

UNIVERSAL DISPLAY CORP \PA\  
Form 10-Q  
May 08, 2014  
Table of Contents

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, 2014

OR

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number 1-12031

UNIVERSAL DISPLAY CORPORATION  
(Exact name of registrant as specified in its charter)  
Pennsylvania  
(State or other jurisdiction of incorporation or organization)

23-2372688  
(I.R.S. Employer Identification No.)

375 Phillips Boulevard, Ewing, New Jersey 08618  
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (609) 671-0980

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  No

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

Large accelerated filer  Accelerated filer  
Non-accelerated filer (Do not check if a smaller reporting company)  Smaller reporting company

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

As of May 5, 2014, the registrant had outstanding 46,493,987 shares of common stock.

---

Table of Contents

TABLE OF CONTENTS

PART I – FINANCIAL INFORMATION

Item 1. Financial Statements (unaudited)

<u>Consolidated Balance Sheets – March 31, 2014 and December 31, 2013</u>	<u>1</u>
<u>Consolidated Statements of Operations – Three months ended March 31, 2014 and 2013</u>	<u>2</u>
<u>Consolidated Statements of Comprehensive Income (Loss) – Three months ended March 31, 2014 and 2013</u>	<u>3</u>
<u>Consolidated Statement of Shareholders' Equity – Three months ended March 31, 2014</u>	<u>4</u>
<u>Consolidated Statements of Cash Flows – Three months ended March 31, 2014 and 2013</u>	<u>5</u>
<u>Notes to Consolidated Financial Statements</u>	<u>6</u>
<u>Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	<u>20</u>
<u>Item 3. Quantitative and Qualitative Disclosures About Market Risk</u>	<u>25</u>
<u>Item 4. Controls and Procedures</u>	<u>26</u>

PART II – OTHER INFORMATION

<u>Item 1. Legal Proceedings</u>	<u>26</u>
<u>Item 1A. Risk Factors</u>	<u>29</u>
<u>Item 2. Unregistered Sales of Equity Securities and Use of Proceeds</u>	<u>29</u>
<u>Item 3. Defaults Upon Senior Securities</u>	<u>29</u>
<u>Item 4. Mine Safety Disclosures</u>	<u>29</u>
<u>Item 5. Other Information</u>	<u>29</u>
<u>Item 6. Exhibits</u>	<u>29</u>

---

Table of Contents

## PART I – FINANCIAL INFORMATION

## ITEM 1. FINANCIAL STATEMENTS

## UNIVERSAL DISPLAY CORPORATION AND SUBSIDIARIES

## CONSOLIDATED BALANCE SHEETS

(UNAUDITED)

(in thousands, except share and per share data)

	March 31, 2014	December 31, 2013
<b>ASSETS</b>		
<b>CURRENT ASSETS:</b>		
Cash and cash equivalents	\$35,931	\$70,586
Short-term investments	230,990	202,024
Accounts receivable	24,508	15,657
Inventory	14,592	10,595
Deferred income taxes	20,558	21,563
Other current assets	11,150	6,623
Total current assets	337,729	327,048
PROPERTY AND EQUIPMENT, net of accumulated depreciation of \$23,251 and \$22,756	15,004	14,893
ACQUIRED TECHNOLOGY, net of accumulated amortization of \$35,591 and \$32,841	91,261	94,011
INVESTMENTS	3,051	7,417
DEFERRED INCOME TAXES	18,309	19,143
OTHER ASSETS	602	242
<b>TOTAL ASSETS</b>	<b>\$465,956</b>	<b>\$462,754</b>
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
<b>CURRENT LIABILITIES:</b>		
Accounts payable	\$8,368	\$5,256
Accrued expenses	6,956	16,039
Deferred revenue	3,375	1,910
Other current liabilities	1,041	24
Total current liabilities	19,740	23,229
DEFERRED REVENUE	3,503	2,403
RETIREMENT PLAN BENEFIT LIABILITY	9,709	9,436
Total liabilities	32,952	35,068
<b>COMMITMENTS AND CONTINGENCIES (Note 12)</b>		
<b>SHAREHOLDERS' EQUITY:</b>		
Preferred Stock, par value \$0.01 per share, 5,000,000 shares authorized, 200,000 shares of Series A Nonconvertible Preferred Stock issued and outstanding (liquidation value of \$7.50 per share or \$1,500)	2	2
Common Stock, par value \$0.01 per share, 100,000,000 shares authorized, 46,889,496 and 46,825,168 shares issued and outstanding at March 31, 2014 and December 31, 2013, respectively	469	468
Additional paid-in capital	573,574	572,401
Accumulated deficit	(126,137)	(130,159)
Accumulated other comprehensive loss	(4,246)	(4,368)
	(10,658)	(10,658)

Treasury stock, at cost (401,501 shares at March 31, 2014 and December 31, 2013, respectively)

Total shareholders' equity	433,004	427,686
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	\$465,956	\$462,754

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

1

---

Table of ContentsUNIVERSAL DISPLAY CORPORATION AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF OPERATIONS  
(UNAUDITED)

(in thousands, except share and per share data)

	Three Months Ended March 31,	
	2014	2013
REVENUE:		
Material sales	\$35,327	\$12,752
Royalty and license fees	1,779	1,299
Technology development and support revenue	733	925
Total revenue	37,839	14,976
OPERATING EXPENSES:		
Cost of material sales	9,897	3,092
Research and development	10,156	8,938
Selling, general and administrative	6,430	5,171
Patent costs and amortization of acquired technology	3,972	4,617
Royalty and license expense	756	312
Total operating expenses	31,211	22,130
Operating income (loss)	6,628	(7,154)
INTEREST INCOME	218	210
INTEREST EXPENSE	(17)	(8)
INCOME (LOSS) BEFORE INCOME TAXES	6,829	(6,952)
INCOME TAX (EXPENSE) BENEFIT	(2,807)	2,194
NET INCOME (LOSS)	\$4,022	\$(4,758)
NET INCOME (LOSS) PER COMMON SHARE:		
BASIC	\$0.09	\$(0.10)
DILUTED	\$0.09	\$(0.10)
WEIGHTED AVERAGE SHARES USED IN COMPUTING NET INCOME (LOSS) PER COMMON SHARE:		
BASIC	46,177,661	45,823,414
DILUTED	46,651,438	45,823,414

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

Table of Contents

UNIVERSAL DISPLAY CORPORATION AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)  
(UNAUDITED)  
(in thousands)

	Three Months Ended March 31,	
	2014	2013
NET INCOME (LOSS)	\$4,022	\$(4,758 )
OTHER COMPREHENSIVE INCOME (LOSS), NET OF TAX:		
Unrealized gain (loss) on available-for-sale securities, net of tax of \$15 and none, respectively	28	(3 )
Employee benefit plan:		
Actuarial gain on retirement plan, net of tax of none for both periods	—	23
Amortization of prior service cost and actuarial loss for retirement plan included in net periodic pension costs, net of tax of \$52 and none, respectively	94	146
Net change for employee benefit plan	94	169
TOTAL OTHER COMPREHENSIVE INCOME	122	166
COMPREHENSIVE INCOME (LOSS)	\$4,144	\$(4,592 )

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

Table of Contents

UNIVERSAL DISPLAY CORPORATION AND SUBSIDIARIES  
 CONSOLIDATED STATEMENT OF SHAREHOLDERS' EQUITY  
 (UNAUDITED)

(in thousands, except for share data)

	Series A Nonconvertible Preferred Stock Shares	Amount	Common Stock Shares	Amount	Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Treasury Stock Shares	Amount	Total Shareholders' Equity
BALANCE, DECEMBER 31, 2013	200,000	\$2	46,825,168	\$468	\$572,401	\$(130,159)	\$(4,368)	401,501	\$(10,658)	\$427,686
Net income	—	—	—	—	—	4,022	—	—	—	4,022
Other comprehensive income	—	—	—	—	—	—	122	—	—	122
Exercise of common stock options	—	—	38,097	1	615	—	—	—	—	616
Stock-based employee compensation, net of shares withheld for employee taxes	—	—	2,333	—	(54)	—	—	—	—	(54)
Issuance of common stock to Board of Directors and Scientific Advisory Board	—	—	20,734	—	526	—	—	—	—	526
Issuance of common stock to employees under an ESPP	—	—	3,164	—	86	—	—	—	—	86
BALANCE, MARCH 31, 2014	200,000	\$2	46,889,496	\$469	\$573,574	\$(126,137)	\$(4,246)	401,501	\$(10,658)	\$433,004

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



Table of Contents

UNIVERSAL DISPLAY CORPORATION AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF CASH FLOWS  
(UNAUDITED)  
(in thousands)

	Three Months Ended March 31,	
	2014	2013
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>		
Net income	\$4,022	\$(4,758)
Adjustments to reconcile net income to net cash provided by operating activities:		
Amortization of deferred revenue	(1,127)	(678)
Depreciation	501	509
Amortization of intangibles	2,750	2,742
Amortization of premium and discount on investments, net	(136)	(116)
Stock-based employee compensation	1,899	1,174
Stock-based compensation to Board of Directors and Scientific Advisory Board	203	224
Deferred income tax benefit	1,773	—
Retirement plan benefit expense	419	417
(Increase) decrease in assets:		
Accounts receivable	(8,851)	(1,870)
Inventory	(3,997)	1,936
Other current assets	(4,887)	(3,703)
Other assets	—	18
Increase (decrease) in liabilities:		
Accounts payable and accrued expenses	(4,598)	(6,837)
Other current liabilities	1,017	—
Deferred revenue	3,692	44
Net cash used in operating activities	(7,320)	(10,898)
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>		
Purchases of property and equipment	(917)	(549)
Additions to intangibles	—	(69)
Purchases of investments	(127,244)	(102,142)
Proceeds from sale of investments	102,823	81,364
Net cash used in investing activities	(25,338)	(21,396)
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>		
Proceeds from issuance of common stock	86	93
Repurchase of common stock	—	(5,456)
Proceeds from the exercise of common stock options and warrants	616	66
Payment of withholding taxes related to stock-based employee compensation	(2,699)	(2,796)
Net cash used in financing activities	(1,997)	(8,093)
<b>DECREASE IN CASH AND CASH EQUIVALENTS</b>	<b>(34,655)</b>	<b>(40,387)</b>
<b>CASH AND CASH EQUIVALENTS, BEGINNING OF PERIOD</b>	<b>70,586</b>	<b>85,923</b>
<b>CASH AND CASH EQUIVALENTS, END OF PERIOD</b>	<b>\$35,931</b>	<b>\$45,536</b>
The following non-cash activities occurred:		
Unrealized loss on available-for-sale securities	\$43	\$(3)
Common stock issued to Board of Directors and Scientific Advisory Board that was earned in a previous period	323	300
Common stock issued to employees that was accrued for in a previous period, net of shares withheld for taxes	475	282

Net change in accounts payable and accrued expenses related to purchases of property and equipment (305 ) 909

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

5

---

Table of Contents

UNIVERSAL DISPLAY CORPORATION AND SUBSIDIARIES  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
(UNAUDITED)

1. BUSINESS:

Universal Display Corporation (the Company) is a leader in the research, development and commercialization of organic light emitting diode (OLED) technologies and materials. OLEDs are thin, lightweight and power-efficient solid-state devices that emit light, making them highly suitable for use in full-color displays and as lighting products. OLED displays are capturing a growing share of the flat panel display market. The Company believes this is because OLEDs offer potential advantages over competing display technologies with respect to power efficiency, contrast ratio, viewing angle, video response time, form factor and manufacturing cost. The Company also believes that OLED lighting products have the potential to replace many existing light sources in the future because of their high power efficiency, excellent color rendering index, low operating temperature and novel form factor. The Company's technology leadership and intellectual property position should enable it to share in the revenues from OLED displays and lighting products as they enter mainstream consumer and other markets.

