CAMTEK LTD
Form 20-F
June 30, 2008

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 20-F

(Mark One)

o Registration statement pursuant to Section 12(b) or (g) of the Securities Exchange Act of 1934

or

x Annual report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

For the fiscal year ended December 31, 2007

or

o Transition report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

or

o Shell Company report pursuant to Section 13 or 15 (d) of the Securities Exchange Act of 1934 \
Date of event requiring this shall Company report _____

For the transition period from _____ to _____

Commission file number 000-30664

Camtek Ltd.

(Exact name of Registrant as specified in its charter)

Israel
(Jurisdiction of incorporation or organization)

Ramat Gavriel Industrial Zone, P.O. BOX 544, Migdal Ha Emek, Israel
(Address of principal executive offices)

Raanan Dekel, Telephone: (972) (4) 6048100, Facsimile: (972) (4) 6440523, E-mail: raanand@camtek.co.il,
Ramat Gavriel Industrial Zone, P.O. BOX 544, Migdal Ha Emek, Israel
(Name, Telephone, Facsimile, E-Mail and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act:
Ordinary Shares, nominal value 0.01 New Israeli Shekel per share
(Title of each Class)

Nasdaq Global Market
(Name of each Exchange on which registered)

Securities registered or to be registered pursuant to Section 12(g) of the Act:
None
(Title of Class)
Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:
None
(Title of Class)

Indicate the number of outstanding shares of each of the issuer s classes of capital or common stock as of the close of the period covered by the annual report:

30,133,715 Ordinary Shares, par value NIS 0.01

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

o Yes x No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

o Yes x No

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.

x Yes o No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act.

o Large Accelerated Filer o Accelerated Filer x Non-Accelerated Filer

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

US GAAP x

International Financial Reporting Standards as issued by the International Accounting Standards Board o

Other o

If Other has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.

Item 17 o Item 18 o

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

o Yes x No

TABLE OF CONTENTS

Forward-Looking Statements

Statements in this annual report about our future results, levels of activity, performance, goals or achievements or other future events constitute forward-looking statements. These statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in our forward-looking statements. These factors include, among others, those listed under Risk Factors or described elsewhere in this annual report.

In some cases, you can identify forward-looking statements by our use of words such as may, will, should, could, expects, plans, anticipates, believes, estimates, predicts, seeks, strategy, potential or continue or the negative or other variations of these words, or comparable words or phrases.

Although we believe that the expectations reflected in our forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements or other future events. We are under no duty to update any of our forward-looking statements after the date of this annual report, other than as required by law. You should not place undue reliance on forward-looking statements.

As used in this annual report, the terms we , us , our , the Company and Camtek mean Camtek Ltd. and its subsidiaries, unless otherwise indic

PART I

Item 1. Identity of Directors, Senior Management and Advisers.

Not applicable.

Item 2. Offer Statistics and Expected Timetable.

Not Applicable.

Item 3. Key Information.

A. ***Selected Consolidated Financial Data.***

We derived the selected data under the captions Selected Statement of Operations Data for the years ended December 31, 2005, 2006 and 2007, and Selected Balance Sheet Data as of December 31, 2006 and 2007 from the audited consolidated financial statements included elsewhere in this annual report. The consolidated financial statements as of December 31, 2005, have been jointly audited by Goldstein Sabo Tevet and Brightman Almagor & Co., a member firm of Deloitte Touche Tohmatsu, independent registered public accounting firm. Further, the consolidated financial statements for each of the two years in the two year period ended December 31, 2007, have been audited by Somekh Chaikin, a member firm of KPMG International, independent registered public accounting firm. We derived the selected data under the caption Selected Statement of Operations Data for the years ended December 31, 2003 and 2004 and Selected Balance Sheet Data as of December 31, 2003 and 2004 from audited financial statements that are not included in this annual report.

For all fiscal periods for which consolidated financial data are set forth below, our consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States.

	Year Ended December 31,				
	2003	2004	2005	2006	2007
	(in thousands, except per share data)				
Selected Statement of Operations Data:					
Revenues:					
Sales of products	$ 26,567	$ 63,353	$ 56,987	$ 92,470	$ 59,654
Service fees	4,574	4,066	6,045	7,585	11,315
Total revenues	31,141	67,419	63,032	100,055	70,969
Cost of revenues:					
Cost of products sold	13,214	28,193	28,262	42,600	32,769
Cost of services	3,460	3,168	4,519	5,842	9,171
Royalties to the Government of Israel	150	-	-	-	-
Total cost of revenues	16,824	31,361	32,781	48,442	41,940
Gross profit	14,317	36,058	30,251	51,613	29,029
Research and development costs	5,855	7,328	8,469	11,831	12,111
Selling, general and administrative expenses	10,041	15,953	18,760	27,850	24,119
Operating income (loss)	(1,579)	11,655	3,022	11,932	(7,201)
Financial and other income (expenses), net	235	(359)	(320)	(288)	(128)
Income (loss) before income taxes	(1,344)	11,296	2,702	11,644	(7,329)
Income taxes	225	499	-	(41)	(362)
Net income (loss)	$ (1,569)	$ 10,797	$ 2,702	$ 11,603	$ (7,691)
Earnings (loss) per ordinary share:					
Basic	$ (0.06)	$ 0.40	$ 0.10	$ 0.40	$ (0.25)
Diluted	$ (0.06)	$ 0.39	$ 0.10	$ 0.39	$ (0.25)
Weighted average number of ordinary shares outstanding:					
Basic	27,053	27,114	27,253	29,176	30,145
Diluted	27,053	27,800	27,586	29,553	30,145

	December 31,				
	2003	2004	2005	2006	2007
	(in thousands)				
Selected Balance Sheet Data:					
Cash and cash equivalents	$ 12,837	$ 9,141	$ 8,714	$ 23,358	$ 18,601
Total assets	54,186	68,643	75,239	110,806	98,465
Bank credit	2,300	2,335	-	-	-
Convertible Loan	-	-	5,000	5,000	5,000
Shareholders equity	38,851	49,776	52,618	80,138	72,906

B. ***Capitalization and Indebtedness.***

Not applicable.

C. ***Reasons for the Offer and Use of Proceeds.***

Not applicable.

D. ***Risk Factors***

There is a high degree of risk associated with our company and business. If any of the following risks occur, our business, operating results and financial condition could be materially adversely affected and the trading price of our ordinary shares could decline.

Risk Factors Related to Our Business and Our Markets

We had a history of losses, and we cannot assure you that we will not incur additional losses in the future.

We incurred a net loss of $1.6 million for the year ended December 31, 2003. Despite having had net income of $10.8 million, $2.7 million and $11.6 million in 2004, 2005 and 2006 respectively, we incurred a net loss of $7.7 million in 2007. We may not be able to achieve or increase profitability on a quarterly or annual basis. The failure to generate consistent profitability could have a material adverse effect on the market price of our shares.

The markets we target are: printed circuit board, integrated circuit (IC) substrate and semiconductor manufacturing and packaging industries. These markets are highly cyclical and the Company does not have any information that enables it to predict the downturns in these markets.

The printed circuit board, IC substrate and semiconductor manufacturing and packaging industries are highly cyclical. The printed circuit board and the IC substrate experienced a prolonged and severe downturn in 2002 and2003, during which the overall rate of capital spending by printed circuit board and IC substrate manufacturers had been sharply cut and sales of our products had declined. We experienced an expansion and growth during 2004, a seasonal adjustment down in the first quarter of 2005, and again, an expansion during the second half of 2005 and the first half of 2006. In the second half of 2006 and first quarter of 2007, as a result of a downturn in the semiconductor manufacturing and packaging industry, our revenues had been cut down. In the second and third quarters of 2007, we experienced an increase in revenues from the printed circuit board industry, which resulted in our total revenues increase. In the fourth quarter of 2007 and the first quarter of 2008 we achieved stability in our quarterly revenues level.

As a result of this cyclicality, we saw during 2004 an increase in capital spending in the printed circuit board and IC substrate industries, and sales of our automated optical inspection, or AOI, systems to these manufacturers increased. In 2005, there was a decrease in demand from our clients in the printed circuit board industry, as a result of a capacity adjustment in that market but in 2006 the demand from our clients in the printed circuit board market increased again. In the first quarter of 2007 we had a seasonal adjustment down but then an expansion during the second and third quarters of 2007, with a further adjustment down in the fourth quarter of 2007 and first quarter of 2008.

Also, the semiconductor manufacturing and packaging industry is characterized by cyclicality, which is amplified in the back-end sector, where we operate. As a result of our market penetration to the semiconductor manufacturing and packaging industry, we experienced growth from this market from 2004 until the second quarter of 2006. In the second half of 2006 we were affected by the market s weakness, which continued to affect us until the third quarter of 2007. In the last quarter of 2007 and the first quarter of 2008 we experienced growth unrelated to increased capacity in this market.

In the event of a permanent reduction in demand, we have only a limited ability to reduce expenses because of the need for significant ongoing expenditures related to engineering, research and development and worldwide customer service and support operations. Accordingly, we may incur losses during future downturns or capacity adjustments affecting the markets we serve.

We are planning to increase our revenues from the semiconductor manufacturing and packaging industry with our Falcon system. If our share in the market fails to grow, our results of operations will be adversely affected.

Our future success in the semiconductor manufacturing and packaging industry depends on our ability to sustain and increase the acceptance rate of our AOI technology and upon the acceptance by our customers of new applications we included in our AOI systems. If the market for our AOI systems in the semiconductor manufacturing and packaging industry does not develop at the rate we expect, whether as a result of our inability to obtain repeat orders from our customers or to acquire customers who would adopt our systems for new applications, an economic downturn, intensified competition, presentation to the market of alternative technologies, changes in technology, changes in product standards, or otherwise - our results will be adversely affected. In 2007 our revenues from the Falcon significantly decreased, due to a downturn in the semiconductor manufacturing and packaging industry. We cannot assure you that we will be able to increase Falcon revenues to or above the levels previously achieved.

Longer sales process for new products may increase our costs and delay time to market of our products, which may increase our inventory and negatively impact our results of operations.

While we are expanding our product lines and customer base, our sales process for new products to new and existing customers involves: demonstrations and testing against industry benchmarks in our sales centers; sales and technical presentations and presentations regarding our products competitive advantages; and installation of the systems at the customer s site for side-by-side competitive evaluations for a period of one to six months. More evaluation time is devoted during the initial penetration period for new products and for new customers in new markets, since these circumstances usually require engineering efforts to fix errors, customize tasks and add new features. As a result of all of the above factors, our finished goods inventory totaled $15.85 million at December 31, 2007, and our costs may increase disproportionately to our revenues as our product lines and customer base expand. Moreover, our customers are increasingly requiring that we deliver our products with short lead times. In order to meet our customers needs in the timeframe they require, we need to pre-order components and subsystems based on our forecasts of future orders, rather than on actual orders. This need is compounded by the fact that, in times of increasing demand in our industry, our suppliers and subcontractors tend to extend their delivery schedules or fail to meet their delivery deadlines. In order to compensate for these unexpected delays, we have had to predict our needs further into the future, which increases the risk that our predictions may not correspond to our actual future needs.

