanded our footprint at several top tier customers and furthered our relationships with key ecosystem partners.

We deepened our partnership with IBM across our core EDA and systems portfolio, including a broad proliferation of our digital, analog and verification software and expansion of our 3D IC packaging and system analysis solutions.

We strengthened our collaboration with GlobalFoundries through a significant expansion of our EDA and systems solutions that will enable GF to develop key digital, analog, RF, mmWave and silicon photonics designs for aerospace and defense, IoT and automotive end markets.

We announced a collaboration with Arm to develop a chiplet-based reference design and software development platform to accelerate software-defined vehicle innovation.

We also further extended our strategic partnership with Dassault Systemes, integrating our AI driven PCB solutions with Dassault's 3DEXPERIENCE Works portfolio, enabling up to a 5x reduction in design turnaround time for SOLIDWORKS customers.

Now let's talk about our key highlights for Q1.

Increasing system complexity and growing hyperconvergence between the electrical, mechanical and physical domains is driving the need for tightly integrated co-design and

analysis solutions. Our **System Design and Analysis** business delivered steady growth, as our AI-driven design optimization platforms integrated with our physics-based analysis solutions, continued delivering superior results across multiple end-markets.

Over the past six years, we've methodically built out our systems analysis portfolio, and with the signing of a definitive agreement to acquire Beta CAE, are now extending it to structural analysis, thereby unlocking a multi-billion-dollar TAM opportunity. Beta CAE's leading solutions have a particularly strong footprint in the automotive and aerospace verticals, including at customers such as Stellantis, General Motors, Renault and Lockheed Martin.

Our Millennium supercomputing platform, delivering phenomenal performance and scalability for high fidelity simulations, is ramping up nicely. In Q1, a leading auto maker expanded its production deployment of Millennium to multiple groups, after a successful early access program in which it realized tremendous performance benefits.

Allegro X continued its momentum and is now deployed at well over 300 customers, while Allegro X AI, the industry's first fully automated PCB design engine is enabling customers to realize significant 4-10x productivity gains.

Samsung used Celsius Studio to uncover early design and analysis insights through precise and rapid thermal simulations for 2.5D / 3D packages, attaining up to a 30% improvement in product development time.

And a leading Asian mobile chip company used Optimality Intelligent System Explorer AI technology and Clarity 3D Solver obtaining more than 20x design productivity improvement.

Ever increasing complexities in system verification and software bring-up continued to propel the demand for our **Functional Verification** products, with hardware accelerated verification now a "must have" part of the customers design flow. On the heels of a record year, our hardware products continued to proliferate at existing customers while also gaining some

notable competitive wins, including at a leading networking company and at a major automotive semiconductor supplier.

Demand for hardware was broad-based, with particular strength seen at hyperscalers, and over 85% of orders during the quarter included both platforms.

Our Verisium platform that leverages big data and AI to optimize verification workloads, boost coverage and accelerate root cause analysis of bugs saw accelerating customer adoption. At CadenceLIVE Silicon Valley, Qualcomm said that they had used Verisium SimAI to increase total design coverage automatically, while getting up to a 20x reduction in verification workload runtime.

Our **digital IC business** had another solid quarter as our digital full flow continued to proliferate at the most advanced nodes. We had strong growth at hyperscalers, and over 50 customers have deployed our digital solutions on 3nm and below designs. Cadence Cerebrus, which leverages Gen AI to intelligently optimize the digital full flow in a fully automated manner now has been used in well over 350 tapeouts. Delivering best in class PPA and productivity benefits, it's fast becoming an integral part of the design flow at marquee customers as well as in DTCO flows for new process nodes at multiple foundries.

In our Custom IC business, Virtuoso Studio, delivering AI powered layout automation and optimization, continued ramping strongly. 18 of the top 20 semis have migrated to this new release within its first year.

