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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, DC 20549

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**FORM 10-Q**

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(Mark One)

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

For the quarterly period ended September 30, 2018

OR

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

Commission File Number: 001-37956

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**XPERI CORPORATION**

(Exact Name of Registrant as Specified in Its Charter)

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**Delaware**  
(State or Other Jurisdiction of  
Incorporation or Organization)

3025 Orchard Parkway, San Jose, California  
(Address of Principal Executive Offices)

**81-4465732**  
(I.R.S. Employer  
Identification No.)

95134  
(Zip Code)

(408) 321-6000

(Registrant's Telephone Number, Including Area Code)

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

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Title of each class  
Common stock, par value \$0.001 per share

Name of each exchange on which registered  
The NASDAQ Global Select Market

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

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

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

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

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

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

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

The number of shares outstanding of the registrant's common stock as of October 31, 2018 was 48,418,161.

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XPERI CORPORATION  
FORM 10-Q — QUARTERLY REPORT  
FOR THE QUARTER ENDED SEPTEMBER 30, 2018  
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## PART I – FINANCIAL INFORMATION

## Item 1. Financial Statements

**XPERI CORPORATION**  
**CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(in thousands)  
(unaudited)

	Nine Months Ended	
	September 30, 2018	September 30, 2017
<b>Cash flows from operating activities:</b>		
Net loss	\$ (83,049)	\$ (62,202)
Adjustments to reconcile net loss to net cash from operating activities:		
Depreciation of property and equipment	5,073	5,351
Amortization of intangible assets	81,573	84,475
Stock-based compensation expense	22,080	23,961
Deferred income tax	(21,247)	(25,295)
Amortization of debt issuance costs and other	2,636	2,193
Bad debt expense	345	1,849
Changes in operating assets and liabilities:		
Accounts receivable	(10,234)	(1,214)
Unbilled contracts receivable, net	93,005	42,019
Other assets	(479)	4,104
Accounts payable	(872)	(1,258)
Accrued legal fees	(618)	(2,484)
Accrued and other liabilities	(18,129)	10,587
Deferred revenue	(1,451)	3,683
Net cash from operating activities	<u>68,633</u>	<u>85,769</u>
<b>Cash flows from investing activities:</b>		
Purchases of property and equipment	(2,451)	(2,487)
Acquisition, net of cash acquired	(500)	—
Purchases of intangible assets	(3,350)	—
Purchases of investments	(20,095)	(22,572)
Proceeds from sales of property and equipment	—	40
Proceeds from sales of investments	19,675	1,035
Proceeds from maturities of investments	8,540	8,400
Net cash from investing activities	<u>1,819</u>	<u>(15,584)</u>
<b>Cash flows from financing activities:</b>		
Dividend paid	(29,508)	(29,664)
Repayment of debt	(100,000)	(4,500)
Proceeds from exercise of stock options	8,004	4,827
Proceeds from employee stock purchase program	5,197	4,132
Repurchase of common stock	(40,539)	(13,531)
Net cash from financing activities	<u>(156,846)</u>	<u>(38,736)</u>
Net increase (decrease) in cash, cash equivalents and restricted cash	(86,394)	31,449
Cash and cash equivalents at beginning of period	138,260	65,626
Cash, cash equivalents and restricted cash at end of period	<u>\$ 51,866</u>	<u>\$ 97,075</u>
<b>Supplemental disclosure of cash flow information:</b>		
Interest paid	<u>\$ 16,949</u>	<u>\$ 21,258</u>
Income taxes paid, net of refunds	<u>\$ 12,768</u>	<u>\$ 11,614</u>

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

**XPERI CORPORATION**  
**CONDENSED CONSOLIDATED BALANCE SHEETS**  
(in thousands, except for par value)  
(unaudited)

	September 30, 2018	December 31, 2017
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 51,866	\$ 138,260
Investments	53,569	62,432
Accounts receivable, net	26,219	17,010
Unbilled contracts receivable	154,417	10,866
Other current assets	17,029	16,949
Total current assets	<u>303,100</u>	<u>245,517</u>
Long-term unbilled contracts receivable	59,797	2,930
Property and equipment, net	31,769	34,442
Intangible assets, net	353,847	431,789
Goodwill	385,784	385,574
Other assets	5,479	9,772
Total assets	<u>\$ 1,139,776</u>	<u>\$ 1,110,024</u>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$ 3,361	\$ 4,233
Accrued legal fees	6,865	7,483
Accrued liabilities	30,513	47,969
Current portion of long-term debt	—	34,451
Deferred revenue	452	2,686
Total current liabilities	<u>41,191</u>	<u>96,822</u>
Long-term deferred tax liabilities	58,112	15,085
Long-term debt, net	481,574	545,211
Other long-term liabilities	17,089	17,330
Commitments and contingencies (Note 13)		
Stockholders' equity:		
Preferred stock: \$0.001 par value; 10,000 shares authorized and no shares issued and outstanding	—	—
Common stock: \$0.001 par value; 150,000 shares authorized; 62,158 and 60,608 shares issued, respectively, and 48,663 and 49,103 shares outstanding, respectively	62	60
Additional paid-in capital	721,939	686,660
Treasury stock at cost: 13,495 and 11,505 shares of common stock at each period end, respectively	(359,936)	(319,397)
Accumulated other comprehensive loss	(382)	(303)
Retained earnings	180,127	68,556
Total stockholders' equity	<u>541,810</u>	<u>435,576</u>
Total liabilities and stockholders' equity	<u>\$ 1,139,776</u>	<u>\$ 1,110,024</u>

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

**XPERI CORPORATION**  
**CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS**  
(in thousands, except per share amounts)  
(unaudited)

	<b>Three Months Ended</b>		<b>Nine Months Ended</b>	
	<b>September 30, 2018</b>	<b>September 30, 2017</b>	<b>September 30, 2018</b>	<b>September 30, 2017</b>
<b>Revenue:</b>				
Royalty and license fees	\$ 72,365	\$ 88,508	\$ 201,851	\$ 247,085
Total revenue	<u>72,365</u>	<u>88,508</u>	<u>201,851</u>	<u>247,085</u>
<b>Operating expenses:</b>				
Cost of revenue	5,003	1,667	9,407	4,370
Research, development and other related costs	24,189	25,840	75,874	78,165
Selling, general and administrative	28,084	33,995	93,262	108,202
Amortization expense	27,208	27,769	81,573	84,475
Litigation expense	7,642	9,163	21,593	27,368
Total operating expenses	<u>92,126</u>	<u>98,434</u>	<u>281,709</u>	<u>302,580</u>
Operating loss	(19,761)	(9,926)	(79,858)	(55,495)
Interest expense	(6,343)	(7,371)	(18,861)	(20,876)
Other income and expense, net	1,737	739	7,120	1,005
Loss before taxes	(24,367)	(16,558)	(91,599)	(75,366)
Benefit from income taxes	(2,591)	(4,442)	(8,550)	(13,164)
Net loss	<u>\$ (21,776)</u>	<u>\$ (12,116)</u>	<u>\$ (83,049)</u>	<u>\$ (62,202)</u>
<b>Basic and diluted net loss per share:</b>				
Basic	\$ (0.44)	\$ (0.24)	\$ (1.69)	\$ (1.26)
Diluted	\$ (0.44)	\$ (0.24)	\$ (1.69)	\$ (1.26)
Cash dividends declared per share	\$ 0.20	\$ 0.20	\$ 0.60	\$ 0.60
Weighted average number of shares used in per share calculations-basic	<u>48,958</u>	<u>49,469</u>	<u>49,005</u>	<u>49,293</u>
Weighted average number of shares used in per share calculations-diluted	<u>48,958</u>	<u>49,469</u>	<u>49,005</u>	<u>49,293</u>

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

**XPERI CORPORATION**  
**CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS**  
(in thousands)  
(unaudited)

	<u>Three Months Ended</u>		<u>Nine Months Ended</u>	
	<u>September 30, 2018</u>	<u>September 30, 2017</u>	<u>September 30, 2018</u>	<u>September 30, 2017</u>
Net loss	\$ (21,776)	\$ (12,116)	\$ (83,049)	\$ (62,202)
Other comprehensive income (loss):				
Net unrealized gains (losses) on available-for-sale securities, net of tax	74	(16)	(79)	38
Other comprehensive income (loss)	74	(16)	(79)	38
Comprehensive loss	<u>\$ (21,702)</u>	<u>\$ (12,132)</u>	<u>\$ (83,128)</u>	<u>\$ (62,164)</u>

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

**XPERI CORPORATION**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS**  
**(unaudited)**

**NOTE 1 – THE COMPANY AND BASIS OF PRESENTATION**

Xperi Corporation (the “Company”) completed the acquisition of DTS, Inc. (“DTS”), a publicly-traded developer of sound-based technologies, in December 2016. At the time of the acquisition, Tessera Technologies, Inc. and DTS were combined under the newly-formed Tessera Holding Corporation. During the first quarter of 2017, the Company introduced its new corporate name, Xperi Corporation, launched a new corporate logo, and began trading under a new ticker symbol XPER.

Xperi Corporation licenses its innovative products, technologies and inventions to global electronics companies which, in turn, integrate the technologies into their own consumer electronics and semiconductor products. The Company’s technologies and inventions are widely adopted and used every day by millions of people. The Company’s audio technologies have shipped in billions of devices for the home, mobile and automotive markets. The Company’s imaging technologies are embedded in more than 25% of smartphones on the market today. The Company’s semiconductor packaging and interconnect technologies have been licensed to more than 100 customers and have shipped in over 100 billion semiconductor chips.

The accompanying interim unaudited condensed consolidated financial statements as of September 30, 2018 and 2017, and for the three and nine months then ended, have been prepared by the Company in accordance with generally accepted accounting principles (“GAAP”) in the United States (“U.S.”) for interim financial information. The amounts as of December 31, 2017 have been derived from the Company’s annual audited financial statements. Certain information and footnote disclosures normally included in financial statements prepared in accordance with U.S. GAAP have been condensed or omitted in accordance with such rules and regulations. In the opinion of management, the accompanying unaudited condensed consolidated financial statements reflect all adjustments necessary (consisting of normal recurring adjustments) to state fairly the financial position of the Company and its results of operations and cash flows as of and for the periods presented. These financial statements should be read in conjunction with the annual audited financial statements and notes thereto as of and for the year ended December 31, 2017, included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2017, filed on February 23, 2018 (the “Form 10-K”).

The results of operations for the three and nine months ended September 30, 2018 are not necessarily indicative of the results that may be expected for the full year ended December 31, 2018 or any future period and the Company makes no representations related thereto.

**Reclassification**

Certain reclassifications have been made to prior period balances in order to conform to the current period’s presentation.

**NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

The Company’s significant accounting policies are detailed in “Note 2 - *Summary of Significant Accounting Policies*” in its Form 10-K for the year ended December 31, 2017. Significant changes to its accounting policies as a result of adopting Topic 606 are discussed in Note 3 - *Revenue*.

**Recently Adopted Accounting Pronouncements**

In January 2016, the Financial Accounting Standards Board (“FASB”) issued ASU 2016-01, *Financial Instruments—Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities* (ASU 2016-01), which addresses certain aspects of recognition, measurement, presentation, and disclosure of financial instruments. The amended guidance requires certain equity investments that are not consolidated and not accounted for under the equity method to be measured at fair value with changes in fair value recognized in net income. The Company adopted ASU 2016-01 on January 1, 2018 using the modified retrospective method, which did not have an impact on its consolidated financial statements as there were no unrealized gains or losses associated with marketable equity securities on the adoption date. Following the adoption of the standard, unrealized gains and losses on equity securities are recorded in other income and expense, net, on the Condensed Consolidated Statements of Operations. See “Note 5 – *Financial Instruments*” for further information.

In August 2016, the FASB issued Accounting Standards Update (“ASU”) No. 2016-15, “*Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments*.” This ASU addresses the classification of certain specific cash flow issues including debt prepayment or extinguishment costs, settlement of certain debt instruments, contingent consideration payments made after a business combination, proceeds from the settlement of certain insurance claims and distributions received from equity method investees. This ASU is effective for fiscal years beginning after December 15, 2017, and interim

periods within those fiscal years, with early adoption permitted. The Company adopted this standard as of January 1, 2018. The adoption of this standard did not have a material impact on the Company's consolidated financial statements.

In October 2016, the FASB issued ASU No. 2016-16, "Intra-Entity Transfers of Assets Other Than Inventory." This ASU requires entities to recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs. For public entities, this ASU is effective for annual reporting periods beginning after December 15, 2017, including interim reporting periods within those annual reporting periods. The Company adopted this standard as of January 1, 2018 on a prospective basis. The adoption of this standard did not have a material impact on the Company's consolidated financial statements.

In May 2017, the FASB issued ASU No. 2017-09, "Compensation-Stock Compensation (Topic 718) Scope of Modification Accounting." ASU 2017-09 provides guidance about which changes to the terms or conditions of a share-based payment awarded require an entity to apply modification accounting. The standard is effective for interim and annual reporting periods beginning after December 15, 2017, with early adoption permitted. The Company adopted the standard as of January 1, 2018 on a prospective basis. The adoption of this standard did not have a material impact on the Company's consolidated financial statements.

In May 2014, the FASB issued ASU No. 2014-09 (Topic 606) "Revenue from Contracts with Customers." Topic 606 supersedes the revenue recognition requirements in Topic 605 "Revenue Recognition" (Topic 605), and requires entities to recognize revenue when control of goods or services is transferred to customers at an amount that reflects the consideration to which the entity expects to be entitled in exchange for the goods or services. Under the prior standard, licensing companies generally reported revenue from per-unit royalty based arrangements one quarter in arrears. Under the new guidance, the Company estimates per-unit royalty-based revenue prior to receiving customer royalty reports. The Company also expects the standard to have a significant impact on the timing of revenue recognition associated with its fixed fee and minimum guarantee arrangements, as a majority of such revenue which had previously been recognized over the license term is expected to be recognized at the inception of the license term. On January 1, 2018, the Company adopted the new standard using the modified retrospective method, under which the Company recorded a \$224 million cumulative net of tax adjustment to the opening balance of retained earnings on January 1, 2018. The adjustment was determined by measuring the impact of the new standard on existing contracts that were not completed as of December 31, 2017. Prior period comparative information has not been restated and continues to be reported under Topic 605 in effect for those periods. This new standard had a material impact on the Company's revenue and its consolidated statement of operations and balance sheet as of and for the three and nine months ended September 30, 2018, and is expected to have a material impact on an ongoing basis, with no impact on the timing of customer billings or on cash flows. See "Note 3 - Revenue" for further discussion.

The cumulative effect of the changes made to the Company's Condensed Consolidated Balance Sheet for the adoption of Topic 606 was as follows (in thousands):

	Balance at December 31, 2017	Adjustments due to Topic 606	Balance at January 1, 2018
<b>Assets</b>			
Unbilled contracts receivable	\$ 10,866	\$ 188,760	\$ 199,626
Other current assets	16,949	(2,000)	14,949
Long-term unbilled contracts receivable	2,930	103,983	106,913
Other assets	9,772	(2,446)	7,326
<b>Liabilities</b>			
Accrued liabilities	47,969	432	48,401
Deferred revenue	2,686	(783)	1,903
Long-term deferred tax liabilities	15,085	64,520	79,605
<b>Equity</b>			
Retained earnings	68,556	224,128	292,684

The most significant impact from adopting Topic 606 was a substantial increase in unbilled contracts receivable, long-term deferred tax liabilities and retained earnings, which was driven primarily by applying the standard on fixed fee and minimum guarantee contracts that were not completed as of December 31, 2017, and secondarily by recording to retained earnings those royalties from customer shipments completed in the fourth quarter of 2017 and reported to the Company in the first quarter of 2018. The adjustments noted above had no impact on the Company's Condensed Consolidated Statements of Cash Flows for the nine months ended September 30, 2018.



Adoption of the new revenue standard had the following impact on the Company's condensed consolidated financial statements as compared to the comparable data under the previous accounting standards (in thousands, except per share amounts):

STATEMENT OF OPERATIONS	Three Months Ended September 30, 2018			Nine Months Ended September 30, 2018		
	As Reported	Amounts under Topic 605	Effect of Change Higher/(lower)	As Reported	Amounts under Topic 605	Effect of Change Higher/(lower)
Royalty and license fees	\$ 72,365	\$ 100,375	\$ (28,010)	\$ 201,851	\$ 293,251	\$ (91,400)
Cost of revenue	5,003	2,231	2,772	9,407	6,560	2,847
Operating income (loss)	(19,761)	11,021	(30,782)	(79,858)	14,390	(94,248)
Other income and expense, net	1,737	160	1,577	7,120	1,245	5,875
Income (loss) before taxes	(24,367)	4,839	(29,206)	(91,599)	(3,226)	(88,373)
Provision for (benefit from) income taxes	(2,591)	1,956	(4,547)	(8,550)	6,665	(15,215)
Net income (loss)	(21,776)	2,883	(24,659)	(83,049)	(9,891)	(73,158)
Basic net income (loss) per share	\$ (0.44)	\$ 0.06	\$ (0.50)	\$ (1.69)	\$ (0.20)	\$ (1.49)

BALANCE SHEET	As of September 30, 2018		
	As Reported	Amounts under Topic 605	Effect of Change Higher/(lower)
<b>Assets</b>			
Unbilled contracts receivable	\$ 154,417	\$ 4,653	\$ 149,764
Other current assets	17,029	18,279	(1,250)
Long-term unbilled contracts receivable	59,797	1,823	57,974
Other assets	5,479	7,545	(2,066)
<b>Liabilities</b>			
Accrued liabilities	30,513	26,445	4,068
Deferred revenue	452	889	(437)
Long-term deferred tax liabilities	58,112	8,358	49,754
<b>Equity</b>			
Retained earnings	180,127	29,090	151,037

#### Recent Accounting Pronouncements

In February 2016, the FASB issued ASU No. 2016-02, "Leases" (Topic 842) (ASU 2016-02), which generally requires companies to recognize operating and financing lease liabilities and corresponding right-of-use assets on the balance sheet. This guidance will be effective for the Company in the first quarter of 2019, and early adoption is permitted. The Company will adopt the new standard effective January 1, 2019. While the Company continues to evaluate the effect of adopting this guidance on its consolidated financial statements and related disclosures, it is expected the Company's operating leases, as disclosed in Note 13 - "Commitments and Contingencies," will be subject to the new standard. In the third quarter of 2018, the Company continued to develop and implement new accounting policies and processes necessary to adopt the requirements of the new standard. In addition, the Company has completed its preliminary assessment of leasing arrangements and expects to finalize its estimates of adoption impact by the end of fiscal 2018. The Company expects to adopt the new standard using the optional transition method, under which the Company will initially apply the transition requirements to all leases that exist at December 31, 2018, with the effects of initially applying Topic 842 recognized as a cumulative effect adjustment to the opening balance of retained earnings on January 1, 2019. The Company currently expects that adoption will result in increases in lease-related Right-of-Use assets and liabilities on its consolidated balance sheet and have no impact on its consolidated statement of operations or cash flows.

In September 2016, the FASB issued ASU No. 2016-13, "Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments" ("ASU 2016-13"), which introduces an approach based on expected losses to estimate credit losses on certain types of financial instruments. It also modifies the impairment model for available-for-sale debt securities and provides for a simplified accounting model for purchased financial assets with credit deterioration since their origination. ASU 2016-13 is effective for the Company in the first quarter of the year ending December 31, 2020. The Company is in the process of evaluating the impact of the adoption of this new standard on its consolidated financial statements.

In June 2018, the FASB issued ASU No. 2018-07, "Stock-based Compensation: Improvements to Nonemployee Share-based Payment Accounting," which amends the existing accounting standards for share-based payments to nonemployees. This ASU aligns much of the guidance on measuring and classifying nonemployee awards with that of awards to employees. Under the new guidance, the measurement of nonemployee equity awards is fixed on the grant date. The effective date for the standard is

for interim periods in fiscal years beginning after December 15, 2018, with early adoption permitted, but no earlier than the Company's adoption date of Topic 606. The new guidance is required to be applied retrospectively with the cumulative effect recognized at the date of initial application. The Company currently does not expect that the adoption of this standard will have a material impact on its consolidated financial statements.

### **NOTE 3 – REVENUE**

As discussed in Note 2, on January 1, 2018, the Company adopted Topic 606 using the modified retrospective method. Results for reporting periods beginning January 1, 2018 are presented under Topic 606, while prior period amounts are not restated and continue to be reported in accordance with the historic accounting under Topic 605.

#### **Revenue Recognition**

The Company derives its revenue primarily from royalty and license fees for rights to use the Company's intellectual property and technologies ("IP"). Revenue is recognized upon transfer of control of promised products, services or IP rights to customers in an amount that reflects the consideration the Company expects to receive in exchange for those products, services or licensing of the IP rights.

Certain licensees have entered into fixed fee or minimum guarantee arrangements, whereby licensees pay a fixed fee for the right to incorporate the Company's technology in the licensee's products over the license term. In arrangements with a minimum guarantee, the fixed fee component corresponds to a minimum number of units or dollars that the customer must produce or pay, with additional per-unit fees for any units or dollars exceeding the minimum. In most cases, the customer pays the fixed license fee in specified installments over the license term. For these agreements, the Company recognizes the full fixed fee as revenue at the beginning of the license term, when the licensee has the right to use the IP and begins to benefit from the license.

If the contract term of a fixed fee or minimum guarantee arrangement is longer than one year, the Company also considers the scheduled payment arrangements to determine whether a significant financing component exists. In general, if the payment arrangements extend beyond the initial twelve months of the contract, the Company treats a portion of the payments as a significant financing component. When the payments are expected to be received within one year or less, the Company does not adjust the promised amount of consideration for the effects of a financing component. The discount rate used for each arrangement reflects the rate that would be used in a separate financing transaction between the Company and the licensee at contract inception, and takes into account the credit characteristics of the licensee and market interest rates as of the date of the agreement. As such, the amount of fixed fee revenue recognized at the beginning of the license term will be reduced by the calculated financing component. As payments are received from the licensee, the Company recognizes a portion of the financing component as interest income, reported as other income and expense in the Condensed Consolidated Statements of Operations.

For certain licensees, royalty revenues are generated based on a licensee's production or shipment of licensed products incorporating the Company's IP, technologies or software. Licensees with a per-unit arrangement pay a per-unit royalty for each product manufactured or sold, as set forth in its license agreement. Licensees generally report manufacturing or sales information in the quarter subsequent to when the production or shipment activity takes place. The Company estimates the royalties earned each quarter based on its forecast of manufacturing and sales activity incurred by its licensees in that quarter. Any differences between actual royalties owed by a licensee and the Company's quarterly estimate are recognized in the following quarter, when the licensee's royalty report is received. Estimating licensees' quarterly royalties prior to receiving the royalty reports requires the Company to make significant assumptions and judgments that could have a material impact on the amount of revenue it reports on a quarterly basis.

The Company actively monitors and enforces its IP, including seeking appropriate compensation from customers that have under-reported royalties owed under a license agreement and from third parties that utilize the Company's intellectual property without a license. As a result of these activities, the Company may, from time to time, recognize revenue from payments resulting from periodic compliance audits of licensees for underreporting royalties incurred in prior periods, as part of a settlement of a patent infringement dispute, or legal judgments from a license dispute. These recoveries and settlements may cause revenue to be higher than expected during a particular reporting period and such recoveries may not occur in subsequent periods. The Company recognizes revenue from recoveries when a binding agreement has been executed and the Company concludes collection under that agreement is likely.

In some instances, the Company may enter into license agreements that contain multiple performance obligations that include engineering services in addition to a technology or software license. For such arrangements where all components are capable of being distinct and accounted for as separate performance obligations, the Company allocates revenue to each performance obligation based on its relative standalone selling price. The Company generally determines standalone selling prices based on

the prices ordinarily charged to customers, or in some cases by applying a reasonable cost-plus margin. The consideration for engineering services is recognized as the underlying performance obligations are satisfied. Generally, the Company satisfies performance obligations over time and therefore recognizes revenue over time by measuring the progress toward completion of the performance obligation at each reporting period.

From time to time, the Company enters into arrangements with licensees in which the Company pays consideration to the licensee. Such payments can take the form of marketing development funds or various rebate incentives. The Company typically accounts for consideration paid to its licensees as a reduction to the transaction price and revenue, unless the payment to the licensee is in exchange for a distinct good or service that the licensee transfers to the Company. In cases where the consideration paid to the licensee is variable, the Company estimates the variable consideration based on the terms of the arrangement and expectations of future outcomes. The Company recognizes the reduction to revenue when it recognizes revenue for transfer of control of promised products, services or IP rights to the licensee.

Revenue is recognized gross of withholding taxes that are remitted directly by the Company's licensees directly to a local tax authority.

For additional detail on the Company's revenue disaggregated by geographic location, refer to Note 14 - "*Segment and Geographic Information.*"

## Contract Balances

### *Unbilled Contracts Receivable*

Timing of revenue recognition may differ significantly from the timing of invoicing to customers. Accounts receivable, net, includes amounts billed and currently due from customers. Unbilled contracts receivable represents unbilled amounts expected to be received from customers in future periods, where the revenue recognized to date (or cumulative adjustments to retained earnings in the initial period of adopting Topic 606) exceeds the amount billed, and right to payment is subject to the underlying contractual terms. Unbilled contracts receivable amounts may not exceed their net realizable value and are classified as long-term assets if the payments are expected to be received more than one year from the reporting date.

