RUDOLPH TECHNOLOGIES INC Form 10-Q/A July 14, 2008

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-Q/A

(Amendment No. 1)

(MARK ONE)

 [X] QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
 For the quarterly period ended: March 31, 2008

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. 000-27965

RUDOLPH TECHNOLOGIES, INC.

(Exact name of registrant as specified in its charter)

DELAWARE 22-3531208 (State or Other Jurisdiction of (I.R.S. Employer Incorporation or Organization) Identification Number)

One Rudolph Road, PO Box 1000 Flanders, New Jersey 07836

(Address of principal executive offices, including zip code)

(973) 691-1300

(Registrant's telephone number, including area code)

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 [_]

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. (See definition of "large accelerated filer", "accelerated filer", and "smaller reporting company" in Rule 12b-2 of the Securities Exchange Act of 1934). Large accelerated filer [] Accelerated filer [X] Non-accelerated filer [] (do not check if smaller reporting company) Smaller reporting company []

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes [_] No [X]

The number of outstanding shares of the Registrant's Common Stock on April 22, 2008 was 30,564,122.

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EXPLANATORY NOTE

This Amendment No. 1 (the "Amendment") amends Rudolph Technologies, Inc.'s Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2008 filed on May 9, 2008 (the "Original Filing"). This Amendment revises the Original Filing to clarify the information required in Part I. Financial Information, Item 4. Controls and Procedures, and to include the amended form of the Restricted Stock Unit Purchase Agreement pursuant to the Rudolph Technologies, Inc. 1999 Stock Plan in Part II Other Information, Item 6. Exhibits. No other changes are being made by means of this Amendment. The remainder of the Original Filing is unchanged and has not been modified or updated to reflect any subsequent events.

PART I FINANCIAL INFORMATION

Item 1. Financial Statements

RUDOLPH TECHNOLOGIES, INC.

CONDENSED CONSOLIDATED BALANCE SHEETS (In thousands)

March 31, 2008 (unaudited)

December 31, 2007

ASSETS Current assets: Cash and cash equivalents \$ 48,693 \$ 57,420 Marketable securities 10,542 16,505 Accounts receivable, net 59,925 50,015 Inventories 79,964 70,987 Prepaid expenses and other current assets 10,810 8,700 Total current assets 209,934 203,627 Property, plant and equipment, net 17,518 16,062 Goodwill 190,458 188,832 Identifiable intangible assets, net 46,756 48,125 Other assets 3,409 3,570 Total assets \$ 468,075 \$ 460,216

LIABILITIES AND STOCKHOLDERS' EQUITY

Current liabilities: Accounts payable and accrued liabilities \$ 18,427 \$ 15,030 Other current liabilities 16,016 12,299 Total current liabilities 34,443 27,329

Non-current liabilities

9,654 8,409

Total liabilities

44,097 35,738 Commitments and contingencies Stockholders' equity: Common stock 30 30 Additional paid-in capital 380,647 379,886 Accumulated other comprehensive gain (loss) 171 (214) Retained earnings 43,130 44,776 Total stockholders' equity 423,978 424,478 Total liabilities and stockholders' equity \$ 468,075 \$ 460,216

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

RUDOLPH TECHNOLOGIES, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (In thousands, except per share data) (Unaudited)

Three Months Ended March 31,

2008

2007

Revenues \$ 37,210 \$ 48,356 Cost of revenues 22,095 22,106 Gross profit 15,115 26,250 Operating expenses: Research and development 7,797 8,677 Selling, general and administrative 9,094 8,775 Amortization 1,668 1,126 Total operating expenses 18,559 18,578 Operating income (loss) (3,444) 7,672 Interest income and other, net 381 1,033 Income (loss) before income taxes (3,063) 8,705 Provision (benefit) for income taxes (1,417) 3,141 Net income (loss) \$ (1,646) 0.19 5,564 Earnings (loss) per share: Basic \$ (0.05) \$ Diluted \$ (0.05) \$ 0.19 Weighted average shares outstanding: Basic 30,533 29,031 Diluted 30,533 29,224

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

RUDOLPH TECHNOLOGIES, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (In thousands) (Unaudited)

Three Months Ended March 31,

2008

2007

Cash flows from operating activities: Net income (loss) \$ (1,646) \$ 5.564 Adjustments to reconcile net income (loss) to net cash and cash equivalents Amortization 1,843 1,814 provided by (used in) operating activities: Depreciation 1,050 1,172 Foreign currency exchange gain (253) (271) Net loss on sales of marketable securities -Share-based compensation 755 846 Provision for (recovery of) doubtful accounts and inventory valuation 2,284 (492) Decrease (increase) in assets excluding effects of business combinations: Accounts receivable (6,890) 2,213 Inventories (6,769) (5,329) Prepaid Increase (decrease) in liabilities excluding effects of business expenses and other assets (2,723) (180) combinations: Accounts payable and accrued liabilities 3,240 (2,752) Other current liabilities 3,600 (1,739)Non-current liabilities 76 37 Net cash and cash equivalents (used in) provided by operating activities (5,433) 886 Cash flows from investing activities: Purchases of marketable securities (5,916) (24,558) Proceeds from sales of marketable securities 11,994 6,840 Purchases of property, plant and equipment (1,403) (478) Capitalized software -Purchase of businesses (8,550) -(397)Net cash and cash equivalents used in investing activities (3,875) (18,593) Cash flows from financing activities: Proceeds from sales of shares through share-based compensation plans 6 690 Tax benefit for sale of shares through share-based compensation plans -Net cash and cash equivalents provided by financing activities 6 798 Effect of exchange rate changes on cash and cash equivalents 575 13 Net decrease in cash and cash equivalents (8,727) (16,896) Cash and cash equivalents at beginning of period 57,420 72,479 Cash and cash equivalents at end of period \$ 48,693 \$ 55,583

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

RUDOLPH TECHNOLOGIES, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (In thousands, except per share data) (Unaudited)

NOTE 1. Basis of Presentation

The accompanying interim unaudited condensed consolidated financial statements have been prepared by Rudolph Technologies, Inc. (the "Company" or "Rudolph") and in the opinion of management reflect all adjustments, consisting only of normal recurring accruals, necessary for their fair presentation in accordance with accounting principles generally accepted in the United States of America. Preparing financial statements requires management to make estimates and assumptions that affect amounts reported in the financial statements and accompanying notes. Actual amounts could differ materially from those amounts. The interim results for the three month period ended March 31, 2008 are not necessarily indicative of results to be expected for the entire year. This interim financial information should be read in conjunction with the financial statements and the notes thereto included in the Company's Annual Report on Form 10-K for the year ended December 31, 2007.

NOTE 2. Business Combinations

PCTA

On December 18, 2007, Rudolph and a wholly-owned subsidiary of the Company entered into, and consummated the transactions contemplated by, an Asset Purchase Agreement with Applied Precision Holdings, LLC and Applied Precision, LLC (collectively, Applied), pursuant to which the Company purchased substantially all of the assets and assumed certain liabilities of the semiconductor division of Applied to be known as the Rudolph Technologies Probe Card Test and Analysis division (PCTA). The PCTA is engaged in the business of designing, developing, manufacturing, marketing, selling and supporting advanced probe card metrology and wafer probe process monitoring equipment and is complementary to the Company s existing business.

The closing under the Asset Purchase Agreement occurred on December 18, 2007 and the Company paid \$59,134 in cash and acquisition costs and issued 1,307 shares of common stock for a total purchase price of \$73,156. The purchase price has been preliminarily allocated based on estimates of the fair values of assets acquired and liabilities assumed. With the exception of future tax adjustments related to the acquisition, the final valuation of net assets is expected to be completed during 2008. The results of operations of the PCTA have been included in our consolidated financials statements since the date of the acquisition.

The Company has agreed to assume the following liabilities of the PCTA: accounts payable, assigned contracts, licenses and leases, warranty claims and employee liabilities, all as more fully described in the Asset Purchase Agreement. In addition, the Company has agreed to assume the defense of and all obligations relating to certain litigation currently pending against Applied.

The transaction was accounted for using the purchase method of accounting for business combinations and, accordingly, the results of operations of the PCTA have been included in the Company s consolidated financial statements since the date of acquisition. The following table summarizes the estimated fair value of the assets acquired and liabilities assumed at the date of acquisition:
Accounts receivable \$ 5,660 Inventories 12,001 Prepaid expenses and other current assets 157 Property, plant and equipment 1,122 Goodwill 44,426 Identifiable assets 16,200 Accounts payable and accrued liabilities (3,777) Deferred revenue (159) Other Liabilities (2,474) \$ 73,156
The fair value of inventories included a step-up of \$3,556, of which \$442 was recognized in cost of revenues for the three months ended March 31, 2008. At the acquisition date, the Company formulated a plan to exit or restructure certain activities. The Company recorded \$254 for these activities, of which none was utilized for the three months ended March 31, 2008.
Factors that contributed to a purchase price that resulted in recognition of goodwill include:
the combination of PCTA and Rudolph products should allow the combined company to offer its customers a more comprehensive suite of tools and a better integrated set of tools, thus enhancing the Company s ability to compete more effectively;
the ability of the assembled workforce to continue to deliver value-added solutions and develop new products and industry leading production technologies that solve customer problems;
consolidation of territorial sales activities and common marketing programs;
redeployment or elimination of duplicative functional and facilities costs;

reduction of customer service costs as a result of the consolidation of the companies global customer service and regional support networks; and

the combined experience, financial resources, development expertise, size and breadth of product offerings of the combined company may allow it to respond more quickly and effectively to technological change, increased consolidation and industry demands

Of the \$16,200 of acquired identifiable assets, the following table reflects the allocation of the acquired identifiable assents and related preliminary estimates of useful lives:

Developed technology

\$ 11,600 8 years estimated useful life

Customer and distributor relationships

2,900 7.2 years weighted average estimated useful life

Trade names

700 3 years estimated useful life

In-process research and development

1,000

\$ 16,200

Approximately \$1.0 million of the acquired identifiable intangible assets represents the estimated fair value of in-process research and development (IPRD) projects that had not yet reached technological feasibility and had no alternative future use. Accordingly, this amount was immediately expensed in the Consolidated Statement of Operations at the merger date. The purchased in-process technology project was a probe card test project, related to the next generation of the company s ProbeWoRx systems with enhanced capabilities, and was approximately 20% complete as of the date of acquisition. The estimated costs to complete this project of \$2,100, consist primarily of internal engineering labor costs which will be completed in 2008. If we are not successful in completing the inspection project on a timely basis, the future sales of the Company s inspection products may be adversely affected resulting in erosion of the Company s market share.

