

Section 1: 10-Q (10-Q)

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

(Mark One)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended March 31, 2020

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from _____ to _____

Commission file number: 001-37870
TiVo Corporation
(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

61-1793262

(I.R.S. Employer
Identification No.)

2160 Gold Street , San Jose , California 95002

(Address of principal executive offices, including zip code)

(408) 519-9100

(Registrant's telephone number, including area code)

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

Title of Each Class	Trading Symbol(s)	Name of Each Exchange on Which Registered
Common Stock, par value \$0.001 per share	TIVO	The Nasdaq Stock Market LLC (Nasdaq Global Select Market)
Series A Junior Participating Preferred Stock Purchase Rights	N/A	The Nasdaq Stock Market LLC (Nasdaq Global Select Market)

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, a smaller reporting company or an emerging growth company. See 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 of the Registrant's Common Stock outstanding on April 30, 2020 was 127.7 million.

**TIVO CORPORATION AND SUBSIDIARIES
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PART I.

ITEM 1. FINANCIAL STATEMENTS

TIVO CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS
(In thousands, except per share amounts)

	March 31, 2020	December 31, 2019
ASSETS	(Unaudited)	
Current assets:		
Cash and cash equivalents	\$ 108,519	\$ 373,719
Short-term marketable securities	—	51,293
Accounts receivable, net	164,618	158,016
Inventory	2,944	3,197
Prepaid expenses and other current assets	27,393	27,023
Total current assets	303,474	613,248
Property and equipment, net	43,706	48,264
Intangible assets, net	386,524	415,054
Goodwill	1,018,310	1,189,825
Right-of-use assets	56,405	59,888
Other long-term assets	56,183	56,293
Total assets	<u>\$ 1,864,602</u>	<u>\$ 2,382,572</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued expenses	\$ 81,427	\$ 126,249
Unearned revenue	48,502	50,968
Current portion of long-term debt	66,450	343,035
Total current liabilities	196,379	520,252
Unearned revenue, less current portion	37,292	39,879
Long-term debt, less current portion	625,867	642,504
Deferred tax liabilities, net	29,603	34,231
Long-term lease liabilities	58,303	61,603
Other long-term liabilities	14,596	10,420
Total liabilities	962,040	1,308,889
Contingencies (Note 9)		
Stockholders' equity:		
Preferred stock, \$0.001 par value, 5,000 shares authorized; no shares issued or outstanding	—	—
Common stock, \$0.001 par value, 250,000 shares authorized; 130,290 shares issued and 127,654 shares outstanding as of March 31, 2020; and 129,216 shares issued and 126,666 shares outstanding as of December 31, 2019	130	129
Treasury stock, 2,636 shares and 2,550 shares as of March 31, 2020 and December 31, 2019, respectively, at cost	(38,819)	(38,176)
Additional paid-in capital	3,247,562	3,235,996
Accumulated other comprehensive loss	(5,021)	(3,612)
Accumulated deficit	(2,301,290)	(2,120,654)
Total stockholders' equity	902,562	1,073,683
Total liabilities and stockholders' equity	<u>\$ 1,864,602</u>	<u>\$ 2,382,572</u>

The accompanying notes are an integral part of these Condensed Consolidated Financial Statements.

TIVO CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share amounts)
(Unaudited)

	Three Months Ended March 31,	
	2020	2019
Revenues, net:		
Licensing, services and software	\$ 157,238	\$ 156,161
Hardware	2,623	2,074
Total Revenues, net	159,861	158,235
Costs and expenses:		
Cost of licensing, services and software revenues, excluding depreciation and amortization of intangible assets	37,396	39,433
Cost of hardware revenues, excluding depreciation and amortization of intangible assets	5,022	4,093
Research and development	33,744	41,381
Selling, general and administrative	35,897	45,993
Depreciation	4,968	5,364
Amortization of intangible assets	28,142	28,178
Restructuring and asset impairment charges	739	1,813
Goodwill impairment	171,572	—
Total costs and expenses	317,480	166,255
Operating loss	(157,619)	(8,020)
Interest expense	(17,049)	(12,161)
Interest income and other, net	187	1,775
Loss on interest rate swaps	(5,119)	(1,721)
Loss on debt extinguishment	—	(199)
Loss before income taxes	(179,600)	(20,326)
Income tax (benefit) expense	(416)	6,318
Net loss	\$ (179,184)	\$ (26,644)
Basic loss per share		
Basic loss per share	\$ (1.41)	\$ (0.21)
Weighted average shares used in computing basic per share amounts	127,124	124,422
Diluted loss per share		
Diluted loss per share	\$ (1.41)	\$ (0.21)
Weighted average shares used in computing diluted per share amounts	127,124	124,422
Dividends declared per share		
Dividends declared per share	\$ —	\$ 0.18

The accompanying notes are an integral part of these Condensed Consolidated Financial Statements.

TIVO CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(In thousands)
(Unaudited)

	Three Months Ended March 31,	
	2020	2019
Net loss	\$ (179,184)	\$ (26,644)
Other comprehensive (loss) income, net of tax:		
Change in foreign currency translation adjustment	(1,420)	(287)
Unrealized gains on marketable securities		
Change in unrealized gains on marketable securities	—	501
Less: Reclassification adjustment	48	—
Other comprehensive (loss) income, net of tax	(1,372)	214
Comprehensive loss	<u>\$ (180,556)</u>	<u>\$ (26,430)</u>

The accompanying notes are an integral part of these Condensed Consolidated Financial Statements.

TIVO CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In thousands)
(Unaudited)

	Common stock		Treasury stock		Additional paid-in capital	Accumulated other comprehensive loss	Accumulated deficit	Total stockholders' equity
	Shares	Amount	Shares	Amount				
Balance as of December 31, 2018	125,781	\$ 126	(1,806)	\$(32,124)	\$3,239,395	\$ (3,869)	\$ (1,710,587)	\$ 1,492,941
Net loss							(26,644)	(26,644)
Other comprehensive income, net of tax						214		214
Issuance of common stock under employee stock purchase plan	735	1			6,951			6,952
Issuance of restricted stock, net	325	—			—			—
Equity-based compensation					8,433			8,433
Dividends					(22,469)			(22,469)
Withholding taxes related to net share settlement of restricted awards			(140)	(1,397)				(1,397)
Balance as of March 31, 2019	126,841	\$ 127	(1,946)	\$(33,521)	\$3,232,310	\$ (3,655)	\$ (1,737,231)	\$ 1,458,030

	Common stock		Treasury stock		Additional paid-in capital	Accumulated other comprehensive loss	Accumulated deficit	Total stockholders' equity
	Shares	Amount	Shares	Amount				
Balance as of December 31, 2019	129,216	\$ 129	(2,550)	\$(38,176)	\$3,235,996	\$ (3,612)	\$ (2,120,654)	\$ 1,073,683
Cumulative effect adjustment						(37)	(1,452)	(1,489)
Net loss							(179,184)	(179,184)
Other comprehensive loss, net of tax						(1,372)		(1,372)
Issuance of common stock under employee stock purchase plan	847	1			5,238			5,239
Issuance of restricted stock, net	227	—			—			—
Equity-based compensation					6,328			6,328
Withholding taxes related to net share settlement of restricted awards			(86)	(643)				(643)
Balance as of March 31, 2020	130,290	\$ 130	(2,636)	\$(38,819)	\$3,247,562	\$ (5,021)	\$ (2,301,290)	\$ 902,562

The accompanying notes are an integral part of these Condensed Consolidated Financial Statements.

TIVO CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)
(Unaudited)

	Three Months Ended March 31,	
	2020	2019
Operating activities:		
Net loss	\$ (179,184)	\$ (26,644)
Adjustments to reconcile net loss to net cash provided by operating activities:		
Depreciation	4,968	5,364
Amortization of intangible assets	28,142	28,178
Amortization of convertible note discount and note issuance costs	3,597	4,007
Restructuring and asset impairment charges	739	1,813
Goodwill impairment	171,572	—
Equity-based compensation	6,296	8,379
Change in fair value of interest rate swaps	4,181	4,646
Loss on debt extinguishment	—	199
Deferred income taxes	(4,481)	(672)
Other operating, net	1,411	28
Changes in operating assets and liabilities:		
Accounts receivable	(9,030)	(3,672)
Inventory	253	1,303
Prepaid expenses and other current assets and other long-term assets	(60)	(3,860)
Right-of-use assets, net of lease liabilities	(732)	(413)
Accounts payable and accrued expenses and other long-term liabilities	(41,672)	(17,947)
Taxes payable	(1,243)	1,378
Unearned revenue	(5,053)	2,238
Net cash (used in) provided by operating activities - Continuing operations	(20,296)	4,325
Net cash used in operating activities - Discontinued operations	(406)	—
Net cash (used in) provided by operating activities	(20,702)	4,325
Investing activities:		
Payments for purchase of short- and long-term marketable securities	—	(29,849)
Proceeds from sales or maturities of securities	51,310	49,000
Payments for purchase of property and equipment	(2,683)	(4,305)
Payments for acquisition of patents	—	(4,250)
Other investing, net	—	3
Net cash provided by investing activities	48,627	10,599
Financing activities:		
Principal payments on long-term debt	(296,788)	(46,588)
Payments for dividends	—	(22,544)
Payments for withholding taxes related to net settlement of restricted awards	(643)	(1,397)
Proceeds from employee stock purchase plan	5,239	6,952
Net cash used in financing activities	(292,192)	(63,577)
Effect of exchange rate changes on cash and cash equivalents	(933)	(120)
Net decrease in cash and cash equivalents	(265,200)	(48,773)
Cash and cash equivalents at beginning of period	373,719	161,955
Cash and cash equivalents at end of period	\$ 108,519	\$ 113,182

The accompanying notes are an integral part of these Condensed Consolidated Financial Statements.

TIVO CORPORATION AND SUBSIDIARIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

(1) Basis of Presentation and Summary of Significant Accounting Policies

Description of Business

On April 28, 2016, Rovi Corporation ("Rovi") and TiVo Inc. (renamed TiVo Solutions Inc. ("TiVo Solutions")) entered into an Agreement and Plan of Merger (the "Merger Agreement") for Rovi to acquire TiVo Solutions in a cash and stock transaction (the "TiVo Acquisition"). Following consummation of the TiVo Acquisition on September 7, 2016 (the "TiVo Acquisition Date"), TiVo Corporation (the "Company" or "TiVo"), a Delaware corporation founded in April 2016 as Titan Technologies Corporation and then a wholly-owned subsidiary of Rovi, owns both Rovi and TiVo Solutions.

The Company is a global leader in bringing entertainment together, making entertainment content easy to find, watch and enjoy. TiVo provides a broad set of cloud-based services, embedded software solutions and intellectual property that bring entertainment together for the watchers, creators and advertisers. For the creators and advertisers, TiVo's products deliver a passionate group of watchers to increase viewership and engagement across online video, TV and other entertainment viewing platforms. Our products and innovations are protected by broad portfolios of licensable technology patents. These portfolios cover many aspects of content discovery, digital video recorder ("DVR"), video-on-demand ("VOD") and over-the-top ("OTT") experiences, multi-screen viewing, mobile device video experiences, entertainment personalization, voice interaction, social and interactive applications, data analytics solutions and advertising.

On May 9, 2019, the Company announced that its Board of Directors unanimously approved a plan to separate the Product and Intellectual Property Licensing businesses into separately traded public companies (the "TiVo Separation"). The TiVo Separation was expected to be completed through a dividend of newly issued shares of the common stock of a Company subsidiary that would hold the Product business ("ProductCo"), which was targeted for completion by April 2020.

On December 18, 2019, the Company and Xperi Corporation ("Xperi") entered into an Agreement and Plan of Merger and Reorganization (the "Xperi Merger Agreement"), pursuant to which TiVo and Xperi have agreed, subject to the terms and conditions of the Xperi Merger Agreement, to effect an all-stock, merger of equals strategic combination of their respective businesses (the "Xperi Combination"). The board of directors of each of TiVo and Xperi have approved the Xperi Merger Agreement and the transactions contemplated thereby. The Xperi Combination is subject to certain customary approvals, including the approval of shareholders of TiVo and Xperi, and is expected to be completed by June 30, 2020.

Basis of Presentation and Principles of Consolidation

The accompanying unaudited Condensed Consolidated Financial Statements have been prepared in accordance with the rules and regulations of the Securities and Exchange Commission. Certain information and disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") have been condensed or omitted in accordance with such rules and regulations. However, the Company believes the disclosures made are adequate to make the information not misleading. In the opinion of management, the accompanying unaudited Condensed Consolidated Financial Statements reflect all adjustments, consisting only of normal recurring adjustments, which in the opinion of management, are considered necessary to present fairly the results for the periods presented.

The information contained in this Quarterly Report on Form 10-Q should be read in conjunction with the audited financial statements and notes thereto and other disclosures contained in the Company's Annual Report on Form 10-K for the year ended December 31, 2019. The Condensed Consolidated Statements of Operations, Condensed Consolidated Statements of Comprehensive Loss, Condensed Consolidated Statements of Stockholders' Equity and the Condensed Consolidated Statements of Cash Flows for the interim periods presented are not necessarily indicative of the results to be expected for the year ended December 31, 2020, for any future year, or for any other future interim period.

The accompanying Condensed Consolidated Financial Statements include the accounts of TiVo Corporation and subsidiaries and affiliates in which the Company has a controlling financial interest after the elimination of intercompany accounts and transactions.

Certain prior year amounts have been reclassified to conform to the current year presentation.

Use of Estimates

The preparation of the Condensed Consolidated Financial Statements in conformity with U.S. GAAP requires management to make estimates, assumptions and judgments that affect the reported amounts of assets and liabilities and related disclosures as of the date of the financial statements and the results of operations for the reporting period. On an ongoing basis, management evaluates its estimates, including those related to revenue recognition, long-lived asset impairment, including goodwill and intangible assets, equity-based compensation and income taxes. Actual results may differ from those estimates.

Risks and Uncertainties

The recent outbreak of the Coronavirus Disease 2019, or COVID-19, which has been declared by the World Health Organization to be a “public health emergency of international concern,” is impacting worldwide economic activity. As a public health epidemic, COVID-19 poses the risk that the Company or its workforce, suppliers and other partners may be prevented from conducting business activities for an indefinite period of time, including due to shutdowns that may be requested or mandated by governmental authorities. The COVID-19 pandemic has recently had adverse impacts on many aspects of the Company's operations, directly and indirectly, including its workforce, consumer behavior, distribution, suppliers and the market generally. For example, in March 2020, the Company announced its workforce would work remotely as a result of the pandemic as it reviewed its processes related to workplace safety, including social distancing and sanitation practices recommended by the Centers for Disease Control and Prevention. As the Company generates the substantial majority of its revenue from pay TV operators and others in the video delivery industry, to date COVID-19 has not had a significant impact on the Company's revenue. However, the impacts of the COVID-19 pandemic could cause delays in obtaining new customers and executing renewals and could also impact the Company's consumer business, including sales of TiVo Stream 4K which was recently launched. Further, the global financial markets have experienced increased volatility and have declined since December 31, 2019. The Condensed Consolidated Financial Statements as of and for the three months ended March 31, 2020 reflect management's assumptions about the economic environment and the Company's ability to realize certain assets, including long-lived assets, such as goodwill, accounts receivable and investments in other companies. Although the response to the COVID-19 pandemic is expected to be temporary, such conditions in the global financial markets and business activities could lead to further impairment of our long-lived assets, including goodwill, increased credit losses and impairments of investments in other companies.

Management believes the Company's Cash and cash equivalents and anticipated operating cash flow, supplemented with access to capital markets as necessary, are generally sufficient to support its operating businesses, capital expenditures, restructuring activities, interest payments and income tax payments, in addition to investments in future growth opportunities and activities related to the Xperi Combination for at least the next twelve months. The Company is taking steps to manage its resources by reducing and/or deferring capital expenditures, inventory purchases and operating expenses to mitigate the adverse impact of the COVID-19 pandemic. Future impacts of the COVID-19 pandemic may require further actions by the Company to improve its cash position, including but not limited to, implementing employee furloughs and foregoing capital expenditures and other discretionary expenses.

Allowance for Credit Losses

The Company performs ongoing credit evaluations of its customers. The Company reviews its accounts receivable to identify potential collection issues. A specific allowance for credit losses is recorded when warranted by specific customer circumstances, such as in the case of a bankruptcy filing, a deterioration in the customer's operating results or financial position or the past due status of a receivable based on its contractual payment terms. If there are subsequent changes in circumstances related to the specific customer, adjustments to recoverability estimates are recorded. For accounts receivable not specifically assessed, including unbilled receivables, an allowance for credit losses is recorded using the immediate reversion methodology for forecasting expected losses based on historical loss experience, current conditions and reasonable and supportable forecasts that affect collectability and other factors. Accounts receivable deemed uncollectible are charged off when collection efforts have been exhausted.

