AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON JANUARY 14, 1998
Registration No. 333-

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-3
REGISTRATION STATEMENT
Under
The Securities Act of 1933

ALPHA INDUSTRIES, INC.
(Exact Name Of Registrant As Specified In Its Charter)

DELAWARE
(State or Other Jurisdiction of Incorporation or Organization)

04-2302115
(I.R.S. Employer Identification Number)

20 SYLVAN ROAD, WOBURN, MASSACHUSETTS 01801 (617) 935-5150
(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

STEVEN R. LONDON, ESQUIRE
BROWN, RUDNICK, FREED & GESMER
ONE FINANCIAL CENTER, BOSTON, MASSACHUSETTS 02111
(617) 856-8200
(Name, Address, Including Zip Code, And Telephone Number, Including Area Code, Of Agent For Service)

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC: As soon as practicable after the effective date of this Registration Statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, check the following box. [ ]

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, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. [X]

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 delivery of the prospectus is expected to be made pursuant to Rule 434, check the following box. [ ]

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to Be Registered	Amount to Be Registered	Proposed Maximum Offering Price Per Share(1)	Proposed Maximum Aggregate Offering Price(1)	Amount of Registration Fee
Common Stock, $ .25 par value	50,000 Shares	$16.50	$825,000	$250.00

(1) Estimated solely for the purpose of determining the registration fee pursuant to Rule 457(c) under the Securities Act of 1933. Based upon the average of the reported high and low prices of the Common Stock as reported on the American Stock Exchange on January 7, 1998

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), MAY DETERMINE.

SUBJECT TO COMPLETION, DATED JANUARY 14, 1998

INFORMATION CONTAINED HEREIN IS SUBJECT TO COMPLETION OR AMENDMENT. A REGISTRATION STATEMENT RELATING TO THESE SECURITIES HAS BEEN FILED WITH THE SECURITIES AND EXCHANGE COMMISSION. THESE SECURITIES MAY NOT BE SOLD NOR MAY OFFERS TO BUY BE ACCEPTED PRIOR TO THE TIME THE REGISTRATION STATEMENT BECOMES EFFECTIVE. THIS PROSPECTUS SHALL NOT CONSTITUTE AN OFFER TO SELL OR THE SOLICITATION OF AN OFFER TO BUY NOR SHALL THERE BE ANY SALE OF THESE SECURITIES IN ANY STATE IN WHICH SUCH OFFER, SOLICITATION OR SALE WOULD BE UNLAWFUL PRIOR TO REGISTRATION OR QUALIFICATION UNDER THE SECURITIES LAWS OF ANY SUCH STATE.

PROSPECTUS

50,000 SHARES

ALPHA INDUSTRIES, INC.

COMMON STOCK

All of the 50,000 shares of Common Stock, $.25 par value (the "Common Stock") of Alpha Industries, Inc. (the "Company") covered by this Prospectus are issued and outstanding shares which may be offered and sold, from time to time, by a certain stockholder of the Company (the "Selling Stockholder"). See "Selling Stockholder."

The Common Stock of the Company is traded on the American Stock Exchange under the symbol "AHA". On January 7, 1998, the last reported sale price on the American Stock Exchange for the Common Stock was $16.375 per share.

The Selling Stockholder has advised the Company that it may sell, from time to time, all or part of the shares covered by this Prospectus through any of several methods, including ordinary brokerage transactions or block transactions on the American Stock Exchange at market prices, or in privately negotiated transactions at prices agreed upon by the parties. See "Plan of Distribution."

The Company will not receive any proceeds from the sale of the shares covered by this Prospectus. The Selling Stockholder has agreed to reimburse the Company for all expenses incurred in effecting the registration of such shares, including all registration and filing fees, and legal and accounting fees for counsel to the Company. The Selling Stockholder will bear all brokerage or underwriting expenses or commissions, if any, applicable to the shares.

SEE "RISK FACTORS" BEGINNING ON PAGE 3 FOR A DISCUSSION OF CERTAIN FACTORS RELEVANT TO AN INVESTMENT IN THE SHARES OF COMMON STOCK.

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION NOR HAS THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this Prospectus is January __, 1998.

AVAILABLE INFORMATION

The Company is subject to the informational requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and in accordance therewith files reports, proxy statements and other information with the Securities and Exchange Commission (the "Commission"). Such reports, proxy statements and other information filed by the Company can be inspected and copied at the public reference facilities maintained by the Commission at 450 Fifth Street, NW, Room 1024, Judiciary Plaza, Washington, D.C. 20549, and at the Commission's Regional Offices at Citicorp Center, 500 West Madison Street, Suite 1400, Chicago, Illinois 60661 and 7 World Trade Center, Suite 1300, New York, New York 10048, at prescribed rates. In addition, such reports, proxy statements and information are available through the Commission's Electronic Data Gathering and Retrieval System at the Commission's Web Site at http://www.sec.gov. The Company's Common Stock is traded on the American Stock Exchange, and reports, proxy statements and certain other information concerning the Company can also be inspected at the offices of the American Stock Exchange, 20 Broad Street, New York, New York 10005.

