

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

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

For the quarterly period ended December 31, 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 number 1-5560

Alpha Industries, Inc.
(Exact name of registrant as specified in its charter)

Delaware	04-2302115
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

20 Sylvan Road, Woburn, Massachusetts	01801
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: (617) 935-5150

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 for 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
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Indicate the number of shares outstanding of each of the issuer's classes
of common stock, as of the latest practicable date.

Class	Outstanding at January 28, 1996
Common Stock, par value \$.25 per share	9,671,771

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Statement of Fair Presentation

The financial information included herein is unaudited. In addition, the financial information does not include all disclosures required under generally accepted accounting principles because certain note information included in the Company's annual report to shareholders has been omitted and such information should be read in conjunction with the prior year's annual report. However, the financial information reflects all adjustments (consisting solely of normal recurring adjustments) which are, in the opinion of management, necessary to a fair statement of the results for the interim periods. The Company considers the disclosures adequate to make the information presented not misleading.

- ----- Alpha Industries, Inc. and Subsidiaries

Consolidated Balance Sheets
(In thousands except share and per share amounts)

	Dec. 31, 1995 (unaudited)	April 2, 1995 (audited)

Assets		
Current assets		
Cash and cash equivalents at cost (approximates market).....	\$21,247	\$ 3,510
Accounts receivable.....	16,522	13,548
Inventories (Note 1).....	11,834	9,370
Prepayments and other current assets.....	816	756
	-----	-----
Total current assets.....	50,419	27,184
	-----	-----
Property, plant and equipment, less accumulated depreciation and amortization of \$56,768 and \$53,283.....	23,911	20,489
Other assets.....	692	594
Property held for resale.....	-	1,900
	-----	-----
	\$75,022	\$50,167
	=====	=====
Liabilities And Stockholders' Equity		
Current liabilities		
Notes payable, bank.....	\$ -	\$ 3,000
Current maturities of long-term debt.....	268	339
Current maturities of capital lease obligations.....	404	370
Accounts payable.....	5,681	5,206
Payroll, commissions and related expenses.....	5,304	4,777
Repositioning reserve.....	238	991
Other accrued liabilities.....	1,700	1,518
	-----	-----
Total current liabilities.....	13,595	16,201
	-----	-----
Long-term debt.....	2,709	4,744
	-----	-----
Long-term capital lease obligations.....	710	754
	-----	-----
Other long-term liabilities.....	933	794
	-----	-----
Commitments and contingencies (Note 4)		
Stockholders' equity		
Common stock par value \$.25 per share: authorized 30,000,000 shares; issued 9,908,575 and 7,994,495 shares (Note 2).....	2,477	1,999
Additional paid-in capital (Note 2).....	53,195	27,921
Retained earnings (deficit).....	1,894	(1,738)
Less - Treasury shares 246,053 and 262,886 shares at cost.....	311	330
Unearned compensation-restricted stock.....	180	178
	-----	-----
Total stockholders' equity.....	57,075	27,674
	-----	-----
	\$75,022	\$50,167
	=====	=====

The accompanying notes are an integral part of these financial statements.

Alpha Industries, Inc. and Subsidiaries -----

Consolidated Statements of Income
(Unaudited)
(In thousands except per share data)

	Third Quarter Ended		Nine Months Ended	
	Dec. 31, 1995	Jan. 1, 1995	Dec. 31, 1995	Jan. 1, 1995
Net sales.....	\$25,237	\$19,359	\$71,404	\$56,287
Cost of sales.....	16,684	13,494	47,572	39,407
Research and development expenses....	2,366	924	6,281	2,722
Selling and administrative expenses..	4,384	3,917	13,121	11,254
Repositioning credit.....	-	-	(320)	-
Operating income.....	1,803	1,024	4,750	2,904
Interest expense.....	(211)	(170)	(652)	(555)
Interest income and other, net.....	98	(15)	175	46
Income before income taxes.....	1,690	839	4,273	2,395
Provision for income taxes.....	253	65	641	359
Net income.....	\$ 1,437	\$ 774	\$ 3,632	\$ 2,036
	=====	=====	=====	=====
Net income per share.....	\$ 0.16	\$ 0.10	\$ 0.43	\$ 0.26
	=====	=====	=====	=====
Weighted average common shares and common share equivalents (Note 3).....	8,870	7,815	8,391	7,754
	=====	=====	=====	=====

The accompanying notes are an integral part of these financial statements.

