

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-3

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

ANALOG DEVICES, INC.
(Exact name of registrant as specified in its charter)

MASSACHUSETTS
(State or other jurisdiction of
incorporation or organization)

04-2348234
(I.R.S. Employer.
Identification No.)

ONE TECHNOLOGY WAY, NORWOOD, MASSACHUSETTS 02062-9106 (617) 329-4700
(Address, including zip code, and telephone number, including area code, of
registrant's principal executive offices)

PAUL P. BROUNTAS, ESQ.
HALE AND DORR
60 STATE STREET
BOSTON, MASSACHUSETTS 02109
(617) 526-6000
(Name, address, including zip code, and telephone number, including area
code, of agent for service)

Copy to:
PAUL P. BROUNTAS, ESQ.
MARK G. BORDEN, ESQ.
Hale and Dorr
60 State Street
Boston, Massachusetts 02109
(617) 526-6000

Approximate date of commencement of proposed sale to the public: At the discretion of the Selling Stockholders.

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please 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 registering additional securities pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. 333- / /

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. 333- / /

If delivery of the prospectus is expected to be made pursuant Rule 434, please check the following box. / /

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered(1)	Proposed Maximum Offering Price Per Share(1)	Proposed Maximum Aggregate Offering Price(1)	Amount of Registration Fee
Common Stock, \$.16 2/3 par value.....	2,250,000 shares	\$18.375	\$41,343,750	\$14,256.47

(1) Estimated solely for purposes of calculating the registration fee pursuant to Rule 457(c) of the Securities Act of 1933, as amended, on the basis of the average of the high and low sales prices of the Registrant's Common Stock on the New York Stock Exchange on July 16, 1996.

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.

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 UNDER THE SECURITIES LAWS OF ANY SUCH STATE.

SUBJECT TO COMPLETION, DATED JULY 19, 1996

2,250,000 Shares

[ANALOG LOGO]

COMMON STOCK

The 2,250,000 shares (the "Shares") of Common Stock, \$.16 2/3 par value per share (the "Common Stock"), of Analog Devices, Inc. ("Analog" or the "Company") covered by this Prospectus will be issued to Bourns, Inc. ("Bourns") upon exercise of a warrant issued to Bourns in connection with the acquisition of Precision Monolithics, Inc. by the Company in 1990. Initially, the Shares are to be offered by or for the account of Bourns. In the event that Bourns hereafter transfers any of the Shares to any person or entity identified in this Prospectus as a Selling Stockholder (together with Bourns, the "Selling Stockholders"), such Shares may thereafter be offered by or for the account of such Selling Stockholders. See "The Selling Stockholders." The Company will not receive any of the proceeds from the sale of the shares by the Selling Stockholders. The Common Stock is traded on the New York Stock Exchange under the symbol "ADI." On July 16, 1996, the last reported sale price of the Common Stock on the New York Stock Exchange was \$19.375 per share.

SEE "RISK FACTORS" BEGINNING ON PAGE 4 FOR A DISCUSSION OF CERTAIN FACTORS THAT SHOULD BE CONSIDERED BY PROSPECTIVE INVESTORS.

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION NOR HAS THE 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 _____, 1996.

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 and other information with the Securities and Exchange Commission (the "Commission"). The reports, proxy materials and other information filed by the Company with the Commission may be inspected and copied at the public reference facilities maintained by the Commission at the Public Reference Section of the Commission at 450 Fifth Street, N.W., Washington, D.C. 20549, and at the Regional Offices of the Commission located at Seven World Trade Center, Suite 1300, New York, New York 10048, and at Citicorp Center, 500 West Madison Street, Suite 1400, Chicago, Illinois 60661. Copies of such materials also may be obtained from the Public Reference Section of the Commission at 450 Fifth Street, N.W., Washington, D.C. 20549 at prescribed rates. The Common Stock of the Company is listed on the New York Stock Exchange. Reports, proxy materials and other information concerning the Company may also be inspected at the offices of the New York 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, as amended (the "Securities Act"), with respect to the shares of Common Stock offered hereby. This Prospectus does not contain all the information set forth in the Registration Statement and the exhibits and schedules thereto, certain portions of which are omitted as permitted by the rules and regulations of the Commission. For further information with respect to the Company and the shares of Common Stock offered hereby, reference is made to the Registration Statement, including the exhibits and schedules. The Registration Statement, together with the exhibits and schedules thereto, may be inspected, without charge, at the Commission's principal office at 450 Fifth Street, N.W., Washington, D.C. 20549, and also at the regional offices of the Commission listed above. Copies of such material may also be obtained from the Commission upon the payment of prescribed rates.

Statements contained in this Prospectus as to any contracts, agreements or other documents filed as an exhibit to the Registration Statement are not necessarily complete, and in each instance reference is hereby made to the copy of such contract, agreement or other document filed as an exhibit to the Registration Statement for a full statement of the provisions thereof, and each such statement in this Prospectus is qualified in all respects by such reference.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

In accordance with the requirements of the Exchange Act, certain reports and other information are filed by the Company periodically with the Commission. The following documents filed by the Company with the Commission are incorporated herein by reference: (1) the Company's Annual Report on Form 10-K for the fiscal year ended October 28, 1995, (2) the

Company's Quarterly Report on Form 10-Q for the quarter ended February 3, 1996, (3) the Company's Quarterly Report on Form 10-Q for the quarter ended May 4, 1996, (4) the Company's Current Report on Form 8-K filed on July 16, 1996 and (5) all documents filed by the Company pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after July 19, 1996 and prior to the date of this Prospectus.

All documents filed by the Company pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this Prospectus and before the termination of the offering of the Common Stock offered hereby shall be deemed to be a part hereof from the date of filing such documents. Any statement contained herein or 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 which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement as so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Prospectus.

The Company will provide without charge to each person to whom this Prospectus is delivered, on the request of any such person, a copy of any or all of the above documents incorporated herein by reference (other than exhibits to such documents, unless such exhibits are specifically incorporated by reference into the documents that this Prospectus incorporates). Requests should be directed to Joseph E. McDonough, Vice President-Finance of Analog Devices, Inc., One Technology Way, Norwood, MA 02062-9106; telephone number (617) 329-4700.

RISK FACTORS

The shares of Common Stock offered hereby involve a high degree of risk, including the risks described below. Prospective investors should carefully consider the following risk factors in addition to the other information contained in, or incorporated by reference in, this Prospectus before purchasing the shares of Common Stock offered hereby.

POTENTIAL FLUCTUATIONS IN OPERATING RESULTS. The Company's operating results are affected by a wide variety of factors, including the timing of new product announcements or introductions by the Company and its competitors, competitive pricing pressures, fluctuations in manufacturing yields, adequate availability of wafers and manufacturing capacity, changes in product mix and economic conditions in the United States and international markets. In addition, the semiconductor market has historically been cyclical and subject to significant economic downturns at various times. As a result of these and other factors, there can be no assurance that the Company will not experience material fluctuations in future operating results on a quarterly or annual basis.

DEPENDENCE ON NEW PRODUCTS AND NEW MARKETS. The Company's success depends in part on its continued ability to develop and market new products. There can be no assurance that the Company will be able to develop and introduce new products in a timely manner or that such products, if developed, will achieve market acceptance. In addition, the Company's growth is dependent on its continued ability to penetrate new markets such as the communications, computer and automotive segments of the electronics market, where the Company has limited experience and competition is intense. There can be no assurance that the markets being served by the Company will continue to grow, that the Company's existing and new products will meet the requirements of such markets, that the Company's products will achieve customer acceptance in such markets, that competitors will not force prices to an unacceptably low level or take market share from the Company or that the Company can achieve or maintain profits in these markets. In addition, some of the customers in these markets are less well established which could subject the Company to increased credit risk.

COMPETITION. The semiconductor industry is intensely competitive. Certain of the Company's competitors have greater technical, marketing, manufacturing and financial resources than the Company. The Company's competitors also include emerging companies attempting to sell products to specialized markets such as those served by the Company. Competitors of the Company have, in some cases, developed and marketed products having similar design and functionality as the Company's products. There can be no assurance that the Company will be able to compete successfully in the future against existing or new competitors or that the Company's operating results will not be adversely affected by increased price competition.

MANUFACTURING CAPACITY. While the Company is planning in fiscal 1996 to increase substantially its manufacturing capacity through

both expansion of its production facilities and increased access to third-party foundries, there can be no assurance that the Company will complete the expansion of its production facilities or secure increased access to third party foundries in a timely manner or that the Company will not encounter unanticipated production problems at either its own facilities or at third-party foundries. The Company relies, and plans to continue to rely, on third-party wafer fabricators to supply most of its wafers that can be manufactured using industry-standard digital processes, and such reliance involves several risks, including the absence of adequate guaranteed capacity and reduced control over delivery schedules, manufacturing yields and costs. In addition, the Company's capacity additions will result in a significant increase in operating expenses and, if revenue levels do not increase to offset these additional expense levels, the Company's future operating results could be adversely affected.

The Company believes that other semiconductor manufacturers are also expanding or planning to expand their production capacity over the next several years, and there can be no assurance that the expansion by the Company and its competitors will not lead to over capacity in the Company's target markets, which could lead to price erosion that would adversely affect the Company's operating results.

MANUFACTURING RISKS. The fabrication of integrated circuits involves highly complex and precise processes that are continuously being modified in an effort to improve yields and product performance. Minute impurities or other difficulties in the manufacturing process can lower yields. As the Company continues to increase its manufacturing output and its use of third-party foundries, there can be no assurance that the Company will not experience a decrease in manufacturing yields or other manufacturing problems. Decreased yields could adversely affect gross margin and operating results. If the Company were unable to use any manufacturing facility, as a result of a natural disaster or otherwise, the Company's operations would be materially adversely affected.

PATENTS AND INTELLECTUAL PROPERTY. The semiconductor industry is characterized by frequent claims and litigation involving patent and other intellectual property rights. The Company has from time to time received, and may in the future receive, claims from third parties asserting that the Company's products or processes infringe their patents or other intellectual property rights. In the event a third party makes a valid intellectual property claim and a license is not available on commercially reasonable terms, the Company's operating results could be materially and adversely affected. Litigation may be necessary to enforce patents or other intellectual property rights of the Company or to defend the Company against claims of infringement, and such litigation can be costly and divert the attention of key personnel. See Part II, Item 1 - "Legal Proceedings," contained in the Form 10-Q for the fiscal quarter ended May 4, 1996 and Part I, Item 3 - "Legal Proceedings," contained in the Company's Annual Report on Form 10-K for the fiscal year ended October 28, 1995 for information concerning pending litigation involving the Company. An adverse resolution

of such litigation, may, in certain cases, have a material adverse effect on the Company's consolidated financial position or on its consolidated results of operations or cash flows in the period in which the litigation is resolved.

INTERNATIONAL OPERATIONS. A significant portion of the Company's revenues are derived from customers in international markets. The Company has manufacturing facilities in Ireland, the Philippines and Taiwan. The Company is therefore subject to the economic and political risks inherent in international operations, including expropriation, air transportation disruptions, currency controls and changes in currency exchange rates, tax and tariff rates and freight rates. Although the Company engages in certain hedging transactions to reduce its exposure to currency exchange rate fluctuations, there can be no assurance that the Company's competitive position will not be adversely affected by changes in the exchange rate of the U.S. dollar against other currencies.

