

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> <u>Xiao Deming</u> _____ (Last) (First) (Middle) 79 GREAT OAKS BLVD _____ (Street) SAN JOSE CA 95119 _____ (City) (State) (Zip)	<b>2. Issuer Name and Ticker or Trading Symbol</b> MONOLITHIC POWER SYSTEMS INC [ MPWR ]	<b>5. Relationship of Reporting Person(s) to Issuer</b> (Check all applicable) Director 10% Owner X Officer (give title below) Other (specify below) Pres. of MPS Asia Operations
	<b>3. Date of Earliest Transaction (Month/Day/Year)</b> 02/04/2014	
<b>4. If Amendment, Date of Original Filed (Month/Day/Year)</b>		

**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	02/04/2014		A		59,137 <sup>(1)</sup>	A	\$0.0	109,702	D	
Common Stock	02/04/2014		A		12,403 <sup>(2)</sup>	A	\$0.0	122,105	D	
Common Stock	02/05/2014		S <sup>(3)</sup>		15,647	D	\$31.1686	106,458	D	
Common Stock	02/06/2014		S <sup>(3)</sup>		792	D	\$31.27	105,666	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		Date Exercisable	Expiration Date					

**Explanation of Responses:**

- On February 14, 2012, the reporting person was granted a target of 32,723 shares of restricted stock units subject to satisfaction of pre-determined, performance-based vesting criteria. On February 4, 2014, the Company's Board of Directors determined that those performance criteria for the restricted stock units had been satisfied, which resulted in 23,756 additional shares being achieved and granted to the reporting person. In addition, 2,658 shares were granted as a result of an equitable stock dividend adjustment approved by the Board of Directors on December 28, 2012. Of the restricted stock units that were awarded, 29,570 will vest immediately and 29,567 will vest quarterly in the next two years.
- 1/8 of the Restricted Stock Units shall vest quarterly following the Vesting Commencement Date, provided that the Grantee continues to be a Service Provider from the Grant Date through each applicable vesting date. Additionally, 37,208 shares of Restricted Stock Units were granted and shall be subject to satisfaction of performance-based vesting criteria based on achievement of certain long term Company performance targets, as determined by the Compensation Committee of the Company, and additional time vesting subsequent to the achievement of those performance targets, provided that the Grantee continues to be a Service Provider from the grant date through each applicable vesting date.
- Shares sold to pay tax obligations resulting from the vesting of restricted stock units.

By: Saria Tseng For: Deming 02/06/2014  
Xiao

\*\* 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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