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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
WASHINGTON, D.C. 20549

**FORM 10-Q**

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

For the quarterly period ended September 30, 2004

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: 000-30269

**PIXELWORKS, INC.**

(Exact name of registrant as specified in its charter)

**OREGON**

(State or other jurisdiction of incorporation)

**91-1761992**

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

**8100 SW Nyberg Road  
Tualatin, Oregon 97062  
(503) 454-1750**

(Address, including zip code, and telephone number, including  
area code, of registrant's principal executive offices)

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 last 90 days. Yes  No

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

Number of shares of Common Stock outstanding as of October 31, 2004: 46,245,034

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PIXELWORKS, INC.  
FORM 10-Q  
FOR THE QUARTERLY PERIOD ENDED SEPTEMBER 30, 2004

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**PART I – FINANCIAL INFORMATION**

**Item 1. Financial Statements**

**PIXELWORKS, INC.**  
**CONDENSED CONSOLIDATED BALANCE SHEETS**  
(In thousands)  
(Unaudited)

	<u>September 30,</u> <u>2004</u>	<u>December 31,</u> <u>2003</u>
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 113,921	\$ 75,165
Short-term marketable securities	85,835	5,656
Accounts receivable, net	17,902	8,468
Inventories, net	21,251	10,478
Prepaid expenses and other current assets	5,268	4,826
Total current assets	<u>244,177</u>	<u>104,593</u>
Long-term marketable securities	66,274	19,875
Property and equipment, net	10,309	6,561
Other assets, net	8,556	12,511
Deferred tax assets, net	6,598	3,694
Debt issuance costs, net	4,635	—
Acquired intangible assets, net	2,774	3,535
Goodwill	82,007	82,548
Total assets	<u>\$ 425,330</u>	<u>\$ 233,317</u>
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$ 7,646	\$ 4,330
Accrued liabilities and current portion of long term liabilities	12,275	8,582
Income taxes payable	5,976	—
Total current liabilities	<u>25,897</u>	<u>12,912</u>
Long-term liabilities	1,098	100
Long-term debt	150,000	—
Total liabilities	<u>176,995</u>	<u>13,012</u>
Shareholders' equity		
Preferred stock	—	—
Common stock	305,958	294,235
Shares exchangeable into common stock	6,212	7,888
Deferred stock-based compensation	(149)	(449)
Accumulated other comprehensive loss	(78)	—
Accumulated deficit	(63,608)	(81,369)
Total shareholders' equity	<u>248,335</u>	<u>220,305</u>
Total liabilities and shareholders' equity	<u>\$ 425,330</u>	<u>\$ 233,317</u>

See accompanying notes to condensed consolidated financial statements.

**PIXELWORKS, INC.**  
**CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS**  
(In thousands, except per share data)  
(Unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2004	2003	2004	2003
Revenue	\$ 43,970	\$ 35,516	\$ 137,749	\$ 100,080
Cost of revenue (1)	21,896	20,453	68,598	55,625
Gross profit	22,074	15,063	69,151	44,455
Operating expenses:				
Research and development (2)	7,782	6,375	22,507	19,976
Selling, general and administrative (3)	6,900	5,464	20,020	16,341
Merger related expenses	—	5,971	—	8,948
Restructuring	—	3,927	—	3,927
Stock-based compensation and amortization of assembled workforce	208	268	706	1,141
Total operating expenses	14,890	22,005	43,233	50,333
Income (loss) from operations	7,184	(6,942)	25,918	(5,878)
Interest income	1,474	248	2,238	937
Interest expense	(657)	(1)	(952)	(10)
Amortization of debt issuance costs	(179)	—	(294)	—
Interest income, net	638	247	992	927
Income (loss) before income taxes	7,822	(6,695)	26,910	(4,951)
Provision for (recovery of) income taxes	2,373	(2,554)	9,149	(1,478)
Net income (loss)	\$ 5,449	\$ (4,141)	\$ 17,761	\$ (3,473)
Net income (loss) per share:				
Basic	\$ 0.12	\$ (0.09)	\$ 0.38	\$ (0.08)
Diluted	\$ 0.11	\$ (0.09)	\$ 0.37	\$ (0.08)
Weighted average shares outstanding:				
Basic	46,827	45,374	46,596	45,196
Diluted	47,802	45,374	48,214	45,196

(1) Includes amortization of:				
Acquired developed technology	\$ 132	\$ 132	\$ 396	\$ 396
Deferred stock-based compensation	—	2	—	7
(2) Excludes stock-based compensation of:	70	316	223	617
(3) Excludes stock-based compensation of:	17	72	119	159

See accompanying notes to condensed consolidated financial statements.

**PIXELWORKS, INC.**  
**CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(in thousands)  
(Unaudited)

	Nine Months Ended September 30,	
	2004	2003
<b>Cash flows from operating activities:</b>		
Net income (loss)	\$ 17,761	\$ (3,473)
Adjustments to reconcile net income to net cash provided by operating activities:		
Tax benefit from stock options	5,579	—
Depreciation and amortization	5,515	4,723
Deferred income tax (benefit) expense	(3,276)	1,023
Stock-based compensation and amortization of assembled workforce	706	1,148
Loss on asset disposals	390	3,927
Amortization of acquired developed technology	396	396
Amortization of debt issuance costs	294	—
Amortization of deferred tax charge	41	—
Deferred rent	67	—
Changes in operating assets and liabilities:		
Accounts receivable, net	(9,434)	(179)
Inventories, net	(10,773)	(4,500)
Prepaid expenses and other current and long-term assets	(186)	(3,384)
Accounts payable	3,316	2,298
Accrued current and long-term liabilities and income taxes payable	6,696	1,258
Net cash provided by operating activities	<u>17,092</u>	<u>3,237</u>
<b>Cash flows from investing activities:</b>		
Purchases of marketable securities	(157,457)	(31,509)
Proceeds from maturities of marketable securities	40,801	40,749
Purchases of property and equipment	(5,657)	(3,749)
Purchases of other assets and investments	(3,031)	(10,253)
Payments on accrued equipment and other asset balances	(3,156)	(191)
Proceeds from sale of assets	3	—
Net cash used in investing activities	<u>(128,497)</u>	<u>(4,953)</u>
<b>Cash flows from financing activities:</b>		
Proceeds from the issuance of long-term debt, net	145,500	—
Proceeds from issuances of common stock	4,966	1,636
Lease incentives	124	—
Debt issuance costs	(429)	—
Net cash provided by financing activities	<u>150,161</u>	<u>1,636</u>
Net increase in cash and cash equivalents	38,756	(80)
Cash and cash equivalents, beginning of period	75,165	62,152
Cash and cash equivalents, end of period	<u>\$ 113,921</u>	<u>\$ 62,072</u>
<b>Supplemental disclosure of cash flow information:</b>		
Cash paid during the year for:		
Interest	\$ 2	\$ 10
Income taxes	230	868
<b>Supplemental disclosure of non-cash investing and financing activities:</b>		
Transfer of cost-based investment to available-for-sale marketable security	\$ 10,000	\$ —
Acquisitions of property and equipment and other assets under extended payment terms	6,936	—
Release and cancellation of common shares held in escrow	541	—
Debt issuance costs withheld from proceeds	4,500	—

See accompanying notes to condensed consolidated financial statements.

**PIXELWORKS, INC.**  
**Notes to Condensed Consolidated Financial Statements**  
**(Unaudited)**  
**(In thousands, except per share data)**

**NOTE 1: BASIS OF PRESENTATION**

**Nature of Business**

Pixelworks, Inc. ("Pixelworks" or "the Company") is a leading designer, developer and marketer of semiconductors and software for the advanced display industry, including advanced televisions, multimedia projectors and flat panel monitors. Our system-on-chip semiconductors provide the 'intelligence' for these types of displays by processing and optimizing video and computer graphic signals to produce high-quality images.

**Condensed Consolidated Financial Statements**

These condensed consolidated financial statements have been prepared by Pixelworks, Inc. ("Pixelworks" or "the Company") pursuant to the rules and regulations of the Securities and Exchange Commission. Certain information and footnote disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP") have been condensed or omitted pursuant to such regulations, although we believe that the disclosures provided are adequate to prevent the information presented from being misleading.

The financial information included herein for the three and nine months ended September 30, 2004 and 2003 is unaudited; however, such information reflects all adjustments, consisting only of normal recurring adjustments, that are, in the opinion of management, necessary for a fair presentation of the financial position, results of operations and cash flows of the Company for these interim periods. The financial information as of December 31, 2003 is derived from our audited consolidated financial statements and notes thereto for the fiscal year ended December 31, 2003, included in Item 8 of our Annual Report on Form 10-K, and should be read in conjunction with such consolidated financial statements.

The results of operations for the three and nine months ended September 30, 2004 are not necessarily indicative of the results expected for the entire fiscal year ending December 31, 2004.

**Use of Estimates**

The preparation of financial statements in conformity with GAAP requires us to make estimates and judgments that affect amounts reported in the financial statements and related disclosures. Our significant estimates and judgments include those related to product returns, warranty obligations, bad debts, inventories, property and equipment, intangible assets, income taxes, litigation and other contingencies. The actual results experienced by the Company could differ materially from our estimates.

**Reclassifications**

Certain reclassifications have been made to the prior year condensed consolidated financial statements to conform to the current year presentation.

**NOTE 2: STOCK PLANS**

We have a 1997 Stock Incentive Plan and a 2001 Non-Qualified Stock Option Plan under which employees, officers and directors may be granted stock options to purchase shares of the Company's common stock. We also have an Employee Stock Purchase Plan under which eligible employees may purchase shares of Pixelworks' common stock at 85% of fair market value at specific, pre-determined dates.

As permitted by Statement of Financial Accounting Standards (“SFAS”) No. 123, *Accounting for Stock-Based Compensation* (“SFAS 123”), and SFAS No. 148, *Accounting for Stock-Based Compensation – Transition and Disclosure, an Amendment of FASB Statement No. 123*, we continue to apply the intrinsic value based method of accounting for stock compensation described in APB Opinion No. 25, *Accounting for Stock Issued to Employees* (“Opinion 25”). Entities electing to continue to apply Opinion 25 must make prominent pro-forma disclosures of net income and earnings per share as if the fair value based method prescribed by SFAS 123 had been applied. Had we accounted for our stock-based compensation plans in accordance with SFAS 123, our net income would have approximated the pro-forma amounts below:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2004	2003	2004	2003
Net income (loss) as reported	\$ 5,449	\$ (4,141)	\$ 17,761	\$ (3,473)
Add: Stock-based compensation included in reported net loss, net of related tax effects	61	242	226	485
Deduct: Stock-based compensation determined under the fair value based method, net of related tax effects	(3,165)	(2,381)	(7,682)	(6,840)
Pro-forma net income (loss)	\$ 2,345	\$ (6,280)	\$ 10,305	\$ (9,828)
Reported basic net income (loss) per share	\$ 0.12	\$ (0.09)	\$ 0.38	\$ (0.08)
Pro-forma basic net income (loss) per share	\$ 0.05	\$ (0.14)	\$ 0.22	\$ (0.22)
Reported diluted net income (loss) per share	\$ 0.11	\$ (0.09)	\$ 0.37	\$ (0.08)
Pro-forma diluted net income (loss) per share	\$ 0.05	\$ (0.14)	\$ 0.21	\$ (0.22)

The fair value of stock-based compensation costs reflected in the above pro forma amounts were determined using the Black-Scholes option pricing model and the following weighted average assumptions:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2004	2003	2004	2003
<b>Stock Option Plans:</b>				
Risk free interest rate	3.74%	2.85%	3.92%	2.84%
Expected dividend yield	0%	0%	0%	0%
Expected life (in years)	6.1	5.5	6.1	5.5
Volatility	99%	106%	101%	110%
<b>Employee Stock Purchase Plan:</b>				
Risk free interest rate	1.87%	1.77%	1.87%	1.74%
Expected dividend yield	0%	0%	0%	0%
Expected life (in years)	1.3	1.4	1.3	1.2
Volatility	102%	100%	103%	98%

The effects of applying SFAS 123 in this pro forma disclosure are not indicative of future amounts and additional awards are anticipated in future periods.

