
**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 March 2018

Commission File Number 000-12790

ORBOTECH LTD.

(Translation of Registrant's name into English)

**7 SANHEDRIN BOULEVARD,
NORTH INDUSTRIAL ZONE,
YAVNE 8110101, ISRAEL
(Address of principal executive 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 if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

This report on Form 6-K, including the exhibit attached hereto, is furnished with the Securities and Exchange Commission (the “SEC”). This report shall not be deemed incorporated by reference in any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.

Attached hereto and incorporated by reference herein is the joint press release issued by KLA-Tencor Corporation (“KLA”) and Orbotech Ltd. (the “Company”, the “Registrant” or “Orbotech”) on, and dated March 19, 2018, and entitled “KLA-Tencor Announces Agreement to Acquire Orbotech Ltd.”.

EXHIBITS

Exhibit #

Description

99.1	Press release issued by the Registrant on, and dated March 19, 2018, and entitled “KLA-Tencor Announces Agreement to Acquire Orbotech Ltd.”
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SIGNATURES

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

ORBOTECH LTD.
(Registrant)

By: /s/ Alon Rozner

Alon Rozner
Corporate Vice President and
Chief Financial Officer

Date: March 19, 2018

KLA-Tencor Announces Agreement to Acquire Orbotech Ltd.

- Extends KLA-Tencor's technology and market reach within the electronics value chain
- Expands KLA-Tencor's addressable market by \$2.5 billion in high-growth electronics end markets
- Immediately accretive to revenue growth, non-GAAP earnings and free cash flow per share with approximately \$50 million run-rate synergies
- Announces \$2 billion share repurchase authorization

MILPITAS, Calif., and YAVNE, Israel, March 19, 2018 – KLA-Tencor Corporation (NASDAQ: KLAC) (“KLA-Tencor”) and Orbotech Ltd. (“Orbotech”) today announced they had entered into a definitive agreement pursuant to which KLA-Tencor will acquire Orbotech Ltd. (“Orbotech”) for \$38.86 in cash and 0.25 of a share of KLA-Tencor common stock in exchange for each ordinary share of Orbotech, implying a total consideration of approximately \$69.02 per share. The transaction values Orbotech at an equity value of approximately \$3.4 billion and an enterprise value of \$3.2 billion. In addition, KLA-Tencor announced a \$2 billion share repurchase authorization. The share repurchase program is targeted to be completed within 12 to 18 months following the close of this transaction.

With this acquisition, KLA-Tencor will significantly diversify its revenue base and add \$2.5 billion of addressable market opportunity in the high-growth printed circuit board (“PCB”), flat panel display (“FPD”), packaging, and semiconductor manufacturing areas. The broader portfolio of leading products, services, and solutions, as well as increased exposure to technology megatrends, will support KLA-Tencor's long-term revenue and earnings growth targets.

“This acquisition is consistent with our strategy to pursue sustained, profitable growth by expanding into adjacent markets,” commented Rick Wallace, President and Chief Executive Officer of KLA-Tencor. *“This combination will open new market opportunities for KLA-Tencor, and expands our portfolio serving the semiconductor industry.”* Mr. Wallace continued, *“Our companies fit together exceptionally well in terms of people, processes, and technology. In addition, KLA-Tencor has had a strong presence in Israel over the years, and this combination further expands our operations in this important global technology region.”*

“This acquisition is a true testament to Orbotech's strong leadership and success,” said Asher Levy, Chief Executive Officer of Orbotech Ltd. *“I firmly believe that this deal benefits our employees and creates additional value for our shareholders. Together with KLA-Tencor, we will significantly increase growth potential, accelerate our product development roadmap, and enhance customer offerings.”* Mr. Levy added, *“Orbotech will continue to operate under the Orbotech brand as a standalone business of KLA-Tencor based in Yavne, Israel.”*

Total cost synergies are expected to be approximately \$50 million on an annualized basis within 12 to 24 months following the closing of the transaction, and the transaction is expected to be immediately accretive to KLA-Tencor's revenue growth model, non-GAAP earnings and free cash flow per share.

The transaction has been approved by the Board of Directors of each company and is expected to close by the fourth quarter of calendar year 2018, subject to approval by Orbotech's shareholders, required regulatory approvals and the satisfaction of the other customary closing conditions. No approval by

KLA-Tencor stockholders is required. The transaction is not subject to any financing conditionality. KLA-Tencor intends to fund the cash portion of the purchase price with cash from the combined company's balance sheet. In addition, KLA-Tencor intends to raise approximately \$1 billion in new long-term debt financing to complete the share repurchase.

J.P. Morgan acted as exclusive financial advisor to KLA-Tencor; Wilson Sonsini Goodrich & Rosati acted as KLA-Tencor's U.S. legal counsel; and Meitar Liquomik Geva Lesham Tal acted as KLA-Tencor's Israeli legal counsel.

Barclays acted as exclusive financial advisor to Orbotech, Cravath, Swaine & Moore LLP acted as Orbotech's U.S. legal counsel, Tulchinsky Stern Marciano Cohen Levitski & Co. as Israeli legal counsel, Goldman Sachs acted as special advisor to Orbotech's transaction committee.

