

In this document, the words “Qualcomm,” “we,” “our,” “ours” and “us” refer only to QUALCOMM Incorporated and its subsidiaries and not any other person or entity.

## PART I

### Item 1. Business

This Annual Report (including, but not limited to, the following section regarding Management’s Discussion and Analysis of Financial Condition and Results of Operations) contains forward-looking statements regarding our business, financial condition, results of operations and prospects. Words such as “expects,” “anticipates,” “intends,” “plans,” “believes,” “seeks,” “estimates” 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 the development of new products, enhancements or technologies, sales levels, expense levels and other statements regarding matters that are not historical are 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 the heading “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.

We incorporated in 1985 under the laws of the state of California. In 1991, we reincorporated in the state of Delaware. We operate and report using a 52-53 week fiscal year ending the last Sunday in September. Our 52-week fiscal years consist of four equal 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. The fiscal year ended September 30, 2012 included 53 weeks. The fiscal years ended September 25, 2011 and September 26, 2010 both included 52 weeks.

### Overview

In 1989, we publicly introduced the concept that a digital communication technique called CDMA could be commercially successful in cellular wireless communication applications. CDMA stands for Code Division Multiple Access and is one of the main technologies currently used in digital wireless communications networks (also known as wireless networks). CDMA and TDMA (Time Division Multiple Access), of which Global System for Mobile Communications (GSM) is the primary commercial form, are the primary digital technologies currently used to transmit a wireless device user’s voice or data over radio waves using a public cellular wireless network. Because we led, and continue to lead, the development and commercialization of CDMA technology, we own significant intellectual property, including patents, patent applications and trade secrets, which applies to all versions of CDMA that we implement in our own products and portions of which we license to other companies. The wireless communications industry generally recognizes that a company seeking to develop, manufacture and/or sell products that use CDMA technology will require a patent license from us.

We also continue our leading role in the development and commercialization of Orthogonal Frequency Division Multiple Access (OFDMA)-based technologies for which we have substantial intellectual property. Sales of multimode CDMA and LTE (which stands for "Long Term Evolution" and is an OFDMA-based standard for cellular wireless communication applications) subscriber devices have grown significantly during the past year. Our CDMA licensees’ sales of such multimode CDMA and OFDMA devices are covered by their existing CDMA license agreements with us. We have also licensed companies to make and sell OFDMA products that do not also implement CDMA, and more than 30 companies (including LG, Nokia and Samsung) have royalty-bearing licenses under all or a portion of our patent portfolio for use in such OFDMA single-mode products.

**Our Revenues.** We generate revenues by selling products and services, which include:

- integrated circuits (also known as chips or chipsets) and Radio Frequency (RF) and Power Management (PM) chips and system software used in mobile devices and in wireless networks;
- integrated circuits for use in wired devices, particularly broadband gateway equipment, desktop computers, televisions and Blu-ray players;

- equipment, software and services used by companies, including those in the transportation industry and governments, to wirelessly manage their assets and workforce;
- software products and services for content enablement across a wide variety of platforms and devices for the wireless industry;
- software products and services that enable mobile commerce services; and
- software and hardware development services.

We also generate revenues by licensing 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 Integrated Circuits Business.** We develop and supply integrated circuits and system software based on CDMA, OFDMA and other technologies for use in voice and data communications, networking, application processing, multimedia and global positioning system products. Our integrated circuit products and system software are sold to and/or licensed to manufacturers that use our products in wireless devices, particularly mobile phones, tablets, laptops, data modules, handheld wireless computers and gaming devices, access points and routers, data cards and infrastructure equipment, and in wired devices, particularly broadband gateway equipment, desktop computers, televisions and Blu-ray players. The Mobile Station Modem (MSM) integrated circuits, which include the Mobile Data Modem, Qualcomm Single Chip and Qualcomm Snapdragon processor-based devices, perform the core baseband modem functionality in wireless devices providing voice and data communications, as well as multimedia applications and global positioning functions. In addition, our Snapdragon processors provide advanced application and graphics processing capabilities. Our system software enables the other device components to interface with the integrated circuit products and is the foundation software enabling manufacturers to develop devices utilizing the functionality within the integrated circuits. Our infrastructure equipment Cell Site Modem (CSM) integrated circuits and system software perform wireless standards-compliant processing of voice and data signals in the wireless operator's base station equipment to and from wireless devices. Because of our experience in designing and developing CDMA- and OFDMA-based products, we not only design the baseband integrated circuit, but the supporting system as well, including the RF devices, PM devices and accompanying software products. This approach enables us to optimize the performance of the wireless device with improved product features and integration with the network system. We also provide support, including reference designs and tools, to enable our customers to reduce the time required to design their products and bring their products to market faster. We plan to add additional features and capabilities to our integrated circuit products to help our customers reduce the cost and size of their products, to simplify our customers' design processes and to enable more wireless devices and services.

**Our Licensing Business.** Our patent portfolio includes certain patent rights essential to and/or useful in the manufacture and sale of certain wireless products. We grant licenses to use portions of our intellectual property portfolio to manufacturers of wireless products, such as mobile devices, also known as subscriber units, which include handsets, other consumer devices (e.g., tablets, personal computers, e-readers), machine-to-machine devices (e.g., telematics devices, meter reading devices) and data modem cards, the infrastructure equipment required to establish and operate a network, and equipment to test networks and subscriber units. In partial consideration for such licenses, we collect fixed license fees (payable in one or more installments) and ongoing royalties on products sold by our licensees that incorporate our patented technologies.

**Our Asset Tracking and Services Business.** We design, manufacture and sell equipment, license software and provide services to our customers to manage their assets, products and workforce. We offer satellite- and terrestrial-based two-way wireless information and position location services to transportation and logistics fleets to enable our customers to track the location and monitor the performance of their assets and to deliver and collect data with their personnel.

**Our Wireless Device Software and Related Services Business.** We provide software products and services for the global wireless industry. Our Brew products and services enable wireless operators, device manufacturers and software developers to provide over-the-air and pre-loaded wireless applications and services. Our Plaza products and services enable wireless operators, device manufacturers and publishers to create and distribute mobile content across a variety of platforms and devices. We also offer Xiam wireless content discovery and recommendation products to help wireless operators improve usage and adoption of digital content and services and QChat, a push to talk product optimized for third generation (3G) networks.