Inventory

Inventories consist primarily of finished DVRs and accessories and are stated at the lower of cost or net realizable value on an aggregate basis. Cost is computed using standard cost, which approximates actual cost on a first-in, first-out basis. Adjustments to reduce the carrying amount of inventory to the lower of cost or net realizable value are made, if required, for excess or obsolete goods, which includes a review of, among other factors, demand requirements and market conditions. As of March 31, 2020 and December 31, 2019, substantially all inventory is comprised of finished goods.

Goodwill

Goodwill represents the excess of cost over fair value of the net assets of an acquired business. The recoverability of goodwill is assessed at the reporting unit level, which is either the operating segment or one level below. Goodwill is evaluated for potential impairment annually, as of the beginning of the fourth quarter, and whenever events or changes in circumstances indicate its carrying amount may not be recoverable.

Qualitative factors are first assessed to determine whether events or changes in circumstances indicate it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount. If, based on the qualitative assessment, it is considered more-likely-than-not that the fair value of a reporting unit is less than its carrying amount, then a quantitative impairment test is performed. In the quantitative impairment test, the fair value of each reporting unit is compared to its carrying amount.

The fair value of the Product reporting unit and the Intellectual Property Licensing reporting unit is estimated using an income approach. Under the income approach, the fair value of a reporting unit is estimated based on the present value of future cash flows and considers projected revenue growth rates, future operating margins, income tax rates and economic and market conditions, as well as risk-adjusted discount rates. The carrying amount of a reporting unit is determined by assigning assets and liabilities, including goodwill and intangible assets, to the reporting unit. If the fair value of a reporting unit exceeds its carrying amount, goodwill is not impaired. If the fair value of a reporting unit is less than its carrying amount, an impairment loss equal to the difference is recognized.

Recent Accounting Pronouncements

Standards Adopted in 2020

In August 2018, the FASB modified the requirements for capitalizing costs incurred to implement a hosting arrangement that is a service contract. The modified requirements were intended to align the cost capitalization requirements for hosting arrangements with the cost capitalization requirements for internal-use software. The Company adopted the modified requirements on January 1, 2020 using the retrospective transition approach. On adoption, the Company reclassified \$0.5 million of net capitalized costs that were incurred to implement a hosting arrangement from Property and equipment, net to Other assets.

In June 2016, the FASB issued updated guidance that requires entities to use a current expected credit loss model to measure credit-related impairments for financial instruments held at amortized cost. The current expected credit loss model is based on relevant information about past events, including historical experience, current conditions and reasonable and supportable forecasts that affect collectability. Current expected credit losses, and subsequent adjustments, represent an estimate of lifetime expected credit losses that are recorded as an allowance deducted from the amortized cost of the financial instrument. The updated guidance also amends the other-than-temporary impairment model for available-for-sale debt securities by requiring the recognition of impairments for credit-related losses through an allowance and eliminating the length of time a security has been in an unrealized loss position as a consideration in the determination of whether a credit loss exists. The Company adopted the amended credit loss guidance on January 1, 2020 using the modified retrospective transition approach. On adoption, the Company recognized a cumulative effect adjustment, net of tax effects, that increased both the Accumulated deficit and the allowance for credit losses by \$1.5 million as presented in Note 3, primarily related to establishing an allowance for credit losses on contract assets for which revenue has been recognized in excess of the amount billed to the customer. Results for the periods beginning after December 31, 2019 are presented under the amended credit loss guidance, while prior period amounts were not restated and continue to be reported in accordance with the Company's previous allowance for doubtful accounts policies.

Standards Pending Adoption

In December 2019, the FASB issued guidance to simplify the accounting for income taxes by removing certain exceptions to general principles, clarifying requirements and including amendments to improve consistent application of the guidance. The guidance specifically removes the exception to the incremental approach for intraperiod tax allocation when there is a loss from continuing operations and income or a gain from other items, such as discontinued operations or other comprehensive income. The guidance also requires an entity to recognize a franchise tax that is partially based on income as an income-based tax and to account for any other amounts incurred as a non-income-based tax. The guidance is effective for the Company beginning on January 1, 2021 using a prospective approach. Early adoption is permitted. The Company is evaluating the effect of application on its Condensed Consolidated Financial Statements.

(2) Financial Statement Details

Property and equipment, net

Components of Property and equipment, net were as follows (in thousands):

	March 31, 2020	December 31, 2019
Computer software and equipment	\$ 162,017	\$ 160,893
Leasehold improvements	45,246	46,383
Furniture and fixtures	9,991	10,054
Property and equipment, gross	217,254	217,330
Less: Accumulated depreciation and amortization	(173,548)	(169,066)
Property and equipment, net	<u>\$ 43,706</u>	<u>\$ 48,264</u>

Accounts payable and accrued expenses

Components of Accounts payable and accrued expenses were as follows (in thousands):

	March 31, 2020	December 31, 2019
Accounts payable	\$ 8,881	\$ 11,801
Accrued compensation and benefits	20,015	44,456
Other accrued liabilities	52,531	69,992
Accounts payable and accrued expenses	<u>\$ 81,427</u>	<u>\$ 126,249</u>

(3) Revenues

Revenue Details

The following information depicts how the nature, amount, timing and uncertainty of revenue and cash flows are affected by economic factors by disaggregating revenue by significant customer, contract-type, geographic area and product offering (presented in Note 13). This information includes revenue recognized from contracts with customers and revenue from other sources, including out-of-license settlements.

During the three months ended March 31, 2020 and 2019, AT&T Inc. ("AT&T") represented 11% and 11% of Total Revenues, net, respectively. Other than AT&T, no customer accounted for more than 10% of Total Revenues, net during the three months ended March 31, 2020 and 2019. Substantially all revenue from AT&T is reported in the Intellectual Property Licensing segment.

By segment, the pattern of revenue recognition was as follows (in thousands):

	Three Months Ended March 31, 2020			Three Months Ended March 31, 2019		
	Product	Intellectual Property Licensing	Total Revenues, net	Product	Intellectual Property Licensing	Total Revenues, net
Goods and services transferred at a point in time	\$ 18,620	\$ 32,674	\$ 51,294	\$ 20,994	\$ 28,127	\$ 49,121
Goods and services transferred over time	67,856	37,211	105,067	70,309	36,701	107,010
Out-of-license settlements	—	3,500	3,500	—	2,104	2,104
Total Revenues, net	<u>\$ 86,476</u>	<u>\$ 73,385</u>	<u>\$ 159,861</u>	<u>\$ 91,303</u>	<u>\$ 66,932</u>	<u>\$ 158,235</u>

Revenue by geographic area was as follows (in thousands):

	Three Months Ended March 31,	
	2020	2019
United States	\$ 116,892	\$ 107,838
Rest of the world	42,969	50,397
Total Revenues, net	\$ 159,861	\$ 158,235

Revenue by geographic area is predominately based on the end user's location. Other than the U.S., no country accounted for more than 10% of Total Revenues, net for the three months ended March 31, 2020 and 2019.

Adoption of Amended Credit Loss Guidance

The Company adopted the provisions of the amended credit loss guidance as described in Note 1 using the modified retrospective transition approach on January 1, 2020. As such the amended credit loss guidance was applied to accounts receivable not specifically reserved and contract assets for which revenue has been recognized in excess of the amount billed to the customer as of December 31, 2019. Results for periods beginning after December 31, 2019 are presented under the amended credit loss guidance, while prior period amounts were not restated and continue to be reported in accordance with the previous allowance for doubtful accounts policies.

The cumulative effect of these changes on the Condensed Consolidated Balance Sheets on adoption was as follows (in thousands):

Effect of adoption	Balance as of December 31, 2019	Cumulative Effect Adjustment	Balance as of January 1, 2020
Accounts receivable, net	\$ 158,016	\$ (1,463)	\$ 156,553
Deferred tax liabilities, net	34,231	48	34,279
Accumulated other comprehensive loss	(3,612)	(37)	(3,649)
Accumulated deficit	(2,120,654)	(1,452)	(2,122,106)

Accounts receivable, net

Components of Accounts receivable, net were as follows (in thousands):

	March 31, 2020	December 31, 2019
Accounts receivable, gross	\$ 168,898	\$ 160,139
Less: Allowance for credit losses	(4,280)	(2,123)
Accounts receivable, net	\$ 164,618	\$ 158,016

As of March 31, 2020 and December 31, 2019, AT&T represented 18% and 19% of Accounts receivable, net, respectively. Other than AT&T, no customer accounted for more than 10% of Accounts receivable, net as of March 31, 2020 and December 31, 2019.

Allowance for Credit Losses

	Three Months Ended March 31,	
	2020	2019
Balance at beginning of period	\$ (2,123)	\$ (2,842)
Cumulative effect adjustment	(1,463)	—
Provision for bad debt	(965)	(68)
Deductions and write-offs, net	271	424
Balance at end of period	\$ (4,280)	\$ (2,486)

Contract Balances

Contract assets primarily consist of revenue recognized in excess of the amount billed to the customer, limited to net realizable value and deferred engineering costs for significant software customization or modification and set-up services to the extent deemed recoverable. Substantially all unbilled amounts are expected to be invoiced to the customer within the next 12 months. Contract assets also include the incremental costs of obtaining a contract with a customer, principally sales commissions when the renewal commission is not commensurate with the initial commission. Contract assets were recorded in the Condensed Consolidated Balance Sheets as follows (in thousands):

	March 31, 2020	December 31, 2019
Accounts receivable, net	\$ 67,479	\$ 56,862
Prepaid expenses and other current assets	3,420	2,600
Other long-term assets	10,878	11,514
Total contract assets, net	<u>\$ 81,777</u>	<u>\$ 70,976</u>

No impairment losses were recognized with respect to contract assets for the three months ended March 31, 2020 and 2019.

Contract liabilities are mainly comprised of unearned revenue related to consumer lifetime subscriptions for the TiVo service, multi-period licensing or cloud-based services and other offerings for which the Company is paid in advance of when control of the promised good or service is transferred to the customer. Unearned revenue also includes amounts related to professional services to be performed in the future. For the three months ended March 31, 2020, the Company recognized \$16.1 million of revenue that had been included in Unearned revenue as of December 31, 2019.

As of March 31, 2020, approximately \$604.8 million of revenue is expected to be recognized from unsatisfied performance obligations that are primarily related to fixed-fee intellectual property and software-as-a-service agreements, which is expected to be recognized as follows: 24% in the remainder of 2020, 22% in 2021, 16% in 2022, 14% in 2023, 12% in 2024 and 12% thereafter.

(4) Investments and Fair Value Measurements

Fair Value Hierarchy

The Company uses valuation techniques that are based on observable and unobservable inputs to measure fair value. Observable inputs are developed using publicly available information and reflect the assumptions market participants would use, while unobservable inputs are developed using the best information available about the assumptions market participants would use. Fair value measurements are classified in a hierarchy that gives the highest priority to observable inputs and the lowest priority to unobservable inputs. Assets and liabilities are classified in a fair value hierarchy based on the lowest level input that is significant to the fair value measurement in its entirety:

- *Level 1.* Quoted prices in active markets for identical assets or liabilities.
- *Level 2.* Inputs other than Level 1 inputs that are observable for the asset or liability, either directly or indirectly, such as quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, or market-corroborated inputs.
- *Level 3.* Unobservable inputs for the asset or liability.

The Company recognizes transfers between levels of the fair value hierarchy as of the end of the reporting period. For the three months ended March 31, 2020 and 2019, there were no transfers between levels of the fair value hierarchy.

Recurring Fair Value Measurements

Assets

The amortized cost and fair value of cash, cash equivalents and marketable securities by significant investment category, as well as their classification on the Condensed Consolidated Balance Sheets were as follows (in thousands):

As of December 31, 2019	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value	Cash and Cash Equivalents	Short-Term Investments
Cash	\$ 119,349	\$ —	\$ —	\$ 119,349	\$ 119,349	\$ —
Level 1:						
Money market funds	226,111	—	—	226,111	226,111	—
Level 1 Subtotal	226,111	—	—	226,111	226,111	—
Level 2:						
Corporate debt securities	40,522	—	(1)	40,521	16,280	24,241
U.S. Treasuries / Agencies	39,009	32	(10)	39,031	11,979	27,052
Level 2 Subtotal	79,531	32	(11)	79,552	28,259	51,293
Total assets	\$ 424,991	\$ 32	\$ (11)	\$ 425,012	\$ 373,719	\$ 51,293

As of March 31, 2020, Cash and cash equivalents consisted of \$43.8 million in cash and \$64.7 million in Money market funds classified in Level 1 of the fair value hierarchy.

As of March 31, 2020 and December 31, 2019, Other long-term assets include equity securities accounted for under the equity method with a carrying amount of \$4.0 million and \$3.7 million, respectively, and equity securities without a readily determinable fair value with a carrying amount of \$0.1 million and \$0.4 million, respectively. During the three months ended March 31, 2020, an impairment loss of \$0.3 million was recognized on the Company's equity securities without a readily determinable fair value. No impairments or adjustments to the carrying amount of the Company's equity securities without a readily determinable fair value were recognized in the three months ended March 31, 2019.

Liabilities

Liabilities reported at fair value in the Condensed Consolidated Balance Sheets were classified in the fair value hierarchy as follows (in thousands):

	March 31, 2020	December 31, 2019
	Significant Other Observable Inputs (Level 2)	Significant Other Observable Inputs (Level 2)
Liabilities		
Other long-term liabilities		
Interest rate swaps	\$ (10,294)	\$ (6,120)
Total Liabilities	\$ (10,294)	\$ (6,120)

Nonrecurring Fair Value Measurements

As part of the quantitative interim goodwill impairment test performed as of March 31, 2020, the Product and Intellectual Property Licensing reporting units were measured at fair value, resulting in a Goodwill impairment charge of \$171.6 million. The unobservable inputs used to estimate the fair value of the Product and Intellectual Property Licensing reporting units include projected revenue growth rates, future operating margins and risk-adjusted discount rates, and, accordingly, these measurements would be classified in Level 3 of the fair value hierarchy. The Goodwill impairment charge and the valuation techniques used to estimate reporting unit fair values are more fully described in Note 1 and Note 5.

Valuation Techniques

The fair value of marketable securities is estimated using observable market-corroborated inputs, such as quoted prices in active markets for similar assets or independent pricing vendors, obtained from a third-party pricing service.

The fair value of interest rate swaps is estimated using a discounted cash flow analysis that considers the expected future cash flows of each interest rate swap. This analysis reflects the contractual terms of the interest rate swap, including the remaining period to maturity, and uses market-corroborated inputs, including forward interest rate curves and implied interest rate volatilities. The fair value of an interest rate swap is estimated by netting the discounted future fixed cash payments against the discounted expected variable cash receipts. The variable cash receipts are estimated based on an expectation of future interest rates derived from forward interest rate curves. The fair value of an interest rate swap also incorporates credit valuation

adjustments to reflect the nonperformance risk of the Company and the respective counterparty. In adjusting the fair value of its interest rate swaps for the effect of nonperformance risk, the Company considers the effect of its master netting agreements.

Other Fair Value Disclosures

The carrying amount and fair value of debt issued or assumed by the Company were as follows (in thousands):

	March 31, 2020		December 31, 2019	
	Carrying Amount	Fair Value (a)	Carrying Amount	Fair Value (a)
2020 Convertible Notes	\$ —	\$ —	\$ 292,699	\$ 292,419
2021 Convertible Notes	48	48	48	48
2019 Term Loan Facility	692,269	734,606	692,792	736,110
Total Long-term debt	\$ 692,317	\$ 734,654	\$ 985,539	\$ 1,028,577

- (a) If reported at fair value in the Condensed Consolidated Balance Sheets, debt issued or assumed by the Company would be classified in Level 2 of the fair value hierarchy.

(5) Intangible Assets, Net and Goodwill

Intangible Assets, Net

Intangible assets, net consisted of the following (in thousands):

	March 31, 2020		
	Gross	Accumulated Amortization	Net
Finite-lived intangible assets			
Developed technology and patents	\$ 1,064,962	\$ (878,295)	\$ 186,667
Existing contracts and customer relationships	402,186	(220,948)	181,238
Content databases and other	57,466	(52,847)	4,619
Trademarks / Tradenames	8,300	(8,300)	—
Total finite-lived intangible assets	1,532,914	(1,160,390)	372,524
Indefinite-lived intangible assets			
TiVo Tradename	14,000	—	14,000
Total intangible assets	\$ 1,546,914	\$ (1,160,390)	\$ 386,524
December 31, 2019			
	Gross	Accumulated Amortization	Net
Finite-lived intangible assets			
Developed technology and patents	\$ 1,065,506	\$ (855,934)	\$ 209,572
Existing contracts and customer relationships	402,695	(216,148)	186,547
Content databases and other	57,410	(52,475)	4,935
Trademarks / Tradenames	8,300	(8,300)	—
Total finite-lived intangible assets	1,533,911	(1,132,857)	401,054
Indefinite-lived intangible assets			
TiVo Tradename	14,000	—	14,000
Total intangible assets	\$ 1,547,911	\$ (1,132,857)	\$ 415,054

Patent Acquisitions

During the three months ended March 31, 2019, the Company acquired a portfolio of patents for \$4.3 million in cash. The Company accounted for the patent portfolio acquired as an asset acquisition and is amortizing the purchase price over a weighted average period of ten years.