### *Deferred Revenue*

Deferred revenue includes payments made by licensees for which the corresponding performance obligations have not yet been fully satisfied by the Company and typically arises where performance obligations are satisfied over time.

### *Additional Disclosures Under Topic 606*

The following table presents additional revenue and contract disclosures (in thousands):

	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2018</u>	<u>2017</u>	<u>2018</u>	<u>2017</u>
Revenue recognized in the period from:				
Amounts included in deferred revenue at the beginning of the period	\$ 3,852	\$ 845	\$ 1,602	\$ 1,123
Performance obligations satisfied in previous periods (true ups and licensee reporting adjustments)*	\$ 3,375	\$ 40	\$ 3,001	\$ 4,115

\*True ups represent the differences between the Company's quarterly estimates of per unit royalty revenue and actual production/sales-based royalties reported by licensees in the following period. Licensee reporting adjustments represent corrections or revisions to previously reported per unit royalties by licensees, generally resulting from the Company's inquiries or compliance audits.

Remaining revenue under contracts with performance obligations represents the aggregate amount of the transaction price allocated to the performance obligations that are unsatisfied (or partially unsatisfied) under the Company's engineering services contracts. The Company's remaining revenue under contracts with performance obligations was as follows (in thousands):

	As of	
	September 30, 2018	December 31, 2017
Revenue from contracts with performance obligations expected to be satisfied in:		
One year or less	\$ 3,420	\$ 2,440
More than one year but less than two years	335	149
More than two years	—	240
Total	<u>\$ 3,755</u>	<u>\$ 2,829</u>

#### Practical Expedients

The Company expenses sales commissions when incurred because the amortization period generally would have been one year or less. In addition, sales commissions have historically not been a significant expense and are not contemplated to be significant in the future. Sales commissions are recorded in selling, general and administrative expenses in the Condensed Consolidated Statement of Operations.

#### NOTE 4 – COMPOSITION OF CERTAIN FINANCIAL STATEMENT CAPTIONS

##### Other current assets consisted of the following (in thousands):

	September 30, 2018	December 31, 2017
Prepaid income taxes	\$ 8,190	\$ 6,713
Prepaid expenses	6,796	6,655
Other	2,043	3,581
	<u>\$ 17,029</u>	<u>\$ 16,949</u>

##### Property and equipment, net, consisted of the following (in thousands):

	September 30, 2018	December 31, 2017
Equipment, furniture and other	\$ 28,378	\$ 26,029
Building and improvements	18,258	18,222
Land	5,300	5,300
Leasehold improvements	6,443	6,469
	<u>58,379</u>	<u>56,020</u>
Less: accumulated depreciation and amortization	(26,610)	(21,578)
	<u>\$ 31,769</u>	<u>\$ 34,442</u>

Depreciation and amortization expense for the three months ended September 30, 2018 and 2017 amounted to \$1.6 million and \$1.7 million, respectively.

Depreciation and amortization expense for the nine months ended September 30, 2018 and 2017 amounted to \$5.1 million and \$5.4 million, respectively.

##### Accrued liabilities consisted of the following (in thousands):

	September 30, 2018	December 31, 2017
Employee compensation and benefits	\$ 16,691	\$ 37,056
Other	13,822	10,913
	<u>\$ 30,513</u>	<u>\$ 47,969</u>

**Accumulated other comprehensive loss consisted of the following (in thousands):**

	September 30, 2018	December 31, 2017
Unrealized loss on available-for-sale securities, net of tax	\$ (382)	\$ (303)
	<u>\$ (382)</u>	<u>\$ (303)</u>

**Other income and expense, net, consisted of the following (in thousands):**

	Three Months Ended,		Nine Months Ended,	
	September 30, 2018	September 30, 2017	September 30, 2018	September 30, 2017
Interest income from significant financing components under Topic 606	\$ 1,577	\$ —	\$ 5,876	\$ —
Interest income from investments	233	269	697	731
Unrealized loss on marketable equity securities	(566)	—	(566)	—
Other income (losses)	493	470	1,113	274
	<u>\$ 1,737</u>	<u>\$ 739</u>	<u>\$ 7,120</u>	<u>\$ 1,005</u>

**NOTE 5 – FINANCIAL INSTRUMENTS**

The Company has investments in debt securities which include corporate bonds and notes, treasury and agency notes and bills, commercial paper, certificates of deposit, and in equity securities consisting of money market funds and common equity securities of a publicly traded Japanese company. The Company classifies its debt securities as available-for-sale, which are accounted for at fair value with unrealized gains and losses recognized in accumulated other comprehensive gain or loss on the Condensed Consolidated Balance Sheets.

Prior to January 1, 2018, the Company accounted for equity securities in the same manner as debt securities. Realized gains and losses on equity securities sold, if any, were recognized in other income and expense, net, on the Condensed Consolidated Statement of Operations.

On January 1, 2018, the Company adopted ASU 2016-01 (Topic 321) which requires equity securities to be measured at fair value and starting January 1, 2018 unrealized gains and losses are recognized in other income and expense, net, on the Condensed Consolidated Statement of Operations.

The following is a summary of marketable securities at September 30, 2018 and December 31, 2017 (in thousands):

	September 30, 2018			Estimated Fair Values
	Cost	Gross Unrealized Gains	Gross Unrealized Losses	
<b>Marketable securities</b>				
Corporate bonds and notes	\$ 33,893	\$ —	\$ (306)	\$ 33,587
Commercial paper	8,962	—	(5)	8,957
Treasury and agency notes and bills	6,000	—	(71)	5,929
<b>Total debt securities</b>	<u>48,855</u>	<u>—</u>	<u>(382)</u>	<u>48,473</u>
Money market funds	67	—	—	67
Marketable equity securities	5,662	—	(566)	5,096
<b>Total equity securities</b>	<u>5,729</u>	<u>—</u>	<u>(566)</u>	<u>5,163</u>
<b>Total marketable securities</b>	<u>\$ 54,584</u>	<u>\$ —</u>	<u>\$ (948)</u>	<u>\$ 53,636</u>
<b>Reported in:</b>				
Cash and cash equivalents				\$ 67
Investments				53,569
<b>Total marketable securities</b>				<u>\$ 53,636</u>

	December 31, 2017			
	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Values
<b>Marketable securities</b>				
Corporate bonds and notes	\$ 45,803	\$ —	\$ (230)	\$ 45,573
Commercial paper	2,392	—	(2)	2,390
Treasury and agency notes and bills	6,000	—	(71)	5,929
Certificates of deposit	8,540	—	—	8,540
<b>Total debt securities</b>	<u>62,735</u>	<u>—</u>	<u>(303)</u>	<u>62,432</u>
Money market funds - equity securities	40,413	—	—	40,413
<b>Total marketable securities</b>	<u>\$ 103,148</u>	<u>\$ —</u>	<u>\$ (303)</u>	<u>\$ 102,845</u>
<b>Reported in:</b>				
Cash and cash equivalents				\$ 40,413
Investments				62,432
<b>Total marketable securities</b>				<u>\$ 102,845</u>

At September 30, 2018 and December 31, 2017, the Company had \$105.4 million and \$200.7 million, respectively, in cash, cash equivalents and investments. These balances include \$51.8 million and \$97.8 million in cash held in operating accounts not included in the tables above at September 30, 2018 and December 31, 2017, respectively.

### Debt Securities

The gross realized gains and losses on sales of marketable debt securities were not significant during the three and nine months ended September 30, 2018 and 2017, respectively.

Unrealized losses on marketable debt securities were \$0.4 million and \$0.3 million, net of tax, as of September 30, 2018 and December 31, 2017, respectively. These amounts were related to temporary fluctuations in value of available-for-sale securities and were due primarily to changes in interest rates and market and credit conditions of the underlying securities. Certain investments with a temporary decline in value are not considered to be other-than-temporarily impaired as of September 30, 2018 because the Company has the intent and ability to hold these investments to allow for recovery, does not anticipate having to sell these securities with unrealized losses and continues to receive interest at the maximum contractual rate. For the three and nine months ended September 30, 2018 and 2017, respectively, the Company did not record any impairment charges related to its marketable debt securities.

The following table summarizes the fair value and gross unrealized losses related to individual available-for-sale securities at September 30, 2018 and December 31, 2017, which have been in a continuous unrealized loss position, aggregated by investment category and length of time (in thousands):

	Less Than 12 Months		12 Months or More		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
<b>September 30, 2018</b>						
Corporate bonds and notes	\$ 19,868	\$ (136)	\$ 13,719	\$ (170)	\$ 33,587	\$ (306)
Commercial paper	8,957	(5)	—	—	8,957	(5)
Treasury and agency notes and bills	—	—	5,929	(71)	5,929	(71)
<b>Total</b>	<u>\$ 28,825</u>	<u>\$ (141)</u>	<u>\$ 19,648</u>	<u>\$ (241)</u>	<u>\$ 48,473</u>	<u>\$ (382)</u>

	Less Than 12 Months		12 Months or More		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
December 31, 2017						
Corporate bonds and notes	\$ 30,811	\$ (189)	\$ 14,762	\$ (41)	\$ 45,573	\$ (230)
Commercial paper	2,390	(2)	—	—	2,390	(2)
Treasury and agency notes and bills	—	—	5,929	(71)	5,929	(71)
<b>Total</b>	<u>\$ 33,201</u>	<u>\$ (191)</u>	<u>\$ 20,691</u>	<u>\$ (112)</u>	<u>\$ 53,892</u>	<u>\$ (303)</u>

The estimated fair value of marketable debt securities by contractual maturity at September 30, 2018 is shown below (in thousands). Actual maturities may differ from contractual maturities because issuers may have the right to call or prepay obligations without call or prepayment penalties.

	Estimated Fair Value
Due in one year or less	\$ 33,565
Due in one to two years	14,908
Due in two to three years	—
<b>Total</b>	<u>\$ 48,473</u>

### Equity Securities

There were no realized gains or losses on sales of equity securities during the three and nine months ended September 30, 2018 and 2017.

The Company had unrealized losses of \$0.6 million and \$0.6 million on marketable equity securities during the three and nine months ended September 30, 2018, respectively, and none for the three and nine months ended September 30, 2017.

On September 19, 2018, the Company purchased seven million common shares of Onkyo Corporation (“Onkyo”), a publicly traded Japanese company, pursuant to the Capital Alliance Agreement (“Agreement”) entered into between the two parties on September 3, 2018. Upon making the investment, the Company holds a 6.3% ownership interest in Onkyo and expects to have one representative appointed to the board of directors of a subsidiary of Onkyo. The Company also expects to have one representative appointed to serve on the board of directors of Onkyo effective with its next scheduled shareholders meeting in June 2019. The Agreement contemplates that the parties will negotiate a business alliance agreement aimed at collaborating on certain new product development within IOT, AI and wireless audio. Onkyo is a long-term customer of the Company.

### NOTE 6 – FAIR VALUE

The Company follows the authoritative guidance for fair value measurement and the fair value option for financial assets and financial liabilities. Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability, or an exit price, in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. The established fair value hierarchy requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. There are three levels of inputs that may be used to measure fair value:

*Level 1* Quoted prices in active markets for identical assets.

*Level 2* Observable market-based inputs or unobservable inputs that are corroborated by market data.

*Level 3* Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets. Level 3 assets and liabilities include financial instruments whose value is determined using pricing models, discounted cash flow methodologies, or similar techniques, as well as instruments for which the determination of fair value requires significant management judgment or estimation.

When applying fair value principles in the valuation of assets, the Company is required to maximize the use of quoted market prices and minimize the use of unobservable inputs. The Company calculates the fair value of its Level 1 and Level 2 instruments based on the exchange traded price of similar or identical instruments, where available, or based on other observable inputs. There were no significant transfers into or out of Level 1 or Level 2 that occurred between December 31, 2017 and September 30, 2018.

The following is a list of the Company's assets required to be measured at fair value on a recurring basis and where they were classified within the hierarchy as of September 30, 2018 (in thousands):

	Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Assets</b>				
Marketable securities				
Money market funds - equity securities (1)	\$ 67	\$ 67	\$ —	\$ —
Marketable equity securities (2)	5,096	5,096	—	—
Commercial paper - debt securities (2)	8,957	—	8,957	—
Corporate bonds and notes - debt securities (2)	33,587	—	33,587	—
Treasury and agency notes and bills - debt securities (2)	5,929	—	5,929	—
<b>Total Assets</b>	<u>\$ 53,636</u>	<u>\$ 5,163</u>	<u>\$ 48,473</u>	<u>\$ —</u>

The following footnotes indicate where the noted items were recorded in the Condensed Consolidated Balance Sheet at September 30, 2018:

- (1) Reported as cash and cash equivalents.
- (2) Reported as investments.

The following is a list of the Company's assets required to be measured at fair value on a recurring basis and where they were classified within the hierarchy as of December 31, 2017 (in thousands):

	Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Assets</b>				
Marketable securities				
Money market funds - equity securities (1)	\$ 40,413	\$ 40,413	\$ —	\$ —
Certificates of deposit - debt securities (2)	8,540	—	8,540	—
Corporate bonds and notes - debt securities (2)	45,573	—	45,573	—
Treasury and agency notes and bills - debt securities (2)	5,929	—	5,929	—
Commercial paper - debt securities (2)	2,390	—	2,390	—
<b>Total Assets</b>	<u>\$ 102,845</u>	<u>\$ 40,413</u>	<u>\$ 62,432</u>	<u>\$ —</u>

The following footnotes indicate where the noted items were recorded in the Condensed Consolidated Balance Sheet at December 31, 2017:

- (1) Reported as cash and cash equivalents.
- (2) Reported as investments.

The Company also has outstanding debt at September 30, 2018 and December 31, 2017 that is considered a level 2 liability and is measured at fair value on a recurring basis. See "Note 8 - Debt" for additional information. At September 30, 2018 and December 31, 2017, the fair value of the Company's debt was not materially different than the outstanding principal amount.

#### NOTE 7 – GOODWILL AND IDENTIFIED INTANGIBLE ASSETS

The changes to the carrying value of goodwill from January 1, 2018 through September 30, 2018 are reflected below (in thousands):

December 31, 2017	\$ 385,574
Goodwill acquired through a business acquisition (1)	210
September 30, 2018	<u>\$ 385,784</u> (2)



(1) Related to the acquisition of an emerging technology company in May 2018.

(2) Of this amount, approximately \$378.1 million was allocated to the Product Licensing segment and approximately \$7.7 million was allocated to the Semiconductor and IP Licensing segment.

Identified intangible assets consisted of the following (in thousands):

	Average Life (Years)	September 30, 2018			December 31, 2017		
		Gross Assets	Accumulated Amortization	Net	Gross Assets	Accumulated Amortization	Net
Acquired patents / core technology	3-15	\$ 145,934	\$ (125,149)	\$ 20,785	\$ 142,584	\$ (113,349)	\$ 29,235
Existing technology	5-10	206,879	(87,389)	119,490	204,394	(61,518)	142,876
Customer contracts and related relationships	3-9	291,769	(108,440)	183,329	291,769	(68,267)	223,502
Trademarks/trade name	4-10	40,083	(9,840)	30,243	40,083	(6,111)	33,972
Non-competition agreements	1	2,231	(2,231)	—	2,231	(2,231)	—
Total amortizable intangible assets		686,896	(333,049)	353,847	681,061	(251,476)	429,585
In-process research and development		—	—	—	2,204	—	2,204
Total intangible assets		<u>\$ 686,896</u>	<u>\$ (333,049)</u>	<u>\$ 353,847</u>	<u>\$ 683,265</u>	<u>\$ (251,476)</u>	<u>\$ 431,789</u>

Amortization expense for the three months ended September 30, 2018 and 2017 amounted to \$27.2 million and \$27.8 million, respectively.

Amortization expense for the nine months ended September 30, 2018 and 2017 amounted to \$81.6 million and \$84.5 million, respectively.

As of September 30, 2018, the estimated future amortization expense of total intangible assets was as follows (in thousands):

2018 (remaining 3 months)	\$	26,854
2019		99,852
2020		88,137
2021		80,428
2022		31,989
Thereafter		26,587
	<u>\$</u>	<u>353,847</u>

#### NOTE 8 - DEBT

On December 1, 2016, in connection with the consummation of the acquisition of DTS, the Company entered into a Credit Agreement (the "Credit Agreement") by and among the Company, Royal Bank of Canada, as administrative agent and collateral agent, and the lenders party thereto. The Credit Agreement provided for a \$600.0 million seven-year term B loan facility (the "Term B Loan Facility") which matures on November 30, 2023. Upon the closing of the Credit Agreement, the Company borrowed \$600.0 million under the Term B Loan facility. Net proceeds were used on December 1, 2016, together with cash and cash equivalents, to finance the acquisition of DTS.

On January 23, 2018, the Company and the loan parties entered into an amendment to the Credit Agreement (the "Amendment"). In connection with the Amendment, the Company made a voluntary prepayment of \$100.0 million of the term loan outstanding under the Credit Agreement using cash on hand. The Amendment provided for, among other things, (i) a replacement of the outstanding initial term loan with the new tranche term B-1 loan (the "Amended Term B Loan") in a principal amount of \$494.0 million, (ii) a reduction of the interest rate margin applicable to such loan to (x) in the case of Eurodollar loans, 2.50% per annum and (y) in the case of base rate loans, 1.50% per annum, (iii) a prepayment premium of 1.00% in connection with any repricing transaction with respect to the Amended Term B Loan within six months of the closing date of the Amendment, and (iv) certain amendments to provide the Company with additional flexibility under the covenant governing restricted payments.

The Company's obligations under the Credit Agreement, as amended by the Amendment, continue to be guaranteed by substantially all of the Company's subsidiaries, and secured by substantially all of the assets of the Company and its subsidiaries. The Credit Agreement contains customary events of default, upon the occurrence of which, after any applicable grace period, the lenders will have the ability to accelerate all outstanding loans thereunder. The Credit Agreement contains customary representations and warranties and affirmative and negative covenants that, among other things, restrict the ability of the Company to create or incur certain liens, incur or guarantee additional indebtedness, merge or consolidate with other

companies, transfer or sell assets and make restricted payments. The Company was in compliance with all requirements during the three and nine months ended September 30, 2018.

All lenders of the Term B Loan Facility participated in the Amendment and the changes in terms were not considered substantial. Accordingly, the repricing event was accounted for as a debt modification. The Company elected to continue to defer the unamortized debt issuance costs related to the partial pay-down of the debt as the prepayment was factored into the terms agreed to on the debt.

At September 30, 2018, \$494.0 million was outstanding with an interest rate, including the amortization of debt issuance costs, of 5.1%. Interest is payable monthly. There were also \$12.4 million of unamortized debt issuance costs recorded as a reduction of the long-term portion of the debt. Interest expense was \$6.3 million and \$18.9 million for the three and nine months ended September 30, 2018, respectively. Interest expense was \$7.4 million and \$20.9 million for the three and nine months ended September 30, 2017, respectively. Amortized debt issuance costs, which were included in interest expense, amounted to \$0.6 million and \$1.9 million for the three and nine months ended September 30, 2018, respectively, and \$0.6 million and \$1.8 million for the three and nine months ended September 30, 2017, respectively. Other than the voluntary prepayment of \$100.0 million in January 2018, there were no other debt principal payments in the first three quarters of 2018 as the prepayment exceeded the minimum principal payment requirements. There were debt principal payments of \$1.5 million and \$4.5 million during the three and nine months ended September 30, 2017, respectively.

As of September 30, 2018, future minimum principal payments for long-term debt are summarized as follows (in thousands):

2018 (remaining 3 months)	\$	—
2019		—
2020		—
2021		—
2022		—
Thereafter		494,000
Total	\$	<u>494,000</u>

#### NOTE 9 – NET LOSS PER SHARE

The Company has a share-based compensation plan under which employees may be granted share-based awards including shares of restricted stock and restricted stock units ("RSUs"). Non-forfeitable dividends are paid on unvested shares of restricted stock. No dividends are accrued or paid on unvested RSUs. As such, shares of restricted stock are considered participating securities under the two-class method of calculating earnings per share. The two-class method of calculating earnings per share did not have a material impact on the Company's loss per share calculation for the three and nine months ended September 30, 2018 and 2017.

The following table sets forth the computation of basic and diluted shares (in thousands):

	Three Months Ended		Nine Months Ended	
	September 30, 2018	September 30, 2017	September 30, 2018	September 30, 2017
<b>Denominator:</b>				
Weighted average common shares outstanding	48,958	49,469	49,005	49,296
Less: shares of restricted stock subject to repurchase	—	—	—	(3)
Total common shares-basic	<u>48,958</u>	<u>49,469</u>	<u>49,005</u>	<u>49,293</u>
<b>Effect of dilutive securities:</b>				
Options	—	—	—	—
Restricted stock awards and units	—	—	—	—
Total common shares-diluted	<u>48,958</u>	<u>49,469</u>	<u>49,005</u>	<u>49,293</u>

Basic net income (loss) per share is computed using the weighted average number of common shares outstanding during the period, excluding any unvested restricted stock awards that are subject to repurchase. Diluted net income (loss) per share is computed using the treasury stock method to calculate the weighted average number of common shares and, if dilutive, potential common shares outstanding during the period. Potential dilutive common shares include unvested restricted stock awards and units and incremental common shares issuable upon the exercise of stock options, less shares from assumed proceeds. The assumed proceeds calculation includes actual proceeds to be received from the employee upon exercise and the average unrecognized stock compensation cost during the period.

For the three and nine months ended September 30, 2018, there was no difference in the weighted average number of common shares used for the calculation of basic and diluted loss per share as the effect of all potentially dilutive shares outstanding was anti-dilutive. A total of 2.8 million and 2.8 million shares subject to stock options and restricted stock awards and units were excluded from the computation of diluted net loss per share for the three and nine months ended September 30, 2018, respectively, because including them would have been anti-dilutive.

For the three and nine months ended September 30, 2017, there was no difference in the weighted average number of common shares used for the calculation of basic and diluted loss per share as the effect of all potentially dilutive shares outstanding was anti-dilutive. A total 2.7 million and 1.8 million shares subject to stock options and restricted stock awards and units were excluded from the computation of diluted net loss per share for the three and nine months ended September 30, 2017, respectively, because including them would have been anti-dilutive.

## NOTE 10 – STOCKHOLDERS’ EQUITY

### *Stock Repurchase Programs*

In August 2007, the Company’s Board of Directors (“the Board”) authorized a plan to repurchase the Company’s outstanding shares of common stock dependent on market conditions, share price and other factors. As of September 30, 2018, the Company has repurchased a total of approximately 12,974,000 shares of common stock, since inception of the plan, at an average price of \$26.54 per share for a total cost of \$344.4 million. As of December 31, 2017, the Company had repurchased a total of approximately 11,142,000 shares of common stock, since inception of the plan, at an average price of \$27.57 per share for a total cost of \$307.2 million. The shares repurchased are recorded as treasury stock and are accounted for under the cost method. No expiration date has been specified for this plan. As of September 30, 2018, the total remaining amount available for repurchase was \$105.6 million. The Company plans to continue to execute authorized repurchases from time to time under the plan.

### *Stock Option Plans*

#### *The 2003 Plan*

As of September 30, 2018, there were approximately 3.5 million shares reserved for future grant under the Company’s 2003 Equity Incentive Plan (the “2003 Plan”).

A summary of the stock option activity is presented below (in thousands, except per share amounts):

	<b>Options Outstanding</b>	
	<b>Number of Shares Subject to Options</b>	<b>Weighted Average Exercise Price Per Share</b>
<b>Balance at December 31, 2017</b>	1,172	\$ 24.06
Options granted	—	—
Options exercised	(427)	\$ 18.76
Options canceled / forfeited / expired	(60)	\$ 35.16
<b>Balance at September 30, 2018</b>	<b>685</b>	<b>\$ 26.39</b>

### Restricted Stock Awards and Units

Information with respect to outstanding restricted stock awards and units as of September 30, 2018 is as follows (in thousands, except per share amounts):

	Restricted Stock and Restricted Stock Units			
	Number of Shares Subject to Time-based Vesting	Number of Shares Subject to Performance-based Vesting	Total Number of Shares	Weighted Average Grant Date Fair Value Per Share
<b>Balance at December 31, 2017</b>	2,014	1,119	3,133	\$ 33.35
Awards and units granted	1,067	45	1,112	\$ 21.96
Awards and units vested / earned	(641)	(176)	(817)	\$ 34.86
Awards and units canceled / forfeited	(160)	(230)	(390)	\$ 29.61
<b>Balance at September 30, 2018</b>	<u>2,280</u>	<u>758</u>	<u>3,038</u>	\$ 29.26

### Performance Awards and Units

Performance awards and units may be granted to employees or consultants based upon, among other things, the contributions, responsibilities and other compensation of the particular employee or consultant. The value and the vesting of such performance awards and units are generally linked to one or more performance goals or other specific performance goals determined by the Company, in each case on a specified date or dates or over any period or periods determined by the Company, and range from zero to 100 percent of the grant.

### Employee Stock Purchase Plans

As of September 30, 2018, there were approximately 1,137,000 shares reserved for grant under the Company's 2003 Employee Stock Purchase Plan (the "ESPP") and the International Employee Stock Purchase Plan (the "International ESPP"), collectively.

