

SECURITIES AND EXCHANGE COMMISSION

FORM 10-Q

Quarterly report pursuant to sections 13 or 15(d)

Filing Date: **1995-06-13** | Period of Report: **1995-04-29**  
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FILER

**ANALOG DEVICES INC**

CIK: **6281** | IRS No.: **042348234** | State of Incorporation: **MA** | Fiscal Year End: **1031**  
Type: **10-Q** | Act: **34** | File No.: **001-07819** | Film No.: **95546591**  
SIC: **3674** Semiconductors & related devices

Business Address  
*ONE TECHNOLOGY WAY*  
*NORWOOD MA 02062*  
*6173294700*

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

Form 10-Q

(Mark One)

/X/ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended April 29, 1995

OR

/ / TRANSITION REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the Transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File No. 1-7819

Analog Devices, Inc.

(Exact name of registrant as specified in its charter)

Massachusetts

04-2348234

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification No.)

One Technology Way, Norwood, MA (Address of principal executive offices)

02062-9106 (Zip Code)

(617) 329-4700

(Registrant's telephone number, including area code)

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Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15 (d) of the Securities Exchange Act of 1934 during the preceding 12 months (or such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES X NO

The number of shares outstanding of each of the issuer's classes of Common Stock as of May 31, 1995 was 75,678,923 shares of Common Stock.

PART I  
FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

ANALOG DEVICES, INC.  
CONDENSED CONSOLIDATED STATEMENTS OF INCOME  
(Unaudited)  
(thousands except per share amounts)

<TABLE>  
<CAPTION>

	Three Months Ended	
	April 29, 1995	April 30, 1994
<S>	<C>	<C>
Net sales	\$230,046	\$192,027
Cost of sales	113,652	98,508
Gross margin	116,394	93,519
Operating expenses:		
Research and development	33,266	26,360
Selling, marketing, general and administrative	45,592	42,204
	78,858	68,564
Operating income	37,536	24,955
Nonoperating expenses (income):		
Interest expense	1,022	1,829
Interest income	(1,991)	(931)
Other	732	828
	(237)	1,726
Income before income taxes	37,773	23,229
Provision for income taxes	9,066	5,345
Net income	\$ 28,707	\$ 17,884

Shares used to compute earnings per share	78,912 =====	77,071 =====
Earnings per share of common stock	\$0.36 =====	\$0.23 =====

</TABLE>

See accompanying notes.

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ANALOG DEVICES, INC.  
CONDENSED CONSOLIDATED STATEMENTS OF INCOME  
(Unaudited)  
(thousands except per share amounts)

<TABLE>  
<CAPTION>

	Six Months Ended	
	April 29, 1995	April 30, 1994
	-----	-----
<S>	<C>	<C>
Net sales	\$438,051	\$373,115
Cost of sales	216,797 -----	193,101 -----
Gross margin	221,254	180,014
Operating expenses:		
Research and development	63,516	50,616
Selling, marketing, general and administrative	89,263 -----	83,201 -----
	152,779 -----	133,817 -----
Operating income	68,475	46,197
Nonoperating expenses (income):		
Interest expense	2,304	3,659
Interest income	(4,182)	(1,524)
Other	1,464	1,393

	(414)	3,528
Income before income taxes	68,889	42,669
Provision for income taxes	16,534	9,525
Net income	\$ 52,355	\$ 33,144
Shares used to compute earnings per share	78,671	76,762
Earnings per share of common stock	\$0.66	\$0.43

</TABLE>

See accompanying notes.

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ANALOG DEVICES, INC.  
CONDENSED CONSOLIDATED BALANCE SHEETS  
(Unaudited)  
(thousands except share amounts)

<TABLE>

<CAPTION>

Assets	April 29, 1995	October 29, 1994	April 30, 1994
	-----	-----	-----
Cash and cash equivalents	\$ 66,320	\$109,113	\$131,317
Short-term investments	66,594	72,652	--
Accounts receivable, net	178,271	162,337	162,066
Inventories:			
Finished goods	42,203	45,678	50,087
Work in process	72,149	69,771	73,638
Raw materials	20,262	15,277	14,276
	-----	-----	-----
	134,614	130,726	138,001
Prepaid income taxes	24,000	25,587	23,106
Prepaid expenses	5,910	5,042	5,612
	-----	-----	-----
Total current assets	475,709	505,457	460,102
	-----	-----	-----

Property, plant and equipment, at cost:			
Land and buildings	127,206	111,857	84,173
Machinery and equipment	553,028	477,339	461,365
Office equipment	35,870	36,613	40,892
Leasehold improvements	40,032	33,070	31,094
	-----	-----	-----
	756,136	658,879	617,524
Less accumulated depreciation and amortization	399,351	377,064	370,882
	-----	-----	-----
Net property, plant and equipment	356,785	281,815	246,642
	-----	-----	-----
Intangible assets, net	18,246	19,262	20,283
Deferred charges and other assets	25,340	9,337	6,006
	-----	-----	-----
Total other assets	43,586	28,599	26,289
	-----	-----	-----
	\$876,080	\$815,871	\$733,033
	=====	=====	=====

</TABLE>

See accompanying notes.

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ANALOG DEVICES, INC.  
CONDENSED CONSOLIDATED BALANCE SHEETS  
(Unaudited)  
(thousands except share amounts)

<TABLE>

<CAPTION>

Liabilities and Stockholders' Equity	April 29, 1995	October 29, 1994	April 30, 1994
	-----	-----	-----
<S>	<C>	<C>	<C>
Short-term borrowings and current portion of long-term debt	\$ 3,081	\$ 22,917	\$ 23,108
Obligations under capital leases	133	236	348
Accounts payable	68,458	74,506	49,105
Deferred income on shipments to domestic distributors	21,075	18,881	19,769
Income taxes payable	31,133	29,425	17,346
Accrued liabilities	82,934	60,221	60,683
	-----	-----	-----
Total current liabilities	206,814	206,186	170,359

Long-term debt	80,000	80,000	80,000
Noncurrent obligations under capital leases	--	61	119
Deferred income taxes	4,000	3,225	8,201
Other noncurrent liabilities	5,583	4,484	5,342
<b>Total noncurrent liabilities</b>	<b>89,583</b>	<b>87,770</b>	<b>93,662</b>
<b>Commitments and Contingencies</b>			
<b>Stockholders' equity:</b>			
Preferred stock, \$1.00 par value, 500,000 shares authorized, none outstanding	--	--	--
Common stock, \$.16 2/3 par value, 300,000,000 shares authorized, 75,627,515 shares issued (75,252,112 in October 1994, 51,175,331 in April 1994)	12,605	12,542	8,529
Capital in excess of par value	146,756	141,159	146,099
Retained earnings	414,549	362,194	320,842
Cumulative translation adjustment	6,123	6,020	5,781
	<b>580,033</b>	<b>521,915</b>	<b>481,251</b>
Less 14,221 shares in treasury, at cost (none in October 1994 and 1,577,703 in April 1994)	350	--	12,239
<b>Total stockholders' equity</b>	<b>579,683</b>	<b>521,915</b>	<b>469,012</b>
	<b>\$876,080</b>	<b>\$815,871</b>	<b>\$733,033</b>

</TABLE>

See accompanying notes.

ANALOG DEVICES, INC.  
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS  
(Unaudited)  
(thousands)

<TABLE>  
<CAPTION>

## Six Months Ended

	April 29, 1995	April 30, 1994
<S>	<C>	<C>
OPERATIONS		
Cash flows from operations:		
Net income	\$ 52,355	\$ 33,144
Adjustments to reconcile net income to net cash provided by operations:		
Depreciation and amortization	30,741	30,550
Deferred income taxes	658	(385)
Other noncash expenses	52	1,257
Changes in operating assets and liabilities	4,866	10,763
	-----	-----
Total adjustments	36,317	42,185
	-----	-----
Net cash provided by operations	88,672	75,329
	-----	-----
INVESTMENTS		
Cash flows from investments:		
Additions to property, plant and equipment, net	(102,480)	(26,723)
Maturities of short-term investments	76,588	--
Purchase of short-term investments	(70,530)	--
Increase in other assets	(15,473)	(265)
	-----	-----
Net cash used for investments	(111,895)	(26,988)
	-----	-----
FINANCING ACTIVITIES		
Cash flows from financing activities:		
Payments on fixed rate borrowings	(20,000)	--
Proceeds from employee stock plans	1,457	1,900
Payments on capital lease obligations	(164)	(165)
Net increase (decrease) in variable rate borrowings	(10)	906
	-----	-----
Net cash provided by (used for) financing activities	(18,717)	2,641
	-----	-----
Effect of exchange rate changes on cash	(853)	(333)
	-----	-----
Net increase (decrease) in cash and cash equivalents	(42,793)	50,649
Cash and cash equivalents at beginning of period	109,113	80,668
	-----	-----
Cash and cash equivalents at end of period	\$ 66,320	\$131,317
	=====	=====

## SUPPLEMENTAL INFORMATION



Cash paid during the period for:		
Income taxes	\$ 11,608	\$ 5,704
	=====	=====
Interest	\$ 2,611	\$ 3,573
	=====	=====

</TABLE>

See accompanying notes.

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Analog Devices, Inc.  
Notes to Condensed Consolidated Financial Statements  
April 29, 1995

Note 1 - In the opinion of management, the information furnished in the accompanying financial statements reflects all adjustments, consisting only of normal recurring adjustments, which are necessary to a fair statement of the results for this interim period and should be read in conjunction with the most recent Annual Report to Stockholders.

Note 2 - Certain amounts reported in the previous year have been reclassified to conform to the 1995 presentation.

Note 3 - Commitments and Contingencies

As previously reported in the Company's Annual Report on Form 10-K for the fiscal year ended October 29, 1994 and as set forth in Item 1, "Legal Proceedings" in this Form 10-Q for the fiscal quarter ended April 29, 1995, the Company is engaged in an enforcement proceeding brought by the International Trade Commission related to patent infringement litigation with Texas Instruments, Inc., and antitrust litigation with Maxim Integrated Products, Inc.

Although the Company believes it should prevail in these matters, the Company is unable to determine their ultimate outcome or estimate the ultimate amount of liability, if any, at this time. An adverse resolution of these matters could 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 matters are resolved.

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Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

Second Quarter of Fiscal 1995 Compared to the Second Quarter of Fiscal 1994

Net sales of \$230.0 million for the second quarter of fiscal 1995 grew \$38.0

million or 20% from net sales of \$192.0 million for the second quarter of fiscal 1994. Second quarter sales growth was principally attributable to significant increases in sales volumes of both standard linear IC and system-level IC products as the Company benefited from strong worldwide demand in the semiconductor industry. Demand for the Company's standard linear IC and system-level IC products was broad based across all served application markets and geographies with the highest growth in the communications, computer and industrial markets. The distributor channel continued to have a very positive effect on sales growth, particularly for standard linear IC products, as worldwide sales through distribution increased approximately 58% from the same period last year to comprise approximately 43% of total sales in the second quarter of fiscal 1995. Geographically, the largest year-over-year sales gains were registered in Europe, Japan and North American distribution, with a weaker average dollar exchange rate contributing to a portion of the international sales increase.

Assuming continued increases in demand, further increases in sales will be constrained in the near term by the Company's manufacturing capacity. See "Liquidity and Capital Resources" below for a discussion of the Company's efforts to address its capacity issues.

Gross margin increased to 50.6% of sales from 48.7% in the second quarter of fiscal 1994. This increase resulted principally from an increased mix of higher-margined standard linear IC products and improvement in system level IC gross margins as this product area continues to grow and reach higher volume efficiencies. Gross margin on all IC products, which include both standard linear and system-level ICs, was approximately 52% of sales compared to 50% for the year ago quarter.

R&D expenses for the second quarter of fiscal 1995 increased 26.2% over the same quarter last year to 14.5% of sales as the Company continued to fund the most promising initiatives in new product and process development. Selling, marketing, general and administrative expense (SMG&A) growth was held to 8% compared to the second quarter of fiscal 1994 despite a weaker dollar, as the Company continued to constrain spending growth to a rate significantly below sales growth. As a result, the SMG&A-to-sales ratio decreased to 19.8% from 22.0% in the second quarter of fiscal 1994.

Operating profit rose 50% to 16.3% of sales compared to 13.0% of sales in fiscal 1994's second quarter reflecting the combination of accelerated demand for the Company's products, improved gross margin and continuing commitment to growing expenses more slowly than sales.

Nonoperating expenses decreased \$2.0 million in total, aided in large part by a decrease in interest expense and an increase in interest income. The decrease in interest expense related primarily to the maturity of a \$20 million term loan in the first quarter of fiscal 1995 while the increased interest income reflected a higher average level of cash, cash equivalents and short-term investments together with an increase in investment rates.

The effective income tax rate increased slightly from 23.0% for the year ago quarter to 24.0% for the second quarter of fiscal 1995 due to a shift in the mix of worldwide income.

The growth in sales and improved operating performance yielded a 61% increase in net income which rose from \$17.9 million or \$0.23 per share for the year-earlier period to \$28.7 million or \$0.36 per share for the second quarter of fiscal 1995.

#### Second Quarter of Fiscal 1995 Compared to the First Quarter of Fiscal 1995

Net sales rose from \$208.0 million for the first quarter of fiscal 1995 to \$230.0 million for the second quarter of fiscal 1995, an increase of \$22.0 million or 11% as the strong order rate experienced during the first quarter continued into the second quarter. The sales increase resulted largely from increased sales volumes of IC products, including both standard linear and system-level ICs. Sales volumes of assembled products also increased from the prior quarter. Increased penetration of the distributor channel coupled with well accepted new product offerings contributed significantly to overall sales growth for the quarter. Worldwide sales through distribution increased approximately 27% from the prior quarter with distribution now the fastest growing channel for the Company's standard linear IC products. Sales were strong throughout all geographic regions with North American and international sales both increasing by 11% from the first quarter. A weaker average dollar exchange rate compared to the previous quarter accounted for some of the international sales improvement.

Gross margin improved slightly from 50.4% in the first quarter to 50.6% in the second quarter. R&D expenses for the second quarter rose \$3.0 million from the first quarter but as a percentage of sales remained at 14.5%. SMG&A expenses declined as a percentage of sales to 19.8% from 21.0% for the first quarter of fiscal 1995. Higher sales, improved gross margin and further reduction in total operating expenses as a percentage of sales generated a sequential gain in operating income of 21% with operating income reaching 16.3% of sales compared to 14.9% in the preceding quarter.

After nonoperating income of \$237,000 and an effective income tax rate of 24%, both essentially unchanged from the prior quarter, the Company recorded a 21% increase in net income to \$28.7 million or \$0.36 per share compared to \$23.6 million or \$0.30 per share for last quarter.

#### First Six Months of Fiscal 1995 Compared to the First Six Months of Fiscal 1994

Net sales of \$438.1 million increased \$64.9 million or approximately 17% from the same period of fiscal 1994. Overall market demand for integrated circuit products accelerated during the first half of fiscal 1995 with the Company benefiting from this demand both in its standard linear IC and system-level IC product areas. The sales increase was mostly volume-based and was widespread across all product lines, markets and geographies. Total IC sales, representing

both standard linear and system-level ICs constituted more than 90% of total sales for the first six months of fiscal 1995, continuing the long-term trend of IC sales becoming a larger portion of the Company's revenues.

The highest growth for both the Company's standard linear IC and system-level IC products was in applications targeted for the communications and computer sectors. Sales growth for the Company's core standard linear products was also very strong in the first half of fiscal 1995 in the Company's traditional industrial and instrumentation markets for such products as high-performance op amps and converters and pin electronics for automatic test equipment.

