FORM 4

## **UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

| OMB APPROVAL             |           |  |  |  |  |  |  |  |
|--------------------------|-----------|--|--|--|--|--|--|--|
| OMB Number:              | 3235-0287 |  |  |  |  |  |  |  |
| Estimated average burden |           |  |  |  |  |  |  |  |
| hours per response:      | 0.5       |  |  |  |  |  |  |  |

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

| Name and Address of Reporting Person*     Hsing Michael  |  |  |         |   | 2. Issuer Name and Ticker or Trading Symbol MONOLITHIC POWER SYSTEMS INC MPWR ] |  |  |  |                   |                                  |                    |                           |  | (Ch  | 5. Relationship of Repo<br>(Check all applicable)<br>X Director      |   | rting Person(s) to Issuer  10% Owner |                            |
|--|--|--|---------|---|---|--|--|--|-------------------|----------------------------------|--------------------|---------------------------|--|--|--|---|--------------------------------------|----------------------------|
| (Last) (First) (Middle) 983 UNIVERSITY AVENUE, BUILDING A  |  |  |         | 3. Date of Earliest Transaction (Month/Day/Year) 09/13/2005 |   |  |  |  |                   |                                  |                    |                           |  | X Offic<br>below   | ,  | Other<br>below<br>CEO   | (specify<br>)                        |                            |
| (Street) LOS GATOS CA 95032 (City) (State) (Zip)   |  |  |         |   | 4. If A   | 4. If Amendment, Date of Original Filed (Month/Day/Year) |  |  |                   |                                  |                    |                           |  |  | e)<br>X Form<br>Form   | Form filed by One Reporting Person  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. Transact Date (Month/Day   |  |  | //Year) | 2A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year) |   | 3.<br>Transaction<br>Code (Instr.<br>8)                  |  | 4. Securities Acquired (<br>Disposed Of (D) (Instr. and 5) |                   |                                  |                    | Securi<br>Benefi<br>Owned | ties<br>cially   | 6. Ownership<br>Form: Direct<br>(D) or<br>Indirect (I)   | 7. Nature<br>of Indirect<br>Beneficial<br>Ownership                  |   |                                      |                            |
|  |  |  |         |   |   |  |  | Code   | v                 | Amount                           | (A<br>(D           | a) or                     | Price  |  |  | (Instr. 4)  | (Instr. 4)                           |                            |
| Common   | Stock  |  |         | 09/13/2   | 005   |  |  |  | S <sup>(1)</sup>  |                                  | 1,000              |                           | D  | \$8.5  | 34   | 7,506   | I                                    | By<br>Jointly<br>w/Spouse  |
| Common Stock   |  |  |         |   |   |  |  |  |                   |                                  |                    |                           |  | 82   | 2,144  | D   |                                      |                            |
| Common   | Stock  |  |         |   |   |  |  |  |                   |                                  |                    |                           |  |  | 19   | 9,219   | I                                    | By S.<br>Hsing 04<br>Trust |
| Common Stock   |  |  |         |   |   |  |  |  |                   |                                  |                    |                           |  | 19   | 9,219  | I   | by M<br>Hsing 04<br>Trust            |                            |
| Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) |  |  |         |   |   |  |  |  |                   |                                  |                    |                           |  |  |  |   |                                      |                            |
| 1. Title of<br>Derivative<br>Security<br>(Instr. 3)  | 2. 3. Transaction Gonversion Date Execution Date, if any |  |         | 4.<br>Transaction<br>Code (Instr.<br>8)                     |   |  | rative<br>rities<br>ired<br>r<br>osed<br>) | 6. Date Expiration (Month/D                                | cerci:            | sable and 7. Title and Amount of |                    | str.                      | B. Price<br>of<br>Derivative<br>Security<br>(Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr.<br>4) | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4)                |                                      |                            |
|  |  |  |         |   | Code  | v  | (A)  | (D)  | Date<br>Exercisab |                                  | Expiration<br>Date | Title                     | or<br>Num<br>of<br>Shar                                | ber  |  |   |                                      |                            |

## Explanation of Responses:

1. In accordance with the reporting person's 10b5-1 trading plan.

Michael Hsing 09/14/2005

\*\* Signature of Reporting Person Date

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

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.

 $<sup>^{\</sup>star}$  If the form is filed by more than one reporting person, see Instruction 4 (b)(v).

<sup>\*\*</sup> Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).