We operate an international sales organization. A substantial majority of our sales has been to manufacturers in the Asia Pacific region. The concentration of our sales and other resources within a particular geographical region subjects us to additional risks.

We have sold our systems in over 30 countries around the world. The majority of our sales were in the Asia Pacific region. In 2007, our sales in the Asia Pacific region accounted for approximately 82% of our total revenues, including approximately 43% of our total revenues from sales in China and Hong Kong and 18% from sales in Taiwan. Changes in local legislation, changes in governmental controls and regulations, changes in tariffs and taxes, political instability, trade restrictions, a downturn in economic or financial conditions, as well as any extraordinary events having an adverse effect on the economy or business environment in this region may cause a significant decline in our future revenues and may have an adverse effect on our results of operations. These general risks are heightened in China, where the nature of the economy and the legal parameters are rapidly evolving and where foreign companies may face cultural obstacles.

The markets we serve are highly competitive. There is a dominant market participant for AOI systems both for the printed circuit board industry and for the final inspection of silicon wafers in the semiconductor industry, and some of our competitors have greater resources, all of which may make it difficult for us to maintain profitability.

Competition in the markets we serve is intense. During 2002, early 2003, first half of 2005, 2007 and during the first half of 2008, competition intensified due to the reduced demand for the type of products that we manufacture. This resulted from the general economic conditions, cyclical downturns in the electronics industry and/or seasonal adjustments during those times. When competitors respond to declining demand by offering discounts, free evaluation machines or more favorable credit terms, we may need to implement the same methods in part or in whole in order to maintain our market position. These could mean lower prices for our products and a corresponding reduction in our gross margin. If we have to lower prices to remain competitive and are unable to reduce our costs to offset price reductions or are unable to introduce new, higher performance products with higher prices, our operating results may be adversely affected.

Competitors currently sell systems that provide functionality similar to our products. In the printed circuit board industry, our principal competitor and the dominant market participant is Orbotech Ltd., with additional competitors including Dainippon Screen, Lloyd-Doyle, ManiaBarco, Shirai and Utechzone. In addition, there is a market for used AOI systems for printed circuit board manufacturers, which may reduce the demand for our products and force us to lower our prices in certain cases. Our competitors in the IC substrate industry include Orbotech Ltd., Dainippon Screen, ATI and Utechzone. In the semiconductor manufacturing and packaging industry, our principal competitor and the dominant market participant is Rudolph Technologies Inc. (which purchased the IP and bumped wafer inspection line of RVSI in January 2008), with additional competitors including Zygo (through acquisition of Solvision in February 2008), KLA-Tencor (through acquisition of 96% ownership in ICOS in May 30, 2008), Topcon, Toray, Tosok and Hitachi.

Since we entered the final inspection of silicon wafers business in early 2004, there have been several mergers and acquisitions that changed the competitive map; starting with Rudolph Technologies Inc. s acquisition of August Technologies in 2005 and the acquisition of the bumped wafer inspection line of RVSI in January 2008, continuing with Solvision s acquisition by Zygo in February 2008 and the recent purchase of 96% of ICOS s shares by KLA-Tencor in May 2008. These acquisitions can reinforce the previously smaller competitors with resources, financial backing and the better market position of the acquiring companies, while bringing new forces to the marketplace. As a result, Camtek may need to overcome unfavorable market perception and invest more R&D efforts in maintaining its technological position.

Some of our competitors have greater financial, personnel and other resources and offer a broader range of products and services. These competitors may be able to respond more quickly to new or emerging technologies or changes in customer requirements, develop additional or superior products, benefit from greater purchasing economies, offer more aggressive pricing or devote greater resources to the promotion of their products.

Technology in the markets in which we operate is rapidly evolving, and we may not be able to keep pace with these changes or with emerging industry standards. This could result in a loss of revenues.

The markets for our products are characterized by changing technology, evolving industry standards, changes in end-user requirements and new product introductions. Potential new technologies and improvements to existing production equipment and methods could improve production yields, thereby reducing the need to use our AOI systems in these industries. In addition, new technologies could emerge as alternatives to using our products.

Our future success will depend on our ability to enhance our existing products and to develop and introduce new technologies for AOI of printed circuit boards, IC substrates and silicon wafers. These products must keep pace with technological developments and address the increasingly sophisticated needs of our customers. If we fail to keep pace with technological changes, with products offered by our competitors or with emerging industry standards, our ability to attract new business and generate revenues may be damaged.

We seek to expand our activity into unsaturated markets adjacent to our existing served markets, such as the inspection of silicon wafers at various steps during their manufacturing process, inside the wafer fabrication facility. Technological developments in production processes and in process control may reduce the growth we anticipate in demand for inspection systems. If this happens, we may not be able to cover our investments in penetrating these markets, or will have to increase our R&D and marketing expense to adapt our products to such changes.

Our products may infringe on the intellectual property rights of others, which could result in claims against us.

Third parties may assert claims that we have violated their patents or that we have infringed upon their intellectual property rights. Intellectual property claims have been asserted against us in the past and may be asserted against us in the future. Any intellectual property claims against us, even if without merit, could lead to protracted litigation, could cost us a significant amount of money to defend and could divert management s attention from our business.

On May 10, 2004, a lawsuit was filed against us in the District Court in Nazareth, Israel, by our competitor, Orbotech Ltd., alleging that the Dragon and Falcon systems infringe upon a patent held by Orbotech Ltd. and requesting an injunctive relief and damages. Currently, the issue being dealt with by the court is the validity of the asserted patent, which expired in February 2008. We believe that we have substantial defenses against the validity of Orbotech s patent and substantial defenses against Orbotech s claims.

On February 23, 2005, a lawsuit was filed against us in the District Court in Jerusalem by Orbotech Ltd., alleging infringement of patent held by Orbotech Ltd. regarding a specific illumination block (an apparatus for illuminating and controlling the illumination of scanned objects), seeking injunctive relief and damages. The court ruled, based on a court s scientific advisor s opinion, that Camtek allegedly infringed the patent, and granted Orbotech a provisional remedy, i.e. interim relief, which prevents Camtek from manufacturing the allegedly infringing illumination block in suit. Following the grant of the provisional remedy by the District Court, the Company filed a motion for leave to appeal (permission from the Israel Supreme Court to appeal the District Court s decision to grant a provisional remedy). The Supreme Court rejected our request. The claim is currently in the preliminary stage of discovery and only after evidence is presented and cross examinations are conducted will a final judgment be rendered by the District Court, subject to the right to appeal. In February 2007, the patent referring to the specific illumination block expired. Among others, the Company has filed two motions for the lawsuit to be dismissed, both still pending. We believe that we have good defenses in the infringement aspect of the claim. We further believe that we have claims with respect to the validity of the asserted patent, as well as other defenses such as estoppel and lack of good faith on the part of Orbotech.

On July 14, 2005, a lawsuit was filed against us in the United States District Court for the District of Minnesota by one of the Company s competitors in the field of semiconductor manufacturing and packaging, August Technology Corporation, or August (today Rudolph Technologies Inc. together with August Technology Corporation), alleging infringement of a patent and seeking injunctive relief and damages. We have filed an answer and counterclaims alleging, *inter-alia*, non-infringement, invalidity and unenforceability of the patent. Fact and expert discovery have been completed. On February 2008 the Company filed a motion for summary judgment of invalidity of the asserted patent. A hearing on Camtek s motion for summary judgment was held on April 25, 2008. The Court took the motion under advisement and will issue an order in due course. We believe that we have substantial defenses to August s allegations.

We cannot assure you that we will be successful in our defense against these claims. If these claims are successful, they could have a negative impact on our business by impairing our ability to sell our systems, and they could result in pecuniary damages against us. Pecuniary damages awarded at the discretion of the court, if any, would be based either on the amount of any losses incurred by the claimants in sales of products due to our sales of infringing products or on the amount of profits earned by us from sales of infringing products. In the event we do not prevail against these claims, we may also be liable for any court costs and attorney s fees incurred by the claimants in connection with these litigations. Even if we will be successful in our defense against these claims, we may still incur significant legal expenses while resolving these matters.

If one or more of our third-party suppliers or subcontractors does not provide us with key components or subsystems, we may not be able to deliver our products to our customers in a timely manner, and we may incur substantial costs to obtain these components from alternate sources.

We rely on single source and limited source suppliers and subcontractors for a number of essential components and subsystems of our products. We do not have agreements with all of these suppliers and subcontractors for the continued supply of the components or subsystems they provide. An interruption in supply from these sources or an unexpected termination of the manufacture of key components or subsystems would disrupt production and adversely affect our ability to deliver products to our customers. For example, Camtek s Reference Generator (CRG) software is a required component in every AOI system. Recently, Mania Technologie AG, the parent company of Mania Technologie Belgium NV, which is currently a single source supplier of CRG, has become insolvent and therefore its future is unclear. Although we have taken and currently take precautions against this kind of events, an unexpected termination or disruption of supply would require an investment in capital and manpower resources in order to shift to other suppliers and might cause a significant delay in introducing replacement products.

We may encounter difficulties in purchasing key components and subsystems to meet increased customer demand.

In the current highly-competitive business environment, our customers require us to fill orders within a very short period of time. Our products are complex and require essential components and subsystems that are produced by a number of suppliers and subcontractors. These suppliers and subcontractors cannot always supply such components and subsystems within the time frame demanded by our customers. Therefore we are required to predict future demands. If we do not order adequate components and subsystems, or if our suppliers and subcontractors are unable to timely meet our increased demand, we might not be able to adequately meet our customers demands. Our inability to satisfy any increase in customer orders could result in the loss of sales and could cause customers to seek products from our competitors.

We may also overestimate our future needs, which could result in our carrying excess inventory of certain components and subsystems.

We are attempting to expand our activity in the markets we operate in through M&A activity. Such activity may result in dilution, operating difficulties and other adverse consequences.

We invest efforts in attempting to develop new growth engines by acquisitions, where core competencies may provide us with synergy and competitive advantages. Future acquisitions could result in potentially dilutive issuances of equity securities, the incurrence of debt, contingent liabilities or impairment related to goodwill and other intangible assets, any of which could harm our business. In addition, acquisitions could require us to obtain additional equity or debt financing, which may not be available on favorable terms or at all and may be dilutive. Furthermore, we compete for acquisition and investment opportunities with other well established and well capitalized entities. There can be no assurance that we will be able to locate acquisition or investment opportunities upon favorable terms.

In addition, our operation of any acquired business or assets could involve numerous risks, including: post-merger integration problems; diversion of management s attention from our core business; entering markets in which we have little or no experience; and the loss of key employees of the acquired operations.

