

InterDigital, Inc.  
Form 10-K  
February 23, 2017  
Table of Contents

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

Form 10-K

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

For the fiscal year ended December 31, 2016

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 1-33579

INTERDIGITAL, INC.

(Exact name of registrant as specified in its charter)

Pennsylvania

23-1882087

(State or other jurisdiction of incorporation or organization) (IRS Employer Identification No.)

200 Bellevue Parkway, Suite 300

19809

Wilmington, Delaware

(Zip Code)

(Address of principal executive offices)

Registrant's telephone number, including area code (302) 281-3600

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

Common Stock (par value \$0.01 per share) NASDAQ Stock Market LLC

(title of class)

(name of exchange on which registered)

Securities registered pursuant to Section 12(g) of the Act: None

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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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large accelerated  
filer

Accelerated  
filer

Non-accelerated filer

Smaller reporting  
company

(Do not check if a smaller reporting  
company)

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Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes  No   
The aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold, or the average bid and asked price of such common equity, as of the last business day of the registrant's most recently completed second fiscal quarter: \$1,894,452,875 as of June 30, 2016.

The number of shares outstanding of the registrant's common stock was 34,306,691 as of February 21, 2017.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the registrant's definitive proxy statement to be filed pursuant to Regulation 14A in connection with the registrant's 2017 annual meeting of shareholders are incorporated by reference into Items 10, 11, 12, 13 and 14 of Part III of this Form 10-K.

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## TABLE OF CONTENTS

	Page
<u>PART I</u>	
<u>ITEM 1. BUSINESS</u>	<u>3</u>
<u>ITEM 1A. RISK FACTORS</u>	<u>10</u>
<u>ITEM 1B. UNRESOLVED STAFF COMMENTS</u>	<u>22</u>
<u>ITEM 2. PROPERTIES</u>	<u>22</u>
<u>ITEM 3. LEGAL PROCEEDINGS</u>	<u>23</u>
<u>ITEM 4. MINE SAFETY DISCLOSURES</u>	<u>33</u>
<u>PART II</u>	
<u>ITEM 5. MARKET FOR REGISTRANT’S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES</u>	<u>34</u>
<u>ITEM 6. SELECTED FINANCIAL DATA</u>	<u>35</u>
<u>ITEM 7. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS</u>	<u>36</u>
<u>ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK</u>	<u>56</u>
<u>ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA</u>	<u>58</u>
<u>ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE</u>	<u>101</u>
<u>ITEM 9A. CONTROLS AND PROCEDURES</u>	<u>101</u>
<u>ITEM 9B. OTHER INFORMATION</u>	<u>101</u>
<u>PART III</u>	
<u>ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE</u>	<u>101</u>
<u>ITEM 11. EXECUTIVE COMPENSATION</u>	<u>102</u>
<u>ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS</u>	<u>102</u>
<u>ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE</u>	<u>102</u>
<u>ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES</u>	<u>102</u>
<u>PART IV</u>	
<u>ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES</u>	<u>103</u>
<u>SIGNATURES</u>	<u>107</u>

In this Form 10-K, the words “we,” “our,” “us,” “the Company” and “InterDigital” refer to InterDigital, Inc. and/or its subsidiaries, individually and/or collectively, unless otherwise indicated or the context otherwise requires.

InterDigital® is a registered trademark of InterDigital, Inc. Creating the Living Network, data service exchange, oneMPOWER, wot.io and XCellAir are trademarks of InterDigital. All other trademarks, service marks and/or trade names appearing in this Form 10-K are the property of their respective holders.

Table of Contents

PART I

Item 1. BUSINESS.

Overview

InterDigital, Inc. ("InterDigital") designs and develops advanced technologies that enable and enhance wireless communications and capabilities. Since our founding in 1972, our engineers have designed and developed a wide range of innovations that are used in digital cellular and wireless products and networks, including 2G, 3G, 4G and IEEE 802-related products and networks. We are a leading contributor of innovation to the wireless communications industry.

Given our long history and focus on advanced research and development, InterDigital has one of the most significant patent portfolios in the wireless industry. As of December 31, 2016, InterDigital's wholly owned subsidiaries held a portfolio of approximately 20,000 patents and patent applications related to a range of technologies including the fundamental technologies that enable wireless communications. In that portfolio are a number of patents and patent applications that we believe are or may be essential or may become essential to cellular and other wireless standards, including 3G, 4G and the IEEE 802 suite of standards, as well as patents and patent applications that we believe may become essential to 5G standards that are under development. That portfolio has largely been built through internal development, supplemented by joint development projects with other companies as well as select acquisitions of patents and companies. Products incorporating our patented inventions include: mobile devices, such as cellular phones, tablets, notebook computers and wireless personal digital assistants; wireless infrastructure equipment, such as base stations; components, dongles and modules for wireless devices; and IoT devices and software platforms. InterDigital derives revenues primarily from patent licensing, with contributions from patent sales, product sales, technology solutions licensing and sales and engineering services. In 2016, our total revenues were \$665.9 million, an increase of \$224.4 million compared to 2015. Our recurring revenues, consisting of current patent royalties and current technology solutions revenue, were \$356.2 million in 2016, a decrease of \$16.6 million compared to 2015. Additional information about our revenues, profits and assets, as well as additional financial data, is provided in the selected financial data in Part II, Item 6, and in the financial statements and accompanying Notes in Part II, Item 8, of this Form 10-K.

Our Strategy

Our objective is to continue to be a leading designer and developer of technology solutions and innovation for the mobile industry and to monetize those solutions and innovations through a combination of licensing, sales and other revenue opportunities.

To execute our strategy, we intend to:

Develop and source innovative technologies related to wireless. We intend to grow or maintain a leading position in advanced mobile technology, the Internet of Things (IoT) and other related technology areas by leveraging our expertise to guide internal research and development capabilities, direct our efforts in partnering with leading inventors and industry players to source new technologies and pursue select acquisitions of technologies and/or companies.