### NOTE 11 – STOCK-BASED COMPENSATION EXPENSE

The effect of recording stock-based compensation expense for the three and nine months ended September 30, 2018 and 2017 is as follows (in thousands):

	Three Months Ended		Nine Months Ended	
	September 30, 2018	September 30, 2017	September 30, 2018	September 30, 2017
Research, development and other related costs	\$ 3,252	\$ 3,290	\$ 9,690	\$ 9,424
Selling, general and administrative	4,201	5,086	12,390	14,537
Total stock-based compensation expense	7,453	8,376	22,080	23,961
Tax effect on stock-based compensation expense	(1,177)	(2,295)	(3,592)	(6,685)
Net effect on net income (loss)	<u>\$ 6,276</u>	<u>\$ 6,081</u>	<u>\$ 18,488</u>	<u>\$ 17,276</u>

Stock-based compensation expense categorized by various equity components for the three and nine months ended September 30, 2018 and 2017 is summarized in the table below (in thousands):

	Three Months Ended		Nine Months Ended	
	September 30, 2018	September 30, 2017	September 30, 2018	September 30, 2017
Employee stock options	\$ 79	\$ 536	\$ 362	\$ 1,767
Restricted stock awards and units	7,060	7,091	19,870	20,378
Employee stock purchase plan	314	749	1,848	1,816
Total stock-based compensation expense	<u>\$ 7,453</u>	<u>\$ 8,376</u>	<u>\$ 22,080</u>	<u>\$ 23,961</u>

There were no options granted in the three and nine months ended September 30, 2018 and 2017.

ESPP grants occur in February and August. The following assumptions were used to value the ESPP shares for these grants:

	<u>August 2018</u>	<u>August 2017</u>
Expected life (years)	2.0	2.0
Risk-free interest rate	2.7%	1.3%
Dividend yield	3.9%	2.5%
Expected volatility	41.7%	30.8%

#### NOTE 12 – INCOME TAXES

For the three months ended September 30, 2018, the Company recorded an income tax benefit of \$2.6 million on a pretax loss of \$24.4 million and for the nine months ended September 30, 2018, the Company recorded an income tax benefit of \$8.6 million on a pretax loss of \$91.6 million, which resulted in an effective tax rate year to date of 9.3%. The income tax benefit for the three and nine months ended September 30, 2018 was primarily related to tax benefit from losses and credits generated from operations offset by foreign withholding taxes, certain book-to-tax permanent differences, valuation allowance recorded against the Company's unutilized tax credits generated in the current year, and shortfalls from stock-based compensation.

For the three months ended September 30, 2017, the Company recorded an income tax benefit of \$4.4 million, and for the nine months ended September 30, 2017, the Company recorded an income tax benefit of \$13.2 million, which resulted in an effective tax rate year to date of 17.5%. The income tax benefit of \$4.4 million and \$13.2 million for the three and nine months ended September 30, 2017, respectively, was primarily related to losses generated in the U.S. and foreign operations offset by foreign withholding taxes. The Company's provision for income taxes is based on its worldwide estimated annualized effective tax rate, except for jurisdictions for which a loss is expected for the year and no benefit can be realized for those losses, and the tax effect of discrete items occurring during the period. The tax for jurisdictions for which a loss is expected and no benefit can be realized for the year is based on actual taxes and tax reserves for the quarter. The decrease in income tax benefit for the nine months ended September 30, 2018 as compared to the income tax benefit during the same period in the prior year is largely attributable to valuation allowance recorded against the Company's tax credits.

As of September 30, 2018, unrecognized tax benefits were \$34.4 million (which is included in long-term deferred tax and other liabilities on the Condensed Consolidated Balance Sheet), of which \$22.2 million would affect the effective tax rate if recognized. As of September 30, 2017, unrecognized tax benefits were \$31.1 million (which was included in long-term deferred tax and other liabilities on the Condensed Consolidated Balance Sheet), of which \$24.4 million would affect the effective tax rate if recognized. The Company is unable to reasonably estimate the timing of the long-term payments or the amount by which the liability will increase or decrease.

It is the Company's policy to classify accrued interest and penalties related to unrecognized tax benefits in the provision for income taxes. For the nine months ended September 30, 2018 and 2017, the Company recognized an insignificant amount of interest and penalties related to unrecognized tax benefits. Accrued interest and penalties were \$0.8 million and \$0.6 million as of September 30, 2018 and December 31, 2017, respectively.

At September 30, 2018, the Company's 2013 through 2017 tax years were open and subject to potential examination in one or more jurisdictions. In addition, in the U.S., any net operating losses or credits that were generated in prior years but not yet fully utilized in a year that is closed under the statute of limitations may also be subject to examination. Two of the Company's subsidiaries are currently under tax examination, one by the Internal Revenue Service for tax year 2014 and another in Japan for the years 2015 to 2017. The Company cannot estimate the financial outcome of these examinations.

On December 22, 2017, the Tax Cut and Jobs Act ("Tax Act") was signed into law. The Tax Act introduced a broad range of tax reform measures that significantly change the federal income tax laws. As of December 31, 2017, the Company recorded a provisional tax expense in the Statement of Operations of approximately \$5.6 million, comprised of approximately \$13.5 million tax expense from recording additional valuation allowance against federal tax credits due to certain provisions of the Tax Act, offset by approximately \$7.9 million of tax benefit from the remeasurement of U.S. deferred taxes using the relevant tax rate at which the Company expects them to reverse in the future. The estimated one-time transition tax on post-1986 foreign unremitted earnings is not anticipated to have a material impact to the Company's effective tax rate. As of September 30, 2018, the Company has not completed its accounting related to tax reform, and therefore has not recorded any adjustments to the provisional tax expense. The Company continues to monitor supplemental legislation and technical interpretations of the tax law that may cause the final impact from the Tax Act to differ from the provisionally recorded amounts. The Company expects to complete its analysis within the measurement period allowed by Staff Accounting Bulletin ("SAB") No.118, no later than the fourth quarter of 2018.

## **NOTE 13 – COMMITMENTS AND CONTINGENCIES**

### ***Lease Commitments***

The Company leases office and research facilities and office equipment under operating leases which expire at various dates through 2029. Under lease agreements that contain escalating rent provisions, lease expense is recorded on a straight-line basis over the lease term. There were no material changes to our future minimum lease payments during the three and nine months ended September 30, 2018. Rent expense for the three months ended September 30, 2018 and 2017 amounted to \$1.8 million and \$1.6 million, respectively. Rent expense for the nine months ended September 30, 2018 and 2017 amounted to \$5.4 million and \$4.7 million, respectively.

### ***Contingencies***

At each reporting period, the Company evaluates whether or not a potential loss amount or a potential range of loss is probable and reasonably estimable under the provisions of the authoritative guidance that addresses accounting for contingencies. The Company is currently unable to predict the final outcome of lawsuits to which it is a party and therefore cannot determine the likelihood of loss nor estimate a range of possible loss. An adverse decision in any of these proceedings could significantly harm the Company's business and consolidated financial position, results of operations or cash flows.

### ***Tessera, Inc. v. Toshiba Corporation, Civil Action No. 5:15-cv-02543-BLF (N.D. Cal.)***

On May 12, 2015, Tessera, Inc. filed a complaint against Toshiba Corporation ("Toshiba") in California Superior Court. Tessera, Inc.'s complaint alleges causes of action for breach of contract, breach of the implied covenant of good faith and fair dealing, and declaratory relief, generally alleging that Toshiba underpaid royalties and failed to cooperate with audits conducted pursuant to the parties' license agreement.

On June 8, 2015, Toshiba removed the action to the U.S. District Court for the Northern District of California. On June 18, 2015, Toshiba filed its answer, affirmative defenses, and counterclaims to Tessera, Inc.'s complaint. Toshiba alleges counterclaims for declaratory judgment and breach of the implied warranty of good faith and fair dealing. The counterclaims seek, among other things, judicial determinations about the interpretation of the parties' agreement, termination of the agreement, an accounting of the amount of alleged overpayments by Toshiba, restitution, and damages. On July 10, 2015, Tessera, Inc. filed its answer and affirmative defenses to Toshiba's counterclaims. On March 17, 2016, Tessera, Inc. filed an amended complaint adding a claim for declaratory relief regarding a February 12, 2016 letter sent by Toshiba to Tessera, Inc. purporting to terminate the parties' license agreement. On March 18, 2016, Toshiba filed its amended answer, affirmative defenses, and counterclaims. On April 4, 2016, Tessera, Inc. filed an answer to Toshiba's amended counterclaims.

An initial summary judgment hearing on contract issues took place on September 22, 2016. On November 7, 2016, the Court entered an order granting Toshiba's motion regarding the definition of "TCC," and denying summary judgment on the other issues raised by the parties' cross-motions. On December 6, 2016, Tessera, Inc. filed a motion pursuant to Federal Rule of Civil Procedure 54(b) seeking authorization to appeal the order and for a stay. On March 6, 2017, the Court granted the Rule 54(b) motion. The Court subsequently vacated the trial date and stayed the remainder of the district court proceedings.

On April 4, 2017, Tessera, Inc. filed a notice of appeal to the U.S. Court of Appeals for the Ninth Circuit. The parties completed briefing on November 2, 2017. A hearing for oral argument took place on October 15, 2018.

**Samsung Electronics Co., Ltd. v. Panasonic Corporation (f/k/a Matsushita Electric Industrial Co.), Ltd., Pannova Semic, LLC, and Tessera Advanced Technologies, Inc. (International Chamber of Commerce)**

On May 18, 2018, Samsung Electronics Co., Ltd. ("Samsung") filed a Request for Arbitration against Tessera Advanced Technologies, Inc. ("Tessera"), Panasonic Corporation (f/k/a Matsushita Electric Industrial Co.) ("Panasonic") and Pannova Semic, LLC ("Pannova") with the International Chamber of Commerce. The Request seeks declaratory judgments that Samsung has a license to practice U.S. Patent Nos. 6,954,001, 6,784,557, 6,512,298, and 6,852,616 ("Patents-in-Suit"); damages of at least \$15 million for alleged breach of contract; and a declaratory judgment that Panasonic's assignment of the Patents-in-Suit is null and void. The Request further seeks an order requiring reimbursement to Samsung of all expenses, including attorneys' fees, incurred in defending against lawsuits that Tessera or its affiliates filed in various jurisdictions. On June 25, 2018, Tessera and Pannova filed a Response to the Request for Arbitration, objecting to the jurisdiction of the Tribunal and denying the merits of Samsung's claims.

**Other Litigation Matters**

The Company and its subsidiaries are involved in litigation matters and claims in the normal course of business. In the past, the Company and its subsidiaries have litigated to enforce their respective patents and other intellectual property rights, to enforce the terms of license agreements, to protect trade secrets, to determine the validity and scope of the proprietary rights of others and to defend itself or its customers against claims of infringement or invalidity. The Company expects it or its subsidiaries will be involved in similar legal proceedings in the future, including proceedings regarding infringement of its patents, and proceedings to ensure proper and full payment of royalties by licensees under the terms of its license agreements.

The existing and any future legal actions may harm the Company's business. For example, legal actions could cause an existing licensee or strategic partner to cease making royalty or other payments to the Company, or to challenge the validity and enforceability of patents owned by the Company's subsidiaries or the scope of license agreements with the Company's subsidiaries, and could significantly damage the Company's relationship with such licensee or strategic partner and, as a result, prevent the adoption of the Company's other technologies by such licensee or strategic partner. Litigation could also severely disrupt or shut down the business operations of licensees or strategic partners of the Company's subsidiaries, which in turn would significantly harm ongoing relations with them and cause the Company to lose royalty revenue.

The costs associated with legal proceedings are typically high, relatively unpredictable, and not completely within the Company's control. These costs may be materially higher than expected, which could adversely affect the Company's operating results and lead to volatility in the price of its common stock. Whether or not determined in the Company's favor or ultimately settled, litigation diverts managerial, technical, legal, and financial resources from the Company's business operations. Furthermore, an adverse decision in any of these legal actions could result in a loss of the Company's proprietary rights, subject the Company to significant liabilities, require the Company to seek licenses from others, limit the value of the Company's licensed technology or otherwise negatively impact the Company's stock price or its business and consolidated financial position, results of operations or cash flows.

**NOTE 14 – SEGMENT AND GEOGRAPHIC INFORMATION**

The Company reports its financial results within two reportable segments: (1) Product Licensing and (2) Semiconductor and IP Licensing. There are certain corporate overhead costs that are not allocated to these reportable segments because these operating amounts are not considered in evaluating the operating performance of the Company's business segments.

The Chief Executive Officer is also the Chief Operating Decision Maker ("CODM") as defined by the authoritative guidance on segment reporting.

The Product Licensing segment, including the Company's DTS and FotoNation subsidiaries, licenses its technologies and intellectual property related to audio, digital radio and imaging solutions under the brands DTS, HD Radio and FotoNation. The Product Licensing solutions typically include the delivery of software or hardware-based solutions, combined with various other intellectual property, including know how, patents, trademarks, and copyrights. Product Licensing represents revenue derived primarily from the consumer electronics market and related applications servicing the home, automotive and mobile markets.

The Semiconductor and IP Licensing segment develops and licenses semiconductor technologies and IP to manufacturers, foundries, subcontract assemblers and others. The segment includes revenue generated from the technology and IP portfolios of Tessera, Inc., Invensas and Invensas Bonding Technologies, Inc. (formally Ziptronix, Inc.). Tessera, Inc. pioneered chip-scale packaging solutions. Invensas develops advanced semiconductor packaging and 3D interconnect solutions, including wafer bonding solutions, for applications such as smartphones, tablets, laptops, PCs, data centers and automobiles. The Company expands its technology and IP offerings in this segment through a combination of internal R&D and acquisitions. The Company also provides engineering services to customers in the form of technology demonstrations and technology transfers to assist their evaluation and adoption of the Company's technologies. Through the Company's technology transfer service, the Company provides detailed documentation outlining design guidelines, process specifications, recommended equipment and process parameters as well as hands-on engineering support to assist its licensees in bringing up and qualifying its technologies at their facilities. This service allows licensees to readily leverage the Company's years of experience and expertise in direct and hybrid bonding.

The Company does not identify or allocate assets by reportable segment, nor does the CODM evaluate reportable segments using discrete asset information. Reportable segments do not record inter-segment revenue and accordingly there are none to report. The Company does not allocate other income and expense to reportable segments. Although the CODM uses operating income to evaluate reportable segments, operating costs included in one segment may benefit other segments.

The following table sets forth the Company's segment revenue, operating expenses and operating income (loss) for the three and nine months ended September 30, 2018 and 2017 (in thousands):

	Three Months Ended		Nine Months Ended	
	September 30, 2018	September 30, 2017	September 30, 2018	September 30, 2017
<b>Revenue:</b>				
Product licensing segment	\$ 60,378	\$ 42,780	\$ 164,755	\$ 116,843
Semiconductor and IP licensing segment	11,987	45,728	37,096	130,242
Total revenue	<u>72,365</u>	<u>88,508</u>	<u>201,851</u>	<u>247,085</u>
<b>Operating expenses:</b>				
Product licensing segment	44,865	43,696	130,901	129,496
Semiconductor and IP licensing segment	19,177	20,744	57,546	64,881
Unallocated operating expenses (1)	28,084	40,626	93,262	128,074
Total operating expenses	<u>92,126</u>	<u>105,066</u>	<u>281,709</u>	<u>322,451</u>
<b>Operating income (loss):</b>				
Product licensing segment	15,513	(916)	33,854	(12,653)
Semiconductor and IP licensing segment	(7,190)	24,984	(20,450)	65,361
Unallocated operating expenses (1)	(28,084)	(40,626)	(93,262)	(128,074)
Total operating loss	<u>\$ (19,761)</u>	<u>\$ (16,558)</u>	<u>\$ (79,858)</u>	<u>\$ (75,366)</u>

(1) Unallocated operating expenses consist primarily of general and administrative expenses, such as administration, human resources, finance, information technology, corporate development and procurement. These expenses are not allocated because these amounts are not considered in evaluating the operating performance of the Company's business segments.



A significant portion of the Company's revenue is derived from licensees headquartered outside of the U.S., principally in Asia, and it is expected that this revenue will continue to account for a significant portion of total revenue in future periods. The table below lists the geographic revenue for the periods indicated (in thousands):

	<b>Three Months Ended</b>				<b>Nine Months Ended</b>			
	<b>September 30, 2018</b>		<b>September 30, 2017</b>		<b>September 30, 2018</b>		<b>September 30, 2017</b>	
Japan	\$ 27,609	38%	\$ 20,647	23%	\$ 65,153	32%	\$ 54,706	22%
Korea	19,158	27	13,607	16	51,046	25	34,597	14
U.S.	13,949	19	31,548	36	39,529	20	98,680	40
Europe and Middle East	9,359	13	3,594	4	25,492	13	11,064	5
China	1,980	3	3,714	4	17,615	9	10,367	4
Other	310	—	15,398	17	3,016	1	37,671	15
	<u>\$ 72,365</u>	<u>100%</u>	<u>\$ 88,508</u>	<u>100%</u>	<u>\$ 201,851</u>	<u>100%</u>	<u>\$ 247,085</u>	<u>100%</u>

For the three months ended September 30, 2018 and 2017, there were three and three customers, respectively, that each accounted for 10% or more of total revenue. For the nine months ended September 30, 2018 and 2017, there were one and three customers, respectively, that each accounted for 10% or more of total revenue. As of September 30, 2018 and December 31, 2017, there were three and three customers that each accounted for 10% or more of total accounts receivable, respectively.

#### **NOTE 15 - SUBSEQUENT EVENTS**

On October 25, 2018, the Board declared a cash dividend of \$0.20 per share of common stock, payable on December 19, 2018 for the stockholders of record at the close of business on November 28, 2018.

## Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations

The following discussion should be read in conjunction with the attached unaudited condensed consolidated financial statements and notes thereto, and with our audited financial statements and notes thereto for the year ended December 31, 2017 found in the Form 10-K.

This Quarterly Report contains forward-looking statements, which are subject to the safe harbor provisions created by the Private Securities Litigation Reform Act of 1995. Words such as “expects,” “anticipates,” “plans,” “believes,” “seeks,” “estimates,” “could,” “would,” “may,” “intends,” “targets” 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 Quarterly Report. The identification of certain statements as “forward-looking” is not intended to mean that other statements not specifically identified are not forward-looking. All statements other than statements about historical facts are statements that could be deemed forward-looking statements, including, but not limited to, statements that relate to our future revenue, product development, demand, acceptance and market share, growth rate, competitiveness, gross margins, levels of research, development and other related costs, expenditures, the outcome or effects of and expenses related to litigation and administrative proceedings related to our patents, our intent to enforce our intellectual property, our ability to license our intellectual property, tax expenses, cash flows, our ability to liquidate and recover the carrying value of our investments, our management’s plans and objectives for our current and future operations, our plans for quarterly dividends and stock repurchases, the levels of customer spending or research and development activities, general economic conditions, and the sufficiency of financial resources to support future operations and capital expenditures.

Although forward-looking statements in this Quarterly Report reflect the good faith judgment of our management, such statements can only be based on facts and factors currently known by us. Consequently, forward-looking statements are inherently subject to risks, uncertainties, and changes in condition, significance, value and effect, including those discussed below under the heading “Risk Factors” within Part II, Item 1A of this Quarterly Report and other documents we file from time to time with the Securities and Exchange Commission (the “SEC”), such as our annual reports on Form 10-K, our quarterly reports on Form 10-Q and our current reports on Form 8-K. Such risks, uncertainties and changes in condition, significance, value and effect could cause our actual results to differ materially from those expressed herein and in ways not readily foreseeable. Readers are urged not to place undue reliance on these forward-looking statements, which speak only as of the date of this Quarterly Report and are based on information currently and reasonably known to us. 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 Quarterly Report. Readers are urged to carefully review and consider the various disclosures made in this Quarterly Report, which attempt to advise interested parties of the risks and factors that may affect our business, financial condition, results of operations and prospects.

### Corporate Information

Our principal executive offices are located at 3025 Orchard Parkway, San Jose, California 95134. Our telephone number is (408) 321-6000. We maintain a website at [www.xperi.com](http://www.xperi.com). The reference to our website address does not constitute incorporation by reference of the information contained on this website.

Xperi, the Xperi logo, Tessera, the Tessera logo, DTS, the DTS logo, FotoNation, the FotoNation logo, Invensas, the Invensas logo, DigitalAperture, FacePower, FotoSavvy, FotoMagic, BVA, ZiBond, DBI, DTS-HD, DTS Sound, DTS Studio Sound, DTS Headphone:X, DTS Play-Fi, DTS:X and HD Radio are trademarks or registered trademarks of Xperi Corporation or its affiliated companies in the U.S. and other countries. All other company, brand and product names may be trademarks or registered trademarks of their respective companies.

In this Quarterly Report, the “Company,” “we,” “us” and “our” refer to Xperi Corporation, which operates its business through its subsidiaries. Unless specified otherwise, the financial results in this Quarterly Report are those of the Company and its subsidiaries on a consolidated basis.

### Business Overview

Xperi is a publicly-traded technology company with headquarters in Silicon Valley and operations around the world. Through its operating subsidiaries, Xperi creates, develops and licenses innovative audio, imaging, semiconductor packaging and interconnect technologies. We have approximately 700 employees and over 25 years of operating experience.

We license our innovative products, technologies and inventions to global electronics companies which, in turn, integrate the technologies into their own consumer electronics and semiconductor products. Our technologies and inventions are widely adopted and used every day by millions of people. Our audio technologies have shipped in billions of devices for the home, mobile and automotive markets. Our imaging technologies are embedded in more than 25% of the current smartphones. Our

semiconductor packaging and interconnect technologies have been licensed to more than 100 customers and have shipped in over 100 billion semiconductor chips.

We completed the acquisition of DTS in December 2016. At the time of the acquisition, Tessera Technologies, Inc. and DTS were combined under the newly-formed Tessera Holding Corporation. During the first quarter of 2017, we introduced our new corporate name, Xperi Corporation, launched a new corporate logo, and began trading under a new ticker symbol XPER.

## Results of Operations

Under generally accepted accounting principles regarding business combinations, we were unable to record \$3.3 million and \$12.4 million in revenue in the three and nine months ended September 30, 2018, respectively, and \$7.0 million and \$45.6 million in revenue in the three and nine months ended September 30, 2017, respectively, which would have been recognized by DTS under Topic 605 if not for the acquisition. If allowed, this revenue would have had a significant impact on the operating results as described below.

We adopted the new accounting standard, ASU No. 2014-09 (Topic 606) "Revenue from Contracts with Customers" effective January 1, 2018, which had a material impact on the financial reporting of our operating results as described below. Under the modified retrospective transition method, the comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods. Refer to "Note 2 - Summary of Significant Accounting Policies" and "Note 3 - Revenue" in the Notes to Condensed Consolidated Financial Statements (Part I, Item 1 of this Form 10-Q) for detailed information.

The adoption of Topic 606 does not impact billings or the cash flow from our contracts with customers. We expect to experience greater variability in quarterly revenue as a result of Topic 606 being applied to minimum guarantee and fixed fee licensing contracts. We plan to place greater emphasis on billings and operating cash flows rather than revenue and net operating results to internally evaluate our financial performance in current and future periods.

### Revenue

Our revenue is generated primarily from royalty and license fees. Revenue is recognized upon transfer of control of promised products, services or intellectual property and technologies ("IP") rights to customers in an amount that reflects the consideration that we expect to receive in exchange for those products, services or licensing of the IP rights.

Certain licensees have entered into fixed fee or minimum guarantee arrangements, whereby licensees pay a fixed fee for the right to incorporate our technology in the licensee's products over the license term. In arrangements with a minimum guarantee, the fixed fee component corresponds to a minimum number of units or dollars that the customer must produce or pay, with additional per-unit fees for any units or dollars exceeding the minimum. For these agreements, we recognize the full fixed fee as revenue at the beginning of the license term, when the licensee has the right to use the IP and begins to benefit from the license.

If the contract term of a fixed fee or minimum guarantee arrangement is longer than one year, we also consider the scheduled payment arrangements to determine whether a financing component exists. In general, if the payment arrangements extend beyond the initial twelve months of the contract, we treat a portion of the payments as a financing component. The discount rate used for each arrangement reflects the rate that would be used in a separate financing transaction between us and the licensee at contract inception, and takes into account the credit characteristics of the licensee and market interest rates as of the date of the agreement. As such, the amount of fixed fee revenue recognized at the beginning of the license term will be reduced by the calculated financing component. As payments are received from the licensee, we recognize a portion of the financing component through interest income.

For certain licensees, royalty revenue is generated based on a licensee's production or shipment of licensed products incorporating our IP, technologies or software. Licensees with a per-unit arrangement pay a per-unit royalty for each product manufactured or sold, as set forth in its license agreement. Licensees generally report manufacturing or sales information in the quarter subsequent to when such activity takes place. Under Topic 606, we estimate the royalties earned each quarter based on our forecast of manufacturing and sales activity incurred by our licensees in that quarter. Any differences between actual royalties owed by a licensee and our quarterly estimates are recognized in the following quarter, when the licensee's royalty report is received. Estimating licensees' quarterly royalties prior to receiving the royalty reports requires us to make significant assumptions and judgments that could have a material impact on the amount of revenue we report on a quarterly basis.

The timing of revenue recognition and the amount of revenue actually recognized for each type of revenue depends upon a variety of factors, including the specific terms of each arrangement, our ability to determine and allocate the transaction price to each separate performance obligation and the nature of our deliverables and obligations. In addition, our royalty revenue will fluctuate based on a number of factors such as: (a) the rate of adoption and incorporation of our technology by licensees; (b) the

demand for products incorporating semiconductors that use our licensed technology; (c) the cyclicity of supply and demand for products using our licensed technology; (d) volume incentive pricing terms in licensing agreements that may result in significant variability in quarterly revenue recognition from customers and (e) the impact of economic downturns.