Pro Forma Combined Results of Operations

The following unaudited pro forma consolidated financial information presents the combined results of operations of the Company and PCTA as if the respective merger and acquisition occurred at the beginning of the period presented, after giving effect to certain adjustments, including interest income and amortization expense. Due to the non-recurring nature of the IPRD and inventory step-up charges, these amounts have not been included in the unaudited pro forma consolidated financial information. The unaudited pro forma consolidated financial information does not necessarily reflect the results of operations that would have occurred had the merger and acquisition been completed as of the date indicated or of the results that may be obtained in the future.

Three Months Ended March 31, 2007

(unaudited)

Revenues

\$ 57,778

Net income

\$ 6,008

Earnings per share:

Basic

\$ 0.20

Diluted

\$ 0.20

RVSI Inspection

On January 22, 2008, the Company announced that it had acquired all intellectual property and selected assets from privately-held RVSI Inspection, LLC, headquartered in Hauppauge, New York. The acquired business is currently known as the Rudolph Technologies Wafers Scanner Product Group. The Company accounts for this acquisition as a business combination. The impact of the acquisition was not material to the Company's consolidated financial position or results of operations.

NOTE 3. Fair Value Measurements

In September 2006, the FASB issued SFAS No. 157, which is effective for fiscal years beginning after November 15, 2007 and for interim periods within those years. This statement defines fair value, establishes a framework for measuring fair value and expands the related disclosure requirements. This statement applies under other accounting pronouncements that require or permit fair value measurements. The statement indicates, among other things, that a fair value measurement assumes that the transaction to sell an asset or transfer a liability occurs in the principal market for the asset or liability or, in the absence of a principal market, the most advantageous market for the asset or liability. SFAS No. 157 defines fair value based upon an exit price model.

The Company adopted SFAS No. 157 on January 1, 2008, with the exception of the application of the statement to non-recurring nonfinancial assets and nonfinancial liabilities. Non-recurring nonfinancial assets and nonfinancial liabilities for which the Company has not applied the provisions of SFAS No. 157 include those measured at fair value in goodwill impairment testing and those initially measured at fair value in a business combination.

SFAS No. 157 establishes a valuation hierarchy for disclosure of the inputs to valuation used to measure fair value. This hierarchy prioritizes the inputs into three broad levels as follows. Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities. Level 2 inputs are quoted prices for similar assets and liabilities in active markets or inputs that are observable for the asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the financial instrument. Level 3 inputs are unobservable inputs based on the management's assumptions used to measure assets and liabilities at fair value. A financial asset or liability's classification within the hierarchy is determined based on the lowest level input that is significant to the fair value measurement.

The following table provides the assets carried at fair value measured on a recurring basis as of March 31, 2008:

Fair value measurements at March 31, 2008 Total carrying Quoted prices in Significant other Significant value at active markets observable inputs unobservable inputs March 31, 2008 (Level 1) (Level 2) (Level 3) U.S. Treasury notes \$ 216 \$

\$ - \$ - All other marketable securities 10,326 -

10,326 - Foreign currency forward contracts (5,029) (5,029)

- -

Total

\$ 5,513 \$ (4,813)

\$ 10,326

\$ -

When available, the Company uses quoted market prices to determine the fair value of its marketable securities included in Level 1. The forward foreign currency exchange contracts are primarily measured based on the foreign currency spot and forward rates quoted by the banks or foreign currency dealers. When quoted market prices are unobservable, the Company uses quotes from independent pricing vendors based on recent trading activity and other relevant information. These investments are included in Level 2 and primarily comprise the Company's portfolio of corporate debt securities, auction rate securities, government-sponsored enterprise, and asset-backed securities.

The carrying value of other financial instruments, including cash, accounts receivable, accounts payable, and accrued liabilities approximate fair value due to their short maturities.

The Company has adopted SFAS No. 159 effective January 1, 2008 and did not elect the fair value option for its financial instruments.

NOTE 4. Marketable Securities

The Company has evaluated its investment policies consistent with SFAS No. 115, "Accounting for Certain Investments in Debt and Equity Securities," and determined that all of its investment securities are to be classified as available-for-sale. Available-for-sale securities are carried at fair value, with the unrealized gains and losses reported in Stockholders' Equity under the caption "Accumulated other comprehensive loss". Realized gains and losses, interest and dividends on available-for-sale securities are included in "Interest income and other, net". Net realized losses on available-for-sale securities were \$0 and \$3 for the three months ended March 31, 2008 and 2007, respectively. Gross unrealized gains on available-for-sale securities were \$90 and \$29 as of March 31, 2008 and December 31, 2007, respectively. Gross unrealized losses on available-for-sale securities were \$68 and \$152 as of March 31, 2008 and December 31, 2007, respectively.

As of March 31, 2008, the Company held \$3.1 million of auction-rate securities. The underlying assets of the Company's auction-rate securities consisted of municipal bonds with an auction reset feature. Due to auction rate securities markets being disrupted during the first quarter of 2008, we experienced auction failures for the first time. An auction failure means that the parties wishing to sell their securities could not be matched with an adequate volume of buyers. The securities for which auctions have failed will continue to accrue interest at the contractual rate and be auctioned every seven, 28 or 35 days until the auction succeeds, the issuer calls the securities, or they mature. All of our auction rate securities held at March 31, 2008 had experienced failed auctions. We do not believe these securities are impaired currently and also believe we will sell them within the next twelve months. In addition, while all of our auction rate securities are currently rated A or above, if the issuers are unable to successfully close future auctions and their credit ratings deteriorate, we may in the future be required to record an impairment charge on these investments.

NOTE 5. Derivative Instruments and Hedging Activities

The Company, when it considers it to be appropriate, enters into forward contracts to hedge the economic exposures arising from foreign currency denominated transactions. At March 31, 2008 and December 31, 2007, these contracts included the sale of Japanese Yen to purchase U.S. dollars. The foreign currency forward contracts were entered into by our Japanese subsidiary to economically hedge a portion of certain intercompany obligations. The forward contracts are not designated as hedges for accounting purposes and therefore, the change in fair value is recorded in selling, general and administrative expenses in the Consolidated Statements of Operations.

The dollar equivalent of the US dollar forward contracts and related fair values were as follows:

March 31, 2008

December 31, 2007

Notional amount \$5,653 \$5,706 Fair value of liability \$624 \$127

NOTE 6. Identifiable Intangible Assets

Identifiable intangible assets as of March 31, 2008 are as follows:

Gross Carrying Amount

Accumulated Amortization

Net

Developed technology \$ 49,891 \$ 12,601 \$ 37,290 Customer and distributor relationships 7,300 1,167 6,133 Trade names 4,100 767 3,333 Total identifiable intangible assets \$ 61,291 \$ 14,535 \$ 46,756

Identifiable intangible assets as of December 31, 2007 are as follows:

Gross Carrying Amount

Accumulated Amortization

Net

Developed technology \$ 49,591 \$ 11,324 \$ 38,267 Customer and distributor relationships 7,300 917 6,383 Trade names 4,100 625 3,475 Total identifiable intangible assets

\$ 60,991 \$ 12,866 \$ 48,125

Intangible asset amortization expense for the three months ended March 31, 2008 and 2007 was \$1,668 and \$1,119, respectively. Estimated amortization expense for the remainder of 2008 amounts to \$5,002 and in each of the next five years amounts to \$6,341 for 2009, \$6,124 for 2010, \$5,891 for 2011, \$5,891 for 2012, and \$5,891 for 2013.

NOTE 7. Accounts Receivable

Accounts receivable are net of the allowance for doubtful accounts of \$462 and \$214 as of March 31, 2008 and December 31, 2007, respectively.

NOTE 8. Inventories

March 31,

December 31,

2008

2007

Materials \$ 42,816 \$ 34,556 Work-in-process 19,750 20,820 Finished goods 17,398 15,611 Total inventories \$ 79,964 \$ 70,987

The Company has established reserves of \$5,532 and \$3,394 as of March 31, 2008 and December 31, 2007, respectively.

NOTE 9. Property, Plant and Equipment

March 31,

December 31,

2008

2007

Land and building \$ 6,201 \$ 5,185 Machinery and equipment 12,691 11,829 Furniture and fixtures 2,679 2,668 Computer equipment 6,827 6,407 Leasehold improvements 5,857 5,791 34,255 31,880 Accumulated depreciation (16,737) (15,818) Net property, plant and equipment

\$ 17,518 \$ 16,062

NOTE 10. Commitments and Contingencies Warranty Reserves Changes in the Company's warranty reserves are as follows: Three Months Ended March 31, 2008 2007 Balance, beginning of the period \$ 2,365 \$ 2,171 Accruals 554 710 Warranty liability assumed in merger 136 - Settlements (628) (708)Balance, end of the period \$ 2,427 \$ 2,173 NOTE 11. Share-Based Compensation Restricted Stock Unit Activity

A summary of the Company's nonvested restricted stock unit activity with respect to the three month period ended March 31, 2008 follows:

Number of Shares

Weighted Average Grant Date Fair Value

Nonvested at December 31, 2007 680 \$ 16.08 Granted 2 \$ 10.00 Vested (78) \$ 16.48 Forfeited (46) \$ 16.72 Nonvested at March 31, 2008 558 \$ 15..96

As of March 31, 2008 and December 31, 2007, there was \$7,520 and \$7,852 of total unrecognized compensation cost related to restricted stock units granted under the plans, respectively. That cost is expected to be recognized over a weighted average period of 3.5 years and 3.7 years for the respective periods.

