

As filed with the Securities and Exchange Commission on April 12, 2005

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

SCHEDULE TO
(Rule 14d-100)
Tender Offer Statement Under Section 14(d)(1) or 13(e)(1)
of the Securities Exchange Act of 1934

Siliconix incorporated
(Name of subject company (issuer))

Vishay Intertechnology, Inc.
and
Vishay TEMIC Semiconductor Acquisition Holdings Corp.

(Offerors)

(Names of filing persons (identifying status as offeror, issuer or other person))

Common Stock, Par Value \$0.01 per Share
(Title of class of securities)
82707920 3

(CUSIP numbers of class of securities)

Richard N. Grubb
Vishay Intertechnology, Inc.
63 Lincoln Highway
Malvern, Pennsylvania 19355-2143
(610) 644-1300

(Name, address and telephone number of persons authorized to receive notices and communications on behalf of filing persons)

Copies To:

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CALCULATION OF FILING FEE

Transaction Valuation*

\$198,194,720

Amount of Filing Fee**

\$23,327.52

* Calculated solely for the purpose of determining the filing fee, based on the product of (i) 33.885, the average of the high and low sales prices of Siliconix common stock on the NASDAQ National Market on April 11, 2005 and (ii) 5,849,040, the expected maximum number of shares of Siliconix common stock to be acquired in the offer and the merger.

** The amount of the filing fee was calculated in accordance with Rules 0-11(a)(2) and (a)(4) of the Securities Exchange Act of 1934, as amended, and equals \$117.70 for each \$1,000,000 of the value of the transaction.

Check the box if any part of the fee is offset as provided by Rule 0-11(a)(2) and identify the filing with which the offsetting fee was previously paid. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

Amount Previously Paid: \$23,327.52
Form or Registration No.: Form S-4

Filing Party: Vishay Intertechnology, Inc.
Date Filed: April 12, 2005

Check the box if the filing relates solely to preliminary communications made before the commencement of a tender offer.

Check the appropriate boxes below to designate any transactions to which the statement relates:

- third-party tender offer subject to Rule 14d-1.
- issuer tender offer subject to Rule 13e-4.
- going-private transaction subject to Rule 13e-3.
- amendment to Schedule 13D under Rule 13d-2.

Check the following box if the filing is a final amendment reporting the results of the tender offer:

This Tender Offer Statement on Schedule TO is filed by Vishay Intertechnology, Inc. and Vishay TEMIC Semiconductor Acquisition Holdings Corp., a wholly owned subsidiary of Vishay. This Schedule TO relates to the offer by Vishay TEMIC to exchange 2.90 shares of Vishay common stock, par value \$0.10 per share, for each outstanding share of common stock, par value \$0.01 per share, of Siliconix incorporated that Vishay and its subsidiaries do not own, upon the terms and subject to the conditions set forth in the prospectus of Vishay, dated April 12, 2005 and in the related letter of transmittal, copies of which are incorporated by reference herein as Exhibits (a)(1) and (a)(2), respectively.

Items 1 through 11.

The information set forth in the prospectus and the letter of transmittal is incorporated by reference herein with respect to Items 1 through 11 of this Schedule TO.

Item 12. Exhibits.

Exhibit Number	Description
(a)(1)	Prospectus dated April 12, 2005 (incorporated by reference from Vishay's registration statement on Form S-4 filed on April 12, 2005 (the "Form S-4"))
(a)(2)	Letter of Transmittal (incorporated by reference to Exhibit 99.1 to the Form S-4).
(a)(3)	Form of Notice of Guaranteed Delivery (incorporated by reference to Exhibit 99.2 to the Form S-4).
(a)(4)	Form of Letter from Vishay TEMIC to Brokers, Dealers, Commercial Banks, Trust Companies and Other Nominees (incorporated by reference to Exhibit 99.3 to the Form S-4).
(a)(5)	Form of Letter from Brokers, Dealers, Commercial Banks, Trust Companies and Other Nominees to Clients (incorporated by reference to Exhibit 99.4 to the Form S-4).
(a)(6)	Form of Guidelines for Certification of Taxpayer Identification Number on Substitute Form W-9 (incorporated by reference to Exhibit 99.5 to the Form S-4).
(a)(7)	Request from Vishay TEMIC for stockholder list of Siliconix (incorporated by reference to Exhibit 99.6 to the Form S-4).

