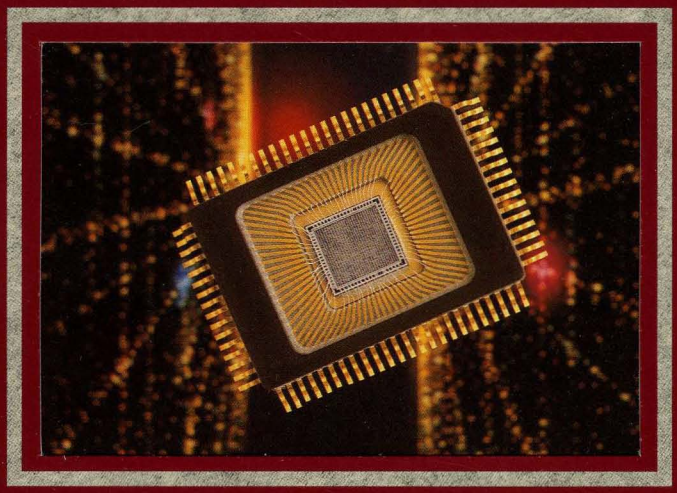
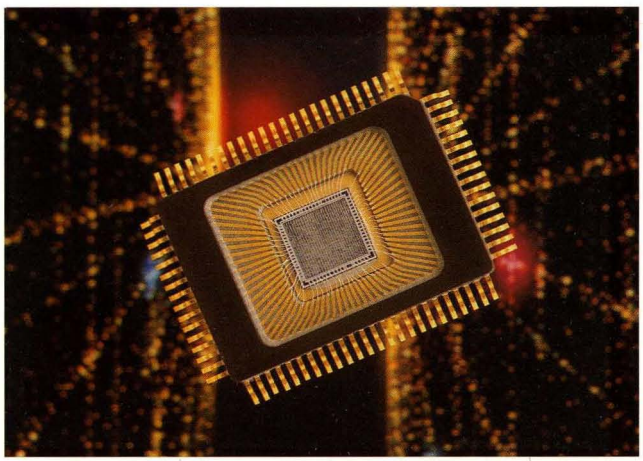
EMULEX



EMULEX CORPORATION is known as a leader in computer interface technology with applications encompassing both connectivity and storage. An interface is the place at which independent systems meet and act upon or communicate with each other. Implementing such action is the basis for Emulex's business.

Founded in 1978, the company was initially composed of a small group of dedicated individuals, whose original objective was to provide lower-cost storage alternatives for Digital Equipment Corporation (DEC) customers (that is, to offer a way to interface peripheral equipment not manufactured by DEC to computers that were manufactured by DEC). Other companies targeted products at the same marketplace. Some failed; some survived. But none have had the continued success and steady growth of Emulex.



Concern for customers is what made Emulex successful. But other factors have been important as well. Innovation. Design. Quality. Diversification. Research and development. Manufacturing excellence. Customer support. Compliance with standards.

From its beginning as the first genuine DEC alternative, Emulex has expanded its breadth of products and technology so that it now offers a wide range of storage and connectivity solutions. For IBM storage and connectivity. For UNIX connectivity. For SCSI hosts and peripherals. The change has taken many years to accomplish and has involved the astute use of resources.

Additionally, Emulex has developed a synergy with outside vendors, even to the level of cooperative design efforts. It was a major force in creating industry-wide acceptance of high performance SCSI storage and a major contributor to the development of embedded SCSI disk drives as well as SCSI-based quarter-inch tape drives.

Outstanding performance in VLSI design has created significant micro device business for Emulex. By combining systems knowledge and VLSI techniques, Emulex has created industry leadership products used by most of the major disk and workstation manufacturers in the world.

"Firsts" and "bests" are a proud part of Emulex's history. And with a broader scope, and broader opportunities from new technology, Emulex will continue to build upon its successes.

