

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

FORM 10-Q

(Mark One)

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

FOR THE QUARTERLY PERIOD ENDED JUNE 30, 2004

OR

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

COMMISSION FILE NUMBER: 0-26824

TEGAL CORPORATION  
(EXACT NAME OF REGISTRANT AS SPECIFIED IN ITS CHARTER)

DELAWARE 68-0370244  
(STATE OR OTHER JURISDICTION OF (I.R.S. EMPLOYER IDENTIFICATION NO.)  
INCORPORATION OR ORGANIZATION)

2201 SOUTH MCDOWELL BLVD.  
PETALUMA, CALIFORNIA 94954  
(Address of Principal Executive Offices)

TELEPHONE NUMBER (707) 763-5600  
(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 reports) and (2) has been subject to such filing  
requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant is an accelerated filer (as  
defined in Rule 12b-2 of the Exchange List. Yes  No

As of August 12, 2004 there were 46,557,672 shares of our common stock  
outstanding.

TEGAL CORPORATION AND SUBSIDIARIES

INDEX

<TABLE>  
<CAPTION>

PAGE

PART I. FINANCIAL INFORMATION

	<C>
ITEM 1. CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Unaudited)	
Condensed Consolidated Balance Sheets as of June 30, 2004 and March 31, 2004.....	3
Condensed Consolidated Statements of Operations -- for the three months ended June 30, 2004 and 2003.....	4
Condensed Consolidated Statements of Cash Flows -- for the three months ended June 30, 2004 and 2003.....	5
Notes to Condensed Consolidated Financial Statements.....	6
ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.....	12
ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.....	15

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS..... 16  
 ITEM 2. CHANGES IN SECURITIES AND USE OF PROCEEDS..... 16  
 ITEM 5. OTHER INFORMATION..... 17  
 ITEM 6. EXHIBITS AND REPORTS ON FORM 8-K..... 26  
 SIGNATURES..... 27  
 </TABLE>

PART I -- FINANCIAL INFORMATION

ITEM 1. CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

TEGAL CORPORATION AND SUBSIDIARIES  
 CONDENSED CONSOLIDATED BALANCE SHEETS  
 (UNAUDITED)  
 (IN THOUSANDS)

ASSETS

<TABLE>  
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	JUNE 30, 2004	MARCH 31, 2004	
	-----	-----	
	<C>	<C>	
<b>Current assets:</b>			
Cash and cash equivalents.....	\$ 4,657	\$ 7,049	
Accounts receivable, net of allowances for sales returns and doubtful accounts of \$284 and \$270 at June 30, 2004 and March 31, 2004, respectively.....		3,034	4,729
Inventories.....	3,457	3,719	
Prepaid expenses and other current assets.....		568	905
	-----	-----	
Total current assets.....	11,716	16,402	
Property and equipment, net.....		3,895	4,039
Intangible assets, net.....	2,064	1,190	
Other assets.....	928	1,027	
	-----	-----	
Total assets.....	\$ 18,603	\$ 22,658	

LIABILITIES AND STOCKHOLDERS' EQUITY

<b>Current liabilities:</b>			
Notes payable and bank lines of credit.....	\$ 196	\$ 2,450	
2% Convertible debentures, net.....		74	
Accounts payable.....	1,768	1,645	
Accrued product warranty.....	312	366	
Deferred revenue.....	180	440	
Accrued expenses and other current liabilities.....	2,822	2,604	
	-----	-----	
Total current liabilities.....	5,278	7,579	
Long-term portion of capital lease obligations.....		23	26
Other long term obligations.....	86	98	
	-----	-----	
Total long term liabilities.....	109	124	
	-----	-----	
Total liabilities.....	5,387	7,703	
<b>Commitments and contingencies (Note 6) Stockholders' equity:</b>			
Preferred stock; \$0.01 par value; 5,000,000 shares authorized; none issued and outstanding.....			--
Common stock; \$0.01 par value; 100,000,000 shares authorized; 44,183,297 and 36,583,850 shares issued and outstanding at June 30, 2004 and March 31, 2004, respectively.....		442	366
Additional paid-in capital.....	89,862	85,376	
Accumulated other comprehensive income.....		148	124
Accumulated deficit.....	(77,236)	(70,911)	
	-----	-----	
Total stockholders' equity.....	13,216	14,955	
	-----	-----	
Total liabilities and stockholders' equity.....	\$ 18,603	\$ 22,658	

</TABLE>

See accompanying notes.

3

TEGAL CORPORATION AND SUBSIDIARIES  
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS  
(UNAUDITED)  
(IN THOUSANDS, EXCEPT PER SHARE DATA)

	THREE MONTHS ENDED JUNE 30,	
	2004	2003
Revenue:		
Product .....	\$ 3,034	\$ 3,542
Services .....	407	343
Total revenue .....	3,441	3,885
Cost of revenue:		
Cost of product .....	2,177	2,492
Cost of services .....	464	356
Total cost of revenue .....	2,641	2,848
Gross profit .....	800	1,037
Operating expenses:		
Research and development .....	1,126	703
Sales and marketing .....	650	612
General and administrative .....	1,601	1,036
In-process research and development .....	1,653	--
Total operating expenses .....	5,030	2,351
Operating loss .....	(4,230)	(1,314)
Other income (expense), net .....	(2,095)	60
Net loss .....	\$ (6,325)	\$ (1,254)
Net loss per share, basic and diluted .....	\$ (0.15)	\$ (0.08)
Shares used in per share computations:		
Basic .....	41,812	16,092
Diluted .....	41,812	16,092

See accompanying notes.

4

TEGAL CORPORATION AND SUBSIDIARIES  
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS  
(UNAUDITED)  
(IN THOUSANDS)

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	THREE MONTHS ENDED JUNE 30,	
	2004	2003
Cash flows from operating activities:		
Net loss .....	\$(6,325)	\$(1,254)
Adjustments to reconcile net loss to cash used in operating activities:		
Depreciation and amortization .....	338	338
Allowance for doubtful accounts and sales return allowances .....	14	60

<S>

<C> <C>

Non cash interest expense - accretion of debt discount and amortization of debt issuance costs	2,019	--
In-process research and development .....	1,653	--
Issuance of options for services rendered .....	39	32
Changes in operating assets and liabilities:		
Receivables .....	1,727	(1,411)
Inventories .....	269	905
Prepaid expenses and other assets .....	193	(166)
Accounts payable .....	121	275
Accrued product warranty .....	(58)	(17)
Accrued expenses and other liabilities .....	(152)	852
Deferred revenue .....	(260)	209
	-----	-----
Net cash used in operating activities .....	(422)	(177)
	-----	-----
Cash flows from investing activities:		
Purchases of property and equipment .....	(20)	(17)
	-----	-----
Net cash used in investing activities .....	(20)	(17)
	-----	-----
Cash flows from financing activities:		
Proceeds from the issuance of convertible debentures .....	--	424
Proceeds from the issuance of common stock .....	335	--
Borrowings under lines of credit .....	43	178
Repayment of borrowings under lines of credit .....	(2,297)	(92)
Payments on capital lease financing .....	(5)	(2)
	-----	-----
Net cash (used in) provided by financing activities .....	(1,924)	508
	-----	-----
Effect of exchange rates on cash and cash equivalents .....	(26)	(64)
	-----	-----
Net decrease in cash and cash equivalents .....	(2,392)	250
Cash and cash equivalents at beginning of period .....	7,049	912
	-----	-----
Cash and cash equivalents at end of period .....	\$ 4,657	\$ 1,162
	=====	=====

</TABLE>

SUPPLEMENTAL SCHEDULE OF NON CASH INVESTING ACTIVITIES (IN THOUSANDS):

On May 28, 2004, Tegal purchased substantially all of the assets and assumed certain liabilities of First Derivative Systems, Inc. ("FDSI") for 1,410,632 shares of common stock, \$150 in debt forgiveness, approximately \$50 in assumed liabilities, and \$158 in acquisition costs, pursuant to a purchase agreement dated April 28, 2004. The purchase price was allocated as follows:

Fair value fixed assets acquired .....	\$ 111
Non compete agreements .....	203
Patents .....	733
In-process research and development .....	1653
Debt forgiveness .....	(150)
Assumed liabilities .....	(50)
	-----
	\$ 2,500
	=====

See accompanying notes.

TEGAL CORPORATION AND SUBSIDIARIES

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS  
(UNAUDITED)  
(ALL AMOUNTS IN THOUSANDS, EXCEPT SHARE DATA)

1. BASIS OF PRESENTATION:

In the opinion of management, the unaudited condensed consolidated interim financial statements have been prepared on the same basis as the March 31, 2004 audited consolidated financial statements and include all adjustments, consisting only of normal recurring adjustments, necessary to fairly state the information set forth herein. The statements have been prepared in accordance

with the regulations of the Securities and Exchange Commission (the "SEC"), but omit certain information and footnote disclosures necessary to present the statements in accordance with generally accepted accounting principles. These interim financial statements should be read in conjunction with the consolidated financial statements and footnotes included in the Annual Report on Form 10-K of Tegal Corporation (the "Company") for the fiscal year ended March 31, 2004. The results of operations for the three months ended June 30, 2004 are not necessarily indicative of results to be expected for the entire year.

The consolidated financial statements contemplate the realization of assets and the satisfaction of liabilities in the normal course of business. The Company incurred net losses of \$6,325 and \$1,254 for the periods ended June 30, 2004 and 2003, respectively, generated negative cash flows from operations of \$422 and \$177 in these periods, and has a cash and cash equivalents balance of \$4,657 at June 30, 2004. Our past performance raised substantial doubt as to our ability to continue as a going concern, and our independent registered public accounting firm included a going concern uncertainty explanatory paragraph in their report dated June 25, 2004, which is included in our Form 10-K for the year ended March 31, 2004. Management believes that proceeds from the debenture financing in fiscal year 2004 and additional funds which may be available to the Company through the issuance of stock under the structured secondary financing with Kingsbridge Capital, Ltd., will be adequate to fund operations through fiscal year 2005, including the continued development of recently acquired products. However, projected sales may not materialize and unforeseen costs may be incurred. If the projected sales do not materialize, the Company will need to reduce expenses further and raise additional capital through the issuance of debt or equity securities. If additional funds are raised through the issuance of preferred stock or debt, these securities could have rights, privileges or preferences senior to those of common stock, and debt covenants could impose restrictions on the Company's operations. The sale of equity or debt could result in additional dilution to current stockholders, and such financing may not be available to the Company on acceptable terms, if at all. The consolidated financial statements do not include any adjustments relating to the recoverability and classification of recorded assets or the amount or classification of liabilities or any other adjustments that might be necessary should the Company be unable to continue as a going concern.

#### CONCENTRATION OF CREDIT RISK

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist primarily of temporary cash investments and accounts receivable. Substantially all of the Company's temporary investments are invested in highly liquid money market funds. The Company's accounts receivables are derived primarily from sales to customers located in the U.S., Europe, and Asia. The Company performs ongoing credit evaluations of its customers and generally requires no collateral. The Company maintains reserves for potential credit losses. Write-offs during the periods presented have been insignificant. As of June 30, 2004 two customers accounted for approximately 38 percent of the accounts receivable balance. As of June 30, 2003 one customer accounted for approximately 49 percent of the accounts receivable balance.

During the quarter ended June 30, 2004 two customers accounted for 34 percent of total revenues. During the quarter ended June 30, 2003 one customer accounted for 49 percent of total revenues.

#### 2. INVENTORIES:

Inventories consisted of:

	JUNE 30, 2004	MARCH 31, 2004
	-----	-----
Raw materials .....	\$1,266	\$1,563
Work in progress .....	1,370	1,147
Finished goods and spares .....	821	1,009
	-----	-----
	\$3,457	\$3,719
	=====	=====

### 3. PRODUCT WARRANTY:

The Company provides a warranty on all system sold, and the estimated warranty liability is based on actual experience by system type. The warranty obligation is affected by product failure rates, material usage rates, and the efficiency by which the product failure is corrected. Should actual product failure rates, material usage rates and labor efficiencies differ from estimates, revisions to the estimated warranty liability may be required.

Warranty activity for the three-month period ended June 30, 2004 and 2003 was:

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	WARRANTY ACTIVITY		WARRANTY ACTIVITY	
	FOR THE THREE		FOR THE THREE	
	MONTHS ENDED		MONTHS ENDED	
	JUNE 30, 2004	JUNE 30, 2003		
	-----	-----		
<S>	<C>	<C>		
Balance at the beginning of the period.....	\$ 366	\$ 734		
Additional warranty accruals for warranties issued during the period.....		133	120	
Settlements made during the period.....	(187)	(103)		
	-----	-----		
Balance at the end of the period.....	\$ 312	\$ 751		
	=====	=====		

</TABLE>

Certain of the Company's sales contracts include provisions under which customers would be indemnified by the Company in the event of a third-party claim against the customer for intellectual property rights infringement related to the Company's products. There are no limitations on the maximum potential future payments under these guarantees. The Company has accrued no amounts in relation to these provisions as no such claims have been made and the Company believes it has valid, enforceable rights to the intellectual property embedded in its products.

### 4. NET LOSS PER COMMON SHARE:

Basic earnings per share ("EPS") is calculated by dividing net income (loss) for the period by the weighted average common shares outstanding for that period. Diluted EPS takes into account the number of additional common shares that would have been outstanding if the dilutive potential common shares ("common stock equivalents") had been issued.

Common stock equivalents for the three months ended June 30, 2004 and 2003 were 8,120,760 and 3,235,736, respectively, and have been excluded from shares used in calculating diluted loss per share because their effect would be antidilutive.

### 5. STOCK-BASED COMPENSATION:

The Company accounts for stock-based employee compensation under the recognition and measurement principles of Accounting Principles Board Opinion No. 25, Accounting for Stock Issued to Employees, (APB No. 25) and related interpretations. Under APB No. 25, compensation cost is equal to the difference, if any, on the date of grant between the fair value of the Company's stock and the amount an employee must pay to acquire the stock. SFAS No. 123, Accounting for Stock-based Compensation, established accounting and disclosure requirements using a fair value based method of accounting for stock-based employee compensation plans. As allowed by SFAS No. 123, the Company has elected to continue to apply the intrinsic value based method of accounting described above, and has adopted the disclosure requirements of SFAS No. 123 and related SFAS No. 148, Accounting for Stock-Based Compensation - Transition and Disclosure.

The following table illustrates the effect on net income (loss) and net income (loss) per share if the Company had applied the fair value recognition provisions of SFAS No. 123 to stock-based compensation (in thousands, except per share data):

<TABLE>  
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THREE MONTHS ENDED  
JUNE 30,  
2004 2003

<S>	-----	-----
	<C>	<C>
Net loss as reported .....	\$(6,325)	\$(1,254)
Deduct: Total stock-based employee compensation expense .....	(358)	(36)
determined under fair value method for all awards, net of tax		
Proforma net loss .....	\$(6,683)	\$(1,290)
	=====	=====
Basic net loss per share:		
As reported .....	(0.15)	(0.08)
	=====	=====
Proforma .....	(0.16)	(0.08)
	=====	=====

</TABLE>

The Company accounts for stock-based employee compensation arrangements in accordance with Accounting Principles Board Opinion No. 25, Accounting for Stock Issued to Employees, (APB No. 25) and related interpretations, and complies with the disclosure provisions of SFAS No. 123, Accounting for Stock-based Compensation and SFAS No. 148 Accounting for Stock-Based Compensation - Transition and Disclosure. The disclosure provisions of SFAS No. 123 and SFAS No. 148 require judgments by management as to the estimated lives of the outstanding options. Management has based the estimated life of the options on historical option exercise patterns. If the estimated life of the options increases, the valuation of the options will increase as well.

During the quarter ending June 30, 2004, in connection with a review of the Company's strategy and operations, it issued to certain consultants options and warrants to purchase 58,333 shares of the Company's common stock to various service providers for services rendered. The options and warrants were valued at \$72 using the Black-Scholes model with an exercise price at the market value on the day of the grant. The life of the warrants is five years with an interest rate of 5% and the volatility of 124%. A portion of these warrants were included in other assets and will be amortized to expense over the service term for each contract. Additionally the Company entered into a contract with certain consultants for the Company to issue warrants on a monthly basis in lieu of cash payments for the next two years, dependant upon the continuation of the contract and the achievement of certain performance goals. These warrants will be valued and expensed on a monthly basis upon issuance.

#### 6. LINES OF CREDIT:

On January 19, 2004, the Company entered into a line of credit facility with Silicon Valley Bank that will be available until January 19, 2005. The line of credit has a maximum borrowing capacity of \$3,500, bears interest at prime plus 1.0% (5% as of June 30, 2004), is collateralized by substantially all of the Company's domestic and Japanese assets, and is further limited by the amounts of accounts receivable and inventories on the Company's consolidated balance sheets. As of June 30, 2004, the Company had no amounts outstanding under this domestic line of credit.

In addition, as of June 30, 2004, the Company's Japanese subsidiary had \$87 outstanding under its line of credit, which is collateralized by Japanese customer promissory notes held by the Japanese subsidiary in advance of payment on customers' accounts receivable. The Japanese line of credit bears interest at Japanese prime (1.375% as of June 30, 2004) plus 1.0%, and has a total capacity of 150 million yen (approximately \$1,384 at exchange rates prevailing on June 30, 2004).

