

<b>OMB APPROVAL</b>	
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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> <hr/> (Last) (First) (Middle) 79 GREAT OAKS BLVD <hr/> (Street) SAN JOSE CA 95119 <hr/> (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>MONOLITHIC POWER SYSTEMS INC</u> [ MPWR ]	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner X Officer (give title below) Other (specify below) <u>Pres. of MPS Asia Operations</u>
	3. Date of Earliest Transaction (Month/Day/Year) 04/24/2012	
4. If Amendment, Date of Original Filed (Month/Day/Year)		

**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	11/09/2016		S <sup>(1)</sup>		5,042	D	\$76.9137 <sup>(2)</sup>	273,690	D	
Common Stock	11/09/2016		S <sup>(1)</sup>		1,300	D	\$77.8554 <sup>(3)</sup>	272,390	D	
Common Stock	04/24/2012		A		3,500 <sup>(4)</sup>	A	\$0	3,672	I	by Spouse
Common Stock	02/04/2014		A		4,533 <sup>(5)</sup>	A	\$0	8,205	I	by Spouse
Common Stock	04/22/2014		A		415 <sup>(4)</sup>	A	\$0	8,620	I	by Spouse
Common Stock	11/09/2016		S <sup>(6)</sup>		833	D	\$79.346	7,787	I	by Spouse
Common Stock	11/09/2016		S <sup>(6)</sup>		5,482	D	\$79.391 <sup>(7)</sup>	2,305	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)					

**Explanation of Responses:**

- In accordance with the reporting person's 10b5-1 trading plan.
- 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 \$76.52 to \$77.48. 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 \$77.60 to \$78.08. 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.
- 1/16 of the Restricted Stock Units vested quarterly following the Vesting Commencement Date, provided that the Grantee continued to be a Service Provider from the Grant Date through each applicable vesting date. The award is now fully vested.
- On April 24, 2012, the reporting person was granted a target of 3,500 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 831 additional shares being achieved and granted to the reporting person. Of the restricted stock units that were awarded, 2,267 vested May 1, 2014 and 2,266 vested quarterly in the next two years. In addition, 202 shares were granted as a result of an equitable stock dividend adjustment approved by the Board of Directors on December 28, 2012. This award is now fully vested.
- Transaction was executed during an authorized trading window in compliance with the Company's Insider Trading Compliance Program.

7. 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 \$79.3901 to \$79.40. 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.

/s/ Saria Tseng For: Deming  
Xiao 11/14/2016

\*\* 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.**