STOCK PRICE VOLATILITY. The trading price of the Company's Common Stock may be subject to wide fluctuations in response to quarter-to-quarter variations in operating results, announcements of new products by the Company or its competitors, general conditions in the semiconductor industry, changes in earnings estimates and recommendations by analysts or other events. In future quarters, if the Company's financial performance were to fall below the performance predicted by securities analysts, the Company's stock price could decline. In addition, the public stock markets have experienced extreme price and trading volume volatility that has significantly affected the market prices of securities of many high technology companies and that has often been unrelated or disproportionate to the operating performance of these companies. These factors may adversely affect the market price of the Common Stock.

THE COMPANY

The Company designs, manufactures and markets a broad line of high-performance linear, mixed-signal and digital integrated circuits ("ICs") that address a wide range of real-world signal processing applications. The Company's principal products include general-purpose, standard-function linear and mixed-signal ICs ("SLICs"), special-purpose linear and mixed-signal ICs ("SPLICs") and digital signal processing ICs ("DSP ICs"). The Company also manufactures and markets devices using assembled product technology.

Analog believes it is one of the world's largest suppliers of SLIC products. The Company's SLIC products are primarily high-performance, single-function devices. The majority of the Company's SLIC revenue is attributable to data converters (analog-to-digital and digital-to-analog) and amplifiers. Other SLIC products offered by the Company include analog signal-processing devices (such as analog multipliers), voltage references and comparators. SLICs are sold to a very large customer base for a wide variety of applications, including applications in the medical, engineering and scientific instruments market, factory automation market and military/ aerospace market.

Over the past five years, Analog has sought to balance its traditionally stable SLIC business with the growth opportunities available for SPLICs and DSP ICs, particularly in the communications and computer markets. Analog's SPLIC and DSP IC products feature high levels of functional integration on a single chip and are designed to address customers' needs to incorporate increasingly greater levels of real-world signal processing capability in their products. The Company's SPLIC and DSP ICs include products used in wireless communication applications, such as digital mobile phones and base stations, and computer applications, such as audio enhancement in multimedia PCs.

The Company is a Massachusetts corporation with its principal headquarters located at One Technology Way, Norwood, Massachusetts 02062-9106; and its telephone number is (617) 329-4700.

USE OF PROCEEDS

The Company will not receive any proceeds from the sale of Common Stock by the Selling Stockholders.

THE SELLING STOCKHOLDERS

The shares of Common Stock covered by this Prospectus will be issued upon exercise of a warrant issued to Bourns in connection with the acquisition of Precision Monolithics, Inc. by the Company in 1990.

The following table sets forth the name and the number of shares of Common Stock beneficially owned by the Selling Stockholders as of July 17, 1996, and the number of the shares to be offered by the Selling Stockholders pursuant to this Prospectus.

NAME OF SELLING STOCKHOLDER	TOTAL NUMBER OF SHARES OF COMMON STOCK BENEFICIALLY OWNED	SHARES OF COMMON STOCK OFFERED HEREBY
Bourns, Inc.	2,250,000(1)	2,250,000(1)
University of California Riverside	(2)	(2)

-
- (1) Less such number of shares, if any, which are hereafter from time to time donated by Bourns to the University of California Riverside.
- (2) Such number of shares, if any, as Bourns may hereafter from time to time donate to such institution.

The Company cannot determine the number of shares of Common Stock which will be held by the Selling Stockholders upon the completion of the offering, as the length of time of the offering period and the determination of whether to buy or sell additional securities of the Company during the offering period are at the discretion of the Selling Stockholders.

PLAN OF DISTRIBUTION

Shares of Common Stock covered hereby may be offered and sold from time to time by the Selling Stockholders, or by pledgees, donees, transferees or other successors in interest ("Transferees"). Such sales may be made on one or more exchanges or in the over-the-counter market or otherwise, at prices and terms then prevailing or at prices related to the then current market price, or in negotiated transactions. The shares may be sold by means of one or more of the following: (a) a block trade in which the broker-dealer so engaged will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction; (b) purchases by a broker-dealer as principal and resale by such broker-dealer for its account pursuant to this Prospectus; (c) an exchange distribution in accordance with the rules of such exchange; (d) ordinary

brokerage transactions and transactions in which the broker solicits purchasers; (e) direct sales by the Selling Stockholders or Transferees not involving a broker-dealer; and (f) donations to a charity or other donee and resale by the donee pursuant to this Prospectus. In effecting sales, broker-dealers engaged by the Selling Stockholders or Transferees may arrange for other broker-dealers to participate in the resales.

In connection with distributions of the shares of Common Stock covered hereby or otherwise, the Selling Stockholders or Transferees may enter into hedging transactions with broker-dealers or financial institutions. In connection with such transactions, the broker-dealers or financial institutions may engage in short sales of the shares registered hereunder in the course of hedging the positions they assume with the Selling Stockholders or Transferees. The Selling Stockholders or Transferees may also sell shares short and redeliver the shares to close out such short positions. The Selling Stockholders or Transferees may also enter into option or other transactions with broker-dealers or financial institutions which require the delivery to such broker-dealer or financial institution of the shares registered hereunder, which the broker-dealer or financial institution may resell or otherwise transfer pursuant to this Prospectus. The Selling Stockholders or Transferees may also loan or pledge the shares of Common Stock covered hereby to a broker-dealer or financial institution and such broker-dealer or financial institution may sell the shares so loaned or upon a default the broker-dealer or financial institution may affect sales of the pledged shares pursuant to this Prospectus.

Broker-dealers, financial institutions or agents may receive compensation in the form of commissions, discounts or concessions from the Selling Stockholders or Transferees in amounts to be negotiated in connection with the sale. Such broker-dealers, financial institutions and any other participating broker-dealers may be deemed to be "underwriters" within the meaning of the Securities Act in connection with such sales, and any such commission, discount or concession may be deemed to be underwriting discounts or commissions under the Securities Act. In addition, any securities covered by this Prospectus which qualify for sale pursuant to Rule 144 may be sold under Rule 144 rather than pursuant to this Prospectus.

The Company has advised Bourns that during such time as the Selling Stockholders may be engaged in a distribution of the shares of Common Stock covered hereby they are required to comply with Rules 10b-6 and 10b-7 under the Exchange Act (as those Rules are described in more detail below) and, in connection therewith, that they may not engage in any stabilization activity in connection with the Company's securities, are required to furnish to each broker-dealer through which the shares of Common Stock covered hereby may be offered copies of this Prospectus, and may not bid for or purchase any securities of the Company or attempt to induce any person to purchase any Company securities except as permitted under the Exchange Act. Bourns has agreed to inform the Company when the distribution of the shares of Common Stock covered hereby is completed.

Rule 10b-6 under the Exchange Act prohibits, with certain exceptions, participants in a distribution from bidding for or purchasing, for an account in which the participant has a beneficial interest, any of the securities that are the subject of the distribution. Rule 10b-7 governs bids and purchases made in order to stabilize the price of a security in connection with a distribution of the security.

This offering will terminate on the earlier of (i) 24 months after the effective date of this Prospectus or (ii) the date on which the shares of Common Stock covered hereby have been sold by the Selling Stockholders.

DESCRIPTION OF CAPITAL STOCK

The authorized capital stock of the Company consists of 450,000,000 shares of Common Stock, \$.16 2/3 par value per share, and 500,000 shares of preferred stock, \$1.00 par value per share (the "Preferred Stock").

COMMON STOCK

As of July 15, 1996, there were 116,257,830 shares of Common Stock outstanding and held of record by approximately 5,499 stockholders.

Holders of Common Stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders, and do not have cumulative voting rights. Accordingly, holders of a majority of the shares of Common Stock entitled to vote in any election of directors may elect all of the directors standing for election. Holders of Common Stock are entitled to receive ratably such dividends, if any, as may be declared by the Board of Directors out of funds legally available therefor, subject to any preferential dividend rights of outstanding Preferred Stock. Upon the liquidation, dissolution or winding up of the Company, the holders of Common Stock are entitled to receive ratably the net assets of the Company available after the payment of all debts and other liabilities and subject to the prior rights of any outstanding Preferred Stock. Holders of the Common Stock have no preemptive, subscription, redemption or conversion rights. The outstanding shares of Common Stock are fully paid and nonassessable. The rights, preferences and privileges of holders of Common Stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of Preferred Stock which the Company may designate and issue in the future. There are no shares of Preferred Stock outstanding.

PREFERRED STOCK

The Board of Directors of the Company is authorized, subject to certain limitations prescribed by law, without further stockholder approval to issue from time to time up to an aggregate of 500,000 shares of Preferred Stock in one or more series and to fix or alter the designations, preferences, rights and any qualifications, limitations or restrictions of the shares of each such series thereof, including the dividend rights, dividend rates,

conversion rights, voting rights, terms of redemption (including sinking fund provisions), redemption price or prices, liquidation preferences and the number of shares constituting any series or designation of such series. The issuance of Preferred Stock may have the effect of delaying, deferring or preventing a change of control of the Company. The Company has no present plans to issue any shares of Preferred Stock.

MASSACHUSETTS LAW AND CERTAIN PROVISIONS OF THE COMPANY'S RESTATED ARTICLES OF ORGANIZATION AND BY-LAWS

Because the Company has more than 200 stockholders of record, it is subject to Chapter 110F of the Massachusetts General Laws, an anti-takeover law. In general, this statute prohibits a publicly held Massachusetts corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person becomes an interested stockholder, unless (i) the interested stockholder obtains the approval of the Board of Directors prior to becoming an interested stockholder, (ii) the interested stockholder acquires 90% of the outstanding voting stock of the corporation (excluding shares held by certain affiliates of the corporation) at the time it becomes an interested stockholder, or (iii) the business combination is approved by both the Board of Directors and the holders of two-thirds of the outstanding voting stock of the corporation (excluding shares held by the interested stockholder). An "interested stockholder" is a person who, together with affiliates and associates, owns (or at any time within the prior three years did own) 5% or more of the outstanding voting stock of the corporation. A "business combination" includes a merger, a stock or asset sale, and certain other transactions resulting in a financial benefit to the interested stockholders.

Massachusetts General Laws Chapter 156B, Section 50A generally requires that publicly-held Massachusetts corporation have a classified board of directors consisting of three classes as nearly equal in size as possible, unless the corporation elects to opt out of the statute's coverage. The Company's By-Laws contain provisions which give effect to Section 50A.

The Company's By-Laws include a provision excluding the Company from the applicability of Massachusetts General Laws Chapter 110D, entitled "Regulation of Control Share Acquisitions." In general, this statute provides that any stockholder of a corporation subject to this statute who acquires 20% or more of the outstanding voting stock of a corporation may not vote such stock unless the stockholders of the corporation so authorize. The Board of Directors may amend the Company's By-Laws at any time to subject the Company to this statute prospectively.