In addition, notes payable as of June 30, 2004 consisted of one outstanding note to the California Trade and Commerce Agency for \$109. The unsecured note from the California Trade and Commerce Agency carries an annual interest rate of 5.75% with monthly payments of approximately \$4 per month. Although the payment deadlines are being met, the note is currently in technical default due to the merger of Sputtered Films and Tegal Corporation. The default could result in the California Trade and Commerce Agency calling the note; therefore, this note payable is classified as a current liability.

## 7. COMPREHENSIVE INCOME (LOSS):

The components of comprehensive loss for the three-month periods ended June 30, 2004 and 2003 are as follows:

	THREE MONTHS ENDED JUNE 30,	
	2004	2003
Net loss .....	\$ (6,325)	\$(1,254)
Foreign currency translation adjustment	24	(37)
	<u>\$ (6,301)</u>	<u>\$(1,291)</u>

## 8. ACQUISITION:

On May 28, 2004, Tegal purchased substantially all of the assets and assumed certain liabilities of First Derivative Systems, Inc. ("FDSI") for 1,410,632 shares of common stock valued at \$2,342, \$150 in debt forgiveness, approximately \$50 in assumed liabilities, and \$158 in acquisition costs, pursuant to a purchase agreement dated April 28, 2004. All of the shares of common stock are subject to a registration rights agreement in which the Company has agreed to register the shares with the Securities and Exchange Commission for resale. In addition, the Company entered into employment agreements with key FDSI personnel. FDSI, a privately held development stage company based in Goleta, CA, was founded in 1999 as a spin-off of Sputtered Films, Inc., which itself was acquired by Tegal in August 2002. FDSI had developed a high-throughput, low cost-of-ownership physical vapor deposition ("PVD") system with highly differentiated technology for leading edge memory and logic device production on 200 and 300 millimeter wafers. This transaction was accounted for as a purchase of assets in accordance with EITF Issue No. 98-3, "Determining whether a nonmonetary transaction involves receipt of productive assets or of a business.

The following table represents the preliminary allocation of the purchase price for FDSI. In estimating the fair value of assets acquired and liabilities assumed management considered various factors, including an independent appraisal.

Fair value fixed assets acquired ..	\$ 111
Non compete agreements .....	203
Patents .....	733
In-process research and development	1653
Debt forgiveness .....	(150)
Assumed liabilities .....	(50)
	<u>\$ 2,500</u>

The assets will be amortized over a period of years shown on the following table:

Fixed assets acquired.....	3 to 5 years
Non compete agreements.....	3 years
Patents.....	15 years

The fair value underlying the \$1,653 assigned to acquired in-process research and development ("IPR&D") in the FDSI acquisition was charged to the Company's results of operations during the quarter ended June 30, 2004, and was determined by identifying research projects in areas for which technological feasibility had not been established and there was no alternative future use. Projects in the IPR&D category are primarily certain design change improvements, software integration and hardware modifications, which are estimated to cost approximately \$1 - \$2 million, are approximately 50% complete, and will be completed by December 31, 2005.

The IPR&D value of \$1,653 was determined by an income approach where fair



value is the present value of projected free cash flows that will be generated by the products incorporating the acquired technologies under development, assuming they are successfully completed. The estimated net free cash flows generated by the products over a seven-year period were discounted at a rate of 32% in relation to the stage of completion and the technical risks associated with achieving technological feasibility. The net cash flows for such projects were based on management's estimates of revenue, expenses and asset requirements. Any delays or failures in the completion of these projects could impact expected return on investment and future results of operations. In addition, the Company's operating results would be adversely affected if the value of other intangible assets acquired became impaired.

All of these projects have completion risks related to functionality, architecture, performance, process technology, continued availability of key technical personnel, product reliability and software integration. To the extent that estimated completion dates are not met, the risk of competitors' product introductions is greater and revenue opportunity may be permanently lost.

#### 9. CONVERTIBLE DEBENTURE FINANCING:

On June 30, 2003, the Company signed definitive agreements with investors to raise up to \$7,165 in a private placement of convertible debt financing to be completed in two tranches. The first tranche, which closed on June 30, 2003, involved the sale of debentures in the principal amount of \$929. The Company received \$424 in cash on June 30, 2003 and the remaining balance of \$505 on July 1, 2003, which was recorded as an other receivable as of June 30, 2003. The closing of the second tranche, which occurred on September 9, 2003 following shareholder approval on September 8, 2003, resulted in the receipt of approximately \$6,236 in gross proceeds on September 10, 2003.

The Company was required to pay a cash fee of up to 6.65% of the gross proceeds of the debentures to certain financial advisors upon the closing of the second tranche. A fee of \$448 was recorded as a debt issuance cost and was paid in September 2003. The financial advisors also were granted warrants to purchase 1,756,127 shares of the Company's common stock at an exercise price of \$0.35 per share. These warrants were valued at \$1,387 using the Black-Scholes option pricing model with the following variables: stock fair value of \$0.93, term of five years, volatility of 95% and risk-free interest rate of 2.5%. During fiscal year ended March 31, 2004, the financial advisors exercised warrants for 1,536,605 shares (plus 23,393 warrants remitted as payments for stock under a cash-less exercise provision of the warrant agreement), leaving advisor warrants for 196,129 shares unexercised at the end of the fiscal year. From April 1, 2004 through June 30, 2004, no additional advisor warrants had been exercised and there remained 196,129 shares unexercised.

The debentures accrued interest at the rate of 2% per annum. Both the principal and accrued interest thereon of these debentures were convertible at the rate of \$0.35 per share. The principal of the debentures converted into 20,471,428 shares of the Company's common stock. The closing prices of the Company's common stock on June 30, 2003 and September 9, 2003, the closing dates for the first and second tranches, were \$0.55 and \$1.49. Therefore, a beneficial conversion feature existed which was accounted for under the provisions of EITF 00-27, Application of Issue 98-5 to Certain Convertible Instruments. A beneficial feature also existed in connection with the conversion of the interest on the debentures into shares of common stock.

As of June 30, 2004, debenture holders had converted all the debentures in the principal amount of \$7,165 into 20,471,428 shares of the Company's common stock. Of the 3,542,436 shares that were registered for payment of interest in-kind, 135,068 shares had been issued for such interest payments, and the interest obligation to the debenture holders had been satisfied in full.

In addition, the debenture holders were granted warrants to purchase 4,094,209 shares of the Company's common stock at an exercise price of \$0.50. The warrants expire after eight years. The warrants were valued using the Black-Scholes model with the following variables: fair value of common stock of \$0.35 for the first tranche debentures and \$0.93 for the second tranche debentures, volatility of 37% and risk-free interest rate of 2.5%. The debenture holders had exercised warrants to purchase 2,239,832 shares (plus 168,695 warrants remitted as payments for stock under a cash-less exercise provision of

the warrant agreement) of the Company's common stock. As of June 30, 2004, there remained unexercised warrants held by the debenture holders for 1,685,682 of the Company's common stock.

The relative fair value of the warrants has been classified as equity with the beneficial conversion feature because it meets all the equity classification criteria of EITF 00-19, Accounting for Derivative Financial Instruments Indexed to, and Potentially Settled in, a Company's Own Stock.

The value of the beneficial conversion feature, warrants and debt issuance costs were amortized as interest expense over the life of the debt using the effective interest method. Related interest expense for the quarter ended June 30, 2004 amounted to \$2,019. This amount is comprised of nominal interest, amortization of beneficial conversion feature and amortization of debt issuance costs.

10

The debt issuance costs associated with the debentures amounted to \$2,369 and are comprised of \$982 in cash issuance costs and \$1,387 associated with warrants issued to financial advisors. Approximately \$603 of these costs were allocable to the warrants and were therefore charged to equity. The remaining balance of \$1,766 was recorded as an asset and was amortized over the life of the debt. As of June 30, 2004 the debentures had been fully converted, therefore these costs have been fully expensed.

#### 9. SUBSEQUENT EVENTS:

##### CHANGES IN THE COMPANY'S CERTIFYING ACCOUNTANT

On July 8, 2004, the Audit Committee of the Board of Directors of Tegal Corporation (the "Company") dismissed PricewaterhouseCoopers LLP, the Company's independent registered public accounting firm. The Company decided to change accounting firms in order to reduce costs as part of the Company's ongoing efforts to reduce operating expenses.

PricewaterhouseCoopers LLP reports on the consolidated financial statements of the Company as of, and for the years ended, March 31, 2004 and 2003 contained no adverse opinion or disclaimer of opinion and were not qualified or modified as to uncertainty, audit scope or accounting principle, except for an explanatory paragraph included in each of such reports which explanatory paragraph identified factors raising substantial doubt about the Company's ability to continue as a going concern.

During the period from April 1, 2002 through July 8, 2004, there were no disagreements with PricewaterhouseCoopers LLP on any matter of accounting principles or practices, financial statement disclosure or auditing scope or procedure, which disagreements, if not resolved to the satisfaction of PricewaterhouseCoopers LLP, would have caused PricewaterhouseCoopers LLP to make reference thereto in its reports on the consolidated financial statements of the Company as of and for the years ended March 31, 2004 and 2003.

On July 8, 2004, the Audit Committee of the Board of Directors of the Company appointed Moss Adams LLP as its new independent registered public accounting firm as of July 9, 2004.

During the two most recent fiscal years and through July 9, 2004, neither the Company nor anyone on its behalf consulted Moss Adams LLP regarding either the application of accounting principles to a specified transaction, either completed or proposed, or the type of audit opinion that might be rendered on the Company's consolidated financial statements, nor has Moss Adams LLP provided to the Company a written report or oral advice regarding such principles or audit opinion.

##### ISSUANCE OF COMMON STOCK TO KINGSBRIDGE CAPITAL LIMITED

Subsequent to June 30, 2004, the Company issued to Kingsbridge Capital, Ltd. a total of 2,372,689 shares of its common stock in connection with the Amended and Restated Common Stock Purchase Agreement dated as of May 19, 2004. Gross proceeds from the sale of stock were \$2,600.

##### ISSUANCE OF WARRANTS TO CONSULTANTS

On August 4, 2004, the Company issued warrants to purchase 240,000 shares of common stock at \$1.08 per share to consultants for services to be rendered over a period of two years.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Information herein contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, which can be identified by the use of forward-looking terminology such as "may," "will," "expect," "anticipate," "estimate," or "continue" or the negative thereof or other variations thereon or comparable terminology or which constitute projected financial information. The forward-looking statements relate to the near-term semiconductor capital equipment industry outlook, demand for our products, our quarterly revenue and earnings prospects for the near-term future and other matters contained herein. Such statements are based on current expectations and beliefs and involve a number of uncertainties and risks that could cause the actual results to differ materially from those projected. Such uncertainties and risks include, but are not limited to, the cyclical nature of the semiconductor industry, impediments to customer acceptance, fluctuations in quarterly operating results, competitive pricing pressures, the introduction of competitor products having technological and/or pricing advantages, product volume and mix and other risks detailed from time to time in our SEC reports. For further information, refer to the business description and risk factors sections included in our Form 10-K for the year ended March 31, 2004 and the risk factors section included in this Form 10-Q (Part II, Item 5) as filed with the SEC.

The following summarizes our contractual obligations at June 30, 2004, and the effect such obligations are expected to have on our liquidity and cash flows in future periods (in thousands) excluding 2% convertible debentures which were fully redeemed June 15, 2004:

Contractual obligations:

<TABLE>  
<CAPTION>

	LESS THAN			AFTER		
	TOTAL	1 YEAR	1-3 YEARS	3-5 YEARS	5 YEARS	
	-----	-----	-----	-----	-----	
<S>	<C>	<C>	<C>	<C>	<C>	
Non-cancelable capital lease obligations .	\$ 34	\$ 11	\$ 22	\$ 1	\$ --	
Non-cancelable operating lease obligations	5,369	902	2,010	1,892	565	
Notes payable and bank lines of credit ...	196	196	--	--	--	
	-----	-----	-----	-----	-----	
Total contractual cash obligations .....	\$5,599	\$1,109	\$2,032	\$1,893	\$ 565	
	=====	=====	=====	=====	=====	

</TABLE>

Certain sales contracts of the Company include provisions under which customers would be indemnified by the Company in the event of, among other things, a third-party claim against the customer for intellectual property rights infringement related to the Company's products. There are no limitations on the maximum potential future payments under these guarantees. The Company has accrued no amounts in relation to these provisions as no such claims have been made and the Company believes it has valid, enforceable rights to the intellectual property embedded in its products.

RESULTS OF OPERATIONS

Tegal designs, manufactures, markets and services plasma etch and deposition systems that enable the production of integrated circuits ("ICs"), memory and related microelectronics devices used in personal computers, wireless voice and data telecommunications, contact-less transaction devices, radio frequency identification devices ("RFID's"), smart cards, data storage and micro-level actuators. Etching and deposition constitute two of the principal IC and related device production process steps and each must be performed numerous times in the production of such devices.

The following table sets forth certain financial items as a percentage of

revenue for the three-month period ended June 30, 2004 and 2003:

12

	THREE MONTHS ENDED JUNE 30,	
	2004	2003
Revenue:		
Product revenue .....	88.2%	91.2%
Services revenue .....	11.8	8.8
	----	----
Total revenue .....	100.0	100.0
Cost of sales:		
Cost of product .....	63.3	64.1
Cost of services .....	13.5	9.2
	----	----
Total cost of sales .....	76.8	73.3
	----	----
Gross profit .....	23.2	26.7
Operating expenses:		
Research and development .....	32.7	18.1
Sales and marketing .....	18.9	15.8
General and administrative .....	46.5	26.8
In-process research and development .....	48.0	--
	----	----
Total operating expenses .....	146.1	60.7
	----	----
Operating loss .....	(122.9)	(34.0)
Other income (expense), net .....	(60.9)	1.5
	----	----
Net loss .....	(183.8)	(32.5)
	=====	=====

Product Revenue. Revenue for the three months ended June 30, 2004 was \$3,034, a decrease of \$508 or 14.3% over the comparable period in 2003. The decrease for the three months ended June 30, 2004 was principally due to the sale of a used 6500 series system compared to the sale of a new system in the prior period offset in part by the recognition of deferred revenue in the current period. Revenue for the three months ended June 30, 2003 was \$3,542, an increase of \$247 or 7.5% over the comparable period in 2002. The increase for the three months ended June 30, 2003 was principally due to the sale of three fewer 900 series systems offset by one more 6500 series systems over the same period in the prior year.

Services Revenue. Revenue from service sales was \$407 for the three month period ended June 30, 2004, up from \$343 for the three month period ended June 30, 2003, which we believe is a result of customers' increased use of our systems resulting from increased production volume.

International sales as a percentage of our revenue were approximately 66% and 82% for the three months ended June 30, 2004 and 2003, respectively. We believe that international sales will continue to represent a significant portion of our revenue.

Gross profit. Gross profit as a percentage of revenue (gross margin) was 23% and 27% for the three months ended June 30, 2004 and 2003, respectively. The decrease in gross margin for the three months ended June 30, 2004, compared to the same period in the prior year, was principally attributable the different product mix in the current quarter which resulted in lower average selling prices.

Research and development. Research and development expenses consist primarily of salaries, prototype material and other costs associated with our ongoing systems and process technology development, applications and field process support efforts. Research and development expenses were \$1,126 and \$703 for the three months ended June 30, 2004 and 2003, respectively, representing 33% and 18% of revenue, respectively. The increase in research and development spending resulted from new product development efforts related to the Company's recent acquisitions.

Sales and marketing. Sales and marketing expenses consist primarily of salaries, commissions, trade show promotion and travel and living expenses associated with those functions. Sales and marketing expenses were relatively flat year over year at \$650 and \$612 for the three months ended June 30, 2004 and 2003, respectively, representing 19% and 16% of revenue, respectively.

General and administrative. General and administrative expenses consist primarily of compensation for general management, accounting and finance, human resources, information systems and investor relations functions and for legal, consulting and accounting fees of the Company. General and administrative expenses were \$1,601 and \$1,036 for the three months ended June 30, 2004 and 2003, respectively, representing 47% and 27% of revenue, respectively. The increase in spending was primarily due to legal fees for the registration of acquired patents and payments in cash and amortization of warrants to outside consultants.

13

Other income (expense), net. Other expense, net consists principally of, interest income, interest expense and gains and losses on foreign exchange. We recorded net non-operating expense of \$2,095 and a non-operating income of \$60 during the three months ended June 30, 2004 and 2003, respectively. Interest expense was \$2,066 for the three months ended June 30, 2004 compared to interest expense of \$22 for the same period a year ago. The increase of interest expense in the current quarter was primarily attributable to the accretion of the debt discount and the amortization of the debt issuance costs related to the debenture financing (see Note 9).

#### LIQUIDITY AND CAPITAL RESOURCES

For the three-month periods ended June 30, 2004 and 2003, we financed our operations through the use of outstanding cash balances and borrowings against our credit facilities in Japan, as well as our domestic line of credit.

Net cash used in operations was \$422 during the three months ended June 30, 2004, due principally to a net loss of \$6,325 offset by non cash expense from depreciation and amortization, warrants issued for services rendered, and non cash interest expense, and a non cash charge for acquired IPR&D related to the FDSI acquisition. Additionally, the net loss is offset by a net decrease in inventory and accounts receivable and an increase in accounts payable, offset by a decrease of accrued liabilities and deferred revenue in prepaid expenses and other assets.

