

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

FORM 10-K

(Mark one)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended **September 25, 2022**

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _____ to _____.

Commission File Number **0-19528**

QUALCOMM Incorporated

(Exact name of registrant as specified in its charter)

Delaware
(State or Other Jurisdiction of Incorporation or Organization)

5775 Morehouse Dr., San Diego, California
(Address of Principal Executive Offices)

95-3685934
(I.R.S. Employer Identification No.)

92121-1714
(Zip Code)

(858) 587-1121
(Registrant's telephone number, including area code)

Securities registered pursuant to section 12(b) of the Act:

Title of Each Class	Trading Symbol(s)	Name of Each Exchange on Which Registered
Common stock, \$0.0001 par value	QCOM	Nasdaq Stock Market

Securities registered pursuant to Section 12(g) of the Act:

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐ Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant at March 27, 2022 (the last business day of the registrant's most recently completed second fiscal quarter) was \$177.1 billion, based upon the closing price of the registrant's common stock on that date as reported on the NASDAQ Global Select Market.

The number of shares outstanding of the registrant's common stock was 1,121 million at October 31, 2022.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Definitive Proxy Statement for its 2023 Annual Meeting of Stockholders, to be filed with the Commission subsequent to the date

hereof, are incorporated by reference into Part III of this Annual Report where indicated.

QUALCOMM Incorporated
Form 10-K
For the Fiscal Year Ended September 25, 2022
Index

		Page
	<u>Risk Factors Summary</u>	<u>4</u>
<u>PART I</u>		
<u>Item 1.</u>	<u>Business</u>	<u>6</u>
<u>Item 1A.</u>	<u>Risk Factors</u>	<u>19</u>
<u>Item 1B.</u>	<u>Unresolved Staff Comments</u>	<u>37</u>
<u>Item 2.</u>	<u>Properties</u>	<u>37</u>
<u>Item 3.</u>	<u>Legal and Regulatory Proceedings</u>	<u>37</u>
<u>Item 4.</u>	<u>Mine Safety Disclosures</u>	<u>37</u>
<u>PART II</u>		
<u>Item 5.</u>	<u>Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u>	<u>38</u>
<u>Item 6.</u>	<u>(Reserved)</u>	<u>39</u>
<u>Item 7.</u>	<u>Management’s Discussion and Analysis of Financial Condition and Results of Operations</u>	<u>39</u>
<u>Item 7A.</u>	<u>Quantitative and Qualitative Disclosures about Market Risk</u>	<u>47</u>
<u>Item 8.</u>	<u>Financial Statements and Supplementary Data</u>	<u>49</u>
<u>Item 9.</u>	<u>Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u>	<u>49</u>
<u>Item 9A.</u>	<u>Controls and Procedures</u>	<u>49</u>
<u>Item 9B.</u>	<u>Other Information</u>	<u>50</u>
<u>Item 9C.</u>	<u>Disclosure Regarding Foreign Jurisdictions that Prevent Inspections</u>	<u>50</u>
<u>PART III</u>		
<u>Item 10.</u>	<u>Directors, Executive Officers and Corporate Governance</u>	<u>51</u>
<u>Item 11.</u>	<u>Executive Compensation</u>	<u>51</u>
<u>Item 12.</u>	<u>Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u>	<u>51</u>
<u>Item 13.</u>	<u>Certain Relationships and Related Transactions, and Director Independence</u>	<u>51</u>
<u>Item 14.</u>	<u>Principal Accounting Fees and Services</u>	<u>51</u>
<u>PART IV</u>		
<u>Item 15.</u>	<u>Exhibits and Financial Statement Schedules</u>	<u>51</u>
<u>Item 16.</u>	<u>Form 10-K Summary</u>	<u>54</u>

Risk Factors Summary:

Our business is subject to numerous risks and uncertainties, including those described in “Part I, Item 1A, Risk Factors” of this Annual Report. These risks include, but are not limited to, the following:

RISKS RELATED TO OUR OPERATING BUSINESSES

- *We derive a significant portion of our revenues from a small number of customers and licensees, and particularly from their sale of premium tier devices. If revenues derived from these customers or licensees decrease or the timing of such revenues fluctuates, our business and results of operations could be negatively affected.*
- *Our business, particularly our semiconductor business, may suffer as a result of our customers vertically integrating (i.e., developing their own integrated circuit products).*
- *A significant portion of our business is concentrated in China, and the risks of such concentration are exacerbated by U.S./China trade and national security tensions.*

RISKS RELATED TO NEW INITIATIVES

- *Our growth depends in part on our ability to extend our technologies and products into new and expanded product areas, and industries and applications beyond mobile handsets. Our research, development and other investments in these new and expanded product areas, industries and applications, and related technologies and products, as well as in our existing technologies and products, and new technologies, may not generate operating income or contribute to future results of operations that meet our expectations.*
- *We may engage in acquisitions and other strategic transactions or make investments, or be unable to consummate planned strategic acquisitions, which could adversely affect our results of operations or fail to enhance stockholder value.*

RISKS RELATED TO SUPPLY AND MANUFACTURING

- *We depend on a limited number of third-party suppliers for the procurement, manufacture, assembly and testing of our products manufactured in a fabless production model. If we fail to execute supply strategies that provide supply assurance, technology leadership and reasonable margins, our business and results of operations may be harmed. We are also subject to order and shipment uncertainties that could negatively impact our results of operations.*
- *There are numerous risks associated with the operation and control of our manufacturing facilities, including a higher portion of fixed costs relative to a fabless model; environmental compliance and liability; impacts related to climate change; exposure to natural disasters, health crises, geopolitical conflicts and cyber-attacks; timely supply of equipment and materials; and various manufacturing issues.*

RISKS RELATED TO CYBERSECURITY OR MISAPPROPRIATION OF OUR CRITICAL INFORMATION

- *Our business and operations could suffer in the event of security breaches of our IT systems, or other misappropriation of our technology, intellectual property or other proprietary or confidential information.*

RISKS RELATED TO HUMAN CAPITAL MANAGEMENT

- *We may not be able to attract and retain qualified employees, and our attempts to operate under a hybrid work model may not be successful.*

RISKS SPECIFIC TO OUR LICENSING BUSINESS

- *The continued and future success of our licensing programs requires us to continue to evolve our patent portfolio and to renew or renegotiate license agreements that are expiring.*
- *Efforts by some original equipment manufacturers (OEMs) to avoid paying fair and reasonable royalties for the use of our intellectual property may require the investment of substantial management time and financial resources and may result in legal decisions or actions by governments, courts, regulators or agencies, Standards Development Organizations (SDOs) or other industry organizations that harm our business.*
- *Changes in our patent licensing practices, whether due to governmental investigations, legal challenges or otherwise, could adversely impact our business and results of operations.*

RISKS RELATED TO REGULATORY AND LEGAL CHALLENGES

- *Our business may suffer as a result of adverse rulings in governmental investigations or proceedings or other legal proceedings.*

RISKS RELATED TO INDUSTRY DYNAMICS AND COMPETITION

- *Our revenues depend on our customers' and licensees' sales of products and services based on CDMA, OFDMA and other communications technologies, including 5G, and customer demand for our products based on these technologies.*
- *Our industry is subject to intense competition in an environment of rapid technological change. Our success depends in part on our ability to adapt to such change and compete effectively; and such change and competition could result in decreased demand for our products and technologies or declining average selling prices for our products or those of our customers or licensees.*

RISKS RELATED TO PRODUCT DEFECTS OR SECURITY VULNERABILITIES

- *Failures in our products, or in the products of our customers or licensees, including those resulting from security vulnerabilities, defects or errors, could harm our business.*

RISKS RELATED TO INTELLECTUAL PROPERTY

- *The enforcement and protection of our intellectual property may be expensive, could fail to prevent misappropriation or unauthorized use of our intellectual property, could result in the loss of our ability to enforce one or more patents, and could be adversely affected by changes in patent laws, by laws in certain foreign jurisdictions that may not effectively protect our intellectual property and by ineffective enforcement of laws in such jurisdictions.*
- *Claims by other companies that we infringe their intellectual property could adversely affect our business.*
- *Our use of open source software may harm our business.*

GENERAL RISK FACTORS

- *The COVID-19 pandemic, or a similar health crisis, may impact our business or results of operations in the future.*
- *We operate in the highly cyclical semiconductor industry, which is subject to significant downturns. We are also susceptible to declines in global, regional and local economic conditions generally. Our stock price and financial results are subject to substantial quarterly and annual fluctuations due to these dynamics, among others.*
- *Our business may suffer due to the impact of, or our failure to comply with, the various existing, new or amended laws, regulations, policies or standards to which we are subject.*
- *There are risks associated with our debt.*
- *Tax liabilities could adversely affect our results of operations.*

In this Annual Report, the words “Qualcomm,” “we,” “our,” “ours” and “us” refer only to QUALCOMM Incorporated and its subsidiaries and not any other person or entity. This Annual Report (including but not limited to the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations”) contains forward-looking statements. Words such as “expects,” “anticipates,” “intends,” “plans,” “believes,” “seeks,” “estimates,” “may,” “will,” “would” and similar expressions or variations of such words are intended to identify forward-looking statements, but are not the exclusive means of identifying forward-looking statements in this Annual Report. Additionally, statements concerning future matters such as our future business, prospects, results of operations, financial condition or research and development or technology investments; new or enhanced products, services or technologies; emerging industries or business models; design wins or product launches; industry, market or technology trends, dynamics or transitions; our expectations regarding future demand or supply conditions or macroeconomic factors; strategic investments or acquisitions, and the anticipated timing or benefits thereof; legal or regulatory matters; U.S./China trade or national security tensions; vertical integration by our customers; competition; and other statements regarding matters that are not historical are also forward-looking statements.

Although forward-looking statements in this Annual Report reflect our good faith judgment, such statements can only be based on facts and factors currently known by us. Consequently, forward-looking statements are inherently subject to risks and uncertainties and actual results and outcomes may differ materially from the results and outcomes discussed in or anticipated by the forward-looking statements. Factors that could cause or contribute to such differences in results and outcomes include without limitation those discussed under “Part I, Item 1A. Risk Factors” below, as well as those discussed elsewhere in this Annual Report. Readers are urged not to place undue reliance on these forward-looking statements, which speak only as of the date of this Annual Report. We undertake no obligation to revise or update any forward-looking statements in order to reflect any event or circumstance that may arise after the date of this Annual Report. Readers are urged to carefully review and consider the various disclosures made in this Annual Report, which attempt to advise interested parties of the risks and factors that may affect our business, financial condition, results of operations and prospects.

PART I

Item 1. Business

We incorporated in California in 1985 and reincorporated in Delaware in 1991. We operate and report using a 52-53 week fiscal year ending on the last Sunday in September. Our 52-week fiscal years consist of four equal fiscal quarters of 13 weeks each, and our 53-week fiscal years consist of three 13-week fiscal quarters and one 14-week fiscal quarter. The financial results for our 53-week fiscal years and our 14-week fiscal quarters will not be exactly comparable to our 52-week fiscal years and our 13-week fiscal quarters. Our fiscal years for 2022, 2021 and 2020 included 52 weeks.

Overview

We are a global leader in the development and commercialization of foundational technologies for the wireless industry, including 3G (third generation), 4G (fourth generation) and 5G (fifth generation) wireless technologies and processor technologies including high-performance, low-power computing and on-device artificial intelligence (AI) technologies. Our technologies and products are used in mobile devices and other wireless products. Our inventions have helped power the growth in smartphones and other cellular enabled devices. As a connected processor company, we are scaling our innovations using our one technology roadmap to enable the connected intelligent edge (the next generation of smart devices) across industries and applications beyond handsets, including automotive and the internet of things (IoT). In IoT, our inventions have helped power growth in industries and applications such as consumer (including computing, voice and music and XR), edge networking (including mobile broadband and wireless access points) and industrial (including handhelds, retail, transportation and logistics and utilities). In automotive, our connectivity, digital cockpit and advanced driver assistance and automated driving (ADAS/AD) platforms are helping to connect the car to its environment and the cloud, create unique in-cabin experiences and enable a comprehensive assisted and automated driving solution. We derive revenues principally from sales of integrated circuit products, including our Snapdragon® family of highly-integrated, system-based solutions, and licensing of our intellectual property, including patents and other rights.

The foundational technologies we invent help power the modern mobile experience, impacting how the world connects, computes and communicates. We share these inventions broadly through our licensing programs enabling wide ecosystem access to technologies at the core of mobile innovation, and through the sale of our wireless integrated circuit platforms (also known as integrated circuit products, chips, chipsets or modules) and other products. We collaborate across the ecosystem, including with manufacturers, operators, developers, system integrators, cloud providers, test tool vendors, service providers, governments and industry standards organizations, to enable a global environment of continued progress and growth.

We have a long history of driving innovation. We have played and continue to play a leading role in developing system level inventions that serve as the foundation for 3G, 4G and 5G wireless technologies. This includes technologies such as CDMA (Code Division Multiple Access) and OFDMA (Orthogonal Frequency Division Multiple Access) families of technologies, with the latter encompassing LTE (Long Term Evolution) and 5G NR (New Radio), which are the primary digital technologies currently used to transmit voice or data over radio waves using a public or private cellular wireless network.

We own significant intellectual property, including patents, patent applications and trade secrets, applicable to products that implement any version of CDMA and/or OFDMA technologies. The mobile industry generally recognizes that any

company seeking to develop, manufacture and/or sell devices or infrastructure equipment that use CDMA-based and/or OFDMA-based technologies requires a license or other rights to use our patents. We also develop and commercialize numerous other key technologies used in mobile and other wireless devices, and we own substantial intellectual property related to these technologies. Some of these inventions are contributed to and commercialized as industry standards, such as for certain video and audio codecs, Wi-Fi, GPS (Global Positioning System), UWB (ultra-wideband) and Bluetooth®. We have also developed other technologies that are used by wireless devices that are not related to industry standards, such as operating systems, user interfaces, graphics and camera processing functionality, RF (radio frequency), RFFE (radio frequency front-end) and antenna designs, AI and machine learning techniques and application processor architectures. Our patents cover a wide range of technologies across the entire wireless system (including wireless devices and network infrastructure equipment), not just the portion of such patented technologies incorporated into chipsets.

We are organized on the basis of products and services and have three reportable segments. We conduct business primarily through our QCT (Qualcomm CDMA Technologies) semiconductor business and our QTL (Qualcomm Technology Licensing) licensing business. QCT develops and supplies integrated circuits and system software based on 3G/4G/5G and other technologies, including RFFE, for use in mobile devices; automotive systems for connectivity, digital cockpit and ADAS/AD; and IoT including consumer electronic devices; industrial devices; and edge networking products. QTL grants licenses or otherwise provides rights to use portions of our intellectual property portfolio, which includes certain patent rights essential to and/or useful in the manufacture and sale of certain wireless products. Our QSI (Qualcomm Strategic Initiatives) reportable segment makes strategic investments. We also have nonreportable segments, including QGOV (Qualcomm Government Technologies) and our cloud AI inference processing initiative.

Industry Trends

As the largest technology platform in the world, mobile has transformed the way we connect, compute and communicate. Advanced connectivity and high-performance, low-power computing technologies from mobile are also impacting industries beyond wireless, empowering new services, new business models and new ways to engage and interact with customers. Our breakthrough inventions, along with our licensing programs, have been integral to the growth and evolution of the mobile industry.

Connected Intelligent Edge. Advancements in processor technologies have allowed for new levels of on-device processing (also known as edge computing). Edge computing brings processing closer to where data is generated, helping to reduce response time, improve security and enable greater personalization. As 5G and other forms of wireless connectivity converge with high-performance, low-power processing and on-device intelligence, devices at the edge are able to share data with cloud-based applications and each other. This is enabling expanded functionality and use cases, which we believe will have significant impact across industries. It is leading to the creation of the connected intelligent edge, where we expect billions of smart devices to be deployed.

Advancing Connectivity. 3G technology introduced the world to the potential of the mobile internet, and the ability to access the internet virtually anytime and anywhere. 4G brought mobile broadband speeds that helped fuel the smartphone era, forever changing the way we work, live and connect with others. 4G has become the foundational technology to many of the applications and services used today, including e-commerce, video streaming, video calling, social media and gaming.

Building on foundational innovations developed for 3G and 4G, the mobile industry continues to quickly move to 5G technology. Beginning with the Release 15 specification issued by 3GPP (3rd Generation Partnership Project), an organization that develops technical specifications, 5G is designed to support multi-gigabit data rates, low latency and greater capacity than previous generations of mobile technology to enable enhanced mobile broadband experiences, including ultra-high definition (4K) video streaming and sharing, near-instantaneous access to cloud services, immersive cloud gaming and extended reality (XR), which includes augmented reality (AR), virtual reality (VR) and mixed reality (MR). 5G's performance and capacity improvements are also enabling operators to offer new consumer and enterprise services while also reducing their operating costs.

Although 5G networks are being deployed at a faster pace as compared to the transition from 3G to 4G networks, as with previous generations of mobile networks, it will take time. Since the first commercial 5G networks were launched in April 2019, 226 operators in more than 90 countries have commercially launched 5G, with more than 500 operators investing to deploy the technology as of September 30, 2022 (GSA, October 2022). Many 5G devices include multimode support for 3G, 4G and Wi-Fi technologies, enabling service continuity where 5G has yet to be deployed. This allows mobile operators to utilize existing 3G and/or 4G network infrastructure, enabling operators to roll out 5G services over time, while also helping to maximize previous generation equipment investments. As of September 30, 2022, there were approximately 7.5 billion 3G/4G/5G connections globally, representing 88% of total mobile connections (GSMA Intelligence, October 2022). By 2026, global 3G/4G/5G connections are projected to reach 8.7 billion, with approximately 86% of these connections in emerging regions and China (GSMA Intelligence, October 2022).

Consumer Demand in Smartphones. For calendar year 2022, we estimate that 3G, 4G, and 5G handset volumes will decrease by low-double digits year-over-year, with 5G smartphone shipments estimated between 600 and 650 million. Such expected decline in demand is primarily driven by the negative effects of the macroeconomic environment and the impact of coronavirus (COVID-19) pandemic measures in China.

Consumer demand for new experiences, combined with the needs of mobile operators and device manufacturers to provide differentiated features and services, is driving continued innovation within the smartphone across connectivity, processing, AI, multimedia, imaging, audio and more. As a result, the smartphone continues to be the go-to device for social networking, music and video streaming, photography and video capture, e-commerce, gaming, email, web browsing and more. 5G enables these experiences to be more immersive, intuitive and interactive.

Transforming Other Industries: Automotive. According to analyst data, more than 70% of new vehicles produced in 2028 are projected to have embedded cellular connectivity, with 60% of cellular connected vehicles featuring 5G connectivity. By comparison, 60% of vehicles produced in 2021 had embedded cellular connectivity, with 5G connectivity expected to ramp in 2023 (Strategy Analytics, October 2022).

Digitalization of the automotive cockpit continues to transform the in-vehicle experience, enabling greater personalization of content and settings for both drivers and passengers as automakers respond to growing interest from consumers to bring their digital lifestyles into the vehicle. Car-to-cloud platforms are helping automakers improve cost efficiencies, create new service opportunities throughout the lifecycle of a vehicle with over-the-air (OTA) update capabilities and valuable vehicle and usage analytics. This is driving the development of a new architecture for the software-defined vehicle. High-performance, low-power computing technologies from mobile are being used to improve vehicles with advanced driver assistance and automated driving features that we expect to scale across vehicle tiers and continue the progression toward higher levels of autonomy, safety and convenience. Analysts estimate that 19% of new vehicles sold globally in 2025 will have Level 2 (i.e., partial driving automation) or higher autonomy, compared to an estimated 9% of new vehicles sold globally in 2022 (Strategy Analytics, October 2022).

Transforming Other Industries: IoT. Demand for connected devices beyond smartphones continued to grow across consumer, edge networking and industrial applications in fiscal 2022, in part due to the expanded use cases enabled by 5G technologies. The installed base of IoT devices, which includes everything from wearables to industrial handhelds to gateways, is projected to more than double between 2022 and 2026 to over 27 billion (IoT Analytics, October 2022). The growth in IoT devices is an important catalyst in driving digital transformation across industries.

Consumer. Consumer IoT products continue to adopt the latest mobile connectivity, processing and intelligence technologies, including personal computing (e.g., tablets and personal computers), connected audio (e.g., wireless earbuds, speakers and soundbars), wearables (e.g., smart watches), XR devices (e.g., VR headsets and AR glasses) and others (e.g., camera and video collaboration, exercise equipment and home appliances). This is enabling new services, applications and experiences.

Edge Networking. Growth in demand for connected devices, the transition to hybrid work environments and advances in wireless technology are driving increased demand for edge networking products (including mobile broadband and wireless access points). 5G provides the flexibility to support both mobile and fixed wireless users with the delivery of high-speed, low-latency connections, enabling operators to replace traditional “last-mile” wired broadband connections. Additionally, advancements in Wi-Fi are driving consumer and enterprise demand for the latest Wi-Fi 6 and 6E access point technologies that leverage increased network speed, capacity and efficiency to support the increased number of connected devices at home and at work.

Industrial. The combination of IoT devices with connectivity, computing and on-device AI along with the cloud are helping to bring near real-time data and insights in industries such as retail, transportation, logistics, mining and energy. This allows companies to gain new knowledge and insights about their products and services, manufacturing processes and more, which should help to transform, optimize and innovate their business.

Technology Overview

The worldwide demand for wireless devices, data services and applications requires continuous innovation to improve the user experiences, support new services, increase network capacity, make use of different frequency bands and allow for dense network deployments. To meet these requirements, different wireless communications technologies continue to evolve. We have a long history of investing heavily in research and development and have developed foundational technologies, including CDMA and OFDMA, that help drive the continued evolution of the wireless industry. As a result, we have developed and acquired (and continue to develop and acquire) significant related intellectual property. This intellectual property has been incorporated into the most widely accepted and deployed cellular wireless communications technology standards, and we have licensed it to several hundred licensees, including all of the leading handset manufacturers.

Cellular Wireless Technologies. Relevant cellular wireless technologies can be grouped into the following categories.

CDMA-based. CDMA-based technologies are characterized by their access method allowing several users to share the same frequency and time by allocating different orthogonal codes to individual users. Most of the CDMA-based technologies are classified as 3G technology and provide vastly improved capacity for voice and low-rate data services as compared to analog technologies and significant improvements over earlier technologies (e.g., 2G technology). CDMA-based connections worldwide continue to decline as consumers migrate to OFDMA-based technologies, which comprise the majority of total cellular connections today.

OFDMA-based. OFDMA-based technologies are characterized by their access method allowing several users to share the same frequency band and time by allocating different subcarriers to individual users. Most of the OFDMA-based technologies deployed prior to 2020 are classified as 4G technology. 3GPP developed the 4G system through the specification of the radio component (LTE) and the core network component (Enhanced Packet Core or EPC). The principal benefit of LTE is its ability to leverage a wide range of spectrum (bandwidths of up to 20 MHz or more through aggregation). LTE is designed to seamlessly interwork with 3G technologies through multimode devices. LTE Advanced brings many more enhancements, including carrier aggregation, advanced multi-antenna techniques and optimizations for small cells. 5G heavily leverages OFDMA-based technologies; 3GPP has developed the 5G system through the specification of the radio component (NR) and the core network component (5G Core or 5GC). Unlike 4G that has fixed Orthogonal Frequency Division Multiplexing (OFDM) parameterization, 5G has multiple OFDM parameterizations to address a wide range of spectrum and use cases. We continue to play a significant role in the further development and commercialization of LTE-based technologies.

Beginning with Release 14, 3GPP specifications provide enhancements specifically for C-V2X (cellular vehicle-to-everything), which includes both direct communication (vehicle-to-vehicle, vehicle-to-infrastructure and vehicle-to-pedestrian) in dedicated spectrum that is independent of a cellular network and cellular communications with networks in traditional mobile broadband licensed spectrum.

The wireless industry is actively developing and commercializing 5G technologies. The first 5G standard was initially completed in 2018. 5G is designed to transform the role of wireless technologies and incorporates advancements on 3G/4G features, including device-to-device capabilities and the use of all different types of spectrum (including licensed, unlicensed and shared spectrum). Many of our inventions at the core of 3G and 4G serve as the foundational technologies for 5G, and we continue to play a significant role in driving advancements in 5G, including contributing to 3GPP standardization activities that are defining the continued evolution of 5G NR and 5GC standards.

5G has the ability to target diverse services with very different technical requirements (from enhanced mobile broadband to massive IoT to mission critical services), utilize diverse types of spectrum (from low bands to millimeter wave (mmWave) bands) and support diverse types of deployment scenarios. Predominant technological components of 5G include ultra-reliable, low-latency communication, very wide channel bandwidth and new channel coding schemes to efficiently support large data blocks, MIMO (multiple input, multiple output) to increase coverage and network capacity and mobile mmWave to increase the data rate offered to users. As with previous cellular generations, 5G is designed to support seamless compatibility with 3G/4G technologies through multimode devices.

Subsequent to the initial specification of 5G in 3GPP Release 15, the 3GPP has completed two additional releases. Release 16 introduced enhancements to 5G mobile broadband experiences (e.g., more capacity, improved coverage, mobility and better device power efficiency), expanded 5G technologies into new use cases and industries and began supporting different spectrum types by expanding 5G into unlicensed spectrum with 5G NR Unlicensed (NR-U). Release 17 became the third major release of the global 5G NR standard expanding the 5G technology foundations for coverage, mobility, power and reliability, which is designed to provide efficient support for lower complexity 5G devices including wearables, industrial sensors, and new deployments, including non-terrestrial networks and mmWave private networks on unlicensed 60 GHz spectrum band. Release 18, which is now under development, marks the start of 5G Advanced, with projects designed to strengthen the end-to-end 5G system foundation (such as advanced downlink and uplink MIMO, enhanced mobility, mobile integrated access and backhaul, smart repeater, evolved duplexing, AI and machine learning data-driven designs and green networks) and to proliferate 5G to virtually all devices and use cases (such as boundless extended reality, NR-light evolution, expanded sidelink, expanded positioning, drones and expanded satellite communication and multicast).

Other (Non-Cellular) Wireless Technologies. There are other, non-cellular wireless technologies that have also been widely adopted.

Wireless Local Area Networks. Wireless Local Area Networks (WLAN), such as Wi-Fi, link two or more nearby devices wirelessly and usually provide connectivity through an access point. We are actively involved in innovative programs developed in the context of the Wi-Fi Alliance, a non-profit organization that drives global Wi-Fi adoption and evolution. Wi-Fi systems are based primarily on standards developed by the Institute of Electrical and Electronics Engineers 802.11 Working Group. Amendments of the 802.11 standard are commonly referred to by the names made popular by the Wi-Fi Alliance (for example, 802.11ax is known as Wi-Fi 6). Wi-Fi 6 adds advanced features such as downlink and uplink OFDMA and uplink multiple-user MIMO. This technology primarily targets connectivity for mobile devices, tablets, laptops and other consumer electronic devices using the 2.4GHz and 5GHz spectrum bands. We continue to play a leading role in the evolution of the 802.11 family of standards with the development of the new 802.11be standard, which is expected to be known as Wi-Fi 7.

Bluetooth. Bluetooth is a wireless personal area network that provides wireless connectivity between devices over short distances ranging from a few centimeters to approximately one hundred meters using the 2.4GHz industrial, scientific and medical spectrum band. Bluetooth technology provides wireless connectivity to a wide range of fixed or mobile consumer electronic devices. Bluetooth functionalities are standardized by the Bluetooth Special Interest Group in various versions of the specification (Bluetooth Core specification versions range from 1.0 to 5.3), which include different functionalities, such as enhanced data rate, low energy, mesh, audio, telephony, automotive, human interface device and location technologies. We are a leading contributor to Bluetooth technologies in the areas of mobile devices and audio and mesh technologies.

Location Positioning Technologies. Location positioning technologies continue to evolve in order to deliver an enhanced commercial location experience and comply with new mandates on location for E911 (enhanced 911) calls. We are a key developer of the Assisted-GPS (A-GPS), Assisted Global Navigation Satellite System (A-GNSS) and WLAN positioning technologies used in most cellular handsets today. For uses requiring the best reliability and accuracy for E911 services and navigational based services, A-GPS, A-GNSS and WLAN provide leading-edge solutions. We continue to invest in the standardization and productization of many 4G- and 5G-based positioning capabilities, including in 3GPP Releases 16, 17 and 18.

The industry continues to evolve to support additional inputs for improving the location experience. Our products and intellectual property now support multiple constellations for A-GNSS, including: GPS, GLONASS, Galileo, NavIC and BeiDou; Wi-Fi-based and Bluetooth-based positioning for WLAN, including Wi-Fi RSSI (received signal strength indication) and Wi-Fi RTT (round-trip time) signals for indoor location; observed time difference of arrival positioning for LTE access (e.g., in rural and indoor areas); and third-party inertial sensors. The combination of these different location solutions is used to ensure accurate location availability in all areas. We are also a leader in the standardization of high accuracy position techniques for 5G NR access and support techniques to improve resilience of location.

Additional Significant Technologies used in Cellular and Certain Consumer Electronic Devices and Networks.

Multimedia Technologies. We are a leading innovator in video, audio and speech compression technologies and system-level solutions enabling feature-rich, high-quality experiences in imaging, audio and vision intelligence. We are a leading contributor to the advancement of video compression performance, including contributions to the H.265/HEVC standard (deployed to support Ultra High Definition 4K and beyond video), the next generation H.266/VVC standard and the MPEG-5 EVC (Essential Video Coding) standard, which are designed to power the creation and consumption of richer, immersive media experiences. Proprietary video codecs, including VP9 and AV1, have also adopted our contributions due to their impact to video compression technology. Video compression technologies are used in a number of products such as cellular handsets, tablets, laptops and desktop computers, cameras, servers, gaming consoles and televisions.

We have developed additional significant multimedia technologies, including: camera and imaging technologies; vision intelligence technologies, which enable advanced use cases such as smart image processing, AR/VR and robotics; visual augmentation and frameworks and audio frameworks, both of which allow for human-machine interfaces; speech compression innovations; and spatial audio processing and coding enabling compression and rendering of immersive audio.

Other Technologies. In addition to the above, we have played and continue to play a leading role in developing and/or have acquired many of the other technologies used across the wireless system, computing and edge networking, including in cellular handsets and certain other consumer electronic devices and networks, including:

- on-device AI features, including machine learning platforms and the application of AI and machine learning techniques to edge computing and other use cases;
- operating system and user interface features;
- XR platform features such as 6DoF (six-degrees of freedom) head tracking and controller capabilities, 3D Reconstruction, 3D audio and video pass-through and embedded cellular connectivity for new types of user experiences;
- security and content protection systems for enhanced device security without compromising the user experience and ultrasonic fingerprint readers for single touch authentication;
- volatile (LP-DDR4, 5) and non-volatile (eMMC) memory and related controllers;
- fast charging features, enabling devices to charge quickly, safely and efficiently;
- Qualcomm® Smart Transmit™ technology, a modem-to-antenna technology that optimizes data speeds while complying with RF transmit power limits;
- power management systems for improved battery life and device charging; and
- SoC architecture with heterogeneous computing features, which uses different types of specialized engines (Graphics Processing Unit (GPU)) to enable high performance and low-power computing and other optimization techniques.

Acquisitions

We make strategic investments and acquisitions in order to open new opportunities for our technologies, support the design and introduction of new products and services (or enhance existing products or services), obtain development resources, grow our patent portfolio or pursue new businesses as part of our strategic plan. Information regarding our acquisitions is provided in this Annual Report in “Notes to Consolidated Financial Statements, Note 9. Acquisitions.”

Operating Segments

We have three reportable segments. We conduct business primarily through QCT and QTL, while QSI makes strategic investments. Additional information regarding our operating segments is provided in this Annual Report in “Notes to Consolidated Financial Statements, Note 8. Segment Information.”

QCT Segment. QCT is a leading developer and supplier of integrated circuits and system software based on 3G/4G/5G and other technologies for use in wireless voice and data communications, networking, computing, multimedia and GPS products. QCT’s integrated circuit products are sold and its system software is licensed to manufacturers that use our

products in a broad range of devices, from low-tier, entry-level devices primarily for emerging regions to premium-tier devices, including but not limited to mobile devices, wireless networks, devices used in IoT, broadband gateway equipment, consumer electronic devices and automotive systems for connectivity, digital cockpit and advanced driver assistance and automated driving. Our one technology roadmap delivers the latest network technologies across multiple product tiers and devices. This roadmap is the result of extensive collaboration with manufacturers, operators, developers, systems integrators, cloud providers, tool vendors, service providers, governments and industry standards organizations, as well as our years of research into emerging network standards and the development of integrated circuits. Our roadmap takes advantage of new standards, while maintaining backward compatibility with existing standards. We have leveraged and expect to continue to leverage the foundational technologies initially developed and commercialized for use in mobile handset devices, such as our core baseband modem and processor technologies and our other wireless connectivity products including Wi-Fi, Bluetooth and precise positioning technologies, to extend into product categories, industries and applications beyond mobile handsets, such as automotive and IoT (which includes the industries and applications of consumer, industrial and edge networking).

The Snapdragon family of highly integrated, system-based solutions include the Snapdragon mobile, compute, sound and automotive platforms. Each platform consists of application processors and wireless connectivity capabilities, including our cellular modem that provides core baseband modem functionality for voice and data communications, non-cellular wireless connectivity (such as Wi-Fi and Bluetooth) and global positioning functions. Our Snapdragon application processor functions include CPU, security, graphics, display, audio, video, camera and AI. Our CPUs are designed to deliver high levels of compute performance with optimized power consumption. Our Qualcomm[®] Hexagon[™] processors are designed to support a variety of signal processing applications, including AI, audio and sensor processing. Our Qualcomm[®] Adreno[™] graphics processing units are designed to deliver high quality graphics performance for visually rich 3D gaming and user interfaces. In addition to the highly integrated core SoC, we also design and supply supporting components, including the RF transceiver, PM (power management), audio, codecs, speaker amps and additional wireless connectivity integrated circuits. These supporting components, in addition to our cellular modems and application processors comprising our core SoC, are also sold as individual components. The combination of the Snapdragon SoC, system software and supporting components provide an overall platform with optimized performance and efficiency, enabling manufacturers to design and deliver powerful, slim and power-efficient devices ready for integration with the complex cellular networks worldwide.

Our portfolio of RF products includes Qualcomm[®] RFFE components that are designed to simplify the RF design for 5G front-end, LTE multimode and multiband mobile devices, including sub-6 GHz and mmWave devices, to reduce power consumption and to improve radio performance. We provide comprehensive RFFE product offerings with system level performance from the modem and transceiver to the antenna that include complex 4G/5G transmit and receive modules, power tracking, tuning systems, multimode-multiband power amplification, low noise amplifiers and mmWave antenna solutions, in addition to discrete filtering products, for devices and applications across the mobile handsets, automotive and IoT industries. We have also integrated our Snapdragon platform with our RFFE components to create our Snapdragon 5G modem-RF products, the world's first commercial modem-to-antenna 5G solution designed to maximize data speeds and performance, support superior call connectivity and coverage and extend battery life.

Our wireless connectivity products also consist of integrated circuits and system software for Wi-Fi, Bluetooth and frequency modulation, as well as technologies that support location data and services, including GPS, GLONASS, Galileo, NavIC and BeiDou. Our wireless connectivity products provide additional connectivity for mobile devices, tablets, laptops, XR headsets, voice and music devices, wearable devices, along with other IoT devices and applications, automotive connectivity, digital cockpit and ADAS/AD, utility meters and logistic trackers and industrial sensors. QCT also offers standalone Wi-Fi, Bluetooth, fingerprint sensor, applications processor and Ethernet products utilized within these devices and systems. Our networking products include Wi-Fi, Ethernet and Powerline chips, network processors, wireless access points and routers, broadband gateway equipment and software. These products help enable home and business networks to support the growing number of connected devices, digital media and data services.

Other than for certain of our RFFE modules and RF filter products, QCT utilizes a fabless production model, which means that we do not own or operate foundries for the production of silicon wafers from which our integrated circuits are made. Therefore, we primarily rely on third parties to perform the manufacturing and assembly, and most of the testing, of our integrated circuits based primarily on our proprietary designs and test programs. Our suppliers also are responsible for the procurement of most of the raw materials used in the production of our integrated circuits. Integrated circuits are die cut from silicon wafers that have completed the package assembly and test manufacturing processes. The semiconductor package supports the electrical contacts that connect the integrated circuit to a circuit board. Die cut from silicon wafers are the essential components of all of our integrated circuits and a significant portion of the total integrated circuit cost. We employ both turnkey and two-stage manufacturing models to purchase our integrated circuits. Under the turnkey model, our foundry suppliers are responsible for delivering fully assembled and tested integrated circuits. Under the two-stage manufacturing model, we purchase die in singular or wafer form from semiconductor manufacturing foundries and contract with separate third parties for manufacturing services such as wafer bump, probe, assembly and the majority of our final test requirements. The primary foundry suppliers for our various digital, analog/mixed-signal, RF and PM integrated circuits are Global Foundries, Samsung Electronics, Semiconductor Manufacturing International Corporation (SMIC) and Taiwan Semiconductor Manufacturing Company (TSMC). Our primary semiconductor assembly and test suppliers are Advanced Semiconductor Engineering, Amkor Technology, Siliconware Precision Industries and STATSChipPAC. The majority of our foundry and semiconductor assembly and test suppliers are located in the Asia-Pacific region.

QCT primarily uses internal fabrication facilities to manufacture certain RFFE modules and RF filter products, and our manufacturing operations consist of front-end and back-end processes. The front-end processes primarily take place at manufacturing facilities located in Germany and Singapore and involve the imprinting of substrate wafers with the structure and circuitry required for the products to function (also known as wafer fabrication). The back-end processes include the assembly, packaging and test of RFFE modules and RF filter products and their preparation for distribution. Our back-end manufacturing facilities are located in China and Singapore.

QCT's sales are primarily made through supply terms which implement a purchase order and order confirmation process for delivery of products. QCT generally allows customers to reschedule delivery dates within a defined time frame and to cancel orders prior to shipment with or without payment of a cancellation fee, depending on when the order is canceled. The industry in which QCT operates is intensely competitive. QCT competes worldwide with a number of U.S. and international designers and manufacturers of semiconductors. As a result of global expansion by foreign and domestic competitors, technological changes, device manufacturer concentrations, limited global supply capacity, vertical integration and the potential for further industry consolidation, we anticipate the industry to remain very competitive. We believe that the principal competitive factors for our products include performance, level of integration, quality, compliance with industry standards, price, time-to-market, system cost, design and engineering capabilities, new product innovation, growth and scaling of distribution channels, desire by certain customers to use multiple suppliers and customer support. QCT also competes in both single-mode and multimode environments against alternative communications technologies. Additional competitive factors exist for QCT product offerings that have expanded into industries and applications beyond mobile handsets, including automotive and IoT. The automotive industry is subject to long design-in time frames, long product life cycles and a high degree of regulatory and safety requirements, necessitating suppliers to the industry to comply with stringent qualification processes, very low defect rates and high reliability standards, all of which results in a significant barrier to entry and may result in increased costs.