We can not be certain that any future acquisition or merger will be successful. If the operation of the business of any future acquisition or merger disrupts our operations, our business may suffer. In addition, even if we successfully integrate the acquired business with our own, we may not receive the intended benefits of the acquisition.

If we are unable to protect our proprietary technologies, we may not be able to compete effectively.

We differentiate our products and technologies from those of our competitors by using our proprietary software, our image processing algorithms and the integration of our advanced hardware components. We rely on a combination of copyrights, trade secrets, patents, trademarks, confidentiality and non-disclosure agreements to protect our proprietary know-how and intellectual property, including hardware and software components of our products. These measures may not be adequate to protect our proprietary technologies and it may be possible for a third party, including a competitor, to copy or otherwise obtain and use our products or technologies without authorization or to develop similar technologies independently. Additionally, our products may be sold in countries, particularly in the Asia Pacific region, that provide less protection to intellectual property than that provided under U.S. or Israeli laws.

Fluctuations in currency exchange rates may result in the prices of our products becoming less competitive or in additional expenses.

Currency exchange rate fluctuations may affect the prices of our products. Our prices in most countries outside of Europe and Japan are denominated in dollars. In those countries, if there is a significant devaluation in the local currency compared to the dollar, the prices of our products will increase relative to that local currency and may be less competitive. In addition, much of our service income is denominated in local currencies. If a larger number of our sales were to be denominated in currencies other than dollars, our reported revenue and earnings would be subject to a greater degree of foreign exchange fluctuations.

We generate most of our revenues in dollars but incur a significant portion of our salary and operating expenses in NIS. Appreciation between US dollar and NIS may adversely affect our result of operations in dollar terms. As a result, we bear the risk that the rate of inflation in Israel will exceed the rate of devaluation of the NIS in relation to the dollar, which would increase our costs expressed in dollars. As the majority of our revenues are denominated in dollars, we believe that inflation and fluctuations in the NIS/dollar exchange rate have no material effect on our revenues. However, a major portion of the costs of our Israeli operations, such as personnel, subcontractors, materials and facility-related costs, are incurred in NIS. As a result, we bear the risk that our NIS costs, as expressed in dollars, increase to the extent by which the continued significant appreciation of the NIS in relation to the dollar, as experienced in 2007, will increase our costs expressed in NIS and have an effect on our net income.

We incur a significant portion of our expenses in China in the Yuan, and these expenses may rise with our increasing activities there. While the value of the Yuan has generally been stable in recent years, we are now facing appreciation of the Yuan against the dollar, which may adversely affect our results of operations in dollar terms.

Our dependence on a single major manufacturing facility magnifies the risk of an interruption in our production capabilities.

We have one major manufacturing facility, which is located in Migdal Ha Emek, Israel. Any event affecting this site, including natural disaster, labor stoppages or armed conflict, may disrupt or indefinitely discontinue our manufacturing capabilities and could significantly impair our ability to fulfill orders and generate revenues, thus negatively impacting our business.

We have a supplementary manufacturing facility in China, in which we currently manufacture one type of our verification systems, but intend to expand our manufacturing activities there in the future. Therefore, we may be influenced by changing events in China; for example, our manufacturing activity in China may suffer as a result of changes in China s geopolitical status or fluctuations in its economic stability. In addition, we may be exposed to sourcing risks, such as supply-chain and business interruption issues. Further potential risks may be associated with such issues as the protection of our intellectual property; the recruitment and retention of skilled employees.

We may experience fluctuations in our future operating results, making it difficult to predict future results.

Our revenues and net income (loss), in any particular period may be lower than revenues and net income (loss), in a preceding or comparable period. This complicates our planning processes and reduces the predictability of our earnings. Period-to-period comparisons of our results of operations may not be meaningful, and you should not rely on them as indications of our future performance.

Our quarterly results of operations may be subject to significant fluctuations due to the following factors:

the size, timing and shipment of substantial orders;

customer budget cycles and installation schedules;

product introductions;

the pricing of our products;

the timing of new product upgrades or enhancements;

temporary shifts in industry capacity;

the timing of installation or, in some cases, of acceptance of our products by our customers;

interest and exchange rates; and

the timing of issuing required import permits in certain countries into where we sell.

We depend on a limited number of key personnel who would be difficult to replace.

Our continued growth and success largely depend on the managerial and technical skills of the members of our senior management and key employees. If we expand our operations, we believe that we will need to promote and hire qualified engineering, administrative, operational, financial and marketing personnel. In particular, we may find it difficult to hire key personnel with the requisite knowledge of our business, products and technologies. The process of locating, training and successfully integrating qualified personnel into our operations can be lengthy and expensive. During periods of economic growth, competition for qualified engineering and technical personnel is intense.

If our Chairman and Chief Executive Officer, Mr. Rafi Amit, who is currently handling the development of our business in the Far East, other members of our senior management or any of our key employees are unable or unwilling to continue to be employed by us, our business would suffer. We do not have a key man life insurance policy for Mr. Amit.

Our relationship with Priortech may give rise to conflicts of interest.

From time to time, we purchase products of, or sell products to, other companies owned or controlled by Priortech Ltd., our principal shareholder, and act jointly with respect to governmental and administrative matters and the purchase from third parties of various products and services, which may create conflicts of interest. Despite Israeli law procedural requirements, including obtaining special shareholder approvals for interested party transactions, we cannot be certain that those procedures will eliminate the possible detrimental effects of any of these transactions and activities. In addition, Mr. Rafi Amit acts as the Chief Executive Officer of the Company, on a full time basis, as well as acting as the Company s and Priortech s Chairman of the Board Of Directors. Mr. Yotam Stern, our Executive Vice President, Business & Strategy, spends 40% of his time serving as the Chief Executive Officer of Priortech and other positions in the Priortech group.

We may be classified as a passive foreign investment company, and, as a result, our U.S. shareholders may suffer adverse tax consequences.

Generally, if for any taxable year, after applying certain look-through rules, 75% or more of our gross income is passive income, or at least 50% of our assets (averaged quarterly) are held for the production of, or produce, passive income, we may be characterized as a passive foreign investment company, or PFIC, for U.S. federal income tax purposes. This characterization could result in adverse U.S. tax consequences to our shareholders, including gain realized on the sale of our ordinary shares being taxed at as ordinary income rates rather than capital gain rates, and could result in punitive interest charges being applied to such sales proceeds. Rules similar to those applicable to dispositions generally will apply to certain excess distributions with respect to our ordinary shares. U.S. shareholders should consult with their own U.S. tax advisors with respect to the U.S. tax consequences of investing in our ordinary shares.

Based on an analysis of our assets and income, we believe that in 2007 we were not a PFIC. We currently expect that we will not be a PFIC in 2008. However, PFIC status is determined as of the end of the taxable year and is dependent on a number of factors, including the relative value of our passive assets and our non-passive assets, our market capitalization and the amount and type of our gross income. Therefore, there can be no assurance that we will not become a PFIC for the year ending December 31, 2008 or in a future taxable year. For a discussion of how we might be characterized as a PFIC and the related tax consequences, please see U.S. Federal Income Tax Considerations-Tax Consequences If We Are a Passive Foreign Investment Company.

Our share price has been volatile in the past and may continue to fluctuate in the future.

Our ordinary shares have experienced significant market price and volume fluctuations in the past. During the period from January 1, 2007 through June 25, 2008, the closing price of our ordinary shares ranged from $1.09 to $4.58. Our ordinary shares may experience significant market price and volume fluctuations in response to factors, some of which are beyond our control, such as the following:

- quarterly variations in our operating results;
- market conditions relating to our customers industries;
- operating results that vary from the expectations of securities analysts and investors;
- changes in expectations as to our future financial performance, including financial estimates or recommendations by securities analysts and investors;

large block transactions in our ordinary shares;

announcements of technological innovations or new products by us or our competitors;

announcements by us or our competitors of significant contracts, acquisitions, strategic partnerships, joint ventures or capital commitments;

changes in the status of our intellectual property rights;

announcements of significant claims or proceedings against us;

additions or departures of our key personnel;

future sales of our ordinary shares; and

general stock market price and volume fluctuations.

Stock markets often experience extreme price and volume fluctuations. Market fluctuations, as well as general economic conditions, such as a recession, interest rate or currency rate fluctuations, political events or hostilities in Israel or the surrounding region could adversely affect the market price of our ordinary shares.

In the past, securities class action litigation has often been brought against companies following periods of volatility in the market price of their securities. Currently, we are facing a purported class action complaint, as detailed in Item 8A Legal Proceedings. This purported class action complaint could be protracted and divert management s attention and resources.

Our principal shareholder, Priortech, holds a controlling interest in us and will be able to exercise its control in ways that may be adverse to your interests.

Priortech beneficially holds 61.7% of our issued and outstanding ordinary shares. As a result, Priortech has the power to control the outcome of matters submitted to a vote of our shareholders, including the election of members of our board and the approval of significant corporate transactions. This concentration of ownership may also have the effect of making it more difficult to obtain approval for a change in control of us. Messrs. Rafi Amit, Yotam Stern and Itzhak Krell control Priortech and may be deemed to control us.

Risks Relating to Our Operations in Israel

Conducting business in Israel entails special risks.

Our principal offices, sole research and development facility and major manufacturing facility are located in the State of Israel. We depend on components imported from outside of Israel and almost all of our sales occur outside of Israel. Accordingly, we are directly influenced by the political, economic and military conditions affecting Israel. Specifically, we could be adversely affected by:

any major hostilities involving Israel;

a full or partial mobilization of the reserve forces of the Israeli army;

the interruption or curtailment of trade between Israel and its present trading partners; and

a significant downturn in the economic or financial condition of Israel.

Since the establishment of the State of Israel in 1948, a number of armed conflicts have taken place between Israel and its Arab neighbors, and a state of hostility, varying from time to time in intensity and degree, has led to security and economic problems for Israel. Since September 2000, there has been a marked increase in violence, civil unrest and hostility, including armed clashes, between the State of Israel and the Palestinians, and acts of terror have been committed inside Israel and against Israeli targets in the West Bank and Gaza. In 2005, Israel executed its plan of unilateral disengagement from the Gaza Strip and some parts of the West Bank and Hamas gained majority of the Palestinian Parliament in the elections held in the Palestinian Authority. Further, as a result of a civil war in the Gaza Strip between Hamas and Fatah supporters, two different Palestinian governments were established one by Hamas in the Gaza Strip and one by Fatah in the West Bank. These events affect Israel s security, foreign relations and the stability of the region. Furthermore, in the summer of 2006 Israel and Lebanon entered into war, which lasted for a month and a half and affected the Northern part of Israel, where we are located. Any further escalation in the hostilities referred to above or any future armed conflict, political instability or violence in the region may have a negative effect on our business condition, harm our results of operations and adversely affect our share price. Increased hostilities, future armed conflicts, political developments in other states in the region, or continued or increased terrorism could make it more difficult for us to conduct our operations in Israel, which could increase our costs and adversely affect our financial results. Furthermore, there are a number of countries, primarily in the Middle East, as well as Malaysia and Indonesia, that restrict business with Israel or Israeli companies, and we are precluded from marketing our products to these countries. Restrictive laws or policies of those countries directed towards Israel or Israeli businesses may have an adverse impact on our operations, our financial results or the expansion of our business.