Estimated Amortization of Finite-Lived Intangible Assets

As of March 31, 2020, estimated amortization expense for finite-lived intangible assets was as follows (in thousands):

Remainder of 2020	\$	84,228
2021		69,577
2022		41,913
2023		24,860
2024		21,859
Thereafter		130,087
Total	\$	<u>372,524</u>

Goodwill

Goodwill allocated to the reportable segments and changes in the carrying amount of goodwill by reportable segment were as follows (in thousands):

	Product	Intellectual Property Licensing	Total
December 31, 2019	\$ 153,226	\$ 1,036,599	\$ 1,189,825
Impairment	(76,070)	(95,502)	(171,572)
Foreign currency translation	57	—	57
March 31, 2020	<u>\$ 77,213</u>	<u>\$ 941,097</u>	<u>\$ 1,018,310</u>

Goodwill at each reporting unit is evaluated for potential impairment annually, as of the beginning of the fourth quarter, and whenever events or changes in circumstances indicate the carrying amount of goodwill may not be recoverable. The process of evaluating goodwill for potential impairment is subjective and requires significant estimates, assumptions and judgments particularly related to the identification of reporting units, the assignment of assets and liabilities to reporting units and estimating the fair value of each reporting unit.

Due to significant and sustained decline in the trading price of TiVo's common stock during the three months ended March 31, 2020, management concluded sufficient indicators of potential impairment were identified and that it was more-likely-than-not that goodwill was impaired and that a quantitative impairment test should be performed as of March 31, 2020 for the Product and Intellectual Property Licensing reporting units. Although the long-range forecasts for the Product and Intellectual Property Licensing reporting units did not materially change from those used in performing the quantitative impairment test as of December 31, 2019, the fair value decreased due to the significant and sustained decline in the trading price of TiVo's common stock. Based on this decline in fair value, a Goodwill impairment charge of \$171.6 million was recognized during the three months ended March 31, 2020, of which \$76.1 million related to the Product reporting unit and \$95.5 million related to the Intellectual Property Licensing reporting unit.

(6) Restructuring and Asset Impairment Charges

Components of Restructuring and asset impairment charges were as follows (in thousands):

	Three Months Ended March 31,	
	2020	2019
Facility-related costs	\$ 65	\$ —
Severance costs	674	1,813
Restructuring and asset impairment charges	<u>\$ 739</u>	<u>\$ 1,813</u>

Components of accrued restructuring costs were as follows (in thousands):

	March 31, 2020	December 31, 2019
Severance costs	\$ 1,720	\$ 2,264
Accrued restructuring costs	\$ 1,720	\$ 2,264

The Company expects a substantial portion of the accrued restructuring costs to be paid by the end of 2020.

2019 Transformation Plan

In connection with its May 2019 announcement of the TiVo Separation, the Company initiated certain activities to transform its business operations (the "2019 Transformation Plan"). As a result of the 2019 Transformation Plan, the Company is reducing headcount, moving certain positions to lower cost locations, rationalizing facilities and legal entities and terminating certain leases and other contracts. Restructuring activities related to the 2019 Transformation Plan for the three months ended March 31, 2020 were as follows (in thousands):

	Balance at Beginning of Period	Restructuring Expense	Cash Settlements	Non-Cash Settlements	Other	Balance at End of Period
Severance costs	\$ 603	\$ 597	\$ (787)	\$ —	\$ —	\$ 413
Total	\$ 603	\$ 597	\$ (787)	\$ —	\$ —	\$ 413

The process of completing the TiVo Separation and the Xperi Combination has been, and is expected to continue to be, time-consuming and involve significant costs and expenses. In addition to the restructuring costs associated with the 2019 Transformation Plan, the Company also recorded \$4.0 million of Merger, separation and transformation costs that do not qualify as restructuring expenses during the three months ended March 31, 2020. These costs are primarily Selling, general and administrative costs and consist of employee-related costs, costs to establish certain stand-alone functions and information technology systems and other one-time transaction-related costs, including investment banking and consulting fees and other incremental costs directly associated with the TiVo Separation or the Xperi Combination.

Profit Improvement Plan

In February 2018, the Company announced its intention to explore strategic alternatives. In connection with exploring strategic alternatives, the Company initiated certain cost saving actions (the "Profit Improvement Plan"). As a result of the Profit Improvement Plan, the Company moved certain positions to lower cost locations, eliminated layers of management and rationalized facilities resulting in severance costs and the termination of certain leases and other contracts. Restructuring activities related to the Profit Improvement Plan for the three months ended March 31, 2020 were as follows (in thousands):

	Balance at Beginning of Period	Restructuring Expense	Cash Settlements	Non-Cash Settlements	Other	Balance at End of Period
Facility-related costs	\$ —	\$ 65	\$ —	\$ (65)	\$ —	\$ —
Severance costs	1,522	77	(410)	—	(24)	1,165
Total	\$ 1,522	\$ 142	\$ (410)	\$ (65)	\$ (24)	\$ 1,165

As a result of actions associated with the Profit Improvement Plan, Restructuring charges of \$1.8 million, primarily for severance-related benefits, were recognized in the three months ended March 31, 2019. The Profit Improvement Plan was substantially complete as of December 31, 2019.

Previous Restructuring Plans

As of March 31, 2020 and December 31, 2019, Accrued restructuring costs of \$0.1 million and \$0.1 million, respectively, are included in the Condensed Consolidated Balance Sheets related to previous restructuring plans.

(7) Debt and Interest Rate Swaps

A summary of debt issued or assumed by the Company was as follows (dollars in thousands):

	Stated Interest Rate	Issue Date	Maturity Date	March 31, 2020		December 31, 2019	
				Outstanding Principal	Carrying Amount	Outstanding Principal	Carrying Amount
2020 Convertible Notes	0.500%	March 4, 2015	March 1, 2020	\$ —	\$ —	\$ 295,000	\$ 292,699
2021 Convertible Notes	2.000%	September 22, 2014	October 1, 2021	48	48	48	48
2019 Term Loan Facility	Variable	November 22, 2019	November 22, 2024	713,210	692,269	715,000	692,792
Total Long-term debt				<u>\$ 713,258</u>	<u>692,317</u>	<u>\$ 1,010,048</u>	<u>985,539</u>
Less: Current portion of long-term debt					66,450		343,035
Long-term debt, less current portion					<u>\$ 625,867</u>		<u>\$ 642,504</u>

2020 Convertible Notes

Rovi issued \$345.0 million in aggregate principal of 0.500% Convertible Senior Notes that mature March 1, 2020 (the “2020 Convertible Notes”) at par pursuant to an Indenture dated March 4, 2015 (as supplemented, the “2015 Indenture”). The 2020 Convertible Notes were sold in a private placement and bear interest at an annual rate of 0.500% payable semi-annually in arrears on March 1 and September 1 of each year, commencing September 1, 2015. In connection with the TiVo Acquisition, TiVo Corporation and Rovi entered into a supplemental indenture under which TiVo Corporation became a guarantor of the 2020 Convertible Notes and the notes became convertible into TiVo Corporation common stock.

In June 2019, the Company repurchased \$50.0 million of outstanding principal of the 2020 Convertible Notes for \$49.4 million. The Company allocated \$48.4 million of the repurchase price to the liability component and the remaining \$1.0 million to the equity component of the 2020 Convertible Notes. The Company accounted for the repurchase as a partial debt extinguishment and recognized a Loss on debt extinguishment of \$0.1 million during the three months ended June 30, 2019 from writing off unamortized debt discount and issuance costs related to the repurchase. The Company repaid the outstanding principal of \$295.0 million on the maturity of the 2020 Convertible Notes on March 1, 2020.

TiVo Corporation separately accounted for the liability and equity components of the 2020 Convertible Notes. The initial carrying amount of the liability component was calculated by estimating the value of the 2020 Convertible Notes using TiVo Corporation’s estimated non-convertible borrowing rate of 4.75% at the time the instrument was issued. The carrying amount of the equity component, representing the value of the conversion option, was determined by deducting the liability component from the principal of the 2020 Convertible Notes. The difference between the principal of the 2020 Convertible Notes and the liability component is considered a debt discount which is being amortized to interest expense using the effective interest method over the expected term of the 2020 Convertible Notes. The equity component of the 2020 Convertible Notes was recorded as a component of Additional paid-in capital in the Condensed Consolidated Balance Sheets and will not be remeasured as long as it continues to meet the conditions for equity classification.

Related to the 2020 Convertible Notes, the Condensed Consolidated Balance Sheets included the following (in thousands):

	March 31, 2020	December 31, 2019
Liability component		
Principal outstanding	\$ —	\$ 295,000
Less: Unamortized debt discount	—	(2,031)
Less: Unamortized debt issuance costs	—	(270)
Carrying amount	<u>\$ —</u>	<u>\$ 292,699</u>
Equity component	<u>\$ 62,858</u>	<u>\$ 62,858</u>

Components of interest expense related to the 2020 Convertible Notes included in the Condensed Consolidated Statements of Operations were as follows (in thousands):

	Three Months Ended March 31,	
	2020	2019
Stated interest	\$ 245	\$ 431
Amortization of debt discount	2,031	3,409
Amortization of debt issuance costs	270	432
Total interest expense	<u>\$ 2,546</u>	<u>\$ 4,272</u>

Purchased Call Options and Sold Warrants related to the 2020 Convertible Notes

Concurrent with the issuance of the 2020 Convertible Notes in 2015, Rovi purchased call options with respect to its common stock. The call options gave TiVo Corporation the right, but not the obligation, to purchase up to 11.9 million shares of TiVo Corporation's common stock at an exercise price of \$28.9044 per share, which corresponded to the initial conversion price of the 2020 Convertible Notes, and were exercisable by TiVo Corporation on conversion of the 2020 Convertible Notes. The exercise price was subject to adjustment, including as a result of dividends paid by TiVo Corporation. As of December 31, 2019, the call options gave TiVo Corporation the right, but not the obligation, to purchase up to 11.7 million shares of TiVo Corporation's common stock at an exercise price of \$25.1668 per share. The call options were intended to reduce the potential dilution from conversion of the 2020 Convertible Notes. The purchased call options were separate transactions from the 2020 Convertible Notes and holders of the 2020 Convertible Notes did not have any rights with respect to the purchased call options. The call options expired on March 1, 2020.

Concurrent with the issuance of the 2020 Convertible Notes in 2015, Rovi sold warrants that provide the holder of the warrant the right, but not the obligation, to purchase up to 11.9 million shares of TiVo Corporation common stock at an exercise price of \$40.1450 per share. The exercise price is subject to adjustment, including as a result of dividends paid by TiVo Corporation. As of March 31, 2020, 13.0 million warrants were outstanding with an exercise price of \$34.9541 per share. The warrants are exercisable beginning June 1, 2020 and can be settled in cash or shares at TiVo Corporation's election. The warrants also start expiring on June 1, 2020. The warrants were entered into in order to offset the cost of the purchased call options. The warrants are separate transactions from the 2020 Convertible Notes and holders of the 2020 Convertible Notes do not have any rights with respect to the warrants.

2021 Convertible Notes

TiVo Solutions issued \$230.0 million in aggregate principal of 2.0% Convertible Senior Notes that mature October 1, 2021 (the "2021 Convertible Notes") at par pursuant to an Indenture dated September 22, 2014 (as supplemented, "the 2014 Indenture"). The 2021 Convertible Notes bear interest at an annual rate of 2.0%, payable semi-annually in arrears on April 1 and October 1 of each year, commencing April 2015. On October 12, 2016, TiVo Solutions repaid \$229.95 million of the par value of the 2021 Convertible Notes.

The 2021 Convertible Notes were convertible at an initial conversion rate of 56.1073 shares of TiVo Solutions common stock per \$1,000 principal of notes, which was equivalent to an initial conversion price of \$17.8230 per share of TiVo Solutions common stock. The conversion rate and conversion price are subject to adjustment pursuant to the 2014 Indenture, including as a result of dividends paid by TiVo Corporation. As of March 31, 2020, the 2021 Convertible Notes are convertible at a conversion rate of 24.8196 shares of TiVo Corporation common stock per \$1,000 principal of notes and \$154.30 per \$1,000 principal of notes, which is equivalent to a conversion price of \$34.0738 per share of TiVo Corporation common stock.

TiVo Solutions can settle the 2021 Convertible Notes in cash, shares of common stock, or any combination thereof pursuant to the 2014 Indenture. Subject to certain exceptions, holders may require TiVo Solutions to repurchase, for cash, all or part of their 2021 Convertible Notes upon a "Fundamental Change" (as defined in the 2014 Indenture) at a price equal to 100% of the principal amount of the 2021 Convertible Notes being repurchased plus any accrued and unpaid interest up to, but excluding, the "Fundamental Change Repurchase Date" (as defined in the 2014 Indenture). In addition, on a "Make-Whole Fundamental Change" (as defined in the 2014 Indenture) prior to the maturity date of the 2021 Convertible Notes, TiVo Solutions will, in some cases, increase the conversion rate for a holder that elects to convert its 2021 Convertible Notes in connection with such Make-Whole Fundamental Change.

2019 Term Loan Facility and Revolving Loan Credit Agreement

On November 22, 2019, the Company, as borrower, and certain of the Company's subsidiaries, as guarantors (together with the Company, collectively, the "Loan Parties"), entered into (i) a Credit and Guaranty Agreement (the "2019 Term Loan Facility"), with the lenders party thereto and HPS Investment Partners, LLC, as administrative agent and collateral agent and (ii) an ABL Credit and Guaranty Agreement (the "Revolving Loan Credit Agreement" and, together with the 2019 Term Loan Facility, the "2019 Credit Agreements"), with the lenders party thereto, Morgan Stanley Senior Funding, Inc., as administrative agent and collateral agent and Wells Fargo Bank, National Association, as co-collateral agent.

Under the 2019 Term Loan Facility, the Company borrowed \$715.0 million, which matures on November 22, 2024. Loans under the 2019 Term Loan Facility bear interest, at the Company's option, at an interest rate equal to either (a) the London Interbank Offered Rate ("LIBOR"), plus (i) if TiVo's Total Leverage Ratio (as defined in the 2019 Term Loan Facility) is greater than or equal to 3.50:1.00, 5.75%, (ii) if TiVo's Total Leverage Ratio is greater than or equal to 3.00:1.00 but less than 3.50:1.00, 5.50%, or (iii) if TiVo's Total Leverage Ratio is less than 3.00:1.00, 5.25%, in each case, subject to a 1.00% LIBOR floor or (b) the Base Rate (as defined in the 2019 Term Loan Facility), (i) if TiVo's Total Leverage Ratio is greater than or equal to 3.50:1.00, 4.75%, (ii) if TiVo's Total Leverage Ratio is greater than or equal to 3.00:1.00 but less than 3.50:1.00, 4.50%, or (iii) if TiVo's Total Leverage Ratio is less than 3.00:1.00, 4.25%, in each case, subject to a 2.00% Base Rate floor.

TiVo may voluntarily prepay the 2019 Term Loan Facility at any time subject to (i) a 3.00% prepayment premium if the loans are prepaid on or prior to November 22, 2020 and (ii) a 2.00% prepayment premium if the loans are prepaid on or prior to November 22, 2021. TiVo is required to make mandatory prepayments with (i) net cash proceeds from certain asset sales, (ii) net insurance or condemnation proceeds, (iii) net cash proceeds from issuances of debt (other than permitted debt), (iv) beginning with the fiscal year ending December 31, 2020, 50% of TiVo's Consolidated Excess Cash Flow (as defined in the 2019 Term Loan Facility), (v) extraordinary receipts and (vi) certain net litigation proceeds, in each case, subject to certain exceptions. In the event the Xperi Combination is completed on or prior to November 22, 2020, TiVo would be required to repay the then-outstanding principal of the 2019 Term Loan Facility at par plus a 3.00% prepayment premium.

On March 31, 2020, TiVo was required to make a payment equal to 0.25% of the original principal amount of the 2019 Term Loan Facility. Thereafter, quarterly installments in an amount equal to 2.50% of the original principal amount of the 2019 Term Loan Facility are due, with any remaining balance payable on the final maturity date of the 2019 Term Loan Facility.

The Company also entered into a \$60.0 million Revolving Loan Credit Facility as part of the 2019 Credit Agreements, which expires on March 31, 2021. Availability of the Revolving Loan Credit Facility is based upon a borrowing base formula and periodic borrowing base certifications valuing certain of the Loan Parties' accounts receivable as reduced by certain reserves, if any. There were no amounts outstanding under the Revolving Loan Credit Facility at any time during the three months ended March 31, 2020 or the year ended December 31, 2019. Loans under the Revolving Loan Credit Facility bear interest, at TiVo's option, at a rate equal to either (a) LIBOR, plus (i) if the average daily Specified Excess Availability (as defined in the Revolving Loan Credit Agreement) is greater than 66.67%, 1.50%, (ii) if the average daily Specified Excess Availability is greater than 33.33% but less than or equal to 66.66%, 1.75%, or (iii) if the average daily Specified Excess Availability is less than or equal to 33.33%, 2.00%, in each case, subject to a 0.00% LIBOR floor or (b) the Base Rate (as defined in the Revolving Loan Credit Agreement), (i) if the average daily Specified Excess Availability is greater than 66.67%, 0.50%, (ii) if the average daily Specified Excess Availability is greater than 33.33% but less than or equal to 66.66%, 0.75%, or (iii) if the average daily Specified Excess Availability is less than or equal to 33.33%, 1.00%, in each case, subject to a 1.00% Base Rate floor.

