

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**

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) |  |  |
| <u>Sciammas Maurice</u>                  |         |          | <u>MONOLITHIC POWER SYSTEMS INC</u>                      |  |  | Director 10% Owner  |  |  |
| (Last)                                   | (First) | (Middle) | [ MPWR ]   |  |  | X Officer (give title below) Other (specify below)                      |  |  |
| 79 GREAT OAKS BLVD                       |         |          | 3. Date of Earliest Transaction (Month/Day/Year)         |  |  | Sr. V.P.of Sales and Marketing  |  |  |
| 10/04/2013                               |         |          | 4. If Amendment, Date of Original Filed (Month/Day/Year) |  |  | 6. Individual or Joint/Group Filing (Check Applicable Line)             |  |  |
| (Street)                                 |         |          |  |  |  | X Form filed by One Reporting Person                                    |  |  |
| SAN JOSE                                 | CA      | 95119    |  |  |  | Form filed by More than One Reporting Person                            |  |  |
| (City)                                   | (State) | (Zip)    |  |  |  |   |  |  |

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

| 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) |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|------------|--------------------------|---|--|---|
|                                 |                                      |  | Code                           | V | Amount  | (A) or (D) | Price                    |   |  |   |
| Common Stock                    | 10/04/2013                           |  | M <sup>(1)</sup>               |   | 27,000  | A          | \$17.92 <sup>(2)</sup>   | 131,638   | D  |   |
| Common Stock                    | 10/04/2013                           |  | S <sup>(1)</sup>               |   | 27,000  | D          | \$31.1342 <sup>(3)</sup> | 104,638   | D  |   |
| Common Stock                    |                                      |  |                                |   |   |            |                          | 12,746  | I  | by Family Trust                                       |

**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. Transaction 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 (Month/Day/Year) |                 | 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: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |       |
|--|--|--------------------------------------|--|--------------------------------|---|--|--------|--|-----------------|---|--|--|---|--|-------|
|  |  |                                      |  | Code                           | V | (A)  | (D)    | Date Exercisable   | Expiration Date |   |  |  |   |  | Title |
| Non-Qualified Stock Option (right to buy)  | \$18.77 <sup>(2)</sup>                                 | 10/04/2013                           |  | M <sup>(1)</sup>               |   |  | 27,000 | 08/03/2009   | 08/03/2014      | Common Stock  | 27,000                                     | \$0.0  | 20,000  | D  |       |

**Explanation of Responses:**

- In accordance with the reporting person's 10b5-1 trading plan.
- On December 11, 2012, the Company's Board declared a special cash dividend of \$1.00 per common share, which was paid on December 28, 2012 to all shareholders of record as of the close of business on December 21, 2012. The Board approved a modification whereby each outstanding option as of December 28, 2012 was increased by a ratio of 1.0471 with a corresponding reduction in the exercise price.
- The price is the weighted average sale price for the transactions reported on this line. The prices for the transactions reported on this line range from \$31.00 to \$31.30. The reporting person undertakes to provide, upon request by the staff of the Securities and Exchange Commission, the issuer, or a security holder of the issuer, full information regarding the number of shares sold at each separate price.

By: Saria Tseng For: Maurice Sciammas 10/08/2013

\*\* 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 Number.