Form

Unknown document format

er-left-width: 1; border-right-width: 1; border-bottom-width: 1">1. Title of Security

(Instr. 3)2. Transaction Date (Month/Day/Year)2A. Deemed Execution Date, if any (Month/Day/Year)3. Transaction Code

(Instr. 8)4. Securities Acquired (A) or Disposed of (D)

(Instr. 3, 4 and 5)5. Amount of Securities Beneficially Owned Following Reported Transaction(s)

(Instr. 3 and 4)6. Ownership Form: Direct (D) or Indirect (I)

(Instr. 4)7. Nature of Indirect Beneficial Ownership

(Instr. 4)CodeVAmount(A) or (D)Price Common Stock05/02/2011 M 5,000 A \$ 0.98 62,987 D Common

Stock05/02/2011 S 5,000 (1) D \$ 16.2241 (2) 57,987 D Common Stock05/02/2011 M 10,000 A \$ 7.35 67,987 D

Common Stock05/02/2011 S 10,000 (1) D \$ 16.2031 (3) 57,987 D

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.

SEC 1474

(9-02)

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transactic Code (Instr. 8)	5. Number of orDerivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amour Underlying Securit (Instr. 3 and 4)	
				Code V	(A) (D)	Date Exercisable	Expiration Date	Title	Amo or Num of Sh
Non-Qualified Stock Option (right to buy)	\$ 0.98	05/02/2011		M	5,000	<u>(4)</u>	11/19/2015	Common Stock	5,0
Non-Qualified Stock Option (right to buy	\$ 7.35	05/02/2011		M	10,000	(5)	08/29/2014	Common Stock	10,0

Reporting Owners

Reporting Owner Name / Address	Relationships					
	Director	10% Owner	Officer	Other		
Stultz Timothy J C/O NANOMETRICS INCORPORATED 1550 BUCKEYE DRIVE MILPITAS, CA 95035	X		President & CEO			

Reporting Owners 1

Signatures

/s/ Ronald W. Kisling, Attorney-in-Fact

05/03/2011

**Signature of Reporting Person

Date

Explanation of Responses:

- * If the form is filed by more than one reporting person, see Instruction 4(b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
- (1) The sales reported in this Form 4 were effected pursuant to a Rule 10b5-1 trading plan adopted by the reporting person on June 8, 2009.
- The price in Column 4 is a weighted average sale price. The prices actually received ranged from \$16.13 to \$16.325. The reporting person will provide to the issuer, any security holder of the issuer, or the SEC staff, upon request, information regarding the number of shares sold at each price within the range.
- The price in Column 4 is a weighted average sale price. The prices actually received ranged from \$16.145 to \$16.28. The reporting person
- (3) will provide to the issuer, any security holder of the issuer, or the SEC staff, upon request, information regarding the number of shares sold at each price within the range.
- One thirty-sixth (1/36th) of the shares vest in equal monthly installments starting on the monthly anniversary of the date of grant (November 19, 2008)
- (5) One-third (1/3rd) of the shares vest on August 29, 2008 and one thirty-sixth (1/36th) of the shares vest monthly thereafter.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.

Signatures 2