Revolving loans may be borrowed, repaid and re-borrowed until March 31, 2021, when all outstanding amounts must be repaid.

The 2019 Credit Agreements contain customary representations and warranties and customary affirmative and negative covenants applicable to the Company and its subsidiaries, including, among other things, restrictions on indebtedness, liens, investments, mergers, dispositions, prepayment of other indebtedness, and dividends and other distributions. The 2019 Credit Agreements are secured by substantially all of the Company's assets.

Financing for the Xperi Combination

In connection with the execution of the Xperi Merger Agreement, TiVo and Xperi obtained a debt commitment letter (the "Commitment Letter"), dated December 18, 2019, with Bank of America, N.A. ("Bank of America"), BofA Securities, Inc. and Royal Bank of Canada ("Royal Bank"), pursuant to which, Bank of America and Royal Bank have committed to

provide a senior secured first lien term loan B facility in an aggregate principal amount of \$1,100 million (the “Debt Financing”). On January 3, 2020, TiVo, Xperi, Bank of America, Royal Bank and Barclays Bank PLC (“Barclays”) entered into a supplement to the Commitment Letter to add Barclays as an additional initial lender and an additional joint lead arranger and joint bookrunner and to reallocate a portion of the debt commitments of Bank of America and Royal Bank under the Commitment Letter to Barclays. The proceeds from the Debt Financing may be used (i) to pay fees and expenses incurred in connection with the Merger and the related transactions, (ii) to finance the refinancing of certain existing indebtedness of TiVo and Xperi, and (iii) to the extent of any remaining amounts, for working capital and other general corporate purposes.

Expected Principal Payments

As of March 31, 2020, aggregate expected principal payments on long-term debt, including the current portion of long-term debt, were as follows (in thousands):

Remainder of 2020	\$	53,623
2021		71,548
2022		71,500
2023		71,500
2024		445,087
Total	\$	<u>713,258</u>

Interest Rate Swaps

The Company issues long-term debt denominated in U.S. dollars based on market conditions at the time of financing and may enter into interest rate swaps to achieve a primarily fixed interest rate. Alternatively, the Company may choose not to enter into an interest rate swap or may terminate a previously executed interest rate swap if it believes a larger proportion of floating-rate debt would be beneficial. The Company has not designated any of its interest rate swaps as hedges for accounting purposes. The Company records interest rate swaps in the Condensed Consolidated Balance Sheets at fair value with changes in fair value recorded as Loss on interest rate swaps in the Condensed Consolidated Statements of Operations. Amounts are presented in the Condensed Consolidated Balance Sheets after considering the right of offset based on its master netting agreements. During the three months ended March 31, 2020 and 2019, the Company recorded a loss of \$5.1 million and \$1.7 million, respectively, from adjusting its interest rate swaps to fair value.

Details of the Company's interest rate swaps as of March 31, 2020 and December 31, 2019 were as follows (dollars in thousands):

Contract Inception	Contract Effective Date	Contract Maturity	Notional		Interest Rate Paid	Interest Rate Received
			March 31, 2020	December 31, 2019		
September 2014	January 2016	July 2021	\$ 125,000	\$ 125,000	2.66%	One-month USD-LIBOR
September 2014	March 2017	July 2021	\$ 200,000	\$ 200,000	2.93%	One-month USD-LIBOR

(8) Leases

Lease Details

The Company has operating leases for corporate offices, data centers and certain equipment. As of March 31, 2020, the Company's leases have remaining lease terms of 3 months to 9 years and the Company has an option to terminate certain leases within the next 6 years. Additionally, certain leases include options to extend the lease term for up to 10 years. The Company's lease agreements do not contain any material residual value guarantees or material restrictive covenants.

The Company subleases certain real estate to third parties. The sublease portfolio consists of operating leases for previously exited office space. Certain subleases include variable payments for operating costs. The subleases are generally co-terminus with the head lease, or shorter. Subleases do not include any residual value guarantees or restrictions or covenants imposed by the leases. Income from subleases is recognized as a reduction to Selling, general and administrative expenses.

The components of operating lease costs were as follows (in thousands):

Classification	Three Months Ended March 31,	
	2020	2019
Fixed lease cost	\$ 4,080	\$ 4,493
Variable lease cost	1,145	1,381
Short-term lease cost	41	193
Less: Sublease income	(2,077)	(2,235)
Total operating lease cost	\$ 3,189	\$ 3,832

Supplemental cash flow information related to leases was as follows (in thousands):

	Three Months Ended March 31,	
	2020	2019
Operating cash flows:		
Cash paid for amounts included in the measurement of operating Lease liabilities	\$ 4,583	\$ 4,895
Non-cash activity:		
Right-of-use assets obtained in exchange for operating Lease liabilities, net	\$ —	\$ 1,902
Remeasurement of Right-of-use assets	\$ (290)	\$ —

Supplemental balance sheet information related to operating leases was as follows (in thousands, except weighted average lease term and discount rate):

	March 31, 2020	December 31, 2019
Right-of-use assets	\$ 56,405	\$ 59,888
Lease liabilities - current	\$ 12,035	\$ 13,009
Lease liabilities - non current	58,303	61,603
Total Lease liabilities	\$ 70,338	\$ 74,612
Weighted average remaining lease term	6.0 years	6.0 years
Weighted average discount rate	6.7%	6.6%

Expected Lease Payments

As of March 31, 2020, aggregate expected lease payments were as follows (in thousands):

	Operating Lease Liabilities	Sublease Income	Net Operating Lease Payments
Remainder of 2020	\$ 12,312	\$ (4,325)	\$ 7,987
2021	16,604	(5,738)	10,866
2022	13,712	(5,909)	7,803
2023	11,681	(6,081)	5,600
2024	11,995	(6,256)	5,739
Thereafter	19,715	(7,214)	12,501
Total lease payments	86,019	(35,523)	50,496
Less: imputed interest	(15,681)	—	(15,681)
Total	\$ 70,338	\$ (35,523)	\$ 34,815

(9) Contingencies

Guaranteed Minimum Purchase Obligation

On December 31, 2019, the Company entered into a contract requiring the Company to generate a minimum number of Qualified Referred Subscribers (as defined in the contract) over a 30 month period. In the event that the aggregate number of Qualified Referred Subscribers generated by the Company within the specified time period is less than the minimum guaranteed subscribers, the Company is required to pay an amount equal to the shortfall between the number of Qualified Referred Subscribers generated by the Company and the required minimum multiplied by a per Qualified Referred Subscribers fee, up to a maximum of \$5.0 million. As of March 31, 2020, no amounts were accrued in the Condensed Consolidated Balance Sheets related to this contract as the Company believes it will be able to generate the minimum number of Qualified Referred Subscribers within the original 30 month period.

Inventory Purchase Commitment

The Company uses a contract manufacturer to provide manufacturing services for its products. During the normal course of business, in order to manage manufacturing lead times and help ensure adequate supply, the Company enters into agreements its contract manufacturer that either allow them to procure inventory based on criteria as defined by the Company or that establish the parameters defining the Company's requirements. A significant portion of the Company's purchase commitments arising from these agreements consist of firm, non-cancelable and unconditional purchase commitments. In certain instances, these agreements allow the Company the option to cancel, reschedule or adjust the Company's requirements based on its business needs prior to firm orders being placed. As of March 31, 2020, the Company had total purchase commitments for inventory of \$6.4 million, of which \$1.2 million was accrued in the Condensed Consolidated Balance Sheets.

Indemnifications

In the normal course of business, the Company provides indemnifications of varying scopes and amounts to certain of its licensees against claims made by third parties arising out of the use and / or incorporation of the Company's products, intellectual property, services and / or technologies into the licensees' products and services. TiVo Solutions has also indemnified certain customers and business partners for, among other things, the licensing of its products, the sale of its digital video recorders ("DVRs"), and the provision of engineering and consulting services. The Company's obligation under its indemnification agreements with customer and business partners would arise in the event a third party filed a claim against one of the parties that was covered by the Company's indemnification. Pursuant to these agreements, the Company may indemnify the other party for certain losses suffered or incurred by the indemnified party in connection with various types of claims, which may include, without limitation, intellectual property infringement, advertising and consumer disclosure laws, certain tax liabilities, negligence and intentional acts in the performance of services and violations of laws.

In some cases, the Company may receive tenders of defense and indemnity arising from products, intellectual property services and / or technologies that are no longer provided by the Company due to having divested certain assets, but which were previously licensed or provided by the Company.

The term of the Company's indemnification obligations is generally perpetual. The Company's indemnification obligations are typically limited to the cumulative amount paid to the Company by the licensee under the license agreement; however, some license agreements, including those with the Company's largest multiple system operator and digital broadcast satellite providers, have larger limits or do not specify a limit on amounts that may be payable under the indemnity arrangements.

The Company cannot reasonably estimate the possible range of losses that may be incurred pursuant to its indemnification obligations, if any. Variables affecting any such assessment include, but are not limited to: the nature of the claim asserted; the relative merits of the claim; the financial ability of the party suing the indemnified party to engage in protracted litigation; the number of parties seeking indemnification; the nature and amount of damages claimed by the party suing the indemnified party; and the willingness of such party to engage in settlement negotiations. Due to the nature of the Company's potential indemnity liability, the Condensed Consolidated Financial Statements could be materially adversely affected in a particular period by one or more of these indemnities.

Under certain circumstances, TiVo Solutions may seek to recover some or all amounts paid to an indemnified party from its insurers. TiVo Solutions does not have any assets held either as collateral or by third parties that, on the occurrence of an event requiring it to indemnify a customer, could be obtained and liquidated to recover all or a portion of the amounts paid pursuant to its indemnification obligations.

Legal Proceedings

The Company may be involved in various lawsuits, claims and proceedings, including intellectual property, commercial, securities and employment matters that arise in the normal course of business. The Company accrues a liability when management believes information available prior to the issuance of the financial statements indicates it is probable a loss has been incurred as of the date of the financial statements and the amount of loss can be reasonably estimated. The Company adjusts its accruals to reflect the impact of negotiations, settlements, rulings, advice of legal counsel and other information and events pertaining to a particular case. Legal costs are expensed as incurred.

The Company believes it has recorded adequate provisions for any such lawsuits, claims and proceedings and, as of March 31, 2020, it was not reasonably possible that a material loss had been incurred in excess of the amounts recognized in the Condensed Consolidated Financial Statements. Based on its experience, the Company believes that damage amounts claimed in these matters are not meaningful indicators of potential liability. Some of the matters pending against the Company involve potential compensatory, punitive or treble damage claims or sanctions, that, if granted, could require the Company to pay damages or make other expenditures in amounts that could have a material adverse effect on its Condensed Consolidated Financial Statements. Given the inherent uncertainties of litigation, the ultimate outcome of the ongoing matters cannot be predicted with certainty. While litigation is inherently unpredictable, the Company believes it has valid defenses with respect to the legal matters pending against it. Nevertheless, the Condensed Consolidated Financial Statements could be materially adversely affected in a particular period by the resolution of one or more of these contingencies.

(10) Stockholders' Equity

Earnings (Loss) Per Share

Basic earnings per share ("EPS") is computed using the weighted average number of common shares outstanding during the period. Diluted EPS is computed using the weighted average number of common shares and dilutive common share equivalents outstanding during the period, except for periods of a loss from continuing operations. In periods of a loss from continuing operations, no common share equivalents are included in Diluted EPS because their effect would be anti-dilutive.

The number of shares used to calculate Basic and Diluted EPS were as follows (in thousands):

	Three Months Ended March 31,	
	2020	2019
Weighted average shares used in computing basic per share amounts	127,124	124,422
Dilutive effect of equity-based compensation awards	—	—
Weighted average shares used in computing diluted per share amounts	127,124	124,422

Weighted average potential shares excluded from the calculation of Diluted EPS as their effect would have been anti-dilutive were as follows (in thousands):

	Three Months Ended March 31,	
	2020	2019
Restricted awards	5,225	5,085
Stock options	503	1,290
2020 Convertible Notes (a)	7,857	13,411
2021 Convertible Notes (a)	1	1
Warrants related to 2020 Convertible Notes (a)	12,999	12,821
Weighted average potential shares excluded from the calculation of Diluted EPS	26,585	32,608

(a) See Note 7 for additional details.

For the three months ended March 31, 2020 and 2019, 1.1 million and 0.3 million weighted average performance-based restricted awards, respectively, were excluded from the calculation of Diluted EPS as the performance metric had yet to be achieved.

Effect of the 2020 Convertible Notes and related transactions on Diluted EPS

In periods when the Company reports income from continuing operations, the dilutive effect of additional shares of common stock that may be issued on conversion of the 2020 Convertible Notes, which were repaid in March 2020, were included in the calculation of Diluted EPS if the price of the Company's common stock exceeded the conversion price. The 2020 Convertible Notes had no impact on Diluted EPS until the price of the Company's common stock exceeded the conversion price of \$25.1668 per share because the principal of the 2020 Convertible Notes was required to be settled in cash.

The 2020 Convertible Notes would be dilutive if the Company's common stock closed at or above \$25.1668 per share. However, on conversion, no economic dilution was expected from the 2020 Convertible Notes as the exercise of call options purchased by the Company with respect to its common stock described in Note 7 was expected to eliminate any potential dilution from the 2020 Convertible Notes that would have otherwise occurred. The call options, which expired in March 2020, were always excluded from the calculation of Diluted EPS as they were anti-dilutive under the treasury stock method.

The warrants sold by the Company with respect to its common stock in connection with the 2020 Convertible Notes described in Note 7 have an effect on Diluted EPS when the Company's share price exceeds the warrant's strike price of \$34.9541 per share. As the price of the Company's common stock increases above the warrant strike price, additional dilution would occur.

Share Repurchase Program

On February 14, 2017, TiVo Corporation's Board of Directors approved an increase to the share repurchase program authorization to \$150.0 million. The February 2017 authorization includes amounts which were outstanding under previously authorized share repurchase programs. During the three months ended March 31, 2020 and 2019, no shares were repurchased under the share repurchase program. As of March 31, 2020, the Company had \$150.0 million of share repurchase authorization remaining. The February 2017 authorization is subject to restrictions included in the Xperi Merger Agreement, and the Company does not intend to make purchases under the February 2017 authorization during the pendency thereof.

The Company issues restricted stock and restricted stock units (collectively, "restricted awards") as part of the equity-based compensation plans described in Note 11. For restricted awards, shares are withheld to satisfy required withholding taxes at the vesting date. Shares withheld to satisfy required withholding taxes in connection with the vesting of restricted awards are treated as common stock repurchases in the Condensed Consolidated Financial Statements because they reduce the number of shares that would have been issued on vesting. However, these withheld shares are not included in common stock repurchases under the Company's authorized share repurchase plan. During the three months ended March 31, 2020 and 2019, the Company withheld 0.1 million and 0.1 million shares of common stock to satisfy \$0.6 million and \$1.4 million of required withholding taxes, respectively.

Dividends

For the three months ended March 31, 2019, the Company declared and paid dividends of \$0.18 per share, for an aggregate cash payment of \$22.5 million. No dividends were declared or paid during the three months ended March 31, 2020.

The capacity to pay dividends in the future depends on many factors, including the Company's financial condition, results of operations, capital requirements, capital structure, industry practice and other business conditions that the Board of Directors considers relevant. In addition, the agreements governing the Company's debt and the Xperi Merger Agreement restrict the payment of dividends.

Section 382 Transfer Restrictions

On December 18, 2019 (the "Rights Dividend Declaration Date"), upon entering into an Agreement and Plan of Merger and Reorganization with Xperi Corporation, the Board of Directors of the Company adopted a Section 382 rights plan (the "Section 382 Rights Plan"), and declared a dividend distribution of one right for each outstanding share of the Company's common stock to stockholders of record at the close of business on January 6, 2020. The Board of Directors adopted the Section 382 Rights Plan in an effort to protect stockholder value by attempting to protect against a possible limitation on the Company's ability to use its net operating loss carryforwards ("NOLs"). If the Company experiences an "ownership change,"

as defined in Section 382 of the Internal Revenue Code of 1986, as amended (the “Code”), the Company’s ability to fully utilize the NOLs on an annual basis will be substantially limited, and the timing of the usage of the NOLs could be substantially delayed, which could therefore significantly impair the value of those benefits. The Section 382 Rights Plan is intended to act as a deterrent to any person (an “Acquiring Person”) acquiring (together with all affiliates and associates of such person) beneficial ownership of 4.95% or more of the Company’s outstanding common stock within the meaning of Section 382 of the Code, without the approval of the Board of Directors. Stockholders who beneficially own 4.95% or more of the Company’s outstanding common stock as of the Rights Dividend Declaration Date will not be deemed to be an Acquiring Person, but such person will be deemed an Acquiring Person if such person (together with all affiliates and associates of such person) becomes the beneficial owner of securities representing a percentage of the Company’s common stock that exceeds by 0.5% or more than the lowest percentage of beneficial ownership of the Company’s common stock that such person had at any time since the Rights Dividend Declaration Date. The description and terms of the rights are set forth in a Section 382 Rights Agreement, dated as of December 18, 2019, by and between the Company and American Stock Transfer & Trust Company, LLC, as Rights Agent.

