Check this box if no longer

See Instruction 1(b).

subject to Section 16. Form 4 or Form 5 obligations may continue. UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

OMB APPROVAL

OMB Number: 3235-0287

Expires: February 28, 2018

Estimated average burden hours per response 0.5

(Print or Type Responses)													
1. Name and Address of R	Reporting Person*		2. Issuer N	lame and	Tick	er or Trading S	ymbo	ol		5. Rela	ntionship of Reporting		suer
Xiao, Deming				MONOLITHIC POWER SYSTEMS (MPWR)							Director	applicable) 10% Owner	
(Last) (First) (Middle) 4040 Lake Washington Blvd. NE, Suite 201			3. Date of Earliest Transaction Required to be Reported (Month/Day/Year) 10/22/2019				4. If Amendment, Date Original Filed(Month/Day/Year) Prince 6. Ind				M Officer (give title below) es. of MPS Asia Oper	Other (specify below)	
(Street) Kirkland, WA 98033											lividual or Joint/Group Filing (Check Applicable Line) Form filed by One Reporting Person Form filed by More than One Reporting Person		
(City)	(State)	(Zip)		Table I	- N	on-Derivative	Sec	curities Ac	quired, Di	sposed	of, or Beneficially		
1. Title of Security (Instr. 3)		2. Trans- action Date	2A. Deemed Execution Date, if any	3. Trans- action Code (Instr. 8)		4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)					5. Amount of Securities Beneficially Owned Following Reported	6. Owner-ship Form: Direct (D) or	7. Nature of Indirect Beneficial Owner-
		(Month/ Day/ Year)	(Month/ Day/ Year)	Code	V	Amount		(A) or (D)	Price		Transaction(s) (Instr. 3 and 4)	Indirect (I) (Instr. 4)	ship (Instr. 4)
Common Stock		10/22/19 (1)		M (1)		23,3	38 (1)	A	\$0	.0000	323,343	D	
Common Stock		10/22/19 (2)		M (2)		9,6	00 (2)	A	\$0	.0000	332,943	D	
Common Stock											1,101	I	by Spouse

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).

FORM 4 (continued)

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

(e.g. puts, cans, warrants, options, convertible securities)															
1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	Date (Month/	3A. Deemed Execution Date, if any	4. Tra acti Coo (Instr.	ction ative Securities ode Acquired (A) or		ities A) or f (D)	6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amou Underlying Sec (Instr. 3 and 4)	of Deriv- ative Secur- ity (Instr.	9. Number of deriva- tive Se- curities Benefici- ally Own- ed foll- owing	ship Form of Deriv- ative Security: Direct	11.Nature of Indirect Benefi- cial Owner- ship	
			(Month/ Day/ Year)		ı		T	Date Exer- cisable	Expira- tion Date	Title	Amount or Number of Shares	5)	Reported Transac- tion(s) (Instr. 4)	(D) or Indirect (I) (Instr. 4)	(Instr. 4)
				Code	v	(A)	(D)								
Performance Shares	(1)	10/22/19		M (1)			23,338	(1)	(1)	Common Stock	23,338	\$0.0000	4,876	D	
Restricted Stock Units	(2)	10/22/19		M (2)			9,600	(2)	(2)	Common Stock	9,600	\$0.0000	19,200	D	

Explanation of Responses:

See continuation page(s) for footnotes

By: Saria Tseng For: Deming Xiao

** Signature of Reporting Person

10/24/2019 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.

Page 2

^{**} Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

4040 Lake Washington Blvd. NE, Suite 201 Kirkland, WA 98033

- On December 31, 2015, the reporting person was granted a target number of 75,678 shares of performance units in four tranches subject to satisfaction of share price targets over the next four years. The vesting of performance units in the second, third and fourth tranches is also subject to the satisfaction of certain operational goals, as determined by the Compensation Committee. All performance units are subject to time based vesting and require service through January 1, 2020 or an earlier change in control. Once vested, one-third of the resulting shares have no sales restrictions and are sellable on January 1, 2020, one-third of the shares have sales restrictions until January 1, 2021 and one-third of the shares have sales restrictions until January 1, 2022. On October 22, 2019, the Compensation Committee determined one of the operational goals for the fourth tranche of performance units had been satisfied, which resulted in 23,338 units being credited, subject to time based vesting.
- On October 25, 2018, the reporting person was granted a target number of 9,600 performance units and can earn up to a maximum of 48,000 performance units subject to satisfaction of five stock price targets ranging from \$140 to \$172 over the performance periods from October 25, 2018 to December 31, 2023, as determined by the Compensation Committee of the Company. All performance units are subject to time based vesting and require service through January 1, 2024 or an earlier change in control. Once vested, performance units convert into shares of common stock on a 1-for-1 basis and one-third of the resulting shares have no sales restrictions and are sellable on January 1, 2024, one-third of the shares have sales restrictions until January 1, 2025 and one-third have sales restrictions until January 1, 2026. On October 22, 2019, the third price target had been met and approved by the Compensation Committee, which resulted in 9,600 units being credited, subject to time based vesting above.