Sales to North American and international customers increased 13% and 21%, respectively, over the same period last year with the translation of local currency sales to a weaker average U.S. dollar accounting for some of this improvement. The distributor channel was a major contributor to sales growth in North America as well as in Europe and Japan, especially for standard linear products, as worldwide sales through distribution increased 46% compared to the year ago period. For the first six months of fiscal 1995, approximately 40% of the Company's sales were derived from sales through distributors.

Gross margin increased more than two points from 48.2% for the first half of fiscal 1994 to 50.5% of sales for the first half of fiscal 1995. This increase resulted primarily from significantly stronger sales of higher-margin standard linear IC products and improvement in gross margin of system-level IC products as variable manufacturing costs decreased and fixed costs were spread over a larger production base.

R&D expenses increased \$12.9 million or 25.5% over the prior year reflecting continued investment in high growth initiatives in the computer, communications, consumer and automotive markets. As a percentage of sales, R&D increased from 13.6% last year to 14.5% for the first six months of fiscal 1995. SMG&A expense growth was held to 7.3%, leading to a reduction in SMG&A as a percentage of sales from 22.3% for the first six months of fiscal 1994 to 20.4% for the first six months of fiscal 1995 consistent with the Company's focus on maintaining tight control on operating expenses in order to provide additional operating profit leverage as revenues grow.

Operating profit reached \$68.5 million or 15.6% of sales for the first half of fiscal 1995, an increase of 48% from \$46.2 million or 12.4% of sales for the first half of fiscal 1994. This performance gain reflected growth in sales, improvement in gross margin and a slower rate of SMG&A expense growth versus sales.

Nonoperating expenses decreased \$3.9 million year-to-year due in large part to increased interest income on a higher average level of cash investments and a higher weighted average investment rate. A reduction in interest expense from \$3.7 million to \$2.3 million related to the maturity of a \$20 million term loan early in the first quarter of fiscal 1995 also contributed to the decrease in

nonoperating expenses. The effective incometax rate increased to 24.0% from 22.3% for the year ago period due to a change in the mix of worldwide profits.

Net income grew 58% to \$52.4 million or \$0.66 per share compared to \$33.1 million or \$0.43 per share for the first six months of fiscal 1994. As a percentage of sales, net income improved to 12% from 8.9% for the year-earlier period.

#### Liquidity and Capital Resources

At April 29, 1995, cash and cash equivalents and short-term investments totaled \$132.9 million, compared to \$181.8 million and \$131.3 million at the end of the fourth and second quarters of fiscal 1994, respectively. The \$48.9 million decrease in cash, cash equivalents and short-term investments from the end of the fourth quarter of fiscal 1994 resulted from cash used to fund a portion of capital expenditures, the maturity of the Company's \$20.0 million term loan in the first quarter of fiscal 1995, and an investment made in an external wafer foundry in the second quarter of fiscal 1995 as discussed below. Cash, cash equivalents and short-term investments were, in the aggregate, relatively unchanged from the second quarter of fiscal 1994 as the continued generation of cash flow from operations was offset by a significant increase in additions to property, plant and equipment associated with capacity expansion.

For the first half of fiscal 1995, the Company generated cash flow from operations of \$88.7 million or 20.2% of sales compared to \$75.3 million or 20.2% of sales for the same period of fiscal 1994. The change in operating cash flow compared to the first six months of fiscal 1994 principally reflected higher net income offset in part by an increase in inventories. Cash flow from operations generated for the second quarter of fiscal 1995 was \$38.6 million or 16.8% of sales versus \$50.1 million or 24.1% of sales for the prior quarter and \$54.0 million or 28.1% of sales for the second quarter of fiscal 1994. The decrease in operating cash flows compared to both of these quarters was mainly attributable to higher net working capital requirements in the second quarter of fiscal 1995, as increased net income was more than offset by a reduction in accounts payable and growth in inventories.

Accounts receivable of \$178.3 million increased \$8.5 million or 5%, \$15.9 million or 9.8% and \$16.2 million or 10% from the end of the first quarter of 1995, the fourth quarter of 1994 and the second quarter of 1994, respectively. All of these increases reflected the higher sales levels combined with the translation of local currency denominated receivables to a weaker U.S. dollar, particularly in Japan. As a percentage of annualized quarterly sales, however, accounts receivable was reduced to 19.4% from 20.4%, 20.0% and 21.1% for the previous quarter and the fourth and second quarters of 1994, respectively, due to improved collection of receivables.

Inventories rose \$7.9 million during the second quarter of 1995 as a result of heightened customer demand and the need to improve response times for incoming orders. As a percentage of annualized quarterly sales, inventories decreased to 14.6% from 15.2% for the prior quarter, 16.1% for the fourth quarter of 1994

and 18.0% for the year-earlier quarter.

Cash flow from operations together with cash on hand for both the second quarter and first six months of fiscal 1995 were used largely to fund net additions to property, plant and equipment of \$47.7 million and \$102.5 million, respectively. Capital expenditures were significantly higher than the comparable periods of 1994 with the majority of these expenditures related to the addition of a 6-inch, 0.6-micron wafer module for the production of fine line CMOS and BiCMOS products at the Company's current wafer fabrication facility in Limerick, Ireland. This module is expected to be on line in early 1996.

Stronger-than-planned customer demand for virtually all products has begun to stress manufacturing capacity. In response, the Company has undertaken an intensive effort focused on both internal and external capacity expansion. These actions are expected to begin providing incremental capacity increases beginning in the first quarter of fiscal 1996.

The Company's programs to address capacity shortages related to its internal manufacturing facilities, in addition to the ongoing expansion of the Company's facility in Limerick, Ireland, include upgrading its Wilmington, Massachusetts wafer fabrication facility to provide new six-inch capability, primarily for high speed linear products. The Company has also signed a letter of intent to purchase the assets of an existing six-inch wafer fab from Performance Semiconductor Corporation in Sunnyvale, California, which when modernized and converted to advanced linear technology, is planned to support initiatives in power management and other standard and special purpose linear products. The Company also plans to shift production of disk drive IC products from its facility in Limerick, Ireland to foundries in order to free up capacity for higher margin linear products. These actions in total are expected to provide significant upside capacity in fiscal 1996 to accommodate the higher growth currently experienced in the Company's core linear products.

Other programs aimed at providing additional internal capacity include an expansion of the Company's assembly and test facilities in the Philippines and a building expansion program at the Company's facility in North Carolina to provide capability to produce newer hybrids and multi-chip modules for communications and other high growth applications.

The Company's programs to address capacity shortages related to its external wafer supply, particularly for products in the computer and communications sectors, include expanding and formalizing its relationship with Taiwan Semiconductor Manufacturing Company (TSMC), the Company's primary wafer foundry, to provide significantly higher baseline and option capacity over the 1996-1999 time frame. Also, to secure access to additional external wafer capacity, the Company invested \$14 million in the second quarter of fiscal 1995 to acquire a minority interest in an external foundry, Chartered Semiconductor in Singapore. This supply agreement is scheduled to begin providing access to eight-inch, 0.5-micron wafer capacity in 1996. The cost of this investment will be amortized over the wafer output period.

Despite these investments, the Company expects demand will continue to exceed available supply for the balance of 1995. The Company believes it has capacity sufficient to grow revenues by approximately 20% for the second half of the year, compared to the same period last year, assuming demand continues strong during this period.

The total effect of these actions, including the current expansion in Limerick, is expected to result in over \$300 million in capital spending between fiscal 1995 and 1996. These expenditures are currently expected to be financed with cash, cash equivalents and short-term investments on hand, coupled with internally generated cash flow from operations. As a result of internal expansion, depreciation expense is expected to be incrementally higher in fiscal 1996 as these planned additions begin to ramp up.

At April 29, 1995, substantially all of the Company's lines of credit were unused, including its four-year, \$60 million credit facility.

The Company believes that its strong financial condition, existing sources of liquidity, available capital resources and cash expected to be generated from operations leave it well positioned to obtain the funds required to meet its current and future business requirements.

#### Litigation

As set forth in Note 3 to the Condensed Consolidated Financial Statements and Item 1, "Legal Proceedings" contained in this Form 10-Q for the fiscal quarter ended April 29, 1995, the Company is engaged in an enforcement proceeding brought by the International Trade Commission related to patent infringement litigation with Texas Instruments, Inc., and antitrust litigation with Maxim Integrated Products, Inc.

Although the Company believes it should prevail in these matters, the Company is unable to determine their ultimate outcome or estimate the ultimate amount of liability, if any, at this time. An adverse resolution of these matters could 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 matters are resolved.



PART II - OTHER INFORMATION  
ANALOG DEVICES, INC.

Item 1. Legal Proceedings

Texas Instruments Litigation

As previously reported, the Company was a defendant in two lawsuits brought in Texas by Texas Instruments, Inc. ("TI"), alleging patent infringement, including patent infringement arising from certain plastic encapsulation processes, and seeking an injunction and unspecified damages against the Company. The alleged infringement of one of these patents is also the subject matter of a proceeding brought by TI against the Company before the International Trade Commission (the "ITC"). On January 10, 1994, the ITC brought an enforcement proceeding against the Company alleging that the Company had violated the ITC's cease and desist order of February 1992 (as modified in July 1993), and seeking substantial penalties against the Company for these alleged violations. In addition, in June 1992, the Company commenced a lawsuit against TI in Massachusetts alleging certain TI digital signal processors infringed one of the Company's patents.

Effective April 1, 1995, the Company and TI settled both Texas lawsuits and the Massachusetts lawsuit principally by means of a royalty-free cross license of certain of the Company's and TI's patents. On April 24, 1995, the Company filed with the ITC a motion to terminate the ITC enforcement proceeding on the grounds that further action by the ITC is unnecessary in light of the Company's settlement with TI. On May 8, 1995, an Administrative Law Judge issued a recommended determination to the ITC to grant the Company's motion to terminate, and that motion is pending before the ITC.

Item 4. Submission of Matters to a Vote of Security holders

At the Annual Meeting of Stockholders held on March 14, 1995, the stockholders of the Company elected Messrs. Jerald G. Fishman and Gordon C. McKeague to serve as Class II Directors for a term of three years by the following votes:

<TABLE>

<CAPTION>

Nominee	Votes For	Votes Withheld	Broker Non votes
-----	-----	-----	-----
<S>	<C>	<C>	<C>
Jerald G. Fishman	67,317,940	152,185	-0-
Gordon C. McKeague	67,338,401	131,724	-0-

</TABLE>

The terms of office of Messrs. John L. Doyle, Samuel H. Fuller, Philip L. Lowe, Joel Moses, Ray Stata and Lester C. Thurow continued after the meeting.

At the same meeting, the stockholders approved an amendment to be Company's Articles of Organization increasing the authorized shares of Common Stock from 150,000,000 shares to 300,000,000 shares by a vote of 62,054,381 in favor, 5,261,645 opposed and 154,099 abstaining. The stockholders also approved the Company's 1994 Director Option Plan by a vote of 50,343,542 in favor, 16,865,232 opposed and 261,351 abstaining. A description of the 1994 Director Option Plan



PART II - OTHER INFORMATION  
ANALOG DEVICES, INC.

Item 6. Exhibits and reports on Form 8-K

- (a) See Exhibit Index
- (b) There were no reports on Form 8-K filed for the three months ended April 29, 1995.

SIGNATURES

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

Analog Devices, Inc.

-----

(Registrant)

Date: June 12, 1995

By:/s/ Ray Stata

-----

Ray Stata  
Chairman of the Board and  
Chief Executive Officer  
(Principal Executive Officer)

Date: June 12, 1995

By:/s/ Joseph E. McDonough

-----

Joseph E. McDonough  
Vice President-Finance  
and Chief Financial Officer  
(Principal Financial and  
Accounting Officer)

EXHIBIT INDEX  
Analog Devices, Inc.

Item	
3.1	Restated Articles of Organization of Analog Devices, Inc., as amended
27	Financial Data Schedule

THE COMMONWEALTH OF MASSACHUSETTS

KEVIN H. WHITE

Secretary of the Commonwealth

STATE HOUSE  
BOSTON, MASS.

ARTICLES OF ORGANIZATION

We, Sylvia M. Sherriff, Lida P. Underhill, Burton L. Williams and John M. Barnes, Jr. being a majority of the directors of Analog Devices, Inc. elected at its first meeting, in compliance with the requirements of General Laws, Chapter 156, Section 10, hereby certify that the following is a true copy of the agreement of association to form said corporation, with the names of the subscribers thereto:

We, whose names are hereto subscribed, do, by this agreement, associate ourselves with the intention of forming a corporation under the provisions of General Laws, Chapter 156.

The name by which the corporation shall be known is Analog Devices, Inc.

The location of the principal office of the corporation in Massachusetts is to be in the city Cambridge, and outside Massachusetts,

[The business address of the corporation is to be

221 Fifth Street, Cambridge, Massachusetts

-----  
Street and number (if office building, give room number), city or town.

If such business address is not yet determined, give the name and business address of the treasurer or other officer to receive mail.

-----  
Name and title of officer to receive mail and his complete business address

The purpose for which the corporation is formed and the nature of the business to be transacted by it are as follows:

To carry on a general manufacturing and merchandising business and any business incidental thereto or in any way connected therewith, including, but without limiting the generality of the foregoing purpose, the trade or business of producing, manufacturing, adapting, preparing, forming, processing, treating, finishing, converting, testing, and otherwise acquiring, owing, holding, consuming, disposing of and dealing in, and in interests in, electronic devices and components and any and all other goods, articles, materials, equipment, compounds or substances required for, or convenient in connection with or incidental to any of the foregoing, and any other trade or business which can conveniently be carried on in conjunction with any of the matters aforesaid or in or upon the premises of the corporation.

To apply for, purchase or in any manner to acquire, outright or by way of lease, license or otherwise, patents, trade-marks, trade names, copyrights, secret processes, inventions, formulae, and improvements of any and every nature which may be necessary, convenient, incidental or advantageous to the Corporation or for effecting any of its purposes; and to grant or license the same to others.

To construct, lease, purchase or otherwise acquire real estate and personal property of any nature, or any interest therein, without limit as to amount or value, reasonably necessary or convenient for effecting or furthering any or all of the purposes and powers of the Corporation. To purchase, lease or otherwise acquire, in whole or in part, as a going concern or otherwise, the business, good-will, rights, franchises, stocks, bonds or other securities issued by, and the property of every kind, and assume the whole or any part of the liabilities of, any person, firm, association or Corporation engaged in or authorized to conduct any business identical with or similar to any business authorized to be conducted by this Corporation or owning property necessary or suitable for its purposes, and to exercise all powers necessary or incidental to the conduct of such business. To hold, own, use, manage, operate, improve, lease, license, mortgage, sell, dispose of or otherwise turn to account or deal with all or any part of the property of the Corporation or any interest therein.

Insofar as may be permitted by law, to borrow money or otherwise incur indebtedness or liability for effecting any of its corporate purposes or powers; to make, accept, indorse, execute and issue promissory notes, bills of exchange, bonds, debentures

or other obligations from time to time, for the purchase of property, or for

effecting any of its corporate purposes or powers; and, if deemed proper, to secure the payment of any such obligations by mortgage, pledge, deed of trust, or other hypothecation of any or all of the property of the Corporation. Insofar as may be permitted by law, to purchase, or otherwise acquire shares of its capital stock or its bonds, debentures or other obligations and to hold, reissue, resell, exchange, mortgage, pledge hypothecate, dispose of, cancel, retire or redeem the same.

Insofar as may be permitted by law, to enter into, make, perform and carry out contracts of any kind with, and to act as agent for, any person, firm, association or corporation, whether private, public, quasi-public or municipal, or body politic, whether foreign or domestic, and with and for any domestic or foreign state or government or territory or colony thereof. To conduct its business in all branches, so far as permitted by law, in the Commonwealth of Massachusetts, and in any other commonwealth or state in or of the United States, and in any Territory, district, dependency, colony or possession thereof, and in any foreign country, and to maintain offices and agencies in any part of the world, either within or without the Commonwealth of Massachusetts, and to purchase, hold, mortgage, convey, lease, sell or otherwise dispose of and deal with real and personal property in any such place or places.