From time to time we enter into license agreements that have fixed expiration dates. Upon expiration of such agreements, we need to renew or replace these agreements in order to maintain our revenue base. We may not be able to continue licensing customers on terms favorable to us, under the existing terms or at all, which would in turn harm our results of operations.

In the past, we have engaged in litigation and arbitration proceedings to directly or indirectly enforce our intellectual property rights and the terms of our license agreements, including proceedings to ensure proper and full payment of royalties by our current licensees and by third parties whose products incorporate our intellectual property rights.

The following table presents our historical operating results for the periods indicated as a percentage of revenue:

	Three Months Ended		Nine Months Ended	
	September 30, 2018	September 30, 2017	September 30, 2018	September 30, 2017
<b>Revenue:</b>				
Royalty and license fees	100%	100%	100%	100%
Total revenue	100	100	100	100
<b>Operating expenses:</b>				
Cost of revenue	7	2	5	2
Research, development and other related costs	33	29	38	32
Selling, general and administrative	39	39	46	44
Amortization expense	37	31	40	34
Litigation expense	11	10	11	11
Total operating expenses	127	111	140	123
Operating loss	(27)	(11)	(40)	(23)
Interest expense	9	8	9	8
Other income and expense, net	(2)	—	(4)	—
Loss before taxes	(34)	(19)	(45)	(31)
Provision for (benefit from) income taxes	(4)	(5)	(4)	(6)
Net loss	(30)%	(14)%	(41)%	(25)%

Our royalty and license fees were as follows (in thousands, except for percentages):

	Three Months Ended		Increase/ (Decrease)	% Change
	September 30, 2018	September 30, 2017		
Royalty and license fees	\$ 72,365	\$ 88,508	\$ (16,143)	(18)%

The \$16.1 million or 18% decrease in revenue was due principally to our inability to record billings as revenue in the third quarter of 2018 from minimum guarantee and fixed fee licensing contracts in place prior to the start of 2018 as a result of adopting ASC Topic 606. Partially offsetting year on year changes was the purchase accounting impact on revenue in the third quarter of 2017 totaling \$7.0 million, an amount that would have been recognized as revenue by DTS if not for the acquisition. Had we not implemented Topic 606, our revenue in the third quarter of 2018 under prior GAAP would have been \$100.4 million. Refer to "Note 2 - Summary of Significant Accounting Policies" in the Notes to Condensed Consolidated Financial Statements for further detail.

	Nine Months Ended		Increase/ (Decrease)	% Change
	September 30, 2018	September 30, 2017		
Royalty and license fees	\$ 201,851	\$ 247,085	\$ (45,234)	(18)%

The \$45.2 million or 18% decrease in revenue was due principally to our inability to record billings as revenue in the first three quarters of 2018 from minimum guarantee and fixed fee licensing contracts in place prior to the start of 2018 as a result of adopting ASC Topic 606. Significantly offsetting year on year changes was the purchase accounting impact on revenue in the first three quarters of 2017 totaling \$45.6 million, an amount that would have been recognized as revenue by DTS if not for the acquisition. Had we not implemented Topic 606, our revenue in the nine months of 2018 under prior GAAP would have been

\$293.3 million. Refer to "Note 2 - Summary of Significant Accounting Policies" in the Notes to Condensed Consolidated Financial Statements for further detail.

Our billings were as follows (in thousands, except for percentages):

	Three Months Ended		Increase/ (Decrease)	%
	September 30, 2018	September 30, 2017		
Total billings	\$ 100,587	\$ 85,308	\$ 15,279	18%

The \$15.3 million increase in billings in the three months ended September 30, 2018, as compared to the three months ended September 30, 2017, was driven by broad-based growth in all vertical markets in Product Licensing -- automotive, home and mobile -- and by billings from a new fixed fee contract in the Semiconductor and IP segment.

	Nine Months Ended		Increase/ (Decrease)	%
	September 30, 2018	September 30, 2017		
Total billings	\$ 305,550	\$ 292,267	\$ 13,283	5%

The \$13.3 million increase in billings in the nine months ended September 30, 2018, as compared to the nine months ended September 30, 2017, was primarily driven by higher billings from a new fixed fee contract in the Semiconductor and IP segment, coupled with higher non-recurring engineering ("NRE") services revenue and licensing growth in the automotive and home markets, which was partially offset by expiration of a fixed fee licensing contract in the Semiconductor and IP segment.

With changes in revenue recognition due to the adoption of Topic 606 in 2018, we anticipate our revenue for 2018 will be significantly lower than that for 2017 due principally to our inability to record future billings as revenue in 2018 and later periods from minimum guarantee and fixed fee licensing contracts in place prior to adoption of ASC 606 on January 1, 2018. This accounting change will not impact billings or the cash flow from these contracts. Furthermore, we may experience greater variability in quarterly and annual revenue in future periods as a result of the revenue accounting treatment applied to future minimum guarantee and fixed fee licensing contracts. Management plans to place greater emphasis on billings and cash flows rather than revenue and net operating results to internally evaluate our financial performance in future periods.

#### Cost of Revenue

Cost of revenue consists of royalties paid to third parties and direct compensation and related expenses to provide NRE services.

Cost of revenue for the three months ended September 30, 2018 was \$5.0 million, as compared to \$1.7 million for the three months ended September 30, 2017. Cost of revenue for the nine months ended September 30, 2018 was \$9.4 million, as compared to \$4.4 million for the nine months ended September 30, 2017. The increases were due to higher costs on NRE contracts, which are generally reclassified from research and development as we satisfy the underlying performance obligations, as well as royalties recorded in connection with recently signed Product Licensing contracts. While the revenue and cost of revenue under these Product Licensing contracts is recorded when the contract becomes effective, the billings, cash inflows from customer payments and cash outflows for royalty payments generally occur over several years.

We anticipate these expenses will continue to increase when compared to 2017 due to expected higher NRE in 2018 and royalties expenses related to new Product Licensing segment contracts.

#### Research, Development and Other Related Costs

Research and development is conducted primarily in-house and targets development of audio and image enhancement technologies, chip-scale, multi-chip and wafer level packaging, circuitry 3D-IC architectures, wafer and die bonding technologies and machine learning. Research, development and other related costs include expenses associated with applications engineering necessary to port and integrate our technologies and products on third party silicon and into end devices. These costs consist primarily of compensation and related costs for personnel, engineering consulting expenses associated with new product and technology development, product commercialization, quality assurance and testing costs, as well as costs related to patent applications and examinations, product "tear downs" and reverse engineering, materials, supplies and equipment depreciation. All research, development and other related costs are expensed as incurred.

Research, development and other related costs for the three months ended September 30, 2018 were \$24.2 million, as compared to \$25.8 million for the three months ended September 30, 2017, a decrease of \$1.6 million or 6%. The decrease was primarily

related to a \$0.5 million decrease in outside services and a \$0.5 million decrease in operating expenses principally associated with R&D tax credits and development grants paid to us.

Research, development and other related costs for the nine months ended September 30, 2018 were \$75.9 million, as compared to \$78.2 million for the nine months ended September 30, 2017, a decrease of \$2.3 million or 3%. The decrease was primarily related to a \$1.0 million decrease in outside services and a \$0.7 million decrease in in operating expenses principally associated with R&D tax credits and development grants paid to us.

We believe that a significant level of research and development expenses will be required for us to remain competitive in the future.

#### *Selling, General and Administrative*

Selling expenses consist primarily of compensation and related costs for sales and marketing personnel engaged in sales and licensee support, reverse engineering personnel and services, marketing programs, public relations, promotional materials, travel, trade show expenses, and stock-based compensation expense. General and administrative expenses consist primarily of compensation and related costs for general management, information technology, finance personnel, legal fees and expenses, facilities costs, stock-based compensation expense, and professional services. Our general and administrative expenses, other than facilities related expenses, are not allocated to other expense line items.

Selling, general and administrative expenses for the three months ended September 30, 2018 were \$28.1 million, as compared to \$34.0 million for the three months ended September 30, 2017, a decrease of \$5.9 million or 17%. The decrease was primarily due to a \$1.8 million decrease in personnel related expenses, driven primarily by post-acquisition retention bonus expense in 2017, a \$1.6 million decrease in bad debt expense, a \$1.1 million decrease in corporate legal expense, a \$1.0 million decrease in outside services, and a \$0.9 million decrease in stock-based compensation.

Selling, general and administrative expenses for the nine months ended September 30, 2018 were \$93.3 million, as compared to \$108.2 million for the nine months ended September 30, 2017, a decrease of \$14.9 million or 14%. The decrease was due to a \$5.4 million decrease in personnel related expenses, driven primarily by lower acquisition related severance and retention bonus expenses in 2018, a \$3.7 million decrease in outside services which were associated with acquisition transaction costs in 2017, a \$2.1 million decrease in stock-based compensation, and a \$1.9 million decrease in legal and bad debt expense.

#### *Amortization Expense*

Amortization expense for the three months ended September 30, 2018 was \$27.2 million, as compared to \$27.8 million for the three months ended September 30, 2017, a decrease of \$0.6 million. Amortization expense for the nine months ended September 30, 2018 was \$81.6 million, as compared to \$84.5 million for the nine months ended September 30, 2017, a decrease of \$2.9 million. The decreases were primarily attributable to certain intangible assets becoming fully amortized over the past twelve months.

With the acquisition of DTS, we anticipate that amortization expenses will continue to be a significant expense since we acquired approximately \$479 million in intangible assets which will be amortized over the next several years. See "Note 7 - Goodwill and Identified Intangible Assets" in the Notes to Condensed Consolidated Financial Statements for additional information.

#### *Litigation Expense*

Litigation expense for the three months ended September 30, 2018 was \$7.6 million, as compared to \$9.2 million for the three months ended September 30, 2017, a decrease of \$1.6 million. Litigation expense for the nine months ended September 30, 2018 was \$21.6 million, as compared to \$27.4 million for the nine months ended September 30, 2017, a decrease of \$5.8 million. The decreases were primarily related to concluding litigation activity against Broadcom in December 2017, partially offset by increases in Samsung related litigation expenditures during the 2018 periods. As previously announced, we reached a settlement with Broadcom in the fourth quarter of 2017.

We expect that litigation expense may continue to be a material portion of our operating expenses in future periods, and may fluctuate between periods, because of planned or ongoing litigation, as described in Part II, Item 1 – *Legal Proceedings*, and because of litigation planned for or initiated from time to time in the future in order to enforce and protect our intellectual property and contract rights.

Upon expiration of our customers' licenses, if those licenses are not renewed, litigation may become necessary to secure payment of reasonable royalties for the use of our patented technology. If we plan for or initiate such litigation, our future litigation expenses may increase.

#### *Stock-based Compensation Expense*

The following table sets forth our stock-based compensation expense for the three and nine months ended September 30, 2018 and 2017 (in thousands):

	Three Months Ended		Nine Months Ended	
	September 30, 2018	September 30, 2017	September 30, 2018	September 30, 2017
Research, development and other related costs	\$ 3,252	\$ 3,290	\$ 9,690	\$ 9,424
Selling, general and administrative	4,201	5,086	12,390	14,537
Total stock-based compensation expense	\$ 7,453	\$ 8,376	\$ 22,080	\$ 23,961

Stock-based compensation awards include employee stock options, restricted stock awards and units, and employee stock plan purchases. For the three months ended September 30, 2018, stock-based compensation expense was \$7.5 million, of which \$0.1 million related to employee stock options, \$7.1 million related to restricted stock awards and units and \$0.3 million related to employee stock plan purchases. For the three months ended September 30, 2017, stock-based compensation expense was \$8.4 million, of which \$0.5 million related to employee stock options, \$7.1 million related to restricted stock awards and units and \$0.8 million related to employee stock plan purchases.

For the nine months ended September 30, 2018, stock-based compensation expense was \$22.1 million, of which \$0.4 million related to employee stock options, \$19.9 million related to restricted stock awards and units and \$1.8 million related to employee stock plan purchases. For the nine months ended September 30, 2017, stock-based compensation expense was \$24.0 million, of which \$1.8 million related to employee stock options, \$20.4 million related to restricted stock awards and units and \$1.8 million related to employee stock plan purchases.

#### *Interest Expense*

Interest expense for the three months ended September 30, 2018 and 2017 was \$6.3 million and \$7.4 million, respectively. Interest expense for the nine months ended September 30, 2018 and 2017 was \$18.9 million and \$20.9 million, respectively. The decreases in interest expense in the three and nine months ended September 30, 2018 were primarily a result of lower debt principal as we made a \$100.0 million pay-down in January 2018, partially offset by higher interest rates in 2018 due to the variable rate included in our debt. Interest expense may increase in future periods if forecasted market interest rate increases occur during the remainder of 2018 and in future years.

#### *Other Income and Expense, Net*

Other income and expense, net for the three months ended September 30, 2018 was \$1.7 million, as compared to \$0.7 million for the three months ended September 30, 2017. Other income and expense, net for the nine months ended September 30, 2018 was \$7.1 million, as compared to \$1.0 million for the nine months ended September 30, 2017. Other income was higher in the current year principally due to interest income of \$1.6 million and \$5.9 million for the three and nine months ended September 30, 2018, respectively, earned from significant financing components on our licensing contracts pursuant to Topic 606. As discussed above, we adopted Topic 606 in the first quarter of 2018.

#### *Provision for (benefit from) Income Taxes*

For the three months ended September 30, 2018, we recorded an income tax benefit of \$2.6 million on a pretax loss of \$24.4 million and for the nine months ended September 30, 2018, we recorded an income tax benefit of \$8.6 million on a pretax loss of \$91.6 million, which resulted in an effective tax rate year to date of 9.3%. The income tax benefit for the three and nine months ended September 30, 2018, was primarily related to tax benefit from losses and credits generated from operations offset by foreign withholding taxes, certain book-to-tax permanent differences, valuation allowance recorded against our unutilized tax credits generated in the current year, and shortfalls from stock-based compensation. For the three months ended September 30, 2017, we recorded an income tax benefit of \$4.4 million and for the nine months ended September 30, 2017, we recorded an income tax benefit of \$13.2 million, which resulted in an effective tax rate year to date of 17.5%. The income tax benefit for the three months and nine months ended September 30, 2017 was primarily related to losses generated in the U.S. and foreign operations offset by foreign withholding taxes. Our provision for income taxes is based on its worldwide estimated annualized effective tax rate, except for jurisdictions for which a loss is expected for the year and no benefit can be realized for those

losses, and the tax effect of discrete items occurring during the period. The tax for jurisdictions for which a loss is expected and no benefit can be realized for the year is based on actual taxes and tax reserves for the quarter. The decrease in income tax benefit for the nine months ended September 30, 2018 as compared to the income tax benefit during the same period in the prior year is largely attributable to valuation allowance recorded against our tax credits.

The need for a valuation allowance requires an assessment of both positive and negative evidence when determining whether it is more likely than not that deferred tax assets are recoverable. Such assessment is required on a jurisdiction-by-jurisdiction basis. In making such assessment, significant weight is given to evidence that can be objectively verified. After considering both positive and negative evidence to assess the recoverability of our net deferred tax assets, we determined that it was more likely than not that we would not realize certain federal, state and foreign deferred tax assets given the substantial amount of tax attributes that will remain unutilized to offset forecasted future tax liabilities. In the future, we may release valuation allowance and recognize certain deferred federal tax assets, deferred state tax assets or deferred tax assets of other foreign subsidiaries depending on achievement of future profitability in relevant jurisdictions, or implementing tax planning strategies that enable us to utilize deferred tax assets that would otherwise be unused. We continue to monitor the likelihood that we will be able to recover our deferred tax assets, including those for which a valuation allowance is recorded. There can be no assurance that we will generate profits or implement tax strategies in future periods enabling us to fully realize our deferred tax assets. The timing of recording a valuation allowance or the reversal of such valuation allowance is subject to objective and subjective factors that cannot be readily predicted in advance. Adjustments could be required in the future if we conclude that it is more likely than not that deferred tax assets are not recoverable. A provision for a valuation allowance could have the effect of increasing the income tax provision in the statement of operations in the period the valuation allowance is provided.

## Segment Operating Results

We operate in two reportable segments: (1) Product Licensing and (2) Semiconductor and IP Licensing. There are certain corporate overhead costs that are not allocated to these reportable segments because these operating amounts are not considered in evaluating the operating performance of our business segments.

The Chief Executive Officer is also the Chief Operating Decision Maker (“CODM”) as defined by the authoritative guidance on segment reporting.

The Product Licensing segment, including our DTS and FotoNation subsidiaries, licenses its technologies and intellectual property related to audio, digital radio and imaging solutions under the brands DTS, HD Radio and FotoNation. The Product Licensing solutions typically include the delivery of software or hardware-based solutions, combined with various other intellectual property, including know how, patents, trademarks, and copyrights. Product Licensing represents revenue derived primarily from the consumer electronics market and related applications servicing the home, automotive and mobile markets.

The Semiconductor and IP Licensing segment develops and licenses semiconductor technologies and IP to manufacturers, foundries, subcontract assemblers and others. The segment includes revenue generated from the technology and IP portfolios of Tessera, Inc., Invensas and Invensas Bonding Technologies, Inc. (formally Ziptronix, Inc.). Tessera, Inc. pioneered chip-scale packaging solutions. Invensas develops advanced semiconductor packaging and 3D interconnect solutions, including wafer bonding solutions, for applications such as smartphones, tablets, laptops, PCs, data centers and automobiles. We expand our technology and IP offerings in this segment through a combination of internal R&D and acquisitions. We also provide engineering services to customers in the form of technology demonstrations and technology transfers to assist their evaluation and adoption of our technologies. Through our technology transfer service, we provide detailed documentation outlining design guidelines, process specifications, recommended equipment and process parameters as well as hands-on engineering support to assist our licensees in bringing up and qualifying our technologies at their facilities. This service allows licensees to readily leverage our years of experience and expertise in advanced semiconductor packaging and 3D interconnect technologies, including direct and hybrid bonding.

We do not identify or allocate assets by reportable segment, nor does the CODM evaluate reportable segments using discrete asset information. Reportable segments do not record inter-segment revenue and accordingly there are none to report. Although the CODM uses operating income to evaluate reportable segments, operating costs included in one segment may benefit other segments.



The following table sets forth our segments' revenue, operating expenses and operating income (loss) (in thousands):

	Three Months Ended		Nine Months Ended	
	September 30, 2018	September 30, 2017	September 30, 2018	September 30, 2017
<b>Revenue:</b>				
Product licensing segment	\$ 60,378	\$ 42,780	\$ 164,755	\$ 116,843
Semiconductor and IP licensing segment	11,987	45,728	37,096	130,242
Total revenue	<u>72,365</u>	<u>88,508</u>	<u>201,851</u>	<u>247,085</u>
<b>Operating expenses:</b>				
Product licensing segment	44,865	43,696	130,901	129,496
Semiconductor and IP licensing segment	19,177	20,744	57,546	64,881
Unallocated operating expenses (1)	28,084	40,626	93,262	128,074
Total operating expenses	<u>92,126</u>	<u>105,066</u>	<u>281,709</u>	<u>322,451</u>
<b>Operating income (loss):</b>				
Product licensing segment	15,513	(916)	33,854	(12,653)
Semiconductor and IP licensing segment	(7,190)	24,984	(20,450)	65,361
Unallocated operating expenses (1)	(28,084)	(40,626)	(93,262)	(128,074)
Total operating loss	<u>\$ (19,761)</u>	<u>\$ (16,558)</u>	<u>\$ (79,858)</u>	<u>\$ (75,366)</u>

(1) Unallocated operating expenses consist primarily of general and administrative expenses, such as administration, human resources, finance, information technology, corporate development and procurement. These expenses are not allocated because these amounts are not considered in evaluating the operating performance of the Company's business segments.

The revenue and operating income amounts in this section have been presented on a basis consistent with GAAP applied at the segment level. Of our \$385.8 million in goodwill at September 30, 2018, approximately \$378.1 million is allocated to our Product Licensing reporting segment and approximately \$7.7 million is allocated to our Semiconductor and IP Licensing reporting segment.

For the three months ended September 30, 2018, the unallocated expenses were \$28.1 million compared to \$40.6 million for the three months ended September 30, 2017. The decrease of \$12.5 million was primarily attributable to a decrease in DTS post acquisition severance and retention bonuses, as well as lower legal and other operating expenditures.

For the nine months ended September 30, 2018, the unallocated expenses were \$93.3 million compared to \$128.1 million for the nine months ended September 30, 2017. The decrease of \$34.8 million was primarily attributable to DTS acquisition-related transaction costs and severance and retention bonuses, as well as a decrease in stock-based compensation and in legal and other operating expenses.

#### Product Licensing Segment

	Three Months Ended		Nine Months Ended	
	September 30, 2018	September 30, 2017	September 30, 2018	September 30, 2017
<b>Revenue:</b>				
Royalty and license fees	\$ 60,378	\$ 42,780	\$ 164,755	\$ 116,843
Total revenue	<u>60,378</u>	<u>42,780</u>	<u>164,755</u>	<u>116,843</u>
<b>Operating expenses:</b>				
Cost of revenue	5,003	1,667	9,407	4,370
Research, development and other related costs	17,657	18,679	55,109	56,436
Litigation	-	742	-	772
Amortization	22,205	22,608	66,385	67,918
Total operating expenses	<u>44,865</u>	<u>43,696</u>	<u>130,901</u>	<u>129,496</u>
Total operating income (loss)	<u>\$ 15,513</u>	<u>\$ (916)</u>	<u>\$ 33,854</u>	<u>\$ (12,653)</u>

Product Licensing revenue for the three months ended September 30, 2018 was \$60.4 million as compared to \$42.8 million for the three months ended September 30, 2017, an increase of \$17.6 million. Product Licensing revenue for the nine months ended September 30, 2018 was \$164.8 million as compared to \$116.8 million for the nine months ended September 30, 2017, an increase of \$48.0 million. The primary driver for the year-on-year changes was the purchase accounting impact on revenue of

\$7.0 million and \$45.6 million in the three and nine months ended September 30, 2017, respectively, amounts that would have been recognized as revenue by DTS under Topic 605 if not for the acquisition. Additionally, new minimum guarantee contracts signed and higher NRE revenue recognized in the three and nine months ended September 30, 2018, as compared to the same periods in prior year, contributed to the year-on-year changes.

	Three Months Ended		Increase/ (Decrease)	%	Nine Months Ended		Increase/ (Decrease)	%
	September 30, 2018	September 30, 2017			September 30, 2018	September 30, 2017		
Product licensing billings	\$ 54,478	\$ 46,166	\$ 8,312	18%	\$ 166,686	\$ 160,918	\$ 5,768	4%

Billings for the three months ended September 30, 2018 were \$54.5 million as compared to \$46.2 million for the three months ended September 30, 2017, an increase of \$8.3 million. The increase for the three months ended September 30, 2018, was driven by broad-based growth in all key markets - automotive, home and mobile. Billings for the nine months ended September 30, 2018 were \$166.7 million as compared to \$160.9 million for the nine months ended September 30, 2017, an increase of \$5.8 million. The increase for the nine months ended September 30, 2018, was primarily driven by higher NRE and licensing growth in the automotive and home markets.

Due to adoption of Topic 606, we anticipate Product Licensing revenue for 2018 will be materially impacted due principally to our inability to record further billings as revenue in 2018 and later periods from minimum guarantee and fixed fee licensing contracts in place prior to the start of 2018, offset by the impact of recording the full present value of fixed fee and minimum guarantee contracts upon their effective date which accelerates revenue recognition on new contracts as compared to revenue recognition under Topic 605. Further, we expect greater variability in quarterly and annual revenue in our Product Licensing segment in future periods as a result of the revenue accounting treatment applied to minimum guarantee and fixed fee licensing contracts.

Operating expenses for the three months ended September 30, 2018 were \$44.9 million and consisted of cost of revenue of \$5.0 million, research, development and other related costs of \$17.7 million and amortization costs of \$22.2 million. The increase of \$1.2 million in total operating expenses as compared to \$43.7 million for the three months ended September 30, 2017 was primarily driven by higher cost of revenue associated with increased NRE activity and royalties expense in connection with new audio revenue contracts, partially offset by lower R&D personnel related cost and amortization. Operating expenses for the nine months ended September 30, 2018 were \$130.9 million and consisted of cost of revenue of \$9.4 million, research, development and other related costs of \$55.1 million and amortization costs of \$66.4 million. The increase of \$1.4 million in total operating expenses as compared to \$129.5 million for the nine months ended September 30, 2017 was primarily driven by higher cost of revenue associated with increased NRE activity and royalties expense in connection with new audio revenue contracts, partially offset by lower personnel related cost and amortization.

Operating income for the three months ended September 30, 2018 was \$15.5 million compared to operating loss of \$0.9 million for the three months ended September 30, 2017, with the variance due to the reasons stated above.

Operating income for the nine months ended September 30, 2018 was \$33.9 million compared to operating loss of \$12.7 million for the nine months ended September 30, 2017, with the variance due to the reasons stated above.