Consolidated Statements Of Cash Flows
(Unaudited)
(In thousands)

	Nine Months Ended	
	Dec. 31, 1995	Jan. 1, 1995

Cash flows from operating activities:		
Net income.....	\$ 3,632	\$ 2,036
Adjustments to reconcile net income to net cash provided from (used for) operations:		
Depreciation and amortization of property, plant and equipment...	3,485	3,390
Contribution of treasury shares to Savings and Retirement Plan...	220	-
Amortization of unearned compensation - restricted stock, net....	45	32
Repositioning credit.....	(320)	-
Increase in other liabilities and long-term benefits.....	139	314
Increase in other assets.....	(349)	(491)
Change in assets and liabilities:		
Accounts receivable.....	(2,974)	(41)
Inventories.....	(2,464)	(1,693)
Other current assets.....	(60)	97
Accounts payable.....	475	(284)
Other accrued liabilities and expenses.....	709	(133)
Repositioning reserve.....	(753)	(730)
	-----	-----
Net cash provided from operations.....	1,785	2,497
	-----	-----
Cash flows from investing activities:		
Proceeds from sale of building.....	2,465	-
Additions to property, plant and equipment.....	(6,592)	(3,407)
	-----	-----
Net cash used in investing activities.....	(4,127)	(3,407)
	-----	-----
Cash flows from (used in) financing activities:		
Proceeds from sale of common stock.....	25,286	-
Proceeds from debt.....	624	2,016
Repayment of debt.....	(5,730)	(246)
Deferred charges related to long-term debt.....	6	(18)
Payments on capital lease obligations.....	(325)	(265)
Proceeds from sale of stock under stock purchase plan.....	64	42
Exercise of stock options.....	154	330
	-----	-----
Net cash from financing activities.....	20,079	1,859
	-----	-----
Net increase in cash and cash equivalents.....	17,737	949
Cash and cash equivalents, beginning of period.....	3,510	1,691
	-----	-----
Cash and cash equivalents, end of period.....	\$21,247	\$ 2,640
	=====	=====

Supplemental Disclosures:

Capital lease obligations of \$315 thousand were incurred during the nine months ended December 31, 1995 when the Company entered into leases for new equipment.

The accompanying notes are an integral part of these financial statements.

Notes To Consolidated Financial Statements
(unaudited)

Note 1 Inventories

Inventories consist of the following (in thousands):	Dec. 31, 1995	April 2, 1995
Raw materials	\$ 4,579	\$ 3,186
Work-in-process	5,541	4,950
Finished goods	1,714	1,234
	-----	-----
	\$11,834	\$ 9,370
	=====	=====

Note 2 Common Stock

During the quarter the Company successfully completed a secondary stock offering, which raised \$25.3 million net of expenses, on the sale of 1,840,000 shares of common stock.

Note 3 Earnings Per Share

Earnings per common share for the nine months ended December 31, 1995 and January 1, 1995 were computed using the weighted average number of common shares and common equivalent shares outstanding during the periods of 8,390,910 and 7,754,486 shares, respectively.

Note 4 Commitments and Contingencies

The Company is party to suits and claims arising in the normal course of business. Management believes these are adequately provided for or will result in no significant additional liability to the Company.

PART I - ITEM 2

Management's Discussion And Analysis of Financial Condition And Results Of Operations

Results of Operations

Sales for the nine months ended December 31, 1995 were \$71.4 million, an increase of 27% compared with \$56.3 million for the comparable period last year. Sales for the third quarter of fiscal 1996 totaled \$25.2 million, an increase of 30% compared with sales of \$19.4 million for the same period last year. The year and quarter-to-date sales increases were attributable to increased shipments for wireless communications products, particularly ceramic components, Gallium Arsenide Monolithic Integrated Circuits (GaAs MMICs) and discrete semiconductors.

New orders received for the third quarter of fiscal 1996 were \$26.6 million, an increase of 26% compared with \$21.1 million for the comparable period last year. Year-to-date orders totaled \$79.1 million, an increase of 30% compared with \$60.7 million for the same period last year, with demand particularly strong in the ceramic components, GaAs MMICs and discrete semiconductor product areas.

Gross profit for the first nine months of fiscal 1996 increased 41% to \$23.8 million or 33.4% of sales as compared to \$16.9 million or 30% of sales, for the comparable period in fiscal 1995. Gross profit for the third quarter of fiscal 1996 increased 45.8% to \$8.6 million or 33.9% of sales as compared to \$5.9 million or 30.3% of sales, for the comparable period last year. The improvement in gross profit is due mainly to higher capacity utilization at the Company's Woburn, Massachusetts manufacturing facility.