**NOTE 3: BALANCE SHEET COMPONENTS****Marketable Securities**

We categorize our marketable securities in accordance with SFAS No. 115, *Accounting for Certain Investments in Debt and Equity Securities* (“SFAS 115”). As of September 30, 2004 and December 31, 2003, all balances included in short-term marketable securities are classified as held-to-maturity. As of December 31, 2003, all balances included in long-term marketable securities are classified as held-to-maturity, however as of September 30, 2004, long-term marketable securities consist of held-to-maturity securities and an available-for-sale security as follows:

Held-to-maturity securities	\$ 56,352
Available-for-sale security	9,922
	<u>\$ 66,274</u>

Held-to-maturity marketable securities are stated at amortized cost in the condensed consolidated balance sheets. We have the positive intent and ability to hold these securities until maturity. Unrealized gains and losses on held-to-maturity marketable securities were not material at September 30, 2004 and December 31, 2003.

The available-for-sale security is stated at fair value in the condensed consolidated balance sheet. The available-for-sale security balance represents the fair value of our investment in Semiconductor Manufacturing International Corporation (“SMIC”) at September 30, 2004. We made a \$10,000 investment in SMIC during the third quarter of 2003 and recorded it at cost in other long-term assets at December 31, 2003. In March of 2004, SMIC completed its initial public offering and as a result, we now account for the investment as an available-for-sale security in accordance with SFAS 115. At September 30, 2004, the \$78 unrealized holding loss on our SMIC investment is recorded in other comprehensive loss, a component of shareholders’ equity.

**Accounts Receivable**

Accounts receivable are recorded at invoiced amount and do not bear interest. We do not have any off balance sheet exposure risk related to customers. Accounts receivable are stated net of an allowance for doubtful accounts, which is maintained for estimated losses resulting from the inability of our customers to make required payments. Accounts receivable, net consist of the following:

	<u>September 30,</u> <u>2004</u>	<u>December 31,</u> <u>2003</u>
Accounts receivable, gross	\$ 18,114	\$ 8,680
Allowance for doubtful accounts	(212)	(212)
Accounts receivable, net	<u>\$ 17,902</u>	<u>\$ 8,468</u>

During the three and nine months ended September 30, 2004 and 2003, we recorded \$0 provision for doubtful accounts.



## Inventories

Inventories consists of finished goods and work-in-process, and are stated at the lower of standard cost (which approximates actual cost on a first-in, first-out basis) or market (net realizable value), net of a reserve for slow moving, impaired and obsolete items. Inventories, net consist of the following:

	<u>September 30, 2004</u>	<u>December 31, 2003</u>
Finished goods	\$ 12,519	\$ 7,134
Work-in-process	8,732	3,344
	<u>\$ 21,251</u>	<u>\$ 10,478</u>

The reserve for slow moving, impaired and obsolete items was \$1,380 and \$1,942 at September 30, 2004 and December 31, 2003, respectively.

While we do not currently expect to be able to sell or otherwise use the reserved inventory we have on hand at September 30, 2004 based upon our forecast and backlog, it is possible that a customer will decide in the future to purchase a portion of the reserved inventory. It is not currently possible to predict if or when this will happen, or how much we may sell. We do not expect that if such sales occur, they will have a material impact on gross profit margin.

## Property and Equipment

Property and equipment, net consist of the following:

	<u>September 30, 2004</u>	<u>December 31, 2003</u>
Gross carrying amount of assets	\$ 29,956	\$ 21,778
Accumulated depreciation and amortization	(19,647)	(15,217)
	<u>\$ 10,309</u>	<u>\$ 6,561</u>

## Acquired Intangible Assets

Acquired intangible assets, net consist of the following:

	<u>September 30, 2004</u>	<u>December 31, 2003</u>
Gross carrying amount of assets	\$ 5,277	\$ 5,277
Accumulated amortization	(2,503)	(1,742)
	<u>\$ 2,774</u>	<u>\$ 3,535</u>

## Accrued Liabilities and Current Portion of Long Term Liabilities

Accrued liabilities and current portion of long term liabilities consists of the following:

	<u>September 30, 2004</u>	<u>December 31, 2003</u>
Payroll and related liabilities	\$ 3,690	\$ 3,502
Accrued payments for asset purchases	2,896	—
Accrued interest payable	970	—
Accrued royalties and sales commissions	876	656
Accrued manufacturing liabilities	811	1,179
Reserve for warranty returns	457	569
Reserve for sales returns and allowances	271	202
Other	2,304	2,474
	<u>\$ 12,275</u>	<u>\$ 8,582</u>

The following is a summary of the change in our reserve for sales returns and allowances for the nine months ended September 30, 2004 and 2003:

	<u>Nine Months Ended September 30,</u>	
	<u>2004</u>	<u>2003</u>
Beginning balance	\$ 202	\$ 588
Provision	601	1,380
Charge offs	(532)	(1,423)
Ending balance	<u>\$ 271</u>	<u>\$ 545</u>

The following is a summary of the change in our reserve for warranty returns for the nine months ended September 30, 2004 and 2003:

	<u>Nine Months Ended September 30,</u>	
	<u>2004</u>	<u>2003</u>
Beginning balance	\$ 569	\$ 769
Provision	145	15
Charge offs	(257)	(139)
Ending balance	<u>\$ 457</u>	<u>\$ 645</u>

#### **Long-Term Debt**

On May 18, 2004, we issued \$125,000 of Convertible Subordinated Debentures (“the debentures”) due 2024 in a private offering pursuant to Rule 144A under the Securities Act of 1933 and outside of the United States in accordance with Regulation S under the Securities Act. On June 4, 2004, we issued an additional \$25,000 of debentures pursuant to the exercise of an option granted to the initial purchasers.

The debentures bear interest at a rate of 1.75% per annum and interest is payable on May 15 and November 15 of each year, beginning November 15, 2004. The debentures are convertible, under certain circumstances, into our common stock at a conversion rate of 41.0627 shares of common stock per \$1,000 principal amount of debentures for a total of 6,159 shares. This is equivalent to a conversion price of approximately \$24.35 per share. The debentures are convertible if (a) during any calendar quarter, the market price of our common stock exceeds 130% of the conversion price per share for at least 20 trading days during the period of 30 consecutive trading days ending on the last trading day of the previous calendar quarter, (b) the trading price of the debentures declines to less than 98% of the product of the closing sale price of our common stock and the number of shares issuable upon conversion of \$1,000

principal amount of the debentures for five consecutive trading days, (c) a call for redemption occurs, or (d) in the event of certain other corporate transactions. We may redeem some or all of the debentures for cash on or after May 15, 2011 at a price equal to 100% of the principal amount of the debentures plus accrued and unpaid interest. The holders of the debentures have the right to require us to purchase all or a portion of their debentures on May 15, 2011, May 15, 2014 and May 15, 2019 at a price equal to 100% of the principal amount plus accrued and unpaid interest.

We have filed a shelf registration statement with the Securities and Exchange Commission covering resales of the debentures and the common stock issuable upon conversion of the debentures. The registration statement was declared effective August 24, 2004. The debentures are unsecured obligations and are subordinated in right of payment to all our existing and future senior debt.

#### Accumulated Other Comprehensive Loss

As of September 30, 2004, we had an unrealized loss, net of tax, on our available-for-sale investment in SMIC of \$78. This unrealized loss was recorded during the period in accumulated other comprehensive loss. Total comprehensive income for the three and nine months ended September 30, 2004 is as follows:

	<b>Three Months Ended September 30, 2004</b>	<b>Nine Months Ended September 30, 2004</b>
Net income	\$ 5,449	\$ 17,761
Unrealized loss on available-for-sale marketable security, net of tax	(553)	(78)
Comprehensive income	<u>\$ 4,896</u>	<u>\$ 17,683</u>

During 2003, we had no transactions that were required to be reported in comprehensive income other than net income or loss.

#### NOTE 4: EARNINGS PER SHARE

The shares used in the computation of basic and diluted net income per share are as follows:

	<b>Three Months Ended September 30,</b>		<b>Nine Months Ended September 30,</b>	
	<b>2004</b>	<b>2003</b>	<b>2004</b>	<b>2003</b>
Weighted average common shares outstanding, basic	46,827	45,374	46,596	45,196
Dilutive effect of employee stock options and vesting of restricted stock	975	—	1,618	—
Weighted average common shares outstanding, diluted	<u>47,802</u>	<u>45,374</u>	<u>48,214</u>	<u>45,196</u>

The computation of basic weighted average common shares outstanding includes exchangeable shares. The exchangeable shares, which were issued on September 6, 2002 by Jaldi, our Canadian subsidiary, to its shareholders in connection with our Jaldi asset acquisition, have characteristics essentially equivalent to Pixelworks common stock.

For the three and nine months ended September 30, 2004, respectively, approximately 3,941 and 2,039, weighted average shares related to stock options were excluded from the calculation of diluted weighted average shares outstanding because the exercise prices of these options were equal to, or greater than, the average market price of Pixelworks common stock during these periods. As a result, their inclusion would have been anti-dilutive. For the three and nine months ended September 30, 2003, respectively, approximately 3,605 and 4,171 weighted average shares related to stock options were excluded for this reason. Additionally, 1,285 and 1,258 common stock equivalents related to stock options and vesting of

restricted stock were excluded from the computation of diluted earnings per share for the three and nine months ended September 30, 2003, respectively, as their inclusion would have been anti-dilutive based upon our net loss position during these periods.

The common shares issuable upon conversion of the convertible subordinated debentures have been excluded from dilutive common shares, as the circumstances that allow for conversion were not met during the periods presented.

**NOTE 5: SEGMENT INFORMATION**

In accordance with SFAS No. 131, *Disclosures about Segments of an Enterprise and Related Information*, we have identified a single operating segment: the design and development of integrated circuits for electronic display devices. Substantially all of our assets are located in the United States.

**Geographic Information**

Revenue by geographic region, attributed to countries based on the domicile of the customer, was as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2004	2003	2004	2003
Japan	\$ 22,572	\$ 18,004	\$ 57,275	\$ 44,188
Taiwan	6,622	7,280	30,357	23,241
China	6,648	3,949	23,436	9,954
Korea	2,960	2,515	10,078	11,184
Europe	2,145	2,381	8,247	5,692
U.S.	489	618	1,684	1,472
Other	2,534	769	6,672	4,349
	<u>\$ 43,970</u>	<u>\$ 35,516</u>	<u>\$ 137,749</u>	<u>\$ 100,080</u>

*Significant Customers*

Sales to distributors represented 70% and 73% of total revenue for the three months ended September 30, 2004 and 2003, respectively, and 71% and 68% of total revenue for the nine months ended September 30, 2004 and 2003, respectively. The following distributors accounted for 10% or more of total revenue for certain of the periods presented:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2004	2003	2004	2003
Distributor A	40%	43%	32%	39%
Distributor B	10%	14%	14%	15%
Distributor C	10%	9%	8%	6%

Sales to our top five end customers represented 42% of total revenue for the three months ended September 30, 2004 and 2003. Sales to our top five end customers represented 34% and 36% of revenue for the nine months ended September 30, 2004 and 2003, respectively. The following end customers accounted for 10% or more of total revenue for certain of the periods presented:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2004	2003	2004	2003
Customer A	15%	13%	8%	9%
Customer B	11%	9%	8%	8%

End customers include customers who purchase directly from us, as well as customers who purchase our products indirectly through distributors and contract manufacturers.

The following accounts represented 10% or more of gross accounts receivable in either period:

	September 30, 2004	December 31, 2003
Account A	40%	20%
Account B	13%	33%
Account C	11%	4%
Account D	4%	11%

**NOTE 6: GENESIS MICROCHIP TRANSACTION**

On March 17, 2003, we announced the execution of a definitive merger agreement with Genesis Microchip. On August 5, 2003, we entered into an agreement terminating the merger agreement. In the termination agreement, we agreed to pay a termination fee of \$5,500 to Genesis Microchip. The fee was payable upon execution of the termination agreement, and was recognized as an expense in the third quarter of 2003. Total expenses related to the proposed merger during the three and nine months ended September 30, 2003 were \$5,971 and \$8,948, respectively.