The Restated Articles of Organization of the Company, as amended (the "Articles of Organization") provide that the directors and officers of the Company shall be indemnified by the Company to the fullest extent authorized by Massachusetts law, as it now exists or may in the future be amended, against all liabilities and expenses incurred in connection with service for

or on behalf of the Company. In addition, the Articles of Organization provide that the directors of the Company will not be personally liable for monetary damages to the Company for breaches of their fiduciary duty as directors.

STOCKHOLDER RIGHTS PLAN

The Company adopted a Stockholder Rights Plan on January 28, 1988, which was amended on June 14, 1989 (the "Rights Plan"). Pursuant to the Rights Plan, each share of Common Stock has an associated right (a "Right"). Each Right entitles the registered holder to purchase from the Company one share of Common Stock at a purchase price of \$26.67 (as adjusted to account for the 50% Common Stock dividend distributed by the Company on January 3, 1996) per share, subject to adjustment (the "Purchase Price").

The Rights will be exercisable upon the earlier of (i) ten business days following a public announcement that a person or group has acquired, or obtained the right to acquire, beneficial ownership of 20% or more of the outstanding Common Stock of the Company (an "Acquiring Person"), or (ii) ten business days following the commencement of a tender offer or exchange offer, the consummation of which would result in a person or group owning 30% or more of the outstanding Common Stock (the earlier of such dates being called the "Distribution Date"). Until a Right is exercised, the holder thereof has no rights as a stockholder of the Company. Until the Distribution Date (or earlier redemption or expiration of the Rights), Rights are transferred with and only with the Common Stock.

In certain circumstances specified in the Rights Plan, including certain circumstances occurring after any person or group becomes an Acquiring Person, each holder of a Right, other than Rights beneficially owned by the Acquiring Person, will thereafter have the right to receive upon exercise that number of shares of Common Stock having a market value of two times the Purchase Price, and in the event that the Company is acquired in a business combination transaction or 50% or more of its assets are sold, each holder of a Right will thereafter have the right to receive upon exercise that number of shares of Common Stock of the acquiring company which at the time of the transaction will have a market value of two times the Purchase Price.

The Rights have certain anti-takeover effects, in that they would cause substantial dilution to a person or group that attempts to acquire a significant interest in the Company on terms not approved by the Board of Directors. The Board of Directors of the Company may in certain circumstances redeem the Rights in whole at a price of \$.0089 per Right, as adjusted.

TRANSFER AGENT AND REGISTRAR

The transfer agent and registrar for the Company's Common Stock is Boston EquiServe L.P.

LEGAL MATTERS

The validity of the shares offered hereby will be passed upon for the Company by Hale and Dorr, Boston, Massachusetts.

EXPERTS

The consolidated financial statements of Analog Devices, Inc. appearing in Analog Devices, Inc.'s Annual Report (Form 10-K) for the year ended October 28, 1995 have been audited by Ernst & Young LLP, independent auditors, as set forth in their report thereon included therein and incorporated herein by reference. Such financial statements are incorporated herein by reference in reliance upon such report given upon the 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 representation in connection with this offering other than those contained in this Prospectus, and any information or representation not contained herein must not be relied upon as having been authorized by the Company. This Prospectus does not constitute an offer to sell, or a solicitation of an offer to buy, any securities other than the registered securities to which it relates or an offer to, or solicitation of, any person in any jurisdiction where such an offer or solicitation would be unlawful. Neither the delivery of this Prospectus nor any sale made hereunder shall, under any circumstance, create any implication that there has been no change in the affairs of the Company since the date hereof or that the information contained herein is correct as of any date subsequent to the date hereof.

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2,250,000 Shares

[ANALOG LOGO]

COMMON STOCK

 PROSPECTUS

, 1996

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 14. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION.

The following table sets forth the various expenses in connection with the issuance and distribution of the securities being registered. All amounts shown are estimates except the Securities and Exchange Commission registration fee.

SEC Registration Fee.....	\$14,256.47
NYSE Listing Fee.....	7,875.00
Transfer Agent and Registrar.....	500.00
Accounting Fees and Expenses.....	4,000.00
Legal Fees and Expenses.....	10,000.00
Printing and Engraving.....	3,000.00
Miscellaneous.....	\$ 2,368.53

Total.....	\$42,000.00
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ITEM 15. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

Article 6A of the Registrant's Articles of Organization, as amended (the "Articles of Organization") provides for indemnification of directors and officers to the full extent permitted under Massachusetts law. Section 67 of Chapter 156B of the Massachusetts General Laws provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation and certain other persons serving at the request of the corporation and certain other persons serving at the request of the corporation in related capacities against amounts paid and expenses incurred in connection with an action or proceeding to which he is or is threatened to be made a party by reason of such position, if such person shall have acted in good faith and in a manner he reasonably believed to be in the best interests of the corporation, provided that, no indemnification shall be made with respect to any matter as to which such person shall have been adjudged not to be entitled to indemnification under Section 67.

Article 6A also provides for indemnification of directors and officers of the Registrant against liabilities and expenses in connection with any legal proceedings to which they may be made a party or with which they may become involved or threatened by reason of having been an officer or director of the Registrant or of any other organization at the request of the Registrant. Article 6A generally provides that a director or officer of the Registrant (i) shall be indemnified by the Registrant for all expenses of such legal proceedings unless he has been adjudicated not to have acted in good faith in the reasonable belief that his action was in the best interests of the Registrant, and (ii) shall be indemnified by the Registrant for the expenses, judgments, fines and amounts paid in settlement and

compromise of such proceedings. No indemnification will be made to cover costs of settlements and compromises if the Board determines by a majority vote of a quorum consisting of disinterested directors (or, if such quorum is not obtainable, by a majority of the disinterested directors of the Registrant), that such settlement or compromise is not in the best interests of the Registrant.

Article 6A permits the payment by the Registrant of expenses incurred in defending a civil or criminal action in advance of its final disposition, subject to receipt of an undertaking by the indemnified person to repay such payment if it is ultimately determined that such person is not entitled to indemnification under the Articles of Organization. No advance may be made if the Board of Directors determines, by a majority vote of a quorum consisting of disinterested directors (or, if such quorum is not obtainable, by a majority of the disinterested directors of the Registrant), that such person did not act in good faith in the reasonable belief that his action was in the best interest of the Registrant.

Article 6D of the Registrant's Articles of Organization provides that no director shall be liable to the Registrant or its stockholders for monetary damages for breach of his fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to the Registrant or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 61 or 62 of Chapter 156B, or (iv) for any transaction from which the director derived an improper personal benefit.

The Registrant has directors and officers liability insurance for the benefit of its directors and officers.

ITEM 16. EXHIBITS.

See Exhibit Index included immediately preceding the Exhibits to this Registration Statement, which is incorporated herein by reference.

ITEM 17. UNDERTAKINGS.

(a) 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:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933, as amended (the "Securities Act");

(ii) To reflect in the prospectus any facts or events arising after the effective date of this Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this Registration Statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in this Registration Statement or any material change to such information in this Registration Statement;

provided, however, that paragraphs (1)(i) and (1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") that are incorporated by reference in this Registration Statement.

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

(b) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the provisions described under "Item 15 -- Indemnification of Directors and Officers" above, or otherwise, 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 Securities 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 Securities Act and will be governed by the final adjudication of such issue.

(c) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act, (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in this 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 bona fide offering thereof.

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 of 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 Norwood, Commonwealth of Massachusetts, on this 19th day of July, 1996.

ANALOG DEVICES, INC.

By: /S/ RAY STATA

 Ray Stata
 Chairman of the Board and
 Chief Executive Officer

POWER OF ATTORNEY

We, the undersigned officers and directors of Analog Devices, Inc., hereby severally constitute and appoint Ray Stata, Jerald G. Fishman and Joseph E. McDonough, and each of them singly, our true and lawful attorneys with full power to them, and each of them singly, to sign for us and in our names, in the capacities indicated below, the Registration Statement filed herewith, and any and all amendments (including post-effective amendments) to said Registration Statement (or any other Registration Statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933) and generally to do all such things in our names and behalf in our capacities as officers and directors to enable Analog Devices, Inc. to comply with the Securities Act of 1933, and all requirements of the Securities and Exchange Commission, hereby ratifying and confirming our signatures as they may be signed by our said attorneys, or any of them, to any such Registration Statement and any and all amendments thereto.

Witness our hands and common seal on the date set forth below.

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 ----
(i) Principal Executive Officers)
/S/ RAY STATA	Chairman of the Board, Chief)
-----	Executive Officer and Director)
RAY STATA)
/S/ JERALD G. FISHMAN	President, Chief Operating)
-----	Officer and Director)
JERALD G. FISHMAN)
(ii) Principal Financial Officer and Principal Accounting Officer)
/S/ JOSEPH E. MCDONOUGH	Vice President-Finance and)
-----	Chief Financial Officer)
JOSEPH E. MCDONOUGH)

(iii) Board of Directors) July 19, 1996
/S/ JOHN L. DOYLE	Director)
-----)
JOHN L. DOYLE)
/S/ SAMUEL H. FULLER	Director)
-----)
SAMUEL H. FULLER)
/S/ PHILIP L. LOWE	Director)
-----)
PHILIP L. LOWE)
/S/ GORDON C. MCKEAGUE	Director)
-----)
GORDON C. MCKEAGUE)
/S/ JOEL MOSES	Director)
-----)
JOEL MOSES)
/S/ LESTER C. THUROW	Director)
-----)
LESTER C. THUROW)

EXHIBIT INDEX

EXHIBIT NUMBER -----	DESCRIPTION -----
4.01	Restated Articles of Organization of the Registrant, as amended (incorporated herein by reference to the Registrant's Form S-8, dated as of May 30, 1996).
4.02	By-Laws of the Registrant, as amended (incorporated herein by reference to the Registrant's Form 10-K for the fiscal year ended October 31, 1992).
4.03	Rights Agreement, as amended, between the Registrant and The First National Bank of Boston, as Rights Agent (incorporated herein by reference to a Form 8 filed on June 27, 1989 amending the Registration Statement on Form 8-A relating to Common Stock Purchase Rights).
4.04	Warrant Agreement dated as of August 8, 1990 between Analog Devices, Inc. and Bourns, Inc. as amended by the Letter Agreement dated July 17, 1996.
5.01	Opinion of Hale and Dorr.
23.01	Consent of Hale and Dorr (included in Exhibit 5.01).
23.02	Consent of Ernst & Young LLP.
24.01	Powers of Attorney (included on page II-4).

WARRANT AGREEMENT

BETWEEN

ANALOG DEVICES, INC.

and

BOURNS, INC.

Dated as of August 8, 1990

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This Warrant Agreement, dated as of August 8, 1990, is by and between ANALOG DEVICES, INC., a Massachusetts corporation (the "Company"), and BOURNS, INC., a California corporation ("Bourns").