Our operations could be disrupted as a result of the obligation of our key personnel in Israel to perform military service. Some of our employees in Israel, including certain key employees, are obligated to perform annual reserve duty in the Israeli army and are subject to being called up for reserve duty at any time. The absence of one or more of our officers and key employees for significant periods of time due to military service could be disruptive to our operations.

The Israeli government programs and tax benefits in which we have participated in the past and in which we currently participate or from which we receive benefits require us to meet several conditions. These programs or benefits may be terminated or reduced in the future, which could increase our costs.

We benefit from certain Israeli government programs and tax benefits, particularly from tax exemptions and reductions resulting from the Approved Enterprise status of our manufacturing facilities in Israel. To be eligible for these programs and tax benefits, we must continue to meet conditions, including making specified investments in fixed assets and equipment and financing a percentage of those investments with our share capital. If we fail to meet such conditions in the future, these tax benefits could be cancelled, and we could be required to refund those tax benefits already received. These programs and tax benefits may not be continued in the future at their current levels or at all, and our requests for future participation in these programs for any future expansion of our manufacturing facilities may not be approved. In recent years, the Israeli government has reduced the benefits available under certain of its programs in which we do not participate. The termination or reduction of these programs and tax benefits could increase our tax rates, thereby reducing our net profits or increasing our net losses.

The government grants we received in the past for research and development expenditures restrict our ability to manufacture products or to transfer technologies outside of Israel.

From our inception through 2000, we received government grants from the Office of the Chief Scientist of the Ministry of Industry and Trade (the OCS), for the financing of a significant portion of our product development expenditures. In March 2001, we commenced repayment of many of these grants pursuant to an understanding reached with the OCS. As of June 1, 2005, we have fully repaid the grants received by us from the OCS. Except for special circumstances and if we obtain governmental consents and pay to the OCS amounts which may be substantial, the terms of these grants prohibit us from selling or transferring rights in the technology developed with the grants outside of Israel and allow sale or transfer of rights within Israel only with special governmental approvals, even after full repayment of the grants. Elements of our technologies, including in the areas of electronic hardware, image processing, electro-optics, physics and mechanics, were developed with OCS grants. In addition, we may only manufacture products developed with these grants outside of Israel pursuant to the approval of a special governmental committee, and any approval of this nature may also require us to pay a further significant amount of royalties than the terms of the grants required, unless the amount of production outside Israel is less than 10% of the original rate of production and the OCS has not objected to the transfer of products. The restrictions regarding the sale or transfer of technology or manufacturing rights out of Israel could have a material adverse effect on our ability to enter into strategic alliances or enter into merger or acquisition transactions in the future that provide for the sale or transfer of our technology or manufacturing rights.

It may be difficult to enforce a U.S. judgment against us, our officers and directors and some of the experts named in this annual report or to assert U.S. securities law claims in Israel.

We are incorporated in Israel. Substantially all of our executive officers and directors and our Israeli attorneys are nonresidents of the United States, and a substantial portion of our assets and the assets of these persons are located outside the United States. Therefore, it may be difficult to enforce a judgment obtained in the United States against us or any of these persons, including one based on the civil liability provisions of the U.S. federal securities laws. Additionally, it may be difficult for you to assert U.S. federal securities laws claims or to enforce civil liabilities under U.S. federal securities laws in actions originally instituted in Israel.

Some provisions of Israeli law could inhibit the acquisition of us by others.

Some provisions of Israeli corporate law may have the effect of delaying, preventing or making more difficult a merger with, or acquisition of, us. The Israeli Companies Law generally provides that a merger be approved by the board of directors and by a majority of the shares present and voting on the proposed merger at a shareholders meeting called upon at least 21 days notice. A merger may not be completed until at least 50 days have passed since the filing of the merger proposal with the Israeli Registrar of Companies. The Israeli Companies Law also provides that an acquisition of shares in a public company must be made by means of a tender offer if, as a result of the acquisition, the purchaser would become a 25% or greater shareholder of the company, unless there is already another 25% or greater shareholder of the company. Similarly, an acquisition of shares must be made by way of a tender offer if, as a result of the acquisition, the purchaser would become a 45% or greater shareholder of the company, unless there is already a majority shareholder of the company. In any event, if, as a result of an acquisition of shares, the acquirer will hold more than 90% of a company s shares, the acquisition must be made by means of a tender offer for all of the shares. Finally, Israeli tax law treats some acquisitions, such as stock-for-stock exchanges between an Israeli company and a foreign company, less favorably than U.S. tax laws. For example, Israeli tax law may, under certain circumstances, subject a shareholder who exchanges his ordinary shares for shares in another corporation to taxation prior to the sale of the shares received in such stock-for-stock swap. For more information on the provisions of Israeli law in these contexts, please see sections Share Capital and Israeli Taxation.

Item 4. Information on the Company.

A. ***History and Development of the Company***

Our legal and commercial name is Camtek Ltd. We were incorporated in 1987. In our first years of operation, we provided manual optical inspection equipment to address the needs of the printed circuit board, or PCB, manufacturing industry. In 1994, we introduced our first automated optical inspection, or AOI, system for the inspection of PCBs. In late 1998, we introduced our Orion system, which gained wide acceptance in the high-end PCB market and represented a breakthrough for us. Applying our core technologies, we developed our Pegasus system, which was introduced in the third quarter of 2002, for the inspection of integrated circuits (IC) substrates. In September 2001, we acquired a developer and producer of AOI systems for the semiconductor manufacturing and packaging industry, or MEP. This acquisition allowed us to enter the semiconductor inspection market. After a period of intense internal research and development, we shipped our first new Falcon system for the semiconductor manufacturing and packaging industry in the fourth quarter of 2003. The first revenue recognition of the Falcon system was in the second quarter of 2004, and since then, Falcon sales increased to nearly $40 million in 2006 or 40% of the total 2006 revenues. As a result of industry weakness, Falcon sales declined in 2007 to nearly $20 million or 29% of our total 2007 revenues.

In July 2000, we sold 5,835,000 ordinary shares in an initial public offering, in which we received net proceeds of approximately $35 million. In August 2002, we sold 5,926,730 ordinary shares in a rights offering of ordinary shares to our then existing shareholders (of which 5,922,228 were sold to Priortech Ltd.), in which we received net proceeds of $6.1 million. On August 23, 2005 we raised $5 million as a convertible loan from FIMI Opportunity Fund L.P and FIMI Israel Opportunity Fund, Limited Partnership (FIMI). On April 30, 2006, we completed a private placement (the Private Placement) in which we issued 2,525,252 ordinary shares to Israeli institutional investors at a price of $5.94 per share, raising $14.5 million. The Private Placement also included warrants that, during a period of four years, are exercisable into additional 1,262,626 ordinary shares at a price of $6.83 per share.

We have been a public company since July 2000. In December 2005, we re-listed on the Tel-Aviv Stock Exchange and became a dual listed company. Our headquarters are located in Israel, and we have operations in the Asia Pacific region, North America and Europe.

For discussion of capital expenditures and divestitures, see Item 5- Operating and Financial Review and Prospects- Liquidity and Capital Resources.

Our principal executive offices are located in Ramat Gavriel Industrial Zone, P.O. Box 544, Migdal Ha Emek 23150, Israel, and our telephone number is 011-972-4-604-8100. Our agent for service of process in the United States is Camtek USA, Inc., located at ***2000 Wyatt Dr., Santa Clara CA 95054, Tel: (408) 986 9640.*** Our website is located at www.camtek.co.il. The information on our website is not incorporated by reference into this annual report.

B. ***Business Overview.***

Our Business

We design, develop, manufacture and market automated optical inspection, or AOI, systems and related products. AOI systems are computerized systems that optically inspect various types of electronic product components for defects caused during the manufacturing process. Our AOI systems are used to enhance both production processes and yields for manufacturers in three industries: the printed circuit board, or PCB, industry; the high density substrates for interconnection of integrated circuit devices, or IC substrate, industry; and the semiconductor manufacturing and packaging industry. Our systems provide our customers with a high level of defect detection ability; are easy to operate and offer high productivity. We have sold more than 2300 AOI systems in 34 countries around the world. Our PCB customer base includes the majority of the largest 100 PCB manufacturers worldwide. Since the introduction of our Falcon line for the semiconductor industry, we have sold over 150 Falcon systems to more than 30 semiconductor manufacturers, test and assembly houses and bumping service providers, including 12 out of the top 15 Integrated Device Manufacturers (IDM). Our global, direct customer support organization provides responsive, localized pre and post sales support for our customers through our wholly-owned subsidiaries.

Our products incorporate proprietary advanced image processing software and algorithms, as well as advanced electro-optics and precision mechanics. They are designed for easy operation and maintenance. In addition, our AOI systems use technology that enables our customers to handle a wide range of inspection and verification needs.

Our Markets

We target three industries: the PCB industry; the IC substrate industry; and the semiconductor manufacturing and packaging industry, all part of the electronic packaging industries and the electronics supply chain.

The Printed Circuit Board Industry

A PCB is the basic platform that supports and interconnects a broad range of electronic components, such as IC devices, resistors, capacitors, coils and the like, and enables them to operate as an electronic system. PCBs consist of traces, or lines, of conductive material, such as copper, laminated on either a rigid or a flexible insulating base. These conductive lines provide electrical interconnections between the components. The trace integrity and conformance to exact dimensions are essential to the functioning of the electronic product. Imperfections in the various stages of the PCB manufacturing process may result in defects or flaws, like open conductive lines, electrical short circuits, nicks and inappropriate line widths.

The trend towards compact, high-performance and highly reliable electronic products, such as mobile phones, notebook computers, digital cameras and personal digital assistants, drives the demand for increased complexity and miniaturization of PCBs. In response to this demand, PCB manufacturers are producing multi-layer PCBs with increasingly narrower and denser lines, as well as boards with higher layer counts. Multi-layer boards consist of several layers of circuitry laminated together to form a single board with both horizontal and vertical electrical interconnections. In addition, multi-layer boards are continuing to evolve with new technologies. Currently, high-end PCBs (excluding substrates) use conductive lines and spaces 50 to 120 microns (0.002 to 0.005 inch). The scan time required to inspect a given PCB surface increases substantially in relation to the reduction in line width.