While sales and profits have achieved substantial growth, there are indications that this rate of growth may be slowed over the next one or two quarters. The Company's ceramics operation continues to experience demand that outpaces its ability to add capacity, due to equipment lead times and facility constraints. However, the Company continues to invest heavily in capital equipment and people and is moving ahead with a new 60,000 square foot manufacturing facility.

The Company's ability to improve operating margins by leveraging Gallium Arsenide capacity is highly dependent on securing volume production design wins and on the overall subscriber market demand. The Company's new GaAs MMIC designs and prototypes are being well received by the Company's targeted customers, as evidenced by year-to-date sales to the top four wireless original equipment manufacturers (OEMs) and their suppliers having increased by approximately 75% over last year, but the timing of the production ramp will not substantially increase until early fiscal year 1997.

Research and development expenses increased 130.8% to \$6.3 million, or 8.8% of sales for the first nine months of fiscal 1996 as compared to \$2.7 million or 4.8% of sales for the comparable period last year. For the third quarter ended December 31, 1995, research and development expenses increased 156.1% to \$2.4 million or 9.4% of sales as compared to \$924 thousand or 4.8% of sales for the comparable quarter last year. These increases in research and development are due to continued investment by the Company in the ceramic and GaAs MMIC product lines. The Company will continue to invest in product and process development in order to address the demands of its targeted wireless markets.

Selling and administrative expenses increased 16.6% to \$13.1 million or 18.4% of sales for the first nine months of fiscal 1996, as compared to \$11.3 million or 20.0% of sales for the comparable period last year. For the third quarter of fiscal 1996 selling and administrative expenses increased 11.9% to \$4.4 million or 17.4% of sales as compared to \$3.9 million or 20.2% of sales for the third quarter last year. Selling and administrative expenses increased primarily as a result of training and other costs related to the early phases of implementation of a new

manufacturing and management information system, as well as increased commissions related to higher sales volume.

The Company recorded a \$320 thousand repositioning credit during the first quarter of fiscal 1996, which resulted from the reversal of certain accruals for estimated carrying costs as a result of an earlier than expected disposition of the Methuen, Massachusetts facility.

Interest expense increased \$97 thousand for the first nine months of fiscal 1996 and \$41 thousand for the third quarter due to the Company's increased short-term borrowings. These short-term borrowings were repaid in the third quarter after the Company successfully completed a secondary public offering which raised \$25.3 million, net of expenses, on the sale of 1,840,000 shares of common stock. The proceeds are being used to fund further capital expansion and to retire certain bank debt.

The Company's effective tax rate for the first nine months of fiscal 1996 was 15.0% compared to the current combined federal, state and foreign rate of approximately 40%. This rate differed from statutory rates primarily as a result of the utilization of net operating loss carryforwards. At December 31, 1995, the Company had available net operating loss carryforwards of approximately \$23 million which expire commencing in 2004.

Year-to-date net income at December 31, 1995, totaled \$3.6 million or \$0.43 per share compared with \$2.0 million or \$0.26 per share, a 78% increase over the same period last year. Net income for the third quarter was \$1.4 million or \$0.16 per share compared with \$774 thousand or \$0.10 per share, a 86% increase compared with the comparable quarter. Per share data reflects the stock offering completed in the third quarter.

Financial Condition

At December 31, 1995, working capital totaled \$36.8 million and included \$21.2 million in cash and cash equivalents, compared with \$11 million at the end of fiscal 1995. Cash and cash equivalents increased \$17.7 million during the first nine months of fiscal 1996 largely as a result of funds received from the Company's secondary public offering.

During the first nine months of fiscal 1996, the Company recorded \$6.6 million of capital expenditures primarily for the expansion of its ceramic manufacturing facilities, further automation of its semiconductor wafer fab operations, and various information technology equipment. The Company plans capital expansion of approximately \$9 million over the next nine to twelve months in order to service the increasing requirements for its products in the wireless markets. In addition to the proceeds from the offering, the Company also has two lines of credit available for a total of \$12.5 million of which \$1.0 million has been borrowed under a long-term equipment line of credit.

In July, 1995, the Company sold its Methuen, Massachusetts plant and received net proceeds of \$2.5 million. In connection with the sale, using the net proceeds and \$1 million borrowed under its line of credit, the Company retired \$3.5 million of related debt.

During the quarter, the Company successfully completed a surveillance audit to renew its ISO 9001 certification of its Woburn, Massachusetts facility.

With the funds raised from the secondary offering and the lines of credit available the Company believes it has adequate funds to support its current operating needs. However, the Company will continue to evaluate other available financing such as low interest financing for the capital expansion of its ceramic manufacturing business and any other sources that may become available.