**NOTE 7: RESTRUCTURING**

In September 2003, we initiated a restructuring to better position the Company to compete in the advanced television market. The restructuring included the discontinuation of research and development efforts related to two products. As a result of these actions, we determined that certain tangible and intangible assets related to the discontinued product development efforts were permanently impaired because there were no alternate uses for them. Impaired assets included tooling, licensed technology and prepaid royalties. The net book value of the impaired assets totaled \$3,927 at the discontinuation date, and this amount was recognized as a restructuring charge in the three months ended September 30, 2003. We incurred additional expenses in the fourth quarter of 2003 related to this restructuring, including one-time termination benefits and lease costs.

**Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations**

**Forward-looking Statements**

This Management's Discussion and Analysis of Financial Condition and Results of Operations and other sections of this Report contain "forward-looking statements" within the meaning of the Securities Litigation Reform Act of 1995 that are based on current expectations, estimates, beliefs, assumptions and projections about our business. Words such as "expects," "anticipates," "intends," "plans," "believes," "seeks," "estimates" and variations of such words and similar expressions are intended to identify such forward-looking statements. These statements are not guarantees of future performance and involve certain risks and uncertainties that are difficult to predict. Actual outcomes and results may differ

materially from what is expressed or forecasted in such forward-looking statements due to numerous factors. Such factors include, but are not limited to, increased competition, continued adverse economic conditions in the U.S. and internationally, including adverse economic conditions in the specific markets for our products, adverse business conditions, failure to design, develop and manufacture new products, lack of success in technological advancements, lack of market acceptance of new products, unexpected changes in the demand for our products and services, the inability to successfully manage inventory pricing pressures, failure to reduce costs or improve operating efficiencies, changes to and compliance with international laws and regulations, currency fluctuations and our ability to attract, hire and retain key and qualified employees. These forward-looking statements speak only as of the date on which they are made, and we do not undertake any obligation to update any forward-looking statement to reflect events or circumstances after the date of this Report on Form 10-Q. If we do update or correct one or more forward-looking statements, you should not conclude that we will make additional updates or corrections with respect thereto or with respect to other forward-looking statements.

(In thousands, except per share data)

## **Overview**

We are a leading designer, developer and marketer of semiconductors and software for the advanced display industry, including advanced televisions, multimedia projectors and flat panel monitors. Our system-on-chip semiconductors provide the 'intelligence' for these new types of displays by processing and optimizing video and computer graphic signals to produce high-quality and realistic images. Many of the world's leading manufacturers of consumer electronics and computer display products utilize our technology to enhance image quality and ease of use of their products. Our goal is to provide all of the electronics necessary to process the entire signal path in order to provide a turnkey solution for our customers.

We sell our products worldwide through a direct sales force and indirectly through distributors and manufacturers representatives. We sell to distributors in Japan, Taiwan, China and Europe. Sales to distributors represented 70% and 73% of total revenue for the three months ended September 30, 2004 and 2003, respectively, and 71% and 68% of total revenue for the nine months ended September 30, 2004 and 2003, respectively. Manufacturer's representatives support some of our European and Korean sales.

Historically, significant portions of our revenue have been generated by sales to a relatively small number of end customers and distributors. Sales to our top five end customers represented 42% of total revenue for the three months ended September 30, 2004 and 2003. Sales to our top five end customers represented 34% and 36% of revenue for the nine months ended September 30, 2004 and 2003, respectively. End customers are customers that indirectly purchase our products through distributors and contract manufacturers as well as directly from us.

Significant portions of our products are sold overseas. Sales outside the U.S. accounted for approximately 99% and 98% of total revenue for the three months ended September 30, 2004 and 2003, respectively, and 99% of total revenue for the nine months ended September 30, 2004 and 2003. Our integrators, branded manufacturers and branded suppliers incorporate our products into systems that are sold worldwide. All revenue to date has been denominated in U.S. dollars.

## **Critical Accounting Policies and Estimates**

Our discussion and analysis of our financial condition and results of operations are based on our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP"). The preparation of financial statements in conformity with GAAP requires us to make estimates and judgments that affect the amounts reported in the financial statements and accompanying notes. On an on-going basis, we evaluate our estimates, including those related to product returns, warranty obligations, inventories, property and equipment, intangible assets, income

taxes, litigation and other contingencies. We base our estimates on historical experience and various other assumptions that we believe to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions.

We believe the following critical accounting policies affect our more significant judgments and estimates used in the preparation of our consolidated financial statements:

*Revenue Recognition.* We recognize revenue in accordance with Staff Accounting Bulletin No. 104, *Revenue Recognition*. Accordingly, revenue is recognized when an authorized purchase order has been received, the sales price is fixed and determinable, title has transferred, collection of the resulting receivable is probable and product returns are reasonably estimable. This generally occurs upon shipment of the underlying merchandise for product sales to direct customers. This also occurs upon shipment of the underlying merchandise for product sales to distributors if the distributor has a firm sales commitment from an end customer.

*Sales Returns and Allowances.* Our customers do not have a stated right to return product other than under our warranty policy discussed below. As such, customer returns are accepted on a case-by-case basis as a customer accommodation only. However, certain of our distributors have stock rotation provisions in their distributor agreements, which allow them to return 5-10% of the products purchased in the prior six months in exchange for products of equal value. Certain distributors also have price protection provisions in their agreements with us.

We record estimated reductions to gross profit for these sales returns and allowances in our reserve for sales returns and allowances. We update the balance in this reserve based on historical experience at each reporting period. If actual returns and allowances increase, we may be required to recognize additional reductions to revenue.

*Product Warranties.* We warrant that our products will be free from defects in materials and workmanship for a period of twelve months from delivery. Warranty repairs are guaranteed for the remainder of the original warranty period. Our warranty is limited to repairing or replacing products, or refunding the purchase price.

We record the estimated cost of product warranties in our warranty reserve. We update the balance in this reserve based on historical experience at each reporting period. While we engage in extensive product quality programs and processes, which include actively monitoring and evaluating the quality of our suppliers, should actual product failure rates or product replacement costs differ from our estimates, revisions to the estimated warranty liability may be required.

*Allowance for Doubtful Accounts.* We offer credit to customers after careful examination of their creditworthiness. We maintain an allowance for doubtful accounts for estimated losses that may result from the inability of our customers to make required payments. We update the balance in the allowance based on historical experience and the age of outstanding receivables at each reporting period. If the financial condition of our customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be required.

*Inventory Valuation.* We record a reserve against our inventory for estimated obsolete, unmarketable, and otherwise impaired products by calculating the difference between the cost of inventory and the estimated market value based upon assumptions about future demand and market conditions. We review our inventory at the end of each reporting period for valuation issues. If actual market conditions are less favorable than those projected by us at the time the reserve was recorded, additional inventory write-downs may be required.

*Useful Lives and Recoverability of Equipment and Other Long-Lived Assets.* In accordance with Statement of Financial Accounting Standards (“SFAS”) No. 144 *Accounting for the Impairment or*

*Disposal of Long-Lived Assets.* we evaluate the remaining useful life and recoverability of equipment and other assets, including identifiable intangible assets with definite lives, whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. If there is an indication of impairment, we prepare an estimate of future, undiscounted cash flows expected to result from the use of each asset and its eventual disposition. If these cash flows are less than the carrying value of the asset, we adjust the carrying amount of the asset to its estimated fair value.

*Goodwill.* Goodwill, which represents the excess of cost over the fair value of net assets acquired in business combinations, is tested annually for impairment, and is tested for impairment more frequently if events and circumstances indicate that it might be impaired. The impairment tests are performed in accordance with SFAS No. 142, *Goodwill and Other Intangible Assets*. Accordingly, an impairment loss is recognized to the extent that the carrying amount of goodwill exceeds its implied fair value. This determination is made at the reporting unit level. We have assigned all goodwill to a single, enterprise-level reporting unit. The impairment test consists of two steps. First, we determine the fair value of the reporting unit. The fair value is then compared to its carrying amount. Second, if the carrying amount of the reporting unit exceeds its fair value, an impairment loss is recognized for any excess of the carrying amount of the reporting unit's goodwill over the implied fair value of that goodwill. The implied fair value of goodwill is determined by allocating the fair value of the reporting unit in a manner similar to a purchase price allocation in accordance with SFAS No. 141, *Business Combinations*. The residual fair value after this allocation is the implied fair value of the reporting unit goodwill. We perform our annual impairment test in the first quarter of each year. We did not record any impairment losses against goodwill when we performed the test in the first quarter of 2004 or 2003.

*Income Taxes.* We record a valuation allowance to reduce our deferred tax assets to the amount that we believe is more likely than not realizable. Should we determine that we will not be able to realize all or part of our net deferred tax asset in the future, an adjustment to the deferred tax asset would be charged to income in the period such determination was made.



## Results of Operations

The following table sets forth certain financial data for the periods indicated:

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2004		2003		2004		2003	
	Dollars	% of Revenue	Dollars	% of Revenue	Dollars	% of Revenue	Dollars	% of Revenue
Revenue	\$ 43,970	100.0%	\$ 35,516	100.0%	\$ 137,749	100.0%	\$ 100,080	100.0%
Cost of revenue	21,896	49.8	20,453	57.6	68,598	49.8	55,625	55.6
Gross profit	22,074	50.2	15,063	42.4	69,151	50.2	44,455	44.4
Operating expenses:								
Research and development	7,782	17.7	6,375	17.9	22,507	16.3	19,976	20.0
Selling, general and administrative	6,900	15.7	5,464	15.4	20,020	14.5	16,341	16.3
Merger related expenses	—	—	5,971	16.8	—	—	8,948	8.9
Restructuring	—	—	3,927	11.1	—	—	3,927	3.9
Stock-based compensation and amortization of assembled workforce	208	0.5	268	0.8	706	0.5	1,141	1.1
Total operating expenses	14,890	33.9	22,005	62.0	43,233	31.4	50,333	50.3
Income (loss) from operations	7,184	16.3	(6,942)	(19.5)	25,918	18.8	(5,878)	(5.9)
Interest income	1,474	3.4	248	0.7	2,238	1.6	937	0.9
Interest expense	(657)	(1.5)	(1)	—	(952)	(0.7)	(10)	—
Amortization of debt issuance costs	(179)	(0.4)	—	—	(294)	(0.2)	—	—
Interest income, net	638	1.5	247	0.7	992	0.7	927	0.9
Income (loss) before income taxes	7,822	17.8	(6,695)	(18.9)	26,910	19.5	(4,951)	(4.9)
Provision for (recovery of) income taxes	2,373	5.4	(2,554)	(7.2)	9,149	6.6	(1,478)	(1.5)
Net income (loss)	\$ 5,449	12.4%	\$ (4,141)	(11.7)%	\$ 17,761	12.9%	\$ (3,473)	(3.5)%

Percentages may not add due to rounding.

### Revenue

Revenue for the three months ended September 30, 2004 was 24% higher than revenue for the three months ended September 30, 2003. Revenue for the nine months ended September 30, 2004 was 38% higher than revenue for the nine months ended September 30, 2003. Changes in units shipped and average selling prices were as follows:

	Percent Change in Units Sold	Percent Change in Average Selling Price
Three months ended September 30, 2004 compared to three months ended September 30, 2003	27%	-3%
Nine months ended September 30, 2004 compared to nine months ended September 30, 2003	52%	-9%

Revenue by market as a percentage of gross revenue was as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2004	2003	2004	2003
Multimedia projectors	48%	52%	47%	53%
Advanced televisions	42%	33%	40%	24%
LCD monitors	7%	13%	11%	19%
Other	3%	2%	2%	4%

#### *Multimedia Projectors*

Total revenue from multimedia projector sales increased 16% to \$21,280 in the third quarter of 2004 from \$18,359 in the third quarter of 2003. Units shipped increased 54%, while average selling prices decreased 25%. For the nine months ended September 30, 2004, total revenue from multimedia projector sales was \$64,380, an increase of 20% over \$53,542 for the nine months ended September 30, 2003. Units shipped during the nine months ended September 30, 2004 were 45% higher than during the nine months ended September 30, 2003, while average selling prices were 17% lower. The increases in total revenue and units shipped were driven by the sub-\$1,000 and consumer segments of the projector market continuing to expand, and due to growth in sales of our front-end processors. Our current generation front-end processor chip, code named Cheddar, includes an analog to digital converter, Digital Visual Interface ("DVI") receiver and video decoder in a single chip.