NOTE 12. Interest Income and Other, Net

Three Months Ended

March 31, **2008 2007** Interest income \$ 381 \$ 1,036 Realized losses on sales of marketable securities, net - (3) Total interest income and other, net \$ 381 \$ 1,033

NOTE 13. Income Taxes

The Company adopted the provisions of FIN 48, as amended by FSP 48-1, effective January 1, 2007. As a result of the implementation of FIN 48, as amended, the Company recognized increases in the liability for unrecognized tax benefits of \$2,173, non-current deferred tax assets of \$1,948 and goodwill of \$245. The adoption of FIN 48, as amended, resulted in a cumulative effect adjustment to retained earnings of \$20 as of January 1, 2007.

The total amount of unrecognized tax benefits as of the date of adoption was \$4,552. As of March 31, 2008, the total amount of unrecognized tax benefits is \$5,991, of which \$3,714 would impact the effective tax rate if recognized. There are no known tax positions which are reasonably possible to change over the next twelve months necessitating a significant change in the Company's unrecognized tax benefits.

The Company is continuing its practice of recognizing interest and penalties related to income tax matters in income tax expense. As of March 31, 2008, the Company had accrued interest and penalties expense related to unrecognized tax benefits of \$129.

The Company is subject to U.S. federal income tax as well as income tax in multiple state and foreign jurisdictions. Presently, the Company is not under examination by the Internal Revenue Service for examination of income tax returns for open periods, December 31, 2004 through December 31, 2007. The Company is not currently under examination by any U.S. state, local or foreign tax authority for all open tax periods beginning after December 31, 2002.

NOTE 14. Comprehensive Income (Loss)

The difference between net income (loss) and comprehensive income (loss) for the Company is due to currency translation adjustments and unrealized gains (losses) on investments.

The components of comprehensive income (loss) are as follows:

Three Months Ended

March 31, **2008 2007** Net income (loss) \$ (1,646) \$ 5,564 Change in net unrealized gains on investments, net of tax 39 64 Change in currency translation

adjustments 346 104 Total comprehensive income (loss) \$ (1,261) \$ 5,732

NOTE 15. Earnings (Loss) Per Share

Basic earnings (loss) per share is calculated using the weighted average number of shares of common stock outstanding during the period. Diluted earnings (loss) per share is computed in the same manner and also gives effect to all dilutive common equivalent shares outstanding during the period. Potentially dilutive common equivalent shares consist of stock options and restricted stock units for 2007. For the three month period ended March 31, 2008, all outstanding stock options and restricted stock units totaling 52, were excluded from the computation of diluted loss per share because the effect in the period would be anti-dilutive. During the three months ended March 31, 2007, there were stock options with exercise prices above the average fair market value of the Company's common stock which were excluded from the computation of diluted earnings per share due to the anti-dilutive nature of these options. During the three months ended March 31, 2007, there were restricted stock units which were excluded from the computation of diluted earnings per share as their effect would be anti-dilutive. For the three months ended March 31, 2007, the weighted average number of stock options and restricted stock units excluded from the computation of diluted earnings per share was 1,950.

The Company's basic and diluted earnings (loss) per share amounts are as follows:

Three Months Ended March 31, 2008 2007 Numerator: Net income (loss) \$ (1,646) \$ 5,564 Denominator: Basic earnings

(loss) per share weighted average shares

restricted stock units - dilutive

shares - 193 Diluted earnings (loss) per share -

weighted average shares

outstanding 30,533 29,224 Earnings (loss) per share: Basic \$ (0.05) \$ 0.19 Diluted \$ (0.05) \$ 0.19

NOTE 16. Segment Reporting and Geographic Information

Operating segments are business units that have separate financial information and are separately reviewed by the Company's chief decision maker. The Company's chief decision maker is the Chief Executive Officer. The Company and its subsidiaries currently operate in a single reportable segment: the design, development, manufacture, sale and service of process control metrology systems used in semiconductor device manufacturing. The chief operating decision maker allocates resources and assesses performance of the business and other activities at the operating segment level.

The following table lists the different sources of revenue:

Three Months Ended

March 31.

2008

2007

Revenue Type

Systems:

Metrology \$ 8,265 22%

\$ 11,127

23% Inspection 20,468 55%

24,891

51% Parts 3,904 11%

3,380

7% Services 3,304 9%

3,355

7% Software licensing 1,269 3%

5,603

12%

Total

\$ 37,210 100%

\$ 48,356

100%

For geographical reporting, revenues are attributed to the geographic location in which the customer is located. Revenue by geographic region is as follows:

Three Months Ended

March 31,

2008

2007

United States

\$ 5.415 \$ 8.614

Asia

25,054 27,833

Europe

6,741 11,909

Total

\$ 37,210 \$ 48,356

Customers comprising 10% or more of revenue in either period presented:

Three Months Ended

March 31,

2008

2007

Customer A 12.2% 10.9% Customer B 6.9% 12.3% Customer C 0.3% 10.3%

NOTE 17. Recent Accounting Pronouncements

In March 2008, the Financial Accounting Standards Board ("FASB') issued SFAS No. 161, "Disclosure about Derivatives Instruments and Hedging Activities-an amendment of FASB Statement No. 133" (SFAS 161), which requires enhanced disclosures about an entity's derivative and hedging activities and thereby improves the transparency of financial reporting. SFAS 161 is effective for financial statements issued for fiscal years and interim periods beginning after November 15, 2008 with early application encouraged. The Company is currently evaluating the potential impact of adopting SFAS 161.

In February 2008, the FASB adopted FASB Staff Position SFAS No. 157-2 - "Effective Date of FASB Statement No. 157" delaying the effective date of SFAS No. 157 for one year for all non financial assets and non financial liabilities, except those that are recognized or disclosed at fair value in the financial statements on a recurring basis (at least annually). The Company is currently evaluating the impact of the implementation of SFAS No. 157-2 on its consolidated financial position, results of operations and cash flows.

In December 2007, the FASB issued SFAS No. 141R, Business Combinations (SFAS 141R), which establishes principles and requirements for how an acquirer recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed, any noncontrolling interest in an acquiree, and the recognition and measurement of goodwill acquired in a business combination or a gain from a bargain purchase. SFAS 141R applies prospectively to business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008.

In November 2007, the Emerging Issues Task Force (EITF) issued EITF Issue No. 07-1 (EITF 07-1), Accounting for Collaborative Arrangements, which defines collaborative arrangements and establishes reporting and disclosure requirements for such arrangements. EITF 07-1 is effective for fiscal years beginning after December 15, 2008. The Company is continuing to evaluate the impact of adopting the provisions EITF 07-1; however, it does not anticipate that adoption will have a material effect on its financial position or results of operations.

In February 2007, the FASB issued SFAS No. 159 (SFAS 159), The Fair Value Option for Financial Assets and Financial Liabilities-Including an amendment of FASB Statement No. 115. SFAS 159 permits entities to choose to measure many financial instruments and certain other items at fair value. The objective is to improve financial reporting by providing entities with the opportunity to mitigate volatility in reporting earnings caused by measuring related assets and liabilities differently without having to apply complex hedge accounting provisions. SFAS 159 is effective for fiscal years that begin after November 15, 2007. The Company adopted SFAS 159 on January 1, 2008 and did not elect the fair value option for its financial instruments.

NOTE 18. Reclassifications

Certain prior period amounts have been reclassified to conform to current financial statement presentation.

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

Certain statements in this quarterly report on Form 10-Q are forward looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. In addition, we may, from time to time, make oral forward looking statements. Forward looking statements may be identified by the words "anticipate", "believe", "expect", "intend", "will" and similar expressions, as they relate to us or our management. These statements include, without limitation, the statement that we believe that our existing cash and cash equivalents will be sufficient to meet our anticipated cash requirements for working capital and capital expenditures for the foreseeable future.

The forward looking statements contained herein reflect our current views with respect to future events and are subject to certain risks, uncertainties and assumptions. Actual results may differ materially from those projected in such forward looking statements due to a number of factors, risks and uncertainties, including the risk factors set forth in this Current Report on Form 10-Q and in our Annual Report on Form 10-K for the year ended December 31, 2007. We disclaim any obligation to update any forward looking statements as a result of developments occurring after the date of this quarterly report.

Critical Accounting Policies

The preparation of consolidated financial statements and related disclosures in conformity with accounting

principles generally accepted in the United States requires management to make judgments, assumptions and estimates that affect the amounts reported. Certain of these significant accounting policies are considered to be critical accounting policies, as defined below.

A critical accounting policy is defined as one that is both material to the presentation of our consolidated financial statements and requires management to make difficult, subjective or complex judgments that could have a material effect on our financial condition or results of operations. Specifically, these policies have the following attributes: (1) we are required to make judgments and assumptions about matters that are highly uncertain at the time of the estimate; and (2) different estimates we could reasonably have used, or changes in the estimate that are reasonably likely to occur, could have a material effect on our financial position and results of operations.

Estimates and assumptions about future events and their effects cannot be determined with certainty. We base our estimates on historical experience and on various other assumptions believed to be applicable and reasonable under the circumstances. These estimates may change as new events occur, as additional information is obtained and as our operating environment changes. These changes have been included in the consolidated financial statements as soon as they became known. In addition, management is periodically faced with uncertainties, the outcomes of which are not within its control and will not be known for prolonged periods of time. These uncertainties are discussed in this report and in our Annual Report on Form 10-K for the year ended December 31, 2007 in the section entitled "Risk Factors." Based on a critical assessment of our accounting policies and the underlying judgments and uncertainties affecting the application of those policies, management believes that our consolidated financial statements are fairly stated in accordance with accounting principles generally accepted in the United States of America, and provide a fair presentation of our financial position and results of operations.