**Our Mobile Commerce Business.** In fiscal 2012, we began a pilot of a new product application trademarked as Pay, which is marketed on a standalone basis to quick serve restaurants and retailers. The Pay service enables consumers to make payments to quick serve restaurants and retailers on their mobile devices at the point of sale.

**Our Other Businesses.** We continue to invest in display and other product and services initiatives. We intend to license our next generation interferometric modulator (IMOD) display technology in the future, while we continue to develop and directly commercialize only certain IMOD consumer-targeted mobile products. Our IMOD display technology, based on a micro-electro-mechanical-systems (MEMS) structure combined with thin film optics, is intended to provide performance and power consumption benefits as compared to other display technologies.

## Wireless Communications Industry

Use of wireless telecommunications devices has increased dramatically in the past decade. According to Wireless Intelligence estimates as of November 5, 2012, the number of worldwide mobile connections is expected to reach approximately 6.6 billion by the end of 2012 and approximately 8.3 billion by 2016. Growth in the early days of wireless communications was driven by the need to make voice calls in a mobile environment. More recently, increases in demand are primarily driven by the desire to have access to high-speed data services in a mobile environment. This is evidenced by the widespread deployments of 3G (third generation) across the globe and strong traction for 4G (fourth generation). Each generation has enabled successively higher data transmission rates. According to Wireless Intelligence estimates, the number of global 3G/4G connections reached 1.9 billion and is expected to reach approximately 4.0 billion in 2016. (3G/4G includes 3G, 4G and multimode 3G/4G technologies.) There are several drivers for the growth in 3G/4G, including but not limited to:

- consumer awareness and desire for data services;
- consumer demand for data-centric smartphone devices;
- emergence of new data devices;
- mature 3G networks with high data rates;
- deployments of higher-data rate 4G in developed regions; and
- growth of 3G in emerging regions.

The last few years have witnessed a significant increase in the consumer's awareness and willingness to use mobile data services. Applications such as email, access to the mobile Internet, downloading of videos and social networking are driving the demand for 3G/4G services and more capable devices.

According to reports from the CDMA Development Group and the Global mobile Suppliers Association (GSA), as of November 2012, approximately 800 wireless networks now support 3G globally, a sign that wireless operators are making network investments to address the growing demand for wireless data. Wireless operators are continuing to make network investments by upgrading their networks. According to GSA, all of the global WCDMA operators have upgraded their networks to offer High Speed Packet Access (HSPA) services, and 50% of HSPA operators have launched HSPA+, an evolution of HSPA. GSA also reports that more than 110 commercial networks support 4G LTE (Long Term Evolution). With support for higher data rates and increased capacity, networks are expected to evolve to keep up with the growing demand for wireless data.

The mobile Internet is helping increase demand for 3G/4G smartphones as the ability to access data is simplified and enhanced when using a smartphone. In the early days of the smartphone, these devices were designed primarily for high-end business users. However, innovation and competition are helping to make available a broader set of devices that provide compelling user experiences at consumer acceptable price points, which make such devices more accessible by a larger portion of the subscriber base.

The need to stay connected anywhere, anytime is helping drive demand for data connectivity on notebook and netbook computers with either embedded 3G/4G connectivity or via an external 3G/4G USB modem. New device categories, such as tablets and e-readers, have also emerged over the last few years. These new devices take advantage of the capabilities of 3G/4G networks to browse the mobile Internet, and download applications, digital books, newspapers and magazines anywhere. Other emerging device categories, such as machine-to-machine communication (allowing both wireless and wired systems to communicate with other devices), gaming consoles and other consumer electronic devices, are also expected to help further drive global demand for 3G/4G.

Demand for wireless voice and data services in emerging regions is driving the rapid transition from 2G (second generation) to 3G. 3G network technology provides an efficient way for wireless operators to offer both voice and data services to address these demands, and since fixed broadband penetration is very low in these regions, 3G presents a cost effective means of providing broadband capabilities to consumers.

## Wireless Technologies

The significant growth in the use of wireless devices worldwide, such as smartphones and tablets, and demand for data services and applications requires constant innovation to further improve the user experience, expand capacity and enable dense deployments of low power nodes, such as picocells and femtocells. To meet these requirements, progressive generations of wireless communications technology standards have evolved. The wireless standards used for mobile communications within individual countries are generally determined by the telecommunication service providers operating in those countries and, in some instances, local government regulations. Such determinations are typically based on economic criteria and the service

provider's evaluation of each technology's ability to provide the features and functionality required for its business plan. More than two decades ago, the European Community developed regulations requiring the use of the GSM standard, a TDMA-based, 2G technology. In addition, several versions of CDMA technology were adopted worldwide as public cellular standards. The first version, known as cdmaOne, is a 2G cellular technology that was first commercially deployed in the mid-1990s. The other subsequent versions of CDMA are referred to as 3G technologies.

**Second Generation.** Compared to first generation analog systems, 2G digital technology provided for significantly enhanced efficiency within a fixed spectrum, resulting in greatly increased voice capacity. 2G technologies also enabled numerous enhanced services, such as SMS texting service, but data services were generally limited to low-speed transmission rates. The main 2G digital cellular technologies in use today are called cdmaOne, a form of CDMA and a technology largely developed and patented by us, and GSM, a form of TDMA. Many GSM operators deployed 2G mobile packet data technologies, such as General Packet Radio Service (GPRS) and Enhanced Data Rates for Global Evolution (EDGE) in areas serviced by GSM. According to Wireless Intelligence estimates as of November 5, 2012, there were approximately 4.5 billion 2G connections worldwide, representing approximately 70% of total wireless connections.

