

CAMTEK LTD  
Form 6-K  
January 25, 2010

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

FORM 6-K

Report of Foreign Private Issuer  
Pursuant to Rule 13a-16 or 15d-16  
under the Securities Exchange Act of 1934

For the Month of January 2010

CAMTEK LTD.  
(Translation of Registrant's Name into English)

Ramat Gavriel Industrial Zone  
P.O. Box 544  
Migdal Haemek 23150  
ISRAEL  
(Address of Principal Corporate Offices)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F  Form 40-F

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities and Exchange Act of 1934.

Yes  No

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SIGNATURE

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

CAMTEK LTD.  
(Registrant)

By: /s/ Mira Rosenzweig

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Mira Rosenzweig,  
Chief Financial Officer

Dated: January 25, 2010

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FOR IMMEDIATE RELEASE

### CAMTEK INTRODUCES A NEW SEMICONDUCTOR INSPECTION SYSTEM FOR THE LED MARKET

MIGDAL HAEMEK, Israel – January 25, 2010 – Camtek Ltd. (NASDAQ and TASE: CAMT) (“Camtek” or the “Company”), today announced the introduction of a new Semiconductor Inspection tool focused on the special requirements of the LED Market.

Camtek’s Condor 5LED is a new AOI (Automated Optical Inspection) system designed to provide solutions to a variety of requirements that are unique to LED Semiconductor Manufacturers.

The LED Market’s special inspection requirements are characterized by 3-6 inch wafers, each of which may contain between 100 to over 200 thousand LED devices per wafer. Typically the wafer is made of a translucent compound semiconductor such as Gallium Arsenide, Gallium Phosphate and/or Indium Phosphate. The customers’ defect specifications and unique inspection process raise a significant challenge for AOI suppliers to solve.

Camtek has already been addressing the special needs of this market for over two years and has designed solutions on a per customer basis, built into existing platforms. Camtek has installed 6 such systems in three countries in this time. The new Condor 5LED incorporates all Camtek’s experience in this space, into a singular and focused designated solution, targeted at the LED Market.

Mr. Roy Porat, Camtek’s General Manager commented: “The Condor 5LED will further entrench our leading position in this market segment. Throughout the past year, we have been benchmarked a number of times against competitors, and we have been chosen as the ‘tool of choice’ several times. The Condor 5LED will strengthen our position in this market, and will allow us to maintain and build on our technological leadership.”

Mr. Porat concluded: “We are optimistic with regard to this segment in 2010. Given indications for significant growth from our customers in the LED Market, we aim to grow our business with the Condor 5LED in the coming quarters and years. ”

ABOUT CAMTEK LTD.

Camtek Ltd provides automated solutions dedicated for enhancing production processes and yield, enabling our customers new technologies in three industries; Semiconductors, Printed Circuit Board (PCB) and IC Substrates. Camtek addresses the specific needs of these industries with dedicated solutions based on a wide and advanced platform of technologies including intelligent imaging, image processing, ion milling and digital material deposition. Camtek's solutions range from micro-to-nano by applying its technologies to the industry-specific requirements.

This press release is available at [www.camtek.co.il](http://www.camtek.co.il).

This press release may contain projections or other forward-looking statements regarding future events or the future performance of the Company. These statements are only predictions and may change as time passes. We do not assume any obligation to update that information. Actual events or results may differ materially from those projected, including as a result of changing industry and market trends, reduced demand for our products, the timely development of our new products and their adoption by the market, increased competition in the industry, price reductions as well as due to risks identified in the documents filed by the Company with the SEC.