Capital expenditures were negligible for the three months ended June 30, 2004.

Net cash used in financing activities totaled \$1,924 for the three months ended June 30, 2004 and was primarily related to the repayment of the domestic line of credit and the partial repayment of the Japanese borrowing.

On January 19, 2004, the Company entered into a line of credit facility with Silicon Valley Bank that will be available until January 19, 2005. The line of credit has a maximum borrowing capacity of \$3,500, bears interest at prime plus 1.0% (5% as of June 30, 2004), is collateralized by substantially all of the Company's domestic and Japanese assets, and is further limited by the amounts of accounts receivable and inventories on the Company's consolidated balance sheets. As of June 30, 2004, the Company had no amounts outstanding under this domestic line of credit.

In addition, as of June 30, 2004, the Company's Japanese subsidiary had \$87 outstanding under its line of credit which is collateralized by Japanese customer promissory notes held by such subsidiary in advance of payment on customers' accounts receivable. The Japanese bank line bears interest at Japanese prime (1.375% as of June 30, 2004) plus 1.0%, and has a total capacity of 150 million yen (approximately \$1,384 at exchange rates prevailing on June 30, 2004).

In addition, notes payable as of June 30, 2004 consisted of one outstanding note to the California Trade and Commerce Agency for \$109. The unsecured note from the California Trade and Commerce Agency carries an annual interest rate of 5.75% with monthly interest only payments of approximately \$4

per month. Although the payment deadlines are being met, the note is currently in technical default due to the merger of Sputtered Films and Tegal Corporation. The default could result in the California Trade and Commerce Agency calling the note, therefore, this note payable is classified as a current liability.

The consolidated financial statements contemplate the realization of assets and the satisfaction of liabilities in the normal course of business. The Company incurred net losses of \$6,325 and \$1,254 for the periods ended June 30, 2004 and 2003, respectively, generated negative cash flows from operations of \$422 and \$177 in these periods, and has a cash and cash equivalents balance of \$4,657 at June 30, 2004. Our past performance raised substantial doubt as to our ability to continue as a going concern, and our independent registered public accounting firm included a going concern uncertainty explanatory paragraph in their report dated June 25, 2004, which is included in our Form 10-K for the year ended March 31, 2004. Management believes that proceeds from the debenture financing in fiscal year 2004 and additional funds which may be available to the Company through the issuance of stock under the structured secondary financing with Kingsbridge Capital, Ltd., will be adequate to fund operations through fiscal year 2005, including the continued development of recently acquired products. However, projected sales may not materialize and unforeseen costs may be incurred. If the projected sales do not materialize, the Company will need to reduce expenses further and raise additional capital through the issuance of debt or equity securities. If additional funds are raised through the issuance of preferred stock or debt, these securities could have rights, privileges or preferences senior to those of common stock, and debt covenants could impose restrictions on the Company's operations. The sale of equity or debt could result in additional dilution to current stockholders, and such financing may not be available to the Company on acceptable terms, if at all. The consolidated financial statements do not include any adjustments relating to the recoverability and classification of recorded assets or the amount or classification of liabilities or any other adjustments that might be necessary should the Company be unable to continue as a going concern.

14

For more information on our capital resources, see "Risk Factors" in Part II, Item 5.

### ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Our cash equivalents are principally comprised of money market accounts. As of June 30, 2004, we had cash and cash equivalents of \$4,657. These accounts are subject to interest rate risk and may fall in value if market interest rates increase. We attempt to limit this exposure by investing primarily in short-term securities having a maturity of three months or less. Due to the nature of our cash and cash equivalents, we have concluded that there is no material market risk exposure.

We have foreign subsidiaries that operate and sell our products in various global markets. As a result, our cash flow and earnings are exposed to fluctuations in interest and foreign currency exchange rates. We attempt to limit these exposures through the use of various hedge instruments, primarily forward exchange contracts and currency option contracts (with maturities of less than three months) to manage our exposure associated with firm commitments and net asset and liability positions denominated in non-functional currencies. There have been no material changes regarding market risk since the disclosures made in our Form 10-K for the fiscal year ended March 31, 2004.

### ITEM 4. CONTROLS AND PROCEDURES

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and, in reaching reasonable level of assurance management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

During the period from April 1, 2002 through June 30, 2004, there were no reportable events, as that term is defined in Item 304(a)(1)(v) of Regulation S-K, except for a reportable condition related to the Company's accounting for its 2% Convertible Debentures Due 2011 (the "2% Convertible Debentures") together with related debt issuance costs; and the expertise of the Company's accounting personnel with respect to generally accepted accounting principles related to complex financing and other transactions. In response to the reportable condition, the Company restated its financial results and filed an amended quarterly report on Form 10-Q/A for the quarter ended December 31, 2003 which corrected an error in the accounting for the 2% Convertible Debentures and related debt issuance costs. The restatement reflected increased interest expense, net loss, net loss per share, accumulated deficit and additional paid-in capital as well as decreased current assets. The restatement did not impact any reported revenue, operating expenses or operating loss.

Management believes that the reportable condition has been remediated. As of June 15, 2004, all of the Company's 2% Convertible Debentures had been converted into the Company's common stock. In addition, the Company expanded and enhanced its accounting function to include sufficient knowledge of generally accepted accounting principles related to complex financing and other transactions by adding a new certified public accountant to the Company's accounting staff on June 15, 2004.

As of June 30, 2004, as required by SEC Rule 13a-15(b), the Company carried out an evaluation, under the supervision and with the participation of the Company's management, including the Company's Chief Executive Officer and the Company's Chief Financial Officer, of the effectiveness of the design and operation of the Company's disclosure controls and procedures as of the end of the quarter covered by this report. Based on the foregoing, the Company's Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures were effective at the reasonable assurance level.

Other than that which has been disclosed above, there has been no change in the Company's internal controls over financial reporting during the Company's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the Company's internal controls over financial reporting.

## PART II -- OTHER INFORMATION

### ITEM 1. LEGAL PROCEEDINGS

Sputtered Films, Inc. v. Advanced Modular Sputtering, et al., filed in Santa Barbara County Superior Court.

Our subsidiary, Sputtered Films, Inc. ("SFI") filed an action against two former employees, Sergey Mishin and Rose Stuart-Curran, and the company they formed after leaving SFI, Advanced Modular Sputtering ("AMS"), alleging misappropriation of trade secrets, violation of signed employee Secrecy Agreements, unfair business practices and other claims arising out of AMS's apparent possession and use of SFI's drawings and specifications for SFI's Endeavor Sputtering System and the Series IV S-Gun. SFI believes that the tools marketed by AMS result from unauthorized use of SFI's drawings, specifications and other trade secret technology. The case was filed in December 2003. The Court recently issued a stringent protective order regarding information revealed during the litigation, and the parties are in the early stages of discovery. A trial date is anticipated in mid 2005.

### ITEM 2. CHANGES IN SECURITIES AND USE OF PROCEEDS

On June 30, 2003, the Company entered into agreements with investors to raise up to \$7,165 in a private placement to institutional and individual investors of (i) an aggregate of \$7,165 in principal amount of 2% convertible debentures, convertible into common stock at \$0.35 per share and (ii) warrants to purchase 4,094,224 shares of common stock, exercisable at \$0.50 per share. The first tranche of approximately \$929 of the private placement was completed on June 30, 2003 and the second tranche was completed on September 9, 2003 following shareholder approval. The proceeds were used for general corporate purposes. This transaction was effected in reliance on Rule 506 of Regulation D

under the Securities Act.

On December 5, 2003, the Company closed a transaction in which it purchased substantially all of the assets of Simplus Systems Corporation, a Delaware corporation, in exchange for 1,499,994 shares of common stock. The transaction was effected in reliance on Regulation D under the Securities Act.

On February 11, 2004, the Company signed a \$25 million equity facility with Kingsbridge Capital Limited ("Kingsbridge"). The arrangement will allow the Company to sell shares of common stock to Kingsbridge at the Company's sole discretion over a 24-month period on a "when and if needed" basis. Kingsbridge is required under the terms of the arrangement to purchase stock following the effectiveness of a registration statement. The price of the common shares issued under the agreement is based on a discount to the volume-weighted average market price during a specified drawdown period. The Company has no obligation to draw down all or any portion of the commitment. The maximum amount of shares that may be issued to Kingsbridge under the equity facility is 8,851,661. In connection with the agreement, on February 11, 2004, the Company issued fully vested warrants to Kingsbridge to purchase 300,000 shares of common stock at an exercise price of \$4.11 per share. The Company intends to use any proceeds from such sale to Kingsbridge to finance acquisitions, including any product development activity related to such acquisitions. This transaction was effected in reliance on Regulation D under the Securities Act.

During the period March 16, 2004 through August 8, 2004, the Company issued options and warrants to purchase 1,040,000 of common stock to various consultants for services to be provided over a one-to-three year period, as well as for the achievement of certain pre-determined goals and objectives. These included: (i) on March 16, 2004, the issuance of options to purchase 50,000 shares of common stock at an exercise price of \$1.87; (ii) on May 18, 2004, the issuance of options and warrants to purchase 30,000 shares of common stock at an exercise price of \$1.32; (iii) on May 27, 2004, the issuance of warrants to purchase common stock at \$1.60 per share; (iv) on June 1, 2004, the issuance of warrants to purchase 480,000 shares at \$1.64 per share; and (v) on August 8, 2004, the issuance of warrants to purchase 240,000 shares of common stock at \$1.08 per share. The issuance of these securities was exempt from registration under the Securities Act pursuant to Section 4(2) thereof.

On May 28, 2004, Tegal purchased substantially all of the assets of First Derivative Systems, Inc. ("FDSI") for 1,410,632 shares of common stock and approximately \$200 in assumed liabilities, pursuant to a purchase agreement dated April 28, 2004. All of the shares of common stock are subject to a registration rights agreement in which the Company has agreed to register the shares with the Securities and Exchange Commission for resale. This transaction was effected in reliance on Regulation D.

16

#### ITEM 5. OTHER INFORMATION - CHANGES IN THE COMPANY'S CERTIFYING ACCOUNTANT

On July 8, 2004, the Audit Committee of the Board of Directors of Tegal Corporation (the "Company") dismissed PricewaterhouseCoopers LLP, the Company's independent registered public accounting firm. The Company decided to change accounting firms in order to reduce costs as part of the Company's ongoing efforts to reduce operating expenses.

PricewaterhouseCoopers LLP reports on the consolidated financial statements of the Company as of, and for the years ended, March 31, 2004 and 2003 contained no adverse opinion or disclaimer of opinion and were not qualified or modified as to uncertainty, audit scope or accounting principle, except for an explanatory paragraph included in each of such reports which explanatory paragraph identified factors raising substantial doubt about the Company's ability to continue as a going concern.

During the period from April 1, 2002 through July 8, 2004, there were no disagreements with PricewaterhouseCoopers LLP on any matter of accounting principles or practices, financial statement disclosure or auditing scope or procedure, which disagreements, if not resolved to the satisfaction of PricewaterhouseCoopers LLP, would have caused PricewaterhouseCoopers LLP to make reference thereto in its reports on the consolidated financial statements of the Company as of and for the years ended March 31, 2004 and 2003.



On July 8, 2004, the Audit Committee of the Board of Directors of the Company appointed Moss Adams LLP as its new independent registered public accounting firm as of July 9, 2004.

During the two most recent fiscal years and through July 9, 2004, neither the Company nor anyone on its behalf consulted Moss Adams LLP regarding either the application of accounting principles to a specified transaction, either completed or proposed, or the type of audit opinion that might be rendered on the Company's consolidated financial statements, nor has Moss Adams LLP provided to the Company a written report or oral advice regarding such principles or audit opinion.

## RISK FACTORS

WE HAVE INCURRED OPERATING LOSSES AND MAY NOT BE PROFITABLE IN THE FUTURE; OUR PLANS TO MAINTAIN AND INCREASE LIQUIDITY MAY NOT BE SUCCESSFUL; THE REPORT OF THE INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM INCLUDES A GOING CONCERN UNCERTAINTY EXPLANATORY PARAGRAPH; THE ACCOUNTING FOR THE 2% CONVERTIBLE DEBENTURES RESULTED IN SIGNIFICANT EXPENSE AMOUNTS.

We incurred net losses of \$6,325 and \$1,254 for the periods ended June 30, 2004 and 2003, respectively, generated negative cash flows from operations of \$422 and \$177 in these periods, and has a cash and cash equivalents balance of \$4,657 at June 30, 2004. Our past performance raised substantial doubt as to our ability to continue as a going concern, and our independent registered public accounting firm included a going concern uncertainty explanatory paragraph in their report dated June 25, 2004, which is included in our Form 10-K for the year ended March 31, 2004. Management believes that proceeds from the debenture financing in fiscal year 2004 and additional funds which may be available to the Company through the issuance of stock under the structured secondary financing with Kingsbridge Capital, Ltd., will be adequate to fund operations through fiscal year 2005, including the continued development of recently acquired products. However, projected sales may not materialize and unforeseen costs may be incurred. If the projected sales do not materialize, the Company will need to reduce expenses further and raise additional capital through the issuance of debt or equity securities. If additional funds are raised through the issuance of preferred stock or debt, these securities could have rights, privileges or preferences senior to those of common stock, and debt covenants could impose restrictions on the Company's operations. The sale of equity or debt could result in additional dilution to current stockholders, and such financing may not be available to the Company on acceptable terms, if at all. The consolidated financial statements do not include any adjustments relating to the recoverability and classification of recorded assets or the amount or classification of liabilities or any other adjustments that might be necessary should the Company be unable to continue as a going concern.

THE EXERCISE OF OUTSTANDING WARRANTS, OPTIONS AND OTHER RIGHTS TO OBTAIN ADDITIONAL SHARES WILL DILUTE THE VALUE OF THE SHARES.

As of June 30, 2004, there were debenture holder warrants exercisable for approximately 1,685,682 shares and advisor warrants exercisable into 196,129 shares of our common stock. In addition, we have warrants outstanding from previous offerings for approximately 2,378,840 shares of our common stock.

The exercise of these warrants and the issuance of the common stock will result in dilution in the value of the shares of our outstanding common stock and the voting power represented thereby. In addition, the exercise price of the warrants may be lowered under the price adjustment provisions in the event of a "dilutive issuance," that is, if we issue common stock at any time prior to their maturity at a per share price below such conversion or exercise price, either directly or in connection with the issuance of securities that are convertible into, or exercisable for, shares of our common stock. A reduction in the exercise price may result in the issuance of a significant number of additional shares upon the exercise of the warrants.

The warrants do not establish a "floor" that would limit reductions in such conversion price or exercise price. The downward adjustment of the exercise price of these warrants could result in further dilution in the value of the shares of our outstanding common stock and the voting power represented thereby.

SALES OF SUBSTANTIAL AMOUNTS OF OUR SHARES OF COMMON STOCK COULD CAUSE THE PRICE OF OUR COMMON STOCK TO GO DOWN.

To the extent the holders of our convertible securities and warrants convert or exercise such securities and then sell the shares of our common stock they receive upon conversion or exercise, our stock price may decrease due to the additional amount of shares available in the market. The subsequent sales of these shares could encourage short sales by our stockholders and others which could place further downward pressure on our stock price. Moreover, holders of these convertible securities and warrants may hedge their positions in our common stock by shorting our common stock, which could further adversely affect our stock price. The effect of these activities on our stock price could increase the number of shares issuable upon future conversions of our convertible securities or exercises of our warrants.

We received stockholder approval to increase the number of authorized shares of common stock to 100,000,000 shares. We may issue additional capital stock, convertible securities and/or warrants to raise capital in the future. In addition, to attract and retain key personnel, we may issue additional securities, including stock options. All of the above could result in additional dilution of the value of our common stock and the voting power represented thereby. No prediction can be made as to the effect, if any, that future sales of shares of our common stock, or the availability of shares for future sale, will have on the market price of our common stock prevailing from time to time. Sales of substantial amounts of shares of our common stock in the public market, or the perception that such sales could occur, may adversely affect the market price of our common stock and may make it more difficult for us to sell our equity securities in the future at a time and price which we deem appropriate. Public or private sales of substantial amounts of shares of our common stock by persons or entities that have exercised options and/or warrants could adversely affect the prevailing market price of the shares of our common stock.

THE SEMICONDUCTOR INDUSTRY IS CYCLICAL AND MAY EXPERIENCE PERIODIC DOWNTURNS THAT MAY NEGATIVELY AFFECT CUSTOMER DEMAND FOR OUR PRODUCTS AND RESULT IN LOSSES SUCH AS THOSE EXPERIENCED IN THE PAST.

Our business depends upon the capital expenditures of semiconductor manufacturers, which in turn depend on the current and anticipated market demand for integrated circuits. The semiconductor industry is highly cyclical and historically has experienced periodic downturns, which often have had a detrimental effect on the semiconductor industry's demand for semiconductor capital equipment, including etch and deposition systems manufactured by us. During periods of a prolonged industry slow-down, we would have to initiate a substantial cost containment program and complete a corporate-wide restructuring to preserve our cash. However, the need for continued investment in research and development, possible capital equipment requirements and extensive ongoing customer service and support requirements worldwide will continue to limit our ability to reduce expenses in response to the any downturn.

