FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

OMB APPROVAL
OMB Number: 3235-0287
Estimated average burden
hours per response: 0.5

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 [*] <u>Ueunten Paul</u>			2. Issuer Name and Ticker or Trading Symbol MONOLITHIC POWER SYSTEMS INC [MPWR]		ationship of Reporting Person(s) to Issuer all applicable) Director 10% Owner		
(Last) (First) (Middle) 6409 GUADALUPE MINES ROAD		(3. Date of Earliest Transaction (Month/Day/Year) 05/08/2012	Х	Officer (give title below) Sr. V.P. Design E	Other (specify below) Engineering	
(Street) SAN JOSE (City)	CA (State)	95120 (Zip)	 4. If Amendment, Date of Original Filed (Month/Day/Year) 	6. Indi Line) X	ividual 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

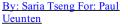
1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)		3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned	6. Ownership Form: Direct (D) or Indirect (I)	7. Nature of Indirect Beneficial Ownership
			Code	v	Amount	(A) or (D)	Price	Following Reported Transaction(s) (Instr. 3 and 4)	(Instr. 4)	(Instr. 4)
Common Stock	05/08/2012		S ⁽¹⁾		1,124	D	\$20.2754	142,125	D	
Common Stock								153,556	Ι	Ueunten Trust I
Common Stock								113,900	Ι	Ueunten Trust II
Common Stock								26,000	Ι	Ueunten Trust III
Common Stock								26,000	Ι	Ueunten Trust IV

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. Transact Code (In 8)		of Deriv Secu Acqu (A) o Dispo of (D	of Derivative Recurities A) or Disposed of (D) Instr. 3, 4		Amount of Securities Underlying		of Derivative	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	Beneficial Ownership	
				Code	v	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				

Explanation of Responses:

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



05/08/2012

** 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.