

## **SGS-THOMSON Microelectronics**

SGS-THOMSON Microelectronics is a global independent semiconductor company that designs, develops, manufactures and markets a broad range of semiconductor integrated circuits ("ICs") and discrete devices used in a wide variety of microelectronic applications, including telecommunications systems, computer systems, consumer products, automotive products and industrial automation and control systems.

On the basis of the most recently available industry data, SGS-THOMSON is the world's leading supplier of analog ICs, mixed-signal ICs, power ICs and motion picture experts group ("MPEG") decoder ICs.

The Company's products are manufactured and designed using a broad range of manufacturing processes and proprietary design methods. To complement this depth and diversity of process and design technology the Company also possesses a broad intellectual property portfolio that it has used to enter into cross-licensing agreements with many major semiconductor manufacturers.

SGS-THOMSON has developed a worldwide network of strategic alliances, including product development alliances with key customers, technology development alliances with customers and other semiconductor manufacturers and an equipment development alliance with a major supplier of design software.

The Company currently offers more than 3,000 main types of products to more than 1,500 customers, including Alcatel, Bosch, Creative Technology, Ford, Hewlett-Packard, IBM, Motorola, Nokia, Northern Telecom, Philips, Seagate Technology, Siemens, Sony, Thomson Multimedia and Western Digital. Over 51% of SGS-THOMSON's revenue derive from differentiated products, a combination of dedicated, semicustoms and programmable products designed to suit a specific customer or a specific application and therefore having a high system contents.

SGS-THOMSON was formed in June 1987 as a result of the combination of Thomson Semiconducteurs of France, and SGS Microelettronica of Italy. Since its formation, the Company has significantly broadened and upgraded its range of products and technologies and has strengthened its manufacturing and distribution capabilities in Europe, North America, and the Asia Pacific region. This capacity expansion process is currently still ongoing with upgrading of existing facilities and the announcement of the construction of two more 8" submicron fabs one to be built in Italy and one outside Europe, to join the two existing ones in Crolles (France) and Phoenix (Arizona) and the two now under construction in Catania (Italy) and Rousset (France).

The group totals over 25,000 employees, 9 advanced research and development units, 31 design and application centers, 17 main manufacturing sites and 57 sales offices in 23 countries.

Corporate Headquarters are located in Saint Genis (France), close to Geneva (Switzerland), where the European Headquarters and Service Center are also based. The Company's U.S. Headquarters are in Carrollton (Dallas, Texas); those for Asia/Pacific are based in Singapore, and Japanese operations are headquartered in Tokyo. In 1995, SGS-THOMSON's net revenues were US\$3.55 billion and net earnings were US\$ 526.5 million. To guarantee continued technological development and consistently offer customers true leading-edge products, SGS-THOMSON each year invests a significant proportion of its sales in R&D and capital expenditures. In 1995, it invested US\$ 1001.9 million in capital expenditure, equivalent to 28.3% of revenues, and spent US\$ 440.3 million, or 12.4% of revenues in research and development. The Company is active in collaborative research projects worldwide, and is a key player in Europe's advanced technology research programs, such as JESSI.

Since December 8, 1994, when SGS-THOMSON completed an initial public offering of 21,000,000 shares of common stock, the Company has been quoted on the New York Stock Exchange (NYSE:STM) and the Bourse de Paris. In October 1995, the Company completed a second public offering of 20,700,000 common shares, which raised the proportion of the Company's capital on the stock exchange to 30.6%.

## **The SGS-THOMSON product range**

SGS-THOMSON produces a diverse range of semiconductors - from single transistors to microprocessors with millions of components on the same 'silicon chip' - which can be found in many disparate products or environments - from high performance supercomputers to everyday items such as telephones, cars, toasters, or even light bulbs.

The pervasiveness of the silicon chip is due to its unique ability to offer ever increasing functionality at a continually decreasing cost. As a result the world semiconductor market - which barely existed 30 years' ago - is now valued at an estimated figure close to US\$150 billion.

SGS-THOMSON designs and sells almost every type of semiconductor, offering more than 3,000 main product types, ranging from simple transistors, smaller than a match head, to the most advanced microprocessors or circuits for mobile telephones, which are up to 2sq.cm in size.

With respect to its products the Company is organized in five principal product groups:

The Dedicated Products Group produces application-specific semiconductor products using advanced bipolar, CMOS, BiCMOS, mixed signal and power technologies. The Group's dedicated products are used in all major end-user applications, including such new applications as mobile communications networks, asynchronous transfer mode communications systems and digital video compression systems. The breadth of the Group's customer and application base provides it with a source of stability in the cyclical semiconductor market, while its position as a strategic supplier of application-specific products provides it with opportunities to supply its customers' requirements for other products, including discrete devices, programmable products and memories.

Discrete and standard ICs Group produces discrete power devices, power transistors, standard linear and logic ICs and radio frequency ('RF') products.

The Group has a diverse customer base and broad product portfolio.

The Memory Products Group produces a broad range of memory products, including EPROMs, flash memories, EEPROMs, SRAMs, and chips for smartcards. The Company was the leading supplier of EPROM memories in 1994, accounting for approximately 23% of worldwide EPROM sales. The Company is using its EPROM and EEPROM know-how to develop a broad portfolio of flash memory devices.

The Programmable Products Group produces microcomponents (including microcontrollers, microprocessors and digital signal processors), digital semicustom devices and mixed analog/digital semicustom devices. It also produces PC graphic devices and multimedia acceleration ICs.

The New Ventures Group identifies and develops new business opportunities to complement the Company's existing businesses and fully exploit its technological know-how, manufacturing capabilities and global marketing team. The Group was formed in May 1994 and its initial activities have focused on the manufacture and sale by the Company's wholly owned subsidiary in the United States, SGS-THOMSON Microelectronics, Inc., of x86 microprocessors designed by Cyrix Corporation.

As part of its activities outside the five principal product groups SGS-THOMSON also produces subsystems, such as complete battery chargers for portable equipment for industrial and other applications a range of innovative devices for fuzzy logic control.

In 1995 SGS-THOMSON has introduced a number of important new products, such as the STG2000 multimedia accelerator, the single-chip MPEG-2 decoder family, ST20 32-bit micro cores, as well as a new digital signal processor (DSP 950) and a new generation of FLASH memories. Most of these products address the rapidly growing markets for multimedia personal computers, television set-top boxes and digital cellular telephones.

## Applications

The list of applications for semiconductors is almost endless and SGS-THOMSON products are used in almost every application. Computer systems, multimedia products, telephone networks, consumer goods, industrial control systems, automobiles and medical equipment can all be found with SGS-THOMSON products inside. Applications can even be found in outer space. Examples of the applications in some of these areas are listed below:

**Computer** - microprocessor; disk drive control; memories; display control ICs; graphics chips; computer networking ICs; multimedia devices, such as MPEG decoders and 3D graphic accelerators.

**Communications** - telephone set ICs; circuits for PABX and central switching; mobile telephone ICs; fax chips; circuits for videophone and videoconferencing systems. Consumer - ICs for video recorders, hi-fi systems, TV and satellite receivers; chips for kitchen appliances, such as food processors, washing machines and toasters; heating control and home automation ICs. Transportation - ICs for automotive systems, such as engine control, airbag, ABS, in-car entertainment, safety and control; circuits for toll systems.

**Industrial** - intelligent power circuits for robots, motors and control systems; ICs for factory automation systems; chips for lighting and battery chargers; power supply ICs.

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