The Company has filed with the Commission a Registration Statement on Form S-3 under the Securities Act of 1933 with respect to the Common Stock being offered hereby. This Prospectus, which constitutes a part of the Registration Statement, does not contain all of the information set forth in such Registration Statement and the exhibits thereto to which reference is hereby made. The statements in this Prospectus as to the contents of such Registration Statement are qualified in their entirety by such reference. The Registration Statement, together with its exhibits, may be inspected without charge at the Public Reference Section of the Commission in Washington, D.C. at the address noted above, and copies of all or any part thereof may be obtained from the Commission upon payment of the prescribed fees.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The following documents filed with the Commission pursuant to the Exchange Act are incorporated herein by reference: (1) the Company's Annual Report on Form 10-K for the fiscal year ended March 30, 1997; (2) the Company's Quarterly Reports on Form 10-Q for the fiscal quarters ended June 29, 1997 and September 28, 1997; (3) the Company's Proxy Statement used in connection with the Company's Annual Meeting of Stockholders held on September 8, 1997; and (4) the description of the Company's Common Stock contained in the Company's Registration Statement on Form S-3 (Registration No. 33-63857).

All reports and other documents subsequently filed by the Company pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this Prospectus and prior to the termination of the offering of the Common Stock hereunder shall be deemed to be incorporated by reference herein and to be a part hereof from the date of the filing of such reports and documents. The Company will furnish without charge to each person, including any beneficial owner, to whom this Prospectus is delivered, upon written or oral request of such person, a copy of any or all of the documents referred to above, excluding exhibits thereto. Requests for such documents should be submitted in writing to the Corporate Secretary at the corporate headquarters of the Company at 20 Sylvan Road, Woburn, Massachusetts 01801, or by telephone at (617) 935-5150.

Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Prospectus to the extent that a statement contained herein, or in any other subsequently filed document that also is (or is deemed to be) incorporated by reference herein, modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of the Registration Statement or this Prospectus.

THE COMPANY

The Company designs and manufactures a broad range of radio frequency, microwave frequency and millimeter wave frequency integrated circuits, ceramic products, discrete semiconductors, and microwave and millimeter wave components and subsystems for wireless communications applications. These applications include cellular telephones, world-wide personal communications services and personal communications networks, pagers, specialized mobile radio, wireless data services and global positioning systems. The Company utilizes proprietary gallium arsenide, ceramic and silicon process technologies to address the needs of wireless communications original equipment manufacturers for smaller, less expensive and more power efficient products.

The Company is a Delaware corporation which was organized in 1962. The Company's principal offices are located at 20 Sylvan Road, Woburn, Massachusetts 01801 and its telephone number is (617) 935-5150.

RISK FACTORS

In addition to the other information contained in this Prospectus, the following factors should be considered carefully in evaluating the Company and its business before purchasing any of the shares of Common Stock offered hereby.

HISTORY OF OPERATING LOSSES; REPOSITIONING OF COMPANY'S BUSINESS

The Company has incurred net losses in three of its last five fiscal years. During the fiscal year ended March 30, 1997, the Company sustained a net loss of approximately $15.6 million. The Company's losses in the last fiscal year were largely the result of an industry-wide over-supply of cellular telephones and related equipment, especially in the North American cellular telephone market, as well as operational difficulties at Trans-Tech, Inc., the Company's ceramic component subsidiary. There can be no assurance that the Company's effort to reposition itself as a supplier of advanced products to wireless communications markets will be successful. If revenues from commercial wireless customers do not continue to grow, or grow less rapidly than expected, the Company's operating results could be materially and adversely affected.

VARIABILITY OF OPERATING RESULTS

The Company's quarterly and annual results have varied in the past and may vary significantly in the future due to a number of factors, including: cancellation or delay of customer orders; market acceptance of the Company's or its customers' products; variations in manufacturing yields; timing of announcement and introduction of new products by the Company and its competitors; changes in revenue and product mix; competition; changes in manufacturing capacity and variations in the utilization of this capacity; variations in average selling prices; variations in operating expenses; the long sales cycles associated with the Company's customer specific products; the timing and level of product and process development costs; cyclicality of the semiconductor and ceramic industries; the timing and level of nonrecurring engineering revenues and expenses relating to customer specific products; and changes in inventory levels. Any unfavorable changes in these or other factors could have a material adverse effect on the Company's operating results. The Company's expense levels are based, in part, on its expectations as to future revenue, and certain of these expenses, particularly those relating to the Company's capital equipment and manufacturing overhead, are relatively fixed in nature. As a result of the relatively fixed nature of certain of the Company's expenses, operating results would be disproportionately and adversely affected by a reduction in revenue. The Company expects that its operating results will continue to fluctuate in the future as a result of these and other factors.

CUSTOMER CONCENTRATION

Historically, a significant portion of the Company's sales in each fiscal period has been concentrated among a limited number of customers. This trend is accelerating, and in recent periods sales to the Company's major customers as a percentage of total sales have increased. In fiscal 1997, the Company's direct sales to Motorola, Inc. ("Motorola"), Nokia OY AB ("Nokia"), L.M. Ericsson Telefonaktiebolaget ("Ericsson") and Lucent Technologies Inc. ("Lucent") and their suppliers in the aggregate accounted for approximately 26% of the Company's sales with one such customer accounting for approximately 11% of sales. For the six months ended September 28, 1997, the Company's direct sales to Motorola accounted for approximately 21% of the Company's sales during such period. The Company does not generally enter into long-term contracts with its customers, and when it does, the contract is generally terminable for the convenience of the customer. In the event of an early termination or discontinuance of a contract by one of the Company's major customers, it is unlikely that the Company will be able to identify an alternative purchaser for that product. The Company's business, financial condition and operating results have been materially and adversely affected in the past by the failure of anticipated orders to materialize and by deferrals or cancellations of orders. If the Company were to lose one of these major customers, or if orders by a major customer otherwise were to decrease, the Company's business, financial condition and operating results would be materially and adversely affected.

