CORPORATE BACKGROUNDER

CORPORATE PROFILE

Cypress Semiconductor Corporation is in its second decade as an international, broad-line supplier of integrated circuits for a range of growth markets. The company supplies its products to leading providers of data communications, telecommunications, personal computer, and military systems worldwide.

Cypress was founded in 1982 and has grown very rapidly and profitably. Successful innovation, execution, and leadership resulted in Cypress being cited by *Electronic Business* magazine in 1990 as the fastest growing electronics company in America. The company has also received numerous awards for excellence in financial management, including Bronze and Silver awards from *The Wall Street Transcript*. Cypress is led by its founder, President and CEO T. J. Rodgers, whose aggressive and innovative management style has resulted in national prominence for the company. Cypress's sales and marketing efforts are directed by Dan McCranie, a twenty-year industry veteran.

Today, Cypress is an international company with annual revenues of $600 million, nearly 2000 employees, and a worldwide sales network. Cypress is maintaining its competitiveness by continuously improving its operations for more efficient and economical production. Cypress has implemented cycle time and inventory reduction programs which have significantly lowered costs. These improvements have allowed Cypress to compete in high-volume, cost-sensitive areas such as the EPROM, FCT logic, and personal computer cache memory markets. The result is continuing growth opportunities for Cypress.

Cypress has also entered other fast-growing markets. Cypress offers the UltraLogic™ family of high-density programmable logic. The company has entered the data communications market with leading-edge physical layer products for emerging networking technologies including ATM, Fibre Channel, and Fast Ethernet. Cypress also offers the hyperCache™ Chipset for Pentium™-class personal computers, the first core logic chipset to incorporate cache memory.

Cypress operates four advanced wafer fabrication facilities, and two other facilities are planned. Manufacturing sites include:

- Fab I in San Jose, California, the company's first fab, which also serves as the focal point for the company's development effort.

- Fab II in Round Rock, Texas, the company's largest wafer fabrication plant, founded in 1986.
- Fab III in Bloomington, Minnesota, founded in 1991 as a state-of-the-art wafer fab.
- Fab IV, located adjacent to Fab III in Bloomington, the company's first 8-inch fab.
- Fab V, located adjacent to Fab II in Round Rock, slated for production in 1997.
- A dedicated assembly and test facility in the Philippines to be in production by the third quarter of 1996.

Cypress was incorporated in California in 1982, and became publicly traded in May 1986. Cypress's stock is listed on the New York Stock Exchange and traded under the symbol "CY." Corporate headquarters are located in San Jose, California.

Cypress's First Ten Years

Cypress's 1982 business plan outlined a strategy that propelled the company's fast growth over its first ten years. It stated, "The basic premise of Cypress is that a multi-disciplinary group of founders . . . can quickly put into production a state-of-the-art, high-speed CMOS process. This technology will be applied to a targeted group of . . . high-speed, high-ASP products that will be outperformed significantly by Cypress's new CMOS pin-compatible circuits in every measure of IC performance: speed, power consumption, yield (cost), quality, and reliability."

Cypress *has* outperformed the competition. From the introduction of Cypress's flagship product, a 1-Kbit, 15-nanosecond SRAM in 1984, Cypress has grown in extraordinary leaps. The company reached profitability in 1985, after only seven quarters of production operation. In 1986, Cypress went public, generating a total of $77.6 million -- one of the largest initial public offerings for any company at that time. By 1987, Cypress had recovered all of its start-up operating losses, and showed a positive cash balance at year-end. 1988 saw Cypress climb over the $100 million mark in annual revenues, and by 1990 the company eclipsed the $200 million mark. In 1993, Cypress's revenues topped $300 million for the first time, and revenues shot up to over $400 million in 1994.

Cypress has achieved these strong financial results through technological innovation, combined with solid management and execution. Cypress's ground-breaking CMOS technology outperformed competitive products which used far more power. Never satisfied, the company has consistently led the industry in the introduction of newer and faster processing technologies. In 1987, Cypress implemented one of the first 0.8-micron CMOS

process technologies. Cypress continued its process migration with the introduction of a 0.65 micron CMOS process in 1992. Cypress also developed world-class BiCMOS and Flash technologies. The technology leadership continues today, as Cypress now produces 0.5 micron CMOS and BiCMOS products.

