



# DUTTON ASSOCIATES

## INDEPENDENT RESEARCH

### RESEARCH REPORT

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#### LOGIC Devices Inc.

June 5, 2008

Symbol (Nasdaq)	LOGC	Fiscal Year Ending: September					
Industry:	Electronics & Engineering	Year	EPS	P/E	REVS	PSR	
Recent Price:	\$1.04	2006	A \$0.02	52.0 x	\$4.6	1.5 x	
52-Week Price Range:	\$0.88 - \$3.20	2007	A (\$0.22)	--- x	\$4.7	1.5 x	
Target Price (12 Months)	\$1.37	2008	E (\$0.32)	--- x	\$4.0	1.8 x	
Avg. Daily Vol. (3 mo.):	2,606	2009	E \$0.05	20.8 x	\$6.1	1.2 x	
		2010	N/A ---	--- x	---	--- x	

Balance Sheet Data (mil)	03/31/08	Ownership and Valuation (mil)	Current Rating History
Cash Equivalent:	\$0.6	Shares Outstanding:	6.81
Working Capital:	\$4.5	Inside Ownership:	20%
Long-Term Liabilities:	\$0.0	Institutional Ownership:	8%
Shareholders' Equity:	\$6.4	Equity Market Value:	\$7.1
		Date Assigned:	6/5/08
		Price at Rating:	\$1.04
		Original Price Target:	\$1.37
		Time Frame:	12 Months

#### Initial Report

**Rating: Speculative Buy**

#### Company Overview

LOGIC Devices Incorporated develops and markets high-performance digital integrated circuits that provide high-density storage and signal/image processing functions. The Company's products enable high definition video display, transport, editing, composition, and special effects. The Company's products also provide solutions for digital filtering in television broadcast stations, wireless base stations, image enhancement in medical diagnostic scanning and imaging equipment, and guidance and target recognition capabilities in smart-weapons systems.

LOGIC Devices markets its products primarily to broadcast video, medical imaging, surveillance, military, aerospace, instrumentation, telecommunications, and consumer electronics companies. These products generally address digital signal processing (DSP) requirements that involve high-performance arithmetic computation and high-speed memory storage functions. The Company is focused on the development of a catalog of proprietary products for industrial niche markets which require products with extremely long product lifecycles that address specific functional application needs or performance levels that are not otherwise commercially available. In particular, LOGIC is focused on the design and development of application specific standard products that target multiple industrial applications. The Company also seeks to provide related groups of integrated circuits that original equipment manufacturers (OEMs) incorporate into high-performance electronic systems.

LOGIC is a fabless company that relies on silicon foundries to process silicon wafers. Each wafer has up to several hundred integrated circuits of a given LOGIC design, which are assembled and packaged into a variety of finished products. Through the outsourcing of wafer fabrication, the Company has access to high-speed, high-density complementary metal oxide semiconductor (CMOS) process technology without the significant investment in capital equipment and facilities required to establish a wafer fabrication factory. Wafer fabrication and some package assembly are outsourced to dedicated subcontractors in Asia. After assembly, the devices are returned to the Company for final testing and shipment to customers. The Company performs some production operations in-house at various stages in the manufacturing process including functional and parametric testing, package marking, hot and cold testing, final inspection,

quality inspection, and shipment to customers. LOGIC currently has access to two primary wafer suppliers. The Company continues to explore additional foundry relationships to reduce dependence on any single wafer foundry.

LOGIC markets its products worldwide through a direct sales force and through 20 international distributors. In fiscal year 2007 (ended September 30, 2007) approximately 73 percent of net revenues were derived from OEMs, while sales through international distributors were approximately 27 percent of net revenues. Approximately 67 percent of the Company's fiscal 2007 net revenues were from domestic sales and approximately 33 percent were from foreign sales. The Company's foreign sales are billed in United States dollars and are not directly subject to currency exchange fluctuations. LOGIC continues to make changes in its sales structure to address the requirements of emerging sales channels and as customers continue to move engineering design efforts to regions such as China, Malaysia, and India.

## **Company History**

LOGIC Devices was incorporated in California in 1983 with a miniscule start-up capital of \$250,000 and a plan to build high performance digital signal processing integrated circuits. To bootstrap its growth, the Company initially developed plug-compatible second source products that were compatible with products offered by other manufacturers. In particular, the Company built cache RAM devices comprised of high-speed static random access memory (SRAM), a type of semiconductor memory where the word static indicates that it does not need to be periodically refreshed. SRAM exhibits data remanence but is still volatile in the conventional sense that data is eventually lost when the memory is not powered.

LOGIC went public in 1988 via a small IPO that raised \$6 million (1 million shares at \$6.00 for 22% of the Company). Proceeds from the IPO were used to retire initial investors debt plus underwriting costs. Additional funding was raised from AT&T (1989) and OKI (1993) through technology licensing deals. In late 1995, an additional financing raised \$10 million via a Reg-S offering.

Management made the decision to move the strategic focus of the Company towards proprietary products after the market for generic SRAM collapsed in the mid-1990s. Beginning in 1996, the Company began to transition its product line towards unique proprietary products driven by its existing customer base. This transition to more proprietary products required LOGIC to invest in advanced design automation tools and to increase the number of people in product design and development. However, it also enabled the Company to focus its sales channels while limiting the costs of those channels, and to compete in markets with pricing and delivery demands that are not as highly competitive as the markets for second source products.

Throughout the Company's history, LOGIC has been forced to bootstrap its growth while competing in a very competitive industry. At times, the Company has had to scale back operations to cope with liquidity challenges. Despite these challenges, it has consistently managed cash flow, bootstrapped much of its growth with internally generated cash flow, and has avoided the dilution of existing shareholders resulting from the raising of additional equity capital.

Despite LOGIC's very small size and thin capitalization, management has done an outstanding job of cash flow and cost management. The Company's liquidity ratios are extremely strong and there are few shares outstanding (6.81M shares). Due to management's ongoing focus on cash flow and cost management, the potential for significant earnings leverage will be very high when its product roadmap is realized.

LOGIC's management has strongly demonstrated its ability to manage cash flow, reduce losses, bootstrap growth with internally generated funds, and strengthen the balance sheet. Between fiscal year 1998 and fiscal year 2007, the Company retired 97% of its total liabilities with cash generated from operations. Both quick and current ratios have improved dramatically from 0.59 and 2.19, respectively, as of September 30, 1998, to 10.58 and 29.34, respectively, as of September 30, 2007. Management accomplished all of this without issuing additional shares or diluting existing shareholders. During this period, management achieved sharp reductions in manufacturing costs and significant reductions in accounts

receivable and inventory, which generated \$10.1 million in cash from operations, allowing the Company to retire debt and fund capital expenditures.