**Third Generation.** As a result of demand for wireless networks that simultaneously carry both high-speed data and voice traffic, the International Telecommunications Union (ITU), a standards setting organization, adopted the 3G standard known as IMT-2000, encompassing six terrestrial operating radio interfaces, each of which incorporates our intellectual property. Two are TDMA-based, three are CDMA-based and the other is OFDMA-based. The three CDMA-based 3G technologies are known commonly throughout the wireless industry as:

- CDMA2000, including 1X (including revisions A through E) and 1xEV-DO (EV-DO or Evolution Data Optimized) (including revisions A through C, developed by 3<sup>rd</sup> Generation Partnership Project Two (3GPP2)) (all of these use the Frequency Division Duplex (FDD) method);
- Wideband CDMA (WCDMA), also known as Universal Mobile Telecommunications Systems (UMTS), including High Speed Packet Access (HSPA), part of 3<sup>rd</sup> Generation Partnership Project (3GPP) Releases 5 and 6, and HSPA+, part of 3GPP Releases 7, 8, 9, 10, 11, 12 and beyond (all of these use the FDD method); and
- CDMA Time Division Duplex (TDD), of which there are currently two versions, Time Division Duplex-CDMA (TD-CDMA) and Time Division-Synchronous CDMA (TD-SCDMA). Both are part of the specifications developed by 3GPP.

According to Wireless Intelligence estimates, there were approximately 1.8 billion 3G worldwide connections, representing approximately 29% of total wireless connections. Some of the advantages of 3G CDMA technology over 2G technologies include increased network capacity, improved user experience, higher capacity for data and faster access to data and higher data throughput rates. CDMA2000 and WCDMA are widely deployed today in wireless networks throughout the world. TD-SCDMA has been deployed in China. EV-DO Revision B in the CDMA2000 family was launched in 2010; Release 7 of HSPA+ was launched in 2009; and Release 8 of HSPA+ was launched in 2010. HSPA+ continues to evolve, even as 4G technologies are beginning to be deployed. HSPA+ Release 8 introduced multicarrier operation, which aggregates multiple channels to offer wider bandwidths, supporting 10 MHz of bandwidth in Release 8 and up to 40 MHz in Release 11. 3GPP is making plans to develop specifications for Release 12. There have been widespread developments of Release 8 networks around the world in 2011 and 2012. The various revisions of the 3G CDMA specifications have significantly increased network performance capacity and data speeds. It is expected that future revisions of the 3G CDMA specifications will provide further enhancements.

CDMA2000 (1X, 1xEV-DO, EV-DO Revision A/B) networks are deployed by wireless operators that support both voice and a wide range of high-speed wireless data services. Enhancements based upon CDMA2000 Revision E Standard, called 1X Advanced, further increases voice capacity of CDMA2000 1X networks. The standardization for 1X Advanced is complete, devices supporting the technology are available and network deployments are in process. Another set of enhancements based upon 1xEV-DO Revision C, also called DO Advanced, improve the performance of 1xEV-DO Revision A/B networks. The first phase of DO Advanced is deployed in commercial networks. Enhancements based upon these updated standards and improved implementations have been and will continue to be deployed in our products and wireless networks to increase capacity and data rates.

GSM operators around the world, including those in the European Community and in the United States, have focused primarily on the UMTS Frequency Division Duplex (FDD) radio interface of the IMT-2000 standard, known as WCDMA, for their network evolution. WCDMA is based on our CDMA technology and incorporates many of our patented inventions (as do all of the CDMA and OFDMA radio interfaces of the IMT-2000 standard). The majority of the world's wireless device and infrastructure manufacturers (more than 145 and including all leading suppliers) have licensed our technology for use in WCDMA products, enabling them to utilize this WCDMA mode of the 3G standards.

The three ITU 3G CDMA radio interfaces are all based on the core principles of CDMA technology, and our intellectual property rights include a valuable patent portfolio essential to implementation of each of the 3G CDMA standards. In addition,

our patent portfolio includes technologies that contribute to commercially successful product implementations. Generally, we have licensed substantially all of our relevant patents to our CDMA subscriber and infrastructure equipment licensees.

These 3G CDMA versions (CDMA2000, WCDMA and TD-SCDMA) require separate implementations that are not interchangeable. While the fundamental core technologies are derived from CDMA and, in addition to other features and functionality, are covered by our patents, their specifications each require unique infrastructure products, network design, air interface protocols and management. However, subscriber roaming amongst systems using different air interfaces is made possible through multimode wireless subscriber devices.

**Fourth Generation.** Release 10 of 3GPP's Long Term Evolution (LTE), the predominant global OFDMA-based standard, and 802.16m, an upgrade of IEEE 802.16e (WiMAX or Worldwide Interoperability for Microwave Access), have both been approved by the ITU to become what are called IMT-Advanced technologies. Release 10 of LTE and WiMAX 802.16m support additional features, wider bandwidths and higher data rates than previous versions of these OFDMA air interfaces, which are part of IMT-2000. There is no uniform industry agreement on the 4G definition; 4G is now broadly used to include OFDMA technologies that are part of the ITU's IMT (IMT-2000 and IMT-Advanced) standards and has also been used in marketing campaigns by certain carriers for the 3G WCDMA evolution to HSPA+. Since LTE typically will be overlaid over existing 3G networks, seamless interoperability with 3G (including all CDMA-based 3G technologies) has been standardized by 3GPP and 3GPP2. The first deployments of LTE have been based on Release 8, formally a part of the 3G IMT-2000 standard. According to Wireless Intelligence estimates, the total number of global 4G LTE connections reached approximately 40 million and is expected to reach approximately 560 million in 2016.

WiMAX 802.16e was deployed ahead of LTE and targeted unpaired spectrum using a TDD radio interface. LTE supports both paired spectrum, using LTE FDD, and unpaired spectrum, using LTE TDD, and is able to address many of the unpaired spectrum bands targeted by WiMAX. Compared to WiMAX, LTE is expected to achieve greater economy of scale through its interoperability with 3G. Certain wireless operators have selected WiMAX because of regulatory considerations specific to their networks and spectrum holdings. Many WiMAX operators have announced that they are planning to move to LTE TDD.

For over ten years, we have pursued research and development of OFDMA-based wireless communication technologies, and, as a result, have developed and acquired significant related intellectual property. Accordingly, we believe that each of the OFDMA-based 4G standards incorporates our patented technologies. More than 30 companies (including LG, Nokia and Samsung) have entered into royalty-bearing license agreements under our patent portfolio for use in OFDMA products that do not also implement CDMA-based standards. Multimode products that implement both OFDMA and CDMA technologies will, in most cases, be licensed under our existing CDMA license agreements.