Establish and grow our patent-based revenue. We intend to grow our licensing revenue base by adding licensees, expanding into adjacent technology areas that align with our intellectual property position and leveraging the continued growth of the overall mobile technology market. Those licensing efforts can be self-driven or executed in conjunction with licensing partnerships, trusts and other efforts, and may involve the vigorous defense of our intellectual property through litigation and other means. We also believe that our ongoing research efforts and associated patenting activities enable us to sell patent assets that are not vital to our core licensing programs, as well as to execute patent swaps that can strengthen our overall portfolio.

Pursue commercial opportunities for our advanced platforms and solutions. We intend to pursue the commercialization of technology platforms and solutions that arise from our research efforts. As part of our ongoing research and development efforts, InterDigital often builds out entire functioning platforms in various technology areas. We seek to bring those technologies, as well as other technologies we may develop or acquire, to market through various methods including technology licensing, stand-alone commercial initiatives, joint ventures and

partnerships.

Maintain a collaborative relationship with key industry players and worldwide standards bodies. We intend to continue contributing to the ongoing process of defining mobile standards and other industry-wide efforts and incorporating our inventions into those technology areas. Those efforts, and the knowledge gained through them, support internal development efforts and also help guide technology and intellectual property sourcing through partners and other external sources.

3

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## Table of Contents

### Technology Research and Development

InterDigital pursues a diversified approach to sourcing the innovations that underpin our business. That approach incorporates internally driven research and development efforts by InterDigital Labs, as well as externally focused efforts by our Innovation Partners unit and select acquisitions of technology innovations and/or companies, such as Hillcrest Labs. Our efforts are guided by our vision of the future of mobile communications - Creating the Living Network™ - which is articulated around the variables of content, context and connectivity, and how the interplay of these elements drives future technology capabilities and needs.

As of December 31, 2016, our patent portfolio consisted of approximately 2,300 U.S. patents (approximately 280 of which were issued in 2016) and approximately 12,100 non-U.S. patents (approximately 1,250 of which were issued in 2016). As of the same date, we also had numerous patent applications pending worldwide, with close to 1,300 applications pending in the United States and more than 4,500 pending non-U.S. applications. The patents and applications comprising our portfolio relate predominantly to digital wireless radiotelephony technology (including, without limitation, 3G and 4G technologies). Issued patents expire at differing times ranging from 2017 through 2035. We operate eight research and development facilities in four countries: Conshohocken, Pennsylvania, USA; Buffalo and Melville, New York, USA; San Diego, California, USA; Montreal, Canada; London, UK; and Seoul, South Korea. The Company's Hillcrest Labs subsidiary, focused on advanced sensor and sensor fusion technology, is located in Rockville, Maryland, USA.

### InterDigital Labs

As an early and ongoing participant in the digital wireless market, InterDigital developed pioneering solutions for the primary cellular air interface technologies in use today, TDMA and CDMA. That early involvement, our continued development of those advanced digital wireless technologies and innovations in OFDM/OFDMA and MIMO technologies have enabled us to create our significant worldwide portfolio of patents. In addition, InterDigital was among the first companies to participate in standardization and platform development efforts related to Machine-to-Machine (M2M) communications and IoT technology. In conjunction with our participation in certain standards bodies, we have filed declarations stating that we have patents that we believe are or may be essential or may become essential to cellular and other mobile industry standards and that, with respect to our essential patents, we are prepared to grant licenses on fair, reasonable and non-discriminatory terms or similar terms consistent with the requirements of the respective standards organizations.

Our capabilities in the development of advanced mobile technologies are based on the efforts of a highly specialized engineering team, leveraging leading-edge equipment and software platforms. As of December 31, 2016, InterDigital employed approximately 180 engineers, approximately 80% of whom hold advanced degrees (including 60 doctorate degrees). Over the last three years, investment in development has ranged from \$68.7 million to \$75.3 million, and the largest portion of this expense has been personnel costs. Additional information about our development expenses is provided in the results of operations, under the heading "Operating Expenses," in Part II, Item 7, of this Form 10-K. Our current research efforts are focused on three main technology areas: cellular wireless technology, IoT technology, and, through our Hillcrest Labs subsidiary, advanced sensor and sensor fusion technology.

### Cellular Wireless Technology

We have a long history of developing cellular technologies, including those related to CDMA and TDMA and, more recently, OFDM/OFDMA and MIMO. A number of our inventions are being used in all 2G, 3G and 4G wireless networks and mobile terminal devices. We led the industry in establishing TDMA-based TIA/EIA/IS-54 as a U.S. digital wireless standard in the 1980s and developed a substantial portfolio of TDMA-based patented inventions. These inventions include or relate to fundamental elements of TDMA-based systems in use around the world. We have also developed and patented innovative CDMA and OFDM/OFDMA technology solutions and today, we hold a significant worldwide portfolio of patents and patent applications for these technologies. Similar to our TDMA inventions, we believe that a number of our CDMA and OFDM/OFDMA inventions are, may be or may become essential to the implementation of CDMA and OFDM/OFDMA-based systems in use today.

We also continue to be engaged in development efforts to build and enhance our technology portfolio in areas including LTE, LTE-Advanced, and emerging 5G technologies for 3GPP. Some of our LTE inventions include or relate to MIMO technologies for reducing interference and increasing data rates; power control; hybrid-ARQ for fast

error correction; control channel structures for efficient signaling; multi-carrier operation; low-complexity devices; vehicular-centric communications (V2X); and other areas. We also continue to develop additional technologies in response to existing or perceived challenges of connectivity, many of them within the scope of our efforts to define future generations of wireless including 5G. These include air interface enhancements, policy-driven bandwidth management, cognitive radio and optimized data delivery. We are developing technologies that will enable efficient multimedia content delivery across heterogeneous

## Table of Contents

devices and networks, and creating evolved system architectures that enable operation in small cells and additional frequency bands and improved cell-edge performance as well as device-to-device communications.