PART II - OTHER INFORMATION

Item 1 Legal Proceedings

The Company does not have any material pending legal proceedings other than routine litigation incidental to its business.

The Company has been notified by federal and state environmental agencies of its potential liability with respect to the following two sites: the Spectron, Inc. Superfund site in Elkton, Maryland; and the Seaboard Chemical Corporation site in Jamestown, North Carolina. In each case several hundred other companies have also been notified about their potential liability regarding these sites. The Company continues to deny that it has any responsibility with respect to these sites other than as a de minimis party. Management is of the opinion that the

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outcome of the aforementioned environmental matters will not have a material effect on the Company's operations.

Item 6 Exhibits And Reports On Form 8-K

(a) Exhibits

(3) Certificate of Incorporation and By-laws.

- (a) Restated Certificate of Incorporation (Filed as Exhibit 3 (a) to Registration Statement on Form S-3 (Registration No. 33-63857))*.
- (b) Amended and restated By-laws of the Corporation dated April 30, 1992 (Filed as Exhibit 3(b) to the Annual Report on Form 10-K for the year ended March 29, 1992)*.

(4) Instruments defining rights of security holders, including indentures.

- (a) Specimen Certificate of Common Stock (Filed as Exhibit 4(a) to Registration Statement on Form S-3 (Registration No. 33-63857))*.
- (b) Frederick County Industrial Development Revenue Bond, Deed of Trust, Loan Agreement and Guaranty and Indemnification Agreement dated June 17, 1982 (Filed as Exhibit 4(g) to the Registration Statement on Form S-8 filed July 29, 1982)*. Bond and Loan Document Modification Agreement dated December 9, 1993 (Filed as Exhibit 4(c) to the Quarterly Report on Form 10-Q for the quarter ended December 26, 1993)*.
- (c) Amended and Restated Rights Agreement dated as of November 24, 1986, as amended and restated July 3, 1990 and as further amended September 9, 1990 and September 24, 1990, between Registrant and The First National Bank of Boston, as Rights Agent (The July 3, 1990 restatement and the September 9, 1990 and September 24, 1990 amendments were filed as Exhibit 4 to the Current Report on Form 8-K dated July 3, 1990 and Exhibits 4(a) and 4(b) to the Current Report on Form 8-K dated September 18, 1990, respectively)*.
- (d) Loan and Security Agreement dated December 15, 1993 between Trans-Tech, Inc., and County Commissioners of Frederick County (Filed as Exhibit 4(h) to the Quarterly Report on Form 10-Q for the quarter ended July 3, 1994)*.
- (e) Stock Purchase Warrant for 50,000 shares of the Registrant's Common Stock issued to Silicon Valley Bank as of April 1, 1994 (Filed as Exhibit 4(i) to the Quarterly Report on Form 10-Q for the quarter ended July 3, 1994)*.
- (f) Credit Agreement dated September 29, 1995 between Alpha Industries, Inc, and Trans-Tech Inc. and Fleet Bank of Massachusetts, N.A. and Silicon Valley Bank. (Filed as Exhibit 4(j) to the Quarterly Report on Form 10-Q for the quarter ended October 1, 1995)* and amended and restated promissory notes dated as of October 31, 1995.

(10) Material Contracts.

