UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (date of earliest event reported): December 31, 2009

MONOLITHIC POWER SYSTEMS, INC.

(Exact name of Registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)

000-51026 (Commission File Number) 77-0466789 (I.R.S. Employer Identification Number)

6409 Guadalupe Mines Road, San Jose, CA 95120 (Address of principal executive offices) (Zip Code)

(408) 826-0600

(Registrant's telephone number, including area code)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

| Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

| Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

| Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 2.02 Results of Operations and Financial Condition.

On February 4, 2010, Monolithic Power Systems, Inc. ("MPS"), a Delaware corporation, issued a press release and held a conference call regarding its financial results for the quarter and year ended December 31, 2009. A copy of the press release is attached hereto as Exhibit 99.1.

The information under this Item 2.02 of this Current Report on Form 8-K and the exhibit attached hereto are being furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "1934 Act"), nor shall they be deemed incorporated by reference in any filing with the Securities and Exchange Commission under the 1934 Act or the Securities Act of 1933, as amended, except as shall be expressly set forth by specific reference in such filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit Description

Press Release issued on February 4, 2010, announcing the financial results for the quarter and year ended December 31, 2009

	Index to Exhibits			
Exhibit	Description			
99.1	Press Release issued on February 4, 2010, announcing the financial results for the quarter and year ended December 31, 2009			

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf	by the
undersigned, thereunto duly authorized.	-

Date: February 4, 2010 By: /s/ C. RICHARD NEELY, JR.

C. Richard Neely, Jr.
Chief Financial Officer
(Principal Financial and Accounting Officer and Duly Authorized Officer)



Monolithic Power Systems Announces Results for the Quarter and Year ended December 31, 2009

SAN JOSE, Calif. February 4, 2010—Monolithic Power Systems (MPS) (Nasdaq: MPWR), a leading fabless manufacturer of high-performance analog and mixed-signal semiconductors, today announced financial results for the quarter and year ended December 31, 2009.

The results for the quarter ended December 31, 2009 are as follows:

- Net revenues of \$46.5 million, down 3.0% sequentially from \$48.0 million in the third quarter of 2009 and up 34.1% from \$34.7 million in the fourth quarter of 2008.
- Gross margin of 58.7%, compared to 60.7% in the third quarter of 2009 and 58.0% in the fourth quarter of 2008.
- GAAP operating expenses of \$22.9 million, including \$20.6 million for research and development and selling, general and administrative expenses, which includes \$4.2 million for stock-based compensation and \$2.4 million for litigation expenses.
- Non-GAAP(1) operating expenses of \$18.8 million, excluding \$4.2 million for stock-based compensation, compared to \$14.3 million for the three months ended December 31, 2008.
- GAAP net income of \$4.7 million, with GAAP earnings per share of \$0.12 per diluted share.
- Non-GAAP(1) net income of \$7.7 million, or \$0.20 per diluted share, excluding stock-based compensation and related tax effects.

The results for the year ended December 31, 2009 are as follows:

- Net revenues of \$165.0 million, compared to \$160.5 million for the year ended December 31, 2008, an increase of 2.8%.
- Gross margin of 59.2%, compared to 61.9% for the year ended December 31, 2008.
- GAAP operating expenses of \$78.1 million, including \$75.0 million for research and development and selling, general and administrative expenses, which includes \$14.4 million for stock-based compensation, \$9.5 million for litigation expenses and a credit of \$6.4 million for the net effect of a litigation provision reversal.
- Non-GAAP(1) operating expenses of \$70.1 million, excluding \$14.4 million for stock-based compensation and a credit of \$6.4 million for the net effect of a litigation provision reversal, compared to \$64.0 million for the year ended December 31, 2008, an increase of 9.6%.
- GAAP net income of \$19.7 million, with GAAP EPS of \$0.54 per diluted share.

 Non-GAAP(1) net income of \$24.9 million, or \$0.68 per diluted share, excluding stock-based compensation and related tax effects and a credit of \$6.4 million for the net effect of a litigation provision reversal.