WHEREAS, the Company proposes to issue to Bourns, or its designee, Common Stock purchase Warrants, as hereinafter described (the "Warrants"), to purchase up to an aggregate of 1,000,000 shares of Common Stock, par value \$.16 2/3 per share (the "Common Stock"), of the Company (the Common Stock issuable on exercise of the Warrants being referred to herein as the "Warrant Shares"), pursuant to a Stock Purchase Agreement of even date herewith, which provides, upon the terms and subject to the conditions thereof, for the acquisition by the Company of 8,344 shares of common stock of Precision Monolithics, Inc., a Delaware corporation, owned by Bourns.

NOW, THEREFORE, in consideration of the premises and the mutual agreements herein set forth, the parties hereto agree as follows:

SECTION 1. Warrant Certificates. The certificates evidencing the Warrants (the "Warrant Certificates") to be delivered pursuant to this Agreement shall be in registered form only and shall be substantially in the form set forth in Exhibit A attached hereto.

SECTION 2. Execution of Warrant Certificates. Warrant Certificates shall be signed on behalf of the Company by its Chairman of the Board or its President or a Vice President and by its Clerk or an Assistant Clerk under its corporate seal.

In case any officer of the Company who shall have signed any of the Warrant Certificates shall cease to be such officer before the Warrant Certificates so signed shall have been disposed of by the Company, such Warrant Certificates nevertheless may be delivered or disposed of as though such person had not ceased to be such officer of the Company; and any Warrant Certificate may be signed on behalf of the Company by any person who, at the actual date of the execution of such Warrant Certificate, shall be a proper officer of the Company to sign such Warrant Certificate, although at the date of the execution of this Warrant Agreement any such person was not such officer.

SECTION 3. Registration. The Company shall number and register the Warrant Certificates in a register as they are issued. The Company may deem and treat the registered holder(s) of the Warrant Certificates as the absolute owner(s) thereof (notwithstanding any notation of ownership or other writing

thereon made by anyone), for all purposes, and shall not be affected by any notice to the contrary.

SECTION 4. Registration of Transfers and Exchanges. The Company shall from time to time register the transfer of any outstanding Warrant Certificates in a Warrant register to be maintained by the company upon surrender thereof accompanied by a written instrument or instruments of transfer in form satisfactory to the Company, duly executed by the registered holder or holders thereof or by the duly appointed legal representative thereof or by a duly authorized attorney. Upon any such registration of transfer, a new Warrant Certificate shall be issued to the transferee(s) and the surrender Warrant Certificate shall be cancelled and disposed of by the Company.

The Warrant holders agree that prior to any proposed transfer of the Warrants or of the Warrant Shares, if such transfer is not made pursuant to an effective Registration Statement under the Securities Act of 1933, as amended (the "Act"), or an opinion of counsel, reasonably satisfactory in form and substance to the Company, that the Warrants or Warrant Shares may be sold publicly with registration under the Act, the Warrant holder will, if registered by the Company, deliver to the Company:

- (1) an investment covenant reasonably satisfactory to the Company signed by the proposed transferee;
- (2) an agreement by such transferee to the impression of the restrictive investment legend set forth below on the Warrant or the Warrant Shares;
- (3) an agreement by such transferee that the Company may place a notation in the stock books of the Company or a "stop transfer order" with any transfer agent or registrar with respect to the Warrant Shares; and
- (4) an agreement by such transferee to be bound by the provisions of this Section 4 relating to the transfer of such Warrant or Warrant Shares.

The Warrant holders agree that each certificate representing Warrants or Warrant Shares will bear the following legend:

"THE SECURITIES EVIDENCED OR CONSTITUTED
HEREBY HAVE BEEN ACQUIRED FOR INVESTMENT AND
HAVE NOT BEEN REGISTERED UNDER THE SECURITIES
ACT OF 1933, AS AMENDED. SUCH SECURITIES MAY
NOT BE SOLD, TRANSFERRED, PLEDGED OR
HYPOTHECATED UNLESS THE REGISTRATION

PROVISIONS OF SAID ACT HAVE BEEN COMPLIED WITH OR UNLESS THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED."

Warrant Certificate may be exchanged at the option of the holder(s) thereof, when surrendered to the Company at its office for another Warrant Certificate or other Warrant Certificates of like tenor and representing in the aggregate a like number of Warrants. Warrant Certificates surrendered for exchange shall be cancelled and disposed of by the Company.

SECTION 5. Warrants; Exercise of Warrants. Subject to the terms of this Agreement, each Warrant holder shall have the right, which may be exercised commencing upon the delivery of such Warrant and until 5:00 p.m., New York City time on August 7, 1997 to receive from the Company the number of fully paid and nonassessable Warrant Shares which the holder may at the time be entitled to receive on exercise of such Warrants and payment of the exercise price (the "Exercise Price") which is set forth in the form of Warrant Certificate attached hereto as Exhibit A as adjusted as herein provided. Each Warrant not exercised prior to 5:00 p.m., New York City time, on August 7, 1977 shall become void and all rights thereunder and all rights in respect thereof under this agreement shall cease as of such time. No adjustments as to dividends will be made upon exercise of the Warrants.

A Warrant may be exercised upon surrender to the Company at its office designated for such purpose (the address of which is set forth in Section 14 hereof) of the certificate or certificates evidencing the Warrants to be exercised with the form of election to purchase on the reverse thereof duly completed and signed, which signature shall be guaranteed by a bank or trust company having an office or correspondent in the United States or a broker or dealer which is a member of a registered securities exchange or the National Association of Securities Dealers, Inc., and upon payment to the Company of the Exercise Price, then in effect, for the number of Warrant Shares in respect of which such Warrants are then exercised. Payment of the aggregate exercise Price shall be made in cash or wire transfer in immediately available federal funds to the order of the Company.

Subject to the provisions of Section 6 hereof, upon such surrender of Warrants and payment of the Exercise Price the Company shall issue and cause to be delivered with all reasonable dispatch to or upon the written order of the holder and in such name or names as the Warrant holder may designate, a certificate or certificates for the number of full Warrant Shares issuable

upon the exercise of such Warrants; provided, however, that if any publicly-announced consolidation, merger or lease or sale of assets is proposed to be effected by the Company as described in subsection (j) of Section 10 hereof, or a tender offer or an exchange offer for shares of Common Stock of the Company shall be outstanding, upon such surrender of Warrants and payment of the Exercise Price as aforesaid, the Company shall, as soon as possible, but in any event not later than two business days thereafter, issue and cause to be delivered the full number of Warrant Shares issuable upon the exercise of such Warrants in the manner described in this sentence. Such certificate or certificates shall be deemed to have been issued and any person so designated to be named therein shall be deemed to have become a holder of record of such Warrant Shares as of the date of the surrender of such Warrants and payment of the Exercise Price.

The Warrants shall be exercisable, at the election of the holders thereof, either in full or from time to time in part and, in the event that a certificate evidencing Warrants is exercised in respect of fewer than all of the Warrant Shares issuable on such exercise at any time prior to the date of expiration of the Warrants, a new certificate evidencing the remaining warrant or Warrants will be issued and delivered pursuant to the provisions of this Section and of Section 2 hereof.

All Warrant Certificates surrendered upon exercise of Warrants shall be cancelled and disposed of by the Company. The Company shall keep copies of this Agreement and any notices given or received hereunder available for inspection by the holders during normal business hours at its office.

SECTION 6. Payment of Taxes. The Company will pay all documentary stamp taxes attributable to the initial issuance of Warrant Shares upon the exercise of Warrants; provided, however, that the Company shall not be required to pay any tax or taxes which may be payable in respect of any transfer involved in the issue of any Warrant Certificates or any certificates for Warrant Shares in a name other than that of the registered holder of a Warrant Certificate surrendered upon the exercise of a Warrant, and the Company shall not be required to issue or deliver such Warrant Certificates unless or until the person or persons requesting the issuance thereof shall have paid to the Company the amount of such tax or shall have established to the reasonable satisfaction of the Company that such tax has been paid.

SECTION 7. Mutilated or Missing Warrant Certificates. In case any of the Warrant Certificates shall be Mutilated, lost, stolen or destroyed, the Company may in its discretion issue, in exchange and substitution for and upon cancellation of the

mutilated Warrant Certificate, or in lieu of and substitution for the Warrant Certificate lost, stolen or destroyed, a new Warrant Certificate of like tenor and representing an equivalent number of Warrants, but only upon receipt of evidence reasonably satisfactory to the Company of such loss, theft or destruction of such Warrant Certificate and indemnity, if requested, also reasonably satisfactory to it. Applicants for such substitute Warrant Certificates shall also comply with such other reasonable regulations and pay such other reasonable charges as the Company may prescribe.

SECTION 8. Reservation of Warrant Shares. The Company will at all times reserve and keep available, free from preemptive rights, out of the aggregate of its authorized but unissued Common Stock or its authorized and issued Common Stock held in its treasury, for the purpose of enabling it to satisfy any obligation to issue Warrant Shares upon exercise of Warrants, the maximum number of shares of Common Stock which may then be deliverable upon the exercise of all outstanding Warrants. In case of any adjustment made pursuant to Section 10, the Company shall reserve and keep available, free from preemptive rights, such other securities, if any, sufficient to provide for the exercise of the right of purchase represented by the outstanding Warrants.

The Company or the transfer agent for the Common Stock and every subsequent transfer agent for any shares of the Company's capital stock issuable upon the exercise of any of the rights of purchase aforesaid (collectively, the "Transfer Agent") will be irrevocably authorized and directed at all times to reserve such number of authorized shares as shall be required for such purpose. The Company will keep a copy of this Agreement on file with the Transfer Agent and with every subsequent transfer agent for any shares of the Company's capital stock issuable upon the exercise of the rights of purchase represented by the Warrants. The Company will furnish such Transfer Agent a copy of all notices of adjustments and certificates related thereto, transmitted to each holder pursuant to Section 12 hereof.

Before taking any action which would cause an adjustment pursuant to Section 10 hereof to reduce the Exercise Price below the then par value (if any) of the Warrant Shares, the Company will take any corporate action which may, in the opinion of its counsel (which may be counsel employed by the Company), be necessary in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares at the Exercise Price as so adjusted.

The Company covenants that all Warrant Shares which may be issued upon exercise of Warrants will, upon issue, be validly

authorized and issued, fully paid, nonassessable, free of preemptive rights and free from all taxes, liens, charges and security interests with respect to the issue thereof.

SECTION 9. Obtaining Stock Exchange Listings. The Company will from time to time take all action which may be necessary so that the Warrant Shares, immediately upon their issuance upon the exercise of Warrants, will be listed on the principal securities exchanges and markets within the United States of America, if any, on which other shares of Common Stock are then listed.

SECTION 10. Adjustment of Exercise Price and Number of Warrant Shares Issuable. The Exercise Price and the number of Warrant Shares issuable upon the exercise of each Warrant are subject to adjustment from time to time upon the occurrence of the events enumerated in this Section 10. For purposes of this Section 10, "Common Stock" means shares now or hereafter authorized of any class of common stock of the Company and any other stock of the Company, however designated, that has the right (subject to any prior rights of any class or series of preferred stock) to participate in any distribution of the assets or earnings of the Company without limit as to per share amount.

(a) Adjustment for Change in Capital Stock.