DEPENDENCE ON CUSTOMER SPECIFIC PRODUCTS

Most of the Company's products are designed to be incorporated into specific end-user products. In light of short product life cycles in the wireless communications industry, the Company's future success depends upon its ability to select customer specific development projects which will result in sufficient production volume to enable the Company to recover its development costs and realize a profit on the project. There can be no assurance that the Company will be able to select such customer specific projects, or that the Company's products will be designed into such projects. In addition, OEMs require that their suppliers design and manufacture components very quickly. There can be no assurance that the Company will be able to design, manufacture in large volumes and deliver to its customers high quality, reliable products within the required time period. In the past, the Company experienced delays in the production of MMICs, ceramic products and discrete semiconductors under major contracts with major OEM customers. There can be no assurance that similar problems will not recur in the future. Any such problems could have a material and adverse effect on the Company's operating results.

PRODUCT AND PROCESS DEVELOPMENT AND TECHNOLOGICAL CHANGE

The wireless communications industry is characterized by frequent new product introductions, evolving industry standards, rapid changes in product and process technologies and new materials and designs. The Company believes that its future success will depend upon its ability to continue to improve its product and process technologies and develop new technologies.

The success of the Company's new products is dependent upon many factors, including factors that are outside the Company's control. These factors include: the Company's ability to anticipate market requirements in its product development efforts; market acceptance and continued commercial success of OEM products for which the Company's products have been designed; the ability to adapt to technological changes and to support established and emerging industry standards; successful and timely completion of product development and commercialization; achievement of acceptable wafer fabrication and ceramic process yields and manufacturing yields generally; and the ability to offer new products at competitive prices. No assurance can be given that the Company's product and process development efforts will be successful or that the Company's new products or those of its customers will achieve or sustain market acceptance. In addition, the wireless communications industry is characterized by end-user demands for increased functionality at ever lower prices. To remain competitive, the Company must obtain yield and productivity improvements and costs reductions and must introduce new products which incorporate advanced features and which therefore can be sold at higher average selling prices. To the extent that such cost reductions and new product introductions do not occur in a timely manner or the Company's or its customers' products do not achieve market acceptance, the Company's operating results could be materially and adversely affected.

The Company produces its GaAs integrated circuits using a MESFET process. The Company believes that this process is currently the industry standard, but other process technologies, such as GaAs pHEMT and GaAs HBT, which may offer higher efficiencies at comparable costs, may become commercially feasible in the near future. The Company is currently investing in processes that it believes will allow it to deliver components with efficiencies and capabilities that will address the demands of the market. However, there can be no assurance that the Company's preparations for such a technological change will be successful or that it will be able to deliver products that meet such market demands and the alternatives offered by other component suppliers. The failure of the Company to do so could materially and adversely affect the Company's operating results.

MANUFACTURING RISKS: PRODUCT QUALITY, PERFORMANCE AND RELIABILITY

The manufacturing processes for the Company's products, in particular its GaAs monolithic integrated circuits ("MMICs"), are highly complex and precise, requiring advanced and costly equipment, and are being modified continually in an effort to improve yields and product performance. The Company expects that its customers will continue to establish demanding specifications for quality, performance and reliability that must be met by the Company's products. The Company has limited experience in high volume manufacturing of certain GaAs MMICs and ceramic products for certain high volume commercial applications. The Company has encountered and may in the future encounter development and manufacturing delays, has from time to time failed and may in the future fail to meets its customers' contractual specifications, and one or more of its products have contained and may in the future contain undetected defects or failures when first introduced or after commencement of commercial shipments. If such delays, defects or failures occur, the Company could experience lost revenue, resulting from delays in or cancellations or rescheduling of orders or shipments, product returns or discounts, or could experience increased costs, including product or process redesign, warranty expense or costs associated with customer support, any of which could have a material adverse effect on the Company's operating results. There can be no assurance that the Company will not in the future experience significant product quality, performance or reliability problems.

ADOPTION OF GAAS COMPONENTS BY OEMS

Silicon semiconductor technologies are the dominant process technologies for certain integrated circuits and these technologies continue to improve in performance. Many of the Company's OEM customers utilize silicon devices and currently are using or evaluating the use of GaAs. To date, certain OEMs have been reluctant to utilize GaAs technologies because of perceived risks relating to GaAs technology, including a lack of experience in designing systems with GaAs products, unfamiliar and more expensive manufacturing processes and uncertainties about the relative cost effectiveness of GaAs products compared to silicon devices. There can be no assurance that GaAs technology will achieve widespread market acceptance.

The production of GaAs integrated circuits is more costly than the production of silicon devices. This cost differential relates primarily to higher costs of the raw wafer material, lower production yields associated with the relatively immature GaAs technology and higher unit costs associated with lower production volumes. The Company believes its costs of producing GaAs integrated circuits will continue to exceed the costs associated with the production of silicon devices. As a result, the Company must offer devices which provide superior performance to that of silicon for specific applications in order to be competitive with silicon devices. There can be no assurance that the Company can continue to identify markets which require performance superior to that offered by silicon solutions, or that the Company will continue to offer products which provide sufficiently superior performance to offset the cost differential.