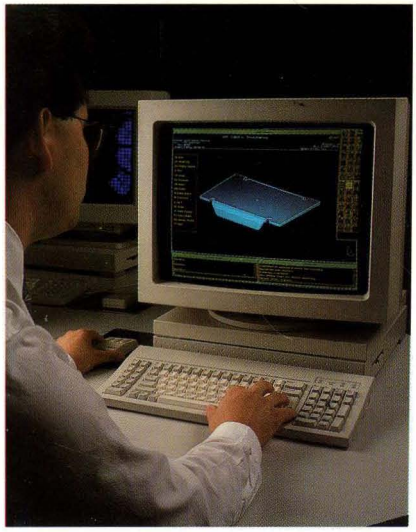
EXCELLENCE OF ENGINEERING contributes greatly to the success of a company in the computer industry. And the pursuit of engineering excellence is driven by the desire to innovate. Supported by a strong commitment to research and development, Emulex spends 11-12% of every sales dollar on engineering and development. The result is an engineering organization that is second to none.

Step one is design. And the most outstanding characteristic of all Emulex products is their superior design. In the DEC-compatible storage area, for example, Emulex developed a patented common architecture which has proven itself from the earliest Q-bus computers through the most recent VAXes. On the connectivity side, Emulex has used communications microprocessors in a wide range of designs, from multiplexers to networking controllers to communications coprocessors, covering a large number of interfaces from large UNIX hosts to IBM PCs.

Communications products lab

Tools are important. And Emulex provides the tools, beginning with workstations and associated software for all engineers. Tools for schematic capture and board layout. Tools for architectural and logical implementation in chip development. Tools for mechanical design.

The investment in engineering does not end with design equipment. It goes further to provide "real life" computer and network equipment which runs and tests the product before it is released to production. Great attention is given to details, including testing for environmental agency compliance — using its on-site FCC certified test lab.

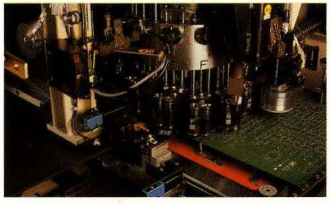


CAD modeling system

Fuji SMT line

MANUFACTURING TODAY has a new first name: *quality.* And Emulex's manufacturing quality meets the ship-to-stock criteria of two of the world's largest computer manufacturers.

Early in the design phase of a product, a team of advanced manufacturing engineers and development engineers devise intelligent burn-in ovens that perform full functional and environmental testing.



Chip placer

Manufacturing techniques at Emulex have kept pace with engineering. As more electronics are fitted into a single chip, computer size keeps shrinking. Board dimensions become an issue as well. One solution is to place components closer on a board. Emulex manufacturing can place component leads as close as 12 mils. A sophisticated video system verifies correct placement and checks for damaged pins.

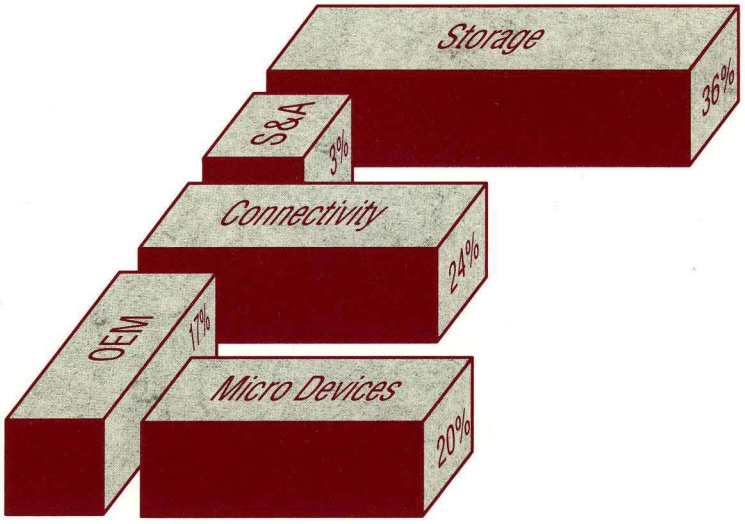
Zehntel testing

All Emulex boards use Surface Mount Technology (SMT), a technique by which automatic chip setters place components directly on the board. To further resolve space constraints, SMT may be used to place components on both sides of the board.

Aware of environmental issues, Emulex uses an organically-based flux which is water-soluble.

SOURCES OF REVENUE.

Emulex has aligned its marketing resources to focus upon strategic business areas. Strategic business units, each representing a significant portion of Emulex's revenue, operate as an independent P&L center. By shifting this responsibility directly to the business units, both corporate and individual resources can be used more effectively and efficiently.