QCT's current competitors include, but are not limited to, companies such as Apple, Broadcom, MediaTek, Nvidia, NXP Semiconductors, Qorvo, Samsung, Skyworks, Texas Instruments and UNISOC. QCT currently faces competition, which may intensify in the future, from products internally developed by our customers, including some of our largest customers, to early-stage companies. Our competitors devote significant amounts of their financial, technical and other resources to develop and market competitive products and, in some cases, to develop and adopt competitive digital communication or signal processing technologies, and those efforts may materially and adversely affect us. Although we have attained a significant position in the wireless industry, many of our current and potential competitors may have advantages over us. These and other risks related to competition are more fully described in the Risk Factors entitled *"Our industry is subject to intense competition in an environment of rapid technological change. Our success depends in part on our ability to adapt to such change and compete effectively; and such change and competition could result in decreased demand for our products and technologies or declining average selling prices for our products or those of our customers or licensees"* and *"Our business, particularly our semiconductor business, may suffer as a result of our customers vertically integrating (i.e., developing their own integrated circuit products)."*

QTL Segment. QTL grants licenses or otherwise provides rights to use portions of our intellectual property portfolio, which, among other rights, includes certain patent rights essential to and/or useful in the manufacture, sale and/or use of certain wireless products, including, without limitation, products implementing CDMA2000, WCDMA (Wideband CDMA), LTE and/or OFDMA-based 5G standards and their derivatives. We grant licenses or otherwise provide rights to use our cellular standard-essential patents (including 3G, 4G and 5G) for both single-mode and multimode devices on a worldwide basis. We also offer licenses to our cellular standard-essential patents together with other Qualcomm patents that may be useful to such licensed products for licensees that desire to obtain the commercial benefits of receiving such broad patent rights from us. While we offer license rights to patents that we do not have a duty or obligation to grant, those rights may be negotiated at our discretion. A significant portion of QTL's licensing revenues is derived from licensees that have entered into license agreements that grant licenses under Qualcomm's cellular standard-essential patents. Our licensees manufacture wireless cellular products such as mobile devices (including handsets), other consumer devices (e.g., tablets and laptops), plug-in end user data modem cards and embedded modules for incorporation into machine-to-machine devices and certain other devices, connected vehicle units and connected vehicle modules used in automobiles, wireless access points, small cell wireless products, infrastructure equipment required to establish and operate a cellular network and equipment to test wireless networks and cellular devices.

Since our founding in 1985, we have focused heavily on technology development and innovation. These efforts have resulted in a leading intellectual property portfolio related to foundational, system level technologies for the wireless industry. We have an extensive portfolio of United States and foreign patents, and we continue to pursue patent applications around the world. Our patents have broad coverage in many countries, including Brazil, China, India, Japan, South Korea, Taiwan, the United States and countries in Europe. A substantial portion of our patents and patent applications relate to digital wireless communications technologies, including patents that are essential or may be important to the commercial implementation of CDMA2000, WCDMA (UMTS), LTE and/or OFDMA-based 5G products. Our patent portfolio is the most widely and extensively licensed in the industry, including more than 190 5G license agreements to date. Additionally, we have a substantial patent portfolio related to key technologies used in communications and other devices and/or related services, some of which were developed in industry standards development organizations. These include certain video codecs, audio codecs, Wi-Fi, memory interfaces, wireless power, GPS and positioning, broadcast and streaming protocols, and short-range communication functionalities, including NFC and Bluetooth. Our patents cover a wide range of technologies across the

entire wireless system (including wireless devices and network infrastructure equipment), not just the portion of such patented technologies incorporated into chipsets. Over the years, a number of companies have challenged our patent position, but the mobile communications industry generally recognizes that any company seeking to develop, manufacture and/or sell certain wireless products that use CDMA-based and/or OFDMA-based technologies requires a license or other rights to use our patents.

We have licensed or otherwise provided rights to use our patents to hundreds of companies on industry-accepted terms. Our strategy to make our patented technologies broadly available has been a catalyst for industry growth, helping to enable a wide range of companies offering a broad array of wireless products and features while increasing the capabilities of and/or driving down average and low-end selling prices for handsets and other wireless devices. By licensing or otherwise providing rights to use our patents to a wide range of equipment manufacturers, encouraging innovative applications, supporting equipment manufacturers with integrated chipset and software products and focusing on improving the efficiency of the airlink for wireless operators, we have helped multimode device capabilities evolve, grow demand and reduce device pricing. 5G network deployments and commercial 3G/4G/5G multimode device sales began in 2019 and have continued. By licensing or otherwise providing rights to use our patents to a wide range of equipment manufacturers, we are supporting the global rollout and availability of 5G technology. We believe that 5G will continue to encourage innovative applications through enhanced mobile broadband services with lower latency and multi-gigabit user data speeds and bring more capacity and efficiency to wireless networks.

Upon the initial deployment of OFDMA-based networks, the products implementing such technologies generally have been multimode and implement OFDMA-based and CDMA-based technologies. The licenses granted under our existing license agreements generally cover multimode CDMA/OFDMA (3G/4G/5G) devices, and our licensees are obligated to pay royalties under their license agreements for their sales of such devices.

Standards bodies have been informed that we hold patents that might be essential for all 3G standards that are based on CDMA, patents and pending patent applications that are potentially essential for LTE standards, including FDD and TDD versions, and patents and pending patent applications that are potentially essential for 5G technologies. We have committed to such standards bodies that we will offer to license our essential patents for these standards consistent with our commitments to those bodies. We have made similar commitments with respect to certain other technologies implemented in industry standards.

QTL licensing revenues include royalties and, to a lesser extent, license fees. Licensees pay quarterly royalties based on their sales of products incorporating or using our licensed intellectual property and may also pay a fixed license fee in one or more installments. Sales-based royalties are generally based upon a percentage of the wholesale (i.e., licensee's) selling price of complete licensed products, net of certain permissible deductions (including transportation, insurance, packing costs and other items). We broadly provide per unit royalty caps that apply to certain categories of complete wireless devices, such as smartphones, tablets, laptops and smartwatches, and which provide for a maximum royalty amount payable per device. For certain non-handset product categories, including automotive, we charge a fixed royalty amount per unit. Revenues generated from royalties are subject to quarterly and annual fluctuations.

The vast majority of QTL revenues have been generated through our licensees' sales of CDMA-based (including, but not limited to WCDMA-based) and OFDMA-based products (including 3G, 3G/4G and 3G/4G/5G multimode devices), such as smartphones and other devices. We have invested in both the acquisition and development of, and continue to invest in the development of, OFDMA technology and intellectual property and have generated the industry leading patent portfolio applicable to LTE, LTE Advanced, LTE Advanced Pro and 5G NR. Some of our inventions that serve as foundational technologies for 3G and 4G also serve as foundational technologies for 5G. We have invested and continue to invest in the development of 5G and continue to play a significant role in driving advancements of 5G. Nevertheless, we face competition in the development of intellectual property for future generations of digital wireless communications technologies and services.

Separate and apart from licensing manufacturers of wireless devices and network equipment, we have entered into certain arrangements with competitors of our QCT segment. A principal purpose of these arrangements is to provide our QCT segment and the counterparties certain freedom of operation with respect to each party's integrated circuits business. In every case, these agreements expressly reserve the right for QTL to seek royalties from the customers of such integrated circuit suppliers with respect to such suppliers' customers' sales of CDMA-based (including, but not limited to WCDMA-based) and OFDMA-based wireless devices into which such suppliers' integrated circuits are incorporated.

Our license agreements also may provide us with rights to use certain of our licensees' technology and intellectual property to manufacture, sell and/or use certain components (e.g., application-specific integrated circuits) and related software, cellular devices and/or infrastructure equipment.

We have been in the past, currently are, and may in the future be subject to certain legal proceedings and/or governmental investigations challenging our patent licensing practices, including those described in this Annual Report under the heading "Notes to Consolidated Financial Statements, Note 7. Commitments and Contingencies," which may require us to change our patent licensing practices as described herein in "Part I, Item 1A. Risk Factors" under the heading "*Changes in our patent licensing practices, whether due to governmental investigations, legal challenges or otherwise, could adversely impact our business and results of operations.*"

QSI Segment. QSI makes strategic investments primarily through our Qualcomm Ventures arm that are focused on expanding or opening new opportunities for our technologies as well as supporting the design and introduction of new products and services (or enhancing existing products or services). Many of these strategic investments are in early-stage companies in a variety of industries and applications, including, but not limited to, 5G, AI, automotive, consumer, enterprise, cloud, IoT and XR. Investments primarily include non-marketable equity securities and, to a lesser extent, marketable equity securities and convertible debt instruments. In addition, QSI segment results include revenues and related costs associated with certain development contracts with one of our investees. As part of our strategic investment activities, we generally intend to pursue various exit strategies for each of our QSI investments in the foreseeable future.

Other Businesses. Nonreportable segments include our QGOV business, our cloud AI inference processing initiative and other technology and service initiatives. QGOV provides development and other services and sells related products to U.S. government agencies and their contractors.

Seasonality. Information regarding seasonality is provided in this Annual Report in “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations” in the “Our Business and Operating Segments” section under the heading “Seasonality.”

Corporate Structure

We operate our businesses through our parent company, QUALCOMM Incorporated, and multiple direct and indirect subsidiaries. We have developed our corporate structure in order to address various legal, regulatory, tax, contractual compliance, operational and other matters. Substantially all of our products and services businesses, including QCT, and substantially all of our engineering and research and development functions, are operated by Qualcomm Technologies, Inc. (QTI), a subsidiary of QUALCOMM Incorporated, and QTI’s subsidiaries. QTL is operated by QUALCOMM Incorporated, which owns the vast majority of our patent portfolio. Neither QTI nor any of its subsidiaries has any right, power or authority to grant any licenses or other rights under or to any patents owned by QUALCOMM Incorporated.

Revenue Concentrations and Significant Customers

A small number of customers/licensees historically have accounted for a significant portion of our consolidated revenues. In fiscal 2022, revenues from Apple and Samsung each comprised 10% or more of our consolidated revenues. Additional information regarding revenue concentrations is provided in this Annual Report in “Notes to Consolidated Financial Statements, Note 1. Significant Accounting Policies” and “Notes to Consolidated Financial Statements, Note 8. Segment Information.”

Research and Development

The wireless communications industry is characterized by rapid technological change, evolving industry standards, frequent new product introductions and, with the use of 5G, the expansion into industries and applications beyond mobile handsets such as automotive and IoT, requiring a continuous effort to enhance existing products and technologies and to develop new products and technologies. We have significant engineering resources, including engineers with substantial expertise in modem, radio-frequency integrated circuit, RFFE, multimedia (camera, video, display and computer vision), sensor perception and drive policy, advanced SoC, which includes specialized engines such as CPU and GPU to enable high performance and low-power computing and other optimization techniques, AI, packaging and a broad range of other technologies. We expect to continue to invest in research and development in a variety of ways in an effort to extend the demand for our products and technologies and to utilize that research and development in industries and applications beyond mobile handsets (such as automotive and IoT), including continuing the development of new modem and multimedia technologies and other technologies (such as ADAS/AD and XR), developing alternative technologies for certain specialized applications, participating in the formulation of new voice and data communication standards and technologies and assisting in deploying digital voice and data communications networks around the world.

We continue to invest significant resources towards advancements in OFDMA-based technologies and products (including LTE and 5G). We also engage in acquisitions and other transactions to meet certain technology needs, to obtain development resources or open or expand opportunities for our technologies and to support the design and introduction of new products and services (or enhance existing products and services) for voice and data communications and industries and applications beyond mobile handsets, such as ADAS/AD. We make investments to provide our integrated circuit customers with chipsets designed on leading-edge technology nodes that combine multiple technologies for use in consumer electronic devices (e.g., smartphones, tablets, laptops, voice and music devices, wearable devices and XR devices) and other products (e.g., access points and routers, data cards and infrastructure equipment). In addition to 3G, 4G and 5G technologies, our chipsets support other wireless and wired connectivity technologies, including Wi-Fi, Bluetooth, Ethernet, location positioning and Powerline communication. Our integrated chipsets often include multiple technologies, including advanced multimode modems, application processors and graphics engines, as well as the tools to connect these diverse technologies. We continue to support Android, Windows and other client software environments in our chipsets.

We develop innovations that are integrated into our product portfolio to further expand the opportunity for wireless communications and enhance the value of our products and services. These innovations are expected to enable our customers to improve the performance or value of their existing services, offer these services more affordably and introduce revenue-generating broadband data services ahead of their competition.

We have research and development centers in various locations throughout the world that support our global development activities and ongoing efforts to develop and/or advance 4G, 5G, RFFE and a broad range of other technologies. We continue to use our substantial engineering resources and expertise to develop new technologies, applications and services and make them available to licensees to help grow the communications industry and generate new or expanded licensing opportunities.

Environmental, Social and Governance (ESG) and Human Capital

We believe that our innovations have helped transform industries, enhance people's lives and address some of society's biggest challenges. With the world becoming increasingly connected, we have an opportunity to shape a better future. We believe in the power of technology. As such, our corporate responsibility vision is to be a facilitator of innovation for a sustainable world, connected wirelessly.

We have integrated corporate responsibility throughout our business, from our daily operations to our executive leadership and our Board of Directors (Board). The Governance Committee of our Board provides oversight on corporate responsibility matters, including ESG policies, programs and initiatives, and the HR and Compensation Committee of our Board provides oversight on our workforce diversity, equity and inclusion programs and initiatives. Our ESG Leadership Committee, composed of executives and senior management, provides guidance on global corporate responsibility issues. Our ESG Governance Committee implements directives from the ESG Leadership Committee, measures progress on achieving our goals and reports to management on accomplishments and challenges.

ESG

We believe that our sustained investment in research and development has helped revolutionize the way people connect. We center our ESG efforts around purposeful innovation, focusing on three strategic focus areas where we believe we can have the biggest impact:

- **Empowering Digital Transformation.** We believe technology can transform industries, businesses, communities and individual lives. We invent solutions that are foundational to the advancement of the global wireless ecosystem, improving how we work, live and, ultimately, thrive.
- **Acting Responsibly.** We invest in our people, behave with integrity and implement governance standards that uphold Qualcomm's values. We are committed to responsible business practices, from prioritizing diversity, equity and inclusion, to protecting privacy, to providing leading development programs and to creating an ethical culture.
- **Operating Sustainably.** We are committed to maintaining safe, healthy and productive working conditions and conserving natural resources. Our environmental efforts center on reducing greenhouse gas (GHG) emissions, optimizing energy consumption, managing water usage and minimizing waste throughout our operations and the communities in which we work.

2025 Goals. In addition to the human capital goals discussed below, our 2025 Goals related to corporate responsibility include, among others:

- Reducing our absolute Scope 1 and Scope 2 GHG emissions by 30% from global operations, compared to a 2014 baseline.
- Reducing power consumption by 10% every year in our flagship Snapdragon Mobile Platform products (given equivalent features).
- Ensuring 100% of our primary semiconductor manufacturing suppliers are audited every 2-years for conformance to our Supplier Code of Conduct.

Net-Zero Global GHG Emissions Commitment. In addition to our 2025 Goals, in November 2021, we announced plans to: (1) reduce absolute Scope 1 and 2 GHG emissions by 50% by 2030 from a 2020 base year; (2) reduce absolute Scope 3 GHG emissions by 25% by 2030 from a 2020 base year; and (3) reach net-zero global GHG emissions for Scopes 1, 2 and 3 by 2040.

The foregoing discussion includes information regarding ESG matters that we believe may be of interest to our stockholders generally. We recognize that certain other stakeholders (such as customers, employees and non-governmental organizations), as well as certain of our stockholders, may be interested in more detailed information on these topics. We encourage you to review our most recent Qualcomm Corporate Responsibility Report (located on our website) for more detailed information regarding our Corporate Responsibility and ESG governance, goals, priorities, accomplishments and initiatives; a 5G and sustainability report, *Environmental Sustainability and a Greener Economy: The Transformative Role of 5G* (also located on our website) for additional information regarding our views on climate change, environmental sustainability and the role of 5G in enabling a more sustainable future; as well as the Corporate Governance section of our most recent Proxy Statement, and our Corporate Governance Principles and Practices (located on our website), for additional information regarding governance matters, including Board and Committee leadership, oversight, roles and responsibilities, and Director independence, tenure, refreshment and diversity. Nothing on our website, including the aforementioned reports, documents or sections thereof, shall be deemed incorporated by reference into this Annual Report.

Human Capital

In order to continue to produce the innovative, breakthrough technologies for which we are known, it is crucial that we continue to attract and retain top talent. To facilitate talent attraction and retention, we strive to make Qualcomm a diverse, inclusive and safe workplace, with opportunities for our employees to grow and develop in their careers, supported by strong compensation, benefits and health and wellness programs and by programs that build connections between our employees and their communities.

At September 25, 2022, we had approximately 51,000 full-time, part-time and temporary employees, the overwhelming majority of which were full-time employees. During fiscal 2022, the number of employees increased by approximately 6,000, primarily due to increases in engineering resources, including those hired through acquisitions. Our employees are represented by more than 100 (self-identified) nationalities working in over 150 locations in 37 different countries around the world. Collectively, we speak more than 90 different languages. Our global workforce is highly educated, with the substantial majority of our employees working in engineering or technical roles (many of whom help develop foundational technologies for both our QCT semiconductor business and our QTL licensing business). During fiscal 2022, our voluntary turnover rate was less than 10%, lower than the technology industry benchmark, which is comprised of certain of our key competitors (Aon, 2022 Salary Increase and Turnover Study - Second Edition, September 2022).

Diversity, Equity and Inclusion. We believe that a diverse workforce is important to our success, and we continue to focus on the hiring, retention and advancement of women and underrepresented populations. Our recent efforts have been focused in three areas: inspiring innovation through an inclusive and diverse culture; expanding our efforts to recruit and hire world-class diverse talent; and identifying strategic partners to accelerate our inclusion, equity and diversity programs.

We have employee networks that enhance our inclusive and diverse culture, including global network groups focused on supporting women, LGBTQ+ employees and employees with disabilities, in addition to U.S.-based employee networks that focus on Black and African American employees, Hispanic and Latinx employees and U.S. military members and veterans.

We continue to recruit technical talent in diverse communities, including by engaging as a high-level sponsor of professional conferences, such as the Grace Hopper Celebration, the Society of Hispanic Professional Engineers National Convention and the National Society of Black Engineers National Convention. We also continue to recruit from a variety of colleges including Hispanic-Serving Institutions, Historically Black Colleges and Universities and Women's Colleges.

Our continued engagement with organizations that work with diverse communities has been vital to our efforts to increase women and minority representation in our workforce. For example, we partner with AnitaB.org to benchmark our progress and to identify promising practices for recruiting, retaining and advancing women technologists, and we support its research initiatives related to attracting and retaining women and underrepresented minority students in computing majors. We, alongside other top technology companies, helped form the Reboot Representation Tech Coalition, which aims to double the number of Black, Latinx and Native American women receiving computing degrees by 2025. Through our collaboration with Disability:IN's Inclusion Works program, we have increased our ability to address the needs of individuals with disabilities.

We publish our most recent Consolidated EEO-1 reports on our website to provide additional transparency into our efforts to increase underrepresented populations in our workforce. We have also publicly set 2025 goals around diverse workforce and leadership representation, as described below.

From a governance perspective, the HR and Compensation Committee of our Board provides oversight of our policies, programs and initiatives focusing on workforce diversity, equity and inclusion.

Health, Safety and Wellness. The success of our business is fundamentally connected to the well-being of our people. Accordingly, we are committed to the health, safety and wellness of our employees. We provide our employees and their families with access to a variety of innovative, flexible and convenient health and wellness programs, including benefits that provide protection and security concerning events that may require time away from work or that impact their financial well-being; that support their physical and mental health by providing tools and resources to help them improve or maintain their health status and encourage engagement in healthy behaviors; and that offer choice where possible so they can customize their benefits to meet their needs and the needs of their families.

During the COVID-19 pandemic, we took a variety of measures that we determined were in the best interests of our employees, as well as the communities in which we operate, and we have recently implemented a "hybrid" work model, meaning that the majority of our employees have flexibility to work remotely at least some of the time. The hybrid work model is intended to provide increased flexibility and support employee health and safety, while maintaining our strong culture of innovation, collaboration, openness and camaraderie. We continue to monitor the state of the pandemic and gather additional feedback to facilitate the continued health, safety and wellness of our employees working onsite. We also introduced our Live+Well, Work+Well program, designed to help cultivate a productive work environment, while also focusing on our employees' well-being.

Compensation and Benefits. We provide robust compensation and benefits programs to help meet the needs of our employees. In addition to salaries, these programs (which vary by country/region) include annual bonuses, stock awards, an employee stock purchase plan, a 401(k) plan, healthcare and insurance benefits, health savings and flexible spending accounts, paid time off, family leave, family care resources, flexible work schedules, adoption and surrogacy assistance,

employee assistance programs, tuition assistance, and on-site services such as health centers and fitness centers, among others. In addition to our broad-based equity award programs, we have used targeted equity awards with vesting conditions to facilitate retention of personnel, particularly those with critical engineering skills and experience.

Talent Development. We invest significant resources to develop the talent needed to remain a world-leading wireless innovator. We deliver numerous training opportunities, provide rotational assignment opportunities, focus on continuous learning and development and have implemented what we believe are industry-leading methodologies to manage performance, provide feedback and develop talent.

Our talent development programs are designed to provide employees with the resources they need to help achieve their career goals, build management skills and lead their organizations. We provide a series of employee workshops around the globe that support professional growth and development. Additionally, our manager and employee forum programs provide an ongoing opportunity for employees to practice and apply learning around conversations aligned with our annual review process. We also have an employee development website that provides quick access to learning resources that are personalized to the individual's development needs.

Building Connections - With Each Other and our Communities. We believe that building connections between our employees, their families and our communities creates a more meaningful, fulfilling and enjoyable workplace. Through our engagement programs, our employees can pursue their interests and hobbies, connect to volunteering and giving opportunities and enjoy unique recreational experiences with family members. Leveraging our partnerships with various local arts and culture organizations, we have created numerous unique experiences for employees and their families around the world.

Since our employees are passionate about many causes, our corporate giving and volunteering programs support and encourage employees by engaging with those causes. In our offices around the world, our employee-led Giving Committees select local organizations to support, often in the form of grants that are primarily funded by the Qualcomm Foundation (which was established in 2011 to support charitable giving and volunteerism). We also frequently collaborate with these organizations on volunteer activities for our employees. Additionally, during fiscal 2022, thousands of our employees around the world utilized our charitable match program, benefiting more than 1,500 charitable organizations.

2025 Goals. We set the following *2025 Goals* related to human capital, with a focus on diversity, equity and inclusion:

- Increase women in leadership by 15% (defined as individuals at the principal and above level in technical roles, and director and above in non-technical roles).
- Increase underrepresented minorities (URM) in leadership by 15% (for technical positions, "URM" includes Black, Hispanic or Latinx, Native Hawaiian or other Pacific Islander, and American Indian or Native American; for non-technical positions, URM also includes Asian).
- Increase overall URM representation by 20%.

Human Capital Advancements Linked to our Executive Compensation. The HR and Compensation Committee of our Board will consider human capital advancements in determining our executives' fiscal 2022 bonus. For fiscal 2022, progress towards human capital advancements serves as a non-financial performance modifier that can adjust the executives' bonus payout by a multiple of 0.9 to 1.1.

The foregoing discussion includes information regarding Human Capital matters that we believe may be of interest to stockholders generally. We recognize that certain other stakeholders (such as customers, employees and non-governmental organizations), as well as certain of our stockholders, may be interested in more detailed information on these topics. We encourage you to review the "Our People" section of our most recent Qualcomm Corporate Responsibility Report (located on our website) for more detailed information regarding our Human Capital goals, programs and initiatives. Nothing on our website, including our Consolidated EEO-1 reports, our Qualcomm Corporate Responsibility Report or sections thereof, shall be deemed incorporated by reference into this Annual Report.

Available Information

Our Internet address is www.qualcomm.com. There we make available, free of charge, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statements and any amendments to those reports (among others), as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission (SEC). We also make available on our website public financial information for which a report is not required to be filed with or furnished to the SEC. Our SEC reports and such other information can be accessed through the investor relations section of our website (<https://investor.qualcomm.com/>). The information found on our website is not part of this or any other report we file with or furnish to the SEC.

Information about our Executive Officers

Information about our executive officers (and their ages as of November 1, 2022) are as follows:

Cristiano R. Amon, age 52, has served as President and Chief Executive Officer and as a member of the Board of Directors since June 2021. Mr. Amon served as President and Chief Executive Officer-elect from January 2021 to June 2021 and President from January 2018 to January 2021. He served as Executive Vice President, Qualcomm Technologies, Inc.

(QTI), a subsidiary of Qualcomm Incorporated, and President, QCT, from November 2015 to January 2018. He served as Executive Vice President, QTI and Co-President, QCT from October 2012 to November 2015, Senior Vice President and Co-President, QCT from June 2012 to October 2012 and as Senior Vice President, QCT Product Management from October 2007 to June 2012, with responsibility for our product roadmap, including the Snapdragon platforms. Mr. Amon joined Qualcomm in 1995 as an engineer and throughout his tenure at Qualcomm has held several other technical and leadership positions. Mr. Amon holds a B.S. in Electrical Engineering and an honorary doctorate from UNICAMP, the State University of Campinas, Brazil.

Heather Ace, age 52, has served as Chief Human Resources Officer since March 2020. Prior to joining Qualcomm, Ms. Ace was Senior Vice President, Human Resources at DexCom, Inc., a provider of continuous glucose monitoring, from July 2016 to March 2020. Prior to DexCom, she was Executive Vice President, Human Resources at Orexigen Therapeutics, Inc., a developer of treatments for obesity, from January 2016 to July 2016. Ms. Ace was Integration Leader for Royal Philips, leading the cross-functional integration of Philips Healthcare's acquisition of Volcano Corporation, from January 2015 to January 2016. She was Executive Vice President, Human Resources at Volcano Corporation from May 2012 to January 2015. Prior to May 2012, Ms. Ace served in various senior executive roles in human resources, post-acquisition/merger integration and employment law at Life Technologies Corporation. She began her career at Gray, Cary, Ware & Freidenrich (now DLA Piper) as a litigation and transactional employment attorney, specializing in mergers and acquisitions. Ms. Ace holds a B.A. in Law & Society from the University of California, Santa Barbara and a J.D. from Santa Clara School of Law.

James J. Cathey, age 58, has served as Chief Commercial Officer, QTI since April 2022. Mr. Cathey served as Senior Vice President, Global Business Operations, QTI from December 2018 to April 2022, Senior Vice President, QTI and President, APAC and India from May 2016 to December 2018, Vice President, QTI and President, APAC and India from December 2015 to May 2016 and Vice President, QTI and President, Qualcomm Japan from December 2014 to December 2015. He served in various other operational and leadership roles since joining Qualcomm in September 2006. Prior to joining Qualcomm, he was an executive at Micron Technology, Inc., MicroDisplay Corp. and PixTech Inc. Mr. Cathey holds a B.B.A. from Boise State University.

Ann Chaplin, age 49, has served as General Counsel and Corporate Secretary since November 2021. Prior to joining Qualcomm, Ms. Chaplin served at General Motors Company as Corporate Secretary and Deputy General Counsel, U.S., Transformation Initiatives and Corporate Securities from February 2021 to November 2021, Deputy General Counsel and Chief Compliance Officer, North America, Transformation Projects and Compliance from April 2019 to February 2021, Deputy General Counsel, Commercial, Transportation as a Service, Litigation and Regulation from January 2018 to April 2019, Deputy General Counsel, Intellectual Property, Regulation and Litigation from June 2017 to January 2018 and Deputy General Counsel, Litigation from December 2015 to June 2017. Prior to General Motors, Ms. Chaplin was an attorney at Fish & Richardson P.C. from February 2001 to December 2015, last holding the position of Litigation Practice Group Leader/Litigation Equity Principal. She began her career as an intellectual property litigation associate at the law firm of Robins, Kaplan, Miller & Ciresi LLP. Ms. Chaplin holds a B.A. in Sociology of Law from the University of Minnesota and a J.D. from Harvard Law School.

Akash Palkhiwala, age 47, has served as Chief Financial Officer since November 2019. Mr. Palkhiwala served as Senior Vice President and Interim Chief Financial Officer from August 2019 to November 2019. He served as Senior Vice President, QCT Finance, QTI from December 2015 to August 2019 and Senior Vice President and Treasurer from October 2014 to December 2015. Mr. Palkhiwala served in various other finance and leadership roles since joining Qualcomm in March 2001. Prior to joining Qualcomm, he was an Analyst at KeyBank. Mr. Palkhiwala holds an undergraduate degree in Mechanical Engineering from L.D. College of Engineering in India and an M.B.A. from the University of Maryland.

Alexander H. Rogers, age 65, has served as President, QTL and Global Affairs since June 2021. Mr. Rogers served as President, QTL from October 2016 to June 2021, Senior Vice President and President, QTL from September 2016 to October 2016, Senior Vice President, Deputy General Counsel and General Manager, QTL from March 2016 to September 2016, Senior Vice President and Deputy General Counsel from October 2015 to March 2016 and Senior Vice President and Legal Counsel from April 2007 to October 2015. Prior to QTL, he led Qualcomm's litigation group. Mr. Rogers joined Qualcomm in January 2001 as an attorney. Prior to joining Qualcomm, he was a partner at the law firm of Gray, Cary, Ware & Freidenrich (now DLA Piper), specializing in intellectual property and commercial litigation. Mr. Rogers holds a B.A. and an M.A. in English Literature from Georgetown University and a J.D. from Georgetown University Law Center.

James H. Thompson, age 58, has served as Chief Technology Officer, QTI since March 2017. Dr. Thompson served as Executive Vice President, Engineering, QTI from October 2012 to March 2017 and Senior Vice President, Engineering from July 1998 to October 2012. He joined Qualcomm in 1992 as a senior engineer and throughout his tenure at Qualcomm has held several other technical and leadership positions. Dr. Thompson holds a B.S., an M.S. and a Ph.D. in Electrical Engineering from the University of Wisconsin.

Item 1A. Risk Factors

You should consider each of the following factors in evaluating our business and our prospects, any of which could negatively impact our business, results of operations, cash flows and financial condition, and require significant management time and attention. Further, the risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently consider immaterial may also negatively impact our business, results of operations, cash flows and financial condition, and require significant management time and attention. In such cases, the trading price of our common stock could decline. You should also consider the other information set forth in this Annual Report in evaluating our business and our prospects, including but not limited to our financial statements and the related notes, and “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations.” References to “and,” “or” and “and/or” should be read to include the others, as appropriate.

RISKS RELATED TO OUR OPERATING BUSINESSES

We derive a significant portion of our revenues from a small number of customers and licensees, and particularly from their sale of premium tier devices. If revenues derived from these customers or licensees decrease or the timing of such revenues fluctuates, our business and results of operations could be negatively affected.

We derive a significant portion of our revenues from a small number of customers and licensees, and particularly from their sale of premium tier devices, and we expect this trend to continue in the foreseeable future. Our industry is experiencing and may continue to experience concentration of device share among a few companies, particularly at the premium tier, contributing to this trend. Certain Chinese OEMs continue to grow their device share in China and are increasing their device share in regions outside of China, and we derive a significant portion of our revenues from a small number of these OEMs as well. See also “Notes to Consolidated Financial Statements, Note 1. Significant Accounting Policies - Concentrations.”

In addition, a number of our largest integrated circuit customers have developed, are developing or may develop their own integrated circuit products, or may choose our competitors’ integrated circuit products, which they have in the past utilized, currently utilize and may in the future utilize in some or all of their devices, rather than our products, which could significantly reduce the revenues we derive from these customers. See also the Risk Factor titled “*Our business, particularly our semiconductor business, may suffer as a result of our customers vertically integrating (i.e., developing their own integrated circuit products).*”

Further, political actions, including trade and/or national security protection policies, or other actions by governments, particularly the U.S. and Chinese governments, have in the past, currently are and could in the future limit or prevent us from transacting business with certain of our customers, limit, prevent or discourage those customers from transacting business with us, or make it more expensive to do so, any of which could also significantly reduce the revenues we derive from these customers. See also the Risk Factor titled “*A significant portion of our business is concentrated in China, and the risks of such concentration are exacerbated by U.S./China trade and national security tensions.*”

In addition, we spend a significant amount of engineering and development time, funds and resources in understanding our key customers’ feedback and/or specifications and attempt to incorporate such input into our product launches and technologies. These efforts may not require or result in purchase commitments from such customers or we may have lower purchases from such customers than expected, and consequently, we may not achieve the anticipated revenues from these efforts, or these efforts may result in non-recoverable costs.

The loss of any one of our significant customers, a reduction in the purchases of our products by any of these customers or the cancellation of significant purchases by any of these customers, whether due to the use of their own integrated circuit products or our competitors’ integrated circuit products, government restrictions, a decline in global, regional or local economic conditions, a decline in consumer demand, elevated inventory levels at our customers or otherwise, would reduce our revenues and could harm our ability to achieve or sustain expected results of operations. A delay of significant purchases, even if only temporary, would reduce our revenues in the period of the delay. Any such reduction in revenues would also impact our cash resources available for other purposes, such as research and development.

Further, the concentration of device share among a few companies, and the corresponding purchasing power of these companies, may result in lower prices for our products which, if not accompanied by a sufficient increase in the volume of purchases of our products, could have an adverse effect on our revenues and margins. In addition, the timing and size of purchases by our significant customers may be impacted by the timing of such customers’ new or next generation product introductions, over which we have no control, and the timing and success of such introductions may cause our revenues and results of operations to fluctuate.

Apple purchases our MDM (or thin modem) products, which do not include our integrated application processor technology, and which have lower revenue and margin contributions than our combined modem and application processor products. Consequently, to the extent Apple takes device share from our customers who purchase our integrated modem and application processor products, our revenues and margins may be negatively impacted.

Our industry has also experienced slowing growth in the premium-tier device segment due to, among other factors, a maturing premium-tier smartphone industry in which demand is increasingly driven by new product launches and innovation cycles. A reduction in sales of premium-tier devices, a reduction in sales of our premium-tier integrated circuit products (which have a higher revenue and margin contribution than our lower-tier integrated circuit products), or a shift in share away

from OEMs that utilize our premium-tier products, would reduce our revenues and margins and may harm our ability to achieve or sustain expected financial results. Any such reduction in revenues would also impact our cash resources available for other purposes, such as research and development.

Further, while our product and revenue diversification strategies have resulted in an increasing portion of our revenues coming from outside of mobile handsets, e.g., from industries such as automotive and IoT, certain product categories within those industries may in themselves be subject to high levels of customer concentration.

Although we have more than 300 licensees, we derive a significant portion of our licensing revenues from a limited number of licensees, which includes a number of Chinese OEMs. In the event that one or more of our significant licensees fail to meet their reporting and payment obligations, or we are unable to renew or modify one or more of their license agreements under similar terms as their existing agreements, our revenues, results of operations and cash flows would be adversely impacted. Moreover, the future growth and success of our core licensing business will depend in part on the ability of our licensees to develop, introduce and deliver high-volume products that achieve and sustain customer acceptance. We do not have control over the product development, sales efforts or pricing of products by our licensees, and our licensees might not be successful. Reductions in sales of our licensees' products, or reductions in the average selling prices of wireless devices sold by our licensees without a sufficient increase in the volumes of such devices sold, would generally have an adverse effect on our licensing revenues.

Our business, particularly our semiconductor business, may suffer as a result of our customers vertically integrating (i.e., developing their own integrated circuit products).

Certain of our largest integrated circuit customers (for example, Samsung) develop their own integrated circuit products, which they have in the past utilized, and currently utilize, in certain of their devices and may in the future utilize in some or all of their devices, rather than our products (and they have and may continue to sell their integrated circuit products to third parties, discretely or together with certain of their other products, in competition with us).

Apple has utilized modem products of one of our competitors in some of its devices rather than our products, and solely utilized one of our competitors' products in several of its prior device launches. In December 2019, Apple acquired Intel's modem assets and is developing its own modem products using those assets. Accordingly, we expect Apple to use its own modem products, rather than our products, in some or all of its future devices.

Similarly, we derive a significant portion of our revenues from Chinese OEMs. Certain of our customers in China have developed, and others may in the future develop, their own integrated circuit products and use such integrated circuit products in their devices rather than our integrated circuit products, including due to pressure from or policies of the Chinese government (whose *Made in China 2025* campaign targets 70% semiconductor self-sufficiency by 2025), concerns over losing access to our integrated circuit products as a result of actual, threatened or potential U.S. or Chinese government actions or policies, including trade protection or national security policies, or other reasons. See also the Risk Factor titled *"A significant portion of our business is concentrated in China, and the risks of such concentration are exacerbated by U.S./China trade and national security tensions."*

In addition, periodic supply/capacity constraints within the semiconductor industry may further incentivize our integrated circuit customers to vertically integrate in an effort to secure additional control over their supply chains.

If some or all of our largest customers and/or the largest smartphone OEMs utilize their own integrated circuit/modem products in some or all of their devices rather than our products, our business, revenues, results of operations, cash flows and financial position could be materially adversely impacted. See also the Risk Factor titled *"We derive a significant portion of our revenues from a small number of customers and licensees, and particularly from their sale of premium tier devices. If revenues derived from these customers or licensees decrease or the timing of such revenues fluctuates, our business and results of operations could be negatively affected."*

A significant portion of our business is concentrated in China, and the risks of such concentration are exacerbated by U.S./China trade and national security tensions.

We derive a significant portion of our revenues from Chinese OEMs, and from non-Chinese OEMs that utilize our integrated circuit products in their devices and sell those devices into China, which has the largest number of smartphone users in the world. We also source certain critical integrated circuit products from suppliers in China.