MANAGEMENT OF GROWTH

The growth in the Company's business, and its continuing transition from military to commercial sales, has placed, and is expected to continue to place, a significant strain on the Company's personnel, management and other resources. The Company has recently hired, and will be required to hire in the future, additional key employees. In order to manage any future growth effectively, the Company will, among other things, be required to continue to improve its manufacturing facilities; attract, train, motivate and manage employees successfully; and continue to improve its operational and financial systems. There can be no assurance that the

Company will be successful in these respects. The Company anticipates that any future growth of its business will require increased utilization of the Company's manufacturing capacity in Woburn, Massachusetts, including increasing the number of shifts, during which its manufacturing facilities are operational. Further, any such future growth could require improvement or expansion of the Company's existing manufacturing facilities. Expansion or upgrade of the Company's manufacturing facilities will entail substantial capital expenditures. Lead times for certain capital equipment are long, and modification of the Company's facilities and installation of such equipment is a complex process which could disrupt the Company's facilities and installation of such equipment is a complex process which could disrupt the Company's ongoing manufacturing operations. Delays in increasing its manufacturing capacity could limit the ability of the Company to respond to the rapid design and production cycles required by its customers. Moreover, there can be no assurance that the Company will be able to secure sources of capital adequate to fund the necessary expenditures. The Company could experience product quality, performance or reliability problems and development and manufacturing delays in connection with any such increase in utilization of such expansion or upgrade of the Company's manufacturing capacity. The occurrence of any such problems or the inability of the Company otherwise to manage any future growth effectively could materially and adversely affect the Company's operating results.

ENVIRONMENTAL REGULATIONS

The Company is subject to a variety of federal, state and local laws, rules and regulations related to the use, handling discharge or disposal of toxic, volatile or other hazardous chemicals used in its manufacturing process and to the presence of hazardous chemicals on properties owned or operated by the Company. The failure to comply with present or future environmental regulations could result in substantial fines being imposed on the Company, suspension of production or a cessation of operations. The Company has been engaged in environmental assessment and remediation activities at its Adamstown, Maryland facility since 1989, due to contamination of groundwater at such facility. In 1989, the Company entered into a consent decree with the State of Maryland Department of Environmental Protection pursuant to which it had until 1995 operated a groundwater remediation system. Based on continued satisfactory groundwater test results, the Company suspended groundwater monitoring in 1997 and has applied for permission to remove the monitoring wells. In addition, the Company has been notified by federal and state environmental agencies of its potential liability with respect to one Superfund site, to which small quantities of the Company's hazardous waste were shipped. There can be no assurance that any liability concerning the Superfund site will not have a material adverse effect on the Company. However, the Company believes that its volumetric contribution of waste to the Superfund site is de minimis and that the extent of its liability with respect to this site is not likely to be material. The Company settled another similar Superfund site claim during the fiscal year ended March 30, 1997 for a nominal amount. The Company could be required to acquire significant equipment, or incur substantial other expenses in order to comply with environmental regulations. Any failure by the Company to comply with applicable law in the use, handling or disposal of hazardous substances or in management of real property could subject the Company to substantial future liabilities.

DEPENDENCE ON KEY PERSONNEL

The Company's future success depends in large part on the continued service of its key technical, marketing and management personnel, and on its ability to identify, attract and retain qualified technical personnel, particularly highly skilled design, process and test engineers involved in the manufacture of existing products and the development of new products and processes The competition for such personnel is intense, and the loss of key employees could have a material adverse effect on the Company.

CYCLICALITY OF THE COMPANY'S MARKETS

While the semiconductor and ceramic markets have in the past experienced overall growth, they have historically been characterized by wide fluctuations in product supply and demand. From time to time, these industries have also experienced significant downturns, often in connection with, or in anticipation of, maturing product cycles and declines in general economic conditions. These downturns have been characterized by diminished product demand, production overcapacity and subsequent accelerated price erosion, and in some cases have lasted for extended periods of time. The Company's business may in the future be materially and adversely affected by industry-wide fluctuations. The Company's continued success will depend in large part on the continued growth of the wireless communications industry. Certain of the Company's major OEM customers have experienced fluctuations in demand for certain of their cellular products. No assurance can be given that the Company will not be adversely affected in the future by cyclical conditions in the wireless communications industry.

LIMITED SOURCES OF MATERIALS AND SERVICES

The Company currently procures certain components and services for its products from single or limited sources. For example, the Company currently procures GaAs substrates, a critical raw material, from only two sources. In addition, excluding the GaAs wafers it produces internally, the Company outsources the fabrication of GaAs wafers to a single external foundry. Further, the Company currently procures silicon substrates for semiconductors and certain chemical powders for ceramic manufacturing from single sources. The Company purchases these materials and services on a purchase order basis, does not carry significant inventories and does not have any long-term supply contracts with its source vendors. The inability of the Company to obtain these materials in required quantities would result in significant delays or reductions in product shipments, which would materially and adversely affect the Company's operating results. The Company from time to time experiences delays in receiving products from certain of its vendors and no assurance can be given that similar problems will not recur. If the Company were to change certain of its vendors, the Company would be required to requalify the components supplied by such vendors. Requalification could prevent or delay product shipments, which would materially and adversely affect the Company's operating results. Additionally, prices could increase significantly in connection with changes of vendors. The Company's reliance on single and limited sources involves several additional risks, including reduced control over the price, timely delivery, reliability and quality of the components. Any inability of the Company to obtain timely deliveries of materials of acceptable quality, or a significant increase in the prices of materials, could materially and adversely affect the Company's operating results.

