MEMSIC Inc
Form S-1
September 28, 2007
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As filed with the Securities and Exchange Commission on September 28, 2007

Registration No. 333-

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

FORM S-1

REGISTRATION STATEMENT

Under

The Securities Act of 1933

MEMSIC, INC.

(Exact name of Registrant as specified in its charter)

Delaware	**3674**	**04-3457049**
(State or other jurisdiction of incorporation or organization)	**(Primary Standard Industrial Classification Code Number)**	**(I.R.S. Employer Identification Number)**

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(Address, including zip code, and telephone number, including area code, of Registrant s principal executive offices)

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Approximate date of commencement of proposed sale to the public: As soon as practicable after this registration statement becomes effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box: ¨

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering: ¨

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering: ¨

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering: ¨

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Proposed maximum aggregate offering price[1][2]	Amount of registration fee[1]
Common stock, par value $0.00001 per share	$ 100,000,000	$ 3,070

(1) Estimated solely for purposes of calculating the registration fee in accordance with Rule 457(o) under the Securities Act of 1933, as amended.

(2) Includes the offering price of shares of common stock that may be purchased by the underwriters upon the exercise of their over-allotment option.

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), shall determine.

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The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities, and we are not soliciting an offer to buy these securities, in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED SEPTEMBER 28, 2007

Shares

MEMSIC, INC.

Common Stock

$ per share

We are selling shares of our common stock and the selling stockholders named in this prospectus are selling shares. We will not receive any of the proceeds from the shares of common stock being sold by the selling stockholders. We and the selling stockholders have granted the underwriters an option to purchase up to additional shares of common stock.

This is the initial public offering of our common stock. Prior to this offering, there has been no public market for our common stock. We currently expect the initial public offering price of our common stock to be between $ and $ per share. We have applied to have our common stock listed on the Nasdaq Global Market under the symbol MEMS .

Investing in our common stock involves risks. See Risk Factors beginning on page 10. Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

	Per share	Total
Initial public offering price	$	$
Underwriting discount	$	$
Proceeds to us (before expenses)	$	$
Proceeds to the selling stockholders (before expenses)	$	$

Citi, on behalf of the underwriters, expects to deliver the common stock to purchasers on or about , 2007.

Sole Book-Runner

Citi

Prospectus dated , 2007.

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Through and including , 2007 (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to a dealer s obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

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CONVENTIONS THAT APPLY IN THIS PROSPECTUS

Unless otherwise indicated, references in this prospectus to:

U.S. dollars, $, and dollars are to the legal currency of the United States;

China or the PRC are to the People s Republic of China, excluding, for the purpose of this prospectus only, Hong Kong, Macau and Taiwan; and

RMB and Renminbi are to the legal currency of the People s Republic of China.

Unless the context indicates otherwise, we, us, our company, the Company, our, and MEMSIC refer to MEMSIC, Inc. and its subsidiary.

This prospectus contains translations of certain RMB amounts into U.S. dollar amounts at specified rates. Unless otherwise stated, the translations from RMB to U.S. dollars were made at the noon buying rate in effect on June 29, 2007 in The City of New York for cable transfers of RMB as certified for customs purposes by the Federal Reserve Bank of New York, which was RMB7.6120 to $1.00. We make no representation that the RMB or U.S. dollar amounts referred to in this prospectus could have been or could be converted into U.S. dollars or RMB, as the case may be, at any particular rate or at all. See Risk Factors Risks Related to Doing Business in China Fluctuations in the value of RMB could negatively impact our result of operations and Restrictions on currency exchange may limit our ability to receive and use our revenue effectively for discussions of the effects of fluctuating exchange rates and currency control on the value of our common stock. On September 27, 2007, the noon buying rate was RMB7.5135 to $1.00.

MARKET AND INDUSTRY DATA

This prospectus includes market and industry data derived from independent consultant reports, publicly available information, various industry publications and other published industry sources. Independent consultant reports, industry publications and other published industry sources generally indicate that the information contained therein was obtained from sources believed to be reliable, but do not guarantee the accuracy and completeness of such information. Although we believe that the publications and reports are reliable, neither we nor the underwriters have independently verified the data.

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PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus. You should read the following summary together with the more detailed information appearing in this prospectus, including our consolidated financial statements and related notes, and our risk factors beginning on page 10, before deciding whether to purchase our common stock.