- (a) Alpha Industries, Inc., 1986 Long-Term Incentive Plan as amended (Filed as Exhibit 10(a) to the Quarterly Report on Form 10-Q for the quarter ended October 2, 1994)*. (1)
- (b) Alpha Industries, Inc., Employee Stock Purchase Plan as amended October 22, 1992 (Filed as Exhibit 10(b) to the Annual Report on Form 10-K for the fiscal year ended March 28, 1993)*. (1)
- (c) SERP Trust Agreement between the Registrant and the First National Bank of Boston as Trustee dated April 8, 1991 (Filed as Exhibit 10(c) to the Annual Report on Form 10-K for the fiscal year ended March 31, 1991)*. (1)
- (d) Digital Business Agreement between Digital Equipment Corporation and Registrant dated April 2, 1990. Master Lease Addendum (Ref. No. 6260) to Digital Business Agreement No. 3511900 between Digital Equipment Corporation and Registrant dated April 2, 1990 (Filed as Exhibit 10(g) to the Annual Report on Form 10-K for the fiscal year ended March 29, 1992)*. (1)
- (e) Alpha Industries, Inc., Long-Term Compensation Plan dated September 24, 1990 (Filed as Exhibit 10(i) to the Annual Report on Form 10-K for the fiscal year ended March 29, 1992)*; amended March 28, 1991 (Filed as Exhibit 10 (a) to the Quarterly Report on Form 10-Q for the quarter ended June 27, 1993)* and as further amended October 27, 1994 (Filed as Exhibit 10(f) to the Annual Report on Form 10-K for the fiscal year ended April 2, 1995)*. (1)
- (f) Master Equipment Lease Agreement between AT&T Commercial Finance Corporation and the Registrant dated June 19, 1992 (Filed as Exhibit 10(j) to the Annual Report on Form 10-K for the fiscal year ended March 28, 1993)*. (1)
- (g) Employment Agreement dated October 1, 1990 between the Registrant and Martin J. Reid, as amended March 26, 1992 and amended January 19, 1993 (Filed as Exhibit 10(k) to the Annual Report on Form 10-K for the fiscal year ended March 28, 1993)* and amended August 10, 1993 (Filed as Exhibit 10(j) to the Quarterly Report on Form 10-Q for the quarter ended July 3, 1994)*. (1)
- (h) Employment Agreement dated October 1, 1990 between the Registrant and George S. Kariotis, as amended May 15, 1991 and amended January 22, 1993 (Filed as Exhibit 10(l) to the Annual Report on Form 10-K for the fiscal year ended March 28, 1993)* and amended August 10, 1993 (Filed as Exhibit 10(k) to the Quarterly Report on Form 10-Q for the quarter ended July 3, 1994)*. (1)
- (i) Employment Agreement dated October 1, 1990 between the Registrant and Patrick Daniel Gallagher, as amended March 24, 1992 and amended by Second Amendment dated September 29, 1992 and Third Amendment dated January 20, 1993 (Filed as Exhibit 10(m) to the Annual Report on Form 10-K for the fiscal year ended March 28, 1993)* and Fourth Amendment dated August 3, 1994 (Filed as Exhibit 10(l) to the Quarterly Report on Form 10-Q for the quarter ended October 2, 1994)*. (1)
- (j) Employment Agreement dated April 28, 1994 between the Registrant and Joseph J. Alberici. (Filed as Exhibit 10(o) to the Annual Report on Form 10-K for the fiscal year ended April 3, 1994)*; and further amended August 3, 1994 (Filed as Exhibit 10(n) to the Quarterly Report on Form 10-Q for the quarter ended October 2, 1994)*. (1)
- (k) Consulting Agreement dated August 13, 1992 between the Registrant and Sidney Topol. (Filed as Exhibit 10(p) to the Annual Report on Form 10-K for the fiscal year ended April 3, 1994)*. (1)
- (l) Employment Agreement dated August 3, 1994 between the

- (m) Master Lease Agreement between Comdisco, Inc. and the Registrant dated September 16, 1994 (Filed as Exhibit 10(q) to the Quarterly Report on Form 10-Q for the quarter ended October 2, 1994)*.
- (n) Alpha Industries, Inc., 1994 Non-Qualified Stock Option Plan for Non-Employee Directors (Filed as Exhibit 10(r) to the Quarterly Report on Form 10-Q for the quarter ended October 2, 1994)*. (1)
- (o) Alpha Industries Executive Compensation Plan dated January 1, 1995 and Trust for the Alpha Industries Executive Compensation Plan dated January 3, 1995 (Filed as Exhibit 10(p) to the Annual Report on Form 10-K for the fiscal year ended April 2, 1995)*. (1)
- (p) Letter of Employment dated January 24, 1995 between the Registrant and David J. Aldrich (Filed as Exhibit 10(q) to the Annual Report on Form 10-K for the fiscal year ended April 2, 1995)*. (1)
- (q) Alpha Industries, Inc. Savings and Retirement Plan dated March 31, 1995 (Filed as Exhibit 10(r) to the Annual Report on Form 10-K for the fiscal year ended April 2, 1995)*. (1)

(11) Statement re computation of per share earnings**.

(27) Financial Data Schedule.

(b) Reports on Form 8-K

No reports on Form 8-K were filed with the Securities and Exchange Commission during the fiscal quarter ended December 31, 1995.

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- * Not filed herewith. In accordance with Rule 12b-32 promulgated pursuant to the Securities Exchange Act of 1934, as amended, reference is hereby made to documents previously filed with the Commission, which are incorporated by reference herein.
 - ** Reference is made to Note 3 of the notes to Consolidated Financial Statements on Page 6 of this Quarterly Report on Form 10-Q, which Note 3 is hereby incorporated by reference herein.
- (1) Management Contracts.

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.