Exhibits (a)(8)(i)—(a)(8)(xvi) are complaints and decisions relating to the 2001 tender offer of Vishay Intertechnology, Inc. and Vishay TEMIC Semiconductor Acquisition Holdings Corp. for Siliconix incorporated shares.

(a)(8)(i)	Complaint titled Robert C. Dickenson v. Vishay Intertechnology, Inc., Vishay TEMIC Semiconductor Acquisition Holdings Corp., Siliconix incorporated, King Owyang, Everett Arndt, Lori Lipcaman, Michael Rosenberg and Glyndwr Smith, filed on February 23, 2001 in the Chancery Court of the State of Delaware, County of New Castle (incorporated by reference to Exhibit 99.8 to Vishay Intertechnology, Inc.'s registration statement on Form S-4 filed on May 25, 2001).
(a)(8)(ii)	Complaint titled Moshe Miller v. King Owyang, Everett Arndt, Lori Lipcaman, Michael Rosenberg, Mark Segall, Glyndwr Smith, Siliconix incorporated and Vishay Intertechnology, Inc., filed on February 23, 2001 in the Chancery Court of the State of Delaware, County of New Castle (incorporated by reference to Exhibit 99.9 to Vishay Intertechnology, Inc.'s registration statement on Form S-4 filed on May 25, 2001).

- (a)(8)(iii) Complaint titled Mathew Delaney v. Vishay Intertechnology, Inc., Vishay TEMIC Semiconductor Acquisition Holdings Corp., Siliconix incorporated, King Owyang, Everett Arndt, Lori Lipcaman, Michael Rosenberg and Glyndwr Smith, filed on February 23, 2001, in the Chancery Court of the State of Delaware, County of New Castle (incorporated by reference to Exhibit 99.10 to Vishay Intertechnology, Inc.'s registration statement on Form S-4 filed on May 25, 2001).
- (a)(8)(iv) Complaint titled Steven Goldstein v. Siliconix incorporated, Vishay Intertechnology, Inc., Michael A. Rosenberg, Mark B. Segall, King Owyang Ph.D., Everett Arndt, Lori Lipcaman and Glyndwr Smith, filed on February 23, 2001 in the Chancery Court of the State of Delaware, County of New Castle (incorporated by reference to Exhibit 99.11 to Vishay Intertechnology, Inc.'s registration statement on Form S-4 filed on May 25, 2001).
- (a)(8)(v) Complaint titled Goldplate Investment Partners v. King Owyang, Everett Arndt, Lori Lipcaman, Michael Rosenberg, Mark Segall, Glyndwr Smith, Siliconix incorporated and Vishay Intertechnology, Inc., filed on February 23, 2001 in the Chancery Court of the State of Delaware, County of New Castle (incorporated by reference to Exhibit 99.12 to Vishay Intertechnology, Inc.'s registration statement on Form S-4 filed on May 25, 2001).
- (a)(8)(vi) Complaint titled Barry Feldman v. Michael Rosenberg, Mark B. Segall, King Owyang, Everett Arndt, Lori Lipcaman, Glyndwr Smith, Vishay Intertechnology, Inc. and Siliconix incorporated, filed on February 23, 2001 in the Chancery Court of the State of Delaware, County of New Castle (incorporated by reference to Exhibit 99.13 to Vishay Intertechnology, Inc.'s registration statement on Form S-4 filed on May 25, 2001).
- (a)(8)(vii) Complaint titled Robert Mullin v. Vishay Intertechnology, Inc., Vishay TEMIC Semiconductor Acquisition Holdings Corp., Siliconix incorporated, King Owyang, Everett Arndt, Lori Lipcaman, Michael Rosenberg and Glyndwr Smith, filed on February 23, 2001 in the Chancery Court of the State of Delaware, County of New Castle (incorporated by reference to Exhibit 99.14 to Vishay Intertechnology, Inc.'s registration statement on Form S-4 filed on May 25, 2001).
- (a)(8)(viii) Complaint title Mohammed Yassin v. King Owyang, Everett Arndt, Lori Lipcaman, Michael Rosenberg, Mark Segall, Glyndwr Smith, Siliconix incorporated and Vishay Intertechnology, Inc., filed on February 26, 2001 in the Chancery Court of the State of Delaware, County of New Castle (incorporated by reference to Exhibit 99.15 to Vishay Intertechnology, Inc.'s registration statement on Form S-4 filed on May 25, 2001).
- (a)(8)(ix) Complaint titled Griffin Portfolio Management Corp. v. Siliconix incorporated, Vishay Intertechnology, Inc., Michael Rosenberg, Mark B. Segall, King Owyang Ph.D., Everett Arndt, Lori Lipcaman and Glyndwr Smith, filed on February 27, 2001 in the Chancery Court of the State of Delaware, County of New Castle (incorporated by reference to Exhibit 99.16 to Vishay Intertechnology, Inc.'s registration statement on Form S-4 filed on May 25, 2001).
- (a)(8)(x) Complaint titled Jonathan Rex v. King Owyang, Everett Arndt, Lori Lipcaman, Michael Rosenberg, Mark Segall, Glyndwr Smith, Vishay Intertechnology, Inc., Felix Zandman, Avi Eden, Gerald Paul, Richard N. Grubb, Robert A. Freece, Eliyahu Hurvitz, Edward B. Shils, Luella B. Slaner, Mark I. Solomon, Jean-Claude-Tine and Does 1 through 100, Inclusive, filed on February 23, 2001 in the State Court of the State of California, County of Santa Clara (incorporated by reference to Exhibit 99.17 to Vishay Intertechnology, Inc.'s registration statement on Form S-4 filed on May 25, 2001).