The restructuring of the balance sheet forced LOGIC management to make some very tough choices. Due to the very stringent financial controls that were put in place, the Company was unable to maintain investment in new product design and development to replace aging product revenues with new product revenues. In order to reduce costs and strengthen the balance sheet, the Company had to eliminate much of its older product line to improve gross margins and cash flow. LOGIC has been able to shift its focus back to new product design and development after the balance sheet had been strengthened. The Company has eliminated all debt through cash flow from operations, and is expected to continue to fund operations and capital expenditures from internally generated cash flows and cash reserves. The Company believes that the lineup of new products it has in development will re-ignite revenue growth as it continues to implement its product development roadmap.

### **Business Strategy**

LOGIC primarily addresses industrial niche markets that require products with extremely long lifecycles. A typical semiconductor company's product lifecycles range from 1 to 3 years. LOGIC's product lifecycles range from 5 to 15 years, with many of the Company's customers going dormant for years and then returning with large orders. LOGIC is focused on opportunities in niche markets that produce high profit margins. The Company's customer base includes OEMs and contract manufacturers. The Company's growth strategy is driven by innovative product design and an efficient operational model.

LOGIC employs a highly skilled engineering staff with advanced design capabilities and core competencies in high performance data path and high-density memory design. This skilled engineering team is critical to the Company's product development roadmap of high performance memory products that target industrial applications.

The Company has a highly efficient operational model where each product development cycle is streamlined to produce numerous unique products. LOGIC has been able to highly leverage their silicon development expenses by taking a base die from a base wafer and configure to create multiple product specific die. These multiple product specific die can then be packaged into many different finished products. Thus, starting with a single base wafer, multiple packaged finished products can be manufactured without the costly investment in multiple base die that would drastically increase costs, capital investment, and demand for engineering talent. This operational model saves both time and money while efficiently leveraging capital investment and engineering talent. The Company's product roadmap consists of memory products that do not require a specialized sales force. Relatively long product lifecycles and a focus on a mostly industrial customer base, reduces market uncertainty. LOGIC has few competitors due to the highly complex design and engineering expertise necessary for development of niche high performance memory products.

### **Products and Technology**

LOGIC's products generally address digital signal processing (DSP) requirements involving performance arithmetic computational and high-speed storage functions. LOGIC also provides related groups of circuits that OEMs purchase for incorporation into high-performance electronic systems. As a result of the Company's focus on higher value products, it has streamlined the number of product offerings. The Company focuses on developing high performance digital integrated circuits for applications requiring high-density embedded memory, high data rates, and low power consumption.

LOGIC's product roadmap can be split into two categories: **Signal Processing** and **Specialty Memory**. Many of the Company's products perform high-performance digital signal processing (DSP) functions. LOGIC has a wealth of experience developing highly complex, computationally intensive-functions on silicon. The Company's video processing products include proprietary video filtering and format conversion devices optimized for high definition television (HDTV). These devices perform video functions such as image enhancement, scaling, and format conversion.

LOGIC's most recent products are in the specialized memory category where the Company has been able to leverage its extensive experience in embedding dense, high-speed memory in digital processing devices. The two types of memory products that LOGIC offers are high-performance dual-port and FIFO memories. The Company's specialized memory products lead the industry in bandwidth, density, and low power consumption.

### **Digital Video Products — Overview**

LOGIC's DSP products process digital video streams and perform computationally intensive algorithms at high data rates while minimizing power consumption. The majority of LOGIC's video products are capable of HDTV resolution and data rates. These include HDTV frame buffers, image enhancement filters, scaling engines, and colorspace converters. The video products are widely used in broadcast video, video editing, and high-end display equipment. The Company's DSP products perform video functions such as image enhancement, scaling, and format conversion. This same technology is used in advanced medical imaging equipment, including ultrasound, computerized axial tomography (CAT), and magnetic resonance imaging (MRI).

### **Digital Video Products — Growth Strategy**

Digital video is becoming increasingly popular in home entertainment applications. Digital television, and HDTV in particular, are two of the most important of these applications. Economies of scale, and the impact of Moore's Law, have led to continuing digital television price reductions. As a result, the sales of digital televisions are expected to grow rapidly in the next few years. According to Gartner Dataquest, shipments of digital CRT, flat panel, and rear projection televisions will be 140 million units in 2008, up from 25 million units in 2004. Demand for HDTV ready televisions has also created a related market for other high-definition production and content, as well as HDTV related hardware such as high definition DVD players and recorders.

Consumers get their high-definition video content primarily from broadcast television, cable, and satellite services. As high definition video content demand increases, providers of HDTV content must build up their HDTV infrastructure. LOGIC targets these markets with its digital video product line. The Company has been servicing the digital video market throughout its history, has a well-established name in the industry, and is well positioned to service this rapidly growing market segment.

Broadcast quality video equipment hardware requires wider digital word widths and flexible feature-sets, which are not available in much of the low-cost competition's video products. The broadcast segment is relatively price inelastic and somewhat sheltered from macroeconomic business cycles.

LOGIC's digital video product line is also used by the medical imaging industry. Medical diagnostic equipment, such as ultrasound, X-ray, CAT scans, and MRI scans rely on extremely high-resolution images. These images frequently require image/edge enhancement implemented in high-resolution image processes. The Company supplies several of the world's leading medical companies with components that offer high-resolution image processing solutions.

### **Digital Video Products — Competition**

LOGIC faces competition from few silicon vendors. The closest indirect competitors to the Company's video product line utilize field programmable gate array (FPGA) solutions. FPGA devices are both flexible and user-definable, allowing high-end video equipment manufacturers to tailor the device to their specific needs. The two leading FPGA suppliers that compete in this market segment are Xilinx, Inc. and Altera Corporation.

### **Digital Video Products — Competitive Advantages**

FPGA devices are slower, power-hungry, and inefficient in their use of silicon area. LOGIC offers superior products that are high-speed, offer low power consumption, and are highly efficient in their use of silicon area. LOGIC's strong expertise in high-end processing markets gives them an inherent advantage in this market segment. Comparable high-performance FPGA processing power is achievable only through use of the most costly FPGA devices. Adoption of an

FPGA solution also requires the equipment manufacturer to employ a signal processing expert, along with a dedicated FPGA design team to define and program the device. FPGA design cycles often take many months to complete and verify. LOGIC's off-the-shelf (proprietary catalog products) solutions are optimized for the data processing functions they address. The Company's products provide customers with cheaper, more efficient, lower power consumption, smaller footprint, and faster-time-to-market solutions than an FPGA.