Revenue sources

Storage. Historically, storage products have been the keystone of Emulex's success, and still represent the largest percentage of Emulex's revenue. Products range from board-level controllers to multi-gigabyte storage subsystems.

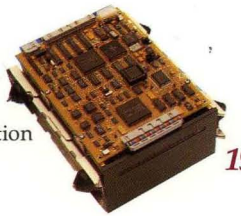
Connectivity. Emulex connectivity products include communications servers for the networking marketplace to front-end communications coprocessors for the IBM PC. Attention is given to protocol compatibility and network management.

Emulex Micro Devices. A pioneer in the SCSI chip business, Emulex VLSI products are a vital component for major drive and tape manufacturers. The new SCSI-2 chips offer solutions for both the host side of the SCSI interface as well as the peripheral side, while incorporating new, high-performance features of SCSI-2.

OEM. Emulex expertise has been recognized by several major computer manufacturers, resulting in custom contracts that make a significant contribution to revenue. Emulex works closely with these system and subsystem vendors to provide storage and/or connectivity solutions.

S&A. Service and accessories, although a small portion of overall revenue at the present time, is expected to grow significantly in the future. Emulex is committed to serving its customers' needs.

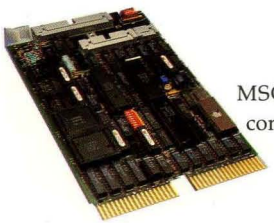
PRODUCT INTRODUCTIONS



DSSI products
Second generation
TEC chip **1991**

SDA subsystems, SD89X native
SDI drives, DA01 controller
interfaces directly to HSC **1989**

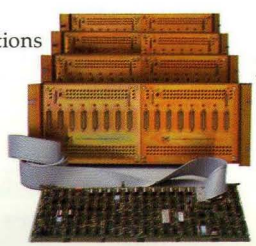
TMSCP tape coupler
Emulex SCSI processor chip **1987**



MSCP disk
controllers **1985**

First Emulex SCSI host adapter
First PC coprocessor **1983**

UNIBUS
communications
multiplexer



1980

1990 SCSI tape subsystems for VAXcluster
Fast SCSI chip

1988 First LAT-compatible terminal server

1986

SMDI subsystems convert SDI
signals to SMD/E
Merged architecture controller chip

1984 Emulex SCSI bridge controllers

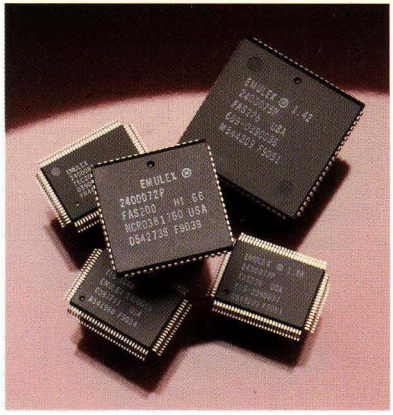
1982 V-Master
mass
storage
adapter
brings
SMD drives
to
VAX 11/780

1979 First Emulex disk controllers to
interface SMD drives to DEC Q-bus
and UNIBUS

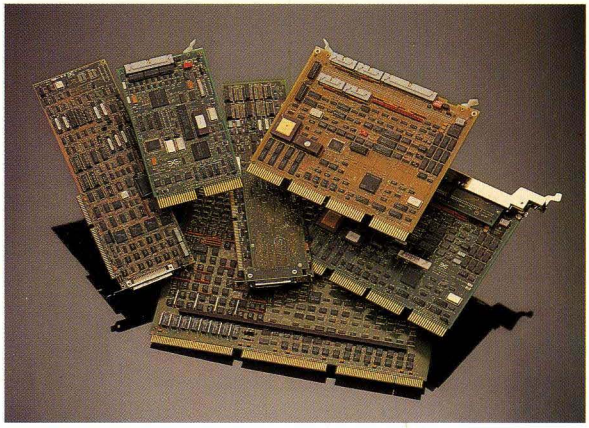
PRODUCTS.

Chip technology is the fastest growing segment of Emulex's business. Product offerings have expanded from a single SCSI protocol chip to a much wider application family, with the newest chips incorporating features of SCSI-2, including Fast SCSI. In addition, Emulex designs the VLSI components used in its other products.