Overview

We provide advanced semiconductor sensor and system solutions based on integrated micro electro-mechanical systems, or MEMS, technology and mixed signal circuit design. Our accelerometer products are used to measure tilt, shock, vibration and acceleration, and have a wide range of applications such as mobile phones, automotive safety systems and video projectors. We combine proprietary thermal-based MEMS technology and advanced analog mixed signal processing circuitry design into a single chip using a standard complementary metal-oxide semiconductor, or CMOS, process. This allows us to provide sensor solutions at a lower cost, with higher performance and greater functionality than our competitors. In addition, our technology platform allows us to easily integrate additional functions, or create new sensors to expand into magnetic, touch and flow sensors and related applications.

Any product that requires the control or measurement of motion is a potential application for accelerometers. For example, in mobile phones, accelerometers enable a variety of value-added functions such as image orientation, gaming control and text scrolling. In automotive applications, accelerometers are being deployed in airbag, electronic stability control, rollover protection, and navigation systems. In consumer applications, accelerometers are used in global positioning systems, video gaming systems and interactive toys. Industrial and medical applications include inclination sensing, earthquake detection and cardiac pacemakers.

We have shipped more than 20 million units since 2004. Our products have been used by leading international and China-based manufacturers. We are a pioneer in providing accelerometers to China s fast-growing mobile phone market and are among the leading providers of accelerometers for image projector supplying to several Japanese OEMs. Our automotive customers include Autoliv Electronics, a leading European automotive safety systems supplier.

We manufacture our products utilizing a semi-fabless model by outsourcing the production of CMOS wafers and completing the post-CMOS MEMS process in-house. By outsourcing the standard CMOS manufacturing process, we are able to leverage mature semiconductor infrastructure and standard wafer fabrication processes and, in turn, more efficiently manage our capital expenditures. Moreover, we believe that retaining the key MEMS manufacturing process in-house enables us to protect and retain control over our key proprietary technology more effectively and create a higher barrier to entry.

Founded in March 1999, we are headquartered in Andover, Massachusetts and have engineering and manufacturing facilities in Wuxi, Jiangsu Province, China. We conduct research and development at our facilities in Andover; Wuxi and Chicago, Illinois. Our research and development teams work closely with each other in our product and technology research and development activities. This enables us to access experienced and creative design talent in the United States, while benefiting from competitive engineering and manufacturing costs in China. In addition, our presence in China places us in close proximity to the supply chain for the rapidly growing Chinese markets for mobile phones and consumer electronics.

We have experienced significant growth since our products were first commercialized in 2001. In 2004, 2005 and 2006, and for the six months ended June 30, 2007, our net sales totaled $6.9 million, $9.1 million, $13.1 million and $9.4 million, respectively. We have been profitable since 2004. In 2004, 2005 and 2006, and for the six months ended June 30, 2007, our income from operations totaled $1.6 million, $1.7 million, $2.7

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million and $2.0 million, respectively. During the same periods, our net income totaled $1.6 million, $55,494, $0.5 million and $1.9 million, respectively. Our net income in 2005 was affected by the cumulative effect of accounting change in the valuation of Series A preferred stock warrants of $2.7 million and the change in fair value of Series A convertible preferred stock warrants of $0.1 million. Our net income in 2006 was affected by change in fair market value of Series A convertible preferred stock warrants of $3.0 million. These warrants were repurchased by us in 2006. See Management s Discussion and Analysis of Financial Condition and Results of Operations Description of Certain Line Items Other Income (Expense) .

Industry Overview

Sensors are a category of analog semiconductors that measure the strength or presence of a physical property such as voltage, current, temperature, pressure, weight, light, sound or speed. MEMS based sensors incorporate a micro electro-mechanical system as the active sensing function while the integrated analog circuitry provides an electronic interface. As digital semiconductors become more technologically advanced, analog and mixed-signal semiconductors such as sensors, that interface with them must also operate with greater speed, accuracy and efficiency.

Sensors based on MEMS are used for motion, direction and pressure sensing applications. Examples include accelerometers which are used to measure acceleration or gravitational forces and, gyroscopes which are used for sensing rotational motion. The market for MEMS sensors is expected to expand as functions and products enabled by MEMS sensor solutions achieve broader penetration in the mobile phone, consumer, automotive, aerospace, medical and industrial markets. As MEMS technology advances, it will enable electronic systems to be smaller, faster, more energy-efficient and less expensive. Frost & Sullivan, an independent market research firm, expects the MEMS sensor market to grow from $1.8 billion in 2006 to $4.2 billion at an annual growth rate of 14.8% over the next 5 years.