**Our Engineering Resources.** We have significant engineering resources, including engineers with substantial expertise in CDMA, OFDMA and a broad range of other technologies. Using these engineering resources, we expect to continue to develop new versions of CDMA, OFDMA and other technologies, develop alternative technologies for certain specialized applications, participate in the formulation of new voice and data communication standards and technologies and assist in deploying digital voice and data communications networks around the world.

**Investments in New and Existing Products, Services and Technologies.** We continue to invest in research and development in a variety of ways in an effort to extend the demand for our products and services.

We develop, commercialize and actively support 3G CDMA-based technologies, as well as OFDMA-based LTE technologies, products and network operations, to grow our royalty revenues and integrated circuit and related software revenues. From time to time, we may also make acquisitions to meet certain technology needs, to obtain development resources or to pursue new business opportunities.

We develop on our own, and with our partners, innovations that are integrated into our product portfolio to further expand the opportunity for wireless 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 make investments to provide our integrated circuit customers with chipsets designed on leading-edge technology nodes that combine multiple technologies for use in consumer devices, including smartphones, consumer electronics and other data devices. In addition to 3G and 4G LTE technologies, our chipsets support other wireless and wired connectivity technologies including Wireless Local Area Network (WLAN), Bluetooth, Ethernet, Global Positioning System (GPS), Global Navigation Satellite System (GLONASS), Powerline Communication, Passive Optical Networking, Ethernet-over-Coax (EoC) and Ethernet Switching. 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 pieces of technology. We continue to support Android, Windows Phone/RT and other mobile client software environments in our chipsets.

We continue to develop our interferometric modulator (IMOD) and other display technologies. We intend to license our next generation IMOD display technology in the future, while we continue to develop and directly commercialize only certain

IMOD consumer-targeted mobile products. Our IMOD display technology, based on a micro-electro-mechanical-systems (MEMS) structure combined with thin film optics, is intended to provide performance and power consumption benefits as compared to other display technologies.

We make investments in the development of technologies to address the growth of mobile data traffic, including 3G/LTE and Wi-Fi products designed for implementation of small cells, which can be used by carriers to extend the capacity of licensed and unlicensed wireless spectrum.

We make strategic investments that we believe open new opportunities for our technology, support the design and introduction of new products and services and/or possess unique capabilities or technology. To the extent that such investments become liquid and meet our strategic objectives, we intend to make regular periodic sales of our interests in these investments that are recognized in net investment income.

#### **Revenue Concentrations, Significant Customers and Geographical Information**

Consolidated revenues from international customers and licensees as a percentage of total revenues were 95%, 94% and 95% in fiscal 2012, 2011 and 2010, respectively. During fiscal 2012, 42%, 22% and 14% of our revenues were from customers and licensees based in China, South Korea and Taiwan, respectively, as compared to 32%, 19% and 17% during fiscal 2011, respectively, and 29%, 27% and 12% during fiscal 2010, respectively.

A small number of customers/licensees historically have accounted for a significant portion of our consolidated revenues. In fiscal 2012, 2011 and 2010, revenues from Samsung Electronics constituted more than 10% of consolidated revenues. In addition, in fiscal 2012, revenues from Hon Hai Precision Industry Co., Ltd./Foxconn, its affiliates and other suppliers to Apple Inc. constituted more than 10% of consolidated revenues; in fiscal 2011, revenues from HTC constituted more than 10% of consolidated revenues; and in fiscal 2010, revenues from LG Electronics constituted more than 10% of consolidated revenues.

#### **Operating Segments**

**QCT Segment.** QCT is a leading developer and supplier of integrated circuits and system software based on CDMA, OFDMA and other technologies for use in voice and data communications, networking, application processing, multimedia and global positioning system products. QCT's integrated circuit products and system software are sold to or licensed to manufacturers that use our products in wireless devices, particularly mobile phones, tablets, laptops, data modules, handheld wireless computers and gaming devices, access points and routers, data cards and infrastructure equipment, and in wired devices, particularly broadband gateway equipment, desktop computers, televisions and Blu-ray players. The MSM integrated circuits, which include the Mobile Data Modem, Qualcomm Single Chip and Qualcomm Snapdragon processor-based devices, perform the core baseband modem functionality in wireless devices providing voice and data communications, as well as multimedia applications and global positioning functions. In addition, our Snapdragon processors provide advanced application and graphics processing capabilities. QCT's system software enables the other device components to interface with the integrated circuit products and is the foundation software enabling manufacturers to develop devices utilizing the functionality within the integrated circuits. In fiscal 2012, QCT shipped approximately 590 million MSM integrated circuits for wireless devices worldwide as compared to approximately 483 million and 399 million in fiscal 2011 and 2010, respectively. QCT revenues comprised 63%, 59% and 61% of total consolidated revenues in fiscal 2012, 2011 and 2010, respectively.

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. Integrated circuits are die cut from silicon wafers that have been assembled into packages or modules and have completed the final test manufacturing processes. 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. Turnkey is when our foundry suppliers are responsible for delivering fully assembled and tested integrated circuits. Under the two-stage manufacturing model, we purchase wafers and die from semiconductor manufacturing foundries and contract with separate third-party manufacturers for probe, assembly and final test services.

We rely on independent third-party suppliers 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. The primary foundry suppliers for our various digital, analog/mixed-signal, RF and PM integrated circuits are Global Foundries Inc., International Business Machines Corporation, Samsung Electronics Co. Ltd., Semiconductor Manufacturing International Corporation, Taiwan Semiconductor Manufacturing Company and United Microelectronics Corporation. The primary semiconductor assembly and test suppliers are Advanced Semiconductor Engineering, Amkor Technology, Siliconware Precision Industries and STATSChipPAC. The majority of our foundry and subcontract assembly and test suppliers are located in the Asia-Pacific region.