Consistent with the three and nine months ended September 30, 2003, the majority of our sales to multimedia projector manufacturers during the three and nine months ended September 30, 2004 were to customers located in Japan. Japanese customers accounted for 76% and 68% of total projector revenue for the three months ended September 30, 2004 and 2003, respectively, and 69% and 62% of total projector revenue for the nine months ended September 30, 2004 and 2003, respectively.

We believe that we are likely to realize a sequential decrease of 15-20% in projector revenue in the fourth quarter of 2004. We expect this decrease to be primarily attributable to an overall softening of the projector market and also to customers who built large quantities of inventory during the third quarter that will be worked down during the fourth quarter.

#### *Advanced Televisions*

Total revenue from advanced television sales increased 58% to \$18,450 in the third quarter of 2004 from \$11,675 in the third quarter of 2003. Units shipped increased 67%, while average selling prices decreased 6%. For the nine months ended September 30, 2004, total revenue from advanced television sales was \$55,441, an increase of 129% over \$24,212 for the nine months ended September 30, 2003. Units shipped during the nine months ended September 30, 2004 were 157% higher than during the nine months ended September 30, 2003, while average selling prices were 11% lower.

The advanced television market includes products sold into liquid crystal display ("LCD") televisions, digital cathode ray tube ("CRT") televisions, plasma displays, and digital rear projection televisions. Revenue from products sold into the LCD market comprise the majority of our advanced television revenue.

Our advanced television revenue is generated primarily on sales to customers in China, Taiwan, Korea and Japan, with sales to television manufacturers in these four countries comprising 91% and 90% of total television revenue for the three months ended September 30, 2004 and 2003, respectively, and 89% and 90% of total television revenue for the nine months ended September 30, 2004 and 2003, respectively.

In the fourth quarter of 2004, we expect that our advanced television revenue will be equal to, or within 5% of, third quarter 2004 revenue.

### *LCD Monitors*

Total revenue from LCD monitor sales decreased 34% to \$3,122 in the third quarter of 2004 from \$4,741 in the third quarter of 2003. Units shipped decreased 67% but average selling prices increased 97%. For the nine months ended September 30, 2004, total revenue from LCD monitor sales was \$14,876, a decrease of 24% over \$19,447 for the nine months ended September 30, 2003. Units shipped during the nine months ended September 30, 2004 were 30% lower than during the nine months ended September 30, 2003, and average selling prices were 10% higher. The decrease in LCD monitor revenue is attributable in part to our strategy to exit this market. The decrease is also attributable to some of our customer's products reaching end of life. The increase in average selling prices was attributable to an increase in sales of high-end products.

We believe that revenue from LCD monitors is likely to decline further in the fourth quarter, and will represent less than 5% of our total revenue.

### *Other*

Other revenue includes sales of evaluation kits as well as the impact of changes in our reserve for sales returns and allowances. It also includes sales into small, niche markets that are unrelated to our three primary markets for our products. We do not expect other revenue to be significant in the near future.

### Cost of sales and gross profit

Cost of sales includes purchased materials, assembly, test, labor and overhead, warranty expense, royalties, amortization of purchased developed technology and provisions for slow moving and obsolete inventory.

Gross profit increased to 50.2% for the three and nine months ended September 30, 2004 from 42.4% and 44.4% for the comparable periods in 2003. The increases are primarily driven by a more favorable product mix.

We expect our gross profit margin to decrease to between 46.0% and 48.0% in the third quarter of 2004. This expected decrease will be due to a less favorable product mix.

### Research and development

Research and development expense is primarily comprised of compensation and related costs for personnel, development and non-recurring engineering expenses, depreciation and amortization, expensed equipment and fees for outside services. Research and development expense, inclusive of stock-based compensation expense, was as follows:

	<u>Three Months Ended</u> <u>September 30,</u>		<u>Nine Months Ended</u> <u>September 30,</u>	
	<u>2004</u>	<u>2003</u>	<u>2004</u>	<u>2003</u>
Research and development expense, inclusive of stock-based compensation	\$ 7,852	\$ 6,691	\$ 22,730	\$ 20,593

Research and development expense, inclusive of stock-based compensation expense, increased \$1,161, or 17%, from the three months ended September 30, 2003 compared to the three months ended September 30, 2004, and \$2,137, or 10%, from the nine months ended September 30, 2003 to the nine months ended September 30, 2004 due to the following offsetting factors:

- Depreciation and amortization expense increased \$639 and \$670 for the three and nine month periods,

respectively. The increases were due to increased licensed technology and software asset purchases during the nine months ended September 30, 2004.

- Development-related expenses, including non-recurring engineering and outside services, increased \$366 and \$853 for the three and nine month periods, respectively.
- Expensed equipment and software purchases increased \$138 and \$517 for the three and nine month periods, respectively.
- We recorded \$138 and \$303 in losses on licensed technology, tooling and software asset disposals in research and development cost centers during the three and nine months ended September 30, 2004, respectively.
- Stock-based compensation expense decreased \$246 and \$394 for the three and nine month periods respectively, due to our use of the accelerated method of expense recognition, under which less expense is recognized in later periods.

We expect our research and development expense to continue to increase in future periods to support our on going investment in new product development programs.

Selling, general and administrative

Selling, general and administrative expense includes compensation and related costs for personnel, travel, outside services, sales commissions and overhead incurred in our sales, marketing, customer support, management, legal and other professional and administrative support functions. Selling, general and administrative expense, inclusive of stock-based compensation expense, was as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2004	2003	2004	2003
Selling, general and administrative inclusive of stock-based compensation	\$ 6,917	\$ 5,536	\$ 20,139	\$ 16,500

Selling, general and administrative expense, inclusive of stock-based compensation expense, increased \$1,381, or 25%, from the three months ended September 30, 2003 compared to the three months ended September 30, 2004, and \$3,639, or 22%, from the nine months ended September 30, 2003 to the nine months ended September 30, 2004 due to the following factors:

- Compensation costs increased \$547 and \$1,283 for the three and nine month periods, respectively. The increases are attributable to an increase in headcount in administrative and sales and marketing personnel required to support our growing revenue base and new regulatory requirements.
- Outside services, including accounting and legal fees, increased \$260 and \$732 for the three and nine month periods, respectively. The increases are attributable to higher legal fees related to patent applications, legal fees associated with restructuring corporate subsidiaries in China, and accounting fees incurred during 2004 related to Sarbanes-Oxley compliance.
- Travel and trade show expenses increased \$51 and \$377 for the three and nine month periods, respectively.
- Depreciation and amortization expense and expensed equipment increased \$186 and \$262 for the three and nine month periods, respectively.

- Charitable contributions increased \$101 and \$153 for the three and nine month periods, respectively.
- Telephone and other communications expenses increased \$59 and \$172 for the three and nine month periods, respectively.
- Recruiting expenses increased \$36 and \$144 for the three and nine month periods, respectively.
- Investor relations expenses increased \$24 and \$117 for the three and nine month periods, respectively.
- Commission expense increased \$91 and \$110 for the three and nine month periods, respectively. These increases are directly attributable to the increases in revenue during these periods.

We expect our selling, general and administrative expenses to increase in future periods. The increases will result from higher sales-related and overhead costs that will be required to support a higher revenue base.

#### Merger-related expenses

On March 17, 2003, we announced the execution of a definitive merger agreement with Genesis Microchip. On August 5, 2003, we entered into an agreement terminating the merger. In the termination agreement, we agreed to pay a termination fee of \$5,500 to Genesis Microchip. The fee was payable upon termination of the agreement, and was recognized as an expense in the three month period ended September 30, 2003. Total expenses related to the merger during the three and nine months ended September 30, 2003 were \$5,971 and \$8,948, respectively.

#### Restructuring

In September 2003, we initiated a restructuring to better position the Company to compete in the advanced television market. The restructuring included the discontinuation of research and development efforts related to two products. As a result of these actions, we determined that certain tangible and intangible assets related to the discontinued product development efforts were permanently impaired because there were no alternate uses for them. Impaired assets included tooling, licensed technology and prepaid royalties. The net book value of the impaired assets totaled \$3,927 at the discontinuation date, and this amount was recognized as a restructuring charge in the three months ended September 30, 2003. We incurred additional expenses in the fourth quarter of 2003 related to this restructuring, including one-time termination benefits and lease costs. There were no restructuring expenses in 2004.

#### Stock-based compensation and amortization of assembled workforce

Stock-based compensation and amortization of assembled workforce was \$208 and \$706 for the three and nine months ended September 30, 2004, respectively, compared to \$268 and \$1,141 for the comparable periods in 2003. Stock-based compensation and amortization of assembled workforce decreased due to our use of the accelerated method of expense recognition for deferred stock-based compensation, under which less expense is recognized in later periods.

#### Interest income, net

Interest income, net includes interest income earned on cash equivalents and short and long-term marketable securities, interest expense related to the 1.75% convertible subordinated debentures that we issued in May and June of 2004, and amortization of our debt issuance costs which have been capitalized and are included in long term assets on the balance sheet. The debt issuance costs are being amortized over a 7 year term.

Interest income was \$1,474 and \$2,238 for the three and nine months ended September 30, 2004, respectively, and \$248 and \$937 for the comparable periods in 2003. Interest expense was \$657 and \$952 for the three and nine months ended September 30, 2004, respectively, and \$1 and \$10 for the comparable periods in 2003. Amortization of debt issuance costs was \$179 and \$294 for the three and nine months ended September 30, 2004. Interest income increased due to our investment of the proceeds from the issuance of our convertible subordinated debentures in marketable securities. The increase in interest expense is also attributable to the issuance of the 1.75% debentures.

#### Provision for income taxes

The provision for income taxes for the three and nine months ended September 30, 2004 increased to \$2,373 and \$9,149, respectively, from a benefit of \$2,554 and \$1,478 for the comparable periods in 2003. The increase in the provision was primarily attributable to our increased income before taxes offset by various credits and other permanent items. The income tax benefit for the 2003 periods was mainly attributable to diminished full-year taxable income forecasts after certain expenses became deductible following the cancellation of the proposed merger with Genesis Microchip. For the periods presented, the effective tax rate differs from the federal statutory rate primarily due to the following items: non-cash and other permanent income and expense items recognized differently for book and tax purposes; the utilization of federal and state tax credits; a contingency relating to permanent establishment in foreign jurisdictions; and, in 2003, an increase in our valuation allowance related to Jaldi's net operating losses.

#### **Liquidity and Capital Resources**

##### Cash and cash equivalents and short and long-term marketable securities

As of September 30, 2004 we had cash and cash equivalents of \$113,921, short and long-term marketable securities of \$152,109 and working capital of \$218,280. Cash provided by operations during the nine months ended September 30, 2004 was \$17,092 compared to \$3,237 during the nine months ended September 30, 2003.

Cash used in investing activities during the nine months ended September 30, 2004 was \$128,497. This compares to \$4,953 used in investing activities during the nine months ended September 30, 2003. Cash used in investing activities during the nine months ended September 30, 2004 was used for purchases of marketable securities, purchases of property and equipment and other assets, and payments on accrued balances related to asset acquisitions. Cash used in investing activities during the nine months ended September 30, 2003 was used primarily for purchases of marketable securities and other assets and investments.

Cash provided by financing activities was \$150,161 and \$1,636 for the nine months ended September 30, 2004 and 2003, respectively. Cash provided by financing activities includes \$145,500, net in proceeds from the issuance of convertible subordinated debentures during the nine months ended September 30, 2004 (see capital resources below). It also includes proceeds from the issuance of common stock from the exercise of stock options and purchase of employee stock purchase shares in the amount of \$4,966 and \$1,636 for the nine months ended September 30, 2004 and 2003, respectively.