Due to various factors, including pressure, encouragement or incentives from, or policies of, the Chinese government (including its *Made in China 2025* campaign), concerns over losing access to our integrated circuit products as a result of actual, threatened or potential U.S. or Chinese government actions or policies, including trade protection or national security policies, or other reasons, some of our Chinese integrated circuit customers have developed, and others may in the future develop, their own integrated circuit products and use such integrated circuit products in their devices, or use our competitors' integrated circuit products in their devices, rather than our products, which could materially harm our business, revenues, results of operations, cash flows and financial position. See also the Risk Factor titled *"Our business, particularly our semiconductor business, may suffer as a result of our customers vertically integrating (i.e., developing their own integrated circuit products)."*

Political actions, including trade protection and national security policies of the U.S. and Chinese governments, such as tariffs, bans or placing companies on restricted entity lists, have in the past, currently are and could in the future limit or

prevent us from transacting business with certain of our Chinese customers or suppliers, limit, prevent or discourage certain of our Chinese customers or suppliers from transacting business with us, or make it more expensive to do so. Given our revenue concentration in China, if, due to actual, threatened or potential U.S. or Chinese government actions or policies: we were further limited in, or prohibited from, selling our integrated circuit products to Chinese OEMs; our non-Chinese OEM customers were limited in, or prohibited from, selling devices into China that incorporate our integrated circuit products; Chinese OEMs develop and use their own integrated circuit products or use our competitors' integrated circuit products in some or all of their devices rather than our integrated circuit products; Chinese tariffs on our integrated circuit products or on devices which incorporate our integrated circuit products made purchasing such products or devices more expensive to Chinese OEMs or Chinese consumers; or our Chinese licensees delay or cease making payments of license fees they owe us, our business, revenues, results of operations, cash flows and financial position could be materially harmed. Similarly, if, due to U.S. or Chinese government actions or policies, we were limited in or prohibited from obtaining critical integrated circuit products from our suppliers in China, our business, revenues, results of operations, cash flows and financial position could be materially harmed. See also the Risk Factor titled *"We derive a significant portion of our revenues from a small number of customers and licensees, and particularly from their sale of premium tier devices. If revenues derived from these customers or licensees decrease or the timing of such revenues fluctuates, our business and results of operations could be negatively affected."*

Finally, government policies in China that regulate the amount and timing of funds that may flow out of the country have impacted and may continue to impact the timing of our receipt of, and/or ability to receive, payments from our customers and licensees in China, which may negatively impact our cash flows.

RISKS RELATED TO NEW INITIATIVES

Our growth depends in part on our ability to extend our technologies and products into new and expanded product areas, and industries and applications beyond mobile handsets. Our research, development and other investments in these new and expanded product areas, industries and applications, and related technologies and products, as well as in our existing technologies and products, and new technologies, may not generate operating income or contribute to future results of operations that meet our expectations.

While we continue to invest significant resources toward advancements primarily in support 5G-based technologies, we also invest in new and expanded product areas, and industries and applications beyond mobile handsets, by utilizing our existing technical and business expertise and through acquisitions or other strategic transactions.

In particular, our future growth depends in part on new and expanded product areas, and industries and applications beyond mobile handsets, such as automotive and IoT; our ability to develop leading and cost-effective technologies and products for these new and expanded product areas, industries and applications; and third parties incorporating our technologies and products into devices used in these product areas, industries and applications. Accordingly, we intend to continue to make substantial investments in these new and expanded product areas, industries and applications, and in developing new products and technologies for these product areas, industries and applications. Our growth also depends significantly on our ability to develop and patent 5G technologies, and to develop and commercialize products using 5G technologies.

However, our research, development and other investments in these new and expanded product areas, industries and applications, and corresponding technologies and products, as well as in our existing technologies and products and new technologies in mobile handsets, may not succeed because, among other reasons: we may not be issued patents on the technologies we develop; the technologies we develop may not be incorporated into relevant standards; new and expanded product areas, industries and applications beyond mobile handsets, and consumer demand therein, may not develop or grow as anticipated; we may be unable to attract or retain employees with the necessary skills in such new and expanded product areas, industries and applications; our strategies or the strategies of our customers, licensees or partners may not be successful; alternate technologies or products may be better or may reduce the advantages we anticipate from our investments; competitors' technologies or products may be more cost effective, have more capabilities or fewer limitations or be brought to market faster than our new technologies or products; we may not be able to develop, or our competitors may have more established and/or stronger, customer, vendor, distributor or other channel relationships; and competitors may have longer operating histories in industries and applications that are new to us. We may also underestimate the costs of, or overestimate the future revenues or margins that could result from these investments, and these investments may not, or may take many years to, generate material returns.

Further, the automotive industry is subject to long design-in time frames, long product life cycles and a high degree of regulatory and safety requirements, necessitating suppliers to the industry to comply with stringent qualification processes, very low defect rates and high reliability standards, all of which results in significant barriers to entry and increased costs.

If our products fail to perform to specifications, compete with the product quality of our competitors or meet quality and/or regulatory standards of a particular industry or application (including product safety and information security standards, which may differ by region, geography and industry, and which are particularly stringent in the automotive industry), we may be unable to successfully expand our business in that industry or application, and our growth could be limited.

In addition, in order to successfully extend our technologies and products into new and expanded product areas, and industries and applications beyond mobile handsets, we may need to transition to new business models and transform aspects of our organization, and we may not be successful in doing so.

If we are not successful in extending our technologies and products into new and expanded product areas, and industries and applications beyond mobile handsets, if our new technologies and products are not successful, or if we are not successful in the time frames we anticipate, we may incur significant costs and asset impairments, our business and revenues may not grow or grow as anticipated, our revenues and margins may be negatively impacted, our stock price may decline and our reputation may be harmed.

We may engage in acquisitions and other strategic transactions or make investments, or be unable to consummate planned strategic acquisitions, which could adversely affect our results of operations or fail to enhance stockholder value.

We engage in acquisitions and other strategic transactions, including joint ventures, and make investments, which we believe are important to the future of our business, with the goal of maximizing stockholder value. We routinely acquire businesses and other assets, including patents, technology and other intangible assets, enter into joint ventures or other strategic transactions, and purchase minority equity interests in or make loans to companies, including those that may be private and early-stage. Our strategic activities are generally focused on opening or expanding opportunities for our products and technologies and supporting the design and introduction of new products (or enhancing existing products) for mobile handsets, and for industries and applications beyond mobile handsets. Many of our strategic activities entail a high degree of risk and require the use of significant amounts of capital, and investments may not become liquid for several years after the date of the investment, if at all. Our strategic activities may not be successful, generate financial returns or result in increased adoption or continued use of our technologies or products. We may underestimate the costs or overestimate the benefits, including product, revenue, cost and other synergies and growth opportunities that we expect to realize, and we may not achieve those benefits. In some cases, we may be required to consolidate or record our share of the earnings or losses of companies in which we have acquired ownership or variable interests. In addition, we have in the past recorded, and may in the future record, impairment or other charges related to our strategic activities. Any losses or impairment charges that we incur related to strategic activities will have a negative impact on our results of operations and financial condition, and we may continue to incur new or additional losses related to strategic assets or investments that we have not fully impaired or exited.

Achieving the anticipated benefits of business acquisitions depends in part upon our ability to integrate the businesses in an efficient and effective manner and achieve anticipated synergies, and we may not be successful in these efforts. Such integration is complex and time consuming and involves significant challenges, including, among others: retaining key employees; successfully integrating new employees, facilities, technology, products, processes, operations (including supply and manufacturing operations), sales and distribution channels, business models and business systems; retaining customers and suppliers of the businesses; consolidating research and development operations; minimizing the diversion of management's attention from ongoing business matters; consolidating corporate and administrative infrastructures; and managing the increased scale, complexity and globalization of our business, operations and employee base. We may not derive any commercial value from associated technologies or products or from future technologies or products based on these technologies, and we may be subject to liabilities that are not covered by indemnification protection that we may obtain, and we may become subject to litigation. Additionally, we may not be successful in entering or expanding into new sales or distribution channels, business or operational models, geographic regions, industries and applications served by or adjacent to the associated businesses or in addressing potential new opportunities that may arise out of our strategic acquisitions.

If we do not achieve the anticipated benefits of business acquisitions or other strategic activities, our business and results of operations may be adversely affected, and we may not enhance stockholder value by engaging in these transactions.

Many of our acquisitions and other strategic investments require approval by the United States and/or foreign government agencies. Certain agencies in the past have, and may in the future, deny the transaction or fail to approve in a timely manner, resulting in us not realizing the anticipated benefits of the proposed transaction. Future acquisitions or other strategic investments may be more difficult, complex or expensive to the extent that our reputation for our ability to consummate acquisitions has been or is in the future harmed. Further, if U.S./China relations remain strained, our ability to consummate any transaction that would require approval from the relevant regulatory agency(ies) in China may be severely impacted. In addition, acquisitions that we have completed could subsequently be reviewed and/or challenged by government agencies, which could result in fines, penalties or other liability, or requirements to divest all or a portion of an acquired business.

RISKS RELATED TO SUPPLY AND MANUFACTURING

We depend on a limited number of third-party suppliers for the procurement, manufacture, assembly and testing of our products manufactured in a fabless production model. If we fail to execute supply strategies that provide supply assurance, technology leadership and reasonable margins, our business and results of operations may be harmed. We are also subject to order and shipment uncertainties that could negatively impact our results of operations.

We primarily utilize a fabless production model, which means that we do not own or operate foundries for the production of silicon wafers from which our integrated circuits are made. Other than the facilities we own that manufacture certain of our RFFE modules and RF (radio frequency) filter products, we rely on third-party suppliers to perform the manufacturing and assembly, and most of the testing, of our integrated circuits. Our suppliers are also responsible for the procurement of most of the raw materials used in the production of our integrated circuits. There are a limited number of such third-party suppliers, and even fewer who are capable of manufacturing at the leading process technology nodes or who are willing to operate at older process technology nodes necessary for certain of our integrated circuit products. The semiconductor manufacturing

foundries that supply our products are primarily located in Asia, as are the primary warehouses where we store finished goods for fulfillment of customer orders.

The following issues related to our third-party suppliers could have an adverse effect on our ability to meet customer demand and negatively impact our revenues, business operations, profitability and cash flows:

- our suppliers' failure or inability to react to shifts in product demand, including situations where demand for integrated circuits exceeds suppliers' capacity to meet that demand;
- a failure or inability by our suppliers to procure raw materials or allocate adequate raw materials for our products, or an increase in prices for raw materials or components;
- an inability to procure or utilize raw materials, components or products from our suppliers due to government prohibitions or restrictions on transactions with certain countries and/or companies, and alternative suppliers, raw material sources or raw materials are not available or not available in acceptable time frames or upon acceptable terms;
- a failure by our suppliers to allocate adequate manufacturing, assembly or test capacity for our products;
- our suppliers' failure or inability to develop or maintain, or a delay in developing or building out, manufacturing capacity for leading process technologies, including transitions to smaller geometry process technologies;
- the loss of a supplier or the failure or inability of a supplier to meet performance, quality or yield specifications or delivery schedules;
- additional expense or production delays as a result of qualifying a new supplier and commencing volume production or testing in the event of a loss of, or a decision to add or change, a supplier;
- natural disasters, the effects of climate change, acts of war or other geopolitical conflicts impacting the regions in which our suppliers and their manufacturing foundries or assembly, test or other facilities are located;
- health crises, including epidemics or pandemics, such as the COVID-19 pandemic, and government and business responses thereto, which impact our suppliers, including as a result of quarantines or closures;
- cyber-attacks on our suppliers' information technology (IT) systems, including those related to their manufacturing foundries or assembly, test or other facilities;
- trade or national security protection policies, particularly U.S. or Chinese government policies, that limit or prevent us from transacting business with suppliers of critical integrated circuit products, or that limit or prevent such suppliers from transacting business with us or from procuring materials, machinery or technology necessary to manufacture goods for us; and
- any other reduction, interruption, delay or limitation in our product supply sources.

We rely on sole- or limited-source suppliers for certain products, which may exacerbate the risks identified above, and subject us to other significant risks, including poor product performance and reduced control over delivery schedules, manufacturing capability and yields, quality assurance, quantity and costs. While we have established and may in the future establish alternate suppliers for certain products, these suppliers may require significant amounts of time and levels of support to bring such products to production, both of which may increase for complex or leading process technologies. As a result, we may invest a significant amount of effort and resources and incur higher costs to support and maintain such alternate suppliers. Further, the elimination or limitation of a foundry supplier's ability to manufacture components or products for us due to trade or national security protection policies could increase our vulnerability to sole- or limited-source arrangements and limit or prevent us from procuring critical components or products from those suppliers. Future consolidation of foundry suppliers could also increase our vulnerability to sole- or limited-source arrangements and reduce our suppliers' willingness to negotiate pricing, which could negatively impact our ability to achieve cost reductions, increase our manufacturing costs and limit the amount of capacity available to us. Our arrangements with our suppliers may obligate us to incur costs to manufacture, assemble and test our products that do not decrease at the same rate as decreases in pricing to our customers. Our ability, and that of our suppliers, to develop or maintain leading process technologies, including transitions to smaller geometry process technologies (which adds risk to manufacturing yields and reliability), and to effectively compete with the manufacturing processes and performance of our competitors, could impact our ability to introduce new products and meet customer demand, could increase our costs (possibly decreasing our margins) and could subject us to the risk of excess inventories. Any of the above could negatively impact our business, results of operations and cash flows.

Although we have long-term contracts with our suppliers, some of these contracts do not provide for long-term capacity commitments. To the extent we do not have firm commitments from our suppliers over a specific time period or for any specific quantity, our suppliers may allocate, and in the past have allocated, capacity to the manufacture, assembly and testing of products for their other customers (including our competitors) while reducing or limiting capacity to manufacture, assemble or test our products, and such capacity may be limited based on our suppliers' ability and willingness to invest in the capital required to manufacture in the leading process technologies. Our suppliers or potential alternate suppliers may also manufacture their own integrated circuits that compete with our products. Such suppliers have in the past allocated and may again allocate raw materials and manufacturing capacity to their own products and reduce or limit the production of our

products. To the extent we do obtain long-term capacity commitments, we may incur additional costs related to those commitments or make non-refundable payments for capacity commitments that are not used. Further, certain of our suppliers have in the past attempted, and may in the future attempt, to unilaterally reduce their capacity commitments to us. Accordingly, capacity for our products may not be available when we need it. Finally, we may not receive reasonable pricing, manufacturing or delivery terms from our suppliers, and our ability to obtain favorable terms may be diminished during times of high demand and/or limited manufacturing capacity for integrated circuit products.

We cannot guarantee that the actions of our suppliers will not cause disruptions in our operations that could harm our ability to meet our delivery obligations to our customers or increase our cost of sales. To the extent we are unable to obtain adequate supply to meet our delivery obligations, we may be obligated to make payments to our customers for such shortfalls. Recently, the global semiconductor industry experienced demand for integrated circuits that exceeded the industry's capacity to meet that demand. Our ability to meet increased demand for our products has been and may in the future be limited due to the inability to obtain the additional manufacturing, assembly and test capacity necessary to fully meet such demand. If we are unable to fully meet customer demand, this could result in lost sales opportunities, reduced revenue growth and harm to our customer relationships. These issues may be exacerbated if customers overstate their expected demand requirements in order to procure additional supply, which could negatively impact our ability to forecast and to allocate supply appropriately among our customers. The above issues may also be exacerbated with respect to our platform solutions, which already entail a great deal of complexity due to differing lead-times, technologies and suppliers for each integrated circuit product included in such solutions. Additionally, our suppliers have in the past and may in the future increase their prices during periods of capacity constraints, or for other reasons, thus increasing our costs.

While capacity constraints have largely abated, we continue to see price increases from certain of our key semiconductor manufacturing suppliers which, without corresponding increases in the prices of our products, would negatively impact our margins.

We place orders with our suppliers using our and our customers' forecasts of demand for our products, which are based on a number of assumptions and estimates. As we move to smaller geometry process technologies, the manufacturing lead-time increases. As a result, the orders we place with our suppliers are generally only partially covered by commitments from our customers. If we, or our customers, overestimate demand, or if demand is impacted by factors outside of our or our customers' control, and such demand is not covered by a binding commitment from our customers, we may experience increased excess or obsolete inventory or reserve charges, which would negatively impact our results of operations. Further, to the extent our customers procure supply of our integrated circuit products beyond their current needs (i.e., build up inventory of our integrated circuit products), whether due to concerns over supply, overestimating demand and/or a decline in macroeconomic conditions, or otherwise, they may not purchase expected quantities of our products in subsequent quarters, which may negatively impact our revenues, results of operations and cash flows in such quarters.

See also the Risk Factor below titled *"There are numerous risks associated with the operation and control of our manufacturing facilities, including a higher portion of fixed costs relative to a fabless model; environmental compliance and liability; impacts related to climate change; exposure to natural disasters, health crises, geopolitical conflicts and cyber-attacks; timely supply of equipment and materials; and various manufacturing issues"* as similar risks, as well as additional risks, may be applicable to our third-party suppliers' manufacturing facilities, which could result in disruptions to our business or additional costs to us, and negatively impact our results of operations.

There are numerous risks associated with the operation and control of our manufacturing facilities, including a higher portion of fixed costs relative to a fabless model; environmental compliance and liability; impacts related to climate change; exposure to natural disasters, health crises, geopolitical conflicts and cyber-attacks; timely supply of equipment and materials; and various manufacturing issues.

We operate various facilities that manufacture certain of our RFFE modules and RF filter products. Our manufacturing facilities are characterized by a higher portion of fixed costs relative to a fabless model. We may be faced with a decline in the utilization rates of our manufacturing facilities due to decreases in demand for our products, including in less favorable industry or macroeconomic environments, or due to our failure to win and/or retain designs with OEMs. As a result, from time to time our manufacturing facilities operate at lower capacity levels, while the fixed costs associated with such facilities continue to be incurred, resulting in lower gross profit. Due to the factors above, we are currently experiencing, and expect to continue to experience in the near term, such underutilization of capacity at our manufacturing facilities.

We are subject to many complex environmental, health and safety laws, regulations and rules in each jurisdiction in which we operate our manufacturing (and research and development) facilities. The regulatory landscape in these areas continues to evolve, and we anticipate additional laws, regulations and rules in the future. In particular, new, or changes in, environmental and climate change laws, regulations or rules, including relating to greenhouse gas emissions, could lead to new or additional investments in production processes and could increase environmental compliance expenditures. In addition, certain environmental laws impose strict, and in certain circumstances joint and several, liability on current or previous owners or operators of real property, or parties who arranged for hazardous substances to be sent to disposal or treatment facilities, for the cost of investigation, removal or remediation of hazardous substances. As a result, we may incur clean-up costs in connection with any such removal or remediation efforts, as well as other third-party claims in connection with contaminated sites. In addition, we could be held liable for consequences arising out of human exposure to hazardous substances or other environmental damage. If we, or companies or facilities we acquire or have acquired, in the past failed or in the future fail to comply with any such laws and regulations, then we could incur regulatory penalties, fines and legal

liabilities; suspension of production; significant compliance requirements; alteration of our manufacturing, assembly or test processes; restriction on our ability to modify or expand our facilities; damage to our reputation; and restrictions on our operations or sales. We are also required to obtain and maintain environmental permits from governmental authorities for certain of our operations. We cannot make assurances that we will at all times be in compliance with such laws, regulations, rules and permits. See also the risk factor titled *"Our business may suffer due to the impact of, or our failure to comply with, the various existing, new or amended laws, regulations, policies or standards to which we are subject."*

Climate change concerns and the potential resulting environmental impact may result in new environmental, health and safety laws and regulations that may affect us, our suppliers and our customers. Such laws or regulations could cause us to incur additional direct costs for compliance, including costs associated with changes to manufacturing processes or the procurement of raw materials used in manufacturing processes, as well as increased indirect costs resulting from our customers, suppliers or both incurring additional compliance costs that are passed on to us. These costs may adversely impact our results of operations and financial condition. In addition, climate change could cause certain natural disasters, such as drought, wildfires, storms, flooding or rising sea levels, to occur more frequently or with greater intensity, which could pose physical risks to our manufacturing facilities or our suppliers' facilities, could disrupt the availability of water necessary for the operation of such facilities, and could increase or decrease temperatures resulting in increased operating costs and/or business disruption.

We have manufacturing facilities in Asia and Europe, and the primary warehouses where we store finished goods are located in Asia. If tsunamis, flooding, earthquakes, volcanic eruptions, drought or other natural disasters, effects of climate change, acts of war or other geopolitical conflicts were to damage, destroy or disrupt any of these facilities, it could disrupt our operations, cease or delay production and shipments of inventory and result in costly repairs, replacements or other costs and lost business. In addition, natural disasters, effects of climate change, acts of war or other geopolitical conflicts may result in disruptions in transportation, distribution channels and supply chains and significant increases in the prices of raw materials. Further, health crises, including epidemics or pandemics, such as the COVID-19 pandemic, and government and business responses thereto, could affect our manufacturing facilities, including by resulting in quarantines and/or closures, which would result in disruptions to and potential closures of our manufacturing operations. Our manufacturing operations could also be disrupted by cyber-attacks on our IT systems, as described in the Risk Factor below titled *"Our business and operations could suffer in the event of security breaches of our IT systems, or other misappropriation of our technology, intellectual property or other proprietary or confidential information."*

Our manufacturing operations depend on securing raw materials, equipment and other supplies in adequate quality and quantity in a timely manner from multiple suppliers, and in some cases, we rely on a limited number of suppliers, including in some cases sole suppliers, particularly in Asia. There may be cases where supplies of raw materials, equipment and other products are interrupted or limited by natural disaster, geopolitical conflict, accident or some other event affecting a supplier or source of raw materials; supply is suspended due to quality or other issues; there is a shortage of supply due to a rapid increase in demand; and/or we or our suppliers are prohibited from utilizing certain raw materials, or products or components that incorporate such raw materials, due to government restrictions related to the countries from which such raw materials originate, and acceptable alternative suppliers, raw materials or raw materials sources are not available or not available in acceptable time frames or upon acceptable terms, among others, which could impact production and prevent us from supplying our products to our customers. If the supply-demand balance is disrupted, it may considerably increase costs of manufacturing due to increased prices we pay for raw materials. From time to time, suppliers may extend lead times, limit amounts supplied to us or increase prices due to capacity constraints or other factors. Additionally, supply and costs of raw materials, equipment and other products may be negatively impacted by trade and/or national security protection policies, such as tariffs, or actions by governments that limit or prevent us from transacting business with certain countries or companies or that limit or prevent certain companies from transacting business with us, or trade tensions, particularly with countries in Asia. Further, it may be difficult or impossible to substitute one piece of equipment for another or replace one type of material with another. A failure by our suppliers to deliver our requirements could result in disruptions to our manufacturing operations.

Our manufacturing processes are highly complex, require advanced and costly equipment and must be continuously modified to improve yields and performance. Difficulties in the production process can reduce yields or interrupt production, and as a result, we may not be able to deliver our products or do so in a timely, cost-effective or competitive manner. Further, to remain competitive and meet customer demand, we may be required to improve our facilities and process technologies and carry out extensive research and development, each of which may require investment of significant amounts of capital and may have a material adverse effect on our results of operations, cash flows and financial condition.

From time to time, we begin to purchase equipment to meet expected customer demand in advance of any purchase orders or long-term purchase commitments. Further, we typically begin manufacturing our products using our or our customers' forecasts of demand for our products, which are based on a number of assumptions and estimates and may not be covered by long-term purchase commitments. As a result, we may incur increased inventory and manufacturing costs and/or record impairment charges to the extent anticipated sales ultimately do not materialize or are lower than expected. If we or our customers overestimate demand, or if demand is impacted by factors outside of our or our customers' control, and such demand is not covered by a binding commitment from our customers, we may experience higher inventory carrying and operating costs and/or increased excess or obsolete inventory or reserve charges, which would negatively impact our results of operations.

RISKS RELATED TO CYBERSECURITY OR MISAPPROPRIATION OF OUR CRITICAL INFORMATION

Our business and operations could suffer in the event of security breaches of our IT systems, or other misappropriation of our technology, intellectual property or other proprietary or confidential information.

Third parties regularly attempt to gain unauthorized access to our IT systems, and many such attacks are increasingly more sophisticated. These attacks, which might be related to industrial, corporate or other espionage, criminal hackers or state-sponsored intrusions, include trying to covertly introduce malware to our computers and networks, including those in our manufacturing operations, exploiting vulnerabilities in hardware, software or other IT infrastructure and impersonating authorized users, among others. We are also subject to ransom-style cyber-attacks, which could expose our confidential or proprietary information, request payment of money and/or impact our IT systems and cause widespread disruption to our business, including our manufacturing operations. Third parties that store and/or process our confidential information, or that provide products, software or services used in our IT infrastructure (including applications), may be subject to similar attacks, which could also result in malware being introduced into our IT infrastructure, e.g., through the third parties' software and/or software updates. Such attacks could result in the misappropriation, theft, misuse, disclosure, loss or destruction of the technology, intellectual property, or the proprietary, confidential or personal information, of us or our employees, customers, licensees, suppliers or other third parties, as well as damage to or disruptions in our IT systems. We believe that we have a robust cybersecurity program that is aligned to international cybersecurity frameworks, and that we leverage industry best practices across people, processes and technologies in an attempt to mitigate cybersecurity threats. However, we cannot anticipate, detect, repel or implement fully effective preventative measures against all cybersecurity threats, particularly because the techniques used are increasingly sophisticated and constantly evolving. As part of our cybersecurity program, we seek to identify and remediate vulnerabilities in our IT systems and software (including third party software used in our IT systems) that could be exploited by hackers or other malicious actors. However, we may not be aware of all such vulnerabilities, and we may fail to identify and/or remediate such vulnerabilities before they are exploited. Attempts to gain unauthorized access to our IT systems or other attacks have in the past, in certain instances and to certain degrees, been successful (but have not caused significant harm), and may in the future be successful, and in some cases, we might be unaware of an incident or its magnitude and effects.

In addition, employees and former employees, in particular former employees who become employees of our competitors, customers, licensees or other third parties, including state actors, have in the past and may in the future misappropriate, wrongfully use, publish or provide to our competitors, customers, licensees or other third parties, including state actors, our technology, intellectual property or other proprietary or confidential information. This risk is exacerbated as competitors for talent, particularly engineering talent, increasingly attempt to hire our employees. See also the Risk Factor titled *"We may not be able to attract and retain qualified employees, and our attempts to operate under a hybrid work model may not be successful."* Similarly, we provide access to certain of our technology, intellectual property and other proprietary or confidential information to our direct and indirect customers and licensees and certain of our consultants, who have in the past and may in the future wrongfully use such technology, intellectual property or information, or wrongfully disclose such technology, intellectual property or information to third parties, including our competitors or state actors. We also provide access to certain of our technology, intellectual property and other proprietary or confidential information to certain of our joint venture partners, including those affiliated with state actors and including in foreign jurisdictions where ownership restrictions may require us to take a minority ownership interest in the joint venture. Such joint venture partners may wrongfully use such technology, intellectual property or information, or wrongfully disclose such technology, intellectual property or information to third parties, including our competitors or state actors. Our technology, intellectual property and other proprietary or confidential information that we have provided to customers, licensees or other business partners could also be wrongfully obtained by third parties through cyber-attacks on such customers', licensees' or other business partners' IT systems.

The misappropriation, theft, misuse, disclosure, loss or destruction of the technology, intellectual property, or the proprietary, confidential or personal information, of us or our employees, customers, licensees, suppliers or other third parties, could harm our competitive position, reduce the value of our investment in research and development and other strategic initiatives, cause us to lose business, damage our reputation, subject us to legal or regulatory proceedings, cause us to incur other loss or liability and otherwise adversely affect our business. We expect to continue to devote significant resources to the security of our IT systems and our technology, intellectual property and proprietary and confidential information.

Further, China has implemented, and other countries or regions may implement, cybersecurity laws that require our overall IT security environment to meet certain standards and/or be certified. Such laws may be complex, ambiguous and subject to interpretation, which may create uncertainty regarding compliance. As a result, our efforts to comply with such laws may be expensive and may fail, which could adversely affect our business, results of operations and cash flows. In addition, our contracts with certain of our customers require us to obtain cybersecurity certifications for our IT systems. Failure to obtain or maintain the necessary cybersecurity certifications could result in loss of future revenues, damage to our customer relationships and reputation, and a shift of business to our competitors.

RISKS RELATED TO HUMAN CAPITAL MANAGEMENT

We may not be able to attract and retain qualified employees, and our attempts to operate under a hybrid work model may not be successful.

Our future success depends upon the continued service of our executive officers and other key management and technical personnel, and on our ability to continue to identify, attract, retain and motivate them. Implementing our business strategy requires specialized engineering and other talent, as our revenues are highly dependent on technological and product innovations. In addition, in order to extend our business into certain new and expanded product areas and industries and applications beyond mobile handsets, we need to attract, retain and motivate engineering and other technical personnel with specialized skills in these areas, and these skills are in high demand among our competitors. The market for employees in our industry is extremely competitive, and competitors for talent, particularly engineering talent, increasingly attempt to hire, and to varying degrees have been successful in hiring, our employees or employment candidates, including by establishing or expanding local offices near our headquarters in San Diego, California. Further, the increased availability of remote working arrangements has expanded the pool of companies that can compete for our employees and employment candidates. A number of such competitors for talent are significantly larger than us and/or offer compensation in excess of what we offer or other benefits that we generally do not offer, such as the ability to permanently work from home. Further, existing immigration laws make it more difficult for us to recruit and retain highly skilled foreign national graduates of universities in the United States, making the pool of available talent even smaller. If we are unable to attract and retain qualified employees, our business may be harmed. The COVID-19 pandemic caused us to modify our workforce practices, including having the vast majority of our employees work from home. While we have generally reopened our offices, we are currently operating under a hybrid work model, meaning that the majority of our employees have the flexibility to work remotely at least some of the time. The hybrid work model may impair our ability to maintain our collaborative and innovative culture, and may cause disruptions among our employees, including decreases in productivity, challenges in communications between on-site and off-site employees and, potentially, employee dissatisfaction and attrition. Further, any future attempt to transition away from the hybrid work model to more stringent on-site work requirements may result in employee dissatisfaction and attrition. If we fail to retain key employees or maintain employee productivity as a result of the hybrid work model or an attempt to return to more on-site work, our business could be adversely impacted.

RISKS SPECIFIC TO OUR LICENSING BUSINESS

The continued and future success of our licensing programs requires us to continue to evolve our patent portfolio and to renew or renegotiate license agreements that are expiring.

We own a very strong portfolio of issued and pending patents related to 3G, 4G, 5G and other technologies. It is critical that we continue to evolve our patent portfolio, particularly in 5G. If we do not maintain a strong portfolio that is applicable to current and future standards, products and services, our future licensing revenues could be negatively impacted.

Our patent license agreements in effect that generate a significant portion of our licensing revenues are effective for a specified term. To receive royalties after the expiration date of the specified term, we will need to extend or modify such license agreements or enter into new license agreements with such licensees. We might not be able to extend or modify license agreements, or enter into new license agreements, in the future without negatively affecting the material terms and conditions of our license agreements with such licensees, and such modifications or new agreements may negatively impact our revenues. In some circumstances, we may extend, modify or enter into new license agreements as a result of arbitration or litigation, and terms imposed by arbitrators or courts may be less favorable to us than existing terms and may impact the financial or other terms of license agreements not subject to the litigation or arbitration. If there is a delay in extending, modifying or entering into a new license agreement with a licensee, there would be a delay in our ability to recognize revenues related to that licensee's product sales. Further, if we are unable to reach agreement on such modifications or new agreements, it could result in patent infringement litigation with such licensees.

Efforts by some original equipment manufacturers (OEMs) to avoid paying fair and reasonable royalties for the use of our intellectual property may require the investment of substantial management time and financial resources and may result in legal decisions or actions by governments, courts, regulators or agencies, Standards Development Organizations (SDOs) or other industry organizations that harm our business.

From time to time, companies initiate various strategies to attempt to negotiate, renegotiate, reduce and/or eliminate their need to pay royalties to us for the use of our intellectual property. These strategies have included: (i) litigation, often alleging infringement of patents held by such companies, patent misuse, patent exhaustion, patent invalidity or unenforceability of our patents or licenses, alleging that we do not license our patents on fair, reasonable and nondiscriminatory (FRAND) terms, or alleging some form of unfair competition or competition law violation; (ii) taking positions contrary to our understanding (and/or the plain language) of their contracts with us; (iii) appeals to governmental authorities; (iv) collective action, including working with wireless operators, standards bodies, other like-minded companies and organizations, on both formal and informal bases, to adopt intellectual property policies and practices that could have the effect of limiting returns on intellectual property innovations; (v) lobbying governmental regulators and elected officials for the purpose of seeking the reduction of royalty rates or the base on which royalties are calculated, seeking to impose some form of compulsory licensing or weakening a patent holder's ability to enforce its rights or obtain a fair return for such rights; and (vi) attempts by licensees to shift their royalty obligation to their suppliers in order to lower the wholesale (i.e., licensee's) selling price on which the royalty is calculated.

In addition, certain licensees have disputed, underreported, underpaid, not reported or not paid royalties owed to us under their license agreements or reported to us in a manner that is not in compliance with their contractual obligations, and certain companies have yet to enter into or have delayed entering into or renewing license agreements with us for their use of our intellectual property, and they or others may engage in such behavior in the future. The fact that one or more licensees dispute, underreport, underpay, do not report or do not pay royalties owed to us may encourage other licensees to take similar actions or not renew their existing license agreements, and may encourage other licensees or unlicensed companies to delay entering into, or to not enter into, new license agreements. Further, to the extent such licensees and companies increase their device share, the negative impact of their underreporting, underpayment, non-payment or non-reporting on our business, revenues, results of operations, cash flows and financial condition will be exacerbated.

We have been in the past and are currently subject to various litigation and/or governmental investigations and proceedings. Certain of these matters are described in this Annual Report in “Notes to Consolidated Financial Statements, Note 7. Commitments and Contingencies.” We may become subject to other litigation or governmental investigations or proceedings in the future. Additionally, certain of our direct and indirect customers and licensees have pursued, and others may in the future pursue, litigation or arbitration against us related to our business. Unfavorable resolutions of one or more of these matters have had and could in the future have a material adverse effect on our business, revenues, results of operations, cash flows and financial condition. See also the Risk Factors below titled “*Changes in our patent licensing practices, whether due to governmental investigations, legal challenges or otherwise, could adversely impact our business and results of operations*” and “*Our business may suffer as a result of adverse rulings in governmental investigations or proceedings or other legal proceedings.*”

In addition, in connection with our participation in SDOs, we, like other patent owners, generally have made contractual commitments to such organizations to license those of our patents that would necessarily be infringed by standard-compliant products as set forth in those commitments (referred to as standard-essential patents). Some manufacturers and users of standard-compliant products advance interpretations of these commitments that are adverse to our licensing business, including interpretations that would limit the amount of royalties that we could collect on the licensing of our standard-essential patent portfolio.

Further, some third parties have proposed significant changes to existing intellectual property policies for implementation by SDOs and other industry organizations with the goal of significantly devaluing standard-essential patents. For example, some have put forth proposals which would require a maximum aggregate intellectual property royalty rate for the use of all standard-essential patents owned by all of the member companies to be applied to the selling price of any product implementing the relevant standard. They have further proposed that such maximum aggregate royalty rate be apportioned to each member company with standard-essential patents based upon the number of standard-essential patents held by such company. Others have proposed that injunctions should not be an available remedy for infringement of standard-essential patents and have made proposals that could severely limit damage awards and other remedies by courts for patent infringement (e.g., by limiting the base upon which the royalty rate may be applied). A number of these strategies are purportedly based on interpretations of the policies of certain SDOs concerning the licensing of patents that are or may be essential to industry standards and on our (or other companies’) alleged failure to abide by these policies.

Some SDOs, courts and governmental agencies have adopted, and may in the future adopt, some or all of these interpretations or proposals in a manner adverse to our interests, including in litigation to which we may not be a party. Further, SDOs in certain countries may attempt to modify widely accepted standards and claim the resulting standard as their own.

We expect that such proposals, interpretations and strategies will continue in the future, and if successful, our business model would be harmed, either by limiting or eliminating our ability to collect royalties (or by reducing the royalties we can collect) on all or a portion of our standard-essential patent portfolio, limiting our return on investment with respect to new technologies, limiting our ability to seek injunctions against infringers of our standard-essential patents, constraining our ability to make licensing commitments when submitting our technologies for inclusion in future standards (which could make our technologies less likely to be included in such standards) or forcing us to work outside of SDOs or other industry groups to promote our new technologies, and our revenues, results of operations and cash flows could be negatively impacted. In addition, the legal and other costs associated with asserting or defending our positions have been and may in the future be significant. We expect that such challenges, regardless of their merits, will continue into the foreseeable future and will require the investment of substantial management time and financial resources.

Changes in our patent licensing practices, whether due to governmental investigations, legal challenges or otherwise, could adversely impact our business and results of operations.

As described in the Risk Factor below titled “*Our business may suffer as a result of adverse rulings in governmental investigations or proceedings or other legal proceedings,*” we have been in the past, currently are and may in the future be subject to various governmental investigations and/or legal proceedings challenging our patent licensing practices. Certain of these matters are described in this Annual Report in “Notes to Consolidated Financial Statements, Note 7. Commitments and Contingencies.” We believe that one intent of certain of these governmental investigations and legal proceedings has been to reduce the amount of royalties that licensees are required to pay to us for their use of our intellectual property.

If we were required to reduce the royalty rates in our patent license agreements, our revenues, earnings and cash flows would be negatively impacted absent a sufficient increase in the volume of sales of devices upon which royalties are paid.

Similarly, if we were required to reduce the base on which our royalties are calculated (e.g., license at the chipset level rather than at the device level), our revenues, earnings and cash flows would be negatively impacted unless there was a sufficient increase in the volume of sales of devices upon which royalties are paid or we were able to increase our royalty rates to offset the decrease in revenues resulting from such lower royalty base (assuming the absolute royalty dollars were below any relevant royalty caps).

If we were required to grant patent licenses to chipset manufacturers (which could lead to implementing a more complex, multi-level licensing structure in which we license certain portions of our patent portfolio to chipset manufacturers and other portions to OEMs), we would incur additional transaction costs, which may be significant, and we could incur delays in recognizing revenues until license negotiations were completed. In addition, our licensing revenues and earnings would be negatively impacted if we were not able to obtain, in the aggregate, equivalent revenues under such a multi-level licensing structure.

If we were required to sell chipsets to OEMs that do not have a license to our patents, our licensing programs could be negatively impacted by patent exhaustion claims raised by such unlicensed OEMs (i.e., claims that our sale of chipsets to such OEMs forecloses us from asserting any patents substantially embodied by the chipsets against such OEMs). Such sales could provide OEMs with a defense in the event we asserted our patents against them to obtain licensing revenue for those patents. This could have a material adverse effect on our licensing programs and our results of operations, cash flows and financial condition.