For further information about our critical accounting policies, see the discussion of critical accounting policies in our 2007 Annual Report on Form 10-K.

See Note 17 to the condensed consolidated financial statements included elsewhere in this quarterly report on Form 10-Q regarding the impact of recent accounting pronouncements on the Company's financial position and results of operations.

Results of Operations for the Three Month Periods Ended March 31, 2008 and 2007

We are a worldwide leader in the design, development, manufacture and support of high-performance process control metrology, defect inspection, and data analysis systems used by semiconductor device manufacturers. We provide yield management solutions used in both wafer processing and final manufacturing through a family of standalone systems and integrated modules for both transparent and opaque thin film measurements and macro-defect inspection. All of these systems feature production-worthy automation and are backed by worldwide customer support.

On December 18, 2007, Rudolph, along with our wholly-owned subsidiary, Mariner Acquisition Company LLC, entered into, and consummated the transactions contemplated by, an agreement with Applied Precision Holdings, LLC and Applied Precision, LLC (collectively, Applied), pursuant to which we purchased substantially all of the assets and assumed certain liabilities of the semiconductor division of Applied to be known as the Probe Card Test and Analysis division (PCTA). The PCTA is engaged in the business of designing, developing, manufacturing, marketing, selling and supporting advanced probe card metrology and wafer probe process monitoring equipment and is complementary to our existing business.

The closing occurred on December 18, 2007 and we paid \$59.1 million in cash and issued 1.3 million shares of common stock for a total purchase price of \$73.2 million. Under the terms of the purchase agreement, we agreed to assume the following liabilities of Applied relating to the PCTA: accounts payable, assigned contracts, licenses and leases, warranty claims and employee liabilities. In addition, we agreed to assume the defense of and all obligations relating to certain litigation. The cash portion of the purchase price is subject to further post-closing adjustment based on the final closing net asset balance. The purchase price has been preliminarily allocated based on estimates of the fair values of assets acquired and liabilities assumed. The final valuation of net assets is expected to be completed during 2008.

On January 22, 2008, we announced that we had acquired all intellectual property and selected assets from privately-held RVSI Inspection, LLC, headquartered in Hauppauge, New York. The acquired business is currently known as the Rudolph Technologies Wafers Scanner Product Group. We account for this acquisition as a business combination. The impact of the acquisition was not material to our consolidated financial position or results of operations.

Rudolph s business is affected by the annual spending patterns of our customers on semiconductor capital equipment. The amount that our customers devote to capital equipment spending depends on a number of factors, including general worldwide economic conditions as well as other economic drivers such as personal computer, cell phone and personal electronic device sales. Current forecasts by industry analysts for the semiconductor device manufacturing industry project a year-over-year decrease in capital spending of 15-20% for 2008. We monitor capital equipment spending through announced capital spending plans by our customers and monthly-published industry data such as the book-to-bill ratio. The book-to-bill ratio is a 3-month running statistic that compares bookings or orders placed with capital equipment suppliers to billings or shipments. A book-to-bill above one shows that semiconductor device equipment manufacturers are ordering equipment at a pace that exceeds the equipment suppliers shipments for the period. The three month rolling average North American semiconductor equipment book-to-bill ratio was 0.9 for the month of March 2008, remaining the same from the December 2007 book-to-bill ratio of 0.9.

Historically, a significant portion of our revenues in each quarter and year has been derived from sales to relatively few customers, and we expect this trend to continue. For the three month period ended March 31, 2008 and for the years ended December 31, 2007, 2006 and 2005, sales to customers that individually represented at least five percent of our revenues accounted for 64.8%, 37.1%, 40.9%, and 62.6% of our revenues, respectively.

We do not have purchase contracts with any of our customers that obligate them to continue to purchase our products, and they could cease purchasing products from us at any time. A delay in purchase or cancellation by any of our large customers could cause quarterly revenues to vary significantly. In addition, during a given quarter, a significant portion of our revenues may be derived from the sale of a relatively small number of systems. Our transparent film measurement systems range in average selling price from approximately \$250,000 to \$1.0 million per system, our opaque film measurement systems range in average selling price from approximately \$900,000 to \$2.0 million per system and our macro-defect inspection and probe card and test analysis systems range in average selling price from approximately \$250,000 to \$1.4 million per system. Accordingly, a small change in the number of systems we sell may also cause significant changes in our operating results. Because fluctuations in the timing of orders from our major customers or in the number of our individual systems we sell could cause our revenues to fluctuate significantly in any given quarter or year, we do not believe that period-to-period comparisons of our financial results are necessarily meaningful, and they should not be relied upon exclusively as an indication of our future performance.

A significant portion of our revenues has been derived from customers outside of the United States. In the three month period ended March 31, 2008, approximately 85.4% of our revenues were derived from customers outside of the United States, of which 67.3% were derived from customers in Asia and 18.1% were derived from customers in Europe. In 2007, approximately 77.1% of our revenues were derived from customers outside of the United States, of which 58.5% were derived from customers in Asia and 18.6% were derived from customers in Europe. In 2006, approximately 70.6% of our revenues were derived from customers outside of the United States, of which 59.9% were derived from customers in Asia and

10.7% were derived from customers in Europe. In 2005, approximately 77.5% of our revenues were derived from customers outside of the United States, of which 56.3% were derived from customers in Asia and 21.2% were derived from customers in Europe. We expect that revenues generated from customers outside of the United States will continue to account for a significant percentage of our revenues.

The sales cycle for our systems typically ranges from six to 15 months, and can be longer when our customers are evaluating new technology. Due to the length of these cycles, we invest significantly in research and development and sales and marketing in advance of generating revenues related to these investments. Additionally, the rate and timing of customer orders may vary significantly from month to month. Accordingly, if sales of our products do not occur when we expect, our expenses and inventory levels may increase relative to revenues and total assets.

Revenues. Our revenues are primarily derived from the sale of our systems, services, spare parts and software licensing. Our revenues were \$37.2 million for the three month periods ended March 31, 2008, compared to \$48.4 million for the three month periods ended March 31, 2007, representing an decrease of 23.0%.

The following table lists the different sources of our revenue (in thousands):

Three	Λ	1	Λn	the	En	ded
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March 31,

2008

2007

Revenue Type

Systems:

Metrology \$ 8,265 22%

\$ 11,127

23% Inspection 20,468 55%

24,891

51% Parts 3,904 11%

3,380

7% Services 3,304 9%

3,355

7% Software licensing 1,269 3%

5,603

12%

Total

\$ 37,210 100%

\$ 48,356

100%

The year-over-year decrease in systems revenue for the three month periods ended March 31, 2008 and 2007 is due to current weakness in the overall semiconductor industry and reflects a decrease in inspection systems revenues of \$4.4 million and a decrease in metrology systems revenue of \$2.9 million. Systems revenue generated by our latest product releases and major enhancements in each of our product families amounted to 42% of total revenues for the three month period ended March 31, 2008 compared to 24% of total revenues for the three month period ended March 31, 2007. The year-over-year increase in total parts and services revenue for the three month period ended March 31, 2008 and 2007 is primarily due to customers continuing to spend more on repair and maintenance of their existing equipment as well as parts revenues related to the our recent acquisitions. Parts and services revenues are generated from part sales, maintenance service contracts, system upgrades, as well as time and material billable service calls. The year-over-year decrease in software licensing revenues is primarily due to the sale of certain technology rights to Tokyo Electron in 2007.

Deferred revenues of \$8.8 million are recorded in other current liabilities at March 31, 2008 and primarily consist of \$5.2 million for deferred maintenance agreements and \$3.6 million for systems awaiting acceptance and outstanding deliverables.

Gross Profit. Our gross profit has been and will continue to be affected by a variety of factors, including inventory step-up from purchase accounting, manufacturing efficiencies, excess and obsolete inventory write-offs, pricing by competitors or suppliers, new product introductions, product sales mix, production volume, customization and reconfiguration of systems, international and domestic sales mix, and parts and service margins. Our gross profit was \$15.1 million for the three month period ended March 31, 2008, compared to \$26.3 million for the three month period ended March 31, 2007. Our gross profit represented 40.6% of our revenues for the three month period ended March 31, 2008 and 54.3% and of our revenues for the same period in the prior year. The decrease in gross profit as a percentage of revenue for the three month period ended March 31, 2008, compared to the three month period ended March 31, 2007 is primarily due to integration costs for the two recent acquisitions resulting in the write-off of obsolete inventory and inventory write-up charges on sold systems, product mix which contained lower software sales, and fixed manufacturing costs representing a larger component of cost of goods sold on a lower revenue base.

Research and Development. Our research and development expense was \$7.8 million for the three month period ended March 31, 2008, compared to \$8.7 million for the same period in the prior year. Research and development expense represented 21.0% of our revenues for the three month period ended March 31, 2008, compared to 17.9% of revenues for the same period in the prior year. The year-over-year dollar decrease for the three month period ended March 31, 2008 and 2007 in research and development expenses primarily reflects cost control initiatives and reprioritization of development programs, partially offset by the engineering teams acquired in our recent acquisitions. We anticipate research and development expense will be approximately 20-23% of revenues for the three month period ending June 30, 2008.

Selling, General and Administrative. Our selling, general and administrative expense was \$9.1 million for the three month period ended March 31, 2008, compared to \$8.8 million for the same periods in the prior year. Selling, general and administrative expense represented 24.4% of our revenues for the three month period ended March 31, 2008 compared to 18.1% of our revenues for the same period in the prior year. The year-over-year dollar increase for the three month periods ended March 31, 2008 and 2007 in selling, general and administrative expense was primarily due to administrative costs associated with the recent acquisitions. We currently anticipate that selling, general and administrative expenses will represent approximately 23-26% of revenue for the three month period ending June 30, 2008.

