

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, 2010

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: 0-26056

Image Sensing Systems, Inc.

(Exact name of registrant as specified in its charter)

Minnesota

(State or other jurisdiction of
incorporation or organization)

41-1519168

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

**500 Spruce Tree Centre
1600 University Avenue West
St. Paul, MN**

(Address of principal executive offices)

55104

(Zip Code)

(651) 603-7700

(Registrant's telephone number, including area code)

Not Applicable

(Former name, former address and former fiscal year, if changed since last report)

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

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

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

Large accelerated filer

Accelerated filer

Non-accelerated filer

(Do not check if a smaller reporting company)

Smaller reporting company

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

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Class

Common Stock, \$0.01 par value per share

Outstanding as November 4, 2010

4,868,519 shares

IMAGE SENSING SYSTEMS, INC.

TABLE OF CONTENTS

	<u>Page No.</u>
PART I. FINANCIAL INFORMATION	1
Item 1. Financial Statements (unaudited):	1
Condensed Consolidated Balance Sheets	1
Condensed Consolidated Statements of Income	2
Condensed Consolidated Statements of Cash Flows	3
Notes to Condensed Consolidated Financial Statements	4
Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations	9
Item 3. Quantitative and Qualitative Disclosures About Market Risk	15
Item 4T. Controls and Procedures	15
PART II. OTHER INFORMATION	16
Item 1. Legal Proceedings	16
Item 1A. Risk Factors	16
Item 2. Unregistered Sales of Equity Securities and Use of Proceeds	16
Item 3. Defaults Upon Senior Securities	16
Item 4. [Removed and Reserved]	16
Item 5. Other Information	16
Item 6. Exhibits	16
SIGNATURES	17
EXHIBIT INDEX	18

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements (unaudited):

Image Sensing Systems, Inc.
Condensed Consolidated Balance Sheets
(Unaudited)
(in thousands)

	September 30, 2010	December 31, 2009
Assets		
Current assets:		
Cash and cash equivalents	\$ 9,361	\$ 14,084
Investments	3,590	3,935
Accounts receivable, net	7,876	5,660
Inventories	3,529	2,734
Prepaid expenses	1,368	588
Deferred income taxes	328	328
Total current assets	26,052	27,329
Property and equipment, net	1,095	998
Deferred income taxes	—	1,485
Goodwill and intangible assets	22,536	11,338
Total assets	\$ 49,683	\$ 41,150
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable	\$ 1,451	\$ 953
Bank debt	—	4,000
Accrued compensation	1,036	858
Accrued warranty and other	1,182	643
Earn-out payable	1,010	1,541
Income taxes payable	10	234
Total current liabilities	4,689	8,229
Deferred income taxes	391	—
Income taxes payable	186	208
Shareholders' equity:		
Common stock	49	40
Additional paid-in capital	21,867	11,994
Accumulated other comprehensive loss	(245)	(171)
Retained earnings	22,746	20,850
Total liabilities and shareholders' equity	\$ 49,683	\$ 41,150

See accompanying notes.

Image Sensing Systems, Inc.
Condensed Consolidated Statements of Income
(Unaudited)
(in thousands, except per share data)

	Three-Month Periods Ended September 30,		Nine-Month Periods Ended September 30,	
	2010	2009	2010	2009
Revenue:				
Product sales	\$ 5,677	\$ 3,434	\$ 11,886	\$ 8,825
Royalties	3,444	3,389	9,222	9,068
	<u>9,121</u>	<u>6,823</u>	<u>21,108</u>	<u>17,893</u>
Costs of revenue:				
Product sales	1,950	1,269	4,392	2,947
Gross profit	<u>7,171</u>	<u>5,554</u>	<u>16,716</u>	<u>14,946</u>
Operating expenses:				
Selling, marketing and product support	2,791	1,721	6,793	5,272
General and administrative	1,307	796	3,283	2,574
Research and development	989	868	2,600	2,541
Acquisition related expenses	—	—	527	—
Amortization of intangible assets	411	192	819	576
	<u>5,498</u>	<u>3,577</u>	<u>14,022</u>	<u>10,963</u>
Income from operations	1,673	1,977	2,694	3,983
Other income (expense), net	(74)	9	(146)	18
Income before income taxes	1,599	1,986	2,548	4,001
Income taxes	472	426	652	1,010
Net income	<u>\$ 1,127</u>	<u>\$ 1,560</u>	<u>\$ 1,896</u>	<u>\$ 2,991</u>
Net income per common share:				
Basic	<u>\$ 0.23</u>	<u>\$ 0.39</u>	<u>\$ 0.42</u>	<u>\$ 0.75</u>
Diluted	<u>\$ 0.23</u>	<u>\$ 0.38</u>	<u>\$ 0.41</u>	<u>\$ 0.74</u>
Weighted average number of common shares outstanding:				
Basic	<u>4,805</u>	<u>3,986</u>	<u>4,471</u>	<u>3,985</u>
Diluted	<u>4,911</u>	<u>4,073</u>	<u>4,584</u>	<u>4,065</u>

See accompanying notes.

Image Sensing Systems, Inc.
Condensed Consolidated Statements of Cash Flows
(Unaudited)
(in thousands)

	Nine-Month Periods Ended September 30,	
	2010	2009
Operating activities:		
Net income	\$ 1,896	\$ 2,991
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation and amortization	1,157	906
Stock option expense	251	266
Change in operating assets and liabilities, net of acquisition	(2,640)	(1,217)
Net cash provided by operating activities	<u>664</u>	<u>2,946</u>
Investing activities:		
Net purchases of property and equipment	(224)	(496)
Purchase of CitySync	(7,871)	—
Repayment of CitySync seller loans	(445)	—
Payment of EIS earn-out	(1,541)	(1,192)
Net sales of investments	345	60
Net cash used in investing activities	<u>(9,736)</u>	<u>(1,628)</u>
Financing activities:		
Proceeds from exercise of stock options	87	4
Repayment of bank debt	(4,556)	(3,750)
Net proceeds from common stock offering	8,818	—
Net cash provided by (used in) financing activities	<u>4,349</u>	<u>(3,746)</u>
Decrease in cash and cash equivalents	(4,723)	(2,428)
Cash and cash equivalents, beginning of period	14,084	10,289
Cash and cash equivalents, end of period	<u>\$ 9,361</u>	<u>\$ 7,861</u>

See accompanying notes.