"2009 was a recessionary year, and MPS reacted aggressively", said Michael Hsing, CEO of MPS. "We used a few select products to secure and gain a significant share in a very competitive LCD TV market. This resulted in a relatively small reduction in gross margin percentage, but we were able to grow revenues in 2009 despite a sharp decline in our CCFL revenues and market ASP's in general. For 2010, we expect our pricing approach to return to normal practices. Our best achievement in 2009 was the development and release of new technologies that will expand our market segments and reduce manufacturing costs in the future. Based on these technologies, we released a record number of new products in 2009. With these new products we believe that we will penetrate new markets and continue to expand our market share on a much broader scale. We believe this strategy will enable MPS to accelerate our revenue and net income growth rate well above our analog competition in 2010."

Business Outlook

The following are MPS' financial targets for the first quarter ending March 31, 2010:

- Revenues in the range of \$45.0 million to \$49.0 million.
- Gross margin flat to slightly down from the fourth quarter of 2009.
- Research and development and selling, general and administrative expenses between \$19.2 million and \$20.6 million. Non-GAAP(1) research and development and selling, general and administrative expenses between \$16.0 million and \$17.0 million. This excludes an estimate of stock-based compensation expense in the range of \$3.2 million to \$3.6 million.
- Litigation expense in the range of \$1.8 million to \$2.2 million.
- (1) Non-GAAP net income, non-GAAP operating expenses and non-GAAP research and development and selling, general and administrative expense differ from net income, operating expenses, and research and development and selling, general and administrative expense determined in accordance with GAAP (Generally Accepted Accounting Principles in the United States). Non-GAAP net income for the quarter and year months ended December 31, 2009 and 2008 excludes the effect of stock-based compensation expense, a credit for the net effect of a litigation provision reversal and their related tax effects. Non-GAAP operating expenses for the quarter and year ended December 31, 2009 and 2008 exclude the effect of stock-based compensation expense and a credit for the net effect of a litigation provision reversal. Projected non-GAAP research and development and selling, general and administrative expenses exclude the effect of stock-based compensation expense. A schedule reconciling these amounts is included at the end of this press release. Non-GAAP financial measures should not be considered as a substitute for, or superior to, measures of financial performance prepared in accordance with GAAP. MPS utilizes both GAAP and non-GAAP financial measures to assess what it believes to be its core operating performance and to evaluate and manage its internal business and assist in making financial operating decisions. MPS believes that the inclusion of non-GAAP financial measures, together with GAAP measures, provides investors with an alternative presentation useful to investors' understanding of MPS' core operating results and trends. Additionally, MPS believes that the inclusion of non-GAAP measures, together with GAAP measures, provides investors with an additional dimension of comparability to similar companies. However, investors should be aware that non-GAAP financial measures utilized by other companies are not likely to be comparable in most cases to the non-GAAP financials measures used by MPS.

Conference Call

MPS plans to conduct an investor teleconference covering its quarter and year ended December 31, 2009 results at 2:00 p.m. PT / 5:00 p.m. ET today, February 4, 2010. To access the conference call and the following replay of the conference call, go to http://ir.monolithicpower.com and click on the webcast link. From this site, you can listen to the teleconference, assuming that your computer system is configured properly. In addition to the webcast replay, which will be archived for all investors for one year on the MPS website, a phone replay will be available for seven days after the live call at 617-801-6888, code number 73043206. This press release and any other information related to the call will also be posted on the website.