#### *Semiconductor and IP Licensing Segment*

	Three Months Ended		Nine Months Ended	
	September 30, 2018	September 30, 2017	September 30, 2018	September 30, 2017
<b>Revenue:</b>				
Royalty and license fees	\$ 11,987	\$ 45,728	\$ 37,096	\$ 130,242
Total revenue	11,987	45,728	37,096	130,242
<b>Operating expenses:</b>				
Research, development and other related costs	6,532	7,161	20,765	21,729
Litigation	7,642	8,422	21,593	26,596
Amortization	5,003	5,161	15,188	16,556
Total operating expenses	19,177	20,744	57,546	64,881
Total operating income (loss)	\$ (7,190)	\$ 24,984	\$ (20,450)	\$ 65,361

Semiconductor and IP Licensing segment revenue for the three months ended September 30, 2018 was \$12.0 million as compared to \$45.7 million for the three months ended September 30, 2017, a decrease of \$33.7 million. Semiconductor and IP

Licensing segment revenue for the nine months ended September 30, 2018 was \$37.1 million as compared to \$130.2 million for the nine months ended September 30, 2017, a decrease of \$93.1 million. The decreases were primarily caused by our inability to record billings as revenue in the first three quarters of 2018 from fixed fee licensing contracts in place prior to the start of 2018 as a result of adopting Topic 606.

	Three Months Ended		Increase/ (Decrease)	%	Nine Months Ended		Increase/ (Decrease)	%
	September 30, 2018	September 30, 2017			September 30, 2018	September 30, 2017		
Semiconductor and IP licensing billings	\$ 46,109	\$ 39,142	\$ 6,967	18%	\$ 138,864	\$ 131,349	\$ 7,515	6%

Billings for the three months ended September 30, 2018 were \$46.1 million as compared to \$39.1 million for the three months ended September 30, 2017, an increase of \$7.0 million. The increase was primarily driven by billings from the Broadcom license executed in December 2017. Billings for the nine months ended September 30, 2018 were \$138.9 million as compared to \$131.3 million for the nine months ended September 30, 2017, an increase of \$7.6 million. The increase was primarily driven by billings from the Broadcom license executed in December 2017, partially offset by expiration of a fixed fee contract that was billed annually.

Due to adoption of Topic 606, we currently anticipate Semiconductor and IP Licensing revenue for 2018 will be significantly lower than that for 2017 due principally to our inability to record further billings as revenue in 2018 and later periods from minimum guarantee and fixed fee licensing contracts in place prior to the start of 2018. Further, we expect greater variability in quarterly and annual revenue in our Semiconductor and IP Licensing segment in future periods as a result of the revenue accounting treatment applied to minimum guarantee and fixed fee licensing contracts, which will necessitate recognizing revenue in the quarter a contract first becomes effective. For example, if one or more significant new license agreements become effective during the fourth quarter of 2018, then Semiconductor and IP Licensing revenue for the year could materially increase from amounts recorded during the first three quarters of 2018.

Operating expenses for the three months ended September 30, 2018 were \$19.2 million and consisted of research, development and other related costs of \$6.5 million, litigation costs of \$7.6 million and amortization costs of \$5.0 million. The decrease of \$1.5 million in total operating expenses as compared to \$20.7 million for the three months ended September 30, 2017, resulted primarily from lower litigation costs as a result of concluding the legal proceedings against Broadcom in December 2017, partially offset by an increase in Samsung related litigation expense.

Operating expenses for the nine months ended September 30, 2018 were \$57.5 million and consisted of research, development and other related costs of \$20.7 million, litigation costs of \$21.6 million and amortization costs of \$15.2 million. The decrease of \$7.4 million in total operating expenses as compared to \$64.9 million for the nine months ended September 30, 2017, resulted primarily from lower litigation costs as a result of concluding the legal proceedings against Broadcom in December 2017, partially offset by an increase in Samsung related litigation expense.

We expect that litigation expense will continue to be a material portion of the Semiconductor and IP Licensing segment's operating expenses in future periods, and may fluctuate significantly in some periods, because of our ongoing legal actions, as described in Part II, Item 1 - *Legal Proceedings*, and because we may become involved in other litigation from time to time in the future in order to enforce and protect our intellectual property and contract rights.

Operating loss for the three months ended September 30, 2018 was \$7.2 million compared to operating income of \$25.0 million for the three months ended September 30, 2017, with the variance due to the reasons stated above.

Operating loss for the nine months ended September 30, 2018 was \$20.5 million compared to operating income of \$65.4 million for the nine months ended September 30, 2017, with the variance due to the reasons stated above.

## Liquidity and Capital Resources

(in thousands, except for percentages)	As of	
	September 30, 2018	December 31, 2017
Cash and cash equivalents	\$ 51,866	\$ 138,260
Investments	53,569	62,432
Total cash, cash equivalents and short-term investments	\$ 105,435	\$ 200,692
Percentage of total assets	9%	18%

	Nine Months Ended	
	September 30, 2018	September 30, 2017
Net cash from operating activities	\$ 68,633	\$ 85,769
Net cash from investing activities	\$ 1,819	\$ (15,584)
Net cash from financing activities	\$ (156,846)	\$ (38,736)

Our primary sources of liquidity and capital resources are our operating cash flows and our investment portfolio. Cash, cash equivalents and investments were \$105.4 million at September 30, 2018, a decrease of \$95.3 million from \$200.7 million at December 31, 2017. This decrease resulted from \$100.0 million in voluntary pay-down of debt principal, \$29.5 million in dividends paid, \$40.5 million in repurchases of common stock, \$3.4 million in purchases of intangible assets and \$2.5 million in capital expenditures. This decrease was partially offset by \$68.6 million in cash from operations and by \$13.2 million in proceeds from the exercise of stock options and employee stock purchases. Cash and cash equivalents were \$51.9 million at September 30, 2018, a decrease of \$86.4 million from \$138.3 million at December 31, 2017.

Cash flows provided by operations were \$68.6 million for the nine months ended September 30, 2018, primarily due to our net loss of \$83.0 million being adjusted for non-cash items of depreciation of \$5.1 million, amortization of intangible assets of \$81.6 million, stock-based compensation expense of \$22.1 million and \$61.2 million in changes in operating assets and liabilities. These increases were partially offset by a reduction of \$21.2 million in deferred income taxes and other.

Cash flows provided by operations were \$85.8 million for the nine months ended September 30, 2017, primarily due to our net loss of \$62.2 million being adjusted for non-cash items of depreciation of \$5.4 million, amortization of intangible assets of \$84.5 million, stock-based compensation expense of \$24.0 million and \$55.4 million in changes in operating assets and liabilities. These increases were partially offset by a reduction of \$25.3 million in deferred income taxes and other.

Cash flows provided by operations are \$17.2 million lower for the first nine months of 2018 as compared to the first nine months of 2017, in spite of an increase in billings of \$13.3 million. The primary causes of the reduction in operating cash flows are a net unfavorable change in accounts payable and accruals of \$26.5 million, which is primarily related to DTS retention bonuses of \$18.0 million that were accrued in 2017 and subsequently paid in 2018, and a net unfavorable change in accounts receivable of \$9.0 million for the first nine months of 2018 as compared to the same periods in 2017. The net unfavorable receivable increase is largely due to billings near the end of September 2018 that will be collected during the fourth quarter of 2018.

Net cash provided by investing activities was \$1.8 million for the nine months ended September 30, 2018, primarily related to maturities and sales of securities of \$28.2 million, partially offset by purchases of securities of \$20.1 million, purchases of intangible assets of \$3.4 million and capital expenditures of \$2.5 million.

Net cash used in investing activities was \$15.6 million for the nine months ended September 30, 2017, primarily related to the purchases of available-for-sale securities of \$22.6 million and \$2.5 million in capital expenditures offset by maturities and sales of short-term investments of \$9.4 million.

Net cash used in financing activities was \$156.8 million for the nine months ended September 30, 2018 principally due to \$100.0 million in voluntary pay-down of debt principal, \$29.5 million in dividends paid and \$40.5 million in repurchases of common stock, partially offset by \$13.2 million in proceeds from the exercise of stock options and employee stock purchases.

Net cash used in financing activities was \$38.7 million for the nine months ended September 30, 2017 principally due to dividend payments of \$29.7 million, \$13.5 million in repurchases of common stock and \$4.5 million in debt repayments, offset by \$9.0 million in proceeds from the exercise of stock options and employee stock purchases.

The primary objectives of our investment activities are to preserve principal and to maintain liquidity while at the same time capturing a market rate of return. To achieve these objectives, we maintain a diversified portfolio of debt securities including corporate bonds and notes, municipal bonds and notes, commercial paper, treasury and agency notes and bills, certificates of deposit and money market funds. We invest excess cash predominantly in high-quality investment grade debt securities with less than three years to maturity. Our marketable debt securities are classified as available-for-sale and are reported at fair value, with unrealized gains and losses, net of tax, recorded in accumulated other comprehensive income. The fair values for our securities are determined based on quoted market prices as of the valuation date and observable prices for similar assets. In the third quarter of 2018, we initiated an equity position in Onkyo Corporation, a publicly traded company listed on the JASDAQ market of the Tokyo Stock Exchange. Under Topic 321, we measure equity securities with readily determinable market value at fair value and recognize any changes in fair value in net income (loss).

We evaluate our debt securities periodically for possible other-than-temporary impairment and review factors such as the length of time and extent to which fair value has been below cost basis, the financial condition of the issuer, and our ability and intent to hold the security until maturity on a more likely than not basis. If declines in the fair value of those investments are determined to be other-than-temporary, we report the credit loss portion of such decline in other income and expense, on a net basis, and the remaining noncredit loss portion in accumulated other comprehensive income. For the nine months ended September 30, 2018 and 2017, no impairment charges were recorded with respect to our investments in debt securities.

On December 1, 2016, we entered into a Credit Agreement which provided for a \$600.0 million seven-year term B loan facility. The Term B Loan Facility matures on November 30, 2023. Upon the closing of the Credit Agreement, we borrowed \$600.0 million under the Term B Loan facility. These proceeds were used on December 1, 2016, together with cash and cash equivalents, to finance the acquisition of DTS. The obligations under the Credit Agreement are guaranteed by substantially all of our assets pursuant to the Security Agreement, dated December 1, 2016, among us, Royal Bank of Canada, as collateral agent, and the other pledgors party thereto. On January 23, 2018, we completed a repricing of our debt, reducing the borrowing rate by 75 basis points, and paid down \$100.0 million in principal balance.

At September 30, 2018, \$494.0 million was outstanding under this loan facility with an interest rate, including amortization of debt issuance costs, of 5.1%. Interest is payable monthly. As the \$100.0 million prepayment of debt principal we made in January 2018 exceeded the minimum principal payment requirements, we expect to have no further principal payment requirements until maturity of the loan, subject to our expected achievement of a net leverage ratio, as defined in the loan agreement, below 2.0 at the end of each fiscal year end. Because the interest rate on the loan facility is variable, we are subject to variations in our cash flows based on changes in market interest rates.

In August 2007, our Board of Directors ("the Board") authorized a plan to repurchase our outstanding shares of common stock dependent on market conditions, share price and other factors. As of September 30, 2018, the total amount available for repurchase under the plan was \$105.6 million. No expiration has been specified for this plan. Since the inception of the plan, and through September 30, 2018, we have repurchased approximately 13.0 million shares of common stock at a total cost of \$344.4 million at an average price of \$26.54. During the nine months ended September 30, 2018, our repurchases totaled \$37.2 million. We plan to continue to execute authorized repurchases from time to time under the plan.

Since March 2015, we have paid a quarterly dividend of \$0.20 per share. We anticipate that all quarterly dividends will be paid out of cash, cash equivalents and short-term investments.

We believe that based on current levels of operations and anticipated growth, our cash from operations, together with cash, cash equivalents and investments currently available, will be sufficient to fund our operations, debt service, dividends and stock repurchases and acquisition needs for at least the next twelve months. Poor financial results, unanticipated expenses, unanticipated acquisitions of technologies or businesses or unanticipated strategic investments could give rise to additional financing requirements sooner than we expect. There can be no assurance that equity or debt financing will be available when needed or, if available, that such financing will be on terms satisfactory to us and not dilutive to our then-current stockholders.

#### **Contractual Cash Obligations**

Our operating lease obligations represent aggregate future minimum lease payments under non-cancelable facility and equipment operating leases. For our facilities leases, rent expense charged to operations differs from rent paid because of scheduled rent increases. Rent expense is calculated by amortizing total rental payments on a straight-line basis over the lease term. There have been no material changes to our future minimum lease payments in the three months ended September 30, 2018.

As of September 30, 2018, we had accrued \$14.7 million of unrecognized tax benefits in long term income taxes payable related to uncertain tax positions, and accrued approximately \$0.8 million of interest. At this time, we are unable to reasonably estimate the timing of the long-term payments or the amount by which the liability will increase or decrease over time.

See "Note 13 - *Commitments and Contingencies*" of the Notes to Condensed Consolidated Financial Statements for additional detail.

#### **Off-Balance Sheet Arrangements**

As of September 30, 2018, we did not have any off-balance sheet arrangements as defined in item 303(a)(4)(ii) of Regulation S-K.

**Critical Accounting Policies and Estimates**

Our significant accounting policies are detailed in "Note 2 - *Summary of Significant Accounting Policies*" in our Annual Report on Form 10-K for the year ended December 31, 2017. Significant changes to our accounting policies as a result of adopting Topic 606 are discussed in "Note 2 - *Summary of Significant Accounting Policies*" and "Note 3 - *Revenue*" of the Notes to Condensed Consolidated Financial Statements. For a discussion of our critical accounting policies and estimates, see Part II, Item 7 - *Management's Discussion and Analysis of Financial Condition and Results of Operations* in the Form 10-K.

**Recent Accounting Pronouncements**

See "Note 2 - *Summary of Significant Accounting Policies*" of the Notes to Condensed Consolidated Financial Statements for a full description of recent accounting pronouncements including the respective expected dates of adoption.

### **Item 3. Quantitative and Qualitative Disclosures About Market Risk**

For a discussion of the Company's market risk, see Item 7A – *Quantitative and Qualitative Disclosures About Market Risk* in the Form 10-K.

### **Item 4. Controls and Procedures**

Attached as exhibits to this Form 10-Q are certifications of Xperi Corporation's Chief Executive Officer and Chief Financial Officer, which are required in accordance with Rule 13a-14 of the Exchange Act. This "Controls and Procedures" section includes information concerning the controls and controls evaluation referred to in the certifications and it should be read in conjunction with the certifications, for a more complete understanding of the topics presented.

#### **Evaluation of Controls and Procedures**

Xperi Corporation maintains disclosure controls and procedures that are designed to ensure that information required to be disclosed in our reports filed pursuant to the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow for timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act as of the end of the period covered by this report (the evaluation date). Based on this evaluation, our principal executive officer and principal financial officer concluded as of the evaluation date that our disclosure controls and procedures were effective to provide reasonable assurance that the information relating to Xperi Corporation, including our consolidated subsidiaries, required to be disclosed in our SEC reports (i) is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms, and (ii) is accumulated and communicated to Xperi Corporation's management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

#### **Change in Internal Control over Financial Reporting**

There has been no change in Xperi Corporation's internal control over financial reporting, as defined in Exchange Act Rules 13a-15(f) and 15d-15(f), during Xperi Corporation's most recent quarter that has materially affected, or is reasonably likely to materially affect, Xperi Corporation's internal control over financial reporting.

**Item 1. Legal Proceedings**

Other than to the extent the proceedings described below have concluded, we cannot predict the outcome of any of the proceedings described below. An adverse decision in any of these proceedings could significantly harm our business and our consolidated financial position, results of operations, and cash flows.

**Tessera, Inc. v. Toshiba Corporation, Civil Action No. 5:15-cv-02543-BLF (N.D. Cal.)**

On May 12, 2015, Tessera, Inc. filed a complaint against Toshiba Corporation (“Toshiba”) in California Superior Court. Tessera, Inc.’s complaint alleges causes of action for breach of contract, breach of the implied covenant of good faith and fair dealing, and declaratory relief, generally alleging that Toshiba underpaid royalties and failed to cooperate with audits conducted pursuant to the parties’ license agreement.

On June 8, 2015, Toshiba removed the action to the U.S. District Court for the Northern District of California. On June 18, 2015, Toshiba filed its answer, affirmative defenses, and counterclaims to Tessera, Inc.’s complaint. Toshiba alleges counterclaims for declaratory judgment and breach of the implied warranty of good faith and fair dealing. The counterclaims seek, among other things, judicial determinations about the interpretation of the parties’ agreement, termination of the agreement, an accounting of the amount of alleged overpayments by Toshiba, restitution, and damages. On July 10, 2015, Tessera, Inc. filed its answer and affirmative defenses to Toshiba’s counterclaims. On March 17, 2016, Tessera, Inc. filed an amended complaint adding a claim for declaratory relief regarding a February 12, 2016 letter sent by Toshiba to Tessera, Inc. purporting to terminate the parties’ license agreement. On March 18, 2016, Toshiba filed its amended answer, affirmative defenses, and counterclaims. On April 4, 2016, Tessera, Inc. filed an answer to Toshiba’s amended counterclaims.

An initial summary judgment hearing on contract issues took place on September 22, 2016. On November 7, 2016, the Court entered an order granting Toshiba’s motion regarding the definition of “TCC,” and denying summary judgment on the other issues raised by the parties’ cross-motions. On December 6, 2016, Tessera, Inc. filed a motion pursuant to Federal Rule of Civil Procedure 54(b) seeking authorization to appeal the order and for a stay. On March 6, 2017, the Court granted the Rule 54(b) motion. The Court subsequently vacated the trial date and stayed the remainder of the district court proceedings.

On April 4, 2017, Tessera, Inc. filed a notice of appeal to the U.S. Court of Appeals for the Ninth Circuit. The parties completed briefing on November 2, 2017. A hearing for oral argument took place on October 15, 2018.

**Tessera Advanced Technologies, Inc. v. Samsung Electronics America, Inc. et al, Civil Action No. 2:17-cv-07621 (D. N.J.)**

On September 28, 2017, Tessera Advanced Technologies, Inc. filed a complaint against Samsung Electronics America, Inc. and Samsung Electronics Co., Ltd. (collectively, “Samsung”) in the U.S. District Court for the District of New Jersey. The complaint alleges that Samsung infringes U.S. Patent Nos. 6,954,001 and 6,784,557 and requests, among other things, that Samsung be ordered to pay compensatory damages. On November 22, 2017, Samsung filed an unopposed motion to stay the action pending resolution of a U.S. International Trade Commission investigation involving the same patents. On November 27, 2017, the Court granted Samsung’s motion. This action is currently stayed.

**Invensas Corporation v. Samsung Electronics Co., Ltd., et al., Civil Action No. 1:17-cv-01363 (D. Del.)**

On September 28, 2017, Invensas Corporation filed a complaint against Samsung Electronics Co., Ltd. and Samsung Austin Semiconductor, LLC (collectively, “Samsung”) in the U.S. District Court for the District of Delaware. The complaint alleges that Samsung infringes U.S. Patent Nos. 6,232,231 and 6,849,946 and requests, among other things, that Samsung be ordered to pay compensatory damages. On December 19, 2017, Samsung filed an Answer and Affirmative Defenses.

On July 27, 2018, Samsung filed a motion to stay pending determination of *inter partes* review of the patents-in-suit. The Court denied the motion on October 2, 2018.

A claim construction hearing was held on October 10, 2018, and a jury trial is scheduled for November 18, 2019

**Invensas Bonding Technologies, Inc. v. Samsung Electronics America, Inc., et al., Civil Action No. 1:17-cv-07609 (D. N.J.)**

On September 28, 2017, Invensas Bonding Technologies, Inc. filed a complaint against Samsung Electronics America, Inc. and Samsung Electronics Co. Ltd. (collectively, “Samsung”) in the U.S. District Court for the District of New Jersey. The complaint alleges that Samsung infringes U.S. Patent Nos. 7,553,744, 7,807,549, 7,871,898, 8,153,505, 9,391,143, and 9,431,368 and requests, among other things, that Samsung be ordered to pay compensatory damages. On December 19, 2017,



Samsung filed an Answer and Affirmative Defenses. A claim construction hearing is scheduled for March 2019, subject to the Court's availability.

**FotoNation Limited, et al v. Samsung Electronics Co., Ltd., et al, Civil Action No. 2:17-cv-00669 (E.D. Tex.)**

On September 28, 2017, FotoNation Limited and DigitalOptics Corporation MEMS (collectively, "FotoNation") filed a complaint against Samsung Electronics America, Inc. and Samsung Electronics Co. Ltd. (collectively, "Samsung") in the U.S. District Court for the Eastern District of Texas. FotoNation amended its complaint several times, and on March 16, 2018, filed a third amended complaint. Each complaint alleges that Samsung infringes U.S. Patent Nos. 8,254,674, 8,331,715, 7,860,274, 7,697,829, 7,574,016, 7,620,218, 7,916,897 and 8,908,932, and requests, among other things, that Samsung be ordered to pay compensatory damages. Samsung answered all the complaints.

On February 1, 2018, Samsung filed a motion to transfer the action to the U.S. District Court for the District of Delaware. On March 23, 2018, Samsung filed a motion to dismiss certain counts of the third amended complaint. A hearing on the motions was held on May 16, 2018. The motions are pending.

On October 11, 2018, Samsung filed a motion to stay pending determination of *inter partes* review of the patents-in-suit. The motion is pending.

A claim construction hearing was held on October 3, 2018. A dispositive motion hearing is scheduled for April 11, 2019. A jury trial is scheduled to begin on June 17, 2019.

**Invensas Corporation v. Samsung Electronics Co., Ltd., et al., Civil Action No. 2:17-cv-00670 (E.D. Tex.)**

On September 28, 2017, Invensas Corporation filed a complaint against Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. ("Samsung") in the U.S. District Court for the Eastern District of Texas. The complaint alleges that Samsung infringes U.S. Patent Nos. 6,232,231 (the "'231 patent"), 6,849,946 (the "'946 patent"), 6,054,336, 6,566,167, and 6,825,554 and requests, among other things, that Samsung be ordered to pay compensatory damages. On December 19, 2017, Samsung filed an Answer and Affirmative Defenses to the Complaint.

On February 1, 2018, Samsung filed a motion to transfer the action to the U.S. District Court for the District of Delaware. On August 14, 2018, the Court denied the motion, and on September 10, 2018, Samsung filed a renewed motion to transfer. A hearing was held on the renewed motion on October 12, 2018. The motion is pending.

On February 1, 2018, Samsung filed a motion to sever and stay proceedings for the '231 and '946 patents. On August 16, 2018, the Court denied the motion, and on August 30, 2018, Samsung filed an objection to the order. The objection is pending.

On July 27, 2018, Samsung filed a motion to stay pending determination of *inter partes* review of the patents-in-suit. The motion is pending.

A claim construction order issued on October 26, 2018. A jury trial is scheduled to begin on February 19, 2019.

**Tessera Advanced Technologies, Inc. v. Samsung Electronics Co., Ltd., et al., Civil Action No. 2:17-cv-00671 (E.D. Tex.)**

On September 28, 2017, Tessera Advanced Technologies, Inc. ("Tessera") filed a complaint against Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. ("Samsung") in the U.S. District Court for the Eastern District of Texas. The complaint alleges that Samsung infringes U.S. Patent Nos. 6,512,298 and 6,825,616 and requests, among other things, that Samsung be ordered to pay compensatory damages. On December 19, 2017, Samsung filed an Answer and Affirmative Defenses to the Complaint.

On February 1, 2018, Samsung filed a motion to transfer the action to the U.S. District Court for the District of Delaware. The Court granted the motion on September 5, 2018. On September 11, 2018, Tessera filed a motion for reconsideration of the court's order. On September 14, 2018, the Court stayed the transfer to allow the parties to fully brief the motion for reconsideration. The motion for reconsideration is pending.

On February 22, 2018, Samsung filed a motion to stay pending arbitration. The motion is pending.

On May 11, 2018, Samsung filed a motion to dismiss for lack of standing. The motion is pending.

On June 29, 2018, Samsung filed a motion to stay pending determination of *inter partes* review of the patents-in-suit. The Court denied the motion on July 19, 2018.

A jury trial was scheduled to begin on May 6, 2019, but case deadlines were stayed following the Court's order granting Samsung's motion to transfer.

**Tessera Advanced Technologies Inc. vs. Samsung (China) Investment Co., Ltd. et al. Case No. (2018) Jing Min Chu No. 12 (Beijing High Court, People's Republic of China)**

On January 25, 2018, Tessera Advanced Technologies Inc. ("TATI") filed a complaint against Samsung (China) Investment Co., Ltd., Samsung Electronics Huizhou Co., Ltd. and Beijing Jiu Jiu Shun Fa Technologies Development Co., Ltd. (collectively the "Defendants") with the Beijing High Court, People's Republic of China. The complaint alleges that the Defendants infringe TATI's Chinese Patent No. 02155954.6. The complaint seeks damages; an injunction prohibiting the Defendants from manufacturing, using, offering for sale, and selling infringing products in China; and orders requiring that the Defendants destroy infringing products and semi-finished products in their possession in China, as well as equipment, drawings and other objects and information used to manufacture infringing products.

On March 29, 2018, the Beijing High Court granted TATI's evidence preservation petition, and preserved from Samsung's Beijing offices certain financial documents related to its sale of allegedly infringing products. On April 4, 2018, Samsung (China) Investment Co., Ltd. filed a petition for reconsideration of the evidence preservation decision, which the Beijing High Court denied on April 10, 2018.

The Defendants filed petitions to challenge the jurisdiction of the Beijing High Court. On May 11, 2017, the Beijing High Court issued an order denying the Defendants' jurisdiction petitions. The Defendants appealed the order to the Supreme People's Court of the People's Republic of China ("PRC"). The case is currently stayed pending a second instance ruling on the jurisdiction issue from the Supreme People's Court of the PRC.