In furtherance and not in limitation of these purposes and powers, to do any and all things and exercise any and all powers necessary, convenient or advisable to accomplish one or more of the purposes of the Corporation, or which shall at any time appear to be for the benefit of the Corporation in connection therewith, which may now or hereafter be lawful for the Corporation to do or exercise under and in pursuance of the laws of the Commonwealth of Massachusetts, but in no way to carry on the business of a real estate corporation as provided in G.L. Ch. 56-S.7.

To guarantee loans and other obligations of any person, firm or corporation, in which the Corporation has a financial interest.

The total capital stock to be authorized is as follows:

<TABLE>  
<CAPTION>

	WITHOUT PAR VALUE		WITH PAR VALUE	
	-----		-----	
CLASS OF	NUMBER OF	NUMBER OF	PAR VALUE	AMOUNT

STOCK	SHARES	SHARES	SHARES	SHARES
<S>	<C>	<C>	<C>	<C>
Preferred	None	None	None	None
Common	7,500	None	None	None

Restrictions, if any, imposed upon the transfer of shares:

Any stockholder, including the heirs, assigns, executors or administrators of a deceased stockholder, desiring to sell or transfer any stock owned by him or them, shall first offer it to the corporation through the Board of Directors, in the manner following:

He shall notify the directors of his desire to sell or transfer by notice in writing, which notice shall contain the price at which he is willing to sell or transfer and the name of one arbitrator. The Directors shall within thirty (30) days thereafter either accept the offer, or by notice to him in writing name a second arbitrator, and these two shall name a third. It shall then be the duty of the arbitrators to ascertain the value of the stock, and if any arbitrator shall neglect or refuse to appear at any meeting appointed by the arbitrators, a majority may act in the absence of such arbitrator.

After the acceptance of the offer, or the report of the arbitrators as to the value of the stock, the directors shall have thirty days within which to purchase the same at such valuation, but if at the expiration of thirty days, the corporation shall not have exercised the rights so to purchase, the owner of the stock shall be at liberty to dispose of the same in any manner he may see fit.

No shares of stock shall be sold or transferred on the books of the corporation until these provisions have been complied with, but the Board of Directors may in any particular instance waive the requirement.

A DESCRIPTION OF THE DIFFERENT CLASSES OF STOCK, IF THERE ARE TO BE TWO OR MORE CLASSES, AND A STATEMENT OF THE TERMS ON WHICH THEY ARE TO BE CREATED AND OF THE METHOD OF VOTING THEREON:

OTHER LAWFUL PROVISIONS, IF ANY, FOR THE CONDUCT AND REGULATION OF THE BUSINESS OF THE CORPORATION, FOR ITS VOLUNTARY DISSOLUTION, OR FOR LIMITING, DEFINING, OR REGULATING THE POWERS OF THE CORPORATION, OR OF ITS DIRECTORS OR STOCKHOLDERS, OR OF ANY CLASS OF STOCKHOLDERS:

[IF SEVEN DAY'S NOTICE IS GIVEN, COMPLETE THE FOLLOWING PARAGRAPH.]

THE FIRST MEETING SHALL BE CALLED BY OF

[IF NOTICE IS WAIVED, FILL IN THE FOLLOWING PARAGRAPH.]

We hereby waive all requirements of the General Laws of Massachusetts for notice of the first meeting of the incorporators for the purpose of organization, and appoint the 18th day of January, 1965, at 10:00 o'clock A.M., at Room 522, 80 Federal Street, Boston, Massachusetts as the time and place for holding such first meeting.

The names and residences of the incorporators and the amount of stock subscribed for by each are as follows:

<TABLE>

<CAPTION>

NAME FIRST NAME MUST BE WRITTEN IN FULL	DOMICIL ACTUAL PLACE OR RESIDENCE MUST BE GIVEN	AMOUNT OF STOCK SUBSCRIBED FOR	
		PREFERRED	COMMON
<S> Sylvia M. Sherriff	<C> 28 Dow Avenue Arlington, Mass.	0	0
Lida P. Underhill	56 South Russell Street Boston, Mass.	0	0
Burton L. Williams	17 Dane Road Lexington, Mass.	0	0

</TABLE>

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<TABLE>

<S> John M. Barnes, Jr.	<C> 15 Oak Street Marblehead, Mass.	<C> 0	<C> 0
----------------------------	---	----------	----------

</TABLE>

IN WITNESS WHEREOF we hereto sign our names, this 18th day of January, 1965.

/s/

-----  
Sylvia M. Sherriff

/s/

-----  
Lida P. Underhill

/s/

-----  
Burton L. Williams

/s/

-----  
John M. Barnes, Jr.

And we further certify that:

The first meeting of the subscribers to said agreement was held on the 18th day of January 1965.

The amount of capital stock now to be issued is as follows:

<TABLE>

<CAPTION>

-----

CLASS OF STOCK	NUMBER OF SHARES	
	WITHOUT PAR VALUE	WITH PAR VALUE
<S> Preferred	<C> 0	<C> 0
Common	95	0

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</TABLE>



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<TABLE>  
<CAPTION>

	Preferred	Common
<S>	<C>	<C>
TO BE PAID FOR:		
IN CASH:		
In full		27
By installments		
Amount of installment to be paid before commencing business		
IN PROPERTY:		
REAL ESTATE		
Location		
Area		
PERSONAL PROPERTY:		
Accounts receivable		
Notes receivable		
Merchandise		
Supplies		
Securities		68
Machinery		
Motor vehicles and trailers		
Equipment and tools		
Furniture and fixtures		
patent rights		
Trade-marks		
Copyrights		
Goodwill		
(1) IN SERVICES		
(2) IN EXPENSES		

</TABLE>

- (1) No stock shall be at any time issued unless the cash, so far as due, or the property, services or expenses for which it was authorized to be issued, has been actually received or incurred by, or conveyed or rendered to, the corporation, or is in its possession as surplus; nor shall any note or evidence of indebtedness, secured or unsecured, of any person to whom stock is issued, be deemed to be payment therefor; and the president, treasurer and directors shall be jointly and severally liable to any stockholder of the corporation for actual damages caused to him by such issue.
- (2) SERVICES and EXPENSES: Services must have been rendered and expenses incurred before stock is issued therefor. State clearly the nature of such services or expenses and the amount of stock to be issued therefor.

The name, residence, and post office address of each of the officers of the corporation is as follows:

<TABLE>

<CAPTION>

	NAME	DOMICIL ACTUAL PLACE OF RESIDENCE MUST BE GIVEN	POST OFFICE ADDRESS HOME OR BUSINESS
<S>		<C>	<C>
PRESIDENT	Sylvia M. Sherriff	28 Dow Avenue Arlington, Mass.	Same
TREASURER	Matthew Lorber	60 Brattle Street Cambridge, Mass.	Same
CLERK	Burton L. Williams	17 Dane Road Lexington, Mass.	Same
DIRECTORS	Sylvia M. Sherriff	28 Dow Avenue Arlington, Mass.	Same
	Lida P. Underhill	56 South Russell St. Boston, Mass.	Same
	Burton L. Williams	17 Dane Road Lexington, Mass.	Same
	John M. Barnes, Jr.	15 Oak St. Marblehead, Mass.	Same

</TABLE>

e. We, bring a majority of the directors of Analog Devices, Inc. do hereby certify that the provisions of sections eight and nine of Chapter 156 relative to the calling and holding of the first meeting of the corporation, and the election of a temporary clerk the adoption of by-laws and the election of officers have been complied with.

f. The final day of the corporation's fiscal year is October 31 and the date provided in the by-laws for the annual meeting is the third Wednesday of

IN WITNESS WHEREOF AND UNDER THE PENALTIES OF PERJURY, we hereto sign our names this 18th day of January, 1965.

/s/ Sylvia M. Sheriff

-----  
Sylvia M. Sherriff

/s/ Lida P. Underhill

-----  
Lida P. Underhill

/s/ Burton L. Williams

-----  
Burton L. Williams

/s/ John M. Barnes, Jr.

-----  
John M. Barnes, Jr.

THE COMMONWEALTH OF MASSACHUSETTS

ARTICLES OF ORGANIZATION

GENERAL LAWS, CHAPTER 156, SECTION 10

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I hereby certify that, upon an examination of the within-written articles of organization, duly submitted to me, it appears that the provisions of the General Laws relative to the organization of corporations have been complied with, and I hereby approve said articles and cause them to be recorded and filed when validated.

/s/ Kevin H. White

Secretary of the Commonwealth

TO BE FILED IN BY CORPORATION:

CHARTER TO BE SENT TO

Maloney, Williams, Boser & Doukas  
80 Federal Street  
Boston, Massachusetts

FILING FEE: 1/20 of 1% of the total amount of the authorized capital stock with par value, and one cent a share for all authorized shares without par value, but not less than \$75. General Laws, Chapter 156, Section 53.

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FEDERAL IDENTIFICATION  
NO. 04-2348234

THE COMMONWEALTH OF MASSACHUSETTS  
OFFICE OF THE MASSACHUSETTS SECRETARY OF STATE  
MICHAEL JOSEPH CONNOLLY, SECRETARY  
ONE ASHBURTON PLACE, BOSTON, MASS. 02108

CERTIFICATE OF VOTE OF DIRECTORS INCREASING  
A SERIES OF A CLASS OF STOCK

-----

We, Ray Stata, President, and Paul P. Brontas, Clerk of ANALOG DEVICES, INC. located at Route 1 Industrial Park, Norwood, Massachusetts 02062 do hereby certify that at a meeting of the directors of the corporation held on February 6, 1985, the following vote establishing the designating a series of a class of stock and determining the relative rights and preferences thereof was duly adopted.

WHEREAS, pursuant to authority expressly vested in the Board of Directors of the corporation by Article FOURTH of the Articles of Organization of the corporation, as amended, the Board of Directors, by votes adopted at a meeting of the Board of Directors held September 11, 1980, authorized the issuance of a series of preferred stock, \$1.00 par value per share, of the corporation, consisting of 10,000 shares and designated as "Series A Convertible Preferred Stock" of the corporation; and

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WHEREAS, the Board of Directors has previously increased the authorized number of shares of Series A Convertible Preferred Stock to 30,000 shares; and

WHEREAS, the Board of Directors of the corporation desires to further increase the number of shares of Series A Convertible Preferred Stock by an additional 5,000 shares;

NOW, THEREFORE, it is hereby unanimously

VOTED: That the number of shares of Series A Convertible Preferred Stock established and authorized for issuance by actions of the Board of Directors of the corporation on September 11, 1980, October 2, 1981 and December 14, 1983, be and hereby is increased from 30,000 to 35,000 shares, and that the relative rights, preferences, powers, qualifications, limitations and restrictions on such additional 5,000 shares shall be the same as those established with respect to the previously-authorized 30,000 shares.

IN WITNESS WHEREOF AND UNDER THE PENALTIES OF PERJURY, we have hereto signed our names this 6th day of March in the year 1985.

/s/ RAY STATA

President

-----,  
Ray Stata

-----,  
Paul P. Brontas

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THE COMMONWEALTH OF MASSACHUSETTS

CERTIFICATE OF VOTE OF DIRECTORS INCREASING  
A SERIES OF A CLASS OF STOCK

(General Laws, Chapter 156B, Section 26)

I hereby approve the within certificate and, the filing fee in the amount of \$75.00 having been paid, said certificate is hereby filed this 7th day of March, 1985.

/s/ Michael Joseph Connolly

-----  
Michael Joseph Connolly  
Secretary of State

TO BE FILED IN BY CORPORATION

PHOTO COPY OF CERTIFICATE TO BE SENT

TO: Mark G. Borden, Esq.  
Hale and Dorr  
60 State Street  
Boston, MA 02109  
742-9100

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THE COMMONWEALTH OF MASSACHUSETTS

MICHAEL JOSEPH CONNOLLY  
Secretary of the Commonwealth

STATE HOUSE, BOSTON, MASS.

FEDERAL IDENTIFICATION  
NO.

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CERTIFICATE OF VOTE OF DIRECTORS ESTABLISHING  
A SERIES OF A CLASS OF STOCK

General Laws, Chapter 156B, Section 26

The filing fee to accompany this certificate is \$50.00. Make check payable to the Commonwealth of Massachusetts.

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We, Ray Stata, President and Paul P. Brontas, Clerk of

ANALOG DEVICES, INC.

located at Route 1 Industrial Park, Norwood, MA 02062 do hereby certify that at a meeting of the directors of the corporation held on September 11, 1980, the following vote establishing and designating a series of a class of stock and determining the relative rights and preferences thereof was duly adopted.

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ANALOG DEVICES, INC.

Votes of Board of Directors  
Creating Series A Convertible Preferred Stock

VOTED: That pursuant to authority expressly vested in the Board of Directors of the Corporation by Article 4 of the Articles of Organization of the Corporation, as amended, the Board of Directors hereby authorizes the issuance of a series of Preferred Stock, \$1.00 par value per share, of the Corporation, consisting of 10,000 shares and designated as "Series A Convertible Preferred Stock" of the Corporation; and

FURTHER

VOTED: That the relative rights, preferences, powers, qualifications, limitations and restrictions of the Series A Convertible Preferred Stock (hereinafter referred to as the "Series A Stock") authorized to be issued pursuant to the foregoing vote shall be as follows:

1. Dividends. In each fiscal year of the Corporation the holders of shares of Series A Stock shall be entitled to receive, before any cash dividends shall be declared and paid upon or set aside for the Common stock in such fiscal year, when and as declared by the Board of Directors of the Corporation, out of funds legally available for that purpose, dividends payable in cash in an amount per share for such fiscal year at least equal to the per share amount, if any, of any cash dividend for the Common Stock during such fiscal year. All dividends declared upon Series A Stock shall be declared pro rata per share.

2. Liquidation, Dissolution or Winding Up. In the event of any liquidation, dissolution or winding up of the Corporation, the holders of shares of Series A Stock then outstanding shall, unless they elect to convert their Series A Stock into Common Stock as set forth in Section 4(d) hereof, be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders, whether from capital, surplus or earnings, before any payment shall be made to the holders of any stock ranking on liquidation junior

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to the Series A Stock (with respect to rights on liquidation, dissolution or winding up, the Series A Stock shall rank prior to the Common Stock) an amount equal to One Thousand Dollars (\$1,000) per share. If upon any liquidation, dissolution or winding up of the Corporation the assets of the Corporation available for the distribution to its stockholders shall be insufficient to pay the holders of shares of Series A Stock the full amounts to which they respectively shall be entitled, the holders of shares of Series A Stock and any class of stock ranking on liquidation on a parity with the Series A Stock shall share ratably in any distribution of assets according to the respective amounts which would be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to said shares were paid in full. The merger or consolidation of the Corporation into or with another



corporation, the merger or consolidation of any other corporation into or with the Corporation, or the sale, transfer, mortgage, pledge or lease of all or substantially all the assets of the Corporation shall not be deemed to be a liquidation, dissolution or winding up of the Corporation.

3. Voting. The shares of Series A Stock shall have no voting rights or power and the holders of such shares shall not be entitled to vote such shares upon or in respect of any matter submitted to stockholders for vote or action, except (a) as otherwise required by law and (b) that the affirmative vote or consent of the holders of sixty-six and two-thirds percent (66-2/3%) of the shares of outstanding Series A Stock shall be required to authorize any issuance of Common Stock or securities convertible into shares of Common Stock by the Corporation in a transaction or series of related transactions designed to increase the Corporation's equity ownership in an entity (or the assets of an entity) in which the Corporation's initial investment was funded with the proceeds of the sale of shares of Series A Stock and such issuance increases the number of outstanding shares of Common Stock on a fully converted basis (treating as outstanding for this purpose all common stock equivalents determined in accordance with generally accepted accounting principles) by two percent (2%) or more. If any matter is to be submitted to the vote or consent of the holders of Series A Stock pursuant to the provisions of this Section 3, the

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Corporation shall provide such holders with not less than ten (10) days' prior written notice thereof and each share of Series A Stock shall be entitled to one vote (in person or by proxy) with respect to such matter, voting in the manner provided for in the By-laws of the Corporation.

