## FORM 5

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

Form 3 Holdings Reported.

Form 4 Transactions Reported.

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

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## ANNUAL 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 Ad <u>Ueunten P</u>	nten Paul		2. Issuer Name and Ticker or Trading Symbol MONOLITHIC POWER SYSTEMS INC		5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner				
(Last) (First) (Middle) 6409 GUADALUPE MINES ROAD		, ,	[ MPWR ]   3. Statement for Issuer's Fiscal Year Ended (Month/Day/Year)   12/31/2009	x	Officer (give title below) Sr. V.P. Design E	Other (specify below)			
(Street) SAN JOSE (City)	CA (State)	95120 (Zip)	4. If Amendment, Date of Original Filed (Month/Day/Year)	6. Indi Line) X	vidual or Joint/Group Fi Form filed by One Re Form filed by More th Person	porting Person			
Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned									

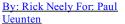
1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Ac Of (D) (Instr. 3,			5. Amount of Securities	6. Ownership	7. Nature of Indirect Beneficial Ownership (Instr. 4)
				Amount	(A) or (D)	Price	Beneficially Owned at end of Issuer's Fiscal Year (Instr. 3 and 4)	Form: Direct (D) or Indirect (I) (Instr. 4)	
Common Stock	08/17/2009		<b>J</b> <sup>(1)</sup>	234	A	\$11.1435	58,329	D	
Common Stock							153,556	Ι	Ueunten Trust I
Common Stock							123,900	Ι	Ueunten Trust II
Common Stock							30,550	Ι	Ueunten Trust III
Common Stock							30,550	Ι	Ueunten Trust IV

## 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 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)			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)	Form: Direct (D)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				

Explanation of Responses:

1. Acquired through the Company's qualified ESPP program.



01/13/2010

\*\* Signature of Reporting Person Date

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

 $^{\ast}$  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.