**Samsung Electronics Co., Ltd. v. Panasonic Corporation (f/k/a Matsushita Electric Industrial Co.), Ltd., Pannova Semic, LLC, and Tessera Advanced Technologies, Inc. (International Chamber of Commerce)**

On May 18, 2018, Samsung Electronics Co., Ltd. ("Samsung") filed a Request for Arbitration against Tessera Advanced Technologies, Inc. ("Tessera"), Panasonic Corporation (f/k/a Matsushita Electric Industrial Co.) ("Panasonic") and Pannova Semic, LLC ("Pannova") with the International Chamber of Commerce. The Request seeks declaratory judgments that Samsung has a license to practice U.S. Patent Nos. 6,954,001, 6,784,557, 6,512,298, and 6,852,616 ("Patents-in-Suit"); damages of at least \$15 million for alleged breach of contract; and a declaratory judgment that Panasonic's assignment of the Patents-in-Suit is null and void. The Request further seeks an order requiring reimbursement to Samsung of all expenses, including attorneys' fees, incurred in defending against lawsuits that Tessera or its affiliates filed in various jurisdictions. On June 25, 2018, Tessera and Pannova filed a Response to the Request for Arbitration, objecting to the jurisdiction of the Tribunal and denying the merits of Samsung's claims.

**Patent Office Proceedings**

**CN Patent No. 02155954.6**

On April 27, 2018, Samsung (China) Investment Co., Ltd. and Samsung Electronics Huizhou Co., Ltd. filed two invalidation petitions against CN Patent No. 02155954.6 ("the '954 patent") before the Patent Reexamination Board of State Intellectual Property Office of the PRC. Both invalidation petitions request a determination that claims 1-12 of '954 patent are unpatentable. Tessera Advanced Technologies, Inc. filed its response to the first invalidation case on July 19, 2018, and its response to the second invalidation case on July 29, 2018. A hearing is scheduled for November 16, 2018.

**U.S Patent No. 6,054,336**

On June 15, 2018, Samsung Electronics Co., and Samsung Electronics America, Inc. filed a petition for *inter partes* review of U.S. Patent No. 6,054,336 (the "'336 patent") with the U.S. Patent and Trademark Office, Patent Trial and Appeal Board ("PTAB"). The petition requests a determination that claims 1-3 of the '336 patent are unpatentable.

**U.S Patent No. 6,232,231**

On July 13, 2018, Samsung Electronics Co. Ltd., Samsung Electronics America, Inc., and Samsung Austin Semiconductor LLC filed a petition for *inter partes* review of U.S. Patent No. 6,232,231 (the "'231 patent") with the PTAB. The petition requests a determination that claims 1-16 of the '231 patent are unpatentable.

**U.S Patent No. 6,512,298**

On June 15, 2018, Samsung Electronics Co. Ltd., and Samsung Electronics America, Inc. filed a petition for *inter partes* review of U.S. Patent No. 6,512,298 (the “’298 patent”) with the PTAB. The petition requests a determination that claims 1-6 and 8-13 of the ’298 patent are unpatentable.

**U.S Patent No. 6,566,167**

On June 15, 2018, Samsung Electronics Co. Ltd., and Samsung Electronics America, Inc. filed a petition for *inter partes* review of U.S. Patent No. 6,566,167 (the “’167 patent”) with the PTAB. The petition requests a determination that claims 1-12 of the ’167 patent are unpatentable.

**U.S. Patent No. 6,784,557**

On January 11, 2018, Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., and Samsung Semiconductor, Inc. filed a petition for *inter partes* review of U.S. Patent No. 6,784,557 (the “’557 patent”) with the PTAB. The petition requests a determination that claims 1-8 of the ’557 patent are unpatentable. On July 19, 2018, the PTAB instituted an *inter partes* review of claims 1-8.

**U.S Patent No. 6,825,554**

On June 15, 2018, Samsung Electronics Co. Ltd., and Samsung Electronics America, Inc. filed a petition for *inter partes* review of U.S. Patent No. 6,825,554 (the “’554 patent”) with the PTAB. The petition requests a determination that claims 1-5 of the ’554 patent are unpatentable.

**U.S Patent No. 6,849,946**

On July 13, 2018, Samsung Electronics Co. Ltd., Samsung Electronics America, Inc., and Samsung Austin Semiconductor LLC filed a petition for *inter partes* review of U.S. Patent No. 6,849,946 (the “’946 patent”) with the PTAB. The petition requests a determination that claims 16-22 of the ’946 patent are unpatentable.

**U.S Patent No. 6,852,616**

On June 15, 2018, Samsung Electronics Co. Ltd., and Samsung Electronics America, Inc. filed a petition for *inter partes* review of U.S. Patent No. 6,852,616 (the “’616 patent”) with the PTAB. The petition requests a determination that claims 1-6 and 8-9 of the ’616 patent are unpatentable.

**U.S. Patent No. 6,954,001**

On March 16, 2018, Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., and Samsung Semiconductor, Inc. filed two petitions for *inter partes* review of U.S. Patent No. 6,954,001 (“the ’001 patent”) with the PTAB.

The first petition requests a determination that claims 1-18 of the ’001 patent are unpatentable. On October 1, 2018, the PTAB granted the first petition and instituted an *inter partes* review of claims 1-18.

The second petition requests a determination that claims 1-4, 6-13, and 15-18 of the ’001 patent are unpatentable. On October 1, 2018, the PTAB granted the second petition and instituted an *inter partes* review of claims 1-4, 6-13, and 15-18.

**U.S. Patent No. 7,553,744**

On October 1, 2018, Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. filed a petition for *inter partes* review of U.S. Patent No. 7,553,744 (the “’744 patent”) with the PTAB. The petition requests a determination that claims 41, 44, and 45 of the ’744 patent are unpatentable.

**U.S Patent No. 7,574,016**

On September 27, 2018, Samsung Electronics Co. Ltd. filed a petition for *inter partes* review of U.S. Patent No. 7,574,016 (the “’016 patent”) with the PTAB. The petition requests a determination that claims 1 and 2 of the ’016 patent are unpatentable.

**U.S. Patent No. 7,620,218**

On October 3, 2018, Samsung Electronics Co., Ltd. filed a petition for *inter partes* review of U.S. Patent No. 7,620,218 (the “’218 patent”) with the PTAB. The petition requests a determination that claims 1, 11, 14, 26, and 32 of the ’218 patent are unpatentable.

**U.S. Patent No. 7,697,829**

On October 3, 2018, Samsung Electronics Co., Ltd. filed a petition for *inter partes* review of U.S. Patent No. 7,697,829 (the “’829 patent”) with the PTAB. The petition requests a determination that claims 1, 7, 11, 14, and 15 of the ’829 patent are unpatentable.

**U.S. Patent No. 7,807,549**

On October 1, 2018, Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. filed two petitions for *inter partes* review of U.S. Patent No. 7,807,549 (the “’549 patent”) with the PTAB. The petitions request a determination that claims 53, 60-63, 67-70, 74-77, 83-86, 89, and 92 of the ’549 patent are unpatentable.

**U.S Patent No. 7,860,274**

On September 27, 2018, Samsung Electronics Co. Ltd. filed a petition for *inter partes* review of U.S. Patent No. 7,860,274 (the “’274 patent”) with the PTAB. The petition requests a determination that claims 1, 5 and 9 of the ’274 patent are unpatentable.

**U.S. Patent No. 7,871,898**

On October 1, 2018, Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. filed a petition for *inter partes* review of U.S. Patent No. 7,871,898 (the “’898 patent”) with the PTAB. The petition requests a determination that claims 1-4, 9, 13-16, 21, 26, 32, and 37 of the ’898 patent are unpatentable.

**U.S. Patent No. 7,916,897**

On October 3, 2018, Samsung Electronics Co., Ltd. filed a petition for *inter partes* review of U.S. Patent No. 7,916,897 (the “’897 patent”) with the PTAB. The petition requests a determination that claims 1, 4, 5, and 14 of the ’897 patent are unpatentable.

**U.S. Patent No. 8,153,505**

On October 2, 2018, Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. filed two petitions for *inter partes* review of U.S. Patent No. 8,153,505 (the “’505 patent”) with the PTAB. The petitions request a determination that claims 77, 79, 80-82, 84, 93-95, 99-101, 104-106, 110-114, 192, and 197 of the ’505 patent are unpatentable.

**U.S. Patent No. 8,254,674**

On October 3, 2018, Samsung Electronics Co., Ltd. filed two petitions for *inter partes* review of U.S. Patent No. 8,254,674 (the “’674 patent”) with the PTAB. The petitions request a determination that claims 29, 35, 36, 40, 41, and 42 of the ’674 patent are unpatentable.

**U.S Patent No. 8,331,715**

On September 27, 2018, Samsung Electronics Co. Ltd. filed a petition for *inter partes* review of U.S. Patent No. 8,331,715 (the “’715 patent”) with the PTAB. The petition requests a determination that claims 1-4 and 6 of the ’715 patent are unpatentable.

**U.S Patent No. 8,908,932**

On September 27, 2018, Samsung Electronics Co. Ltd. filed two petitions for *inter partes* review of U.S. Patent No. 8,908,932 (the “’932 patent”) with the PTAB. The petitions request a determination that claims 7-9, 11-15, 17, and 18 of the ’932 patent are unpatentable.

### **U.S. Patent No. 9,391,143**

On October 2, 2018, Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. filed two petitions for *inter partes* review of U.S. Patent No. 9,391,143 (the “’143 patent”) with the PTAB. The petitions request a determination that claims 1, 3-4, 6, 14-15, 20-22, 24, and 29-33 of the ’143 patent are unpatentable.

### **U.S. Patent No. 9,431,368**

On October 1, 2018, Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. filed a petition for *inter partes* review of U.S. Patent No. 9,431,368 (the “’368 patent”) with the PTAB. The petition requests a determination that claims 1, 2, 4, 9-11, 13, 14, and 18 of the ’368 patent are unpatentable.

### **Item 1A. Risk Factors**

Our operations and financial results are subject to various risks and uncertainties, including those described below, that could adversely affect our business, financial condition, results of operations, cash flows, and the trading price of our common stock.

#### **Our revenue and billings have been concentrated and we anticipate that our revenue and billings will continue to be concentrated in a limited number of customers. If we lose any of these customers, or these customers do not pay us, our revenue and billings could decrease substantially.**

We have earned a significant amount of our revenue from a limited number of customers. For the three months ended September 30, 2018, there were three customers that accounted for 10% or more of total revenue. We expect that a significant portion of our billings and revenue will continue to come from a limited number of customers for the foreseeable future. If we lose any of these customers, or these customers do not pay us, our billings and revenue could decrease substantially. For example, in February 2017 we announced that we were seeking to relicense Samsung Electronics whose patent license had expired at the end of 2016. In addition, a significant portion of our recurring billings is the result of structured payment terms in connection with the settlement of litigation matters, including our settlements with Amkor Technology, Inc. and Powertech Technology Inc. If we are unable to replace the billings from an expiring license or at the end of structured payment terms of a settlement agreement with similar billings from other customers, our royalties could be adversely impacted as compared to periods prior to such expiration or the end of such payment terms.

#### **From time to time we enter into license agreements that have fixed expiration dates and if, upon expiration or termination, we are unable to renew or replace such license agreements on terms favorable to us, our results of operations could be harmed.**

From time to time we enter into license agreements that have fixed expiration dates. Upon expiration of such agreements we need to renew or replace these agreements in order to maintain our royalty base. If we are unable to replace the royalties from an expiring license, either through a renewal or with similar royalties from other customers, our results of operations could be adversely impacted as compared to periods prior to such expiration.

Furthermore, we may not be able to continue licensing customers on terms favorable to us, under the existing terms or at all, which would harm our results of operations. While we have expanded our licensable technology portfolio through internal development and patents purchased from third parties, there is no guarantee that these measures will lead to continued royalties. If we fail to continue to do business with our current licensees, our business would be materially adversely affected.

#### **The success of our patent licensing business is dependent on the quality of our patent assets and our ability to create and implement new technologies or expand our licensable technology through acquisitions.**

We derive a significant portion of our billings from patent licenses and royalties, including structured settlement payments. The success of our patent licensing business depends on our ability to continue to develop and acquire high quality patents. We devote significant resources to developing new technologies and to sourcing and acquiring patents to address the evolving needs of the semiconductor and the consumer and communication electronics industries, and we must continue to do so in the future to remain competitive. Developments in our technologies are inherently complex, and require long development cycles and a substantial investment before we can determine their commercial viability. Moreover, competition for acquiring high quality patents is intense and there is no assurance that we can continue to acquire such patents on favorable terms. We may not be able to develop and market new or improved technologies, or to develop or acquire high quality patents, in a timely or commercially acceptable fashion. Furthermore, our acquired and developed patents will expire in the future. Our current U.S. issued patents expire at various times through 2037. We need to develop or acquire successful innovations and obtain royalty-generating patents on those innovations before our current patents expire, and our failure to do so would significantly harm our business, financial position, results of operations and cash flows.

**Our use of cash and substantial long-term borrowing to finance the DTS acquisition could limit future opportunities for our business, and could materially adversely affect our financial condition if we are unable to pay principal or interest on, or to refinance, such indebtedness.**

The DTS acquisition was financed with existing cash balances and a \$600 million secured term loan. The combination of reduced cash balances and the incurrence of substantial long-term debt could limit our ability to make future acquisitions, investments and capital expenditures that may be necessary or desirable for the operation or expansion of our business. Moreover, our ability to service the principal and interest payments on such indebtedness will depend on our continuing ability to generate requisite cash flow from our existing and acquired business operations. The terms of the indebtedness include covenants that may limit our operating flexibility and create a risk of default if we are unable to meet financial ratios and other covenant requirements. While we made a voluntary prepayment of \$100 million of principal on the indebtedness in January 2018 in connection with the refinancing of the debt, we may be unable to generate sufficient cash flow to make principal and interest payments in future periods, and in any event we may be required to refinance the remaining indebtedness upon its maturity in 2023. We may be unable to refinance such indebtedness on favorable terms or at all. For example, a downgrade in our credit rating could make any such refinancing more difficult to secure on favorable terms. A default under, or inability to refinance, our indebtedness could substantially adversely affect our continuing financial viability, and could lead to insolvency, bankruptcy, and the reduction or elimination of stockholders' equity.

**Our variable rate indebtedness may expose us to interest rate risk, which could cause our debt costs to increase significantly.**

As of September 30, 2018, we had \$494.0 million of outstanding indebtedness that was subject to floating interest rates. Changes in economic conditions outside of our control could result in higher interest rates, thereby increasing our interest expense and reducing the funds available for capital investment, operations or other purposes. At September 30, 2018, a 1% increase in the effective interest rate on our outstanding debt throughout a one-year period would result in an annual increase in our interest expense of approximately \$5.0 million. Any significant increase in our interest expense could negatively impact our results of operations and cash flows and also our ability to pay dividends in the future. Markets are currently forecasting further increases in the U.S. Federal Reserve's benchmark interest rate during 2018 and 2019, and such increases would likely impact the base rate on our outstanding indebtedness, and increase our interest expense, comparably.

**We are currently involved in litigation and administrative proceedings involving some of our patents and may be involved in other such actions in the future; any adverse decisions, findings of non-infringement, or invalidation or limitation of the scope of our patents could significantly harm our business.**

We are currently involved in litigation involving some of our patents, and may be involved in other such actions in the future. The parties in these legal actions often challenge the infringement, validity, scope, enforceability and/or ownership of our patents. In addition, in the past requests for reexamination or review have been filed in the U.S. Patent and Trademark Office ("PTO") with respect to patent claims at issue in one or more of our litigation proceedings, and oppositions have been filed against us with respect to our patents in the European Patent Office ("EPO"). During a reexamination or review proceeding and upon completion of the proceeding, the PTO or EPO may leave a patent in its present form, narrow the scope of the patent, or cancel or find unpatentable some or all of the claims of the patent. For example, the PTO has issued several Official Actions rejecting or maintaining earlier rejections of many of the claims in some of our patents. From time to time we assert these patents and patent claims in litigation and administrative proceedings. If the PTO's adverse rulings are upheld on appeal and some or all of the claims of the patents that are subject to reexamination are canceled, our business may be significantly harmed. In addition, counterparties to our litigation and administrative proceedings may seek and obtain orders to stay these proceedings based on rejections of claims in PTO reexaminations or review proceedings, and other courts or tribunals reviewing our legal actions could make findings adverse to our interests, even if the PTO actions are not final.

We cannot predict the outcome of any of these proceedings or the myriad procedural and substantive motions in these proceedings. If there is an adverse ruling in any legal or administrative proceeding relating to the infringement, validity, enforceability or ownership of any of our patents, or if a court or an administrative body such as the PTO limits the scope of the claims of any of our patents or concludes that they are unpatentable, we could be prevented from enforcing or earning future royalties from those patents, and the likelihood that customers will take new licenses and that current licensees will continue to agree to pay under their existing licenses could be significantly reduced. The resulting reduction in license fees and royalties could significantly harm our business, consolidated financial position, results of operations and cash flows, as well as the trading price of our common stock.

Regardless of the merits of any claim, the continued maintenance of these legal and administrative proceedings may result in substantial legal expenses and diverts our management's time and attention away from our other business operations, which could significantly harm our business. Our enforcement proceedings have historically been protracted and complex. The time to resolution and complexity of our litigation, its disproportionate importance to our business compared to other companies, the

propensity for delay in civil litigation, and the potential that we may lose particular motions as well as the overall litigation could all cause significant volatility in our stock price and have a material adverse effect on our business and consolidated financial position, results of operations, and cash flows.

**The timing of billings under our license and settlement agreements may cause fluctuations in our quarterly or annual results of operations.**

From time to time we enter into license and settlement agreements that include pricing or payment terms that result in quarter-to-quarter or year-over-year fluctuations in our revenue, billings and cash flows. The effect of these terms may also cause our aggregate annual royalty revenue or billings to grow less rapidly than annual growth in overall unit shipments or revenue in the applicable end market. Additionally, our customers may fail to pay, delay payment of or underpay what they owe to us under our license and settlement agreements, which may in turn require us to enforce our contractual rights through litigation, resulting in payment amounts and timing different than expected based on the terms of our license and settlement agreements. This also may cause our revenue, billings and cash flows to fluctuate on a quarter-to-quarter or year-over-year basis.

**We expect to continue to be involved in material legal proceedings to enforce or protect our intellectual property and contract rights, including material litigation with existing licensees or strategic partners, that could harm our business.**

From time to time, our efforts to obtain a reasonable royalty through our sales efforts do not result in the prospective customer agreeing to license our patents or our technology. In certain cases, we become involved in litigation to enforce our intellectual property rights, enforce the terms of our license agreements, determine the validity and scope of the proprietary rights of others, and defend against claims of infringement or invalidity. For example, on September 28, 2017, we filed legal proceedings against Samsung Electronics and certain of its affiliates, alleging infringement of certain of our patents. Our current legal actions, as described in Part II, Item 1 - *Legal Proceedings*, are examples of disputes and litigation that impact our business. If we are not able to reach agreement with customers or potential customers we may be involved in similar legal proceedings in the future, including proceedings to ensure proper and full payment of royalties by licensees under the terms of their license agreements.

Existing and any future legal actions may harm our business. For example, legal actions could cause an existing customer or strategic partner to cease making royalty or other payments to us, or to challenge the validity and enforceability of our patents or the scope of our license agreements, and could significantly damage our relationship with such customer or strategic partner and, as a result, prevent the adoption of our technologies and intellectual property by such customer or strategic partner. Litigation could also severely disrupt or shut down the business operations of our customers or strategic partners, which in turn would significantly harm our ongoing relations with them and cause us to lose royalties. Moreover, the timing and results of any of our legal proceedings are not predictable and may vary in any individual proceeding. Further, our product licensing business could be subject to greater risk of claims of infringement of third-party intellectual property rights as a result of our IP licensing business. The risks of third-party infringement claims could be heightened by our need to engage in enforcement activities with respect to our existing patents, as our existing or potential licensees may seek to assert infringement claims against our DTS or other product businesses in response to our enforcement activities relating to our existing patents. For example Broadcom had filed patent litigation against our Play-Fi business which we believe was in response to our patent litigation filed against them. Competitors of our product licensing business would not be subject to such heightened risk of third-party claims, and such claims could adversely affect our product licensing business as well as impair our enforcement ability and licensing royalties.

**The cost of litigation is typically very high and can be difficult to predict, and such high costs and unpredictability may negatively impact our financial results.**

From time to time we identify products that we believe infringe our patents. We seek to license the companies that design, make, use, import, sell, or offer for sale those products, but sometimes those companies are unwilling to enter into a license agreement. In those circumstances, we may elect to enforce our patent rights against those companies and products. Litigation stemming from these or other disputes could harm our relationships with those companies or other licensees, or our ability to gain new customers, who may postpone licensing decisions pending the outcome of the litigation or dispute, or who may, as a result of such litigation, choose not to adopt our technologies. In addition, these legal proceedings could be very expensive and may significantly reduce our profits.

In addition, from time to time our customers with existing license agreements dispute their obligations under such agreements, or we may dispute their reporting of royalties due under such agreements. In the past, customers have threatened to initiate litigation against us regarding our licensing royalty rate practices including our adherence to licensing on fair, reasonable, and non-discriminatory terms and potential antitrust claims.

The costs associated with legal proceedings are typically high, relatively unpredictable, and not completely within our control. These costs may be materially higher than expected, which could adversely affect our operating results and lead to volatility in the price of our common stock. Whether or not determined in our favor or ultimately settled, litigation diverts our managerial, technical, legal and financial resources from our business operations. Furthermore, an adverse decision in any of these legal actions could result in a loss of our proprietary rights, subject us to significant liabilities, require us to seek licenses from others, limit the value of our licensed technology or otherwise negatively impact our stock price or our business and consolidated financial position, results of operations and cash flows.

Even if we prevail in our legal actions, significant contingencies may exist to their settlement and final resolution, including the scope of the liability of each party, our ability to enforce judgments against the parties, the ability and willingness of the parties to make any payments owed or agreed upon, and the dismissal of the legal action by the relevant court, none of which are completely within our control. Parties that may be obligated to pay us royalties or damages, or that may otherwise be subject to a judgment, could become insolvent or decide to alter their business activities or corporate structure, which could affect our ability to collect royalties or damages from, or enforce a judgment against, such parties.

**Recent and proposed changes to U.S. patent laws, rules, and regulations may adversely impact our business.**

Our business relies in part on the uniform and historically consistent application of U.S. patent laws, rules, and regulations. There have been numerous recent administrative, legislative, and judicial changes and proposed changes to patent laws and rules that may have a significant impact on our ability to protect our technology and enforce our intellectual property rights. For example, there have been and may be bills introduced in the U.S. Congress relating to patent law that could adversely impact our business depending on the scope of any bills that may ultimately be enacted into law. As another example, the U.S. Supreme Court and lower courts have in recent years issued decisions that are not favorable to patent owners. Some of these changes or potential changes may not be advantageous for us and may make it more difficult to obtain adequate patent protection, or to enforce our patents against parties using them without a license or payment of royalties. These changes or potential changes could increase the costs and uncertainties surrounding the prosecution of our patent applications and the enforcement of our patent rights and could have a negative effect on our ability to license our patents and, therefore, on the royalties we can collect.

**Some of our license agreements may convert to fully paid-up licenses at the expiration of their terms, or upon certain milestones, and we may not receive royalties after that time.**

From time to time we enter into license agreements that automatically convert to fully paid-up licenses upon expiration or upon reaching certain milestones. We may not receive further royalties from customers for any licensed technology under those agreements if they convert to fully paid-up licenses because such customers will be entitled to continue using some, if not all, of the relevant intellectual property or technology under the terms of the license agreements without further payment, even if relevant patents or technologies are still in effect. If we cannot find another source of royalties to replace the royalties from these license agreements converting to fully paid-up licenses, our results of operations following such conversion would be materially adversely affected.

**A significant amount of our royalty revenue and billings comes from a few end markets and products, and our business could be harmed if demand for these market segments or products declines.**

A significant portion of our royalties comes from the manufacture and sale of packaged semiconductor chips for DRAM, application-specific standard product semiconductors, application-specific integrated circuits, and memory. In addition, we derive substantial royalties from the incorporation of our technology into mobile devices, consumer products and computer hardware. If demand for semiconductors in any one or a combination of these market segments or products declines, our royalties may be reduced significantly and our business would be harmed.

**The long-term success of our business is dependent on a royalty-based business model, which is inherently risky.**

The long-term success of our business is dependent on future royalties paid to us by customers. Royalty payments under our licenses may be based, among other things, upon the number of electrical connections to the semiconductor chip in a package covered by our licensed technology, a percent of net sales, a rate per package, a per unit sold basis or a fixed quarterly amount. We are dependent upon our ability to structure, negotiate and enforce agreements for the determination and payment of royalties, as well as upon our customers' compliance with their agreements. We face risks inherent in a royalty-based business model, many of which are outside of our control, such as the following:

- the rate of adoption and incorporation of our technology by semiconductor manufacturers, assemblers, foundries, manufacturers of consumer and communication electronics, and the automotive and surveillance industry;
- the willingness and ability of materials and equipment suppliers to produce materials and equipment that support our licensed technology, in a quantity sufficient to enable volume manufacturing;



- the ability of our customers to purchase such materials and equipment on a cost-effective and timely basis;
- the length of the design cycle and the ability of us and our customers to successfully integrate certain of our imaging technologies into their integrated circuits;
- the demand for products incorporating semiconductors that use our licensed technology;
- the cyclical nature of supply and demand for products using our licensed technology;
- the impact of economic downturns; and
- the impact of poor financial performance of our customers.