4. Conversion.

(a) Shares of Series A Stock may be converted, at the option of the holder thereof, in the manner hereinafter provided, into fully paid and non-assessable shares of Common Stock of the Corporation, at any time during the one-year period (the "Conversion Period") commencing (i) on the day ("Conversion Date") which is five (5) years from the date of issue of such shares of Series A Stock by the Corporation ("Issue Date") and ending (ii) on the day ("Expiration Date") which is six (6) years from the Issue Date of such shares of Series A Stock. If any holder of such shares does not elect to convert such shares at any time during the Conversion Period, such

shares shall automatically, without any action on the part of the holder thereof, be converted into shares of Common Stock of the Corporation on the Expiration Date for such shares of Series A Stock. The Series A Stock shall be converted into Common Stock of the Corporation during the Conversion Period, whether such conversion is voluntary or involuntary, by the Corporation's issuance of that number of shares of Common Stock determined by multiplying the number of shares of Series A Stock then being converted by a fraction of which the numerator shall be \$2,000 and the denominator shall be the greater of (x) the fair market value per share of Common Stock on the Conversion Date or (y) one and one-half (1-1/2) times the book value per share of Common Stock, as such book value per share is shown on the balance sheet of the Corporation as of the end of the fiscal quarter immediately preceding the Conversion Date. For the purpose hereof, "fair market value per share" shall mean the average closing price per share of the Common stock of the Corporation on the New York Stock Exchange Composite Tape for the sixty (60) day period ending ten (10) days prior to the Conversion Date; provided, however, that if the Common Stock of the Corporation is not then listed on the New York Stock Exchange such fair

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market value shall be the average of the mean between the closing bid and asked prices of the Common Stock of the Corporation for such 60-day period in the over-the-counter market or, if such shares are not then traded in the over-the-counter market or any other national securities exchange, such fair market value shall be determined by the Board of Directors of the Corporation.

(b) In case of any consolidation of the corporation with, or merger of the Corporation into, another corporation (other than a consolidation or merger in which the Corporation is the continuing corporation) or in case of any sale or conveyance to another corporation of the assets of the Corporation as an entirety or substantially as an entirety, which shall occur while any shares of Series A Stock are outstanding, each share of Series A Stock shall automatically, without any action on the part of the holder thereof, be converted into Common Stock, immediately prior to or contemporaneously with such consolidation, merger, sale or conveyance,

and the holders of Series A Stock shall thereafter be entitled to receive, together with all other holders of Common Stock, the kind and amount of shares of stock and other securities and property receivable upon such consolidation, merger, sale or conveyance by the holders of Common Stock. The conversion of Series A Stock for purposes of this paragraph (b) shall be effected by the Corporation's issuance of that number of shares of Common Stock determined by multiplying the number of shares of Series A Stock then being converted by a fraction of which the numerator shall be the sum of \$1,000 plus the product of (x) \$16.66  $\frac{2}{3}$  multiplied by (y) the number of months (but not in excess of sixty (60) months in the aggregate) which elapse during the period commencing with the Issue Date and ending as of the end of the month immediately preceding the date of such consolidation, merger, sale or conveyance, and the denominator shall be the average closing price per share of the Common Stock of the Corporation on the New York Stock Exchange Composite Tape for the sixty (60) day period ending thirty (30) days prior to the date that the Corporation shall have first publicly announced the proposed consolidation, merger, sale or conveyance; provided, however, that if the Common Stock of the

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Corporation is not then listed on the New York Stock Exchange, such per share price shall be determined, on the basis of such 60-day period, as set forth in Section 4(a) hereof.

(c) In case any person shall make a tender offer to purchase at least fifty-one percent (51%) of the then outstanding shares of Common Stock of the Corporation ("Tender Offer") at any time while Series A Stock is outstanding, each holder of shares of Series A Stock shall have the right, at his election, to convert such shares into Common Stock of the Corporation during the period commencing with the first public announcement of the Tender Offer ("Offer Date") and ending on the date of expiration of the Tender Offer. If any holder elects to so convert his Series A Stock pursuant to this paragraph (c), the conversion shall be effected by the Corporation's issuance of that number of shares of Common Stock determined by multiplying the number of shares of Series A Stock then being converted by a fraction of which the numerator shall be the sum of \$1,000 plus the product of (x) \$16.66  $\frac{2}{3}$  multiplied by (y) the number of months (but not in excess of sixty (60) months in the aggregate) which elapse during the period commencing with the Issue Date and ending as of the end of the month immediately preceding the Offer Date, and the denominator shall be the average closing price per share of the Common Stock of the

Corporation on the new York Stock Exchange Composite Tape for the sixty (60) day period ending thirty (30) days prior to the Offer Date; provided, however, that if the Common Stock of the Corporation is not then listed on the New York Stock Exchange, such per share price shall be determined, on the basis of such 60-day period, as set forth in Section 4(a) hereof.

(d) In case of any liquidation, dissolution or winding up of the Corporation ("liquidation"), whether voluntary or involuntary, in lieu of the right to receive the payments specified in Section 2 hereof, the holders of shares of Series A Stock then outstanding shall have the right to convert the Series A Stock into Common Stock, up to and until the close of business on the full business day next preceding the date fixed for the liquidation of the Corporation, the conversion thereof to be effected by the Corporation's issuance of

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that number of shares of Common Stock of the Corporation determined by multiplying the number of shares of Series A Stock then being converted by a fraction of which the numerator shall be the sum of \$1,000 plus the product of (x) \$16.66  $\frac{2}{3}$  multiplied by (y) the number of months (but not in excess of 60 months in the aggregate) which elapse during the period commencing with the Issue Date and ending as of the end of the month immediately preceding the date of such liquidation, and the denominator shall be the amount (or value if other than cash) per share of Common Stock to be distributed to the holders of Common Stock in liquidation of the Corporation.

(e) The Corporation shall not issue fractions of shares of Common Stock upon conversion of Series A Stock or scrip in lieu thereof. If any fraction of a share of Common Stock would, except for the provisions of this paragraph (e), be issuable upon conversion of Series A Stock, the Corporation shall in lieu thereof pay to the person entitled thereto an amount in cash equal to the current value of such fraction, calculated to the nearest one-thousandth ( $\frac{1}{1000}$ ) of a share, to be computed (i) if the Common Stock is listed on any national securities exchange on the basis of the last sales price of the Common Stock on such exchange (or the quoted closing bid price if there shall have been no sales) on the Conversion Date (or Merger Date, Offer Date or date of liquidation, as the case may be), or (ii) if the Common Stock shall not be so listed, on the basis of the mean between the closing bid and asked prices for the Common Stock on the Conversion Date (or Merger Date, Offer Date or date of liquidation, as the case may be) as reported by NASDAQ, or its successor, and if there are no such closing bid and asked prices, on the basis of the fair

market value per share as determined by the Board of Directors of the Corporation.

(f) In order to exercise the conversion privilege, the holder of any Series A Stock to be converted shall surrender his or its certificate or certificates therefor to the principal office of the transfer agent for the Series A Stock (or if no transfer agent be at the time appointed, then to the Corporation at its principal office), and shall give written notice to the Corporation at such office that the holder elects

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to convert the Series A Stock represented by such certificates. Such notice shall also state the name or names (with address) in which the certificate or certificates for shares of Common Stock which shall be issuable on such conversion shall be issued. As soon as practicable after receipt of such notice and the surrender of the certificate or certificates for Series A Stock as aforesaid, the Corporation shall cause to be issued and delivered at such office to such holder, or on his or its written order, a certificate or certificates for the number of full shares of Common Stock issuable on such conversion in accordance with the provisions hereof and cash as provided in paragraph (e) hereof in respect of any fraction of a share of Common Stock otherwise issuable upon such conversion.

(g) On the date that any conversion takes effect hereunder, all shares of Series A Stock then to be converted shall cease to have any rights with respect to such stock, and the sole rights of the holders of such stock shall be with respect to the Common Stock into which such shares have been so converted. Each holder of an outstanding certificate of Series A Stock which, prior to conversion represented shares of Series A Stock, shall be entitled to receive therefor, on and after the date that any such conversion takes effect, a certificate or certificates representing the number of shares of Common Stock into which such shares shall have been converted, upon surrender of such certificate or certificates to such agent or agents as may be appointed by the Corporation. If so required by the Corporation, certificates surrendered for conversion shall be endorsed or accompanied by a written instrument or instruments of transfer in form satisfactory to the Corporation, duly executed by the registered holder or by his attorney duly authorized in writing. All certificates evidencing shares of Series A Stock which are required to be surrendered for conversion in accordance with the provisions hereof shall, from and after the date such certificates are so required to be surrendered, be deemed to have been retired and cancelled and the shares of Series A Stock represented thereby converted into Common

Stock for all purposes, notwithstanding the failure of the owner or owners thereof to surrender such certificates on or prior to said date.

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(h) In case:

(i) of any consolidation or merger to which the Corporation is a party and for which approval of any stockholders of the Corporation is required, or of the sale or transfer of all or substantially all of the assets of the Corporation; or

(ii) of the involuntary or voluntary dissolution, liquidation or winding up of the Corporation;

then the Corporation shall cause to be filed at the office of the transfer agent of the Series A Stock and shall cause to be mailed to the holders of the Series A Stock, at their last addresses as they shall appear upon the record of such transfer agent at least twenty (20) days before the date specified herein below, a notice stating the date on which such consolidation, merger, sale, transfer, dissolution, liquidation or winding up is expected to become effective, and the date as of which it is expected that holders of Common Stock of record shall be entitled to exchange their shares of Common Stock for securities or other property deliverable upon such consolidation, merger, sale, transfer, dissolution, liquidation or winding up.

(i) The Corporation shall use its best efforts, at all times when the Series A Stock shall be outstanding, to reserve and keep available out of its authorized but unissued stock, for the purpose of effecting the conversion of the Series A Stock, such number of its duly authorized shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding Series A Stock. Before taking any action which would cause an adjustment reducing the conversion price below the then par value of the shares of Common Stock issuable upon conversion of the Series A Stock, the Corporation will take any corporate action which may, in the opinion of its counsel, be necessary in order that the Corporation may validly and legally issue fully paid and non-assessable shares of such Common Stock at such adjusted conversion price.

2H

(j) Upon any such conversion, no adjustment shall be made for accrued and unpaid dividends on the Series A Stock surrendered for conversion or on the Common Stock delivered.

(k) All shares of Series A Stock which shall have been surrendered for conversion as herein provided shall no longer be deemed to be outstanding and all rights with respect to such shares, including the rights, if any, to receive notices and to vote, shall forthwith cease and terminate except only the right of the holders thereof to receive Common Stock in exchange therefor. Any shares of Series A Stock so converted shall be retired and cancelled and shall not be reissued, and the Corporation may from time to time take such appropriate action as may be necessary to reduce the authorized Series Stock accordingly.

5. Definitions. The term "Common Stock" shall be deemed to refer to the Common Stock, \$.16 2/3 par value per share, authorized by the Articles of Organization of the Corporation, as amended and in effect on the date hereof, and to any additional share of stock of any class of the Corporation other than preferred stock with a fixed limit on dividends and a fixed amount payable in the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation.

FURTHER  
VOTED:

That the President or any Vice Present and the Clerk or an Assistant Clerk be and hereby are authorized to execute, on behalf of the Corporation and under its corporate seal, a certificate setting forth a copy of the foregoing votes, and to cause such certificate to be filed with Secretary of State of the Commonwealth of Massachusetts all in accordance with the provisions of the Business Corporation Law of the Commonwealth of Massachusetts.

2I

IN WITNESS WHEREOF AND UNDER THE PENALTIES OF PERJURY, we have hereto signed our names this 14th day of October in the year 1980.

/s/ Ray Stata

President

-----,

2J

25

THE COMMONWEALTH OF MASSACHUSETTS

CERTIFICATE OF VOTE OF DIRECTORS ESTABLISHING

A SERIES OF A CLASS OF STOCK

(General Laws, Chapter 156B, Section 26)

I hereby approve the within certificate and, the

filing fee in the amount of \$50.00

having been paid, said certificate is hereby filed this 16th of October, 1980.

/s/ Michael Joseph Connolly  
MICHAEL JOSEPH CONNOLLY  
Secretary of the Commonwealth  
of Massachusetts

State House, Boston, Mass.

TO BE FILED IN BY CORPORATION

PHOTO COPY OF CERTIFICATE TO BE SENT

TO:

Paul Brontas  
Hale and Dorr  
60 State Street  
Boston, MA 02109



THE COMMONWEALTH OF MASSACHUSETTS

Secretary of the Commonwealth

State House, Boston, Mass.

ARTICLES OF  
MERGER OF PARENT AND SUBSIDIARY CORPORATIONS  
Pursuant to General Laws, Chapter 156B, SECTION 82

This certificate must be submitted to the Secretary of the Commonwealth within sixty days after the meeting of the board of directors at which the merger is voted. The fee for filing this certificate is prescribed by General laws, Chapter 156B, Section 114. Make check payable to the Commonwealth of Massachusetts.

We, Ray S. Stata and Paul P. Brontas, President and Clerk of Analog Devices, Inc. organized under the laws of Massachusetts and herein called the parent corporation, do hereby certify as follows:

1. That the subsidiary corporation(s) to be merged into the parent corporations is as follows:

<TABLE>  
<CAPTION>

Name	State of Organization	Date of Organization
<S> Resistor Products, Inc.	<C> Massachusetts	<C> 12/4/72

</TABLE>

2. That the parent corporation owns at least ninety per cent of the outstanding shares of each class of the stock of each subsidiary corporation to be merged into the parent corporation.

4. That at a meeting of the directors of the parent corporation held on January 26, 1973, the following vote pursuant to subsection (a) of General Laws, Chapter 156B, Section 62, was duly adopted:

VOTED: That Resistor Products, Inc., a wholly owned subsidiary of this corporation, be merged with and into this corporation and that following such merger, this corporation shall be the surviving corporation.

FURTHER

VOTED: That the effective date of such merger shall be February 5, 1973 and on that date all of the property, real, personal and mixed, and the rights, privileges and franchises of said Resistor Products, Inc., subject, however, to all of the liabilities and obligations (including taxes) of Resistor Products, Inc. and the rights of creditors and Resistor Products, Inc., for which this corporation shall be liable in the same manner and to the same extent as if it had itself incurred such liabilities and obligations.

FURTHER

VOTED: That the President and Clerk of this Corporation, and each of them acting singly, be and hereby is authorized to execute and deliver, in the name and on behalf of this corporation, any and all documents and instruments required, or incidental, to effectuate and implement the merger of Resistor Products, Inc. into this corporation in such form as the officer so acting may deem necessary and advisable.

5. The effective date of the merger as specified in the vote set out under Paragraph 4 is February 5, 1973.

IN WITNESS WHEREOF and the penalties of perjury we have hereto signed our names this 1st day of February, 1973.

/s/ Ray Stata President

-----

Ray S. Stata

/s/ Paul P. Brountas Clerk

-----

Paul P. Brountas

COMMONWEALTH OF MASSACHUSETTS  
ARTICLES OF MERGER OF PARENT AND SUBSIDIARY CORPORATIONS  
(General Laws, Chapter 156B, Section 82)

I hereby approve the within articles of merger of parent and subsidiary corporation and, the filing fee in the amount of \$100.00 having been paid, said articles are deemed to have been filed with me this 5th day of February, 1973.

/s/ John F.X. Davoren  
-----

Secretary of the Commonwealth  
State House, Boston, Mass.