The manufacturing process for multi-layer boards is comprised of three stages: the manufacture of production tools, including artwork and masks; the production of inner layers and their lamination into a single board; and the production of external layers. The majority of AOI systems in the PCB industry are used for inspection of inner layers. Today, the number of inner layers in typical multi-layer PCBs usually ranges from 4 to 14, though certain high layer-count boards may consist of as many as 52 layers. Inspection by AOI systems during the manufacturing process for the detection of defects in the inner layers prior to the lamination process is crucial, so that any defective individual layers may be repaired or replaced while still accessible. Once the multi-layer board is laminated, any undetected defect in any specific layer will result in discarding the entire board.

The IC Substrate Industry

The pursuit of electronic products that deliver more functionality, and at the same time are smaller, lighter and less power-consuming, drives the semiconductor industry to produce ICs (dice) requiring more input/output connections. These dice must fit into smaller packages. The IC substrate industry, in turn, supports these trends with high-density interconnect substrates that serve as carriers for the IC die, providing it mechanical and electrical connection to the printed circuit board. These substrates feature conductive lines that are 12 to 50 µm (microns) in width. Although IC substrates are produced using technologies derived from those used for the production of traditional PCBs, the complexity and high density of these substrates require separate, specialized manufacturing facilities.

The IC is connected to the upper side of the substrate, either by wire bonding by means of thin metal wires, or by flipping the IC and directly connecting conductive bumps on its face to a matching array of pads or bumps on the substrate. The latter technology is known as flip chip die attach (Flip-Chip). The IC substrate is connected to the PCB via an array of conductive solder balls, known as a ball grid array, or BGA.

The complexity of IC substrates requires advanced inspection systems with high magnification power for detecting minuscule defects that hinder production yields. Optical inspection of IC substrates is implemented along the manufacturing process, where the substrates are still in panel form, similar to PCB, and at the end of the production process, where the substrates are cut to strips or packed in trays. Due to the high integration level of today s electronic products, defective substrates, that pass undetected, may render the entire product unusable. Or, if assembled in a mission-critical system, they may cause a catastrophic failure.

The Semiconductor Manufacturing and Packaging Industry

The semiconductor manufacturing industry produces circuits (ICs) on silicon or other semiconductor materials in the form of thin wafers; each wafer consists of numerous IC dice (chips). At the end of the wafer manufacturing process, our AOI systems inspect the wafer for various defects. At this stage, AOI systems verify that the dice are free of defects, and that the electronic probe tips used for functional testing of the finished dice on the wafer have caused no critical damage to the terminal pads on the die. AOI is essential at this stage to help ensure the reliability and service life of the electronic device after its assembly and packaging.

In the semiconductor packaging process, the finished wafers are diced, or separated, into individual ICs, which are then mounted onto substrates, interconnected and encapsulated to produce semiconductor packages. AOI equipment, together with electrical probe testing, determines which ICs and substrates are non-defective. AOI equipment is also used to inspect for any defects that may have been caused to the ICs during the dicing of the wafer.

In Flip-Chip packaging technology, the face of the IC is attached to the top of a substrate via an array of bumps, rather than being wire bonded. Wafers designed for Flip-Chip assembly interconnect go through a process in which solder bumps ranging from 30 to 150 microns in height, or gold bumps about 15 microns tall, are plated or stenciled on pads on the face of the IC. In a similar technology termed Chip-Scale Wafer Level Packaging (CS-WLP), larger bumps up to 300 to 500 micron tall are placed on the die and the entire wafer is coated with a thick layer of polymer usually epoxy. After dicing, the individual die is actually a finished device, ready to be mounted directly on the PCB. AOI with 3-D measurement capabilities is used to detect any missing, misplaced or deformed bump and to determine bumps conformity to shape and height specifications. Size, shape and placement deviations may cause damage to the IC or the substrate during the packaging process, leading to device failure.

A relatively small, but fast growing segment is Micro-Electro Mechanical Systems (MEMS), which utilizes materials, manufacturing technologies and facilities from the semiconductor industry to produce miniature mechanisms, such as inkjet print heads, accelerometers, image sensors, video projection devices (DLP), sensors and microphones. Many MEMS products are packaged between layers of glass while still at the wafer format, and diced in several steps afterwards. The MEMS manufacturing segment relies heavily on testing to ensure the product performance and reliability. This testing may amount to a significant amount of the overall product cost. AOI is implemented at various stages along the manufacturing process to detect cracks, foreign materials or mechanical damage, as well as confirm dimensional conformity, thus eliminating subsequent testing of defective products, increasing yield and reducing overall production costs.

Products

Our AOI systems consist of:

- An electro-optical assembly unit, either movable or fixed, which consists of a video camera, precision optics and illumination sources. The electro-optical unit captures the image of the inspected product;
- A precise, movable table, that holds the inspected product;
- An electronic hardware unit, which operates the entire system and includes embedded components that process and analyze the captured image by using our proprietary algorithms.

The inspected product is placed on the movable table and is scanned under the optical assembly unit. The optical assembly unit then captures images of the product, while the electronic hardware unit processes the image using the analysis algorithms. Detected discrepancies are logged and reported as defects per the user preferences. The image of the defect is immediately available for verification by the system operator. Our systems can also compile and communicate statistical reports of inspection findings via the customer s factory information system.

We offer a broad range of systems for automated optical inspection of semiconductor wafers, IC substrates and PCBs. These systems are used to enhance production yields and assist in controlling manufacturing processes at wafer fabrication, test and assembly houses, and PCB plants worldwide. We invest significant resources in research and development to provide our customers with advantageous performance, low cost of ownership, high reliability and ease of operation. We believe that a significant part of our competitive advantage and of our ability to adapt our technologies to evolving market needs comes from our design philosophy and applicable know-how in basing our products on software-intensive architectures.

Automated Optical Inspection Systems for the PCB and IC Substrate Industries

Our products for these industries consist of the Dragon and Orion lines for the inspection of inner and outer layers of PCB panels; the Pegasus line for final inspection (AFI) of IC substrate; the Mustang line for final inspection (AFI) of HD panels; the Planet for inspection of ultra-fine-line IC substrate; and Large Area Masks (LAM) dedicated for inspection of artwork and photo masks.

Dragon

Dragon systems are high-throughput, automation-ready systems for inspection of all PCB types in a mass production environment. Dragon models are optimized for specific PCB technology ranges from mainstream circuits of typically 100 µm (microns) conductor line width, up to high density substrates having 12 µm (microns) wide conductive lines. All Dragon models are designed to interface with automated material handling mechanisms provided by us or other automation suppliers. We believe that the combination of detection ability, scanning speed, real-time data collection for process control and automated material handling deliver outstanding value to customers. The Dragon was first introduced in March 2003.

Orion

Orion systems are stand-alone AOI systems for high volume inspection of all PCB types designed to operate in Inspectify mode of operation. Inspectify is a unique mode of operation enabling the operator to perform verification immediately after inspection on the same system, thus saving time and eliminating handling-related defects. The Orion family has evolved gradually since its introduction in 2000. All Orion models retain an ergonomic user interface that supports high productivity and flexibility, allowing successive on-line inspection and verification, or solely inspection followed by off-line verification on a separate station. Like the Dragon family, Orion models are dedicated for various PCB technology ranges.

Pegasus

The Pegasus line includes systems for automated inspection of finished IC substrates that are subsequently used in packaging of BGA and Chip Scale Package (CSP) devices. The Pegasus inspects both sides of the substrate, detecting process and mechanical defects in particular in the gold-plated areas where the substrate will interconnect with the silicon die or the PCB and in the solder-mask areas. Pegasus models handle substrates in strip format in magazines. In December 2006 we introduced the Pegasus 200S, an enhanced product for inspecting IC substrates in strip format.

Mustang

The Mustang line includes systems for automated inspection of finished HD panels that are subsequently used in mobile consumer electronics, such as mobile-phones, digital cameras, PDAs and other consumer electronic devices. The Mustang inspects both sides of the panel, detecting process and mechanical defects, in particular in the gold-plated areas where the substrate will interconnect with the silicon die or the PCB and in the solder-mask areas. Mustang models handle panels in panel format (up to 150 x 300mm) in magazines. The Mustang 600 was first introduced in the first quarter of 2008.

Planet

Planet is designed for the inspection of ultra-fine-line IC substrate, down to 10µm line/space technologies. Introduced in June 2007, the Planet addresses the inspection needs of the very high end of the IC substrate industry - ultra-fine line. The Planet integrates our experience from both the semiconductor and PCB markets into a totally new hardware architecture to deliver the robustness and high resolution required for high speed detection of micron-scale defects.

Integrated AOI System

AIC

The AIC (Automated Inspectify Center) integrates inspection and verification into one efficient cell that maximizes productivity across the entire AOI operation. Through its pickup and transfer mechanism, the AIC bridges between the Dragon and Camtek s verification station, CVR-200. Material flow is balanced and streamlined at the Dragon s scan rate. Since panels are on and off-loaded automatically, handling-related defects are eliminated.

Designed to increase overall productivity and yield, AIC delivers immediate process-control feedback to the production line, saving both time and money, and improving the final yield.

Verification Systems

Camtek offers various stand-alone verification systems that enable verification of panels after Inspection. Camtek designed the verification stations to meet operator s comfort during work while delivering high image quality.

CVR-100 is designed for verification of panels after inspection on the Dragon or Orion AOI;
CVR-200 is designed for verification when working in AIC configuration; and
PVS-200 is designed for the verification of IC Substrates (strips or units) and HD panels after they were inspected by the Pegasus or by the Mustang.

Automated Optical Inspection Systems for the Semiconductor Industry

Falcon

The Falcon s advanced algorithms and inspection capabilities enable its dedicated models to detect defects in the semiconductor die, which, if left undetected, may cause premature failure. In addition, inspection data can be used by customers to monitor and characterize several wafer finishing processes, troubleshoot functional testing issues or control the integrity of the interconnect bump arrays made on dice intended for packaging in flip chip technology. The Falcon family currently includes models for:

3D and 2D metrology and inspection of bumped-wafer prepared for packaging in the flip-chip technology;

2D metrology and inspection of finished wafers at the end of their manufacturing process and in test houses, where inspection adds the value of monitoring the marks left by the testing probe or protects expensive probe cards from damage by dust particles;

Post-dicing inspection of frame-mounted wafers at assembly and packaging facilities, where it adds the value of detecting dicing-related damage.

Inspection and metrology of MEMS and other special applications, where customized handling solutions and inspection capabilities are required for complex structures and non-standard materials.

Customers

Our customer base includes the majority of the largest 100 PCB manufacturers worldwide and over 40 semiconductor manufacturing, testing and packaging companies. Our customers, many of whom have multiple facilities, are located in 34 countries throughout Asia, Europe and North America. No individual customer accounted for more than 10% of our total revenues during 2005. In 2006 we had one customer that accounted for about 10% of our total revenues, and in 2007 again - no individual customer accounted for more than 10% of our total revenues. In the IC substrate industry, our customers are typically dedicated substrate manufacturers, but also include large PCB manufacturers who have separate substrate manufacturing facilities. Our IC substrate customers are located predominantly in Taiwan, Japan and the Asia Pacific region. In the semiconductor manufacturing and packaging industry, we target wafer manufacturers and companies involved in the testing, assembly and packaging of semiconductor devices.

