

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

1. Name and Address of Reporting Person* <u>Xiao Deming</u> (Last) (First) (Middle) <u>79 GREAT OAKS BLVD</u> (Street) <u>SAN JOSE CA 95119</u> (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>MONOLITHIC POWER SYSTEMS INC</u> [<u>MPWR</u>]	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) <u>Pres. of MPS Asia Operations</u>
	3. Date of Earliest Transaction (Month/Day/Year) <u>02/11/2014</u>	
	4. If Amendment, Date of Original Filed (Month/Day/Year)	6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> 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 Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	02/11/2014		M		1,291	A	\$15.03	95,140	D	
Common Stock	02/11/2014		S		1,291	D	\$34.4629 ⁽¹⁾	93,849	D	
Common Stock	02/11/2014		M		1,103	A	\$14.89	94,952	D	
Common Stock	02/11/2014		S		1,103	D	\$34.4629 ⁽¹⁾	93,849	D	
Common Stock	02/11/2014		M		2,127	A	\$10.41	95,976	D	
Common Stock	02/11/2014		S		2,127	D	\$34.4629 ⁽¹⁾	93,849	D	
Common Stock	02/11/2014		M		80	A	\$10.41	93,929	D	
Common Stock	02/11/2014		S		80	D	\$34.4629 ⁽¹⁾	93,849	D	
Common Stock	02/13/2014		M		1,882	A	\$17.92	95,731	D	
Common Stock	02/13/2014		S		1,882	D	\$34.705 ⁽²⁾	93,849	D	
Common Stock	02/13/2014		M		2,944	A	\$15.03	96,793	D	
Common Stock	02/13/2014		S		2,944	D	\$34.705 ⁽²⁾	93,849	D	
Common Stock	02/13/2014		S		8,560	D	\$34.9003 ⁽³⁾	85,289	D	
Common Stock								7,655	I	by Spouse

**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	Amount or Number of Shares				
Non-Qualified Stock Option (right to buy)	\$10.41	02/11/2014		M			2,127	12/28/2012	12/07/2014	Common Stock	2,127	\$0.00	0	D	
Non-Qualified Stock Option (right to buy)	\$10.41	02/11/2014		M			80	12/28/2012	12/07/2014	Common Stock	80	\$0.00	0	D	
Non-Qualified Stock Option (right to buy)	\$14.89	02/11/2014		M			1,103	12/28/2012	02/08/2015	Common Stock	1,103	\$0.00	0	D	
Non-Qualified Stock Option (right to buy)	\$15.03	02/11/2014		M			1,291	12/28/2012	10/28/2015	Common Stock	1,291	\$0.00	2,944	D	
Non-Qualified Stock Option (right to buy)	\$15.03	02/13/2014		M			2,944	12/28/2012	10/28/2015	Common Stock	2,944	\$0.00	0	D	
Non-Qualified Stock Option (right to buy)	\$17.92	02/13/2014		M			1,882	12/28/2012	08/03/2014	Common Stock	1,882	\$0.00	0	D	

Explanation of Responses:

1. 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 \$34.405 to \$34.47. 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.
2. 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 \$34.70 to \$34.74. 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.
3. 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 \$34.77 to \$34.995. 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.

Remarks:

By: Saria Tseng For: Deming Xiao 02/13/2014

** 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.

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