Atty John E. Ryan  
Hale and Dorr  
28 State St.  
Boston, Mass. 02109

February 14, 1973

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THE COMMONWEALTH OF MASSACHUSETTS

FEDERAL  
IDENTIFICATION

MICHAEL JOSEPH CONNOLLY  
Secretary of State

NO. 04-2348234

ONE ASHBURTON PLACE  
BOSTON, MASS. 02108

FEDERAL  
IDENTIFICATION  
NO. 87-0366029

ARTICLES OF MERGER  
PURSUANT TO GENERAL LAWS, CHAPTER 156B, SECTION 79

The fee for filing this certificate is prescribed by  
General Laws, Chapter 156B, Section 114.  
Make checks payable to the Commonwealth of Massachusetts.

\* \* \* \*

MERGER OF M Signal Processing Circuits, Inc., a  
Delaware Corporation, and  
S Analog Devices, Inc., a  
Massachusetts Corporation

the constituent corporations

into Analog Devices, Inc.

one of the constituent corporations organized under the laws of Massachusetts as specified in the agreement referred to in Paragraph 1 below.

The undersigned officers of each of the constituent corporations certify under the penalties of perjury as follows:

1. An agreement of merger has been duly adopted in compliance with the requirements of subsections (b) and (c) of General Laws, Chapter 156B, Section 79, and will be kept as provided by subsection (c) thereof. The surviving corporation will furnish a copy of said agreement to any of its stockholders, or to any person who was a stockholder of any constituent corporation, upon written request and without charge.

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2. The effective date of the merger determined pursuant to the agreement referred to in paragraph 1 shall be October 31, 1983.

3. (For a merger)

The following amendments to the articles of organization of the SURVIVING corporation have been affected pursuant to the agreement of merger referred to in paragraph 1:

NONE

4. (This paragraph 4 may be deleted if the surviving corporation is organized under the laws of a state other than Massachusetts.)

The following information shall not for any purpose be treated as a permanent part of the articles of organization of the surviving corporation:

(a) The post office address of the initial principal office of the surviving corporation in Massachusetts is: Route 1 Industrial Park, Norwood, Massachusetts 02062

(b) The name, residence and post office address of each of the initial

directors and President, Treasurer and Clerk of the surviving corporation is as follows:

<TABLE>  
<CAPTION>

	Name	Residence	Post Office Address
<S>		<C>	<C>
President	Ray Stata	80 Sears Road Brookline, MA 02146	Same
Treasurer	James R.F. Kunkemueller	2 Raleigh Road Dover, MA 02030	Same
Clerk	Paul P. Brontas	22 Conant Rd. Weston, MA 02193	Same
Directors	SEE ATTACHMENT 4(b)		

</TABLE>

(c) The date initially adopted on which the fiscal year of the surviving corporation ends is: Saturday closest to last day of October

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(d) The date initially fixed in the by-laws for the Annual Meeting of stockholder of the surviving corporation is: 2nd Tuesday in March

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## Attachment 4(b)

## Directors

<TABLE>  
<CAPTION>

Name -----	Residence -----	Post Office Address -----
<S> Ray Stata	<C> 80 Sears Road Brookline, MA 02146	<C> Same
Philip L. Lowe	330 Beacon Street Boston, MA 02116	Same
Gordon C. McKeague	20332 Arcadia Drive Olympia Fields, IL 60461	Same
Matthew Lorber	180 Beacon Street Boston, MA 02116	Same
Joel Moses	5 Bryant Road Lexington, MA 02173	Same

</TABLE>

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## FOR MASSACHUSETTS CORPORATIONS

The undersigned President, Vice President and Clerk, Assistant Clerk of Analog Devices, Inc., a corporation organized under the laws of Massachusetts further state under the penalties of perjury that the agreement of merger referred to in paragraph 1 has been duly executed on behalf of such corporation and duly approved in the manner required by General Laws, Chapter 156B, Section 79.

/s/ Joseph M. Hinchey                      Vice President  
-----

/s/ James R.F. Kunkemueller              Assistant Clerk  
-----

FOR CORPORATIONS ORGANIZED OTHER THAN IN MASSACHUSETTS

The undersigned President and Secretary/Treasurer of Signal Processing Circuits, Inc. a corporation organized under the laws of Delaware further state under the penalties of perjury that the agreement of consolidation merger referred to in paragraph 1, has been duly adopted by such corporation in the manner required by the laws of Delaware.

/s/ John W. Hansen                      President  
-----

/s/    Secretary/Treasurer  
-----

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THE COMMONWEALTH OF MASSACHUSETTS

ARTICLES OF MERGER

(General Laws, Chapter 156B, Section 79)

I hereby approve the within articles of consolidation/merger and, the filing fee in the amount of \$200,000 having been paid, said articles are deemed to have been filed with me this 31st day of October, 1983.

Effective Date

/s/ MICHAEL JOSEPH CONNOLLY  
Secretary of State

TO BE FILLED IN BY CORPORATION  
Photo Copy of Articles of Merger To Be Sent

TO: Philip J. Flink, Esq.  
Hale and Dorr  
60 State Street  
Boston, Massachusetts 02109

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THE COMMONWEALTH OF MASSACHUSETTS

Kevin H. White

Secretary of the Commonwealth

State House, Boston, Mass.

ISSUE OF CAPITAL STOCK

This certificate must be submitted to the Secretary of the Commonwealth within thirty days after the date of the vote of the directors, in accordance with General Laws, Chapter 156, Section 16.

The filing fee to accompany this Certificate is \$25.00. Make check payable to THE COMMONWEALTH OF MASSACHUSETTS.

-----

We, Sylvia M. Sherriff, President, Matthew Lorber, Treasurer

Sylvia M. Sherriff, Lida P. Underhill, John M. Barnes, Jr. and Burton L. Williams, being a majority of the directors of ANALOG DEVICES, INC.

located at 221 Fifth Street, Cambridge, Massachusetts in compliance with the provision of General Laws, Chapter 156, Section 16, do hereby certify that at a meeting of the stockholders of the corporation held on March 10, 1965 it was voted to issue five shares of Class A Common and one hundred shares of Class B Common shares without par value of its authorized capital stock, this amount being in addition to amounts previously issued and the certificates therefor filed in the office of the Secretary of the Commonwealth; and that

	( None shares preferred
The total amount of capital stock	( None shares common
authorized is	(7,500 common shares without



(3750a and 3750b) ( par value

The amount of capital stock already issued for cash payable by installments is ( None shares preferred ( None shares common ( None shares without par value

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The amount paid thereon is \$ ( \$ None paid on preferred stock ( \$ None paid on common stock ( \$ None paid on shares without par value

The amount of fully paid stock already issued for cash is ( None shares preferred ( None shares common ( 27 common a shares without par value

for property is ( None shares preferred ( None shares common ( 68 common a shares without par value

for services and expenses is ( None shares preferred ( None shares common ( None shares without par value

We further certify that the amount of additional capital stock to be issued for cash, property, services, or expenses is:

WITH PAR VALUE ( None shares preferred ( None ( None shares common

Amount of additional issue (

WITHOUT PAR VALUE ( None shares preferred ( 105 shares common

<TABLE>

<S> TO BE PAID FOR: IN CASH: In full..... <C> PREFERRED COMMON 27

By installments.....  
Amount of first installment.....  
IN PROPERTY:  
REAL ESTATE:  
Location.....  
Area.....

</TABLE>

37

<TABLE>

<S>

<C>

PERSONAL PROPERTY:

Accounts receivable.....  
Notes receivable.....  
Merchandise.....  
Supplies.....  
Securities.....  
Machinery.....  
Motor vehicles and trailers.....  
Equipment and tools.....  
Furniture and fixtures.....  
Patent rights.....  
Trade-marks.....  
Copyrights.....  
Goodwill.....  
Stock Dividend .....

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(Show Balance Sheet on Page 3)

(2) IN SERVICES.....  
(2) IN EXPENSES.....

</TABLE>

(1) No stock shall be at any time issued unless the cash, so far as due, or the property, services or expenses for which it was authorized to be issued, has been actually received or incurred by, or conveyed or rendered to, the corporation, or is in its possession as surplus; nor shall any note or evidence of indebtedness, secured or unsecured, of any person to whom stock is issued, be deemed to be payment therefor; and the president, treasurer and directors shall be jointly and severally liable to any stockholder of the corporation for actual damages caused to him by such issue.

(2) SERVICES AND EXPENSES: Services must have been rendered and expenses incurred before stock is issued therefor. State clearly the nature of such

services or expenses and the amount of stock to be issued therefor.

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IN WITNESS WHEREOF AND UNDER THE PENALTIES OF PERJURY, we have hereto signed our names, this tenth day of March in the year 1965.

/s/ Sylvia M. Sherriff

-----  
Sylvia M. Sherriff

/s/ Matthew Lorber

-----  
Matthew Lorber

/s/ Lida P. Underhill

-----  
Lida P. Underhill

/s/ John M. Barnes, Jr.

-----  
John M. Barnes, Jr.

/s/ Burton L. Williams

-----  
Burton L. Williams

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THE COMMONWEALTH OF MASSACHUSETTS

ISSUE OF CAPITAL STOCK

GENERAL LAWS, CHAPTER 156, SECTION 16

I hereby and herewith approve and file the within certificate this tenth day of March 1965.

/s/ Kevin H. White  
Secretary of the Commonwealth

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THE COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF CORPORATION AND TAXATION

240 State House, Boston 33, Mass.

ISSUE OF CAPITAL STOCK

This certificate must be submitted to the Commissioner of Corporation and Taxation within thirty days after the date of the vote of the directors, in accordance with General Laws, Chapter 156, Section 16.

The filing fee to accompany this Certificate is \$25.00. Make check payable to THE COMMONWEALTH OF MASSACHUSETTS.

-----

We, MATTHEW LORBER, President, RAYMOND STATA, Treasurer

MATTHEW LORBER  
RAYMOND STATA  
SYLVIA M. SHERRIFF

being a majority of the directors of

ANALOG DEVICES, INC.

located at 221 Fifth Street, Cambridge, Massachusetts in compliance with the provision of General Laws, Chapter 156, Section 16, do hereby certify that at a meeting of the directors of the corporation held on the twenty-fourth day of March, 1965 it was voted to issue 7 Class A Common and 7 Class B Common shares without par value of its authorized capital stock, this amount being in addition to amounts previously issued and the certificates therefor filed in the office of the Secretary of the Commonwealth; and that

The total amount of capital stock authorized is ( None shares preferred  
( None shares common  
(7,500 shares without  
par value)

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The amount of capital stock already issued for cash payable by installments is ( None shares preferred  
( None shares common  
( None shares without par  
value)

The amount paid thereon is \$ ( \$ None paid on preferred stock  
( \$ None paid on common stock  
( \$ None paid on shares without  
par value  
-----

The amount of fully paid stock already issued for cash is ( None shares preferred  
( None shares common  
( 54 common shares without  
par value)

for property is ( None shares preferred  
( None shares common  
( 146 common shares without  
par value)

for services and expenses is ( None shares preferred  
( None shares common  
( None shares without par value)

We further certify that the amount of additional capital stock to be issued for cash, property, services, or expenses is:

WITH PAR VALUE ( None shares preferred  
( None  
\$ ( None shares common

Amount of additional issue (

WITHOUT PAR VALUE ( None shares preferred  
(  
( 14 shares common

<TABLE>  
<CAPTION>

TO BE PAID FOR:	PREFERRED	COMMON
	-----	-----
<S>	<C>	<C>
IN CASH:		
In full.....		
By installments.....		
Amount of first installment.....		

</TABLE>

<TABLE>

<S>	<C>
IN PROPERTY:	
REAL ESTATE:	
Location.....	
Area.....	
PERSONAL PROPERTY:	
Accounts receivable.....	
Notes receivable.....	
Merchandise.....	
Supplies.....	
Securities.....	
Machinery.....	
Motor vehicles and trailers.....	
Equipment and tools.....	

Furniture and fixtures.....  
 Patent rights.....  
 Trade-marks.....  
 Copyrights.....  
 Goodwill.....  
 Stock Dividend .....

(Show Balance Sheet on Page 3)

(2) IN SERVICES for consulting services in  
       the amount of \$5,185.32..... 14  
 (2) N EXPENSES.....

</TABLE>

- (1) No stock shall be at any time issued unless the cash, so far as due, or the property, services or expenses for which it was authorized to be issued, has been actually received or incurred by, or conveyed or rendered to, the corporation, or is in its possession as surplus; nor shall any note or evidence of indebtedness, secured or unsecured, of any person to whom stock is issued, be deemed to be payment therefor; and the president, treasurer and directors shall be jointly and severally liable to any stockholder of the corporation for actual damages caused to him by such issue.
- (2) SERVICES AND EXPENSES: Services must have been rendered and expenses incurred before stock is issued therefor. State clearly the nature of such services or expenses and the amount of stock to be issued therefor.

IN WITNESS WHEREOF AND UNDER THE PENALTIES OF PERJURY, we have hereto signed our names, this twenty-fourth day of March in the year 1965.

/s/ Matthew Lorber

-----  
 Matthew Lorber

/s/ Ray Stata

-----  
 Ray Stata

/s/ Sylvia M. Sherriff

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THE COMMONWEALTH OF MASSACHUSETTS

WRITE NOTHING BELOW

Analog Devices, Inc.

ISSUE OF CAPITAL STOCK

GENERAL LAWS, CHAPTER 156, SECTION 16

Filed in the office of the Secretary of the Commonwealth

Kevin H. White

-----

I hereby approve the within certificate, this 6th day of April, 1965

/s/ Kevin H. White  
Secretary of State

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THE COMMONWEALTH OF MASSACHUSETTS

MICHAEL JOSEPH CONNOLLY

Secretary of State

FEDERAL IDENTIFICATION  
NO.



ONE ASHBURTON PLACE, BOSTON, MASS. 02108

ARTICLES OF AMENDMENT

General Laws, Chapter 156B, Section 72

This certificate must be submitted to the Secretary of the Commonwealth within sixty days after the date of the vote of stockholders adopting the amendment. The fee for filing this certificate is prescribed by General Laws, Chapter 156B, Section 114. Make check payable to the Commonwealth of Massachusetts.

We, Ray Stata, President and  
Paul P. Brontas, Clerk of

Analog Devices, Inc.

located at Route 1 Industrial Park, Norwood, MA do hereby certify that the following amendment to the articles or organization of the corporation was duly adopted at a meeting held on March 10, 1981, by vote of 4,625,863 shares of Common Stock out of 6,850,507 shares outstanding, being at least a majority of each class outstanding and entitled to vote thereon.

See Vote on Page 2

FOR INCREASE IN CAPITAL FILL IN THE FOLLOWING:

The total amount of capital stock already authorized is ( 500,000 shares preferred) with (10,000,000 shares common ) par ( ) value ( ) shares preferred) without ----- ( ) shares common ) par ----- ( ) value

The amount of additional capital stock authorized is ( ) shares preferred) with ----- (20,000,000 shares common ) par ( ) value ( ) shares preferred) without

-----  
( shares common ) par  
-----  
( ) value

VOTED: To amend the Articles of Organization of the corporation, as amended, to increase the authorized Common Stock, \$.16 2/3 par value per share, of the corporation from 10,000,000 shares to 30,000,000 shares, so that after the effective date of such amendment the total number of authorized shares of Common Stock, \$.16 2/3 par value per share, of the corporation shall be 30,000,000 shares.

The foregoing amendment will become effective when these articles of amendment are filed in accordance with Chapter 156B, Section 6 of The General Laws unless these articles specify, in accordance with the vote adopting the amendment, a later effective date not more than thirty days after such filing, in which event the amendment will become effective on such later date.

IN WITNESS WHEREOF AND UNDER THE PENALTIES OF PERJURY, we have hereto signed our names this tenth (10th) day of March, in the year 1981.

