

**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**

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

|                                                                                                                                                                                                                       |                                                                                                              |                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1. Name and Address of Reporting Person*</b><br><u>Sciammas Maurice</u><br><br>(Last) (First) (Middle)<br><u>6409 GUADALUPE MINES ROAD</u><br><br>(Street)<br><u>SAN JOSE CA 95120</u><br><br>(City) (State) (Zip) | <b>2. Issuer Name and Ticker or Trading Symbol</b><br><u>MONOLITHIC POWER SYSTEMS INC</u><br><u>[ MPWR ]</u> | <b>5. Relationship of Reporting Person(s) to Issuer</b><br>(Check all applicable)<br>Director 10% Owner<br><input checked="" type="checkbox"/> Officer (give title below) Other (specify below)<br><u>Sr. V.P. of Sales and Marketing</u> |
|                                                                                                                                                                                                                       | <b>3. Date of Earliest Transaction (Month/Day/Year)</b><br><u>06/13/2011</u>                                 |                                                                                                                                                                                                                                           |
|                                                                                                                                                                                                                       | <b>4. If Amendment, Date of Original Filed (Month/Day/Year)</b>                                              | <b>6. Individual or Joint/Group Filing (Check Applicable Line)</b><br><input checked="" type="checkbox"/> Form filed by One Reporting Person<br>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. 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                    | 06/13/2011                           |                                                    | S <sup>(1)</sup>               |   | 885                                                               | D          | \$15.0791 <sup>(2)</sup> | 86,199                                                                                        | I                                                        | by Family Trust <sup>(3)</sup>                        |
| Common Stock                    | 06/13/2011                           |                                                    | S <sup>(1)</sup>               |   | 350                                                               | D          | \$15.0791 <sup>(2)</sup> | 20,821                                                                                        | I                                                        | byC Sciammas 04 TRST <sup>(4)</sup>                   |
| Common Stock                    | 06/13/2011                           |                                                    | S <sup>(1)</sup>               |   | 350                                                               | D          | \$15.0791 <sup>(2)</sup> | 20,821                                                                                        | I                                                        | byM Sciammas 04 Trst <sup>(5)</sup>                   |
| Common Stock                    |                                      |                                                    |                                |   |                                                                   |            |                          | 115,658                                                                                       | D                                                        |                                                       |

**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 |                                                                                        | Date Exercisable                                         | Expiration Date |                                                                                   |                                            |                                                                                                    |                                                           |                                                        |
|                                            |                                                        |                                      |                                                    |                                |   |                                                                                        |                                                          |                 | Amount or Number of Shares                                                        |                                            |                                                                                                    |                                                           |                                                        |

**Explanation of Responses:**

- In accordance with the reporting person's 10b5-1 trading plan.
- 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 \$15.00 to \$15.19. 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.
- Shares held by Sciammas Family Living Trust, Maurice Sciammas and Christina Sciammas, Trustees
- Shares held by Christina Sciammas 2004 Trust, Christina Sciammas and Maurice Sciammas, Trustees
- Shares held by Maurice Sciammas 2004 Trust, Maurice Sciammas and Christina Sciammas, Trustees

By: Saria Tseng For: Maurice Sciammas 06/14/2011

\*\* 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.