### **Specialty Memory Products — Overview**

LOGIC has extensive experience in embedding dense, high-speed memory in its digital processing devices in order to create specialty memory products that are designed to lead the industry in bandwidth, density, and low power consumption. The Company continues to develop high-performance dual port and FIFO memories. Future development plans being considered in coming years include low cost frame buffers, flash ROM, and solid-state disk products.

### **Specialty Memory Products — Growth Strategy**

Networks are increasingly driven by media services such as video on demand, voice over IP (VoIP), and higher wireless bandwidth. The long-term trend towards increasing numbers of networks processing ever increasing loads of packet-based information bodes well for LOGIC's product roadmap. The increasing numbers of packet-based networks will require increasing numbers of wireless base stations to process and transfer increasing levels of data. To maintain quality of service levels, manufacturers will need to develop new architectures to address consumer appetite for increasingly higher bandwidth services.

The latest product architectures create tremendous demands for high performance capabilities and ever-increasing demand for total system memory bandwidth, input/output bandwidth, and processing requirements. The long-term trend towards multi-processor architectures requires specialty memory devices to shuttle and store data. LOGIC is developing a portfolio of high density, feature rich memory devices capable of high-speed data transfer and storage. The Company is focused on two main categories of specialty memory devices: multi-port and FIFO memories.

### **Specialty Memory Products — Competition**

LOGIC faces a limited number of competitors in this market segment. The two primary competitors are Integrated Device Technology, Inc. (IDT) and Cypress Semiconductor, both of which have a relatively long history in the specialized memory business. IDT and Cypress have products lines that directly compete with LOGIC's data buffering product family. Although established in the specialized memory business, time has aged these competitors' data buffering memory products.

### **Specialty Memory Products — Competitive Advantage**

LOGIC is developing a broad line of superior memory products that address both competitors' product lines. The Company's line of FIFO memory products will lead the industry in speed and density. Its broad multi-port portfolio boasts the industry's most inclusive feature-set, highest bandwidth, and density. LOGIC's goal is to become the leader in the specialized memory market space. The Company correctly anticipated the networking and wireless industry's future bandwidth and feature requirements and has laid out a preemptive roadmap of products that builds on existing industry-leading packet buffering and inter-processor communications product lines.

### **Customers**

The Company markets its products worldwide to a large number of top-tier industrial customers including manufacturers of broadcast video equipment, wireless base stations, medical diagnostic equipment, and smart-weapons systems. The Company seeks to target customers in the video, medical, military/aerospace, and communications sectors.

**Table 1. Industry Leading Customers**

<b><u>Video</u></b>	<b><u>Military / Aerospace</u></b>
-- Barco	-- BAE Systems
-- Phillips	-- Boeing
-- Quantel	-- Lockheed Martin
-- Rhode & Schwartz	-- Northrup
-- Snell & Wilcox	-- Raytheon
-- Sony	
-- Texas Instruments	
	<b><u>Communications &amp; Test</u></b>
<b><u>Medical</u></b>	-- Anritsu
-- GE Medical	-- Leader
-- Siemens	-- Qualcomm
-- Phillips	-- Teradyne

Source: LOGIC Devices, Inc.

## Industry Profile

The semiconductor industry is intensely competitive, highly cyclical, and characterized by rapid technological change, product obsolescence, wide fluctuations in demand and capacity, and steep price erosion. The industry is also noted for very large capital investments that are often required to sustain very high intensity of research and development (up to 20% of annual revenues) and the required level of capital expenditures in semiconductor fabrication plants, or fabs, (up to 25% of annual revenues).

Semiconductor companies need high degrees of flexibility and innovation in order to constantly adjust to the rapid pace of change in the market. Many products embedding semiconductor devices often have a very short lifecycle. The rate of constant price-performance improvement in the semiconductor industry (Moore's Law at work) is staggering. As a consequence, changes in the semiconductor market not only occur extremely rapidly but also anticipate changes in industries evolving at a slower pace.

Rapid advances in chip design and chip fabrication technology has driven a trend towards specialization of skills within the industry. Many semiconductor companies have chosen to be fabless and outsource all chip fabrication while they focus all their efforts on chip design and marketing. This is the approach taken by LOGIC allowing it to focus its resources on designing and developing high-performance integrated circuit components for growing markets, which require demanding computational throughput.

## Company Infrastructure

The semiconductor industry is very capital intensive, partly due to the large capital investment in wafer fabrication facilities. LOGIC has structured itself around a low capital requirement business model by being a fabless IC supplier. The Company is organized around the design, marketing, and sales of its products, while most manufacturing processes are outsourced to subcontractors in Asia.

The two main manufacturing processes that the Company has outsourced are wafer fabrication and package assembly. Wafer fabrication requires a fabrication plant, which costs over \$1 billion to build and operate. Because fabs exist that provide these services, LOGIC has strategically outsourced this process. Package assembly is the sawing of a wafer into individual die that are then enclosed in a ceramic or plastic package. Because these services are also readily available and provide little added value being done in-house, the Company has outsourced this process as well. LOGIC does maintain an in-house test facility for periodic testing of small orders, while outsourcing large order testing.

LOGIC's sales structure is based on a worldwide network of distributors led by a small direct sales team. The distributor-based model minimizes sales-force cost and maximizes the Company's sales reach.

### Competition

The semiconductor industry is intensely competitive with many major domestic and international companies that have substantially greater financial, technical, manufacturing, and marketing resources than LOGIC. LOGIC's ability to compete depends largely on its ability to develop new products in a timely manner, retire old products when appropriate, and sell LOGIC's current product line to customers. In the area of high-performance DSP circuits, public companies include Altera (ALTR), Analog Devices (ADI), Cypress Semiconductor (CY), Fairchild Semiconductor (FCS), Integrated Device Technology, Inc. (IDTI), Intersil (ISIL), Texas Instruments (TXN), and Xilinx (XLNX).

LOGIC competes directly with companies that have similar products. It also competes indirectly with alternative technologies offered by numerous semiconductor companies. The level of competition that LOGIC experiences highly depends on its current product catalog. This level of competition will vary as new products replace old products.

LOGIC has few competitors due to the highly complex design and engineering expertise necessary for development of niche high performance memory products. The Company does indeed face competition, but from few competitors. LOGIC's primary sources of competition exist in the **Digital Video Products** (DSP) segment and the **Specialty Memory Products** segment. These are the two main product segments of the company's product roadmap and competitive space.

#### • **Digital Video Products — Competition**

The closest indirect competitors to the Company's video product line utilize field programmable gate array (FPGA) solutions. FPGA devices are both flexible and user-definable, allowing high-end video equipment manufacturers to tailor the device to their specific needs. The two leading FPGA suppliers that compete in this market segment are Xilinx, Inc. and Altera Corporation.