We anticipate that our existing cash and investment balances, along with cash expected to be generated from operations will be adequate to fund our operating and investing needs for the next twelve months and the foreseeable future. From time to time, we may evaluate acquisitions of businesses, products or technologies that compliment our business. Any such transactions, if consummated, may consume a material portion of our working capital or require the issuance of equity securities that may result in dilution to existing shareholders.

#### Accounts receivable, net

Accounts receivable, net increased to \$17,902 at September 30, 2004 from \$8,468 at December 31, 2003. Average days sales outstanding increased to 37 at September 30, 2004 compared to 19 days at December 31, 2003. The increase in days sales outstanding is attributable to a greater portion of shipments in the last month of the third quarter of 2004 as compared to the last month of the fourth quarter of 2003.

#### Inventories, net

Inventories, net increased to \$21,251 at September 30, 2004 from \$10,478 at December 31, 2003. Inventory turnover on an annualized basis decreased from approximately 8 at December 31, 2003 to approximately 5 at September 30, 2004. At September 30, 2004, this represents approximately eleven weeks of inventory. The decrease in inventory turnover is primarily attributable to our lower than anticipated sales for the third quarter of 2004.

#### Capital resources

On May 18, 2004, we issued \$125,000 of Convertible Subordinated Debentures (“the debentures”) due 2024 in a private offering pursuant to Rule 144A under the Securities Act of 1933 and outside of the United States in accordance with Regulation S under the Securities Act. On June 4, 2004, we issued an additional \$25,000 of debentures pursuant to the exercise of an option granted to the initial purchasers. We intend to use the net proceeds from this offering for general corporate purposes, including potential acquisitions.

The debentures bear interest at a rate of 1.75% per annum and interest is payable on May 15 and November 15 of each year, beginning November 15, 2004. The debentures are convertible, under certain circumstances, into our common stock at a conversion rate of 41.0627 shares of common stock per \$1,000 principal amount of debentures for a total of 6,159 shares. This is equivalent to a conversion price of approximately \$24.35 per share. The debentures are convertible if (a) during any calendar quarter, the market price of our common stock exceeds 130% of the conversion price per share for at least 20 trading days during the period of 30 consecutive trading days ending on the last trading day of the previous calendar quarter, (b) the trading price of the debentures declines to less than 98% of the product of the closing sale price of our common stock and the number of shares issuable upon conversion of \$1,000 principal amount of the debentures for five consecutive trading days, (c) a call for redemption occurs, or (d) in the event of certain other corporate transactions. We may redeem some or all of the debentures for cash on or after May 15, 2011 at a price equal to 100% of the principal amount of the debentures plus accrued and unpaid interest. The holders of the debentures have the right to require us to purchase all or a portion of their debentures on May 15, 2011, May 15, 2014 and May 15, 2019 at a price equal to 100% of the principal amount plus accrued and unpaid interest.

We have filed a shelf registration statement with the Securities and Exchange Commission covering resales of the debentures and the common stock issuable upon conversion of the debentures. The registration statement was declared effective August 24, 2004. The debentures are unsecured obligations and are subordinated in right of payment to all our existing and future senior debt.

#### **Contractual Payment Obligations**

A summary of our contractual commitments and obligations as of September 30, 2004 is as follows:

Contractual Obligation	Payments Due By Period				
	Total	2004	2005 and 2006	2007 and 2008	2009 and beyond
Long-term debt	\$ 150,000	\$ —	\$ —	\$ —	\$ 150,000
Estimated Q4 2004 purchase commitments to contract manufacturers	19,695	19,695	—	—	—
Operating leases	8,040	2,655	4,020	1,296	69

The lease payments above are net of sublease rentals of \$73, \$95 and \$40 for the years ending December 31, 2004, 2005 and 2006, respectively.

#### Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements that have or are reasonably likely to have a material current or future effect on our financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources.

#### Recent Accounting Pronouncements

In September 2004, the Emerging Issues Task Force (“EITF”) reached a consensus on EITF Issue No. 04-8, *The Effect of Contingently Convertible Debt on Diluted Earnings per Share*. The consensus requires that all issued securities that have embedded conversion features that are contingently exercisable upon occurrence of a market-price condition be included in the calculation of diluted earnings per share, regardless of whether the market price trigger has been met. The consensus applies to instruments with embedded conversion features that are contingently exercisable upon occurrence of a market-price condition or upon the occurrence of another contingency; however it does not apply to instruments with embedded conversion features that are contingently exercisable upon the occurrence of a market price condition and upon the occurrence of another contingency. This consensus must be applied by retroactive restatement and is expected to become effective for fiscal periods ended after December 14, 2004. When application of this consensus is required, we expect that we will restate our diluted earnings per share to include the dilutive effect of the shares issuable upon conversion of our 1.75% convertible debentures.



## RISK FACTORS

*Investing in our securities involves a high degree of risk. If any of the following risks occur, the market price of our shares of common stock could decline and investors could lose all or part of their investment.*

*(In thousands, except per share data.)*

### **Risks Related to our Operations**

***We have incurred net losses since our inception, and we may not achieve or sustain annual profitability.***

While we had \$5,449 and \$17,761 of net income in the three and nine months ended September 30, 2004, our accumulated deficit is \$63,608 through September 30, 2004, and we have never been profitable in any full year period. In the future we expect our research and development and selling, general and administrative expenses to increase. Given expected increases in operating expenses, we must increase revenues and gross profit to remain profitable. We cannot be certain that we will achieve profitability in the future or, if we do, that we can sustain or increase profitability on a quarterly or annual basis. This may in turn cause the price of our common stock to decline. In addition, if we are not profitable in the future we may be unable to continue our operations.

***Fluctuations in our quarterly operating results make it difficult to predict our future performance and may result in volatility in the market price of our common stock.***

Our quarterly operating results have varied significantly from quarter to quarter and are likely to vary significantly in the future based on a number of factors related to our industry and the markets for our products. Some of these factors are not in our control and any of them may cause the price of our common stock to fluctuate. These factors include:

- demand for multimedia projectors, advanced televisions, and LCD monitors;
- demand for our products and the timing of orders for our products;
- the deferral of customer orders in anticipation of new products or product enhancements from us or our competitors or due to a reduction in our end customers' demand;
- the loss of one or more of our key distributors or customers or a reduction, delay or cancellation of orders from one or more of these parties;
- changes in the available production capacity at the semiconductor fabrication foundries that manufacture our products and changes in the costs of manufacturing;
- our ability to provide adequate supplies of our products to customers and avoid excess inventory;
- announcement or introduction of products and technologies by our competitors;
- changes in product mix, product costs or pricing, or distribution channels; and
- general economic conditions and economic conditions specific to the advanced display and semiconductor markets.

These factors are difficult or impossible to forecast, and these or other factors could seriously harm our business. We anticipate the rate of new orders may vary significantly from quarter to quarter.

Our operating expenses and inventory levels are based on our expectations of future revenues and our operating expenses are relatively fixed in the short term. Consequently, if anticipated sales and shipments in any quarter do not occur when expected, operating expenses and inventory levels could be disproportionately high, and our operating results for that quarter and, potentially, future quarters may be negatively impacted. Any shortfall in our revenues would have a direct impact on our business. In addition, fluctuations in our quarterly results could adversely affect the price of our common stock in a manner unrelated to our long-term operating performance. Because our operating results are volatile and difficult to predict, you should not rely on the results of one quarter as an indication of our future performance. It is possible that in some future quarter our operating results will fall below the expectations of securities analysts and investors. In this event, the price of our common stock may decline significantly.

***Our products are characterized by average selling prices that decline over relatively short time periods, which will negatively affect financial results unless we are able to reduce our product costs or introduce new products with higher average selling prices.***

Average selling prices for our products decline over relatively short time periods while many of our product costs are fixed. When our average selling prices decline, our gross profits decline unless we are able to sell more units or reduce the cost to manufacture our products. Our operating results are negatively affected when revenue or gross profit margins decline. We have experienced these problems and expect that we will continue to experience them in the future, although we cannot predict when they may occur or how severe they will be.

***Our highly integrated products and high-speed mixed signal products are difficult to manufacture without defects and the existence of defects in the manufactured products could result in an increase in our costs and delays in the availability of our products.***

The manufacture of semiconductors is a complex process and it is often difficult for semiconductor foundries to produce semiconductors free of defects. Because our products are more highly integrated than many other semiconductors and incorporate mixed analog and digital signal processing and embedded memory technology, they are even more difficult to produce without defects.

The ability to manufacture products of acceptable quality depends on both product design and manufacturing process technology. Since defective products can be caused by either design or manufacturing difficulties, identifying quality problems can occur only by analyzing and testing our semiconductors in a system after they have been manufactured. The difficulty in identifying defects is compounded because the process technology is unique to each of the multiple semiconductor foundries we contract with to manufacture our products. Failure to achieve defect-free products due to their increasing complexity may result in an increase in our cost and delays in the availability of our products. For example, we have experienced field failures of our ICs in certain customer system applications that required us to institute additional IC level testing. As a result of these field failures we incurred additional costs due to customers returning potentially affected products. Additionally, customers have experienced delays in receiving product shipments from us that resulted in the loss of revenue and profits. Shipment of defective products may also harm our reputation with customers.

***If we do not achieve additional design wins in the future, our ability to grow would be seriously limited.***

Our future success will depend on developers of advanced display products designing our products into their systems. To achieve design wins we must define and deliver cost-effective, innovative and integrated semiconductors. Once a supplier's products have been designed into a system, the developer may be reluctant to change its source of components due to the significant costs associated with qualifying a new supplier. Accordingly, the failure on our part to obtain additional design wins with leading branded manufacturers or integrators, and to successfully design, develop and introduce new products and product enhancements could harm our business, financial condition and results of operations.

Achieving a design win does not necessarily mean that a developer will order large volumes of our products. A design win is not a binding commitment by a developer to purchase our products. Rather, it is a decision by a developer to use our products in the design process of that developer's products. Developers can choose at any time to discontinue using our products in their designs or product development efforts. If our products are chosen to be incorporated into a developer's products, we may still not realize significant revenues from that developer if that developer's products are not commercially successful or if that developer chooses to qualify a second source for the products that we promote.

***Because of the complex nature of our semiconductor designs and of the associated manufacturing process and the rapid evolution of our customers' product designs we may not be able to develop new products or product enhancements in a timely manner, which could decrease customer demand for our products and reduce our revenues.***

The development of our semiconductors, some of which incorporate mixed analog and digital signal processing, is highly complex. These complexities require that we employ advanced designs and manufacturing processes that are unproven. We have experienced increased development time and delays in introducing new products that resulted in significantly less revenue than originally expected for those products. We will not always succeed in developing new products or product enhancements nor will we always do so in a timely manner. Acquisitions have significantly added to the complexity of our product development efforts. We must now coordinate very complex product development programs between multiple, geographically dispersed locations.

Many of our designs involve the development of new high-speed analog circuits that are difficult to simulate and that require physical prototypes not required by the primarily digital circuits we currently design. The result could be longer and less predictable development cycles.

Successful development and timely introduction of new or enhanced products depends on a number of other factors, including:

- accurate prediction of customer requirements and evolving industry standards, including digital interface and content piracy protection standards;
- development of advanced display technologies and capabilities;
- timely completion and introduction of new product designs;
- use of advanced foundry processes and achievement of high manufacturing yields; and
- market acceptance of the new products.

If we are not able to successfully develop and introduce our products in a timely manner, our business and results of operations will be adversely affected.

***Integration of software in our products adds complexity and cost that may affect our ability to achieve design wins and may affect our profitability.***

Our products incorporate software and software development tools. The integration of software adds complexity, may extend our internal development programs and could impact our customers' development schedules. This complexity requires increased coordination between hardware and software development schedules and may increase our operating expenses without a corresponding increase in product revenue. Some customers and potential customers may choose not to use our products because of the additional requirements of implementing our software, preferring to use a product that works with their existing software. This additional level of complexity lengthens the sales cycle and may result in customers selecting competitive products requiring less software integration.