The automotive segment comprises the largest market segment in terms of sales for MEMS sensor systems. MEMS sensors have become essential in a variety of automotive applications for improving passenger safety and comfort. They have been employed in airbag deployment systems, which were the first high-volume application for MEMS sensors, rollover detection, electronic stability control, navigation, vehicle security and tire pressure monitoring systems. In rollover detection systems, accelerometers can measure the roll axis of a vehicle, and upon determining that a rollover is imminent, deploy passenger safety devices before the tire is lifted from the ground. Accelerometers are also used to sense under-steer or over-steer in electronic stability control or ESC systems which can then apply braking force to wheels and/or reduce excess engine power. Key factors contributing to the increasing use of MEMS sensors in the automotive market include the adoption of heightened safety standards in developing countries such as China and India, increased demand for electronic stability control and rollover safety systems, and growth in the use of navigation systems.

MEMS sensors are also increasingly employed in consumer applications. Accelerometers have a wide range of applications for consumer electronics, including projectors, laptop computers, personal navigation systems, audio players, digital cameras and gaming controls. Future growth areas in consumer applications for accelerometers may include video game controls and children s toys where increasingly sophisticated and interactive applications are being incorporated. The mobile phone market is also expected to exhibit potentially high growth for MEMS sensors. As technology advances, manufacturers have introduced products integrating accelerometers that enable applications such as picture orientation, gaming control and navigation. Other potential growth markets for MEMS sensors include aerospace, medical and industrial applications.

To promote continuous growth of the MEMS sensor market, manufacturers are required to, provide more integrated system-level solutions; reduce costs to enable mass-market adoption for consumer applications, generally a more price-sensitive market; deliver products with increased portability for increasingly smaller devices; and develop products with greater functionality.

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Our Competitive Strengths

Our key competitive strengths include the following:

Proprietary technology enabling superior reliability, functionality and pricing. We have acquired proprietary rights to produce MEMS accelerometers based on a unique thermal technology which has higher shock tolerance, lower failure rate and lower cost relative to alternative mechanical solutions. Our accelerometers can be manufactured on a standard CMOS process with on-chip mixed signal processing, which enables us to enhance reliability and reduces our production cost. This standardized process enables us to easily integrate additional functions or create new sensors for MEMS applications beyond accelerometers and expand into the magnetic, touch and flow sensor markets.

Comprehensive system solutions offering. Our solutions involve the development of a fully-integrated sensor system on chip together with the reference designs, algorithms, source code and, at times, the application content to facilitate rapid commercial introduction. These solutions enable our customers to shorten their product development cycle and allow for rapid adoption of our products in new applications.

Leading market position and established customer relationships. We are a pioneer in providing accelerometers to China s fast-growing mobile phone market. We are also among the leading sensor providers in a diverse range of other applications such as key-stone screen adjustment sensors for image projectors supplying to several Japanese OEMs. In addition, our accelerometers are incorporated in rollover protection devices for the automotive market where Autoliv Electronics is a major customer. We have developed close working relationships with our customers and regularly work together with them on new applications development.

Efficient semi-fabless manufacturing model creating higher entry barrier. Our semi-fabless model reduces capital expenditures while retaining manufacturing control over key MEMS-based process steps. We outsource the production of standard CMOS wafers, which we consider to be a commodity segment, to our foundry service provider, and perform in-house the proprietary post-CMOS MEMS process of building MEMs on top of the standard CMOS wafer. We believe that by performing proprietary manufacturing processes in-house, we create a higher barrier to entry.

Strong technology-driven management team. Our management team has extensive experience in the MEMS and integrated circuit design industry. Our founder and CEO, Dr. Yang Zhao, has been dedicated to the research and development of MEMS sensors since the early 1990 s while he was doctoral student at Princeton University, and is named as an inventor on the three patents we own and six of our pending patent applications in the United States. Furthermore, our management team has successfully guided us through our rapid business expansion while maintaining focus on the development and expansion of our core technological capabilities.

Our Strategy

Key elements of our strategy for growth include the following:

Increase penetration of existing markets and customers. We are actively seeking design wins by capitalizing on existing relationships with major OEM customers in the automotive, industrial and business tools markets in Taiwan, Japan, Europe and the United States. While we currently provide a limited range of products to our existing customers, we are focused on expanding these relationships to broaden the adoption of our solutions across additional product lines.