Our strong wireless background includes engineering and corporate development activities that focus on solutions that apply to other wireless market segments. These segments primarily fall within the continually expanding scope of the IEEE 802, IETF and ETSI standards. We are building a portfolio of technology related to Wi-Fi, WLAN, WMAN and WRAN that includes, for example, improvements to the IEEE 802.11 PHY and MAC to increase peak data rates, the use of lower frequency bands for IoT and other new use cases such as TV-Whitespace (802.11af) and sub 1 GHz (802.11ah), and fast initial link setup (802.11ai) to enhance hotspot operation (WFA HOTSPOT 2.0).

### IoT Technology

In the field of machine-to-machine (M2M) and IoT applications, we are developing technologies to enable seamless interconnection for multiple access types (cellular, WLAN, WPAN) and M2M service frameworks that can be managed by a customer and leveraged by a diverse set of vertical applications. These technologies build on our expertise in developing platforms and contributing technologies towards the advancement of global M2M and IoT standards. As part of, and in addition to, InterDigital's standards-focused development, we have two solutions that are being made available commercially.

Our oneMPOWER™ platform, launched in 2015, enables interoperability and scalability across diverse verticals, networks, and devices. InterDigital's oneMPOWER platform is a secure and scalable horizontal platform that helps businesses launch and manage IoT data and applications. It features a comprehensive suite of application enabling services that span connectivity, device, data, security, and transaction management. Our oneMPOWER platform complies with oneM2M, the global standard for horizontal IoT platforms, and is designed for interoperability across diverse vertical markets, networks, and devices. The solution is based on an open standard with a long-term features roadmap, which interworks with many existing industry protocols and alliances.

The wot.io™ data service exchange™ for connected device platforms was launched in 2014. The wot.io platform provides a common interface to multiple service providers, allowing companies to monetize IoT data in a simpler fashion via a real-time, low-latency service-oriented architecture.

### Other Technology Areas and Sources

Because mobile technology today and into the future encompasses a very broad range of areas, we are also developing a range of technologies in the areas of video compression and delivery, security, analytics, and other areas. Some of those efforts are related to technology standards. In addition, to supplement our own development efforts, our Innovation Partners unit pursues an external sourcing model based around partnerships with leading inventors and research organizations, as well as the acquisition of technology and patent portfolios that align with InterDigital's roadmap, particularly in the areas of augmented/virtual reality, haptics and the connected home and vehicle verticals of IoT. In 2016, in addition to existing relationships with VTT Technical Research Centre of Finland, McGill University, the Institute for Management Cybernetics (IfU) in Germany, the Florida Institute for Human and Machine Cognition (IHMC) and igolgi, Inc., Innovation Partners added a relationship with the Southwest Research Institute in San Antonio, Texas.

In addition, in December 2016, InterDigital acquired Hillcrest Laboratories, Inc. ("Hillcrest Labs"), a pioneer in sensor processing technology. Sensor processing and sensor fusion is an important emerging technology area, with multiple applications in IoT, augmented and virtual reality, robotics, and other areas. Hillcrest Labs' strong product and technology offerings and intellectual property portfolio reflect their pioneering position in this technology segment.

### Our Revenue Sources

#### Patent-Based Revenue

We believe that companies making, importing, using or selling products compliant with the standards covered by our patent portfolio, including all manufacturers of mobile handsets, tablets and other devices, require a license under our patents and will require licenses under patents that may issue from our pending patent applications. We have successfully entered into license agreements with many of the leading mobile communications companies globally, including Apple Inc. ("Apple"), HTC Corporation, Huawei Investment & Holding Co., Ltd. ("Huawei"), Kyocera Corporation ("Kyocera"), Samsung Electronics Co., Ltd. ("Samsung") and Sony Corporation of America ("Sony"), among others.



Most of our patent license agreements are structured on a royalty-bearing basis, while others are structured on a paid-up basis or a combination thereof. Upon entering into a new patent license agreement, the licensee typically agrees to pay consideration for sales made prior to the effective date of the license agreement (i.e., past patent royalties) and also agrees to pay royalties or license fees on licensed products sold during the term of the agreement. We expect that, for the most part, new license agreements will follow this model. Almost all of our patent license agreements provide for the payment of royalties

## Table of Contents

based on sales of licensed products designed to operate in accordance with particular standards (convenience-based licenses), as opposed to the payment of royalties if the manufacture, sale or use of the licensed product infringes one of our patents (infringement-based licenses).

In most cases, we recognize the revenue from per-unit royalties in the period when we receive royalty reports from licensees. In circumstances where we receive consideration for past patent royalties, we recognize such payments as revenue in the period in which the patent license agreement is signed. Some of these patent license agreements provide for the non-refundable prepayment of royalties that are usually made in exchange for prepayment discounts. As the licensee reports sales of covered products, the royalties are calculated and either applied against any prepayment or become payable in cash or other consideration. Additionally, royalties on sales of licensed products under the license agreement become payable or applied against prepayments based on the royalty formula applicable to the particular license agreement. These formulas include flat dollar rates per unit, a percentage of sales, a percentage of sales with a per-unit cap and other similar measures. The formulas can also vary by other factors, including territory, covered standards, quantity and dates sold. Our license agreements typically contain provisions that give us the right to audit our licensees' books and records to ensure compliance with the licensees' reporting and payment obligations under those agreements. From time to time, these audits reveal underreporting or underpayments under the applicable agreements. In such cases, we seek payment for the amount owed and enter into negotiations with the licensee to resolve the discrepancy.