***A significant amount of our revenue comes from a few customers and distributors. Any decrease in revenues from, or loss of any of these customers or distributors, could significantly reduce our total revenues.***

We are and will continue to be dependent on a limited number of large distributors and customers for a substantial portion of our revenue. Sales to distributors represented 70% and 71% of our total revenue for the three and nine months ended September 30, 2004, respectively, and 73% and 68% of total revenue for the three and nine months ended September 30, 2003, respectively. During the three and nine months ended September 30, 2004, sales to Tokyo Electron Device Limited, or TED, our distributor in Japan, represented 40% and 32% of our total revenue, respectively. Sales to TED represented 43% and 39% of total revenue in the comparable periods in 2003. Sales to our top five end customers accounted for approximately 42% and 34% of our total revenue for the three and nine months ended September 30, 2004, respectively, and 42% and 36% of our total revenue for the comparable periods in 2003. As a result of this distributor and end customer concentration, any one of the following factors could significantly impact our revenues:

- a significant reduction, delay or cancellation of orders from one or more of our key distributors, branded manufacturers or integrators; or
- a decision by one or more significant customers to select products manufactured by a competitor, or its own internally developed semiconductor, for inclusion in future product generations.

The display manufacturing market is highly concentrated among relatively few large manufacturers. We expect our operating results to continue to depend on revenues from a relatively small number of distributors that sell our products to display manufacturers and their suppliers.

***The concentration of our accounts receivable with a limited number of customers exposes us to increased credit risk and could seriously harm our operating results and cash flows.***

At September 30, 2004, we had three customers that each represented more than 10% of our accounts receivable balance. TED represented 40% and 20% of our total accounts receivable at September 30, 2004 and December 31, 2003, respectively. Neoview, our distributor in Taiwan, represented 13% and 33% of total accounts receivable at September 30, 2004 and December 31, 2003, respectively. A third customer accounted for 11% of total accounts receivable at September 30, 2004 and a fourth customer accounted for 11% of total accounts receivable at December 31, 2003. The failure to pay these balances by these or any other customer representing 10% or more of our total accounts receivable in the future would result in a significant expense that would increase our operating expenses and would reduce our cash flows.

***International sales account for almost all of our revenue, and if we do not successfully address the risks associated with our international operations, our revenue could decrease.***

Sales outside the U.S. accounted for approximately 99% and 98% of total revenue for the three months ended September 30, 2004 and 2003, respectively, and 99% of total revenue for the nine months ended September 30, 2004 and 2003. Most of our customers are concentrated in Japan, Taiwan, China and Korea, with aggregate sales from those four countries accounting for 88% of our total revenue for the three and nine months ended September 30, 2004 and 89% and 88% during the comparable periods of 2003. We anticipate that sales outside the U.S. will continue to account for a substantial portion of our revenue in future periods. In addition, customers who incorporate our products into their products sell a substantial portion of them outside of the U.S., thereby exposing us indirectly to further international risks. In addition, all of our products are manufactured outside of the U.S. We are, therefore, subject to many international risks, including, but not limited to:

- increased difficulties in managing international distributors and manufacturers of our products and components due to varying time zones, languages and business customs;

- foreign currency exchange fluctuations such as the devaluation in the currencies of Japan, Taiwan and Korea that could result in an increased cost of procuring our semiconductors;
- potentially adverse tax consequences, such as license fee revenue taxes imposed in Japan;
- difficulties regarding timing and availability of export and import licenses, which have limited our ability to freely move demonstration equipment and samples in and out of Asia;
- political and economic instability, particularly in China, Taiwan and Korea;
- reduced or limited protection of our intellectual property, significant amounts of which are contained in software, which is more prone to design piracy;
- increased transaction costs related to sales transactions conducted outside of the U.S. such as charges to secure letters of credit for foreign receivables;
- difficulties in maintaining sales representatives outside of the U.S. that are knowledgeable about the display processor industry and our display processor products;
- changes in the regulatory environment in China, Japan, Korea and Taiwan that may significantly impact purchases of our products by our customers;
- outbreaks of SARS in China or other parts of Asia; and
- difficulties in collecting accounts receivable.

***Our growing presence and investment within the Peoples Republic of China subjects us to risks of economic and political instability in the area, which could adversely impact our results of operations.***

A substantial and potentially increasing portion of our products are manufactured by foundries located in the Peoples Republic of China, or the PRC, and a large number of our customers are geographically concentrated in the PRC. In addition, approximately 33 percent of our employees are located in this area and we made an investment of \$10 million in Semiconductor Manufacturing International Corporation (SMIC) located in Shanghai, China in the third quarter of 2003. Disruptions from natural disasters, health epidemics (including new outbreaks of SARS) and political, social and economic instability may affect the region, and would have a negative impact on our results of operations. In addition, the economy of the PRC differs from the economies of many countries in respects such as structure, government involvement, level of development, growth rate, capital reinvestment, allocation of resources, self-sufficiency, rate of inflation and balance of payments position, among others. In the past, the economy of the PRC has been primarily a planned economy subject to state plans. Since the entry of the PRC into the World Trade Organization in 2002, the PRC government has been reforming its economic and political systems. These reforms have resulted in significant economic growth and social change. We cannot assure, however, that the PRC government's policies for economic reforms will be consistent or effective. Our results of operations and financial position may be harmed by changes in the PRC's political, economic or social conditions.

***Our dependence on selling through distributors and integrators increases the complexity of managing our supply chain and may result in excess inventory or inventory shortages.***

Selling through distributors reduces our ability to forecast sales and increases the complexity of our business. Since our distributors act as intermediaries between us and the companies using our products, we must rely on our distributors to accurately report inventory levels and production forecasts. This arrangement requires us to manage a more complex supply chain and monitor the financial condition and

creditworthiness of our distributors and customers. Our failure to manage one or more of these challenges could result in excess inventory or shortages that could seriously impact our operating revenue or limit the ability of companies using our semiconductors to deliver their products.

***Dependence on a limited number of sole-source, third party manufacturers for our products exposes us to shortages based on capacity allocation or low manufacturing yield, errors in manufacturing, price increases with little notice, volatile inventory levels and delays in product delivery, which could result in delays in satisfying customer demand, increased costs and loss of revenues.***

We do not own or operate a semiconductor fabrication facility and we do not have the resources to manufacture our products internally. We rely on third party foundries for wafer fabrication and other contract manufacturers for assembly and testing of our products. Our requirements represent only a small portion of the total production capacity of our contract manufacturers. Our third-party manufacturers have in the past re-allocated capacity to other customers even during periods of high demand for our products. We expect that this may occur in the future. We have limited control over delivery schedules, quality assurance, manufacturing yields, potential errors in manufacturing and production costs. We do not have long-term supply contracts with our third-party manufacturers so they are not obligated to supply us with products for any specific period, in any specific quantity or at any specific price, except as may be provided in a particular purchase order. From time to time our third-party manufacturers increase prices charged to manufacture our products with little notice. This requires us to either increase the price we charge for our products or suffer a decrease in our gross margins. We try not to maintain substantial inventories of products, but need to order products long before we have firm purchase orders for those products which could result in excess inventory or inventory shortages.

If we are unable to obtain our products from manufacturers on schedule, our ability to satisfy customer demand will be harmed, and revenue from the sale of products may be lost or delayed. If orders for our products are cancelled, expected revenues would not be realized. In addition, if the price charged by our third-party manufacturers increases we will be required to increase our prices, which could harm our competitiveness.

***The concentration of our manufactures and customers in the same geographic region increases our risk that a natural disaster, labor strike or political unrest could disrupt our operations.***

Most of our current manufacturers and customers are located in China, Japan, Korea and Taiwan. The risk of earthquakes in the Pacific Rim region is significant due to the proximity of major earthquake fault lines in the area. A current manufacturer's facilities were affected by a significant earthquake in Taiwan in September 1999. As a consequence of this earthquake, the manufacturer suffered power outages and disruption that impaired its production capacity. Earthquakes, fire, flooding, power outages and other natural disasters in the Pacific Rim region, or political unrest, labor strikes or work stoppages in countries where our manufacturers and customers are located likely would result in the disruption of our foundry partners' assembly capacity. Any disruption resulting from extraordinary events could cause significant delays in shipments of our solutions until we are able to shift our manufacturing or assembling from the affected contractor to another third-party vendor. There can be no assurance that alternative capacity could be obtained on favorable terms, if at all.

***We use a COT, or customer owned tooling, process for manufacturing some of our products which exposes us to the possibility of poor yields and unacceptably high product costs.***

We are building many of our products on a customer owned tooling basis, also known in the semiconductor industry as COT, where we directly contract the manufacture of wafers and assume the responsibility for the assembly and testing of our products. As a result, we are subject to increased risks arising from wafer manufacturing yields and risks associated with coordination of the manufacturing, assembly and testing process. Poor product yields would result in higher product costs, which could make our products uncompetitive with products offered by our competitors, thereby resulting in low gross profit margins or

loss of revenue, or both.

***We are dependent on our foundries to implement complex semiconductor technologies, which could adversely affect our operations if those technologies are not available, delayed or inefficiently implemented.***

In order to increase performance and functionality and reduce the size of our products, we are continuously developing new products using advanced technologies that further miniaturize semiconductors. However, we are dependent on our foundries to develop and provide access to the advanced processes that enable such miniaturization. We cannot be certain that future advanced manufacturing processes will be implemented without difficulties, delays or increased expenses. Our business, financial condition and results of operations could be materially and adversely affected if advanced manufacturing processes are unavailable to us, substantially delayed or inefficiently implemented.

***Manufacturers of our semiconductor products periodically discontinue manufacturing processes, which could make our products unavailable from our current suppliers.***

Semiconductor manufacturing technologies change rapidly and manufacturers typically discontinue older manufacturing processes in favor of newer ones. Once a manufacturer makes the decision to retire a manufacturing process, notice is generally given to its customers. Customers will then either retire the affected part or develop a new version of the part that can be manufactured on the newer process. In the event that a manufacturing process is discontinued, our products could become unavailable from our current suppliers. Additionally, migrating to a new, more advanced process requires significant expenditures for research and development. A significant portion of our products use 0.25um embedded DRAM technology and the required manufacturing process for these technologies will likely be available for the next two years. We also utilize a 0.18um standard logic process, which we expect will be readily available for the next five to seven years. We have commitments from our suppliers to notify us in the event of a discontinuance of a manufacturing process in order to assist us with product transitions.

***If we have to qualify a new contract manufacturer or foundry for any of our products, we may experience delays that result in lost revenues and damaged customer relationships.***

None of our products are fabricated by more than one supplier. Additionally, our products require manufacturing with state-of-the-art fabrication equipment and techniques. Because the lead-time needed to establish a relationship with a new contract manufacturer is at least six months, and the estimated time for us to adapt a product's design to a particular contract manufacturer's processes is at least four months, there is no readily available alternative source of supply for any specific product. This could cause significant delays in shipping products, which may result in lost revenues and damaged customer relationships.

***Our future success depends upon the continued services of key personnel, many of whom would be difficult to replace and the loss of one or more of these employees could seriously harm our business by delaying product development.***

Our future success depends upon the continued services of our executive officers, key hardware and software engineers, and sales, marketing and support personnel, many of whom would be difficult to replace. The loss of one or more of these employees, particularly Allen Alley, our President and Chief Executive Officer, could seriously harm our business. In addition, because of the highly technical nature of our business, the loss of key engineering personnel could delay product introductions and significantly impair our ability to successfully create future products. We believe our success depends, in large part, upon our ability to identify, attract and retain qualified hardware and software engineers, and sales, marketing, finance and managerial personnel. Competition for talented personnel is intense and we may not be able to retain our key personnel or identify, attract or retain other highly qualified personnel in the future. We have experienced, and may continue to experience, difficulty in hiring and retaining employees with appropriate qualifications. If we do not succeed in hiring and retaining employees with appropriate qualifications, our

product development efforts, revenues and business could be seriously harmed.

***Because we do not have long-term commitments from our customers, and plan purchases based on estimates of customer demand which may be inaccurate, we must contract for the manufacture of our products based on those potentially inaccurate estimates.***

Our sales are made on the basis of purchase orders rather than long-term purchase commitments. Our customers may cancel or defer purchase orders at any time. This process requires us to make multiple demand forecast assumptions, each of which may introduce error into our estimates. If our customers or we overestimate demand, we may purchase components or have products manufactured that we may not be able to use or sell. As a result, we would have excess inventory, which would negatively affect our operating results. Conversely, if our customers or we underestimate demand or if sufficient manufacturing capacity is unavailable, we would forego revenue opportunities, lose market share and damage our customer relationships.