DEPENDENCE ON ASSEMBLY SUBCONTRACTORS

The Company uses assembly subcontractors located outside the United States to package and wirebond certain large volume orders of integrated circuits. The Company attempts to maintain more than one qualified service supplier for each assembly process, but has been unable at times to achieve this goal because of minimum volume requirements, service quality issues or other factors. The Company has, from time to time, experienced problems procuring assembly services, and no assurance can be given that similar problems will not recur. The Company's inability to obtain sufficient high quality and timely assembly service, or the loss of any of its current assembly vendors, would result in delays or reductions in product shipment, and/or reduced product yields, any of which would materially and adversely affect the Company's operating results.

COMPETITION

Wireless communications markets are intensely competitive and are characterized by rapid technological change, rapid product obsolescence and price erosion. Currently, the Company competes primarily with manufacturers of high performance GaAs, MMICs, discrete silicon semiconductors, ceramic filters and other ceramic products and microwave and millimeter wave components and subsystems. The Company expects increased competition both from existing competitors and others which may enter these markets, as well as potential future competition from companies which may offer new or emerging technologies, such as surface acoustic wave filters, silicon germanium and other silicon technologies. In addition, many of the Company's customers, particularly its largest customers, have or could acquire the capability to develop or manufacture products competitive with those that have been or may be developed or manufactured by the Company. The Company's future operating results may depend in part upon the extent to which these customers elect to purchase from outside sources rather than develop and manufacture their own systems. A number of the Company's competitors have significantly greater financial, technical, manufacturing and marketing resources than the Company. The ability of the Company to compete successfully depends in part upon the ability of the Company to develop price competitive, high quality solutions for OEMs and the extent to which customers select the Company's products over competitors' products for their systems. There can be no assurance that the Company will be able to compete successfully in the future.

GOVERNMENT CONTRACTS

Although the Company has reduced its dependence upon sales to the United States and foreign governments, a significant portion of the Company's revenues continue to be derived from such sales. The Company estimates that approximately 29%, 24%, and 21% of the Company's new orders were derived from United States and foreign military and defense related sources in fiscal 1995, 1996, and 1997, respectively. Significant reductions or delays in procurements of the Company's products by the United States or any foreign government would have a material adverse effect on the Company's operating results. Generally, the United States Government and its contractors and subcontractors may terminate their contracts with the Company for cause or for convenience, upon certain terms and conditions. The Company has in the past experienced termination of government contracts. There can be no assurance that termination of contracts will not occur in the future. Termination of government contracts or subcontracts having a significant dollar value would have a material adverse effect on the Company's operating results.

GOVERNMENTAL REGULATION OF COMMUNICATIONS INDUSTRY

The wireless communications industry is heavily regulated. The sale of equipment by OEMs who purchase the Company's products may be materially and adversely affected by governmental regulatory policies, the imposition of common carrier tariffs or taxation of telecommunications services. The delays inherent in the governmental approval process may in the future cause the cancellation, postponement or rescheduling of the installation of wireless communications systems. These delays may have a material adverse effect on the Company's operating results.

DIFFICULTY IN PROTECTING INTELLECTUAL PROPERTY

The Company's ability to compete is affected by its ability to protect its proprietary information. The Company relies primarily on trade secret laws, confidentiality procedures and licensing arrangements to protect its intellectual property rights. In addition, where appropriate, the Company seeks patent protection. The Company currently has patents granted and pending in the United States, and intends to seek further patents on its technology. There can be no assurance that patents will issue from any of the Company's pending or any future applications or that any claims allowed from such applications will be of sufficient scope or strength, or be issued in all countries where the Company's products can be sold, to provide meaningful protection or any commercial advantage to the Company. Also, competitors of the Company may be able to design around the Company's patents. The laws of certain foreign countries in which the Company's products are or may be developed, manufactured or sold may not protect the Company's products or intellectual property rights to the same extent as do the laws of the United States and thus make the possibility of piracy of the Company's technology and products more likely. Although the Company intends to defend its intellectual property, there can be no assurance that the steps taken by the Company to protect its proprietary information will be adequate to prevent misappropriation of its technology or that the Company's competitors will not independently develop technologies that are substantially equivalent or superior to the Company's technology.

INTELLECTUAL PROPERTY CLAIMS

The semiconductor industry is characterized by vigorous protection and pursuit of intellectual property rights, which has resulted in significant and often protracted and expensive litigation. Although there is currently no pending intellectual property litigation against the Company, the Company from time to time is notified of claims that the Company may be infringing patents or other intellectual property rights owned by third parties. If it is necessary or desirable, the Company may seek licenses under patents or other intellectual property rights asserted by others, or may attempt to develop non-infringing technology. However, there can be no assurance that licenses will be offered or that the terms of any offered licenses will be acceptable to the Company, or that the Company will be successful in developing non-infringing technology. The failure to obtain a license from a third party for technology used by the Company could cause the Company to incur substantial liabilities and to suspend the manufacture of products. Furthermore, the Company may initiate claims or litigation against third parties for infringement of the Company's proprietary rights, or to establish the validity of the Company's proprietary rights. Litigation by or against the Company could result in significant expense to the Company and divert the efforts of the Company's technical and management personnel, whether or not such litigation results in a favorable determination for the Company. In the event of an adverse result in any such litigation, the Company could be required to pay substantial damages, cease the manufacture, use and sale of infringing products, expend significant resources to develop non-infringing technology, discontinue the use of certain processes or obtain licenses to the infringing technology. There can be no assurance that the Company would be successful in such development or that such licenses would be available on reasonable terms, and any such development or license could require expenditures by the Company of substantial time and other resources. In the event that any third party makes a successful claim against the Company or its customers, and a license is not made available to the Company on commercially reasonable terms, the Company's business, financial condition and operating results would be adversely affected.