The following table shows our revenues classified by geographical region for each of the last three years:

	Year Ended December 31,		
	2005	2006	2007
	U.S. Dollars (In thousands)		
China and Hong Kong	24,665	33,713	30,187
Other Asia	5,036	20,413	12,676
United States	11,484	15,622	3,983
Taiwan	12,258	12,895	12,935
Western Europe	6,597	9,170	8,081
Japan	2,065	6,716	2,134
Rest of the world	927	1,526	973
Total	63,032	100,055	70,969

Sales, Marketing and Customer Support

We have established a global distribution and support network throughout the territories in which we sell our products, including the Asia Pacific region, North America and Europe. We believe that this is an essential factor in our customers decision to purchase our products. We primarily utilize our own employees to provide these customer support services. We may expand our network into additional territories as market conditions warrant.

As of December 31, 2007, 75 of our employees were engaged in our worldwide sales, marketing and support efforts, including support and sales administration staff. Due to the concentration of sales in the Asia Pacific region, we adjusted our sales organization accordingly during the past four years, and significantly expanded our sales, marketing and support teams in this region.

Our marketing efforts include participation in various trade shows and conventions, publications and trade press, product demonstrations performed at our facilities and regular contact with customers by sales personnel. We generally provide a 12-month warranty to our customers. In addition, for a fee, we offer service and maintenance contracts commencing after the expiration of the warranty period, which is typically one year. Under our service and maintenance contracts, we provide prompt on-site customer support.

In the second quarter of 2006, we purchased a credit insurance policy from the ICIC the Israeli Credit Insurance Policy Company, in order to minimize the risk contemplated in transactions with customers which are located overseas and which are granted with variable amount of credit. The Policy covers, among other risks, political and financial risks of such customers.

Manufacturing

Our manufacturing activities consist primarily of the assembly and integration of parts, components and subassemblies, which are acquired from third-party vendors and subcontractors. The manufacturing process for our products generally lasts four to six weeks. We utilize subcontractors for the production of subsystems.

We rely on single source and limited source suppliers and subcontractors for a number of essential components and subsystems of our products. We generally maintain several months of inventory of critical components used in the manufacture and assembly of our products. To date, we have been able to obtain sufficient units of these components to meet our needs.

Competition

The markets in which we operate are highly competitive. In the PCB industry, our principal competitor is Orbotech Ltd., with additional competitors including Dainippon Screen, Lloyd-Doyle, ManiaBarco, Shirai and Utechzone. Our competitors in the IC substrate industry include Orbotech Ltd., Dainippon Screen, ATI and Utechzone. In the semiconductor manufacturing and packaging industry, our primary competitor is Rudolph Technologies Inc. (which purchased the IP and bumped wafer inspection line of RVSI), with additional competitors including KLA-Tencor (through acquisition of 96% ownership in ICOS), Zygo (through acquisition of Solvision) and several Japanese competitors whom we face mostly in Japan - Topcon, Toray, Hitachi and Tosok.

We believe that the principal elements of a sustainable competitive advantage in the AOI market are:

On-going research, development and commercial implementation of new image acquisition, processing and analysis technologies;

Product architecture based on proprietary core technologies and commercially-available hardware. Such architecture supports shorter time-to-market, flexible cost structure, longer service life and higher margins;

Fast response to evolving customer needs;

Product compatibility with customer automation environment;

Strong pre and post-sale support (applications, service and training) deployed in immediate proximity to customer sites; and

maintaining a sufficient production line in order to follow the increasing demand for AOI products.

We believe that we compete effectively on all of these factors.

Capital Expenditures

The following table shows our capital expenditures in fixed assets for the last three years:

	December 31,		
	2005	2006	2007
	(in thousands)		
Real Estate	$ 20	$ -	$ 48
Building	147	409	1,960
Machinery and equipment	114	938	134
Office furniture and equipment	362	162	1,039
Automobiles	30	73	55
Total	$ 673	$ 1,582	$ 3,236

Material Effects of Governmental Regulations

The following EU directives, which represent the European standard required in order to sell in Europe, apply: Low Voltage Directive (LVD) 73/23/EEC and Directive 98/37/EC, on the approximation of the laws of the Member States relating to machinery. The following SEMI Standards, which define uniform standards for manufacturers in the semiconductor manufacturing and packaging industry and production equipment producers, apply: SEMI S-2 (safety requirements for sale of equipment in the semiconductor manufacturing and packaging industry) and SEMI S-8 (ergonomic requirements for sale of equipment in the semiconductor manufacturing and packaging industry). We comply with the above-mentioned governmental regulations during the systems design process, which is conducted in accordance with the Company s quality assurance manual, and when new products are tested by external laboratories and certified to comply with these directives.

C. ***Organizational Structure***

Priortech Ltd., our principal shareholder, through its affiliated companies, engages in various aspects of electronic packaging, including the production and assembly of PCBs and the development and sale of IC substrates. Based on sales, PCB Technologies, a subsidiary of Priortech, is one of the largest PCB manufacturers in Israel. Priortech currently holds 61.7% of our outstanding ordinary shares. Our revenues from sales to affiliated and subsidiaries of Priortech, totaled $1,000, $240,000 and $27,000 in 2005, 2006 and 2007, respectively. In addition to these sales of products, we act jointly with Priortech with regard to various governmental, administrative and commercial matters, which we believe is to the mutual advantage of both parties.

The following table shows the Company s significant subsidiaries, all of which are wholly owned, together with each subsidiary s jurisdiction of incorporation, as of the date of this report. For a complete list of subsidiaries, see Exhibit 8.1.

Name of Subsidiary	Jurisdiction of Incorporation
Camtek H.K. Ltd.	Hong Kong
Camtek (Europe) NV	Belgium
Camtek USA Inc.	New Jersey, USA
Camtek Imaging Technology (CIT)	China

D. ***Property, Plants and Equipment***

Our main office, manufacturing and research and development facilities are located in the Ramat Gavriel Industrial Zone of Migdal Ha Emek in northern Israel. In September 1998, we entered into a lease for these facilities to be built by the lessor and also acquired an option to purchase the building and underlying land from the lessor, which was exercised by us. These facilities occupy 74,000 square feet, of which 28,000 square feet are devoted to the manufacturing of our products. At the end of 2006, we decided to prepare construction programs and to apply for the necessary construction permits for the purpose of expanding our current facilities. The expansion is planned to occupy a further 71,500 square feet, which will enable us to double our manufacturing and development capabilities. In 2007 we invested a sum of $1,000,000 in the expansion and improvement of our current facilities.

Also, at the end of 2006, we entered into a lease for a new manufacturing facility in China, in which we manufacture products that do not require the geographical proximity to the development facilities and that are designated to be sold to customers in Asia. The Chinese facility occupies 23,000 square feet. Since September 2006 and until June 25, 2008, we invested approximately $424,000 in start-up costs.

Our sales offices and demonstration centers, which we lease in various locations around the world, occupy an aggregate of approximately 29,000 square feet.

Item 4A. Unresolved Staff Comments

None.

Item 5. Operating and Financial Review and Prospects.

A. Operating Results

The following discussion of our financial condition and results of operations should be read in conjunction with the consolidated financial statements and the notes to those statements included herein, which have been prepared in accordance with accounting principles generally accepted in the United States, or United States GAAP.

Overview

We design, develop, manufacture and market automated optical inspection, or AOI, systems and related products. Our AOI systems are used to enhance both production processes and yields for manufacturers in the printed circuit board, or PCB, industry, the integrated circuit substrate, or IC substrate, industry and the semiconductor manufacturing and packaging industry.

We sell our AOI systems internationally. The majority of sales of our AOI systems in 2007 was to manufacturers in the Asia Pacific region, particularly in China, South East Asia, Korea and Taiwan. This trend is due, among other factors, to the migration of PCB manufacturers into this region following the development and growth of electronics industry centers in theses regions. In 2007, our sales to customers in the Asia Pacific region accounted for approximately 82% of our total revenues, including approximately 43% of our total revenues from sales in China and Hong Kong and 18% from sales in Taiwan. We expect this trend of increasing amounts of our revenues coming from customers in the Asia Pacific region to continue in the foreseeable future.

In addition to revenues derived from the sale of AOI systems and related products, we generate revenues from providing maintenance and support services for our products. We expect our service revenues to increase as our installed base increases. We generally provide a one-year warranty with our systems. Accordingly, service revenues are not earned during the warranty period.

The demand for AOI equipment is characterized by short notice. To meet customers needs for quick delivery and to realize the competitive advantage of the ability to do so, we have to pre-order components and subsystems based on our forecast of future orders, rather than on actual orders. This need is compounded by the fact that, in times of increasing demand in our markets, our suppliers and subcontractors tend to extend their delivery schedules or fail to meet their delivery deadlines. To compensate for these unscheduled delays, we build inventories further into the future, which increases the risk that our forecast may not correspond to our actual future needs. The uncertainties involved in these longer-term estimates during times of business expansion tend to increase the level of component and subsystem inventories. Compared to our sales cycles for repeat orders from existing customers, we have longer sales cycles for new customers as well as for new customers in new markets. In addition, the selling cycle in our markets may typically take several quarters from first contact to revenue recognition, including on-site evaluation. Naturally, repeat orders take less time. Still, a significant portion of our finished goods inventory consists of systems under evaluation and demonstration systems.

Critical Accounting Policies

The Securities and Exchange Commission defines critical accounting policies as those that are, in management s view, most important to the portrayal of a company s financial condition and results of operations and most demanding on their calls on judgment, often as a result of the need to make estimates about the effect of matters that are inherently uncertain and may change in subsequent periods. We believe our most critical accounting policies relate to:

Revenue Recognition. The Company recognizes revenue from sales in accordance with Securities and Exchange Commission Staff Accounting Bulletin No. 104 SAB 104 and Financial Accounting Standard Board s Emerging Issues Task Force (EITF) Issue No. 00-21, Revenue Arrangements with Multiple Deliverables . Accordingly, the Company recognizes revenue from sales of its products when the products are installed at the customer s premises and are operating in accordance with its specifications, signed documentation of the arrangement, such as a signed contract or purchase order, has been received, the price is fixed or determinable, and collectibility is reasonably assured.

Service revenues consist mainly of revenues from maintenance contracts and are recognized ratably over the contract period.

Revenue under multiple element arrangements is recognized in accordance with EITF Issue No. 00-21, Revenue Arrangements with Multiple Deliverables . Under this method, if an element is determined to be a separate unit of accounting, the revenue for the element is based on fair value and determined by vendor objective evidence (VOE), accordingly, non-standard warranty, with determined VOE, is deferred as unearned revenue and is recognized ratably as revenue commencing with and over the applicable warranty term.