To the extent that we were required to implement any of these licensing and/or business practices, including by modifying or renegotiating our existing license agreements or pursuing other commercial arrangements, we would incur additional transaction costs, which may be significant, we could incur delays in recognizing revenues until license negotiations were completed, and our business, revenues, results of operations, cash flows and financial condition could be harmed. The impact of any such changes to our licensing practices could vary widely and by jurisdiction, depending on the specific outcomes and the geographic scope of such outcomes. In addition, if we were required to make modifications to our licensing practices in one jurisdiction, licensees or governmental agencies in other jurisdictions may attempt to obtain similar outcomes for themselves or for such other jurisdictions, as applicable, which could result in increased legal costs and further harm to our business, revenues, results of operations, cash flows and financial condition.

RISKS RELATED TO REGULATORY AND LEGAL CHALLENGES

Our business may suffer as a result of adverse rulings in governmental investigations or proceedings or other legal proceedings.

We have been in the past and currently are subject to various governmental investigations and proceedings. Certain of these matters are described in this Annual Report in “Notes to Consolidated Financial Statements, Note 7. Commitments and Contingencies.” Key allegations or findings in those matters include or have in the past included, among others: that we violate FRAND licensing commitments by refusing to grant licenses to chipset manufacturers; that our royalty rates are too high; that the base on which our royalties are calculated should be something less than the wholesale (i.e., licensee’s) selling price of the applicable device (minus certain permitted deductions); that we unlawfully require customers to execute a patent license before we sell them cellular modem chipsets; that we have entered into exclusive agreements with chipset customers that foreclose competition; that we leverage our position in baseband chipsets in the RFFE space; and that we violate antitrust laws and engage in anticompetitive conduct and unfair methods of competition. We may become subject to other litigation or governmental investigations or proceedings in the future.

Unfavorable resolutions of one or more of these matters have had and could in the future have a material adverse effect on our business, revenues, results of operations, cash flows and financial condition. Depending on the matter, various remedies that could result from an unfavorable resolution include, among others: the loss of our ability to enforce one or more of our patents; injunctions; monetary damages, fines or other orders to pay money; the issuance of orders to cease certain conduct or modify our business practices, such as requiring us to reduce our royalty rates, reduce the base on which our royalties are calculated, grant patent licenses to chipset manufacturers, sell chipsets to unlicensed OEMs or modify or renegotiate some or all of our existing license agreements; and determinations that some or all of our license agreements are invalid or unenforceable. In addition, a governmental body in a particular country or region may successfully assert and impose remedies with effects that extend beyond the borders of that country or region. If some or all of our license agreements are declared invalid or unenforceable and/or we are required to renegotiate these license agreements, we may not receive, or may not be able to recognize, some or any licensing or royalty revenues under the impacted license agreements unless and until we enter into new license agreements; and even licensees whose license agreements are not impacted may demand to renegotiate their agreements or invoke the dispute resolution provision in their agreements, and we may not be able to recognize some or any revenues under such agreements. The renegotiation of license agreements could result in terms that are less favorable to us than existing terms, or lead to arbitration or litigation to resolve the licensing terms, which could also be less favorable to us than existing terms, and each of which could take months or years. Licensees may underreport, underpay, not report or not pay royalties owed to us pending the conclusion of such negotiations, arbitration or litigation. In addition, we may be sued for alleged overpayments of past royalties paid to us, including private antitrust actions seeking treble damages under U.S. antitrust laws.

The occurrence of any of the above could have a material adverse effect on our business, revenues, results of operations, cash flows and financial condition, and our stock price could decline, possibly significantly, in which case we may have to

significantly cut costs and other uses of cash, including in research and development, significantly impairing our ability to maintain product and technology leadership and invest in next generation technologies. Further, depending on the breadth and severity of the circumstances above, we may have to reduce, suspend or eliminate our capital return programs, and our ability to timely pay our indebtedness may be impacted. These challenges have required, and may in the future require, the investment of significant management time and attention and have resulted, and may in the future result, in significant legal costs.

RISKS RELATED TO INDUSTRY DYNAMICS AND COMPETITION

Our revenues depend on our customers' and licensees' sales of products and services based on CDMA, OFDMA and other communications technologies, including 5G, and customer demand for our products based on these technologies.

We develop, patent and commercialize technology and products based on CDMA, OFDMA and other communications technologies, which are primarily wireless. We depend on our customers and licensees to develop devices and services based on these technologies to drive consumer demand for new 3G/4G/5G multimode and single-mode devices, and to establish the selling prices for such devices. Further, the timing of our shipments of our products is dependent on the timing of our customers' and licensees' deployments of new devices and services based on these technologies. Increasingly, we also depend on operators of wireless networks, our customers and licensees and other third parties to incorporate these technologies into new device types and into industries and applications beyond mobile handsets, such as automotive and IoT, among others. Commercial deployments of 5G networks and devices have begun and are expected to continue for the foreseeable future. However, the timing and scale of such deployments, in certain regions, have been delayed due to the COVID-19 pandemic and may be further delayed for reasons that are beyond our control.

Our revenues and growth in revenues could be negatively impacted, our business may be harmed and our substantial investments in these technologies may not provide us an adequate return, if: our customers' and licensees' revenues and sales of products, particularly premium-tier products, and services using these technologies, and average selling prices of such products, decline due to, for example, the maturity of smartphone penetration in developed regions, including China; we do not continue to maintain our intellectual property and technical leadership in 5G, including in ongoing 5G standardization efforts; we are unable to drive the adoption of our products into networks and devices, including devices beyond mobile handsets; or consumers' rates of replacement of smartphones and other devices decline.

Our industry is subject to intense competition in an environment of rapid technological change. Our success depends in part on our ability to adapt to such change and compete effectively; and such change and competition could result in decreased demand for our products and technologies or declining average selling prices for our products or those of our customers or licensees.

Our products and technologies face significant competition. Competition may intensify as our current competitors expand their product offerings, improve their products or reduce the prices of their products as part of a strategy to maintain existing business and customers or attract new business and customers, as new opportunities develop, and as new competitors enter the industry. Competition in wireless communications is affected by various factors that include, among others: OEM concentrations; vertical integration; competition in certain geographic regions; government intervention or support of national industries or competitors; the ability to maintain product differentiation in light of evolving industry standards and speed of technological change (including the transition to smaller geometry process technologies and the demand for always on, always connected capabilities); access to capacity in the supply chain; and value-added features that drive selling prices and consumer demand for new 3G/4G/5G multimode and single-mode devices.

We anticipate that additional competitors will introduce products as a result of growth opportunities in wireless communications, the trend toward global expansion by foreign and domestic competitors, and technological and public policy changes. Additionally, the semiconductor industry has experienced and may continue to experience consolidation, which could result in significant changes to the competitive landscape. For example, if any key supplier of technologies and intellectual property to the semiconductor industry was sold to one of our competitors, it could negatively affect our ability to procure or license such technologies and intellectual property in the future, at all or upon acceptable terms which could have wide-ranging impacts on our business and operations.

We expect that our future success will depend on, among other factors, our ability to:

- differentiate our integrated circuit products with innovative technologies across multiple products and features (e.g., modem, RFFE, including millimeter wave (mmWave), graphics and other processors, camera and connectivity) and with smaller geometry process technologies that drive both performance and lower power consumption;
- develop and offer integrated circuit products at competitive cost and price points and to effectively cover all geographic regions and all device tiers;
- continue to be a leader in mobile, and drive the adoption of our technologies and integrated circuit products, including RFFE, into the most popular device models and across a broad spectrum of devices in mobile, such as smartphones, tablets, laptops and other mobile computing devices;
- increase or accelerate adoption of our technologies and products in industries and applications outside of mobile handsets, including automotive and IoT;

- maintain or accelerate demand for our integrated circuit products at the premium device tier, while also driving the adoption of our products into high, mid- and low-tier devices across all regions;
- remain a leader in 5G technology development, standardization, intellectual property creation and licensing, and develop, commercialize and remain a leading supplier of 5G integrated circuit products, including RFFE products;
- maintain access to sufficient capacity in the supply chain relative to our competitors to meet customer demand;
- create standalone value and contribute to the success of our existing businesses through acquisitions, joint ventures and other strategic transactions, and by developing customer, licensee, vendor, distributor and other channel relationships in new industries and applications;
- identify potential acquisition targets that will grow or sustain our business or address strategic needs, reach agreement on terms acceptable to us, close the transactions and effectively integrate these new businesses, products, technologies and employees;
- provide leading products and technologies to OEMs, high level operating systems (HLOS) providers, operators, cloud providers and other industry participants as competitors, new industry entrants and other factors continue to affect the industry landscape;
- be a preferred partner and sustain preferred relationships providing integrated circuit products that support multiple operating system and infrastructure platforms to industry participants that effectively commercialize new devices using these platforms; and
- continue to develop brand recognition to effectively compete against better known companies in computing and other consumer driven segments and to deepen our presence in significant emerging regions and China.

We compete with many different semiconductor companies, ranging from multinational companies with integrated research and development, manufacturing, sales and marketing organizations across a broad spectrum of product lines, to companies that are focused on a single application, industry or standard product, including those that produce products for mobile handsets, automotive or IoT, among others. Most of these competitors compete with us with respect to some, but not all, of our businesses or product lines. Companies that design integrated circuits based on CDMA, OFDMA, Wi-Fi or their derivatives are generally competitors or potential competitors. Examples (some of which are strategic partners of ours in other areas) include Apple, Broadcom, MediaTek, Nvidia, NXP Semiconductors, Qorvo, Samsung, Skyworks, Texas Instruments and UNISOC. Some of these current and potential competitors may have advantages over us that include, among others: motivation by our customers in certain circumstances to use our competitors' integrated circuit products, to utilize their own internally-developed integrated circuit products and/or sell such products to others, or to utilize alternative technologies; lower cost structures or a willingness and ability to accept lower prices or lower margins for their products, particularly in China; foreign government support of other technologies, competitors or OEMs that sell devices that do not contain our integrated circuit products; better known brand names; ownership and control of manufacturing facilities and greater expertise in manufacturing processes; the development and sale of infrastructure equipment for wireless networks, which may enable such competitors to better optimize their integrated circuit products for performance on those networks; more extensive relationships with local distribution companies and OEMs in certain geographic regions (such as China); more experience in industries and applications beyond mobile handsets (such as automotive and IoT); and a more established presence in certain regions.

In addition, certain of our largest integrated circuit customers have in the past utilized, currently utilize and may in the future utilize our competitors' integrated circuit products in some or all of their devices, rather than our products. Further, certain of those customers have developed, are developing or may develop their own integrated circuit products (effectively making them competitors), which they have in the past utilized, currently utilize and may in the future utilize in some or all of their devices, rather than our products. See also the Risk Factor titled *"Our business, particularly our semiconductor business, may suffer as a result of our customers vertically integrating (i.e., developing their own integrated circuit products)."*

Further, political actions, including trade and/or national security protection policies, or other actions by governments, particularly the U.S. and Chinese governments, have in the past, currently are and could in the future limit or prevent us from transacting business with certain of our customers or suppliers; limit, prevent or discourage certain of our customers or suppliers from transacting business with us; or make it more expensive to do so. This could advantage our competitors by enabling them with increased sales, economies of scale, operating income and/or cash flows, and/or enabling critical technology transfer, allowing them to increase their investments in technology development, research and development, and commercialization of products. See also the Risk Factor titled *"A significant portion of our business is concentrated in China, and the risks of such concentration are exacerbated by U.S./China trade and national security tensions."*

Competition in any or all product tiers may result in the loss of business or customers, which would negatively impact our business, revenues, results of operations, cash flows and financial condition. Such competition may also reduce average selling prices for our chipset products or the products of our customers and licensees. Certain of these dynamics are particularly pronounced in emerging regions and China where competitors may have lower cost structures or may have a willingness and ability to accept lower prices or lower margins on their products. Reductions in the average selling prices of our chipset products, without a corresponding increase in volumes, would negatively impact our revenues, and without

corresponding decreases in average unit costs, would negatively impact our margins. In addition, reductions in the average selling prices of our licensees' products, unless offset by an increase in volumes, would generally decrease total royalties payable to us, negatively impacting our licensing revenues.

RISKS RELATED TO PRODUCT DEFECTS OR SECURITY VULNERABILITIES

Failures in our products, or in the products of our customers or licensees, including those resulting from security vulnerabilities, defects or errors, could harm our business.

Our products are complex and may contain defects, errors or security vulnerabilities, or experience failures or unsatisfactory performance, due to any number of issues, including issues in materials, design, fabrication, packaging and/or use within a system. Development of products in new domains of technology, and the migration to integrated circuit technologies with smaller geometric feature sizes, increases complexity and adds risk to manufacturing yields and reliability, and increases the likelihood of product defects, errors or security vulnerabilities. Defects, errors, security vulnerabilities or other unintended functionality could also be introduced into our products by cyber-attacks or other actions by malicious actors, either directly or through third-party products or software used in our products or IT infrastructure (including applications). Further, because of the complexity of our products, defects, errors or security vulnerabilities might only be detected when the products are in use. Risks associated with product or technology defects, errors or security vulnerabilities are exacerbated by the fact that our customers typically integrate our products into consumer and other devices.

The use of devices containing our products to interact with untrusted systems or otherwise access untrusted content creates a risk of exposing the system hardware and software in those devices to malicious attacks. Further, security vulnerabilities in our products or the technologies we use could expose our customers, or end users of our customers' products, to hackers or other unscrupulous third parties who develop and deploy malware that could attack our products or our customers' products or IT infrastructure. Such attacks could result in the disruption of our customers' businesses or the misappropriation, theft, misuse, disclosure, loss or destruction of the technology or intellectual property, or the proprietary, confidential or personal information, of our customers, their employees or the end users of our customers' devices. While we continue to focus on this issue and take measures to safeguard our products from cybersecurity threats, device capabilities continue to evolve, enabling more elaborate functionality and applications, and increasing the risk of security failures, and techniques used to perpetrate cybersecurity attacks are increasingly sophisticated and constantly evolving. See also the Risk Factor titled "*Our business and operations could suffer in the event of security breaches of our IT systems, or other misappropriation of our technology, intellectual property or other proprietary or confidential information.*"

Our products may be responsible for critical functions in our customers' products and networks. Failure of our products to perform to specifications, meet certain regulatory or industry standards (including product safety and information security standards, which may differ by region, geography and industry, and which are particularly stringent in the automotive industry), or other product defects, errors or security vulnerabilities, could lead to substantial damage to the products we sell to our customers, the devices into which our products are integrated and the end users of such devices, and potentially to our customers' IT infrastructure. Such defects, errors or security vulnerabilities could give rise to significant costs, including costs related to developing solutions, recalling products, repairing or replacing defective products, writing down defective inventory or indemnification obligations under our agreements, and could result in the loss of sales and divert the attention of our engineering personnel from our product development efforts. In addition, defects, errors or security vulnerabilities in our products could result in failure to achieve market acceptance, a loss of design wins, a shifting of business to our competitors, and litigation or regulatory action against us, and could harm our reputation, our relationships with customers and partners and our ability to attract new customers, as well as the perceptions of our brand. Other potential adverse impacts of product defects, errors or security vulnerabilities include shipment delays, write-offs of property, plant and equipment and intangible assets, and losses on unfavorable purchase commitments. In addition, defects, errors or security vulnerabilities in the products of our customers or licensees could cause a delay or decrease in demand for the products into which our products are integrated, and thus for our products.

In addition, the occurrence of defects, errors or security vulnerabilities may give rise to product liability claims, particularly if such defects, errors or security vulnerabilities in our products or the technology we use, or the products into which they are integrated, result in personal injury or death, and could result in significant costs, expenses and losses. If a product liability claim is brought against us, the cost of defending the claim could be significant, and could divert the attention of our technical and management personnel and harm our business, even if we are successful. We may be named in product liability claims even if there is no evidence that our products caused the damage in question, and even though we may have indemnity from our customers, and such claims could result in significant costs and expenses. We may also be required to indemnify and/or defend our customers from product liability claims relating to our products. Further, our business liability insurance may be inadequate, may not cover the claims, and future coverage may be unavailable on acceptable terms, which could adversely impact our financial results. The above is exacerbated by the fact that our products may be used, and perform critical functions, in various high-risk applications such as: automobiles, including ADAS/AD functions; cameras and artificial intelligence, including home and enterprise security; home automation, including smoke and noxious gas detectors; medical condition monitoring; location and asset tracking and management, including wearables for child safety and elderly health; robotics, including public safety drones and autonomous municipality vehicles; and extended reality (XR) for treatment of phobias or PTSD, early detection of disorders or special needs, among others.

Accordingly, defects, errors or security vulnerabilities in our products or the technologies we use could have an adverse impact on us, on our customers and the end users of our customers' products. If any of these risks materialize, there could be a material adverse effect on our business, results of operations and financial condition.

RISKS RELATED TO INTELLECTUAL PROPERTY

The enforcement and protection of our intellectual property may be expensive, could fail to prevent misappropriation or unauthorized use of our intellectual property, could result in the loss of our ability to enforce one or more patents, and could be adversely affected by changes in patent laws, by laws in certain foreign jurisdictions that may not effectively protect our intellectual property and by ineffective enforcement of laws in such jurisdictions.

We rely primarily on patent, copyright, trademark and trade secret laws, as well as nondisclosure and confidentiality agreements, international treaties and other methods, to protect our intellectual property, including our patent portfolio. Policing unauthorized use of our products, technologies and intellectual property is difficult and time consuming. The steps we have taken have not always prevented, and we cannot be certain the steps we take in the future will prevent, the misappropriation or unauthorized use of our products, technologies or intellectual property, particularly in foreign countries where the laws may not protect our rights as fully or as readily as U.S. laws or where the enforcement of such laws may be lacking or ineffective. See also the Risk Factor titled *"Our business and operations could suffer in the event of security breaches of our IT systems, or other misappropriation of our technology, intellectual property or other proprietary or confidential information."*

Some industry participants who have a vested interest in devaluing patents in general, or standard-essential patents in particular, have mounted attacks on certain patent systems, increasing the likelihood of changes to established patent laws. We cannot predict with certainty the long-term effects of any potential changes. In the United States, there is continued discussion regarding potential patent law changes, and there is current and potential future litigation regarding patents, the outcomes of which could be detrimental to our licensing business. Further, the laws in certain foreign countries in which our patents are or may be licensed, or our products are or may be manufactured or sold, including certain countries in Asia, may not protect our intellectual property rights to the same extent as the laws in the United States. In addition, we cannot be certain that the laws and policies of any country or the practices of any standards bodies, foreign or domestic, with respect to intellectual property enforcement or licensing or the adoption of standards, will not be changed in the future in ways that are detrimental to our licensing programs or to the sale or use of our products or technologies.

We have had and may in the future have difficulty in certain circumstances in protecting or enforcing our intellectual property and contracts, including collecting royalties for use of our patent portfolio due to, among others: refusal by certain licensees to report and pay all or a portion of the royalties they owe to us; policies or political actions of governments, including trade protection and national security policies; challenges to our licensing practices under competition laws; adoption of mandatory licensing provisions by foreign jurisdictions; failure of foreign courts to recognize and enforce judgments of contract breach and damages issued by courts in the United States; and challenges before competition agencies to our licensing business or the pricing and integration of additional features and functionality into our chipset products. See also the Risk Factors titled *"Efforts by some original equipment manufacturers (OEMs) to avoid paying fair and reasonable royalties for the use of our intellectual property may require the investment of substantial management time and financial resources and may result in legal decisions or actions by governments, courts, regulators or agencies, Standards Development Organizations (SDOs) or other industry organizations that harm our business"* and *"Our business may suffer as a result of adverse rulings in governmental investigations or proceedings or other legal proceedings."*

We have engaged in litigation and arbitration in the past and may need to further litigate or arbitrate in the future to enforce our contract and intellectual property rights, protect our trade secrets or determine the validity and scope of proprietary rights of others. As a result of any such litigation or arbitration, we could lose our ability to enforce one or more patents, portions of our license agreements could be determined to be invalid or unenforceable (which may in turn result in other licensees either not complying with their existing license agreements or initiating litigation or arbitration), license terms (including but not limited to royalty rates for the use of our intellectual property) could be imposed that are less favorable to us than existing terms, and we could incur substantial costs. Any action we take to enforce our contract or intellectual property rights could be costly and could absorb significant management time and attention, which, in turn, could negatively impact our results of operations and cash flows. Further, even a positive resolution to our enforcement efforts may take time to conclude, which may reduce our revenues and cash resources available for other purposes, such as research and development, in the periods prior to conclusion.

Additionally, although our license agreements generally provide us with the right to audit the books and records of licensees, audits can be expensive, time consuming, incomplete and subject to dispute. Further, certain licensees may not comply with the obligation to provide full access to their books and records. To the extent we do not aggressively enforce our rights under our license agreements, licensees may not comply with their existing license agreements, and to the extent we do not aggressively pursue unlicensed companies to enter into license agreements with us for their use of our intellectual property, other unlicensed companies may not enter into license agreements.

See also the Risk Factors titled *"Efforts by some original equipment manufacturers (OEMs) to avoid paying fair and reasonable royalties for the use of our intellectual property may require the investment of substantial management time and financial resources and may result in legal decisions or actions by governments, courts, regulators or agencies, Standards Development Organizations (SDOs) or other industry organizations that harm our business"* and *"Our business and*

operations could suffer in the event of security breaches of our IT systems, or other misappropriation of our technology, intellectual property or other proprietary or confidential information."

Claims by other companies that we infringe their intellectual property could adversely affect our business.

From time to time, companies have asserted, and may again assert, patent, copyright or other intellectual property claims against us relating to our technologies or products, including those we have acquired from other companies. These claims have resulted and may again result in our involvement in litigation, and we are currently involved in such litigation, including those described in this Annual Report in "Notes to Consolidated Financial Statements, Note 7. Commitments and Contingencies." We may not prevail in such litigation given, among other factors, the complex technical issues and inherent uncertainties in intellectual property litigation. If any of our products were found to infringe another company's intellectual property, we could be subject to an injunction or be required to redesign our products, or to license such intellectual property or pay damages or other compensation to such other company (any of which could be costly). If we are unable to redesign our products, license such intellectual property used in our products or otherwise distribute our products (e.g., through a licensed supplier), we could be prohibited from making and selling our products. Similarly, our suppliers could be found to infringe another company's intellectual property, and such suppliers could then be enjoined from providing products or services to us.

In any potential dispute involving us and another company's patents or other intellectual property, our chipset foundries, semiconductor assembly and test providers and customers could also become the targets of litigation. We are contingently liable under certain product sales, services, license and other agreements to indemnify certain customers, chipset foundries and semiconductor assembly and test service providers against certain types of liability and damages arising from qualifying claims of patent infringement by products sold by us, or by intellectual property provided by us to our chipset foundries and semiconductor assembly and test service providers. Reimbursements under indemnification arrangements could have an adverse effect on our results of operations and cash flows. Furthermore, any such litigation could severely disrupt the supply of our products and the businesses of our chipset customers and their customers, which in turn could harm our relationships with them and could result in a decline in our chipset sales or a reduction in our licensees' sales, causing a corresponding decline in our chipset or licensing revenues. Any claims, regardless of their merit, could be time consuming to address, result in costly litigation, divert the efforts of our technical and management personnel and/or cause product release or shipment delays, any of which could have an adverse effect on our results of operations and cash flows.

We may continue to be involved in litigation and may have to appear in front of administrative bodies (such as the United States International Trade Commission) to defend against patent assertions against our products by companies, some of whom are attempting to gain competitive advantage or leverage in licensing negotiations. We may not be successful in such proceedings, and if we are not, the range of possible outcomes is very broad and may include, for example, monetary damages or fines or other orders to pay money, royalty payments, injunctions on the sale of certain of our integrated circuit products (or on the sale of our customers' devices using such products) or the issuance of orders to cease certain conduct or modify our business practices. Further, a governmental body in a particular country or region may assert, and may be successful in imposing, remedies with effects that extend beyond the borders of that country or region. In addition, a negative outcome in any such proceeding could severely disrupt the business of our customers and their wireless operator customers, which in turn could harm our relationships with them and could result in a decline in our chipset sales or a reduction in our licensees' sales, causing corresponding declines in our chipset or licensing revenues.

Our use of open source software may harm our business.

Certain of our software and our suppliers' software may contain or may be derived from "open source" software, and we have seen, and believe that we will continue to see, customers request that we develop products, including software associated with our integrated circuit products, that incorporate open source software elements and operate in an open source environment, which, under certain open source licenses, may offer accessibility to a portion of our products' source code and may expose our related intellectual property to adverse licensing conditions. Licensing of such software may impose certain obligations on us if we were to distribute derivative works of that software. For example, these obligations may require us to make source code for the derivative works available to our customers in a manner that allows them to make such source code available to their customers or license such derivative works under a particular type of license that is different than what we customarily use to license our software. Furthermore, in the course of product development, we may make contributions to third-party open source projects that could subject our intellectual property to adverse licensing conditions. For example, to encourage the growth of a software ecosystem that is interoperable with our products, we may need to contribute certain implementations under the open source licensing terms that govern such projects, which may adversely impact our associated intellectual property. Developing open source products, while adequately protecting the intellectual property upon which our licensing programs depends, may prove burdensome and time-consuming under certain circumstances, thereby placing us at a competitive disadvantage, and we may not adequately protect our intellectual property. Also, our use and our customers' use of open source software may subject our products and our customers' products to governmental and third-party scrutiny and delays in product certification, which could cause customers to view our products as less desirable than our competitors' products.

GENERAL RISK FACTORS

The COVID-19 pandemic, or a similar health crisis, may impact our business or results of operations in the future.

The COVID-19 pandemic resulted in significant economic uncertainty, significant declines in business and consumer confidence and global demand in the wireless industry (among others) and a global economic slowdown, which negatively affected our financial results over certain periods. Specifically, throughout most of calendar 2020 and into early calendar 2021, the decline in demand for smartphones and other consumer devices sold by our customers or licensees resulted in decreased demand for our integrated circuit products and a decrease in the royalties we earned on the licensing of our intellectual property. Similarly, during calendar 2022, spikes in COVID-19 cases in certain parts of China have led the Chinese government to impose lockdowns, which have adversely affected consumer demand in the region and may continue to impact demand in the future.

The COVID-19 pandemic also caused us to modify our workforce practices, such as having the vast majority of our employees work from home. While we have generally reopened our offices and are currently operating under a hybrid work model, we could be negatively affected in the future if, among others, a significant number of our employees, or employees who perform critical functions, become ill and/or are quarantined as the result of exposure to COVID-19, or a similar health crisis, or if government policies restrict the ability of those employees to perform their critical functions. See also the Risk Factor titled “*We may not be able to attract and retain qualified employees, and our attempts to operate under a hybrid work model may not be successful.*”

The COVID-19 pandemic, or a similar health crisis that may arise in the future, could impact our business, results of operations and financial condition in the manner described above, and/or through delayed, reduced or cancelled customer orders; disruptions or delays in our supply chain; the inability of our customers or licensees to purchase or pay for our products or technologies; the insolvency of key suppliers, customers or licensees; delays in reporting or payments from our customers or licensees; or failures by other counterparties. The degree to which the COVID-19 pandemic, or a similar health crisis, may impact our future business, results of operations and financial condition will depend on future developments, which are uncertain, including but not limited to the duration of the pandemic or other health crisis; spikes in cases in various geographic regions; the emergence, spread and severity of new virus or disease variants; the availability, adoption and efficacy of vaccines or other medical treatments; and government responses and other actions to limit the spread of the virus or disease or to mitigate resulting negative economic effects. We are similarly unable to predict the extent to which COVID-19 or similar health crisis may impact our customers, licensees, suppliers and other partners and their financial conditions, but adverse effects on these parties could also adversely affect us. To the extent the COVID-19 pandemic or a similar health crisis adversely affects our business, results of operations or financial condition, it may also have the effect of exacerbating the other risks discussed in this “Risk Factors” section.

We operate in the highly cyclical semiconductor industry, which is subject to significant downturns. We are also susceptible to declines in global, regional and local economic conditions generally. Our stock price and financial results are subject to substantial quarterly and annual fluctuations due to these dynamics, among others.

The semiconductor industry is highly cyclical, volatile, subject to downturns and characterized by constant and rapid technological change, price erosion, evolving technical standards, frequent new product introductions, short product life cycles and fluctuations in product supply and demand. Periods of downturns have been characterized by diminished demand for end-user products, high inventory levels, excess or obsolete inventory adjustments or reserves, underutilization of manufacturing capacity, changes in revenue mix and erosion of average selling prices. We expect our business to continue to be subject to such cyclical downturns. During such downturns, our revenues may decline, and our results of operations and financial condition may be adversely impacted. We are currently seeing and expect to continue to see weakness in the macroeconomic environment (negatively impacting consumer demand for smartphones and other devices that incorporate our products and technologies) and elevated inventory levels at our customers (negatively impacting the volume of chipsets they purchase from us until such inventory is depleted). Until these conditions improve, we expect that both of these dynamics will have a negative impact on our revenues, results of operations and cash flows.

A decline in global, regional or local economic conditions, such as we are currently seeing, or a slow-down in economic growth, particularly in geographic regions with high concentrations of wireless voice and data users or high concentrations of our customers or licensees, could also have adverse, wide-ranging effects on our business and financial results, including: a decrease in demand for our products and technologies; a decrease in demand for the products and services of our customers or licensees; the inability of our suppliers to deliver on their supply commitments to us, our inability to supply our products to our customers and/or the inability of our customers or licensees to supply their products to end users; the insolvency of key suppliers, customers or licensees; delays in reporting or payments from our customers or licensees; failures by counterparties; and/or negative effects on wireless device inventories. In addition, our customers’ and licensees’ ability to purchase or pay for our products and intellectual property and network operators’ ability to upgrade their wireless networks could be adversely affected, potentially leading to a reduction, cancellation or delay of orders for our products. Acts of war, terrorism or other geopolitical conflicts may also result in or contribute to declining economic conditions, disruptions to global supply chains and increased volatility in financial markets, among other effects. Further, inflationary pressure may increase our costs, including employee compensation costs, reduce demand for our products or those of our customers or licensees due to increased prices of those products, or result in employee attrition to the extent our compensation does not keep up with inflation, particularly if our competitors’ compensation does.

Our stock price and financial results have fluctuated in the past and are likely to fluctuate in the future. Factors that may have a significant impact on the market price of our stock and our financial results include those identified above and throughout this Risk Factors section, as well as: volatility of the stock market in general and technology and semiconductor companies in particular; announcements concerning us, our suppliers, our competitors or our customers or licensees, including any announcement concerning the initiation of, or any developments in, any lawsuit or governmental investigation or proceeding against us; and variations between our actual financial results or guidance and expectations of securities analysts or investors, among others. In the past, securities class action litigation has been brought against companies following periods of volatility in the market price of their securities, among other reasons. We are and may in the future be the target of securities litigation. Securities litigation could result in substantial uninsured costs and divert management's attention and our resources. Certain legal matters, including certain securities litigation brought against us, are described in this Annual Report in "Notes to Consolidated Financial Statements, Note 7. Commitments and Contingencies."

Our business may suffer due to the impact of, or our failure to comply with, the various existing, new or amended laws, regulations, policies or standards to which we are subject.

Our business and products, and those of our customers and licensees, are subject to various laws, rules and regulations globally, as well as government policies and the specifications of international, national and regional communications standards bodies (collectively, Regulations). These include, among others, Regulations related to: patent licensing practices; antitrust, competition and competitive business practices; the flow of funds out of certain countries (e.g., China); cybersecurity; imports and exports, such as the U.S. Export Administration Regulations administered by the U.S. Department of Commerce; protection of intellectual property; trade and trade protection including tariffs; foreign policy and national security; environmental protection (including climate change), health and safety; supply chain, responsible sourcing, including the use of conflict minerals, and human rights; spectrum availability and license issuance; adoption of standards; taxation; privacy and data protection; labor, employment and human capital; corporate governance; public disclosure; automotive industry safety and quality standards; and business conduct. Compliance with, or changes in the interpretation of, existing Regulations, the adoption of new Regulations, changes in the oversight of our activities by governments or standards bodies, or rulings in court, regulatory, administrative or other proceedings relating to such Regulations, among others, could have an adverse effect on our business and results of operations. See also the Risk Factors titled *"Our business may suffer as a result of adverse rulings in governmental investigations or proceedings or other legal proceedings," "Changes in our patent licensing practices, whether due to governmental investigations, legal challenges or otherwise, could adversely impact our business and results of operations," "A significant portion of our business is concentrated in China, and the risks of such concentration are exacerbated by U.S./China trade and national security tensions," "There are numerous risks associated with the operation and control of our manufacturing facilities, including a higher portion of fixed costs relative to a fabless model; environmental compliance and liability; impacts related to climate change; exposure to natural disasters, health crises, geopolitical conflicts and cyber-attacks; timely supply of equipment and materials; and various manufacturing issues," and "Tax liabilities could adversely affect our results of operations."*

Regulations are complex and changing (which may create uncertainty regarding compliance), are subject to varying interpretations, and their application in practice may evolve over time. As a result, our efforts to comply with Regulations may fail, particularly if there is ambiguity as to how they should be applied in practice. Failure to comply with any Regulation may adversely affect our business, results of operations and cash flows. New Regulations, or evolving interpretations thereof, may cause us to incur higher costs as we revise current practices, policies or procedures; may divert management time and attention to compliance activities; and may negatively impact our ability to conduct business in certain jurisdictions.

There are risks associated with our debt.

Our outstanding debt and any additional debt we incur may have negative consequences on our business, including, among others: requiring us to use cash to pay the principal of and interest on our debt, thereby reducing the amount of cash available for other purposes; limiting our ability to obtain additional financing for working capital, capital expenditures, acquisitions, stock repurchases, dividends, general corporate or other purposes; and limiting our flexibility in planning for, or reacting to, changes in our business, industries or the market. Our ability to make payments of principal and interest on our indebtedness depends upon our future performance, which is subject to economic and political conditions, industry cycles and financial, business and other factors, many of which are beyond our control. If we are unable to generate sufficient cash flow from operations to service our debt, we may be required to, among others: refinance or restructure all or a portion of our debt; reduce or delay planned capital or operating expenditures; reduce, suspend or eliminate our dividend payments and/or our stock repurchase program; or sell selected assets. Such measures might not be sufficient to enable us to service our debt. In addition, any such refinancing, restructuring or sale of assets might not be available on economically favorable terms or at all, and if prevailing interest rates at the time of any such refinancing or restructuring are higher than our current rates, interest expense related to such refinancing or restructuring would increase. Further, if there are adverse changes in the ratings assigned to our debt securities by credit rating agencies, our borrowing costs, our ability to access debt financing in the future and the terms of such debt could be adversely affected.

Tax liabilities could adversely affect our results of operations.

We are subject to income taxes in the United States and numerous foreign jurisdictions. Significant judgment is required in determining our provision for income taxes. We regularly are subject to examination of our tax returns and reports by taxing authorities in the United States federal jurisdiction and various state and foreign jurisdictions, most notably in

countries where we earn a routine return and the tax authorities believe substantial value-add activities are performed, as well as countries where we own intellectual property. The final determination of tax audits and any related legal proceedings could materially differ from amounts reflected in our income tax provisions and accruals. In such case, our income tax provision, results of operations and cash flows in the period or periods in which that determination is made could be negatively affected.

Tax rules may change in a manner that adversely affects our future reported results of operations or the way we conduct our business. Most of our income is taxable in the United States with a significant portion qualifying for preferential treatment as FDII (foreign-derived intangible income). Beginning in fiscal 2027, the effective tax rate for FDII increases from 13% to 16%. Further, if U.S. tax rates increase and/or the FDII deduction is eliminated or reduced, our provision for income taxes, results of operations and cash flows would be adversely (potentially materially) affected. Also, if our customers move manufacturing operations to the United States, our FDII deduction may be reduced.

Further changes in the tax laws of foreign jurisdictions could arise as a result of the base erosion and profit shifting (BEPS) project that was undertaken by the Organization for Economic Co-operation and Development (OECD). The OECD, which represents a coalition of member countries, recommended changes to numerous long-standing tax principles related to transfer pricing and continues to develop new proposals including allocating greater taxing rights to countries where customers are located and establishing a minimum tax on global income. These changes, as adopted by countries, may increase tax uncertainty and may adversely affect our provision for income taxes, results of operations and cash flows.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

At September 25, 2022, we occupied the following facilities (square footage in millions):

	United States	Other Countries	Total
Owned facilities	4.4	0.7	5.1
Leased facilities	0.8	6.7	7.5
Total	5.2	7.4	12.6

Our headquarters and certain of our research and development and network management hub operations are located in San Diego, California. We also operate leased manufacturing facilities in China, Germany and Singapore, and we own and lease properties around the world for use as sales and administrative offices and research and development centers, primarily in the United States, India and China. Our facility leases expire at varying dates through 2032, not including renewals that are at our option. Several other owned and leased facilities are under construction totaling approximately 2.3 million additional square feet, primarily related to the construction of new facilities in India. We do not identify or allocate facilities by operating segment.

Information related to our additional capital requirements is provided in this Annual Report in “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations” in the “Liquidity and Capital Resources” section under the heading “Additional Capital Requirements.” Additional information on net property, plant and equipment by geography is provided in this Annual Report in “Notes to Consolidated Financial Statements, Note 8. Segment Information.”

Item 3. Legal and Regulatory Proceedings

Information regarding legal and regulatory proceedings is provided in this Annual Report in “Notes to Consolidated Financial Statements, Note 7. Commitments and Contingencies.” We are also engaged in numerous other legal actions arising in the ordinary course of our business (for example, proceedings relating to employment matters or the initiation or defense of proceedings relating to intellectual property rights), and while there can be no assurance, we believe that the ultimate outcome of these other legal actions will not have a material adverse effect on our business, results of operations, financial condition or cash flows.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information and Dividends

Our common stock is traded on the NASDAQ Global Select Market (NASDAQ) under the symbol "QCOM." At October 31, 2022, there were 6,349 holders of record of our common stock.

We currently intend to continue to pay quarterly cash dividends, subject to capital availability and our view that cash dividends are in the best interests of our stockholders. Future dividends may be affected by, among other items, our views on potential future capital availability and requirements, including those relating to research and development, creation and expansion of sales and distribution channels, investments and acquisitions, legal and regulatory risks, withholding of payments by one or more of our significant licensees and/or customers, fines and/or adverse rulings by government agencies, courts or arbitrators in legal or regulatory matters, stock repurchase programs, debt issuances, changes in federal, state or foreign income tax law, trade and/or national security protection policies, volatility in economies and financial markets or other macroeconomic conditions, and changes to our business model.