RISKS OF INTERNATIONAL SALES

Sales outside of the United States were approximately $23.3 million, $30.8 million and $32.1 million in fiscal 1995, 1996 and 1997, respectively. International sales involve a number of inherent risks, including imposition of government controls, currency exchange fluctuations, potential insolvency of international distributors and representatives, reduced protection for intellectual property rights in some countries, the impact of recessionary environments in economies outside the United States, political instability and generally longer receivables collection periods, as well as tariffs and other trade barriers. In addition, due to the technological advantage provided by GaAs in many military applications, a substantial portion of the Company's sales outside of North America must be licensed by the Bureau of Export Administration of the United States Department of Commerce or the Office of Defense Trade Controls of the United States Department of State. Although to date the Company has experienced no difficulty in obtaining these licenses, failure to obtain such licenses in the future could have a material adverse effect on the Company's operating results. Furthermore, because most of the Company's foreign sales are denominated in United States dollars, the Company's products become less price competitive in countries whose currencies decline in value against the dollar. There can be no assurance that these factors will not have an adverse effect on the Company's future international sales and, consequently, on the Company's business, operating results and financial condition.

IMPEDIMENTS TO CHANGES IN CONTROL

The Company's Restated Certificate of Incorporation and Amended and Restated Bylaws include certain provisions that may have the effect of discouraging or preventing a change in control of the Company. These provisions could limit the price that stockholders of the Company might receive in the future for shares of the Common Stock.

POTENTIAL VOLATILITY OF STOCK PRICE

The market price of the shares of Common Stock has recently been and is likely to continue to be highly volatile and materially affected by factors such as fluctuations in the Company's operating results, announcements of technological innovations or new products by the Company or its competitors, governmental regulatory action, developments with respect to patents or proprietary rights, general market conditions and other factors. In addition, the stock market has from time to time experienced significant price and volume fluctuations that are unrelated to the operating performance of particular companies. In the event that in some future quarter the Company's net sales or operating results were to be below the expectations of public market securities analysts and investors, the price of the Company's Common Stock could be materially and adversely affected.

USE OF PROCEEDS

The proceeds from the sale of the shares of Common Stock offered hereby will be the property of the Selling Stockholder and will be used by it in its discretion. No part of the proceeds will be received by the Company.

SELLING STOCKHOLDER

Silicon Valley Bancshares (the "Selling Stockholder") is selling the shares of Common Stock offered hereby. The 50,000 shares of Common Stock are issuable upon exercise by the Selling Stockholder of a certain Stock Purchase Warrant dated April 1, 1994 (the "Warrant"). Under the terms of the Warrant, in the event that the Company registers any of its securities under the Securities Act of 1933, as amended (the "Act"), the Selling Stockholder has the right to require the Company to register the shares issuable pursuant to the Warrant, subject to certain limitations, as set forth in the Warrant. Although the Company is not otherwise currently registering any of its securities under the Act, the Company has agreed to register the shares issued under the Warrant pursuant to an informal agreement with the Selling Stockholder. Silicon Valley Bank, an affiliate of the Selling Stockholder, received the Warrant in connection with a loan from Silicon Valley Bank to the Company. Silicon Valley Bank recently transferred the Warrant to the Selling Stockholder. The Company currently has a $7.5 million working capital line of credit from Silicon Valley Bank and another bank which expires in September 1999. As of January 14, 1998, a total of 50,000 shares of Common Stock were beneficially owned by the Selling Stockholder, all of which may be offered by the Selling Stockholder under this Prospectus. This information is based upon information received from or on behalf of the Selling Stockholder.

PLAN OF DISTRIBUTION

The price and manner of sale of the shares of Common Stock to be offered hereunder are in the sole discretion of the Selling Stockholder. The shares of Common Stock offered hereby may be offered through any of several methods, such as ordinary brokerage transactions or block transactions on the American Stock Exchange at market prices, or in privately negotiated transactions at prices agreed upon by the parties. Neither the Company nor, to the knowledge of the Company, the Selling Stockholder, has any agreement, arrangement or understanding with any broker or dealer entered into prior to the effective date of the Registration Statement of which this Prospectus is a part with respect to the sale of the Common Stock offered hereby.

LEGAL MATTERS

The validity of the securities offered hereby has been passed upon for the Company by Messrs. Brown, Rudnick, Freed & Gesmer, One Financial Center, Boston, Massachusetts 02111. Certain members of such firm beneficially own a nominal number of shares of Common Stock.

EXPERTS

The consolidated financial statements and schedule of the Company appearing in its annual report on Form 10-K for the year ended March 30, 1997, have been audited by KPMG Peat Marwick LLP, independent auditors, as set forth in their report included therein and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given upon authority of such firm as experts in accounting and auditing.

No dealer, salesman or any other person has been authorized to give any information or to make any representations other than those contained in this Prospectus in connection with the offering described herein, and, if given or made, such information or representations must not be relied upon as having been authorized by the Company or the Selling Stockholder. This Prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities other than those specifically offered hereby or of any securities offered hereby in any jurisdiction to any person to whom it is unlawful to make an offer or solicitation in such jurisdiction. Neither the delivery of this Prospectus nor any sale made hereunder shall, under any circumstances create an implication that the information herein is correct as of any time subsequent to its date.

TABLE OF CONTENTS

50,000 SHARES

ALPHA INDUSTRIES, INC.