The Company's primary business strategy is to (1) further develop and license its proprietary OLED technologies to manufacturers of products for display applications, such as cell phones, portable media devices, tablets, laptop computers and televisions, and specialty and general lighting products; and (2) develop new OLED materials and sell the materials to those product manufacturers. Through the Company's internal research and development efforts, its relationships with world-class partners such as Princeton University (Princeton), the University of Southern California (USC), the University of Michigan (Michigan) and PPG Industries, Inc. (PPG Industries), and acquisitions of patents and patent applications, the Company has established a significant portfolio of proprietary OLED technologies and materials. The Company currently owns, exclusively licenses or has the sole right to sublicense more than 3,000 patents issued and pending worldwide.

The Company sells its proprietary OLED materials to customers for evaluation and use in commercial OLED products. The Company also enter into agreements with manufacturers of OLED display and lighting products under which it grants them licenses to practice under its patents and to use the Company's proprietary know-how. At the same time, the Company works with these and other companies who are evaluating the Company's OLED technologies and materials for possible use in commercial OLED display and lighting products.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

Interim Financial Information

In the opinion of management, the accompanying unaudited consolidated financial statements contain all adjustments (consisting of only normal recurring adjustments) necessary to present fairly the Company's financial position as of March 31, 2014 and results of operations for the three months ended March 31, 2014 and 2013, and cash flows for the three months ended March 31, 2014 and 2013. While management believes that the disclosures presented are adequate to make the information not misleading, these unaudited consolidated financial statements should be read in conjunction with the audited consolidated financial statements and the notes thereto in the Company's latest year-end financial statements, which are included in the Company's Annual Report on Form 10-K for the year ended December 31, 2013. The results of the Company's operations for any interim period are not necessarily indicative of the results of operations for any other interim period or for the full year.

Principles of Consolidation

The consolidated financial statements include the accounts of Universal Display Corporation and its wholly owned subsidiaries, UDC, Inc., UDC Ireland Limited, Universal Display Corporation Hong Kong, Ltd., Universal Display Corporation Korea, Y.H., and Universal Display Corporation Japan, G.K. All intercompany transactions and accounts have been eliminated.

Management's Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles (GAAP) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. The estimates made are principally in the areas of revenue

recognition for license agreements, the useful life of acquired technology, the valuation of the Company's convertible promissory note investments, income taxes including realization of deferred tax assets, stock-based compensation and retirement benefit plan liabilities. Actual results could differ from those estimates.

## Table of Contents

### Fair Value of Financial Instruments

The carrying values of accounts receivable, other current assets, and accounts payable approximate fair value in the accompanying financial statements due to the short-term nature of those instruments. The Company's other financial instruments, which include cash equivalents and investments are carried at fair value as noted above.

### Revenue Recognition and Deferred Revenue

Material sales relate to the Company's sale of its OLED materials for incorporation into its customers' commercial OLED products or for their OLED development and evaluation activities. Material sales are recognized at the time of shipment or at time of delivery, and passage of title, depending upon the contractual agreement between the parties. The Company receives license and royalty payments under certain commercial, development and technology evaluation agreements, some of which are non-refundable advances. These payments may include royalty and license fees made pursuant to license agreements and also license fees included as part of certain commercial supply agreements. Amounts deferred are classified as current and non-current based upon current contractual remaining terms. As of March 31, 2014, \$6.9 million was recorded as deferred revenue, none of which is creditable against future commercial license agreements that have not yet been executed or deemed effective. For arrangements with extended payment terms where the fee is not fixed and determinable, the Company recognizes revenue when the payment is due and payable. Royalty revenue and license fees included as part of commercial supply agreements are recognized when earned and the amount is fixed and determinable.

Technology development and support revenue is revenue earned from government contracts, development and technology evaluation agreements and commercialization assistance fees, which includes reimbursements by government entities for all or a portion of the research and development costs the Company incurs in relation to its government contracts. Revenues are recognized proportionally as research and development costs are incurred, or as defined milestones are achieved.

Currently, the Company's most significant commercial license agreement, which runs through the end of 2017, is with Samsung Display Co., Ltd. (SDC) and covers the manufacture and sale of specified OLED display products. Under this agreement, the Company is being paid a license fee, payable in semi-annual installments over the agreement term of 6.4 years. The installments, which are due in the second and fourth quarter of each year, increase on an annual basis over the term of the agreement. The agreement conveys to SDC the non-exclusive right to use certain of the Company's intellectual property assets for a limited period of time that is less than the estimated life of the assets. Ratable recognition of revenue is impacted by the agreement's extended increasing payment terms in light of the Company's limited history with similar agreements. As a result, revenue is recognized at the lesser of the proportional performance approach (ratable) and the amount of due and payable fees from SDC. Given the increasing contractual payment schedule, license fees under the agreement are recognized as revenue when they become due and payable, which is currently scheduled to be in the second and fourth quarter of each year.

### Cost of Material Sales

Cost of material sales represents costs associated with the sale of materials that have been classified as commercial including shipping costs. Commercial materials are materials that have been validated by the Company for use in commercial OLED products. Prior to their designation as commercial materials, costs incurred related to the materials are included in research and development costs.

### Recent Accounting Pronouncements

In July 2013, the FASB issued Accounting Standards Update (ASU) No. 2013-11, Income Taxes (Topic 740): Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists. ASU No. 2013-11 requires presentation of an unrecognized tax benefit in the financial statements as a reduction to a deferred tax asset for a net operating loss carryforward, a similar tax loss, or a tax credit carryforward. To the extent a net operating loss carryforward, a similar tax loss, or a tax credit carryforward is not available at the reporting date under the tax law of the applicable jurisdiction to settle any additional income taxes that would result from the disallowance of a tax position or the tax law of the applicable jurisdiction does not require the entity to use, and the entity does not intend to use, the deferred tax asset for such purpose, the unrecognized tax benefit would be presented in the financial statements as a liability and would not be combined with deferred tax assets. This guidance is effective for annual reporting periods beginning after December 15, 2013 and interim periods

within those years. The Company adopted this guidance in the first quarter of 2014, and such adoption did not have a material impact on the Company's consolidated financial position or results of operations

7

---

Table of Contents**3. CASH, CASH EQUIVALENTS AND INVESTMENTS:**

The Company considers all highly liquid debt instruments purchased with an original maturity of three months or less to be cash equivalents. The Company classifies its remaining investments as available-for-sale. These securities are carried at fair market value, with unrealized gains and losses reported in shareholders' equity. Gains or losses on securities sold are based on the specific identification method. Investments as of March 31, 2014 and December 31, 2013 consist of the following (in thousands):

Investment Classification	Amortized Cost	Unrealized Gains	(Losses)	Aggregate Fair Market Value
March 31, 2014				
Certificates of deposit	\$10,881	\$4	\$(10)	) \$10,875
Corporate bonds	218,771	37	(17)	) 218,791
U.S. Government bonds	4,075	—	—	4,075
Convertible notes	300	—	—	300
	\$234,027	\$41	\$(27)	) \$234,041
December 31, 2013				
Certificates of deposit	\$11,358	\$2	\$(16)	) \$11,344
Corporate bonds	190,738	33	(48)	) 190,723
U.S. Government bonds	3,074	—	—	3,074
Convertible notes	4,300	—	—	4,300
	\$209,470	\$35	\$(64)	) \$209,441

On July 13, 2012, the Company entered into a joint development agreement with Plextronics, Inc. (Plextronics), a private company engaged in printed solar, lighting and other electronics related research and development. The Company invested \$4.0 million in Plextronics through the purchase of a convertible promissory note. The note accrued interest at the rate of 3% per year. The note was repaid in full during the first quarter of 2014. See Fair Value Measurements below for additional information regarding the note.

On July 17, 2012, the Company invested \$300,000 in a private company engaged in plasma processing equipment research and development (the Borrower) through the purchase of a convertible promissory note. The note accrues interest at the rate of 5% per year and is due and payable by August 1, 2015. The note is included in investments on the consolidated balance sheet. The Company has the option to convert the note into shares of the Borrower's preferred stock at a specified conversion price.

All short-term investments held at March 31, 2014 will mature within one year.

**4. FAIR VALUE MEASUREMENTS:**

The following table provides the assets and liabilities carried at fair value measured on a recurring basis as of March 31, 2014 (in thousands):

	Total carrying value as of March 31, 2014	Fair Value Measurements, Using		
		Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Cash equivalents	\$11,801	\$11,801	\$—	\$—
Short-term investments	230,990	230,990	—	—
Long-term investments	3,051	2,751	—	300

Table of Contents

The following table provides the assets and liabilities carried at fair value measured on a recurring basis as of December 31, 2013 (in thousands):

	Total carrying value as of December 31, 2013	Fair Value Measurements, Using		
		Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Cash equivalents	\$7,600	\$7,600	\$—	\$—
Short-term investments	202,024	202,024	—	—
Long-term investments	7,417	3,117	—	4,300

Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities. Level 2 inputs are quoted prices for similar assets and liabilities in active markets or inputs that are observable for the asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the financial instrument. Level 3 inputs are unobservable inputs based on management's own assumptions used to measure assets and liabilities at fair value. A financial asset's or liability's classification is determined based on the lowest level input that is significant to the fair value measurement.

The Company's convertible promissory note investments are currently classified within investments on the consolidated balance sheet and the fair value is based on Level 3 inputs.

These convertible promissory note investments are inherently risky as the notes lack a ready market for resale and the note issuer's success is dependent on numerous factors, including, among others, product development, market acceptance, operational efficiency, the ability of the investee companies to raise additional funds in financial markets that can be volatile, and other key business factors. The Company determines the fair value of its convertible promissory note investments portfolio quarterly by performing certain quantitative and qualitative analyses of identified events or circumstances affecting the investee.

Changes in fair value of the investments are recorded as unrealized gains and losses in other comprehensive income (loss). If a decline in fair value of a convertible promissory note investment below its carrying value is deemed to be other than temporary, the amortized cost basis of the Company's investment will be written down by the amount of the other-than-temporary impairment with a resulting charge to net income. On January 16, 2014, Plextronics, which in 2012 issued the Company a convertible promissory note, for an original principal amount of \$4.0 million, filed a voluntary petition for relief under Chapter 11 of the Bankruptcy Code in the United States Bankruptcy Court of the District of Delaware (Bankruptcy Court). During the three months ended March 31, 2014, the Company received payment in the amount of \$4.6 million for the original principal amount plus interest and fees. As such, the Company's original investment was satisfied in full. There were no other-than-temporary impairments of investments as of March 31, 2014.

The following table is a reconciliation of the changes in fair value of the Company's investments in convertible notes for the three months ended March 31, 2014, which had been classified in Level 3 in the fair value hierarchy (in thousands):

	Three Months Ended March 31, 2014
Fair value of notes, beginning of period	\$4,300
Repayment of notes	(4,000 )
Fair value of notes, end of period	\$300

#### 5. RESEARCH AND LICENSE AGREEMENTS WITH PRINCETON UNIVERSITY, UNIVERSITY OF SOUTHERN CALIFORNIA AND THE UNIVERSITY OF MICHIGAN:

The Company funded OLED technology research at Princeton and, on a subcontractor basis, at USC for 10 years under a Research Agreement executed with Princeton in August 1997 (the 1997 Research Agreement). The principal investigator conducting work under the 1997 Research Agreement transferred to Michigan in January 2006. Following this transfer, the 1997 Research Agreement was allowed to expire on July 31, 2007.