Safe Harbor Statement

This press release contains forward-looking statements, as that term is defined in the Private Securities Litigation Reform Act of 1995, regarding, among other things, (i) targeted revenues, revenue growth rates, gross margin, GAAP and non-GAAP research and development and selling, general and administrative expenses, stock-based compensation expense and litigation expense for the quarter ending March 31, 2010, and the year ending December 31, 2010, (ii) our outlook for the long term prospects of the company, (iii) our ability to accelerate our revenue and net income growth rates; (iv) our ability to penetrate new markets and expand our market share, (v) our expected pricing practices in 2010, (vi) our ability to reduce our manufacturing costs, and (vii) statements of the assumptions underlying or relating to any statement described in (i), (ii), (ii), (iv), (v) or (vi). These forward-looking statements are not historical facts or guarantees of future performance or events, are based on current expectations, estimates, beliefs, assumptions, goals, and objectives, and involve known and unknown risks, uncertainties and other factors that may cause actual results to be materially different from the results expressed by these statements. Readers of this press release and listeners to the accompanying conference call are cautioned not to place undue reliance on any forward-looking statements, which speak only as of the date hereof. Factors that could cause actual results to differ include, but are not limited to, the risks, uncertainties and costs of litigation in which the company is involved; the outcome of any upcoming trials, hearings, motions, and appeals; any market disruptions or interruptions in MPS' schedule of new product release development; adverse changes in production and testing efficiency; adverse changes in government regulations in foreign countries where MPS has offices; acceptance of, or demand for, MPS' products, in particular the new products launched within the past 18 months, being lower than expected; competition generally and the increasingly competitive nature of our industry; the effect of catastrophic events; the adverse impact on MPS' financial performance if its tax and litigation provisions are inadequate; difficulty in predicting or budgeting for future expenses and financial contingencies; and other important risk factors identified in MPS' SEC filings, including, but not limited to, its Form 10-Q filed on October 22, 2009.

The forward-looking statements in this press release represent MPS' targets and current expectations, not predictions of actual performance. MPS assumes no obligation to update the information in this press release or in the accompanying conference call.

About Monolithic Power Systems, Inc.

Monolithic Power Systems, Inc. (MPS) develops and markets proprietary, advanced analog and mixed-signal semiconductors. The company combines advanced process technology with its highly experienced analog designers to produce high-performance power management integrated circuits (ICs) for DC to DC converters, LED drivers, Cold Cathode Fluorescent Lamp (CCFL) backlight controllers, Class D audio amplifiers, and Linear ICs. MPS products are used extensively in computing and network

communications products, LCD monitors and TVs, and a wide variety of consumer and portable electronics products. MPS partners with world-class manufacturing organizations to deliver top quality, ultra-compact, high-performance solutions through the most productive, cost-efficient channels. Founded in 1997 and headquartered in San Jose, California, the company has expanded its global presence with sales offices in Taiwan, China, Korea, Japan, and Europe, which operate under MPS International, Ltd.

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Monolithic Power Systems, MPS, and the MPS logo are registered trademarks of Monolithic Power Systems, Inc. in the U.S. and trademarked in certain other countries.

Contact:

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Consolidated Balance Sheets (Unaudited, in thousands, except par value)

	December 31,	
	2009	2008
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 46,717	\$ 83,266
Short-term investments	118,914	21,922
Accounts receivable, net of allowances of \$0 in both 2009 and 2008	15,521	9,115
Inventories	19,616	18,887
Deferred income tax assets, net - current	5	75
Prepaid expenses and other current assets	2,726	2,622
Restricted cash		7,360
Total current assets	203,499	143,247
Property and equipment, net	17,968	14,163
Long-term investments	19,445	37,425
Deferred income tax assets, net - long-term	175	19
Other assets	734	438
Restricted assets		7
Total assets	\$241,821	\$195,299
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 7,787	\$ 4,674
Accrued compensation and related benefits	8,454	7,848
Accrued liabilities	7,681	13,360
Total current liabilities	23,922	25,882
Non-current income tax liability	4,915	4,762
Other long-term liabilities	27	10
Total liabilities	28,864	30,654
Stockholders' equity:		
Common stock, \$0.001 par value, \$35 and \$34 in 2009 and 2008, respectively; shares authorized: 150,000,000; shares		
issued and outstanding: 35,165,316 and 33,646,821 in 2009 and 2008, respectively	175,518	147,298
Retained earnings	37,085	17,411
Accumulated other comprehensive income (loss)	354	(64)
Total stockholders' equity	212,957	164,645
Total liabilities and stockholders' equity	\$241,821	\$195,299

Consolidated Income Statements (Unaudited, in thousands, except per share amounts)