On the Rights Dividend Declaration Date, the Board of Directors authorized the issuance of one right (a “Right”) for each outstanding share of the Company’s common stock to the Company’s stockholders of record as of December 18, 2019. Subject to the terms, provisions and conditions of the Section 382 Rights Agreement, if the Rights become exercisable, each Right would initially represent the right to purchase from the Company one one-thousandth of a share of the Company’s Series A Junior Participating Preferred Stock, par value \$0.001 per share, for a purchase price of \$35 per Right. If issued, each fractional share of Series A Junior Participating Preferred Stock would give the stockholder approximately the same dividend, voting and liquidation rights as does one share of the Company’s common stock. However, prior to exercise, a Right does not give its holder any rights as a stockholder of TiVo, including any dividend, voting or liquidation rights.

(11) Equity-based Compensation

Restricted Awards and Stock Options

The Company grants equity-based compensation awards from the Rovi 2008 Equity Incentive Plan (the “Rovi 2008 Plan”). The Rovi 2008 Plan permits the grant of restricted awards, stock options and similar types of equity awards to employees, officers, directors and consultants of the Company. Restricted stock is considered outstanding at the time of grant as holders are entitled to voting rights. Restricted awards are generally subject to a four-year graded vesting period, with annual vesting. Stock options generally have a four-year vesting period, with one quarter of the grant vesting on the first anniversary of the grant, followed by monthly vesting thereafter. Stock options generally have a contractual term of seven years. As of March 31, 2020, the Company had 36.7 million shares of common stock reserved and 12.3 million shares of common stock available for issuance under the Rovi 2008 Plan.

On September 7, 2016, the Company assumed the TiVo Inc. Amended and Restated 2008 Equity Incentive Award Plan (the “TiVo 2008 Plan”). The Company amended and restated the TiVo 2008 Plan effective as of the closing of the TiVo Acquisition to be the TiVo Corporation Titan Equity Incentive Award Plan for purposes of awards granted following the TiVo Acquisition Date. Restricted stock is considered outstanding at the time of grant as holders are entitled to voting rights. Restricted awards assumed from the TiVo 2008 Plan are generally subject to a three-year graded vesting period, with semi-annual vesting. Restricted awards issued by the Company from the TiVo 2008 Plan are generally subject to a four-year graded vesting period, with annual vesting. Stock options assumed from the TiVo 2008 Plan generally have a four-year vesting period with one quarter of the grant vesting on the first anniversary of the grant, followed by monthly vesting thereafter. Stock options assumed from the TiVo 2008 Plan generally have a contractual term of seven years. As of March 31, 2020, there were 3.9 million shares of common stock reserved for future issuance as outstanding awards vest under the TiVo 2008 Plan. The TiVo 2008 Plan expired in August 2018, and no further shares of common stock are available for future grant.

The Company also grants performance-based restricted stock units to certain of its senior officers for three-year performance periods. Vesting in the performance-based restricted stock units is subject to a market condition, as well as a service condition. Depending on the level of achievement, the maximum number of shares that could be issued on vesting generally could be up to 200% of the target number of performance-based restricted stock units granted. For awards subject to a market vesting condition, the fair value per award is fixed at the grant date and the amount of compensation expense is not adjusted during the performance period regardless of changes in the level of achievement of the market condition.

In June 2019, the Company granted 0.6 million performance-based restricted stock units to certain of its senior officers with vesting conditioned on completion of a change-in-control event as defined in the grant agreement, as well as a service condition. For these awards, the fair value per award is estimated as the price of the Company’s common stock at the close of trading on the date of grant, less the present value of dividends expected to be paid during the vesting period. However, no

compensation expense is recognized for these awards until the change-in-control event occurs, at which time the grant date fair value of \$3.8 million, adjusted for any forfeitures, would be recognized as compensation expense.

Employee Stock Purchase Plan

The Company's 2008 Employee Stock Purchase Plan ("ESPP") allows eligible employees to purchase shares of the Company's common stock at a discount through payroll deductions. The ESPP consists of up to four consecutive six-month purchase periods within a twenty-four-month offering period. Employees purchase shares each purchase period at the lower of 85% of the market value of the Company's common stock at either the beginning of the offering period or the end of the purchase period. As of March 31, 2020, the Company had 2.5 million shares of common stock reserved and 2.5 million shares available for issuance under the ESPP.

Valuation Techniques and Assumptions

As new grants of restricted awards are not eligible for dividend protection, the fair value of restricted awards subject to service conditions is estimated as the price of the Company's common stock at the close of trading on the date of grant, less the present value of dividends expected to be paid during the vesting period.

The Company uses the Black-Scholes-Merton option-pricing formula to estimate the fair value of ESPP shares. The Black-Scholes-Merton option-pricing formula uses complex and subjective inputs, such as the expected volatility of the Company's common stock over the expected term of the grant and projected employee exercise behavior. Expected volatility is estimated using a combination of historical volatility and implied volatility derived from publicly-traded options on the Company's common stock. The expected term is estimated by calculating the period the award is expected to be outstanding based on historical experience and the terms of the grant. The risk-free interest rate is estimated based on the yield of U.S. Treasury zero-coupon bonds with remaining terms similar to the expected term at the grant date. The Company assumes a constant dividend yield commensurate with the dividend yield on the grant date.

Weighted-average assumptions used to estimate the fair value of equity-based compensation awards granted during the period were as follows:

	Three Months Ended March 31,	
	2020	2019
ESPP shares:		
Expected volatility	45.3%	52.3%
Expected term	1.3 years	1.3 years
Risk-free interest rate	1.4%	2.5%
Expected dividend yield	0%	6.5%

The number of awards expected to vest during the requisite service period is estimated at the time of grant using historical data and equity-based compensation is only recognized for awards for which the requisite service is expected to be rendered for awards subject to service or performance vesting conditions. Forfeiture estimates are revised during the requisite service period and the effect of changes in the number of awards expected to vest during the requisite service period is recognized on a cumulative catch-up basis in the period estimates are revised.

The weighted-average grant date fair value of equity-based awards (per award) and pre-tax equity-based compensation expense (in thousands) was as follows:

	Three Months Ended March 31,	
	2020	2019
Weighted average grant date fair value		
Restricted awards	\$ 7.71	\$ 8.58
ESPP shares	\$ 3.91	\$ 3.42
Equity-based compensation		
Pre-tax equity-based compensation, excluding amounts included in restructuring expense	\$ 6,296	\$ 8,379

As of March 31, 2020, there was \$45.0 million of unrecognized compensation cost, net of estimated forfeitures, related to unvested equity-based awards which is expected to be recognized over a remaining weighted average period of 2.4 years. The unrecognized compensation cost, net of estimated forfeitures, excludes \$3.8 million of unrecognized compensation cost related to performance-based restricted stock units with vesting conditioned on completion of a change-in-control event.

Equity-Based Compensation Award Activity

Activity related to the Company's restricted awards for the three months ended March 31, 2020 was as follows:

	Restricted Awards (In Thousands)	Weighted-Average Grant Date Fair Value
Outstanding as of beginning of period	6,532	\$ 9.39
Granted	120	\$ 7.71
Vested	(228)	\$ 15.87
Forfeited	(464)	\$ 11.18
Outstanding as of end of period	<u>5,960</u>	<u>\$ 8.97</u>

As of March 31, 2020, unvested restricted awards include 1.1 million performance-based restricted stock units.

The aggregate fair value of restricted awards vested during the three months ended March 31, 2020 and 2019 was \$1.7 million and \$3.8 million, respectively.

(12) Income Taxes

Due to the fact that the Company has significant net operating loss carryforwards and has recorded a valuation allowance against a significant portion of its deferred tax assets, foreign withholding taxes are generally the primary driver of income tax expense and the primary reason for cash payments of income taxes.

Components of Income tax (benefit) expense were as follows (in thousands):

	Three Months Ended March 31,	
	2020	2019
Foreign withholding tax	\$ 2,603	\$ 4,845
Federal income tax	1,346	1,272
State income tax	114	(207)
Foreign income tax	7	335
Goodwill impairment	(4,563)	—
Change in unrecognized tax benefits	77	73
Income tax (benefit) expense	<u>\$ (416)</u>	<u>\$ 6,318</u>

The Company believes it has provided adequate reserves for all tax deficiencies or reductions in tax benefits that could result from U.S. federal, state and foreign tax audits. The Company regularly assesses the potential outcomes of these audits in order to determine the appropriateness of its tax positions. Adjustments to accruals for unrecognized tax benefits are made to reflect the impact of negotiations, settlements, rulings, advice of legal counsel and other information and events pertaining to a particular income tax audit. However, income tax audits are inherently unpredictable and there can be no assurance the Company will accurately predict the outcome of these audits. The amounts ultimately paid on resolution of an audit could be materially different from the amounts previously recognized, and therefore the resolution of one or more of these uncertainties in any particular period could have a material adverse impact on the Condensed Consolidated Financial Statements.

On March 27, 2020, the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") was enacted. The CARES Act is an emergency economic stimulus package in response to the COVID-19 pandemic, which among other things, contains numerous income tax provisions. Some of these tax provisions are expected to be effective retroactively for years ending before the date of enactment. The Company is currently evaluating the effect of the CARES Act on the Condensed Consolidated Financial Statements, which is not expected to be material.

(13) Segment Information

Reportable segments are identified based on the Company's organizational structure and information reviewed by the Company's chief operating decision maker ("CODM") to evaluate performance and allocate resources. The Company's operations are organized into two reportable segments for financial reporting purposes: Product and Intellectual Property Licensing.

The Product segment consists primarily of licensing Company-developed user experience products and services to multi-channel video service providers and consumer electronics ("CE") manufacturers, licensing the TiVo service and selling TiVo-enabled devices, licensing metadata and advanced search and recommendation and viewership data, as well as sponsored discovery and in-guide advertising. We group our Product segment into three verticals based on the products delivered to our customer: Platform Solutions; Software and Services; and Other. Platform Solutions includes licensing Company-developed UX products, the TiVo service and selling TiVo-enabled devices. Software and Services includes licensing our metadata and advanced media and advertising solutions, including viewership data, sponsored discovery and in-guide advertising. Other includes legacy Analog Content Protection ("ACP"), VCR Plus+ and media recognition products.

The Intellectual Property Licensing segment consists primarily of licensing our patent portfolio to U.S. and international pay television ("TV") providers (directly and through their suppliers), mobile device manufacturers, CE manufacturers and OTT video providers. Our broad portfolio of licensable technology patents covers many aspects of content discovery, DVR, VOD, OTT experiences, multi-screen functionality and personalization, as well as interactive applications and advertising. We group our Intellectual Property Licensing segment into three verticals based primarily on the business of our customer: US Pay TV Providers; CE Manufacturers; and New Media, International Pay TV Providers and Other. US Pay TV Providers includes direct and indirect licensing of traditional US Pay TV Providers regardless of the particular distribution technology (e.g., cable, satellite or the internet). CE Manufacturers includes the licensing of our patents to traditional CE manufacturers. New Media, International Pay TV Providers and Other includes licensing to international pay TV providers, virtual service providers, mobile device manufacturers and content and new media companies.

Segment results are derived from the Company's internal management reporting system. The accounting policies used to derive segment results are substantially the same as those used by the consolidated company. Intersegment revenues and expenses have been eliminated from segment financial information as transactions between reportable segments are excluded from the measure of segment profitability reviewed by the CODM. In addition, certain costs are not allocated to the segments as they are considered corporate costs. Corporate costs primarily include general and administrative costs such as corporate management, finance, legal and human resources. The CODM uses an Adjusted EBITDA (as defined below) measure to evaluate the performance of, and allocate resources to, the segments. Segment balance sheets are not used by the CODM to allocate resources or assess performance.

Segment results were as follows (in thousands):

	Three Months Ended March 31,	
	2020	2019
Product		
Platform Solutions	\$ 64,535	\$ 71,037
Software and Services	21,636	19,902
Other	305	364
Revenues, net	86,476	91,303
Adjusted Operating Expenses (1)	67,844	82,890
Adjusted EBITDA (2)	18,632	8,413
Intellectual Property Licensing		
US Pay TV Providers	45,109	42,117
CE Manufacturers	8,334	8,618
New Media, International Pay TV Providers and Other	19,942	16,197
Revenues, net	73,385	66,932
Adjusted Operating Expenses (1)	22,120	21,807
Adjusted EBITDA (2)	51,265	45,125
Corporate		
Adjusted Operating Expenses (1)	11,691	16,097
Adjusted EBITDA (2)	(11,691)	(16,097)
Consolidated		
Total Revenues, net	159,861	158,235
Adjusted Operating Expenses (1)	101,655	120,794
Adjusted EBITDA (2)	58,206	37,441
Depreciation	4,968	5,364
Amortization of intangible assets	28,142	28,178
Restructuring and asset impairment charges	739	1,813
Goodwill impairment	171,572	—
Equity-based compensation	6,296	8,379
Merger, separation and transformation costs	4,026	1,132
Transition and integration costs	82	595
Operating loss	(157,619)	(8,020)
Interest expense	(17,049)	(12,161)
Interest income and other, net	187	1,775
Loss on interest rate swaps	(5,119)	(1,721)
Loss on debt extinguishment	—	(199)
Loss before income taxes	\$ (179,600)	\$ (20,326)

- (1) Adjusted Operating Expenses are defined as operating expenses excluding Depreciation, Amortization of intangible assets, Restructuring and asset impairment charges, Goodwill impairment, Equity-based compensation, Merger, separation and transformation costs and Transition and integration costs.
- (2) Adjusted EBITDA is defined as operating loss excluding Depreciation, Amortization of intangible assets, Restructuring and asset impairment charges, Goodwill impairment, Equity-based compensation, Merger, separation and transformation costs and Transition and integration costs.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Forward-Looking Statements

This Quarterly Report on Form 10-Q for TiVo Corporation (the "Company," "we" or "us") contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, Section 21E of the Securities and Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995, including the discussion contained in [Item 2, "Management's Discussion and Analysis of Financial Condition and Results of Operations."](#) We have based these forward-looking statements on our current expectations and projections about future events or future financial performance, which include implementing our business strategy, developing and introducing new technologies, obtaining, maintaining and expanding market acceptance of the technologies we offer, successfully renewing intellectual property licenses with the major North American pay TV service providers, competition in our markets, the potential impact of the COVID-19 pandemic, and the impact of our previously announced combination with Xperi Corporation.

In some cases, these forward-looking statements can be identified by terminology such as "may," "will," "should," "expect," "plan," "anticipate," "believe," "estimate," "future," "predict," "potential," "intend," or "continue," and similar expressions. These statements are based on the beliefs and assumptions of our management and on information currently available to our management. Our actual results, performance and achievements may differ materially from the results, performance and achievements expressed or implied in such forward-looking statements. For a discussion of some of the factors that might cause such a difference, see the "Risk Factors" contained in [Part II, Item 1A](#) of this Quarterly Report on Form 10-Q. Except as required by law, we specifically disclaim any obligation to update such forward-looking statements.

The following commentary should be read in conjunction with the Consolidated Financial Statements and related notes thereto contained in our Annual Report on Form 10-K for the year ended December 31, 2019 and the Condensed Consolidated Financial Statements and related notes thereto contained in [Part I, Item 1](#) of this Quarterly Report on Form 10-Q, which are incorporated by reference herein.

Executive Overview of Results

TiVo Corporation ("TiVo") is a global leader in bringing entertainment together, making entertainment content easy to find, watch and enjoy. TiVo provides a broad set of cloud-based services, embedded software solutions and intellectual property that bring entertainment together for the watchers, creators and advertisers. For the creators and advertisers, TiVo's products deliver a passionate group of watchers to increase viewership and engagement across online video, TV and other entertainment viewing platforms. Our products and innovations are protected by broad portfolios of licensable technology patents. These portfolios cover many aspects of content discovery, digital video recorder ("DVR"), video-on-demand ("VOD") and over-the-top ("OTT") experiences, multi-screen viewing, mobile device video experiences, entertainment personalization, voice interaction, social and interactive applications, data analytics solutions and advertising.

Our operations are organized into two reportable segments for financial reporting purposes: Product and Intellectual Property Licensing. The Product segment consists primarily of licensing Company-developed user experience ("UX") products and services to multi-channel video service providers and consumer electronics ("CE") manufacturers, licensing the TiVo service and selling TiVo-enabled devices, licensing metadata and advanced search and recommendation and viewership data, as well as sponsored discovery and in-guide advertising. The Intellectual Property Licensing segment consists primarily of licensing our patent portfolio to U.S. and international pay television ("TV") providers (directly and through their suppliers), mobile device manufacturers, CE manufacturers and OTT video providers. Our broad portfolio of licensable technology patents covers many aspects of content discovery, DVRs, VOD, OTT experiences, multi-screen functionality and personalization, as well as interactive applications and advertising.