Interest income and other, net. Interest income and other, net was \$0.4 million for the three month period ended March 31, 2008, compared to \$1.0 million for the same periods in the prior year. The year-over-year decrease

in interest income and other, net was primarily attributable to a lower average cash and marketable securities balance and lower interest rates.

Income Taxes. Income tax benefit was \$1.4 million for the three month period ended March 31, 2008 compared to income tax expense of \$3.1 million for the same period in the prior year. Our effective tax rate for the three month period ended March 31, 2008 is 46%, compared to 36% in the prior year period. Our effective tax rate differs from the statutory rate of 35% primarily as a function of state and foreign income taxes offset by benefits from the domestic manufacturing production deduction and tax exempt interest.

Liquidity and Capital Resources

At March 31, 2008, we had \$59.2 million of cash, cash equivalents and marketable securities and \$175.5 million in working capital. At December 31, 2007, we had \$73.9 million of cash, cash equivalents and marketable securities and \$176.3 million in working capital.

Typically during periods of revenue growth, changes in accounts receivable and inventories represent a use of cash as we incur costs and expend cash in advance of receiving cash from our customers. Similarly, during periods of declining revenue, changes in accounts receivable and inventories represent a source of cash as inventory purchases decline and revenue from prior periods is collected. However, for the three months ended March 31, 2008, as our revenues declined our change in accounts receivable and inventories represented a use of cash. This was primarily due to increasing accounts receivable related to longer collection times and increasing inventory related to new products, the slow down in the back-end of the inspection business and system shipments awaiting acceptance.

Operating activities used \$5.4 million in cash and cash equivalents for the three month period ended March 31, 2008. The net cash and cash equivalents used in operating activities during the three month period ended March 31, 2008 was primarily a result of net loss, adjusted to exclude the effect of non-cash charges, of \$4.0 million and increases in inventories of \$6.8 million, accounts receivable of \$6.9 million, and prepaid expenses and other assets of \$2.7 million, partially offset by increases in accounts payable and accrued liabilities of \$3.2 million, and other current and non-current liabilities of \$3.7 million. Operating activities provided \$0.9 million in cash and cash equivalents for the three month period ended March 31, 2007. The net cash and cash equivalents provided by operating activities during the three month period ended March 31, 2007 was primarily a result of net income, adjusted to exclude the effect of non-cash charges, of \$8.6 million and a decrease in accounts receivable of \$2.2 million, partially offset by a decreases in accounts payable and accrued liabilities of \$2.8, other current and non-current liabilities of \$1.7 and an increase in inventories of \$5.3 million.

Net cash and cash equivalents used for investing activities during the three month period ended March 31, 2008 of \$3.9 million was due to acquisition costs for business combinations of \$8.6 million, purchases of marketable securities of \$5.9 million, and capital expenditures of \$1.4 million, offset by proceeds from sales of marketable securities of \$12.0 million. Net cash and cash equivalents used for investing activities during the three month period ended March 31, 2007 of \$18.6 million was due to purchases of marketable securities of \$24.6 million, capital expenditures of \$0.5 million and costs incurred for capitalized software of \$0.4 million, offset by proceeds from sales of marketable securities of \$6.8 million.

Net cash and cash equivalents provided by financing activities for the three month periods ended March 31, 2008 was due to proceeds received and tax benefit for sales of shares through share-based compensation plans. Net cash and cash equivalents provided by financing activities for the three month periods ended March 31, 2007 of \$0.8 million was due to proceeds received and tax benefit for sales of shares through share-based compensation plans.

From time to time we evaluate whether to acquire new or complementary businesses, products and/or technologies. We may fund all or a portion of the purchase price of these acquisitions in cash. On December 18, 2007,

we announced that our acquisition of the semiconductor division of Applied Precision Holdings, LLC had been completed. Under the terms of the agreement, we paid an aggregate of \$59.1 million in cash and issued an aggregate of 1.3 million shares of our common stock to Applied Precision Holdings, LLC. On January 22, 2008, we announced that we had acquired all intellectual property and selected assets from privately-held RVSI Inspection, LLC, headquartered in Hauppauge, New York. We will account for this acquisition as a business combination.

Our future capital requirements will depend on many factors, including the timing and amount of our revenues and our investment decisions, which will affect our ability to generate additional cash. We believe that our existing cash, cash equivalents and marketable securities will be sufficient to meet our anticipated cash requirements for working capital and capital expenditures for the foreseeable future. Thereafter, if cash generated from operations and financing activities is insufficient to satisfy our working capital requirements, we may seek additional funding through bank borrowings, sales of securities or other means. There can be no assurance that we will be able to raise any such capital on terms acceptable to us or at all.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

Interest Rate and Credit Market Risk

We are exposed to changes in interest rates and market liquidity primarily from our investments in certain available-for-sale securities. Our available-for-sale securities consist primarily of fixed income and variable rate income investments (U.S. Treasury and Agency securities asset-backed securities, mortgage-backed securities, auction rate securities, and corporate bonds). We continually monitor our exposure to changes in interest rates, market liquidity and credit ratings of issuers from our available-for-sale securities. It is possible that we are at risk if interest rates, market liquidity or credit ratings of issuers change in an unfavorable direction. The magnitude of any gain or loss will be a function of the difference between the fixed rate of the financial instrument and the market rate and our financial condition and results of operations could be materially affected. Based on sensitivity analysis performed on our financial investments held as of March 31, 2008, an immediate adverse change of 10% in interest rates (e.g. 3.00% to 3.30%) would result in a \$43 decrease in the fair value of our available for sale securities. As of March 31, we held \$3.1 million in municipal auction rate securities. We do not believe these securities are impaired currently and also believe we will sell them within the next twelve months.

Foreign Currency Risk

We have branch operations in Taiwan, Singapore, China and Korea and wholly-owned subsidiaries in Europe and Japan. Our international subsidiaries and branches operate primarily using local functional currencies. These foreign branches and subsidiaries are limited in their operations and level of investment so that the risk of currency fluctuations is not material. A substantial portion of our international sales are denominated in U.S. dollars with the exception of Japan and, as a result, we have relatively little exposure to foreign currency exchange risk with respect to these sales. Substantially all our sales in Japan are denominated in Japanese yen. From time to time, we may enter into forward exchange contracts to economically hedge a portion of, but not all, existing and anticipated foreign currency denominated transactions expected to occur within 12 months. The change in fair value of the forward contracts is recognized in the Consolidated Statements of Operations each reporting period. As of March 31, 2008, we had fourteen forward contracts outstanding with a total notional contract value of \$5.7 million. We do not use derivative financial instruments for trading or speculative purposes.

We conducted an evaluation of the effectiveness of the design and operation of our "disclosure controls and procedures," as defined in Rule 13a-15(e) or Rule 15d-15(e) under the Exchange Act, ("Disclosure Controls") as of the end of the period covered by this Quarterly Report. The controls evaluation was done under the supervision and with the participation of management, including our Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO").

Scope of the Controls Evaluation

The evaluation of our Disclosure Controls included a review of the controls' objectives and design, our implementation of the controls and the effect of the controls on the information generated for use in this Quarterly Report. In the course of the controls evaluation, we sought to identify data errors, control problems or acts of fraud and confirm that appropriate corrective actions, including process improvements, were being undertaken. This type of evaluation is performed on a quarterly basis so that the conclusions of management, including the CEO and CFO, concerning the effectiveness of the controls can be reported in our Quarterly Reports on Form 10-Q and in our Annual Reports on Form 10-K. Many of the components of our Disclosure Controls are also evaluated on an ongoing basis by other personnel in our accounting, finance and legal functions. The overall goals of these various evaluation activities are to monitor our Disclosure Controls and to modify them on an ongoing basis as necessary. A control system can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures. Because of inherent limitations in a cost effective control system, misstatements due to error or fraud may occur and not be detected.

Conclusions

As described in detail in Item 9A of our 2007 Form 10-K, our management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2007. Management's assessment identified one material weakness in internal control over financial reporting as of that date. This material weakness was identified in the process and procedures surrounding the preparation and review of the income tax provision. Because the remediation of the material weakness was not complete, our management, including our principal executive and principal financial officers, have concluded that our disclosure controls and procedures were not effective as of March 31, 2008.

We have implemented the following measures to address the material weakness and to enhance our internal control over financial reporting:

- 1. Obtain an understanding of the tax provision preparation and review procedures performed by our outside tax advisors.
- 2. Establish tax review meetings each quarter and at year-end with the external tax advisors and Rudolph management.
- 3. Complete quarterly and annual tax compliance checklist to ensure all relevant tax items are considered in the preparation of the tax provision.

Management believes that we have made substantial progress towards remediating the material weakness in our internal controls over financial reporting. Our testing and evaluation of the operating effectiveness and sustainability of these changes to our internal controls over financial reporting have not yet been completed as the above-referenced remediation actions are still in the implementation process. Therefore, the material weakness identified in the year ended December 31, 2007still exists as of March 31, 2008 and has caused our management to conclude that we did not maintain effective internal controls over financial reporting as of March 31, 2008. Notwithstanding the material weakness in our internal control over financial reporting that existed as of March 31, 2008, management believes that (i) the Quarterly Report on Form 10Q does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statement made, in light of the circumstances under which they were made, not misleading with respect to the periods covered by this Report and (ii) the financial statements, and other financial information included in this Report, fairly present in all material respects our financial condition, results of operations and cash flows as of, and for, the dates and periods presented in this Quarterly Report.

Changes in Internal Control over Financial Reporting

There has been no change in our internal control over financial reporting that occurred during the period covered by this Form 10-Q that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting, except for the activities described above.