/s/ Ray Stata President  
-----

/s/ Paul P. Brontas Clerk  
-----

THE COMMONWEALTH OF MASSACHUSETTS

ARTICLES OF AMENDMENT

(General Laws, Chapter 156B, Section 72)

I hereby approve the within articles of amendment and, the filing fee in the amount of \$10,000.00 having been paid, said articles are deemed to have

been filed with me this 16th  
day of March, 1981.

/s/ Michael Joseph Connolly  
MICHAEL JOSEPH CONNOLLY  
Secretary of State

TO BE FILLED IN BY CORPORATION  
PHOTO COPY OF AMENDMENT TO BE SENT

TO: Mark G. Borden  
Hale and Dorr  
60 State Street  
Boston, MA 02109  
Telephone: 742-9100

Copy mailed March \_\_\_\_, 1981

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THE COMMONWEALTH OF MASSACHUSETTS  
OFFICE OF THE MASSACHUSETTS SECRETARY OF STATE  
MICHAEL JOSEPH CONNOLLY

Secretary

FEDERAL IDENTIFICATION  
NO. 04-2348234

ONE ASHBURTON PLACE, BOSTON, MASS. 02108

ARTICLES OF AMENDMENT

General Laws, Chapter 156B, Section 72

This certificate must be submitted to the Secretary of the Commonwealth within sixty days after the date of the vote of stockholders adopting the amendment. The fee for filing this certificate is prescribed by General Laws, Chapter 156B, Section 114. Make check payable to the Commonwealth of Massachusetts.

We, Ray Stata, President and Paul P. Brontas, Clerk of Analog Devices, Inc.

located at Route 1 Industrial Park, Norwood, Massachusetts do hereby certify that the following amendment to the articles of organization of the corporation was duly adopted at a meeting held on March 13, 1984, by vote of

14,579,305 shares of Common Stock out of 18,875,482 shares outstanding, being at least a majority of each class outstanding and entitled to vote thereon.

See Vote on Page 2

TO CHANGE the number of shares and the par value, if any, of each class of stock within the corporation fill in the following:

The total presently authorized is:

49

<TABLE>  
<CAPTION>

KIND OF STOCK	NO PAR VALUE NUMBER OF SHARES	WITH PAR VALUE NUMBER OF SHARES	PAR VALUE
<S> COMMON		<C> 30,000,000	<C> \$.16 2/3
PREFERRED		500,000	\$1.00

</TABLE>

CHANGE the total to:

<TABLE>  
<CAPTION>

KIND OF STOCK	NO PAR VALUE NUMBER OF SHARES	WITH PAR VALUE NUMBER OF SHARES	PAR VALUE
<S> COMMON		<C> 100,000,000	<C> \$.16 2/3
PREFERRED		500,000	\$1.00

</TABLE>

VOTED: To amend the Articles of Organization of the corporation, as amended, to increase the authorized Common Stock, \$.16 2/3 par value per share, of the corporation from 30,000,000 shares to 100,000,000 shares, so that after the effective date of such amendment the total number of authorized shares of Common Stock,



Copy mailed

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THE COMMONWEALTH OF MASSACHUSETTS

JOHN F. X. DAVOREN  
SECRETARY OF THE COMMONWEALTH

STATE HOUSE, BOSTON, MASS.

RESTATED ARTICLES OF ORGANIZATION

GENERAL LAWS, CHAPTER 156B, SECTION 74

This certificate must be submitted to the Secretary of the Commonwealth within sixty days after the date of the vote of stockholders adopting the restated articles or organization. The fee for filing this certificate is prescribed by General Laws, Chapter 156B, Section 114. Make check payable to the Commonwealth of Massachusetts.

We, Matthew Lorber, President and J. Barry Morrissey, Assistant clerk of  
ANALOG DEVICES, INC.

located at 241 Binney Street, Cambridge, Massachusetts do hereby certify that the following restatement of the articles of organization of the corporation was duly adopted by unanimous consent on October 29, 1968, by vote of 170 shares of Class A Common out of 170 shares outstanding, and 166 shares of Class B Common Stock out of 166 shares outstanding being at least two-thirds of each class of stock outstanding and entitled to vote and of each class of series of stock adversely affected thereby:

1. The name by which the corporation shall be known is: Analog Devices, Inc.
2. The purposes for which the corporation is formed are as follows: To manufacture, produce, assemble, fabricate, import, lease, purchase or otherwise acquire; to invest in, own, hold, use, license the use of, install, handle, maintain, service or repair; to sell, pledge, mortgage, exchange, export, distribute, lease, assign and otherwise dispose of, and generally to trade and deal in and with, the principal or agent, at wholesale, retail, on commission or otherwise, electronic systems, equipment and components, and electrical and electro-mechanical apparatus and equipment of all kinds and descriptions, electronics, telecommunications, communications and similar equipment of all descriptions, supplies, parts, equipment, apparatus, machinery improvements,

appliances, tools, and goods, wares, merchandise,

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commodities, articles of commerce and property of every kind and description, and any and all products, machinery, equipment and supplies used or useful in connection therewith: and

To have and to exercise, without limitation, all of the powers granted by Massachusetts law to business corporations, including those powers set forth in section 9 of G.L., Ch. 156B, and in any amendment thereof or addition thereto.

3. The total number of shares and par value, if any, of each class of stock which the corporation is authorized to issue is as follows:

<TABLE>

<CAPTION>

	WITHOUT PAR VALUE	WITH PAR VALUE	
<S> CLASS OF STOCK	<C> NUMBER OF SHARES	<C> NUMBER OF SHARES	<C> PAR VALUE
Preferred	-----	-----	-----
Common	-----	1,500,000	\$.25

</TABLE>

\*4. If more than one class is authorized, a description of each of the different classes of stock with, if any, the preferences, voting powers, qualifications, special or relative rights or privileges as to each class thereof and any series now established:

None.

\*5. The restrictions, if any, imposed by the articles of organization upon the transfer of shares of stock of any class are as follows:

None.

\*6. Other lawful provisions, if any, for the conduct and regulation of the business and affairs of the corporation, for its voluntary dissolution, or for limiting, defining, or regulating the powers of the corporation, or of its directors or stockholders, or of any class of stockholders:

See continuation sheet, items 6A through 6C.

6A. INDEMNIFICATION.

The Corporation shall indemnify any and all of its directors or officers or former directors or officers or any person who may have served at its request as a director or officer of another corporation (and his heirs or personal representatives) in which it owns shares of capital stock or of which it is a creditor against expenses, including the amount of any judgement, payment in settlement, and attorney's fees, actually and reasonably incurred by them in connection with the defense of any action, suit or proceeding in which they, or any of them are made parties, or a party, by reason of being or having been directors or officers or a director or officer of the Corporation, or of such other corporation, except in relation to matters as to which any such director or officer or former director or officer or person shall be adjudged in such action, suit or proceeding (or by independent counsel, if the matter is settled or compromised) not to have acted in good faith in the performance of duty.

6B. STOCKHOLDERS' MEETINGS

Meetings of Stockholders of the Corporation may be held any where in the United States.

6C. AMENDMENT OF BY-LAWS

The power to make, amend or repeal by-laws shall be in the Stockholders, provided, however, that the by-laws may provide that the directors may make, amend or repeal the by-laws in whole or in part, except with respect to any provisions thereof which according to law, the Articles of Organization or by-laws requires action by the Stockholders.

\*We further certify that the foregoing restated articles of organization effect no amendments to the articles or organization of the corporation as heretofore amended, except amendments to the following articles 2, 3, 4, 5 and 6. (\*If there are no such amendments, state "None".)

IN WITNESS WHEREOF AND UNDER THE PENALTIES OF PERJURY, we have hereto signed our names this 30th day of October, in the year 1968.

/s/ Matthew Lorber

President



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THE COMMONWEALTH OF MASSACHUSETTS

RESTATED ARTICLES OF ORGANIZATION  
(General Laws, Chapter 156B, Section 74)

I hereby approve the within restated articles of organization and the filing fee in the amount of \$850.00 having been paid, said articles are deemed to have been filed with me this 31st day of October, 1968.

/s/ John T. X. Davoren

Secretary of the Commonwealth  
State House, Boston, Mass.

Return to: J. Barry Morrissey, Esq.  
Hale and Dorr  
60 State Street  
Boston, Massachusetts

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THE COMMONWEALTH OF MASSACHUSETTS

JOHN F.X. DAVOREN

Secretary of the Commonwealth  
STATE HOUSE, BOSTON, MASS.

ARTICLES OF AMENDMENT

General Laws, Chapter 156B, Section 72

This certificate must be submitted to the Secretary of the Commonwealth within sixty days after the date of the vote of stockholders adopting the amendment. The fee for filing this certificate is prescribed by General Laws, Chapter 156B, Section 114. Make check payable to the Commonwealth of Massachusetts.

-----

We, Emil B. Rechsteiner, President and Paul P. Brountas, clerk of  
ANALOG DEVICES, INC.

located at 241 Binney Street, Cambridge, Massachusetts do hereby certify that the following amendment to the articles of organization of the corporation was duly adopted at a meeting held on January 24, 1969, by vote of 766,278 shares of Common Stock out of 791,556 shares outstanding,

CROSS OUT        being at least two-thirds of each class outstanding  
INAPPLICABLE    and entitled to vote thereon and of each class or  
CLAUSE            series of stock whose rights are adversely affected  
                      thereby:

See continuation sheets 2A, 2B and 2C hereto.

FOR INCREASE IN CAPITAL FILL IN THE FOLLOWING:

                                  ( \_\_\_\_\_ shares preferred) with  
                                  (1,500,000 shares common ) par  
The total amount of capital ( \_\_\_\_\_ ) value  
  stock already authorized is  
                                  ( \_\_\_\_\_ shares preferred) without  
                                  ( \_\_\_\_\_ shares common ) par  
                                  ( \_\_\_\_\_ ) value

The amount of additional capital stock authorized is

( 500,000 shares preferred)	with
(1,500,000 shares common )	par
( )	value
( _____ shares preferred)	without
( _____ shares common )	par
( )	value

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VOTED: To amend the Articles of Organization of this corporation, as amended, by (1) increasing the authorized Common Stock, \$.25 par value, of the corporation by 1,500,000 shares, (2) authorizing a new class of Preferred Stock of 500,000 shares, \$1.00 par value, and (3) reducing the par value per share of the Common Stock of the corporation from \$.25 to \$.16 2/3 par value per share, so that after the effective date of this amendment the total number of shares of capital stock which the corporation shall have authority to issue shall be as follows:

<TABLE>  
<CAPTION>

Class of Stock	Number of Shares	Par Value Per Share
-----	-----	-----
<S>	<C>	<C>
Preferred Stock	500,000	\$1.00
Common Stock	3,000,000	.16 2/3

</TABLE>

FURTHER VOTED: To further amend the Articles of Organization of this corporation, as amended, by amending Section 4 of said Articles of Organization to read as follows:

"4. If more than one class is authorized, a description of each of the different classes of stock with, if any, the preferences, voting powers, qualifications, special or relative rights or privileges as to

each class thereof and any series now established:

Rights, Preferences, Limitations and Restrictions on Capital Stock.

The following is a statement of the designations and the powers, preferences and rights and the qualifications, limitations or restrictions thereof, in respect of the authorized capital stock of the corporation.

A. Issuance in Series.

The Preferred Stock may be issued in one or more series at such time or times and for such consideration or considerations as the Board of Directors may determine. Each series shall be so designated as to distinguish the shares thereof from the shares of all other series and classes. Except as to the relative rights and preferences referred to in paragraph B below, in respect of any or all of which there may be variations between different

2A

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series, all shares of Preferred Stock shall be identical. Different series of Preferred Stock shall not be construed to constitute different classes of shares for the purpose of voting by classes.

B. Authority to Establish Variations Between Series.

The Board of Directors is expressly authorized, subject to the limitations prescribed by law and the provisions of these Articles of Organization, to provide by adopting a vote or votes, a certificate of which shall be filed in accordance with the Business Corporation Law of the Commonwealth of Massachusetts for the issue of the Preferred Stock in one or more series, each with such designations, preferences and relative, participating, optional or other special rights, and qualifications, limitations or restrictions thereof as shall be stated in the vote or votes creating such series. The authority of the Board of Directors with respect to each such series shall include without limitation of the foregoing the right to determine and fix:

(1) the distinctive designation of such series and the number of shares to constitute such series;

(2) The rate at which dividends on the shares of such series shall be declared and paid, or set aside for payment, whether dividends at the rate so determined shall be cumulative, and whether the shares of such series shall be entitled to any participating or other dividends in addition to dividends at the rate so determined, and if so on what terms;

(3) The right, if any, of the corporation to redeem shares of the particular series and, if redeemable, the price, terms and manner of such redemption;

(4) The special and relative rights and references, if any, and the amount of amounts per share, which the shares of such series shall be entitled to receive upon any voluntary or involuntary liquidation, dissolution or winding up of the corporation;

(5) the terms and conditions, if any, upon which shares of such series shall be convertible into, or exchangeable for, shares of stock of any other class or exchangeable for, shares of stock of any other class or classes, including the price or prices or the rate or rates of conversion or exchange and the terms of adjustment, if any;

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(6) The obligation, if any, of the corporation to retire or purchase shares of such series pursuant to a sinking fund or fund of a similar nature or otherwise, and the terms and conditions of such obligations;

(7) Voting rights, if any, provided that the shares of all series with voting rights shall not have more than one vote per share;

(8) limitations, if any, on the issuance of additional shares of such series or any shares of any other series of Preferred Stock; and

(9) Such other preferences or restrictions or qualifications thereof as the Board of Directors may deem advisable and are not inconsistent with law and the provisions of these Articles.

C. Statement of Limitations, Relative Rights and Powers in Respect of Shares of Common Stock.

(1) After the requirements with respect to preferential dividends on the Preferred Stock (fixed in accordance with the provisions of paragraph 5 above) shall have been met and after the corporation shall have complied with all the requirements, if any, with respect to the setting aside of sums as sinking funds or redemption or purchase accounts (fixed in accordance with the provisions of said paragraph B), then and not otherwise the holders of Common Stock shall be entitled to receive such dividends as may be declared from time to time by the Board of Directors.

(2) After distribution in full of the preferential amount (fixed

in accordance with the provisions of said paragraph B) to be distributed to the holders of Preferred Stock in the event of voluntary or involuntary liquidation, distribution or sale of assets, dissolution or winding up of this corporation, the holders of the Common Stock shall be entitled to receive all the remaining assets of this corporation, tangible and intangible, of whatever kind available for distribution to the stockholders ratably in proportion to the number of shares of Common Stock held by them respectively.

2C

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(3) Except as may otherwise be required by law or the provisions of these Articles, or by the Board of Directors pursuant to authority granted in these Articles, each holder of Common Stock shall have one vote in respect of each share of stock held by him in all matters voted upon by the stockholders.

D. Denial of Preemptive rights.

No holder of shares of the Common Stock or of the Preferred Stock shall be entitled as such, as a matter of right, to subscribe for or purchase any part of any new or additional issue of stock of any class whatsoever of the corporation, or of securities convertible into stock of any class, whether now or hereafter authorized, or whether issued for cash or other consideration or by way of dividend."

The foregoing amendment will become effective when these articles of amendment are filed in accordance with the vote adopting the amendment, a later effective date not more than thirty days after such filing, in which event the amendment will become effective on such later date.

IN WITNESS WHEREOF AND UNDER THE PENALTIES OF PERJURY, we have hereto signed our names this 24th day of January, in the year 1969.

/s/ Emil B. Rechsteiner -----	President
/s/ Paul P. Brontas -----	Clerk

THE COMMONWEALTH OF MASSACHUSETTS

ARTICLES OF AMENDMENT

(General Laws, Chapter 156B, Section 72)

I hereby approve the within articles of amendment and, the filing fee in the amount of \$1,025.00 having been paid, said articles are deemed to have been filed with me this 24th day of January, 1969.