***Development projects may cause us to incur substantial operating expenses without the guarantee of any associated revenue or far in advance of revenue.***

We have development projects that consume large amounts of engineering resources far in advance of product revenue. Our work under these projects is technically challenging and places considerable demands on our limited resources, particularly on our most senior engineering talent, and may not result in revenue for twelve to eighteen months, if at all. In addition, allocating significant resources to these projects may detract from or delay the completion of other important development projects. Any of these development projects could be canceled at any time without notice. These factors could have a material and adverse effect on our long-term business and results of operations.

***Because of our long product development process and sales cycle, we may incur substantial expenses before we earn associated revenues and may not ultimately sell as many units of our products as we forecasted.***

We develop products based on anticipated market and customer requirements and incur substantial product development expenditures, which can include the payment of large up-front, third-party license fees and royalties, prior to generating associated revenues. Because the development of our products incorporates not only our complex and evolving technology, but also our customers' specific requirements, a lengthy sales process is often required before potential customers begin the technical evaluation of our products. Our customers typically perform numerous tests and extensively evaluate our products before incorporating them into their systems. The time required for testing, evaluation and design of our products into a customer's equipment can take up to six months or more. It can take an additional six months before a customer commences volume shipments of systems that incorporate our products. However, even when we achieve a design win, the customer may never ship systems incorporating our products. We cannot assure you that the time required for the testing, evaluation and design of our products by our customers would not exceed six months. Because of this lengthy development cycle, we will experience delays between the time we incur expenditures for research and development, sales and marketing, inventory levels and the time we generate revenues, if any, from these expenditures. Additionally, if actual sales volumes for a particular product are substantially less than originally forecasted, we may experience large write-offs of capitalized license fees, product masks and prepaid royalties that would negatively affect our operating results.

***Shortages of other key components for our customers' products could delay our ability to sell our products.***

Shortages of components and other materials that are critical to the design and manufacture of our customers' products could limit our sales. These components include liquid crystal display panels and other display components, analog-to-digital converters, digital receivers and video decoders. During 2000, some of our customers experienced delays in the availability of key components from other suppliers, which, in



tum, caused a delay in demand for the products that we supplied to our customers.

***Shortages of materials used in the manufacturing of our products may increase our costs or limit our revenues and impair our ability to ship our products on time.***

From time to time, shortages of materials that are used in our products may occur. In particular, we may experience shortages of semiconductor wafers and packages. If material shortages occur, we may incur additional costs or be unable to ship our products to our customers in a timely fashion, all of which could harm our business and negatively impact our earnings.

***Our products could become obsolete if necessary licenses of third-party technology are not available to us or are only available on terms that are not commercially viable.***

We license technology from third parties that is incorporated into our products or product enhancements. Future products or product enhancements may require additional third-party licenses that may not be available to us or available on terms that are commercially reasonable. If we are unable to obtain any third-party license required to develop new products and product enhancements, we may have to obtain substitute technology of lower quality or performance standards or at greater cost, either of which could seriously harm the competitiveness of our products.

***We may not be able to respond to the rapid technological changes in the markets in which we compete, or we may not be able to comply with industry standards in the future making our products less desirable or obsolete.***

The markets in which we compete or seek to compete are subject to rapid technological change, frequent new product introductions, changing customer requirements for new products and features, and evolving industry standards. The introduction of new technologies and the emergence of new industry standards could render our products less desirable or obsolete, which could harm our business. Examples of changing industry standards include the introduction of high-definition television, or HDTV, new digital receivers and displays with resolutions that have required us to accelerate development of new products to meet these new standards.

***Our software development tools may be incompatible with industry standards and challenging to implement, which could slow product development or cause us to lose customers and design wins.***

Our existing products incorporate complex software tools designed to help customers bring products into production. Software development is a complex process and we are dependent on software development languages and operating systems from vendors that may compromise our ability to design software in a timely manner. Also, software development is a volatile market and new software languages are introduced to the market that may be incompatible with our existing systems and tools. New software development languages may not be compatible with our own requiring significant engineering efforts to migrate our existing systems in order to be compatible with those new languages. Existing or new software development tools could make our current products obsolete or hard to use. Software development disruptions could slow our product development or cause us to lose customers and design wins.

***Our integrated circuits and software could contain defects, which could reduce sales of those products or result in claims against us.***

Despite testing by both our customers and us, errors or performance problems may be found in existing or new semiconductors and software. This could result in a delay in the recognition or loss of revenues, loss of market share or failure to achieve market acceptance. These defects may cause us to incur significant warranty, support and repair costs. They could also divert the attention of our engineering personnel from our product development efforts and harm our relationships with our customers. The occurrence of these problems could result in the delay or loss of market acceptance of our semiconductors and would likely

harm our business. Defects, integration issues or other performance problems in our semiconductors and software could result in financial or other damages to our customers or could damage market acceptance of our products. Our customers could also seek damages from us for their losses. A product liability claim brought against us, even if unsuccessful, would likely be time consuming and costly to defend.

***Others may bring infringement actions against us that could be time-consuming and expensive to defend.***

We may become subject to claims involving patents or other intellectual property rights. For example, in early 2000, we were notified by InFocus Corporation (“InFocus”) that we were infringing patents held by InFocus. In February 2000, we entered into a license agreement with InFocus granting us the right to use the technology covered by those InFocus patents. As a result, we recorded a one-time charge of \$4,078 for patent settlement expense in the first quarter of 2000. Intellectual property claims could subject us to significant liability for damages and invalidate our proprietary rights. In addition, intellectual property claims may be brought against customers that incorporate our products in the design of their own products. These claims, regardless of their success or merit and regardless of whether we are named as defendants in a lawsuit, would likely be time-consuming and expensive to resolve and would divert the time and attention of management and technical personnel. Any future intellectual property litigation or claims also could force us to do one or more of the following:

- stop selling products using technology that contains the allegedly infringing intellectual property;
- attempt to obtain a license to the relevant intellectual property, which license may not be available on reasonable terms or at all;
- attempt to redesign those products that contain the allegedly infringing intellectual property; and
- pay damages for past infringement claims that are determined to be valid or which are arrived at in settlement of such litigation or threatened litigation.

If we are forced to take any of the foregoing actions, we may be unable to manufacture and sell our products, which could seriously harm our business. In addition, we may not be able to develop, license or acquire non-infringing technology under reasonable terms. These developments could result in an inability to compete for customers or could adversely affect our ability to increase our earnings.

***Our limited ability to protect our intellectual property and proprietary rights could harm our competitive position by allowing our competitors to access our proprietary technology and to introduce similar display processor products.***

Our ability to compete effectively with other companies will depend, in part, on our ability to maintain the proprietary nature of our technology, including our semiconductor designs and software. We rely on a combination of patent, copyright, trademark and trade secret laws, as well as nondisclosure agreements and other methods to protect our proprietary technologies. We hold 15 U.S. patents and have 42 patent applications pending with the U.S. Patent and Trademark Office for protection of our significant technologies. We cannot assure you that the degree of protection offered by patents or trade secret laws will be sufficient. Furthermore, we cannot assure you that any patents will be issued as a result of any pending applications, or that, if issued, any claims allowed will be sufficiently broad to protect our technology. In addition, it is possible that existing or future patents may be challenged, invalidated or circumvented. Competitors in both the U.S. and foreign countries, many of whom have substantially greater resources, may apply for and obtain patents that will prevent, limit or interfere with our ability to make and sell our products, or develop similar technology independently or design around our patents. Effective copyright, trademark and trade secret protection may be unavailable or limited in foreign countries. In addition, we provide the computer programming code for our software to selected customers in connection with their product development efforts, thereby increasing the risk that customers will misappropriate our proprietary software.

***Any acquisition or equity investment we make could disrupt our business and severely harm our financial condition.***

To date, we acquired Pantera, Inc. in January 2001, nDSP in January 2002 and Jaldi Semiconductor in September 2002. In March 2003, we announced the execution of a definitive merger agreement with Genesis Microchip, Inc.; however, the merger was terminated in August of 2003, and we incurred \$8,949 of expenses related to the transaction. Additionally, in the third quarter of 2003, we made an investment of \$10,000 in SMIC. We intend to continue to consider investments in or acquisitions of complementary businesses, products or technologies. In the second quarter of 2004, we raised \$145,500, net, upon the sale of our 1.75% convertible debentures. We may use these proceeds to fund such future acquisitions or equity investments.

The acquisitions of Pantera, nDSP and Jaldi contained a very high level of risk primarily because the investments were made based on in-process technological development that may not have been completed, or if completed, may not have become commercially viable.

These and any future acquisitions and investments could result in:

- issuance of stock that dilutes current shareholders' percentage ownership;
- incurrence of debt;
- assumption of liabilities;
- amortization expenses related to other intangible assets;
- impairment of goodwill; or
- large and immediate write-offs.

Our operation of any acquired business will also involve numerous risks, including, but not limited to:

- problems combining the purchased operations, technologies or products;
- unanticipated costs;
- diversion of management's attention from our core business;
- adverse effects on existing business relationships with customers;
- risks associated with entering markets in which we have no or limited prior experience; and
- potential loss of key employees, particularly those of the acquired organizations.

We may not be able to successfully integrate businesses, products, technologies or personnel that we might acquire in the future and any failure to do so could disrupt our business and seriously harm our financial condition. In addition, if we acquire companies with weak internal controls, it will take time to get the acquired company up to the same level of operating effectiveness as Pixelworks. Our inability to address these risks could negatively affect our operating results.

***Goodwill represents a significant portion of our total assets.***

As of September 30, 2004, goodwill amounted to \$82,007, or approximately 19% of our total assets. We are required to review goodwill for possible impairment on an annual basis or when events and circumstances arise which indicate a possible impairment. The review of goodwill for impairment may result in large write-offs of goodwill, which could have a material adverse effect on our results of operations.

***We have incurred substantial indebtedness as a result of the sale of convertible debentures.***

In the second quarter of 2004, we issued \$150 million of 1.75% convertible debentures due 2024 in a private placement pursuant to Rule 144A and Regulation S under the Securities Act of 1933. As a result of this indebtedness, our principal obligations will increase substantially. These debt obligations could materially and adversely affect our ability to obtain debt financing for working capital, acquisitions or other purposes, limit our flexibility in planning for or reacting to changes in our business, reduce funds available for use in our operations and could make us more vulnerable to industry downturns and competitive pressures. Our ability to meet our debt service obligations will be dependent upon our future performance, which will be subject to financial, business and other factors affecting our operations, many of which are beyond our control.

***Failure to manage our expansion effectively could adversely affect our ability to increase our business and our results of operations.***

Our ability to successfully market and sell our products in a rapidly evolving market requires effective planning and management processes. We continue to increase the scope of our operations domestically and internationally and have increased our headcount from 241 employees at the end of 2003 to 319 at September 30, 2004. Our past growth, and our expected future growth, places a significant strain on our management systems and resources including our financial and managerial controls, reporting systems and procedures. To manage our growth effectively, we must implement and improve operational and financial systems, train and manage our employee base and attract and retain qualified personnel with relevant experience. We must also manage multiple relationships with customers, business partners, contract manufacturers, suppliers and other third parties. Moreover, we will spend substantial amounts of time and money in connection with our rapid growth and may have unexpected costs. Our systems, procedures or controls may not be adequate to support our operations and we may not be able to expand quickly enough to exploit potential market opportunities. While we have not, to date, suffered any significant adverse consequences due to our growth, if we do not continue to manage growth effectively our operating expenses could increase more rapidly than our revenue causing decreased profitability.