#### • **Specialty Memory Products — Competition**

LOGIC faces a limited number of competitors in this market segment. The two primary competitors are Integrated Device Technology, Inc. (IDTI) and Cypress Semiconductor (CY), both of which have a relatively long history in the specialized memory business. IDT and Cypress have products lines that directly compete with LOGIC's data buffering product family. Although established in the specialized memory business, time has aged these competitors' data buffering memory products.

### Competitor Descriptions

- Altera, Inc. (NASDAQ: ALTR): Altera, Inc. engages in the research, development, manufacture, and marketing of programmable logic devices.
- Analog Devices, Inc. (NYSE: ADI): Analog Devices, Inc. engages in the design, manufacture, and marketing of analog, mixed-signal, and digital signal processing integrated circuits. These integrated circuits are used in signal processing for industrial, communication, computer, and consumer applications.
- Cypress Semiconductor Corp. (NYSE: CY): Cypress Semiconductor Corporation engages in the design, development, manufacture, and marketing of silicon-based products. It operates through five segments: Consumer and Computation Division, Data Communications Division, Imaging Division, SunPower, and Other. The Data Communications Division focuses on specialty memories, including FIFO and dual port memories.
- Fairchild Semiconductor International, Inc. (NASDAQ: IDTI): Fairchild develops, manufactures, and sells power analog and discrete, as well as certain non-power semiconductor solutions to end market customers.

- Integrated Device Technology, Inc. (NASDAQ: FCS): Integrated Device Technology, Inc. designs, develops, manufactures, and markets semiconductors. It operates in three segments: Networking, Timing Products, and Standard Products. The Networking segment includes network search engines, integrated communications processors, FIFO memories, multiport memories, and flow control management devices. The Company markets its products primarily to original equipment manufacturers (OEMs).
- Intersil Corp. NASDAQ: ISIL: Intersil Corporation engages in the design and manufacture of analog integrated circuits. It offers a portfolio of application specific standard products and general purpose proprietary products for high-end consumer, industrial, communications, and computing markets.
- Texas Instruments, Inc. (NYSE: TXN): Texas Instruments Incorporated engages in the manufacture, design, and sale of digital signal processors and analog semiconductors. It operates in three segments: Semiconductor, Sensors & Controls, and Educational & Productivity Solutions. The Semiconductor segment designs, manufactures, and sells integrated circuits. Its core products include analog semiconductors and digital signal processors. The Semiconductor segment also designs and manufactures other types of semiconductors, such as digital light processing (DLP) devices, reduced instruction-set (RISC) computing microprocessors, microcontrollers, and logic devices.
- Xilinx, Inc. (NASDAQ: XLNX): Xilinx, Inc. engages in the design, development, and marketing of programmable logic solutions. It offers programmable logic devices, including field programmable gate arrays and complex programmable logic devices, software design tools, and predefined system functions delivered as intellectual property cores.

Below are comparative statistics on these competitors:

**Table 2. Comparative Statistics on Competitors**

	<u>LOGC</u>	<u>ADI</u>	<u>ALTR</u>	<u>CY</u>	<u>FCS</u>
Recent price	\$1.04	\$33.32	\$22.18	\$27.47	\$13.83
Shares	6.81 mil	293.94 mil	301.78 mil	150.23 mil	124.59 mil
Market Cap	\$7.09 mil	\$9,790 mil	\$6,690 mil	\$4,130 mil	\$1,720 mil
Revenues (ttm)	\$3.90 mil	\$2,514.1 mil	\$1,294.7 mil	\$1,695.6 mil	\$1,265 mil
Gross Margin (ttm)	30.10%	59.38%	64.41%	32.61%	29.96%
Operating Margin (ttm)	-52.56%	21.64%	23.50%	0.21%	6.74%
Net Earnings (ttm)	-\$2.30 mil	\$713.81 mil	\$298.88 mil	\$377.96 mil	\$74.80 mil
EPS (ttm)	-\$0.33	\$1.53	\$0.89	\$2.39	\$0.66
Price-to-Sales (ttm)	1.82	3.90	5.17	2.43	1.03
P/E (ttm)	n/a	22.91	24.99	11.60	23.32

	<u>IDTI</u>	<u>ISIL</u>	<u>TXN</u>	<u>XLNX</u>
Recent price	\$11.65	\$27.18	\$29.27	\$25.24
Shares	182.57 mil	124.25 mil	\$1,320 mil	\$286.32
Market Cap	\$2,130 mil	\$3,380 mil	\$38,720 mil	\$7,230 mil
Revenues (ttm)	\$811.07 mil	\$792.94 mil	\$13,915 mil	\$1,841.35
Gross Margin (ttm)	42.58%	56.86%	53.54%	62.89%
Operating Margin (ttm)	0.07%	20.09%	26.05%	22.88%
Net Earnings (ttm)	\$13.67 mil	\$174.52 mil	\$2,804 mil	\$374.05 mil
EPS (ttm)	\$0.06	\$1.26	\$1.97	\$1.27
Price-to-Sales (ttm)	2.62	4.26	2.82	4.00
P/E (ttm)	160.85	22.62	15.07	20.35

**KEY**

LOGC	LOGIC Devices, Inc.
ADI	Analog Devices, Inc.
ALTR	Altera, Inc.
CY	Cypress Semiconductor Corp.
FCS	Fairchild Semiconductor Corp.
IDTI	Integrated Device Technology, Inc.
ISIL	Intersil Corp.
TXN	Texas Instruments, Inc.
XLNX	Xilinx Inc.

Source: Reuters

**Investment Risks**

**Industry Cyclical Risk** — The Company is subject to the repeated and severe business cycles that have historically been experienced by the semiconductor industry.

**Rapid Product Obsolescence Risk** — The semiconductor industry is subject to rapid rates of technological change and product obsolescence. The Company's future success highly depends on its ability to introduce new or improved products that offer high performance and meet critical customer needs. The Company must make critical decisions regarding its future product roadmap, future enhancements to existing products, and when to retire older products. LOGIC must make these decisions while achieving acceptable profit margins.

**Litigation Risk** — The semiconductor industry is subject to substantial litigation regarding patent issues and intellectual property rights. The Company may be accused of infringing on the intellectual property rights of third parties and may be forced to defend itself against such litigation. The Company may also have to sue other third parties to enforce its own

intellectual property rights. The costs of litigation are substantial, especially for a company that is as small as LOGIC Devices. The Company could be harmed by litigation involving patents and other intellectual property rights. Delays in product development due to litigation involving patents and other intellectual property rights may negatively impact the Company's financial performance and its ability to develop and market new products.

