

Xiao Deming
Form 4
February 11, 2013

FORM 4 UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

OMB APPROVAL

OMB Number: 3235-0287
Expires: January 31, 2005
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 OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person *
Xiao Deming

2. Issuer Name and Ticker or Trading Symbol
MONOLITHIC POWER SYSTEMS INC [MPWR]

5. Relationship of Reporting Person(s) to Issuer
(Check all applicable)

(Last) (First) (Middle)
79 GREAT OAKS BLVD
(Street)

3. Date of Earliest Transaction (Month/Day/Year)
02/07/2013

____ Director _____ 10% Owner
 Officer (give title below) _____ Other (specify below)
Pres. of MPS Asia Operations

SAN JOSE, CA 95119
(City) (State) (Zip)

4. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)
 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. 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 Ownership (Instr. 4) | | | |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|--|-----------------------------------|---------|---|-----------|
| | | | Code | V | Amount | (A) or (D) | Price | | | |
| Common Stock | 02/07/2013 | | A ⁽¹⁾ | | 193 | A | \$ 0 | 110,672 | D | |
| Common Stock | 02/11/2013 | | S ⁽²⁾ | | 1,538 | D | \$ 24.6 | 109,134 | D | |
| Common Stock | 02/11/2013 | | S ⁽²⁾ | | 73 | D | \$ 24.6 | 109,061 | D | |
| Common Stock | 02/07/2013 | | A ⁽¹⁾ | | 29 | A | \$ 0 | 9,509 | I | by Spouse |
| Common Stock | 02/07/2013 | | A ⁽¹⁾ | | 23 | A | \$ 0 | 9,532 | I | by Spouse |

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) Equitable stock dividend adjustment approved by the Board of Director as a result of dividend Payment to shareholders on December 28, 2012. Stock dividends will release according to the same vesting schedule as the original grants.
- (2) Shares sold to pay tax obligations resulting from the release of restricted stock units.

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.