PART II OTHER INFORMATION

Item 1. Legal Proceedings

A discussion regarding pending legal proceedings is included in Part 1, Item 3, "Legal Proceedings," included in our Annual Report on Form 10-K for the year ended December 31, 2007.

Item 1A. Risk Factors

There are no material changes from the risk factors as previously disclosed in our Annual Report on Form 10-K for the year 2007.

Item 6. Exhibits

Exhibit No. Description

2.1

Agreement and Plan of Merger, dated as of June 27, 2005, by and among the Registrant, NS Merger Sub, Inc. and August Technology Corporation (incorporated by reference to Exhibit 99.2 to the Company's Schedule 13D filed with the SEC on July 7, 2005).

- 2.2 Amendment No. 1, dated as of December 8, 2005, by and among the Registrant, NS Merger Sub, Inc. and August Technology Corporation, to the Agreement and Plan of Merger, dated as of June 27, 2005, by and among the Registrant, NS Merger Sub, Inc. and August Technology Corporation (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed with the SEC on December 9, 2005).
- 2.3 Asset Purchase Agreement dated as of December 18, 2007, by and among the Registrant, Mariner Acquisition Company LLC, Applied Precision Holding, LLC and Applied Precision, LLC (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed with the SEC on December 21, 2007).
 - 3.1 Restated Certificate of Incorporation of Registrant (incorporated herein by reference to Exhibit (3.1(b)) to the Registrant's Registration Statement on Form S-1, as amended (SEC File No.

333-86821 filed on September 9, 1999).

- 3.2 Amended and Restated Bylaws of Registrant (incorporated herein by reference to Exhibit (3.2(b) to the Registrant's Registration Statement on Form S-1, as amended (SEC File No. 333-86821), filed on September 9, 1999.
- 3.3 Amendment to Restated Bylaws of Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the Commission on February 15, 2006, No. 000-27965).
- 3.4 Amendment to Restated Bylaws of Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the Commission on August 1, 2007, No. 000-27965).

- 4.1 Rights Agreement (incorporated by reference to Exhibit 4.1 of the Registrant's Registration Statement on Form 8-A, filed with the Commission on June 28, 2005, No 000-27965).
- 4.2 August Technology Corporation 1997 Stock Incentive Plan (incorporated by reference to the Appendix to August Technology Corporation's Proxy Statement for its 2004 Annual Shareholders Meeting, filed with the Commission on March 11, 2004, No. 000-30637).
 - 10.14 Amended form of Restricted Stock Unit Purchase Agreement pursuant to the Rudolph Technologies, Inc. 1999 Stock Plan.
 - 31.1 Certification of Paul F. McLaughlin, Chief Executive Officer, pursuant to Securities Exchange Act Rule 13a-14(a).
 - 31.2 Certification of Steven R. Roth, Chief Financial Officer, pursuant to Securities Exchange Act Rule 13a-14(a).
- 32.1 Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, signed by Paul F. McLaughlin, Chief Executive Officer of Rudolph Technologies, Inc.
 - 32.2 Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, signed by Steven R. Roth, Chief Financial Officer of Rudolph Technologies, Inc.

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.

Rudolph Technologies, Inc.

Date: July 14, 2008 By: <u>/s/ Paul F. McLaughlin</u>

Date: July 14, 2008

Paul F. McLaughlin Chairman and Chief Executive Officer

By: /s/ Steven R. Roth

Steven R. Roth

Senior Vice President, Chief Financial Officer

and Principal Accounting Officer

EXHIBIT INDEX

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EXHIBIT 10.14

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Rudolph Technologies, Inc. Employee Restricted Stock Unit Purchase Agreement

THIS AGREEMENT, dated	, 200 (the " <u>Award Da</u>	ate"), is made between Rudolph Te	chnologies, Inc.,
a Delaware corporation, hereinafter referre	ed to as the "Company," a	and	(the
"Participant").			

1. <u>Definitions</u>. All capitalized terms used in this Agreement without definition shall have the meanings ascribed in Company's 1999 Stock Plan, as amended from time to time (the "Plan").

2. Award of Restricted Stock Units.

- (a) <u>Award</u>. In consideration of Participant's agreement to remain in the service or employ of Company or one of its Subsidiaries, and for other good and valuable consideration which the Committee has determined exceeds the aggregate par value of the shares of the common stock of Company (the "<u>Common Stock</u>") subject to the award described in this Agreement and Attachment I hereto (the "<u>Award</u>"), as of the Award Date, Company issues to Participant the Award. The number of Restricted Stock Units (the "<u>RSUs</u>") subject to the Award (which shall be subject to adjustment in accordance with Section 13 of the Plan) is set forth on Attachment I. Upon granting of the Award, all RSUs shall be issued to Participant's employee stock plan account established at the stock plan administration service determined by Company (the "<u>Stock Service</u>"). The current Stock Service is set forth in Attachment I.
- (b) <u>Purchase Price; Book Entry Form.</u> For the shares underlying the RSUs (the "<u>Shares</u>"), the purchase price is zero dollars (\$0.00) per Share. The Shares will be recorded in the name of Participant in the books and records of Company with appropriate notations regarding the Restrictions imposed pursuant to this Agreement. Upon vesting and the satisfaction of all conditions set forth in Sections 3(b) and 3(e), as appropriate, Company shall cause uncertificated Shares to be issued to Participant.

(c) <u>Plan</u>. The Award granted hereunder is subject to the terms and provisions of the Plan, including without limitation, Article 13 thereof. The Award shall constitute a Stock Purchase Right as described in Section 11 of the Plan.

Restrictions.

- (a) <u>Forfeiture</u>. Any Award which is not vested as of the date Participant ceases to be an employee of Company or one of its Subsidiaries or other Service Provider shall thereupon be forfeited immediately and without any further action by Company. For purposes of this Agreement, "<u>Restrictions</u>" shall mean the restrictions on sale or other transfer set forth in Section 6 and the exposure to forfeiture set forth in this Section 3(a) and Section 3(e)(v).
- (b) <u>Vesting and Lapse of Restrictions</u>. Subject to Sections 3(a) and 3(c), the Award shall vest and Restrictions shall lapse in accordance with the schedule set forth in Attachment I, provided in each case that Participant remains continuously as an employee or in the service of Company or a Subsidiary or otherwise as a Service Provider from the Award Date through such date and any other requirements set forth in Attachment I.
- (c) <u>Acceleration of Vesting</u>. Notwithstanding Section 3(b), the Award shall become fully vested and all Restrictions applicable to such Award shall lapse in the event of a merger of Company with or into another corporation, or the sale of substantially all of the assets of Company, and the successor corporation refuses to assume or substitute its stock for the Award at an equivalent value. Should the successor corporation assume the Award, then no acceleration shall apply.
- (d) <u>Tax Withholding: Issuance of Uncertificated Shares for Participants Domiciled Outside the U.S.</u> For Participants domiciled outside of the United States, the provisions set forth herein related to U.S. federal and/or state taxes do not apply. Uncertificated Shares shall be delivered to such Participant or his/her legal representative at the time the vesting requirements as defined herein have been satisfied. Participants domiciled outside the U.S. are advised to consult with a local tax advisor regarding the tax ramifications of the Award in their country of residence and assure compliance with such tax obligations.
- (e) <u>Tax Withholding; Conditions to Issuance of Uncertificated Shares for Participants Domiciled within the U.S.</u>. Notwithstanding any other provision of this Agreement (including without limitation Section 2(b)), for Participants domiciled in the United States:
- (i) No new uncertificated Shares shall be delivered to Participant or his/her legal representative unless and until Participant or his/her legal representative shall have paid to Company the full amount of all federal and state withholding or other taxes applicable to the taxable income of Participant resulting from the grant of the RSUs or the lapse or removal of the Restrictions (the "Taxes").
- (ii) Participants who are Section 16 Insiders of Company shall satisfy their tax obligations which arise upon the vesting of Shares pursuant to the Award in accordance with Section 3(e)(iv)(A). Participant's Section 16 Insider status is indicated on Attachment I.
- (iii) Prior to the initial vesting anniversary date, Participants who are \underline{not} Section 16 Insiders must notify the Stock Service of his/her election as to which of the following three (3) methods in Section 3(e)(iv) such Participant elects to be utilized to satisfy the tax obligations related to the vested Shares. In the event that such Participant does not so notify the Stock Service prior to the vesting anniversary date, the method set forth in Section 3(e)(iv)(C) below shall be applied. In the event such Participant desires to change his/her election after the initial vesting anniversary date, such Participant must notify the Stock Service of such change prior to the next vesting anniversary date, provided, however, that if no such notification is given the tax treatment in place as of the initial vesting anniversary date shall apply.
- (iv) The three (3) methods by which a Participant may pay the required amount of the Taxes are as follows:(A) Participant may pay the required amount via:
 - (1) a cash transfer to the Stock Service within five (5) days of the vesting anniversary date, or
- (2) a check made out to Rudolph Technologies, Inc.; (B) as of the vesting anniversary date, the Stock Service may sell all of the Shares vested on the anniversary date, apply the appropriate amount to the Taxes and transfer the remainder in cash to Participant; or (C) as of the vesting anniversary date, the Stock Service may sell a sufficient number of Shares vested on the anniversary date to cover the appropriate amount for the Taxes and the balance of Shares shall be retained in the Stock Service account on behalf of Participant. (v) If Participant elects or is required to satisfy the Taxes under Section 3(e)(iv)(A), all tax obligations must be paid within ninety (90) days of the vesting anniversary date. If such Taxes are not paid within the ninety (90) day timeframe, the amount of Shares vested on the most recent
- of the vesting anniversary date. If such Taxes are not paid within the ninety (90) day timeframe, the amount of Shares vested on the most rece anniversary date shall be forfeited immediately and without any further action by Company. (vi) In the event Participant elects the method under Section 3(e)(iv)(B) or 3(e)(iv)(C) above and it comes to the attention of Company that such election may conflict with the Rudolph Technologies, Inc. Insider Trading Compliance Program, Company reserves the right to override such election by Participant and require satisfaction of the tax obligations via the method detailed in Section 3(e)(iv)(A) above and shall notify Participant of same.
- 4. <u>Company Share Issuance Prerequisites</u>. Company shall not be required to issue or deliver any uncertificated Shares prior to the fulfillment of all of the following conditions: (a) the admission of the Shares to listing on all stock exchanges on which such Common Stock is then listed,
- (b) the completion of any registration or other qualification of the Shares under any state or federal law or under rulings or regulations of the Securities and Exchange Commission or other governmental regulatory body, which the Committee shall, in its sole and absolute