If the Company:

(1) pays a dividend or makes a distribution on its Common Stock in shares of its Common Stock;

(2) subdivides its outstanding shares of Common Stock into a greater number of shares;

(3) combines its outstanding shares of Common Stock into a smaller number of shares; or

(4) issues by reclassification of its Common Stock any shares of its capital stock;

then the Exercise Price in effect immediately prior to such action shall be proportionately adjusted so that the holder of any Warrant thereafter exercised may receive the aggregate number and kind of shares of capital stock of the Company which he would have owned immediately following such action if such Warrant had been exercised immediately prior to such action.

The adjustment shall become effective immediately after the record date in the case of a stock dividend and immediately after

the effective date in the case of a subdivision, combination or reclassification.

If, immediately after an adjustment a holder of a Warrant may receive, upon exercise thereof, shares of two or more classes of capital stock of the Company, the Company shall determine the allocation of the adjusted Exercise Price between the classes of capital stock. After such allocation, the exercise privilege and the Exercise Price of each class of capital stock shall thereafter be subject to adjustment on terms comparable to those applicable to Common Stock in this Section.

Such adjustment shall be made successively whenever any event listed above shall occur.

(b) Adjustments for Rights Issue.

If the Company distributes any rights, options or warrants to all holders of its Common Stock entitling them for a period expiring within 45 days after the record date mentioned below to purchase shares of Common Stock at a price per share less than the current market price per share on that record date (other than pursuant to a dividend or interest reinvestment plan of the Company or any other Common Stock purchase plan providing for the reinvestment of dividends or interest payable on securities of the Company and/or the investment of periodic optional payments or any employee benefit or stock option plan or similar plan), the Exercise Price shall be adjusted in accordance with the formula:

$$E' = E \times \frac{O + N \times P}{O + N}$$

where:

E' = the adjusted Exercise Price.

E = the current Exercise Price.

O = the number of shares of Common Stock outstanding on the record date.

N = the number of additional shares of Common Stock offered.

P = the offering price per share of the additional shares.

M = the current market price per share of Common Stock on the record date.

The adjustment shall be made successively whenever any such rights, option or warrants are issued and shall become effective immediately after the record date for the determination of stockholders entitled to receive the rights, options or warrants. If at the end of the period during which such rights, options or warrants are exercisable, not all rights, options or warrants shall have been exercised, the Exercise Price shall be immediately readjusted to what it would have been if "N" in the above formula had been the number of shares actually issued.

(c) Adjustment for Other Distributions.

If the Company distributes to all holders of its Common Stock any of its assets, debt securities, preferred stock or any rights or warrants to purchase debt securities, preferred stock, assets or other securities of the Company, except as provided below, the Exercise price shall be adjusted in accordance with the formula:

$$E' = \frac{E \times M - F}{M}$$

where:

E' = the adjusted Exercise Price.

E = the current Exercise Price.

M = the current market price per share of Common Stock on the record date mentioned below.

F = the fair market value on the record date of the assets, securities, rights or warrants applicable to one share of Common Stock. The Board of Directors shall determine the fair market value.

The adjustment shall be made successively whenever any such distribution is made and shall become effective immediately after the record date for the determination of stockholders entitled to receive the distribution; provided, however, that upon the expiration or other termination of such rights or warrants, if any thereof shall not have been exercised, the Exercise Price then in effect shall be readjusted and thereafter be the price it would have been had adjustment of the Exercise Price been made without regard for the issue of such rights or warrants not exercised.

This subsection (c) does not apply to (i) any cash dividends, cash distributions, dividends or distributions payable in stock for which adjustment is made pursuant to subsection (a) of this Section 10 or (ii) rights, options or warrants referred to in subsection (b) of this Section 10.

(d) Current Market Price.

In subsections (b) and (c) of this Section 10 the current market price per share of Common Stock on any date is the average of the Quoted Prices of the Common Stock for 30 consecutive trading days commencing 45 trading days before the date in question. The "Quoted Price" of the Common Stock is the last reported sales price of the Common Stock as reported on the New York Stock Exchange Consolidated Tape, or if the Common Stock is then listed only on another securities exchange, the last reported sales price of the Common Stock on such exchange which shall be for consolidated trading if applicable to such exchange, or if not so listed, as reported by NASDAQ, National Market System, or if neither so reported or listed, the last reported bid price of the Common Stock. In the absence of one or more such quotations, the Board of Directors of the Company shall determine the current market price on the basis of such quotations as it in good faith considers appropriate.

(e) When De Minimis Adjustment May Be Deferred.

No adjustment in the Exercise Price need be made unless the adjustment would require an increase or decrease of at least 1% in the Exercise Price. Any adjustments that are not made shall be carried forward and taken into account in any subsequent adjustment.

All calculations under this Section shall be made to the nearest cent or to the nearest 1/100th of a share, as the case may be.

(f) When No Adjustment Required.

No adjustment need be made for rights to purchase Common Stock pursuant to a Company plan for reinvestment of dividends or interest.

No adjustment need be made for a change in the par value or no par value of the Common Stock.

To the extent the warrants become convertible into cash, no adjustment need be made thereafter as to the amount of cash into

which such Warrants are exercisable. Interest will not accrue on the cash.

(g) Other Events Affecting Common Stock.

In case at any time or from time to time the Company shall take any action in respect of its Common Stock, other than any action for which an adjustment is made pursuant in subsections (a), (b) and (c) of this Section 10, then, unless such action will not have a material adverse effect upon the rights of the holder of a Warrant, the number of shares of Common Stock for which the Warrant may be exercised and/or the Exercise Price shall be adjusted in such equitable manner under the circumstances as the Board of Directors of the Company reasonably determines.

(h) Notice of Adjustment.

Whenever the Exercise Price is adjusted, the Company shall provide the notices required by Section 13 hereof.

(i) Voluntary Reduction.

The Company from time to time may reduce the Exercise Price by any amount for any period of time if the period is at least 20 days and if the reduction is irrevocable during the period; provided, however, that in no event may the Exercise Price be less than the par value of a share of Common Stock.

Whenever the Exercise Price is reduced, the Company shall mail to Warrant holders a notice of the reduction. The Company shall mail the notice at least 15 days before the date the reduced Exercise Price takes effect. The notice shall state the reduced Exercise Price and the period it will be in effect.

A reduction of the Exercise Price does not change or adjust the Exercise Price otherwise in effect for purposes of subsections (a), (b) or (c) of this Section 10.

(j) Reorganization of the Company.

If the Company consolidates or merges with or into, or transfers or leases all or substantially all its assets to, any person, upon consummation of such transaction the Warrants shall automatically become exercisable for the kind and amount of securities, cash or other assets which the holder of a Warrant would have owned immediately after the consolidation, merger, transfer or lease if the holder had exercised the Warrant immediately before the effective date of the transaction. Concurrently with the consummation of such transaction, the

corporation formed by or surviving any such consolidation or merger if other than the Company, or the person to which such sale or conveyance shall have been made, shall mail to Warrant holders a notice confirming its obligations hereunder pursuant to the preceding sentence.

If this subsection (j) applies, subsections (a), (b) and (c) of this Section 10 do not apply.

(k) Company Determination Final.

Any determination that the Company or the Board of Directors must make pursuant to subsections (a), (b), (c), (d), (f) and (g) of this Section 10 may be challenged in good faith by the holders of Warrants exercisable for more than 50% of the aggregate number of shares of Common Stock then purchasable upon exercise of all Warrants then outstanding (the "Majority Holders"), and any dispute shall be resolved by an investment banking firm of recognized national standing jointly selected by the Company and such Majority Holders.

(l) When Issuance or Payment May Be Deferred.

In any case in which this Section 10 shall require that an adjustment in the Exercise Price be made effective as of a record date for a specified event, the Company may elect to defer until the occurrence of such event (i) issuing to the holder of any Warrant exercised after such record date the Warrant Shares and other capital stock of the Company, if any, issuable upon such exercise over and above the Warrant Shares and other capital stock of the Company, if any, issuable upon such exercise on the basis of the Exercise Price and (ii) paying to such holder any amount in cash in lieu of a fractional share pursuant to Section 11; provided, however, that the Company shall deliver to such holder a due bill or other appropriate instrument evidencing such holder's right to receive such additional Warrant Shares, other capital stock and cash upon the occurrence of the event requiring such adjustment.

(m) Adjustment in Number of Shares.

Upon each adjustment of the Exercise Price pursuant to this Section 10, each Warrant outstanding prior to the making of the adjustment in the Exercise Price shall thereafter evidence the right to receive upon payment of the adjusted Exercise Price that number of shares of Common Stock (calculated to the nearest hundredth) obtained from the following formula:

$$N' = \frac{N \times E}{E'}$$

where:

- N' = the adjusted number of Warrant Shares issuable upon exercise of a Warrant by payment of the adjusted Exercise Price.
- N = the number of Warrant Shares previously issuable upon exercise of a Warrant by payment of the Exercise Price prior to adjustment.
- E' = the adjusted Exercise Price.
- E = the exercise Price prior to adjustment.

(n) Form of Warrants.

Irrespective of any adjustments in the Exercise Price or the number or kind of shares purchasable upon the exercise of the Warrants, Warrants theretofore or thereafter issued may continue to express the same price and number and kind of shares as are stated in the Warrants initially issuable pursuant to this Agreement.

SECTION 11. Fractional Interests. The Company shall not be required to issue fractional Warrant Shares on the exercise of Warrants. If more than one Warrant shall be presented for exercise in full at the same time by the same holder, the number of full Warrant Shares which shall be issuable upon the exercise thereof shall be computed on the basis of the aggregate number of Warrant Shares purchasable on exercise of the Warrants so presented. If any fraction of a Warrant Share would, except for the provisions of this Section 11, be issuable on the exercise of any Warrants (or specified portion thereof), the Company shall pay an amount in cash equal to the Quoted Price of the Common Stock on the day immediately preceding the date the Warrant is presented for exercise, multiplied by such fraction.

SECTION 12. Notices to Warrant Holders. Upon any adjustment of the Exercise Price pursuant to Section 10, the Company shall promptly thereafter (i) cause to be filed with the Secretary of the Company a certificate of a firm of independent public accountants of recognized standing selected by the Board of Directors of the Company (who may be the regular auditors of the Company) setting forth the Exercise Price after such adjustment and setting forth in reasonable detail the method of calculation and the facts upon which such calculations are based and setting

forth the number of Warrant Shares (or portion thereof) issuable after such adjustment in the Exercise Price, upon exercise of a Warrant and payment of the adjusted Exercise Price, and (ii) cause to be given to each of the registered holders of the Warrant Certificates at his address appearing on the Warrant register written notice of such adjustments by first-class mail, postage prepaid. Where appropriate, such notice may be given in advance and included as a part of the notice required to be mailed under the other provisions of this Section 12.

