Filed by KLA-Tencor Corporation
Pursuant to Rule 425 under the Securities Act of 1933
Subject Company: Orbotech Ltd.
Commission File No.: 000-12790

KLA-Tencor to Acquire Orbotech

March 19, 2018

Caution Regarding Forward-Looking Statements

This presentation 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 presentation is being made in respect of a proposed business combination involving KLA-Tencor and Orbotech. This presentation 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 presentation 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).

Transaction Overview



- KLA-Tencor to acquire Orbotech for \$38.86 in cash and 0.25 KLA-Tencor shares per Orbotech share
 - Implied total per share consideration of \$69.02¹
 - Implied transaction value of \$3.2 billion, net of debt and cash acquired

Share Buyback

- KLA-Tencor board has authorized \$2 billion share repurchase program
- Expected to be completed within 12-18 months after closing

Financing

- \$1.5 billion in new KLA-Tencor equity issued1
- \$1.9 billion of remaining purchase price to be funded from combined balance sheet cash
- New debt financing to fund portion of share repurchase

Financial Impact

- ~\$50 million of run-rate cost synergies to be realized over two years
- Immediately accretive to revenue growth, non-GAAP earnings, and free cash flow per share

Closing

- Expected to close before the end of calendar year 2018
- · Subject to customary regulatory approvals and closing conditions

Based on closing price of KLA-Tencor stock on 3/16/18

Compelling Strategic Transaction



Increases exposure to fast growing end markets (5G, AR/VR, smart mobile, OLED, Automotive)

Complementary geographic and customer footprints, focused on customer loyalty and success

Expands KLA-Tencor's product¹ addressable market from \$6.0 billion to \$8.5 billion by 2020

Immediately accretive to revenue growth, non-GAAP earnings, and free cash flow per share with ~\$50 million run rate cost synergies

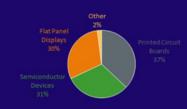
Supports KLA-Tencor's long term revenue and earnings growth targets

1 excluding service

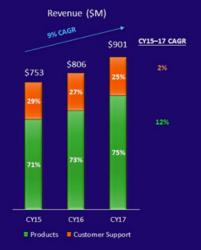
Public Unrestricted



- · Leading supplier for the global electronics manufacturing industry
- Founded in 1981, HQ in Israel
- 50 global offices, ~2,700 employees
- Operated as three divisions
 - Printed Circuit Board (PCB)
 - Flat Panel Displays (FPD)
 - Semiconductor Devices Division (SDD)



- Innovative product offering (40% of revenue from products released in last 2 years)
- Large installed base (22K units) drives customer support (25% of revenue)



Public | Unrestricted





Exposure to Megatrends is Driving High Demand



AR / VE



Connectivity (5G)

✓ 100x higher data throughput

vs. 4G



Auto

✓ Electronics to reach 35% of total

car cost by 2020

Market Highlights

PCB

Opportunities

✓ 107% '15-'20 unit CAGR

✓ 76 million units in 2020

Flexible PCB / SLP

PCB patterning and inspection

Flexible material drilling

Substrate Patterning, Inspection,

and Shaping technologiesHigh layer count for networking

Flexible PCB and SLP

 Tight quality requirements and higher complexity driving more process control

· Reliability return tracking

FPD Opportunities Display yield management system

Process innovation

LCD, OLED & Flexible Displays

Yield management systems

Process innovation

 Large displays for infotainment, navigation, driving

Inspection, Test, and Repair

SDD Opportunities RF modules

Sensor

Advanced Packaging

RF modules

Compound semiconductors

Advanced Packaging

· Power Devices, Analog

Sensors

Advanced Packaging

Dublie Harastrieta

Source: Orbotech company presentations and other market research firms

	KLA-Tencor 2020 Model	Orbotech 2020 Model	Pro Forma (incl. \$50M cost synergies)
Revenue Growth	6–8%	12%	7–9%
Gross Margin	63%+	50%	61%+
Operating Margin	38%+	25%	36%+

Financing and Capital Allocation



- ~\$1 billion of new debt
- · Expected to access long-term bond markets
- · Committed to Investment Grade rating

Capital Allocation Policy

- · Continued commitment to stockholder returns
- Expect to return 70-75% of free cash flow to stockholders
- Dividend payout ratio target of 40-50%
- · Dividend payout growth in line with free cash flow growth



KLA-Tencor board has authorized \$2 billion share repurchase program



To be completed within 12-18 months after closing

KLA Tencor

Dublic Librarieta

Compelling Strategic Transaction





Complementary geographic and customer footprints, focused on customer loyalty and success

Expands KLA-Tencor's product¹ addressable market from \$6.0 billion to \$8.5 billion by 2020

Immediately accretive to revenue growth, non-GAAP earnings, and free cash flow per share with ~\$50 million run rate cost synergies

Supports KLA-Tencor's long term revenue and earnings growth targets

1 excluding service

Public | Unrestricted