Table of Contents

As a result of the transfer, the Company entered into a new Sponsored Research Agreement with USC to sponsor OLED technology research at USC and, on a subcontractor basis, Michigan. This new Sponsored Research Agreement (as amended, the 2006 Research Agreement) was effective as of May 1, 2006 and had an original term of three years. On May 1, 2009, the Company amended the 2006 Research Agreement to extend the term of the agreement for an additional four years. The 2006 Research Agreement superseded the 1997 Research Agreement with respect to all work being performed at USC and Michigan. Payments under the 2006 Research Agreement were made to USC on a quarterly basis as actual expenses were incurred. The Company incurred a total of \$5.0 million in research and development expense for work performed under the 2006 Research Agreement during the extended term, which ended on April 30, 2013.

Effective June 1, 2013, the Company amended the 2006 Research Agreement again to extend the term of the agreement for an additional four years. As of March 31, 2014, the Company was obligated to pay USC up to \$7.5 million for work to be actually performed during the remaining extended term, which expires April 30, 2017. From June 1, 2013 through March 31, 2014, the Company incurred \$1.1 million in research and development expense for work performed under the 2006 Research Agreement.

On October 9, 1997, the Company, Princeton and USC entered into an Amended License Agreement (as amended, the 1997 Amended License Agreement) under which Princeton and USC granted the Company worldwide, exclusive license rights, with rights to sublicense, to make, have made, use, lease and/or sell products and to practice processes based on patent applications and issued patents arising out of work performed by Princeton and USC under the 1997 Research Agreement. Under this 1997 Amended License Agreement, the Company is required to pay Princeton royalties for licensed products sold by the Company or its sublicensees. For licensed products sold by the Company, the Company is required to pay Princeton 3% of the net sales price of these products. For licensed products sold by the Company's sublicensees, the Company is required to pay Princeton 3% of the revenues received by the Company from these sublicensees. These royalty rates are subject to renegotiation for products not reasonably conceivable as arising out of the 1997 Research Agreement if Princeton reasonably determines that the royalty rates payable with respect to these products are not fair and competitive.

The Company is obligated, under the 1997 Amended License Agreement, to pay to Princeton minimum annual royalties. The minimum royalty payment is \$100,000 per year. The Company recorded royalty expense in connection with this agreement of \$729,000 and \$309,000 for the three months ended March 31, 2014 and 2013, respectively. The Company also is required, under the 1997 Amended License Agreement, to use commercially reasonable efforts to bring the licensed OLED technology to market. However, this requirement is deemed satisfied if the Company invests a minimum of \$800,000 per year in research, development, commercialization or patenting efforts respecting the patent rights licensed to the Company.

In connection with entering into the 2006 Research Agreement, the Company amended the 1997 Amended License Agreement to include Michigan as a party to that agreement effective as of January 1, 2006. Under this amendment, Princeton, USC and Michigan have granted the Company a worldwide exclusive license, with rights to sublicense, to make, have made, use, lease and/or sell products and to practice processes based on patent applications and issued patents arising out of work performed under the 2006 Research Agreement. The financial terms of the 1997 Amended License Agreement were not impacted by this amendment.

**6. ACQUIRED TECHNOLOGY:**

Acquired technology consists of acquired license rights for patents and know-how obtained from PD-LD, Inc., Motorola and Fujifilm. These intangible assets consist of the following (in thousands):

	March 31, 2014
PD-LD, Inc.	\$1,481
Motorola	15,909
Fujifilm	109,462
	126,852
Less: Accumulated amortization	(35,591)
Acquired technology, net	\$91,261

Amortization expense for all intangible assets was \$2.7 million for both the three months ended March 31, 2014 and 2013. Amortization expense is included in the patent costs and amortization of acquired technology expense line item on the Consolidated Statements of Operations.

Table of Contents

Motorola Patent Acquisition

In 2000, the Company entered into a royalty-bearing license agreement with Motorola whereby Motorola granted the Company perpetual license rights to what are now 74 issued U.S. patents relating to Motorola's OLED technologies, together with foreign counterparts in various countries. These patents expire in the U.S. between 2014 and 2018.

On March 9, 2011, the Company purchased these patents from Motorola, including all existing and future claims and causes of action for any infringement of the patents, pursuant to a Patent Purchase Agreement. The Patent Purchase Agreement effectively terminated the Company's license agreement with Motorola, including any obligation to make royalty payments to Motorola.

The technology acquired from Motorola had an assigned value of \$440,000 as of March 9, 2011, which is being amortized over a period of 7.5 years.

Fujifilm Patent Acquisition

On July 23, 2012, the Company entered into a Patent Sale Agreement (the Agreement) with Fujifilm. Under the Agreement, Fujifilm sold more than 1,200 OLED-related patents and patent applications in exchange for a cash payment of \$105.0 million. The Company recorded the \$105.0 million plus \$4.1 million of costs as acquired technology, which is being amortized over a period of 10 years.

7. EQUITY AND CASH COMPENSATION UNDER THE PPG AGREEMENTS:

On October 1, 2000, the Company entered into a five-year Development and License Agreement (the Development Agreement) and a seven-year Supply Agreement (the Supply Agreement) with PPG Industries. Under the Development Agreement, a team of PPG Industries scientists and engineers assisted the Company in developing its proprietary OLED materials and supplied the Company with these materials for evaluation purposes. Under the Supply Agreement, PPG Industries supplied the Company with its proprietary OLED materials that were intended for resale to customers for commercial purposes.

On July 29, 2005, the Company entered into an OLED Materials Supply and Service Agreement with PPG Industries (the OLED Materials Agreement). The OLED Materials Agreement superseded and replaced in their entirety the Development Agreement and Supply Agreement effective as of January 1, 2006, and extended the term of the Company's relationship with PPG Industries through December 31, 2009. The term of the OLED Materials Agreement was subsequently extended through December 31, 2014.

On September 22, 2011, the Company entered into an Amended and Restated OLED Materials Supply and Service Agreement with PPG Industries (the New OLED Materials Agreement), which replaced the original OLED Materials Agreement with PPG Industries effective as of October 1, 2011. The term of the New OLED Materials Agreement runs through December 31, 2015 and shall be automatically renewed for additional one year terms, unless terminated by the Company by providing prior notice of one year or terminated by PPG by providing prior notice of two years. The New OLED Materials Agreement contains provisions that are substantially similar to those of the original OLED Materials Agreement. Under the New OLED Materials Agreement, PPG Industries continues to assist the Company in developing its proprietary OLED materials and supplying the Company with those materials for evaluation purposes and for resale to its customers.

Under the New OLED Materials Agreement, the Company compensates PPG Industries on a cost-plus basis for the services provided during each calendar quarter. The Company is required to pay for some of these services in all cash. Up to 50% of the remaining services are payable, at the Company's sole discretion, in cash or shares of the Company's common stock, with the balance payable in cash. The actual number of shares of common stock issuable to PPG Industries is determined based on the average closing price for the Company's common stock during a specified number of days prior to the end of each calendar half-year period ending on March 31 and September 30. If, however, this average closing price is less than \$20.00, the Company is required to compensate PPG Industries in cash.

The Company is also to reimburse PPG Industries for raw materials used for research and development. The Company records the purchases of these raw materials as a current asset until such materials are used for research and development efforts.

The Company recorded research and development expense of \$3.5 million and \$2.3 million for the three months ended March 31, 2014 and 2013, respectively, in relation to the cash portion of the reimbursement of expenses and work performed by PPG Industries, excluding amounts paid for commercial chemicals. No shares were issued for

services to PPG for the three months ended March 31, 2014 or 2013.

11

---

Table of Contents

## 8. SHAREHOLDERS' EQUITY:

## Stock Repurchase Program

On November 14, 2012, the Company's Board of Directors approved a stock repurchase program authorizing the Company to purchase shares of its common stock up to a total purchase price of \$50.0 million over the subsequent 12 months. During the years ended December 31, 2013 and 2012, the Company purchased 195,599 and 205,902 shares, respectively, at a cost of approximately \$5.5 million and \$5.2 million, respectively. The repurchase program ended during the fourth quarter of 2013.

## Scientific Advisory Board and Employee Awards

During the three months ended March 31, 2014 and 2013, the Company granted a total of 31,301 and 22,568 shares, respectively, of fully vested common stock to employees and non-employee members of the Scientific Advisory Board for services performed in 2013 and 2012, respectively. The fair value of the shares issued was \$1,046,000 and \$435,000, respectively, for employees and \$300,000 and \$300,000, respectively, for non-employee members of the Scientific Advisory Board, which amounts were accrued at December 31, 2013 and 2012, respectively. In connection with the issuance of these grants, 8,071 and 4,672 shares, respectively, with fair values of \$271,000 and \$154,000, respectively, were withheld in satisfaction of employee tax withholding obligations in 2014 and 2013, respectively.

## 9. ACCUMULATED OTHER COMPREHENSIVE LOSS:

Amounts related to the changes in accumulated other comprehensive loss were as follows (in thousands):

	Unrealized gain (loss) on marketable securities	Net unrealized loss on retirement plan <sup>(2)</sup>	Total	Affected line items in the consolidated statements of operations
Balance December 31, 2013, net of tax	\$(24	) \$(4,344	) \$(4,368	)
Other comprehensive income before reclassification	28	—	28	
Reclassification to net income <sup>(1)</sup>	—	94	94	Selling, general and administrative and research and development
Change during period	28	94	122	
Balance March 31, 2014, net of tax	\$4	\$(4,250	) \$(4,246	)
	Unrealized gain (loss) on marketable securities	Net unrealized loss on retirement plan <sup>(2)</sup>	Total	Affected line items in the consolidated statements of operations
Balance December 31, 2012, net of tax	\$(18	) \$(5,684	) \$(5,702	)
Other comprehensive loss before reclassification	(3	) —	(3	)
Reclassification to net loss <sup>(1)</sup>	—	169	169	Selling, general and administrative and research and development
Change during period	(3	) 169	166	
Balance March 31, 2013, net of tax	\$(21	) \$(5,515	) \$(5,536	)

(1) The Company reclassified amortization of prior service cost and actuarial loss for its retirement plan from accumulated other comprehensive loss to net income (loss) in the amounts of \$94,000 and \$169,000 for the three

months ended March 31, 2014 and 2013, respectively.

(2) Refer to Note 11: Supplemental Executive Retirement Plan.

**10. STOCK-BASED COMPENSATION:**

The Company recognizes in the statements of operations the grant-date fair value of equity based awards such as shares issued under employee stock purchase plans, restricted stock awards, restricted stock units and performance unit awards and options issued to employees and directors.

12

---

## Table of Contents

The grant-date fair value of stock awards is based on the closing price of the stock on the date of grant and the fair value of stock options is determined using the Black-Scholes option pricing model. The fair value of share-based awards is recognized as compensation expense on a straight-line basis over the requisite service period, net of estimated forfeitures. The Company relies primarily upon historical experience to estimate expected forfeitures. The Company issues new shares upon the respective grant, exercise or vesting of share-based payment awards, as applicable.