In case:

(a) the Company shall authorized the issuance to all holders of shares of Common Stock of rights, options or warrants to subscribe for or purchase shares of Common Stock or of any other subscription rights or warrants; or

(b) the Company shall authorize the distribution to all holders of shares of Common Stock of securities, evidences of its indebtedness or assets (other than cash dividends or cash distributions payable out of consolidated earnings or earned surplus or dividends payable in shares of Common Stock or distributions referred to in subsection (a) of Section 10 hereof); or

(c) of any consolidation or merger to which the Company is a party and for which approval of any shareholders of the Company is required, or of the conveyance or transfer of the properties and assets of the Company substantially as an entirety, or of any reclassification or change of Common Stock issuable upon exercise of the Warrants (other than a change in par value, or from par value to no par value, or from no par value to par value, or as a result of a subdivision or combination), or a tender offer or exchange offer for shares of Common Stock: or

(d) the Company takes any action referred to in subsection (i) of Section 10;

(e) of the voluntary or involuntary dissolution, liquidation or winding up of the Company; or

(f) the Company proposed to take any action (other than actions of the character described in Section 10(a)) which would require an adjustment of the Exercise Price Pursuant to Section 10;

then the Company shall cause to be given to each of the registered holders of the Warrant Certificates at his address appearing on the Warrant register, at least 20 days (or 10 days in any case specified in clauses (a), (b) or (c) above) prior to the applicable record date hereinafter specified, or promptly in the case of events for which there is no record date, by first-class mail, postage prepaid, a written notice stating (i) the date as of which the holders of record of shares of Common Stock to be entitled to receive any such rights, options, warrants or distribution are to be determined, or (ii) the initial expiration date set forth in any tender offer or exchange offer for shares of Common Stock, or (iii) the date on which any such consolidation, merger, conveyance, transfer, lease, dissolution, liquidation or winding up is expect to become effective or consummated, and the date as of which it is expected that holder of record of shares of Common Stock shall be entitled to exchange such shares for securities or other property, if any, deliverable upon such reclassification, consolidation, merger, conveyance, transfer, lease, dissolution, liquidation or winding up. The failure to give the notice required by this Section 12 or any defect therein shall not affect the legality or validity of any distribution, right, option, warrant, consolidation, merger, conveyance, transfer, lease, dissolution, liquidation or winding up, or the vote upon any action.

Nothing contained in this Agreement or in any of the Warrant Certificates shall be construed as conferring upon the holders thereof the right to vote or to consent or to receive notice as shareholders in respect of the meetings of shareholders or the election of Directors of the Company or any other matter, or any rights whatsoever as shareholders of the Company.

SECTION 13. Registration Rights.

(a) Required Registration. After receipt of a written request from the Holders of Warrants and/or Warrant Shares representing at least an aggregate of 25% of the total of (i) all Warrant Shares then subject to purchase upon exercise of all Warrants and (ii) all Warrant Shares then outstanding and which are Restricted Securities (as hereinafter defined), requesting that the Company effect the registration of Warrant Shares issuable upon the exercise of such holder's Warrants or of any of such holder's Warrant Shares under the Securities Act and specifying the intended method or methods of disposition thereof, the Company shall promptly notify all holders of Warrants and Warrant Shares in writing of the receipt of such request and each such holder may elect (by written notice sent to the Company within 15 Business Days from the date of such holder's receipt of the aforementioned Company's notice) to have its Warrant Shares (but not its Warrants) included in such registration thereof

pursuant to this paragraph (a). Thereupon the Company shall, as expeditiously as is possible, use its best efforts to effect the registration under the Securities Act of all Warrant Shares which the Company has been so requested to register by such holders for sale, all to the extent required to permit the disposition (in accordance with the intended method or methods thereof, as aforesaid) of the Warrant Shares so registered; provided, however, that the Company shall not be required to effect more than two registrations of Warrant Shares pursuant to this Section 13(a) and provided further, that the Company shall not be required to effect any registration under the Section 13(a) if it is not then eligible to effect such registration on Form S-3 (or its successor) under the Securities Act.

If at the time of any request to register Warrant Shares under this Section 13(a), the Company is engaged or has fixed plans to engage within 30 days of the time of the request in a registered public offering or is engaged in any other activity which, in good faith determination of the Company's Board of Directors, would be adversely affected by the requested registration to the material detriment of the Company, the Company may at its option direct that such request be delayed for a period not in excess of six months from the effective date of such offering or the date of commencement of such other material activity, as the case may be, such right to delay a request to be exercised by the Company not more than once in any two-year period.

"Restricted Securities" are all Warrant Shares except those which have been effectively registered under and disposed of pursuant to a registration statement under the Securities Act of 1933 or which have been sold to the public pursuant to Rule 144 under said Act.

(b) Registration Procedures. If the Company is required by the provisions of this Section 13 to effect the registration of any of its securities under the Securities Act, the Company will, as expeditiously as possible:

(i) prepare and file with the Commission a Registration Statement with respect to such securities and use its best efforts to cause such Registration Statement to become and remain effective for a period of time required for the disposition of such securities by the holders thereof, but not to exceed 90 days;

(ii) prepare and file with the Commission such amendments and supplements to such Registration Statement and the prospectus used in connection

therewith as may be necessary to keep such Registration Statement effective and to comply with the provisions of the Securities Act with respect to the sale or other disposition of all securities covered by such Registration Statement until the earlier of such time as all of such securities have been disposed of in a public offering or the expiration of 90 days;

(iii) furnish to such selling security holders such number of copies of a summary prospectus or other prospectus, including a preliminary prospectus, in conformity with the requirements of the Securities Act, and such other documents, as such selling security holders may reasonably request;

(iv) use its best efforts to register or qualify the securities covered by such Registration Statement under such other securities or blue sky laws of such jurisdictions within the United States and Puerto Rico as each holder of such securities shall request (provided, however, the Company shall not be obligated to qualify as a foreign corporation to do business under the laws of any jurisdiction in which it is not then qualified or to file any general consent to service of process), and do such other reasonable acts and things as may be required of it to enable such holder to consummate the disposition in such jurisdiction of the securities covered by such Registration Statement;

(v) if such Warrant Shares are being sold through underwriters, furnish, at the request of such underwriters, on the date that such Warrant Shares are delivered to the underwriters for sale in connection with such Registration Statement, (A) a letter dated such date, from the independent certified public accountants of the Company, addressed to such underwriters and, if such accountants refuse to deliver such letter to such holders, then to the Company, in form and substance reasonably satisfactory to such underwriter, stating that they are independent certified public accountants within the meaning of the Securities Act and that, in the opinion of such accountants, the financial statements and other financial data of the Company included in the Registration Statement or the prospectus, or any amendment or Supplement thereto, comply as to form in all material respects with the applicable accounting requirements of the Securities Act, and (B) a letter dated such date, from the Company's counsel, addressed to such underwriters,

stating that such Registration Statement has become effective under the Act, and, to the best knowledge of such counsel, no stop order suspending the effectiveness of such Registration Statement has been issued.

(vi) use its best efforts to cause such securities to be listed on each securities exchange on which the Common Stock is then listed or, if no such securities are then listed, on such exchange as requested by the holders requesting registration of Warrant Shares, subject to the reasonable consent of the Company;

(vii) enter into customary agreements (including an underwriting agreement in customary form) and take such other actions as are reasonably required in order to expedite or facilitate the disposition of such securities; and

(viii) otherwise use its best efforts to comply with all applicable rules and regulations of the Commission, and make available to its security holders, as soon as reasonably practicable, but not later than 18 months after the effective date of the Registration Statement, an earnings statement covering the period of at least 12 months beginning with the first full month after the effective date of such Registration Statement, which earnings statements shall satisfy the provisions of Section 11(a) of the Securities Act.

It shall be a condition precedent to the obligation of the Company to take any action pursuant to this Section 13 in respect of the securities which are to be registered at the request of any holder of Warrants or Warrant Shares that such holder shall furnish to the Company such information regarding the securities held by such holder and the intended method of disposition thereof as the Company shall reasonably request and as shall be required in connection with the action taken by the Company.

The holders of Warrants or Warrant Shares shall be permitted to withdraw all or any part of their Warrant Shares from a registration statement hereunder at any time prior to the effectiveness thereof.

(c) Expenses. All reasonable expenses incurred in complying with Section 14, including, without limitation, all registration and filing fees (including all expenses incident to filing with the NASD), listing application fees, printing expenses, fees and disbursements of counsel for the Company, and expenses of complying with the securities or blue sky laws of any

jurisdictions pursuant to Section 14(c)(iv), shall be paid by the Company, except that the Company shall not be liable for (i) any fees, discounts or commissions to any underwriter or any fees or expenses of counsel for any underwriter in respect of the securities sold by such holder of Warrant Shares, (ii) any fees and expenses of counsel for the selling securities holders or (iii) expenses of any special audits incident to or required by such registration.

(d) Indemnification and Contribution.

(i) In the event of any registration of any of the Warrant Shares under the Securities Act pursuant to this Section 13, the Company shall indemnify and hold harmless, to the full extent permitted by law, each holder of such Warrant Shares, each such holder's directors and officers, and each other person (including each underwriter who participated in the offering of such Warrant Shares and each other person, if any, who controls such holder or such participating person within the meaning of the Securities Act, against any losses, claims, damages or liabilities, joint or several, to which such holder or any such director or officer or participating person or controlling person may become subject under the Securities Act or any other statute or at common law, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon (x) any alleged untrue statement of any material fact contained, on the effective date thereof, in any Registration Statement under which such securities were registered under the Securities Act, any preliminary prospectus or final prospectus contained therein, or any amendment or supplement thereto, or (y) any alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading in light of the circumstances under which they were made, and shall reimburse such holder or such director, officer or participating person or controlling person for any legal or any other expenses reasonably incurred by such holder or such director, officer or participating person or controlling person in connection with investigating or defending any such loss, claim, damage, liability or action; provided, however, that the Company shall not be liable in any such case to the extent that any such loss, claim, damage or liability arises out of or is based upon any alleged untrue statement or alleged omission made in such Registration Statement, preliminary prospectus, prospectus or amendment or supplement in reliance upon and in conformity with written information furnished to the Company by such holder specifically for use therein or (in the case of any registration pursuant to Section 13(a)) so furnished for such purposes by any underwriter; and provided further that the Company shall not be liable in any such case to the extent that any such loss, claim,

damage or liability arises out of or is based upon any alleged untrue statement or alleged omission made in such Registration Statement, preliminary prospectus or prospectus if such alleged untrue statement or alleged omission is completely corrected in an amendment or supplement to such Registration Statement, preliminary prospectus or prospectus and if, having previously been furnished by or on behalf of the Company with copies of such corrected amendment or supplement, such holder thereafter fails to deliver such amendment or supplement prior to or concurrently with the sale of Warrant Shares to the person asserting such loss, claim, damage or liability who purchased such Warrant Shares. Such indemnity shall remain in full force and effect regardless of any investigation made by or on behalf of such holder or such director, officer or participating person or controlling person, and shall survive the transfer of such securities by such holder.