Cypress has achieved excellence in its first decade. The company's retained earnings rank eighth among U.S. semiconductor companies. Cypress has fostered a strong and loyal customer base, built through years of delivering high-performance, high-quality products. It also has built one of the industry's strongest research and development organizations, positioning Cypress for continued technology leadership. Cypress has evolved with the changes in the market, and the company is poised for continued success.

Roadmap for the '90s

Over the past decade, the semiconductor market has seen great changes and volatility. Electronics have been integrated into almost every facet of the economy, and the proliferation of computer and communications equipment has driven phenomenal growth in the industry. These changes have had a number of effects, including driving down prices and bringing increased competition into all areas of the semiconductor industry.

In response to these factors, Cypress has adjusted its basic strategy of providing many products for focused, niche markets. Cypress's strategy is to compete in higher-volume markets by maintaining a competitive cost structure, and introducing market-leading products quickly and efficiently. Cypress has taken a number of steps to support this new strategy. Assembly and test of products was moved to a new plant in Bangkok, Thailand, to take advantage of significantly lower costs, resulting in savings of over $20 million per year. Cypress has significantly reduced the number of product/package types and process technologies used in production, providing better use of resources and more efficient and cost-effective manufacturing. Other changes include a cycle-time reduction program, and a renewed focus on improving manufacturing yields.

The cost structure changes have allowed Cypress to adopt a "no excuses" strategy for competition in high-volume markets. Implicit in this strategy is the desire to compete profitably in commodity products at any volume, at any competitive price, anywhere in the world. Cypress will also use the process development and yield improvements gained from competing in these high-volume areas to competitive advantage in its other product lines.

Cypress has taken a more market-oriented approach by serving high-growth, profitable end-user markets (i.e., data communications and computation) with focused product lines

developed specifically for those markets. For example, the acquisition of IC Designs in 1993 provides Cypress with more focused products for the personal computer market. Cypress has also designed products specifically for Fibre Channel and ATM networking applications within the fast-growing data communications market.

The company has developed a new "billion-dollar" financial model for its second decade, with the stated goal of profitably growing the company. Cypress has made the necessary changes in its cost structures and growth model to position itself to achieve this ambitious goal.

CYPRESS PRODUCTS

Cypress has built a reputation throughout the industry and with its customers for providing the high performance, high-quality products in every market it enters. It continues to bring to market new, leading-edge products, produced with Cypress's CMOS (complementary metal-oxide semiconductor), BiCMOS and Flash process technologies. Cypress has 0.8-, 0.65 , and 0.5-micron CMOS and BiCMOS processes, and Flash at 0.65 micron. These process technologies allow Cypress to offer state-of-the-art products that provide the optimal balance of speed and power usage for any system. Development efforts are underway to further shrink the feature sizes of Cypress process technologies, thereby increasing speed, and decreasing die size and costs.

Cypress also offers a broad range of packaging options for its products, giving customers a variety of choices in pin-out configurations and temperature grades. In addition, Cypress products are designed to meet or exceed the full temperature and functional requirements of military products. This means that Cypress builds military products as a matter of course, rather than as an accidental benefit of favorable test yields, and resulted in Cypress receiving full militatry Qualified Manufacturer List (QML) certification in 1996.

Cypress products address a broad range of industries and markets. They are used in personal computers, workstations, servers, and super-minicomputers; telecommunications; data communications; networking products; military applications; and test and measurement equipment.

Static Memory Division

- **Static Random Access Memories --** Cypress is a market-leading supplier of SRAMs, providing a wide range of SRAM memories for leading companies worldwide. SRAMs are used in high-performance personal computers, workstations, telecommunications systems, industrial systems, instrumentation devices, and

networking products. Cypress's lower production cost structure allows the company to compete effectively in the high-volume personal computer and workstation market for SRAMs, including providing cache RAMs to support today's high-performance microprocessors, such as Pentium™ and PowerPC™. This business, combined with upcoming low-voltage products for the cellular communications, portable instrument, and laptop/notebook PC markets, position Cypress for future success in this key product area.

- **Multichip Modules --** This fast-growing market segment consists of multiple semiconductor chips mounted in packages that can be inserted in a computer circuit board. It involves the use of innovative surface-mount technology, minimizing board space utilization. Multichip module technology allows engineers to design systems using integrated circuits a generation ahead of current production technology. When new technology produces the next-generation chip, the designer can simply plug the new chip into the socket currently used by the multichip module. This allows companies to bring products to market more quickly, offering a competitive advantage. Cache modules for personal computers are the mainstay of this product line, and Cypress supplies modules for many of the leading PC manufacturers worldwide.