IMAGE SENSING SYSTEMS, INC.

Notes to Condensed Consolidated Financial Statements
(Unaudited)
September 30, 2010

Note A: Basis of Presentation

The accompanying unaudited condensed consolidated financial statements of Image Sensing Systems, Inc. (the Company) have been prepared in accordance with accounting principles generally accepted in the United States of America for interim financial information and with the instructions to the Quarterly Report on Form 10-Q. Accordingly, they do not include all of the information and footnotes required by accounting principles generally accepted in the United States of America for complete financial statements. It is the opinion of management that the unaudited condensed consolidated financial statements include all adjustments consisting of normal recurring accruals considered necessary for a fair presentation. Operating results for the three-month and nine-month periods ended September 30, 2010 are not necessarily indicative of the results that may be expected for the year ending December 31, 2010. For further information, refer to the consolidated financial statements and footnotes thereto in our Annual Report on Form 10-K for the year ended December 31, 2009.

Note B: Acquisitions

On June 21, 2010, we purchased all of the outstanding equity of CitySync Limited (CitySync), a privately-held developer and marketer of automatic number plate recognition (ANPR) products. We believe the CitySync acquisition expands our addressable market, strengthens our selling presence in Europe and extends the opportunities for hybrid product developments. The purchase price was \$7.9 million in cash plus 57,000 shares of our common stock, valued using the closing price on the day before the acquisition, totaling approximately \$727,000. In conjunction with the purchase, we repaid seller loans, including accrued interest, of \$601,000. As part of the purchase agreement, the sellers are eligible to receive an earn-out based on the performance of the business for 18 months after the purchase date. Earn-outs will be calculated as of each calendar year end and paid within 90 days thereof. The earn-out is based on achieving certain revenue and minimum gross margins from the sale of CitySync ANPR systems and it is calculated in two separate periods, each ending on December 31. In each period there are two tiers, and superior performance could lead to a total earn-out of \$2 million or higher, as the earn-out is not capped. We have determined the fair value of the earn-out to be \$1.0 million and have recorded a liability and additional purchase price in that amount as of June 30, 2010. The determination of the fair value was based on a probabilistic calculation where we assigned probabilities to achieving each of the tiers in each of the periods and then discounted the total to net present value. Following the acquisition, CitySync became a wholly-owned subsidiary of ISS/Europe.

At June 30, 2010, we preliminarily estimated the value of goodwill from the CitySync acquisition at \$3.3 million. As required under purchase accounting rules, we have updated this estimate, although the estimate and other allocations are still preliminary pending further study of asset valuations. The details of the updated goodwill estimate are as follows (in thousands):

Initial goodwill estimate	\$	3,347
Recognition of deferred tax liability for timing differences related to intangible asset amortization		1,876
Inventory valuation adjustments		66
Other		12
Goodwill estimate at September 30, 2010	\$	<u>5,301</u>

The purchase price was allocated on the basis of estimated fair value at the date of the purchase. The purchase price allocation, which is preliminary pending further study of the fair values assigned, was as follows (in thousands):

Purchase price:	
Cash	\$ 7,871
Fair value of common stock	727
Estimated fair value of earn-out	1,010
Total purchase price	<u>9,608</u>
Allocation:	
Net tangible current assets	(1,691)
Property and equipment	(242)
Liabilities	2,450
Deferred income taxes	1,876
Developed technology	(3,300)
Trade names	(1,900)
Other intangibles	(1,500)
Goodwill estimate	<u>\$ 5,301</u>

In conjunction with the acquisition, all of the shares of common stock issued in connection with the transaction were placed in escrow to secure potential indemnification obligations. Any shares remaining in escrow on December 31, 2012 will be released to the sellers.

The results of CitySync operations are included in the accompanying financial statements since the date of the acquisition. The following pro forma summary presents the results of operations as if the acquisition had occurred on January 1, 2009. The table below includes our results for the periods as shown and for CitySync based on a January 31 fiscal year end.

The pro forma results are not necessarily indicative of the results that would have been achieved had the CitySync acquisition taken place on that date (in thousands, except per share amounts):

	<u>Three-Months Ended</u> <u>September 30,</u>		<u>Nine-Months Ended</u> <u>September 30,</u>	
	<u>2010</u>	<u>2009</u>	<u>2010</u>	<u>2009</u>
Total revenue	\$ 9,121	\$ 10,085	\$ 23,515	\$ 23,753
Net income	1,127	2,387	1,399	2,546
Net income per share:				
Basic	<u>\$ 0.23</u>	<u>\$ 0.54</u>	<u>\$ 0.31</u>	<u>\$ 0.63</u>
Diluted	<u>\$ 0.23</u>	<u>\$ 0.56</u>	<u>\$ 0.30</u>	<u>\$ 0.62</u>

In 2007, we purchased certain assets of EIS Electronic Integrated Systems, Inc. (EIS), including its RTMS radar product line. As part of the purchase agreement, the sellers are eligible to receive an earn-out based on the performance of the EIS assets purchased for approximately three years after the December 2007 purchase date. Earn-outs are calculated and paid annually. Based on target achievement, the sellers would receive \$2.0 million annually or a total of \$6.0 million. If we are acquired or sell substantially all of our assets before December 6, 2010, we must pay EIS \$6.0 million less earn-out amounts previously paid as an acceleration of potential earn-out payments under the EIS asset purchase agreement. Earn-out payments related to the EIS asset purchase are recorded as additional goodwill when earned. In 2009 and 2008, the sellers earned an earn-out of approximately \$1.5 million and \$1.2 million, respectively, which were paid in March of the subsequent year.

Note C: Goodwill and Intangible Assets

Goodwill consists of \$1.1 million related to our acquisition of Flow Traffic Ltd.; \$6.6 million related to the EIS asset purchase, consisting of \$3.8 million recorded at the purchase date and an additional \$2.7 million recognized for earn-out consideration earned in 2009 and 2008; and \$5.3 million related to our acquisition of CitySync. See Note B above for activity related to CitySync acquisition goodwill.