Diversify into new sensor and integrated products. We have a strong foundation and the capabilities to diversify into new sensor products, including magnetic, temperature, pressure, gyroscopes and flow sensors. Emerging applications for sensors typically lack incumbent competitors, thereby providing an opportunity for a first-mover to define the dominant application technology. We also believe that there is an opportunity in integrated sensor products, which combine multiple sensing devices onto one chip.

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Maintain cost leadership. We intend to maintain our cost advantage by developing new innovative proprietary technologies, focusing on designing products on readily available foundry processes, and leveraging our low-cost manufacturing capabilities in China.

Leverage cross-continental research and development model to strengthen technology platform. We have research and development teams in Andover, Chicago and Wuxi that work closely with each other in our product and technology research and development activities. Our U.S. team is responsible for original research and development activities while our China team focuses on implementing the technology developed by our U.S. team. This cross-continental research and development model keeps us at the forefront of MEMS accelerometer research while maintaining a competitive cost base.

Engage in selective acquisitions to build new MEMS capabilities. While we develop technologies in-house, we also actively seek opportunities to acquire or license key technologies from third parties. We believe our strong core technology platform would allow us to integrate acquired or licensed technologies with our existing technologies to create a broader range of sensor solutions products in the market.

Our Risks and Challenges

Our business is subject to numerous risks, which are highlighted in the section entitled Risk Factors immediately following this prospectus summary. These risks represent challenges to the successful implementation of our strategy and to the growth and future profitability of our business. Some of these risks include the following:

- our limited operating history makes it difficult to evaluate our business and prospects;
- our quarterly and annual operating results have fluctuated and may continue to fluctuate and are difficult to predict and if we do not meet financial expectations of securities analysts or investors, the price of our common stock will likely decline;
- we do not have long-term purchase commitments from our customers, including ODMs and OEMs, and our ability to accurately forecast demand for and sales of our products is limited, which may result in excess or insufficient inventory and significant uncertainty and volatility with respect to our revenue from period to period;
- we depend, and expect to continue to depend, on a limited number of customers for a high percentage of our revenues. As a result, the loss of, or a significant reduction in orders from, any of these customers would significantly reduce our revenues and harm our results of operations;
- our products are complex and defects in our products could result in a loss of customers, damage to our reputation, decreased revenue, unexpected expenses, loss of market share and warranty and product liability claims;
- we may not be able to manage our business growth effectively, and failure to do so could strain our management, operating and other resources, which could materially and adversely affect our business and growth potential; and
- the average selling prices of products in our markets have historically decreased rapidly and will likely do so in the future, which could harm our gross margins and results.

Corporate Information

We are a Delaware corporation incorporated in February 1999. Our headquarters are located in Andover, Massachusetts. We have a wholly-owned subsidiary located in Wuxi, Jiangsu Province of China, which was organized as a wholly foreign-owned enterprise under PRC law. Our Andover headquarters are primarily

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responsible for sales and marketing, financing, and research and development. Our Wuxi subsidiary is primarily responsible for various aspects of manufacturing, including product and manufacturing engineering and quality assurance, as well as application engineering, product development and sales to support the Asia market. In addition, we operate research and development activities in Chicago, Illinois.

Our registered office is located at One Tech Drive, Suite 325, Andover, Massachusetts 01810. Our telephone number is (978) 738-0900 and our website is www.memsic.com. Information contained on our website is not part of this prospectus.

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THE OFFERING

Common stock offered:	
by us	shares
by the selling stockholders	shares
Total	shares
Over-allotment option	We and the selling shareholders have granted a 30-day option (commencing from the date of this prospectus) to the underwriters to purchase up to an additional shares to cover over-allotments of shares.
Price per share	We currently estimate that the initial public offering price will be between $ and $ per share.
Common stock to be outstanding immediately after this offering	shares.
Use of proceeds	We intend to use the net proceeds received by us from this offering for the expansion of our existing manufacturing facility in Wuxi, the construction of our new manufacturing facility in Wuxi, strategic acquisitions, research and development, capital expenditures, working capital and other general corporate purposes. However, at this time, we do not have any commitment to any specific acquisitions. We will not receive any proceeds from the shares sold by the selling stockholders. See Use of Proceeds .
Risk factors	See Risk Factors and other information included in this prospectus for a discussion of factors you should carefully consider before deciding to invest in our common stock.
Listing	We have applied for approval to have our shares included for listing on the Nasdaq Global Market. Our shares will not be listed on any other exchange or quoted for trading on any over-the-counter trading system.
Proposed Nasdaq Global Market symbol	MEMS
Lock-up	We, our officers and directors, the selling stockholders and certain other stockholders have agreed that, for a period of 180 days from the date of this prospectus, we and they will not, without the prior written consent of Citigroup Global Markets Inc., offer, sell, contract to sell, transfer, pledge, dispose of or hedge, directly or indirectly, any shares of our common stock or any securities convertible into or exchangeable for our common stock. See Underwriting.