Issuer Purchases of Equity Securities

Our purchases of our equity securities in the fourth quarter of fiscal 2022 were:

	Total Number of Shares Purchased (In thousands)	Average Price Paid Per Share (1)	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (In thousands)	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs (2) (In millions)
June 27, 2022 to July 24, 2022	—	\$ —	—	\$ 8,619
July 25, 2022 to August 21, 2022	3,366	148.53	3,366	8,119
August 22, 2022 to September 25, 2022	—	—	—	8,119
Total	3,366		3,366	

(1) Average Price Paid Per Share excludes cash paid for commissions.

(2) On October 12, 2021, we announced a stock repurchase program authorizing us to repurchase up to \$10.0 billion of our common stock. At September 25, 2022, \$8.1 billion remained authorized for repurchase. The stock repurchase program has no expiration date. Shares withheld to satisfy statutory tax withholding requirements related to the vesting of share-based awards are not issued or considered stock repurchases under our stock repurchase program and, therefore, are excluded from the table above.

Unregistered Sales of Equity Securities

In connection with our acquisition of NuVia, Inc. (Nuvia), which closed in March 2021, we are obligated to issue shares of our common stock to three specific founders of Nuvia and certain affiliated entities of such founders from time to time upon the satisfaction of certain conditions. During the quarter ended September 25, 2022, we issued an aggregate of 106,425 additional shares of our common stock to the founders of Nuvia and their affiliates, each of whom had advised us that he or such entity was an accredited investor. These shares were issued in transactions not involving a public offering pursuant to the exemption from registration set forth in Section 4(a)(2) of the Securities Act.

Stock Performance Graph

The following graph compares the cumulative total stockholder return on our common stock, the Standard & Poor's 500 Stock Index (S&P 500) and the NASDAQ-100 Index (NASDAQ-100) for the five years ended September 25, 2022. The S&P 500 tracks the aggregate price performance of the equity securities of 500 United States companies selected by Standard & Poor's Index Committee to include companies in leading industries and to reflect the United States stock market. The NASDAQ-100 tracks the aggregate price performance of the 100 largest domestic and international non-financial securities listed on the NASDAQ Stock Market based on market capitalization. Our common stock is a component of each of the S&P 500 and the NASDAQ-100.

The total return for our stock and for each index assumes that \$100 was invested at the market close on the last trading day for our fiscal year ended September 24, 2017 and that all dividends were reinvested. All returns are reported as of our fiscal year end, which is the last Sunday in September. Stockholder returns over the indicated period are based on historical data and should not be considered indicative of future stockholder returns.

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Item 6. (Reserved)

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

In addition to historical information, the following discussion contains forward-looking statements that are subject to risks and uncertainties. Actual results may differ materially from those referred to herein due to a number of factors, including but not limited to those described in "Part I, Item 1A. Risk Factors" and elsewhere in this Annual Report.

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and related notes included in "Part II, Item 8. Financial Statements and Supplementary Data" of this Annual Report.

The following section generally discusses fiscal 2022 and 2021 items and year-to-year comparisons between fiscal 2022 and 2021. Discussions of fiscal 2020 items and year-to-year comparisons between fiscal 2021 and 2020 that are not included in this Annual Report can be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 of our Annual Report on Form 10-K for the fiscal year ended September 26, 2021.

Our Business and Operating Segments

We develop and commercialize foundational technologies and products used in mobile devices and other wireless products. We derive revenues principally from sales of integrated circuit products and licensing our intellectual property, including patents and other rights.

We are organized on the basis of products and services and have three reportable segments. We conduct business primarily through our QCT (Qualcomm CDMA Technologies) semiconductor business and our QTL (Qualcomm Technology Licensing) licensing business. Our QSI (Qualcomm Strategic Initiatives) reportable segment makes strategic investments. We also have nonreportable segments, including QGOV (Qualcomm Government Technologies) and our cloud AI inference processing initiative.

Our reportable segments are operated by QUALCOMM Incorporated and its direct and indirect subsidiaries. QTL is operated by QUALCOMM Incorporated, which owns the vast majority of our patent portfolio. Substantially all of our products and services businesses, including QCT, and substantially all of our engineering and research and development functions, are operated by Qualcomm Technologies, Inc. (QTI), a wholly-owned subsidiary of QUALCOMM Incorporated, and QTI's subsidiaries. Neither QTI nor any of its subsidiaries has any right, power or authority to grant any licenses or other rights under or to any patents owned by QUALCOMM Incorporated.

Further information regarding our business and operating segments is provided in "Part I, Item 1. Business" of this Annual Report.

Seasonality. Many of our products and much of our intellectual property are incorporated into consumer wireless devices, which are subject to seasonality and other fluctuations in demand. Our revenues have historically fluctuated based on consumer demand for devices, as well as on the timing of customer/licensee device launches and/or innovation cycles (such as the transition to the next generation of wireless technologies). This has resulted in fluctuations in QCT revenues in advance of and during device launches incorporating our products and in QTL revenues when licensees' sales occur. These trends may or may not continue in the future. Further, the trends for QTL have been, and may in the future be, impacted by disputes and/or resolutions with licensees and/or governmental investigations or proceedings.

Fiscal 2022 Overview and Other Recent Events

Revenues were \$44.2 billion, an increase of 32% compared to revenues of \$33.6 billion in fiscal 2021, with net income of \$12.9 billion, an increase of 43% compared to net income of \$9.0 billion in fiscal 2021. Highlights from fiscal 2022 and other recent events included:

- QCT revenues increased by 39% in fiscal 2022 compared to the prior year, primarily due to an increase in average selling prices and favorable mix toward higher-tier 5G products along with higher integrated circuit shipments in handsets, as well as higher IoT revenues.
- On June 15, 2022, the General Court of the European Union issued a ruling annulling in its entirety the European Commission's (EC) 2018 decision, which previously imposed a fine of 997 million euros for which we had provided financial guarantees to satisfy the obligation in lieu of cash payment. As a result, in the third quarter of fiscal 2022, we recorded a \$1.1 billion benefit in other income and a \$62 million reduction in interest expense resulting from the reversal of the accrued fine and the associated interest previously recorded. See "Notes to Consolidated Financial Statements, Note 7. Commitments and Contingencies."
- On October 4, 2021, we and SSW Partners entered into a definitive agreement to acquire Veoneer, Inc. (Veoneer). The transaction closed on April 1, 2022. We funded substantially all of the total cash consideration paid in the transaction, which was approximately \$4.7 billion. The operating results of the Non-Arriver businesses are reported as discontinued operations on a one quarter lag. Additional information related to this acquisition is included in this Annual Report in "Notes to Consolidated Financial Statements, Note 9. Acquisitions."

Results of Operations

Revenues (in millions)

	2022	2021	Change
Equipment and services	\$ 37,171	\$ 26,741	\$ 10,430
Licensing	7,029	6,825	204
	<u>\$ 44,200</u>	<u>\$ 33,566</u>	<u>\$ 10,634</u>

2022 vs. 2021

The increase in revenues in fiscal 2022 was primarily due to \$10.4 billion in higher equipment and services revenues and \$216 million in higher licensing revenues from our QCT segment.

Costs and Expenses (in millions, except percentages)

	2022	2021	Change
Cost of revenues	\$ 18,635	\$ 14,262	\$ 4,373
Gross margin	58 %	58 %	

2022 vs. 2021

Gross margin percentage remained flat in fiscal 2022 primarily due to:

- + increase in QCT gross margin
- decrease in higher margin QTL licensing revenues in proportion to QCT revenues

	2022	2021	Change
Research and development	\$ 8,194	\$ 7,176	\$ 1,018
% of revenues	19 %	21 %	

2022 vs. 2021

The increase in research and development expenses in fiscal 2022 was due to:

- + \$856 million increase driven by higher costs related to the development of wireless and integrated circuit technologies (including 5G and application processor technologies), primarily driven by an increase in employee-related expenses
- + \$303 million increase in share-based compensation expense
- \$141 million decrease in expenses driven by revaluation of our deferred compensation obligation on lower relative stock market performance (which resulted in a corresponding increase in net losses on deferred compensation plan assets within investment and other (expense) income, net due to the revaluation of the related assets)

	2022	2021	Change
Selling, general and administrative	\$ 2,570	\$ 2,339	\$ 231
% of revenues	6 %	7 %	

2022 vs. 2021

The increase in selling, general and administrative expenses in fiscal 2022 was primarily due to:

- + \$110 million increase in acquisition-related expenses, primarily related to the Veoneer transaction
- + \$94 million increase in employee-related expenses
- + \$74 million increase in share-based compensation expense
- + \$33 million increase in litigation costs
- + \$32 million increase in sales and marketing expenses
- \$127 million decrease in expenses driven by revaluation of our deferred compensation obligation on lower relative stock market performance

	2022	2021	Change
Other (income) expense	\$ (1,059)	\$ —	\$ (1,059)

2022

Other income in fiscal 2022 consisted of a \$1.1 billion benefit resulting from the 2018 EC fine reversal.

Interest Expense and Investment and Other (Expense) Income, Net (in millions)

	2022	2021	Change
Interest expense	\$ 490	\$ 559	\$ (69)
Investment and other (expense) income, net			
Interest and dividend income	\$ 91	\$ 83	\$ 8
Net (losses) gains on marketable securities	(363)	427	(790)
Net gains on other investments	113	470	(357)
Net (losses) gains on deferred compensation plan assets	(141)	130	(271)
Impairment losses on other investments	(47)	(33)	(14)
Net losses on derivative instruments	(37)	(14)	(23)
Equity in net (losses) earnings of investees	(7)	13	(20)
Net gains (losses) on foreign currency transactions	19	(32)	51
	\$ (372)	\$ 1,044	\$ (1,416)

The decrease in interest expense in fiscal 2022 was primarily driven by a \$62 million reversal of accrued interest recorded in the third quarter of fiscal 2022 related to the annulled 2018 EC fine.

Net losses on marketable securities in fiscal 2022 was primarily driven by the change in fair value of certain of our QSI marketable equity investments in early or growth stage companies. Net gains on marketable securities in fiscal 2021 was primarily driven by the initial public offerings of certain QSI equity investments. Net gains on other investments in fiscal 2021 was primarily driven by realized gains resulting from the sale of certain of our QSI non-marketable investments.

Income Tax Expense (in millions, except percentages)

The following table summarizes the primary factors that caused our annual tax provision from continuing operations to differ from the expected income tax provision at the U.S. federal statutory rate. Substantially all of our income is taxed in the U.S., of which a significant portion qualifies for preferential treatment as FDII (foreign-derived intangible income) at a 13% effective tax rate.

	2022	2021
Expected income tax provision at federal statutory tax rate	\$ 3,150	\$ 2,158
Benefit from FDII deduction	(753)	(550)
Excess tax benefit associated with share-based awards	(257)	(265)
Foreign currency losses related to foreign withholding tax receivable	243	12
Nontaxable reversal of 2018 EC fine	(224)	—
Benefit related to the research and development tax credit	(224)	(195)
Other	77	71
Income tax expense	\$ 2,012	\$ 1,231
Effective tax rate	13 %	12 %

Unrecognized tax benefits were \$2.2 billion and \$2.1 billion at September 25, 2022 and September 26, 2021, respectively. The increase in unrecognized tax benefits in fiscal 2022 was primarily due to expected refunds of Korean withholding taxes previously paid as licensees in Korea continue to withhold taxes on payments due under their licensing agreements at a rate higher than we believe is owed (which had an insignificant impact to our income tax provision). If successful, the refund will result in a corresponding reduction in U.S. foreign tax credits. We are subject to income taxes in the U.S. and numerous foreign jurisdictions and are currently under examination by various tax authorities worldwide, primarily related to transfer pricing. These examinations are at various stages with respect to assessments, claims, deficiencies and refunds. We continually assess the likelihood and amount of potential adjustments and adjust the income tax provision, income taxes payable and deferred taxes in the period in which the facts giving rise to a revision become known. At September 25, 2022, we believe our reserves are adequate based on facts known. However, the final determination of tax audits and any related legal proceedings could materially differ from amounts reflected in our income tax provision and the related accruals.

Beginning in fiscal 2023, for federal income tax purposes, we are required to capitalize and amortize domestic research and development expenditures over five years and foreign research and development expenditures over fifteen years. Prior to such date, such expenditures are deducted as incurred. If this requirement is not delayed or repealed, our cash flow generated from operations will be adversely affected due to significantly higher cash tax payments. However, since the resulting deferred tax asset will be established at the statutory rate of 21% (rather than the effective rate of 13% to 16% after considering the FDII deduction), capitalization will favorably affect our provision for income taxes and results of operations. The adverse cash flow impact and favorable tax provision impact will diminish in future years as capitalized research and development expenditures amortize.

In August 2022, the Inflation Reduction Act (IRA) was enacted in the United States, which included, among other items, a 15% book minimum tax on adjusted financial statement earnings beginning in fiscal 2024. We do not expect this provision to have a material impact on our provision for income taxes, results of operations or cash flows. If the requirement to capitalize and amortize research and development expenditures beginning in fiscal 2023 is delayed or repealed, our cash flows may be impacted in future years under the IRA.

Discontinued Operations (in millions)

	2022	2021	Change
Discontinued operations, net of income taxes	\$ (50)	\$ —	\$ (50)

Discontinued operations in fiscal 2022 related to net losses from the Non-Arriver businesses. Information regarding the Non-Arriver businesses is provided in this Annual Report in "Notes to Consolidated Financial Statements, Note 9. Acquisitions."

Segment Results

The following should be read in conjunction with the fiscal 2022 and 2021 results of operations for each reportable segment included in this Annual Report in “Notes to Consolidated Financial Statements, Note 8, Segment Information.”

QCT Segment (in millions, except percentages)

	2022	2021	Change
Revenues			
Handsets (1)	\$ 25,027	\$ 16,830	\$ 8,197
RFFE (2)	4,330	4,158	172
Automotive (3)	1,372	975	397
IoT (internet of things) (4)	6,948	5,056	1,892
Total revenues	<u>\$ 37,677</u>	<u>\$ 27,019</u>	<u>\$ 10,658</u>
EBT (5)	\$ 12,837	\$ 7,763	\$ 5,074
EBT as a % of revenues	34 %	29 %	5 points

(1) Includes revenues from products sold for use in mobile handsets, excluding RFFE (radio frequency front-end) components.

(2) Includes all revenues from sales of 4G, 5G sub-6 and 5G millimeter wave RFFE products (a substantial portion of which are sold for use in mobile handsets) and excludes radio frequency transceiver components.

(3) Includes revenues from products sold for use in automobiles, including connectivity, digital cockpit and advanced driver assistance and automated driving.

(4) Primarily includes products sold for use in the following industries and applications: consumer (including computing, voice and music and XR), edge networking (including mobile broadband and wireless access points) and industrial (including handhelds, retail, transportation and logistics and utilities).

(5) Earnings (loss) before income taxes.

Substantially all of QCT’s revenues consist of equipment and services revenues, which were \$37.0 billion and \$26.6 billion in fiscal 2022 and 2021, respectively. QCT handsets, automotive and IoT revenues mostly relate to sales of our Snapdragon platforms (which include processors and modems), stand-alone Mobile Data Modems, radio frequency transceiver, power management and wireless connectivity integrated chipsets.

2022 vs. 2021

The increase in QCT revenues in fiscal 2022 was primarily due to:

- + higher handset revenues, primarily driven by \$6.6 billion in higher revenues per integrated circuit from increases in average selling prices and favorable mix toward higher-tier 5G products and \$1.3 billion in higher integrated circuit shipments to major OEMs
- + higher RFFE revenues, driven by an increase in demand for 4G/5G products from major OEMs
- + higher automotive revenues, primarily driven by an increase in demand for digital cockpit products
- + higher IoT revenues across consumer, edge networking and industrial products, driven by a \$951 million increase in demand, with the remaining increase of \$941 million primarily due to favorable mix and higher average selling prices

QCT EBT as a percentage of revenues increased in fiscal 2022 due to:

- + higher revenues
- + higher gross margin percentage, primarily driven by higher average selling price and favorable mix towards higher-tier 5G products, partially offset by higher product costs
- higher operating expenses, primarily driven by higher research and development expenses

QTL Segment (in millions, except percentages)

	2022	2021	Change
Licensing revenues	\$ 6,358	\$ 6,320	\$ 38
EBT	4,628	4,627	1
EBT as a % of revenues	73 %	73 %	—

2022 vs. 2021

The increase in QTL licensing revenues in fiscal 2022 was primarily due to:

- + \$308 million increase in estimated revenues per unit, which was primarily driven by favorable mix, including 5G
- \$299 million decrease in estimated sales of 3G/4G/5G-based multimode products

QTL EBT as a percentage of revenues remained flat in fiscal 2022.

QSI Segment (in millions)

	2022	2021	Change
Equipment and services revenues	\$ 31	\$ 45	\$ (14)
EBT	(279)	916	(1,195)

2022 vs. 2021

The decrease in QSI EBT in fiscal 2022 was primarily due to a \$1.1 billion decrease resulting from net losses on investments in fiscal 2022 compared to net gains on investments in fiscal 2021, which were primarily driven by the change in fair value of certain of our marketable equity investments in early or growth stage companies and lower realized gains resulting from the sale of certain of our non-marketable investments.

Looking Forward

In the coming years, we expect consumer demand for 3G/4G/5G multimode and 5G products and services to continue to ramp around the world as we continue to transition from 3G/4G multimode and 4G products and services. We believe that 5G combined with high-performance, low-power processing and on-device intelligence will continue to drive adoption of certain technologies that are already commonly used in smartphones by industries and applications beyond mobile handsets, such as automotive and IoT. We believe it is important that we remain a leader in 5G technology development, standardization, intellectual property creation and licensing, and a leading developer and supplier of 5G integrated circuit products in order to sustain and grow our business long term.

As we look forward to the next several quarters:

- We expect continued weakness in the macroeconomic environment (which will continue to negatively impact consumer demand for smartphones and other devices that incorporate our products and technologies) and our customers to draw down on their inventory (which is at elevated levels given the rapid deceleration in consumer demand and the easing of supply constraints, and which may take the next couple quarters to resolve), and that both of these dynamics will have a negative impact on our revenues, results of operations and cash flows compared to the prior year.
- While capacity constraints have largely abated, we expect to continue to see price increases from certain of our key semiconductor wafer suppliers.
- We expect commercial 5G network deployments and device launches will continue.
- We expect continued intense competition, particularly in China.
- Current U.S./China trade relations and/or national security protection policies may negatively impact our business, growth prospects and results of operations. See “Risk Factors” in this Annual Report, including the Risk Factor titled *“A significant portion of our business is concentrated in China, and the risks of such concentration are exacerbated by U.S./China trade and national security tensions.”*

The degree to which the COVID-19 pandemic impacts our business, financial condition and results of operations will depend on future developments, which are highly uncertain. See “Risk Factors” in this Annual Report, specifically the Risk Factor titled *“The COVID-19 pandemic, or a similar health crisis, may impact our business or results of operations in the future.”*

In addition to the foregoing business and market-based matters, we continue to devote resources to working with and educating participants in the wireless industry and governments as to the benefits of our licensing programs and our extensive technology investments in promoting a highly competitive and innovative wireless industry. However, we expect that certain companies may be dissatisfied with the need to pay reasonable royalties for the use of our technologies and not welcome the success of our licensing programs in enabling new, highly cost-effective competitors to their products. Accordingly, such companies, and/or governments or regulators, may continue to challenge our business model in various forums throughout the world.

Further discussion of risks related to our business is provided in “Part I, Item 1A. Risk Factors” included in this Annual Report.

Liquidity and Capital Resources

Our principal sources of liquidity are our existing cash, cash equivalents and marketable securities, cash generated from operations and cash provided by our debt programs. The following table presents selected financial information related to our liquidity as of and for the years ended September 25, 2022 and September 26, 2021 (in millions):

	September 25, 2022	September 26, 2021	Change
Cash and cash equivalents (1)	\$ 2,773	\$ 7,116	\$ (4,343)
Marketable securities	3,609	5,298	(1,689)
Cash, cash equivalents and marketable securities	<u>\$ 6,382</u>	<u>\$ 12,414</u>	<u>\$ (6,032)</u>

(1) Excludes \$326 million of cash and cash equivalents classified as held for sale (included in other current assets) at September 25, 2022.

	2022	2021	Change
Net cash provided by operating activities	\$ 9,096	\$ 10,536	\$ (1,440)
Net cash used by investing activities	(5,804)	(3,356)	(2,448)
Net cash used by financing activities	(7,196)	(6,798)	(398)

Cash, cash equivalents and marketable securities. The net decrease in cash, cash equivalents and marketable securities was primarily due to \$4.9 billion in cash paid for acquisitions and other investments, net of cash acquired (primarily related to Veoneer), \$3.2 billion in cash dividends paid, \$3.1 billion in payments to repurchase shares of our common stock, \$2.3 billion in capital expenditures and \$766 million in payments of tax withholdings related to vesting of share-based awards. This was partially offset by net cash provided by operating activities, which was negatively impacted by advanced payments of \$2.3 billion made to suppliers of our integrated circuit products under multi-year capacity commitments (which were included within other current assets and other assets), as well as \$4.5 billion of net changes in other operating assets and liabilities (excluding the reversal of the 2018 EC fine), primarily consisting of increased working capital requirements, including higher inventory and related operating liabilities and an increase in accounts receivable as a result of higher revenues combined with the timing of integrated circuit shipments during the period (net of an increase in amounts accrued for customer incentive arrangements recorded as a reduction to accounts receivable). We may continue to see elevated working capital requirements in the near term.

Debt. In May 2022, we issued an aggregate principal amount of \$1.5 billion of unsecured fixed-rate notes with varying maturities. The net proceeds, together with cash on hand, were used to repay \$1.5 billion of fixed-rate notes that matured in May 2022. At September 25, 2022, we had \$15.4 billion of principal floating- and fixed-rate notes outstanding, \$1.4 billion of which matures in January 2023. The remaining debt has maturity dates in 2024 through 2052.

We have an unsecured commercial paper program, which provides for the issuance of up to \$4.5 billion of commercial paper. Net proceeds from this program are used for general corporate purposes. At September 25, 2022, we had \$499 million of commercial paper outstanding.

We also have a Revolving Credit Facility, which provides for unsecured revolving facility loans, swing line loans and letters of credit in an aggregate amount of up to \$4.5 billion, which expires on December 8, 2025. At September 25, 2022, no amounts were outstanding under the Revolving Credit Facility.

We expect to issue new debt in the future. The amount and timing of any such new debt will depend on a number of factors, including but not limited to maturities of our existing debt, acquisitions and strategic investments, favorable and/or acceptable interest rates and changes in corporate income tax law. Additional information regarding our outstanding debt at September 25, 2022 is provided in this Annual Report in "Notes to Consolidated Financial Statements, Note 6. Debt."

Income Taxes. At September 25, 2022, we estimated remaining future payments of \$1.7 billion for a one-time U.S. repatriation tax accrued in fiscal 2018, after application of certain tax credits, which is payable in installments over the next four years. At September 25, 2022, other current liabilities included \$207 million for the next installment due in January 2023. Beginning in fiscal 2023, we are required to capitalize and amortize research and development expenditures for federal income tax purposes. If this requirement is not delayed or repealed, our cash flow generated from operations will be adversely affected due to significantly higher cash tax payments in the near term. Additional information regarding our income taxes is provided in this Annual Report in "Notes to Consolidated Financial Statements, Note 3. Income Taxes."

Capital Return Program. The following table summarizes stock repurchases, before commissions, and dividends paid during fiscal 2022 and 2021 (in millions, except per-share amounts):

	Stock Repurchase Program			Dividends		Total
	Shares	Average Price Paid Per Share	Amount	Per Share	Amount	Amount
2022	21	\$ 149.95	\$ 3,129	\$ 2.86	\$ 3,212	\$ 6,341
2021	24	141.17	3,366	2.66	3,008	6,374

On October 12, 2021, we announced a \$10.0 billion stock repurchase program. The stock repurchase program has no expiration date. At September 25, 2022, \$8.1 billion remained authorized for repurchase under our stock repurchase program. Our stock repurchase programs are subject to periodic evaluations to determine when and if repurchases are in the best interests of our stockholders, and we may accelerate, suspend, delay or discontinue repurchases at any time.

On October 14, 2022, we announced a cash dividend of \$0.75 per share on our common stock, payable on December 15, 2022 to stockholders of record as of the close of business on December 1, 2022. We currently intend to continue to use cash dividends as a means of returning capital to stockholders, subject to capital availability and our view that cash dividends are in the best interests of our stockholders, among other factors.

Additional Capital Requirements. We believe our cash, cash equivalents and marketable securities, our expected cash flow generated from operations and our expected financing activities will satisfy our working and other capital requirements for at least the next 12 months based on our current business plans. Recent and expected working and other capital requirements, in addition to the above matters, also include the items described below:

- Our purchase obligations at September 25, 2022, which primarily relate to purchase commitments with certain suppliers of our integrated circuit products, including those under multi-year capacity commitments, and certain other expenses, some of which relate to research and development activities and capital expenditures, totaled \$24.5 billion, of which, \$13.3 billion is expected to be paid in the next 12 months. We expect a significant decrease in advance payments made under our multi-year capacity commitments as compared to fiscal 2022.
- Our research and development expenditures were \$8.2 billion in fiscal 2022 and \$7.2 billion in fiscal 2021.
- Cash outflows for capital expenditures were \$2.3 billion in fiscal 2022 and \$1.9 billion in fiscal 2021.
- Amounts related to future lease payments for operating lease obligations at September 25, 2022 totaled \$863 million, with \$129 million expected to be paid within the next 12 months.
- We expect to continue making strategic investments and acquisitions, the amounts of which could vary significantly. For further information related to our most recent acquisitions, including details regarding the Non-Ariver businesses presented as held for sale, see “Notes to Consolidated Financial Statements, Note 9. Acquisitions” in this Annual Report.

Further, regulatory authorities in certain jurisdictions have investigated our business practices and instituted proceedings against us and they or other regulatory authorities may do so in the future. Additionally, certain of our direct and indirect customers and licensees have pursued, and others may in the future pursue, litigation or arbitration against us related to our business. Unfavorable resolutions of one or more of these matters have had and could in the future have a material adverse effect on our business, revenues, results of operations, financial condition and cash flows. See “Notes to Consolidated Financial Statements, Note 7. Commitments and Contingencies” and “Part I, Item 1A. Risk Factors” in this Annual Report.

Critical Accounting Estimates

The preparation of our consolidated financial statements in accordance with accounting principles generally accepted in the United States requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and disclosure of contingent assets and liabilities. We base our estimates on historical and anticipated results and trends and on various other assumptions that we believe are reasonable under the circumstances, including assumptions as to future events. By their nature, estimates are inherently subject to a degree of uncertainty. Although we believe that our estimates and the assumptions supporting our assessments are reasonable, actual results could differ materially from our estimates and assumptions, and could be material to our consolidated financial statements.

In addition to our critical accounting estimates and policies below, refer to “Note 1. Significant Accounting Policies” and “Note 2. Composition of Certain Financial Statement Items” included in this Annual Report in “Notes to Consolidated Financial Statements” for further information. If the impact of changes in our critical accounting estimates are material or considered necessary to understand our results of operations for the periods presented, then such information is disclosed within this Annual Report in “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

Revenue Recognition. We grant licenses or otherwise provide rights to use portions of our intellectual property portfolio, which, among other rights, includes certain patent rights essential to and/or useful in the manufacture, sale or use of certain wireless products. We estimate and recognize sales-based royalties on such licensed products in the period in which the licensees’ sales occur, which is based largely on preliminary royalty estimates provided by our licensees. For fiscal 2022 and

2021, actual amounts for sales-based royalties have been materially consistent with such estimates, and no significant reversals of revenues have been required as a result of adjustments to prior period royalty estimates.

Impairment of Non-marketable Equity Investments. We monitor our investments for events or circumstances that could indicate impairment, including those that result from observable price adjustments. In fiscal 2021, and to a lesser extent in fiscal 2022, significant evaluation and judgments were required in determining whether such investments were impaired due to the continuing effects of the COVID-19 pandemic (as well as the effects of other macroeconomic factors), and if so, the extent of such impairment. This included, among other items: (i) assessing the business impacts that COVID-19 had on our investees, including taking into consideration the investee's industry and geographic location and the impact to its customers, suppliers and employees, as applicable; (ii) evaluating the investees' ability to respond to the impacts of COVID-19, including any significant deterioration in the investee's financial condition and cash flows, as well as assessing liquidity and/or going concern risks; and (iii) considering any appreciation in fair value that has not been recognized in the carrying values of such investments. In fiscal 2022 and 2021, there were no significant impairment losses or adjustments to our previous judgments and estimates recorded.

Inventories. We measure inventory at the lower of cost or net realizable value considering judgments and estimates related to future customer demand and other market conditions, such as the impact of certain capacity constraints experienced across the semiconductor industry through the third quarter of fiscal 2022 and in fiscal 2021, as well as the impact of the macroeconomic environment in fiscal 2022. Although we believe these estimates are reasonable, any significant changes in customer demand that are less favorable than our previous estimates may require additional inventory write-downs and would be reflected in cost of sales resulting in a negative impact to our gross margin in that period. For fiscal 2022 and 2021, the net effect from changes in this estimate and related reserves was less than 2% of cost of revenues during each period.

Impairment of Goodwill, Other Indefinite-Lived Assets and Long-Lived Assets. We monitor our goodwill, other indefinite-lived assets and long-lived assets for the existence of impairment indicators and apply judgments in the valuation methods and underlying assumptions utilized in such assessments. During fiscal 2022 and fiscal 2021, impairment charges for long-lived assets were not material. Additionally, the estimated fair values of our QCT and QTL reporting units, based on our qualitative assessment, were substantially in excess of their respective carrying values at September 25, 2022.

Legal and Regulatory Proceedings. We record our best estimate of a loss related to pending legal and regulatory proceedings when the loss is considered probable and the amount can be reasonably estimated. We face difficulties in evaluating or estimating likely outcomes or the amount of possible loss in certain legal and regulatory proceedings.

Income Taxes. We make significant judgments and estimates in determining our provision for income taxes, including our assessment of our income tax positions given the uncertainties involved in the interpretation and application of complex tax laws and regulations in various taxing jurisdictions.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Marketable Securities

We have made investments in marketable securities of companies of varying size, style, industry and geography and changes in investment allocations may affect the price volatility of our investments.

Equity Price Risk. At September 25, 2022, the recorded value of our marketable equity securities was \$164 million. A 10% decrease in the market price of our marketable equity securities at September 25, 2022 would have caused a decrease in the carrying amounts of these securities of \$16 million. A 10% decrease in the market price of our marketable equity securities at September 26, 2021 would have caused a decrease in the carrying amounts of these securities of \$68 million. Certain of our marketable equity investments are in early or growth stage companies, and the fair values of these investments have been and may continue to be subject to increased volatility.

Interest Rate Risk. We invest a portion of our cash in a number of diversified fixed- and floating-rate securities consisting of cash equivalents, marketable debt securities and time and demand deposits that are subject to interest rate risk. At September 25, 2022 and September 26, 2021, a hypothetical increase in interest rates of 100 basis points across the entire yield curve on our holdings would have resulted in a decrease of \$36 million and \$50 million, respectively, in the fair value of our holdings.

Other Investments

Equity Price Risk. We hold investments in non-marketable equity instruments in privately held companies that may be impacted by equity price risks. Volatility in the equity markets and the current macroeconomic environment could negatively affect our investees' ability to raise additional capital as well as our ability to realize value from our investments through initial public offerings, mergers or private sales. Consequently, we could incur impairment losses or realized losses on all or part of the values of our non-marketable equity investments. At September 25, 2022, the aggregate carrying value of our non-marketable equity investments (including those accounted for under the equity method) was included in other assets and was \$1.3 billion.

Debt and Interest Rate Swap Agreements

Interest Rate Risk. As substantially all of our debt is comprised of unsecured fixed-rate notes, we are not subject to significant interest rate risk. At September 25, 2022, we had an aggregate principal amount of \$500 million in unsecured floating-rate notes due January 30, 2023. The interest rates on our floating-rate notes are based on LIBOR. At September 25, 2022 and September 26, 2021, a hypothetical increase in LIBOR-based interest rates of 100 basis points would cause a negligible increase to interest expense on an annualized basis as it relates to our floating-rate notes. At September 25, 2022, we also had \$499 million in commercial paper outstanding, for which our exposure to interest rate risk was negligible based on the original maturities of approximately three months or less.

From time to time, we manage our exposure to certain interest rate risks related to our long-term debt through the use of interest rate swaps. During fiscal 2022, we entered into interest rate swaps that are designated as fair value hedges with an aggregate notional amount of \$2.1 billion to effectively convert certain fixed-rate interest payments into floating-rate payments on our outstanding debt. We entered into these agreements, in part, to manage interest rate risk associated with our cash equivalents and marketable securities, in addition to changes in the fair value of our outstanding debt. At September 25, 2022, a hypothetical increase in interest rates of 100 basis points would not cause a loss as an increase in interest expense related to these interest rate swaps agreements would be offset by an increase in interest income from our cash equivalents and marketable securities portfolio.

At September 25, 2022 and September 26, 2021, we had outstanding forward-starting interest rate swaps with an aggregate notional amount of \$1.6 billion and \$2.6 billion, respectively, to hedge the variability of forecasted interest payments on anticipated debt issuances. The interest rates on our interest rate swaps are based on LIBOR. At September 25, 2022 and September 26, 2021, a hypothetical decrease in interest rates of 100 basis points would cause a negligible and \$23 million increase, respectively, to interest expense on an annualized basis resulting from the changes in fair values of the interest rate swaps related to our anticipated debt issuances.

Foreign Exchange Risk

We manage our exposure to foreign exchange market risks, when deemed appropriate, through the use of derivative and non-derivative financial instruments, including foreign currency forward and option contracts with financial counterparties and net investment hedges. We utilize such derivative financial instruments for hedging or risk management purposes rather than for speculative purposes. Counterparties to these derivative contracts are all major banking institutions. In the event of the financial insolvency or distress of a counterparty to our derivative financial instruments, we may be unable to settle transactions if the counterparty does not provide us with sufficient collateral to secure its net settlement obligations to us, which could have a negative impact on our results.

Foreign Currency Options. At September 25, 2022, our net asset related to foreign currency options designated as hedges of foreign currency risk on royalties earned from certain licensees was \$19 million. At September 25, 2022 and September 26, 2021, if our forecasted royalty revenues for currencies in which we hedge were to decline by 10% and foreign exchange rates were to change unfavorably by 10% in our hedged foreign currency, we would not incur a loss as our hedge positions would continue to be fully effective.

Foreign Currency Forwards. At September 25, 2022, our net liability related to foreign currency forward contracts designated as hedges of foreign currency risk on certain operating expenditure transactions was \$133 million. If our forecasted operating expenditures for currencies in which we hedge were to decline by 10% and foreign exchange rates were to change unfavorably by 10% in our hedged foreign currency, we would incur a negligible loss. Based on forecasts at September 26, 2021, assuming the same hypothetical market conditions, we would have incurred a negligible loss.

At September 25, 2022, our net liability related to foreign currency forward contracts not designated as hedging instruments used to manage foreign currency risk on certain receivables and payables was negligible. At September 25, 2022 and September 26, 2021, if the foreign exchange rates were to change unfavorably by 10% in our hedged foreign currency, we would not incur a loss as the change in the fair value of the foreign currency forward contracts would be offset by the change in fair value of the related receivables and/or payables being economically hedged.

Net Investment Hedges. In the third quarter of fiscal 2022, as a result of the reversal of the 2018 EC fine, we discontinued the associated net investment hedge. At September 25, 2022, we have designated \$235 million of a certain foreign currency-denominated liability, excluding accrued interest, as a hedge of our net investment in a foreign subsidiary. At September 25, 2022 and September 26, 2021, if foreign exchange rates were to change unfavorably by 10% in our hedged foreign currency, there would be an increase of \$23 million and \$145 million, respectively, in the accumulated other comprehensive loss attributable to the cumulative foreign currency translation adjustment related to our net investment hedge. The change in value recorded in cumulative foreign currency translation adjustment would be expected to offset a corresponding foreign currency translation gain or loss from our investment in the foreign subsidiary.

Functional Currency. Financial assets and liabilities held by consolidated subsidiaries that are not denominated in the functional currency of those entities are subject to the effects of currency fluctuations and may affect reported earnings. As a global company, we face exposure to adverse movements in foreign currency exchange rates. We may hedge currency exposures associated with certain assets and liabilities denominated in nonfunctional currencies and certain anticipated nonfunctional currency transactions. As a result, we could experience unanticipated gains or losses on anticipated foreign currency cash flows, as well as economic loss with respect to the recoverability of investments. While we may hedge certain

transactions with non-U.S. customers, declines in currency values in certain regions may, if not reversed, adversely affect future product sales because our products may become more expensive to purchase in the countries of the affected currencies.

Our analysis methods used to assess and mitigate the risks discussed above should not be considered projections of future risks. Additional information regarding the financial instruments mentioned above is provided in this Annual Report in “Notes to Consolidated Financial Statements, Note 1. Significant Accounting Policies,” “Notes to Consolidated Financial Statements, Note 2. Composition of Certain Financial Statement Items,” “Notes to Consolidated Financial Statements, Note 6. Debt,” “Notes to Consolidated Financial Statements, Note 10. Fair Value Measurements” and “Notes to Consolidated Financial Statements, Note 11. Marketable Securities.”

Item 8. Financial Statements and Supplementary Data

The information required by this item is included in this Annual Report on pages F-1 through F-31.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our principal executive officer and our principal financial officer, we conducted an evaluation of our disclosure controls and procedures, as such terms are defined under Rule 13a-15(e) promulgated under the Securities Exchange Act of 1934, as amended (the Exchange Act). Based on this evaluation, our principal executive officer and our principal financial officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this Annual Report.

Management’s Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). Under the supervision and with the participation of our management, including our principal executive officer and our principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation under this framework, our management concluded that our internal control over financial reporting was effective as of September 25, 2022.

PricewaterhouseCoopers LLP, the independent registered public accounting firm that audited our consolidated financial statements included in this Annual Report, has also audited the effectiveness of our internal control over financial reporting as of September 25, 2022, as stated in its report which appears on pages F-1 through F-2 in this Annual Report.

Inherent Limitations over Internal Controls

Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with generally accepted accounting principles. Our internal control over financial reporting includes those policies and procedures that:

- i. pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets;
- ii. provide reasonable assurance that transactions are recorded as necessary to permit preparation of consolidated financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and
- iii. provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the consolidated financial statements.