Total Revenues, net for the three months ended March 31, 2020 increased by 1% compared to the prior year. The \$4.8 million decrease in Product revenues was primarily attributable to \$6.7 million of revenue from a perpetual Passport license agreement with an international MSO customer in the three months ended March 31, 2019, which was partially offset by a \$2.9 million increase in TV viewership data revenue. Intellectual Property Licensing revenues increased \$6.5 million primarily due to subscriber growth since the year ago period, new licenses and contract amendments executed since the year ago period and a \$1.4 million increase in catch-up payments intended to make us whole for the pre-license period of use.

Our Net loss was \$179.2 million, or \$1.41 per diluted share, compared to \$26.6 million, or \$0.21 per diluted share, in the prior year. For the three months ended March 31, 2020, we reduced Research and development and Selling, general and

administrative costs by \$17.7 million, primarily as a result of benefits from our ongoing transformation and restructuring activities. Offsetting these cost improvements, our Operating loss for the three months ended March 31, 2020 reflects a \$171.6 million Goodwill impairment charge resulting from a significant and sustained decline in the trading price of TiVo's common stock. In addition, our Operating loss includes a \$3.0 million increase in patent litigation costs compared to the year-ago period, primarily related to the timing of costs incurred in the ongoing Comcast litigation, and a \$2.8 million increase in Merger, separation and transformation costs. Our Net loss for the three months ended March 31, 2020 benefited from \$6.7 million of lower income tax costs, primarily related to tax benefits from the Goodwill impairment charge, and a \$1.6 million revenue increase. Our Net loss for the three months ended March 31, 2020 also includes a \$4.9 million increase in Interest expense as a result of refinancing our Term Loan B in November 2019 and a \$3.4 million increase in the Loss on interest rate swaps resulting from adverse interest rate movements.

The recent outbreak of a novel strain of coronavirus, SARS-CoV-2, or COVID-19, which has been declared by the World Health Organization to be a “public health emergency of international concern,” is impacting worldwide economic activity. As a public health epidemic, COVID-19 poses the risk that we or our workforce, suppliers and other partners may be prevented from conducting business activities for an indefinite period of time, including due to shutdowns that may be requested or mandated by governmental authorities. The COVID-19 pandemic has recently had adverse impacts on many aspects of our operations, directly and indirectly, including our workforce, consumer behavior, distribution, suppliers and the market generally. For example, in March 2020, we announced our workforce would work remotely as a result of the pandemic as we reviewed our processes related to workplace safety, including social distancing and sanitation practices recommended by the Centers for Disease Control and Prevention. As we generate the substantial majority of our revenue from pay TV operators and others in the video delivery industry, to date COVID-19 has not had a significant impact on our revenue. However, the impacts of the COVID-19 pandemic could cause delays in obtaining new customers and executing renewals and could also impact our consumer business, including sales of TiVo Stream 4K which was recently launched. Further, the global financial markets have experienced increased volatility and have declined since December 31, 2019. The Condensed Consolidated Financial Statements as of and for the three months ended March 31, 2020 reflect our assumptions about the economic environment and our ability to realize certain assets, including long-lived assets, such as goodwill, accounts receivable and investments in other companies. Although the response to the COVID-19 pandemic is expected to be temporary, such conditions in the global financial markets and business activities could lead to further impairment of our long-lived assets, including goodwill, increased credit losses and impairments to our investments in other companies.

We believe our Cash and cash equivalents and anticipated operating cash flow, supplemented with access to capital markets as necessary, are generally sufficient to support our operating businesses, capital expenditures, restructuring activities, interest payments and income tax payments, in addition to investments in future growth opportunities and activities related to the Xperi Combination for at least the next twelve months. We are taking steps to manage our resources by reducing and/or deferring capital expenditures, inventory purchases and operating expenses to mitigate the adverse impact of the COVID-19 pandemic. Future impacts of the COVID-19 pandemic may require us to take further actions to improve our cash position, including but not limited to, implementing employee furloughs and foregoing capital expenditures and other discretionary expenses.

Our intellectual property license with Comcast Corporation (“Comcast”) expired on March 31, 2016. Our Product relationship with Comcast, primarily a metadata license, expired on September 30, 2017. The expiration of our intellectual property license with Comcast, as well as litigation initiated against Comcast, reduced revenues and increased litigation costs. While we anticipate Comcast will eventually execute a new intellectual property license, the length of time that Comcast is out of license prior to executing a new license is uncertain.

On May 9, 2019, we announced that our Board of Directors unanimously approved a plan to separate the Product and Intellectual Property Licensing businesses into separately traded public companies (the “TiVo Separation”), which was targeted for completion by April 2020. On December 18, 2019, the Company and Xperi Corporation (“Xperi”) entered into an Agreement and Plan of Merger and Reorganization (the “Xperi Merger Agreement”), pursuant to which TiVo and Xperi agreed to effect an all-stock, merger of equals strategic combination of their respective businesses (the “Xperi Combination”). The board of directors of each of TiVo and Xperi have approved the Xperi Merger Agreement and the transactions contemplated thereby. The Xperi Combination is subject to certain customary approvals, including the approval of shareholders of TiVo and Xperi, and is expected to be completed by June 30, 2020.

The TiVo Separation and the Xperi Combination processes have been and are expected to continue to be time-consuming and involve significant costs and expenses. During the three months ended March 31, 2020, we incurred \$4.0 million of Merger, separation and transformation costs. The Merger, separation and transformation costs are primarily Selling, general and administrative costs, consisting of employee-related costs, costs to improve information technology systems and other one-time transaction-related costs, including investment banking and consulting fees and other incremental costs directly

associated with the TiVo Separation or the Xperi Combination. In addition, in connection with the May 2019 announcement of our plan to separate the Product and Intellectual Property Licensing businesses, we implemented a cost efficiency program to transform our business operations and to execute the TiVo Separation (the "2019 Transformation Plan"). As a result of the 2019 Transformation Plan, we are reducing headcount, moving certain positions to lower cost locations, rationalizing facilities and legal entities and terminating certain leases and other contracts. The 2019 Transformation Plan will continue to be implemented prior to completion of the Xperi Combination. The 2019 Transformation Plan resulted in restructuring charges of \$0.6 million during the three months ended March 31, 2020, substantially all of which related to severance costs. We expect to spend up to an additional \$15.0 million to complete the 2019 Transformation Plan and prepare for the Xperi Combination, excluding spend contingent on completion of the Xperi Combination.

Comparison of Three Months Ended March 31, 2020 and 2019

The consolidated results of operations for the three months ended March 31, 2020 compared to the prior year were as follows (dollars in thousands):

	<u>Three Months Ended March 31,</u>		<u>Change \$</u>	<u>Change %</u>
	<u>2020</u>	<u>2019</u>		
Revenues, net:				
Licensing, services and software	\$ 157,238	\$ 156,161	\$ 1,077	1 %
Hardware	2,623	2,074	549	26 %
Total Revenues, net	159,861	158,235	1,626	1 %
Costs and expenses:				
Cost of licensing, services and software revenues, excluding depreciation and amortization of intangible assets	37,396	39,433	(2,037)	(5)%
Cost of hardware revenues, excluding depreciation and amortization of intangible assets	5,022	4,093	929	23 %
Research and development	33,744	41,381	(7,637)	(18)%
Selling, general and administrative	35,897	45,993	(10,096)	(22)%
Depreciation	4,968	5,364	(396)	(7)%
Amortization of intangible assets	28,142	28,178	(36)	— %
Restructuring and asset impairment charges	739	1,813	(1,074)	(59)%
Goodwill impairment	171,572	—	171,572	N/a
Total costs and expenses	317,480	166,255	151,225	91 %
Operating loss	(157,619)	(8,020)	(149,599)	1,865 %
Interest expense	(17,049)	(12,161)	(4,888)	40 %
Interest income and other, net	187	1,775	(1,588)	(89)%
Loss on interest rate swaps	(5,119)	(1,721)	(3,398)	197 %
Loss on debt extinguishment	—	(199)	199	N/a
Loss before income taxes	(179,600)	(20,326)	(159,274)	784 %
Income tax (benefit) expense	(416)	6,318	(6,734)	(107)%
Net loss	<u>\$ (179,184)</u>	<u>\$ (26,644)</u>	<u>\$ (152,540)</u>	573 %

Total Revenues, net

For the three months ended March 31, 2020, Total Revenues, net increased 1% compared to the prior year as Product revenues decreased \$4.8 million and Intellectual Property Licensing revenues increased \$6.5 million. Product generated 54% and 58% of Total Revenues, net for the three months ended March 31, 2020 and 2019, respectively.

For details on the changes in Total Revenues, net, see the discussion of our segment results below.

Cost of licensing, services and software revenues, excluding depreciation and amortization of intangible assets

Cost of licensing, services and software revenues, excluding depreciation and amortization of intangible assets, consists primarily of employee-related costs, patent prosecution, maintenance and litigation costs and an allocation of overhead and facilities costs, as well as service center and other expenses related to providing the TiVo Service and our metadata offering.

For the three months ended March 31, 2020, Cost of licensing, services and software revenues, excluding depreciation and amortization of intangible assets decreased 5% compared to the prior year primarily due to benefits from our transformation and restructuring activities, including a \$1.5 million decrease in compensation costs, a \$1.4 million decrease in non-recurring engineering costs, a \$0.9 million decrease in patent prosecution costs and a \$0.9 million decrease in facility and information technology costs. These cost decreases were partially offset by a \$3.0 million increase in patent litigation costs, which was primarily related to the timing of costs incurred in the ongoing Comcast litigation. We expect to continue to incur material expenses related to the Comcast litigation in the future.

Cost of hardware revenues, excluding depreciation and amortization of intangible assets

Cost of hardware revenues, excluding depreciation and amortization of intangible assets includes all product-related costs associated with TiVo-enabled devices, including employee-related costs, warranty costs and order fulfillment costs, as well as certain licensing costs and an allocation of overhead and facilities costs. Hardware is sold by the Company primarily as a means to generate revenue from the TiVo Service. As a result, generating positive gross margins from hardware sales is not the primary goal of our hardware operations.

For the three months ended March 31, 2020, Cost of hardware revenues, excluding depreciation and amortization of intangible assets increased 23% compared to the prior year, reflecting a \$1.2 million charge resulting from a non-cancellable purchase commitment, which was partially offset by benefits from our transformation and restructuring activities.

Research and development

Research and development expenses are comprised primarily of employee-related costs, consulting costs and an allocation of overhead and facilities costs.

For the three months ended March 31, 2020, Research and development expenses decreased 18% compared to the prior year, primarily due to benefits from our transformation and restructuring activities, including a \$5.1 million decrease in compensation costs, a \$1.9 million decrease in facility and information technology costs and a \$1.2 million decrease in consulting costs.

Selling, general and administrative

Selling expenses are comprised primarily of employee-related costs, including travel costs, advertising costs and an allocation of overhead and facilities costs. General and administrative expenses are comprised primarily of employee-related costs, including travel costs, outside services such as accounting, consulting, legal and tax services, and an allocation of overhead and facilities costs.

Selling, general and administrative expenses decreased 22% during the three months ended March 31, 2020 compared to the prior year, primarily due to benefits from our transformation and restructuring activities, including a \$9.6 million decrease in compensation costs and a \$3.5 million reduction in spending on outside services, which was partially offset by a \$2.8 million increase in Merger, separation and transformation costs and a \$0.9 million increase in bad debt expense.

Restructuring and asset impairment charges

In connection with the May 2019 announcement of the TiVo Separation, we initiated certain activities to transform our business operations (the "2019 Transformation Plan"). As a result of the 2019 Transformation Plan, we are reducing headcount, moving certain positions to lower cost locations, rationalizing facilities and legal entities and terminating certain leases and other contracts. In connection with the 2019 Transformation Plan, in the last nine months, we have taken actions that are expected to generate in excess of \$27 million in annualized cost savings and we expect to incur material restructuring charges through mid-2020. The 2019 Transformation Plan resulted in Restructuring charges of \$0.6 million during the three months ended March 31, 2020, substantially all of which related to severance costs.

In February 2018, we announced our intention to explore strategic alternatives. In connection with exploring strategic alternatives, we initiated certain cost saving actions (the "Profit Improvement Plan"). As a result of the Profit Improvement Plan, we moved certain positions to lower cost locations, eliminated layers of management and rationalized facilities, which resulted in severance costs and the termination of certain leases and other contracts, generating over \$40 million in annualized cost savings. As a result of actions associated with the Profit Improvement Plan, Restructuring and asset impairment charges of \$0.1 million and \$1.8 million, primarily for severance-related benefits, were recognized in the three months ended March 31, 2020 and 2019, respectively.

Goodwill impairment

As a result of a quantitative goodwill impairment test performed as of March 31, 2020, a Goodwill impairment charge of \$171.6 million was recognized, of which \$76.1 million related to the Product reporting unit and \$95.5 million related to the Intellectual Property Licensing reporting unit. For further details about the Goodwill impairment charge, refer to Note 5 to the Condensed Consolidated Financial Statements included in [Part I, Item 1](#) of this Quarterly Report on Form 10-Q, which is incorporated by reference herein.

Interest expense

Interest expense increased by \$4.9 million during the three months ended March 31, 2020 primarily due to changes in the effective interest rate associated with refinancing Term Loan Facility B in November 2019, partially offset by the 2020 Convertible Notes maturing in March 2020.

Interest income and other, net

The decrease in Interest income and other, net for the three months ended March 31, 2020 was primarily due to a \$1.1 million decrease in interest income due to the liquidation of our marketable securities investment portfolio in connection with the maturing 2020 Convertible Notes, \$0.4 million of adverse movements in foreign currency exchange rates and a \$0.3 million impairment of a non-marketable equity security.

Loss on interest rate swaps

We have not designated any of our interest rate swaps as hedges for accounting purposes. Therefore, changes in the fair value of our interest rate swaps are not offset by changes in the fair value of the related hedged item in our Condensed Consolidated Statements of Operations (see Note 7 to the Condensed Consolidated Financial Statements included in [Part I, Item 1](#) of this Quarterly Report on Form 10-Q, which is incorporated by reference herein). We generally utilize interest rate swaps to convert the interest rate on a portion of our loans with a floating interest rate to a fixed interest rate. Under the terms of our interest rate swaps, we receive a floating rate of interest and pay a fixed rate of interest. When there is an increase in expected future LIBOR, we generally have gains when adjusting our interest rate swaps to fair value. When there is a decrease in expected future LIBOR, we generally have losses when adjusting our interest rate swaps to fair value.

Loss on debt extinguishment

Prior to the November 2019 refinancing, annually, the Company was required to make an additional principal payment on Term Loan Facility B, which was calculated as a percentage of the prior year's "Excess Cash Flow" as defined in the Credit Agreement. In February 2019, the Company made an Excess Cash Flow payment of \$46.6 million on Term Loan Facility B, which was accounted for as a partial debt extinguishment, and recognized a \$0.2 million Loss on debt extinguishment in the three months ended March 31, 2019.

Income tax expense

Due to our significant net operating loss carryforwards and a valuation allowance applied against a significant portion of our deferred tax assets, foreign withholding taxes are generally the primary driver of income tax expense and the primary reason for cash payments of income taxes.

We recorded an Income tax benefit for the three months ended March 31, 2020 of \$0.4 million, which primarily consists of a \$4.6 million benefit from the Goodwill impairment charge recognized during the three months ended March 31, 2020, which was partially offset by \$2.6 million of Foreign withholding tax and \$1.3 million of U.S. Federal income tax.

We recorded an Income tax expense for the three months ended March 31, 2019 of \$6.3 million, which primarily consists of \$4.8 million of Foreign withholding tax and \$1.3 million of U.S. Federal income tax.

The year-over-year decrease in Foreign withholding tax was due to a smaller portion of license fees received in the three months ended March 31, 2020 coming from licensees in countries subject to foreign withholding taxes.

Segment Results

We report segment information in the same way management internally organizes the business for assessing performance and making decisions regarding the allocation of resources to the business units. The terms Adjusted Operating Expenses and Adjusted EBITDA in the following discussion use the definitions provided in Note 13 of the Condensed Consolidated Financial Statements included in [Part I, Item 1](#) of this Quarterly Report on Form 10-Q, which is incorporated by reference herein.

Product

We group our Product segment into three verticals based on the products delivered to our customer: Platform Solutions; Software and Services; and Other. Platform Solutions includes licensing Company-developed UX products, the TiVo service and selling TiVo-enabled devices. Software and Services includes licensing our metadata and advanced media and advertising solutions, including viewership data, sponsored discovery and in-guide advertising. Other includes legacy Analog Content Protection ("ACP"), VCR Plus+ and media recognition products.