Date: February 9, 1996

Alpha Industries, Inc. and Subsidiaries

Registrant

/s/ Martin J. Reid

Martin J. Reid
Chief Executive Officer
President and Director

/s/ Paul E. Vincent

Paul E. Vincent
Corporate Controller
Principal Accounting Officer

AMENDED AND RESTATED PROMISSORY NOTE
(Working Capital Line of Credit Loans)

\$4,500,000

Woburn, Massachusetts
As of October 31, 1995
(Originally dated as of
September 29, 1995)

For value received, the undersigned, ALPHA INDUSTRIES, INC., a Delaware corporation and TRANS-TECH, INC., a Maryland corporation (each a "Borrowers" and collectively the "Borrowers"), jointly and severally promise to pay to SILICON

VALLEY BANK (the "Bank") at the office of the Bank located at 3000 Lakeside

Drive, P.O. Box 3762, Santa Clara, California 95054, or to its order, the lesser of Four Million Five Hundred Thousand Dollars (\$4,500,000) or the outstanding principal amount hereunder, on August 1, 1997 (the "Maturity Date"), together

with interest on the principal amount hereof from time to time outstanding at a fluctuating rates per annum set forth in the Credit Agreement referred to below, payable monthly in arrears on the first day of each calendar month occurring after the date hereof and on the Maturity Date.

Computations of interest shall be made by the Bank on the basis of a year of 360 days for the actual number of days occurring in the period for which such interest is payable.

This promissory note amends and restated the terms and conditions of the obligations of the Borrowers under the promissory note dated as of September 29, 1995 by the Borrowers to the Bank in the original principal amount of \$4,000,000 (the "Original Note"). This note is one of the Working Capital Notes referred to

in the credit agreement of even date herewith between the Bank, Fleet Bank of Massachusetts, N.A., and the Borrowers (together with all related schedules), as the same may be amended, modified or supplemented from time to time (the "Credit

Agreement"), and is entitled to the benefits thereof and of the other Loan

Documents referred to therein, and is subject to optional and mandatory prepayment as provided therein. Except for the capitalized terms referred to herein, the terms used in this Note shall have the respective meanings set forth in the Credit Agreement. This note is secured inter alia by a Security

Agreement dated of even date herewith by each Borrower in favor of the Bank as Collateral Agent for the benefit of the Banks, as the same may be amended, modified or supplemented from time to time.

Each reference in each Loan Document (as defined in the Credit Agreement) to the Working Capital Note of the Bank, "thereof," "therein," "thereunder," or words of like import referring to the Original Note, shall mean and be a reference to the Original Note, as amended and restated hereby.

Upon the occurrence of any Event of Default under, and as defined in, the Credit Agreement, at the option of the Bank, the principal amount then outstanding of and the accrued interest on the advances under this note and all other amounts payable under this note shall become immediately due and payable, without notice (including, without limitation, notice of intent to accelerate), presentment, demand, protest or other formalities of any kind, all of which are hereby expressly waived by the Borrowers.

The Bank shall keep a record of the amount and the date of the making of each advance pursuant to the Credit Agreement and each payment of principal with respect thereto by

containing a computerized record of such information and printouts of such computerized record, which computerized record, and the printouts thereof, shall constitute prima facie evidence of the accuracy of the information so endorsed.

The undersigned agrees to pay all reasonable costs and expenses of the Bank (including, without limitation, the reasonable fees and expenses of attorneys) in connection with the enforcement of this note and the other Loan Documents and the preservation of their respective rights hereunder and thereunder.

No delay or omission on the part of the Bank in exercising any right hereunder shall operate as a waiver of such right or of any other right of the Bank, nor shall any delay, omission or waiver on any one occasion be deemed a bar to or waiver of the same or any other right on any future occasion. The Borrowers and every endorser or guarantor of this note regardless of the time, order or place of signing waives presentment, demand, protest and notices of every kind and assents to any one or more extensions or postponements of the time of payment or any other indulgences, to any substitutions, exchanges or releases of collateral for this note, and to the additions or releases of any other parties or persons primarily or secondarily liable.

THIS NOTE SHALL BE DEEMED DELIVERED TO THE BANK AND ACCEPTED BY THE BANK IN THE STATE OF CALIFORNIA.

EACH BORROWER HEREBY EXPRESSLY WAIVES ANY RIGHT IT MAY NOW OR HEREAFTER HAVE TO A JURY TRIAL IN ANY SUIT, ACTION OR PROCEEDING WHICH ARISES OUT OF OR BY REASON OF THIS NOTE, ANY LOAN DOCUMENT (AS DEFINED IN THE CREDIT AGREEMENT), OR THE TRANSACTIONS CONTEMPLATED HEREBY.