	Т	Three months ended December 31, 2009 2008			Year ended December 31, 2009 2008		
Revenue	\$	46,547	\$	34,709	\$165,008	\$160,511	
Cost of revenue*	Ψ	19,208	Ψ	14,564	67,330	61,184	
Gross profit	_	27,339		20,145	97,678	99,327	
Operating expenses:	_	27,000		20,1			
Research and development*		10,366		9,256	38,295	34,850	
Selling, general and administrative*		10,185		8,056	36,752	35,256	
Litigation expense		2,367		594	9,457	6,714	
Litigation provision reversal, net		´—		_	(6,356)		
Total operating expenses		22,918		17,906	78,148	76,820	
Income from operations		4,421		2,239	19,530	22,507	
Other income (expense):		.,		2,207	1,,000	22,007	
Interest and other income		220		659	1,047	3,587	
Interest and other expense		(74)		(145)	(429)	(652)	
Total other income, net		146		514	618	2,935	
Income before income taxes		4,567		2,753	20,148	25,442	
Income tax provision (benefit)		(87)		(481)	474	1,216	
Net income	\$	4,654	\$	3,234	\$ 19,674	\$ 24,226	
	_						
Basic net income per share	\$	0.13	\$	0.10	\$ 0.57	\$ 0.72	
Diluted net income per share	\$	0.12	\$	0.09	\$ 0.54	\$ 0.67	
Weighted average common shares outstanding		34,987		33,587	34,310	33,509	
Stock options and restricted stock		2,418		1,599	2,324	2,611	
Diluted weighted-average common equivalent shares outstanding	_	37,405	_	35,186	36,634	36,120	
* Stock-based compensation has been included in the following line items:							
Cost of revenue	\$	29	\$	95	\$ 246	\$ 344	
Research and development	Ψ	1,752	Ψ	1,747	6,408	5,821	
Selling, general and administrative		2,399		1,852	7,957	6,993	
Total	\$	4,180	\$	3,694	\$ 14,611	\$ 13,158	
RECONCILIATION OF NET INCOME TO NON-GA (in thousands, except per share amou		NET INCOM	E				
Net income	\$	4,654	\$	3,234	\$ 19,674	\$ 24,226	
Adjustments to reconcile net income to non-GAAP net income	Ψ	.,551	Ψ	2,231	\$ 17,071	4 21,220	
Stock-based compensation	\$	4,180	\$	3,694	\$ 14,611	\$ 13,158	
Litigation provision reversal, net	φ	4,100	φ	3,094	(6,356)	\$ 15,156 —	
Tax effect		(1,180)		(1,448)	(3,076)	(5,051)	
Non-GAAP net income	\$	7,654	\$	5,480	\$ 24,853	\$ 32,333	
Non-GAAP earnings per share, excluding stock-based compensation and related tax effects:	Ψ_	7,051	Ψ	2,100	<u>Ψ 21,033</u>	ψ <i>32,333</i>	
Basic	\$	0.22	\$	0.16	\$ 0.72	\$ 0.96	
Diluted	\$	0.20	\$	0.16	\$ 0.68	\$ 0.90	
Shares used in the calculation of non-GAAP earnings per share:	-		_				
Basic		34,987		33,587	34,310	33,509	
Diluted		37,405		35,186	36,634	36,120	
RECONCILIATION OF OPERATING EXPENSES TO NON-GA (in thousands, except per share amount of the control of the con)PERATING	EXPE	NSES			
Total operating expenses	\$	22,918	\$	17,906	\$ 78,148	\$ 76,820	
Adjustments to reconcile total operating expenses to non-GAAP total operating expenses			_				
Stock-based compensation	\$	(4,151)	\$	(3,599)	\$ (14,365)	\$ (12,814)	
Litigation provision reversal, net		_		_	6,356		
Non-GAAP total operating expenses	\$	18,767	\$	14,307	\$ 70,139	\$ 64,006	
	_						

2010 FIRST QUARTER OUTLOOK RECONCILIATION OF R&D AND SG&A EXPENSES TO NON-GAAP R&D AND SG&A EXPENSES (in thousands, except per share amounts)

		March 31, 2010	
	Low	High	
R&D and SG&A	\$19,200	\$20,600	
Adjustments to reconcile R&D and SG&A to non-GAAP R&D and SG&A		· <u> </u>	
Stock-based compensation	(3,200)	(3,600)	
Non-GAAP R&D and SG&A	\$16,000	\$17,000	