- (a)(8)(xi) Complaint titled Crandon Capital Partners v. King Owyang, Everett Arndt, Lori Lipcaman, Michael Rosenberg, Mark Segall, Glyndwr Smith, Siliconix incorporated and Vishay Intertechnology, Inc. and Does 1 through 100, Inclusive, filed on February 27, 2001 in the State Court of the State of California, County of Santa Clara (incorporated by reference to Exhibit 99.18 to Vishay Intertechnology, Inc.'s registration statement on Form S-4 filed on May 25, 2001).
- (a)(8)(xii) Complaint titled Raymond L. Fitzgerald v. Vishay Intertechnology, Inc., Everett Arndt, Lori Lipcaman, King Owyang, Michael Rosenberg, Mark Segall, Glyndwr Smith and Siliconix incorporated, filed on March 8, 2001 in the Chancery Court of the State of Delaware, County of New Castle (incorporated by reference to Exhibit 99.19 to Vishay Intertechnology, Inc.'s registration statement of Form S-4 filed on May 25, 2001).
- (a)(8)(xiii) Verified Amended Complaint titled In Re Siliconix incorporated Shareholders Litigation, filed on May 31, 2001 in the Chancery Court of the State of Delaware, County of New Castle (incorporated by reference to Exhibit 99.21 to Vishay Intertechnology, Inc.'s registration statement on Amendment No. 2 to Form S-4 filed on June 6, 2001).
- (a)(8)(xiv) Memorandum Opinion In Re Siliconix incorporated Shareholders Litigation ordered on June 19, 2001 by the Chancery Court of the State of Delaware, County of New Castle (incorporated by reference to Exhibit 99.22 to Vishay Intertechnology, Inc.'s registration statement on Amendment No. 3 to Form S-4 filed on June 21, 2001).
- (a)(8)(xv) Stipulation and Order of Dismissal filed on December 18, 2002 in the Court of Chancery of the State of Delaware (incorporated by reference to Exhibit 99.7.15 to Vishay Intertechnology, Inc.'s Form S-4 filed on April 12, 2005).
- (a)(8)(xvi) Order Dismissing Action Without Prejudice filed on January 16, 2003 in Superior Court of the State of California, County of Santa Clara (incorporated by reference to Exhibit 99.7.16 to Vishay Intertechnology, Inc.'s Form S-4 filed on April 12, 2005).
- (a)(9) Complaint titled Rebecca Proctor, Rex Brooks, John Donovan, Robert Needles et al., v. Vishay Intertechnology, Inc., Vishay TEMIC Semiconductor Acquisition Holdings Corporation, Siliconix, Inc., Ernst & Young, Felix D. Zandman, and Doe 1 through Doe 20, inclusive, filed on January 10, 2005 in the Superior Court of the State of California, County of Santa Clara (incorporated by reference to Exhibit 99.8 to Vishay Intertechnology, Inc.'s Form S-4 filed on April 12, 2005).