Internal control over financial reporting cannot provide absolute assurance of achieving financial reporting objectives because of its inherent limitations, including the possibility of human error and circumvention by collusion or overriding of controls. Accordingly, even an effective internal control system may not prevent or detect material misstatements on a timely basis. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions or that the degree of compliance with the policies or procedures may deteriorate.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during the fourth quarter of fiscal 2022 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this item regarding directors is incorporated by reference to our 2023 Proxy Statement to be filed with the SEC in connection with our 2023 Annual Meeting of Stockholders (2023 Proxy Statement) in “Proposal 1: Election of Directors” under the heading “Nominees for Election.” Certain information required by this item regarding executive officers is set forth in Item I of Part I of this Annual Report under the heading “Information about our Executive Officers.” The information required by this item regarding corporate governance is incorporated by reference to our 2023 Proxy Statement in the section titled “Corporate Governance” under the headings “Code of Ethics and Corporate Governance Principles and Practices” and “Board Meetings, Committees and Attendance.”

Item 11. Executive Compensation

The information required by this item is incorporated by reference to our 2023 Proxy Statement in the section titled “Executive Compensation and Related Information” under the headings “Compensation Discussion and Analysis,” “HR and Compensation Committee Report” and “Compensation Tables and Narrative Disclosures,” in the section titled “Director Compensation” and in the section titled “Stock Ownership of Certain Beneficial Owners and Management” under the heading “Compensation Committee Interlocks and Insider Participation.”

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by this item is incorporated by reference to our 2023 Proxy Statement in the section titled “Stock Ownership of Certain Beneficial Owners and Management” and in “Proposal 3” under the heading “Equity Compensation Plan Information.”

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this item is incorporated by reference to our 2023 Proxy Statement in the section titled “Certain Relationships and Related-Person Transactions” and in the section titled “Corporate Governance” under the headings “Director Independence” and “Board Meetings, Committees and Attendance.”

Item 14. Principal Accounting Fees and Services

The information required by this item is incorporated by reference to our 2023 Proxy Statement in “Proposal 2: Ratification of Selection of Independent Public Accountants.”

PART IV

Item 15. Exhibits and Financial Statement Schedules

The following documents are filed as part of this report:

(a) Financial Statements:

	Page Number
(1) Report of Independent Registered Public Accounting Firm (PCAOB ID: 238)	F-1
Consolidated Balance Sheets at September 25, 2022 and September 26, 2021	F-3
Consolidated Statements of Operations for Fiscal 2022, 2021 and 2020	F-4
Consolidated Statements of Comprehensive Income for Fiscal 2022, 2021 and 2020	F-5
Consolidated Statements of Cash Flows for Fiscal 2022, 2021 and 2020	F-6
Consolidated Statements of Stockholders' Equity for Fiscal 2022, 2021 and 2020	F-7
Notes to Consolidated Financial Statements	F-8
(2) Schedule II - Valuation and Qualifying Accounts for Fiscal 2022, 2021 and 2020	S-1

Financial statement schedules other than those listed above have been omitted because they are either not required, not applicable or the information is otherwise included in the notes to the consolidated financial statements.

(b) Exhibits

Exhibit Number	Exhibit Description	Form	Date of First Filing	Exhibit Number	Filed Herewith
2.1	Agreement and Plan of Merger, dated as of January 12, 2021, among Qualcomm Technologies, Inc., Nile Acquisition Corporation and NuVia, Inc. (1)	8-K	1/13/2021	2.1	
2.2	Agreement and Plan of Merger, dated as of October 4, 2021, by and among QUALCOMM Incorporated, SSW HoldCo LP, SSW Merger Sub Corp and Veoneer, Inc. (1)	8-K	10/4/2021	2.1	
3.1	Amended and Restated Certificate of Incorporation.	8-K	4/20/2018	3.1	
3.2	Amended and Restated Bylaws.	8-K	7/23/2021	3.2	
4.1	Indenture, dated May 20, 2015, between the Company and U.S. Bank Trust Company, National Association (as successor in interest to U.S. Bank, National Association), as trustee.	8-K	5/21/2015	4.1	
4.2	Officers' Certificate, dated May 20, 2015, for the Floating Rate Notes due 2018, the Floating Rate Notes due 2020, the 1.400% Notes due 2018, the 2.250% Notes due 2020, the 3.000% Notes due 2022, the 3.450% Notes due 2025, the 4.650% Notes due 2035 and the 4.800% Notes due 2045.	8-K	5/21/2015	4.2	
4.3	Form of 3.450% Notes due 2025.	8-K	5/21/2015	4.8	
4.4	Form of 4.650% Notes due 2035.	8-K	5/21/2015	4.9	
4.5	Form of 4.800% Notes due 2045.	8-K	5/21/2015	4.10	
4.6	Officers' Certificate, dated May 26, 2017, for the Floating Rate Notes due 2019, the Floating Rate Notes due 2020, the Floating Rate Notes due 2023, the 1.850% Notes due 2019, the 2.100% Notes due 2020, the 2.600% Notes due 2023, the 2.900% Notes due 2024, the 3.250% Notes due 2027 and the 4.300% Notes due 2047.	8-K	5/31/2017	4.2	
4.7	Form of Floating Rate Notes due 2023.	8-K	5/31/2017	4.5	
4.8	Form of 2.600% Notes due 2023.	8-K	5/31/2017	4.8	
4.9	Form of 2.900% Notes due 2024.	8-K	5/31/2017	4.9	
4.10	Form of 3.250% Notes due 2027.	8-K	5/31/2017	4.10	
4.11	Form of 4.300% Notes due 2047.	8-K	5/31/2017	4.11	
4.12	Officers' Certificate, dated May 8, 2020, for the 2.150% Notes due 2030 and the 3.250% Notes due 2050.	8-K	5/11/2020	4.2	
4.13	Form of 2.150% Notes due 2030.	8-K	5/11/2020	4.3	
4.14	Form of 3.250% Notes due 2050.	8-K	5/11/2020	4.4	
4.15	Officers' Certificate, dated August 14, 2020, for the 1.300% Notes due 2028 and the 1.650% Notes due 2032.	8-K	8/18/2020	4.2	
4.16	Form of 1.300% Rule 144A Global Notes due 2028.	8-K	8/18/2020	4.3	
4.17	Form of 1.650% Rule 144A Global Notes due 2032.	8-K	8/18/2020	4.5	
4.18	Officers' Certificate, dated January 6, 2021, for the 1.300% Notes due 2028 and the 1.650% Notes due 2032.	10-Q	2/3/2021	4.23	
4.19	Form of 1.300% Notes due 2028.	10-Q	2/3/2021	4.24	

Exhibit Number	Exhibit Description	Form	Date of First Filing	Exhibit Number	Filed Herewith
4.20	Form of 1.650% Notes due 2032.	10-Q	2/3/2021	4.25	
4.21	Officers' Certificate, dated May 9, 2022, for the 4.250% Notes due 2032 and the 4.500% Notes due 2052.	8-K	5/9/2022	4.2	
4.22	Form of 4.250% Notes due 2032.	8-K	5/9/2022	4.3	
4.23	Form of 4.500% Notes due 2052.	8-K	5/9/2022	4.4	
4.24	Description of registrant's securities.	10-K	11/6/2019	4.15	
10.1	Credit Agreement, dated as of December 8, 2020, among QUALCOMM Incorporated, the lenders party thereto, the letter of credit issuers party thereto and Bank of America, N.A., as administrative agent, swing line lender and a letter of credit issuer.	8-K	12/10/2020	10.1	
10.2	LIBOR Transition Amendment to Credit Agreement, dated as of December 21, 2021, by and between QUALCOMM Incorporated and Bank of America, N.A., as administrative agent.	10-Q	2/2/2022	10.25	
10.3	Investment and Separation Matters Agreement, dated as of October 4, 2021, by and among QUALCOMM Incorporated, SSW HoldCo LP and SSW Merger Sub Corp. (1)	8-K	10/4/2021	10.1	
10.4	Letter Agreement, dated as of January 24, 2022, by and among QUALCOMM Incorporated, SSW HoldCo LP and SSW Merger Sub Corp and SSW Investors LP. (1)	10-Q	4/27/2022	10.27	
10.5	Form of Indemnity Agreement between the Company and its directors and officers. (2)	10-K	11/4/2015	10.1	
10.6	Amended and Restated 2016 Long-Term Incentive Plan. (2)	10-Q	4/29/2020	10.7	
10.7	Amended and Restated QUALCOMM Incorporated 2001 Employee Stock Purchase Plan, as amended. (2)	10-Q	4/25/2018	10.62	
10.8	Form of Qualcomm Incorporated 2016 Long-Term Incentive Plan Executive Performance Stock Unit Award RTSR Shares Grant Notice and ROIC Shares Grant Notice, and Qualcomm Incorporated 2016 Long-Term Incentive Plan Executive Performance Stock Unit Award Agreement (September 30, 2019 - September 25, 2022 Performance Period). (2)	10-K	11/6/2019	10.29	
10.9	Form of Qualcomm Incorporated 2016 Long-Term Incentive Plan Executive Performance Stock Unit Award Grant Notice and Executive Performance Stock Unit Award Agreement (2020 Form). (2)	10-K	11/4/2020	10.21	
10.10	Form of Qualcomm Incorporated 2016 Long-Term Incentive Plan Executive Restricted Stock Unit Grant Notice and Executive Restricted Stock Unit Agreement (2020 Form). (2)	10-Q	2/3/2021	10.20	
10.11	Form of Qualcomm Incorporated 2016 Long-Term Incentive Plan Executive Performance Stock Unit Award Grant Notices and Executive Performance Stock Unit Award Agreement (2021 Form). (2)	10-K	11/3/2021	10.22	
10.12	Form of Qualcomm Incorporated 2016 Long-Term Incentive Plan Executive Restricted Stock Unit Award Grant Notice and Executive Restricted Stock Unit Award Agreement (2021 Form). (2)	10-K	11/3/2021	10.23	
10.13	Form of 2022 Annual Cash Incentive Plan Performance Unit Agreement (2)	10-Q	2/2/2022	10.26	
10.14	Qualcomm Incorporated Executive Officer Change in Control Severance Plan (as amended and restated). (2)	10-Q	7/28/2021	10.11	
10.15	Qualcomm Incorporated Executive Officer Severance Plan (as amended and restated). (2)	10-Q	7/28/2021	10.12	

Exhibit Number	Exhibit Description	Form	Date of First Filing	Exhibit Number	Filed Herewith
10.16	Qualcomm Incorporated Non-Executive Officer Change in Control Severance Plan (as amended and restated).	10-Q	7/28/2021	10.7	
10.17	QUALCOMM Incorporated Non-Qualified Deferred Compensation Plan, as amended and restated effective January 1, 2021. (2)	10-Q	2/3/2021	10.16	
10.18	Qualcomm Incorporated 2022 Director Compensation Plan. (2)	10-K	11/3/2021	10.24	
10.19	Qualcomm Incorporated 2023 Director Compensation Plan. (2)				X
10.20	Form of Non-Employee Director Deferred Stock Unit Grant Notices and Non-Employee Director Deferred Stock Unit Agreements under the 2016 Long-Term Incentive Plan for non-employee directors residing in the United States (2016 Form). (2)	10-Q	4/20/2016	10.32	
10.21	Forms of Non-Employee Director Deferred Stock Unit Grant Notices and Non-Employee Director Deferred Stock Unit Agreements under the 2016 Long-Term Incentive Plan for Non-Employee Directors in Hong Kong. (2)	10-Q	4/28/21	10.4	
10.22	Form of 2016 Long-Term Incentive Plan Non-Employee Director Deferred Stock Unit Grant Notice and Non-Employee Director Deferred Stock Unit Agreement (2018 Form). (2)	10-Q	4/25/2018	10.60	
21	Subsidiaries of the Company.				X
23.1	Consent of Independent Registered Public Accounting Firm.				X
31.1	Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 for Cristiano R. Amon.				X
31.2	Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 for Akash Palkhiwala.				X
32.1	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, for Cristiano R. Amon.				X
32.2	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, for Akash Palkhiwala.				X
101.INS	Inline XBRL Instance Document.				X
101.SCH	Inline XBRL Taxonomy Extension Schema.				X
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase.				X
101.LAB	Inline XBRL Taxonomy Extension Labels Linkbase.				X
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase.				X
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase.				X
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).				

(1) We shall furnish supplementally a copy of any omitted schedule to the Commission upon request.

(2) Indicates management contract or compensatory plan or arrangement required to be identified pursuant to Item 15(a).

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

QUALCOMM Incorporated

November 2, 2022

By

/s/ Cristiano R. Amon

Cristiano R. Amon

President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

Signature	Title	Date
<u>/s/ Cristiano R. Amon</u> Cristiano R. Amon	President and Chief Executive Officer, and Director (Principal Executive Officer)	November 2, 2022
<u>/s/ Akash Palkhiwala</u> Akash Palkhiwala	Chief Financial Officer (Principal Financial Officer)	November 2, 2022
<u>/s/ Erin Polek</u> Erin Polek	Senior Vice President, Corporate Controller and Chief Accounting Officer (Principal Accounting Officer)	November 2, 2022
<u>/s/ Sylvia Acevedo</u> Sylvia Acevedo	Director	November 2, 2022
<u>/s/ Mark Fields</u> Mark Fields	Director	November 2, 2022
<u>/s/ Jeffrey W. Henderson</u> Jeffrey W. Henderson	Director	November 2, 2022
<u>/s/ Gregory N. Johnson</u> Gregory N. Johnson	Director	November 2, 2022
<u>/s/ Ann M. Livermore</u> Ann M. Livermore	Director	November 2, 2022
<u>/s/ Mark D. McLaughlin</u> Mark D. McLaughlin	Chair of the Board	November 2, 2022
<u>/s/ Jamie S. Miller</u> Jamie S. Miller	Director	November 2, 2022
<u>/s/ Irene B. Rosenfeld</u> Irene B. Rosenfeld	Director	November 2, 2022
<u>/s/ Kornelis (Neil) Smit</u> Kornelis (Neil) Smit	Director	November 2, 2022
<u>/s/ Jean-Pascal Tricoire</u> Jean-Pascal Tricoire	Director	November 2, 2022
<u>/s/ Anthony J. Vinciguerra</u> Anthony J. Vinciguerra	Director	November 2, 2022

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of QUALCOMM Incorporated

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of QUALCOMM Incorporated and its subsidiaries (the “Company”) as of September 25, 2022 and September 26, 2021, and the related consolidated statements of operations, comprehensive income, stockholders’ equity and cash flows for each of the three years in the period ended September 25, 2022, including the related notes and financial statement schedule listed in the index appearing under Item 15(a)(2) (collectively referred to as the “consolidated financial statements”). We also have audited the Company’s internal control over financial reporting as of September 25, 2022, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of September 25, 2022 and September 26, 2021, and the results of its operations and its cash flows for each of the three years in the period ended September 25, 2022 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of September 25, 2022, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company’s management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management’s Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company’s consolidated financial statements and on the Company’s internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company’s internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company’s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated

financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Revenue Recognition – Qualcomm CDMA Technologies (QCT) Customer Incentive Arrangements

As described in Notes 1 and 2 to the consolidated financial statements, the Company's QCT segment, which recorded revenues of \$37.7 billion in fiscal 2022, records reductions to revenues for customer incentive arrangements, including volume-related and other pricing rebates and cost reimbursements for marketing and other activities involving certain products and technologies, in the period that the related revenues are earned. For certain QCT customer incentive arrangements, there is complexity in applying certain contractual terms to determine the amount recorded as a reduction to revenues. The amounts accrued for customer incentive arrangements are recorded as a reduction to accounts receivable, net or as other current liabilities based on whether the Company has the intent and contractual right of offset. Certain amounts recorded as a reduction to revenues for customer incentive arrangements are considered variable consideration and are included in the transaction price primarily based on estimating the most likely amount expected to be provided to the customer.

The principal considerations for our determination that performing procedures relating to revenue recognition of QCT customer incentive arrangements is a critical audit matter are the significant audit effort in performing procedures and evaluating audit evidence obtained related to the completeness and accuracy of reductions to QCT revenues recognized.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's review of and accounting for QCT customer incentive arrangements as well as controls relating to management's review over the completeness and accuracy of reductions to revenues in fiscal 2022 and accruals for customer incentive arrangements as of the balance sheet date. These procedures also included, among others, testing the completeness and accuracy of reductions to revenues and accruals for QCT customer incentive arrangements recorded in the consolidated financial statements, and recalculating, on a test basis, reductions to revenues and accruals for QCT customer incentive arrangements based upon customer-specific contractual terms.

/s/ PricewaterhouseCoopers LLP

San Diego, California
November 2, 2022

We have served as the Company's auditor since 1985.

QUALCOMM Incorporated
CONSOLIDATED BALANCE SHEETS
(In millions, except par value amounts)

	September 25, 2022	September 26, 2021
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 2,773	\$ 7,116
Marketable securities	3,609	5,298
Accounts receivable, net	5,643	3,579
Inventories	6,341	3,228
Held for sale assets	733	—
Other current assets	1,625	854
Total current assets	20,724	20,075
Deferred tax assets	1,803	1,591
Property, plant and equipment, net	5,168	4,559
Goodwill	10,508	7,246
Other intangible assets, net	1,882	1,458
Held for sale assets	1,200	—
Other assets	7,729	6,311
Total assets	<u>\$ 49,014</u>	<u>\$ 41,240</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Trade accounts payable	\$ 3,796	\$ 2,750
Payroll and other benefits related liabilities	1,486	1,531
Unearned revenues	369	612
Short-term debt	1,945	2,044
Held for sale liabilities	581	—
Other current liabilities	3,689	5,014
Total current liabilities	11,866	11,951
Unearned revenues	144	364
Income taxes payable	1,472	1,713
Long-term debt	13,537	13,701
Held for sale liabilities	119	—
Other liabilities	3,863	3,561
Total liabilities	31,001	31,290
Commitments and contingencies (Note 7)		
Stockholders' equity:		
Preferred stock, \$0.0001 par value; 8 shares authorized; none outstanding	—	—
Common stock and paid-in capital, \$0.0001 par value; 6,000 shares authorized; 1,121 and 1,125 shares issued and outstanding respectively	195	—
Retained earnings	17,840	9,822
Accumulated other comprehensive (loss) income	(22)	128
Total stockholders' equity	18,013	9,950
Total liabilities and stockholders' equity	<u>\$ 49,014</u>	<u>\$ 41,240</u>

See accompanying notes.

QUALCOMM Incorporated
CONSOLIDATED STATEMENTS OF OPERATIONS
(In millions, except per share data)

	Year Ended		
	September 25, 2022	September 26, 2021	September 27, 2020
Revenues:			
Equipment and services	\$ 37,171	\$ 26,741	\$ 16,298
Licensing	7,029	6,825	7,233
Total revenues	44,200	33,566	23,531
Costs and expenses:			
Cost of revenues	18,635	14,262	9,255
Research and development	8,194	7,176	5,975
Selling, general and administrative	2,570	2,339	2,074
Other (Note 2)	(1,059)	—	(28)
Total costs and expenses	28,340	23,777	17,276
Operating income	15,860	9,789	6,255
Interest expense	(490)	(559)	(602)
Investment and other (expense) income, net	(372)	1,044	66
Income from continuing operations before income taxes	14,998	10,274	5,719
Income tax expense	(2,012)	(1,231)	(521)
Income from continuing operations	12,986	9,043	5,198
Discontinued operations, net of income taxes (Note 9)	(50)	—	—
Net income	<u>\$ 12,936</u>	<u>\$ 9,043</u>	<u>\$ 5,198</u>
Basic earnings (loss) per share:			
Continuing operations	\$ 11.56	\$ 7.99	\$ 4.58
Discontinued operations	(0.04)	—	—
Net income	<u>\$ 11.52</u>	<u>\$ 7.99</u>	<u>\$ 4.58</u>
Diluted earnings (loss) per share:			
Continuing operations	\$ 11.41	\$ 7.87	\$ 4.52
Discontinued operations	(0.04)	—	—
Net income	<u>\$ 11.37</u>	<u>\$ 7.87</u>	<u>\$ 4.52</u>
Shares used in per share calculations:			
Basic	1,123	1,131	1,135
Diluted	<u>1,137</u>	<u>1,149</u>	<u>1,149</u>

See accompanying notes.

QUALCOMM Incorporated
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In millions)

	Year Ended		
	September 25, 2022	September 26, 2021	September 27, 2020
Net income	\$ 12,936	\$ 9,043	\$ 5,198
Other comprehensive (loss) income, net of income taxes:			
Foreign currency translation (losses) gains	(433)	40	60
Net unrealized (losses) gains on certain available-for-sale securities	(113)	(5)	22
Net unrealized gains (losses) on derivative instruments	361	(53)	29
Other gains (losses)	35	(2)	7
Other reclassifications included in net income	—	(59)	(11)
Total other comprehensive (loss) income	(150)	(79)	107
Comprehensive income	\$ 12,786	\$ 8,964	\$ 5,305

See accompanying notes.

QUALCOMM Incorporated
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In millions)

	Year Ended		
	September 25, 2022	September 26, 2021	September 27, 2020
Operating Activities:			
Net income from continuing operations	\$ 12,986	\$ 9,043	\$ 5,198
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization expense	1,762	1,582	1,393
Income tax provision less than income tax payments	(138)	(245)	(309)
Share-based compensation expense	2,031	1,663	1,212
Net losses (gains) on marketable securities and other investments	432	(1,002)	(336)
Impairment losses on marketable securities and other investments	47	33	405
Other items, net	(54)	(77)	(142)
Changes in assets and liabilities:			
Accounts receivable, net	(2,066)	426	(1,529)
Inventories	(3,137)	(622)	(1,157)
Other assets	(2,266)	(1,649)	(110)
Trade accounts payable	1,036	495	907
Payroll, benefits and other liabilities	(1,043)	1,091	528
Unearned revenues	(324)	(202)	(246)
Net cash used by operating activities from discontinued operations	(170)	—	—
Net cash provided by operating activities	<u>9,096</u>	<u>10,536</u>	<u>5,814</u>
Investing Activities:			
Capital expenditures	(2,262)	(1,888)	(1,407)
Purchases of debt and equity marketable securities	(1,414)	(5,907)	(6,213)
Proceeds from sales and maturities of debt and equity marketable securities	2,622	5,555	2,399
Acquisitions and other investments, net of cash acquired	(4,912)	(1,377)	(185)
Proceeds from other investments	132	320	100
Other items, net	30	(59)	43
Net cash used by investing activities	<u>(5,804)</u>	<u>(3,356)</u>	<u>(5,263)</u>
Financing Activities:			
Proceeds from short-term debt	7,000	2,886	2,848
Repayment of short-term debt	(7,003)	(2,885)	(2,846)
Repayment of debt of acquired company	(349)	—	—
Proceeds from long-term debt	1,477	—	1,988
Repayment of long-term debt	(1,540)	—	(2,219)
Proceeds from issuance of common stock	356	347	329
Repurchases and retirements of common stock	(3,129)	(3,366)	(2,450)
Dividends paid	(3,212)	(3,008)	(2,882)
Payments of tax withholdings related to vesting of share-based awards	(766)	(737)	(347)
Other items, net	(30)	(35)	(128)
Net cash used by financing activities	<u>(7,196)</u>	<u>(6,798)</u>	<u>(5,707)</u>
Effect of exchange rate changes on cash and cash equivalents	(113)	27	24
Net (decrease) increase in total cash and cash equivalents	<u>(4,017)</u>	<u>409</u>	<u>(5,132)</u>
Total cash and cash equivalents at beginning of period	7,116	6,707	11,839
Total cash and cash equivalents at end of period (including \$326 million classified as held for sale at September 25, 2022)	<u>\$ 3,099</u>	<u>\$ 7,116</u>	<u>\$ 6,707</u>

See accompanying notes.

QUALCOMM Incorporated
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In millions, except per share data)

	Year Ended		
	September 25, 2022	September 26, 2021	September 27, 2020
Total stockholders' equity, beginning balance	<u>\$ 9,950</u>	<u>\$ 6,077</u>	<u>\$ 4,909</u>
Common stock and paid-in capital:			
Balance at beginning of period	—	586	343
Common stock issued under employee benefit plans	356	345	331
Repurchases and retirements of common stock	(1,514)	(1,958)	(1,042)
Share-based compensation	2,119	1,754	1,301
Tax withholdings related to vesting of share-based payments	(766)	(737)	(347)
Stock awards assumed in acquisition	—	10	—
Balance at end of period	<u>195</u>	<u>—</u>	<u>586</u>
Retained earnings:			
Balance at beginning of period	9,822	5,284	4,466
Net income	12,936	9,043	5,198
Repurchases and retirements of common stock	(1,615)	(1,408)	(1,408)
Dividends	(3,303)	(3,097)	(2,972)
Balance at end of period	<u>17,840</u>	<u>9,822</u>	<u>5,284</u>
Accumulated other comprehensive (loss) income:			
Balance at beginning of period	128	207	100
Other comprehensive (loss) income	(150)	(79)	107
Balance at end of period	<u>(22)</u>	<u>128</u>	<u>207</u>
Total stockholders' equity, ending balance	<u>\$ 18,013</u>	<u>\$ 9,950</u>	<u>\$ 6,077</u>
Dividends per share announced	<u>\$ 2.86</u>	<u>\$ 2.66</u>	<u>\$ 2.54</u>

See accompanying notes.

QUALCOMM Incorporated
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1. Significant Accounting Policies

We are a global leader in the development and commercialization of foundational technologies for the wireless industry. Our technologies and products are used in mobile devices and other wireless products, including those used in the internet of things (IoT) and automotive systems for connectivity, digital cockpit and advanced driver assistance and automated driving (ADAS/AD). We derive revenues principally from sales of integrated circuit products and through the licensing of our intellectual property, including patents and other rights.

Principles of Consolidation. The consolidated financial statements include the assets, liabilities and operating results of Qualcomm, its subsidiaries and any variable interest entities for which we are deemed to be the primary beneficiary (Note 9). Intercompany transactions and balances have been eliminated.

Financial Statement Preparation. The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America (GAAP) requires management to make estimates and assumptions that affect the reported amounts and the disclosure of contingent amounts in our consolidated financial statements and the accompanying notes. Examples of our significant accounting estimates and policies that may involve a higher degree of judgment and complexity than others include: the estimation of sales-based royalty revenues; the impairment of non-marketable equity investments; the valuation of inventories; the impairment of goodwill, other indefinite-lived assets and long-lived assets; the recognition, measurement and disclosure of loss contingencies related to legal and regulatory proceedings; and the calculation of our income tax provision, including the recognition and measurement of uncertain tax positions. Actual results could differ from those estimates. Certain prior year amounts have been reclassified to conform to the current year presentation.

Fiscal Year. We operate and report using a 52-53 week fiscal year ending on the last Sunday in September. The fiscal years presented each included 52 weeks.

Cash Equivalents. We consider all highly liquid investments with original maturities of 90 days or less to be cash equivalents. Cash equivalents may be comprised of money market funds, certificates of deposit, commercial paper, corporate bonds and notes, certain bank time and demand deposits and government agencies' securities. The carrying amounts approximate fair value due to the short maturities of these instruments.

Marketable Securities. Marketable securities include marketable equity securities, available-for-sale debt securities and, from time-to-time, certain time deposits. We classify marketable securities as current or noncurrent based on the nature of the securities and their availability for use in current operations. Marketable securities are stated at fair value with all realized and unrealized gains and losses on investments in marketable equity securities and realized gains and losses on available-for-sale debt securities recognized in investment and other income (expense), net. Debt securities are classified as available for sale or held to maturity at the time of purchase and reevaluated at each balance sheet date. The realized and unrealized gains and losses on marketable securities are determined using the specific identification method.

If a debt security has an unrealized loss and we either intend to sell the security or it is more likely than not that we will be required to sell the security before its anticipated recovery, we record an impairment charge to investment and other income (expense), net for the entire amount of the unrealized loss and adjust the amortized cost basis of the security. For the remaining debt securities, if an unrealized loss exists, we separate the impairment into the portion of the loss related to credit factors and the portion of the loss that is not related to credit factors. Unrealized gains or unrealized losses that are not related to credit factors on available-for-sale debt securities are recorded as a component of accumulated other comprehensive income (loss), net of income taxes. Unrealized losses that are related to credit loss factors on available-for-sale debt securities and subsequent adjustments to the credit loss are recorded as an allowance for credit losses, which is included in investment and other income (expense), net. In evaluating whether a credit loss exists, we consider a variety of factors, including the significance of the decline in value as compared to the cost basis; underlying factors contributing to a decline in the prices of securities in a single asset class; the security's relative performance versus its peers, sector or asset class; the market and economy in general; views of external investment managers; news or financial information that has been released specific to the investee; and the outlook for the overall industry in which the investee operates.

Equity Method and Non-marketable Equity Investments. Equity investments for which we have significant influence, but not control, over the investee and are not the primary beneficiary of the investee's activities are accounted for under the equity method. Our share of gains and losses in equity method investments are recorded in investment and other income (expense), net. We eliminate unrealized profit or loss related to transactions with equity method investees in relation to our ownership interest in the investee, which is recorded as a component of equity in net earnings (losses) in investees in investment and other income (expense), net. Non-marketable equity investments (for which we do not have significant influence or control) are investments without readily determinable fair values that are recorded based on initial cost minus impairment, if any, plus or minus adjustments resulting from observable price changes in orderly transactions for identical or similar securities, if any. All gains and losses on investments in non-marketable equity securities, realized and unrealized, are recognized in investment and other income (expense), net. We monitor equity method and non-marketable equity investments for events or circumstances that could indicate the investments are impaired, such as a deterioration in the investee's financial condition and business forecasts and lower valuations in recently completed or anticipated financings, and recognize a charge to investment and other income (expense), net for the difference between the estimated fair value and the carrying value. For

QUALCOMM Incorporated
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

equity method investments, we record impairment losses in earnings only when impairments are considered other-than-temporary.

Derivatives. Our primary objectives for holding derivative instruments are to manage foreign exchange risk for certain foreign currency revenues, operating expenses, receivables and payables and to manage interest rate risk associated with our cash equivalents, marketable securities and long-term debt. Derivative instruments are recorded at fair value and included in other current or noncurrent assets or liabilities based on their maturity dates. Counterparties to these derivative instruments are all major banking institutions. At September 25, 2022, the aggregate fair value of our derivative instruments recorded in total assets and in total liabilities were \$271 million and \$346 million, respectively. At September 26, 2021, the aggregate fair value of our derivative instruments recorded in total assets and in total liabilities were \$42 million and \$111 million, respectively.

Foreign Currency Hedges: We manage our exposure to foreign exchange market risks, when deemed appropriate, through the use of derivative instruments, including foreign currency forward and option contracts with financial counterparties, that may or may not be designated as hedging instruments. At September 25, 2022 and September 26, 2021, these derivative instruments had maturity dates between one and 21 months. Gains and losses arising from such contracts that are designated as cash flow hedging instruments are recorded as a component of accumulated other comprehensive income (loss) as gains and losses on derivative instruments, net of income taxes. The hedging gains and losses in accumulated other comprehensive income (loss) are subsequently reclassified to revenues or costs and expenses, as applicable, in the consolidated statements of operations in the same period in which the underlying transactions affect our earnings. The cash flows associated with derivative instruments designated as cash flow hedging instruments are classified as cash flows from operating activities in the consolidated statements of cash flows, which is the same category as the hedged transaction.

For foreign currency forward contracts not designated as hedging instruments, the changes in fair value are recorded in investment and other income (expense), net in the period of change. The cash flows associated with such derivative instruments not designated as hedging instruments are classified as cash flows from operating activities in the consolidated statements of cash flows, which is the same category as the hedged transaction.

Interest Rate Swaps: From time to time, we enter into interest rate swap agreements that allow us to effectively convert fixed-rate payments into floating-rate payments on portions of our outstanding long-term debt. We enter into these agreements, in part, to manage interest rate risk associated with our cash equivalents and marketable securities, in addition to changes in the fair value of our outstanding debt. These transactions are designated as fair value hedges, and the gains and losses related to changes in the fair value of the interest rate swaps substantially offset changes in the fair value of the hedged portion of the underlying debt that are attributable to changes in the market interest rates. The net gains and losses on the interest rate swaps, as well as the offsetting gains or losses on the related fixed-rate debt attributable to the hedged risks, are recognized as interest expense in the current period. The interest settlement payments associated with the interest rate swap agreements are classified as cash flows from operating activities in the consolidated statements of cash flows.

During fiscal 2021, we entered into forward-starting interest rate swaps to hedge the variability of forecasted interest payments on certain anticipated debt issuances. These have been designated as cash flow hedges of forecasted transactions. The gains and losses arising from such contracts are recorded as a component in accumulated other comprehensive income (loss) as gains and losses on derivative instruments. When the anticipated debt issuances are completed, the hedging gains and losses in accumulated other comprehensive income (loss) are reclassified as interest expense over the terms of the related debt issued.

Gross Notional Amounts: The gross notional amounts of our foreign currency and interest rate derivatives by instrument type were as follows (in millions):

	September 25, 2022	September 26, 2021
Forwards	\$ 3,176	\$ 2,449
Options	881	870
Swaps	3,650	2,600
	<u>\$ 7,707</u>	<u>\$ 5,919</u>

QUALCOMM Incorporated
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The gross notional amounts of our derivatives by currency were as follows (in millions):

	September 25, 2022	September 26, 2021
British pound sterling	\$ 172	\$ 83
Chinese renminbi	1,920	1,627
Euro	206	—
Indian rupee	1,657	1,262
Japanese yen	8	27
United States dollar	3,744	2,920
	<u>\$ 7,707</u>	<u>\$ 5,919</u>

Other Hedging Activities. At September 25, 2022 and September 26, 2021, we designated \$235 million and \$1.5 billion, respectively, of foreign currency-denominated liabilities, excluding accrued interest, related to the fine(s) imposed by the European Commission as hedges of our net investment in certain foreign subsidiary(ies). Gains and losses arising from the portion of these balances that are designated as net investment hedges are recorded as a component of accumulated other comprehensive income (loss) as foreign currency translation adjustments. During fiscal 2022, we discontinued the net investment hedge related to one of the fines previously recorded related to the European Commission (EC) Investigation (Note 7). The associated foreign currency gains related to this fine previously recorded will remain in accumulated other comprehensive income (loss) until the foreign subsidiaries are sold or substantially liquidated, at which point it will be reclassified into earnings.

Fair Value Measurements. Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants as of the measurement date. Applicable accounting guidance provides an established hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs are inputs that market participants would use in valuing the asset or liability and are developed based on market data obtained from sources independent of us. Unobservable inputs are inputs that reflect our assumptions about the factors that market participants would use in valuing the asset or liability. There are three levels of inputs that may be used to measure fair value:

- Level 1 includes financial instruments for which quoted market prices for identical instruments are available in active markets.
- Level 2 includes financial instruments for which there are inputs other than quoted prices included within Level 1 that are observable for the instrument.
- Level 3 includes financial instruments for which fair value is derived from valuation techniques in which one or more significant inputs are unobservable, including our own assumptions.

Assets and liabilities measured at fair value are classified based on the lowest level of input that is significant to the fair value measurement. We review the fair value hierarchy classification on a quarterly basis. Changes in the observability of valuation inputs may result in a reclassification of levels for certain securities within the fair value hierarchy. We recognize transfers into and out of levels within the fair value hierarchy at the end of the fiscal month in which the actual event or change in circumstances that caused the transfer to occur.

Cash Equivalents and Marketable Securities: We obtain pricing information from quoted market prices, pricing vendors or quotes from brokers/dealers. We conduct reviews of our primary pricing vendors to determine whether the inputs used in the vendor's pricing processes are deemed to be observable. Contractual sale restrictions are not considered in measuring the fair value of marketable equity securities. The fair value for interest-bearing securities includes accrued interest. The fair value of U.S. Treasury securities and government-related securities, corporate bonds and notes and common stock is generally determined using standard observable inputs, including reported trades, quoted market prices, matrix pricing, benchmark yields, broker/dealer quotes, issuer spreads, two-sided markets and/or benchmark securities. The fair value of mortgage- and asset-backed securities is derived from the use of matrix pricing (prices for similar securities) or, in some cases, cash flow pricing models with observable inputs, such as contractual terms, maturity, credit rating and/or securitization structure to determine the timing and amount of future cash flows.

Derivative Instruments: Derivative instruments that are traded on an exchange are valued using quoted market prices and are included in Level 1. Derivative instruments that are not traded on an exchange are valued using conventional calculations/models that are primarily based on observable inputs, such as foreign currency exchange rates, volatilities and interest rates, and therefore, such derivative instruments are included in Level 2.

Other Investments and Other Liabilities: Other investments and other liabilities included in Level 1 are comprised of our deferred compensation plan liabilities and related assets, which consist of mutual funds and are included in other current assets and other assets. Gains and losses on the revaluation of our deferred compensation plan assets are recorded in investment and other income (expense), net. Corresponding offsetting amounts related to the revaluation of our deferred compensation plan liabilities are included in operating expenses. Other investments included in Level 3 are comprised of contingently issuable equity instruments and warrants issued in connection with certain mergers and initial public offerings of

QUALCOMM Incorporated
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

our non-marketable equity investees and convertible debt instruments issued by private companies. The inputs we use to estimate the fair values of these instruments are generally unobservable, and therefore, they are included in Level 3.

Nonrecurring Fair Value Measurements: We measure certain assets and liabilities at fair value on a nonrecurring basis. These assets and liabilities include equity method and non-marketable equity investments, assets acquired and liabilities assumed in an acquisition or in a nonmonetary exchange, and property, plant and equipment and intangible assets that are written down to fair value when they are held for sale or determined to be impaired, all of which are generally measured based on unobservable inputs using an income or market approach.

Inventories. Inventories are valued at the lower of cost and net realizable value using the first-in, first-out method. Recoverability of inventories is assessed based on review of future customer demand that considers multiple factors, including committed purchase orders from customers as well as purchase commitment projections provided by customers and our own forecasts of customer demand, among other factors. This valuation also requires us to make judgments and assumptions based on information currently available about market conditions, including competition, anticipated technological changes, internal product life cycle and development plans, product pricing and other broader market conditions that may impact customer demand, such as the impact of certain capacity constraints experienced across the semiconductor industry through the third quarter of fiscal 2022 and in fiscal 2021, as well as the impact of the macroeconomic environment in fiscal 2022. We generally place binding purchase orders with our suppliers in advance of receiving contractually binding forecasts and/or purchase orders from our customers. The time period between placing purchase orders with our suppliers and receiving contractually binding forecasts and/or purchase orders from our customers has increased and may continue to increase as a result of extended manufacturing lead-times, driven in part by a continued transition to leading-edge technologies and/or increased complexity in the manufacturing process of our products. If we overestimate demand for our products, the amount of our loss will be impacted by our contractual ability to reduce inventory purchases from our suppliers. Our manufacturing relationships generally allow for cancellation of outstanding purchase commitments, but in some cases may require incremental fees and/or the loss of amounts paid in advance related to capacity underutilization. Further, if our customers cancel purchase orders or alter forecasts this may result in excess inventory on hand. Our assumptions of future product demand are inherently uncertain, and changes in our estimates and assumptions may cause us to record additional write-downs in the future if demand forecasted for specific products is greater than actual demand.