Some of our patent licenses are paid up, requiring no additional payments relating to designated sales under agreed upon conditions. Those conditions can include paid-up licenses for a period of time (fixed-fee agreements), for a class of products, for a number of products sold, under certain patents or patent claims, for sales in certain countries or a combination thereof. Licenses have become paid-up based on the payment of fixed amounts or after the payment of royalties for a term. With the exception of amounts allocated to past patent royalties, we recognize revenues related to fixed amounts on a straight-line basis.

In addition, in 2013, InterDigital formed the Signal Trust for Wireless Innovation (the "Signal Trust"). The goal of the Signal Trust is to monetize a large patent portfolio related to cellular infrastructure. More than 500 patents and patent applications were transferred from InterDigital to the Signal Trust, focusing primarily on 3G and LTE technologies and developed by InterDigital's engineers and researchers over more than a decade. A number of these innovations have been contributed to the worldwide standards process, resulting in a portfolio that includes patents for pioneering inventions that we believe are used pervasively in the cellular wireless industry. InterDigital is the primary beneficiary of the Signal Trust. The distributions from the Signal Trust will support continued research related to cellular wireless technologies. A small portion of the proceeds from the Signal Trust will be used to fund, through the Signal Foundation for Wireless Innovation, scholarly analysis of intellectual property rights and the technological, commercial and creative innovations they facilitate.

In third quarter 2016, InterDigital joined Avanci, the industry's first marketplace for the licensing of cellular standards-essential technology for the Internet of Things (IoT). The licensing platform brings together some of InterDigital's peers in standards-essential technology leadership, and makes 2G, 3G and 4G standards-essential patents available to IoT players in specific product segments with one flat-rate license. The Avanci licensing programs in specific product segments for the IoT industry will provide access to the entire applicable standards-essential wireless patent portfolios held by all of the platform participants, as well as any additions to their portfolios during the term of the license.

We also pursue, on occasion, targeted sales of portions of our patent portfolio. This strategy is based on the expectation that our portfolio and continued research efforts extend well beyond the requirements for a successful licensing program. In addition, the strategy leverages the desire from new entrants in the mobile technology space to build strong intellectual property positions to support their businesses.

### Other Potential Revenue Sources

Our strong technology expertise and research and development team also form the basis for other potential revenue opportunities, focused around areas such as engineering services, research joint ventures and the continued development, commercialization and licensing of research and development projects that have progressed to a pre-commercial or commercial phase. We also currently recognize revenue from the licensing of technology that has

been developed by our engineering teams and is integrated into other companies' technology products. In both its cellular wireless and IoT technology areas, we work to incubate and commercialize market-ready technologies. These include technologies that were developed as part of our standards development efforts, as well as technologies developed outside the scope of those efforts.

In certain cases where we have identified a potential commercial opportunity, we have chosen to establish a separate commercial initiative focused on the specific opportunity and developing commercial products to address the identified need. For example, in 2014, XCellAir, Inc. was established. The XCellAir™ product is a cloud-based, multi-vendor, multi-

## Table of Contents

technology mobile network management and optimization solution that enables mobile network operators, mobile system operators and Internet service providers to manage, optimize and monetize heterogeneous network resources. Although this and similar initiatives are in their early stages, they are potential revenue sources for the Company. In 2012, we formed of a joint venture with Sony called Convida Wireless. The joint venture combined InterDigital's advanced M2M research capabilities with Sony's consumer electronics expertise with the purpose of driving new research in IoT communications and other connectivity areas. In 2015, this joint venture was renewed, and its focus was expanded to include advanced research and development into 5G and future wireless technologies. Finally, the acquisition of Hillcrest Labs in 2016 adds a potential revenue stream in the form of product and technology sales and licensing to their customers in the Smart TV, AR/VR, wearables and gaming areas, among others.

### Wireless Communications Industry Overview

The wireless communications industry continues to experience rapid growth worldwide, as well as an expansion of device types entering the market. In smartphones alone, the market continues to see growth, with growth focused on higher-end 4G devices. In addition, new markets are emerging related to wireless connectivity. IoT is an important new market in the technology field, which is expected to result in a significant increase in the number of connections, and unlock new business capabilities. IoT is currently in its earliest stages, and estimates vary broadly as far as how many connections it will yield. IHS estimates that the IoT market will grow to an installed base of nearly 70 billion connected devices by 2025, with total new device shipments reaching nearly 18 billion yearly by 2025 and particularly high growth in the automotive, industrial and medical fields. Shipments of 3G, 4G and 802.11 IoT connected devices alone are expected to eclipse 6 billion by 2019. (IHS IoT Devices and Connectivity Service - Q3 2016.)

To achieve economies of scale and support interoperability among different participants, products for the wireless industry have typically been designed to operate in accordance with certain standards. Wireless communications standards are formal guidelines for engineers, designers, manufacturers and service providers that regulate and define the use of the radio frequency spectrum in conjunction with providing detailed specifications for wireless communications products. A primary goal of the standards is to ensure interoperability of products marketed by multiple companies. A large number of international and regional wireless Standards Development Organizations (“SDOs”), including the ITU, ETSI, TTA (USA), IEEE, ATIS (USA), TTA (Korea), ARIB (Japan) and ANSI, have responsibility for the development and administration of wireless communications standards. New standards are typically adopted with each new generation of products, are often compatible with previous generations and are defined to ensure equipment interoperability and regulatory compliance.

Standards have evolved in response to consumer demand for services and expanded capabilities of mobile devices. Cellular standards have evolved from voice-oriented services to multimedia services that exploit the higher speeds offered by newer technologies, such as LTE. The wireless communications industry has also made significant advances in non-cellular wireless technologies.