OUR COMPETITORS HAVE GREATER FINANCIAL RESOURCES AND GREATER NAME RECOGNITION THAN WE DO AND THEREFORE MAY COMPETE MORE SUCCESSFULLY IN THE SEMICONDUCTOR CAPITAL EQUIPMENT INDUSTRY THAN WE CAN.

We believe that to be competitive, we will require significant financial resources in order to offer a broad range of systems, to maintain customer service and support centers worldwide and to invest in research and development. Many of our existing and potential competitors, including, among others, Applied Materials, Inc., Lam Research Corporation, Novellus and Tokyo Electron Limited, have substantially greater financial resources, more extensive engineering, manufacturing, marketing and customer service and support capabilities, larger installed bases of current generation etch, deposition and other production equipment and broader process equipment offerings, as well as greater name recognition than we do. We cannot assure you that we will be able to compete successfully against these companies in the United States or worldwide.

IF WE FAIL TO MEET THE CONTINUED LISTING REQUIREMENTS OF THE NASDAQ STOCK MARKET, OUR STOCK COULD BE DELISTED.

Our stock is currently listed on The Nasdaq SmallCap Market. The Nasdaq Stock Market's Marketplace Rules impose certain minimum financial requirements on us for the continued listing of our stock. One such requirement is the minimum bid price on our stock of \$1.00 per share. Beginning in 2002, there have been periods of time during which we have been out of compliance with the \$1.00

minimum bid requirements of The Nasdaq SmallCap Market.

18

On September 6, 2002, we received notification from Nasdaq that for the 30 days prior to the notice, the price of our common stock had closed below the minimum \$1.00 per share bid price requirement for continued inclusion under Marketplace Rule 4450(a)(5) (the "Rule"), and were provided 90 calendar days, or until December 5, 2002, to regain compliance. Our bid price did not close above the minimum during that period. On December 6, 2002, we received notification from Nasdaq that our securities would be delisted from The Nasdaq National Market, the exchange on which our stock was listed prior to May 6, 2003, on December 16, 2002 unless we either (i) applied to transfer our securities to The Nasdaq SmallCap Market, in which case we would be afforded additional time to come into compliance with the minimum \$1.00 bid price requirement; or (ii) appealed the Nasdaq staff's determination to the Nasdaq's Listing Qualifications Panel (the "Panel"). On December 12, 2002 we requested an oral hearing before the Panel and such hearing took place on January 16, 2003 in Washington, D.C. Our appeal was based, among other things, on our intention to seek stockholder approval for a reverse split of our outstanding common stock. On April 28, 2003 at a special meeting of our stockholders, our board of directors was granted the authority to effect a reverse split of our common stock within a range of two-for-one to fifteen-for-one. This authority was reaffirmed by our stockholders at the Annual Meeting on September 8, 2003. The timing and ratio of a reverse split, if any, is at the sole discretion of our board of directors, but it must have been completed on or before December 2, 2003. On May 6, 2003, we transferred the listing of our common stock to The Nasdaq SmallCap Market. In connection with this transfer, and by additional notice, Nasdaq granted us an extension until December 31, 2003, to regain compliance with the Rule's minimum \$1.00 per share bid price requirement for continued inclusion on The Nasdaq SmallCap Market. On September 16, 2003, the bid price for our stock had closed at \$1.00 or above for ten consecutive days. On September 17, 2003, we received a letter from Nasdaq confirming that Tegal had regained compliance with the minimum bid price requirement and that the question of its continued listing on The SmallCap Market was now closed.

If we are out of compliance in the future with Nasdaq listing requirements, we may take actions in order to achieve compliance, which actions may include a reverse split of our common stock, which would require stockholder approval. If an initial delisting decision is made by the Nasdaq's staff, we may appeal the decision as permitted by Nasdaq rules. If we are delisted and cannot obtain listing on another major market or exchange, our stock's liquidity would suffer, and we would likely experience reduced investor interest. Such factors may result in a decrease in our stock's trading price. Delisting also may restrict us from issuing additional securities or securing additional financing.

**WE DEPEND ON SALES OF OUR ADVANCED PRODUCTS TO CUSTOMERS THAT MAY NOT FULLY ADOPT OUR PRODUCT FOR PRODUCTION USE.**

We have designed our advanced etch and deposition products for customer applications in emerging new films, polysilicon and metal which we believe to be the leading edge of critical applications for the production of advanced semiconductor and other microelectronic devices. Revenues from the sale of our advanced etch and deposition systems accounted for 40%, 25% and 36% of total revenues in fiscal 2004, 2003 and 2002, respectively. Our advanced systems are currently being used primarily for research and development activities or low volume production. For our advanced systems to achieve full market adoption, our customers must utilize these systems for volume production. There can be no assurance that the market for devices incorporating emerging films, polysilicon or metal will develop as quickly or to the degree we expect.

If our advanced systems do not achieve significant sales or volume production due to a lack of full customer adoption, our business, financial condition, results of operations and cash flows will be materially adversely affected.

**OUR POTENTIAL CUSTOMERS MAY NOT ADOPT OUR PRODUCTS BECAUSE OF THEIR SIGNIFICANT COST OR BECAUSE OUR POTENTIAL CUSTOMERS ARE ALREADY USING A COMPETITOR'S TOOL.**

A substantial investment is required to install and integrate capital equipment into a semiconductor production line. Additionally, we believe that once a device manufacturer has selected a particular vendor's capital equipment,

that manufacturer generally relies upon that vendor's equipment for that specific production line application and, to the extent possible, subsequent generations of that vendor's systems. Accordingly, it may be extremely difficult to achieve significant sales to a particular customer once that customer has selected another vendor's capital equipment unless there are compelling reasons to do so, such as significant performance or cost advantages. Any failure to gain access and achieve sales to new customers will adversely affect the successful commercial adoption of our products and could have a detrimental effect on us.

#### OUR QUARTERLY OPERATING RESULTS MAY CONTINUE TO FLUCTUATE.

19

Our revenue and operating results have fluctuated and are likely to continue to fluctuate significantly from quarter to quarter, and there can be no assurance as to future profitability.

Our 900 series etch systems typically sell for prices ranging between \$250,000 and \$600,000, while prices of our 6500 series critical etch systems and our Endeavor deposition system typically range between \$1.8 million and \$3.0 million. To the extent we are successful in selling our 6500 and Endeavor series systems, the sale of a small number of these systems will probably account for a substantial portion of revenue in future quarters, and a transaction for a single system could have a substantial impact on revenue and gross margin for a given quarter.

Other factors that could affect our quarterly operating results include:

- o our timing of new systems and technology announcements and releases and ability to transition between product versions;
- o seasonal fluctuations in sales;
- o changes in the mix of our revenues represented by our various products and customers;
- o adverse changes in the level of economic activity in the United States or other major economies in which we do business;
- o foreign currency exchange rate fluctuations;
- o expenses related to, and the financial impact of, possible acquisitions of other businesses; and
- o changes in the timing of product orders due to unexpected delays in the introduction of our customers' products, due to lifecycles of our customers' products ending earlier than expected or due to market acceptance of our customers' products.

#### BECAUSE TECHNOLOGY CHANGES RAPIDLY, WE MAY NOT BE ABLE TO INTRODUCE OUR PRODUCTS IN A TIMELY ENOUGH FASHION.

The semiconductor manufacturing industry is subject to rapid technological change and new system introductions and enhancements. We believe that our future success depends on our ability to continue to enhance our existing systems and their process capabilities, and to develop and manufacture in a timely manner new systems with improved process capabilities. We may incur substantial unanticipated costs to ensure product functionality and reliability early in our products' life cycles. There can be no assurance that we will be successful in the introduction and volume manufacture of new systems or that we will be able to develop and introduce, in a timely manner, new systems or enhancements to our existing systems and processes which satisfy customer needs or achieve market adoption.

#### SOME OF OUR SALES CYCLES ARE LENGTHY, EXPOSING US TO THE RISKS OF INVENTORY OBSOLESCENCE AND FLUCTUATIONS IN OPERATING RESULTS.

Sales of our systems depend, in significant part, upon the decision of a prospective customer to add new manufacturing capacity or to expand existing manufacturing capacity, both of which typically involve a significant capital commitment. We often experience delays in finalizing system sales following

initial system qualification while the customer evaluates and receives approvals for the purchase of our systems and completes a new or expanded facility. Due to these and other factors, our systems typically have a lengthy sales cycle (often 12 to 18 months in the case of critical etch and deposition systems) during which we may expend substantial funds and management effort. Lengthy sales cycles subject us to a number of significant risks, including inventory obsolescence and fluctuations in operating results over which we have little or no control.

**WE MAY NOT BE ABLE TO PROTECT OUR INTELLECTUAL PROPERTY OR OBTAIN LICENSES FOR THIRD PARTIES' INTELLECTUAL PROPERTY AND THEREFORE WE MAY BE EXPOSED TO LIABILITY FOR INFRINGEMENT OR THE RISK THAT OUR OPERATIONS MAY BE ADVERSELY AFFECTED.**

Although we attempt to protect our intellectual property rights through patents, copyrights, trade secrets and other measures, we may not be able to protect our technology adequately and competitors may be able to develop similar technology independently. Additionally, patent applications that we may file may not be issued and foreign intellectual property laws may not protect our intellectual property rights. There is also a risk that patents licensed by or issued to us will be challenged, invalidated or circumvented and that the rights granted thereunder will not provide competitive advantages to us. Furthermore, others may independently develop similar systems, duplicate our systems or design around the patents licensed by or issued to us.

20

Litigation could result in substantial cost and diversion of effort by us, which by itself could have a detrimental effect on our financial condition, operating results and cash flows. Further, adverse determinations in such litigation could result in our loss of proprietary rights, subject us to significant liabilities to third parties, require us to seek licenses from third parties or prevent us from manufacturing or selling our systems. In addition, licenses under third parties' intellectual property rights may not be available on reasonable terms, if at all.

**OUR CUSTOMERS ARE CONCENTRATED AND THEREFORE THE LOSS OF A SIGNIFICANT CUSTOMER MAY HARM OUR BUSINESS.**

Our top five customers accounted for 85%, 88% and 54% of our systems revenues in fiscal 2004, 2003 and 2002, respectively. Three customers each accounted for more than 10% of net systems sales in fiscal 2004. Although the composition of the group comprising our largest customers may vary from year to year, the loss of a significant customer or any reduction in orders by any significant customer, including reductions due to market, economic or competitive conditions in the semiconductor manufacturing industry, may have a detrimental effect on our business, financial condition, results of operations and cash flows. Our ability to increase our sales in the future will depend, in part, upon our ability to obtain orders from new customers, as well as the financial condition and success of our existing customers and the general economy, which is largely beyond our ability to control.

**WE ARE EXPOSED TO ADDITIONAL RISKS ASSOCIATED WITH INTERNATIONAL SALES AND OPERATIONS.**

International sales accounted for 67%, 66% and 67% of total revenue for fiscal 2004, 2003 and 2002, respectively. International sales are subject to certain risks, including the imposition of government controls, fluctuations in the U.S. dollar (which could increase the sales price in local currencies of our systems in foreign markets), changes in export license and other regulatory requirements, tariffs and other market barriers, political and economic instability, potential hostilities, restrictions on the export or import of technology, difficulties in accounts receivable collection, difficulties in managing representatives, difficulties in staffing and managing international operations and potentially adverse tax consequences. There can be no assurance that any of these factors will not have a detrimental effect on our operations, financial results and cash flows.

We generally attempt to offset a portion of our U.S. dollar denominated balance sheet exposures subject to foreign exchange rate remeasurement by purchasing forward currency contracts for future delivery. There can be no assurance that our future results of operations and cash flows will not be

adversely affected by foreign currency fluctuations. In addition, the laws of certain countries in which our products are sold may not provide our products and intellectual property rights with the same degree of protection as the laws of the United States.

#### EVOLVING REGULATION OF CORPORATE GOVERNANCE AND PUBLIC DISCLOSURE MAY RESULT IN ADDITIONAL EXPENSES AND CONTINUING UNCERTAINTY.

Changing laws, regulations and standard relating to corporate governance and public disclosure, including the Sarbanes-Oxley Act of 2002, new SEC regulations and Nasdaq National Market rules are creating uncertainty for public companies. We continually evaluate and monitor developments with respect to new and proposed rules and cannot predict or estimate the amount of the additional costs we may incur or the timing of such costs. These new or changed laws, regulations and standards are subject to varying interpretations, in many cases due to their lack of specificity, and as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We are committed to maintaining high standards of corporate governance and public disclosure. As a result, we have invested resources to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expenses and a diversion of management time and attention from revenue-generating activities to compliance activities. If our efforts comply with new or changed laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to practice, regulatory authorities may initiate legal proceedings against us and we may be harmed.

#### WE MUST INTEGRATE OUR ACQUISITIONS OF SIMPLUS SYSTEMS CORPORATION AND FIRST DERIVATIVE SYSTEMS, INC., AND WE MAY NEED TO MAKE ADDITIONAL FUTURE ACQUISITIONS TO REMAIN COMPETITIVE. THE PROCESS OF IDENTIFYING, ACQUIRING AND INTEGRATING FUTURE ACQUISITIONS MAY CONSTRAIN VALUABLE MANAGEMENT RESOURCES, AND OUR FAILURE TO EFFECTIVELY INTEGRATE FUTURE ACQUISITIONS MAY RESULT IN THE LOSS OF KEY EMPLOYEES AND THE DILUTION OF STOCKHOLDER VALUE AND HAVE AN ADVERSE EFFECT ON OUR OPERATING RESULTS.

On November 11, 2003, we acquired substantially all of the assets of Simplus Systems Corporation, and on April 28, 2004, we acquired substantially all of the assets of First Derivative Systems, Inc. We may in the future seek to acquire or invest in additional businesses, products or technologies that we believe could complement or expand our business, augment our market coverage, enhance our technical capabilities or that may otherwise offer growth opportunities. We may encounter problems with the assimilation of Simplus or businesses, products or technologies acquired in the future including:

21

- o difficulties in assimilation of acquired personnel, operations, technologies or products;
- o unanticipated costs associated with acquisitions;
- o diversion of management's attention from other business concerns and potential disruption of our ongoing business;
- o adverse effects on our existing business relationships with our customers;
- o potential patent or trademark infringement from acquired technologies;
- o adverse effects on our current employees and the inability to retain employees of acquired companies;
- o use of substantial portions of our available cash as all or a portion of the purchase price;
- o dilution of our current stockholders due to the issuance of additional securities as consideration for acquisitions; and

- o inability to complete acquired research and development projects.

If we are unable to successfully integrate our acquired companies or to create new or enhanced products and services, we may not achieve the anticipated benefits from our acquisitions. If we fail to achieve the anticipated benefits from the acquisitions, we may incur increased expenses and experience a shortfall in our anticipated revenues and we may not obtain a satisfactory return on our investment. In addition, if a significant number of employees of acquired companies fail to remain employed with us, we may experience difficulties in achieving the expected benefits of the acquisitions.

Completing any potential future acquisitions could cause significant diversions of management time and resources. Financing for future acquisitions may not be available on favorable terms, or at all. If we identify an appropriate acquisition candidate for any of our businesses, we may not be able to negotiate the terms of the acquisition successfully, finance the acquisition or integrate the acquired business, products, technologies or employees into our existing business and operations. Future acquisitions may not be well-received by the investment community, which may cause our stock price to fall. We have not entered into any agreements or understanding regarding any future acquisitions and cannot ensure that we will be able to identify or complete any acquisition in the future.

If we acquire businesses, new products or technologies in the future, we may be required to amortize significant amounts of identifiable intangible assets and we may record significant amounts of goodwill that will be subject to annual testing for impairment. If we consummate one or more significant future acquisitions in which the consideration consists of stock or other securities, our existing stockholders' ownership could be significantly diluted. If we were to proceed with one or more significant future acquisitions in which the consideration included cash, we could be required to use a substantial portion of our available cash.

#### OUR FINANCIAL PERFORMANCE MAY ADVERSELY AFFECT THE MORALE AND PERFORMANCE OF OUR PERSONNEL AND OUR ABILITY TO HIRE NEW PERSONNEL.

Our common stock has declined in value below the exercise price of many options granted to employees pursuant to our stock option plans. Thus, the intended benefits of the stock options granted to our employees, the creation of performance and retention incentives, may not be realized. As a result, we may lose employees whom we would prefer to retain. As a result of these factors, our remaining personnel may seek employment with larger, more established companies or companies perceived as having less volatile stock prices.

#### PROVISIONS IN OUR AGREEMENTS, CHARTER DOCUMENTS, STOCKHOLDER RIGHTS PLAN AND DELAWARE LAW MAY DETER TAKEOVER ATTEMPTS, WHICH COULD DECREASE THE VALUE OF YOUR SHARES.

Our certificate of incorporation and bylaws and Delaware law contain provisions that could make it more difficult for a third party to acquire us without the consent of our board of directors. Our board of directors has the right to issue preferred stock without stockholder approval, which could be used to dilute the stock ownership of a potential hostile acquirer. Delaware law imposes some restrictions on mergers and other business combinations between us and any holder of 15% or more of our outstanding common stock. In addition, we have adopted a stockholder rights plan that makes it more difficult for a third party to acquire us without the approval of our board of directors. These provisions apply even if the offer may be considered beneficial by some stockholders.