**Small Company Risk** — LOGIC is the smallest publicly traded semiconductor company. Many of the Company's competitors have substantially greater financial, technological, manufacturing, marketing, and sales resources. In particular, many of the Company's competitors have substantial financial resources that can be quickly mobilized to invest heavily in research and development of new products. LOGIC has limited financial resources compared to its competitors and may not be able to compete as effectively as its competitors.

**Lack of Profitability Risk** — During the period FY2002 through FY2007, the Company was profitable only once (FY2006) on an operating income basis and on a net income basis. All other fiscal years, during this six-year period, generated both operating losses and net losses. The Company slipped back into an operating loss and a net loss in FY2007. We expect the Company will continue to generate an operating loss and a net loss in FY2008. As of September 30, 2007 (FY2007), the accumulated deficit was \$10.668 million. We do expect the Company to become profitable again in FY2009.

**Outsourcing Risk** — LOGIC outsources chip manufacturing, assembly, and some testing functions. The Company is highly dependent on third parties to manufacture products cost effectively, in sufficient quantities, while maintaining quality specifications. The Company's two contract manufacturers for chip fabrication do not have a contractual obligation or commitment to supply wafers in the future. A disruption in this outsourced process could result in the Company's inability to fill orders and could cause a loss of customers. The Company depends on independent carriers and freight haulers to transport its products between manufacturing locations and to deliver its products to its customers. Any transport of delivery interruptions could harm the Company's future operating results.

**Revenue Concentration Risk** — LOGIC is dependent on a limited number of customers. The Company does not have a long-term purchase commitment from any of its customers. These customers could stop purchasing the Company's products with limited notice and with no penalty.

**Stock Illiquidity Risk** — LOGIC common shares are illiquid and thinly traded. Average trading volume of 3,000 shares per day equates to trading of less than \$3,120 per day at its current price. Due to the stock's high degree of illiquidity, investors may have difficulty accumulating or exiting positions in the stock.

**International Operations Risk** — The Company's subcontractors for wafer fabrication and package assembly are located in Asia, primarily South Korea and Taiwan. The Company also has many overseas customers and foreign distributors it relies upon. Volatile geopolitical conditions or supply chain disruptions could restrict or delay product shipments and negatively impact financial performance.

**Inventory Write-off Risk** — LOGIC produces many of its products with extremely long product lifecycles. Consequently, the Company must maintain high levels of inventory for very long periods of time. These high inventory levels tie up capital resources in the form of inventory, decrease liquidity, heighten the risk of inventory obsolescence, and substantially increase the risks of inventory write offs and increases to the inventory valuation allowance.

**Cash Liquidity Risk** — The Company currently has no bank credit facility and must rely solely upon existing cash reserves and cash flow from operations to finance all operations including capital spending and investment in research and development.

**Risk of Losing Key Personnel** — LOGIC is a small company and is particularly dependent upon a relatively small group of key employees. Competition for skilled technical and management employees is intense in the semiconductor industry. The Company may be unable to retain its existing key technical and management employees, or attract additional qualified personnel due to intense competition for talent. The Company's future success is greatly dependent on its ability to attract and retain qualified technical and management personnel.

**Table 3. Condensed Income Statement Model for Fiscal Year 2008**  
(Year Ends September 30, 2008, in whole U.S. dollars, except for Per Share data)

	Q1-F Y2008		Q2-FY 2008		Q3-FY 2008		Q4-FY 2008	
	Quarter Ended		6 Mths. Ended		Quarter Ended		FY2008	
	12/31/07	3/31/08	3/31/08	6/30/08	9/30/08			
	Act.	Act.	Act.	Est.	Est.	Est.	Est.	
Net revenues	\$ 868,700	\$ 965,300	1,834,000	\$ 1,000,000	\$ 1,200,000	\$ 4,034,000		
Cost of goods sold	741,200	1,015,000	1,756,200	780,000	770,000	3,306,200		
Gross margin	127,500	(49,700)	77,800	220,000	430,000	727,800		
Operating expenses:								
Research & development	360,600	362,200	722,800	365,000	365,000	1,452,800		
Sales, general & admin.	416,500	396,800	813,300	300,000	300,000	1,413,300		
Total operating expenses	777,100	759,000	1,536,100	665,000	665,000	\$ 2,866,100		
Income from operations	(649,600)	(808,700)	(1,458,300)	(445,000)	(235,000)	(2,138,300)		
Other income (expense), net	(113,200)	17,000	(96,200)	20,000	20,000	\$ (56,200)		
Income before income taxes	(762,800)	(791,700)	(1,554,500)	(425,000)	(215,000)	(2,194,500)		
Income tax provision	-	-	-	-	-	-		
Net income	\$ (762,800)	\$ (791,700)	\$ (1,554,500)	\$ (425,000)	\$ (215,000)	\$ (2,194,500)		
Basic (loss) earnings per common share	\$ (0.11)	\$ (0.12)	\$ (0.23)	\$ (0.06)	\$ (0.03)	\$ (0.32)		
Basic weighted avg. common shares O/S	6,813,938	6,814,438	6,814,438	6,814,438	6,814,438	6,814,438		
Diluted (loss) earnings per common share	\$ (0.11)	\$ (0.12)	\$ (0.23)	\$ (0.06)	\$ (0.03)	\$ (0.32)		
Diluted weighted avg. common shares O/S	6,813,938	6,814,438	6,814,438	6,814,438	6,814,438	6,814,438		
Gross Margin %	14.68%	-5.15%	4.24%	22.00%	35.83%	18.04%		
Operating Margin %	-74.78%	-83.78%	-79.51%	-44.50%	-19.58%	-53.01%		
Net Margin %	-87.81%	-82.02%	-84.76%	-42.50%	-17.92%	-54.40%		

Sources: Company Financial Statements and Dutton Associates Estimates

**Table 4. Condensed Income Statement Model for Fiscal Year 2009  
Year Ended September 30, 2009  
(In whole U.S. dollars, except for Per Share data)**

