Xiao Deming Form 4/A April 06, 2010

FORM 4

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

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 OF **SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section

30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person *

(First)

6409 GUADALUPE MINES ROAD

Xiao Deming

(Last)

Common

Stock

2. Issuer Name and Ticker or Trading

Symbol

MONOLITHIC POWER SYSTEMS INC [MPWR]

3. Date of Earliest Transaction

(Month/Day/Year) 02/25/2010

(Middle)

(Street) 4. If Amendment, Date Original Filed(Month/Day/Year)

02/25/2010

3.

SAN JOSE, CA 95120

5. Relationship of Reporting Person(s) to

Issuer

(Check all applicable)

OMB APPROVAL

3235-0287

January 31,

2005

0.5

OMB

Number:

Expires:

response...

Estimated average

burden hours per

Director 10% Owner X_ Officer (give title Other (specify

below) below)

Pres. of MPS Asia Operations 6. Individual or Joint/Group Filing(Check

Applicable Line)

X Form filed by One Reporting Person Form filed by More than One Reporting

Person

(City) (State) (Zip) Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1.Title of 2. Transaction Date 2A. Deemed Security (Month/Day/Year) Execution Date, if (Instr. 3) any (Month/Day/Year)

02/25/2010

Transaction(A) or Disposed of Code (D) (Instr. 8) (Instr. 3, 4 and 5)

5. Amount of 6. Ownership 7. Nature of Securities Beneficially Owned Following Reported

Form: Direct Indirect (D) or Beneficial Indirect (I) Ownership (Instr. 4) (Instr. 4)

(A) Transaction(s) (Instr. 3 and 4)

Code V Amount (D) Price

60,000 A A \$0 107,828 D (1)

4. Securities Acquired

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.

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

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1. Title of	2.	3. Transaction Date	3A. Deemed	4.	5.	6. Date Exerc	cisable and	7. Titl	e and	8. Price of	9. Nu
Derivative	Conversion	(Month/Day/Year)	Execution Date, if	TransactionNumber		Expiration D	ate	Amou	nt of	Derivative	Deriv
Security	or Exercise		any	Code	of	(Month/Day/	Year)	Under	lying	Security	Secui
(Instr. 3)	Price of		(Month/Day/Year)	(Instr. 8) Derivative		;		Securi	ities	(Instr. 5)	Bene
	Derivative				Securities			(Instr.	3 and 4)		Owne
	Security				Acquired						Follo
	-				(A) or						Repo
					Disposed						Trans
					of (D)						(Instr
					(Instr. 3,						
					4, and 5)						
									Amount		
						Date Expiration Exercisable Date	Expiration	m: 1	or		
							Title Number				
				G 1 W	(A) (D)				of		
				Code V	(A) (D)				Shares		

Reporting Owners

Reporting Owner Name / Address Relationships

Director 10% Owner Officer Other

Xiao Deming Pres. of MPS
6409 GUADALUPE MINES ROAD Asia
SAN JOSE, CA 95120 Operations

Signatures

By: Saria Tseng For: 04/06/2010 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).

Subject to accelerated vesting in certain circumstances, 1/16 of the Performance Units shall vest quarterly following the Vesting

(1) Commencement Date, provided that the Grantee continues to be a Service Provider from the Grant Date through each applicable vesting date.

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.

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