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The number of shares of our common stock to be outstanding following this offering is based on 32,961,429 shares outstanding as of June 30, 2007, including 28,121,639 shares of common stock to be issued upon the automatic conversion of all of our outstanding shares of preferred stock upon the closing of this offering, and excludes:

- 2,083,460 shares issuable upon exercise of options outstanding as of June 30, 2007, at a weighted average exercise price of $0.41 per share;
- 5,443,750 shares reserved for future issuance under our share-based compensation plans, including shares reserved for issuance under our 2000 Omnibus Stock Plan and 2007 Stock Incentive Plan, together the Stock Option Plans.

Unless otherwise indicated, this prospectus reflects and assumes the following:

- the automatic conversion of all outstanding Series A, B, C and D preferred stock into 28,121,639 shares of common stock upon the closing of the offering;
- the adoption of our amended and restated memorandum and articles of association immediately prior to the effectiveness of this offering; and
- no exercise by the underwriters of their over-allotment option.

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SUMMARY CONSOLIDATED FINANCIAL DATA

The following summary consolidated financial data should be read in conjunction with, and are qualified in their entirety by reference to, our consolidated financial statements and related notes and Management s Discussion and Analysis of Financial Condition and Results of Operations included elsewhere in this prospectus. The following summary consolidated statements of operations data for the years ended December 31, 2004, 2005 and 2006 and summary consolidated balance sheet data as of December 31, 2005 and 2006 have been derived from our audited consolidated financial statements included elsewhere in this prospectus. The summary consolidated statement of operations data for the six months ended June 30, 2006 and 2007 and summary balance sheet data as of June 30, 2007 have been derived from our unaudited interim consolidated financial statements included elsewhere in this prospectus. We have prepared the unaudited interim consolidated financial statements on the same basis as our audited consolidated financial statements. The unaudited interim consolidated financial statements include all adjustments, consisting only of normal and recurring adjustments, that we consider necessary to fairly present our financial position and results of operation for the periods presented. Our historical results do not necessarily indicate results expected for any future periods. In addition, our unaudited results as of and for the six months ended June 30, 2007 may not be indicative of our results as of and for the full year ending December 31, 2007.

	For the year ended December 31,			For the six months ended June 30,	
	2004	2005	2006	2006	2007
				(unaudited)	
	(in thousands, except percentages, share and per share data)				
Net sales	$ 6,895	$ 9,053	$ 13,118	$ 5,212	$ 9,440
Cost of goods sold	1,998	2,891	4,332	1,819	3,168
Gross profit	4,897	6,162	8,786	3,393	6,272
Gross margin	71.0%	68.1%	67.0%	65.1%	66.4%
Operating expenses:					
Research and development	400	1,004	1,874	796	1,442
Sales and marketing	1,194	1,466	1,705	796	1,257
General and administrative	1,686	2,004	2,544	1,101	1,546
Total operating expenses	3,280	4,474	6,123	2,693	4,245
Operating income	1,617	1,688	2,663	700	2,027
Other income (expense):					
Change in value of warrant to purchase Series A convertible preferred stock		(143)	(2,992)	(1,143)	
Interest and dividend income	108	202	485	205	311
Interest expense	(49)	(20)			
Other, net	(19)	37	39	12	17
Total other income (expense)	40	76	(2,468)	(926)	328
Income (loss) before income taxes and accounting change	1,657	1,764	195	(226)	2,355
Provision (benefit) for income taxes	29	(1,005)	(303)	(816)	430
Income (loss) before cumulative effect of accounting change	1,628	2,769	498	590	1,925
Cumulative effect on periods prior to July 1, 2005 of change in the valuation of the warrant to purchase Series A convertible preferred stock		(2,714)			
Net income	$ 1,628	$ 55	$ 498	$ 590	$ 1,925