
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13G

(Rule 13d-102)

**Information to be Included in Statements Filed Pursuant to § 240.13-1(b), (c)
and (d) and Amendments There to filed Pursuant to § 240.13d-2**

Under the Securities Exchange Act of 1934

Monolithic Power Systems, Inc.

(Name of Issuer)

Common Stock
(Title of Class of Securities)

609839105
(CUSIP Number)

May 29, 2008
(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1(b)
 Rule 13d-1(c)
 Rule 13d-1(d)

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

TABLE OF CONTENTS

[SIGNATURE](#)

1	NAMES OF REPORTING PERSONS Taiwan Semiconductor Manufacturing Company Limited	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION Taiwan, Republic of China	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	5	SOLE VOTING POWER 1,850,623
	6	SHARED VOTING POWER 0
	7	SOLE DISPOSITIVE POWER 1,850,623
	8	SHARED DISPOSITIVE POWER 0
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 1,850,623 (beneficially owned indirectly through a wholly owned subsidiary, TSMC International Investment Ltd.)	
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 5.6%	
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) CO	

1	NAMES OF REPORTING PERSONS TSMC International Investment Ltd.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION British Virgin Islands	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	5	SOLE VOTING POWER 1,850,623
	6	SHARED VOTING POWER 0
	7	SOLE DISPOSITIVE POWER 1,850,623
	8	SHARED DISPOSITIVE POWER 0
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 1,850,623	
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 5.6%	
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) CO	

Item 1(a). Name of Issuer:

Monolithic Power Systems, Inc.

Item 1(b). Address of Issuer's Principal Executive Offices:

6409 Guadalupe Mines Road, San Jose, CA 95120

Item 2(a). Name of Persons Filing:

- I Taiwan Semiconductor Manufacturing Company Limited
- II TSMC International Investment Ltd.

Item 2(b). Address of Principal Business Office or, if None, Residence:

- I No.8 Li-Hsin Road
Hsinchu Science Park,
Hsinchu, Taiwan
Republic of China
- II P.O. Box 3151
Road Town, Tortola
British Virgin Islands

Item 2(c). Citizenship:

- I: Taiwan, Republic of China
- II British Virgin Islands

Item 2(d). Title of Class of Securities:

Common Stock

Item 2(e). CUSIP Number:

609839105

Item 3. If this statement is filed pursuant to Rule 13d-1(b), or 13d-2(b) or (c), check whether the person filing is a:

N.A.

Item 4. Ownership.

Enclosed below is the aggregate number and percentage of the class of securities of the issuer identified in Item 1 beneficially owned by each Reporting Person identified in Item 2 for each such Reporting Person.

- (a) Amount beneficially owned: 1,850,623
- (b) Percent of class: 5.6%
- (c) Number of shares as to which such person has:
 - Sole power to vote or to direct the vote: 1,850,623
 - Shared power to vote or to direct the vote: 0
 - Sole power to dispose or direct the disposition of: 1,850,623
 - Shared power to dispose or direct the disposition of: 0

TSMC International Investment Ltd. is a wholly-owned subsidiary of Taiwan Semiconductor Manufacturing Company Limited, a Republic of China company whose common shares and American depository shares are publicly traded on the Taiwan Stock Exchange and New York Stock Exchange, respectively. Taiwan Semiconductor Manufacturing Company Limited may be deemed to share dispositive and voting power over the shares owned by TSMC International Investment Ltd.

Item 5. Ownership of 5 Percent or Less of a Class.

N.A.

Item 6. Ownership of More than 5 Percent on Behalf of Another Person.

N.A.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company or Control Person.

N.A.

Item 8. Identification and Classification of Members of the Group.

N.A.

Item 9. Notice of Dissolution of Group.

N.A.

Item 10. Certification.

By signing below the undersigned, in each of her capacity, certifies that, to the best of her knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

SIGNATURE

After reasonable inquiry to the best of my knowledge, I certify that the information set forth in this statement is true, complete and correct.

June 6, 2008

TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED

BY: /s/ Lora Ho
Lora Ho
Vice President & Chief Financial Officer

TSMC INTERNATIONAL INVESTMENT LTD.

BY: /s/ Lora Ho
Lora Ho
Director

EXHIBIT 1
JOINT FILING AGREEMENT

In accordance with Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended, each of the undersigned hereby agrees to the joint filing with the other reporting person of a statement on Schedule 13G (including amendments thereto) with respect to the common stock of Monolithic Power Systems, Inc. and that this Agreement be included as an Exhibit to such joint filing.

TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED

BY: /s/ Lora Ho
Lora Ho
Vice President & Chief Financial Officer

TSMC INTERNATIONAL INVESTMENT LTD.

BY: /s/ Lora Ho
Lora Ho
Director