SDOs typically ask participating companies to declare formally whether they believe they hold patents or patent applications essential to a particular standard and whether they are willing to license those patents on either a royalty-bearing basis on fair, reasonable and nondiscriminatory terms or on a royalty-free basis. To manufacture, have made, sell, offer to sell or use such products on a non-infringing basis, a manufacturer or other entity doing so must first obtain a license from the holder of essential patent rights. The SDOs do not have enforcement authority against entities that fail to obtain required licenses, nor do they have the ability to protect the intellectual property rights of holders of essential patents.

InterDigital often publicly characterizes aspects of its business, including license agreements and development projects, as pertaining to broad mobile industry standards such as, for example, 3G, 4G and Wi-Fi. In doing this, we generally rely on the positions of the applicable standards-setting organizations in defining the relevant standards. However, the definitions may evolve or change over time, including after we have characterized certain transactions.

### Business Activities

#### 2016 Patent Licensing Activity

During first quarter 2016, we amended our worldwide, nonexclusive, royalty-bearing patent license agreement with NEC Corporation ("NEC"). The agreement was amended to add coverage for 4G technologies, and NEC is now also licensed for the sale of its LTE and LTE-A terminal unit and infrastructure products. The amendment also extended the existing term of NEC's patent license with InterDigital.

During third quarter 2016, we entered into a multi-year, worldwide, non-exclusive, royalty-bearing patent license agreement with Huawei (the "Huawei PLA"). The agreement covers sales of Huawei and its affiliates' 3G and 4G terminal unit products and sets forth cash payments to InterDigital and a process for the transfer of patents from Huawei to InterDigital, as

## Table of Contents

well as a framework for discussions regarding joint research and development efforts. As a result of the Huawei PLA, the companies settled all proceedings related to their arbitration initiated in 2014.

In addition, during third quarter 2016, we amended our worldwide, non-exclusive, royalty bearing patent license agreement with Sharp Corporation ("Sharp") to add coverage for 4G technologies. Sharp is now licensed for the sale of its LTE and LTE-A terminal unit products.

During fourth quarter 2016, we entered into a new multi-year, royalty-bearing, worldwide and non-exclusive patent license agreement with Apple (the "Apple PLA"). The agreement sets forth terms covering the sale by Apple of its products and services, including, but not limited to, its 3G, 4G and future generation cellular and wireless-enabled products. The agreement gives Apple the right to terminate certain rights and obligations under the license for the period after September 30, 2021, but has the potential to provide a license to Apple for a total of up to six years.

Customers Generating Revenues Exceeding 10% of Total 2016 Revenues

Apple, Huawei, Pegatron Corporation ("Patron") and Samsung comprised approximately 25%, 23%, 20% and 10% of our total 2016 revenues, respectively.

As discussed above, in fourth quarter 2016, we entered into the new Apple PLA. During 2016, we recognized a total of \$169.3 million of revenue under the Apple PLA, which included \$141.4 million of past sales.

Also as discussed above, during third quarter 2016, we entered into the Huawei PLA. During 2016, we recognized a total of \$154.8 million of revenue associated with the Huawei PLA, which included \$121.5 million of past sales.

In 2008, we entered into a patent license agreement with Patron (the "2008 Patron PLA") that covers Patron and its affiliates. Under the terms of the 2008 Patron PLA, we granted Patron a non-exclusive, non-transferable, world-wide royalty-bearing license covering the sale of certain products designed to operate in accordance with 2G and 3G wireless standards ("Licensed Products"). In second quarter and fourth quarter 2013, we received arbitration awards in separate proceedings we initiated against Patron and Apple, respectively. Taken together, these arbitration awards clarified that Patron owed us royalties on certain products it produces for Apple. The Patron arbitration award confirmed that, to the extent that Patron manufactures Licensed Products for Apple that are not licensed under our 2007 patent license agreement with Apple (the "2007 Apple PLA"), those products are covered by the 2008 Patron PLA and are royalty bearing under that agreement. Upon the expiration of the 2007 Apple PLA at the end of June 2014, Apple became unlicensed as to all products that were covered under the agreement and therefore all Apple sales were unlicensed, except to the extent certain products were licensed under the terms of our license agreements with certain Apple suppliers, including Patron. With the entry into the new Apple PLA in fourth quarter 2016, we will no longer receive royalties under the 2008 Patron PLA for those products that Patron produces for Apple which are sold to or for Apple during the term of the Apple PLA. In 2016, we recognized \$133.3 million of revenue under the 2008 Patron PLA, substantially all of which was associated with sales of Apple products.

In second quarter 2014, we entered into a patent license agreement with Samsung. The multi-year agreement also resolved all pending litigation between the companies. The royalty-bearing license agreement sets forth terms covering the sale by Samsung of 3G, 4G and certain future generation wireless products. The agreement provides Samsung the ability to terminate certain rights and obligations under the license for the period after 2017 but has the potential to provide a license to Samsung for a total of ten years, including 2013. During 2016, we recognized \$69.0 million of revenue associated with this agreement.

Patent Infringement and Declaratory Judgment Proceedings

From time to time, if we believe a party is required to license our patents in order to manufacture, use and/or sell certain products and such party refuses to do so, we may agree with such party to have royalty rates, or other terms, set by third party adjudicators (such as arbitrators) or, in certain circumstances, we may institute legal action against them. This legal action has typically taken the form of a patent infringement lawsuit or an administrative proceeding such as a Section 337 proceeding before the United States International Trade Commission ("USITC" or the "Commission"). In a patent infringement lawsuit, we would typically seek damages for past infringement and an injunction against future infringement. In a USITC proceeding, we would seek an exclusion order to bar infringing goods from entry into the United States, as well as a cease and desist order to bar further sales of infringing goods that have already been imported into the United States. Parties may bring administrative and/or judicial challenges to the validity, enforceability, essentiality and/or applicability of our patents to their products. Parties may also allege that

our efforts to enter into a license with that party do not comply with any obligations we may have in connection with our participation in standards-setting organizations, and therefore that we are not entitled to the relief that we seek. For example, a party may allege that we have not complied with an obligation to offer a license to that party on fair, reasonable and non-discriminatory terms and conditions, and may also file antitrust claims or regulatory complaints on that or other bases, and may seek damages or other relief based on such claims. In addition, a party

8

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## Table of Contents

might file a declaratory judgment action to seek a court's declaration that our patents are invalid, unenforceable, not infringed by the other party's products or are not essential. Our response to such a declaratory judgment action may include claims of infringement. When we include claims of infringement in a patent infringement lawsuit, a favorable ruling for the Company can result in the payment of damages for past patent royalties, the setting of a royalty for future sales or issuance by the court of an injunction enjoining the infringer from manufacturing, using and/or selling the infringing product.