Programmable Products Division

- **Programmable Logic Devices --** With increasing pressure on systems designers to bring products to market more quickly, programmable logic devices (PLDs) are becoming extremely popular. PLDs are logic control devices that can be easily programmed by engineers in the field, and later erased and reprogrammed. This allows the designers to make key changes to their systems very late in the development cycle to ensure competitive advantage. Used extensively in computers and consumer electronics, PLDs constitute a large and growing market.

  Cypress's UltraLogic™ product line addresses the high-density programmable logic market. UltraLogic includes the pASIC380 family of field-programmable gate arrays (FPGAs), the industry's fastest. It also includes the highest performance complex PLDs, the FLASH370 family. Both of these product families are supported by Cypress's VHDL (Very high-speed integrated circuit Hardware Description Language) based *Warp*™, the industry's most advanced software design tool. Cypress pioneered the use

of VHDL for PLD programming, and *Warp* software is a key factor in the company's overall success in the PLD market.

Cypress is a leading provider of the industry-standard 22V10 PLD with a wide range of offerings. Cypress is committed to competing in all ranges of the PLD market, including small devices such as the industry-standard 16V8, 20V8 and 22V10; CPLDs; and FPGAs. Cypress offers one of the industry's broadest range of programming tools and software for the programming of its PLDs.

- **Programmable Read-Only Memories --** Cypress's CMOS PROMs and EPROMs are used to store code for various types of computer-based systems. As with PLDs they are programmable by the design engineer to expedite customers' design processes. Cypress PROMs are erasable and reprogrammable, adding further flexibility to the design process. Cypress owns a large share of the high-speed CMOS PROM market, and now competes in the mainstream EPROM market, as well.

- **FCT Logic Devices --** FCT (**F**ast **C**MOS **T**echnology) logic devices are widely used by designers implementing bus interface and standard logic functions in high-speed systems. With the acquisition of the new FCT logic product line, Cypress now offers over 50 standard logic and bus interface functions in several versions, FCT-T (TTL compatible outputs) and FCT2 (outputs with built-in series resistors). This broad product offering is produced on Cypress's high-volume, CMOS manufacturing lines. The FCT logic product line combines with Cypress's high-performance SRAM, PLD, data communications, PROM, and timing technology devices, to offer numerous solutions for designers of tomorrow's ultra-fast computer and communications systems.

Data Communications Division

- This is an especially significant area for Cypress since it represents a more market-driven orientation for the company in a fast-growing market segment. As part of the new company strategy, Cypress has dedicated this product line to serve the high-speed data communications market with a range of products from the physical connection layer to system-level solutions. HOTLink™, high-speed, point-to-point serial communications chips have been well received. HOTLink, along with the SONET/SDS Serial Transceiver (SST™), address the fast-growing market segments of Asynchronous Transfer Mode (ATM) and Fibre Channel communications. The

company has also moved to support the Ethernet market with the introduction of the CY7C971 100BaseT-4 Fast Ethernet Transceiver and the CY7B8392 transceiver for Coaxial cable Ethernet networks. These products address the fastest growing networking standards with leading-edge solutions. The data communications division also encompasses related products including RoboClock, a programmable skew clock buffer that adjusts complex timing control signals for a broad range of systems. The division also offers a broad range of First In/First Out (FIFO) and dual-port memories, used to extensively in communications systems.

Computation Products Division

- This division focuses on the high-volume, high-growth market surrounding the desktop computer. It is the second of Cypress's market-oriented divisions. The division includes timing technology products offered through Cypress's IC Designs subsidiary in Kirkland, Washington. IC Designs products are used widely in personal computers and disk drives, and the product line provides Cypress with major inroads into these markets, helping move the company towards a more market-driven orientation. IC Designs clock oscillators control the intricate timing of all aspects of a computer system, including signals for the computer's central processing unit (CPU), keyboard, disk drives, system bus, serial port, and real-time clock. They replace all of the metal can oscillators used in the system. IC Designs also offers QuiXTAL™, a programmable metal can oscillator that replaces individual oscillators used to control timing signals in virtually every type of electronics equipment. QuiXTAL can be programmed to any frequency, providing users the ability to make last-minute frequency adjustments, speeding time to market. QuiXTAL takes frequency synthesis beyond the PC market, and addresses the broad market segments of electronic instrumentation, telecommunications equipment, and medical systems.