(ii) Each holder of any Warrant Shares, by acceptance thereof, agrees to indemnify and hold harmless the Company, its directors and officers and each other person, if any, who controls the Company within the meaning of the Securities Act and each underwriter against any losses, claims, damages or liabilities, joint or several, to which the Company or any such director or officer or any such person or such underwriter may become subject under the Securities Act or any other statute or at common law, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon information in writing provided to the Company by such holder of such Warrant Shares contained, on the effective date thereof, in any Registration Statement under which securities were registered under the Securities Act at the request of such holder, any preliminary prospectus or final prospectus contained therein, or any amendment or supplement thereto. In no event shall the liability of any selling holder of Warrant Shares hereunder be greater in amount than the dollar amount of the proceeds (net of the payment of all expenses) received by such holder upon the sale of the Warrant Shares giving rise to such indemnification obligation. The Company shall be entitled to receive indemnities from underwriters, participating in the distribution to the same extent as provided above with respect to information so furnished in writing by such Persons expressly for use in any prospectus or Registration Statement.

(iii) If the indemnification provided for in this Section 13 from the indemnifying party is unavailable to any indemnified party hereunder in respect of any losses, claims, damages, liabilities or expenses referred to therein, then the indemnifying party, in lieu of indemnifying such indemnified party, shall contribute to the amount paid or payable by such indemnified party as a result of such losses, claims, damages,

liabilities or expenses in such proportion as is appropriate to reflect the relative fault of the indemnifying party and indemnified parties in connection with the actions which resulted in such losses, claims, damages, liabilities or expenses, as well as any other relevant equitable considerations. The relative fault of such indemnifying party and indemnified parties shall be determined by reference to, among other things, whether any action in questions, including any untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact, has been made by, or relates to information supplied by, such indemnifying party or indemnified parties, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such action. The amount paid or payable by a party as a result of the losses, claims, damages, liabilities and expenses referred to above shall be deemed to include any legal or other fees or expenses reasonably incurred by such party in connection with any investigation or proceeding.

The parties hereto agree that it would not be just and equitable if contribution pursuant to this Section 14(d)(iii) were determined by pro rata allocation or by any other method of allocation which does not take account of the equitable considerations referred to in the immediately preceding paragraph. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

(iv) Each party entitled to indemnification under this Section 13 (the "Indemnified Party") shall give notice to the party required to provide indemnification (the "Indemnifying Party") promptly after such Indemnified Party has actual knowledge of any claim as to which indemnity may be sought (provided, that the failure to give such notice shall not affect rights to indemnification hereunder except to the extent of any damage or liability caused by or arising out of such failure), and shall permit the Indemnifying Party to assume the defense and settlement of any such claim or any litigation resulting therefrom; provided, that counsel for the Indemnifying Party, who shall conduct the defense and settlement of such claim or litigation, shall be approved by the Indemnified party (whose approval shall not be unreasonably withheld). The Indemnified Party may participate in such defense at such party's expense. No Indemnifying party, in the defense of any such claim or litigation shall, except with the consent of each Indemnified Party, consent to entry of any judgment or enter into any settlement which does not include as an unconditional term thereof the giving by the claimant or plaintiff to such Indemnified Party of a release from all liability in respect of such claim or litigation, and no Indemnified Party

shall consent to entry of any judgment or settle such claim or litigation without the prior written consent of the Indemnifying Party.

SECTION 14. Notices to Company and Warrant Holder. Any notice or demand authorized by this Agreement to be given or made by the registered holder of any Warrant Certificate to or on the Company shall be sufficiently given or made when and if deposited in the mail, first class or registered, postage prepaid, addressed to the office of the Company expressly designated by the Company at its office for purposes of this Agreement (until the Warrant holders are otherwise notified in accordance with this Section by the Company), as follows:

Analog Devices, Inc.
One Technology Way
Norwood, Massachusetts 02062
Attention: Ray Stata, President

Any notice pursuant to this Agreement to be given by the Company to the registered holder(s) of any Warrant Certificate shall be sufficiently given when and if deposited in the mail, first-class or registered, postage prepaid, addressed (until the Company is otherwise notified in accordance with this Section by such holder) to such holder at the address appearing on the Warrant register of the Company.

SECTION 15. Supplements and Amendments. This Agreement may not be amended or supplemented without the written consent of the Company and the holders of at least a majority of the Warrants. Any amendment or supplement that affects the rights granted to holders of Warrant Shares must be consented to in writing by holders of at least a majority of the outstanding Warrant Shares.

SECTION 16. Successors. All the covenants and provisions of this Agreement by or for the benefit of the Company shall bind and inure to the benefit of its respective successors and assigns hereunder, and all of the covenants and provisions of this Agreement by or for the benefit of the holders of the Warrants shall bind and inure to the benefit of its respective successors and assigns hereunder.

SECTION 17. Termination. This Agreement shall terminate at 5:00 p.m., New York City time on August 7, 1997.

SECTION 18. Governing Law. This Agreement shall be construed, interpreted and the rights of the parties determined in accordance with the laws of the Commonwealth of Massachusetts except with respect to matters of law concerning the internal corporate affairs of any corporate entity which is a party to or

the subject of this Agreement, and as to those matters the law of the jurisdiction under which the respective entity derives its powers shall govern.

SECTION 19. Benefits of This Agreement. Nothing in this Agreement shall be construed to give to any person or corporation other than the Company and the registered holders of the Warrant Certificates and the holders of Warrant Shares any legal or equitable right, remedy or claim under this Agreement; but this Agreement shall be for the sole and exclusive benefit of the Company and the registered holders of the Warrant Certificates and the holders of Warrant Shares.

SECTION 20. Counterparts. This Agreement may be executed in any number of counterparts and each of such counterparts shall for all purposes be deemed to be an original, and all such counterparts shall together constitute but one and the same instrument.

SECTION 21. Severability. The provisions of this Agreement are severable, and in the event that any one or more of the provisions contained in this Agreement or in any other instrument referred to herein, shall, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision of this Agreement or any other such instrument.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed, as of the day and year first above written.

ANALOG DEVICES, INC.

By:/s/

Title: Executive Vice President, Finance

Attest:/s/ Mark G. Borden

Asst. Clerk

BOURNS, INC.

By:/s/ Larry L. White

Title: Executive Vice President

Attest: _____
Secretary

[Form of Warrant Certificate]

THE SECURITIES EVIDENCED OR CONSTITUTED HEREBY HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED. SUCH SECURITIES MAY NOT BE SOLD, TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS THE REGISTRATION PROVISIONS OF SAID ACT HAVE BEEN COMPLIED WITH OR UNLESS THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED.

EXERCISABLE ON OR BEFORE August 7, 1997

No. _____ Warrants

Warrant Certificate

ANALOG DEVICES, INC.

This Warrant Certificate certifies that BOURNS, INC., or registered assigns, is the registered holder of Warrants expiring August 7, 1997 (the "Warrants") to purchase Common Stock, par value \$.16 2/3 per share (the "Common Stock"), of ANALOG DEVICES, INC., a Massachusetts corporation (the "Company"). Each Warrant entitles the holder upon exercise to receive from the Company on or before 5:00 p.m. New York City Time on August 7, 1997, one fully paid and nonassessable share of Common Stock (a "Warrant Share") at the initial exercise price (the "Exercise Price") of \$12 payable in lawful money of the United States of America upon surrender of this Warrant Certificate and payment of the Exercise Price at the office of the Company designated for such purpose, but only subject to the conditions set forth herein and in the Warrant Agreement referred to below. The Exercise Price and number of Warrant Shares issuable upon exercise of the Warrants are subject to adjustment upon the occurrence of certain events set forth in the Warrant Agreement.

No Warrant may be exercised after 5:00 p.m., New York City Time on August 7, 1997, and to the extent not exercised by such time such Warrants shall become void.

The Warrants evidenced by this Warrant Certificate are part of a duly authorized issue of Warrants expiring August 7, 1997 entitling the holder on exercise to receiving shares of Common Stock, par value \$.16 2/3 per share, of the Company (the "Common Stock"), and are issued or to be issued pursuant to a Warrant Agreement dated as of August 7, 1990 (the "Warrant Agreement"), duly executed and delivered by the Company, which

Warrant Agreement is hereby incorporated by reference in and made a part of this instrument and is hereby referred to for a description of the rights, limitation of rights, obligations, duties and immunities thereunder of the Company and the holders (the words "holders" or "holder") meaning the registered holders or registered holder of the Warrants. A copy of the Warrant Agreement may be obtained by the holder hereof upon written request to the Company.

Warrants may be exercised at any time on or before August 7, 1997. The holder of Warrants evidenced by this Warrant Certificate may exercise them by surrendering this Warrant Certificate, with the form of election to purchase set forth hereon properly completed and executed, together with payment of the Exercise Price in cash at the office of the Company designated for such purpose. In the event that upon any exercise of Warrants evidenced hereby the number of Warrants exercised shall be less than the total number of Warrants evidenced hereby, there shall be issued to the holder hereof or his assignee a new Warrant Certificate evidencing the number of Warrants not exercised. No adjustment shall be made for any dividends on any Common Stock issuable upon exercise of this Warrant.

The Warrant Agreement provides that upon the occurrence of certain events the Exercise Price set forth hereon may, subject to certain conditions, be adjusted. If the Exercise Price is adjusted, the Warrant Agreement provides that the number of shares of Common Stock issuable upon the exercise of each Warrant shall be adjusted. No fractions of a share of Common Stock will be issued upon the exercise of any Warrant, but the Company will pay the cash value thereof determined as provides in the Warrant Agreement.

The holders of the Warrants are entitled to certain registration rights with respect to the Common Stock purchasable upon exercise thereof as set forth in the Warrant Agreement.

Warrant Certificates, when surrendered at the office of the Company by the registered holder thereof in person or by legal representative or attorney duly authorized in writing, may be exchanged, in the manner and subject to the limitations provided in the Warrant Agreement, but without payment of any service charge, for another Warrant Certificate or Warrant Certificates of like tenor evidencing in the aggregate a like number of Warrants.

Upon due presentation for registration of transfer of this Warrant Certificate at the office of the Company a new Warrant Certificate or Warrant Certificates of like tenor and evidencing in the aggregate a like number of Warrants shall be issued to the

transferee(s) in exchange for this Warrant Certificate, subject to the limitations provided in the Warrant Agreement, without charge except for any tax or other governmental charge imposed in connection therewith.

The Company may deem and treat the registered holder(s) thereof as the absolute owner(s) of this Warrant Certificate (notwithstanding any notation of ownership or other writing hereon made by anyone), for the purpose of any exercise hereof, of any distribution to the holder(s) hereof, and for all other purposes, and the Company shall not be affected by any notice to the contrary. Neither the Warrants nor this Warrant Certificate entitles any holder hereof to any rights of a stockholder of the Company.

IN WITNESS WHEREOF, ANALOG DEVICES, INC. has caused this Warrant Certificate to be signed by its President and by its Secretary and has caused its corporate seal to be affixed hereunto or imprinted hereon.

Dated:

ANALOG DEVICES, INC.

By: _____
President

By: _____
Clerk

[Form of Election to Purchase]

(To Be Executed Upon Exercise Of Warrant)

The undersigned hereby irrevocably elects to exercise the rights, represented by this Warrant Certificate, to receive _____ shares of Common Stock and herewith tenders payment for such shares to the order of ANALOG DEVICES, INC. in the amount of \$_____ in accordance with the terms hereof. The undersigned requests that a certificate for such shares be registered in the name of _____, whose address is _____ and that such shares be delivered to _____ whose address is _____. If said number of shares is less than all of the shares of Common Stock purchasable hereunder, the undersigned requests that a new Warrant Certificate representing the remaining balance of such shares be registered in the name of _____, whose address is _____, and that such Warrant Certificate be delivered to _____, whose address is _____.