### Contractual Arbitration Proceedings

We and our licensees, in the normal course of business, may have disagreements as to the rights and obligations of the parties under applicable agreements. For example, we could have a disagreement with a licensee as to the amount of reported sales and royalties. Our patent license agreements typically provide for audit rights as well as private arbitration as the mechanism for resolving disputes, and we may attempt to resolve such disputes in arbitration. In arbitration, licensees may seek to assert various claims, defenses, or counterclaims, such as claims based on waiver, promissory estoppel, breach of contract, fraudulent inducement to contract, antitrust, and unfair competition. Arbitration proceedings can be resolved through an award rendered by the arbitrators or by settlement between the parties. Parties to arbitration might have the right to have the award reviewed in a court of competent jurisdiction. However, based on public policy favoring the use of arbitration, it is generally difficult to have arbitration awards vacated or modified. The party securing an arbitration award may seek to have that award converted into a judgment through an enforcement proceeding. The purpose of such a proceeding is to secure a judgment that can be used for, if need be, seizing assets of the other party.

### Competition

With respect to our technology development activities and resulting commercialization efforts, we face competition from companies, including in-house development teams at other wireless device companies and semiconductor companies and wireless operators, developing other and similar technologies that are competitive with our products and solutions that we may market or set forth into the standards-setting arena.

Due to the exclusionary nature of patent rights, we do not compete, in a traditional sense, with other patent holders for patent licensing relationships or sale transactions. Other patent holders do not have the same rights to the inventions and technologies encompassed by our patent portfolio. In any device or piece of equipment that contains intellectual property, the manufacturer may need to obtain licenses from multiple holders of intellectual property. In licensing our patent portfolio, we compete with other patent holders for a share of the royalties that certain licensees may argue to be the total royalty that is supported by a certain product or products, which may face practical limitations. We believe that licenses under a number of our patents are required to manufacture and sell 3G, 4G and other wireless products. However, numerous companies also claim that they hold 3G, 4G and other wireless patents that are or may be essential or may become essential to cellular and other wireless standards. To the extent that multiple parties all seek royalties on the same product, the manufacturers could claim to have difficulty in meeting the financial requirements of each patent holder. In the past, certain manufacturers have sought antitrust exemptions to act collectively on a voluntary basis. In addition, certain manufacturers have sought to limit aggregate licensing fees or rates for essential patents. Similarly, potential purchasers of our patents often amass patent portfolios for defensive and/or cross-licensing purposes and could choose to acquire patent assets within the same general technology space from other patent holders.

### Employees

As of December 31, 2016, we had approximately 360 employees. None of our employees are represented by a collective bargaining unit.

### Geographic Concentrations

See Note 4, "Geographic/Customer Concentration," in the Notes to Condensed Consolidated Financial Statements included in Part II, Item 8, of this Form 10-K for financial information about geographic areas for the last three years.

### Corporate Information

The ultimate predecessor company of InterDigital, Inc. was incorporated in 1972 under the laws of the Commonwealth of Pennsylvania and conducted its initial public offering in November 1981. Our corporate headquarters and administrative offices are located in Wilmington, Delaware, USA. Our research and technology



development centers are located in the following locations: Conshohocken, PA; Buffalo and Melville, NY; San Diego, CA; Montreal, Quebec, Canada; London, England, United Kingdom; and Seoul, South Korea. Our Hillcrest Labs subsidiary is located in Rockville, MD.

## Table of Contents

Our Internet address is [www.interdigital.com](http://www.interdigital.com), where, in the “Investors” section, 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, certain other reports and filings required to be filed under the Securities Exchange Act of 1934, as amended, and all amendments to those reports or filings as soon as reasonably practicable after such material is electronically filed with or furnished to the United States Securities and Exchange Commission. The information contained on or connected to our website is not incorporated by reference into this Form 10-K.

### Item 1A. RISK FACTORS.

We face a variety of risks that may affect our business, financial condition, operating results, the trading price of our common stock, or any combination thereof. You should carefully consider the following information and the other information in this Form 10-K in evaluating our business and prospects and before making an investment decision with respect to our common stock. If any of these risks were to occur, our business, financial condition, results of operations or prospects could be materially and adversely affected. In such an event, the market price of our common stock could decline and you could lose all or part of your investment. The risks and uncertainties we describe below are not the only ones facing us. Additional risks not presently known to us or that we currently deem immaterial may also affect our business.

#### Risks Related to Our Business

Potential patent and litigation reform legislation, potential USPTO and international patent rule changes, potential legislation affecting mechanisms for patent enforcement and available remedies, and potential changes to the intellectual property rights (“IPR”) policies of worldwide standards bodies, as well as rulings in legal proceedings may affect our investments in research and development and our strategies for patent prosecution, licensing and enforcement and could have a material adverse effect on our licensing business as well as our business as a whole.

