

Ueunten Paul
Form 5
January 13, 2010

FORM 5

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

OMB APPROVAL

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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).
Form 3 Holdings Reported Form 4 Transactions Reported

ANNUAL 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

1. Name and Address of Reporting Person *
Ueunten Paul

2. Issuer Name and Ticker or Trading Symbol
MONOLITHIC POWER SYSTEMS INC [MPWR]

5. Relationship of Reporting Person(s) to Issuer
(Check all applicable)

(Last) (First) (Middle)

3. Statement for Issuer's Fiscal Year Ended (Month/Day/Year)
12/31/2009

____ Director _____ 10% Owner
 Officer (give title below) _____ Other (specify below)
Sr. V.P. Design Engineering

6409 GUADALUPE MINES ROAD
(Street)

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

6. Individual or Joint/Group Reporting
(check applicable line)

SAN JOSE, CA 95120

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 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 at end of Issuer's Fiscal Year (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
				Amount	(A) or (D)	Price			
Common Stock	08/17/2009	^	J ⁽¹⁾	234	A	\$ 11.1435	58,329	D	^
Common Stock	^	^	^	^	^	^	153,556	I	Ueunten Trust I
Common Stock	^	^	^	^	^	^	123,900	I	Ueunten Trust II
Common Stock	^	^	^	^	^	^	30,550	I	Ueunten Trust III

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Common Stock	^	^	^	^	^	^	30,550	I	Ueunten Trust IV
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Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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 control number.

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(9-02)

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 Underlying Securities (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. of D Se B O E Is Fi (I
					(A) (D)	Date Exercisable (A) (D)	Expiration Date	Title or Number of Shares	

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Ueunten Paul 6409 GUADALUPE MINES ROAD SAN JOSE, CA 95120	^	^	^	Sr. V.P. Design Engineering ^

Signatures

By: Rick Neely For: Paul Ueunten
01/13/2010

__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) Acquired through the Company's qualified ESPP program.

Note: File three copies of this Form, one of which must be manually signed. If space provided 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.