

NANOMETRICS INC

Reported by
BROWN EDWARD J JR

FORM 4

(Statement of Changes in Beneficial Ownership)

Filed 05/25/17 for the Period Ending 05/23/17

| | |
|-------------|--|
| Address | 1550 BUCKEYE DRIVE MILPITAS, CA 95035 |
| Telephone | 408-435-9600 |
| CIK | 0000704532 |
| Symbol | NANO |
| SIC Code | 3829 - Measuring and Controlling Devices, Not Elsewhere Classified |
| Industry | Semiconductor Equipment & Testing |
| Sector | Technology |
| Fiscal Year | 12/27 |

FORM 4

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

OMB APPROVAL
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[] Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| | | | | | |
|--|--|---|--|--|--|
| 1. Name and Address of Reporting Person * | | 2. Issuer Name and Ticker or Trading Symbol | | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) | |
| Brown Edward J Jr | | NANOMETRICS INC [NANO] | | <input checked="" type="checkbox"/> Director <input type="checkbox"/> 10% Owner | |
| (Last) (First) (Middle) | | 3. Date of Earliest Transaction (MM/DD/YYYY) | | <input type="checkbox"/> Officer (give title below) <input type="checkbox"/> Other (specify below) | |
| C/O NANOMETRICS, INC., 1550 BUCKEYE DRIVE | | 5/23/2017 | | | |
| (Street) | | 4. If Amendment, Date Original Filed (MM/DD/YYYY) | | 6. Individual or Joint/Group Filing (Check Applicable Line) | |
| MILPITAS, CA 95035 | | | | <input checked="" type="checkbox"/> Form filed by One Reporting Person | |
| (City) (State) (Zip) | | | | <input type="checkbox"/> Form filed by More than One Reporting Person | |

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

| 1. Title of Security (Instr. 3) | 2. Trans. Date | 2A. Deemed Execution Date, if any | 3. Trans. 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) |
|---------------------------------|----------------|-----------------------------------|---------------------------|---|---|------------|--------|---|--|---|
| | | | Code | V | Amount | (A) or (D) | Price | | | |
| Common Stock | 5/23/2017 | | A | | 3453 | A | \$0.00 | 29264 | D | |

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

| 1. Title of Derivate Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Trans. Date | 3A. Deemed Execution Date, if any | 4. Trans. Code (Instr. 8) | | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | | 6. Date Exercisable and Expiration Date | | 7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4) | | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | 10. Ownership Form of Derivative Security: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |
|--|--|----------------|-----------------------------------|---------------------------|---|--|-----|---|-----------------|---|----------------------------|--|--|--|--|
| | | | | Code | V | (A) | (D) | Date Exercisable | Expiration Date | Title | Amount or Number of Shares | | | | |

Explanation of Responses:

(1) Shares are represented by restricted stock units. Each restricted stock unit represents a contingent right to receive one share of NANO common stock. The restricted stock units vest the sooner of May 23, 2018 or the next annual shareholder's meeting.

Reporting Owners

| Reporting Owner Name / Address | Relationships | | | |
|--|---------------|-----------|---------|-------|
| | Director | 10% Owner | Officer | Other |
| Brown Edward J Jr C/O NANOMETRICS, INC. 1550 BUCKEYE DRIVE MILPITAS, CA 95035 | X | | | |

Signatures

/s/Janet Taylor, Attorney-in-Fact

5/24/2017

**Signature of Reporting Person

Date

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

* 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).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

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.