Potential changes to certain U.S. and international patent laws, rules and regulations may occur in the future, some or all of which may affect our research and development investments, patent prosecution costs, the scope of future patent coverage we secure, the number of forums in which we can seek to enforce our patents, the remedies that we may be entitled to in patent litigation, and attorneys’ fees or other remedies that could be sought against us, and may require us to reevaluate and modify our research and development activities and patent prosecution, licensing and enforcement strategies. Similarly, legislation designed to reduce the jurisdiction and remedial authority of the United States International Trade Commission (the “USITC”) has periodically been introduced in Congress.

Any potential changes in the law, the IPR policies of standards bodies or other developments that reduce the number of forums available or the type of relief available in such forums (such as injunctive relief), restrict permissible licensing practices (such as our ability to license on a worldwide portfolio basis) or that otherwise cause us to seek alternative forums (such as arbitration or state court), would make it more difficult for us to enforce our patents, whether in adversarial proceedings or in negotiations. Because we have historically depended on the availability of certain forms of legal process to enforce our patents and obtain fair and adequate compensation for our investments in research and development and the unauthorized use of our intellectual property, developments that undermine our ability to do so could have a negative impact on future licensing efforts.

Rulings in our legal proceedings as well as those of third parties may affect our strategies for patent prosecution, licensing and enforcement. For example, in recent years, the USITC and U.S. courts, including the U.S. Supreme Court and the U.S. Court of Appeals for the Federal Circuit, have taken some actions that have been viewed as unfavorable to patentees, including the Company. Decisions that occur in U.S. or in international forums may change the law applicable to various patent law issues, such as, for example, patentability, validity, claim construction, patent exhaustion, patent misuse, permissible licensing practices, available forums, and remedies such as damages and injunctive relief, in ways that are detrimental to the abilities of patentees to enforce patents and obtain suitable relief. We continue to monitor and evaluate our strategies for prosecution, licensing and enforcement with regard to these developments; however, any resulting change in such strategies may have an adverse impact on our business and financial condition.

Increased scrutiny by antitrust authorities may affect our strategies for patent prosecution, licensing and enforcement and may increase our costs of doing business and/or lead to monetary fines, penalties or other remedies or sanctions.

Domestic and foreign antitrust authorities have increased their scrutiny of the use of standards-essential patents in the mobile wireless industry, including the enforcement of such patents against competitors and others. Such scrutiny has resulted in, and may lead to additional, inquiries that may lead to enforcement actions against the Company and/or impact the availability of injunctive and monetary relief, which may adversely affect our strategies for patent prosecution, licensing and enforcement and increase our costs of operation. Such inquiries and/or enforcement actions could result in monetary fines, penalties or other remedies or sanctions that could adversely affect our business and financial condition.

## Table of Contents

Royalty rates, or other terms, under our patent license agreements could be subject to determination through arbitration or other third party adjudications or regulatory proceedings, and arbitrators or other third party adjudicators or regulators could determine that our patent royalty rates should be at levels lower than our agreed or historical rates or otherwise make determinations resulting in less favorable terms and conditions under our patent license agreements.

Historically, the terms of our patent license agreements, including our royalty rates, have been reached through arms-length bilateral negotiations with our licensees. We could agree, as we did with Huawei pursuant to our December 2013 settlement agreement, to have royalty rates, or other terms, set by third party adjudicators (such as arbitrators) and it is also possible that courts or regulators could decide to set or otherwise determine the fair, reasonable and non-discriminatory (“FRAND”) consistency of such terms or the manner in which such terms are determined. Changes to or clarifications of our obligations to be prepared to offer licenses to standards-essential patents on FRAND terms and conditions could require such terms, including our royalty rates, to be determined through third party adjudications. Finally, certain of our current and prospective licensees have already instigated, and others could in the future instigate, legal proceedings or regulatory proceedings requesting third party adjudicators or regulators, such as China's National Development and Reform Commission and Taiwan's Fair Trade Commission, to set FRAND terms and conditions for, or determine the FRAND-consistency of current terms and conditions in, our patent license agreements. To the extent that our patent royalty rates for our patent license agreements are determined through arbitration or other third party adjudications or regulatory proceedings rather than through bilateral negotiations, because such proceedings are inherently unpredictable and uncertain and there are currently few precedents for such determinations, it is possible that royalty rates may be lower than our agreed or historical rates, and this could also have a negative impact on royalties we are able to obtain from future licensees, which may have an adverse effect on our revenue and cash flow. In addition, to the extent that other terms and conditions for our patent license agreements are determined through such means, such terms and conditions could be less favorable than our historical terms and conditions, which may have an adverse effect on our licensing business.

Setbacks in defending and enforcing our patent rights could cause our revenue and cash flow to decline.

Some third parties have challenged, and we expect will continue to challenge, the infringement, validity and enforceability of certain of our patents. In some instances, certain of our patent claims could be substantially narrowed or declared invalid, unenforceable, not essential or not infringed. We cannot ensure that the validity and enforceability of our patents will be maintained or that our patents will be determined to be applicable to any particular product or standard. Moreover, third parties could attempt to circumvent certain of our patents through design changes. Any significant adverse finding as to the validity, infringement, enforceability or scope of our patents and/or any successful design-around of our patents could result in the loss of patent licensing revenue from existing licensees, through termination or modification of agreements or otherwise, and could substantially impair our ability to secure new patent licensing arrangements, either at all or on beneficial terms.