Our products are only installed by our qualified technicians. Thus, before we recognize the revenue from the sale of a product and consider the sales cycle completed, our technicians must install our product at the customer s premises, activate the product according to its specifications and then certify completion of such installation and activation.

Our revenue recognition policy requires that we make a judgment as to whether collectibility is reasonably assured. Our judgment is made for each customer on a case-by-case basis, and, among other factors, we take into consideration the individual customer s payment history and its financial strength, as demonstrated by its financial reports or through a third-party credit check. In some cases, we secure payments by a letter of credit or other instrument.

Valuation of Accounts Receivable. We review accounts receivable to determine which are doubtful of collection. In making this determination of the appropriate allowance for doubtful accounts, we consider information at hand regarding specific customers, including aging of the receivable balance, evaluation of the security received from customers, our history of write-offs, relationships with our customers and the overall credit worthiness of our customers. Changes in the credit worthiness of our customers, the general economic environment and other factors may impact the level of our future write-offs.

Valuation of Inventory. Inventories consist of completed AOI systems, AOI systems partially completed and components, and are recorded at the lower of cost, determined by the moving average basis, or market. We review inventory for obsolescence and excess quantities to determine that items deemed obsolete or excess inventory are appropriately reserved. In making the determination, we consider future sales of related products and the quantity of inventory at the balance sheet date, assessed against each inventory item s past usage rates and future expected usage rates. Changes in factors such as technology, customer demand, competing products and other matters could affect the level of our obsolete and excess inventory in the future.

Income Taxes. We account for income taxes under SFAS No. 109, Accounting for Income Taxes , or SFAS 109 . Under SFAS 109 deferred tax assets or liabilities are recognized in respect of temporary differences between the tax bases of assets and liabilities and their financial reporting amounts as well as in respect of tax losses and other deductions which may be deductible for tax purposes in future years, based on tax rates applicable to the periods in which such deferred taxes will be realized. In assessing the realizability of deferred tax assets, we consider whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible and during which the carry-forwards are available. Valuation allowances are established when necessary to reduce deferred tax assets to the amount considered more likely than not to be realized.

Our financial statements include deferred tax assets, net, which are calculated according to the above methodology. If there is an unexpected critical deterioration in our operating results and forecasts, we would have to increase the valuation allowance with respect to those assets. We believe that it is more likely than not that those net deferred tax assets included in our financial statements will be realized in subsequent years.

Beginning with the adoption of FASB Interpretation No. 48, Accounting for Uncertainty in Income Taxes (FIN 48) as of January 1, 2007, the Company recognizes the effect of income tax positions only if those positions are more likely than not of being sustained. Recognized income tax positions are measured at the largest amount that is greater than 50% likely of being realized. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs.

The Company records interest and penalties related to unrecognized tax benefits as a component of income tax expense.

Stock Option and Restricted Share Plans. In years prior to our January 1, 2006 adoption of SFAS No. 123(R), Share-Based Payments , we had elected to apply the intrinsic value-based method of recording compensation expense as allowed by SFAS No. 123, as amended by SFAS No. 148, Accounting for Stock-Based Compensation - Transition and Disclosure, an amendment of SFAS No. 123 . As such, we computed and recorded compensation expense for awards of stock options whose terms were fixed with respect to the number of shares and option price only if the market price on the date of grant exceeded the exercise price of the stock option. The compensation cost for these awards was recorded over the option vesting period, generally 4 years.

Upon adoption of SFAS 123(R) on January 1, 2006, we elected the modified-prospective method of adoption and we began to record compensation expense for awards of employee stock options at their fair value commencing with the date of grant. Prior periods were not restated. Under the modified-prospective method, compensation costs recognized in 2006 and 2007 include costs related to (1) to the fair value of share-based payments granted in 2006 and 2007 as well as (2) the amortization of the fair value of stock option awards which were unvested as of January 1, 2006. In 2007, we recognized equity-based compensation expense under SFAS 123(R) in the amount of $0.4 million. When calculating this equity-based compensation expense we took into consideration awards that are ultimately expected to vest. Therefore, this expense has been reduced for estimated forfeitures. In our pro forma information required under SFAS No. 123 for the periods prior to fiscal 2007, we accounted for forfeitures as they occurred.

Recently Issued Accounting Standards

In February 2007, the FASB issued Statement of Financial Accounting Standards No. 159, The Fair Value Option for Financial Assets and Financial Liabilities including an amendment of FASB Statement No. 115 (Statement 159). Statement 159 gives the Company the irrevocable option to carry most financial assets and liabilities at fair value that are not currently required to be measured at fair value. If the fair value option is elected, changes in fair value would be recorded in earnings at each subsequent reporting date. SFAS 159 is effective for the Company s 2008 fiscal year. The Company has evaluated the impact of this statement and believes that adoption of SFAS 159 prospectively on January 1, 2008 will not have a material effect on its consolidated financial statements.

In September 2006, the FASB issued FASB Statement No. 157, Fair Value Measurement (Statement 157). Statement 157 defines fair value, establishes a framework for the measurement of fair value, and enhances disclosures about fair value measurements. The Statement does not require any new fair value measures. The Statement is effective for fair value measures already required or permitted by other standards for fiscal years beginning after November 15, 2007. The Company is required to adopt Statement 157 beginning on January 1, 2008. Statement 157 is required to be applied prospectively, except for certain financial instruments. Any transition adjustment will be recognized as an adjustment to opening retained earnings in the year of adoption. In February 2008, the FASB approved FAS 157-2, which grants a one-year deferral of Statement 157 s fair-value measurement requirements for non-financial assets and liabilities, except for items that are measured or disclosed at fair value in the financial statements on a recurring basis. The Company is currently evaluating the impact of adopting Statement 157 on its results of operations and financial position.

In June 2007, the FASB issued EITF Issue No. 07-03 (EITF 07-03), Accounting for Non-Refundable Advance Payments for Goods or Services to Be Used in Future Research and Development Activities. EITF 07-03 provides guidance on whether non-refundable advance payments for goods that will be used or services that will be performed in future research and development activities should be accounted for as research and development costs or deferred and capitalized until the goods have been delivered or the related services have been rendered. EITF 07-03 is effective for fiscal years beginning after December 15, 2007. The Company is currently evaluating the impact of adopting EITF 07-03 on its results of operations and financial position.

In December 2007, the FASB issued FASB Statement No. 141R, Business Combinations (Statement 141R) and FASB Statement No. 160, Non-controlling Interests in Consolidated Financial Statements an amendment to ARB No. 51 (Statement 160). Statements 141R and 160 require most identifiable assets, liabilities, non-controlling interests, and goodwill acquired in a business combination to be recorded at full fair value and require non-controlling interests (previously referred to as minority interests) to be reported as a component of equity, which changes the accounting for transactions with non-controlling interest holders. Both Statements are effective for periods beginning on or after December 15, 2008, and earlier adoption is prohibited. Statement 141R will be applied to business combinations occurring after the effective date. Statement 160 will be applied prospectively to all non-controlling interests, including any that arose before the effective date.

Results of Operations

Year Ended December 31, 2007 compared to Year Ended December 31, 2006.

Revenues. In 2007, as a result of a downturn in the semiconductor manufacturing and packaging industry, our revenues were adversely affected. In the second and third quarters of 2007, revenues from the PCB industry increased and drove an increase in our total revenues from prior quarters. In the fourth quarter of 2007, we achieved stability in our quarterly revenue level. Revenues decreased 29% to $70.9 million in the year ended December 31, 2007 from $100.1 million in the year ended December 31, 2006. Sales to the PCB, IC substrate and MEP industries decreased 17%, 4% and 48%, respectively. Sales of all products decreased 35% to $59.6 million in the year ended December 31, 2007, from $92.5 million in the year ended December 31, 2006. The mixture of products sold and their configuration and throughput varieties make it very difficult to estimate average selling prices and pricing trends.

Service fees increased by 49.1% to $11.3 million in the year ended December 31, 2007, from $7.6 million for the year ended December 31, 2006, primarily due to increased revenue from continuing service costs as our installed base increased.

Gross Profit. Gross profit consists of revenues less cost of revenues, which includes the cost of components, production materials, labor, depreciation, factory and service center overhead, provisions for warranties and royalty payments to the Government of Israel. These expenditures are only partially affected by sales volume. In 2007 we experienced a decrease in gross profit and gross margins, primarily due to decreased revenues. Our gross profit on product sales decreased by $23 million to $26.9 million in 2007, compared to $49.9 million in 2006. Our gross profit on service revenue increased by $0.4 million in 2007 to $2.1 million, compared to $1.7 million in 2006. Our total gross profit decreased by $22.6 million to $29 million in 2007 from $51.6 million in 2006, representing a decrease of 43.7%. Our gross margin decreased to 40.9% in 2007, compared to a gross margin of 51.6% in 2006, primarily due to decreased revenues and the mixture of products sold.

Research and Development Costs. Research and development expenses consist primarily of salaries, materials consumption and costs associated with subcontracting certain development efforts. Total research and development expenses for 2007 were $12.1 million, compared to $11.8 million in 2006. Research and development expenses increased in 2007 by $0.3 million, primarily due to increased material consumption.

Selling, General and Administrative Expenses. Selling, general and administrative expenses consist primarily of expenses associated with salaries, commissions, promotion and travel, doubtful debt, professional services and rent costs. Our selling, general and administrative expenses decreased by 13.4% to $24.1 million in 2007 from $27.8 million in 2006, primarily due to decreased commissions and shipping expenses. Selling, general and administrative expenses as a percentage of revenues increased in 2007 to 34% from 27.8% in 2006.

Financial and Other (Expenses) Income, Net. We had net financial expense of $128,000 in 2007, as compared to net financial expense of $288,000 in 2006. These changes related primarily to exchange rate influence and interest received and paid. Changes in currency rates resulted in income of $66,000 in 2007, compared to expenses of $435,000 in 2006.

Provision for Income Taxes. Income tax expenses increased to $362,000 in 2007, compared to $41,000 in 2006, as a result of increase in valuation allowance over deferred tax assets.

Net Income (Loss). We incurred a net loss of $7.7 million in 2007 compared to a net income of $11.6 million in 2006, in view of the factors discussed above.

Year Ended December 31, 2006 compared to Year Ended December 31, 2005.

Revenues. In 2006, our total sales increased on an absolute basis as a result of the successful penetration of the Falcon systems to the semiconductor industry, despite the weakness felt in this industry during the second half of 2006, and high demands in the PCB and IC substrate industries, except in the fourth quarter of 2006. Revenues increased 59% to $100.1 million in the year ended December 31, 2006 from $63.0 million in the year ended December 31, 2005. Sales to the PCB and MEP industries increased 60% and 100%, respectively, while sales to the IC substrates industry decreased 47%. Sales of all products increased 62% to $92.5 million in the year ended December 31, 2006, from $56.9 million in the year ended December 31, 2005.