Performance unit awards are subject to either a performance-based or market-based vesting requirement. For performance-based vesting, the grant-date fair value of the award, based on fair value of the Company's common stock, is recognized over the service period, based on an assessment of the likelihood that the applicable performance goals will be achieved and compensation expense is periodically adjusted based on actual and expected performance. Compensation expense for performance unit awards with market-based vesting is calculated based on the estimated fair value as of the grant date utilizing a Monte Carlo simulation model and is recognized over the service period on a straight-line basis.

### Equity Compensation Plan

In 1995, the Board of Directors of the Company adopted a stock option plan, which was amended and restated in 2003 and is now called the Equity Compensation Plan. The Equity Compensation Plan provides for the granting of incentive and nonqualified stock options, shares of common stock, stock appreciation rights and performance units to employees, directors and consultants of the Company. Stock options are exercisable over periods determined by the Compensation Committee, but for no longer than 10 years from the grant date. Through December 31, 2013, the Company's shareholders have approved increases in the number of shares reserved for issuance under the Equity Compensation Plan to 8,000,000, and have extended the term of the plan through 2015. At March 31, 2014, there were 1,256,174 shares that remained available to be granted under the Equity Compensation Plan.

### Stock Awards

#### Restricted Stock Awards and Units

The Company has issued restricted stock awards and units to employees and non-employee members of the Scientific Advisory Board with vesting terms of one to six years. The fair value is equal to the market price of the Company's common stock on the date of grant for awards granted to employees and equal to the market price at the end of the reporting period for unvested non-employee awards or upon the date of vesting for vested non-employee awards. Expense for restricted stock awards and units is amortized ratably over the vesting period for the awards issued to employees and using a graded vesting method for the awards issued to non-employee members of the Scientific Advisory Board.

During the three months ended March 31, 2014, the Company granted 57,527 shares of restricted stock awards and restricted stock units to employees and non-employee members of the Scientific Advisory Board, which had a total fair value of \$1.9 million on the respective dates of grant, and will vest over two to three years from the date of grant, provided that the grantee is still an employee of the Company on the applicable vesting date.

For the three months ended March 31, 2014 and 2013, the Company recorded, as compensation charges related to all restricted stock awards and units, selling, general and administrative expense of \$863,000 and \$767,000, respectively, and research and development expense of \$374,000 and \$327,000, respectively. In connection with the vesting of restricted stock awards and units during the three months ended March 31, 2014 and 2013, respectively, 78,924 and 88,063 shares, with aggregate fair values of \$2.7 million and \$2.8 million, respectively, were withheld in satisfaction of tax withholding obligations.

For the three months ended March 31, 2014 and 2013, the Company recorded as compensation charges related to all restricted stock awards and units to non-employee members of the Scientific Advisory Board, research and development expense of \$43,000 and \$86,000, respectively.

#### Board of Directors Compensation

The Company has granted restricted stock units to non-employee members of the Board of Directors with vesting terms of approximately one year. The fair value is equal to the market price of the Company's common stock on the date of grant. The restricted stock units are issued and expense is recognized ratably over the vesting period. For the three months ended March 31, 2014 and 2013, the Company recorded compensation charges for services performed,



related to all restricted stock units granted to non-employee members of the Board of Directors, selling, general and administrative expense of \$160,000 and \$138,000, respectively. Restricted stock issued during both the three months ended March 31, 2014 and 2013 was 5,000 shares.

#### Performance Unit Awards

During the three months ended March 31, 2014, the Company granted 36,092 performance units, of which 18,044 are subject to a performance-based vesting requirement and 18,048 are subject to a market-based vesting requirement and will vest over the terms described below. Total fair value of the performance unit awards granted was \$1.2 million on the date of grant.

Each performance unit award is subject to both a performance-vesting requirement (either performance-based or market-based) and a service-vesting requirement.

Table of Contents

The performance-based vesting requirement is tied to the Company's cumulative revenue growth compared to the cumulative revenue growth of companies comprising the Nasdaq Electronics Components Index, as measured over a specific performance period. The market-based vesting requirement is tied to the Company's total shareholder return relative to the total shareholder return of companies comprising the Nasdaq Electronics Components Index, as measured over a specific performance period.

The maximum number of performance units that may vest based on performance is two times the shares granted. Further, if the Company's total shareholder return is negative, the performance units may not vest above the shares granted.

For the three months ended March 31, 2014 and 2013, the Company recorded general and administrative expense of \$461,000 and \$38,000, respectively, and research and development expense of \$173,000 and \$11,000, respectively, related to performance units, respectively.

**Employee Stock Purchase Plan**

On April 7, 2009, the Board of Directors of the Company adopted an Employee Stock Purchase Plan (ESPP). The ESPP was approved by the Company's shareholders and became effective on June 25, 2009. The Company has reserved 1,000,000 shares of common stock for issuance under the ESPP. Unless sooner terminated by the Board of Directors, the ESPP will expire when all reserved shares have been issued.

Eligible employees may elect to contribute to the ESPP through payroll deductions during consecutive three-month purchase periods. Each employee who elects to participate will be deemed to have been granted an option to purchase shares of the Company's common stock on the first day of the purchase period. Unless the employee opts out during the purchase period, the option will automatically be exercised on the last day of the period, which is the purchase date, based on the employee's accumulated contributions to the ESPP. The purchase price will equal 85% of the lesser of the price per share of common stock on the first day of the period or the last day of the period.

Employees may allocate up to 10% of their base compensation to purchase shares of common stock under the ESPP; however, each employee may purchase no more than 12,500 shares on a given purchase date, and no employee may purchase more than \$25,000 of common stock under the ESPP during a given calendar year.

During the three months ended March 31, 2014 and 2013, the Company issued 3,164 and 4,258 shares of its common stock under the ESPP, resulting in proceeds of \$86,000 and \$93,000, respectively. For the three months ended March 31, 2014 and 2013, the Company recorded charges of \$14,000 and \$7,000, respectively, to selling, general and administrative expense and \$14,000 and \$23,000, respectively, to research and development expense, related to the ESPP equal to the amount of the discount and the value of the look-back feature.

**11. SUPPLEMENTAL EXECUTIVE RETIREMENT PLAN:**

On March 18, 2010, the Compensation Committee and the Board of Directors of the Company approved and adopted the Universal Display Corporation Supplemental Executive Retirement Plan (SERP), effective as of April 1, 2010. The purpose of the SERP, which is unfunded, is to provide certain of the Company's executive officers with supplemental pension benefits following a cessation of their employment. As of March 31, 2014 there were six participants in the SERP.

The Company records amounts relating to the SERP based on calculations that incorporate various actuarial and other assumptions, including discount rates, rate of compensation increases, retirement dates and life expectancies. The net periodic costs are recognized as employees render the services necessary to earn the SERP benefits.

The components of net periodic pension cost were as follows (in thousands):

	Three Months Ended March 31,	
	2014	2013
Service cost	\$167	\$162
Interest cost	106	86
Amortization of prior service cost	146	146
Amortization of loss	—	23
Total net periodic benefit cost	\$419	\$417



Table of Contents

12. COMMITMENTS AND CONTINGENCIES:

Commitments

Under the 2006 Research Agreement with USC, the Company is obligated to make certain payments to USC based on work performed by USC under that agreement, and by Michigan under its subcontractor agreement with USC. See Note 5 for further explanation.

Under the terms of the 1997 Amended License Agreement, the Company is required to make minimum royalty payments to Princeton. See Note 5 for further explanation.

The Company has agreements with six executive officers which provide for certain cash and other benefits upon termination of employment of the officer in connection with a change in control of the Company. Each executive is entitled to a lump-sum cash payment equal to two times the sum of the average annual base salary and bonus of the officer and immediate vesting of all stock options and other equity awards that may be outstanding at the date of the change in control, among other items.

Patent Related Challenges and Oppositions

Each major jurisdiction in the world that issues patents provides both third parties and applicants an opportunity to seek a further review of an issued patent. The specific process for requesting and considering such reviews are specific to the jurisdiction that issued the patent in question, and generally do not include claims for monetary damages or specific claims of infringement. The conclusions made by the reviewing administrative bodies tend to be appealable and generally are limited in scope and applicability to the specific claims and jurisdiction in question.

The Company believes that opposition proceedings are frequently commenced in the ordinary course of business by third parties who may believe that one or more claims in a patent do not comply with the technical or legal requirements of the specific jurisdiction in which the patent was issued. The Company views these proceedings as reflective of its goal of obtaining the broadest legally permissible patent coverage permitted in each jurisdiction. Once a proceeding is initiated, as a general matter, the issued patent continues to be presumed valid until the jurisdiction's applicable administrative body issues a final non-appealable decision. Depending on the jurisdiction, the outcome of these proceedings could include affirmation, denial or modification of some or all of the originally issued claims. The Company believes that as OLED technology becomes more established and its patent portfolio increases in size, so will the number of these proceedings.

Below are summaries of proceedings that have been commenced against certain issued patents that are either exclusively licensed to the Company or which are now assigned to the Company. The Company does not believe that the confirmation, loss or modification of the Company's rights in any individual claim or set of claims that are the subject of the following legal proceedings would have a material impact on the Company's material sales or licensing business or on the Company's consolidated financial statements, including its consolidated statements of operations, as a whole. However, as noted within the descriptions, some of the following proceedings involve issued patents that relate to the Company's fundamental phosphorescent OLED technologies and the Company intends to vigorously defend against claims that, in the Company's opinion, seek to restrict or reduce the scope of the originally issued claim, which may require the expenditure of significant amounts of the Company's resources. In certain circumstances, when permitted, the Company may also utilize the proceedings to request modification of the claims to better distinguish the patented invention from any newly identified prior art and/or improve the claim scope of the patent relative to commercially important categories of the invention. The entries marked with an "\*" relate to the Company's UniversalPHOLED phosphorescent OLED technology, some of which may be commercialized by the Company.

Opposition to European Patent No. 0946958

On December 8, 2006, Cambridge Display Technology Ltd. (CDT), which was acquired in 2007 by Sumitomo Chemical Company (Sumitomo), filed a Notice of Opposition to European Patent No. 0946958 (EP '958 patent), which relates to the Company's FOLED™ flexible OLED technology. The EP '958 patent, which was issued on March 8, 2006, is a European counterpart patent to U.S. patents 5,844,363; 6,602,540; 6,888,306; and 7,247,073. These patents are exclusively licensed to the Company by Princeton, and the Company is required to pay all legal costs and fees associated with this proceeding.

On November 26, 2009, the European Patent Office (the EPO) issued its written decision to reject the opposition and to maintain the patent as granted. On April 12, 2010, CDT filed an appeal to the EPO panel decision. On August 19, 2010, the Company filed a timely response to the EPO panel decision.

At this time, based on its current knowledge, the Company believes that the EPO panel decision will be upheld on appeal. However, the Company cannot make any assurances of this result.

15

---

Table of Contents

Opposition to European Patent No. 1449238\*

In 2007, Sumation Company Limited (Sumation), a joint venture between Sumitomo and CDT, Merck Patent GmbH, of Darmstadt, Germany, and BASF Aktiengesellschaft, of Mannheim, Germany, filed Notices of Opposition to European Patent No 1449238 (EP '238 patent). The EP '238 patent, which was issued on November 2, 2006, is a European counterpart patent, in part, to U.S. patents 6,830,828; 6,902,830; 7,001,536; 7,291,406; 7,537,844; and 7,883,787; and to pending U.S. patent applications 13/009,001, filed on January 19, 2011, and 13/205,290, filed on August 9, 2011 (hereinafter the "U.S. '828 Patent Family"). They are exclusively licensed to the Company by Princeton, and the Company is required to pay all legal costs and fees associated with this proceeding.