	Q1-FY2009		Q2-FY2009		6 Mths. Ended 3/31/09	Q3-FY2009		Q4-FY2009		FY2009
	Quarter Ended		Quarter Ended			Quarter Ended		Quarter Ended		
	12/31/08	3/31/09	6/30/09	9/30/09		6/30/09	9/30/09	6/30/09	9/30/09	
	Est.	Est.	Est.	Est.	Est.	Est.	Est.	Est.	Est.	
Net revenues	\$ 1,450,000	\$ 1,493,500	2,943,500	\$ 1,538,305	\$ 1,584,454	\$ 6,066,259				
Cost of goods sold	770,000	770,000	1,540,000	770,000	770,000	3,080,000				
Gross margin	680,000	723,500	1,403,500	768,305	814,454	2,986,259				
Operating expenses:										
Research & development	365,000	365,000	730,000	365,000	365,000	1,460,000				
Sales, general & admin.	300,000	300,000	600,000	300,000	300,000	1,200,000				
Total operating expenses	665,000	665,000	1,330,000	665,000	665,000	2,660,000				
Income from operations	\$ 15,000	\$ 58,500	\$ 73,500	\$ 103,305	\$ 149,454	\$ 326,259				
Other income (expense), net	20,000	20,000	40,000	20,000	20,000	80,000				
Income before income taxes	35,000	78,500	113,500	123,305	169,454	406,259				
Income tax provision	5,250	11,775	17,025	18,496	42,364	77,884				
Net income	\$ 29,750	\$ 66,725	\$ 96,475	\$ 104,809	\$ 127,091	\$ 328,375				
Basic (loss) earnings per common share	\$ 0.00	\$ 0.01	\$ 0.01	\$ 0.02	\$ 0.02	\$ 0.05				
Basic weighted avg. common shares O/S	6,814,438	6,814,438	6,814,438	6,814,438	6,814,438	6,814,438				
Diluted (loss) earnings per common share	\$ 0.00	\$ 0.01	\$ 0.01	\$ 0.02	\$ 0.02	\$ 0.05				
Diluted weighted avg. common shares O/S	6,814,438	6,814,438	6,814,438	6,814,438	6,814,438	6,814,438				
Gross Margin %	46.90%	48.44%	47.68%	49.94%	51.40%	49.23%				
Operating Margin %	1.03%	3.92%	2.50%	6.72%	9.43%	5.38%				
Net Margin %	2.05%	4.47%	3.28%	6.81%	8.02%	5.41%				

Sources: Company Financial Statements and Dutton Associates Estimates

**Financial Performance**

**Second Quarter (Ended March 31, 2008) FY2008**

For the quarter and six months ended March 31, 2008, LOGIC's net revenues decreased by \$293,200 (23%) and \$786,900 (30%), respectively, compared to the same periods of fiscal 2007. These decreases were attributed primarily to revenues from the digital cinema project being in a catch-up phase in fiscal 2007 with approximately double the order rate. The decreases were also due to further deterioration of the revenue contributions from older product offerings.

The Company wrote-off inventory of \$771,800 during Q2-2008 and \$1,120,600 for six months ended March 31, 2008; and also wrote-off \$129,900 of capital equipment no longer in use (loss on disposal), for the six months ended March 31, 2008.

Research and development spending increased by \$23,500 (7%) during Q2-2008, and by \$41,100 (6%) for the six months ended March 31, 2008, compared to the same periods of fiscal 2007. The Company is doing a very good job balancing the need to keep indirect costs at a minimum while continuing to spend on new product introductions that are the key to future revenue growth.

LOGIC had a net loss of \$791,700 and \$1,544,500, respectively, for the quarter and six months ended March 31, 2008, compared to a net income of \$40,800 and \$95,300 for the same periods of fiscal 2007, respectively.

**Table 5. Condensed Income Statement Model For FY2002 through FY2009  
(Year Ended September 30; In U.S. Whole Dollars, Except for Per Share Data)**

	2002 Act.	2003 Act.	2004 Act.	2005 Act.	2006 Act.	2007 Act.	FY 2008 Est.	FY 2009 Est.
Net revenues	\$ 6,572,600	\$ 5,009,000	\$ 4,414,600	\$ 3,508,800	\$ 4,640,600	\$ 4,686,400	\$ 4,034,000	\$ 6,066,259
Cost of goods sold	4,780,000	3,597,200	2,773,600	2,861,600	2,153,700	2,846,700	3,306,200	3,080,000
Gross margin	1,792,600	1,411,800	1,641,000	647,200	2,486,900	1,839,700	727,800	2,986,259
Operating expenses:								
Research & development	1,775,700	1,784,600	1,363,900	729,800	981,700	1,811,800	1,452,800	1,460,000
Sales, general & admin.	2,138,400	2,110,900	1,772,100	1,298,700	1,421,900	1,546,400	1,413,300	1,200,000
Total operating expenses	3,914,100	3,895,500	3,136,000	2,028,500	2,403,600	3,358,200	2,866,100	2,660,000
Income from operations	(2,121,500)	(2,483,700)	(1,495,000)	(1,381,300)	83,300	(1,518,500)	(2,138,300)	326,259
Other income (expense), net	(7,200)	(23,200)	(23,500)	(19,200)	(46,900)	(76,000)	(56,200)	80,000
Income before income taxes	(2,114,300)	(2,460,500)	(1,471,500)	(1,362,100)	130,200	(1,442,500)	(2,194,500)	406,259
Income tax provision	(9,400)	(800)	(800)	(800)	(800)	(45,200)	-	(77,884)
Net income	\$ (2,123,700)	\$ (2,461,300)	\$ (1,472,300)	\$ (1,362,900)	\$ 129,400	\$ (1,487,700)	\$ (2,194,500)	\$ 328,375
Basic (loss) earnings per common share	\$ (0.31)	\$ (0.37)	\$ (0.22)	\$ (0.20)	\$ 0.02	\$ (0.22)	\$ (0.32)	\$ 0.05
Basic weighted avg. common shares O/S	6,850,096	6,651,705	6,715,480	6,749,855	6,754,021	6,797,480	6,814,438	6,814,438
Diluted (loss) earnings per common share	\$ (0.31)	\$ (0.37)	\$ (0.22)	\$ (0.20)	\$ 0.02	\$ (0.22)	\$ (0.32)	\$ 0.05
Diluted weighted avg. common shares O/S	6,850,096	6,651,705	6,715,480	6,749,855	6,794,789	6,797,480	6,814,438	6,814,438
Gross Margin %	27.27%	28.19%	37.17%	18.45%	53.59%	39.26%	18.04%	49.23%
Operating Margin %	-32.28%	-49.58%	-33.86%	-39.37%	1.80%	-32.40%	-53.01%	5.38%
Net Margin %	-32.31%	-49.14%	-33.35%	-38.84%	2.79%	-31.75%	-54.40%	5.41%

Source: Company Financial Statements

## Valuation and Conclusion

(Please refer to Table 3 on page 11, Table 4 on page 12, and Table 5 on page 13). During the period FY2002 through FY2007, the Company did not record an operating profit or a net profit on a fiscal year basis, except for FY2006, when it generated a modest operating profit of \$83,300 and a modest net profit of \$129,400. All other fiscal years during this six-year period generated both operating losses and net losses. The Company also posted losses on both an operating income and net income basis for Q1-FY2008 and Q2-FY2008. We expect this loss trend will continue through the remainder of FY2008. As of September 30, 2007 (FY2007), the accumulated deficit was \$10.668 million. We do expect the Company to return to profitability in FY2009.