Exhibits (a)(10)(i)—(a)(10)(vi) are complaints relating to the 2005 tender offer of Vishay Intertechnology, Inc. and Vishay TEMIC Semiconductor Acquisition Holdings Corp. for Siliconix incorporated shares.

- (a)(10)(i) Complaint titled Paulena Partners, LLC, v. Siliconix Inc., King Owyang, Hanspeter Eberhardt, Glyndwr Smith, Timothy V. Talbert, Thomas C. Werthelmer, and Vishay Intertechnology, Inc., filed on March 4, 2005 in the Court of Chancery of the State of Delaware (incorporated by reference to Exhibit 99.9.1 to Vishay Intertechnology, Inc.'s Form S-4 filed on April 12, 2005).
- (a)(10)(ii) Complaint titled Nathan Withington III, IRA, v. Siliconix Incorporated, Vishay Intertechnology, Inc., Hanspeter Eberhardt, King Owyang, Glyndwr Smith, Timothy V. Talbert, and Thomas C. Wertheimer, filed on March 4, 2005 in the Court of Chancery of the State of Delaware (incorporated by reference to Exhibit 99.9.2 to Vishay Intertechnology, Inc.'s Form S-4 filed on April 12, 2005).

- (a)(10)(iii) Complaint titled Olga Fried v. King Owyang, Hanspeter Eberhardt, Thomas C. Wertheimer, Glyndwr Smith, Timothy V. Talbert, Vishay Intertechnologies, Inc. and Siliconx, Inc., filed on March 4, 2005 in the Court of Chancery of the State of Delaware (incorporated by reference to Exhibit 99.9.3 to Vishay Intertechnology, Inc.'s Form S-4 filed on April 12, 2005).
- (a)(10)(iv) Complaint titled J. Douglas Zaletel, v. King Owyang, Hanspeter Eberhardt, Glyndwr Smith, Timothy V. Talbert, Thomas C. Wertheimer, Siliconx, Inc., and Vishay Intertechnology, Inc., filed on March 4, 2005 in the Court of Chancery of the State of Delaware (incorporated by reference to Exhibit 99.9.4 to Vishay Intertechnology, Inc.'s Form S-4 filed on April 12, 2005).
- (a)(10)(v) Complaint titled Steven Goldstein v. Siliconx Incorporated, King Owyang, Timothy V. Talbert, Hanspeter Eberhardt, Thomas C. Wertheimer, Glyndwr Smith, and Vishay Intertechnology, Inc., filed on March 4, 2005 in the Court of Chancery of the State of Delaware (incorporated by reference to Exhibit 99.9.5 to Vishay Intertechnology, Inc.'s Form S-4 filed on April 12, 2005).
- (a)(10)(vi) Complaint titled Moe Yassin v. Siliconx, Inc., Timothy V. Talbert, Thomas C. Wertheimer, Hanspeter Eberhardt, Dr. King Owyang, and Glyndwr Smith, and Vishay Intertechnology, Inc., filed on March 4, 2005 in the Superior Court of Chancery of the State of California, County of Santa Clara (incorporated by reference to Exhibit 99.9.6 to Vishay Intertechnology, Inc.'s Form S-4 filed on April 12, 2005).
- (a)(11) Press release of Vishay announcing its intention to commence the offer, dated March 3, 2005 (incorporated by reference to Exhibit 99.1 to our current report on Form 8-K filed on March 4, 2005).
- (a)(12) Press release of Vishay announcing commencement of the offer, dated April 12, 2005 (incorporated by reference to Exhibit 99.10 to the Form S-4).
- (b) None.
- (d) None.
- (g) None.
- (h) None.

Item 13. Information Required by Schedule 13E-3.

Not applicable.

SIGNATURE

After due inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: April 12, 2005

VISHAY INTERTECHNOLOGY, INC

By:

/s/ RICHARD N. GRUBB

Name: Richard N. Grubb

Title: Executive Vice President, Treasurer and
Chief Financial Officer

VISHAY TEMIC SEMICONDUCTOR ACQUISITION
HOLDINGS CORP.

By:

/s/ RICHARD N. GRUBB

Name: Richard N. Grubb

Title: Vice President and Treasurer

QuickLinks

[SIGNATURE](#)