About KLA-Tencor: KLA-Tencor Corporation, a leading provider of process control and yield management solutions, partners with customers around the world to develop state-of-the-art inspection and metrology technologies. These technologies serve the semiconductor and other related nanoelectronics industries. With a portfolio of industry-standard products and a team of world-class engineers and scientists, the company has created superior solutions for its customers for more than 40 years. Headquartered in Milpitas, Calif., KLA-Tencor has dedicated customer operations and service centers around the world. information may be found at www.kla-tencor.com. (KLAC-F)

About Orbotech: Orbotech is a leading global supplier of yield-enhancing and process-enabling solutions for the manufacture of electronics products. Orbotech provides cutting-edge solutions for use in the manufacture of printed circuit boards (PCBs), flat panel displays (FPDs), and semiconductor devices (SDs), designed to enable the production of innovative, next-generation electronic products and improve the cost effectiveness of existing and future electronics production processes.

Forward-Looking Statements

This press release contains forward-looking statements as defined in the Securities Exchange Act of 1934 and is subject to the safe harbors created therein. These forward-looking statements involve risks and uncertainties that could significantly affect the expected results and are based on certain key assumptions. Due to such uncertainties and risks, no assurances can be given that such expectations will prove to have been correct, and readers are cautioned not to place undue reliance on such forward-looking statements, which speak only as of the date hereof. The forward-looking statements contained herein include, but are not limited to, the manner in which the parties plan to effect the transaction, including the share repurchase program; the ability to raise additional capital necessary to complete the repurchase program within the time frame expected; the expected benefits, synergies and costs of the transaction; management plans relating to the transaction; the expected timing of the completion of the transaction; the parties' ability to complete the transaction considering the various closing conditions, including conditions related to regulatory and Orbotech shareholder approvals; the plans, strategies and objectives of management for future operations; product development, product extensions, product integration, complementary product offerings and growth opportunities in certain business areas; the

potential future financial impact of the transaction; and any assumptions underlying any of the foregoing. Actual results may differ materially from those referred to in the forward-looking statements due to a number of important factors, including but not limited to the possibility that expected benefits of the transaction may not materialize as expected; that the transaction may not be timely completed, if at all; that KLA-Tencor may not be able to successfully integrate the solutions and employees of the two companies or ensure the continued performance or growth of Orbotech's products or solutions.

In addition, other risks that KLA-Tencor faces include those detailed in KLA-Tencor's filings with the Securities and Exchange Commission, including KLA-Tencor's annual report on Form 10-K for the year ended June 30, 2017 and quarterly report on Form 10-Q for the quarter ended December 31, 2017. Other risks that Orbotech faces include those detailed in Orbotech's filings with the Securities and Exchange Commission, including Orbotech's annual report on Form 20-F for the year ended December 31, 2017.

Additional Information and Where to Find It

This press release is being made in respect of a proposed business combination involving KLA-Tencor and Orbotech. This press release does not constitute an offer to sell or the solicitation of an offer to buy or subscribe for any securities or a solicitation of any vote or approval nor shall there be any sale, issuance or transfer of securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction. The proposed transaction will be submitted to the shareholders of Orbotech for their consideration. KLA-Tencor intends to file with the SEC a Registration Statement on Form S-4 that will include a preliminary prospectus with respect to KLA-Tencor's common stock to be issued in the proposed transaction and a proxy statement of Orbotech in connection with the merger of an indirect subsidiary of KLA-Tencor with and into Orbotech, with Orbotech surviving. The information in the preliminary proxy statement/prospectus is not complete and may be changed. KLA-Tencor may not sell the common stock referenced in the proxy statement/prospectus until the Registration Statement on Form S-4 becomes effective. The proxy statement/prospectus will be provided to the Orbotech shareholders. KLA-Tencor and Orbotech also plan to file other documents with the SEC regarding the proposed transaction.

This press release is not a substitute for any prospectus, proxy statement or any other document that KLA-Tencor or Orbotech may file with the SEC in connection with the proposed transaction. Investors and security holders of KLA-Tencor and Orbotech are urged to read the proxy statement/prospectus and any other relevant documents that will be filed with the SEC carefully and in their entirety when they become available because they will contain important information about the proposed transaction.

You may obtain copies of all documents filed with the SEC regarding this transaction, free of charge, at the SEC's website (www.sec.gov). In addition, investors and security holders will be able to obtain free copies of the proxy statement/prospectus (when they become available) and other documents filed with the SEC by KLA-Tencor on KLA-Tencor's Investor Relations page (ir.kla-tencor.com) or by writing to KLA-Tencor Corporation, Investor Relations, 1 Technology Drive, Milpitas, CA 95035 (for documents filed with the SEC by KLA-Tencor), or by Orbotech on Orbotech's Investor Relations page (investors.Orbotech.com) or by writing to Orbotech Ltd., Investor Relations, 7 Sanhedrin Boulevard, North Industrial Zone, Yavne 8110101 Israel (for documents filed with the SEC by Orbotech).

Conference Call and Webcast Details

KLA-Tencor will hold a conference call Monday, March 19 at 6:00 a.m. PT (9:00 a.m. ET) to discuss this announcement. The conference call can be joined by dialing 1-866-787-1003, Conference ID 5679896, within the U.S. and 1-678-276-8164, Conference ID 5679896, for all other locations. To access the webcast, visit the Investor Relations section of KLA-Tencor web site at <http://www.kla-tencor.com> and click on the Events section to view the details. A webcast replay will be available on KLA-Tencor web site approximately three hours after the conference call concludes.