Intangible assets consisted of the following (dollars in thousands):

	September 30, 2010	December 31, 2009
Developed technology (8 year life)	\$ 7,200	\$ 3,900
Trade names (5 to 9 year life)	3,100	1,200
Other intangibles (3 to 8 year life)	1,700	200
Less: Accumulated amortization	(2,389)	(1,586)
Total identifiable intangible assets, net	<u>\$ 9,611</u>	<u>\$ 3,714</u>

We expect to recognize amortization expense for the intangible assets in the above table in each of our years ending December 31 of \$1.2 million in 2010, \$1.6 million in each of 2011 and 2012, and \$1.3 million in each of 2013 and 2014. Goodwill and intangible assets related to the EIS asset purchase are deductible for tax purposes over 15 years.

We monitor on a quarterly basis our carrying value, the market capitalization of our stock and other variables to determine whether a triggering event has occurred that would require an interim impairment evaluation of our goodwill. We have concluded that no triggering events have occurred during the quarter ended September 30, 2010.

Note D: Bank Debt

As of September 30, 2010, we had repaid all outstanding bank debt under our term loan in the U.S. and our bank line of credit in the U.K.

Note E: Net Income Per Common Share and Comprehensive Income (Loss)

The following table sets forth the computations of basic and diluted net income per common share for the three-month and nine-month periods ended September 30, 2010 and 2009 (in thousands, except per share data):

	Three-Month Periods Ended September 30,		Nine-Month Periods Ended September 30,	
	2010	2009	2010	2009
Numerator:				
Net income	\$ 1,127	\$ 1,560	\$ 1,896	\$ 2,991
Denominator:				
Shares used in basic net income per common share calculation	4,805	3,986	4,471	3,985
Effect of diluted securities:				
Contingent shares in escrow	56	—	38	—
Employee and director stock options	50	87	75	80
Shares used in diluted net income per common share calculations	<u>4,911</u>	<u>4,073</u>	<u>4,584</u>	<u>4,065</u>
Basic net income per common share	<u>\$ 0.23</u>	<u>\$ 0.39</u>	<u>\$ 0.42</u>	<u>\$ 0.75</u>
Diluted net income per common share	<u>\$ 0.23</u>	<u>\$ 0.38</u>	<u>\$ 0.41</u>	<u>\$ 0.74</u>

Our comprehensive income for the three-month periods ended September 30, 2010 and 2009 was \$1.3 million and \$1.5 million, respectively, and for the nine-month periods ended September 30, 2010 and 2009 was \$1.8 million and \$2.8 million, respectively. In each period, the main difference between net income and comprehensive income arose from foreign currency translation adjustments.

Note F: Equity and Stock-based Compensation

In April 2010, we sold 798,000 shares of our common stock to investors at \$12.25 per share under a registration statement on Form S-3 declared effective by the Securities and Exchange Commission in December 2009. Net of underwriting fees and other offering expenses, we received \$8.8 million in cash from the stock sale.

We recorded \$251,000 and \$266,000 of stock-based compensation in general and administrative expense for the nine-month periods ended September 30, 2010 and 2009, respectively. No options were granted in the third quarter of either 2010 or 2009. Options to purchase 68,000 shares at a weighted average exercise price of \$8.62 were granted during the nine-month period ended September 30, 2009. As of September 30, 2010, \$750,000 of total unrecognized compensation expense related to non-vested stock option awards is expected to be recognized over a weighted average period of 2.3 years.

We used the Black-Scholes option pricing model to determine the weighted average fair value of options during the three-month and nine-month periods ended September 30, 2010 and 2009, respectively.

The Company's stock options generally vest over three to five years of service and have a contractual life of six to 10 years. As of September 30, 2010, we had 197,500 shares available for grants under the 2005 Stock Incentive Plan.

The following table summarizes information about the stock options outstanding at September 30, 2010:

Range of Exercise Price	Options Outstanding			Options Exercisable		
	Number Outstanding	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price	Number Exercisable	Weighted Average Exercise Price	
\$ 1.30-1.99	46,000	1.7 years	\$ 1.36	46,000	\$ 1.36	
2.00-2.99	16,200	1.4 years	2.35	16,200	2.35	
3.00-3.99	38,933	2.0 years	3.15	38,933	3.15	
8.00-8.99	48,000	6.1 years	8.63	13,500	8.58	
9.00-9.99	172,500	4.6 years	9.20	55,125	9.16	
12.00-12.99	105,000	5.1 years	12.58	31,500	12.51	
15.00-15.99	28,000	1.3 years	15.30	28,000	15.30	
	<u>454,633</u>	4.0 years	8.74	<u>229,258</u>	7.27	

Note G: Segment Information

We operate in three reportable segments: Autoscope, RTMS and ANPR. Autoscope is our machine-vision product line, and revenue consists of royalties (all of which are received from Econolite Control Products, Inc.), as well as a portion of product sales. RTMS is our radar product line acquired in the EIS asset purchase in 2007 and ANPR is our automatic number plate recognition product line acquired in the CitySync purchase in June 2010. Included within the ANPR segment are the acquisition related expenses incurred in 2010. All segment revenues are derived from external customers.