The Product segment's results of operations for the three months ended March 31, 2020 compared to the prior year were as follows (dollars in thousands):

	Three Months Ended March 31,		Change \$	Change %
	2020	2019		
Platform Solutions	\$ 64,535	\$ 71,037	\$ (6,502)	(9)%
Software and Services	21,636	19,902	1,734	9 %
Other	305	364	(59)	(16)%
Product Revenues	86,476	91,303	(4,827)	(5)%
Adjusted Operating Expenses	67,844	82,890	(15,046)	(18)%
Adjusted EBITDA	\$ 18,632	\$ 8,413	\$ 10,219	121 %
Adjusted EBITDA Margin	21.5%	9.2%		

For the three months ended March 31, 2020, Product revenue declined 5% compared to the prior year due to a decrease in revenues from Platform Solutions and Other, which was partially offset by an increase in revenue from Software and Services.

For the three months ended March 31, 2020, the \$6.5 million decrease in Platform Solutions revenue was primarily attributable to \$6.7 million of revenue from a perpetual Passport license agreement with an international MSO customer in the three months ended March 31, 2019.

For the three months ended March 31, 2020, the \$1.7 million increase in Software and Services revenue was primarily the result of a \$2.9 million increase in TV viewership data revenue, which was partially offset by a \$0.9 million decline in metadata revenue. For the three months ended March 31, 2020, other revenue primarily consists of ACP revenue, which is expected to decline in the future.

The 18% decrease in Product Adjusted Operating Expenses for the three months ended March 31, 2020 compared to the prior year was primarily due to benefits from our transformation and restructuring activities which resulted in reduced Research and development compensation and consulting costs and a decrease in facility and information technology costs. These cost reductions were partially offset by a \$1.2 million charge resulting from a non-cancellable purchase commitment during the three months ended March 31, 2020 and an increase in bad debt expense.

The increase in Adjusted EBITDA Margin for the three months ended March 31, 2020 reflects the revenue declines and the non-cancellable purchase commitment described above, which were more than offset by benefits from our transformation and restructuring activities.

Intellectual Property Licensing

We group our Intellectual Property Licensing segment into three verticals based primarily on the business of our customer: US Pay TV Providers; CE Manufacturers; and New Media, International Pay TV Providers and Other. US Pay TV Providers includes direct and indirect licensing of traditional US Pay TV Providers regardless of the particular distribution technology (e.g., cable, satellite or the internet). CE Manufacturers includes the licensing of our patents to traditional CE manufacturers. New Media, International Pay TV Providers and Other includes licensing to international pay TV providers, virtual service providers, mobile device manufacturers and content and new media companies.

The Intellectual Property Licensing segment's results of operations for the three months ended March 31, 2020 compared to the prior year were as follows (dollars in thousands):

	Three Months Ended March 31,		Change \$	Change %
	2020	2019		
US Pay TV Providers	\$ 45,109	\$ 42,117	\$ 2,992	7 %
CE Manufacturers	8,334	8,618	(284)	(3)%
New Media, International Pay TV Providers and Other	19,942	16,197	3,745	23 %
Intellectual Property Licensing Revenues	73,385	66,932	6,453	10 %
Adjusted Operating Expenses	22,120	21,807	313	1 %
Adjusted EBITDA	\$ 51,265	\$ 45,125	\$ 6,140	14 %
Adjusted EBITDA Margin	69.9%	67.4%		

For the three months ended March 31, 2020, Intellectual Property Licensing revenue grew 10% compared to the prior year due to an increase in revenues from New Media, International Pay TV Providers and Other and US Pay TV Providers, which was partially offset by a decrease in revenue from CE Manufacturers.

For the three months ended March 31, 2020, the increase in revenue from US Pay TV Providers was primarily due to subscriber growth since the year ago period and a \$1.1 million increase in revenue from catch-up payments intended to make us whole for the pre-license period.

For the three months ended March 31, 2020, the decrease in revenue from CE Manufacturers compared to the prior year was primarily the result of a decrease of \$0.7 million from catch-up payments intended to make us whole for the pre-license period of use and by a decrease in our licensees' market share, combined with continuing pressures on our licensees' business models. Such declines could continue unless we are able to successfully license new entrants to this market. Partially offsetting these revenue declines was a \$1.1 million benefit from a new license with a large CE manufacturer executed in the three months ended December 31, 2019.

For the three months ended March 31, 2020, New Media, International Pay TV Providers and Other reflects an increase in revenue compared to the prior period due to new licenses and contract amendments executed since the year ago period and an increase of \$1.0 million in revenue from catch-up payments intended to make us whole for the pre-license period of use.

The 1% increase in Intellectual Property Licensing Adjusted Operating Expenses during the three months ended March 31, 2020 reflects a \$3.0 million increase in patent litigation costs compared to the year-ago period, primarily related to the timing of costs incurred in the ongoing Comcast litigation, partially offset by benefits from our transformation and restructuring activities.

The increase in Adjusted EBITDA Margin for the three months ended March 31, 2020 is primarily the result of the increase in Intellectual Property Licensing revenue and benefits from our transformation and restructuring activities, which were partially offset by an increase in patent litigation costs.

Corporate

Corporate costs primarily include employee-related general and administrative costs for the corporate management, finance, legal and human resources functions, outside services such as accounting, consulting, legal and tax services, and an allocation of overhead and facilities costs.

Corporate costs for the three months ended March 31, 2020 compared to the prior year were as follows (dollars in thousands):

	Three Months Ended March 31,			
	2020	2019	Change \$	Change %
Adjusted Operating Expenses	\$ 11,691	\$ 16,097	\$ (4,406)	(27)%

For the three months ended March 31, 2020, the decrease in Corporate Adjusted Operating Expenses primarily reflects a decrease in compensation costs, a reduction in spending on outside services and other benefits from our transformation and restructuring activities.

Liquidity and Capital Resources

We finance our business primarily from operating cash flow. Our access to capital markets may be constrained and our cost of borrowing may increase under certain business, market and economic conditions; however, our use of a variety of funding sources to meet our liquidity needs is designed to facilitate continued access to sufficient capital resources under such conditions. As of March 31, 2020, we had \$108.5 million in Cash and cash equivalents, which are held in numerous locations around the world, with \$23.2 million held by our foreign subsidiaries. Due to our net operating loss carryforwards and the effects of the Tax Act of 2017, we could repatriate amounts to the U.S. with minimal income tax effects. However, the Company's liquidity may be negatively impacted by the COVID-19 pandemic if normal business operations are not resumed in the near-term. Further, the extent to which the COVID-19 pandemic and our precautionary measures in response thereto impact our business and liquidity will depend on future developments, which are highly uncertain and cannot be precisely predicted at this time.

Sources and Uses of Cash

Cash flows for the three months ended March 31, 2020 compared to the prior year were as follows (in thousands):

	Three Months Ended March 31,			
	2020	2019	Change \$	Change %
Net cash (used in) provided by operating activities - Continuing operations	\$ (20,296)	\$ 4,325	\$ (24,621)	(569)%
Net cash provided by investing activities	48,627	10,599	38,028	359 %
Net cash used in financing activities	(292,192)	(63,577)	(228,615)	360 %
Net cash used in operating activities - Discontinued operations	(406)	—	(406)	N/a
Effect of exchange rate changes on cash and cash equivalents	(933)	(120)	(813)	678 %
Net decrease in cash and cash equivalents	\$ (265,200)	\$ (48,773)	\$ (216,427)	444 %

For the three months ended March 31, 2020, operating cash flow decreased \$24.6 million. The decrease was primarily due to payments for Merger, separation and transformation costs, the timing of collections on Accounts receivable, net and a decrease in cash collections in advance of revenue being recognized. We expect to make material cash payments for restructuring actions and Merger, separation and transformation costs through 2020. The availability of cash generated by our operations in the future could be adversely affected by business risks including, but not limited to, the Risk Factors described in in [Part II, Item 1A](#), of this Quarterly Report on Form 10-Q and [Part 1, Item 1A](#), of our Annual Report on Form 10-K for the year ended December 31, 2019, which are incorporated by reference herein.

For the three months ended March 31, 2020, investing cash flow increased \$38.0 million. Net proceeds from marketable security investment transactions increased by \$32.2 million compared to the prior year. The proceeds from the investment transactions were primarily used to repay the 2020 Convertible Notes at their maturity. In addition, investing cash

flow benefited from the use of \$4.3 million of cash to acquire patent portfolios during the three months ended March 31, 2019. We expect 2020 full year capital expenditures of approximately \$20 million to \$25 million for infrastructure projects designed to support anticipated growth in our business, to strengthen our operations infrastructure and to complete the 2019 Transformation Plan.

Financing cash flow for the three months ended March 31, 2020 reflects the repayment of \$295.0 million of outstanding principal of the Company's 2020 Convertible Notes at their maturity and a \$1.8 million principal payment on the 2019 Term Loan Facility. Net cash used in financing activities for the three months ended March 31, 2020 reflects a decrease of \$0.8 million in tax withholding payments from the net share settlement of restricted awards, partially offset by a decrease in cash receipts of \$1.7 million from sales of stock through our employee stock purchase plan. Financing cash flow for the three months ended March 31, 2019 reflects a \$46.6 million principal payment on Term Loan Facility B. Net cash used in financing activities for the three months ended March 31, 2019 reflects a dividend payment of \$0.18 per share, resulting in an aggregate cash payment of \$22.5 million.

On February 14, 2017, TiVo Corporation's Board of Directors approved an increase to the stock repurchase program authorization to \$150.0 million, which remains available as of March 31, 2020. The February 2017 authorization includes amounts which were outstanding under previously authorized share repurchase programs. The February 2017 authorization is subject to restrictions included in the Xperi Merger Agreement, and we do not intend to make purchases under the February 2017 authorization during the pendency thereof.

Capital Resources

The outstanding principal and carrying amount of debt we issued or assumed was as follows (in thousands):

	March 31, 2020		December 31, 2019	
	Outstanding Principal	Carrying Amount	Outstanding Principal	Carrying Amount
2020 Convertible Notes	\$ —	\$ —	\$ 295,000	\$ 292,699
2021 Convertible Notes	48	48	48	48
2019 Term Loan Facility	713,210	692,269	715,000	692,792
Total	\$ 713,258	\$ 692,317	\$ 1,010,048	\$ 985,539

For more information on our borrowings, see Note 7 to the Condensed Consolidated Financial Statements included in [Part I, Item 1](#), of this Quarterly Report on Form 10-Q, which is incorporated by reference herein. Our ability to make payments on our indebtedness depends on our financial and operating performance, which is subject to prevailing economic and competitive conditions. If our cash flows and capital resources are insufficient to service our debt obligations, we may be forced to reduce or delay investments and capital expenditures, or to sell assets, seek additional capital or restructure or refinance our indebtedness. For additional information about liquidity risk, see the Risk Factors described in [Part II, Item 1A](#), of this Quarterly Report on Form 10-Q, which are incorporated by reference herein.

2020 Convertible Notes

Rovi Corporation issued \$345.0 million in aggregate principal of 0.500% Convertible Notes that mature on March 1, 2020 at par pursuant to an Indenture dated March 4, 2015 (the "2015 Indenture"). In June 2019, the Company repurchased \$50.0 million of outstanding principal of the 2020 Convertible Notes. The Company repaid the outstanding principal of \$295.0 million at maturity of the 2020 Convertible Notes on March 1, 2020.

2021 Convertible Notes

TiVo Solutions issued \$230.0 million in aggregate principal of 2.0% Convertible Senior Notes that mature October 1, 2021 (the "2021 Convertible Notes") at par pursuant to an Indenture dated September 22, 2014 ("the 2014 Indenture"). On October 12, 2016, TiVo Solutions repaid \$229.95 million of the par value of the 2021 Convertible Notes.

The 2021 Convertible Notes were convertible at an initial conversion rate of 56.1073 shares of TiVo Solutions common stock per \$1,000 principal of notes, which was equivalent to an initial conversion price of \$17.8230 per share of TiVo Solutions common stock. The conversion rate and conversion price are subject to adjustment pursuant to the 2014 Indenture, including as a result of dividends paid by TiVo Corporation. As of March 31, 2020, the 2021 Convertible Notes are convertible

at a conversion rate of 24.8196 shares of TiVo Corporation common stock per \$1,000 principal of notes and \$154.30 per \$1,000 principal of notes, which is equivalent to a conversion price of \$34.0738 per share of TiVo Corporation common stock.

TiVo Solutions can settle the 2021 Convertible Notes in cash, shares of common stock, or any combination thereof pursuant to the 2014 Indenture. Subject to certain exceptions, holders may require TiVo Solutions to repurchase, for cash, all or part of their 2021 Convertible Notes upon a “Fundamental Change” (as defined in the 2014 Indenture) at a price equal to 100% of the principal amount of the 2021 Convertible Notes being repurchased plus any accrued and unpaid interest up to, but excluding, the “Fundamental Change Repurchase Date” (as defined in the 2014 Indenture). In addition, on a “Make-Whole Fundamental Change” (as defined in the 2014 Indenture) prior to the maturity date of the 2021 Convertible Notes, TiVo Solutions will, in some cases, increase the conversion rate for a holder that elects to convert its 2021 Convertible Notes in connection with such Make-Whole Fundamental Change.

2019 Term Loan Facility and Revolving Loan Credit Agreement

On November 22, 2019, the Company, as borrower, and certain of the Company’s subsidiaries, as guarantors (together with the Company, collectively, the “Loan Parties”), entered into (i) a Credit and Guaranty Agreement (the “2019 Term Loan Facility”), with the lenders party thereto and HPS Investment Partners, LLC, as administrative agent and collateral agent and (ii) an ABL Credit and Guaranty Agreement (the “Revolving Loan Credit Agreement” and, together with the 2019 Term Loan Facility, the “2019 Credit Agreements”), with the lenders party thereto, Morgan Stanley Senior Funding, Inc., as administrative agent and collateral agent and Wells Fargo Bank, National Association, as co-collateral agent.

Under the 2019 Term Loan Facility, the Company borrowed \$715.0 million, which matures on November 22, 2024. Loans under the 2019 Term Loan Facility bear interest, at the Company's option, at an interest rate equal to either (a) the London Interbank Offered Rate (“LIBOR”), plus (i) if TiVo’s Total Leverage Ratio (as defined in the 2019 Term Loan Facility) is greater than or equal to 3.50:1.00, 5.75%, (ii) if TiVo’s Total Leverage Ratio is greater than or equal to 3.00:1.00 but less than 3.50:1.00, 5.50%, or (iii) if TiVo’s Total Leverage Ratio is less than 3.00:1.00, 5.25%, in each case, subject to a 1.00% LIBOR floor or (b) the Base Rate (as defined in the 2019 Term Loan Facility), (i) if TiVo’s Total Leverage Ratio is greater than or equal to 3.50:1.00, 4.75%, (ii) if TiVo’s Total Leverage Ratio is greater than or equal to 3.00:1.00 but less than 3.50:1.00, 4.50%, or (iii) if TiVo’s Total Leverage Ratio is less than 3.00:1.00, 4.25%, in each case, subject to a 2.00% Base Rate floor.

TiVo may voluntarily prepay the 2019 Term Loan Facility at any time subject to (i) a 3.00% prepayment premium if the loans are prepaid on or prior to November 22, 2020 and (ii) a 2.00% prepayment premium if the loans are prepaid on or prior to November 22, 2021. TiVo is required to make mandatory prepayments with (i) net cash proceeds from certain asset sales, (ii) net insurance or condemnation proceeds, (iii) net cash proceeds from issuances of debt (other than permitted debt), (iv) beginning with the fiscal year ending December 31, 2020, 50% of TiVo’s Consolidated Excess Cash Flow (as defined in the 2019 Term Loan Facility), (v) extraordinary receipts and (vi) certain net litigation proceeds, in each case, subject to certain exceptions. In the event the Xperi Combination is completed on or prior to November 22, 2020, TiVo would be required to repay the then-outstanding principal of the 2019 Term Loan Facility at par plus a 3.00% prepayment premium.

On March 31, 2020, TiVo was required to make a payment equal to 0.25% of the original principal amount of the 2019 Term Loan Facility. Thereafter, quarterly installments in an amount equal to 2.50% of the original principal amount of the 2019 Term Loan Facility are due, with any remaining balance payable on the final maturity date of the 2019 Term Loan Facility.

The Company also entered into a \$60.0 million Revolving Loan Credit Facility as part of the 2019 Credit Agreements, which expires on March 31, 2021. Availability of the Revolving Loan Credit Facility is based upon a borrowing base formula and periodic borrowing base certifications valuing certain of the Loan Parties’ accounts receivable as reduced by certain reserves, if any. There were no amounts outstanding under the Revolving Loan Credit Facility at any time during the three months ended March 31, 2020 or the year ended December 31, 2019. Loans under the Revolving Loan Credit Facility bear interest, at TiVo’s option, at a rate equal to either (a) LIBOR, plus (i) if the average daily Specified Excess Availability (as defined in the Revolving Loan Credit Agreement) is greater than 66.67%, 1.50%, (ii) if the average daily Specified Excess Availability is greater than 33.33% but less than or equal to 66.66%, 1.75%, or (iii) if the average daily Specified Excess Availability is less than or equal to 33.33%, 2.00%, in each case, subject to a 0.00% LIBOR floor or (b) the Base Rate (as defined in the Revolving Loan Credit Agreement), (i) if the average daily Specified Excess Availability is greater than 66.67%, 0.50%, (ii) if the average daily Specified Excess Availability is greater than 33.33% but less than or equal to 66.66%, 0.75%, or (iii) if the average daily Specified Excess Availability is less than or equal to 33.33%, 1.00%, in each case, subject to a 1.00% Base Rate floor.