Whether addressing OEMs, VARs, systems integrators, or end users, Emulex has always offered a very large variety of ***board-level products*** which interface peripheral busses to host computers. Disk controllers, tape controllers, host adapters, all are able to bring to various hosts the advantages of such industry-standard busses as ESDI, SMD-E, and SCSI. Emulex application technology makes it possible.



Emulex chip family



Board products

Emulex also provides board-level products for connectivity applications, enhancing the performance of PC hosts by off-loading time-consuming protocol conversion tasks. For these products, the board is actually a computer in its own right, a coprocessor which complements the main PC AT/XT or MCA host. Again, Emulex application technology makes it possible.

New technology presents new challenges; Emulex welcomes such challenges as new opportunities. In the ***micro subsystem*** market, Emulex is adding to its existing families of SCSI and ESDI 5.25-inch peripherals, available as kits, mounted in cabinets, or as removable subsystems. A new line of DSSI-compatible products provides cost-effective alternative solutions to the small VAX user. And both 8mm and 4mm DAT solutions are available to provide backup.

8mm tape subsystem

PRODUCTS. Emulex entered the ***networking*** marketplace with the introduction of its Performance 4000, the first terminal server that was compatible with DEC's LAT protocol. The Performance family now ranges in size from a 4-port version to one which supports up to 128 terminals. And now protocol compatibility has been expanded to include TCP/IP, making the Performance products a viable option for UNIX users.

Performance family

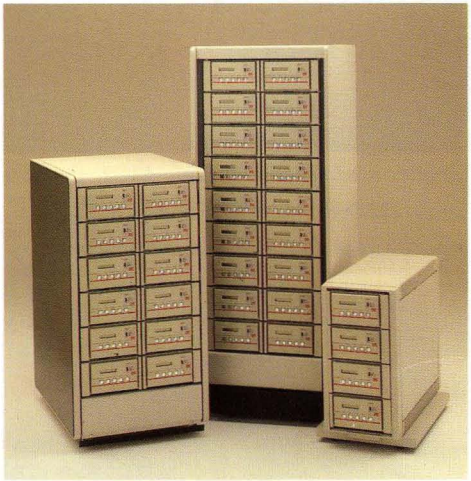
SDI compatible disk drive

All Performance products have dual protocol capabilities, including the Performance 3000 print server.

Emulex will direct future connectivity developments towards network management tools.

VAXcluster products represent the high end of Emulex's storage market. Emulex offered the first (and only) alternative SDI-compatible drive. Emulex produced the first (and only) alternative disk channel adapter for DEC's HSC cluster controller. And while Emulex's multi-gigabyte subsystems address the magnitude of storage used in VAXclusters, its new tape solutions provide the necessary back-up by interfacing SCSI devices directly to the HSC.

Future directions in high-end storage include the development of storage management tools.



Cluster storage

FACILITIES

Emulex engineering, Costa Mesa, California.

Emulex headquarters in Costa Mesa, California cover 212,000 square feet, of which 53,000 square feet is dedicated to manufacturing.

Manufacturing facility in Dorado, Puerto Rico is 52,000 square feet.

OFFICES

Domestic sales offices

Wakefield, MA (617) 246-7420
Guilford, CT (203) 453-3934
Saddlebrook, NJ (201) 368-9400

Roswell, GA (404) 587-3610
Reston, VA (703) 264-0670
Cary, NC (919) 460-0759
Longwood, FL (407) 682-1414

Schaumburg, IL (708) 605-0888
Beachwood, OH (216) 464-7753
Cincinnati, OH (513) 762-7882
Dallas, TX (214) 450-5960
Houston, TX (713) 981-6824
Chesterfield, MO (314) 537-7899

Anaheim, CA (714) 385-1685
Poway, CA (619) 748-6362
Albuquerque, NM (505) 482-3415

San Jose, CA (408) 452-4777
Denver, CO (303) 393-1080

International offices

Munich, Germany (49) 89-3608020
Wokingham, England (44) 734-772929
Toronto, Canada (416) 673-1211
Ottawa, Canada (613) 230-3543
Sydney, Australia (61) 2 417-8585
Paris, France (33) 134-65-9191
Milan, Italy (39) 39-639261
Taiwan (886) 2 562-3230
Hong Kong (852) 529-2705

CCB (4/91)