On January 13, 2012, the EPO issued a decision to maintain the patent with claims directed to OLEDs comprising phosphorescent organometallic iridium compounds.

All the parties appealed the EPO's panel decision. An Oral Hearing was held in the EPO on November 22, 2013, in which the EPO Appellate Board reversed the decision of the prior panel and revoked the patent in its entirety. The Company intends to continue prosecuting claims directed to the subject matter originally claimed in the '238 patent and to overcome the EPO Appellate Board's objections to the original claim language in pending divisional applications in the EPO which claim priority from the same original priority application.

Opposition to European Patent No. 1394870\*

On April 20, 2010, Merck Patent GmbH; BASF Schweitz AG of Basel, Switzerland; Osram GmbH of Munich, Germany; Siemens Aktiengesellschaft of Munich, Germany; and Koninklijke Philips Electronics N.V., of Eindhoven, The Netherlands filed Notices of Opposition to European Patent No. 1394870 (the EP '870 patent). The EP '870 patent, which was issued on July 22, 2009, is a European counterpart patent, in part, to U.S. patents 6,303,238; 6,579,632; 6,872,477; 7,279,235; 7,279,237; 7,488,542; 7,563,519; and 7,901,795; and to pending U.S. patent application 13/035,051, filed on February 25, 2011 (hereinafter the "U.S. '238 Patent Family"). They are exclusively licensed to the Company by Princeton, and the Company is required to pay all legal costs and fees associated with this proceeding.

An Oral Hearing was held before an EPO panel of first instance in Munich, Germany, on April 8-9, 2014. The panel gave its preliminary decision rejecting the original broad claims and amended the claims to comply with EPO requirements by more narrowly defining the scope of the claims. Based on the outcome of the hearing, the '870 patent, in its amended form, was held by the panel to comply with the EPO requirements.

The Company believes the EPO's decision relating to the broad original claims is erroneous and intends to appeal the ruling to reinstate a broader set of claims. This patent, as originally granted by the EPO, would be deemed valid during the pendency of an appeals process. At this time, based on the Company's current knowledge, the Company believes there is a substantial likelihood that the patent being challenged will be declared valid and that all or a significant portion of the Company's claims will be upheld. However, the Company cannot make any assurances of this result.

Invalidation Trials in Japan for Japan Patent Nos. 4357781 and 4358168\*

On May 24, 2010, the Company received Notices of Invalidation Trials against Japan Patent Nos. 4357781 (the JP '781 patent) and 4358168 (the JP '168 patent), which were both issued on August 14, 2009. The requests were filed by Semiconductor Energy Laboratory Co., Ltd. (SEL). The JP '781 and JP '168 patents are Japanese counterpart patents, in part, to the above-noted U.S. '828 Patent Family. They are exclusively licensed to the Company by Princeton, and the Company is required to pay all legal costs and fees associated with this proceeding.

On March 31, 2011, the Company learned that the Japanese Patent Office (JPO) had issued decisions finding all claims in the JP '781 and JP '168 patents invalid.

Both parties appealed this matter to the Japanese IP High Court. On November 7, 2012, the Company was notified that the Japanese IP High Court had reversed the JPO's finding of invalidity and remanded the case back to the JPO for further consideration.

In a decision reported to the Company on April 15, 2013, all claims in the Company's JP '781 and JP '168 patents were upheld as valid by the JPO. The Company's opponent appealed this decision.

At this time, based on the Company's current knowledge, the Company believes that the claims on the patents should be upheld. However, the Company cannot make any assurances of this result.



Table of Contents

Invalidation Trial in Japan for Japan Patent No. 4511024\*

On June 16, 2011, the Company learned that a Request for an Invalidation Trial was filed in Japan for its Japanese Patent No. JP-4511024 (the JP '024 patent), which issued on May 14, 2010. The Request was filed by SEL, the same opponent as in the above-noted Japanese Invalidation Trials for the JP '781 and JP '168 patents. The JP '024 patent is a counterpart patent, in part, to the U.S. '238 Patent Family, which relate to the EP '870 patent, which is subject to one of the above-noted European oppositions and which relates to the Company's UniversalPHOLED phosphorescent OLED technology. They are exclusively licensed to the Company by Princeton, and the Company is required to pay all legal costs and fees associated with this proceeding.

On May 10, 2012, the Company learned that the JPO issued a decision upholding the validity of certain claimed inventions in the JP '024 Patent but invalidating the broadest claims in the patent. The Company appealed the JPO's decision to the Japanese IP High Court. On October 31, 2013, the Japanese IP High Court ruled that the prior art references relied on by the JPO did not support the JPO's findings, reversed the JPO's decision with respect to the previously invalidated broad claims in the JP '024 patent and remanded the matter back to the JPO for further consideration consistent with its decision. The JPO subsequently issued a decision upholding the validity of certain claimed inventions in the JP '024 Patent but invalidating the broadest claims in the patent. The Company intends to appeal the decision to reinstate a broader set of claims. This patent, as originally granted by the JPO, would be deemed valid during the pendency of an appeals process.

At this time, based on its current knowledge, the Company believes that the patent being challenged should be declared valid and that all or a significant portion of the Company's claims should be upheld. However, the Company cannot make any assurances of this result.

Opposition to European Patent No. 1252803\*

On July 12 and 13, 2011, Sumitomo, Merck Patent GmbH and BASF SE, of Ludwigshaven, Germany filed oppositions to the Company's European Patent No. 1252803 (the EP '803 patent). The EP '803 patent, which was issued on October 13, 2010, is a European counterpart patent, in part, to the U.S. '828 Patent Family. They are exclusively licensed to the Company by Princeton, and the Company is required to pay all legal costs and fees associated with this proceeding.

On December 7, 2012 the EPO rendered a decision at an Oral Hearing wherein it upheld the broadest claim of the granted patent. All three opponents filed an appeal.

At this time, based on its current knowledge, the Company believes there is a substantial likelihood that the patent being challenged will be declared valid and that all or a significant portion of its claims will be further upheld on appeal. However, the Company cannot make any assurances of this result.

Opposition to European Patent No. 1390962

On November 16, 2011, Osram AG and BASF SE each filed a Notice of Opposition to European Patent No. 1390962 (EP '962 patent), which relates to the Company's white phosphorescent OLED technology. The EP '962 patent, which was issued on February 16, 2011, is a European counterpart patent to U.S. patents 7,009,338 and 7,285,907. They are exclusively licensed to the Company by Princeton, and the Company is required to pay all legal costs and fees associated with this proceeding.

The EPO combined the oppositions into a single opposition proceeding. The Company expects the EPO to schedule a hearing on this matter in the first half of 2014.

At this time, based on its current knowledge, the Company believes there is a substantial likelihood that the patent being challenged will be declared valid, and that all or a significant portion of the Company's claims will be upheld. However, the Company cannot make any assurances of this result.

Opposition to European Patent No. 1933395\*

On February 24 and 27, 2012, Sumitomo, Merck Patent GmbH and BASF SE filed oppositions to the Company's European Patent No. 1933395 (the EP '395 patent). The EP '395 patent is a counterpart patent to the above-noted JP '168 patent, and, in part, to the U.S. '828 Patent Family. This patent is exclusively licensed to the Company by Princeton, and the Company is required to pay all legal costs and fees associated with this proceeding.

At an Oral Hearing on October 14, 2013, the EPO panel issued a decision that affirmed the basic invention and broad patent coverage in the EP '395 patent, but narrowed the scope of the original claims.



On February 26, 2014, the Company appealed the ruling to reinstate a broader set of claims. The patent, as originally granted by the EPO, is deemed to be valid during the pendency of the appeals process. Two of the three opponents also filed their own appeals of the ruling. Sumitomo did not file an appeal within the allotted time, and will therefore no longer be a party to the proceedings.

Table of Contents

In addition to the above proceedings, from time to time, the Company may have other proceedings that are pending which relate to patents the Company acquired as part of the Fuji Patent acquisition or which to relate to technologies that are not currently widely utilized in the marketplace.

**13. CONCENTRATION OF RISK:**

Included in technology development and support revenue in the accompanying statement of operations is \$70,000 and \$629,000 for the three months ended March 31, 2014 and 2013, respectively, of revenue which was derived from contracts with United States government agencies. Revenues derived from contracts with United States government agencies represented approximately 0% and 4% of the consolidated revenue for the three months ended March 31, 2014, and 2013, respectively.

Revenues and accounts receivable from the Company's largest non-government customers were as follows (in thousands):

Customer	% of Revenues for the three months ended March 31,		Accounts Receivable as of March 31, 2014
	2014	2013	
A	35%	42%	\$10,416
B	33%	21%	\$5,043
C	25%	19%	\$7,941

Revenues from outside of North America represented nearly 100% and 95% of the consolidated revenue for the three months ended March 31, 2014 and 2013, respectively. Revenues by geographic area are as follows (in thousands):

Country	Three Months Ended March 31,	
	2014	2013
United States	\$167	\$755
South Korea	22,956	9,344
Japan	14,058	4,612
Taiwan	321	166
Other	337	99
All foreign locations	37,672	14,221
Total revenue	\$37,839	\$14,976

The Company attributes revenue to different geographic areas on the basis of the location of the customer.

Long-lived assets (net), by geographic area are as follows (in thousands):

	March 31, 2014	December 31, 2013
United States	\$14,792	\$14,660
Other	212	233
Total long-lived assets	\$15,004	\$14,893

All chemical materials were purchased from one supplier. See Note 7.

**14. INCOME TAXES:**

In July 2012, Samsung Mobile Display Co., Ltd (SMD) merged with Samsung Display Co., Ltd. (SDC). Following the merger, all agreements between the Company and SMD were assigned to SDC, and SDC will honor all pre-existing agreements made between the Company and SMD. SDC has been required to withhold tax upon payment of royalty and license fees to the Company at a rate of 16.5%.

The Company is subject to income taxes in both United States and foreign jurisdictions. For the three months ended March 31, 2014 and 2013, the Company recorded income tax expense of \$2.8 million and income tax benefit of \$2.2 million, respectively.

The estimated effective income tax rate of 41.1% for 2014 includes 7.3% due to U.S. Subpart F income. In transferring the Company's foreign operations to Ireland, UDC Ireland Limited sold U.S. inventory which resulted in the aforementioned additional U.S. tax.



Table of Contents

In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent on the Company's ability to generate future taxable income to obtain benefit from the reversal of temporary differences, net operating loss carryforwards and tax credits. As part of its assessment management considers the scheduled reversal of deferred tax liabilities, projected future taxable income, and tax planning strategies. During the year ended December 31, 2013, based on previous earnings history, an evaluation of expected future taxable income and other evidence, the Company determined it is more likely than not that its federal and the majority of its state deferred tax assets will be realized. At this time there is no additional evidence to release the remaining valuation allowances that relates to UDC Ireland and the remaining portion of foreign tax credits. However, New Jersey research and development credits were released to offset the Company's projected current New Jersey income tax liability for 2014.