**Risks Related to our Industry**

***Failure of consumer demand for advanced displays and other digital display technologies to increase would impede our growth and adversely affect our business.***

Our product development strategies anticipate that consumer demand for flat panel displays and other emerging display technologies will increase in the future. The success of our products is dependent on increased demand for these display technologies. The potential size of the market for products incorporating these display technologies and the timing of its development are uncertain and will depend upon a number of factors, all of which are beyond our control. In order for the market for many of our products to grow, advanced display products must be widely available and affordable to consumers. In the past, the supply of advanced display products has been cyclical. We expect this pattern to continue. Under-capacity in the advanced display market may limit our ability to increase our revenues because our customers may limit their purchases of our products if they cannot obtain sufficient supplies of LCD panels or other advanced display components. In addition, advanced display prices may remain high because of limited supply, and consumer demand may not grow.

***If products incorporating our semiconductors are not compatible with computer display protocols, video standards and other devices, the market for our products will be reduced and our business prospects could be significantly limited.***

Our products are incorporated into our customers' products, which have different parts and specifications and utilize multiple protocols that allow them to be compatible with specific computers, video standards and other devices. If our customers' products are not compatible with these protocols and standards, consumers will return these products, or consumers will not purchase these products, and the markets for our customers' products could be significantly reduced. As a result, a portion of our market would be eliminated, and our business would be harmed.

***Intense competition in our markets may reduce sales of our products, reduce our market share, decrease our gross profit and result in large losses.***

Rapid technological change, evolving industry standards, compressed product life cycles and declining average selling prices are characteristics of our market and could have a material adverse effect on our business, financial condition and results of operations. As the overall price of advanced flat panel display screens continues to fall, we may be required to offer our products to manufacturers at discounted prices due to increased price competition. At the same time, new, alternative display processing technologies and industry standards may emerge that directly compete with technologies that we offer. We may be required to increase our investment in research and development at the same time that product prices are falling. In addition, even after making this investment, we cannot assure you that our technologies will be superior to those of our competitors or that our products will achieve market acceptance, whether for performance or price reasons. Failure to effectively respond to these trends could reduce the demand for our products.

We compete with specialized and diversified electronics and semiconductor companies that offer display processors or scaling components. Some of these include Genesis Microchip, I-Chips, ITE, Macronix, Mediatek, Media Reality Technologies, Micronas, MStar Semiconductor, Inc., Oplus, Realtek, Silicon Image, Silicon Optix, STMicroelectronics, Techwell, Topro, Trident, Trumpion, Weltrend, Zoran and other companies. Potential competitors may include diversified semiconductor manufacturers and the semiconductor divisions or affiliates of some of our customers, including ATI, Intel, Koninklijke Philips Electronics, LG Electronics, Matsushita Electric Industrial, Mitsubishi, National Semiconductor, NEC, nVidia, Samsung Electronics, Sanyo Electric Company, Sharp Corporation, Sony Corporation, Texas Instruments and Toshiba Corporation. In addition, start-up companies may seek to compete in our markets. Many of our competitors have longer operating histories and greater resources to support development and marketing efforts. Some of our competitors may operate their own fabrication facilities. These competitors may be able to react more quickly and devote more resources to efforts that compete directly with our own. In the future, our current or potential customers may also develop their own proprietary display processors and become our competitors. Our competitors may develop advanced technologies enabling them to offer more cost-effective and higher quality semiconductors to our customers than those offered by us. Increased competition could harm our business, financial condition and results of operations by, for example, increasing pressure on our profit margin or causing us to lose sales opportunities. We cannot assure you that we can compete successfully against current or potential competitors.

***The cyclical nature of the semiconductor industry may lead to significant variances in the demand for our products and could harm our operations.***

In the past, the semiconductor industry has been characterized by significant downturns and wide fluctuations in supply and demand. Also, during this time, the industry has experienced significant fluctuations in anticipation of changes in general economic conditions, including economic conditions in Asia and North America. The cyclical nature of the semiconductor industry has led to significant variances in product demand and production capacity. It has also accelerated erosion of average selling prices per unit. We may experience periodic fluctuations in our future financial results because of changes in industry-wide conditions.

## Other Risks

***The anti-takeover provisions of Oregon law and in our articles of incorporation could adversely affect the rights of the holders of our common stock by preventing a sale or takeover of us at a price or prices favorable to the holders of our common stock.***

Provisions of our articles of incorporation and bylaws and provisions of Oregon law may have the effect of delaying or preventing a merger or acquisition of us, making a merger or acquisition of us less desirable to a potential acquirer or preventing a change in our management, even if the shareholders consider the merger or acquisition favorable or if doing so would benefit our shareholders. In addition, these provisions could limit the price that investors would be willing to pay in the future for shares of our common stock. The following are examples of such provisions in our articles of incorporation or bylaws:

- our board of directors is authorized, without prior shareholder approval, to create and issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to acquire us or change our control, commonly referred to as “blank check” preferred stock;
- members of our board of directors can only be removed for cause;
- the board of directors may alter our bylaws without obtaining shareholder approval; and
- shareholders are required to provide advance notice for nominations for election to the board of directors or for proposing matters to be acted upon at a shareholder meeting.

***Our principal shareholders have significant voting power and may take actions that may make it more difficult to sell our shares at a premium to take over candidates.***

Our executive officers, directors and other principal shareholders, in the aggregate, beneficially own 11,846,113 shares or approximately 25% of our outstanding common stock and exchangeable shares as of October 31, 2004. These shareholders currently have, and will continue to have, significant influence with respect to the election of our directors and approval or disapproval of our significant corporate actions. This influence over our affairs might be adverse to the interest of our other shareholders. In addition, the voting power of these shareholders could have the effect of delaying or preventing a change in control of our business or otherwise discouraging a potential acquirer from attempting to obtain control of us, which could prevent our other shareholders from realizing a premium over the market price for their common stock.

***The price of our common stock has and may continue to fluctuate substantially.***

Investors may not be able to sell shares of our common stock at or above the price they paid due to a number of factors, including:

- actual or anticipated fluctuations in our operating results;
- changes in expectations as to our future financial performance;
- changes in financial estimates of securities analysts;
- announcements by us or our competitors of technological innovations, design wins, contracts, standards or acquisitions;
- the operating and stock price performance of other comparable companies;

- announcements of future expectations by our customers;
- changes in market valuations of other technology companies; and
- inconsistent trading volume levels of our common stock.

In particular, the stock prices of technology companies similar to us have been highly volatile. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. Market fluctuations as well as general economic, political and market conditions including recessions, interest rate changes or international currency fluctuations, may negatively impact the market price of our common stock. Therefore, the price of our common stock may decline, and the value of your investment may be reduced regardless of our performance.

*We may be unable to meet our future capital requirements, which would limit our ability to grow.*

We believe our current cash balances will be sufficient to meet our capital requirements for the next 12 months. However, we may need, or could elect, to seek additional funding prior to that time. To the extent that currently available funds are insufficient to fund our future activities, we may need to raise additional funds through public or private equity or debt financing. Additional funds may not be available on terms favorable to us or our shareholders. Further, if we issue equity securities, our shareholders may experience additional dilution or the new equity securities may have rights, preferences or privileges senior to those of our common stock. If we cannot raise funds on acceptable terms, we may not be able to develop or enhance our products, take advantage of future opportunities or respond to competitive pressures or unanticipated requirements.

*We may be unable to meet changing laws, regulations and standards relating to corporate governance and public disclosure.*

We are spending an increasing amount of management time and external resources to comply with changing laws, regulations and standards relating to corporate governance and public disclosure, including the Sarbanes-Oxley Act of 2002, new SEC regulations and Nasdaq Stock Market rules. In particular, Section 404 of the Sarbanes-Oxley Act of 2002 requires management's annual review and evaluation of our internal control systems, and attestations of the effectiveness of these systems by our independent registered public accounting firm. We are currently documenting and testing our internal control systems and procedures and implementing improvement measures. This process has required that we hire additional personnel and outside advisory services and has resulted in additional accounting and legal expenses. In addition, the evaluation and attestation processes required by Section 404 are new and neither companies nor auditing firms have significant experience in testing or complying with these requirements. Accordingly, we may encounter problems or delays in completing the review and evaluation, the implementation of improvements and the receipt of positive attestation by our independent registered public accounting firm. While we believe that we currently have adequate internal controls over financial reporting, in the event that our chief executive officer, chief financial officer or independent registered public accounting firm determine that our controls over financial reporting are not effective as defined under Section 404, investor perceptions of our company may be adversely affected and could cause a decline in the market price of our stock.

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

*(In thousands, except percentages)*

Our primary market risk exposure is the impact of interest rate fluctuations on interest income earned on our investment portfolio. The risks associated with market, liquidity and principal are mitigated by our policy of investing in high-credit quality securities and limiting concentrations of issuers and maturity

dates. The carrying value of our marketable securities approximates their fair value at September 30, 2004 and December 31, 2003. Derivative financial instruments are not part of our investment portfolio.

As of September 30, 2004, we had convertible subordinated notes of \$150,000 outstanding with a fixed interest rate of 1.75%. Interest rate changes affect the fair value of these notes, but do not affect earnings or cash flow.

All of our sales are denominated in U.S. dollars and as a result, we have relatively little exposure to foreign currency exchange risk with respect to any of our sales. We have employees located in offices in Canada, China, Japan and Taiwan and as a result a portion of our operating expenses are denominated in foreign currencies. Accordingly, our operating results are affected by changes in the exchange rate between the U.S. dollar and those currencies. Any future strengthening of those currencies against the U.S. dollar could negatively impact our operating results by increasing our operating expenses as measured in U.S. dollars. We do not currently hedge against foreign currency rate fluctuations. The effect of an immediate 10% change in exchange rates would not have a material impact on our future operating results or financial position.

**Item 4. Controls and Procedures**

- (a) *Evaluation of Disclosure Controls and Procedures.* Our management, with the participation of our Chief Executive Officer (“CEO”) and Chief Financial Officer (“CFO”), carried out an evaluation of the effectiveness of the Company’s disclosure controls and procedures as of the end of the period covered by this report pursuant to Securities Exchange Act Rule 13a-15(e) and 15d-15(e). Based upon this evaluation, our CEO and CFO concluded that our controls and procedures are effective in timely alerting them to material information regarding the Company (including its consolidated subsidiaries) required to be included in our periodic SEC filings.
- (b) *Changes in Internal Controls.* There have been no significant changes in our internal controls over financial reporting that could significantly affect those controls subsequent to the date of the evaluation, and no significant deficiencies or material weaknesses were identified which required corrective action.

**Item 6: Exhibits and Reports on Form 8-K**

**(a) Exhibits**

31.1 Certification of Chief Executive Officer.

31.2 Certification of Chief Financial Officer.

32.1 Certification of Chief Executive Officer.

32.2 Certification of Chief Financial Officer.

**(b) Reports on Form 8-K**

*Report Furnished*

On July 20, 2004, we furnished a report on Form 8-K to report under Item 7 and 12 that on July 20, 2004 we issued a press release announcing our financial results for the quarter ending June 30, 2004.



**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.

PIXELWORKS, INC.

Dated: November 9, 2004

\_\_\_\_\_  
/s/ Jeffrey B. Bouchard  
Jeffrey B. Bouchard  
*Vice President, Finance and  
Chief Financial Officer*

## CERTIFICATION

I, Allen H. Alley, certify that:

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

Date: November 9, 2004

/s/ Allen H. Alley  
Allen H. Alley  
*Chairman of the Board,  
President and  
Chief Executive Officer*

## CERTIFICATION

I, Jeffrey B. Bouchard, certify that:

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

Date: November 9, 2004

/s/ Jeffrey B. Bouchard  
Jeffrey B. Bouchard  
*Vice President, Finance and  
Chief Financial Officer*

**CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of Pixelworks, Inc. (the "Company") on Form 10-Q for the three and nine months ended September 30, 2004 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Allen H. Alley, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that:

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

By: /s/ Allen H. Alley  
Allen H. Alley  
*Chairman of the Board,  
President and  
Chief Executive Officer*

Date: November 9, 2004

**CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of Pixelworks, Inc. (the "Company") on Form 10-Q for the three and nine months ended September 30, 2004 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Jeffrey B. Bouchard, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that:

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

By:           /s/ Jeffrey B. Bouchard            
Jeffrey B. Bouchard  
*Vice President, Finance and  
Chief Financial Officer*

Date: November 9, 2004