#### OUR STOCK PRICE IS VOLATILE AND COULD RESULT IN A MATERIAL DECLINE IN THE VALUE OF YOUR INVESTMENT IN TEGAL.

We believe that factors such as announcements of developments related to our business, fluctuations in our operating results, sales of our common stock into the marketplace, failure to meet or changes in analysts' expectations, general conditions in the semiconductor industry or the worldwide economy, announcements of technological innovations or new products or enhancements by us or our competitors, developments in patents or other intellectual property rights, developments in our relationships with our customers and suppliers,

natural disasters and outbreaks of hostilities could cause the price of our common stock to fluctuate substantially. In addition, in recent years the stock market in general, and the market for shares of small capitalization stocks in particular, have experienced extreme price fluctuations, which have often been unrelated to the operating performance of affected companies. There can be no assurance that the market price of our common stock will not experience significant fluctuations in the future, including fluctuations that are unrelated to our performance.

**POTENTIAL DISRUPTION OF OUR SUPPLY OF MATERIALS REQUIRED TO BUILD OUR SYSTEMS COULD HAVE A NEGATIVE EFFECT ON OUR OPERATIONS AND DAMAGE OUR CUSTOMER RELATIONSHIPS.**

Materials delays have not been significant in recent years. Nevertheless, we procure certain components and sub-assemblies included in our systems from a limited group of suppliers, and occasionally from a single source supplier. For example, we depend on MECS Corporation, a robotic equipment supplier, as the sole source for the robotic arm used in all of our 6500 series systems. We currently have no existing supply contract with MECS Corporation, and we currently purchase all robotic assemblies from MECS Corporation on a purchase order basis. Disruption or termination of certain of these sources, including our robotic sub-assembly source, could have an adverse effect on our operations and damage our relationship with our customers.

**ANY FAILURE BY US TO COMPLY WITH ENVIRONMENTAL REGULATIONS IMPOSED ON US COULD SUBJECT US TO FUTURE LIABILITIES.**

We are subject to a variety of governmental regulations related to the use, storage, handling, discharge or disposal of toxic, volatile or otherwise hazardous chemicals used in our manufacturing process. We believe that we are currently in compliance in all material respects with these regulations and that we have obtained all necessary environmental permits generally relating to the discharge of hazardous wastes to conduct our business. Nevertheless, our failure to comply with present or future regulations could result in additional or corrective operating costs, suspension of production, alteration of our manufacturing processes or cessation of our operations.

**THE STRUCTURED SECONDARY OFFERING FACILITY WE ENTERED INTO IN FEBRUARY 2004 AND AMENDED IN MAY 2004 MAY HAVE A DILUTIVE IMPACT ON OUR STOCKHOLDERS, AND THE POTENTIAL UNAVAILABILITY OF THIS FACILITY WOULD NEGATIVELY IMPACT OUR FINANCING ACTIVITIES.**

On February 11, 2004, we entered into a structured secondary offering facility (the "Structured Secondary") with Kingsbridge Capital Limited ("Kingsbridge"), which was amended on May 19, 2004. Under the terms of an Amended and Restated Common Stock Purchase Agreement (the "Purchase Agreement") entered into by the Company and Kingsbridge on May 19, 2004 with respect to the Structured Secondary, we may, at our sole discretion, sell to Kingsbridge, and Kingsbridge would be obligated to purchase, up to \$25 million of shares of our common stock, par value \$0.01 per share. The price at which we may sell shares of common stock under the Purchase Agreement is based on a discount to the volume weighted average market price of the common stock for a specified number of trading days following each of our respective elections to sell shares thereunder. The lowest threshold price at which our stock may be sold is at the sole discretion of the Company, but in no case may be lower than \$1.00 per share, and in the event the price of our common stock falls below this \$1.00 threshold, the Structured Secondary will not be an available source of financing. We may utilize the Structured Secondary through July 7, 2006 from time to time in our sole discretion, subject to various conditions and terms contained in the Purchase Agreement. Among the terms of the Purchase Agreement is a "Material Adverse Effect" clause which permits Kingsbridge to terminate the Structured Secondary if Kingsbridge determines that an event has occurred that results in any effect on the business, operations, properties or financial condition of the Company and its subsidiaries that is material and adverse to the Company and such subsidiaries, taken as a whole, and/or any condition, circumstance, or situation that would prohibit or otherwise interfere with our ability to perform any of our obligations under the Purchase Agreement.

In connection with our entering into the Structured Secondary, we issued to Kingsbridge a warrant (the "Warrant") to purchase 300,000 shares of common



stock at an exercise price of \$4.11 per share. The Warrant will not be exercisable until August 11, 2004, and will expire on August 11, 2009.

There are 9,151,661 shares of our common stock that are reserved for issuance under the Structured Secondary with Kingsbridge, 300,000 of which are issuable under the Warrant we granted to Kingsbridge. The issuance of shares under the Structured Secondary and upon exercise of the Warrant will have a dilutive impact on other stockholders and the issuance or even potential issuance of such shares could have a negative effect on the market price of our common stock. In addition, if we draw down the Structured Secondary, we will issue shares to Kingsbridge at a discount of 10% of the daily volume weighted average prices of our common stock during a specified period of trading days after initiation of each respective draw down. Issuing shares at such a discount will further dilute the interests of other stockholders.

To the extent that Kingsbridge sells shares of our common stock issued under the Structured Secondary to third parties, our stock price may decrease due to the additional selling pressure in the market. The perceived risk of dilution from sales of stock to or by Kingsbridge may cause holders of our common stock to sell their shares, or it may encourage short sales. This could contribute to a decline in our stock price.

#### THE STRUCTURED SECONDARY IMPOSES CERTAIN LIMITATIONS ON OUR ABILITY TO ISSUE EQUITY OR EQUITY-LINKED SECURITIES.

During the two-year term of the Structured Secondary, we may not engage in certain equity or equity-linked financings without the prior written consent of Kingsbridge, which consent will not be unreasonably withheld, conditioned or delayed. However, we may engage in the following capital raising transactions without Kingsbridge's consent: (1) establish stock option or award plans or agreements (for directors, employees, consultants and/or advisors) and amend such plans or agreements, including increasing the number of shares available thereunder, (2) use equity securities to finance the acquisition of other companies, equipment, technologies or lines of business, (3) issue shares of common stock and/or preferred stock in connection with our option or award plans, stock purchase plans, rights plans, warrants or options, (4) issue shares of common stock and/or preferred stock in connection with the acquisition of products, licenses, equipment or other assets and strategic partnerships or joint ventures (the primary purpose of which is not to raise equity capital); (5) issue shares of common and/or preferred stock to consultants and/or advisors as consideration for services rendered, (6) issue and sell shares in an underwritten public offering of common stock, and (7) issue shares of common stock to Kingsbridge under any other agreement entered into between our company and Kingsbridge.

In addition, we may not issue securities that are, or may become, convertible or exchangeable into shares of common stock where the purchase, conversion or exchange price for such common stock is determined using a floating or otherwise adjustable discount to the market price of the common stock (including pursuant to an equity line or other financing that is substantially similar to an equity line with an investor other than Kingsbridge) during the two-year term of our agreement with Kingsbridge.

#### WE MAY ISSUE ADDITIONAL SHARES AND DILUTE YOUR OWNERSHIP PERCENTAGE.

Certain events over which you have no control could result in the issuance of additional shares of our common stock, which would dilute your ownership percentage in our company. As of June 30, 2004, there were 44,183,297 shares of our common stock issued and outstanding and there were 31,094 shares of common stock reserved for issuance under our equity incentive and stock purchase plans. In addition, as of June 30, 2004, there were outstanding options, warrants and other rights to acquire up to approximately 12,115,046 [7,854,395 in equity compensation plans and 4,260,651 in warrants] shares of common stock. We may also issue additional shares of common stock or preferred stock:

- o to raise additional funds for working capital, commercialization, production and marketing activities;
- o upon the exercise or conversion of additional outstanding options and warrants; and
- o in lieu of cash payment of dividends.

Moreover, although the issuance of our common stock under the Structured Secondary will have no effect on the rights or privileges of existing holders of common stock, the economic and voting interests of each stockholder will be diluted as a result of such issuance. Although the number of shares of common stock that stockholders presently own will not decrease, such shares will represent a smaller percentage of our total shares that will be outstanding after such events. If we satisfy the conditions that allow us to draw down the entire \$25 million available under the Structured Secondary, and we choose to do so, then generally, as the market price

24

of our common stock decreases, the number of shares we will have to issue upon each draw down on the Structured Secondary increases, to a maximum of 8,851,661 shares. Therefore drawing down upon the Structured Secondary when the price of our common stock is decreasing will have an additional dilutive effect to your ownership percentage and may result in additional downward pressure on the price of our common stock.

25

#### SPECIAL NOTE REGARDING FORWARD LOOKING STATEMENTS

This Form 10-Q includes or incorporates by reference forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. Forward-looking statements, which are based on assumptions and describe our future plans, strategies and expectations, are generally identifiable by the use of the words "anticipate," "believe," "estimate," "expect," "intend," "project," or similar expressions. These forward-looking statements are subject to risks, uncertainties and assumptions about us. Important factors that could cause actual results to differ materially from the forward-looking statements we make in this Form 10-Q are set forth under the caption "Risk Factors" and elsewhere in this prospectus and the documents incorporated by reference in this Form 10-Q. If one or more of these risks or uncertainties materialize, or if any underlying assumptions prove incorrect, our actual results, performance or achievements may vary materially from any future results, performance or achievements expressed or implied by these forward-looking statements. All forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by the cautionary statements in this paragraph.

#### ITEM 6. EXHIBITS AND REPORTS ON FORM 8-K

##### (a) Exhibits

- 2.1 Asset Acquisition Agreement by and between Tegal Corporation and First Derivative Systems, Inc. dated as of April 28, 2004.
- 4.1 Registration Rights Agreement by and among Tegal Corporation, First Derivative Systems, Inc. and Andy Clarke, as representative of the stockholders and creditors of First Derivative Systems, Inc., dated as of May 28, 2004.
- 31 Certifications of the Chief Executive Officer and Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 32 Certifications of the Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

##### (b) Reports on Form 8-K

None

26

#### 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.

TEGAL CORPORATION  
(Registrant)

/s/ THOMAS R. MIKA

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Thomas R. Mika  
Chief Financial Officer

Dated: August 16, 2004

## EXHIBIT 2.1

### ASSET ACQUISITION AGREEMENT

THIS ASSET ACQUISITION AGREEMENT ("Agreement") is made by and between, TEGAL CORPORATION, a Delaware corporation, with principal offices at 2201 South McDowell Boulevard, Petaluma, California 94954-6903 ("Purchaser"), and FIRST DERIVATIVE SYSTEMS, INC., a California corporation, with principal offices at 700-C Becknell Rd., Goleta, CA 93117 (the "Seller") effective the 28th day of April 2004 (the "Effective Date"), for the purpose of transferring to Purchaser all of Seller's right, title and interest in and to those assets described in EXHIBIT A AND A-1 attached hereto (the "Transferred Assets"), as well as the liabilities listed in EXHIBIT B (the "Assumed Liabilities"). After the consummation of the transactions contemplated by this Agreement (the "Asset Sale"), Seller intends to dissolve and distribute its assets to Seller's creditors and shareholders (the "Seller Shareholders"). The dissolution and distribution shall be referred to herein as the "Dissolution" and, together with the Asset Sale, the "Transactions."

In consideration of the mutual obligations specified in this Agreement, the parties agree to the following:

1. DELIVERY. Subject to the terms and conditions set forth in this Agreement, effective as of the Closing (as defined in Section 4 of this Agreement), Seller shall sell, convey, transfer and assign to Purchaser all rights, title and interest in and to the Transferred Assets, free and clear of all liens, claims or encumbrances. Seller shall take all action as may be reasonably necessary, proper or advisable to put Purchaser in ownership, possession, and operating control of the Transferred Assets, without demanding any further consideration therefor, including execution, acknowledgment and recordation of specific assignments, oaths, declarations and other documents on a country-by-country basis and such other instruments of sale, transfer, conveyance, and assignment as Purchaser and its counsel may reasonably request. Subject to the terms and conditions set forth in this Agreement, effective as of the Closing, Seller shall grant to Purchaser the irrevocable power of attorney to represent Seller where such representation is legally permissible, without restrictions towards legal entities and natural persons, public authorities and courts, to do, sign under hand (or, as required, under personal seal), deliver, receive and perform all and any acts, matters, statements and things which may be necessary to put Purchaser in ownership, possession, and operating control of the Transferred Assets, including execution, acknowledgment and recordation of specific assignments, oaths, declarations and other documents on a country-by-country basis and such other instruments of sale, transfer, conveyance, and assignment as may be required for this purpose. Under this power of attorney, Purchaser shall be entitled to enter into transactions on behalf of Seller with itself in its own name or in its capacity as attorney-in-fact of a third party and, therefore, Purchaser shall be released from any prohibition or restriction of self dealing which may exist under any applicable law.

2. LIABILITIES NOT TO BE ASSUMED. Subject to the terms and conditions set forth in this Agreement, effective as of the Closing (as defined in Section 4 of this Agreement), Purchaser shall assume the Assumed Liabilities. Purchaser shall not assume any other debts, liabilities, obligations or contracts of Seller, whether known or unknown and whether due or to become due, and all such debts, liabilities, obligations and contracts shall be and remain the responsibility of Seller. Without limiting the generality of the foregoing, Purchaser shall not assume and Seller shall not be deemed to have transferred to Purchaser the following debts, liabilities, obligations and contracts of Seller:

2.1 TAXES ARISING FROM TRANSACTION. Any United States, foreign, state or other taxes applicable to, imposed upon or arising out of the transfer of the Transferred Assets to Purchaser and the other transactions contemplated by this Agreement, including but not limited to any income, transfer, sales, use, gross receipts or documentary stamp taxes.

2.2 INCOME AND FRANCHISE TAXES. Any liability or obligation of Seller for all taxes of any kind, including, without limitation, those on or measured by or referred to as income, gross receipts, sales, use, ad valorem, franchise, profits, license, withholding, payroll, employment, excise, severance, stamp, occupation, premium, value added, property or windfall profits taxes, customs, duties or similar fees, assessments or charges of any kind whatsoever, together with any interest, penalty or additions thereto, whether

disputed or not ("Tax" or "Taxes").

2.3 INSURED CLAIMS. Any liability of Seller insured against, to the extent such liability is or will be paid by an insurer.

2.4 PRODUCT LIABILITY. Any liability or obligation of Seller arising out of or in any way relating to or resulting from any product licensed or distributed prior to the Effective Date (including any liability or obligation of Seller for claims made for injury to person, damage to property or other damage, whether made in product liability, tort, breach of warranty or otherwise).

2.5 LITIGATION MATTERS. Any liability or obligation with respect to any suits, actions, claims or proceedings to which Seller is a party.

2.6 INFRINGEMENTS. Any liability of Seller to a third party under its intellectual property or other proprietary rights, including, but not limited to, claims arising out of the manufacture, use or sale of goods or apparatus, the performance of services, or the copying, modifying, distributing, performing or displaying of any work.

2.7 TRANSACTION EXPENSES. All liabilities, costs, obligations or expenses incurred by Seller in connection with this Agreement and the transactions contemplated herein, including fees payable to M.S. Howells, LLP (including Messrs. Ramberg and Fenner) for services rendered in connection with this Agreement.

2.8 LIABILITY FOR BREACH. Liabilities and obligations of Seller for any breach or failure to perform any of Seller's covenants and agreements contained in, or made pursuant to, this Agreement, or, prior to the Closing, any other contract.

2.9 VIOLATION OF LAW. Liabilities and obligations of Seller for any violation of or failure to comply with any statute, law, rule, regulation, order, writ, injunction or decree of any court or governmental authority.

2.10 CREDITORS' AND SHAREHOLDERS' CLAIMS. Liabilities and obligations of Seller to any creditors or shareholders of Seller.

3. PURCHASE PRICE. At the Closing, Purchaser will pay to Seller an aggregate of One Million Four Hundred Ten Thousand Six Hundred and Forty-two (1,410,632) shares (the "Tegal Shares") of Purchaser's common stock in exchange for the Transferred Assets and Assumed Liabilities (the "Purchase Price"). Twenty percent (20%) of the Tegal Shares (the "Escrow Shares") shall be placed in escrow as security for the payment of the indemnification obligation of Seller in accordance with Section 11 of this Agreement.

4. CLOSING. The closing of the purchase and sale of the Transferred Assets and assumption of the Assumed Liabilities hereunder (the "Closing") shall take place at the offices of Latham & Watkins LLP 505 Montgomery St., California 94111, as soon as practicable, but in no event later than three (3) days after satisfaction or waiver of the last of the conditions set forth in Section 8 of this Agreement, or at such other time or place as the parties hereto may agree in writing (the "Closing Date"). At the Closing, Purchaser and Seller shall deliver the documents set forth in Section 8 of this Agreement.