Service fees increased by 25.5% to $7.6 million in the year ended December 31, 2006, from $6.0 million for the year ended December 31, 2005, primarily due to increased revenue from continuing service costs as our installed base increased.

Gross Profit. In 2006, we experienced an increase in gross profit and gross margins, primarily due to increased sales to the PCB and MEP industries. Our gross profit on product sales increased by $21.2 million to $49.9 million in 2006, compared to $28.7 million in 2005. Our gross profit on service revenue increased by $0.2 million in 2006 to $1.7 million, compared to $1.5 million in 2005. Our total gross profit increased by $21.3 million to $51.6 million in 2006 from $30.3 million in 2005, representing an increase of 70.6%. Our gross margin increased to 51.6% in 2006, compared to a gross margin of 48.0% in 2005.

Research and Development Costs. Total research and development expenses for 2006 were $11.8 million, compared to $8.5 million in 2005. Research and development expenses increased in 2006 by $3.4 million, primarily due to increased headcount and salaries and bonuses.

Selling, General and Administrative Expenses. Our selling, general and administrative expenses increased by 48.4% to $27.8 million in 2006 from $18.8 million in 2005. Selling, general and administrative expenses as a percentage of revenues decreased in 2006 to 27.8% from 29.8% in 2005. Moreover, in 2006 we continued the restructuring and strengthening of our overall sales infrastructure especially in the Asian territory. We increased our sales employee headcount raising expenses by $1.8 million, and agent commissions increased by $2.0 million. Our expenses for professional services, including legal costs, increased in 2006 by $1.77 million.

Financial and Other (Expenses) Income, Net. We had net financial expense of $288,000 in 2006, as compared to net financial expense of $320,000 in 2005. These changes related primarily to exchange rate influence and interest received and paid. Changes in currency rates resulted in expenses of $435,000 in 2006 and expenses of $238,000 in 2005.

Provision for Income Taxes. We made a provision for current income tax of $414,000 and previous years tax expenses of $61,000 against a deferred tax asset of $434,000 in 2006, compared to no provision for income tax nor deferred tax asset in 2005, due to our increased profitability and as we believe that it is more likely than not that those net deferred tax assets included in our financial statements will be realized in subsequent years.

Net Income. Our net income increased to $11.6 million in 2006 compared to a net income of $2.7 million in 2005.

B. Liquidity and Capital Resources

Our cash and cash equivalent balances totaled approximately $18.6 million at December 31, 2007 and $23.3 million at December 31, 2006. Our investments in marketable securities totaled approximately $2.5 million at December 31, 2007 and $2.1 million at December 31, 2006. Our cash and marketable securities consisted mainly of money raised through equity offerings in 2000 and 2002, money raised through a convertible loan in 2005 and money raised through a private placement in 2006. We raised approximately $36.0 million from our initial public offering in 2000, approximately $6.1 million in a rights offering of ordinary shares to our then existing shareholders in 2002, $5.0 million as a convertible loan from FIMI Opportunity Fund L.P. and FIMI Israel Opportunity Fund, Limited Partnership, and $14.5 million from the Private Placement to Israeli institutional investors. The Private Placement also included warrants that are exercisable into additional 1,262,626 ordinary shares at a price of $6.83 per share, during a period of four years. Our working capital was approximately $58.8 million at December 31, 2007 and $73.5 million at December 31, 2006.

We entered into accounts receivable factoring agreements with two financial institutions (the Banks). Under the terms of the agreements, we have the option to factor receivables with the Banks on a non-recourse basis, provided that the Banks approve the receivables in advance. In some cases we continue to be obligated in the event of commercial disputes, such as product defects, which are not covered under the credit insurance policy, unrelated to the credit worthiness of the customer. We account for the factoring of our financial assets in accordance with the provisions of SFAS 140 accounting for transfers and servicing of . We do not expect any reimbursements to take place in the foreseeable future.

The factoring fees of the above mentioned agreements aggregate $52,000 in 2007 (compared to $51,000 in 2006).

As of December 31, 2007, trade receivables amounting to approximately $560,000, were factored (compared to $2,500,000 as of December 31, 2006).

Although auction rate securities are readily marketable, if an auction were to fail due to adverse conditions in the credit markets or otherwise, we may not be able to sell these securities on the planned reset date, which would lengthen our holding period. As of December 31, 2007 there were $1,275,000 auction rate securities outstanding.

We believe that our existing sources of liquidity and anticipated cash flow from operations will be sufficient to meet our anticipated cash requirements for at least the next twelve months.

Cash flow from operating activities

For the year ended December 31, 2007, we had negative cash flow from operations of $1.3 million, primarily due to our losses, partially offset by decrease in receivables and inventories. For the year ended December 31, 2006, we had positive cash flow from operations of $0.8 million, primarily due to an increase in our net income and payables, partially offset by increase in receivables and particularly by a $16.5 million increase in inventories.

Cash flow from investing activities

Cash flow used in investing activities in 2007 was $3.7 million, primarily due to capital expenditures of $3.2 million.

Cash flow used in investing activities in 2006 was $1.7 million, primarily due to capital expenditures of $1.6 million.

Most of the capital expenditures in 2007 were for the purpose of expanding our facilities in Israel and China.

Cash flow from financing activities

Cash flow provided by financing activity in 2007 was $0.03 million, due to exercise of share options.

Cash flow provided by financing activity in 2006 was $15.1 million, due to issuance of ordinary shares of $14.4 million and exercise of share options of $0.7 million.

Effective Corporate Tax Rate

Our production facilities have been granted Approved Enterprise status under the Investment Law. We participate in the Alternative Benefits Program and, accordingly, income from our Approved Enterprises will be tax exempt for a period of 10 years, commencing in the first year in which the Approved Enterprise first generates taxable income due to the fact that we operate in Zone A in Israel.

On April 1, 2005, an amendment to the Investment Law came into effect (the Amendment) and has significantly changed the provisions of the Investment Law. The Amendment limits the scope of an enterprise which may be approved by the Investment Center by setting criteria for the approval of a facility as a Beneficiating Enterprise , such provisions generally require that at least 25% of the Beneficiating Enterprise s income will be derived from export. Additionally, the Amendment enacted major changes in the manner in which tax benefits are awarded under the Investment Law so that companies no longer require Investment Center approval in order to qualify for tax benefits.

In addition, the Amendment provides that terms and benefits included in any certificate of approval issued prior to December 31, 2004 will remain subject to the provisions of the Investment Law as they were on the date of such prior approval. Therefore, our existing Approved Enterprise will generally not be subject to the provisions of the Amendment. As a result of the Amendment, tax-exempt income generated under the provisions of the new law, as part of a new Beneficiating Enterprise, will subject us to taxes upon distribution or liquidation.

We have been granted the status of Approved Enterprises, under the Investment Law, for investment programs for the periods ending in 2007 and 2010, and the status of Beneficiating Enterprise according to the Amendment, for the period ending in 2014 (Programs).

Out of our retained earnings as of December 31, 2007 approximately $19.4 million were tax-exempt earnings attributable to our Approved Enterprise and approximately $2.8 million are tax-exempt earnings attributable to our Beneficiating Enterprise. The tax-exempt income attributable to the Approved and Beneficiating Enterprise cannot be distributed to shareholders without subjecting us to taxes. If these retained tax-exempt profits are distributed, we would be taxed at the reduced corporate tax rate applicable to such profits. According to the Amendment, tax-exempt income generated under the Beneficiating Enterprise will be taxed upon dividend distribution or complete liquidation, whereas tax exempt income generated under the Approved Enterprise will be taxed only upon dividend distribution. As of December 31, 2007, if the income attributed to the Approved Enterprise were distributed as dividend, we would incur a tax liability of approximately $4.9 million. If income attributed to the Beneficiating Enterprise were distributed as dividend or upon liquidation, we would incur a tax liability in the amount of approximately $0.7 million. These amounts will be recorded as an income tax expense in the period in which we declare the dividend.

We intend to indefinitely reinvest the amount of our tax-exempt income and not distribute any amounts of our undistributed tax-exempt income as dividend. Accordingly, no deferred tax liabilities have been provided on income attributable to our Approved and Beneficiating Enterprise Programs as the undistributed tax exempt income is essentially permanent in duration.

The entitlement to the above benefits is conditional upon our fulfilling the conditions stipulated by the law and the regulations published thereunder as well as the criteria set forth in the approval for the specific investments in Approved Enterprises. In the event of failure to meet such requirements in the future, income attributable to our Programs could be subject to the statutory Israeli corporate tax rates and we could be required to refund a portion of the tax benefits already received, with respect to such Program. Our management believes that we have met the aforementioned conditions.

Disclosure About Market Risk

The currency of the primary economic environment in which our operations are conducted is the dollar. Most of our revenues are derived in dollars. The prices of part of our materials and components are purchased in dollars or are linked to changes in the dollar/NIS exchange rate effective on the date of delivery of the goods to our factory. Most of our marketing expenses are also denominated in dollars or are dollar linked. Our product prices in most countries outside of Europe and Japan are denominated in dollars. However, most of our service income is denominated in local currency. In Europe or Japan, if there is a significant revaluation in the local currency as compared to the dollar, the prices of our products will increase relative to that local currency and may be less competitive, which was the case in Europe in 2007. The opposite effect occurs when the dollar increases in value in comparison to these currencies. As the majority of our revenues are denominated in dollars, we believe that inflation and fluctuations in the NIS/dollar exchange rate have no material effect on our revenues. However, a major portion of the costs of our Israeli operations, such as personnel, subcontractors, materials and facility-related, are incurred in NIS. As a result, we bear the risk that our NIS costs, as expressed in dollars, increase to the extent by which the continued significant appreciation of the NIS in relation to the dollar, as experienced in 2007, will increase our costs expressed in NIS and have an effect on our net income.

An increasing portion of our expenses is incurred in the People s Republic of China. While the value of the Yuan has generally been stable in recent years, we are now facing appreciation of the Yuan against the dollar, which may adversely affect our results of operations in dollar terms.

In our consolidated financial statements, transactions and balances originally denominated in dollars are presented at their original amounts. Gains and losses arising from non-dollar transactions and balances are included in the determination of net income as part of financial expenses, net.

C. ***Research and Development, Patents and Licenses.***

We believe that intensive research and development are essential to our business. We devote substantial research and development resources to developing new products and to improving our existing products to meet our customers evolving needs. We have dedicated teams with expertise in image processing software and algorithms, electronic hardware, electro-optics, physics, mechanics and systems design.

Our product development efforts over the past couple of years have resulted in the introduction of several new AOI systems, including new models in the Dragon, Orion, Pegasus and Falcon product lines, as well as new product lines Planet and Mustang.

Our research and development efforts are primarily focused on