BY ITS EXECUTION AND DELIVERY OF THIS NOTE, EACH BORROWER ACCEPTS FOR ITSELF AND IN CONNECTION WITH ITS PROPERTIES, GENERALLY AND UNCONDITIONALLY, THE NON-EXCLUSIVE JURISDICTION OF ANY STATE OR FEDERAL COURT OF COMPETENT JURISDICTION IN THE COMMONWEALTH OF MASSACHUSETTS (AND IN THE EVENT THE BANK IS FOR ANY REASON DENIED ACCESS TO THE COURTS OF MASSACHUSETTS, THEN SOLELY IN SUCH CASE, CALIFORNIA) IN ANY ACTION, SUIT OR PROCEEDING OF ANY KIND AGAINST IT WHICH ARISES OUT OF OR BY REASON OF THIS NOTE, ANY LOAN DOCUMENT (AS DEFINED IN THE CREDIT AGREEMENT), OR THE TRANSACTIONS CONTEMPLATED HEREBY, IN ADDITION TO ANY OTHER COURT IN WHICH SUCH ACTION, SUIT OR PROCEEDING MAY BE BROUGHT, IRREVOCABLY AGREES TO BE BOUND BY ANY FINAL JUDGMENT RENDERED BY ANY SUCH COURT IN ANY SUCH ACTION, SUIT OR PROCEEDING IN WHICH IT SHALL HAVE BEEN SERVED WITH PROCESS IN THE MANNER HEREINAFTER PROVIDED, SUBJECT TO EXERCISE AND EXHAUSTION OF ALL RIGHTS OF APPEAL AND TO THE EXTENT THAT IT MAY LAWFULLY DO SO, WAIVES AND AGREES NOT TO ASSERT, BY WAY OF MOTION, AS A DEFENSE OR OTHERWISE, IN SUCH ACTION, SUIT OR PROCEEDING ANY CLAIMS THAT IT IS NOT PERSONALLY SUBJECT TO THE JURISDICTION OF SUCH COURT, THAT ITS PROPERTY IS EXEMPT OR IMMUNE FROM ATTACHMENT OR EXECUTION, THAT THE ACTION, SUIT OR PROCEEDING IS BROUGHT IN AN INCONVENIENT FORUM OR THAT THE VENUE THEREOF IS IMPROPER, AND AGREES THAT PROCESS MAY BE SERVED UPON IT IN ANY SUCH ACTION, SUIT OR PROCEEDING IN THE MANNER PROVIDED BY CHAPTER 223A OF THE GENERAL LAWS OF MASSACHUSETTS, RULE 4 OF THE MASSACHUSETTS RULE OF CIVIL PROCEDURE OR RULE 4 OF THE FEDERAL RULES OF CIVIL PROCEDURE.

ALL RIGHTS AND OBLIGATIONS HEREUNDER SHALL BE GOVERNED BY THE LAW OF THE
COMMONWEALTH OF MASSACHUSETTS AND THIS NOTE SHALL BE DEEMED TO BE UNDER SEAL.

Attest: ALPHA INDUSTRIES, INC.

/s/ Donald E. Paulson

Name: DONALD E. PAULSON
Title: SECRETARY

By: /s/ D J Aldrich

Name: D J ALDRICH
Title: V P & TREAS.

[Seal]

Attest: TRANS-TECH, INC.

/s/ N R Pitaro

Name: N R PITARO
Title: ASST SCTY

By: /s/ D J Aldrich

Name: D J ALDRICH
Title: TREASURER

[Seal]

AMENDED AND RESTATED PROMISSORY NOTE
(Working Capital Line of Credit Loans)

\$3,000,000

Woburn, Massachusetts
As of October 31, 1995
(Originally dated as of
September 29, 1995)

For value received, the undersigned, ALPHA INDUSTRIES, INC., a Delaware corporation and TRANS-TECH, INC., a Maryland corporation (each a "Borrower" and collectively the "Borrowers"), jointly and severally promise to pay to FLEET

BANK OF MASSACHUSETTS, N.A. (the "Bank") at the office of the Bank located at

Fleet Center, 75 State Street, Boston, Massachusetts 02109-1810, or to its order, the lesser of Three Million Dollars (\$3,000,000) or the outstanding principal amount hereunder, on August 1, 1997 (the "Maturity Date"), together

with interest on the principal amount hereof from time to time outstanding at a fluctuating rates per annum set forth in the Credit Agreement referred to below, payable monthly in arrears on the first day of each calendar month occurring after the date hereof and on the Maturity Date.