## 15. NET INCOME (LOSS) PER COMMON SHARE:

Basic net income (loss) per common share is computed by dividing net income (loss) by the weighted-average number of shares of common stock outstanding for the period excluding unvested restricted stock awards, restricted stock units and performance units. Diluted net income (loss) per common share reflects the potential dilution from the exercise or conversion of securities into common stock, the effect of unvested restricted stock awards, restricted stock units and performance units, and the impact of shares to be issued under the ESPP.

The following table is a reconciliation of net income (loss) and the shares used in calculating basic and diluted net income (loss) per common share for the three months ended March 31, 2014 and 2013 (in thousands, except share and per share data):

	Three Months Ended March 31,	
	2014	2013
Numerator:		
Net income (loss)	\$4,022	\$(4,758 )
Denominator:		
Weighted average common shares outstanding – Basic	46,177,661	45,823,414
Effect of dilutive shares:		
Common stock equivalents arising from stock options and ESPP	275,392	—
Restricted stock awards and units and performance units	198,385	—
Weighted average common shares outstanding – Diluted	46,651,438	45,823,414
Net income (loss) per common share:		
Basic	\$0.09	\$(0.10 )
Diluted	\$0.09	\$(0.10 )

For the three months ended March 31, 2014 the effects of certain performance unit awards of 53,890 were excluded from the calculation of diluted EPS as their impact would have been antidilutive as the units would not be issued if the end of the reporting period was the end of the performance period. For the three months ended March 31, 2013, the combined effects of outstanding stock options, unvested restricted stock awards, restricted stock units and performance units of 1,404,031, and the impact of shares to be issued under the ESPP, which was minor, were excluded from the calculation of diluted EPS as their impact would have been antidilutive.

Table of Contents

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the consolidated financial statements and related notes above.

CAUTIONARY STATEMENT  
CONCERNING FORWARD-LOOKING STATEMENTS

This discussion and analysis contains some "forward-looking statements." Forward-looking statements concern possible or assumed future results of operations, including descriptions of our business strategies and customer relationships. These statements often include words such as "believe," "expect," "anticipate," "intend," "plan," "estimate," "seek," "will," "may," and "could," and similar expressions. These statements are based on assumptions that we have made in light of our experience in the industry, as well as our perceptions of historical trends, current conditions, expected future developments and other factors we believe are appropriate in these circumstances.

As you read and consider this discussion and analysis, you should not place undue reliance on any forward-looking statements. You should understand that these statements involve substantial risk and uncertainty and are not guarantees of future performance or results. They depend on many factors that are discussed further in the section entitled (Risk Factors) in our Annual Report on Form 10-K for the year ended December 31, 2013, as supplemented by disclosures, if any, in Item 1A of Part II below. Changes or developments in any of these areas could affect our financial results or results of operations and could cause actual results to differ materially from those contemplated in the forward-looking statements.

All forward-looking statements speak only as of the date of this report or the documents incorporated by reference, as the case may be. We do not undertake any duty to update any of these forward-looking statements to reflect events or circumstances after the date of this report or to reflect the occurrence of unanticipated events.

OVERVIEW

We are a leader in the research, development and commercialization of organic light emitting diode, or OLED, technologies and materials for use in displays for smartphones, tablets and televisions as well as solid-state lighting applications. Since 1994, we have been exclusively engaged, and expect to continue to be primarily engaged, in funding and performing research and development activities relating to OLED technologies and materials, and commercializing these technologies and materials. We derive our revenue from the following:

- sales of OLED materials for evaluation, development and commercial manufacturing;
- intellectual property and technology licensing; and
- technology development and support, including government contract work and support provided to third parties for commercialization of their OLED products.

Material sales relate to our sale of OLED materials for incorporation into our customers' commercial OLED products or for their OLED development and evaluation activities. Material sales are recognized at the time of shipment or at time of delivery, and passage of title, depending upon the contractual agreement between the parties.

We receive license and royalty payments under certain commercial, development and technology evaluation agreements, some of which are non-refundable upfront payments. These payments may include royalty and license fees made pursuant to license agreements and also license fees included as part of certain commercial supply agreements. For arrangements with extended payment terms where the fee is not fixed and determinable, we recognize revenue when the payment is due and payable. Royalty revenue and license fees included as part of commercial supply agreements are recognized when earned and the amount is fixed and determinable.

Currently, our most significant commercial license agreement, which runs through the end of 2017, is with SDC and covers the manufacture and sale of specified OLED display products. Under this agreement, we are being paid a license fee, payable in semi-annual installments over the agreement term of 6.4 years. The installments, which are due in the second and fourth quarter of each year, increase on an annual basis over the term of the agreement. The agreement conveys to SDC the non-exclusive right to use certain of our intellectual property assets for a limited period of time that is less than the estimated life of the assets. Ratable recognition of revenue is impacted by the agreement's extended increasing payment terms in light of our limited history with similar agreements. As a result, revenue is recognized at the lesser of the proportional performance approach (ratable) and the amount of due and

payable fees from SDC. Given the increasing contractual payment schedule, license fees under the agreement are recognized as revenue when they become due and payable, which is currently scheduled to be in the second and fourth quarter of each year.

20

---

Table of Contents

At the same time we entered into the current patent license agreement with SDC, we also entered into a new supplemental material purchase agreement with SDC. Under the current supplemental material purchase agreement, SDC agrees to purchase from us a minimum dollar amount of phosphorescent emitter materials for use in the manufacture of licensed products. This minimum purchase commitment is subject to SDC's requirements for phosphorescent emitter materials and our ability to meet these requirements over the term of the supplemental agreement. The minimum purchase amounts increase on an annual basis over the term of the supplemental agreement. These amounts were determined through negotiation based on a number of factors, including, without limitation, estimates of SDC's OLED business growth as a percentage of published OLED market forecasts and SDC's projected minimum usage of red and green phosphorescent emitter materials over the term of the agreement. Technology development and support revenue is revenue earned from government contracts, development and technology evaluation agreements and commercialization assistance fees, which includes reimbursements by government entities for all or a portion of the research and development costs we incur in relation to our government contracts. Revenues are recognized proportionally as research and development costs are incurred, or as defined milestones are achieved.

While we have made significant progress over the past few years developing and commercializing our family of OLED technologies (including our PHOLED, TOLED, FOLED technologies) and materials, and have generated net income over the past three years, we incurred significant losses prior to this period resulting in an accumulated deficit of \$126.1 million as of March 31, 2014.

We anticipate fluctuations in our annual and quarterly results of operations due to uncertainty regarding, among other factors:

- the timing, cost and volume of sales of our OLED materials;
- the timing of our receipt of license fees and royalties, as well as fees for future technology development and evaluation;
- the timing and magnitude of expenditures we may incur in connection with our ongoing research and development and patent-related activities; and
- the timing and financial consequences of our formation of new business relationships and alliances.

**RESULTS OF OPERATIONS**

**Three Months Ended March 31, 2014 Compared to Three Months Ended March 31, 2013**

We had operating income of \$6.6 million for the three months ended March 31, 2014, compared to an operating loss of \$7.2 million for the three months ended March 31, 2013. The increase in operating income was primarily due to the following:

- an increase in revenue of \$22.9 million, which includes increases in both material sales and royalty and license fees; offset by
- an increase in operating expenses of \$9.1 million, which was mainly due to a \$6.8 million increase in the cost of material sales

We had net income of \$4.0 million (or \$0.09 per basic and diluted share) for the three months ended March 31, 2014, compared to net loss of \$4.8 million (or \$(0.10) per basic and diluted share) for the three months ended March 31, 2013. The increase in net income was primarily due to:

- the increase in operating income of \$13.8 million; offset by
- an income tax expense of \$2.8 million

Table of Contents

## Revenue

The following table details our revenues for the three months ended March 31, 2014 and 2013 (in thousands):

	Three Months Ended March 31,		Increase (Decrease)		
	2014	2013	\$	%	
REVENUE:					
Material sales	\$35,327	\$12,752	\$22,575	177	%
Royalty and license fees	1,779	1,299	480	37	%
Technology development and support revenue	733	925	(192)	(21)	)%
Total revenue	\$37,839	\$14,976	\$22,863	153	%

Total revenue for the three months ended March 31, 2014 increased by \$22.9 million compared to the three months ended March 31, 2013. The increase in revenue was primarily the result of increased commercial chemical sales due to the increased adoption of our technology and materials in the marketplace by display manufacturers.

## Material sales

The following table details our revenues derived from material sales for the three months ended March 31, 2014 and 2013 (in thousands):

	Three Months Ended March 31,		Increase (Decrease)		
	2014	2013	\$	%	
Material Sales:					
Commercial material sales	\$33,498	\$10,504	\$22,994	219	%
Developmental material sales	1,829	2,248	(419)	(19)	)%
Total Material Sales	\$35,327	\$12,752	\$22,575	177	%

Commercial material sales for the three months ended March 31, 2014 increased by \$23.0 million compared to the three months ended March 31, 2013, primarily reflecting increased commercial chemical sales resulting from the adoption of our technology and materials in the marketplace by display manufacturers. Commercial materials are materials that have been validated by us for use in commercial OLED products.

Developmental material sales for the three months ended March 31, 2014 decreased by \$0.4 million compared to the three months ended March 31, 2013. The decrease in our development material sales was primarily due to a change in sales mix. Developmental material sales are materials that have not yet been validated by us for use in commercial OLED products.

Material sales included sales of both phosphorescent emitter and host materials which were comprised of the following for the three months ended March 31, 2014 and 2013 (in thousands):

	Three Months Ended March 31,		Increase		
	2014	2013	\$	%	
Material Sales:					
Phosphorescent emitter sales	\$22,631	\$9,071	\$13,560	149	%
Host material sales	12,696	3,681	9,015	245	%
Total Material Sales	\$35,327	\$12,752	\$22,575	177	%

Phosphorescent emitter sales for the three months ended March 31, 2014 increased by \$13.6 million compared to the three months ended March 31, 2013. The increase in our phosphorescent emitter sales was primarily due to an increase in commercial green phosphorescent emitter sales.

Host material sales for the three months ended March 31, 2014 increased by \$9.0 million compared to the three months ended March 31, 2013. The increase in our host material sales was primarily due to an increase in the number of grams sold, offset, to some extent, by a decrease in the average price per gram sold. We believe we can participate in the host materials business due to our long experience in developing emitter materials, which are used together with host materials in the emissive layer of an OLED. However, our customers are not required to purchase our host materials in order to utilize our phosphorescent emitter materials, and the host material sales business is more competitive than the phosphorescent emitter material sales business. Thus, our long-term prospects for host material sales are uncertain.





Table of Contents

## Royalty and license fees

Royalty and license fees were as follows for the three months ended March 31, 2014 and 2013 (in thousands):

	Three Months Ended March 31,		Increase		
	2014	2013	\$	%	
Royalty and license fees	\$1,779	\$1,299	\$480	37	%

Royalty and license fees for the three months ended March 31, 2014 increased by \$0.5 million compared to the three months ended March 31, 2013. The increase in our royalty and license fees related to increased sales to one of our major customers. Royalty and license fees for both the three months ended March 31, 2014 and 2013 do not include revenues from SDC. Our patent license agreement with SDC is payable to us in semi-annual installments due in the second and fourth quarter of each annual period.

## Technology development and support revenue

Technology development and support revenue were as follows for the three months ended March 31, 2014 and 2013 (in thousands):

	Three Months Ended March 31,		(Decrease)		
	2014	2013	\$	%	
Technology development and support revenue	\$733	\$925	\$(192)	(21)	)%

Technology development and support revenue is revenue earned from U.S. government contracts and development and technology evaluation agreements and commercialization assistance fees.