QCT offers a broad portfolio of products, including both wireless device and infrastructure integrated circuits, in support of

CDMA2000 1X and 1xEV-DO, as well as the EV-DO Revision A/B evolutions of CDMA 2000 technology. Leveraging our expertise in CDMA, we also developed and offer integrated circuits supporting the WCDMA version of 3G for manufacturers of wireless devices. More than 80 device manufacturers have selected our WCDMA products that support GSM/GPRS, WCDMA, HSDPA (High-Speed Downlink Packet Access), HSUPA (High-Speed Uplink Packet Access) and HSPA+ for their devices. QCT also sells multimode products for the LTE standard, which offer seamless backward compatibility to existing 3G technologies.

Our integrated circuit products span a broad range of products, from entry-level products for emerging regions, such as our Qualcomm Reference Design (QRD) products, up to very high-end devices. Our chipsets integrate unique combinations of features, such as multi-megapixel cameras, videotelephony, streaming multimedia, audio, 3D graphics, advanced position-location capabilities through integrated gpsOne technology and peripheral connectivity, to enable a wide range of devices.

Our IZat location technologies are featured in more than 50 operator networks around the globe. By combining location data from satellite systems (GPS and GLONASS), cellular and Wi-Fi networks, sensors and cloud-based assistance servers, our location products deliver accurate, always-on location awareness that enhances the mobile experience. We offer both integrated and stand alone location products for use in mobile phones, tablets, notebooks, cameras and other consumer devices.

The Snapdragon family of processors is a highly integrated, mobile optimized system on a chip incorporating our advanced technologies, including high performance central processing units (CPU), graphics processing units (GPU) and modems, multimedia subsystems, including audio, video and camera capabilities, and highly accurate GPS engines. Our CPU cores are custom designed to deliver high levels of compute performance at ultra-low power, allowing manufacturers to design slim and powerful devices that last longer between charges. Our GPUs are also custom designed to deliver graphics performance for gaming and user interfaces. The Snapdragon family also incorporates our modem technology for advanced mobile broadband and a feature-rich multimedia subsystem that delivers audio and high-definition video capabilities.

Our modems are built to work with increasingly complex networks. They support the latest communication technologies and adapt to network conditions and user needs in real time to enable delivery of faster, smoother data and voice connections. Our 3G/4G modem roadmap delivers the latest network technologies across multiple product tiers and devices. This roadmap is the result of our years of research into emerging network standards and the development of chipsets that take advantage of these new standards, while maintaining backward compatibility with existing standards.

Through our acquisition in May 2011 of Atheros Communications, Inc., which was renamed Qualcomm Atheros, Inc., QCT also offers an expanded portfolio of connectivity technologies, which complements our mobile business and extends our capability into networking and infrastructure products. QCT is a leading provider of wireless and wired connectivity products, including networking products for consumers, carriers and enterprise equipment, mobile handsets and mobile and fixed computing and consumer electronics products. Our wireless products consist of integrated circuits and system software for WLAN, Bluetooth and frequency modulation (FM) as well as technologies that enable location data and services, including GPS and GLONASS. Our wireless technologies are provided in the form of WLAN, Bluetooth and FM integrated products, WLAN and Bluetooth combination and standalone products. Our wired connectivity products consist of integrated circuits and software for Ethernet, powerline and passive optical networks. Our wired portfolio enables delivery of richer, comprehensive multi-connectivity product platforms to our networking, computing and consumer electronics customer base. Our passive optical network technologies provide our customers with solutions for their fiber optics, broadband and access businesses. We employ our WLAN, powerline and Ethernet technologies in combination to deliver hybrid platforms known as Hy-Fi products.

The market in which our QCT segment operates is intensely competitive. QCT competes worldwide with a number of United States and international designers and manufacturers of semiconductors. As a result of global expansion by foreign and domestic competitors, technological changes and the potential for further industry consolidation, we anticipate the market to remain very competitive. We believe that the principal competitive factors for our products may include performance, level of integration, quality, compliance with industry standards, price, time-to-market, system cost, design and engineering capabilities, new product innovation and customer support. We also compete in both single- and dual-mode environments against alternative communications technologies including but not limited to, GSM/GPRS/EDGE, TDMA, TD-SCDMA and WiMAX.

QCT's current competitors include, but are not limited to, major companies such as Broadcom, CSR plc, Freescale, HiSilicon Technologies, Intel, Lantiq, Marvell Technology, MediaTek, nVidia, Renesas Electronics, Spreadtrum Communications, ST-Ericsson (a joint venture between Ericsson Mobile Platforms and ST-NXP Wireless), Texas Instruments and VIA Telecom, as well as major communications equipment companies such as Matsushita, Motorola Mobility and Samsung, who design at least some of their own integrated circuits and software for certain products. QCT also faces competition from some 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 cellular technologies, and those efforts may materially and adversely affect QCT. Moreover, competitors may offer more attractive product pricing or financing terms or have a more established presence in certain device markets or emerging geographic regions than we do as a means of gaining access to the market or customers.

**QTL Segment.** 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, including, without limitation, products implementing cdmaOne, CDMA2000, WCDMA, CDMA TDD (including TD-SCDMA), GSM/GPRS/EDGE, LTE and/or WiMAX standards and their derivatives. QTL licensing revenues are comprised of license fees as well as royalties based on worldwide sales by licensees of products incorporating or using our intellectual property. License fees are fixed amounts paid in one or more installments. Royalties are generally based upon a percentage of the wholesale (i.e., licensee's) selling price of licensed products, net of certain permissible deductions (e.g., certain shipping costs, packing costs, VAT, etc.). Revenues generated from royalties are subject to quarterly and annual fluctuations. QTL revenues comprised 33%, 36% and 33% of total consolidated revenues in fiscal 2012, 2011 and 2010, respectively.

Separate and apart from licensing manufacturers of subscriber and network equipment, we have entered into certain patent arrangements with competitors of our QCT segment, such as Broadcom, Fujitsu, MediaTek, NEC, Renesas Electronics, Texas Instruments and VIA Telecom. The 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-, WCDMA- and OFDMA-based wireless devices into which such suppliers' integrated circuits are incorporated.

