

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>			<input checked="" type="checkbox"/> Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) <u>Pres. of MPS Asia Operations</u>		
(Last)	(First)	(Middle)	3. Date of Earliest Transaction (Month/Day/Year)					
<u>79 GREAT OAKS BLVD</u>			<u>12/31/2015</u>					
(Street)			4. If Amendment, Date of Original Filed (Month/Day/Year)			6. Individual or Joint/Group Filing (Check Applicable Line)		
<u>SAN JOSE</u>	<u>CA</u>	<u>95119</u>				<input checked="" type="checkbox"/> 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	01/05/2016		S ⁽¹⁾		97	D	\$60.93	608	I	by Spouse
Common Stock								259,324	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
Performance Shares	(2)	12/31/2015		A		75,678		(2)	(2)	Common Stock	75,678 ⁽²⁾	\$0.0	75,678 ⁽²⁾	D	

Explanation of Responses:

- Shares sold to pay tax obligations resulting from the vesting of restricted stock units.
- On December 31, 2015, the reporting person was granted a target of 75,678 shares of restricted stock units in four tranches over the next four years subject to satisfaction of share price targets. The vesting of restricted stock units in the second, third and fourth tranches is also subject to satisfaction of certain operational goals and market price hurdles as well as time vesting condition, as determined by the Compensation Committee of the Company. One-third of the shares have no sales restrictions and are sellable upon vesting on January 1, 2020, one-third of the shares have no sales restrictions until January 1, 2021 and one-third of the shares have no sales restrictions until January 1, 2022 subsequent to the achievement of those price and operational targets.

By: Saria Tseng For: Deming 01/05/2016
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.