Technology development and support revenue for the three months ended March 31, 2014 decreased by \$0.2 million compared to the three months ended March 31, 2013. The decrease is primarily related to the smaller number of government contracts and due to the timing of revenue recognition for certain customers.

## Cost of material sales

Cost of commercial material sales were as follows for the three months ended March 31, 2014 and 2013 (in thousands):

	Three Months Ended March 31,		
	2014	2013	
Commercial material sales	\$33,498	\$10,504	
Cost of commercial material sales	9,870	3,011	
% of commercial material sales	29	% 29	%

Cost of commercial material sales for the three months ended March 31, 2014 increased by \$6.9 million compared to the three months ended March 31, 2013. The increase in our cost of commercial material sales was primarily due to the increase in commercial material sales. Depending on the amounts, timing and stage of materials being classified as commercial, we expect cost of materials sales to fluctuate from quarter to quarter.

Cost of commercial material sales includes the cost of producing materials that have been classified as commercial and shipping costs for such materials, but excludes the cost of producing certain materials which has already been included in research and development expense. Commercial materials are materials that have been validated by us for use in commercial OLED products.

## Research and development

We incurred research and development expenses of \$10.2 million for the three months ended March 31, 2014, compared to \$8.9 million for the three months ended March 31, 2013. The increase was primarily due to increased developmental costs from PPG resulting from an increased use of raw materials for development activities.

## Selling, general and administrative

Selling, general and administrative expenses were \$6.4 million for the three months ended March 31, 2014, compared to \$5.2 million for the three months ended March 31, 2013. The increase was primarily due to increased legal and accounting costs as well as increased salaries and salary-related expenses associated with new and existing employees.

## Table of Contents

### Patent costs and amortization of acquired technology

Patent costs and amortization of acquired technology decreased to \$4.0 million for the three months ended March 31, 2014, compared to \$4.6 million for the three months ended March 31, 2013. The decrease relates to a decrease in patent costs mainly due to lower legal expenses.

### Royalty and license expense

Royalty and license expense increased to \$0.8 million for the three months ended March 31, 2014, compared to \$0.3 million for the three months ended March 31, 2013. The increase was mainly due to increased royalties incurred under our amended license agreement with Princeton, USC, and Michigan, resulting from higher material sales and increased royalty and license fees. See Note 5 in Notes to Consolidated Financial Statements for further discussion.

### Income taxes

The effective income tax rate was 41.1% and 31.6% for the three months ended March 31, 2014 and 2013, respectively. We recorded income tax expense of \$2.8 million and income tax benefit of \$2.2 million for the three months ended March 31, 2014 and 2013, respectively.

The estimated effective income tax rate of 41.1% for 2014 includes 7.3% due to U.S. Subpart F income, which consists of sales income from our controlled foreign corporation in Ireland. In transferring our foreign operations to Ireland, UDC Ireland Limited sold U.S. inventory which resulted in the aforementioned additional U.S. tax.

In assessing the realizability of deferred tax assets, we consider whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent on our ability to generate future taxable income to obtain benefit from the reversal of temporary differences, net operating loss carryforwards and tax credits. As part of our assessment, we consider the scheduled reversal of deferred tax liabilities, projected future taxable income, and tax planning strategies. During the year ended December 31, 2013, based on previous earnings history, a current evaluation of expected future taxable income and other evidence, we determined it is more likely than not that our federal and the majority of our state deferred tax assets will be realized. At this time there is no additional evidence to release the remaining valuation allowances that relates to UDC Ireland and the remaining portion of foreign tax credits. However, New Jersey research and development credits were released to offset our projected current New Jersey income tax liability for 2014.

### Liquidity and Capital Resources

Our principle sources of liquidity are our cash and cash equivalents and our short-term investments. As of March 31, 2014, we had cash and cash equivalents of \$35.9 million and short-term investments of \$231.0 million, for a total of \$266.9 million. This compares to cash and cash equivalents of \$70.6 million and short-term investments of \$202.0 million, for a total of \$272.6 million, as of December 31, 2013. The decrease in cash and cash equivalents of \$34.7 million was primarily due to cash used in investing activities for the purchase of short-term investments.

Cash used in operating activities was \$7.3 million for the three months ended March 31, 2014, compared to \$10.9 million for the three months ended March 31, 2013. The decrease in cash used in operating activities was primarily due to the following changes from the comparable prior period:

- an increase in net income of \$10.8 million, excluding the impact of non-cash items; and

- the impact of the timing of deferred revenue arrangements and accounts payable and accrued expenses of \$5.8 million; primarily offset by

- the impact of the timing of accounts receivable collections and net inventory purchases of \$13.0 million

Cash used in investing activities was \$25.3 million for the three months ended March 31, 2014, compared to \$21.4 million for the three months ended March 31, 2013. The increase in cash used in investing activities was mainly due to the timing of maturities and purchases of investments resulting in net purchases of \$24.4 million for the three months ended March 31, 2014, compared to net purchases of \$20.8 million for the three months ended March 31, 2013.

Cash used in financing activities was \$2.0 million for the three months ended March 31, 2014, compared to \$8.1 million for the three months ended March 31, 2013. The decrease in cash used in financing activities was primarily

due to \$5.5 million of repurchases of common stock in the three months ended March 31, 2013. No such repurchases were made during the three months ended March 31, 2014.

Working capital was \$318.0 million as of March 31, 2014, compared to \$303.8 million as of December 31, 2013. The increase in working capital is primarily due to the increase in accounts receivable as well as a decrease in our accrued expenses.

## Table of Contents

We anticipate, based on our internal forecasts and assumptions relating to our operations (including, among others, assumptions regarding our working capital requirements, the progress of our research and development efforts, the availability of sources of funding for our research and development work, and the timing and costs associated with the preparation, filing, prosecution, maintenance, defense and enforcement of our patents and patent applications), that we have sufficient cash, cash equivalents and short-term investments to meet our obligations for at least the next twelve months.

We believe that potential additional financing sources for us include long-term and short-term borrowings, public and private sales of our equity and debt securities and the receipt of cash upon the exercise of outstanding stock options. It should be noted, however, that additional funding may be required in the future for research, development and commercialization of our OLED technologies and materials, to obtain, maintain and enforce patents respecting these technologies and materials, and for working capital and other purposes, the timing and amount of which are difficult to ascertain. There can be no assurance that additional funds will be available to us when needed, on commercially reasonable terms or at all, particularly in the current economic environment.

### Critical Accounting Policies and Estimates

The discussion and analysis of our financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles. The preparation of these financial statements requires us to make estimates and judgments that affect our reported assets and liabilities, revenues and expenses, and other financial information. Actual results may differ significantly from our estimates under other assumptions and conditions.

We believe that our accounting policies related to revenue recognition and deferred revenue, the valuation of certain investments, the valuation and recoverability of acquired technology, stock-based compensation, income taxes and our Supplemental Executive Retirement Plan, are our “critical accounting policies” as contemplated by the SEC.

Refer to our Annual Report on Form 10-K for the year ended December 31, 2013, for additional discussion of our critical accounting policies.

### Contractual Obligations

Refer to our Annual Report on Form 10-K for the year ended December 31, 2013 for a discussion of our contractual obligations.

### Off-Balance Sheet Arrangements

As of March 31, 2014, we had no off-balance sheet arrangements in the nature of guarantee contracts, retained or contingent interests in assets transferred to unconsolidated entities (or similar arrangements serving as credit, liquidity or market risk support to unconsolidated entities for any such assets), or obligations (including contingent obligations) arising out of variable interests in unconsolidated entities providing financing, liquidity, market risk or credit risk support to us, or that engage in leasing, hedging or research and development services with us.

### ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We do not utilize financial instruments for trading purposes and hold no derivative financial instruments, other financial instruments or derivative commodity instruments that could expose us to significant market risk other than our investments disclosed in “Fair Value Measurements” in Note 4 to the Consolidated Financial Statements included herein. We generally invest in investment grade financial instruments to reduce our exposure related to investments. Our primary market risk exposure with regard to such financial instruments is to changes in interest rates, which would impact interest income earned on investments. However, based upon the conservative nature of our investment portfolio and current experience, we do not believe a decrease in investment yields would have a material negative effect on our interest income.

Substantially all our revenue is derived from outside of North America. All revenue is primarily denominated in U.S. dollars and therefore we bear no significant foreign exchange risk.

Table of Contents

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of March 31, 2014. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures, as of the end of the period covered by this report, are effective to provide reasonable assurance that the information required to be disclosed by us in reports filed or submitted under the Securities Exchange Act of 1934, as amended, is (i) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and (ii) accumulated and communicated to our management, including the Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding disclosure. However, a controls system, no matter how well designed and operated, cannot provide absolute assurance that the objectives of the controls system are met, and no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within a company have been detected.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during the quarter ended March 31, 2014 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

Patent Related Challenges and Oppositions

Each major jurisdiction in the world that issues patents provides both third parties and applicants an opportunity to seek a further review of an issued patent. The specific process for requesting and considering such reviews are specific to the jurisdiction that issued the patent in question, and generally do not include claims for monetary damages or specific claims of infringement. The conclusions made by the reviewing administrative bodies tend to be appealable and generally are limited in scope and applicability to the specific claims and jurisdiction in question.

We believe that opposition proceedings are frequently commenced in the ordinary course of business by third parties who may believe that one or more claims in a patent do not comply with the technical or legal requirements of the specific jurisdiction in which the patent was issued. We view these proceedings as reflective of our goal of obtaining the broadest legally permissible patent coverage permitted in each jurisdiction. Once a proceeding is initiated, as a general matter, the issued patent continues to be presumed valid until the jurisdiction's applicable administrative body issues a final non-appealable decision. Depending on the jurisdiction, the outcome of these proceedings could include affirmation, denial or modification of some or all of the originally issued claims. We believe that as OLED technology becomes more established and as our patent portfolio increases in size, so will the number of these proceedings.

Below are summaries of proceedings that have been commenced against certain issued patents that are either exclusively licensed to us or which are now assigned to us. We do not believe that the confirmation, loss or modification of our rights in any individual claim or set of claims that are the subject of the following legal proceedings would have a material impact on our material sales or licensing business or on our consolidated financial statements, including our consolidated statements of operations, as a whole. However, as noted within the descriptions, some of the following proceedings involve issued patents that relate to our fundamental phosphorescent OLED technologies and we intend to vigorously defend against claims that, in our opinion, seek to restrict or reduce the scope of the originally issued claim, which may require the expenditure of significant amounts of our resources. In certain circumstances, when permitted, we may also utilize the proceedings to request modification of the claims to better distinguish the patented invention from any newly identified prior art and/or improve the claim scope of the patent relative to commercially important categories of the invention. The entries marked with an "\*" relate to our UniversalPHOLED phosphorescent OLED technology, some of which may be commercialized by us.

Opposition to European Patent No. 0946958

On December 8, 2006, Cambridge Display Technology Ltd. (CDT), which was acquired in 2007 by Sumitomo, filed a Notice of Opposition to European Patent No. 0946958 (EP '958 patent), which relates to our FOLED™ flexible OLED technology. The EP '958 patent, which was issued on March 8, 2006, is a European counterpart patent to U.S. patents 5,844,363; 6,602,540; 6,888,306; and 7,247,073. These patents are exclusively licensed to us by Princeton, and we are

required to pay all legal costs and fees associated with this proceeding.