discretion, deem necessary and advisable,

- (c) the obtaining of any approval or other clearance from any state or federal governmental agency that the Committee shall, in its absolute discretion, determine to be necessary or advisable, and
- (d) the lapse of any such reasonable period of time following the date the Restrictions lapse as the Committee may from time to time establish for reasons of administrative convenience.
- 5. Section 83(b) Election. Participant understands that Section 83(a) of the Code taxes as ordinary income the difference between the amount, if any, paid for the Shares of Common Stock and the Fair Market Value of such Shares at the time the Restrictions on such Shares lapse. Participant understands that, notwithstanding the preceding sentence, Participant may elect to be taxed at the time of the Award Date, rather that at the time the Restrictions lapse, by filing an election under Section 83(b) of the Code (an "83(b) Election") with the Internal Revenue Service within thirty (30) days of the Award Date. In the event Participant files an 83(b) Election, Participant will recognize ordinary income in an amount equal to the difference between the amount, if any, paid for the Shares of Common Stock and the Fair Market Value of such Shares as of the Award Date. Participant further understands that an additional copy of such 83(b) Election form should be filed with his or her federal income tax return for the calendar year in which the date of this Agreement falls. Participant acknowledges that the foregoing is only a summary of the effect of United States federal income taxation with respect to the award of the RSUs hereunder, and does not purport to be complete. Participant further acknowledges that Company is not responsible for filing Participant's 83(b) Election AND THAT Company has directed Participant to seek independent advice regarding the applicable provisions of the INTERNAL REVENUE Code, income tax laws of any municipality, state or foreign country in which Participant may reside and the tax consequences of Participant's death. Should Participant file an 83(b) Election with the Internal Revenue Service, Participant agrees to provide Company with a copy of such 83(b) Election.
- 6. Restricted Stock Units Not Transferable. No RSUs or any interest or right therein or part thereof shall be liable for the debts, contracts or engagements of Participant or his/her successors in interest or shall be subject to disposition by transfer, alienation, anticipation, pledge, encumbrance, assignment or any other means whether such disposition be voluntary or involuntary or by operation of law by judgment, levy, attachment, garnishment or any other legal or equitable proceedings (including bankruptcy), and any attempted disposition thereof shall be null and void and of no effect; *provided, however*, that this Section 6 shall not prevent transfers by will or by applicable laws of descent and distribution.
- 7. <u>Rights as Stockholder</u>. Until Participant has satisfied all requirements for vesting and the satisfaction of all conditions set forth in Section 3 of this Agreement, Participant shall not be deemed to be a shareholder or to have any of the rights of a shareholder with respect to any Shares subject to the Award.
- 8. <u>Not a Contract of Employment</u>. Nothing in this Agreement or in the Plan shall confer upon Participant any right to continue to serve as an employee or other Service Provider of Company or any of its Subsidiaries.
- 9. <u>Governing Law.</u> The laws of the State of Delaware shall govern the interpretation, validity, administration, enforcement and performance of the terms of this Agreement regardless of the law that might be applied under principles of conflicts of laws.
- 10. <u>Conformity to Securities Laws</u>. Participant acknowledges that the Plan and this Agreement are intended to conform to the extent necessary with all provisions of the Securities Act of 1933, as amended, and the Exchange Act, and any and all regulations and rules promulgated thereunder by the Securities and Exchange Commission, including without limitation Rule 16b-3 under the Exchange Act. Notwithstanding anything herein to the contrary, the Plan shall be administered, and the Awards are granted, only in such a manner as to conform to such laws, rules and regulations. To the extent permitted by applicable law, the Plan and this Agreement shall be deemed amended to the extent necessary to conform to such laws, rules and regulations.
- 11. <u>Amendment, Suspension and Termination</u>. The Awards may be wholly or partially amended or otherwise modified, suspended or terminated at any time or from time to time by the Committee or the Board, *provided*, that, except as may otherwise be provided by the Plan, neither the amendment, suspension nor termination of this Agreement shall, without the consent of Participant, alter or impair any rights or obligations under any Award. 12. <u>Notices</u>. Notices required or permitted hereunder shall be given in writing and shall be deemed effectively given upon personal delivery or upon deposit in the United States mail by certified mail, with postage and fees prepaid, addressed to Participant to his/her address shown in Company records, and to Company at its principal executive office.

Participant represents that he/she has read this Agreement and the Plan and is familiar with the terms and provisions of each. Participant acknowledges that the Award is issued pursuant to, and is subject to the terms and conditions of, the Plan, and Participant will be bound by the terms of the Plan as if it were set forth verbatim in this Agreement. Participant agrees to comply with all rules Company may establish with respect to the Plan. Participant agrees to accept as binding, conclusive and final all decisions or interpretations of the Committee with respect to any questions arising under the Plan or this Agreement. Participant further acknowledges and agrees that this Agreement (and the Plan) constitutes the entire agreement between the parties with respect to the Award and that this Agreement (and the Plan) supersedes any and all prior agreements, whether written or oral, between the parties with respect to the Award.

IN WITNESS WHEREOF, this Agreement has been executed and delivered by the parties hereto as of the date first set forth above.

RUDOLPH TECHNOLOGIES, INC.	PARTICIPANT
Ву:	
Name: Title:	Name:

ATTACHMENT I

Participant Information:
Participant Name:
Participant Residence Address: < <street1>>></street1>
< <street2>></street2>
< <city>>, <<state>> <<zip>></zip></state></city>
< <country>></country>
Participant Section 16 Status: Participant
[] is [] is not a Section 16 Insider of Company.
Award Information:
Award Date:
Aggregate number of Restricted Stock Units subject to the Award:
Grant Number:
Vesting Schedule:
[] The Award shall vest and Restrictions shall lapse with respect to twenty percent (20%) of the Shares subject to the Award (rounded down to the next whole number of shares) on each of the first five (5) anniversaries of the Award Date.
[] The Award shall vest and Restrictions shall lapse with respect to

Additional Vesting Requirements:
Company Stock Plan Administration Service (the "Stock Service"):
Rudolph Technologies, Inc. Director Restricted Stock Unit Purchase Agreement
THIS AGREEMENT, dated, 200 (the "Award Date"), is made between Rudolph Technologies, Inc. a Delaware corporation, hereinafter referred to as the "Company," and (the "Participant").
1. <u>Definitions</u> . All capitalized terms used in this Agreement without definition shall have the meanings ascribed in Company's 1999 Stock Plan, as amended from time to time (the " <u>Plan</u> ").
2. <u>Award of Restricted Stock Units</u> .
(a) <u>Award</u> . In consideration of Participant's agreement to remain in the service as a Director of Company and for other good and valuable consideration which the Committee has determined exceeds the aggregate par value of the shares of the common stock of Company (the " <u>Common Stock</u> ") subject to the award described in this Agreement and Attachment I hereto (the " <u>Award</u> "), as of the Award Date, Company issues to Participant the Award. The number of Restricted Stock Units (the " <u>RSUs</u> ") subject to the Award (which shall be subject to adjustment in accordance with Section 13 of the Plan) is set forth on Attachment I. Upon granting of the Award, all RSUs shall be issued to Participant's employee stock plan account established at the stock plan administration service as determined by Company (the " <u>Stock Service</u> "). The current Stock Service is set forth in Attachment I.
(b) <u>Purchase Price: Book Entry Form</u> . For the shares underlying the RSUs (the " <u>Shares</u> "), the purchase price is zero dollars (\$0.00) per Share. The Shares will be recorded in the name of Participant in the books and records of Company with appropriate notations regarding the Restrictions imposed pursuant to this Agreement. Upon vesting and the satisfaction of all conditions set forth in Section 3(b), as appropriate, Company shall cause uncertificated Shares to be issued to Participant.
(c) <u>Plan</u> . The Award granted hereunder is subject to the terms and provisions of the Plan, including without limitation, Article 13 thereof. The Award shall constitute a Stock Purchase Right as described in Section 11 of the Plan.
3. <u>Restrictions</u> .
(a) <u>Forfeiture</u> . Any Award which is not vested as of the date Participant ceases to be a Director of Company or other Service Provider shall thereupon be forfeited immediately and without any further action by Company. For purposes of this Agreement, " <u>Restrictions</u> " shall mean the restrictions on sale or other transfer set forth in Section 6 and the exposure to forfeiture set forth in this Section 3(a).
(b) <u>Vesting and Lapse of Restrictions</u> . Subject to Sections 3(a) and 3(c), the Award shall vest and Restrictions shall lapse in accordance with

the schedule set forth in Attachment I, provided in each case that Participant remains continuously as a Director of Company or otherwise as a

Service Provider from the Award Date through such date and any other requirements set forth in Attachment I.