5. REPRESENTATIONS AND WARRANTIES OF SELLER. Seller hereby represents and warrants to Purchaser, subject to such exceptions as are specifically set forth in the disclosure schedules (referencing the appropriate section and paragraph numbers) supplied by Seller to Purchaser (the "Schedules") and dated as of the date hereof, as follows:

5.1 AUTHORIZATION OF TRANSACTION. With the exception of stockholder approval (which Seller intends to solicit as soon as reasonably practicable after the Effective Date), the execution and delivery of this Agreement and the consummation of the transactions contemplated hereby have been duly authorized by all necessary corporate action on the part of Seller, and no further actions are required on the part of Seller to authorize the Agreement, any related agreements to which it is a party and the transactions contemplated hereby. This Agreement has been duly executed and delivered by Seller and constitutes the valid and binding obligation of Seller, enforceable against Seller in accordance with its terms.

5.2 NONCONTRAVENTION. The execution and delivery of this Agreement by Seller do not, and, the consummation of the transactions contemplated hereby does not, conflict with or result in any violation of, or default under (with or without notice or lapse of time, or both), or give rise to a right of termination, cancellation, modification or acceleration of any obligation or loss of any benefit under (i) any provision of the charter documents or bylaws (or like document) of Seller, (ii) any contract or other agreement or instrument, permit, concession, franchise or license to which Seller is a party or any of its properties or assets are subject, or (iii) any judgment, order, decree, statute, law, ordinance, rule or regulation applicable to Seller or its properties or assets.

5.3 CONSENTS. No consent, waiver, approval, order or authorization of, or registration, declaration or filing with, any court, administrative agency or commission or other federal, state, county, local or other foreign governmental authority, instrumentality, agency or commission is required by or with respect to Seller in connection with the execution and delivery of this Agreement or the consummation of the transactions contemplated hereby.

5.4 RESTRICTIONS ON BUSINESS ACTIVITIES. There is no agreement (not to compete or otherwise), commitment, judgment, injunction, order or decree to which Seller is a party or otherwise binding upon Seller which has or may have the effect of materially prohibiting or impairing the practice or conduct of the Seller's business as currently conducted. Seller has not entered into any agreement under which Seller is restricted in a material manner from selling, licensing or otherwise distributing any of its technology or products associated with or related to its business as currently conducted or providing services to, customers or potential customers or any class of customers, in any geographic area, during any period of time or in any segment of the market.

5.5 TITLE OF PROPERTIES; ABSENCE OF LIENS AND ENCUMBRANCES; CONDITION. Seller has good and valid title to all of the Transferred Assets, and the power to sell the Transferred Assets free and clear of any liens, claims or encumbrances. The tangible Transferred Assets are in good condition and repair, subject to normal wear and tear.

#### 5.6 INTELLECTUAL PROPERTY.

a. There are no proceedings or actions before any court, tribunal (including the PTO or equivalent authority anywhere in the world) related to any of the Seller's intellectual property (including, but not limited to, all patents, patent applications, trademarks, trademark applications, copyrights, copyright applications, trade secrets and know-how) which is part of the Transferred Assets ("Transferred IP").

b. Each item of Transferred IP is free and clear of any liens and encumbrances.

c. Seller owns exclusively, and has good title to all works of authorship and mask works and all associated copyrights that are used or embodied in, the Transferred IP.

d. Seller has not transferred ownership of or granted any license of or right to use or authorized the retention of any rights to use any Transferred IP to any other person or entity.

e. The Transferred IP constitutes all of the intellectual property owned by Seller.

f. There are no contracts, licenses or agreements to which Seller is a party with respect to any of the Transferred IP or by which any item of Transferred IP is bound.

g. Each item of Transferred IP is valid and subsisting, all necessary registration, maintenance and renewal fees in connection with Transferred IP have been paid and all necessary documents and certificates in connection with Transferred IP have been filed with the relevant authorities.

h. There are no contracts, licenses or agreements between Seller and any other person or entity with respect to Transferred IP under which there is any dispute, or to the knowledge of the Seller, any threatened dispute regarding the scope of such agreement, or performance under such agreement including any disputes or, to the knowledge of the Seller, threatened disputes

in the ordinary course of business.

i. To the knowledge of the Seller, no person or entity is infringing or misappropriating Transferred IP.

j. Seller has taken reasonable steps that are required to protect Seller's rights in confidential information and trade secrets of Seller associated with or related to its business.

k. No Transferred IP is subject to any proceeding or outstanding decree, order, judgment, agreement or stipulation that restricts in any manner the use, transfer or licensing thereof by Seller or may affect the validity, use or enforceability of Transferred IP.

l. Seller is not required to make or accrue any royalty payment, commission, licensing fee or other payment to any third party in connection with the Transferred IP. Neither this Agreement nor the transactions contemplated by this Agreement, including the assignment to Purchaser, by operation of law or otherwise will result in (i) Purchaser granting to any third party any right or license, (ii) Purchaser being bound by, or subject to, any non-compete or other restriction on the operation or scope of its businesses, or (iii) Purchaser being obligated to pay any royalties or other amounts to any third party. Except for the finder's fee payable to M.S.Howells, LLP, Seller has not incurred, nor will it incur, directly or indirectly, any liability for brokerage or finders' fees or agents' commissions or any similar charges in connection with the Agreement or any transaction contemplated hereby. Seller has delivered or made available true and complete copies of each existing document (or summaries of same) that has been requested by counsel to Purchaser.

m. No order has been made or petition presented, or resolution passed for the winding-up or liquidation of Seller and there is not outstanding: (i) any petition or order for the winding-up of Seller; (ii) any appointment of a receiver over the whole or part of the undertaking of assets of Seller; (iii) to the knowledge of Seller, any petition or order for administration of Seller; (iv) any voluntary arrangement between Seller and any of its creditors; (v) any distress or execution or other process levied in respect of Seller which remains undischarged; and (vi) any unfulfilled or unsatisfied judgment or court order against Seller.

n. There are no circumstances which would entitle any person or entity to present a petition for the winding up or administration of Seller or to appoint a receiver over the whole or any part of the undertaking or assets of Seller.

o. Seller is not deemed unable to pay its debts within the meaning of applicable law.

p. No university or government funds or research were used in developing any of the Transferred IP.

q. To Seller's knowledge (but without having performed any patent or trademark search) no use of the Transferred IP consistent with the Seller's use of the Transferred IP prior to its sale hereunder does now or will in the future, infringe, misappropriate or violate the intellectual property rights or other rights of any other person.

5.7 LEGAL AND OTHER COMPLIANCE. Seller is in compliance with all material applicable laws (including rules, regulations, codes, plans, injunctions, judgments, orders, decrees, rulings, and charges thereunder) of foreign, federal, state, local, and foreign governments (and all agencies thereof) applicable to its business, and no action, suit, proceeding, hearing, investigation, charge, complaint, claim, demand, or notice has been filed or commenced against it alleging any failure so to comply.

5.8 TAX MATTERS. Seller has duly and timely filed with the appropriate taxing authorities all tax returns to be filed, and all such tax returns are complete and accurate in all material respects. All material taxes owed by Seller, whether or not shown on any tax return, have been paid. Seller is currently not the beneficiary of any extension of time within which to file any tax return. No material claim has been made by an authority in a jurisdiction where Seller does not file tax returns that such entity is or may

be subject to taxation by that jurisdiction. No deficiencies for taxes have been claimed, proposed or assessed by any tax authority against Seller. There are no pending or, to the knowledge of Seller, threatened audits, investigations, disputes or claims or other actions for or relating to any liability for taxes with respect to Seller, and there are no matters under discussion with any governmental entity, or known to Seller, with respect to taxes that are likely to result in a material additional liability for taxes with respect to Seller. Seller has delivered or made available to Purchaser complete and accurate copies of all examination reports and statements of deficiencies assessed against or agreed to by Seller since September 22, 1999. Seller has not waived any statute of limitations in respect of taxes or agreed to any extension of time with respect to a tax assessment or deficiency. There are no liens for taxes (other than for current taxes not yet due and payable) on any of the assets. Seller has no liability for the taxes of any other person, corporation or entity under Treasury Regulations Section 1.1502-6 or any other similar provision of state, local, U.S. or foreign law, as a transferee or successor, by contract or otherwise. There are no tax sharing agreements or similar arrangements (including indemnity arrangements) with respect to or involving Seller, the Transferred Assets or Seller's business and after the Effective Date, none of Seller, the Transferred Assets or Seller's business shall be bound by any such tax-sharing agreements or similar arrangements or have any liability thereunder for amounts due in respect of periods prior to the Effective Date.

5.9 NO MATERIAL ADVERSE EFFECT. Since January 30, 2004 no event or series of events has or have occurred that would, individually or in the aggregate, have a material adverse effect on the business, operations, properties or financial condition of the Seller. There is no condition, circumstance, or situation that would prohibit or otherwise interfere with the ability of the Seller to perform any of its obligations under this Agreement.

5.10 ELIGIBILITY FOR REGULATION D. Seller does not have more than thirty-five (35) stockholders and creditors that do not meet the definition of "accredited investors" as defined in Regulation D of the Securities Act of 1933, as amended ("Regulation D").

## 6. REPRESENTATIONS AND WARRANTIES OF PURCHASER.

6.1 ORGANIZATION OF PURCHASER. Purchaser is duly organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation.

6.2 AUTHORITY FOR AGREEMENT. Purchaser has all requisite corporate power and authority to enter into this Agreement and to consummate the transactions contemplated hereby. The execution and delivery of this Agreement and the consummation of the transactions contemplated hereby have been duly authorized by all necessary corporate action on the part of Purchaser. This Agreement has been duly executed and delivered by Purchaser and constitutes the valid and binding obligations of Purchaser, enforceable against it in accordance with its terms.

6.3 PUBLIC FILINGS. Purchaser has filed with the Securities and Exchange Commission ("SEC") and made available to Seller all forms, reports and documents required to be filed by Purchaser with the SEC during the two years prior to the Effective Date (collectively, the "Public Filings"). The Public Filings (i) at the time filed, complied in all material respects with the applicable requirements of the Securities Act of 1933 as amended (the "Securities Act"), and the Securities and Exchange Act of 1934 as amended (the "Exchange Act"), as the case may be and (ii) did not at the time they were filed (or if amended or superseded by a filing prior to the date of the Agreement, then on the date of such filing) contain any untrue statement of a material fact or omit to state a material fact required to be stated in such Public Filings or necessary in order to make the statements in such Public Filings, in the light of the circumstances under which they were made, not misleading.

6.4 FORM S-3 QUALIFICATION. As of the Effective Date, Purchaser qualifies to use Form S-3 under the Securities Act to register the Tegal Shares.

## 7. TAX FREE REORGANIZATION TREATMENT.

7.1 The parties intend the Transaction to qualify as a reorganization under Section 368(a) of the Code. However, neither Purchaser nor Seller makes any representation or warranty to the other or to any of Seller's stockholders regarding the tax treatment of the Transaction or whether the



Transaction will qualify as a reorganization under the Code. Each of Seller, the Seller's stockholders and Purchaser acknowledges that it is relying on its own advisors in connection with the Tax treatment of the Transaction and the other transactions contemplated by this Agreement. Seller, the Seller's stockholders and Purchaser each agree to use their respective best efforts to cause the Transaction to qualify, and will not take any actions which to their knowledge could reasonably be expected to prevent the Transaction from qualifying, as a reorganization under Section 368(a) of the Code.

7.2 Each of Seller, the Seller's stockholders and Purchaser shall report the Transaction as a reorganization within the meaning of Section 368 of the Code, unless otherwise required pursuant to a "determination" within the meaning of Section 1313(a) of the Code.

## 8. CLOSING.

8.1 CONDITIONS TO SELLER'S OBLIGATIONS TO CLOSING. The obligation of Seller to effect the transactions contemplated hereby is subject to the satisfaction at or prior to the Closing Date of each of the following conditions:

a. No statute, rule, regulation, executive order, decree, ruling or injunction shall have been enacted, entered, promulgated or enforced by any governmental entity that prohibits, restrains, enjoins or restricts the consummation of the transactions contemplated hereby;

b. Any notices to, approvals from or other requirements of any governmental entity necessary to consummate the transactions contemplated hereby and to operate the business after the Closing in all material respects as it was operated prior thereto shall have been given, obtained or complied with, as applicable;

c. The representations and warranties of Purchaser contained in this Agreement shall have been true and correct in all material respects at and as of the Effective Date and shall be true and correct in all material respects at and as of the Closing Date with the same effect as if made at and as of the Closing Date (except to the extent such representations specifically related to an earlier date, in which case such representations shall be true and correct in all material respects as of such earlier date) and, at the Closing, Purchaser shall have delivered to Seller a certificate to that effect, executed by two officers of Purchaser (the "Purchaser's Officers' Certificate");

d. Each of the covenants and obligations of Purchaser to be performed at or before the Closing Date pursuant to this Agreement shall have been duly performed in all material respects at or before the Closing Date, and the Purchaser's Officers' Certificate shall contain a statement to that effect;

e. The transactions contemplated by this Agreement shall have been approved by the requisite vote of Seller's stockholders;

f. Purchaser shall have executed and delivered to Seller all of the documents identified in Section 8.3.a. below; and

g. At the Closing Date, Purchaser shall qualify to use Form S-3 under the Securities Act to register the Tegal Shares.

8.2 CONDITIONS TO PURCHASER'S OBLIGATION TO CLOSING. The obligation of Purchaser to effect the transactions contemplated hereby is subject to the satisfaction at or prior to the Closing Date of each of the following conditions:

a. No statute, rule, regulation, executive order, decree, ruling or injunction shall have been enacted, entered, promulgated or enforced by any governmental entity that prohibits, restrains, enjoins or restricts the consummation of the transactions contemplated hereby;

b. Any notices to, approvals from or other requirements of any governmental entity necessary to consummate the transactions contemplated hereby and to operate the business after the Closing in all material respects as it was operated prior thereto shall have been given, obtained or complied with, as applicable;

c. The representations and warranties of Seller contained in

this Agreement shall have been true and correct in all material respects at and as of the Effective Date and shall be true and correct in all material respects at and as of the Closing Date with the same effect as if made at and as of the Closing Date (except to the extent such representations specifically related to an earlier date, in which case such representations shall be true and correct in all material respects as of such earlier date) and, at the Closing, Seller shall have delivered to Purchaser a certificate to that effect, executed by two officers of Seller (the "Seller's Officers' Certificate");

d. Each of the covenants and obligations of Seller to be performed at or before the Closing Date pursuant to this Agreement shall have been duly performed in all material respects at or before the Closing Date, and the Seller's Officers' Certificate shall contain a statement to that effect; and

e. Seller shall have executed and delivered to Purchaser all of the documents identified in Section 8.3.b. below.

f. Purchaser shall have entered into employment agreements with each of Andy Clarke and Robert Sutton, substantially in the form attached hereto as EXHIBIT C.

g. Purchaser shall have received delivery of a balance sheet and statement of profits and losses for Seller's fiscal year ended June 30, 2003 and for the ten months ending April 30, 2004, certified by an officer of Seller as a fair and accurate presentation of Seller's financial condition and operations.

h. Purchaser shall have received an Intercreditor Agreement executed between Seller, on one hand, and Andy Clarke, Noel MacDonald, Anthony Bernhardt and Richard Wideman (the "Secured Creditors"), on the other hand, in which Secured Creditors acknowledge that any security interest held by any of them in any of the Transferred Assets shall terminate at Closing, and in which Seller and Secured Creditors covenant to take all reasonable measures necessary to assist Purchaser in obtaining unfettered title to the Transferred Assets at Closing and, if necessary, after the Closing.

i. Purchaser shall have received a Lockup Agreement executed among the Purchaser, Seller and Andy Clarke, substantially in the form of EXHIBIT D.

j. Purchaser shall have received documentation from the Seller, to Purchaser's satisfaction, demonstrating that no more than thirty-five creditors and stockholders of Seller fail to qualify as "accredited investors" as defined in Regulation D.

### 8.3 DELIVERIES AT CLOSING.

a. BY PURCHASER. At the Closing, Purchaser shall deliver the following to Seller: (i) a certificate representing the Tegal Shares less the M.S. Howells shares (as defined below), (ii) the Purchaser's Officers' Certificate, (iii) the countersigned Indemnity Escrow Agreement (as defined in Section 11 of this Agreement), (iv) the countersigned Bill of Sale and Assignment and Assumption Agreement substantially in the form attached hereto as EXHIBIT E (the "Bill of Sale"), (v) the countersigned Registration Rights Agreement (as defined in Section 9 of this Agreement), and (vi) to M.S. Howells, LLP, a certificate representing one hundred and five thousand seven hundred and ninety-seven (105,797) shares of Tegal common stock (the "M.S.Howells Shares").

b. BY SELLER. At the Closing, Seller shall deliver the following to Purchaser: (i) the Transferred Assets and Assumed Liabilities, (ii) the countersigned Indemnity Escrow Agreement (as defined in Section 11 of this Agreement), (iii) the countersigned Bill of Sale, (iv) the countersigned Registration Rights Agreement (as defined in Section 9 of this Agreement), (v) the Seller's Officers' Certificate; (vii) documents executed by the Secured Creditors which authorize Purchaser to file statements with the Secretary of State of California terminating all of the Secured Creditors' security interests in any of the Transferred Assets.

9. POST-CLOSING COVENANTS REGARDING REGISTRATION OF TEGAL SHARES. Subject to the terms and conditions set forth in the Registration Rights Agreement substantially in the form attached hereto as EXHIBIT F (the "Registration Rights Agreement"), Purchaser shall prepare and file a registration statement on Form S-3 with the Securities and Exchange Commission no later than ninety (90) days

after the Closing Date to enable Seller and/or its stockholders, except those which are subject to further restrictions as described therein, to sell the Tegal Shares. The costs of such registration shall be borne by Purchaser. Purchaser covenants to use its best efforts to remain qualified to use Form S-3 during such ninety (90) days.