**It is difficult for us to verify royalty amounts owed to us under our licensing agreements, and this may cause us to lose revenue and billings.**

The terms of our license agreements often require our customers to document their use of our technology and report related data to us on a quarterly basis. Although our license terms generally give us the right to audit books and records of our customers to verify this information, audits can be expensive, time consuming, and may not be cost justified based on our understanding of our customers' businesses, especially given the international nature of our customers. Our license compliance program audits certain customers to review the accuracy of the information contained in their royalty reports in an effort to decrease the likelihood that we will not receive the royalty to which we are entitled under the terms of our license agreements, but we cannot give assurances that such audits will be effective to that end.

**The markets for semiconductors and related products are highly concentrated, and we may have limited opportunities to license our technologies or sell our products.**

The semiconductor industry is highly concentrated in that a small number of semiconductor designers, foundries, and manufacturers account for a substantial portion of the purchases of semiconductor products generally, including our products and products incorporating our technologies. Continued consolidation in the semiconductor industry may increase this concentration. Accordingly, we expect that licenses of our technologies and sales of our products will be concentrated with a limited number of customers for the foreseeable future. As we develop and acquire new technologies and integrate them into our product line, we will need to establish new relationships to sell these products. Our financial results significantly depend on our success in establishing and maintaining relationships with, and effecting substantial sales to, these customers. Even if we are successful in establishing and maintaining such relationships, our financial results will be dependent in large part on these customers' sales and business results.

**We make significant investments in new products and services that may not achieve technological feasibility or profitability or that may limit our growth.**

We have made and will continue to make significant investments in research, development, and marketing of new technologies, products and services, including audio, imaging, and advanced semiconductor packaging, bonding, and interconnect technologies. Investments in new technologies are speculative and technological feasibility may not be achieved. Commercial success depends on many factors including demand for innovative technology, availability of materials and equipment, selling price the market is willing to bear, competition and effective licensing or product sales. We may not achieve significant revenue or billings from new product and service investments for a number of years, if at all. Moreover, new technologies, products and services may not be profitable, and even if they are profitable, operating margins for new products and businesses may not be as high as the margins we have experienced historically or originally anticipated.

**We may not be able to evolve our audio and imaging technologies, products, and services, or develop new technologies, products, and services, that are acceptable to our customers or the evolving markets, and our customers may use technologies offered at lower cost by others.**

The markets for our audio and imaging technologies, products, and services are characterized by:

- rapid technological change and product obsolescence;
- new and improved product introductions;
- changing consumer demands;
- increasingly competitive product landscape; and
- evolving industry standards.

Our future success in our product licensing business depends upon our ability to enhance our existing technologies, products, and services and to develop enhanced and acceptable new technologies, products, and services on a timely basis. The development of enhanced and new audio and imaging technologies, products, and services is a complex and uncertain process requiring high levels of innovation, highly-skilled engineering and development personnel, and the accurate anticipation of technological and market trends. We may not be able to accurately identify, develop, market, or support new or enhanced technologies, products, or services on a timely basis, if at all. Furthermore, our new imaging and audio technologies, products,

and services may never gain market acceptance, and we may not be able to respond effectively to evolving consumer demands, technological changes, product announcements by competitors, or emerging industry standards. Any failure to respond to these changes or concerns would likely prevent our imaging and audio technologies, products, and services from gaining market acceptance or maintaining market share and could lead to our imaging and audio technologies, products, and services becoming obsolete.

Furthermore, the decision by a party dominant in the entertainment value chain to provide audio or imaging technology at very low or no cost could cause our customers and other manufacturers not to utilize our technologies or services in the future. Our customers may choose to use technologies that their own in-house audio or imaging engineering teams have developed, or in which they have an interest. Accordingly, our revenue or billings could decline if our customers choose not to incorporate our audio or imaging technologies in their products, or if they sell fewer products incorporating our audio or imaging technologies.

**Competing technologies may harm our business.**

We expect that our technologies will continue to compete with technologies of internal design groups at semiconductor manufacturers, assemblers, electronic component, foundries and system manufacturers. The internal design groups of these companies create their own semiconductor, packaging, audio and imaging solutions. If these internal design groups design around our patents or introduce unique solutions superior to our technology, they may not need to license our technology. These groups may design technology that is less expensive to implement or that enables products with higher performance or additional features. Many of these groups have substantially greater resources, greater financial strength and lower cost structures which may allow them to undercut our price. They also have the inherent advantage of access to internal corporate strategies, technology roadmaps and technical information. As a result, they may be able to bring alternative solutions to market more easily and quickly.

DTS audio technologies compete with other providers of audio products and services, with Dolby Laboratories as the primary competitor in high-definition audio processing. Dolby Laboratories enjoys certain competitive advantages in selling its digital multi-channel audio technology, having introduced such technology before we did, and having achieved mandatory standard status in product categories that we have not, including terrestrial digital TV broadcasts in the United States.

For our embedded image processing technologies such as Face Detection and our other products, our offerings compete with other image processing software vendors such as ArcSoft, Inc. as well as internal design groups of mobile phone and digital camera manufacturers providing similar technologies by employing different approaches.

In the future, our licensed technologies may also compete with other technologies that emerge. These technologies may be less expensive and provide higher or additional performance. Companies with these competing technologies may also have greater resources. Technological change could render our technologies obsolete, and new, competitive technologies could emerge that achieve broad adoption and adversely affect the use of our technologies and intellectual property.

**If we do not successfully further develop and commercialize the technologies we acquire, or cultivate strategic relationships that expand our licensable portfolio, our competitive position could be harmed and our operating results adversely affected.**

We attempt to expand our licensable technology portfolio and technical expertise by further developing and acquiring new technologies or developing strategic relationships with others. These strategic relationships may include the right for us to sublicense technology and intellectual property to others. However, we may not be able to acquire or obtain rights to licensable technology and intellectual property in a timely manner or upon commercially reasonable terms. Even if we do acquire such rights, some of the technologies we invest in may be commercially unproven and may not be adopted or accepted by the industry. Moreover, our research and development efforts, and acquisitions and strategic relationships, may be futile if we do not accurately predict the future needs of the semiconductor, consumer and communication electronics, and consumer imaging and audio processing industries. Our failure to acquire new technologies that are commercially viable in the semiconductor, consumer and communication electronics, and consumer imaging and audio processing industries could significantly harm our business, financial position, results of operations and cash flows.

**The way we integrate internally developed and acquired technologies into our products and licensing programs may not be accepted by customers.**

We have devoted, and expect to continue to devote, considerable time and resources to developing, acquiring and integrating new and existing technologies into our products and licensing programs. However, if customers do not accept the way we have integrated our technologies, they may adopt competing solutions. In addition, as we introduce new products or licensing programs, we cannot predict with certainty if and when our customers will transition to those new products or licensing

programs. Moreover, with respect to certain of our imaging technologies, even after we have signed a license agreement with a customer, we will often not see significant royalties from that customer until after such technologies have been successfully designed into the customer's integrated circuits, which can take 18 months or longer. If customers fail to accept new or upgraded products or licensing programs incorporating our technologies, our financial position, results of operations and cash flows could be adversely impacted.

**If we fail to protect and enforce our intellectual property rights, contract rights, and our confidential information, our business will suffer.**

We rely primarily on a combination of license, development and nondisclosure agreements and other contractual provisions, as well as patent, trademark, trade secret and copyright laws, to protect our technology and intellectual property. If we fail to protect our technology, intellectual property, or contract rights, our customers and others may seek to use our technology and intellectual property without the payment of license fees and royalties, which could weaken our competitive position, reduce our operating results and increase the likelihood of costly litigation. The growth of our business depends in large part on our ability to secure intellectual property rights in a timely manner, our ability to convince third parties of the applicability of our intellectual property rights to their products, and our ability to enforce our intellectual property rights.

In certain instances, we attempt to obtain patent protection for portions of our technology, and our license agreements typically include both issued patents and pending patent applications. If we fail to obtain patents in a timely manner or if the patents issued to us do not cover all of the inventions disclosed in our patent applications, others could use portions of our technology and intellectual property without the payment of license fees and royalties. For example, our business may suffer if we are unable to obtain patent protection in a timely manner from the PTO due to processing delays resulting from examiner turnover and a continuing backlog of patent applications.

We also rely on trade secret laws rather than patent laws to protect other portions of our proprietary technology. However, trade secrets can be difficult to protect. The misappropriation of our trade secrets or other proprietary information could seriously harm our business. We protect our proprietary technology and processes, in part, through confidentiality agreements with our employees, consultants, suppliers and customers. We cannot be certain that these contracts have not been and will not be breached, that we will be able to timely detect unauthorized use or transfer of our technology and intellectual property, that we will have adequate remedies for any breach, or that our trade secrets will not otherwise become known or be independently discovered by competitors. If we fail to use adequate mechanisms to protect our technology and intellectual property, or if a court fails to enforce our intellectual property rights, our business will suffer. We cannot be certain that these protection mechanisms can be successfully asserted in the future or will not be invalidated or challenged.

Further, the laws and enforcement regimes of certain countries may not protect our technology and intellectual property to the same extent as do the laws and enforcement regimes of the U.S. In certain jurisdictions we may be unable to protect our technology and intellectual property adequately against unauthorized use, which could adversely affect our business.

**Our business may suffer if third parties assert that we violate their intellectual property rights.**

Third parties may claim that either we or our customers are infringing upon their intellectual property rights. Even if we believe that such claims are without merit, they can be time-consuming and costly to defend against and will divert management's attention and resources away from our business. Furthermore, third parties making such claims may be able to obtain injunctive or other equitable relief that could block our ability to further develop or commercialize some or all of our products or services in the U.S. and abroad. Claims of intellectual property infringement also might require us to enter into costly settlement or license agreements, pay costly damage awards, or defend or indemnify our customers against judgments, damages, or other losses. Even if we have an agreement that provides for a third party to indemnify us against such costs, the indemnifying party may be unable to perform its contractual obligations under the agreement. If we cannot or do not license the allegedly infringed intellectual property on reasonable terms, or need to substitute similar technology from another source, our business, financial position, results of operations and cash flows could suffer.

**Our licensing cycle is lengthy and costly, and our marketing, legal and sales efforts may be unsuccessful.**

We generally incur significant marketing, legal and sales expenses prior to entering into our license agreements, generating a license fee and establishing a royalty stream from each licensee. The length of time it takes to establish a new licensing relationship, and/or for our customers to incorporate certain imaging technologies in their integrated circuits, can be 18 months or longer. As such, we may incur significant expenses in any particular period before any associated royalty or cash flow stream begins.

Our business incurs significant reverse engineering expenditures on products of potential licensees in order to prepare sales and marketing collateral. We employ intensive marketing and sales efforts to educate licensees, potential licensees and original equipment manufacturers about the benefits of our technologies. In addition, even if these companies adopt our technologies, they must devote significant resources to integrate fully our technologies into their operations. If our marketing and sales efforts are unsuccessful, then we may not be able to achieve widespread acceptance of our technology. In addition, ongoing litigation could impact our ability to gain new licensees which could have an adverse effect on our financial condition, results of operations and cash flows.

**If our licensees delay, refuse to or are unable to make payments to us due to financial difficulties or otherwise, or shift their licensed products to other companies to lower their royalties to us, our operating results and cash flows could be adversely affected.**

A number of companies in the semiconductor and consumer electronics industries face severe financial difficulties from time to time. As a result, there have been bankruptcies and restructuring of companies in these industries. As an example, in our quarter ended September 30, 2017 we recorded a bad debt charge for \$1.6 million relating to past due receivables from two LeEco affiliates, based on our significant doubts about full collection due to substantial financial stress and negative payment history that these affiliates exhibited. Other customers may face similar financial difficulties which may result in their inability to make payments to us in a timely manner, or at all. In addition, we have had a history of, and we may in the future experience, customers that delay or refuse to make payments owed to us under license or settlement agreements. Our customers may also merge with or may shift the manufacture of licensed products to companies that are not currently licensees to us. This could make the collection process complex and difficult, which could adversely impact our business, financial condition, results of operations and cash flows.

**Failure by the semiconductor industry to adopt our technology for the next generation high performance chips used in consumer electronics would significantly harm our business.**

To date, our technology has been used by several companies in high performance semiconductor chips, including DRAM. For example, semiconductor packaging, circuitry and processing using our technology is used for DDR3 and DDR4 DRAM and we currently have customers who are paying royalties for DRAM chips in advanced packages.

We anticipate that royalties from shipments of next-generation semiconductor chips using our technology may account for a significant percentage of our future royalties. If semiconductor manufacturers do not continue to use our technology for the next-generation chips and find viable alternative technologies for use with next-generation chips, or if we do not receive royalties from the next-generation chips that use our technology, our future financial performance and cash flows could be adversely affected.

Our technology may be too expensive for certain next-generation semiconductor manufacturers, which could significantly reduce the adoption rate of our technology in next-generation chips. Even if our technology is selected for at least some of these next-generation chips, there could be delays in the introduction of products utilizing these chips that could materially affect the amount and timing of any royalty payments that we receive. Other factors that could affect adoption of our technology for next-generation semiconductor products include delays or shortages of materials and equipment and the availability of testing services.

Similarly, our audio licensing royalties from consumer electronics product manufacturers depends, in large part, upon the availability of ICs that implement our technologies. IC manufacturers incorporate our audio technologies into these ICs, which are then incorporated into consumer electronics products. We do not manufacture these ICs, but rather depend upon IC manufacturers to develop, produce and then sell them to licensed consumer electronics product manufacturers. We do not control the IC manufacturers' decisions whether or not to incorporate our technologies into their ICs, and we do not control their product development or commercialization efforts. If these IC manufacturers are unable or unwilling to implement our technologies into their ICs, production is delayed, or if they sell fewer ICs incorporating our technologies, our operating results and cash flows could be adversely affected.

**The investment of our cash, cash equivalents and investments in marketable debt and equity securities are subject to risks which may cause losses and affect the liquidity of these investments.**

At September 30, 2018, we held approximately \$51.9 million in cash and cash equivalents and \$53.6 million in investments. These investments include various financial securities such as corporate bonds and notes, municipal bonds and notes, commercial paper, treasury and agency notes and bills, and money market funds. In the third quarter of 2018, we initiated an equity position in Onkyo Corporation, a publicly traded company listed on the JASDAQ market of the Tokyo Stock Exchange. Upon making the investment, we hold a 6.3% ownership interest in Onkyo. Although we invest in high quality securities, ongoing financial events have at times adversely impacted the general credit, liquidity, market and interest rates for these and

other types of debt securities. Changes in monetary policy by the Federal Reserve, government fiscal policies, and global economic and market conditions may adversely affect the value of our investment portfolio. While we have historically held our debt investments to maturity, we may in the future have a need to sell investments before their maturity dates, which could result in losses on the sale of those investments. For example, the DTS acquisition resulted in us liquidating a significant portion of our investments. The financial market and monetary risks associated with our investment portfolio may have a material adverse effect on our financial condition, results of operations and cash flows.

**Our intellectual property business operates in a highly cyclical industry, which is subject to significant downturns.**

The semiconductor and electronics industries in which our intellectual property business primarily operates has historically been cyclical and is characterized by wide fluctuations in product supply and demand. From time to time, this industry has experienced significant downturns, often in connection with, or in anticipation of, declining economic conditions, maturing product and technology cycles, and excess inventories. This cyclicity could cause our operating results to decline from one period to the next. Our business depends, in part, upon the volume of production by our customers, which, in turn, depends upon the current and anticipated market demand for semiconductors and products that use semiconductors. Semiconductor manufacturers, foundries, and package assembly companies generally sharply curtail their spending during industry downturns, and historically have lowered their spending more than the decline in their revenue. As a result, our financial results have been, and will continue to be, impacted by the cyclicity of the electronics industry. If we are unable to control our expenses adequately in response to lower royalties from our customers in such downturns, our results of operations and cash flows will be materially and adversely impacted.

**If we are unable to maintain a sufficient amount of content released in the DTS audio format, demand for the technologies, products, and services that we offer to consumer electronics product manufacturers may significantly decline, which would adversely impact our business and prospects.**

We expect to derive a significant percentage of our billings from the technologies, products, and services that we offer to manufacturers of consumer electronics products. We believe that demand for our audio technologies in growing markets for multi-channel and/or high resolution audio, including TVs, tablets, mobile phones, video game consoles, automobiles, and soundbars, will be based on the amount, quality, and popularity of content (such as movies, TV shows, music, and games) either released in the DTS audio format or capable of being coded and played in the DTS format. In particular, our ability to penetrate the growing markets in the network-connected space depends on the presence of streaming and downloadable content released in the DTS audio format. We generally do not have contracts that require providers of streaming and downloadable content to develop and release such content in a DTS audio format. Accordingly, our billings could decline if these providers elect not to incorporate DTS audio into their content or if they sell less content that incorporates DTS audio.

In addition, we may not be successful in maintaining existing relationships or developing new relationships with other existing or new content providers. As a result, we cannot assure you that a sufficient amount of content will be released in a DTS audio format to ensure that manufacturers continue offering DTS decoders in the consumer electronics products that they sell.

**Demand for our HD Radio technology may be insufficient to sustain projected growth.**

Demand for and adoption of HD Radio technology may not be sufficient for us to continue to increase the number of customers of our HD Radio system, which include IC manufacturers, manufacturers of broadcast transmission equipment, consumer electronics products manufacturers, component manufacturers, data service providers, manufacturers of specialized and test equipment and radio broadcasters.

Among other things, continuing and increased consumer acceptance of HD Radio technology will depend upon:

- the number of radio stations broadcasting digitally using HD Radio technology;
- the willingness of automobile manufacturers to include HD Radio receivers in their vehicles;
- the willingness of manufacturers to incorporate HD Radio technology into their products;
- the cost and availability of HD Radio enabled products; and
- the marketing and pricing strategies that we employ and that are employed by our customers and retailers.

Demand for HD Radio also may be impacted by declines in the automotive industry which historically has been cyclical and experienced downturns during declining economic conditions.

If demand for HD Radio technology does not continue to increase as expected, we may not be able to increase our DTS royalties as projected.

**Our HD Radio technology may not remain competitive if we do not respond to changes in technology, standards and services that affect the radio broadcasting industry.**

The radio broadcasting industry is subject to technological change, evolving industry standards, regulatory restrictions and the emergence of other media technologies and services. Our HD Radio technology may not gain market acceptance over these other technologies. Various other audio technologies and services that have been developed and introduced include:

- internet streaming, cable-based audio programming and other digital audio broadcast formats;
- satellite delivered digital audio radio services that offer numerous programming channels;
- other digital radio competitors, such as Digital Radio Mondiale, or DAB; and
- growth in use of portable devices for storage and playback of audio content.

Competition arising from these or other technologies or potential regulatory change may have an adverse effect on the radio broadcasting industry or on our company and our financial condition and results of operations.

**If we are unable to further penetrate the streaming and downloadable content delivery markets and adapt our technologies for those markets, our royalties and ability to grow our audio business could be adversely impacted.**

Video and audio content has historically been purchased and consumed primarily via optical disc-based media. However, the growth of the internet and network-connected device usage, along with the rapid advancement of online and mobile content delivery has resulted in download and streaming services becoming mainstream with consumers in various parts of the world. We expect the shift away from optical disc-based media to streaming and downloadable content consumption to continue. If we fail to continue to penetrate the streaming and downloadable content delivery market, our audio business could suffer.

The services that provide content from the cloud are not generally governed by international or national standards and are thus free to choose any media format(s) to deliver their products and services. This freedom of choice on the part of online content providers could limit our ability to grow if such content providers do not incorporate our technologies into their services, which could affect demand for our technologies.

Furthermore, our inclusion in mobile and other network-connected devices may be less profitable for us than optical disc players. The online and mobile markets are characterized by intense competition, evolving industry standards and business and distribution models, disruptive software and hardware technology developments, frequent new product and service introductions, short product and service life cycles, and price sensitivity on the part of consumers, all of which may result in downward pressure on pricing. If we are unable to adequately and timely respond to the foregoing, our business and operating results could be adversely affected.

**Changes in financial accounting or taxation standards, rules, practices or interpretations may cause adverse unexpected revenue and expense fluctuations which may impact our reported results of operations.**

We prepare our consolidated financial statements in accordance with U.S. generally accepted accounting principles (GAAP). These principles are subject to interpretations by the SEC and various accounting bodies. In addition, we are subject to various taxation rules in many jurisdictions. The existing taxation rules are generally complex, frequently changing and subject to interpretation. Changes to taxation rules, changes to financial accounting standards, or any changes to the interpretations of these standards or rules may adversely affect our reported financial results or the way in which we conduct business. Recent accounting pronouncements and their estimated potential impact on our business are addressed in Note 2 - *“Summary of Significant Accounting Policies”* in the Notes to Condensed Consolidated Financial Statements.

In May 2014, the Financial Accounting Standards Board (“FASB”) issued ASU 2014-09, “Revenue from Contracts with Customers” (“ASU 2014-09”), and since May 2014 the FASB has issued amendments to this new guidance, which collectively provides guidance for revenue recognition. ASU 2014-09 became effective for us beginning January 1, 2018 and we adopted the new standard under the modified retrospective approach. Under the new standard, the historical practice of many licensing companies of reporting revenue from per-unit royalty-based agreements one quarter in arrears is no longer accepted and instead companies must now estimate royalty-based revenue. This guidance will significantly impact our revenue recognition. First, we will no longer be allowed to follow our past practice of recording per unit license revenue on a quarter lag basis, a practice precipitated by the lack of reliable estimates for such revenue. Estimating per unit royalty revenue prior to receiving the licensee’s royalty report requires us to make significant assumptions and judgments and could cause significant fluctuations of royalty revenue on a quarterly basis. Second, we are now required to record all or a significant majority of revenue under our fixed fee and minimum guarantee license agreements when such agreements are effective rather than recording them over time as was our past practice and which generally aligned revenue more closely with the billing cycle and cash flows from such agreements. While the changes in revenue recognition do not impact our cash flows, the impact on our Statement of Operations

under the new accounting standard may impact how investors perceive our business which could materially impact the value of our common stock.

On December 22, 2017, the Tax Cut and Jobs Act (“Tax Act”) was signed into law. The Tax Act introduced a broad range of tax reform measures that significantly change the federal income tax laws. The provisions of the Tax Act that may have significant impact on us include the permanent reduction of the U.S. federal corporate income tax rate from 35% to 21% effective for tax years including or commencing on January 1, 2018, one-time transition tax on post-1986 foreign unremitted earnings, provision for global intangible low-taxed income (“GILTI”), deduction for foreign-derived intangible income (“FDII”), modification of the maximum deduction of net operating loss with no carryback but indefinite carryforward provision, and limitation on the deductibility of executive compensation.

We continue to analyze additional information and new guidance issued by relevant authorities related to the Tax Act which could impact the determination of the net deferred taxes subject to the remeasurement and the related impact to the assessment of valuation allowance. The prospects of supplemental legislation or regulatory processes to address questions that arise because of the Tax Act, or evolving technical interpretations of the tax law, may cause the final impact from the Tax Act to differ materially from the recorded amounts.

Our rate of taxation in foreign jurisdictions has historically been lower than our U.S. tax rate. Our international income is primarily earned by our subsidiaries organized in Ireland and the United Kingdom. As such, our effective tax rate can be impacted by the composition of our earnings in the U.S. and foreign jurisdictions.

Our future effective tax rate may be affected by such factors as changes in financial accounting standards and tax laws, changing interpretations and new guidance related to the Tax Act, the impact of accounting for stock-based compensation, the impact of accounting for business combinations, changes in the composition of global earnings, the expiration of statute of limitations, settlements of audits, changes in our international organization and changes in overall levels of income before tax.

**Our effective tax rate depends on our ability to secure the tax benefits of our international corporate structure, on the application of the tax laws of various jurisdictions and on how we operate our business.**

Our international corporate structure and intercompany arrangements, including the manner in which we market, develop, use and license our intellectual property, fund our operations and structure transactions with our international subsidiaries, may result in the increase or reduction of our worldwide effective tax rate. Such international corporate structure and intercompany arrangements are subject to examination by the tax authorities of the jurisdictions in which we operate, including the United States. The application of the tax laws of these jurisdictions to our international business activities is subject to interpretation and depends on our ability to operate our business in a manner consistent with our corporate structure and intercompany arrangements. Moreover, such tax laws are subject to change. Tax authorities may disagree with our intercompany transfer pricing arrangements, including our transfer of intangibles, or determine that the manner in which we operate our business does not achieve the intended tax consequences. Additionally, current and future changes in the tax laws or interpretations (such as the enactment of the Tax Act to reform U.S. taxation of international business activities) may have an adverse effect on our international corporate structure and operations. The result of an adverse determination of any of the above items could increase our worldwide effective tax rate and harm our financial position and results of operations.

**We have in the past recorded, and may in the future record, significant valuation allowances on our deferred tax assets, and the recording and release of such allowances may have a material impact on our results of operations and cause fluctuations in our stock price.**

The need for a valuation allowance requires an assessment of both positive and negative evidence when determining whether it is more likely than not that deferred tax assets are recoverable. Such assessment is required on a jurisdiction-by-jurisdiction basis. In making such assessment, significant weight is given to evidence that can be objectively verified. After considering both positive and negative evidence to assess the recoverability of our net deferred tax assets, we determined that it was more likely than not that we would not realize certain federal, state and foreign deferred tax assets given the substantial amount of tax attributes that will remain unutilized to offset forecasted future tax liabilities. In the future, we may release valuation allowance and recognize certain deferred federal tax assets, deferred state tax assets or deferred tax assets of other foreign subsidiaries depending on achievement of future profitability in relevant jurisdictions, or we may implement tax planning strategies that enable us to utilize deferred tax assets that would otherwise be unused.