The following table sets forth selected unaudited financial information for each of the Company's reportable segments for the three-month periods ended September 30, 2010 and 2009 (in thousands):

	Autoscope		RTMS		ANPR		Total	
	2010	2009	2010	2009	2010	2009	2010	2009
Revenue	\$ 4,784	\$ 4,374	\$ 2,487	\$ 2,449	\$ 1,850	\$ —	\$ 9,121	\$ 6,823
Depreciation	38	90	43	34	12	—	93	124
Amortization of intangible assets	—	—	192	192	219	—	411	192
Income before income taxes	938	1,512	501	474	160	—	1,599	1,986
Capital expenditures	5	72	—	84	—	—	5	156
Total assets	\$ 25,443	\$ 24,786	\$ 11,274	\$ 9,955	\$ 12,966	\$ —	\$ 49,683	\$ 34,741

The following table sets forth selected unaudited financial information for each of the Company's reportable segments for the nine-month periods ended September 30, 2010 and 2009 (in thousands):

	Autoscope		RTMS		ANPR		Total	
	2010	2009	2010	2009	2010	2009	2010	2009
Revenue	\$ 11,990	\$ 11,784	\$ 6,959	\$ 6,109	\$ 2,159	\$ —	\$ 21,108	\$ 17,893
Depreciation	198	237	128	93	12	—	338	330
Amortization of intangible assets	—	—	576	576	243	—	819	576
Income before income taxes	1,784	3,066	1,074	935	(310)	—	2,548	4,001
Capital expenditures	174	357	50	139	—	—	224	496
Total assets	\$ 25,443	\$ 24,786	\$ 11,274	\$ 9,955	\$ 12,966	\$ —	\$ 49,683	\$ 34,741

Note H: Derivative Instruments

We have purchased foreign currency forward contracts with our bank to reduce the exposure and volatility arising from fluctuations in foreign currency exchange rates as it relates to payroll and inventory purchases in certain foreign locations. These contracts have been designated as effective cash flow hedges. At September 30, 2010, we had future commitments through November 2010 to purchase \$600,000 of Canadian dollars at rates ranging from approximately .9291 to .9296.

The fair value of the Company's derivative instruments is estimated in accordance with the framework for measuring fair value and is recorded as either an asset or liability in the balance sheet based on changes in the current spot rate as compared to the exchange rates specified in the contracts. For these instruments, the effective portion of the gain or loss on the derivative is reported as a component of other comprehensive income and is reclassified into earnings in the same period or periods during which the hedged transaction affects earnings. Gains and losses on the derivative representing either hedge ineffectiveness or hedge components excluded from the assessment of effectiveness are recognized in current earnings. The fair value measurement of the Company's derivative instruments is estimated using Level 2 inputs, which are inputs other than quoted prices that are directly or indirectly observable for the asset or liability. We did not record any unrealized gain or losses on our derivative instruments as of September 30, 2010, as the amount was immaterial.

Note I: New Accounting Pronouncements

In June 2009, the Financial Accounting Standards Board ("FASB") amended Accounting Standards Codification ("ASC") 810, *Consolidation*, to improve how enterprises disclose their involvement with variable interest entities (VIE), which are special-purpose entities and other entities whose equity at risk is insufficient or lacks certain characteristics. Among other things, the amended guidance in ASC 810 changes how an entity determines whether it is the primary beneficiary of a VIE and whether that VIE should be consolidated. ASC 810 requires an entity to provide significantly more disclosures about its involvement with a VIE. Companies must comprehensively review involvements with potential VIEs, including those previously considered to be qualifying special-purpose entities, to determine the effect on their consolidated financial statements and related disclosures. The amended guidance in ASC 810 is effective prospectively at the beginning of an entity's first annual reporting period beginning after December 15, 2009 and for interim periods within the first annual reporting period. The adoption of the amended guidance in ASC 810 did not have a significant effect on our consolidated financial statements.

In January 2010, the FASB issued Accounting Standards ("ASU") Update No. 2010-06, *Improving Disclosures about Fair Value Measurements* ("ASU 2010-06"). ASU 2010-06 requires new disclosures regarding transfers in and out of Levels 1 and 2 and activity in Level 3 fair value measurements. It also clarifies existing disclosure requirements regarding the level of disaggregation in certain disclosures, inputs, and valuation techniques used in ASC 820, *Fair Value Measurements and Disclosures*. We adopted all of the requirements of this update on January 1, 2010, its effective date, except for the new requirement regarding activity in Level 3 fair value measurements which has a later effective date under the provisions of ASU 2010-6 and will become effective on January 1, 2011. Adoption of this pronouncement has not had, and is not expected to have, a significant effect on our consolidated financial statements disclosures.

In September 2010, the FASB issued ASU No. 2010-20, *Disclosures about the Credit Quality of Financing Receivables and the Allowance for Credit Losses*, to enhance the disclosures required for financing receivables (for example, loans, trade accounts receivable, notes receivable, and receivables relating to a lessor's leveraged, direct financing, and sales-type leases) and allowances for credit losses. The amended disclosures are designed to provide more information to financial statement users regarding the credit quality of a creditor's financing receivables and the adequacy of its allowance for credit losses. The amended guidance is effective for period-end balances beginning with the first interim or annual reporting period ending on or after December 15, 2010. The amended guidance is effective for activity during a reporting period beginning on or after December 15, 2010. We expect the amended guidance to impact our disclosures in future periods, but to otherwise not have a significant effect on our consolidated financial statements.

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

Overview

General. We provide software based computer enabled detection, or CED, products and solutions that use advanced signal processing software algorithms to detect and monitor objects in a designated field of view. Our technology analyzes the signal from a sophisticated sensor and passes the information along to management systems, controllers or directly to users. Our core products, the Autoscope® Video Vehicle Detection System, RTMS® Radar Detection System and CitySync Automatic Number Plate Recognition (ANPR) System, operate using our proprietary software in conjunction with video cameras or radar and commonly available electronic components. Our systems are used by traffic managers primarily to improve the flow of vehicle traffic and to enhance safety at intersections, main thoroughfares, freeways and tunnels and by parking and toll managers and law enforcement officials to read license plates for various safety, security, access and enforcement ANPR applications.

Autoscope systems are sold to distributors and end users of traffic management products in North America, the Caribbean and Latin America by Econolite Control Products, Inc., or Econolite, our exclusive licensee in these regions. We sell RTMS and CitySync systems to distributors and end users in North America. We sell all of our systems to distributors and end users in Europe and Asia through our European and Hong Kong subsidiaries, respectively. The majority of our sales are to end users that are funded by government agencies responsible for traffic management or traffic law enforcement.

CitySync Acquisition. In June 2010, we purchased all of the outstanding equity of CitySync Limited through which we own its principal product line, the CitySync ANPR system. We believe the CitySync acquisition expands our addressable market, strengthens our selling presence in Europe and extends the opportunities for hybrid product developments. In its fiscal year ended January 31, 2010, CitySync had revenue of \$7.4 million, substantially all of which related to ANPR system sales.