Revolving loans may be borrowed, repaid and re-borrowed until March 31, 2021, when all outstanding amounts must be repaid.

The 2019 Credit Agreements contain customary representations and warranties and customary affirmative and negative covenants applicable to the Company and its subsidiaries, including, among other things, restrictions on indebtedness, liens, investments, mergers, dispositions, prepayment of other indebtedness, and dividends and other distributions. The 2019 Credit Agreements are secured by substantially all of the Company's assets.

Financing for the Xperi Combination

In connection with the execution of the Xperi Merger Agreement, TiVo and Xperi obtained a debt commitment letter (the "Commitment Letter"), dated December 18, 2019, with Bank of America, N.A. ("Bank of America"), BofA Securities, Inc. and Royal Bank of Canada ("Royal Bank"), pursuant to which, Bank of America and Royal Bank have committed to provide a senior secured first lien term loan B facility in an aggregate principal amount of \$1,100 million (the "Debt Financing"). On January 3, 2020, TiVo, Xperi, Bank of America, Royal Bank and Barclays Bank PLC ("Barclays") entered into a supplement to the Commitment Letter to add Barclays as an additional initial lender and an additional joint lead arranger and joint bookrunner and to reallocate a portion of the debt commitments of Bank of America and Royal Bank under the Commitment Letter to Barclays. The proceeds from the Debt Financing may be used (i) to pay fees and expenses incurred in connection with the Merger and the related transactions, (ii) to finance the refinancing of certain existing indebtedness of TiVo and Xperi, and (iii) to the extent of any remaining amounts, for working capital and other general corporate purposes.

Critical Accounting Policies and Estimates

The preparation of our Condensed Consolidated Financial Statements in accordance with accounting principles generally accepted in the U.S. requires management to make estimates, assumptions and judgments that affect the amounts reported in the financial statements and accompanying notes. Our estimates, assumptions and judgments are based on historical experience and various other assumptions believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying amount of assets and liabilities that are not readily apparent from other sources. Making estimates, assumptions and judgments about future events is inherently unpredictable and is subject to significant uncertainties, some of which are beyond our control. Management believes the estimates, assumptions and judgments employed and resulting balances reported in the Condensed Consolidated Financial Statements are reasonable; however, actual results could differ materially.

Except as described below, there have been no significant changes to our critical accounting policies and estimates as compared to those disclosed in "Critical Accounting Policies and Estimates" in [Part II, Item 7](#) of our Annual Report on Form 10-K for the year ended December 31, 2019, which is incorporated by reference herein.

Goodwill

Goodwill represents the excess of cost over fair value of the net assets of an acquired business. The recoverability of goodwill is assessed at the reporting unit level, which is either the operating segment or one level below. Goodwill is evaluated for potential impairment annually, as of the beginning of the fourth quarter, and whenever events or changes in circumstances indicate its carrying amount may not be recoverable.

Qualitative factors are first assessed to determine whether events or changes in circumstances indicate it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount.

Qualitative factors which could trigger a quantitative impairment test, include, but are not limited to a:

- significant deterioration in general economic, industry or market conditions;
- significant adverse development in cost factors;
- significant deterioration in actual or expected financial performance or operating results;
- significant adverse changes in legal factors or in the business climate, including adverse regulatory actions or assessments; and
- significant sustained decrease in share price.

If, based on the qualitative assessment, it is considered more-likely-than-not that the fair value of a reporting unit is less than its carrying amount, then a quantitative impairment test is performed. In the quantitative impairment test, the fair value of each reporting unit is compared to its carrying amount. The fair value of the Product reporting unit and the Intellectual Property Licensing reporting unit is estimated using an income approach. Under the income approach, the fair value of a reporting unit is estimated based on the present value of future cash flows and considers projected revenue growth rates, future operating margins, income tax rates and economic and market conditions, as well as risk-adjusted discount rates. The carrying

amount of a reporting unit is determined by assigning assets and liabilities, including goodwill and intangible assets, to the reporting unit. If the fair value of a reporting unit exceeds its carrying amount, goodwill is not impaired. If the fair value of a reporting unit is less than its carrying amount, an impairment loss equal to the difference is recognized.

The process of evaluating goodwill for potential impairment is subjective and requires significant estimates, assumptions and judgments particularly related to the identification of reporting units, the assignment of assets and liabilities to reporting units and estimating the fair value of each reporting unit.

Due to significant and sustained decline in the trading price of TiVo's common stock during the three months ended March 31, 2020, management concluded sufficient indicators of potential impairment were identified and that it was more-likely-than-not that goodwill was impaired and that a quantitative impairment test should be performed as of March 31, 2020 for the Product and Intellectual Property Licensing reporting units. Although the long-range forecasts for the Product and Intellectual Property Licensing reporting units did not materially change from those used in performing the quantitative impairment test as of December 31, 2019, the fair value decreased due to the significant and sustained decline in the trading price of TiVo's common stock. Based on this decline in fair value, a Goodwill impairment charge of \$171.6 million was recognized during the three months ended March 31, 2020, of which \$76.1 million related to the Product reporting unit and \$95.5 million related to the Intellectual Property Licensing reporting unit.

Following the recognition of the Goodwill impairment charge, the equity fair value of the Product reporting unit equaled its carrying amount of \$351.5 million and the equity fair value of the Intellectual Property Licensing reporting unit equaled its carrying amount of \$551.0 million, which is net of the Company's debt. A deterioration in conditions or circumstances similar to those described above may result in additional goodwill impairment charges for the Product or Intellectual Property Licensing reporting units in the future. In addition, if we fail to renew licenses, or renew licenses with materially different terms than those assumed, if there is an adverse outcome with respect to patent infringement claims we have asserted against Comcast, an impairment of goodwill for the Intellectual Property Licensing reporting unit could result, the effect of which could be material.

Contractual Obligations

For information about our contractual obligations, see "Contractual Obligations" in [Part II, Item 7](#), of our Annual Report on Form 10-K for the year ended December 31, 2019, which is incorporated by reference herein. Other than the maturity of \$295.0 million of the Company's 2020 Convertible Notes in March 2020 and \$6.4 million of new inventory purchase commitments, our contractual obligations have not changed materially since December 31, 2019.

Off-Balance Sheet Arrangements

For information about our off-balance sheet arrangements, see "Off-Balance Sheet Arrangements" in [Part II, Item 7](#), of our Annual Report on Form 10-K for the year ended December 31, 2019, which is incorporated by reference herein. Since December 31, 2019, we have not engaged in any material off-balance sheet arrangements, including the use of structured finance vehicles, special purpose entities or variable interest entities.

Recent Accounting Pronouncements

For a summary of applicable recent accounting pronouncements, see Note 1 to the Condensed Consolidated Financial Statements included in [Part I, Item 1](#), of this Quarterly Report on Form 10-Q, which is incorporated by reference herein.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

In the normal course of business, we are exposed to market risks, including those related to changes in interest rates, foreign currency exchange rates and security prices that could affect our financial position, results of operations or cash flows. For quantitative and qualitative disclosures about market risk, see [Part II, Item 7A](#) of our Annual Report on Form 10-K for the year ended December 31, 2019, which is incorporated by reference herein. Other than as a result of the disposition of our short- and long-term marketable securities during the three months ended March 31, 2020, our exposure to market risk has not changed materially since December 31, 2019.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

As of the end of the period covered by this report, we carried out an evaluation, under the supervision and with participation of management, including our Chief Executive Officer and our Chief Financial Officer, 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). In 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 necessarily is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on their evaluation, our Chief Executive Officer and our Chief Financial Officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this report.

Changes in Internal Control Over Financial Reporting

We believe there have been no changes to our internal controls over financial reporting during the quarter ended March 31, 2020, that have materially affected, or are reasonably likely to materially affect, our internal controls over financial reporting.

PART II.

ITEM 1. LEGAL PROCEEDINGS

Information with respect to this item is contained in Note 9 to the Condensed Consolidated Financial Statements included in [Part I](#) of this Quarterly Report on Form 10-Q, which is incorporated by reference herein.

ITEM 1A. RISK FACTORS

Other than described below, management believes that there have been no significant changes to the risk factors associated with our business as compared to those disclosed in [Part 1, Item 1A](#), of our Annual Report on Form 10-K for the year ended December 31, 2019, which is incorporated by reference herein.

The effects of health epidemics, including the recent global coronavirus pandemic, have led to periods of significant volatility in various markets and industries and could harm the Company's business and results of operations.

The Company's business and results of operations could be adversely affected by health epidemics, including the recent coronavirus pandemic. In December 2019, a novel strain of coronavirus, SARS-CoV-2, or COVID-19, was reported to have surfaced in Wuhan, China. Since then, coronavirus has spread to many countries worldwide, including the United States. In March 2020, the World Health Organization declared the coronavirus to be a pandemic. Given the ongoing and dynamic nature of the circumstances, it is difficult to predict the impact of the coronavirus outbreak on the Company's business, and there is no guarantee that efforts by the Company to address the adverse impacts of the coronavirus will be effective. The impact to date has included periods of significant volatility in various markets and industries. This volatility could have an adverse impact on the Company's customers and on the companies' business, financial condition and results of operations, including impairment of our long-lived assets, including goodwill, increased credit losses and impairments of investments in other companies. In particular, industries that include customers of the Company have and may continue to be impacted by the coronavirus outbreak and/or other events beyond the control of the Company, and further volatility could have an additional negative impact on these industries, customers, and the Company. In addition, recent actions by United States federal, state and foreign governments to address the coronavirus outbreak, including travel bans and school, business and entertainment venue closures, may also have a significant adverse effect on the markets in which the Company conducts its business. The extent of impacts resulting from the coronavirus outbreak and other events beyond the Company's control will depend on future developments, which are highly uncertain and cannot be predicted, including new information which may emerge concerning the severity of the coronavirus outbreak and actions taken to contain the coronavirus or its impact, among others.

In addition, the coronavirus outbreak could result in business disruption to the Company, and if the Company is unable to recover from such a business disruption on a timely basis, the Company's business and financial conditions and results of operations would be adversely affected. The Company may also incur additional costs to remedy damages caused by such disruptions, which could adversely affect its financial condition and results of operations. For example, COVID-19 poses the risk that the Company or its workforce, suppliers, and other partners may be prevented from conducting business activities for an indefinite period of time, including due to shutdowns that may be requested or mandated by governmental authorities. The COVID-19 pandemic has recently had adverse impacts on many aspects of the Company's operations, directly and indirectly, including its workforce, consumer behavior, distribution, its suppliers and the market generally. In March 2020, the Company announced its workforce would work remotely as a result of the pandemic as it reviewed its processes related to workplace safety, including social distancing and sanitation practices recommended by the Centers for Disease Control and Prevention. The impacts of the COVID-19 pandemic could also cause delays in obtaining new customers and executing renewals and could also impact the Company's consumer business, including sales of TiVo Stream 4K which was recently launched.

There can be no assurance that the global coronavirus pandemic will not have a material and adverse impact on the Company's business, operating results and financial condition. Even after the coronavirus outbreak has subsided, the Company may continue to experience material and adverse impact on its business, operating results and financial condition as a result of its global economic impact, including any recession that has occurred or may occur in the future. The ultimate impact of the coronavirus pandemic or a similar health epidemic is highly uncertain and subject to change. The Company does not yet know the full extent of potential delays or impacts on its business, operations or the global economy as a whole. Future impacts of COVID-19 may require further actions by the Company to improve its cash position, including but not limited to, implementing employee furloughs and foregoing capital expenditures and other discretionary expenses.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS**Issuer Purchases of Equity Securities**

We may choose to repurchase shares under our ongoing repurchase program when sufficient liquidity exists, the shares are trading at a discount relative to estimated intrinsic value and there are no alternative investment opportunities expected to generate a higher risk-adjusted return on investment, subject to restrictions in the 2019 Term Loan Facility and the Xperi Merger Agreement.

The following table provides information about the Company's purchases of its common stock during the three months ended March 31, 2020 (in thousands, except per share amounts):

Period	Total Number of Shares Purchased (1)	Average Price Paid Per Share (1)	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (1)	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs (2)
January 2020	—	\$ —	—	\$ 150,000
February 2020	—	\$ —	—	\$ 150,000
March 2020	—	\$ —	—	\$ 150,000
Total	—	\$ —	—	—

- (1) Excludes shares withheld to satisfy minimum statutory tax withholding requirements in connection with the net share settlement of restricted awards on vesting. During the three months ended March 31, 2020, we withheld 0.1 million shares of common stock to satisfy \$0.6 million of required withholding taxes.
- (2) On February 14, 2017, TiVo Corporation's Board of Directors approved an increase to its common stock repurchase program authorization to \$150.0 million. The February 2017 authorization includes amounts which were outstanding under previously authorized share repurchase programs. The February 2017 authorization is subject to restrictions included in the Xperi Merger Agreement, and we do not intend to make purchases under the February 2017 authorization during the pendency thereof.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Company Form+	Filing Date	Exhibit Number	
2.1	Amendment No. 1 to the Agreement and Plan of Merger and Reorganization, dated January 31, 2020, by and among, Xperi Corporation, TiVo Corporation, XRAY-TWOLF HoldCo Corporation, XRAY Merger Sub Corporation and TWOLF Merger Sub Corporation	8-K	2/3/2020	2.1	
3.1	Amended and Restated Certificate of Incorporation of Titan Technologies Corporation (now known as TiVo Corporation) filed with the Secretary of State of the State of Delaware on September 7, 2016	8-K	9/8/2016	3.1	
3.2	Certificate of Designation of Series A Junior Participating Preferred Stock of TiVo Corporation, filed with the Secretary of State of Delaware on December 20, 2019	8-K	12/24/2019	3.1	
3.3	Amended and Restated Bylaws of TiVo Corporation	8-K	5/30/2019	3.1	
10.1	Supplement to Commitment Letter and Fee letter, dated as of January 3, 2020, by and among TiVo Corporation, Xperi Corporation, Bank of America, N.A., BofA Securities, Inc., Royal Bank of Canada and Barclays Bank PLC.	8-K	1/7/2020	10.1	
31.01	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				X
31.02	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				X
32.01	Certification of Chief Executive Officer pursuant to Section 1350 of the Sarbanes-Oxley Act of 2002				*
32.02	Certification of Chief Financial Officer pursuant to Section 1350 of the Sarbanes-Oxley Act of 2002				*
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document				X
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document				X
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document				X
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document				X
101.SCH	Inline XBRL Taxonomy Extension Schema Document				X
104	Cover Page Interactive Data File				**

* Furnished herewith.

** Included in Interactive Data File covered by Exhibit 101.

Signatures

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

TIVO CORPORATION

Authorized Officer:

Date:

May 6, 2020

By: /s/ David Shull

David Shull

President and Chief Executive Officer

Principal Financial and Accounting Officer:

Date:

May 6, 2020

By: /s/ Wesley Gutierrez

Wesley Gutierrez

Chief Financial Officer

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Section 2: EX-31.01 (EXHIBIT 31.01)

Exhibit 31.01

CERTIFICATION

I, David Shull, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of TiVo 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 function):

- 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: May 6, 2020

/s/ David Shull

David Shull

President and Chief Executive Officer

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Section 3: EX-31.02 (EXHIBIT 31.02)

Exhibit 31.02

CERTIFICATION

I, Wesley Gutierrez, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of TiVo 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 function):
 - 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: May 6, 2020

/s/ Wesley Gutierrez

Wesley Gutierrez

Chief Financial Officer

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Section 4: EX-32.01 (EXHIBIT 32.01)

Exhibit 32.01

SECTION 1350 CERTIFICATION

In connection with the Quarterly Report of TiVo Corporation (the “Company”) on Form 10-Q for the period ended March 31, 2020, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), David Shull certifies in his capacity as Chief Executive Officer of the Company, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350, as adopted), that to the best of his knowledge:

- (a) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a) or 78o(d)), and
- (b) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operation of the Company.

IN WITNESS WHEREOF, the undersigned has hereunto signed this Certification as of May 6, 2020.

/s/ David Shull

David Shull

President and Chief Executive Officer

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Section 5: EX-32.02 (EXHIBIT 32.02)

Exhibit 32.02

SECTION 1350 CERTIFICATION

In connection with the Quarterly Report of TiVo Corporation (the “Company”) on Form 10-Q for the period ended March 31, 2020, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), Wesley Gutierrez certifies in his capacity as Chief Financial Officer of the Company, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350, as adopted), that to the best of his knowledge:

- (a) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a) or 78o(d)), and
- (b) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operation of the Company.

IN WITNESS WHEREOF, the undersigned has hereunto signed this Certification as of May 6, 2020.

/s/ Wesley Gutierrez

Wesley Gutierrez

Chief Financial Officer

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