We believe the key challenges facing the Company are achieving greater revenue growth while struggling with an aging product line, and achieving sustainable profitability again on both an operating income and net income basis. Key to the Company's financial performance will be continued research and development spending and timely new product introductions to offset slowing demand for older products. Avoidance of large inventory write-downs, inventory write-offs, and inventory valuation allowances will also have to be managed in order to realize the Company's goal of becoming profitable once again. We understand the need for write-downs, write-offs, and inventory allowances. Management is doing an excellent job of managing their inventory, but nonetheless, until the Company begins to achieve sustained profitability on an ongoing basis, the performance of LOGIC's common stock is likely to be modest at best.

In our FY2009 model, we anticipate that the Company will have a very small profit in Q1-FY2009 and will be profitable on a full year basis. We anticipate the Company will achieve a substantial increase in revenue in FY2009 as sales ramp up from the introduction of the Company's new frame buffer relay products for video broadcasting and other video imaging applications. With the rapidly growing demand for HD format video content and demand for high-performance imaging products, we believe that revenues from the Company's new frame buffer relay product line will likely be significant. Rising demand for other video products made by the Company also bodes well for increased revenue in FY2009.

We are initiating coverage of LOGIC shares with a **Speculative Buy** rating and a 12-month Target Price of \$1.37, based on a price-to-sales multiple of 1.82 times our trailing twelve-month revenue estimate of \$6.82 million, or \$0.75 per share. At LOGIC's current price of \$1.04 per share, our 12-month price target of \$1.37 per share represents potential price appreciation of 32 percent if the Company achieves our 12-month price target. Our trailing twelve-month revenue estimate is for the period including Q3 and Q4 in FY2008 plus Q1 and Q2 in FY2009.

Small semiconductor companies currently trade at an average at 3.17 times trailing 12-month sales. We believe LOGIC shares deserve a reduced price-to-sales multiple because of the Company's continued lack of profitability on both an operating income and net income basis. LOGIC currently trades at a 1.82 times price-to-sales (ttm) multiple, about a 43% discount to the 3.17 times price-to-sales (ttm) multiple average for small semiconductor companies. We have elected to use LOGIC's current price-to-sales multiple of 1.82 times for the calculation of our target price based on trailing twelve-month revenues. If the Company becomes profitable in FY2009 as we anticipate, we believe that it will likely garner a higher price-to-sales multiple.

We believe our FY2008 and FY2009 models are conservative, but they do hinge on some key assumptions. In particular, our FY2009 model assumes that the Company will increase revenues significantly during FY2009 due to new product introductions, especially the Company's new frame relay buffer products for video applications. We also anticipate avoidance of large inventory reserves, large inventory write downs, and large inventory write offs of aging product inventory. If these assumptions are correct, we believe LOGIC will return to profitability in FY2009 on both an operating income and net income basis. However, if revenues do not ramp as we expect, or if inventory allowances, inventory write-downs, or inventory write-offs are much larger than expected, then a return to profitability might be delayed and our estimates might not be realized in the time frame we expect.

We have discounted the average 3.17 times price-to-sales multiple for small semiconductor companies to reflect the Company's ongoing problems with revenue growth, its very small market capitalization, lack of stock liquidity, and the fact that it is thinly traded. The most important factor of all reflected in our discounted price-to-sales multiple is the Company's current lack of profitability on both an operating income and net income basis. If LOGIC exceeds our fiscal year 2009 revenue estimates, and is more profitable than we already expect on both an operating income and net income basis, we would consider raising our 12-month target price and would also consider upward revision of our price-to-sales estimate if the Company generates greater than expected profits.

For the purposes of valuation comparison, we examined small companies that compete in the specialty semiconductor equipment industry. Of the 34 companies in this space, about one third (11 companies) had a market capitalization exceeding \$1 billion, while five could be considered micro-cap companies with market capitalizations under \$150 million. LOGIC is the smallest of the five micro-caps. We considered only the sub-segment of micro-cap semiconductor companies.

**Table 6. Semiconductor--Specialized: Small Companies Peer Group**

<b>Company</b>	<b>Ticker</b>	<b>Recent Price</b>	<b>Shares O/S (mil.)</b>	<b>Market Cap. (mil.)</b>	<b>EPS (ttm)</b>	<b>Price/Sales (ttm)</b>	<b>P/E (ttm)</b>	<b>Sales (ttm-\$mil.)</b>
Alliance Fiber Optic Products	AFOP	\$ 1.47	41.43	60.90	\$ 0.08	1.79	18.74	\$36.48
<b>LOGIC Devices, Inc.</b>	<b>LOGC</b>	<b>\$ 1.04</b>	<b>6.81</b>	<b>7.09</b>	<b>\$ (0.47)</b>	<b>1.82</b>	<b>NM</b>	<b>\$3.90</b>
NeoMagic Corp.	NMGC	\$ 0.64	12.46	7.97	\$ (1.35)	3.77	NM	\$2.08
NVE Corp.	NVEC	\$ 34.08	4.64	158.09	\$ 1.36	7.87	23.82	\$19.05
Ultra Clean Holdings, Inc.	UCTT	\$ 10.33	21.64	223.53	\$ 0.57	0.59	18.51	\$385.37
<b>Small Company Average</b>						<b>3.17</b>	<b>20.357</b>	<b>\$89.38</b>

Source: Reuters

## Management and Directors

### Howard Farkas — Chairman of the Board, President of Farkas Group, Inc.

Mr. Farkas has been a director since inception. Mr. Farkas is President of Farkas Group, Inc., a company that provides management services to various business interests. He is the sole owner and managing broker of Windsor Gardens Realty, Inc., a residential real estate brokerage company, which he co-founded in 1964. He serves as director for Synthetech, Inc., a public chemical research and manufacturing company whose products are used extensively in new drug research; for Navidec Financial Services, Inc., a public company that identifies and acquires a substantial, or controlling interest, in development stage companies with the expectation of further development and then taking the enterprise public; in privately-held Northwestern Engineering Company; and for a number of privately-held oil and gas exploration and development companies.

### William J. Volz — President and Chief Executive Officer, Director

Mr. Volz is one of the founders and has been a director since inception. Mr. Volz has been President and Chief Executive Officer since December 1987. He served as the Vice President of Engineering from August 1983 to December 1987.