COMMON STOCK

PROSPECTUS

January ___, 1998

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 14. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION

Set forth below is an estimate of the fees and expenses payable in connection with the distribution of the Common Stock. The Selling Stockholder has agreed to reimburse the Company for these fees and expenses.

SEC Registration Fee	$ 250
Accounting Fees and Expenses	2,500*
Legal Fees and Expenses	7,500*
Miscellaneous	2,500*
TOTAL	$12,750*

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* Estimated

ITEM 15. INDEMNIFICATION OF DIRECTORS AND OFFICERS

Article Tenth of the Company's Restated Certificate of Incorporation eliminates the personal liability of directors to the Company or its stockholders for monetary damages for breaches of their fiduciary duty (subject to certain exceptions, such as breaches of the duty of loyalty to the Company or its stockholders), and provides that the Company may indemnify its officers and directors to the full extent permitted by law. The Company's Amended and Restated By-Laws include provisions for mandatory indemnification of its officers and directors provided certain conditions are met. Section 145 of the General Corporation Law of the State of Delaware authorizes a corporation to indemnify directors, officers, employees or agents of the corporation in non-derivative suits if such party acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interest of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful, as determined in accordance with the Delaware General Corporation Law. Section 145 further provides that indemnification shall be provided if the party in question is successful on the merits or otherwise.

The effect of these provisions would be to permit such indemnification by the Company for liabilities arising under the Securities Act of 1933, as amended, to the extent permitted under the Act.

The Company has directors' and officers' liability insurance.

ITEM 16. EXHIBITS

Exhibit Number	Description
(3)(a)	Restated Certificate of Incorporation (Filed as Exhibit 3(a) to Registration Statement on Form S-3 (Registration No. 33-63857)).*
(3)(b)	Amended and Restated By-laws dated April 30, 1992 (Filed as Exhibit 3(b) to the Annual Report on Form 10-K for the fiscal year ended March 29, 1992).*
(4)(a)	Specimen Certificate of Common Stock (Filed as Exhibit 4(a) to Registration Statement on Form S-3 (Registration No. 33-63857).*
(4)(b)	Stock Purchase Warrant for 50,000 shares of the Registrant's Common Stock issued to Silicon Valley Bank as of April 1, 1994 (Filed as Exhibit 4(i) to the Quarterly Report on Form 10-Q for the quarter ended July 3, 1994).*
(5)	Opinion of Brown, Rudnick, Freed & Gesmer.
(23)(a)	Consent of Brown, Rudnick, Freed & Gesmer (included in Exhibit (5)).
(23)(b)	Consent of KPMG Peat Marwick LLP.
(24)	Power of Attorney (included on Signature Page of this Registration Statement).

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* In accordance with Rule 411 promulgated pursuant to the Securities Act of 1933, as amended, reference is made to the documents previously filed with the Securities and Exchange Commission which are incorporated by reference herein.

ITEM 17. UNDERTAKINGS

The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement to include any material information with respect to the plan of distribution and not previously disclosed in the registration statement or any material change to such information in the registration statement;

(2) That for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

The undersigned Registrant hereby undertakes that for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Registrant, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Woburn, Commonwealth of Massachusetts, on the 8th day of January, 1998.

ALPHA INDUSTRIES, INC.

By: /s/ Thomas C. Leonard

Thomas C. Leonard
Chief Executive Officer,
President and Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS that each person whose signature appears below constitutes and appoints Thomas C. Leonard and James C. Nemiah and each of them, with the power to act without the other, his true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution for him or in his name, place and stead, in any and all capacities to sign any and all amendments or post-effective amendments to this Registration Statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ George S. Kariotis George S. Kariotis	Chairman	January 8, 1998
/s/ Thomas C. Leonard Thomas C. Leonard	President, Chief Executive Officer and Director (Principal Executive Officer)	January 8, 1998
/s/ Paul E. Vincent Paul E. Vincent	Vice President, Chief Financial Officer and Treasurer (Principal Financial and Principal Accounting Officer)	January 8, 1998

/s/ Arthur Pappas - ------------------------------------ Arthur Pappas	Director	January 8, 1998
/s/ Martin J. Reid - ------------------------------------ Martin J. Reid	Director	January 8, 1998
/s/ Raymond Shamie - ------------------------------------ Raymond Shamie	Director	January 8, 1998
/s/ Sidney Topol - ------------------------------------ Sidney Topol	Director	January 8, 1998
/s/ Charles A. Zraket - ------------------------------------ Charles A. Zraket	Director	January 8, 1998

EXHIBIT INDEX

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(5)	Opinion of Brown, Rudnick, Freed & Gesmer.	
(23)(a)	Consent of Brown, Rudnick, Freed & Gesmer	**
(23)(b)	Consent of KPMG Peat Marwick LLP.	
(24)	Power of Attorney	***

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* In accordance with Rule 411 promulgated pursuant to the Securities Act of 1933, as amended, reference is made to the documents previously filed with the Securities and Exchange Commission which are incorporated by reference herein.

** Included in Exhibit (5)

*** Included on Signature Page of this Registration Statement

EXHIBIT 5

January 14, 1998

Alpha Industries, Inc.
20 Sylvan Road
Woburn, MA 01801

Attn: Paul E. Vincent, Chief Financial Officer

RE: Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as counsel to Alpha Industries, Inc., a Delaware corporation (the "Company"), in connection with the preparation and filing with the Securities and Exchange Commission of a Registration Statement on Form S-3 (the "Registration Statement") pursuant to which the Company is registering under the Securities Act of 1933, as amended (the "Act"), a total of 50,000 shares of common stock, $.25 par value (the "Shares") which are issuable upon exercise of a Stock Purchase Warrant dated April 1, 1994 (the "Stock Purchase Warrant"). This opinion is being rendered in connection with the filing of the Registration Statement.