We continue to monitor the likelihood that we will be able to recover our deferred tax assets, including those for which a valuation allowance is recorded. There can be no assurance that we will generate profits or implement tax strategies in future periods enabling us to fully realize our deferred tax assets. The timing of recording a valuation allowance or the reversal of such valuation allowance is subject to objective and subjective factors that cannot be readily predicted in advance. Both the

establishment of a valuation allowance and the reversal of a previously recorded valuation allowance may have a material impact on our financial results, which may lead to fluctuation in the value of our stock.

**The international nature of our business exposes us to financial and regulatory risks that may have a negative impact on our consolidated financial position, results of operations and cash flows, and we may have difficulty protecting our intellectual property in some foreign countries.**

We derive a significant portion of our royalties from licensees headquartered outside of the U.S. We also have operations outside of the U.S., including our research and development facilities in Ireland, Romania and the United Kingdom, to design, develop, test or market certain technologies. International operations are subject to a number of risks, including but not limited to the following:

- changes in trade protection laws, policies and measures, and other regulatory requirements affecting trade and investment;
- regulatory requirements and prohibitions that differ between jurisdictions;
- laws and business practices favoring local companies;
- withholding tax obligations on license royalties that we may not be able to offset fully against our U.S. tax obligations, including the further risk that foreign tax authorities may re-characterize license fees or increase tax rates, which could result in increased tax withholdings and penalties;
- security concerns, including crime, political instability, terrorist activity, armed conflict and civil or military unrest;
- differing employment practices, labor issues and business and cultural factors;
- less effective protection of intellectual property than is afforded to us in the U.S. or other developed countries; and
- limited infrastructure and disruptions, such as large-scale outages or interruptions of service from utilities or telecommunications providers.

Our intellectual property is also used in a large number of foreign countries. There are many countries in which we currently have no issued patents. In addition, effective intellectual property enforcement may be unavailable or limited in some foreign countries. It may be difficult for us to protect our intellectual property from misuse or infringement by other companies in these countries. We expect this to become a greater problem for us as our licensees increase their manufacturing and sales in countries which provide less protection for intellectual property. Our inability to enforce our intellectual property rights in some countries may harm our business, financial position, results of operations and cash flows.

**Our business and operating results may be harmed if we are unable to manage growth in our business, if we undertake any restructuring activities or if we dispose of a business division or dispose of or discontinue any product lines.**

We have in the past expanded our operations, domestically and internationally, and may continue to do so through both internal growth and acquisitions. In December 2016, we acquired DTS, resulting in our headcount more than doubling year over year. If our growth continues, it may place a significant strain on our management team and on our operational and financial systems, procedures, and controls. Our future success will depend, in part, upon the ability of our management team to manage any growth effectively, requiring our management to:

- recruit, hire, and train additional personnel;
- implement and improve our operational and financial systems, procedures, and controls;
- maintain our cost structure at an appropriate level based on the royalties, billings and cash we forecast and generate;
- manage multiple concurrent development projects; and
- manage operations in multiple time zones with different cultures and languages.

If we are unable to effectively manage our growth or we are unsuccessful in recruiting and retaining personnel, our business and operating results will be harmed. Moreover, if our acquisitions or other growth initiatives do not prove to be profitable, we may undertake to restructure our business, including the disposition of a business division, or the disposition or discontinuance of a product line. Any restructuring, disposition or discontinuance would require substantial management time and attention and may divert management from other important work, and may result in significant liabilities and costs as described earlier.

**Disputes regarding our intellectual property may require us to defend or indemnify certain customers or licensees, the cost of which could adversely affect our business operations and financial condition.**

While we generally do not defend or indemnify our customers, some of our license agreements in our imaging and audio businesses provide limited defense and indemnities for certain actions brought by third parties against our customers, and some require us to provide technical support and information to a customer that is involved in litigation for using our technology. Our defense, indemnity and support obligations could result in substantial expenses. In addition to the time and expense required for us to defend, indemnify or supply such support to our customers, a customer's development, marketing and sales of licensed



image or audio products could be severely disrupted or shut down as a result of litigation, which in turn could have a material adverse effect on our business operations, consolidated financial position, results of operations and cash flows.

**If we lose any of our key personnel or are unable to attract, train and retain qualified personnel, we may not be able to execute our business strategy effectively.**

Our success depends, in large part, on the continued contributions of our key management, engineering, sales, marketing, intellectual property, legal and finance personnel, many of whom are highly skilled and would be difficult to replace. None of our senior management, key technical personnel or key sales personnel are bound by written employment contracts to remain with us for a specified period. In addition, we do not currently maintain key-person life insurance covering our key personnel or have restrictions on their post-employment ability to solicit our employees, contractors or customers if key personnel voluntarily terminate their employment. The loss of any of our senior management or other key personnel could harm our ability to implement our business strategy and respond to the rapidly changing market conditions in which we operate. Our future success will depend to a significant extent on the ability of these executives to effectively drive execution of our business strategy, and on the ability of our management team to work together effectively.

Our success also depends on our ability to attract, train and retain highly skilled managerial, engineering, sales, marketing, legal and finance personnel and on the abilities of new personnel to function effectively, both individually and as a group. Competition for qualified senior employees can be intense. We have also experienced difficulty in hiring and retaining highly skilled engineers with appropriate qualifications to support our growth and expansion. Further, we must train our new personnel, especially our technical support personnel, to respond to and support our licensees and customers. If we fail to do this, it could lead to dissatisfaction among our licensees or customers, which could slow our growth or result in a loss of business.

**Our business operations could suffer in the event of information technology system failures or security breaches.**

Despite system redundancy and the implementation of security measures within our internal and external information technology and networking systems, our information technology systems may be subject to security breaches, unauthorized access (malicious or accidental), misuse of information by authorized users, data leaks or unintentional exposure of information, failed process, loss of data, damages from computer viruses or malware, natural disasters, terrorism, telecommunication failures or disruption of service. Any system failure or security breach could cause interruptions in our operations in addition to the possibility of losing proprietary information and trade secrets. To the extent that any disruption or security breach results in inappropriate disclosure of our confidential information, we may incur liability or additional costs to remedy the damages caused by these disruptions or security breaches.

**Decreased effectiveness of share-based compensation could adversely affect our ability to attract and retain employees.**

We have historically used stock options, restricted stock grants and other forms of stock-based compensation as key components of employee compensation in order to align employees' interests with the interests of our stockholders, encourage employee retention and provide competitive compensation and benefit packages. We incur significant compensation costs associated with our stock-based compensation programs. Failure to obtain stockholder approval of equity compensation plans or changes to the plans could make it harder or more expensive for us to grant stock-based compensation to employees in the future. As a result, we may find it difficult to attract, retain and motivate employees, and any such difficulty could have a materially adverse impact on our business.

**Failure to comply with environmental regulations could harm our business.**

We use hazardous substances in the manufacturing and testing of prototype products and in the development of technologies in our research and development laboratories. We are subject to a variety of local, state and federal regulations relating to the storage, discharge, handling, emission, generation, manufacture and disposal of toxic or other hazardous substances. Our past, present or future failure to comply with environmental regulations could result in the imposition of substantial fines, suspension of production, and alteration of our manufacturing processes or cessation of operations. Compliance with such regulations could require us to acquire expensive remediation equipment or to incur other substantial expenses. Any failure to control the use, disposal, removal or storage of, or to adequately restrict the discharge of, or assist in the cleanup of, hazardous or toxic substances, could subject us to significant liabilities, including joint and several liabilities under certain statutes. The imposition of such liabilities could significantly harm our business, financial position, results of operations and cash flows.

**We have business operations located in places that are subject to natural disasters.**

Our business operations depend on our ability to maintain and protect our facilities, computer systems and personnel. Our corporate headquarters are located in the San Francisco Bay Area and we have engineering activities in several locations throughout California, which in the past have experienced severe earthquakes. We do not carry earthquake insurance for any of

our facilities except for our office in Calabasas, California. Earthquakes or other natural disasters could severely disrupt our operations, and have a material adverse effect on our business, results of operations, financial condition and prospects.

**We have made and may continue to make or to pursue acquisitions which could divert management's attention, cause ownership dilution to our stockholders, or be difficult to integrate, which may adversely affect our financial results.**

We have made several acquisitions, and it is our current plan to continue to acquire companies, assets, patents and technologies that we believe are strategic to our future business. For example, in the fourth quarter of 2016, we acquired DTS, Inc., for approximately \$955 million. In the third quarter of 2015, we acquired Ziptronix, Inc. for approximately \$39 million. Investigating businesses, assets, patents or technologies and integrating newly acquired businesses, assets, patents or technologies could put a strain on our resources, could be costly and time consuming, and might not be successful. Such activities divert our management's attention from other business concerns. In addition, we might lose key employees while integrating new organizations or operations. Acquisitions could also result in customer dissatisfaction, performance problems with an acquired company or technology, potentially dilutive issuances of equity securities or the incurrence of debt, the assumption or incurrence of contingent liabilities, impairment charges related to goodwill and possible impairment charges related to other intangible assets or other unanticipated events or circumstances, any of which could harm our business.

Our plans to integrate and expand upon research and development programs and technologies obtained through acquisitions may result in products or technologies that are not adopted by the market. The market may adopt competitive solutions to our products or technologies. Consequently, we might not be successful in integrating any acquired businesses, assets, products or technologies, and might not achieve anticipated revenue and cost benefits.

**There are numerous risks associated with our acquisitions of businesses, technologies and patents.**

We have made a number of acquisitions of businesses, technologies and patents in recent years. These acquisitions are subject to a number of risks, including but not limited to the following:

- these acquisitions could fail to produce anticipated benefits or could have other adverse effects that we currently do not foresee. As a result, these acquisitions could result in a reduction of net income per share as compared to the net income per share we would have achieved if these acquisitions had not occurred. We may also be required to recognize impairment charges of acquired assets or goodwill, and if we decide to restructure acquired businesses, we may incur other restructuring charges;
- the purchase price for each acquisition is determined based on significant judgment on factors such as projected cash flow, quality and availability of the business, technology or patent. In addition, if other companies have similar interests in the same business, technology or patent, our ability to negotiate these acquisitions at favorable terms may be limited and the purchase price may be artificially inflated;
- following completion of these acquisitions, we may uncover additional liabilities, patent validity, infringement or enforcement issues or unforeseen expenses not discovered during our diligence process;
- any such additional liabilities, patent validity, infringement or enforcement issues or expenses could result in significant unanticipated costs not originally estimated, such as impairment charges of acquired assets and goodwill, and may harm our financial results;
- the integration of technologies, patent assets and personnel, if any, will be a time consuming and expensive process that may disrupt our operations if it is not completed in a timely and efficient manner. If our integration efforts are not successful, our results of operations could be harmed, employee morale could decline, key employees could leave, and customer relations could be damaged. In addition, we may not achieve anticipated synergies or other benefits from any of these acquisitions;
- we have incurred substantial direct transaction and integration costs as a result of past acquisitions. In future acquisitions, the total direct transaction costs and the costs of integration may exceed our expectations;
- sales by the acquired businesses may be subject to different accounting treatment than our existing businesses, especially related to the recognition of revenue. This may lead to the loss or deferral of revenue under current and emerging accounting standards;
- there may be a significant time lag between acquiring patent assets and recognizing royalties from those patent assets. During that time lag, material costs are likely to be incurred in preparing licensing or litigation efforts and amortization of acquired patent assets that would have a negative effect on our results of operations, cash flows and financial position;
- we may require external financing that is dilutive or presents risks of debt; and
- we are required to estimate and record fair values of contingent assets, liabilities, deferred tax assets and liabilities at the time of an acquisition. Even though these estimates are based on management's best judgment, the actual results may differ. Under the current accounting guidance, differences between actual results and management's estimate could cause our operating results to fluctuate or could adversely affect our results of operations.

**If our amortizable intangible assets (such as acquired patents) become impaired, we may be required to record a significant charge to earnings.**

In addition to internal development, we intend to broaden our intellectual property portfolio through strategic relationships and acquisitions such as the acquisitions of DTS, Inc. in the fourth quarter of 2016, and Ziptronix, Inc. in the third quarter of 2015. We believe these strategic relationships and acquisitions will enhance the competitiveness and size of our current businesses and provide diversification into markets and technologies that complement our current businesses. Future acquisitions could be in the form of asset purchases, equity investments, or business combinations. As a result, we may have intangible assets which are amortized over their estimated useful lives. We review our amortizable intangible assets (such as our patent portfolio) for impairment when events or changes in circumstances indicate the carrying value may not be recoverable or the useful life is shorter than originally estimated. Factors that may be considered a change in circumstances indicating that the carrying value of our amortizable or other intangible assets may not be recoverable include a decline in future cash flows, fluctuations in market capitalization, slower growth rates in our industry or slower than anticipated adoption of our products by our customers. As we continue to review for factors that may affect our business which may not be in our control, we may be required to record a significant charge to earnings in our financial statements during the period in which any impairment of our amortizable intangible assets or equity investments is determined, resulting in an adverse impact on our business, financial position, or results of operations.

**Current and future governmental and industry standards may significantly limit our business opportunities.**

Technology standards are important in the audio and video industry as they help to assure compatibility across a system or series of products. Generally, standards adoption occurs on either a mandatory basis, requiring a particular technology to be available in a particular product or medium, or an optional basis, meaning that a particular technology may be, but is not required to be, utilized. If standards are re-examined or a new standard is developed in which we are not included, our growth in that area of our business could be significantly lower than expected.

As new technologies and entertainment media emerge, new standards relating to these technologies or media may develop. New standards may also emerge in existing markets that are currently characterized by competing formats, such as the market for PCs. We may not be successful in our efforts to include our technology in any such standards.

**Changes in or failure to comply with FCC requirements could adversely impact our HD Radio revenue and royalties.**

In October 2002, the Federal Communications Commission, or the FCC, selected our "In-Band, On-Channel" ("IBOC") technology, also known as "HD Radio technology," as the exclusive technology for introduction of terrestrial digital operations by AM and FM radio stations. In the United States, the FCC regulates the broadcast radio industry, interprets laws enacted by Congress and establishes and enforces regulations governing radio broadcasting. It is unclear what rules and regulations the FCC may adopt regarding digital audio broadcasting and what effect, if any, such rules and regulations will have on our Product Licensing segment, the operations of stations using our HD Radio technology or consumer electronics manufacturers. Any additional rules and regulations imposed on digital audio broadcasting could adversely impact the attractiveness of HD Radio technology and negatively impact our business. Also, non-compliance by us, or by radio stations offering HD Radio broadcasts, with any FCC requirements or conditions could result in fines, additional license conditions, license revocation or other detrimental FCC actions.

**Our licensing of industry standard technologies can be subject to limitations that could adversely affect our business and prospects.**

When a standards-setting body adopts our technologies as explicit industry standards, we generally must agree to license such technologies on a fair, reasonable and non-discriminatory basis, which we believe means that we treat similarly situated customers similarly. In these situations, we may be required to limit the royalty rates we charge for these technologies, which could adversely affect our business. Furthermore, we may have limited control over whom we license such technologies to and may be unable to restrict many terms of the license. From time to time, we may be subject to claims that our licenses of our industry standard technologies may not conform to the requirements of the standards-setting body. Claimants in such cases could seek to restrict or change our licensing practices or our ability to license our technologies in ways that could harm our reputation and otherwise materially and adversely affect our business, operating results and prospects.

**Our financial and operating results may vary, which may cause the price of our common stock to decline.**

Our quarterly operating results have fluctuated in the past and are likely to do so in the future. Because our operating results are difficult to predict, one should not rely on quarterly or annual comparisons of our results of operations as an indication of our future performance. Factors that could cause our operating results to fluctuate during any period or that could adversely affect our ability to achieve our strategic objectives include those listed in this “*Risk Factors*” section of this report and the following:

- the timing of, and compliance with license or service agreements and the terms and conditions for payment to us of license or service fees under these agreements;
- fluctuations in our royalties caused by the pricing terms of certain of our license agreements;
- the amount of our product and service revenue;
- changes in the level of our operating expenses;
- delays in our introduction of new technologies or market acceptance of these new technologies through new license agreements;
- our ability to protect or enforce our intellectual property rights or the terms of our agreements;
- legal proceedings affecting our patents, patent applications or license agreements;
- the timing of the introduction by others of competing technologies;
- changes in demand for semiconductor chips in the specific end markets in which we concentrate;
- changes in demand for camera-enabled devices including cell phones, security systems and personal computers;
- the timing of the conclusion of license agreements;
- the length of time it takes to establish new licensing arrangements;
- meeting the requirements for revenue recognition under generally accepted accounting principles;
- changes in generally accepted accounting principles including new accounting standards which may materially affect our revenue recognition and the comparability between revenue recognition and cash flow from customer royalties; and
- cyclical fluctuations in semiconductor markets generally.

Due to fluctuations in our operating results, reports from market and security analysts, litigation-related developments, and other factors, the price at which our common stock will trade is likely to continue to be highly volatile. In future periods, if our revenue, royalties, billings, cash flows or operating results are below the estimates or expectations of public market analysts and investors, our stock price could decline.

**We may not continue to pay dividends at the same rate we are currently paying them, or at all, and any decrease in or suspension of the dividend could cause our stock price to decline.**

We currently pay a quarterly dividend of \$0.20 per share. We also have returned capital to shareholders through stock repurchases. We anticipate that all quarterly dividends and stock repurchases will be paid out of cash, cash equivalents and short-term investments. The payment of future cash dividends is subject to the final determination each quarter by our Board of Directors that the dividend remains in our best interests, which determination will be based on a number of factors, including our earnings, financial condition, actual and forecasted cash flows, capital resources and capital requirements, alternative uses of capital, economic condition and other factors considered relevant by management and the Board of Directors. Any decrease in the amount of the dividend, or suspension or discontinuance of payment of a dividend, could cause our stock price to decline.

**Our stock repurchase program could increase the volatility of the price of our common stock, and the program may be suspended or terminated at any time, which may cause the trading price of our common stock to decline.**

In August 2007, we authorized a plan to repurchase our outstanding shares of common stock dependent on market conditions, share price and other factors. As of September 30, 2018, the total amount available for repurchase under the plan was \$105.6 million.

The amount of repurchases under our stock repurchase program will vary. In 2015, we repurchased approximately 3,300,000 shares for an aggregate amount of \$119.2 million. In 2016, we repurchased approximately 2,300,000 shares for an aggregate amount of \$67.7 million. In 2017, we repurchased approximately 654,000 shares for an aggregate amount of \$15.3 million. In the first nine months of 2018, we repurchased approximately 1,833,000 shares for an aggregate amount of \$37.2 million. Additionally, the timing of repurchases is at our discretion and the program may be suspended or discontinued at any time. Any suspension or discontinuation could cause the market price of our stock to decline. The timing of repurchases pursuant to our stock repurchase program could affect our stock price and increase its volatility. There can be no assurance that any stock repurchases will enhance stockholder value because the market price of our common stock may decline below the levels at which we effected repurchases. Furthermore, we may engage in mergers, acquisitions, or other activity that could result in us reducing or discontinuing share repurchases for a period of time. For example, the DTS acquisition resulted in a significant

decrease in cash, cash equivalents and short-term investments, as well as the issuance of approximately \$600 million in debt. The terms of our current or future debt agreements could limit our ability to repurchase shares.

**Provisions of our certificate of incorporation and bylaws or Delaware law might delay or prevent a change of control transaction and depress the market price of our stock.**

Various provisions of our certificate of incorporation and bylaws might have the effect of making it more difficult for a third party to acquire, or discouraging a third party from attempting to acquire, control of our company. These provisions could limit the price that certain investors might be willing to pay in the future for shares of our common stock. Certain of these provisions eliminate cumulative voting in the election of directors, authorize the board to issue “blank check” preferred stock, prohibit stockholder action by written consent, eliminate the right of stockholders to call special meetings, and establish advance notice procedures for director nominations by stockholders and the submission of other proposals for consideration at stockholder meetings. We are also subject to provisions of Delaware law that could delay or make more difficult a merger, tender offer or proxy contest involving our company. In particular, Section 203 of the Delaware General Corporation Law prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years unless specific conditions are met. Any of these provisions could have the effect of delaying, deferring or preventing a change in control, including without limitation, discouraging a proxy contest or making more difficult the acquisition of a substantial block of our common stock.

**Item 2. Unregistered Sales of Equity Securities and Use of Proceeds**

Items 2(a) and 2(b) are not applicable.

(c) Stock Repurchases

<i>(Shares in thousands)</i>	Total number of shares purchased	Average price paid per share	Total number of shares purchased as part of our share repurchase program	Approximate dollar value of shares that may yet be purchased under our share repurchase program (a)
<b>2018</b>				
July	-	\$ -	-	
August	154	16.23	154	
September	307	15.40	307	
Total	<u>461</u>	<u>\$ 15.68</u>	<u>461</u>	\$105.6 million

(a) Calculated as of September 30, 2018. In August 2007, our Board of Directors authorized a plan to repurchase our outstanding shares of common stock dependent on market conditions, share price and other factors. No expiration date has been specified for this plan. All repurchases in the three months ended September 30, 2018 were made under this plan.

**Item 3. Defaults Upon Senior Securities**

Not applicable.

**Item 4. Mine Safety Disclosures**

Not applicable.

**Item 5. Other Information**

Not applicable.

## Item 6. Exhibits

<b>Exhibit Number</b>	<b>Exhibit Title</b>
3.1	<a href="#"><u>Restated Certificate of Incorporation (filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K, filed December 1, 2016, and incorporated herein by reference)</u></a>
3.2	<a href="#"><u>Certificate of Amendment of the Restated Certificate of Incorporation dated as of February 22, 2017 (filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K, filed February 27, 2017, and incorporated herein by reference)</u></a>
3.3	<a href="#"><u>Amended and Restated Bylaws, dated as of December 1, 2016 (filed as Exhibit 3.2 to the Registrant's Current Report on Form 8-K, filed December 1, 2016, and incorporated herein by reference)</u></a>
3.4	<a href="#"><u>Amendment to the Amended and Restated Bylaws, dated as of December 6, 2016 (filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K, filed December 7, 2016, and incorporated herein by reference)</u></a>
3.5	<a href="#"><u>Amendment to the Amended and Restated Bylaws, dated as of April 27, 2017 (filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K, filed May 3, 2017, and incorporated herein by reference)</u></a>
3.6	<a href="#"><u>Amendment to the Amended and Restated Bylaws, dated as of February 1, 2018 (filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K, filed February 7, 2018, and incorporated herein by reference)</u></a>
3.7	<a href="#"><u>Amendment to the Amended and Restated Bylaws, dated as of April 27, 2018 (filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K, filed May 3, 2018, and incorporated herein by reference)</u></a>
31.1	<a href="#"><u>Certification of the Chief Executive Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934</u></a>
31.2	<a href="#"><u>Certification of the Chief Financial Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934</u></a>
32.1	<a href="#"><u>Certification of the Chief Executive Officer and Chief Financial Officer pursuant to Rule 13a-14(b) of the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</u></a>
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Dated: November 7, 2018

XPERI CORPORATION

By: /s/ Jon Kirchner  
Jon Kirchner  
Chief Executive Officer

**Certification of the Chief Executive Officer**  
**Pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934**

I, Jon Kirchner, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Xperi Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 7, 2018

/s/ Jon Kirchner  
\_\_\_\_\_  
Jon Kirchner  
Chief Executive Officer



**Certification of the Chief Financial Officer**  
**Pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934**

I, Robert Andersen, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Xperi Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 7, 2018

/s/ Robert Andersen

Robert Andersen

Executive Vice President and Chief Financial Officer

**CERTIFICATION PURSUANT TO  
RULE 13a-14(b) OF THE SECURITIES EXCHANGE ACT OF 1934  
AND 18 U.S.C. SECTION 1350**

In connection with the Quarterly Report of Xperi Corporation, a Delaware corporation (the "Company"), on Form 10-Q for the three months ended September 30, 2018 as filed with the Securities and Exchange Commission (the "Report"), I, Jon Kirchner, Chief Executive Officer, certify, pursuant to Rule 13a-14(b) of the Securities Exchange Act of 1934 and 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Jon Kirchner  
\_\_\_\_\_  
Jon Kirchner  
Chief Executive Officer  
November 7, 2018

**CERTIFICATION PURSUANT TO  
RULE 13a-14(b) OF THE SECURITIES EXCHANGE ACT OF 1934  
AND 18 U.S.C. SECTION 1350**

In connection with the Quarterly Report of Xperi Corporation, a Delaware corporation (the "Company"), on Form 10-Q for the three months ended September 30, 2018 as filed with the Securities and Exchange Commission (the "Report"), I, Robert Andersen, Chief Financial Officer of the Company, certify, pursuant to Rule 13a-14(b) of the Securities Exchange Act of 1934 and 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Robert Andersen  
\_\_\_\_\_  
Robert Andersen  
Executive Vice President and Chief Financial Officer  
November 7, 2018

*A signed original of this written statement required by Rule 13a-14(b) of the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350 has been provided to the Registrant and will be retained by the Registrant and furnished to the Securities and Exchange Commission or its staff upon request.*