### Kimiko Milheim — Chief Financial Officer and Secretary

Kimiko Milheim joined the Company in November 1999 (served as a consultant during a brief period of fiscal 2004 and 2007 before returning as an employee). Ms. Milheim is a Certified Public Accountant, with an M.B.A. degree from the University of California, Irvine. Prior to joining the Company, she was General Accounting Manager at ArthroCare Corporation, an Audit Manager at BDO Seidman, LLP, and an In-Charge Accountant with the Office of the California State Auditor.

**Adesh Sidhu — Vice President of Worldwide Sales**

Adesh Sidhu joined LOGIC Devices Incorporated in July 2006 as the Vice President of Worldwide Sales. Mr. Sidhu brings over 12 years of semiconductor industry experience. Most recently, he held positions with Altera Corporation, as a Senior Marketing Manager and Texas Instruments, as a Distribution Sales Manager. Mr. Sidhu holds a B.S.E.E. from the California State University, Fresno and an M.B.A. from Santa Clara University.

**Albert Morrison — Director**

Mr. Morrison has served one of LOGIC Devices Incorporated's directors since 1983. He is Chairman Emeritus of Morrison Brown Argiz & Farra LLP, a certified public accounting firm in Miami, Florida from 1969 to 2003. He is a member of the Board of Directors of Heico Corporation, a member of the Board of Directors for Florida International University, and Chairman of the Miami-Dade County Industrial Development Authority.

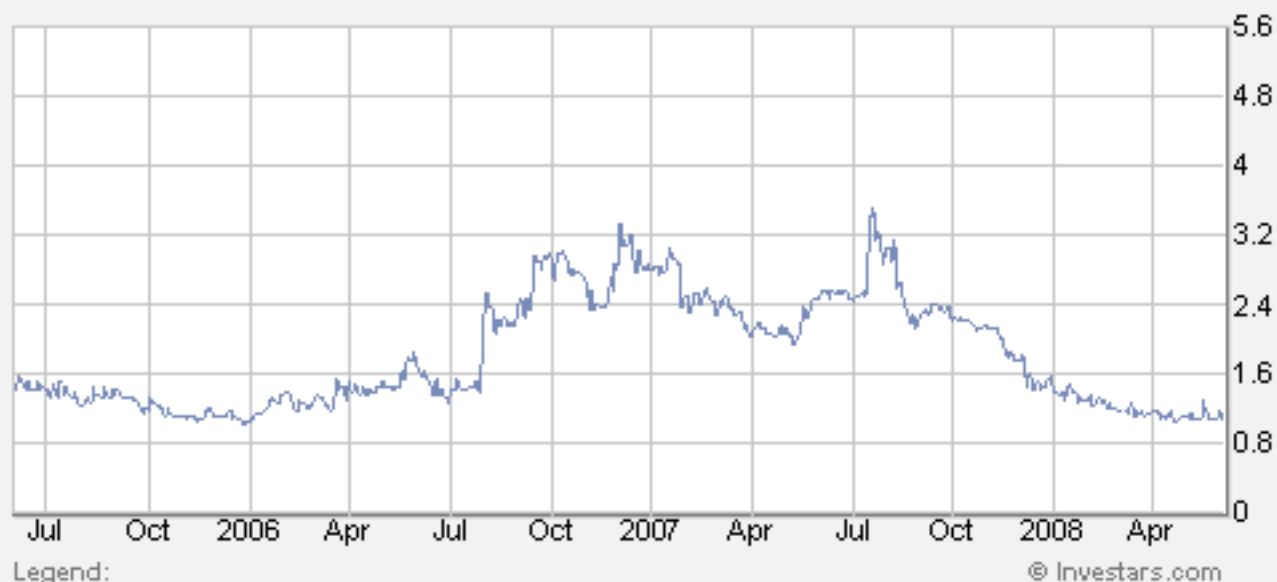
**Brian Cardozo — Director**

Mr. Cardozo joined the Board of Directors in 2003. Mr. Cardozo holds a B.S.C. from Santa Clara University, an M.B.A. in accounting from Saint Louis University, and an M.B.A. in finance from Saint Louis University. Since May 2000, Mr. Cardozo has been owner and operator of a Harley-Davidson dealership. He was an Audit and Financial Services Partner of BDO Seidman LLP and Audit Partner-in-Charge of the San Jose, California office of BDO Seidman LLP until October 2000. Mr. Cardozo was a founding partner in Meredith Cardozo Lanz & Chiu LLP, a regional public accounting firm that merged into BDO Seidman LLP in October 1999. In addition to his years of public accounting experience, he has industry experience with a local Fortune 500 company, Amdahl, working in the areas of corporate budgeting, corporate reporting, financial policies and procedures, and SEC reporting. Mr. Cardozo has specialized in servicing high technology, software, manufacturing, distribution, and other industries, ranging from start-ups to large multi-national enterprises. He has provided emerging growth companies with advice ranging from introductions to traditional financial sources, accounting system consulting, potential financial employee referrals, and merger and acquisition assistance. He is a member of the American Institute of Certified Public Accountants, the California Society of Certified Public Accountants, and the Association for Corporate Growth.

**Steven Settles — Director**

Mr. Settles joined the Board of Directors in 2005 and is a private investor and managing partner of Dawg Investment Fund LLP, which was formed in 2000 to invest in both public and private companies. Along with partners, he owns Intuition Development Holdings (IDH), a private firm that provides information systems and services to corporate and government clients. He is a Board Member of IDH and its subsidiaries. Prior to 1993, he was Director of Strategic Planning at Barnett Banks, Inc. He holds an M.B.A. degree from The Wharton School, University of Pennsylvania and a B.B.A. from the University of Georgia.

Dutton Associates ratings for LOGC (LOGIC DEVICES INC)  
 Closing Price Jun 04, 2008: 1.04



<b>Dutton Associates</b>	
<b>Current Ratings Distribution</b>	
<b>Rating</b>	<b>% Total</b>
Not rated	3.13
Strong Buy	12.5
Buy	7.81
Strong Speculative Buy	34.38
Speculative Buy	25.78
Neutral	14.06
Avoid	2.34

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**Analyst: Randy Wilson**

Mr. Wilson was most recently an analyst with Reed Global Advisors where he covered technology, telecommunications, and healthcare. Previously, he had been an analyst and portfolio manager with Smith Barney Asset Management and Qualivest Capital Management. He received a B.A. in Biology from the University of Colorado and an M.B.A in Finance from the Leeds School of Business at the University of Colorado.

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**Analyst Certification:**

I, Randy Wilson, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the recommendations or views expressed in this research report.

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