## 10. TERMINATION.

10.1 RIGHT TO TERMINATE. This Agreement may be terminated and the transactions contemplated hereby may be abandoned at any time prior to the Closing:

a. by mutual written consent of Purchaser and Seller;

b. by Purchaser or Seller if (i) any governmental entity shall have issued a final order, decree or ruling, or taken any other final action, restraining, enjoining or otherwise prohibiting the transactions contemplated hereby and such order, decree, ruling or other action is or shall have become nonappealable; or (ii) the transactions contemplated by this Agreement have not been consummated on or before June 30, 2004 (the "Final Date"), provided that no party may terminate this Agreement pursuant to this clause (ii) if such party's failure to fulfill any of its obligations under this Agreement shall have been the reason that the Closing Date shall not have occurred on or before the Final Date;

c. by Seller if (i) Purchaser breaches any representation or warranty set forth in this Agreement in any material respect or if any such representation or warranty shall have become untrue such that the condition set forth in Section 8.2.c. would be incapable of being satisfied by the Final Date, provided that Seller has not breached any of its representations and warranties or obligations hereunder in any material respect; or (ii) Purchaser materially breaches any of its covenants or agreements hereunder and Purchaser has not cured such breach within ten (10) business days after notice by Seller thereof, provided that Seller has not breached any of its representations and warranties or obligations hereunder in any material respect;

d. by Purchaser if (i) Seller breaches any representation or warranty set forth in this Agreement in any material respect or if any such representation or warranty shall have become untrue such that the condition set forth in Section 8.1.c. would be incapable of being satisfied by the Final Date, provided that Purchaser has not breached any of its representations and warranties or obligations hereunder in any material respect; or (ii) Seller materially breaches its covenants or agreements hereunder, and Seller has not cured such breach within ten (10) business days after notice by Purchaser thereof, provided that Purchaser has not breached any of its representations and warranties or obligations hereunder in any material respect; or

e. by Purchaser if any Secured Creditors at any time make any effort to assert any of its rights under the Business Loan Agreements or Security Agreements to which it is a party with Seller, including, but not limited to, the submission of a demand to Seller by any Secured Creditor for the stock or assets of Seller in satisfaction of Seller's liabilities under any Business Loan Agreement or Security Agreement.

10.2 EFFECT OF TERMINATION. In the event of the termination and abandonment of this Agreement pursuant to Section 10.1, this Agreement shall forthwith become void and have no effect without any liability on the part of any party hereto or any of its affiliates, directors, officers and stockholders except that Seller shall be obligated to repay the loans and accrued interest advanced to the Seller by Purchaser under that certain secured loan agreement between Purchaser and Seller dated as of February 9, 2004. Nothing contained in this Section 10.2 shall relieve any party from liability for any breach of this Agreement prior to such termination.

## 11. INDEMNIFICATION.

11.1 GENERAL SURVIVAL. Regardless of any investigation made by Purchaser, the representations and warranties of the Seller contained in this Agreement shall survive the execution and delivery of this Agreement for a period beginning on the date hereof and ending at 5:00 p.m., California time, on April 28, 2005 (the "Survival Period").

11.2 INDEMNIFICATION OF INDEMNITEES; INDEMNIFICATION GENERALLY.

a. Subject to Section 11.1, from and after the Closing Date, Purchaser and its affiliates, officers, directors, stockholders, representatives and agents (collectively, the "Indemnitees") shall be indemnified and held harmless by the Seller and, following the Dissolution, jointly and severally by Seller's Shareholders, from and against and in respect of any and all losses incurred by, resulting from, arising out of, relating to, imposed upon or incurred by Purchaser or any other Indemnitee by reason of: (i) any material inaccuracy in or breach of any of Seller's representations, warranties, covenants or agreements contained in this Agreement as of the date of this Agreement or as of the Closing Date; or (ii) any material misrepresentation contained in the attached disclosure schedule or in any other written statement or certificate furnished to Purchaser or any other Indemnitee by or on behalf of Seller in connection with the transactions contemplated by this Agreement. For purposes of this Agreement, the term "Losses" means any and all deficiencies, judgments, settlements, demands, claims, suits, actions or causes of action, assessments, liabilities, losses, damages (whether direct, indirect, incidental or consequential), interest, taxes, fines, penalties, costs, expenses (including reasonable legal, accounting and other costs and expenses of professionals) incurred in connection with investigating, defending, settling or satisfying any and all demands, claims, actions, causes of action, suits, proceedings, assessments, judgments or appeals, and in seeking indemnification therefor, and interest on any of the foregoing from the date incurred until paid at five percent (5%) per annum; provided however, that the Indemnitees may not recover any losses unless or until the amount of all Losses under this Agreement exceeds Twenty Five Thousand Dollars (\$25,000), in which case, Indemnitees shall be entitled to recover all Losses incurred, including those Losses incurred prior to the Twenty Five Thousand Dollar (\$25,000) threshold. For purposes of any Indemnification Claim, the amount of any Losses shall be determined without regard to any reference to any materiality or dollar qualifiers or thresholds contained in the representations, warranties, covenants or agreements of the Seller.

b. Subject to Section 11.1, subsequent to the Closing, the Seller, and following the Dissolution, Seller's Shareholders jointly and severally, shall indemnify, defend, save and hold the Indemnitees harmless from and against (i) any and all Taxes of Seller with respect to any Tax year or portion thereof ending on or before the Closing Date (or for any Tax year beginning before and ending after the Closing Date to the extent allocable (as determined in the following sentence) to the portion of such period beginning before and ending on the Closing Date), and (ii) the unpaid Taxes of any person, corporation or entity (other than Seller) under Treasury Regulations Section 1.1502-6 (or any similar provision of state, local or foreign law), as a transferee or successor, by contract, or otherwise, and (iii) any and all Losses incurred in connection with, arising out of, resulting from, or incident to any of the Taxes described in the foregoing clauses (i) and (ii); provided, however, that this Section 11.2(b) shall be the exclusive remedy for indemnification for any of the Taxes described in this Section 11.2(b). For purposes of the preceding sentence, in the case of any Taxes that are imposed on a periodic basis and are payable for a Tax period that includes (but does not end on) the Closing Date, the portion of such Tax that relates to the portion of such Tax period ending on the Closing Date shall (i) in the case of any Taxes other than Taxes based upon or related to income or receipts, be deemed to be the amount of such Tax for the entire Tax period multiplied by a fraction the numerator of which is the number of days in the Tax period ending on the Closing Date and the denominator of which is the number of days in the entire Tax period, and (ii) in the case of any Tax based upon or related to income or receipts be deemed equal to the amount which would be payable if the relevant Tax period ended on the Closing Date.

c. Any claims for indemnification hereunder must be set forth in writing, contain a reasonably detailed description of the nature of and the events or circumstances underlying the claim for indemnification hereunder and be received by Seller not later than the expiration of the applicable Survival Period (an "Indemnification Claim"). The failure of an Indemnitee to give notice of any claim for indemnification promptly, but within the Survival Period, shall not adversely affect such Indemnitee's right to indemnity hereunder except and to the extent that the Seller is prejudiced as a result of such failure. If an Indemnitee makes an Indemnification Claim, such Claim shall be resolved in accordance with the indemnity escrow agreement substantially in the form attached hereto as EXHIBIT G (the "Indemnity Escrow Agreement"). The Seller's liability for indemnification under this Section 11 shall be limited to the Escrow Shares.

12. EXCLUSIVITY AND CONFIDENTIALITY AGREEMENTS. Purchaser and Seller hereby agree to a period of exclusivity until the Closing or termination of this Agreement, whichever occurs first, in which Seller covenants to refrain from entering into any negotiations, agreements or understandings with any party other than Purchaser with respect to any disposition of the Transferred Assets or any business combination involving Seller, which includes, but is not limited to, an asset sale or merger. Purchaser and Seller additionally hereby agree that the Non-Disclosure Agreement executed between them shall remain in full force and effect until the Closing, and that neither Purchaser or Seller shall disclose the existence of and any terms of this Agreement to the public or any third party; provided, however, that Purchaser is hereby permitted to disclose the existence and terms of this Agreement in connection with (i) its legal obligations, including disclosure in its periodic reports filed with the Securities and Exchange Commission; and (ii) its earnings announcements and any related press releases, conference calls or other earnings-related disclosures.

13. POST-CLOSING COVENANT REGARDING SELLER'S DISSOLUTION. Seller hereby agrees to execute and finalize the Dissolution no later than six months following the Closing Date. Seller additionally covenants to Purchaser that Seller will not, in connection with the Dissolution nor under any other circumstances, distribute the Tegal Shares to more than thirty-five (35) stockholders and creditors that do not meet the definition of "accredited investors" as defined in Regulation D of the Securities Act of 1933, as amended ("Regulation D"). Seller agrees that any breach of these covenants shall be subject to the indemnification obligations of Seller in Section 11 of this Agreement.

14. GENERAL. Neither party may assign its rights or obligations under this Agreement without the prior written consent of the other party. Any assignment in violation hereof shall be null and void. This Agreement and exhibits attached hereto constitute the parties' final, exclusive and complete understanding and agreement with respect to the subject matter of this Agreement, and supersede all prior and contemporaneous understandings and agreements relating to its subject matter, including, without limitation, that certain Non-Binding Letter of Intent entered into by and between Seller and Purchaser dated January 30, 2004 (which Non-Binding Letter of Intent is hereby terminated, regardless of whether the Closing occurs). This Agreement may not be waived, modified, amended unless mutually agreed upon in writing by the parties. In the event any provision of this Agreement is found to be legally unenforceable, such unenforceability shall not prevent enforcement of any other provision of the Agreement. This Agreement shall for all purposes be governed by and interpreted in accordance with the laws of the State of California as those laws are applied to contracts entered into and to be performed entirely in California by California residents. Any judicial action or proceeding arising hereunder or relating hereto shall be brought in, and parties hereby consent to the exclusive, personal jurisdiction of, the State and federal courts located in Petaluma, California. Any notices required or permitted hereunder shall be given to the appropriate party at the address specified below or at such other address as the party shall specify in writing. Such notice shall be deemed given upon personal delivery, or sent by facsimile, certified or registered mail, postage prepaid, three (3) days after the date of mailing or immediately upon confirmation of facsimile delivery. The parties hereto agree that irreparable damage would occur in the event any provision of this Agreement was not performed in accordance with the terms hereof and that the parties shall be entitled to specific performance of the terms hereof, in addition to any other remedy at law or equity without the necessity of demonstrating the inadequacy of monetary damages. PURCHASER AND SELLER HEREBY WAIVE, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY LEGAL PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY). PURCHASER AND SELLER HEREBY (A) CERTIFY THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PARTY WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGE THAT IT AND THE OTHER PARTIES HERETO HAVE BEEN INDUCED TO ENTER INTO THIS AGREEMENT BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date set forth above.

SELLER:

PURCHASER:

/s/ Andy Clarke

/s/ Michael L. Parodi

-----  
Andy Clarke, Chairman and President    Michael L. Parodi, Chairman & CEO  
700-C Becknell Rd.                      2201 South McDowell Blvd.  
Goleta, CA 93117                        Petaluma, CA 94954-6903  
Fax: (805) 692-2385                      Fax: (707) 763-0436

SIGNATURE PAGE TO THE  
ASSET ACQUISITION AGREEMENT

EXHIBITS  
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TO ASSET ACQUISITION AGREEMENT  
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EXHIBIT A      TRANSFERRED ASSETS  
EXHIBIT A-1    PATENTS AND PATENT APPLICATIONS  
EXHIBIT B      ASSUMED LIABILITIES LIST  
EXHIBIT C      FORM OF EMPLOYMENT AGREEMENT  
EXHIBIT D      LOCKUP AGREEMENT  
EXHIBIT E      BILL OF SALE AND ASSIGNMENT AND ASSUMPTION AGREEMENT  
EXHIBIT F      REGISTRATION RIGHTS AGREEMENT  
EXHIBIT G      INDEMNITY ESCROW AGREEMENT

## EXHIBIT 4.1

### REGISTRATION RIGHTS AGREEMENT

THIS REGISTRATION RIGHTS AGREEMENT (the "Agreement") is made and entered into this 28th day of April, 2004 by and among (i) Tegal Corporation, a Delaware corporation ("Tegal"), (ii) First Derivative Systems, Inc., a California corporation ("FDSI"), and (iii) Andy Clarke, in his capacity as the representative (the "Shareholders' Representative") of all of the shareholders and creditors of FDSI who will receive shares of common stock of Tegal upon execution of FDSI's Plan of Dissolution.

#### RECITALS

A. On April \_\_, 2004 Tegal and FDSI entered into an Asset Acquisition Agreement (the "Asset Acquisition Agreement") pursuant to which Tegal has agreed to purchase substantially all of the assets, and certain liabilities, of FDSI in exchange of One Million Four Hundred Ten Thousand Six Hundred and Forty-two (1,410,632) shares (the "Tegal Shares") of Common Stock (as defined in Section 1 below).

B. In accordance with Section 9 of the Asset Acquisition Agreement, Tegal has agreed to grant certain registration rights to holders of the Tegal Shares and other Registrable Securities (as defined in Section 1 below).

C. Tegal and FDSI enter into this Agreement to memorialize such registration rights.

D. Shareholders' Representative joins this Agreement as a party in accordance with Section 14 of the Shareholder Representation Agreement by and between Tegal and each of the shareholders and creditors of FDSI (all of whom are listed on Exhibit A to this Agreement) as FDSI intends to dissolve and distribute the Tegal Shares to certain of its shareholders and creditors soon after the closing of the transactions contemplated in the Asset Acquisition Agreement.

#### AGREEMENTS

NOW, THEREFORE, in consideration of the premises, and of the mutual covenants and agreements contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

1. Definitions. In addition to capitalized terms defined elsewhere in this Agreement, the following capitalized terms shall have the following meaning when used in this Agreement. Defined terms used, but not defined, herein shall have the meanings ascribed to them as set forth in the Asset Acquisition Agreement.

1.1 "Common Stock" means the common stock, par value \$0.01 per share, of Tegal.

1.2 "Exchange Act" means the Securities Exchange Act of 1934, as amended.

1.3 "Person" means any person or entity, whether an individual, whether in their capacity as a trustee, executor, administrator or other legal representative, sole proprietorship, corporation, limited liability company, general partnership, limited partnership, trust, unincorporated organization, syndicate, business association, firm, joint venture, governmental agency or authority or any similar entity.

1.4 "Public Offering" means any offering by Tegal of its equity securities to the public pursuant to an effective registration statement under the Securities Act or any comparable statement under any comparable federal statute then in effect.

1.5 "Registrable Shares" means at any time (i) the Tegal Shares; (ii) any shares of Common Stock then outstanding which were issued directly or indirectly as a dividend or other distribution with respect to or in replacement of the Tegal Shares; and (iii) any shares of Common Stock then issuable directly or indirectly upon the conversion or exercise of other securities which were issued as a dividend or other distribution with respect to or in replacement of

the Tegal Shares or the shares referred to in (ii); provided, however, that Registrable Shares shall not include any shares which have been registered pursuant to the Securities Act or which have been sold pursuant to Rule 144 of the Securities Act. For purposes of this Agreement, a Person will be deemed to be a holder of Registrable Shares whenever such Person has the right to acquire such Registrable Shares, whether or not such acquisition actually has been effected.

1.6 "SEC" means the Securities and Exchange Commission.

1.7 "Securities Act" means the Securities Act of 1933, as amended.

## 2. Registration Rights.

2.1 Registration. Within ninety (90) days of the Closing, Tegal will file a single Form S-3 with the SEC to register the resale of the Registrable Shares by the holders thereof.

2.2 Payment of Expenses for the Registration. Registration Expenses (as defined in Section 5 below) shall be paid by Tegal.

2.3 Restrictions. Tegal may postpone for up to forty-five (45) days the filing or the effectiveness of a registration statement for the Demand Registration if the Board of Directors of Tegal reasonably and in good faith determines that such filing would be materially detrimental to Tegal or require a disclosure of a material fact that might reasonably be expected to have a material adverse effect on Tegal or any plan or proposal by Tegal or any of its subsidiaries to engage in any acquisition of assets (other than in the ordinary course of business) or any merger, consolidation, tender offer or other significant transaction.

2.4 No Underwritten Offering. The holders of the Registrable Shares hereby agree that they shall not sell the Registrable Shares in an underwritten offering.