We face competition in the development of intellectual property for future generations of digital wireless communications technology and services. On a worldwide basis, we currently compete primarily with the GSM/GPRS/EDGE digital wireless communications technologies. GSM has been utilized extensively in Europe, much of Asia other than Japan and South Korea, and certain other countries. To date, GSM has been more widely adopted than CDMA; however, CDMA technologies have been adopted for all 3G wireless systems. In addition, most GSM operators have deployed GPRS, a packet data technology, as a 2G bridge technology, and a number of GSM operators have deployed EDGE. However, the majority of GSM operators have already augmented their networks with 3G WCDMA and HSPA. According to GSA, as of November 2012, more than 110 wireless operators have commercially deployed and other wireless operators have started testing OFDMA technology (e.g., LTE, WiMAX), a multi-carrier transmission technique not based on CDMA technology, which divides the available spectrum into many carriers, with each carrier being modulated at a low data rate relative to the combined rate for all carriers. According to GSA, more than 300 wireless operators have committed to deploy LTE networks, an OFDMA-based standard. We have invested in both the acquisition and the development of OFDMA technology and intellectual property. We expect that upon the deployment of OFDMA-based networks, the products implementing such technologies generally will be multimode and will also implement CDMA-based technologies. The licenses granted under our existing CDMA license agreements generally cover multimode CDMA/OFDMA devices, and our licensees are obligated to pay royalties under their CDMA license agreements for such devices. Further, over 30 companies (including LG, Nokia and Samsung) have royalty-bearing licenses under our patent portfolio for use in single-mode OFDMA products (which do not implement any CDMA-based standards).

**QWI Segment.** QWI revenues comprised 3%, 4% and 6% of total consolidated revenues in fiscal 2012, 2011 and 2010, respectively. The four divisions aggregated into QWI are:

**QES Division.** QES provides equipment, software and services to enable companies to wirelessly manage their assets and workforce. QES offers satellite- and terrestrial-based two-way wireless connectivity and position location services to transportation and logistics fleets that permit customers to track the location and monitor performance of their assets, communicate with their personnel and collect data. The QES division markets and sells products through a sales force, partnerships and distributors based in the United States, Europe, Latin America and Canada. Wireless transmissions and position tracking for satellite-based systems are provided by using leased transponders on commercially available geostationary Earth orbit satellites. The terrestrial-based systems use wireless digital and analog terrestrial networks for information transmission and the global positioning system constellation for position tracking.

Existing competitors of our QES division offering alternatives to our products are aggressively pricing their products and services and could continue to do so in the future. We face several key competitors to our satellite- and terrestrial-based mobile fleet management and asset tracking products and services both domestically and internationally. These competitors are offering new value-added products and services similar in many cases to our existing or developing technologies. Emergence of new competitors, particularly those offering low-cost terrestrial-based products and satellite-based products, may adversely impact our margins and intensify competition in new regions. Similarly, some original equipment manufacturers of trucks and truck components are beginning to offer built-in, on-board fleet management and position location reporting systems that may adversely impact our margins and intensify competition for existing and new customers.

**QIS Division.** QIS provides software products and content enablement services to wireless operators worldwide to support and accelerate the growth and advancement of wireless data products and services. We offer Brew and Plaza platform products and services for wireless applications development, device configuration, application distribution and billing and payment. We also offer Xiam wireless content discovery and recommendation products to help wireless operators improve usage and adoption of digital content and services by presenting relevant and targeted offers to customers across all digital channels. The



QChat product enables one-to-one (private) and one-to-many (group) push-to-talk (PTT) calls over 3G networks. The technology also allows over-the-air upgrades of mobile device software, management of group membership by subscribers and ad-hoc creation of chat groups.

Our QIS division has numerous current and emerging competitors for each of its products and services whose relative degree of success may adversely impact our margins and sales volumes. Competing offerings to the Brew and Plaza products primarily include device manufacturer application and widget stores, such as Apple's App Store for the iPhone platform, operator-focused application and widget retailing and content distribution products and direct-to-consumer mobile storefronts. Our QChat product competes primarily with the iDEN PTT service in the United States; the PTT services business is nascent outside of the United States with several competing standards- and non-standards-based technologies.

**QGOV Division.** QGOV provides development and other services and related products involving wireless communications technologies to government agencies and their contractors. Based on the percentage of QGOV revenues to our total consolidated revenues, no government agencies or their contractors are major customers.

**Firethorn Division.** In fiscal 2012, Firethorn began a pilot of a new product application trademarked as Pay, which is marketed on a standalone basis to quick serve restaurants and retailers. The Pay service enables consumers to make payments to quick serve restaurants and retailers on their mobile devices at the point of sale.

**QSI Segment.** QSI makes strategic investments that we believe will open new opportunities for our technologies, support the design and introduction of new products and services for voice and data communications or possess unique capabilities or technology. Many of these strategic investments are in early-stage companies. QSI also holds wireless spectrum. As part of our strategic investment activities, we intend to pursue various exit strategies from each of our QSI investments at some point in the future.

**Other Businesses.** Nonreportable segments are comprised of display and other product and services initiatives, including:

**QMT Division.** QMT intends to license its next generation interferometric modulator (IMOD) display technology in the future, while continuing to develop and directly commercialize only certain IMOD consumer-targeted mobile products. QMT's IMOD display technology, based on a MEMS structure combined with thin film optics, is intended to provide performance and power consumption benefits as compared to other display technologies. As displays in all types of mobile devices trend toward higher performance, pixel density, power consumption and outdoor viewability continue to be significant factors to overall display performance. We believe IMOD displays can provide a competitive advantage in these areas. In fiscal 2011, we initiated construction of a manufacturing facility in Taiwan for IMOD displays with the initial phase expected to be completed in early fiscal 2013. We are evaluating strategic options for this new manufacturing facility, which include, but are not limited to, operating the facility in support of our commercialization efforts and/or a sale to, or joint venture with, a third party.

Additional information regarding our operating segments is provided in the notes to our consolidated financial statements in this Annual Report in "Notes to Consolidated Financial Statements, Note 8. Segment Information."