EIS Asset Purchase. In 2007, we purchased certain assets from EIS Electronic Integrated Systems Inc., or EIS, including its principal product line, the RTMS system. In its fiscal year ended September 30, 2007, EIS had revenue of \$8.7 million, substantially all of which related to RTMS sales.

Trends and Challenges in Our Business

We believe the growth in our business can be attributed primarily to the following global trends:

- worsening traffic caused by increased numbers of vehicles in metropolitan areas without corresponding expansions of road infrastructure and the need to automate safety, security and access applications for automobiles and trucks, which has increased demand for our products;
- advances in information technology, which have made our products easier to market and implement;
- the continued funding allocations for centralized traffic management services and automated enforcement schemes, which has increased the ability of our primary end users to implement our products; and
- general increases in the cost-effectiveness of electronics, which make our products more affordable for end users.

We believe our continued growth primarily depends upon:

- continued adoption and governmental funding of intelligent transportation systems, or ITS, and other automated applications for traffic control, safety and enforcement in developed countries;
- a propensity by traffic engineers to implement lower cost technology-based solutions rather than civil engineering solutions such as widening roadways;
- countries in the developing world adopting above-ground detection technology, such as video or radar, instead of in-pavement loop technology to manage traffic;
- use of CED to provide solutions to security/surveillance and environmental issues associated with increasing automobile use in metropolitan areas; and
- our ability to develop new products, such as hybrid CED devices incorporating, for example, radar and video technologies, that provide increasingly accurate information and enhance the end users' ability to cost-effectively manage traffic, security/surveillance and environmental issues.

Because the majority of our end users are governmental entities, we are faced with challenges related to potential delays in purchase decisions by those entities and changes in budgetary constraints. These contingencies could result in significant fluctuations in our revenue between periods. The slow rate at which the worldwide recession is ending is further adding to the unpredictability of purchase decisions, creating more delays than usual and decreasing governmental budgets, and it is likely to continue to negatively affect our 2010 revenue. We believe we will continue to be a beneficiary of the federal stimulus bills enacted in 2009 and 2010, but it is difficult to determine the level of impact it has on our operations.

Key Financial Terms and Metrics

Revenue. We derive revenue from two sources: (1) royalties received from Econolite for sales of the Autoscope system in North America, the Caribbean and Latin America and (2) revenue received from the direct sales of our RTMS and CitySync systems in North America, the Caribbean and Latin America and all of our systems in Europe and Asia. Royalties from Econolite historically have provided the majority of our revenue. We calculate the royalties using a profit sharing model where we split the gross profit on sales of Autoscope product made through Econolite. This royalty arrangement has the benefit of decreasing our cost of revenues and our selling, marketing and product support expenses because these costs and expenses are borne primarily by Econolite. Although this royalty model has a positive impact on our gross margin, it also negatively impacts our total revenue, which would be higher if all the sales made by Econolite were made directly by us. The royalty arrangement is exclusive under a long-term agreement.

Cost of Revenue. There is no cost of revenue related to royalties, as virtually all manufacturing, warranty and related costs are incurred by Econolite. Cost of revenue related to product sales consists primarily of the amount charged by our third party contractors to manufacture hardware platforms, which is influenced mainly by the cost of electronic components. The cost of revenue also includes logistics costs and estimated expenses for product warranties and inventory reserves. The key metric that we follow is achieving certain gross margin percentages by geographic region and to a lesser extent by product line.

Operating Expenses. Our operating expenses fall into three categories: (1) selling, marketing and product support; (2) general and administrative; and (3) research and development. Selling, marketing and product support expenses consist of various costs related to sales and support of our products, including salaries, benefits and commissions paid to our personnel; commissions paid to third parties; travel, trade show and advertising costs; second-tier technical support for Econolite; and general product support, where applicable. General and administrative expenses consist of certain corporate and administrative functions that support the development and sales of our products and provide an infrastructure to support future growth. General and administrative expenses reflect management, supervisory and staff salaries and benefits, legal and auditing fees, travel, rent and costs associated with being a public company, such as board of director fees, Sarbanes-Oxley compliance, listing fees and annual reporting expenses. Research and development expenses consist mainly of salaries and benefits for our engineers and third party costs for consulting and prototyping. We measure all operating expenses against our annually approved budget, which is developed with achieving a certain operating margin as a key focus. Also included in operating expenses are acquisition related expenses and non-cash expense for intangible asset amortization.

Seasonality. Our quarterly revenues and operating results have varied significantly in the past due to the seasonality of our business. Our first quarter generally is the weakest due to weather conditions that make roadway construction more difficult in North America, Europe and northern Asia. We expect such seasonality to continue for the foreseeable future. Additionally, our international revenues have a significant large project component, resulting in a varying revenue stream. Accordingly, we believe that quarter-to-quarter comparisons of our financial results should not be relied upon as an indication of our future performance. No assurance can be given that we will be able to achieve or maintain profitability on a quarterly or annual basis in the future.

History. We were incorporated in the state of Minnesota in December 1984 and began operations by pioneering the commercial application of wide-area video vehicle detection for traffic management. The technology underlying our products was initially developed at the University of Minnesota. In 1989, the University was awarded a patent for that technology, which it exclusively licensed to us. In 1991, we sub-licensed this technology to Econolite, a leading manufacturer and seller of traffic control products in North America and the Caribbean, to manufacture and distribute products incorporating the technology.

Segments. We currently operate in three reportable segments: Autoscope, RTMS and ANPR. Autoscope is our machine-vision product line, and revenue consists of royalties (all of which are received from Econolite), as well as a portion of international sales. RTMS is our radar product line acquired in the EIS asset purchase in December 2007. ANPR is our license plate recognition product line acquired in the CitySync purchase in June 2010. Included within the ANPR segment are the acquisition related expenses incurred in 2010. All segment revenues are derived from external customers.

Due to the CitySync acquisition and related changes in how we manage our business, we may reevaluate our segment definitions in the future.