3. Registration Procedures. Tegal will use its reasonable best efforts to effect the registration and sale of such Registrable Shares in accordance with the intended method of disposition thereof and, pursuant thereto, Tegal will as expeditiously as possible:

(a) prepare and file with the SEC a registration statement with respect to such Registrable Shares and use its reasonable best efforts to cause such registration statement to become effective (provided that before filing a registration statement or prospectus, or any amendments or supplements thereto, Tegal will furnish upon request copies of all such documents proposed to be filed to the counsel or counsels for the sellers of the Registrable Shares covered by such registration statement);

(b) prepare and file with the SEC such amendments and supplements to such registration statement and the prospectus(es) used in connection therewith as may be necessary to keep such registration statement effective for a period of not less than one (1) year or such shorter period until such Registrable Shares are no longer Registrable Shares and comply with the provisions of the Securities Act with respect to the disposition of all securities covered by such registration statement during such period in accordance with the intended methods of disposition by the sellers thereof set forth in such registration statement;

(c) furnish to each seller of Registrable Shares such number of copies of such registration statement, each amendment and supplement thereto, the prospectus(es) included in such registration statement (including each preliminary prospectus) and such other documents as such seller may reasonably request in order to facilitate the disposition of the Registrable Shares owned by such seller;

(d) use its reasonable best efforts to register or qualify such Registrable Shares under such other securities or blue sky laws of such jurisdictions as any seller reasonably requests and do any and all other acts and things which may be reasonably necessary or advisable to enable such seller to consummate the disposition in such jurisdictions of the Registrable Shares owned by such seller (provided that Tegal will not be required to (i) qualify generally to do business in any jurisdiction where it would not otherwise be required to qualify but for this subparagraph or (ii) consent to general service



of process in any such jurisdiction);

(e) notify each seller of such Registrable Shares, at any time when a prospectus relating thereto is required to be delivered under the Securities Act, of the happening of any event as a result of which the prospectus included in such registration statement contains an untrue statement of a material fact or omits any fact necessary to make the statements therein not misleading, and, at the request of any such seller, Tegal will prepare a supplement or amendment to such prospectus so that, as thereafter delivered to the purchasers of such Registrable Shares, such prospectus will not contain any untrue statement of a material fact or omit to state any fact necessary to make the statements therein not misleading;

(f) cause all such Registrable Shares to be listed on each securities exchange on which similar securities issued by Tegal are then listed or if no such securities are then listed, such securities exchange as the holders of a majority of the Registrable Shares included in such registration may reasonably request;

(g) make available for inspection by any seller of Registrable Shares and any attorney, accountant or other agent retained by any such seller, all financial and other records, pertinent corporate documents and properties of Tegal, and cause Tegal's officers, directors, employees and independent accountants to supply all information reasonably requested by any such seller, attorney, accountant or agent in connection with such registration statement; and

(h) advise each seller of such Registrable Shares, promptly after it shall receive notice or obtain knowledge thereof, of the issuance of any stop order by the SEC suspending the effectiveness of such registration statement or the initiation or threatening of any proceeding for such purpose and promptly use all reasonable efforts to prevent the issuance of any stop order or to obtain its withdrawal if such stop order should be issued.

4. Registration Expenses. All expenses incident to Tegal's performance of or compliance with this Agreement, including, but not limited to, all registration and filing fees, fees and expenses of compliance with securities or blue sky laws, printing expenses, messenger and delivery expenses, and fees and disbursements of counsel for Tegal and all independent certified public accountants and other Persons retained by Tegal (all such expenses being herein called "Registration Expenses"), will be borne by Tegal, provided that Tegal shall not be required to pay sales commissions, discounts or transfer taxes. In addition, Tegal will pay its internal expenses (including, but not limited to, all salaries and expenses of its officers and employees performing legal or accounting duties), the expense of any annual audit or quarterly review, the expense of any liability insurance obtained by Tegal and the expenses and fees for listing the securities to be registered on each securities exchange.

#### 5. Indemnification.

5.1 By Tegal. Tegal agrees to indemnify, to the extent permitted by law, each holder of Registrable Shares, its officers, employees and directors and each Person who controls such holder (within the meaning of the Securities Act) against all losses, claims, damages, liabilities and expenses (including, but not limited to, attorneys' fees and expenses) caused by any untrue or alleged untrue statement of material fact contained in any registration statement, prospectus or preliminary prospectus, or any amendment thereof or supplement thereto, or any omission or alleged omission of a material fact required to be stated therein or necessary to make the statements therein not misleading, except insofar as the same are caused by or contained in any information furnished in writing to Tegal by such holder expressly for use therein or by such holder's failure to deliver a copy of the prospectus or any amendments or supplements thereto after Tegal has furnished such holder with a sufficient number of copies of the same. The payments required by this Section 5.1 will be made periodically during the course of the investigation or defense, as and when bills are received or expenses incurred.

5.2 By Each Holder. In connection with any registration statement in which a holder of Registrable Shares is participating, each such holder will furnish to Tegal in writing such information as Tegal reasonably requests for use in connection with any such registration statement or prospectus and, to the extent permitted by law, will indemnify Tegal, its directors, employees and officers and each Person who controls Tegal (within the meaning of the

Securities Act) against any losses, claims, damages, liabilities and expenses resulting from any untrue or alleged untrue statement of material fact contained in the registration statement, prospectus or preliminary prospectus, or any amendment thereof or supplement thereto, or any omission or alleged omission of a material fact required to be stated therein or necessary to make the statements therein not misleading, but only to the extent that such untrue statement or omission is contained in or omitted from any information so furnished in writing by such holder for the acknowledged purpose of inclusion in such registration statement, prospectus or preliminary prospectus; provided that the obligation to indemnify will be several, not joint and several, among such holders of Registrable Shares and the liability of each such holder of Registrable Shares will be in proportion to and limited in all events to the net amount received by such holder from the sale of Registrable Shares pursuant to such registration statement.

5.3 Procedure. Any Person entitled to indemnification hereunder will (a) give prompt written notice to the indemnifying Person of any claim with respect to which it seeks indemnification and (b) unless in such indemnified Person's reasonable judgment a conflict of interest between such indemnified and indemnifying parties may exist with respect to such claim, permit such indemnifying Person to assume the defense of such claim with counsel reasonably satisfactory to the indemnified Person. If such defense is assumed, the indemnifying Person will not be subject to any liability for any settlement made by the indemnified Person without its consent (but such consent will not be unreasonably withheld). An indemnifying Person who is not entitled to, or elects not to, assume the defense of a claim will not be obligated to pay the fees and expenses of more than one counsel for all parties indemnified by such indemnifying Person with respect to such claim, unless in the reasonable judgment of any indemnified Person a conflict of interest may exist between such indemnified Person and any other of such indemnified parties with respect to such claim.

5.4 Survival. The indemnification provided for under this Agreement will remain in full force and effect regardless of any investigation made by or on behalf of the indemnified Person or any officer, director or controlling Person of such indemnified Person and will survive the transfer of securities. Tegal also agrees to make such provisions as are reasonably requested by any indemnified Person for contribution to such Person in the event Tegal's indemnification is unavailable for any reason.

6. Compliance with Rule 144 and Rule 144A. So long as Tegal files reports under Section 13 or 15(d) of the Exchange Act, then at the request of any holder of Registrable Shares who proposes to sell securities in compliance with Rule 144 of the Securities Act, Tegal will (a) forthwith furnish to such holder a written statement of compliance with the filing requirements of the Securities Act as set forth in Rule 144, as such rule may be amended from time to time and (b) make available to the public and such holders such information as will enable the holders of Registrable Shares to make sales pursuant to Rule 144. At any time that Tegal is not subject to Section 13 or 15(d) of the Exchange Act, Tegal will provide to the holder of Registrable Shares and to any prospective purchaser of Registrable Shares under Rule 144A of the Securities Act, the information described in Rule 144A(d)(4) of the Securities Act.

## 7. Miscellaneous.

7.1 No Inconsistent Agreements. Tegal will not hereafter enter into any agreement with respect to its securities which is inconsistent with or which otherwise materially limits, restricts or interferes with the rights granted to the holders of Registrable Shares in this Agreement.

7.2 Amendments and Waivers. Except as otherwise expressly provided herein, the provisions of this Agreement may be amended or waived at any time only by the written agreement of Tegal, FDSI and the Shareholders' Representative (unless FDSI has distributed the Tegal Shares to its creditors and shareholders, in which case FDSI need not approve the amendment or waiver); provided, however, that the provisions of this Agreement may not be amended or waived without the consent of the holders of all the Registrable Shares adversely affected by such amendment or waiver if such amendment or waiver adversely affects a portion of the Registrable Shares but does not so adversely affect all of the Registrable Shares. Any waiver, permit, consent or approval of any kind or character on the part of any such holders of any provision or condition of this Agreement must be made in writing and shall be effective only to the extent specifically set forth in writing. Any amendment or waiver

effected in accordance with this paragraph shall be binding upon each holder of Registrable Shares and Tegal.

7.3 Successors and Assigns. Except as otherwise expressly provided herein, all covenants and agreements contained in this Agreement by or on behalf of any of the parties hereto will bind and inure to the benefit of the respective successors and assigns of the parties hereto, whether so expressed or not. In addition, and whether or not any express assignment has been made, the provisions of this Agreement which are for the benefit of FDSI, the shareholders of FDSI or holders of Registrable Shares are also for the benefit of, and enforceable by, any subsequent holders of such Registrable Shares.

7.4 Descriptive Headings. The descriptive headings of this Agreement are inserted for convenience of reference only and do not constitute a part of and shall not be utilized in interpreting this Agreement.

7.5 Notices. Any notices required or permitted to be sent hereunder shall be delivered personally or mailed, certified mail, return receipt requested, or delivered by overnight courier service to the following addresses, or such other address as any party hereto designates by written notice to Tegal, and shall be deemed to have been given upon delivery, if delivered personally, three (3) days after mailing, if mailed, or one (1) business day after delivery to the courier, if delivered by overnight courier service.

If to FDSI:

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Andy Clarke  
Chairman & CEO  
First Derivative Systems, Inc.  
700-C Becknell Road  
Goleta, CA 93117  
Fax: (805) 692-2382  
email: andy@firstdsystems.com

With a copy to:

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Richard I. Wideman, Esq.  
1216 State Street, #602  
Santa Barbara, CA 93101  
Fax: 805-884-9531  
email: riw@firstdsystems.com

If to Stockholders' Representative:

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Andy Clarke  
Chairman & CEO  
First Derivative Systems, Inc.  
700-C Becknell Road  
Goleta, CA 93117  
Fax: (805) 692-2382  
email: andy@firstdsystems.com

If to Tegal:

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Thomas R. Mika  
Chief Financial Officer  
Tegal Corporation  
2201 South McDowell Blvd.  
Petaluma, CA 94954-6903  
Fax: (707) 763-0436  
email: tmika@tegal.com

With a copy to:

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Scott Willoughby  
Latham & Watkins LLP  
505 Montgomery Street, Suite 1900  
San Francisco, CA 94111-2562  
Fax: (415) 395-8095  
email: scott.willoughby@lw.com

If to holders of the Registrable Shares other than FDSI or the shareholders of FDSI, to the addresses set forth on the stock record books of Tegal.

7.6 Execution in Counterparts. This Agreement may be executed in any number of counterparts, each of which when so executed and delivered shall be deemed an original, and such counterparts together shall constitute one instrument.

7.7 Governing Law. This Agreement and the transactions contemplated hereby shall be construed in accordance with, and governed by, the laws of the State of California; provided, however, that matters of Delaware corporate law shall be governed by the Delaware General Corporation Law.

7.8 Consent to Jurisdiction. Each of the parties hereto (a) consents

to submit itself to the personal jurisdiction of the federal and state courts located in Petaluma, California in the event any dispute arises out of this Agreement or any of the transactions contemplated hereby, (b) agrees that it will not attempt to deny or defeat such personal jurisdiction by motion or other request for leave from any such court, and (c) agrees that it will not bring any action relating to this Agreement in any court other than a federal or state court located in Petaluma, California.

7.9 WAIVER OF JURY TRIAL. EACH OF THE PARTIES HERETO HEREBY WAIVES ITS RESPECTIVE RIGHT TO A JURY TRIAL OF ANY PERMITTED CLAIM OR CAUSE OF ACTION ARISING OUT OF THIS AGREEMENT, ANY OF THE TRANSACTIONS CONTEMPLATED HEREBY, OR ANY DEALINGS BETWEEN ANY OF THE PARTIES HERETO RELATING TO THE SUBJECT MATTER OF THIS AGREEMENT OR ANY OF THE TRANSACTIONS CONTEMPLATED HEREBY. THE SCOPE OF THIS WAIVER IS INTENDED TO BE ALL ENCOMPASSING OF ANY AND ALL DISPUTES THAT MAY BE FILED IN ANY COURT AND THAT RELATE THE SUBJECT MATTER OF THIS AGREEMENT OR ANY OF THE TRANSACTIONS CONTEMPLATED HEREBY, INCLUDING, WITHOUT LIMITATION, CONTRACT CLAIMS, TORT CLAIMS, AND ALL OTHER COMMON LAW AND STATUTORY CLAIMS. THIS WAIVER IS IRREVOCABLE, MEANING THAT IT MAY NOT BE MODIFIED EITHER ORALLY OR IN WRITING, AND THIS WAIVER SHALL APPLY TO ANY SUBSEQUENT AMENDMENTS, SUPPLEMENTS OR OTHER MODIFICATIONS TO THIS AGREEMENT, ANY OF THE TRANSACTIONS CONTEMPLATED HEREBY OR TO ANY OTHER DOCUMENT OR AGREEMENT RELATING TO THE TRANSACTIONS CONTEMPLATED HEREBY.

7.10 Service of Process. Each of the parties hereto irrevocably consents to the service of any process, pleading, notices or other papers by the mailing of copies thereof by registered, certified or first class mail, postage prepaid, to such party at such party's address set forth herein, or by any other method provided or permitted under California law.

7.11 Reproduction of Documents. This Agreement and all documents relating hereto, including, but not limited to, (a) consents, waivers, amendments and modifications which may hereafter be executed and (b) certificates and other information previously or hereafter furnished, may be reproduced by any photographic, photostatic, microfilm, optical disk, micro-card, miniature photographic or other similar process. The parties agree that any such reproduction shall be admissible in evidence as the original itself in any judicial or administrative proceeding, whether or not the original is in existence and whether or not such reproduction was made by a party in the regular course of business, and that any enlargement, facsimile or further reproduction of such reproduction shall likewise be admissible in evidence.

7.12 Remedies. Each of the parties to this Agreement will be entitled to enforce its rights under this Agreement specifically, to recover damages by reason of any breach of any provision of this Agreement and to exercise all other rights existing in its favor. The parties hereto agree and acknowledge that money damages may not be an adequate remedy for any breach of the provisions of this Agreement and that any party shall be entitled to immediate injunctive relief or specific performance without bond or the necessity of showing actual monetary damages in order to enforce or prevent any violations of the provisions of this Agreement.

7.13 Severability. Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be prohibited by or invalid under applicable law, such provision will be ineffective only to the extent of such prohibition or invalidity, without invalidating the remainder of this Agreement.

7.14 Final Agreement. This Agreement, together with the Asset Acquisition Agreement and all other agreements entered into by the parties hereto pursuant to the Asset Acquisition Agreement, constitutes the complete and final agreement of the parties concerning the matters referred to herein, and supersedes all prior agreements and understandings.

7.15 No Strict Construction. The language used in this Agreement will be deemed to be the language chosen by the parties hereto to express their mutual intent, and no rule of strict construction will be used against any Person.

The parties hereto have executed this Registration Rights Agreement as of the date first set forth above.

By:/s/ Michael L. Parodi .

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Michael L. Parodi  
Chairman, President & CEO

FIRST DERIVATIVE SYSTEMS, INC.

By:/s/ Andy Clarke .

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Andy Clarke  
Chairman & CEO

SHAREHOLDERS' REPRESENTATIVE

By:/s/ Andy Clarke .

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Andy Clarke

SIGNATURE PAGE TO THE  
REGISTRATION RIGHTS AGREEMENT

SCHEDULE A

SHAREHOLDERS AND CREDITORS OF FDSI

EXHIBIT 31

CERTIFICATIONS

I, Thomas R. Mika, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Tegal Corporation;
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; and
3. Based on my knowledge, the financial statements, and other financial information included in this quarterly 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 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) 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) 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

c) 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 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: August 16, 2004

/s/ THOMAS R. MIKA

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Thomas R. Mika  
Chief Financial Officer

I, Michael L. Parodi, certify that:

1. I have reviewed this report on Form 10-Q of Tegal Corporation;
2. Based on my knowledge, this quarterly 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; and

3. Based on my knowledge, the financial statements, and other financial information included in this quarterly 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 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) 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) 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
  - c) 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 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: August 16, 2004

/s/ MICHAEL L. PARODI

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Michael L. Parodi  
Chief Executive Officer

EXHIBIT 32

CERTIFICATION OF CHIEF EXECUTIVE OFFICER

Pursuant to 18 U.S.C. ss. 1350, as created by Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officer of Tegal Corporation (the "Company") hereby certifies, to such officer's knowledge, that:

- (i) the accompanying Quarterly Report on Form 10-Q of the Company for the quarterly period ended June 30, 2004 (the "Report") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and
- (ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 16, 2004

/s/ MICHAEL L. PARODI

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Michael L. Parodi  
Chief Executive Officer

CERTIFICATION OF CHIEF FINANCIAL OFFICER

Pursuant to 18 U.S.C. ss. 1350, as created by Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officer of Tegal Corporation (the "Company") hereby certifies, to such officer's knowledge, that:

- (i) the accompanying Quarterly Report on Form 10-Q of the Company for the quarterly period ended June 30, 2004 (the "Report") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and
- (ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: August 16, 2004

/s/ THOMAS R. MIKA

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Thomas R. Mika  
Chief Financial Officer