  Also offered by this division are chipsets for personal computers. Cypress entered this market with the 1994 acquisition of Contaq Microsystems, and recently announced the hyperCache™ Chipset for Pentium™-class PCs. The hyperCache Chipset is the industry's most highly integrated. In addition to integrating keyboard and mouse control, real-time clock, and local-bus IDE control, it is the only chipset which offers integrated second-level cache.

New Products

Cypress realizes the importance of constantly bringing new, leading-edge products to market. The company has a new product introduction program, known as the "Top Ten Program," which tracks the most important new products currently planned for production. Each product development program includes a cross-functional team of engineering, marketing, and production specialists. A vice president (or in some instances, President T. J. Rodgers) oversees all facets of the project. The "Godfather" of the project is tasked with ensuring that all necessary resources are available to the team. The Top Ten Program has been successful in introducing significant products in a timely manner, including HOTLink, the Flash 22V10, RoboClock, and many others.

CYPRESS QUALITY

The cornerstone of Cypress's success is the very high quality of its products, service, and people. Cypress has been honored for product and service excellence by numerous companies, including Sun Microsystems, AT&T, and Unisys. Cypress has received the coveted "STACK" Level II certification, awarded to companies whose products meet tough standards for quality. The company has also received ISO 9000 registration, a standard model of quality assurance that is awarded to companies with exacting standards of quality management, production, and inspections. In 1996, the Defensce Electronics Supply Center (DESC) awarded Cypress QML certification for its military offerings.

Cypress's entire corporate structure revolves around producing quality products -- through the people it hires, the way its employees are measured, and the goals set by individual employees. Within this structure are quality standards that each employee must meet. The result is a company that produces quality products, service, and financial results.

CYPRESS CORPORATE CULTURE

Cypress is well known for its efficient and effective management systems. These systems have been instrumental in fueling the company's growth, and position the company for sustained growth in the future. Highly automated management systems are used in all areas of the company, including manufacturing, purchasing, order-entry, and weekly goal tracking for all employees.[1]

Cypress's solid corporate leadership has been another important factor in the company's success. T. J. Rodgers, who founded the company in 1982, received his Ph.D. in

[1]For a detailed look at Cypress's management systems, see T. J. Rodgers' book, *No Excuses Management: Proven Systems for Starting Fast, Growing Quickly and Surviving Hard Times* (New York: Doubleday, 1993).

electrical engineering from Stanford University in 1975, where he invented, developed, and patented the VMOS technology. He has used his technical expertise to complement his visionary management of the company as president and CEO. Under Dr. Rodgers' leadership, Cypress has been called "a quintessential entrepreneurial company" by *The Wall Street Journal*, and has received numerous awards for excellence in financial management.

Dan McCranie, Cypress's vice president of Sales and Marketing, provides exceptional leadership in this area, drawing on his over seven years of experience as CEO for a major semiconductor manufacturer. Chief Financial Officer Manny Hernandez brings strong financial leadership with nearly twenty years experience in a broad range of financial positions within the semiconductor industry.

Cypress's culture is a product of the company's sophisticated technology and manufacturing. By operating its own wafer manufacturing plants, Cypress not only offers its customers a reliable, high-quality supply of products, it also creates a culture of innovation, quality, and cost-consciousness which has helped drive the company's success.

Cypress goes to great lengths to hire and to keep the best available people. All employees are granted stock options and thereby participate in the success of the company. Also, each employee is eligible for quarterly profit sharing bonuses. These bonuses are distributed equally throughout the company, with the lowest-paid and highest-paid employees receiving the same amount. In this way, Cypress recognizes the importance of the contributions of all employees. The company has an excellent record for retaining its employees.

Cypress trusts its employees to make important decisions with a minimum of bureaucracy. In fact, each employee is entrusted with the responsibility for achieving goals known as "critical success factors" which relate to the company's strategic plan. The company's automated goal system provides focus to employees, while pushing decision-making to the lowest levels. It has been successful in empowering Cypress employees, and in achieving one of the most efficient revenue-per-employee figures in the industry.

Cypress is a company that encourages individuals to do what it takes to get the job done, provides them with the proper tools to achieve these objectives, and rewards them for their efforts. These individuals have made, and continue to make Cypress successful.

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