- (c) Acceleration of Vesting. Notwithstanding Sections 3(b), the Award shall become fully vested and all Restrictions applicable to such Award shall lapse in the event of a merger of Company with or into another corporation, or the sale of substantially all of the assets of Company, and the successor corporation refuses to assume or substitute its stock for the Award at an equivalent value. Should the successor corporation assume the Award, then no acceleration shall apply.
- (d) <u>Tax Withholding: Issuance of Uncertificated Shares for Participants Domiciled Outside the U.S.</u> For Participants domiciled outside of the United States, the provisions set forth herein related to U.S. federal and/or state taxes do not apply. Uncertificated Shares shall be delivered to such Participant or his/her legal representative at the time the vesting requirements as defined herein have been satisfied. Participants domiciled outside the U.S. are advised to consult with a local tax advisor regarding the tax ramifications of the Award in their country of residence and assure compliance with such tax obligations.
- (e) Tax Withholding; Conditions to Issuance of Uncertificated Shares for Participants Domiciled within the U.S.
- (i) For Participants domiciled in the United States, uncertificated Shares shall be delivered to Participant or his/her legal representative at such time as the vesting requirements as defined herein have been satisfied.
- (ii) Participant is fully responsible for all applicable tax obligations related to the vesting of the Shares, including but not limited to Participant's federal, state, and local income tax. It is acknowledged that Company shall not withhold any taxes related to the vesting of the Shares on behalf of Participant. Company shall issue to Participant a 1099 Form at year end coinciding with the vesting of the Shares hereunder.
- 4. <u>Company Share Issuance Prerequisites</u>. Company shall not be required to issue or deliver any uncertificated Shares prior to the fulfillment of all of the following conditions:
 - (a) the admission of the Shares to listing on all stock exchanges on which such Common Stock is then listed,
- (b) the completion of any registration or other qualification of the Shares under any state or federal law or under rulings or regulations of the Securities and Exchange Commission or other governmental regulatory body, which the Committee shall, in its sole and absolute discretion, deem necessary and advisable,
- (c) the obtaining of any approval or other clearance from any state or federal governmental agency that the Committee shall, in its absolute discretion, determine to be necessary or advisable, and
- (d) the lapse of any such reasonable period of time following the date the Restrictions lapse as the Committee may from time to time establish for reasons of administrative convenience.
- 5. Section 83(b) Election. Participant understands that Section 83(a) of the Code taxes as ordinary income the difference between the amount, if any, paid for the Shares of Common Stock and the Fair Market Value of such Shares at the time the Restrictions on such Shares lapse. Participant understands that, notwithstanding the preceding sentence, Participant may elect to be taxed at the time of the Award Date, rather that at the time the Restrictions lapse, by filing an election under Section 83(b) of the Code (an "83(b) Election") with the Internal Revenue Service within thirty (30) days of the Award Date. In the event Participant files an 83(b) Election, Participant will recognize ordinary income in an amount equal to the difference between the amount, if any, paid for the Shares of Common Stock and the Fair Market Value of such Shares as of the Award Date. Participant further understands that an additional copy of such 83(b) Election form should be filed with his or her federal income tax return for the calendar year in which the date of this Agreement falls. Participant acknowledges that the foregoing is only a summary of the effect of United States federal income taxation with respect to the award of the RSUs hereunder, and does not purport to be complete. Participant further acknowledges that Company is not responsible for filing Participant's 83(b) Election AND THAT Company has directed Participant to seek independent advice regarding the applicable provisions of the INTERNAL REVENUE Code, income tax laws of any municipality, state or foreign country in which Participant may reside and the tax consequences of Participant's death. Should Participant file an 83(b) Election with the Internal Revenue Service, Participant agrees to provide Company with a copy of such 83(b) Election. Should Participant make the 83(b) Election, Company shall issue to Participant a 1099 Form at year end coinciding with such election and not in accordance with Section 3(e)(ii) above.
- 6. Restricted Stock Units Not Transferable. No RSUs or any interest or right therein or part thereof shall be liable for the debts, contracts or engagements of Participant or his/her successors in interest or shall be subject to disposition by transfer, alienation, anticipation, pledge, encumbrance, assignment or any other means whether such disposition be voluntary or involuntary or by operation of law by judgment, levy, attachment, garnishment or any other legal or equitable proceedings (including bankruptcy), and any attempted disposition thereof shall be null and void and of no effect; provided, however, that this Section 6 shall not prevent transfers by will or by applicable laws of descent and distribution.7. Rights as Stockholder. Until Participant has satisfied all requirements for vesting and the satisfaction of all conditions set forth in Section 3 of this Agreement, Participant shall not be deemed to be a shareholder or to have any of the rights of a shareholder with

respect to any Shares subject to the Award.

- 8. <u>Not a Contract of Employment.</u> Nothing in this Agreement or in the Plan shall confer upon Participant any right to serve as an employee or other Service Provider of Company or any of its Subsidiaries.
- 9. <u>Governing Law.</u> The laws of the State of Delaware shall govern the interpretation, validity, administration, enforcement and performance of the terms of this Agreement regardless of the law that might be applied under principles of conflicts of laws.
- 10. <u>Conformity to Securities Laws</u>. Participant acknowledges that the Plan and this Agreement are intended to conform to the extent necessary with all provisions of the Securities Act of 1933, as amended, and the Exchange Act, and any and all regulations and rules promulgated thereunder by the Securities and Exchange Commission, including without limitation Rule 16b-3 under the Exchange Act. Notwithstanding anything herein to the contrary, the Plan shall be administered, and the Awards are granted, only in such a manner as to conform to such laws, rules and regulations. To the extent permitted by applicable law, the Plan and this Agreement shall be deemed amended to the extent necessary to conform to such laws, rules and regulations.
- 11. <u>Amendment, Suspension and Termination</u>. The Awards may be wholly or partially amended or otherwise modified, suspended or terminated at any time or from time to time by the Committee or the Board, *provided*, that, except as may otherwise be provided by the Plan, neither the amendment, suspension nor termination of this Agreement shall, without the consent of Participant, alter or impair any rights or obligations under any Award.
- 12. Notices. Notices required or permitted hereunder shall be given in writing and shall be deemed effectively given upon personal delivery or upon deposit in the United States mail by certified mail, with postage and fees prepaid, addressed to Participant to his/her address shown in Company records, and to Company at its principal executive office. Participant represents that he/she has read this Agreement and the Plan and is familiar with the terms and provisions of each. Participant acknowledges that the Award is issued pursuant to, and is subject to the terms and conditions of, the Plan, and Participant will be bound by the terms of the Plan as if it were set forth verbatim in this Agreement. Participant agrees to comply with all rules Company may establish with respect to the Plan. Participant agrees to accept as binding, conclusive and final all decisions or interpretations of the Committee with respect to any questions arising under the Plan or this Agreement. Participant further acknowledges and agrees that this Agreement (and the Plan) constitutes the entire agreement between the parties with respect to the Award and that this Agreement (and the Plan) supersedes any and all prior agreements, whether written or oral, between the parties with respect to the Award.

IN WITNESS WHEREOF, this Agreement has been executed and delivered by the parties hereto as of the date first set forth above.

RUDOLPH TECHNOLOGIES, INC.	PARTICIPANT	
By:		
Name:	Name:	
Title:		

ATTACHMENT I

Participant Information:	
Participant Name:	
Participant Residence Address:	< <street>></street>
	< <street2>></street2>
	< <city>>>, <<state>> <<zip>></zip></state></city>
	< <country>></country>
Participant Section 16 Status:	Participant
[] is [] is not a Section 16 Insider	of Company.
Award Information:	
Award Date:	
Award to Director is an: [] In	nitial Grant [] Annual Grant [] Other Grant
Aggregate number of Restricted S	tock Units subject to the Award:
Grant Number:	<u> </u>
Vesting Schedule:	
	nall vest and Restrictions shall lapse with respect to fifty percent (50%) of the Share the first two (2) anniversaries of the Award Date.
[] Annual Grant: The Award shall ves Award on the first anniversary of the Awa	st and Restrictions shall lapse with respect to one hundred percent (100%) of the Shares subject to the ard Date.
[] Other Grant: The Award sh	nall vest and Restrictions shall lapse with respect to

Additional Vesting Requirements:	
4	
Stock Plan Administration Service (the "Stock Service"): _	
, , <u>, , , , , , , , , , , , , , , , , </u>	

EXHIBIT 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Paul F. McLaughlin, certify that:

- 1. I have reviewed this quarterly report on Form 10-Q/A of Rudolph Technologies, Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to
 be designed under our supervision, to ensure that material information relating to the registrant,
 including its consolidated subsidiaries, is made known to us by others within those entities, particularly
 during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

- c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
- d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: July 14, 2008

By:
/s/
Paul
F.
McLaughlin

McLaughin

Paul
F.
McLaughlin
Chairman
and
Chief
Executive
Officer

EXHIBIT 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Steven R. Roth, certify that:

- 1. I have reviewed this quarterly report on Form 10-Q/A of Rudolph Technologies, Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to
 be designed under our supervision, to ensure that material information relating to the registrant,
 including its consolidated subsidiaries, is made known to us by others within those entities, particularly
 during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: July 14, 2008

By:
/s/
Steven
R.
Roth
Steven
R.
Roth
Senior
Vice
President,
Chief
Financial

Officer

EXHIBIT 32.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Paul F. McLaughlin, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report of Rudolph Technologies, Inc. on Form 10-Q for the quarter ended March 31, 2008 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Quarterly Report on Form 10-Q/A fairly presents in all material respects the financial condition and results of operations of Rudolph Technologies, Inc.

Date: July 14, 2008 By: _/s/ Paul F. McLaughlin

Paul F. McLaughlin Chairman and Chief Executive Officer

A signed original of this written statement required by Section 906 has been provided to Rudolph Technologies, Inc. and will be retained by Rudolph Technologies, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

EXHIBIT 32.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Steven R. Roth, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report of Rudolph Technologies, Inc. on Form 10-Q for the quarter

ended March 31, 2008 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Quarterly Report on Form 10-Q/A fairly presents in all material respects the financial condition and results of operations of Rudolph Technologies, Inc.

Date: July 14, 2008

By: /s/ Steven R. Roth

Steven R. Roth

Senior Vice President, Chief Financial Officer

A signed original of this written statement required by Section 906 has been provided to Rudolph Technologies, Inc. and will be retained by Rudolph Technologies, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.