## **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, operations and other matters.

Effective October 1, 2012, QUALCOMM Incorporated completed a corporate reorganization in which the assets of certain of its businesses and functions, as well as the stock of certain of its direct and indirect subsidiaries, were contributed to Qualcomm Technologies, Inc. (QTI), a wholly-owned subsidiary of QUALCOMM Incorporated that was created for purposes of the reorganization. QTL continues to be operated by QUALCOMM Incorporated, which continues to own the vast majority of our patent portfolio. Substantially all of our products and services businesses, including QCT, and substantially all of our engineering, research and development functions, are now operated by QTI and its 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. The changes in our corporate structure generally formalize the way we have historically operated our primary businesses. The changes have been implemented, among other reasons, in order to enhance our ability to quickly deliver products to our customers and to assist our products and services businesses to fully participate in the sectors in which they operate, including in their development, use and distribution of software received pursuant to open source software licenses, while further protecting and insulating our valuable patent portfolio.

## **Research and Development**

The communications industry is characterized by rapid technological change, requiring a continuous effort to enhance existing products and develop new products and technologies. Our research and development team has a demonstrated track record of innovation in voice and data communication technologies. Our research and development expenditures in fiscal 2012,

2011 and 2010 totaled approximately \$3.9 billion, \$3.0 billion and \$2.5 billion, respectively, and as a result, we continue to expand our intellectual property portfolio. Research and development expenditures were primarily related to the development of integrated circuit products, next generation CDMA and OFDMA technologies and other initiatives to support the acceleration of advanced wireless products and services, including lower cost devices, the integration of wireless with consumer electronics and computing, the convergence of multiband, multimode, multinet network products and technologies, third-party operating systems and services platforms. The technologies supporting these initiatives may include CDMA2000 1X, 1xEV-DO, EV-DO Revision A, EV-DO Revision B, 1x Advanced, WCDMA, HSDPA, HSUPA, HSPA+, TD-SCDMA, LTE and TD-LTE. Research and development expenditures were also incurred related to the development of IMOD and other display technologies, Plasma products and other technologies.

We have research and development centers in various locations throughout the world that support our global development activities and ongoing efforts to advance CDMA, OFDMA 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. In addition to internally sponsored research and development, we perform contract research and development for various government agencies and commercial contractors.

## **Sales and Marketing**

Sales and marketing activities of our operating segments are discussed under Operating Segments. Other marketing activities include public relations, advertising, web-marketing, participation in technical conferences and trade shows, development of business cases and white papers, competitive analyses, industry intelligence and other marketing programs, such as marketing development funds with our customers. Our Corporate Marketing department provides company information on our internet site and through other media regarding our products, strategies and technology to industry analysts and for publications.

## **Competition**

Competition to our operating segments is discussed under Operating Segments. Competition in the communications industry throughout the world continues to increase at a rapid pace as consumers, businesses and governments realize the potential of wireless communications products and services. We have facilitated competition in the wireless communications industry by licensing and enabling a large number of manufacturers. Although we have attained a significant position in the industry, many of our current and potential competitors may have advantages over us, which include, among others, motivation by our customers in certain circumstances to find alternate suppliers or choose alternate technologies and foreign government support of other technologies (e.g., GSM) or our competitors. In addition, our competitors may have established more extensive relationships with local distribution and original equipment manufacturer companies in emerging geographic regions (e.g., China) or a more established presence in certain device markets. These relationships may affect customers' decisions to purchase products or license technology from us. Accordingly, new competitors or alliances among competitors could emerge and rapidly acquire significant market positions to our detriment.

We expect to continue to face competition throughout the world as new technologies and services are introduced in the future and as additional companies compete with our products or services based on 3G, 4G or other technologies. Although we intend to continue to make substantial investments in developing improvements to existing and new products and technologies, our competitors may introduce alternative products, services or technologies that threaten our business. It is also possible that the price we charge for our products and services may continue to decline as competition continues to intensify.

## **Patents, Trademarks and Trade Secrets**

We rely on a combination of patents, copyrights, trade secrets, trademarks and proprietary information to maintain and enhance our competitive position. 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 China, Japan, South Korea, Europe, Brazil, India, Taiwan and elsewhere. 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), TD-SCDMA, TD-CDMA and OFDMA products.

Standards bodies have been informed that we hold patents that might be essential for all 3G standards that are based on CDMA. We have committed to such standards bodies that we will offer to license our essential patents for these CDMA standards on a fair and reasonable basis free from unfair discrimination. We have also informed standards bodies that we hold patents that might be essential for certain standards that are based on OFDMA technology (e.g., 802.16e, 802.16m and LTE (including FDD and TDD versions)) and have committed to offer to license our essential patents for these OFDMA standards on a fair and reasonable basis free from unfair discrimination.

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, among other things, wireless technology. Because all commercially deployed forms of CDMA and their derivatives require the use of our patents, our patent portfolio is the most widely and extensively licensed portfolio in the industry with over 220 licensees. Over the years a number of companies have challenged our patent position but at this time most, if not all, companies in the industry recognize that any company seeking to develop, manufacture and/or sell products that use CDMA technologies will require a license or other rights to use our patents.

As part of our strategy to generate licensing revenues that continue to support our research and development investments and support worldwide adoption of our CDMA technology, we provide rights to design, manufacture and sell products utilizing certain portions of our intellectual property to other companies, including those companies listed on our Internet site ([www.qualcomm.com](http://www.qualcomm.com)).

We have licensed or otherwise provided rights to use our patented technologies to interested companies on terms that are fair, reasonable and free from unfair discrimination. Unlike some other companies in our industry that hold back certain key technologies, we offer interested companies essentially our entire patent portfolio for use in cellular subscriber devices and cell site infrastructure equipment. 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 driving down average and low-end selling prices for 3G handsets and other wireless devices. By licensing or otherwise providing rights to use our patented technologies 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 3G CDMA evolve, grow and reduce device pricing all at a faster pace than the second generation technologies that preceded it (e.g., GSM).

Under our subscriber unit, infrastructure equipment and test equipment license agreements, licensees are generally required to pay us a fixed license fee as well as ongoing royalties based on a percentage of the wholesale (i.e., licensee's) selling price, net of certain permissible deductions (e.g., certain shipping costs, packing costs, VAT, etc.), of each licensed product and/or a fixed per unit amount. License fees are paid in one or more installments, while royalties generally are payable based on sales throughout the life of the licensed patents. Our licensing terms are reasonable and fair to the companies that benefit from our intellectual property and provide significant incentives for others to invest in CDMA applications, as evidenced by the significant growth in the CDMA portion of the wireless industry and the number of CDMA participants. Our license agreements generally provide us rights to use certain of our licensees' technology and intellectual property rights to manufacture and sell certain components (e.g., Application-Specific Integrated Circuits) and related software, subscriber units and/or infrastructure equipment. In most cases, our use of our licensees' technology and intellectual property does not require us to pay royalties based on the sale of our products. However, under some of the licenses, if we incorporate certain of our licensees' licensed technology or intellectual property into certain of our products, we are obligated to pay royalties on the sale of such products.

