Xiao Deming Form 4 February 13, 2012

UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

OMB APPROVAL

OMB 3235-0287 Number:

January 31, Expires: 2005

Estimated average burden hours per response... 0.5

Check this box if no longer subject to Section 16. Form 4 or

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF **SECURITIES**

Form 5 Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, obligations Section 17(a) of the Public Utility Holding Company Act of 1935 or Section may continue. 30(h) of the Investment Company Act of 1940 See Instruction

1(b).

(Print or Type Responses)

1. Name and Address of Reporting Person * 5. Relationship of Reporting Person(s) to 2. Issuer Name and Ticker or Trading Xiao Deming Issuer Symbol MONOLITHIC POWER SYSTEMS (Check all applicable) INC [MPWR] (Last) (First) (Middle) 3. Date of Earliest Transaction Director 10% Owner _X__ Officer (give title Other (specify (Month/Day/Year) below) below) 6409 GUADALUPE MINES ROAD 02/10/2012 Pres. of MPS Asia Operations (Street) 4. If Amendment, Date Original 6. Individual or Joint/Group Filing(Check Filed(Month/Day/Year) Applicable Line) _X_ Form filed by One Reporting Person Form filed by More than One Reporting

SAN JOSE, CA 95120

(City)	(State) (Zip) Table	e I - Non-D	erivative	Secur	ities Acq	uired, Disposed o	f, or Beneficial	ly Owned
1.Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	3. 4. Securities Acquired Transaction(A) or Disposed of (D) Code (Instr. 3, 4 and 5) (Instr. 8)				Beneficially (D) or Ben Owned Indirect (I) Own		7. Nature of Indirect Beneficial Ownership (Instr. 4)	
			Code V	Amount	(A) or (D)	Price	Reported Transaction(s) (Instr. 3 and 4)		
Common Stock	02/10/2012		S(1)	1,389	D	\$ 16.42	139,452	D	
Common Stock	02/10/2012		S <u>(1)</u>	264	D	\$ 16.42	21,502	I	by Spouse

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

Persons who respond to the collection of SEC 1474 information contained in this form are not (9-02)required to respond unless the form displays a currently valid OMB control number.

Person

Edgar Filing: Xiao Deming - Form 4

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of	2.	3. Transaction Date		4.	5.	6. Date Exer		7. Title		8. Price of	9. Nu
Derivative	Conversion	(Month/Day/Year)	Execution Date, if	Transacti	orNumber	Expiration D	ate	Amou	nt of	Derivative	Deriv
Security	or Exercise		any	Code	of	(Month/Day/	Year)	Under	lying	Security	Secur
(Instr. 3)	Price of		(Month/Day/Year)	(Instr. 8)	Derivative	e		Securi	ties	(Instr. 5)	Bene
	Derivative				Securities			(Instr.	3 and 4)		Own
	Security				Acquired						Follo
					(A) or						Repo
					Disposed						Trans
					of (D)						(Instr
					(Instr. 3,						
					4, and 5)						
									Amount		
						Date	Expiration		or		
						Exercisable	*	Title Number of			
						LACICISADIC			of		
				Code V	(A) (D)				Shares		

Reporting Owners

Relationships Reporting Owner Name / Address

> Officer Director 10% Owner Other

Pres. of MPS Xiao Deming 6409 GUADALUPE MINES ROAD Asia

SAN JOSE, CA 95120 **Operations**

Signatures

By: Meera Rao For: 02/13/2012 Deming Xiao

**Signature of Reporting Person Date

Explanation of Responses:

- 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).
- (1) Shares sold to pay tax obligations resulting from the vesting of restricted stock units.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.

Reporting Owners 2