The following table sets forth selected unaudited financial information for each of the Company's reportable segments for the three-month periods ended September 30, 2010 and 2009 (in thousands):

	Autoscope		RTMS		ANPR		Total	
	2010	2009	2010	2009	2010	2009	2010	2009
Revenue	\$ 4,784	\$ 4,374	\$ 2,487	\$ 2,449	\$ 1,850	\$ —	\$ 9,121	\$ 6,823
Depreciation	38	90	43	34	12	—	93	124
Amortization of intangible assets	—	—	192	192	219	—	411	192
Income before income taxes	938	1,512	501	474	160	—	1,599	1,986
Capital expenditures	5	72	—	84	—	—	5	156
Total assets	\$ 25,443	\$ 24,786	\$ 11,274	\$ 9,955	\$ 12,966	\$ —	\$ 49,683	\$ 34,741

The following table sets forth selected unaudited financial information for each of the Company's reportable segments for the nine-month periods ended September 30, 2010 and 2009 (in thousands):

	Autoscope		RTMS		ANPR		Total	
	2010	2009	2010	2009	2010	2009	2010	2009
Revenue	\$ 11,990	\$ 11,784	\$ 6,959	\$ 6,109	\$ 2,159	\$ —	\$ 21,108	\$ 17,893
Depreciation	198	237	128	93	12	—	338	330
Amortization of intangible assets	—	—	576	576	243	—	819	576
Income before income taxes	1,784	3,066	1,074	935	(310)	—	2,548	4,001
Capital expenditures	174	357	50	139	—	—	224	496
Total assets	\$ 25,443	\$ 24,786	\$ 11,274	\$ 9,955	\$ 12,966	\$ —	\$ 49,683	\$ 34,741

Results of Operations

The following table sets forth, for the periods indicated, (1) certain statements of income data as a percent of total revenue, (2) gross profit on product sales and royalties as a percentage of product sales and royalties, respectively, and (3) period-to-period changes of items in the consolidated statements of income from 2010 to 2009:

	Three-Month Periods Ended September 30,		Quarter Over Quarter Change
	2010	2009	
Product sales	62.2%	50.3%	65.3%
Royalties	37.8	49.7	1.6
Total revenue	100.0	100.0	33.7
Gross profit – product sales	65.7	67.1	72.1
Gross profit – royalties	100.0	100.0	1.6
Selling, marketing and product support expenses	30.6	25.2	62.2
General and administrative expenses	14.3	11.7	64.2
Research and development expenses	10.8	12.7	13.9
Amortization of intangible assets	4.5	2.8	114.1
Income from operations	18.3	29.0	(15.4)
Other income (expense), net	(0.8)	0.1	n/m
Income taxes	5.2	6.2	10.8
Net income	12.4	22.9	(27.8)

	Nine-Month Periods Ended September 30,		Period Over Period Change
	2010	2009	
Product sales	56.3%	49.3%	34.7%
Royalties	43.7	50.7	1.7
Total revenue	100.0	100.0	18.0
Gross profit – product sales	63.0	66.6	27.5
Gross profit – royalties	100.0	100.0	1.7
Selling, marketing and product support expenses	32.2	29.5	28.9
General and administrative expenses	15.6	14.4	27.5
Research and development expenses	12.3	14.2	2.3
Acquisition related expenses	2.5	—	n/m
Amortization of intangible assets	3.9	3.2	42.2
Income from operations	12.8	22.3	(32.4)
Other income (expense), net	(0.7)	0.1	n/m
Income taxes	3.1	5.6	(35.4)
Net income	9.0	16.7	(36.6)

Total revenue increased to \$9.1 million in the three-month period ended September 30, 2010 from \$6.8 million in the same period in 2009, an increase of 33.7%, and to \$21.1 million in the first nine months of 2010 from \$17.9 million in the same period in 2009, an increase of 18.0%. Royalties were flat at \$3.4 million in the three month periods of 2010 and 2009, and they increased to \$9.2 million in the first nine months of 2010 from \$9.1 million in the same period in 2009, an increase of 1.7%. We attribute the relative flatness in royalties to the ongoing economic recession in North America and its negative impact on state and federal spending. Product sales increased to \$5.7 million in the third quarter of 2010 from \$3.4 million in the same period in 2009, an increase of 65.3%, and increased to \$11.9 million in the first nine months of 2010 from \$8.8 million in the same period in 2009, an increase of 34.7%. The increases are mainly due to the impact of the CitySync acquisition and to a lesser extent by improved sales in international markets.

On a segment basis, revenue for the Autoscope segment increased to \$4.8 million in the three-month period ended September 30, 2010 from \$4.4 million in the same period in 2009, and increased to \$12.0 million in the first nine months of 2010 from \$11.8 million in the same period in 2009. The increase reflects improved sales in international markets. Revenue for the RTMS segment was \$2.5 million in both the third quarter of 2010 and the same period in 2009, and increased to \$7.0 million in the first nine months of 2010 from \$6.1 million in the same period in 2009. The increase resulted mainly as a result of improved sales in Asia. International sales increased to \$3.6 million in the third quarter up from \$1.8 million in the same period of 2009 and increased to \$6.6 million in the first nine months of 2010 from \$4.1 million in the same period in 2009. The increases are mainly due to the CitySync acquisition and due to improved sales, especially in Asia.

Gross margins for product sales decreased to 65.7% in the three months ended September 30, 2010 from 67.1% in the same period in 2009, and to 63.0% in the first nine months of 2010 from 66.6% in the same period in 2009. The decreases resulted mainly from a negative revenue mix shift in 2010 to both lower margin products and to higher third-party equipment content. Gross margins on royalty income remained consistent at 100.0% in each of the periods of 2010 and 2009.

Selling, marketing and product support expense increased to \$2.8 million, or 30.6% of total revenue, in the three months ended September 30, 2010 from \$1.7 million, or 25.2% of total revenue, in the third quarter of 2009, and to \$6.8 million, or 32.2% of total revenue, in the first nine months of 2010 from \$5.3 million, or 29.5% of total revenue, in the first nine months of 2009. The change reflects the first full quarter of CitySync related expenses. Additionally, the increase relates to investments in market expansion activities in Europe and Asia and increased product support expenses. We anticipate that for the remainder of 2010, the dollar amount of our quarterly selling, marketing and product support expense will increase from the 2010 third quarter level.