/s/ John F.X. Davoren  
Secretary of the Commonwealth  
State House, Boston, Mass.

TO BE FILLED IN BY CORPORATION

PHOTO COPY OF AMENDMENT TO BE SENT

TO: Paul P. Broutas, Esq.  
c/o Hale and Dorr  
60 State Street  
Boston, Massachusetts 02109

Copy mailed 1-28-69

THE COMMONWEALTH OF MASSACHUSETTS

Secretary of the Commonwealth  
State House Boston, Mass.

ARTICLES OF  
MERGER OF PARENT AND SUBSIDIARY CORPORATIONS

PURSUANT TO GENERAL LAWS, CHAPTER 156B, SECTION 82

This certificate must be submitted to the Secretary of the Commonwealth within sixty days after the meeting of the board of directors at which the merger is voted. The fee for filing this certificate is prescribed by General Laws, Chapter 156B, Section 114. Make check payable to the Commonwealth of Massachusetts.

We, Ray Stata and Paul P. Brontas President and Clerk of Analog Devices, Inc. organized under the laws of Massachusetts and herein called the parent corporation, do hereby certify as follows:

1. That the subsidiary corporation to be merged into the parent corporations is as follows:

<TABLE>  
<CAPTION>

Name	State of Organization	Date of Organization
<S>	<C>	<C>
Nova Devices, Inc.	Delaware	9/17/69

</TABLE>

2. That the parent corporation owns at least ninety per cent of the outstanding shares of each class of the stock of each subsidiary corporation to be merged into the parent corporation.

3. That in the case of each of the above-named corporations the laws of the state of its organization, if other than Massachusetts, permit the merger herein provided for and that all action required under the laws of each such state in connection with this merger has been duly taken. (If all the corporations are organized under the laws of Massachusetts and if General Laws, Chapter 156B is applicable to them, then Paragraph 3 may be deleted.)

4. That by unanimous written consent of the directors of the parent corporation executed on October 23, 1973, the following vote pursuant to subsection (a) of General Laws, Chapter 156B Section 82, was duly adopted:





COMMONWEALTH OF MASSACHUSETTS

ARTICLES OF MERGER OF PARENT AND SUBSIDIARY CORPORATIONS

(General Laws, Chapter 156B, Section 82)

I hereby approve the within articles of merger of parent and subsidiary corporations and the filing fee in the amount of \$100.00 having been paid, said articles are deemed to have been filed with me this 2nd day of November, 1973.

/s/ John F.X. Davoren  
Secretary of the Commonwealth  
State House, Boston, Mass.

Atty John E. Ryan  
Hale and Dorr  
28 State Street  
Boston, Mass. 02109

THE COMMONWEALTH OF MASSACHUSETTS

MICHAEL JOSEPH CONNOLLY

FEDERAL IDENTIFICATION

No. 04-2348234

Secretary of the Commonwealth  
ONE ASHBURTON PLACE, BOSTON, MASS. 02108

CERTIFICATE OF VOTE OF DIRECTORS ESTABLISHING

A SERIES OF A CLASS OF STOCK

General Laws, Chapter 156B, Section 26

The Filing fee to accompany this certificate is \$50. Make check payable to the Commonwealth of

Massachusetts

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We, Ray Stata, President and Paul P. Brountas, Clerk of Analog Devices, Inc. located at Route 1 Industrial Park, Norwood, Massachusetts do hereby certify that at a meeting of the directors of the corporation held on October 2, 1981, the following vote establishing and designating a series of a class of stock and determining the relative rights and preferences thereof was duly adopted:

WHEREAS, pursuant to authority expressly vested in the Board of Directors of the corporation by Article 4 of the Articles of Organization of the corporation, as amended, the Board of Directors, by votes adopted at a meeting of the Board of Directors held September 11, 1980, authorized the issuance of a series of Preferred Stock, \$1.00 par value per share, of the corporation, consisting of 10,000 shares and designated as "Series A Convertible Preferred Stock" of the corporation; and

WHEREAS, the Board of Directors of the corporation desires to increase the number of shares of Series A Convertible Preferred Stock by an additional 10,000 shares;

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NOW, THEREFORE, it is hereby unanimously

VOTED: That the number of shares of Series A Convertible Preferred Stock established and authorized for issuance by action of the Board of Directors of the corporation on September 11, 1980 be and hereby is increased from 10,000 to 20,000 shares, and that the relative rights, preferences, powers, qualifications, limitations and restrictions of such additional 10,000 shares shall be the same as those established with respect to the original 10,000 shares by vote of the Board of Directors adopted September 11, 1980.



Copy Mailed Nov 16, 1981

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THE COMMONWEALTH OF MASSACHUSETTS

OFFICE OF THE MASSACHUSETTS SECRETARY OF STATE  
MICHAEL JOSEPH CONNOLLY, Secretary  
ONE ASHBURTON PLACE, BOSTON, MA 02105

FEDERAL IDENTIFICATION  
NO. 04-2348234

CERTIFICATE OF VOTE OF DIRECTORS INCREASING

A SERIES OF A CLASS OF STOCK

General Laws, Chapter 156B, Section 26

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We, Ray Stata, President and Paul P. Brountas, Clerk of ANALOG DEVICES, INC. located at Route 1 Industrial Park, Norwood, Massachusetts 02142 do hereby certify that at a meeting of the directors of the corporation held on December 14, 1984 the following vote established and designating a series of a class of stock and determining the relative rights and preferences thereof was duly adopted:

WHEREAS, pursuant to authority expressly vested in the Board of Directors of the corporation by Article 4 of the Articles of Organization of the corporation, as amended, the Board of Directors, by votes adopted at a meeting of the Board of Directors held September 11, 1980, authorized the issuance of a series of Preferred Stock, \$1.00 par value per share, of the corporation, consisting of 10,000 shares and designated as "Series A Convertible Preferred Stock" of the corporation; and

WHEREAS, by votes adopted at a meeting of the Board of Directors held October 2, 1981, the number of shares of Series A Convertible Preferred Stock was increased by 10,000 shares to 20,000 shares; and

WHEREAS, the Board of Directors of the corporation desires to further increase the number of shares of Series A Convertible Preferred Stock by an additional 10,000 shares;

NOW, THEREFORE, it is hereby unanimously

VOTED: That the number of shares of Series A Convertible Preferred Stock established and authorized for issuance by actions of the Board of Directors of the corporation on September 11, 1980 and October 2, 1981 be and hereby is increased from 20,000 to 30,000 shares, and that the relative rights, preferences, powers, qualifications, limitations and restrictions of such additional 10,000 shares shall be the same as those established with respect to the 20,000 shares by votes of the board of Directors adopted September 11, 1980 and October 2, 1981.

IN WITNESS WHEREOF AND UNDER THE PENALTIES OF PERJURY, we have hereto signed our names this 4th day of January in the year 1984.

/s/ Ray Stata, President  
-----  
/s/ Paul P. Brontas, Clerk  
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THE COMMONWEALTH OF MASSACHUSETTS  
Certificate of Vote of Directors Establishing  
A Series of Class of Stock

(General Laws, Chapter 156B, Section 26)

I hereby approve the within certificate and, the filing fee in the amount of \$75.00 having been paid, said certificate is hereby filed this 6th of January, 1984.

/s/ Michael Joseph Connolly

Secretary of State

TO BE FILED IN BY CORPORATION

PHOTO COPY OF CERTIFICATE TO BE SENT

TO:

Mark G. Borden, Esq.  
Hale and Dorr  
60 State Street  
Boston, MA 02109

Telephone: 742-9100

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COMMONWEALTH OF MASSACHUSETTS

MICHAEL JOSEPH CONNOLLY

FEDERAL IDENTIFICATION  
No. \_\_\_\_\_

Secretary of the Commonwealth

One Ashburton Place, Boston, Mass. 02108

ARTICLES OF AMENDMENT

General Laws, Chapter 156B, Section 72

This certificate must be submitted to the Secretary of the Commonwealth within sixty days after the date of the vote of stockholders adopting the amendment. The fee for filing this certificate is prescribed by General Laws, Chapter 156B, Section 114. Make check payable to the Commonwealth of Massachusetts.

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We, Ray Stata, President, and Paul P. Broutas, Clerk of

ANALOG DEVICES, INC.

located at Route 1 Industrial Park, Norwood, Massachusetts do hereby certify that the following amendment to the articles of organization of the corporation was duly adopted at a meeting held on March 13, 1979, by vote of 1,703,461 shares of Common Stock out

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of 2,373,186 shares outstanding, being at least a majority of each class outstanding and entitled to vote thereon.

FOR INCREASE IN CAPITAL FILL IN THE FOLLOWING:

The total amount of capital stock already authorized is 500,000 shares preferred } with par value 3,000,000 shares common }

\_\_\_\_\_ shares preferred } without par value \_\_\_\_\_ shares common }

The amount of additional stock authorized is \_\_\_\_\_ shares preferred } with par value 7,000,000 shares common }

\_\_\_\_\_ shares preferred } without par value \_\_\_\_\_ shares common }

VOTED: To amend the Articles of Organization of the corporation, as amended, by increasing the authorized Common Stock, \$.16-2/3 par value per share, of the corporation from 3,000,000 shares to 10,000,000 shares so that after the effective date of such amendment the total number of shares of Common Stock, \$.16-2/3 par value per share, which the corporation is authorized to issue shall be 10,000,000 shares.

The foregoing amendment will become effective when these articles of amendment are filed in accordance with Chapter 156B of the General Laws unless these articles specify, in accordance with the vote adopting the amendment, a



later effective date not more than thirty days after such filing, in which event the amendment will become effective on such later date.

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IN WITNESS WHEREOF AND UNDER THE PENALTIES OF PERJURY, we have hereto signed our names this thirteenth (13th) day of March, in the year 1979.

/s/ Ray Stata

President

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/s/ Paul P. Brontas

Clerk

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THE COMMONWEALTH OF MASSACHUSETTS

ARTICLES OF AMENDMENT

(General Laws, Chapter 156B, Section 72)

I hereby approve the within articles of amendment and, the filing fee in the amount of \$3,500.00 having been paid, said articles are deemed to have been filed with me this 20th day of March, 1979.

/s/ Michael Joseph Connolly

Secretary of the Commonwealth  
State House, Boston, Mass.

TO BE FILLED IN BY CORPORATION

PHOTOCOPY OF AMENDMENT TO BE SENT

TO: Mark G. Borden, Esq.  
c/o Hale and Dorr  
60 State Street  
Boston, MA 02109  
Telephone (617) 742-9100

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COMMONWEALTH OF MASSACHUSETTS

OFFICE OF THE MASSACHUSETTS SECRETARY OF STATE

MICHAEL JOSEPH CONNOLLY, Secretary

One Ashburton Place, Boston, Mass. 02108

FEDERAL IDENTIFICATION  
NO. 04-2348234

ARTICLES OF AMENDMENT

General Laws, Chapter 156B, Section 72

This certificate must be submitted to the Secretary of the Commonwealth within sixty days after the date of the vote of stockholders adopting the amendment. The fee for filing this certificate is prescribed by General Laws, Chapter 156B, Section 114. Make check payable to the Commonwealth of Massachusetts.

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We, Joseph M. Hinchey, Vice President, and Paul P. Brontas, Clerk of Analog

Devices, Inc. located at One Technology Way, P.O. Box 9106, Norwood, MA 02062-9106 do hereby certify that the following amendment to the articles of organization of the corporation was duly adopted at a meeting held on March 10, 1987, by vote of 34,389,050 shares of Common Stock out of 44,000,130 shares outstanding (increase authorized), 34,037,403 shares of

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Common Stock out of 44,000,130 shares outstanding (director's liability), and 35,159,309 shares of Common Stock out of 44,000,130 shares outstanding (Indemnification)

being at least a majority of each class outstanding and entitled to vote thereon: two-thirds of each class outstanding and entitled to vote thereon and of each class or series of stock whose rights are adversely affected thereby:

See Continuation Sheets A-1 through A-6

For amendments adopted pursuant to Chapter 156B, Section 70.

For amendments adopted pursuant to Chapter 156B, Section 71.

TO CHANGE the number of shares and the par value, if any, of each class of stock within the corporation fill in the following:

<TABLE>  
<CAPTION>

The total presently authorized is:

	NO PAR VALUE	WITH PAR VALUE	PAR
KIND OF STOCK	NUMBER OF SHARES	NUMBER OF SHARES	VALUE
<S> COMMON		<C> 100,000,000	<C> \$.16 2/3
PREFERRED		500,000	\$1.00

</TABLE>

CHANGE the total to:

-2-

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<TABLE>  
<CAPTION>

	NO PAR VALUE	WITH PAR VALUE	PAR
KIND OF STOCK	NUMBER OF SHARES	NUMBER OF SHARES	VALUE
<S>		<C>	<C>
COMMON		150,000,000	\$.16 2/3
PREFERRED		500,000	\$1.00

</TABLE>

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CONTINUATION SHEET

VOTED: That Article 3 of the Articles of Organization of the Corporation shall be amended by increasing the authorized shares of Common Stock, \$.16 2/3 par value per share, of the Corporation from 100,000,000 shares to 150,000,000 shares, so that after the effective date of such amendment the total number of shares and the par value of each class of capital stock which the Corporation shall have the authority to issue shall be as follows:

<TABLE>  
<CAPTION>

Class of Stock	Number of Shares	Par Value Per Share
-----	-----	-----
<S>	<C>	<C>
Common Stock	150,000,000	\$ .16 2/3
Preferred Stock	500,000	\$1.00

</TABLE>

FURTHER

VOTED: That Article 6 of the Articles of Organization of the Corporation shall be amended by deleting in its entirety the current Article 6A, and by substituting new Article 6A therefor, to read as follows:

6A. INDEMNIFICATION

Section 1. Actions, Suits and Proceedings. Except as otherwise provided below, the Corporation shall, to the fullest extent authorized by Chapter 156B of the Massachusetts General Laws, as the same exists or may hereafter be amended (in the case of any such amendment, only to the extent that such amendment either (i) permits the Corporation to provide broader indemnification rights than such laws permitted prior to such amendment or (ii) prohibits or limits any of the indemnification rights previously set forth in such laws), indemnify each person who is, or shall have been, a director or officer of the Corporation or who is or was a director or employee of the Corporation and is serving, or shall have served, at the request of the Corporation, as a director or officer of another organization or in any capacity with respect to any employee benefit plan of the Corporation, against all liabilities and expenses (including judgments, fines, penalties, amounts paid or to be paid in settlement, and

reasonable attorneys' fees) imposed upon or incurred by any such person (the "Indemnatee") in connection with, or arising out of, the defense or disposition of any action, suit or other proceeding, whether civil or criminal, in which he may be a defendant or with which he may be threatened or otherwise involved, directly or indirectly, by reason of his being or having been such a director or officer or as a result of his serving or having served with respect to any such employee benefit plan; provided, however, that the Corporation shall provide no indemnification with respect to any matter as to which any such Indemnatee shall be finally adjudicated in such action, suit or proceeding not to have acted in good faith in the reasonable belief that his action was (i) in the best interests of the Corporation or (ii) to the extent such matter relates to service with respect to an employee benefit plan, in the best interests of the participants or beneficiaries of such employee benefit plan.