26

---

## Table of Contents

On November 26, 2009 the European Patent Office (the EPO) issued its written decision to reject the opposition and to maintain the patent as granted. On April 12, 2010, CDT filed an appeal to the EPO panel decision. On August 19, 2010, we filed a timely response to the EPO panel decision.

At this time, based on our current knowledge, we believe that the EPO panel decision will be upheld on appeal. However, we cannot make any assurances of this result.

### Opposition to European Patent No. 1449238\*

In 2007, Sumation Company Limited (Sumation), a joint venture between Sumitomo and CDT, Merck Patent GmbH, of Darmstadt, Germany, and BASF Aktiengesellschaft, of Mannheim, Germany, filed Notices of Opposition to European Patent No 1449238 (EP '238 patent). The EP '238 patent, which was issued on November 2, 2006, is a European counterpart patent, in part, to U.S. patents 6,830,828; 6,902,830; 7,001,536; 7,291,406; 7,537,844; and 7,883,787; and to pending U.S. patent applications 13/009,001, filed on January 19, 2011, and 13/205,290, filed on August 9, 2011 (hereinafter the "U.S. '828 Patent Family"). They are exclusively licensed to us by Princeton, and we are required to pay all legal costs and fees associated with this proceeding.

On January 13, 2012, the EPO issued a decision to maintain the patent with claims directed to OLEDs comprising phosphorescent organometallic iridium compounds.

All the parties appealed the EPO's panel decision. An Oral Hearing was held in the EPO on November 22, 2013, in which the EPO Appellate Board reversed the decision of the prior panel and revoked the patent in its entirety. We received a final written decision on February 21, 2014. We intend to continue prosecuting claims directed to the subject matter originally claimed in the '238 patent and to overcome the EPO Appellate Board's objections to the original claimed subject matter in additional related pending divisional applications in the EPO which claim priority from the same original priority application.

### Opposition to European Patent No. 1394870\*

On April 20, 2010, Merck Patent GmbH; BASF Schweitz AG of Basel, Switzerland; Osram GmbH of Munich, Germany; Siemens Aktiengesellschaft of Munich, Germany; and Koninklijke Philips Electronics N.V., of Eindhoven, The Netherlands filed Notices of Opposition to European Patent No. 1394870 (the EP '870 patent). The EP '870 patent, which was issued on July 22, 2009, is a European counterpart patent, in part, to U.S. patents 6,303,238; 6,579,632; 6,872,477; 7,279,235; 7,279,237; 7,488,542; 7,563,519; and 7,901,795; and to pending U.S. patent application 13/035,051, filed on February 25, 2011 (hereinafter the "U.S. '238 Patent Family"). They are exclusively licensed to us by Princeton, and we are required to pay all legal costs and fees associated with this proceeding.

An Oral Hearing was held before an EPO panel of first instance in Munich, Germany, on April 8-9, 2014. The panel gave its preliminary decision that the broad claims originally issued did not satisfy EPO requirements and amended the claims to more narrowly define the scope of the claims. Based on the outcome of the hearing, the '870 patent, in its amended form, was held by the panel to comply with the EPO requirements.

The Company believes the EPO's decision relating to the broad original claims is erroneous and intends to appeal the ruling to reinstate a broader set of claims. This patent, as originally granted by the EPO, would be deemed valid during the pendency of an appeals process. At this time, based on our current knowledge, we believe there is a substantial likelihood that the patent being challenged will be declared valid and that all or a significant portion of our claims will be upheld. However, we cannot make any assurances of this result.

### Invalidation Trials in Japan for Japan Patent Nos. 4357781 and 4358168\*

On May 24, 2010, we received Notices of Invalidation Trials against Japan Patent Nos. 4357781 (the JP '781 patent) and 4358168 (the JP '168 patent), which were both issued on August 14, 2009. The requests were filed by Semiconductor Energy Laboratory Co., Ltd. (SEL). The JP '781 and JP '168 patents are Japanese counterpart patents, in part, to the above-noted U.S. '828 Patent Family. They are exclusively licensed to us by Princeton, and we are required to pay all legal costs and fees associated with this proceeding.

On March 31, 2011, we learned that the Japanese Patent Office (JPO) had issued decisions finding all claims in the JP '781 and JP '168 patents invalid.

Both parties appealed this matter to the Japanese IP High Court. On November 7, 2012, we were notified that the Japanese IP High Court had reversed the JPO's finding of invalidity and remanded the case back to the JPO for further consideration.



In a decision reported to us on April 15, 2013, all claims in our JP '781 and JP '168 patents were upheld as valid by the JPO. Our opponent appealed this decision.

At this time, based on our current knowledge, we believe that the claims on the patents should be upheld. However, we cannot make any assurances of this result.

Table of Contents

Invalidation Trial in Japan for Japan Patent No. 4511024\*

On June 16, 2011, we learned that a Request for an Invalidation Trial was filed in Japan for our Japanese Patent No. JP-4511024 (the JP '024 patent), which issued on May 14, 2010. The Request was filed by SEL, the same opponent as in the above-noted Japanese Invalidation Trials for the JP '781 and JP '168 patents. The JP '024 patent is a counterpart patent, in part, to the U.S. '238 Patent Family, which relate to the EP '870 patent, which is subject to one of the above-noted European oppositions and which relates to our UniversalPHOLED phosphorescent OLED technology. They are exclusively licensed to us by Princeton, and we are required to pay all legal costs and fees associated with this proceeding.

On May 10, 2012, we learned that the JPO issued a decision upholding the validity of certain claimed inventions in the JP '024 Patent but invalidating the broadest claims in the patent. We appealed the JPO's decision to the Japanese IP High Court. On October 31, 2013, the Japanese IP High Court ruled that the prior art references relied on by the JPO did not support the JPO's findings, reversed the JPO's decision with respect to the previously invalidated broad claims in the JP '024 patent and remanded the matter back to the JPO for further consideration consistent with its decision. The JPO subsequently issued a decision upholding the validity of certain claimed inventions in the JP '024 Patent but invalidating the broadest claims in the patent. The Company intends to appeal the decision to reinstate a broader set of claims. This patent, as originally granted by the JPO, would be deemed valid during the pendency of an appeals process.

At this time, based on our current knowledge, we believe that the patent being challenged should be declared valid and that all or a significant portion of our claims should be upheld. However, we cannot make any assurances of this result.

Opposition to European Patent No. 1252803\*

On July 12 and 13, 2011, Sumitomo, Merck Patent GmbH and BASF SE, of Ludwigshaven, Germany filed oppositions to our European Patent No. 1252803 (the EP '803 patent). The EP '803 patent, which was issued on October 13, 2010, is a European counterpart patent, in part, to the U.S. '828 Patent Family. They are exclusively licensed to us by Princeton, and we are required to pay all legal costs and fees associated with this proceeding.

On December 7, 2012 the EPO rendered a decision at an Oral Hearing wherein it upheld the broadest claim of the granted patent. All three opponents filed an appeal.

At this time, based on our current knowledge, we believe there is a substantial likelihood that the patent being challenged will be declared valid and that all or a significant portion of our claims will be further upheld on appeal. However, we cannot make any assurances of this result.

Opposition to European Patent No. 1390962

On November 16, 2011, Osram AG and BASF SE each filed a Notice of Opposition to European Patent No. 1390962 (EP '962 patent), which relates to our white phosphorescent OLED technology. The EP '962 patent, which was issued on February 16, 2011, is a European counterpart patent to U.S. patents 7,009,338 and 7,285,907. They are exclusively licensed to us by Princeton, and we are required to pay all legal costs and fees associated with this proceeding.

The EPO combined the oppositions into a single opposition proceeding. We expect the EPO to schedule a hearing on this matter in the first half of 2014.

At this time, based on our current knowledge, we believe there is a substantial likelihood that the patent being challenged will be declared valid, and that all or a significant portion of our claims will be upheld. However, we cannot make any assurances of this result.

Opposition to European Patent No. 1933395\*

On February 24 and 27, 2012, Sumitomo, Merck Patent GmbH and BASF SE filed oppositions to our European Patent No. 1933395 (the EP '395 patent). The EP '395 patent is a counterpart patent to the above-noted JP '168 patent, and, in part, to the U.S. '828 Patent Family. This patent is exclusively licensed to us by Princeton, and we are required to pay all legal costs and fees associated with this proceeding.

At an Oral Hearing on October 14, 2013, the EPO panel issued a decision that affirmed the basic invention and broad patent coverage in the EP '395 patent, but narrowed the scope of the original claims.

On February 26, 2014, we appealed the ruling to reinstate a broader set of claims. The patent, as originally granted by the EPO, is deemed to be valid during the pendency of the appeals process. Two of the three opponents also filed their

own appeals of the ruling. Sumitomo did not file an appeal within the allotted time, and will therefore no longer be a party to the proceedings.

In addition to the above proceedings, from time to time, we may have other proceedings that are pending which relate to patents we acquired as part of the Fuji Patent acquisition or which relate to technologies that are not currently widely utilized in the marketplace.

28

---

Table of Contents

## ITEM 1A. RISK FACTORS

There have been no material changes to the risk factors previously discussed in Part I, Item 1A “Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2013.

## ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

## Share Repurchases

During the quarter ended March 31, 2014, we acquired 48,758 shares of common stock through transactions related to the vesting of restricted share awards previously granted to employees of ours. Upon vesting, the employees turned in shares of common stock in amounts sufficient to pay the minimum statutory tax withholding at rates required by the relevant tax authorities.

The following table provides information relating to the shares we received and repurchased during the first quarter of 2014 (dollar amounts in thousands, other than per share amounts):

Period	Total Number of Shares Purchased	Weighted Average Price Paid per Share
January 1 - January 31	—	\$—
February 1 - February 28	—	—
March 1 - March 31	48,758	34.43
Total	48,758	

## ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

## ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

## ITEM 5. OTHER INFORMATION

None.

## ITEM 6. EXHIBITS

The following is a list of the exhibits filed as part of this report. Where so indicated by footnote, exhibits that were previously filed are incorporated by reference. For exhibits incorporated by reference, the location of the exhibit in the previous filing is indicated parenthetically, together with a reference to the filing indicated by footnote.

Table of Contents

Exhibit Number	Description
31.1*	Certifications of Steven V. Abramson, Chief Executive Officer, as required by Rule 13a-14(a) or Rule 15d-14(a)
31.2*	Certifications of Sidney D. Rosenblatt, Chief Financial Officer, as required by Rule 13a-14(a) or Rule 15d-14(a)
32.1**	Certifications of Steven V. Abramson, Chief Executive Officer, as required by Rule 13a-14(b) or Rule 15d-14(b), and by 18 U.S.C. Section 1350. (This exhibit shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liability of that section. Further, this exhibit shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended.)
32.2**	Certifications of Sidney D. Rosenblatt, Chief Financial Officer, as required by Rule 13a-14(b) or Rule 15d-14(b), and by 18 U.S.C. Section 1350. (This exhibit shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liability of that section. Further, this exhibit shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended.)
101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema Document
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document
Explanation of footnotes to listing of exhibits:	
*	Filed herewith.
**	Furnished herewith.

Table of Contents

SIGNATURES

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

UNIVERSAL DISPLAY CORPORATION

By: /s/ Sidney D. Rosenblatt  
Sidney D. Rosenblatt  
Executive Vice President, Chief Financial  
Officer,  
Treasurer and Secretary

Date: May 8, 2014