Our **IP business** continued to benefit from market opportunities offered by AI and multi-chiplet based architectures. We are seeing strong momentum in Interface IPs that are essential to AI use cases, especially HBM, DDR, UCIE, and PCIE at leading edge nodes. In Q1, we partnered with Intel Foundry to provide design software and leading IP solutions at multiple Intel advanced nodes

Our Tensilica business reached a major milestone of 200 software partners in the HiFi ecosystem, the de facto standard for automotive infotainment and home entertainment. And we extended our partnership with one of the top hyperscalers in its custom silicon SOC design with our Xtensa NX controller.

In summary, I'm pleased with our Q1 results and the continuing momentum of our business. Spiraling chip and system design complexity and the tremendous potential of AI-driven automation offer massive opportunity for our computational software to help customers realize these benefits.

In addition to our strong business results, I am proud of our high-performance inclusive culture and thrilled that Cadence was named by Fortune and Great Place to Work as one of 2024's 100 Best Companies to Work For, ranking No. 9.

Now I will turn it over to John to provide more details on the Q1 results and our updated 2024 outlook.

John Wall, senior vice president and chief financial officer

Thanks, Anirudh, and good afternoon, everyone.

I am pleased to report that Cadence delivered strong results for the first quarter of 2024.

First quarter bookings were a record for Q1, and we achieved record Q1 backlog of approximately \$6.0 billion.

A good start to the year, coupled with some impressive new product launches, sets us up for strong growth momentum in the second half of 2024.

Here are some of the financial highlights from the first quarter, starting with the P&L:

- Total revenue was \$1.009 billion
- GAAP operating margin was 24.8% and non-GAAP operating margin was 37.8%
- GAAP EPS was \$0.91 and non-GAAP EPS was \$1.17

Next, turning to the balance sheet and cash flow:

- Cash balance at quarter end was \$1.012 billion, while the principal value of debt outstanding was \$650 million
- Operating cash flow was \$253 million
- DSOs were 36 days, and
- We used \$125 million to repurchase Cadence shares in Q1

Before I provide our updated outlook, I'd like to share some assumptions that are embedded in our outlook:

- Given the recent launch of our new hardware systems, we expect the shape of hardware revenue in 2024 to weigh more towards the second half, as our team works to build inventory of the new systems.
- Our updated outlook does not include the impact of our pending BETA CAE acquisition, and
- It contains the usual assumption that export control regulations that exist today remain substantially similar for the remainder of the year.

Our updated outlook for fiscal 2024 is:

- Revenue in the range of \$4.56 to \$4.62 billion
- GAAP operating margin in the range of 31% to 32%
- Non-GAAP operating margin in the range of 42% to 43%
- GAAP EPS in the range of \$4.04 to \$4.14
- Non-GAAP EPS in the range of \$5.88 to \$5.98
- Operating cash flow in the range of \$1.35 to \$1.45 billion, and
- We expect to use at least 50% of our annual free cash flow to repurchase Cadence shares.

With that in mind, for Q2, we expect:

- Revenue in the range of \$1.03 to \$1.05 billion
- GAAP operating margin in the range of 26.5% to 27.5%
- Non-GAAP operating margin in the range of 38.5% to 39.5%
- GAAP EPS in the range of \$0.73 to \$0.77
- Non-GAAP EPS in the range of \$1.20 to \$1.24, and

As usual, we've published a 'CFO Commentary' document on our Investor Relations website, which includes our outlook for additional items, as well as further analysis and GAAP to Non-GAAP reconciliations.

In summary, Cadence continues to lead with innovation and is on track for a strong 2024, as we execute to our Intelligent System Design strategy.

I'd like to close by thanking our customers, partners, and our employees for their continued support.

And with that, operator, we will now take questions.

Q&A Session

- Anirudh Devgan, President and Chief Executive Officer
- John Wall, Senior Vice President and Chief Financial Officer

Prepared Closing Remarks of Anirudh Devgan, president and chief executive officer

Thank you all for joining us this afternoon.

- It is an exciting time for Cadence as our broad portfolio and product leadership ideally position us to maximize the growing opportunities in the semiconductor and systems industry.
- And on behalf of our employees and our Board of Directors, we thank our customers, partners, and investors for their continued trust and confidence in Cadence.