Section 2. Settlements. The right to indemnification conferred in this Article shall include the right to be paid by the Corporation for liabilities and expenses incurred in connection with the settlement or compromise of any such action, suit or proceeding, pursuant to a consent decree or otherwise, unless a determination is made, within 45 days after receipt by the Corporation of a written request by the Indemnatee for indemnification, that such settlement or compromise is not in the best interests of the Corporation or, to the extent such matter relates to service with respect to an employee benefit plan, that such settlement or compromise is not in the best interests of the participants or beneficiaries of such plan. Any such determination shall be made (i) by the Board of Directors of the Corporation by a majority vote of a quorum consisting of disinterested directors, or (ii) if such quorum is not obtainable, by a majority of the disinterested directors of the Corporation then in office. Notwithstanding the foregoing, if there are less than two disinterested directors then in office, the Board of Directors shall promptly direct that independent legal counsel (who may be regular legal counsel to the Corporation) determine, based on facts known to such counsel at such time, whether such Indemnatee acted in good faith in the reasonable belief

that his action was in the best interests of the Corporation or the participants or beneficiaries of any such employee benefit plan, as the case may be; and, in such event, indemnification shall be made to such Indemnitee unless, within 45 days after receipt by the Corporation of the request by such Indemnitee for indemnification, such independent legal counsel in a written opinion to the Corporation determines that such Indemnitee did not act in good faith in the reasonable belief that his action was in the best interests of the Corporation or the participants or beneficiaries of any such employee benefit plan, as the case may be.

Section 3. Notification and Defense of Claim. As a condition precedent to his right to be indemnified, the Indemnitee must give to the Corporation notice in writing as soon as practicable of any action, suit or proceeding involving him for which indemnity will or could be sought. With respect to any action, suit or proceeding of which the Corporation is so notified, the Corporation will be entitled to participate therein at its own expense and/or to assume the defense thereof at its own expense, with legal counsel reasonably acceptable to such Indemnitee. After notice from the Corporation to the Indemnitee of its election so to assume such defense, the Corporation shall not be liable to such Indemnitee for any legal or other expenses subsequently incurred by such Indemnitee in connection with such claim, but the fees and expenses of such counsel incurred after notice from the Corporation of its assumption of the defense thereof shall be at the expense of the Indemnitee unless (i) the employment of counsel by the Indemnitee has been authorized by the Corporation, (ii) counsel to the Indemnitee shall have reasonably concluded that there may be a conflict of interest or position on any significant issue between the Corporation and the Indemnitee in the conduct of the defense of such action or (iii) the Corporation shall not in fact have employed counsel to assume the defense of such action, in each of which cases, the fees and expenses of counsel for the Indemnitee shall be at the expense of the Corporation, except as otherwise expressly provided by this Article. The Corporation shall not be entitled to assume the defense of any claim brought by or on behalf of the Corporation or as to which counsel for the Indemnitee shall have reasonably made the conclusion provided for in (ii) above.

Section 4. Advance of Expenses. Subject to Section 3 above, the right to indemnification conferred in this Article shall include the right to be paid by the Corporation for expenses (including reasonable attorneys' fees) incurred in defending a civil or criminal action, suit or proceeding in advance of its final disposition, subject to receipt of an undertaking by the Indemnitee to repay such payment if it is ultimately determined that the Indemnitee is not entitled to indemnification under this Article. Such undertaking may be accepted without reference to the financial ability of such Indemnitee to make such repayment. Notwithstanding the foregoing, no advance shall be made by the Corporation under this Section 4 if a determination is reasonably and promptly made by the Board of Directors 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 Corporation then in office or, if there are not at least two disinterested directors then in office, by independent legal counsel (who may be regular legal counsel to the Corporation) in a written opinion that, based on facts known to the Board or counsel at such time, such Indemnitee did not act in good faith in the reasonable belief that his action was in the best interests of the Corporation or the participants or beneficiaries of an employee benefit plan of the Corporation, as the case may be.

Section 5. Partial Indemnity. If an Indemnitee is entitled under any provision of this Article to indemnification by the Corporation for some or a portion of the liabilities or expenses imposed upon or incurred by such indemnitee in the investigation, defense, appeal or settlement of any action, suit or proceeding but not, however, for the total amount thereof, the Corporation shall nevertheless indemnify the Indemnitee for the portion of such liabilities or expenses to which such Indemnitee is entitled.

Section 6. Rights Not Exclusive. The right to indemnification and the payment of expenses incurred in defending any action, suit or proceeding in advance of its final disposition conferred in this Article shall not be exclusive of any other right which any person may have or hereafter acquire under any statute, provision of the Articles of Organization, By-Laws, agreement,



vote of stockholders or directors or otherwise. Without limiting the generality of the foregoing, the Corporation, acting through its Board of Directors, may enter into agreements with any director, officer, employee or agent of the Corporation providing for indemnification rights equivalent to or greater than the indemnification rights set forth in this Article.

Section 7. Insurance. The Corporation may purchase and maintain insurance, at its expense, to protect itself and any director, officer, employee or agent of the Corporation or another organization or employee benefit plan against any expense or liability incurred by him in any such capacity, or arising out of the status as such, whether or not the Corporation would have the power to indemnify such person against such expense or liability under Chapter 156B of the Massachusetts General Laws.

Section 8. Insurance Offset. The Corporation's obligation to provide indemnification under this Article shall be offset to the extent of any other source of indemnification or any otherwise applicable insurance coverage under a policy maintained by the Corporation or any other person.

Section 9. Amendment. Without the consent of a person entitled to the indemnification and other rights provided in this Article (unless otherwise required by Chapter 156B of the Massachusetts General Laws), no amendment modifying or terminating such rights shall adversely affect such person's rights under this Article with respect to the period prior to such Amendment.

Section 10. Mergers, Etc. If the Corporation is merged into or consolidated with another corporation and the Corporation is not the surviving corporation, or if substantially all of the assets of the Corporation are acquired by any other corporation, or in the event of any other similar reorganization involving the Corporation, the Board of Directors of the Corporation or the board of directors of any corporation assuming the obligations of the Corporation shall assume the obligations of the Corporation under this Article, through the date of such merger, consolidation, sale or

reorganization, with respect to each person who is entitled to indemnification rights under this Article as of such date.

Section 11. Savings Clause. If this Article or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the Corporation shall nevertheless indemnify each Indemnitee as to any liabilities and expenses with respect to any action, suit or proceeding to the full extent permitted by any applicable portion of this Article that shall not have been invalidated and to the full extent permitted by applicable law.

Section 12. Definitions. As used in this Article, the term "director", "officer" and "person" include their respective heirs, executors, administrators, and legal representatives, and an "interested" director is one against whom in such capacity the proceedings in question or another proceeding on the same or similar grounds is then pending.

FURTHER

VOTED:

That Article 6 of the Articles of Organization of the Corporation shall be amended by adding new Article 6D, to read as follows:

6D. LIMITATION OF DIRECTOR LIABILITY

To the fullest extent permitted by Chapter 156B of the Massachusetts General Laws, as it may be amended from time to time, a director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability.

The foregoing amendment will become effective when these articles of amendment are filed in accordance with Chapter 156B, Section 6 of The General Laws unless these articles specify, in accordance with the vote adopting the amendment, a later effective date not more than thirty days after such filing, in which event the amendment will become effective on such later date.

IN WITNESS WHEREOF AND UNDER THE PENALTIES OF PERJURY, we have hereto signed our names this 27th day of March, in the year 1987

/s/ Joseph M. Hinchey  
-----

Vice President

/s/ Paul P. Brontas  
-----

Clerk

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THE COMMONWEALTH OF MASSACHUSETTS

ARTICLES OF AMENDMENT

(General Laws, Chapter 156B, Section 72)

I hereby approve the within articles of amendment and, the filing fee in the amount of \$25,075.00 having been paid, said articles are deemed to have been filed with me this 7th day of April, 1987.

/s/ Michael Joseph Connolly

TO BE FILLED IN BY CORPORATION

PHOTOCOPY OF AMENDMENT TO BE SENT

TO: John E. Osborn, Esq.  
c/o Hale and Dorr  
60 State Street  
Boston, MA 02109  
Telephone (617) 742-9100

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THE COMMONWEALTH OF MASSACHUSETTS

MICHAEL JOSEPH CONNOLLY  
Secretary of State

Federal Identification

ONE ASHBURTON PLACE  
BOSTON, MASS. 02108

No. 95-3562937

-----  
Examiner

ARTICLES OF  
MERGER OF PARENT AND SUBSIDIARY CORPORATIONS

Pursuant to General Laws, Chapter 156B, Section 82

The fee for filing this certificate is prescribed by General Laws, Chapter 156B, Section 114. Make check payable to the Commonwealth of Massachusetts

\* \* \* \*

We, Ray Stata and Paul P. Brontas, President and Clerk of Analog Devices, Inc. organized under the laws of the Commonwealth of Massachusetts and herein called the parent corporation, do hereby certify as follows:

1. That the subsidiary corporation(s) to be merged into the parent corporations are/is as follows:

<TABLE>  
<CAPTION>

Name -----	State of Organization -----	Date of Organization -----
<S> Precision Monolithics, Inc.	<C> Delaware	<C> 12/15/80

</TABLE>

2. That the parent corporation owns at least ninety percent of the outstanding shares of each class of the stock of each subsidiary corporation to be merged into the parent corporation.

3. That in the case of each of the above-named corporations the laws of the state of its organization, if other than Massachusetts, permit the merger herein provided for and that all action required under the laws of each such state in connection with this merger has been duly taken. (If all the corporations are organized under the laws of Massachusetts and if General Laws, Chapter 156B is applicable to them, then Paragraph 5 may be deleted.)

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4. That at a meeting of the directors of the parent corporation the following vote, pursuant to subsection (a) of General Laws, Chapter 156B, Section 82, was duly adopted:

VOTED: That pursuant to Section 82 of Chapter 156B of the Massachusetts General Laws and Section 253 of the Delaware General Corporation Law, the Corporation is hereby authorized to merge Precision Monolithics, Inc., a Delaware corporation, which is a wholly-owned subsidiary of the Corporation, into the Corporation on the terms and conditions set forth in the Agreement of Merger between the Corporation and Precision Monolithics, Inc. in substantially the form presented to the directors at this meeting, with such changes and additions as the President of the Corporation shall approve, the execution and delivery thereof by the President or any Vice President of the

Corporation to be conclusive evidence of such approval (the "Agreement of Merger") it being the intention that said merger qualifies as a complete liquidation of a subsidiary under Sections 332 and 337 of the Internal Revenue Code of 1986, as amended;

FURTHER

VOTED: That the President and any Vice President of the Corporation be, and each of them acting singly hereby is, authorized and directed to execute and deliver the Agreement of Merger, to make and execute a Certificate of Ownership and Merger setting forth a copy of the votes with respect to the merger of Precision Monolithics, Inc. into the Corporation, and the date of adoption thereof, and to cause the same to be filed with the Secretary of State and a certified copy recorded in the office of the Recorder of Deeds of New Castle County, to make and execute Articles of Merger of Parent and Subsidiary Corporations with respect to the merger of Precision Monolithics, Inc. into the Corporation and to cause the same to be filed with the Secretary of State of the Commonwealth of Massachusetts and to take all such other actions and to execute all such other instruments and agreements which may be in any way necessary or proper to effect said merger; and

FURTHER

VOTED: That the merger of Precision Monolithics, Inc. into the Corporation shall be effective at 5:00 p.m., California time, on November 3, 1990.

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5. The effective date of the merger as specified in the vote set out under Paragraph 4 is November 3, 1990.

6. (This Paragraph 6 may be deleted if the parent corporation is organized under the laws of Massachusetts.)

IN WITNESS WHEREOF and under the penalties of perjury we have hereto signed our names this 31st day of October, 1990.

/s/ Ray Stata

President

-----

/s/ Paul P. Brontas                      Clerk  
-----  
Paul P. Brontas

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COMMONWEALTH OF MASSACHUSETTS

ARTICLES OF MERGER OF PARENT AND SUBSIDIARY CORPORATIONS

(General Laws, Chapter 156B, Section 82)

I hereby approve the within articles of merger of parent and subsidiary corporations and, the filing fee in the amount of \$250.00 having been paid, said Articles are deemed to have been filed with me this 2nd day of November, 1990.

/s/ Michael Joseph Connolly  
Secretary of State

TO BE FILLED IN BY CORPORATION  
Photo Copy of Merger To Be Sent

TO: Paul P. Brontas, Esq.  
Hale and Dorr  
60 State Street  
Boston, MA 02109  
(617) 742-9100

THE COMMONWEALTH OF MASSACHUSETTS

-----  
OFFICE OF THE MASSACHUSETTS SECRETARY OF STATE  
Examiner MICHAEL J. CONNOLLY, Secretary  
ONE ASHBURTON PLACE, BOSTON, MASSACHUSETTS 02108

ARTICLES OF AMENDMENT FEDERAL  
GENERAL LAWS, CHAPTER 156B, IDENTIFICATION  
SECTION 72 NO. 04-2348234

-----  
We, Jerald G. Fishman, President and Paul P. Broutas, Clerk  
of Analog Devices, Inc. located at One Technology Way, P.O. Box  
9106 Norwood, MA 02062-9106 do hereby certify that these ARTICLES  
OF AMENDMENT affecting Articles NUMBERED: 3 of the Articles of  
-----  
Name Organization were duly adopted at a Name meeting held on March  
Approved 14, 1995, by vote of 57,071,806 shares Approved of Common  
Stock out of 75,434,102 shares outstanding, being at least a  
majority of each type, class or series outstanding and entitled  
to vote thereon:(1)

To CHANGE the number of shares and the par value (if any) of any  
type, class or series of stock which the corporation is  
authorized to issue, fill in the following:

The total presently authorized is:

<TABLE>  
<CAPTION>

WITHOUT PAR VALUE STOCKS		WITH PAR VALUE STOCKS		
TYPE	NUMBER OF SHARES	TYPE	NUMBER OF SHARES	PAR VALUE
<S> COMMON:		<C> COMMON:	150,000,000	<C> \$.16 2/3
PREFERRED:		PREFERRED	500,000	\$1.00

</TABLE>

CHANGE the total authorized to:



-----  
(1) For amendments adopted pursuant to Chapter 156B, Section 70.

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<TABLE>  
<CAPTION>

WITHOUT PAR VALUE STOCKS		WITH PAR VALUE STOCKS		
TYPE	NUMBER OF SHARES	TYPE	NUMBER OF SHARES	PAR VALUE
<S> COMMON:		<C> COMMON:	<C> 300,000,000	<C> \$.16 2/3
-----		-----		
PREFERRED:		PREFERRED	500,000	\$1.00
-----		-----		

</TABLE>

VOTED: To amend the Articles of Organization of the Corporation, as amended, to increase the authorized Common Stock, \$.16 2/3 par value per share, of the Corporation from 150,000,000 shares to 300,000,000 shares, so that after the effective date of such amendment the total authorized capital stock of the Corporation shall consist of 300,000,000 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 foregoing amendment will become effective when these articles of amendment are filed in accordance with Chapter 156B, Section 6 of The General Laws unless these articles specify, in accordance with the vote adopting the amendment, a later effective date not more than thirty days after such filing, in which event the amendment will become effective on such later date. LATER EFFECTIVE DATE: .

-----

IN WITNESS WHEREOF AND UNDER THE PENALTIES OF PERJURY, we have hereunto signed our names this 28th day of April, in the year 1995.

/s/ Jerald G. Fishman

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President

/s/ Paul P. Brontas

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Clerk

THE COMMONWEALTH OF MASSACHUSETTS  
ARTICLES OF AMENDMENT  
GENERAL LAWS, CHAPTER 156B, SECTION 72

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I hereby approve the within articles of amendment and, the filing fee in the amount of \$                    having been paid, said articles are deemed to have been filed with me this                    day of                    , 19                    .

MICHAEL J. CONNOLLY  
Secretary of State

TO BE FILLED IN BY CORPORATION

PHOTOCOPY OF ARTICLES OF AMENDMENT TO BE SENT

TO: Jay E. Bothwick, Esq.  
Hale and Dorr  
60 State Street  
Boston, MA 02109  
(617) 526-6000



WARNING: THE EDGAR SYSTEM ENCOUNTERED ERROR(S) WHILE PROCESSING THIS SCHEDULE.

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