General and administrative expense increased to \$1.3 million, or 14.3% of total revenue, in the three months ended September 30, 2010, from \$796,000, or 11.7% of total revenue, in the same period in 2009, and to \$3.3 million, or 15.6% of total revenue, in the first nine months of 2010, from to \$2.6 million, or 14.4% of total revenue, in the same period in 2009. The 2010 increase in costs resulted mainly from adding CitySync related expenses and also due to lower exchange gains relative to 2009. We anticipate that for the remainder of 2010, the dollar amount of our quarterly general and administrative expense will be consistent with that of the third quarter of 2010.

Research and development expense increased to \$989,000, or 10.8% of total revenue, in the third quarter of 2010, from \$868,000, or 12.7% of total revenue, in the same period in 2009, and to \$2.6 million, or 12.3% of total revenue, in the first nine months of 2010, from \$2.5 million, or 14.2% of total revenue, in the same period in 2009. We anticipate that for the remainder of 2010, the dollar amount of our quarterly research and development expense will be consistent with that of the third quarter of 2010.

Amortization of intangibles expense increased over 2009 levels due to the impact of amortization of intangible assets from the CitySync acquisition. Assuming there are no changes to our intangible assets, we anticipate amortization expense will be \$1.2 million for all of 2010.

Other expense was \$74,000 and \$146,000 in the third quarter and first nine months of 2010, respectively, as compared to other income of \$9,000 and \$18,000, respectively, in the same periods in 2009. In 2009, bank debt was outstanding for only a portion of the first quarter.

Income before income taxes for the Autoscope segment decreased to \$938,000 in the third quarter of 2010, compared to \$1.5 million in the comparable quarter of 2009, and to \$1.8 million in the first nine months of 2010, compared to \$3.1 million in the comparable period of 2009. The decreases were mainly due to lower gross margins and increased market expansion activities in international markets in the segment. Income before income taxes for the RTMS segment increased to \$501,000 in the third quarter of 2010, compared to income of \$474,000 in the comparable quarter of 2009, and increased to \$1.1 million in the first nine months of 2010, compared to \$935,000 in the comparable period of 2009. The increase for the nine-month period was mainly due to increased sales volumes.

Income tax expense was \$472,000, or 29.5% of pretax income, in the third quarter of 2010, compared to \$426,000, or 21.5% of pretax income, in the comparable quarter of 2009, and was \$652,000, or 25.6% of pretax income, in the first nine months of 2010, compared to \$1.0 million, or 25.2% of pretax income, in the comparable period of 2009. The 2009 third quarter rate was favorably impacted by revisions to estimated tax credits. We anticipate an effective tax rate below 30% for all of 2010.

Liquidity and Capital Resources

At September 30, 2010, we had \$9.4 million in cash and cash equivalents and \$3.6 million in short-term investments, compared to \$14.1 million in cash and cash equivalents and \$3.9 million in short-term investments at December 31, 2009.

Net cash provided by operating activities in the nine-month period ended September 30, 2010 was \$664,000, compared to \$2.9 million in the same period of 2009. The decrease in 2010 was due to lower net income in 2010 and a combination of a lower change in receivables in the 2010 period as compared to 2009 and a greater change in payables and accruals in the 2010 period as compared to 2009. We anticipate that average receivable collection days in 2010 will be similar to 2009 and will not have a material impact on our liquidity. In the nine-month period ended September 30, 2010, we used \$7.9 million in cash to purchase the outstanding equity of CitySync and we also repaid \$445,000 in CitySync seller loans. We also repaid our bank term note and CitySync related bank line in the 2010 period. In addition to equipment purchases, in 2010 we paid our 2009 earn-out liability of \$1.5 million to the sellers of the EIS assets. Our planned additions of property and equipment are discretionary, and we expect them to be below historical levels in 2010. These outflows were partially offset by the proceeds from our offering of common stock which netted us \$8.8 million in cash.

In December 2009, we entered into a term loan agreement for \$4.0 million with Associated Bank, National Association, or Associated Bank, which we fully repaid in September 2010. We previously had a separate \$4.0 million term note with Associated Bank that originated in May 2008 and was fully repaid in February 2009.

We also have a revolving line of credit agreement with Associated Bank. The revolving line of credit provides for up to \$5.0 million at an annual interest rate equal to the greater of 4.5% or LIBOR plus 2.75%, as reset from time to time by the bank. Advances on the line of credit cannot exceed a borrowing base determined under a formula, which is a percentage of the amounts of eligible receivables. The line of credit currently has no borrowings outstanding and matures on May 1, 2011. We believe that on an ongoing basis, we will have regular availability to draw a minimum of \$3.0 million on our line of credit based on our qualifying assets.

In conjunction with our acquisition of CitySync, the sellers have an earn-out arrangement over approximately 18 months from the June 2010 date of purchase. The earn-out is based on achieving certain revenue and minimum gross margins from the sale of CitySync ANPR systems and it is calculated in two separate periods, each ending on December 31. In each period there are two tiers and superior performance could lead to a total earn-out of \$2 million or higher, as the earn-out is not capped. Earn-out payments are due within three months of the end of an earn-out period.

In conjunction with our EIS asset purchase, the sellers have an earn-out arrangement over approximately three years from the December 2007 date of purchase. The earn-out is based on earnings before taxes from RTMS sales less related cost of revenue and operating expenses, excluding depreciation, amortization and interest expenses, and it is calculated annually. If the earnings are at target levels, the sellers would receive \$2.0 million annually, or \$6.0 million in total. Superior performance of the assets could lead to an earn-out in excess of \$2 million, as the earn-out is not capped. Earn-out payments generally are due within three months of the end of an earn-out period. For the first earn-out period, the sellers of the EIS assets received a \$1.2 million earn-out payment. For the second earn-out period, which was fiscal 2009, the sellers received a \$1.5 million earn-out, which was paid in March 2010. If we are acquired or sell substantially all of our assets before December 6, 2010, we must pay EIS \$6.0 million less earn-out amounts previously paid as an acceleration of potential earn-out payments under the EIS asset purchase agreement.