Signature:

Date:

Signature Guaranteed:

[BOURNS LETTERHEAD]

July 17, 1996

Analog Devices, Inc.
One Technology Way
Norwood, Massachusetts 02062
ATTN: President

RE: The Warrant Agreement (the "Warrant Agreement") dated as of August 8, 1990 between Analog Devices, Inc. (the "Company") and Bourns, Inc. ("Bourns")

Ladies and Gentlemen:

This letter will confirm our discussions concerning the agreement of the parties with respect to Section 13 of the above-referenced Warrant Agreement. Any capitalized term used herein, unless otherwise defined, has the meaning given to such term in the Warrant Agreement.

In particular, this will acknowledge and confirm our agreement that the Company's obligation pursuant to Section 13 thereof (the "Registration Obligations") to effect the registration of Warrant Shares under the Securities Act of 1933, as amended (the "Securities Act"), includes the obligation, if so requested by Bourns as the holder of Warrants, (i) to effect such registration as a "shelf offering" pursuant to Rule 415 under the Securities Act (a "Shelf Offering"), and (ii) to maintain the effectiveness of the Registration Statement for such a Shelf Offering for any period of time requested by Bourns as the holder of Warrants, up to a maximum of 24 consecutive months (subject to lapses in effectiveness pursuant to clause (d) of the penultimate paragraph of this letter).

As required by Warrant Agreement Section 13(a) to begin the registration process, Bourns, as the holder of all of the Warrants, hereby gives written notice to the Company of its request (i) to effect the registration of all of the Warrant Shares in a Shelf Offering pursuant to Rule 415 and on a Registration Statement on Form S-3 (the "Registration Statement"), and (ii) to maintain the effectiveness of the Registration Statement for 24 consecutive months (subject to clause (d) of the next paragraph) following the date it is initially declared to be effective by the Securities and Exchange Commission (the "SEC"). Except as provided in clauses (f) and (h) of the following

Analog Devices, Inc.
July 17, 1996
Page 2

paragraph, such request shall not be withdrawn by Bourns without the prior written consent of the Company.

In addition, this letter will acknowledge and confirm our agreements as follows:

- (a) Bourns has provided the Company with a plan of distribution to be included in the Registration Statement, attached as Attachment 1 hereto, which shall be included in the Registration Statement as filed by the Company with the SEC.
- (b) Bourns shall, promptly after the Registration Statement is declared effective by the SEC, exercise all of the Warrants by delivery to the Company of Twelve Million Dollars (\$12,000,000.00) in cash, against delivery by the Company to Bourns (or persons designated by Bourns in writing to the Company) of certificates evidencing all 2,250,000 of the Warrant Shares (such number remaining subject to adjustment pursuant to the Warrant Agreement between the date hereof and the date of such exercise), in such denominations and registered to such holders as designated by Bourns in writing to the Company.
- (c) The Company has undertaken and agrees to use its reasonable best efforts (i) to have the Registration Statement prepared and filed with the SEC as soon as practicable after the date hereof, (ii) to have the Registration Statement declared effective by the SEC as soon as practicable after the date hereof, and (iii) to take or cause to be taken all actions reasonably necessary to maintain the continuous effectiveness of the Registration Statement (subject to clause (d) below) for 24 months following the date it is initially declared to be effective by the SEC.
- (d) Bourns shall cease making offers or sales pursuant to the Registration Statement during any period in which the Company determines, and gives notice to Bourns, that the Company is in possession of non-public information as a result of which the most recent prospectus included in the Registration Statement (the "Prospectus") includes an untrue statement of a material fact or omits to state any material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances under which they were made; provided, however, that Bourns shall be required to cease making sales only in periods in which all executive officers and directors of the company are required to cease making sales of Common Stock of the Company.

- (e) The Company agrees to perform all of its other obligations pursuant to or in connection with Warrant Agreement Section 13 in connection with the Shelf Offering as a registration pursuant to such Section 13, including, without limitation, the obligations set forth in clauses (i) through (viii) of Section 13(b) (without reference, however, to the 90 day time limitation in such clauses (i) and (ii)) and the indemnity obligations set forth in Section 13(d).
- (f) Upon the written request of Bourns at any time, the Company shall promptly take all action necessary (including filing a post-effective amendment with the SEC) to terminate the effectiveness of the Registration Statement and remove from registration any Warrant Shares which have not then been sold pursuant to the Registration Statement.
- (g) If a broker or any other third party acts other than simply as an agent in executing any transaction for Bourns involving the Warrant Shares, Bourns agrees to provide to the Company such information as is required by the Securities Act and the regulations thereunder to be disclosed in the Prospectus with respect to such transaction, and such transaction shall not be effected until the Prospectus is supplemented to describe such transaction. The Company shall prepare and file with the SEC such a supplement promptly after it receives in writing from Bourns all information necessary to prepare such supplement.
- (h) To the extent the provisions of this letter may be inconsistent with the provisions of the Warrant Agreement, the provisions of this letter will amend and supercede the provisions of Warrant Agreement Section 13. If, however, the Company does not file the Registration Statement with the SEC on or before July 19, 1996 or the SEC does not declare the Registration Statement effective on or before August 20, 1996 (or, in either case, such other dates as are otherwise agreed by Bourns and the Company), (i) the notices and agreements evidenced by this letter shall be of no binding effect, and (ii) the respective rights and obligations of Bourns and the Company relating to the Registration Obligations shall be as set forth in Warrant Agreement Section 13 (it being understood, among other things, that Bourns' requests set forth in this letter shall not count as a demand for registration pursuant to such Section 13). Nonetheless, Bourns and the Company shall continue to work together in good faith to effect the registration of the Warrant Shares in a Shelf Offering of the sort contemplated by this letter.

Each of Bourns and the Company also acknowledges that is has entered into the foregoing agreements for good and valuable

Analog Devices, Inc.
July 17, 1996
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consideration, the receipt and sufficiency of which is hereby
acknowledged, consisting of, among other things, the mutual covenants
and agreements set forth above.

Very truly yours,

BOURNS, INC.

By: /s/ Gordon L. Bourns

Gordon Bourns
President

ACKNOWLEDGED AND AGREED:

ANALOG DEVICES, INC.

By: /s/ Joseph E. McDonough

Name: Joseph E. McDonough

Title: V.P. Finance & CFO

Attachment 1
Plan of Distribution

The shares may be sold from time to time by the selling shareholders, or by pledgees, donees, transferees or other successors in interest. Such sales may be made on one or more exchanges or in the over-the-counter market or otherwise, at prices and at terms then prevailing or at prices related to the then current market price, or in negotiated transactions. The shares may be sold by means of one or more of the following: (a) a block trade in which the broker-dealer so engaged will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction; (b) purchases by a broker-dealer as principal and resale by such broker-dealer for its account pursuant to this prospectus; (c) an exchange distribution in accordance with the rules of such exchange; (d) ordinary brokerage transactions and transactions in which the broker solicits purchasers; (e) direct sales by the selling shareholders not involving a broker-dealer; and (f) donations to a charity or other donee and resale by the donee pursuant to this prospectus. In effecting sales, broker-dealers engaged by the selling shareholders may arrange for other broker-dealers to participate in the resales.

In connection with distributions of the shares or otherwise, the selling shareholders may enter into hedging transactions with broker-dealers or financial institutions. In connection with such transactions, the broker-dealers or financial institutions may engage in short sales of the shares registered hereunder in the course of hedging the positions they assume with selling shareholders. The selling shareholders may also sell shares short and redeliver the shares to close out such short positions. The selling shareholders may also enter into option or other transactions with broker-dealers or financial institutions which require the delivery to such broker-dealer or financial institution of the shares registered hereunder, which the broker-dealer or financial institution may resell or otherwise transfer pursuant to this prospectus. The selling shareholder may also loan or pledge the shares registered hereunder to a broker-dealer or financial institution and such broker-dealer or financial institution may sell the shares so loaned or upon a default the broker-dealer or financial institution may affect sales of the pledged shares pursuant to this prospectus.

Broker-dealers, financial institutions or agents may receive compensation in the form of commissions, discounts or concessions from selling shareholders in amounts to be negotiated in connection with the sale. Such broker-dealers, financial institutions and any other participating broker-dealers may be

deemed to be "underwriters" within the meaning of the Securities Act of 1933, as amended (the "Act"), in connection with such sales and any such commission, discount or concession may be deemed to be underwriting discounts or commissions under the Act. In addition, any securities covered by this prospectus which qualify for sale pursuant to Rule 144 may be sold under Rule 144 rather than pursuant to this prospectus.

HALE AND DORR
60 State Street
Boston, Massachusetts 02109

July 19, 1996

Analog Devices, Inc.
One Technology Way
Norwood, MA 02062-9106

Dear Sirs:

This opinion is furnished to you in connection with a Registration Statement on Form S-3 (the "Registration Statement"), filed with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended, for the registration of 2,250,000 shares of Common Stock, \$.16 2/3 par value per share (the "Shares"), of Analog Devices, Inc., a Massachusetts corporation (the "Company"), held by the Selling Stockholders, as defined in the Registration Statement.

We have examined the Registration Statement and all exhibits thereto, all as filed with the Commission. We have also examined and relied upon the originals, or copies of minutes of meetings or actions taken by unanimous written consent of the Board of Directors of the Company, the By-laws of the Company and the Restated Articles of Organization of the Company, as amended, and such other documents and instruments as in our judgment are necessary or appropriate to enable us to render the opinions expressed below.

In our examination of the foregoing documents, we have assumed (i) the genuineness of all signatures and the authenticity of any documents submitted to us as originals, (ii) the conformity to the originals of any documents submitted to us as conformed or photostatic copies and (iii) the authenticity of the originals of the latter documents.

We have not made an independent review of the laws of any state or jurisdiction other than the Commonwealth of Massachusetts and the United States. Accordingly, we express no opinion herein with respect to the laws of any state or jurisdiction other than the Commonwealth of Massachusetts and the United States.

Based upon the foregoing, we are of the opinion that the Shares have been duly authorized and will be validly issued, fully paid and nonassessable.

We hereby consent to the filing of this opinion as part of the Registration Statement and to the use of our name therein and in the related Prospectus under the caption "Legal Matters."

Very truly yours,

HALE AND DORR

CONSENT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

We consent to the reference to our firm under the caption "Experts" in the Registration Statement (Form S-3) and related Prospectus of Analog Devices, Inc. for the registration of 2,250,000 shares of its common stock and to the incorporation by reference therein of our report dated November 28, 1995, except for the fifth paragraph of note 4 as to which the date is December 18, 1995, with respect to the consolidated financial statements and schedule of Analog Devices, Inc. included in its Annual Report (Form 10-K) for the year ended October 28, 1995, filed with the Securities and Exchange Commission.

ERNST & YOUNG LLP

Boston, Massachusetts
July 15, 1996