Due to the nature of our business, we could continue to be involved in a number of costly litigation, arbitration and administrative proceedings to enforce or defend our intellectual property rights and to defend our licensing practices. While some companies seek licenses before they commence manufacturing and/or selling devices that use our patented inventions, most do not. Consequently, we approach companies and seek to establish license agreements for using our inventions. We expend significant time and effort identifying users and potential users of our inventions and negotiating license agreements with companies that may be reluctant to take licenses. However, if we believe that a third party is required to take a license to our patents in order to manufacture, sell, offer for sale, import or use products, we have in the past commenced, and may in the future, commence legal or administrative action against the third party if they refuse to enter into a license agreement with us. In turn, we have faced, and could continue to face, counterclaims and other legal proceedings that challenge the essential nature of our patents, or that claim that our patents are invalid, unenforceable or not infringed. Litigation adversaries may allege that we have not complied with certain commitments to standards-setting organizations and therefore that we are not entitled to the relief that we seek. For example, a party may allege that we have not complied with an obligation to offer a license to a party on FRAND terms and conditions, and may also file antitrust claims, unfair competition claims or regulatory complaints on that or other bases, and may seek damages and other relief based on such claims. Litigation adversaries have also filed

against us, and other third parties may in the future file, validity challenges such as inter partes proceedings in the USPTO, which can lead to delays of our patent infringement actions as well as potential findings of invalidity. Litigation may be also required to enforce our intellectual property rights, protect our trade secrets, enforce patent license and confidentiality agreements or determine the validity, enforceability and scope of proprietary rights of others.

Third parties could commence litigation against us seeking to invalidate our patents or obtain a determination that our patents are not infringed, are not essential, are invalid or are unenforceable. In addition, current and prospective licensees have initiated proceedings against us claiming, and others in the future may claim, that we have not complied with our FRAND licensing commitments and/or engaged in anticompetitive or unfair licensing activities.

## Table of Contents

The cost of enforcing and defending our intellectual property and of defending our licensing practices has been and may continue to be significant. As a result, we could be subject to significant legal fees and costs, including in certain jurisdictions the costs and fees of opposing counsel if we are unsuccessful. In addition, litigation, arbitration and administrative proceedings require significant key employee involvement for significant periods of time, which could divert these employees from other business activities.

Setbacks in defending our patent licensing practices could cause our cash flow and revenue to decline and could have an adverse effect on our licensing business.

Adverse decisions in litigation or regulatory actions relating to our licensing practices, including, but not limited to, findings that we have not complied with our FRAND commitments and/or engaged in anticompetitive or unfair licensing activities or that any of our license agreements are void or unenforceable, could have an adverse impact on our cash flow and revenue. Regulatory bodies may assess fines in the event of adverse findings, and in court or arbitration proceedings, an adverse decision could lead to a judgment requiring us to pay damages (including the possibility of treble damages for antitrust claims). In addition, to the extent that legal decisions find patent license agreements to be void or unenforceable in whole or in part, that could lead to a decrease in the revenue associated with and cash flow generated by such agreements, and, depending on the damages requested, could lead to the refund of certain payments already made. Finally, adverse legal decisions related to our licensing practices could have an adverse effect on our ability to enter into license agreements, which, in turn, could cause our cash flow and revenue to decline.

Changes in financial accounting standards or policies may affect our reported financial condition or results of operations and, in certain cases, could cause a decline and/or fluctuations in the price of our common stock.

From time to time the Financial Accounting Standards Board (the "FASB") and the SEC change their guidance governing the form and content of our external financial statements. In addition, accounting standard setters and those who interpret U.S. generally accepted accounting principles ("GAAP"), such as the FASB and the SEC, may change or even reverse their previous interpretations or positions with regard to how these standards should be applied. A change in accounting principles or their interpretation can have a significant effect on our reported results. In certain cases, we could be required to apply new or revised guidance retroactively or apply existing guidance differently. Potential changes in reporting standards could substantially change our reporting practices in a number of areas, including revenue recognition and recording of assets and liabilities, and affect our reported financial condition or results of operations.

For example, in May 2014, the FASB and International Accounting Standards Board issued revenue guidance, Revenue from Contracts with Customers, that, once adopted by the Company on January 1, 2018, could significantly impact the timing of revenue recognition for new and existing contracts with licensees. Under the new standard, the Company may be required to recognize up to a substantial majority of the royalties under a fixed-fee license agreement upfront upon entry into the agreement, as opposed to recognizing the royalties on a quarterly basis over the term of the agreement, which has been the historical practice of many licensing companies, including InterDigital. For InterDigital, this could impact the revenue recognition of all of its existing fixed-fee patent license agreements, including certain fixed-fee agreements that cover both our current technologies and future technologies that are added to our portfolio during the term of the license, such as our patent license agreements with Apple and Samsung. In addition, our current practice, which is shared by many licensing companies and discussed in further detail in Note 2, "Summary of Significant Accounting Policies," of reporting revenues from per-unit royalty-based agreements one quarter in arrears would no longer be accepted, and instead we will be expected to estimate royalty-based revenues each quarter in order to report such revenue in the period in which the underlying sales occurred, which will result in the recognition of an adjustment to true up revenue to the actual amounts reported by our licensees. Such changes to our reporting practices could significantly affect our reported financial condition and results of operations, potentially causing the amount of revenue we recognize to vary dramatically from quarter to quarter, and even year to year, depending on the timing of entry into license agreements and whether such agreements have fixed-fee or per-unit royalty terms. In addition, these changes to our reporting practices and the resulting fluctuations in our reported revenue could cause a decline and/or fluctuations in the price of our common stock. See also Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations -- Overview -- New Accounting Guidance.

Our technologies may not be become patented, adopted by wireless standards or widely deployed.

We invest significant resources in the development of advanced technology and related solutions. However, certain of our inventions that we believe will be employed in current and future products, including 4G and beyond, are the subject of patent applications where no patent has been issued to us yet by the relevant patent issuing authorities.

There is no assurance that these applications will issue as patents, either at all or with claims that would be required by products in the market currently or in the future. Our investments may not be recoverable or may not result in meaningful revenue if a sufficient number of our technologies are not patented and adopted by the relevant standards or if products based on the technologies in which we invest are not widely deployed. Competing technologies could reduce the opportunities for the adoption or

Table of Contents

deployment of technologies we develop. If the technologies in which we invest do not become patented or are not adopted by the relevant standards or are not adopted by and deployed in the mai