Property, Plant and Equipment. Property, plant and equipment are recorded at cost and depreciated or amortized using the straight-line method over their estimated useful lives. Upon the retirement or disposition of property, plant and equipment, the related cost and accumulated depreciation or amortization are removed, and a gain or loss is recorded, when appropriate. Buildings on owned land are depreciated over 30 years, and building improvements are depreciated over 15 years. Leasehold improvements and buildings on leased land are amortized over the shorter of their estimated useful lives, not to exceed 15 years and 30 years, respectively, or the remaining term of the related lease. Other property, plant and equipment have useful lives ranging from 2 to 15 years. Maintenance, repairs and minor renewals or betterments are charged to expense as incurred.

Operating Leases. Operating lease assets and liabilities are recognized for leases with lease terms greater than 12 months based on the present value of the future lease payments over the lease term at the commencement date. Operating leases are included in other assets, other current liabilities and other liabilities on our consolidated balance sheet. Our lease terms may include options to extend or terminate the lease when it is reasonably certain that we will exercise such option. We account for substantially all lease and related non-lease components together as a single lease component. Operating lease expense is recognized on a straight-line basis over the lease term.

Goodwill and Other Intangible Assets. Goodwill represents the excess of purchase price over the value assigned to the net tangible and identifiable intangible assets of businesses acquired. Acquired intangible assets other than goodwill are amortized over their useful lives unless the lives are determined to be indefinite. For intangible assets purchased in a business combination, the estimated fair values of the assets received are used to establish their recorded values. For intangible assets acquired in a nonmonetary exchange, the estimated fair values of the assets transferred (or the estimated fair values of the assets received, if more clearly evident) are used to establish their recorded values, unless the values of neither the assets received nor the assets transferred are determinable within reasonable limits, in which case the assets received are measured based on the carrying values of the assets transferred. Valuation techniques consistent with the market approach, income approach and/or cost approach are used to measure fair value. An estimate of fair value can be affected by many assumptions that require significant judgment. For example, the income approach generally requires us to use assumptions to estimate future cash flows including those related to total addressable market, pricing and share forecasts, competition, technology obsolescence, future tax rates and discount rates. Our estimate of the fair value of certain assets may differ materially from that determined by others who use different assumptions or utilize different business models and from the future cash flows actually realized.

Impairment of Goodwill, Other Indefinite-Lived Assets and Long-Lived Assets. Goodwill and other indefinite-lived intangible assets are tested annually for impairment in the fourth fiscal quarter, and in interim periods if events or changes in circumstances indicate that the assets may be impaired. If a qualitative assessment is used and we determine that the fair value of a reporting unit or indefinite-lived intangible asset is more likely than not (i.e., a likelihood of more than 50%) less than its carrying amount, a quantitative impairment test will be performed. If goodwill is quantitatively assessed for impairment and a reporting unit's carrying value exceeds its fair value, the difference is recorded as an impairment. Other

QUALCOMM Incorporated
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

indefinite-lived intangible assets are quantitatively assessed for impairment, if necessary, by comparing their estimated fair values to their carrying values. If the carrying value exceeds the fair value, the difference is recorded as an impairment. Our judgments regarding the existence of impairment indicators and future cash flows related to goodwill, other indefinite-lived assets and long-lived assets may be based on operational performance of our businesses, market conditions, expected selling price and/or other factors. Although there are inherent uncertainties in this assessment process, the estimates and assumptions we use, including estimates of future cash flows and discount rates, are consistent with our internal planning, when appropriate. If these estimates or their related assumptions change in the future, we may be required to record an impairment charge on a portion or all of such assets. Furthermore, we cannot predict the occurrence of future impairment-triggering events nor the impact such events might have on our reported asset values.

Long-lived assets, such as property, plant and equipment and intangible assets subject to amortization, are reviewed for impairment when there is evidence that events or changes in circumstances indicate that the carrying amount of an asset or asset group may not be recoverable. Recoverability of assets to be held and used is measured by comparing the carrying amount of an asset or asset group to estimated undiscounted future cash flows expected to be generated by the asset or asset group. If the carrying amount of an asset or asset group exceeds its estimated future cash flows, an impairment charge is recognized for the amount by which the carrying amount of the asset or asset group exceeds the estimated fair value of the asset or asset group. Long-lived assets to be disposed of by sale are reported at the lower of their carrying amounts or their estimated fair values less costs to sell and are not depreciated.

Revenue Recognition. We derive revenues principally from sales of integrated circuit products and licensing of our intellectual property. We also generate revenues from licensing system software and by performing development and other services and from other product sales. The timing of revenue recognition and the amount of revenue actually recognized in each case depends upon a variety of factors, including the specific terms of each arrangement and the nature of our performance obligations.

Revenues from sales of our products are recognized upon transfer of control to the customer, which is generally at the time of shipment. Revenues from providing services are typically recognized over time as our performance obligation is satisfied. Revenues from providing services and licensing system software were each less than 5% of total revenues for all periods presented.

We grant licenses or otherwise provide rights to use portions of our intellectual property portfolio, which, among other rights, includes certain patent rights essential to and/or useful in the manufacture, sale or use of certain wireless products. Licensees pay royalties based on their sales of products incorporating or using our licensed intellectual property and may also pay a fixed license fee in one or more installments. Sales-based royalties are generally based upon a percentage of the wholesale (i.e., licensee's) selling price of complete licensed products, net of certain permissible deductions (including transportation, insurance, packing costs and other items). We broadly provide per unit royalty caps that apply to certain categories of complete wireless devices, such as smartphones, tablets, laptops and smartwatches, and provide for a maximum royalty amount payable per device. We estimate and recognize sales-based royalties on such licensed products in the period in which the associated sales occur, considering all relevant information (historical, current and forecasted) that is reasonably available to us. Our estimates of sales-based royalties are based largely on preliminary royalty estimates provided by our licensees and, to a lesser extent, an assessment of the volume of devices supplied into the market that incorporate or use our licensed intellectual property, combined with an estimate of the mix of such sales on a licensee-by-licensee basis, as well as the licensees' average wholesale prices of such products. In the periods presented, we have recognized immaterial differences between preliminary royalty estimates provided to us by licensees and actual amounts reported and paid by licensees, which are generally received the following quarter, as licensees have not completed their royalty reporting process at the time estimates are provided to us, and in certain cases, they do not provide all necessary information in order for us to calculate an estimate of royalties due, which requires us to independently estimate certain information. We also consider in our estimates of sales-based royalties any changes in pricing we plan or expect to make and certain constraints on our ability to estimate such royalties. As a result of recognizing revenues in the period in which the licensees' sales occur using estimates, adjustments to revenues are required in subsequent periods to reflect changes in estimates as new information becomes available, primarily resulting from actual amounts reported by our licensees.

License agreements that require payment of license fees contain a single performance obligation that represents ongoing access to a portfolio of intellectual property over the license term since such agreements provide the licensee the right to access a portfolio of intellectual property that exists at inception of the license agreement and to updates and new intellectual property that is added to the licensed portfolio during the term of the agreement that are highly interdependent or interrelated. Since we expect to expend efforts to develop and transfer updates to our licensed portfolio on an even basis, license fees are recognized as revenues on a straight-line basis over the estimated period of benefit of the license to the licensee.

We account for a contract with a customer/licensee when it is legally enforceable, the parties are committed to perform their respective obligations, the rights of the parties regarding the goods and/or services to be transferred are identified, payment terms are identified, the contract has commercial substance and collectability of substantially all of the consideration is probable, which for product sales, is generally when a customer purchase order is executed and for licensing revenues, is generally upon execution of a license agreement. If all such conditions are not met, revenues and any associated receivables

QUALCOMM Incorporated
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

are generally not recognized until such time that the required conditions are met. Cash collected from customers prior to a contract existing is recorded to other customer-related liabilities in other current liabilities.

From time to time, regulatory authorities investigate our business practices, particularly with respect to our licensing business, and institute proceedings against us. Depending on the matter, various remedies that could result from an unfavorable resolution include, among others, the loss of our ability to enforce one or more of our patents; injunctions; monetary damages or fines or other orders to pay money; the issuance of orders to cease certain conduct or modify our business practices, such as requiring us to reduce our royalty rates, reduce the base on which our royalties are calculated, grant patent licenses to chipset manufacturers, sell chipsets to unlicensed original equipment manufacturers (OEMs) or modify or renegotiate some or all of our existing license agreements; and determinations that some or all of our license agreements are invalid or unenforceable. Additionally, from time to time, companies initiate various strategies in an attempt to negotiate, renegotiate, reduce and/or eliminate their need to pay royalties to us for the use of our intellectual property, which may include disputing, underreporting, underpaying, not reporting and/or not paying royalties owed to us under their license agreements with us, or reporting to us in a manner that is not in compliance with their contractual obligations. In such cases, we estimate and recognize licensing revenues only when we have a contract, as defined in the revenue recognition guidance, which includes, among other items, evaluating whether our license agreements remain valid and enforceable and evaluating licensees' conduct and whether they remain committed to perform their respective obligations. We also estimate and recognize licensing revenues only to the extent it is probable that a significant reversal of cumulative revenues recognized will not occur, which includes, among other items, determining the expected impact, if any, to revenues of any license agreements that may be renegotiated and/or are newly entered into. We analyze the risk of a significant revenue reversal considering both the likelihood and magnitude of the reversal and, if necessary, constrain the amount of estimated revenues recognized in order to mitigate this risk, which may result in recognizing revenues less than amounts contractually owed to us. These aforementioned estimates may require significant judgment.

We measure revenues (including our estimates of sales-based royalties) based on the amount of consideration we expect to receive in exchange for products or services. We record reductions to revenues for customer incentive arrangements, including volume-related and other pricing rebates and cost reimbursements for marketing and other activities involving certain of our products and technologies, in the period that the related revenues are earned. For certain QCT (Qualcomm CDMA Technologies) customer incentive arrangements, there is complexity in applying certain contractual terms to determine the amount recorded as a reduction to revenues. For the periods presented, no significant reversals of revenues have been made related to such amounts previously recorded. The amounts accrued for customer incentive arrangements are recorded as a reduction to accounts receivable, net or as other current liabilities based on whether we have the intent and contractual right of offset. Certain amounts recorded as a reduction to revenues for customer incentive arrangements are considered variable consideration and are included in the transaction price primarily based on estimating the most likely amount expected to be provided to the customer/licensee.

Adjustments made to revenues in subsequent periods to reflect changes in estimates as new information becomes available are included in our disclosure of revenues recognized from previously satisfied performance obligations (Note 2).

Revenues recognized from sales of our products and sales-based royalties are generally included in accounts receivable, net (including unbilled receivables) based on our unconditional right to payment for satisfied or partially satisfied performance obligations.

Concentrations. A significant portion of our revenues are concentrated with a small number of customers/licensees of our QCT and QTL (Qualcomm Technology Licensing) segments. The comparability of customer/licensee concentrations for the periods presented are impacted by the timing of customer/licensees device launches and/or innovation cycles and other seasonal trends, among other fluctuations in demand. Revenues from each customer/licensee that were 10% or greater of total revenues were as follows:

	September 25, 2022	September 26, 2021	September 27, 2020
Customer/licensee (w)	21 %	14 %	19 %
Customer/licensee (x)	21	23	10
Customer/licensee (y)	*	13	12
Customer/licensee (z)	*	*	10

* Less than 10%

We rely on sole- or limited-source suppliers for some products, particularly products in our QCT segment, subjecting us to possible shortages of raw materials or manufacturing capacity. The loss of a supplier or the inability of a supplier to meet performance or quality specifications or delivery schedules could harm our ability to meet our delivery obligations and/or negatively impact our revenues, business operations and ability to compete for future business.

Share-Based Compensation. Share-based compensation expense for equity-classified awards, principally related to restricted stock units (RSUs), is measured at the grant date, or at the acquisition date for awards assumed in business combinations, based on the estimated fair value of the award and is recognized over the employee's requisite service period. The fair values of RSUs are estimated based on the fair market values of the underlying stock on the dates of grant or dates

QUALCOMM Incorporated
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

the RSUs are assumed. Share-based compensation expense is adjusted to exclude amounts related to share-based awards that are expected to be forfeited.

Legal and Regulatory Proceedings. We are currently involved in certain legal and regulatory proceedings. Litigation and investigations are inherently uncertain, and we face difficulties in evaluating or estimating likely outcomes or ranges of possible loss in antitrust and trade regulation investigations in particular. Investigations by antitrust and trade regulation agencies are not conducted in a consistent manner across jurisdictions. Further, each country and agency has different sets of laws, rules and regulations, both substantive and procedural, as well as different legal principles, theories and potential remedies, and some agencies may seek to use the investigation to advance domestic policy goals. Depending on the jurisdiction, these investigations can involve non-transparent procedures under which we may not receive access to evidence relied upon by the enforcement agency or that may be exculpatory and may not be informed of the specific legal theories or evidence considered or relied upon by the agency. Unlike in civil litigation in the United States, in foreign proceedings, we may not be entitled to discovery or depositions, allowed to cross-examine witnesses or confront our accusers. As a result, we may not be aware of, and may not be entitled to know, all allegations against us, or the information or documents provided to, or discovered or prepared by, the agency. Accordingly, we may have little or no idea what an agency's intent is with respect to liability, penalties or the timing of a decision. In many cases the agencies are given significant discretion, and any available precedent may have limited, if any, predictive value in their jurisdictions or other jurisdictions. Accordingly, we cannot predict the outcome of these matters. A broad range of remedies with respect to our business practices that are deemed to violate applicable laws are potentially available. These remedies may include, among others, injunctions, monetary damages or fines or other orders to pay money and the issuance of orders to cease certain conduct and/or to modify our business practices.

If there is at least a reasonable possibility that a material loss may have been incurred associated with pending legal and regulatory proceedings, we disclose such fact, and if reasonably estimable, we provide an estimate of the possible loss or range of possible loss. We record our best estimate of a loss related to pending legal and regulatory proceedings when the loss is considered probable and the amount can be reasonably estimated. Where a range of loss can be reasonably estimated with no best estimate in the range, we record the minimum estimated liability. As additional information becomes available, we assess the potential liability related to pending legal and regulatory proceedings and revise our estimates and update our disclosures accordingly. Significant judgment is required in both the determination of probability and the determination as to whether a loss is reasonably estimable. Our legal costs associated with defending ourselves are recorded to expense as incurred.

Foreign Currency. Certain foreign subsidiaries use a local currency as the functional currency. Resulting translation gains or losses are recorded as a component of accumulated other comprehensive income (loss). Transaction gains or losses related to balances denominated in a currency other than the functional currency of the entity involved are recognized in the consolidated statements of operations.

Income Taxes. The asset and liability approach is used to recognize deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the carrying amounts and the tax bases of assets and liabilities. Tax law and rate changes are reflected in income in the period such changes are enacted. We record a valuation allowance to reduce deferred tax assets to the amount that is more likely than not to be realized. We include interest and penalties related to income taxes, including unrecognized tax benefits, within income tax expense. We classify all deferred tax assets and liabilities as noncurrent in the consolidated balance sheets. We recognize excess tax benefits and shortfall tax detriments associated with share-based awards in the consolidated statements of operations, as a component of income tax expense, when realized.

Our income tax returns are based on calculations and assumptions that are subject to examination by the Internal Revenue Service (IRS) and other tax authorities. In addition, the calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax regulations. We recognize liabilities for uncertain tax positions based on a two-step process. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount that is more than 50% likely of being realized upon settlement. While we believe we have appropriate support for the positions taken on our tax returns, we regularly assess the potential outcomes of examinations by tax authorities in determining the adequacy of our provision for income taxes. We continually assess the likelihood and amount of potential adjustments and adjust the income tax provision, income taxes payable and deferred taxes in the period in which the facts that give rise to a revision become known.

We are subject to income taxes in the United States and numerous foreign jurisdictions, and the assessment of our income tax positions involves dealing with uncertainties in the application of complex tax laws and regulations in various taxing jurisdictions. In addition, the application of tax laws and regulations is subject to legal and factual interpretation, judgment and uncertainty. Tax laws and regulations themselves are subject to change as a result of changes in fiscal policy, changes in legislation, the evolution of regulations and court rulings. Significant judgments and estimates are required in determining our provision for income taxes, including those related to special deductions such as FDII (foreign-derived intangible income), tax incentives, intercompany research and development cost-sharing arrangements, transfer pricing, tax credits and the realizability of deferred tax assets. While we believe we have appropriate support for the positions we have taken or that we plan to take on our tax returns, we regularly assess the potential outcomes of examinations by taxing authorities in determining the adequacy of our provision for income taxes. Therefore, the actual liability for U.S. or foreign

QUALCOMM Incorporated
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

taxes may be materially different from our estimates, which could result in the need to record additional tax liabilities or potentially reverse previously recorded tax liabilities. For tax years prior to fiscal 2021, we are participating in the IRS Compliance Assurance Process program whereby we endeavor to agree with the IRS on the treatment of all issues prior to filing our federal return.

Stock Repurchases. To reflect share repurchases in the consolidated balance sheet, we (i) reduce common stock for the par value of the shares, (ii) reduce paid-in capital for the amount in excess of par to zero during the quarter in which the shares are repurchased and (iii) record the residual amount, if any, to retained earnings.

In August 2022, the Inflation Reduction Act was enacted in the United States, which included, among other items, a 1% excise tax on certain net stock repurchases after December 31, 2022. Any such excise tax on our stock repurchases will be recorded as a component of stockholders' equity.

Earnings (Loss) Per Share. Basic earnings (loss) per share is computed by dividing net income (loss) by the weighted-average number of common shares outstanding during the reporting period. Diluted earnings per share is computed by dividing net income by the combination of the weighted-average number of dilutive common share equivalents, comprised of shares issuable under our share-based compensation plans and shares subject to accelerated share repurchase programs, if any, and the weighted-average number of common shares outstanding during the reporting period. The following table provides information about the diluted earnings per share calculation (in millions):

	2022	2021	2020
Dilutive common share equivalents included in diluted shares	14	18	14
Shares of common stock equivalents not included because the effect would be anti-dilutive or certain performance conditions were not satisfied at the end of the period	1	—	1

Note 2. Composition of Certain Financial Statement Items

Accounts Receivable (in millions)

	September 25, 2022	September 26, 2021
Trade, net of allowances for doubtful accounts	\$ 4,175	\$ 2,214
Unbilled	1,435	1,354
Other	33	11
	<u>\$ 5,643</u>	<u>\$ 3,579</u>

Inventories (in millions)

	September 25, 2022	September 26, 2021
Raw materials	\$ 221	\$ 267
Work-in-process	3,329	1,475
Finished goods	2,791	1,486
	<u>\$ 6,341</u>	<u>\$ 3,228</u>

QUALCOMM Incorporated
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Property, Plant and Equipment (in millions)

	September 25, 2022	September 26, 2021
Land	\$ 170	\$ 172
Buildings and improvements	1,767	1,642
Computer equipment and software	1,680	1,483
Machinery and equipment	7,349	6,420
Furniture and office equipment	105	94
Leasehold improvements	369	374
Construction in progress	330	269
	11,770	10,454
Less accumulated depreciation and amortization	(6,602)	(5,895)
	<u>\$ 5,168</u>	<u>\$ 4,559</u>

Depreciation and amortization expense related to property, plant and equipment for fiscal 2022, 2021 and 2020 was \$1.3 billion, \$1.0 billion and \$772 million, respectively.

Goodwill and Other Intangible Assets. We allocate goodwill to our reporting units for impairment testing purposes. The following table presents the goodwill allocated to our segments, as described in Note 8, as well as the changes in the carrying amounts of goodwill during fiscal 2022 and 2021 (in millions):

	QCT	QIL	Total
Balance at September 27, 2020	\$ 5,605	\$ 718	\$ 6,323
Acquisitions	912	5	917
Foreign currency translation adjustments	6	—	6
Balance at September 26, 2021 (1)	6,523	723	7,246
Acquisitions	3,375	12	3,387
Foreign currency translation adjustments	(121)	(4)	(125)
Balance at September 25, 2022 (1)	<u>\$ 9,777</u>	<u>\$ 731</u>	<u>\$ 10,508</u>

(1) Cumulative goodwill impairments were \$812 million at both September 25, 2022 and September 26, 2021.

The components of other intangible assets, net were as follows (in millions):

	September 25, 2022			September 26, 2021		
	Gross Carrying Amount	Accumulated Amortization	Weighted-average amortization period (years)	Gross Carrying Amount	Accumulated Amortization	Weighted-average amortization period (years)
Technology-based	\$ 5,517	\$ (3,669)	12	\$ 5,385	\$ (3,971)	11
Other	90	(56)	10	93	(49)	10
	<u>\$ 5,607</u>	<u>\$ (3,725)</u>	10	<u>\$ 5,478</u>	<u>\$ (4,020)</u>	11

All of these intangible assets are subject to amortization, other than acquired in-process research and development which had a carrying value of \$546 million and \$247 million at September 25, 2022 and September 26, 2021, respectively. Amortization expense related to these intangible assets was \$482 million, \$537 million and \$621 million for fiscal 2022, 2021 and 2020, respectively. At September 25, 2022, amortization expense related to other intangible assets, including acquired in-process research and development beginning upon the completion of the underlying projects, is expected to be \$429 million, \$275 million, \$245 million, \$246 million and \$168 million for each of the five years from fiscal 2023 through 2027, respectively, and \$519 million thereafter.

QUALCOMM Incorporated
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Equity Method and Non-marketable Equity Investments. The carrying values of our equity method and non-marketable equity investments are recorded in other assets and were as follows (in millions):

	September 25, 2022	September 26, 2021
Equity method investments	\$ 189	\$ 214
Non-marketable equity investments	1,105	1,051
	<u>\$ 1,294</u>	<u>\$ 1,265</u>

Other Current Liabilities (in millions)

	September 25, 2022	September 26, 2021
Customer incentives and other customer-related liabilities	\$ 1,879	\$ 1,974
Accrual for EC fines (Note 7)	245	1,522
Income taxes payable	634	862
Other	931	656
	<u>\$ 3,689</u>	<u>\$ 5,014</u>

Revenues. We disaggregate our revenues by segment (Note 8), by product and service (as presented on our consolidated statements of operations), and for our QCT segment, by revenue stream, which is based on the industry and application in which our products are sold (as presented below). In certain cases, the determination of QCT revenues by industry and application requires the use of certain assumptions. Substantially all of QCT's revenues consist of equipment revenues that are recognized at a point in time, and substantially all of QTL's revenues represent licensing revenues that are recognized over time and are principally from royalties generated through our licensees' sales of mobile handsets. QCT revenue streams were as follows (in millions):

	2022	2021	2020
Handsets (1)	\$ 25,027	\$ 16,830	\$ 10,461
RFFE (2)	4,330	4,158	2,362
Automotive (3)	1,372	975	644
IoT (internet of things) (4)	6,948	5,056	3,026
Total QCT revenues	<u>\$ 37,677</u>	<u>\$ 27,019</u>	<u>\$ 16,493</u>

(1) Includes revenues from products sold for use in mobile handsets, excluding RFFE (radio frequency front-end) components.

(2) Includes all revenues from sales of 4G, 5G sub-6 and 5G millimeter wave RFFE products (a substantial portion of which are sold for use in mobile handsets) and excludes radio frequency transceiver components.

(3) Includes revenues from products sold for use in automobiles, including connectivity, digital cockpit and advanced driver assistance and automated driving.

(4) Primarily includes products sold for use in the following industries and applications: consumer (including computing, voice and music and XR), edge networking (including mobile broadband and wireless access points) and industrial (including handhelds, retail, transportation and logistics and utilities).

Revenue recognized from performance obligations satisfied (or partially satisfied) in previous periods were as follows (in millions):

	2022 (1)	2021 (2)	2020 (3)
Revenues recognized from previously satisfied performance obligations	\$ 788	\$ 283	\$ 1,480

(1) Primarily related to certain QCT sales-based royalty revenues related to system software, certain QCT customer incentives and, to a lesser extent, QTL royalty revenues recognized related to devices sold in prior periods (including adjustments to prior period royalty estimates, which includes the impact of the reporting by our licensees of actual royalties due).

(2) Primarily related to certain QCT customer incentives, QTL revenues recognized related to devices sold in prior periods (including adjustments to prior period royalty estimates, which includes the impact of the reporting by our licensees of actual royalties due) and the release of a variable constraint against revenues not previously allocated to our segment results (Note 8).

(3) Primarily related to licensing revenues recognized in the fourth quarter of fiscal 2020 (a portion of which was attributable to fiscal 2020) resulting from the settlement with Huawei and, to a lesser extent, QTL royalties recognized related to devices sold in prior periods (including adjustments to prior period royalty estimates, which includes the impact of the reporting by our licensees of actual royalties due) and certain QCT customer incentives.

QUALCOMM Incorporated
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Unearned revenues (which are considered contract liabilities) consist primarily of license fees for intellectual property with continuing performance obligations. In fiscal 2022 and fiscal 2021, we recognized revenues of \$609 million and \$557 million, respectively, that were recorded as unearned revenues at September 26, 2021 and September 27, 2020, respectively.

Remaining performance obligations, substantially all of which are included in unearned revenues, represent the aggregate amount of the transaction price of certain customer contracts yet to be recognized as revenues as of the end of the reporting period and exclude revenues related to (a) contracts that have an original expected duration of one year or less and (b) sales-based royalties (i.e., future royalty revenues) pursuant to our license agreements. Our remaining performance obligations are primarily comprised of certain customer contracts for which QTL received license fees upfront and certain customer contracts for which QCT received upfront fees for licensing system software. At September 25, 2022, we had \$690 million of remaining performance obligations, of which \$451 million, \$173 million, \$57 million, \$5 million and \$1 million is expected to be recognized as revenues for each of the subsequent five years from fiscal 2023 through 2027, respectively, and \$3 million expected thereafter.

Share-based Compensation Expense. Total share-based compensation expense, related to all of our share-based awards, was comprised as follows (in millions):

	2022	2021	2020
Cost of revenues	\$ 61	\$ 47	\$ 34
Research and development	1,537	1,234	872
Selling, general and administrative	463	389	306
Share-based compensation expense before income taxes	2,061	1,670	1,212
Related income tax benefit	(489)	(435)	(238)
	<u>\$ 1,572</u>	<u>\$ 1,235</u>	<u>\$ 974</u>

Other Income, Costs and Expenses. In the third quarter of fiscal 2022, the General Court of the European Union issued a ruling annulling a decision made by the EC in fiscal 2018 (Note 7). As a result of the court's decision, we recorded a \$1.1 billion benefit to other income in fiscal 2022. Other expenses in fiscal 2020 consisted of \$28 million in gains related to a favorable legal settlement.

Investment and Other (Expense) Income, Net (in millions)

	2022	2021	2020
Interest and dividend income	\$ 91	\$ 83	\$ 156
Net (losses) gains on marketable securities	(363)	427	198
Net gains on other investments	113	470	108
Net (losses) gains on deferred compensation plan assets	(141)	130	47
Impairment losses on other investments	(47)	(33)	(405)
Net (losses) gains on derivative instruments	(37)	(14)	8
Equity in net (losses) earnings of investees	(7)	13	(21)
Net gains (losses) on foreign currency transactions	19	(32)	(25)
	<u>\$ (372)</u>	<u>\$ 1,044</u>	<u>\$ 66</u>

In fiscal 2020, in part due to the impact of COVID-19, certain of our investments were impaired and written down to their estimated fair values (a significant portion of which related to the full impairment of our investment in OneWeb, who filed for bankruptcy in the second quarter of fiscal 2020).

QUALCOMM Incorporated
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 3. Income Taxes

The components of the income tax provision from continuing operations were as follows (in millions):

	2022	2021	2020
Current provision:			
Federal	\$ 1,114	\$ 942	\$ 210
State	1	8	1
Foreign (1)	906	518	526
	2,021	1,468	737
Deferred (benefit) provision:			
Federal	(34)	(251)	(192)
State	15	2	2
Foreign (1)	10	12	(26)
	(9)	(237)	(216)
	<u>\$ 2,012</u>	<u>\$ 1,231</u>	<u>\$ 521</u>

(1) The foreign component of the income tax provision included foreign withholding taxes on royalty revenues included in U.S. earnings.

The components of income from continuing operations before income taxes by U.S. and foreign jurisdictions were as follows (in millions):

	2022	2021	2020
United States	\$ 12,537	\$ 8,781	\$ 5,004
Foreign	2,461	1,493	715
	<u>\$ 14,998</u>	<u>\$ 10,274</u>	<u>\$ 5,719</u>

The following is a reconciliation of the expected statutory federal income tax provision to our actual income tax provision from continuing operations (in millions, except percentages). Substantially all of our income from continuing operations is in the U.S., of which a significant portion qualifies for preferential treatment as FDII at a 13% effective tax rate.

	2022	2021	2020
Expected income tax provision at federal statutory tax rate	\$ 3,150	\$ 2,158	\$ 1,201
Benefit from FDII deduction	(753)	(550)	(381)
Excess tax benefit associated with share-based awards	(257)	(265)	(83)
Foreign currency losses (gains) related to Korean withholding tax receivable	243	12	(37)
Nontaxable reversal of 2018 EC fine	(224)	—	—
Benefit related to research and development tax credits	(224)	(195)	(125)
Other	77	71	(54)
	<u>\$ 2,012</u>	<u>\$ 1,231</u>	<u>\$ 521</u>
Effective tax rate	13 %	12 %	9 %

Beginning in fiscal 2019, as a result of certain court rulings in Korea, among other factors, we decided to apply for a partial refund claim for taxes previously withheld from licensees in Korea on payments due under their license agreements to which we have claimed a foreign tax credit in the United States. As a result, \$1.7 billion and \$1.9 billion was recorded as a noncurrent income taxes receivable (recorded in other assets) at September 25, 2022 and September 26, 2021, respectively, and \$2.1 billion and \$1.9 billion was recorded as a noncurrent liability for uncertain tax benefits (recorded in other liabilities) at September 25, 2022 and September 26, 2021, respectively.

At September 25, 2022, we estimated remaining future payments of \$1.7 billion for a one-time repatriation tax accrued in fiscal 2018, after application of certain tax credits, which is payable in installments over the next four years. At September 25, 2022, \$207 million was recorded in other current liabilities, reflecting the next installment due in January 2023, with the remaining noncurrent portion presented as income taxes payable on our balance sheet.

We continue to assert that certain of our foreign earnings are not indefinitely reinvested. At September 25, 2022, we had not recorded a deferred tax liability of approximately \$70 million related to foreign withholding taxes on approximately \$851 million of undistributed earnings of certain subsidiaries that we continue to consider to be indefinitely reinvested outside the

QUALCOMM Incorporated
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

United States. Should we decide to no longer indefinitely reinvest such earnings outside the U.S., we would have to adjust the income tax provision in the period we make such determination.

We have tax incentives in Singapore that require we meet specified employment and other criteria. Although our profit in Singapore declined as a result of restructuring our operations in 2018, we were required to meet (and did meet) certain incentive requirements through March 2022. Failure to meet such requirements could have required us to refund previously realized material tax benefits for 2017 and 2018.

We had deferred tax assets and deferred tax liabilities as follows (in millions):

	September 25, 2022	September 26, 2021
Unused tax credits	\$ 1,624	\$ 1,504
Unused net operating losses	887	663
Customer incentives	807	762
Accrued liabilities and reserves	264	483
Share-based compensation	225	175
Operating lease liabilities	202	188
Unrealized losses on other investments and marketable securities	197	106
Unearned revenues	100	181
Other	335	165
Total gross deferred tax assets	4,641	4,227
Valuation allowance	(2,223)	(1,926)
Total net deferred tax assets	2,418	2,301
Intangible assets	(315)	(198)
Operating lease assets	(184)	(174)
Property, plant and equipment	(101)	(111)
Unrealized gains on other investments and marketable securities	(84)	(215)
Accrued withholding taxes	(62)	(42)
Other	(36)	(34)
Total deferred tax liabilities	(782)	(774)
Net deferred tax assets	\$ 1,636	\$ 1,527
Reported as:		
Non-current deferred tax assets	\$ 1,803	\$ 1,591
Non-current deferred tax liabilities (1)	(167)	(64)
	\$ 1,636	\$ 1,527

(1) Non-current deferred tax liabilities were included in other liabilities in the consolidated balance sheets.

At September 25, 2022, we had unused federal net operating loss carryforwards of \$808 million, of which \$134 million expire from 2023 through 2037 and \$674 million may be carried forward indefinitely, unused state net operating loss carryforwards of \$896 million expiring from 2023 through 2037 and unused foreign net operating loss carryforwards of \$2.6 billion, of which substantially all may be carried forward indefinitely. At September 25, 2022, we had unused state tax credits of \$1.5 billion, of which substantially all may be carried forward indefinitely, unused federal tax credits of \$135 million expiring from 2028 through 2041 and unused tax credits of \$54 million in foreign jurisdictions expiring from 2034 through 2042. We do not expect our federal net operating loss carryforwards to expire unused.

At September 25, 2022, we have provided a valuation allowance on certain state tax credits, foreign deferred tax assets, state net operating losses and federal tax credits of \$1.5 billion, \$673 million, \$42 million and \$4 million, respectively. The valuation allowance reflects the uncertainties surrounding our ability to generate sufficient future taxable income in certain tax jurisdictions to utilize our net operating losses. We believe, more likely than not, that we will have sufficient taxable income after deductions related to share-based awards to utilize our remaining deferred tax assets.

QUALCOMM Incorporated
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

A summary of the changes in the amount of unrecognized tax benefits for fiscal 2022, 2021 and 2020 follows (in millions):

	2022	2021	2020
Beginning balance of unrecognized tax benefits	\$ 2,136	\$ 1,901	\$ 1,705
Additions based on prior year tax positions	58	56	20
Reductions for prior year tax positions and lapse in statute of limitations	(136)	(13)	(2)
Additions for current year tax positions	184	213	192
Settlements with taxing authorities	(51)	(21)	(14)
Ending balance of unrecognized tax benefits	<u>\$ 2,191</u>	<u>\$ 2,136</u>	<u>\$ 1,901</u>

Of the \$2.2 billion of unrecognized tax benefits, \$2.0 billion has been recorded to other liabilities. We believe that it is reasonably possible that certain unrecognized tax benefits recorded at September 25, 2022 may result in a cash payment in fiscal 2023. Unrecognized tax benefits at September 25, 2022 included \$135 million for tax positions that, if recognized, would impact the effective tax rate. The unrecognized tax benefits differ from the amount that would affect our effective tax rate primarily because the unrecognized tax benefits were included on a gross basis and did not reflect related receivables or secondary impacts, such as the federal deduction for state taxes, adjustments to deferred tax assets and the valuation allowance that might be required if our tax positions are sustained. The increase in unrecognized tax benefits for all periods presented was primarily due to expected refunds of Korean withholding tax previously paid (which such increase had an insignificant impact to our income tax provision). If successful, the refund will result in a corresponding reduction in U.S. foreign tax credits. We believe that it is likely that the total amount of unrecognized tax benefits at September 25, 2022 will increase in fiscal 2023 as licensees in Korea continue to withhold taxes on future payments due under their licensing agreements at a rate higher than we believe is owed; such increase is not expected to have a significant impact on our income tax provision. At September 25, 2022, total interest and penalties related to unrecognized tax benefits accrued in other current liabilities and other liabilities was \$168 million, with a corresponding noncurrent income taxes receivable of \$108 million recorded in other assets for expected refunds of certain tax benefits.

We file income tax returns in the U.S. federal jurisdiction and various state and foreign jurisdictions. For tax years prior to fiscal 2021, we are a participant in the IRS Compliance Assurance Process (CAP) Program, whereby we and the IRS endeavor to agree on the treatment of all tax issues prior to the tax return being filed. We are no longer subject to U.S. federal income tax examinations for years prior to fiscal 2018. We are also subject to examination in other taxing jurisdictions in the U.S. and numerous foreign jurisdictions. These examinations are at various stages with respect to assessments, claims, deficiencies and refunds, many of which are open for periods after fiscal 2001. We continually assess the likelihood and amount of potential adjustments and adjust the income tax provision, income taxes payable and deferred taxes in the period in which the facts give rise to a revision become known. At September 25, 2022, we believe that adequate amounts have been reserved for based on facts known. However, the final determination of tax audits and any related legal proceedings could materially differ from amounts reflected in our income tax provision and the related accruals.

Cash amounts paid for income taxes, net of refunds received, were \$2.1 billion, \$1.5 billion and \$0.8 billion for fiscal 2022, 2021 and 2020, respectively.

Note 4. Capital Stock

Stock Repurchase Program. On October 12, 2021, we announced a \$10.0 billion stock repurchase program. The stock repurchase program has no expiration date. At September 25, 2022, \$8.1 billion remained authorized for repurchase under our stock repurchase program.

Shares Outstanding. Shares of common stock outstanding at September 25, 2022 were as follows (in millions):

Balance at beginning of period	1,125
Issued	17
Repurchased	(21)
Balance at end of period	<u>1,121</u>

Dividends. On October 14, 2022, we announced a cash dividend of \$0.75 per share on our common stock, payable on December 15, 2022 to stockholders of record as of the close of business on December 1, 2022.

Note 5. Employee Benefit Plans

Equity Compensation Plans. On March 10, 2020, our stockholders approved the amended and restated Qualcomm Incorporated 2016 Long-Term Incentive Plan (the 2016 Plan), including an increase in the share reserve by 75 million shares. The 2016 Plan provides for the grant of RSUs and other stock-based awards. The RSUs generally include dividend-equivalent rights and vest over three years from the date of grant. The Board of Directors may amend or terminate the 2016

QUALCOMM Incorporated
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Plan at any time. Certain amendments, including an increase in the share reserve, require stockholder approval. At September 25, 2022, approximately 43 million shares were available for future grant under the 2016 Plan.