We believe that cash and cash equivalents on hand at September 30, 2010, along with cash provided by operating activities, will satisfy our projected working capital needs, payments under the CitySync and EIS earn-outs, investing activities, and other cash requirements for the foreseeable future.

Off-Balance Sheet Arrangements

We do not participate in transactions or have relationships or other arrangements with an unconsolidated entity, including special purpose and similar entities or other off-balance sheet arrangements.

Critical Accounting Policies

Our significant accounting policies are described in Note 1 to the Consolidated Financial Statements in our Annual Report on Form 10-K for the year ended December 31, 2009. The accounting policies used in preparing our interim 2010 Condensed Consolidated Financial Statements set forth elsewhere in this Quarterly Report on Form 10-Q are the same as those described in our Annual Report on Form 10-K.

New and Recently Adopted Accounting Pronouncements

New and recently adopted pronouncements are set forth in Note I in the Notes to Condensed Consolidated Financial Statements in Item 1 of Part I of this Quarterly Report on Form 10-Q.

Cautionary Statement:

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange of 1934, as amended. Forward-looking statements represent our expectations or beliefs concerning future events and can be identified by the use of forward-looking words such as “expects,” “believes,” “may,” “will,” “should,” “intends,” “plans,” “estimates,” or “anticipates” or other comparable terminology. Forward-looking statements are subject to risks and uncertainties that may cause our actual results to differ materially from the results described in the forward-looking statements. Factors that might cause such differences include, but are not limited to:

- historical dependence on a single product for most of our revenue;
- budget constraints by governmental entities that purchase our products, including constraints caused by declining tax revenue;
- continuing ability of our licensee to pay royalties owed;
- the mix of and margin on the products we sell;
- dependence on third parties for manufacturing and marketing our products;
- dependence on single-source suppliers to meet manufacturing needs;
- our increased international presence;
- failure to secure adequate protection for our intellectual property rights;
- development of a competing product by another business using the underlying technology included in the patent we had licensed from the University of Minnesota, which expired in 2006;
- our inability to develop new applications and product enhancements;

- unanticipated delays, costs and expenses inherent in the development and marketing of new products, including ANPR and hybrid products;
- our inability to respond to low-cost local competitors in Asia and elsewhere;
- our inability to properly manage a growth in revenue and/or production requirements;
- the influence over our voting stock by affiliates;
- our inability to hire and retain key scientific and technical personnel;
- our inability to achieve and maintain effective internal controls;
- our inability to successfully integrate acquisitions;
- our inability to comply with international regulatory restrictions over hazardous substances and electronic waste; and
- conditions beyond our control such as war, terrorist attacks, health epidemics and economic recession.

We caution that the forward-looking statements made in this report or in other announcements made by us are further qualified by the risk factors set forth in Item 1A. to our Annual Report on Form 10-K for the fiscal year ended December 31, 2009.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Our foreign sales and results of operations are subject to the impact of foreign currency fluctuations. From time to time, we enter into currency hedges to attempt to lower our exposure to translation gains and losses as well as to limit the impact of foreign currency translation upon the consolidation of our foreign subsidiaries. A 10% adverse change in foreign currency rates, if we have not hedged, could have a material effect on our results of operations or financial position. Our current greatest exposure for a negative material impact to our operations is a rising Canadian dollar versus the U.S. dollar.

Item 4T. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934 (the Exchange Act)). Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of the end of the period covered by this report, our disclosure controls and procedures were effective.

Changes in Internal Control Over Financial Reporting

During the fiscal quarter covered by this report, there has been no change in our internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

None.

Item 1A. Risk Factors

Some of the risk factors to which we and our business are subject are described in the section entitled “Item 1A. Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2009. The risks and uncertainties described in our Annual Report are not the only risks we face. Additional risks and uncertainties not presently known to us or that our management currently deems immaterial also may impair our business operations. If any of the risks described were to occur, our business, financial condition, operating results and cash flows could be materially adversely affected.

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

None.

Item 3. Defaults Upon Senior Securities

None.

Item 4. [Removed and Reserved.]

Item 5. Other Information

None.

Item 6. Exhibits

The following exhibits are filed as part of this quarterly report on Form 10-Q for the quarterly period ended September 30, 2010:

<u>Exhibit Number</u>	<u>Description</u>
31.1	Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Chief Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

SIGNATURES

In accordance with 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.

Image Sensing Systems, Inc.

Dated: November 12, 2010

By: /s/ Kenneth R. Aubrey
Kenneth R. Aubrey
President and Chief Executive Officer
(principal executive officer)

Dated: November 12, 2010

By: /s/ Gregory R.L. Smith
Gregory R.L. Smith
Chief Financial Officer
(principal financial officer and principal accounting officer)

EXHIBIT INDEX

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**CERTIFICATION PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Kenneth R. Aubrey, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Image Sensing Systems, Inc. for its fiscal quarter ended September 30, 2010;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 12, 2010

/s/ Kenneth R. Aubrey

Name: Kenneth R. Aubrey

Title: President and Chief Executive Officer

**CERTIFICATION PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Gregory R.L. Smith, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Image Sensing Systems, Inc. for its fiscal quarter ended September 30, 2010;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 12, 2010

/s/ Gregory R.L. Smith
Name: Gregory R.L. Smith
Title: Chief Financial Officer

**CERTIFICATION PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of Image Sensing Systems, Inc. (the "Company") on Form 10-Q for the period ended September 30, 2010, as filed with the Securities and Exchange Commission (the "Report"), I, Kenneth R. Aubrey, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 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; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Kenneth R. Aubrey

Kenneth R. Aubrey
President and Chief Executive Officer
November 12, 2010

**CERTIFICATION PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of Image Sensing Systems, Inc. (the "Company") on Form 10-Q for the period ended September 30, 2010, as filed with the Securities and Exchange Commission (the "Report"), I, Gregory R.L. Smith, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 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; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Gregory R. L. Smith

Gregory R. L. Smith
Chief Financial Officer
November 12, 2010