

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*			2. Issuer Name and Ticker or Trading Symbol			5. Relationship of Reporting Person(s) to Issuer (Check all applicable)		
<u>Xiao Deming</u>			<u>MONOLITHIC POWER SYSTEMS INC</u>			Director 10% Owner		
(Last)	(First)	(Middle)	[MPWR]			X Officer (give title below) Other (specify below)		
79 GREAT OAKS BLVD			3. Date of Earliest Transaction (Month/Day/Year)			Pres. of MPS Asia Operations		
79 GREAT OAKS BLVD			07/16/2013					
(Street)			4. If Amendment, Date of Original Filed (Month/Day/Year)			6. Individual or Joint/Group Filing (Check Applicable Line)		
SAN JOSE CA 95119						X Form filed by One Reporting Person		
(City)	(State)	(Zip)				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	07/16/2013		M ⁽¹⁾		23,450	A	\$14.89 ⁽²⁾	128,330	D	
Common Stock	07/16/2013		M ⁽¹⁾		28,703	A	\$15.03 ⁽²⁾	157,033	D	
Common Stock	07/16/2013		S ⁽¹⁾		23,450	D	\$26.0004 ⁽³⁾	133,583	D	
Common Stock	07/16/2013		S ⁽¹⁾		28,703	D	\$26.001 ⁽³⁾	104,880	D	
Common Stock	07/16/2013		S ⁽¹⁾		9,073	D	\$25.7699 ⁽⁴⁾	95,807	D	
Common Stock	07/17/2013		M ⁽¹⁾		61,297	A	\$15.03 ⁽²⁾	157,104	D	
Common Stock	07/17/2013		S ⁽¹⁾		61,297	D	\$26.0848 ⁽⁵⁾	95,807	D	
Common Stock	07/17/2013		S ⁽¹⁾		11,636	D	\$26.1151 ⁽⁶⁾	84,171	D	
Common Stock								12,033	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
Non-Qualified Stock Option (right to buy)	\$15.6 ⁽²⁾	07/16/2013		M ⁽¹⁾			23,450	01/31/2010	02/08/2015	Common Stock	23,450	\$0.0	0	D	
Non-Qualified Stock Option (right to buy)	\$15.74 ⁽²⁾	07/16/2013		M ⁽¹⁾			28,703	10/28/2010	10/28/2015	Common Stock	28,703	\$0.0	61,297	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	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Non-Qualified Stock Option (right to buy)	\$15.74 ⁽²⁾	07/17/2013		M ⁽¹⁾			61,297	10/28/2010	10/28/2015	Common Stock	61,297	\$0.0	0	D	

Explanation of Responses:

- In accordance with the reporting person's 10b5-1 trading plan.
- On December 11, 2012, the Company's Board declared a special cash dividend of \$1.00 per common share, which was paid on December 28, 2012 to all shareholders of record as of the close of business on December 21, 2012. The Board approved a modification whereby each outstanding option as of December 28, 2012 was increased by a ratio of 1.0471 with a corresponding reduction in the exercise price.
- 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 \$26.00 to \$26.01. 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.
- 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 \$25.60 to \$25.9136. 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.
- 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 \$26.00 to \$26.25. 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.
- 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 \$26.01 to \$26.2050. 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.

By: Saria Tseng For: Deming 07/18/2013
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.

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.