In connection with this opinion, we have examined the documents listed on SCHEDULE A attached hereto (collectively, the "Documents").

We have, without independent investigation, relied upon the representations and warranties of the various parties as to matters of objective fact contained in the Documents.

We have not made any independent review or investigation of orders, judgments, rules or other regulations or decrees by which the Company or any of its property may be bound, nor have we made any independent investigation as to the existence of actions, suits, investigations or proceedings, if any, pending or threatened against the Company.

With your concurrence, the opinions expressed herein are based solely upon (i) our review of the Documents, (ii) discussions with those of our attorneys who have devoted substantive legal representation to the Company in connection with the Registration Statement and (iii) such review of published sources of law as we have deemed necessary.

This firm, in rendering legal opinions, customarily makes certain assumptions which are described in SCHEDULE B attached hereto. In the course of our representation of the Company in connection with the preparation of the Registration Statement, nothing has come to our attention which causes us to believe reliance upon any of those assumptions is inappropriate, and, with your concurrence, the opinions hereafter expressed are based upon those assumptions. For purposes of those assumptions, the Enumerated Party referred to in SCHEDULE B is the Company.

Our opinions contained herein are limited to the laws of The Commonwealth of Massachusetts, the Federal laws of the United States of America and, with respect to the due authorization of the Shares, the General Corporation Law of the State of Delaware.

We express no legal opinion upon any matter other than those explicitly addressed in numbered paragraph 1 below, and our express opinion therein contained shall not be interpreted to be implied opinions upon any other matter.

Based upon and subject to the foregoing, we are of the opinion that:

1. The Shares have been duly authorized and when issued and paid for in accordance with the terms of the Stock Purchase Warrant will be validly issued, fully paid and non-assessable.

We understand that this opinion is to be used in connection with the Registration Statement. We consent to the filing of this opinion as an Exhibit to said Registration Statement and to the reference to our firm wherever it appears in the Registration Statement, including the prospectus constituting a part thereof and any amendments thereto. This opinion may be used in connection with the offering of the Shares only while the Registration Statement, as it may be amended from time to time, remains effective under the Act.

Very truly yours,

BROWN, RUDNICK, FREED & GESMER

By: BROWN, RUDNICK, FREED & GESMER, P.C., a Partner

By: /s/ Steven R. London

Steven R. London, A Member
Duly Authorized

SCHEDULE A

LIST OF DOCUMENTS

In connection with the Opinion Letter to which this SCHEDULE A is attached, we have reviewed the following Documents. However, except as otherwise expressly indicated, we have not reviewed any other documents, instruments or agreements listed upon or referred to in any of the following Documents:

(i) the Restated Certificate of Incorporation of the Company, certified by the Secretary of the Company;

(ii) the Amended and Restated By-laws of the Company, certified by the Secretary of the Company as presently being in effect;

(iii) resolutions adopted by the Board of Directors of the Company authorizing, among other things, that the Company issue a Stock Purchase Warrant to Silicon Valley Bank;

(iv) the Stock Purchase Warrant for 50,000 shares of the Company's common stock issued to Silicon Valley Bank as of April 1, 1994;

(v) a letter from the Company's Transfer Agent dated as of a recent date as to the issued and outstanding shares of the Company; and

(vi) the Registration Statement.

SCHEDULE B

BROWN, RUDNICK, FREED & GESMER
STANDARD ASSUMPTIONS

In rendering legal opinions in third party transactions, Brown, Rudnick, Freed & Gesmer makes certain customary assumptions described below:

1. Each natural person executing any of the Documents has sufficient legal capacity to enter into such Documents and perform the transactions contemplated thereby.

2. Each person other than the Enumerated Party holds requisite title and rights to any property purported to be owned by it.

3. Each person other than the Enumerated Party has all requisite power and authority and has taken all necessary corporate or other action to enter into those Documents to which it is a party or by which it is bound, to the extent necessary to make the Documents enforceable against it.

4. Each person other than the Enumerated Party has complied with all legal requirements pertaining to its status as such status relates to its rights to enforce the Documents against the Enumerated Party.

5. Each Document is accurate, complete and authentic, each original is authentic, each copy conforms to an authentic original and all signatures are genuine.

6. All official public records are accurate, complete and properly indexed and filed.

7. There has not been any mutual mistake of fact or misunderstanding, fraud, duress, or undue influence by or among any of the parties to the Documents.

8. The conduct of the parties to the Documents has complied in the past and will comply in the future with any requirement of good faith, fair dealing and conscionability.

9. There are no agreements or understandings among the parties to or bound by the Documents, and there is no usage of trade or course of prior dealing among such parties, that would define, modify, waive, or qualify the terms of any of the Documents.

EXHIBIT (23)(b)

ACCOUNTANTS' CONSENT

The Board of Directors of Alpha Industries, Inc.:

We consent to the incorporation herein by reference of our report dated May 9, 1997 included in Alpha Industries, Inc.'s Annual Report on Form 10-K for the fiscal year ended March 30, 1997 and to the reference to our Firm under the heading "Experts" in the prospectus.

KPMG Peat Marwick LLP

Boston, Massachusetts
January 13, 1998