The following is a summary of employee RSU transactions under our 2016 Plan that contain only service requirements to vest:

	Number of Shares (in millions)	Weighted-Average Grant Date Fair Value
RSUs outstanding at September 26, 2021	29	\$ 102.83
RSUs granted	20	136.09
RSUs canceled/forfeited	(2)	120.94
RSUs vested	(17)	96.02
RSUs outstanding at September 25, 2022	30	127.58

The weighted-average estimated grant date fair values of employee RSUs under our 2016 Plan that contain only service requirements to vest granted during fiscal 2021 and 2020 were \$124.22 and \$82.57 per share, respectively. Upon vesting, we issue new shares of common stock. For the majority of RSUs, shares are issued on the vesting dates net of the amount of shares needed to satisfy statutory tax withholding requirements to be paid by us on behalf of the employees. As a result, the actual number of shares issued will be fewer than the number of RSUs outstanding. The annual pre-vest forfeiture rate for RSUs was estimated to be approximately 6%, 6% and 7% in fiscal 2022, 2021 and 2020, respectively.

At September 25, 2022, total unrecognized compensation expense related to such non-vested RSUs granted prior to that date was \$2.6 billion, which is expected to be recognized over a weighted-average period of 1.8 years. The total vest-date fair value of such RSUs that vested during fiscal 2022, 2021 and 2020 was \$2.9 billion, \$2.6 billion and \$1.3 billion, respectively. The total shares withheld to satisfy statutory tax withholding requirements related to all share-based awards were 5 million, 5 million and 4 million in fiscal 2022, 2021 and 2020, respectively and were based on the value of the awards on their vesting dates as determined by our closing stock price.

The total tax benefits realized, including the excess tax benefits, related to share-based awards during fiscal 2022, 2021 and 2020 were \$627 million, \$567 million and \$273 million, respectively.

Employee Stock Purchase Plan. We have an employee stock purchase plan for eligible employees to purchase shares of common stock at 85% of the lower of the fair market value on the first or the last day of each offering period, which is generally six months. Employees may authorize us to withhold up to 15% of their compensation during any offering period, subject to certain limitations. The employee stock purchase plan includes a non-423(b) plan. The shares reserved for future issuance under the employee stock purchase plan were 22 million at September 25, 2022. During fiscal 2022, 2021 and 2020, 3 million, 3 million and 5 million shares, respectively, were issued under the plan at an average price of \$124.98, \$107.48 and \$66.53 per share, respectively. At September 25, 2022, total unrecognized compensation expense related to non-vested purchase rights granted prior to that date was \$44 million. We recorded cash received from the exercise of purchase rights of \$355 million, \$343 million and \$306 million during fiscal 2022, 2021 and 2020, respectively.

QUALCOMM Incorporated
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 6. Debt

Long-term Debt. In May 2022, we issued unsecured fixed-rate notes, consisting of \$500 million of fixed-rate 4.25% notes and \$1.0 billion of fixed-rate 4.50% notes (May 2022 Notes) that mature on May 20, 2032 and May 20, 2052, respectively. The net proceeds from the May 2022 Notes, together with cash on hand, were used to repay \$1.5 billion of fixed-rate notes that matured in May 2022.

The following table provides a summary of our long-term debt and current portion of long-term debt:

	September 25, 2022			September 26, 2021		
	Maturities	Amount (in millions)	Effective Rate	Maturities	Amount (in millions)	Effective Rate
May 2015 Notes	2025 - 2045	\$ 3,865	3.46% - 4.73%	2022 - 2045	\$ 5,405	2.63% - 4.73%
May 2017 Notes	2023 - 2047	5,860	2.68% - 4.46%	2023 - 2047	5,860	0.92% - 4.46%
May 2020 Notes	2030 - 2050	2,000	2.97% - 3.30%	2030 - 2050	2,000	2.31% - 3.30%
August 2020 Notes	2028 - 2032	2,207	2.50% - 3.52%	2028 - 2032	2,207	1.98% - 2.66%
May 2022 Notes	2032 - 2052	1,500	3.13% - 4.26%		—	
Total principal		15,432			15,472	
Unamortized discount, including debt issuance costs		(241)			(234)	
Hedge accounting adjustments		(208)			7	
Total long-term debt		<u>\$ 14,983</u>			<u>\$ 15,245</u>	
Reported as:						
Short-term debt		\$ 1,446			\$ 1,544	
Long-term debt		13,537			13,701	
Total		<u>\$ 14,983</u>			<u>\$ 15,245</u>	

At September 25, 2022, future principal payments were \$1.4 billion in fiscal 2023, \$914 million in fiscal 2024, \$1.4 billion in fiscal 2025, \$2.0 billion in fiscal 2027 and \$9.7 billion after fiscal 2027; no principal payments are due in fiscal 2026. At September 25, 2022, the aggregate fair value of the notes, based on Level 2 inputs, was approximately \$14.0 billion.

At September 25, 2022, with the exception of \$500 million of outstanding unsecured floating-rate notes due January 30, 2023, all of our outstanding long-term debt is comprised of unsecured fixed-rate notes. We may redeem the outstanding fixed-rate notes at any time in whole, or from time to time in part, at specified make-whole premiums as defined in the applicable form of note. We may not redeem the outstanding floating-rate notes prior to maturity. The obligations under the notes rank equally in right of payment with all of our other senior unsecured indebtedness and will effectively rank junior to all liabilities of our subsidiaries.

The effective interest rates for the notes include the interest on the notes, amortization of the discount, which includes debt issuance costs, and if applicable, adjustments related to hedging. Interest is payable in arrears quarterly for the floating-rate notes and semi-annually for the fixed-rate notes. Cash interest paid related to our commercial paper program and long-term debt, net of cash received from the related interest rate swaps, was \$491 million, \$477 million and \$507 million during fiscal 2022, 2021 and 2020, respectively.

Interest Rate Swaps. At September 25, 2022 and September 26, 2021, we had outstanding forward-starting interest rate swaps with an aggregate notional amount of \$1.6 billion and \$2.6 billion, respectively. During the third quarter of fiscal 2022, we terminated \$1 billion of swaps associated with our May 2022 Notes, and the related gains of \$123 million are being reclassified from accumulated comprehensive income as a reduction to interest expense over the terms of the related debt.

At September 25, 2022, we had outstanding interest rate swaps with an aggregate notional amount of \$2.1 billion that are designated as fair value hedges and allow us to effectively convert fixed-rate payments into floating-rate payments on a portion of our outstanding long-term debt.

Commercial Paper Program. We have an unsecured commercial paper program, which provides for the issuance of up to \$4.5 billion. Net proceeds from this program are for general corporate purposes. Maturities of commercial paper can range from 1 to up to 397 days. At September 25, 2022 and September 26, 2021, we had \$499 million and \$500 million, respectively, of outstanding commercial paper recorded as short-term debt with a weighted-average interest rate of 2.69% and 0.13%, respectively, which included fees paid to the commercial paper dealers. At September 25, 2022 and September 26, 2021, the weighted-average remaining days to maturity were 27 days and 39 days, respectively. The carrying value of the outstanding commercial paper approximated its estimated fair value at September 25, 2022.

Revolving Credit Facility. We have a Revolving Credit Facility that provides for unsecured revolving facility loans, swing line loans and letters of credit in an aggregate amount of up to \$4.5 billion, which expires on December 8, 2025. At September 25, 2022, no amounts were outstanding under the Revolving Credit Facility.

QUALCOMM Incorporated
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Debt Covenants. The Revolving Credit Facility requires that we comply with certain covenants, including that we maintain an interest coverage ratio as defined in the agreement. We are not subject to any financial covenants under the notes nor any covenants that would prohibit us from incurring additional indebtedness ranking equal to the notes, paying dividends or issuing securities or repurchasing securities issued by us or our subsidiaries. At September 25, 2022, we were in compliance with the applicable covenants under the Revolving Credit Facility.

Note 7. Commitments and Contingencies

Legal and Regulatory Proceedings.

Consolidated Securities Class Action Lawsuit: On January 23, 2017 and January 26, 2017, securities class action complaints were filed by purported stockholders of us in the United States District Court for the Southern District of California against us and certain of our then current and former officers and directors. The complaints alleged, among other things, that we violated Sections 10(b) and 20(a) of the Securities Exchange Act of 1934, as amended, and Rule 10b-5 thereunder, by making false and misleading statements and omissions of material fact in connection with certain allegations that we are or were engaged in anticompetitive conduct. The complaints sought unspecified damages, interest, fees and costs. On May 4, 2017, the court consolidated the two actions. On July 3, 2017, the plaintiffs filed a consolidated amended complaint asserting the same basic theories of liability and requesting the same basic relief. On September 1, 2017, we filed a motion to dismiss the consolidated amended complaint, and on March 18, 2019, the court denied our motion. On January 15, 2020, we filed a motion for judgment on the pleadings, which the court denied on February 3, 2022. On May 23, 2022, the plaintiffs filed a motion for class certification, and a hearing on the motion was held on October 19, 2022. The court has not yet ruled on the motion. We believe the plaintiffs' claims are without merit.

Consumer Class Action Lawsuits: Beginning in January 2017, a number of consumer class action complaints were filed against us in the United States District Courts for the Southern and Northern Districts of California, each on behalf of a putative class of purchasers of cellular phones and other cellular devices. In April 2017, the Judicial Panel on Multidistrict Litigation transferred the cases that had been filed in the Southern District of California to the Northern District of California. On July 11, 2017, the plaintiffs filed a consolidated amended complaint alleging that we violated California and federal antitrust and unfair competition laws by, among other things, refusing to license standard-essential patents to our competitors, conditioning the supply of certain of our baseband chipsets on the purchaser first agreeing to license our entire patent portfolio, entering into exclusive deals with companies, including Apple Inc., and charging unreasonably high royalties that do not comply with our commitments to standard setting organizations. The complaint sought unspecified damages and disgorgement and/or restitution, as well as an order that we be enjoined from further unlawful conduct. On July 5, 2018, the plaintiffs filed a motion for class certification, and on September 27, 2018, the court granted that motion. We appealed the district court's class certification order to the United States Court of Appeals for the Ninth Circuit (Ninth Circuit), and on September 29, 2021, the Ninth Circuit vacated the class certification order, ruling that the district court had failed to correctly assess the propriety of applying California law to a nationwide class. The Ninth Circuit remanded the case to the district court and instructed the court to consider the effect of *United States Federal Trade Commission (FTC) v. QUALCOMM Incorporated* (which the Ninth Circuit decided in favor of Qualcomm in August 2020) on this case. On June 10, 2022, the plaintiffs filed an amended complaint, limiting the proposed class to California residents rather than a nationwide class, and on August 1, 2022, we filed a motion to dismiss the amended complaint. A hearing on our motion is scheduled for November 15, 2022. We believe the plaintiffs' claims are without merit.

Since November 2017, several other consumer class action complaints have been filed against us in Canada (in the Supreme Court of British Columbia and the Quebec Superior Court), Israel (in the Haifa District Court) and the United Kingdom (in the Competition Appeal Tribunal), each on behalf of a putative class of purchasers of cellular phones and other cellular devices, alleging violations of certain of those countries' competition and consumer protection laws. The claims in these complaints are similar to those in the U.S. consumer class action complaints. The complaints seek damages. We believe the plaintiffs' claims are without merit.

ParkerVision, Inc. v. QUALCOMM Incorporated: On May 1, 2014, ParkerVision filed a complaint against us in the United States District Court for the Middle District of Florida alleging that certain of our products infringed seven ParkerVision patents. On August 21, 2014, ParkerVision amended the complaint, alleging that we infringed 11 ParkerVision patents and sought damages and injunctive and other relief. ParkerVision subsequently reduced the number of patents asserted to three. The asserted patents are now expired, and injunctive relief is no longer available. ParkerVision continues to seek damages related to the sale of many of our radio frequency (RF) products sold between 2008 and 2018. On March 23, 2022, the court entered judgment in our favor on all claims and closed the case. On April 20, 2022, ParkerVision filed a notice of appeal to the United States Court of Appeals for the Federal Circuit. We believe ParkerVision's claims are without merit.

Arm Ltd. v. QUALCOMM Incorporated: On August 31, 2022, Arm Ltd. (ARM) filed a complaint against us in the United States District Court for the District of Delaware. Our subsidiaries, Qualcomm Technologies, Inc. and NuVia, Inc. (Nuvia), are also named in the complaint. The complaint alleges that following our acquisition of Nuvia, we and Nuvia breached Nuvia's Architecture License Agreement with ARM (the Nuvia ALA) by failing to comply with the termination obligations under the Nuvia ALA. The complaint seeks specific performance, including that we cease all use of and destroy any technology that was developed under the Nuvia ALA, including processor core technology. ARM also contends that we violated the Lanham Act through trademark infringement and false designation of origin through unauthorized use of ARM's

QUALCOMM Incorporated
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

trademarks and seeks associated injunctive and declaratory relief. ARM further seeks exemplary or punitive damages, costs, expenses and reasonable attorney's fees, and equitable relief addressing any infringement occurring after entry of judgment. We believe ARM's claims are without merit.

On September 30, 2022, we filed our Answer and Counterclaim in response to ARM's complaint denying ARM's claims. Our counterclaim seeks a declaratory judgment that we did not breach the Nuvia ALA or the Technology License Agreement between Nuvia and ARM and that, following the acquisition of Nuvia, our architected cores (including all further developments, iterations or instantiations of the technology we acquired from Nuvia), server System-on-Chip (SoC) and compute SoC are fully licensed under our existing Architecture License Agreement and Technology License Agreement with ARM (the ARM-Qualcomm Agreements). We further seek an order enjoining ARM from making any claim that our products are not licensed under the ARM-Qualcomm Agreements, are not ARM-compliant or that we are prohibited from using ARM's marks in the marketing of any such products. On October 26, 2022, we filed an Amended Counterclaim seeking additional declaratory relief that certain statements ARM is making in the marketplace concerning our rights under the ARM-Qualcomm Agreements are false, and that ARM has no right to prevent us from shipping our products, which are validly licensed.

Korea Fair Trade Commission (KFTC) Investigation (2015): On March 17, 2015, the KFTC notified us that it was conducting an investigation of us relating to the Korean Monopoly Regulation and Fair Trade Act (MRFTA). On December 27, 2016, the KFTC announced that it had reached a decision in the investigation, finding that we violated provisions of the MRFTA. On January 22, 2017, we received the KFTC's formal written decision, which found that the following conducts violate the MRFTA: (i) refusing to license, or imposing restrictions on licenses for, cellular communications standard-essential patents with competing modem chipset makers; (ii) conditioning the supply of modem chipsets to handset suppliers on their execution and performance of license agreements with us; and (iii) coercing agreement terms including portfolio license terms, royalty terms and free cross-grant terms in executing patent license agreements with handset makers. The KFTC's decision orders us to: (a) upon request by modem chipset companies, engage in good-faith negotiations for patent license agreements, without offering unjustifiable conditions, and if necessary submit to a determination of terms by an independent third party; (b) not demand that handset companies execute and perform under patent license agreements as a precondition for purchasing modem chipsets; (c) not demand unjustifiable conditions in our license agreements with handset companies and, upon request, renegotiate existing patent license agreements; and (d) notify modem chipset companies and handset companies of the decision and order imposed on us and report to the KFTC new or amended agreements. According to the KFTC's decision, the foregoing will apply to transactions between us and the following enterprises: (1) handset manufacturers headquartered in Korea and their affiliate companies; (2) enterprises that sell handsets in or to Korea and their affiliate companies; (3) enterprises that supply handsets to companies referred to in (2) above and the affiliate companies of such enterprises; (4) modem chipset manufacturers headquartered in Korea and their affiliate companies; and (5) enterprises that supply modem chipsets to companies referred to in (1), (2) or (3) above and the affiliate companies of such enterprises. The KFTC's decision also imposed a fine of 1.03 trillion Korean won (approximately \$927 million), which we paid on March 30, 2017.

On February 21, 2017, we filed an action in the Seoul High Court to cancel the KFTC's decision. The Seoul High Court held hearings concluding on August 14, 2019, and on December 4, 2019, announced its judgment affirming certain portions of the KFTC's decision and finding other portions of the KFTC's decision unlawful. The Seoul High Court cancelled the KFTC's remedial orders described in (c) above, and solely insofar as they correspond thereto, the Seoul High Court cancelled the KFTC's remedial orders described in (d) above. The Seoul High Court dismissed the remainder of our action to cancel the KFTC's decision. On December 19, 2019, we filed a notice of appeal to the Korea Supreme Court challenging those portions of the Seoul High Court decision that are not in our favor. The KFTC filed a notice of appeal to the Korea Supreme Court challenging the portions of the Seoul High Court decision that are not in its favor. Both we and the KFTC have filed briefs on the merits. The Korea Supreme Court has not yet ruled on our appeal or that of the KFTC. We believe that our business practices do not violate the MRFTA.

Korea Fair Trade Commission (KFTC) Investigation (2020): On June 8, 2020, the KFTC informed us that it was conducting an investigation of us relating to the MRFTA. The KFTC has not provided a formal notice on the scope of its investigation, but we believe it concerns our business practices in connection with our sale of RFFE components. We continue to cooperate with the KFTC as it conducts its investigation. If a violation is found, a broad range of remedies is potentially available to the KFTC, including imposing a fine (of up to 3% of our sales in the relevant markets during the alleged period of violation) and/or injunctive relief prohibiting or restricting certain business practices. It is difficult to predict the outcome of this matter or what remedies, if any, may be imposed by the KFTC. We believe that our business practices do not violate the MRFTA.

Icera Complaint to the European Commission (EC): On June 7, 2010, the EC notified and provided us with a redacted copy of a complaint filed with the EC by Icera, Inc. (subsequently acquired by Nvidia Corporation) alleging that we were engaged in anticompetitive activity. On July 16, 2015, the EC announced that it had initiated formal proceedings in this matter. On July 18, 2019, the EC issued a decision finding that between 2009 and 2011, we engaged in predatory pricing by selling certain baseband chipsets to two customers at prices below cost with the intention of hindering competition and imposed a fine of approximately 242 million euros. On October 1, 2019, we filed an appeal of the EC's decision with the General Court of the European Union. The court has not yet ruled on our appeal. We believe that our business practices do not violate the European Union (EU) competition rules.

QUALCOMM Incorporated
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In the third quarter of fiscal 2019, we recorded a charge of \$275 million to other expenses related to this EC fine. We provided a financial guarantee in the first quarter of fiscal 2020 to satisfy the obligation in lieu of cash payment while we appeal the EC's decision. The fine is accruing interest at a rate of 1.50% per annum while it is outstanding and included in other current liabilities.

European Commission (EC) Investigation: On October 15, 2014, the EC notified us that it was conducting an investigation of us relating to Articles 101 and/or 102 of the Treaty on the Functioning of the European Union (TFEU). On January 24, 2018, the EC issued a decision finding that pursuant to an agreement with Apple Inc. we paid significant amounts to Apple on the condition that it exclusively use our baseband chipsets in its smartphones and tablets, reducing Apple's incentives to source baseband chipsets from our competitors and harming competition and innovation for certain baseband chipsets, and imposed a fine of 997 million euros. On April 6, 2018, we filed an appeal of the EC's decision with the General Court of the European Union. From May 4, 2021 to May 6, 2021, a hearing on our appeal was held before the court. On June 15, 2022, the court issued a ruling annulling the EC's decision in its entirety. The deadline for the EC to appeal the General Court's decision to the European Court of Justice expired in August 2022. Consequently, the case is now over.

In the first quarter of fiscal 2018, we recorded a charge of \$1.2 billion to other expenses related to this EC fine. We provided financial guarantees in the third quarter of fiscal 2018 to satisfy the obligation in lieu of cash payment while we appealed the EC's decision. The fine accrued interest at a rate of 1.50% per annum while it was outstanding. In the first quarter of fiscal 2019, we designated the liability as a hedge of our net investment in certain foreign subsidiaries, with gains and losses recorded in accumulated other comprehensive income (loss) as a component of the foreign currency translation adjustment. As a result of the General Court's ruling, in the third quarter of fiscal 2022, we recorded a \$1.1 billion benefit in other income and a \$62 million reduction in interest expense resulting from the reversal of the accrued fine and the associated interest previously recorded.

Contingent Losses and Other Considerations: We will continue to vigorously defend ourselves in the foregoing matters. However, litigation and investigations are inherently uncertain, and we face difficulties in evaluating or estimating likely outcomes or ranges of possible loss, particularly in antitrust and trade regulation investigations. Other than with respect to the EC fine related to the Icera Complaint to the European Commission, we have not recorded any accrual at September 25, 2022 for contingent losses associated with these matters based on our belief that losses, while reasonably possible, are not probable. Further, any possible amount or range of loss cannot be reasonably estimated at this time. The unfavorable resolution of one or more of these matters could have a material adverse effect on our business, results of operations, financial condition or cash flows. We are engaged in numerous other legal actions not described above arising in the ordinary course of our business (for example, proceedings relating to employment matters or the initiation or defense of proceedings relating to intellectual property rights) and, while there can be no assurance, we believe that the ultimate outcome of these other legal actions will not have a material adverse effect on our business, results of operations, financial condition or cash flows.

Indemnifications. We generally do not indemnify our customers, licensees and suppliers for losses sustained from infringement of third-party intellectual property rights. However, we are contingently liable under certain agreements to defend and/or indemnify certain customers, licensees and suppliers against certain types of liability and/or damages arising from the infringement of third-party intellectual property rights. Our obligations under these agreements may be limited in terms of time and/or amount, and in some instances, we may have recourse against third parties for certain payments made by us. Claims and reimbursements under indemnification arrangements have not been material to our consolidated financial statements. We have not recorded accruals for certain claims under indemnification arrangements based on our belief that additional liabilities, while possible, are not probable. Further, any possible range of loss cannot be reasonably estimated at this time.

Purchase Obligations. We have agreements with suppliers and other parties to purchase inventory, other goods and services and long-lived assets. Such agreements include multi-year capacity purchase commitments with certain suppliers of our integrated circuit products. Total advance payments related to multi-year capacity commitments recorded on the consolidated balance sheets at September 25, 2022 and September 26, 2021 were \$3.8 billion and \$1.7 billion, respectively, of which \$701 million and \$90 million were recorded in other current assets, respectively, and \$3.1 billion and \$1.6 billion were recorded in other assets, respectively. Integrated circuit product inventory obligations represent purchase commitments (including those under multi-year capacity purchase commitments to the extent such minimum amounts are both fixed and determinable) for raw materials, semiconductor die, finished goods and manufacturing services, such as wafer bump, probe, assembly and final test. Under our manufacturing relationships with our foundry suppliers and assembly and test service providers, cancellation of outstanding purchase commitments is generally allowed but may result in the payment of costs incurred through the date of cancellation, and in some cases, incremental fees and/or the loss of amounts paid in advance related to capacity underutilization and the failure to meet future minimum purchase volumes under multi-year capacity purchase commitments. Obligations under our purchase agreements, which primarily relate to integrated circuit product inventory obligations, at September 25, 2022 totaled \$24.5 billion of which, \$13.3 billion is expected to be paid in the next 12 months.

Operating Leases. We lease certain of our land, facilities and equipment under operating leases, with terms ranging from less than one year to 20 years, some of which include options to extend for up to 20 years. At September 25, 2022 and September 26, 2021, the weighted-average remaining lease term for operating leases were eight years and seven years, respectively. Operating lease expense for fiscal 2022, 2021 and 2020 was \$207 million, \$203 million and \$181 million,

QUALCOMM Incorporated
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

respectively. At September 25, 2022, other assets included \$631 million of operating lease assets, with corresponding lease liabilities of \$104 million recorded in other current liabilities and \$573 million recorded in other liabilities. At September 26, 2021, other assets included \$513 million of operating lease assets, with corresponding lease liabilities of \$126 million recorded in other current liabilities and \$428 million recorded in other liabilities.

At September 25, 2022, future lease payments under our operating leases were as follows (in millions):

	September 25, 2022
2023	\$ 129
2024	114
2025	92
2026	87
2027	83
Thereafter	358
Total future lease payments	863
Imputed interest	(186)
Total lease liability balance	\$ 677

Note 8. Segment Information

We are organized on the basis of products and services and have three reportable segments. Our operating segments reflect the way our businesses and management/reporting structure are organized internally and the way our Chief Operating Decision Maker (CODM), who is our CEO, reviews financial information, makes operating decisions and assesses business performance. We also consider, among other items, the way budgets and forecasts are prepared and reviewed and the basis on which executive compensation is determined, as well as the similarities and the level of centralized resource planning within our operating segments, such as the nature of products, the level of shared products, technology and other resources, production processes and customer base. We conduct business primarily through our QCT semiconductor business and our QTL licensing business. QCT develops and supplies integrated circuits and system software based on 3G/4G/5G and other technologies, including RFFE, for use in mobile devices; automotive systems for connectivity, digital cockpit and ADAS/AD; and IoT including consumer electronic devices; industrial devices; and edge networking products. QTL grants licenses or otherwise provides rights to use portions of our intellectual property portfolio, which includes certain patent rights essential to and/or useful in the manufacture and sale of certain wireless products. Our QSI (Qualcomm Strategic Initiatives) reportable segment makes strategic investments. We also have nonreportable segments, including QGOV (Qualcomm Government Technologies) and our cloud AI inference processing initiative.

Our CODM allocates resources to and evaluates the performance of our segments based on revenues and earnings (loss) before income taxes (EBT). Segment EBT includes the allocation of certain corporate expenses to the segments, including depreciation and amortization expense related to unallocated corporate assets. Certain income and charges are not allocated to segments in our management reports because they are not considered in evaluating the segments' operating performance. Unallocated income and charges include certain interest expense, certain net investment income, certain share-based compensation, gains and losses on our deferred compensation plan liabilities and related assets and certain research and development expenses, certain selling, general and administrative expenses and other expenses or income that were deemed to be not directly related to the businesses of the segments. Additionally, unallocated charges include recognition of the step-up of inventories and property, plant and equipment to fair value, amortization of certain intangible assets and certain other acquisition-related charges, third-party acquisition and integration services costs and certain other items, which may include major restructuring and restructuring-related costs, asset impairment charges and awards, settlements and/or damages arising from legal or regulatory matters. Our CODM does not evaluate our operating segments using discrete asset information.

QUALCOMM Incorporated
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The table below presents revenues and EBT for reportable segments (in millions):

	2022	2021	2020
Revenues:			
QCT	\$ 37,677	\$ 27,019	\$ 16,493
QTL	6,358	6,320	5,028
QSI	31	45	36
Reconciling items	134	182	1,974
Total	<u>\$ 44,200</u>	<u>\$ 33,566</u>	<u>\$ 23,531</u>
EBT:			
QCT	\$ 12,837	\$ 7,763	\$ 2,763
QTL	4,628	4,627	3,442
QSI	(279)	916	(11)
Reconciling items	(2,188)	(3,032)	(475)
Total	<u>\$ 14,998</u>	<u>\$ 10,274</u>	<u>\$ 5,719</u>

The net book value of long-lived tangible assets located outside of the U.S. was \$3.5 billion and \$2.9 billion at September 25, 2022 and September 26, 2021, respectively. The net book value of long-lived tangible assets located in the U.S. was \$2.3 billion and \$2.2 billion at September 25, 2022 and September 26, 2021, respectively.

We report revenues from external customers by country based on the location to which our products or services are delivered, which for QCT is generally the country in which our customers manufacture their products, and for licensing revenues, the invoiced addresses of our licensees. As a result, the revenues by country presented herein are not necessarily indicative of either the country in which the devices containing our products and/or intellectual property are ultimately sold to consumers or the country in which the companies that sell the devices are headquartered. For example, China revenues could include revenues related to shipments of integrated circuits for a company that is headquartered in South Korea but that manufactures devices in China, which devices are then sold to consumers in Europe and/or the United States. Revenues by country were as follows (in millions):

	2022	2021	2020
China (including Hong Kong)	\$ 28,119	\$ 22,512	\$ 14,001
Vietnam	6,063	3,114	2,212
South Korea	3,164	2,368	2,964
United States	1,482	1,406	1,129
Other foreign	5,372	4,166	3,225
	<u>\$ 44,200</u>	<u>\$ 33,566</u>	<u>\$ 23,531</u>

QUALCOMM Incorporated
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Reconciling items for revenues and EBT in a previous table were as follows (in millions):

	2022	2021	2020
Revenues:			
Nonreportable segments	\$ 134	\$ 128	\$ 133
Unallocated revenues (Note 2)	—	54	1,841
	<u>\$ 134</u>	<u>\$ 182</u>	<u>\$ 1,974</u>
EBT:			
Unallocated revenues (Note 2)	\$ —	\$ 54	\$ 1,841
Unallocated cost of revenues	(266)	(277)	(340)
Unallocated research and development expenses	(1,767)	(1,820)	(1,046)
Unallocated selling, general and administrative expenses	(609)	(538)	(401)
Unallocated other income (Note 2)	1,059	—	28
Unallocated interest expense	(490)	(559)	(599)
Unallocated investment and other (expense) income, net	(91)	166	105
Nonreportable segments	(24)	(58)	(63)
	<u>\$ (2,188)</u>	<u>\$ (3,032)</u>	<u>\$ (475)</u>

Certain revenues were not allocated to our segments in our management reports because they were not considered in evaluating segment results. Unallocated revenues in fiscal 2021 were comprised of the release of a variable constraint against revenues not previously allocated to our segment results. Unallocated revenues in fiscal 2020 were comprised of licensing revenues from Huawei resulting from the settlement agreement signed in July 2020 and royalties for sales made in the March 2020 and June 2020 quarters under a new global patent license agreement signed in July 2020.

Note 9. Acquisitions

Nuvia. On March 16, 2021, we completed the acquisition of Nuvia for \$1.1 billion (net of \$174 million cash acquired), substantially all of which was paid in cash. In connection with the acquisition, we assumed or replaced unvested Nuvia stock awards with Qualcomm stock awards with an estimated fair value of \$258 million, which have post-acquisition requisite service periods of up to four years. At the time of the acquisition, Nuvia had certain in-process technologies and was comprised of a CPU (central processing unit) and technology design team with expertise in high performance processors, SoC and power management for compute-intensive devices and applications. Upon completion of development, Nuvia's technologies are expected to be integrated into certain QCT products. We recorded \$885 million of goodwill, which is not deductible for tax purposes and was allocated to our QCT segment for annual impairment testing purposes. Goodwill is primarily attributable to assembled workforce and certain revenue and cost synergies expected to arise after the acquisition. We also recorded a \$247 million in-process research and development intangible asset related to a single project, which is expected to be completed in fiscal 2023 and, upon completion, will be amortized over its useful life, which is expected to be seven years. Our results of operations for fiscal 2021 included the operating results of Nuvia since the acquisition date, the amounts of which were not material.

Veoneer. On October 4, 2021, we and SSW Partners, a New York-based investment partnership, entered into a definitive agreement to acquire Veoneer, Inc. (Veoneer). The transaction closed on April 1, 2022 (the Closing Date). Total cash consideration paid in the transaction was \$4.7 billion, consisting of (i) \$4.6 billion paid in respect of Veoneer's outstanding capital stock and equity awards and amounts paid to settle Veoneer's convertible senior notes (which were converted at the election of the note holders and settled in cash in the third quarter of fiscal 2022) and (ii) a \$110 million termination fee paid to Magna International Inc. (Magna) in the first quarter of fiscal 2022. We funded substantially all of the cash consideration payable in the transaction in exchange for (i) the Arriver business (which SSW transferred to us shortly after the Closing Date) and (ii) the right to receive a majority of the proceeds upon the sale of the Non-Arriver businesses by SSW Partners. We intend to incorporate Arriver's computer vision, drive policy and driver assistance technologies into our Snapdragon automotive platform to deliver an integrated software SoC ADAS platform for automakers and Tier-1 automotive suppliers. SSW Partners retained Veoneer's Tier-1 automotive supplier businesses, primarily consisting of the Active Safety and Restraint Control Systems businesses (the Non-Arriver businesses), which it intends to sell in one or more transactions.

We have agreed to provide certain funding of approximately \$300 million to the Non-Arriver businesses while SSW Partners seeks a buyer(s), of which approximately \$150 million of funding remained available to the Non-Arriver businesses at September 25, 2022. Such amounts, along with cash retained in the Non-Arriver business, are expected to be used to fund working and other near-term capital needs, as well as certain costs incurred in connection with the close of the acquisition.

Although we do not own or operate the Non-Arriver businesses, we have determined that we are the primary beneficiary, within the meaning of the Financial Accounting Standards Board (FASB) accounting guidance related to consolidation (ASC 810), of these businesses under the variable interest model. Factors considered in reaching this conclusion included, among others: (i) our involvement in the design of and our funding of substantially all of the total cash consideration payable in the

QUALCOMM Incorporated
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

transaction and (ii) our obligations to absorb losses and rights to receive returns from the Non-Arriver businesses. We expect that SSW Partners will complete the sale of the Non-Arriver businesses within fiscal 2023, subject to any required regulatory approvals and other closing conditions being met. Accordingly, the assets and liabilities of the Non-Arriver businesses are consolidated and presented as held for sale on our balance sheet, and the operating results are presented as discontinued operations.

Our accounting purchase price was approximately \$4.3 billion, substantially all of which relates to our share of cash consideration at close for the outstanding common shares of Veoneer and the Magna termination fee and excludes Veoneer's convertible senior notes that are reflected as an assumed liability. We have finalized the purchase price allocation, except for certain tax matters. Accordingly, the preliminary purchase price allocation shown below could change during the remainder of the measurement period (which will not exceed 12 months from the Closing Date). The preliminary allocation of the purchase price to the assets acquired and liabilities assumed based on their fair values was as follows (in millions):

Cash	\$	30
Current held for sale assets, net of costs to sell (1)		626
Completed technology-based intangible assets		349
In-process research and development (IPR&D)		298
Goodwill		2,789
Noncurrent held for sale assets (1)		1,186
Other assets		333
Total assets		5,611
Current held for sale liabilities (1)		(677)
Convertible senior notes		(352)
Noncurrent held for sale liabilities (1)		(128)
Other liabilities		(203)
Total liabilities		(1,360)
Net assets acquired	\$	4,251

(1) Held for sale assets and liabilities relate to the Non-Arriver businesses and were measured at fair value less costs to sell (including SSW Partners' estimated return with respect to the sale proceeds of the Non-Arriver businesses), which was estimated using a market approach based on significant inputs that were not observable. In the fourth quarter of fiscal 2022, we finalized and adjusted the valuation of the Non-Arriver businesses by \$229 million and recorded an offsetting adjustment to decrease goodwill for this amount. The Non-Arriver businesses' assets are not available to be used to settle our obligations, and the Non-Arriver businesses' creditors do not have recourse to us. SSW Partners owns and operates the Non-Arriver businesses, and its funding of the purchase price for Veoneer was recorded as a component of held for sale liabilities. The underlying classes of assets and liabilities held for sale have not been presented because such amounts are not material.

Goodwill related to this transaction was allocated to our QCT segment, and \$471 million of which is expected to be deductible for tax purposes. Goodwill is primarily attributable to assembled workforce and certain synergies expected to arise after the acquisition. Completed technology-based intangible assets are being amortized on a straight-line basis over the weighted-average useful life of nine years. IPR&D relates to a single project that is expected to be completed in fiscal 2025. Upon completion, we expect the IPR&D to be amortized over its useful life of seven years. We valued the completed technology and IPR&D using an income approach based on significant unobservable inputs.

Since the Closing Date, the operating results of the Arriver and Non-Arriver businesses were initially reported on a one quarter lag. During the fourth quarter of fiscal 2022, we eliminated the one-quarter reporting lag previously used to consolidate the Arriver business to provide contemporaneous reporting within our consolidated financial statements, which we believe is preferable. The effect of this change was not material to our consolidated financial statements, and the impact of eliminating the one quarter reporting lag has been included in our operating results in the fourth quarter of fiscal 2022. The Non-Arriver businesses are presented as discontinued operations and remain on a one quarter reporting lag. Pro forma results of operations have not been presented because the effects of this acquisition were not material to our consolidated results of operations. The cash flows generated from (used by) the Non-Arriver businesses are reflected as discontinued operations and are classified as operating, investing and financing activities in the consolidated statements of cash flows. Investing and financing activities from discontinued operations reported in fiscal 2022 were not material.

Other. During fiscal 2022, we acquired eight other businesses for a total accounting purchase price of \$792 million. We recognized \$202 million of intangible assets (which primarily relate to completed technology) that will be amortized on a straight-line basis over a weighted-average useful life of six years. Substantially all of the goodwill recognized in these transactions of \$598 million was allocated to our QCT segment.

QUALCOMM Incorporated
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 10. Fair Value Measurements

The following table presents our fair value hierarchy for assets and liabilities measured at fair value on a recurring basis at September 25, 2022 (in millions):

	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents	\$ 922	\$ 198	\$ —	\$ 1,120
Marketable securities:				
Corporate bonds and notes	—	3,330	—	3,330
Equity securities	164	—	—	164
Mortgage- and asset-backed securities	—	99	—	99
U.S. Treasury securities and government-related securities	—	16	—	16
Total marketable securities	164	3,445	—	3,609
Derivative instruments	—	271	—	271
Other investments	613	—	15	628
Total assets measured at fair value	\$ 1,699	\$ 3,914	\$ 15	\$ 5,628
Liabilities:				
Derivative instruments	\$ —	\$ 346	\$ —	\$ 346
Other liabilities	612	—	—	612
Total liabilities measured at fair value	\$ 612	\$ 346	\$ —	\$ 958

Note 11. Marketable Securities

Our marketable securities were all classified as current and were comprised as follows (in millions):

	September 25, 2022	September 26, 2021
Available-for-sale debt securities:		
Corporate bonds and notes	\$ 3,330	\$ 4,459
Mortgage- and asset-backed securities	99	147
U.S. Treasury securities and government-related securities	16	10
Total available-for-sale debt securities	3,445	4,616
Equity securities	164	682
Total marketable securities	\$ 3,609	\$ 5,298

The contractual maturities of available-for-sale debt securities were as follows (in millions):

	September 25, 2022
Years to Maturity:	
Less than one year	\$ 994
One to five years	2,352
No single maturity date	99
Total	\$ 3,445

Debt securities with no single maturity date included mortgage- and asset-backed securities.

SCHEDULE II
QUALCOMM Incorporated
VALUATION AND QUALIFYING ACCOUNTS

The table below details the activity of the valuation allowance on deferred tax assets for fiscal 2022, 2021 and 2020 (in millions):

	Balance at Beginning of Period	Charged to Costs and Expenses	Other	Balance at End of Period
Year ended September 25, 2022	\$ 1,926	\$ 278	\$ 19	\$ 2,223
Year ended September 26, 2021	1,728	197	1	1,926
Year ended September 27, 2020	1,672	60	(4)	1,728