### Corporate Responsibility

At Qualcomm, we realize that we have a significant role to play as we strive to better our local and global communities through ethical business practices, socially empowering technology applications, educational and environmental programs and employee diversity and volunteerism.

- *Our Company.* We strive to meet and exceed industry standards for ethical business practices, product responsibility, and supplier management.
- *Our Environment.* We aim to grow our operations while minimizing our carbon footprint, conserving water and reducing waste.
- *Our Community.* We are committed to growing strategic relationships with a wide range of local organizations and programs that develop and strengthen communities worldwide.
- *Our Workplace.* We provide a safe and healthy work environment where diversity is embraced and various opportunities for training, growth, and advancement are strongly encouraged for all employees.
- *Wireless Reach.* We invest in projects that foster entrepreneurship, aid in public safety, enhance delivery of health care, enrich teaching and learning and improve environmental sustainability through the use of 3G and next-generation technologies.

### Employees

At September 30, 2012, we employed approximately 26,600 full-time, part-time and temporary employees. During fiscal2012, the number of employees increased by approximately 5,400, primarily due to increases in engineering resources.

### Available Information

Our Internet address is [www.qualcomm.com](http://www.qualcomm.com). There we make available, free of charge, our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to those reports, 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 Internet site public financial information for which a report is not required to be filed with or furnished to the SEC. Our SEC reports and other financial information can be accessed through the investor relations section of our Internet site. The information found on our Internet site is not part of this or any other report we file with or furnish to the SEC.

The public may read and copy any materials that we file with the SEC at the SEC's Public Reference Room located at 100 F Street, N.E., Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at (202) 551-8090. The SEC also maintains electronic versions of our reports on its website at [www.sec.gov](http://www.sec.gov).

## **Executive Officers**

Our executive officers (and their ages at September 30, 2012) are as follows:

Paul E. Jacobs, age 49, has served as Chairman of the Board of Directors since March 2009, as a director since June 2005 and as Chief Executive Officer since July 2005. He served as Group President of QWI from July 2001 to June 2005. In addition, he served as Executive Vice President from February 2000 to June 2005. Dr. Jacobs was a director of A123 Systems, Inc. from November 2002 to July 2012. Dr. Jacobs holds a B.S. degree in Electrical Engineering and Computer Science, an M.S. degree in Electrical Engineering and a Ph.D. degree in Electrical Engineering and Computer Science from the University of California, Berkeley.

Steven R. Altman, age 51, has served as Vice Chairman since November 2011. He served as President from July 2005 to November 2011, as Executive Vice President from November 1997 to June 2005 and as President of QTL from September 1995 to April 2005. Mr. Altman holds a B.S. degree in Police Science and Administration from Northern Arizona University and a J.D. degree from the University of San Diego.

Derek K. Aberle, age 42, has served as Executive Vice President and Group President since November 2011. He served as Executive Vice President and President of QTL from September 2008 to November 2011 and as Senior Vice President and General Manager of QTL from October 2006 to September 2008. Mr. Aberle joined Qualcomm in December 2000 and prior to October 2006 held positions ranging from Legal Counsel to Vice President and General Manager of QTL. Mr. Aberle holds a B.A. degree in Business Economics from the University of California, Santa Barbara and a J.D. degree from the University of San Diego.

Cristiano R. Amon, age 42, has served as Executive Vice President, Qualcomm Technologies, Inc. (a wholly-owned subsidiary of Qualcomm Incorporated) and Co-President of Qualcomm Mobile & Computing (QMC) since October 2012. He served as Senior Vice President, Qualcomm Incorporated and Co-President of QMC from June 2012 to October 2012, as Senior Vice President, QCT Product Management from October 2007 to June 2012 and as Vice President, QCT Product Management from September 2005 to October 2007. Mr. Amon joined Qualcomm in 1995 as an engineer and throughout his tenure at Qualcomm held several other technical and leadership roles. Mr. Amon holds a B.S. degree in Electrical Engineering from UNICAMP, the State University of Campinas, Brazil.

Andrew M. Gilbert, age 49, has served as Executive Vice President, Qualcomm Europe, Inc. (a wholly-owned subsidiary of Qualcomm Incorporated) and European Innovation Development since January 2011. He served as Executive Vice President and President of Qualcomm Europe from September 2010 to January 2011, as Executive Vice President and President of QIS and Qualcomm Europe from May 2009 to September 2010 and as Executive Vice President and President of QIS, MFT and Qualcomm Europe from January 2008 to May 2009. He served as Senior Vice President and President of Qualcomm Europe from November 2006 to January 2008 and as President of Qualcomm Europe from February 2006 to November 2006. Mr. Gilbert joined Qualcomm in January 2006 as Vice President of Qualcomm Europe. Prior to joining Qualcomm, he served as Vice President and General Manager of Flarion Technologies' European, Middle Eastern and African regions from May 2002 to January 2006.

Matthew S. Grob, age 46, has served as Executive Vice President, Qualcomm Technologies, Inc. and Chief Technology Officer since October 2012. He served as Executive Vice President, Qualcomm Incorporated and Chief Technology Officer from July 2011 to October 2012 and as Senior Vice President, Engineering from July 2006 to July 2011. Mr. Grob joined Qualcomm in August 1991 as an engineer and throughout his tenure at Qualcomm held several other technical and leadership roles. Mr. Grob holds a B.S. degree in Electrical Engineering from Bradley University and an M.S. degree in Electrical Engineering from Stanford University.

Margaret "Peggy" L. Johnson, age 50, has served as Executive Vice President, Qualcomm Technologies, Inc. and President of Global Market Development since October 2012. She served as Executive Vice President, Qualcomm Incorporated and President of Global Market Development from January 2011 to October 2012. She served as Executive Vice President of the