Computations of interest shall be made by the Bank on the basis of a year of 360 days for the actual number of days occurring in the period for which such interest is payable.

This promissory note amends and restates the terms and conditions of the obligations of the Borrowers under the promissory note dated as of September 29, 1995 by the Borrowers to the Bank in the original principal amount of \$2,500,000 (the "Original Note"). This note is one of the Working Capital Notes

referred to in the credit agreement of even date herewith between the Bank, Silicon Valley Bank, and the Borrowers (together with all related schedules), as the same may be amended, modified or supplemented from time to time (the "Credit Agreement"), and is entitled to the benefits thereof and of the

other Loan Documents referred to therein, and is subject to optional and mandatory prepayment as provided therein. Except for the capitalized terms referred to herein, the terms used in this Note shall have the respective meanings set forth in the Credit Agreement. This note is secured inter alia by a Security Agreement dated of even date herewith by each Borrower in favor of Silicon Valley Bank as Collateral Agent for the benefit of the Banks, as the same may be amended, modified or supplemented from time to time.

Each reference in each Loan Document (as defined in the Credit Agreement) to the Working Capital Note of the Bank, "thereof," "therein," "thereunder," or words of like import referring to the Original Note, shall mean and be a reference to the Original Note, as amended and restated hereby.

Upon the occurrence of any Event of Default under, and as defined in, the Credit Agreement, at the option of the Bank, the principal amount then outstanding of and the accrued interest on the advances under this note and all other amounts payable under this note shall become immediately due and payable, without notice (including, without limitation, notice of intent to accelerate), presentment, demand, protest or other formalities of any kind, all of which are hereby expressly waived by the Borrowers.

The Bank shall keep a record of the amount and the date of the making of each advance pursuant to the Credit Agreement and each payment of principal with respect thereto by maintaining a computerized record of such information and printouts of such computerized record, which computerized record, and the printouts thereof, shall constitute prima facie evidence of the accuracy of the information so endorsed.

The undersigned agrees to pay all reasonable costs and expenses of the Bank (including, without limitation, the reasonable fees and expenses of attorneys) in connection with the enforcement of this note and the other Loan Documents and the preservation of their respective rights hereunder and thereunder.

No delay or omission on the part of the Bank in exercising any right hereunder shall operate as a waiver of such right or of any other right of the Bank, nor shall any delay, omission or waiver on any one occasion be deemed a bar to or waiver of the same or any other right on any future occasion. The Borrowers and every endorser or guarantor of this note regardless of the time, order or place of signing waives presentment, demand, protest and notices of every kind and assents to any one or more extensions or postponements of the time of payment or any other indulgences, to any substitutions, exchanges or releases of collateral for this note, and to the additions or releases of any other parties or persons primarily or secondarily liable.

EACH BORROWER HEREBY EXPRESSLY WAIVES ANY RIGHT IT MAY NOW OR HEREAFTER HAVE TO A JURY TRIAL IN ANY SUIT, ACTION OR PROCEEDING WHICH ARISES OUT OF OR BY REASON OF THIS NOTE, ANY LOAN DOCUMENT (AS DEFINED IN THE CREDIT AGREEMENT), OR THE TRANSACTIONS CONTEMPLATED HEREBY.

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Attest: ALPHA INDUSTRIES, INC.

/s/ Donald E Paulson

Name: DONALD E PAULSON
Title: SECRETARY

By: /s/ D J Aldrich

Name: D J ALDRICH
Title: V P & TREASURER

[Seal]

Attest: TRANS-TECH, INC.

/s/ N R Pitaro

Name: N R PITARO
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By: /s/ D J Aldrich

Name: D J ALDRICH
Title: TREASURER

[SEAL]

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

THIS SCHEDULE CONTAINS SUMMARY FINANCIAL INFORMATION EXTRACTED IN PART FROM THE FINANCIAL STATEMENTS OF ALPHA INDUSTRIES, INC. AND SUBSIDIARIES AS OF AND FOR THE NINE MONTHS ENDED DECEMBER 31, 1995 AND IS QUALIFIED IN ITS ENTIRETY BY REFERENCE TO SUCH FINANCIAL STATEMENTS.

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9-MOS		
MARCH 31, 1996		
DEC-31-1995		
	21,247	
	0	
	17,113	
	591	
	11,834	
	50,419	
	80,679	
	56,768	
	75,022	
13,595		3,419
0		0
		2,477
		54,598
75,022		71,404
	71,404	47,572
	66,974	
	(357)	
	44	
	514	
	4,273	
	641	
3,632		0
	0	0
		0
	3,632	
	0.43	
	0.43	