Tektronix, Inc. Company

field engineering news

Semiconductor Test Systems:
TEK'S "MILLION DOLLAR" PRODUCT LINE

Sales of Tektronix semiconductor test systems enjoyed a 25% growth in FY 900, outpacing the electronic industry average, and even that of Tektronix products as a whole. Yet, according to Ken Lindsay, STS Marketing Product Manager, most SE's are unfamiliar with STS products and their strong position in the marketplace. And although this situation is understandable, it is a matter of concern to the entire business unit.

STS SALES BENEFIT T&M SE'S

"Suppose a customer approaches one of our T & M Sales Engineers (who penetrate all the nooks and crannies of the electronics industry) and expresses an interest in our semiconductor test systems," says Ken ruefully. "If the SE says 'Gee, I don't know if we even build them' (and this has happened), it is very difficult for the STS Specialist to project the image of Tektronix as committed to the STS business."

"Our SE's could help us tremendously," Ken continued, "just by knowing we are in this business, and that we are really committed to it."

Knowing more about Tek's STS business can also help the measurement product SE, according to Ken. "It is the nature of our business that we deal with the high-technology market," he explains. Whenever a company invests 300K to a million or more dollars in a Tektronix Semiconductor Test System, it opens the door to a wide range of other Tektronix products. There is the follow-up business, like additional graphics terminals, as well as potential T & M sales to the R & D, design maintenance and manufacturing areas of the company. Typically, these sales amount to $20K - $30K for each system.

STS ROOTS

Tektronix' entry into the STS business might be characterized as "through the back door," since it can be traced to the development of the 568/R230 Programmable Sampling Oscilloscope in 1967. These units, originally designed for other applications, were put to work as acquisition system components by the semiconductor industry to test and characterize their products. (The 568 is still sold as a component of our systems.) As time went on, a diode-programming board was added to form the S3110, a disk to form the S3120/S3130, and power supplies, pulse generators and other components to form the S3150. In 1970/71 Al Zimmerman was assigned the task of developing the S3260 IC tester, and the first system was shipped in 1973. Since that time more than a hundred units have been sold, and the product has evolved into four unique products: the S3250, S3260, S3270 and S3280.

Today Tektronix is recognized as one of the leading suppliers of automated semiconductor test systems, with superior expertise in the area of high-technology, engineering characterization, and sophisticated manufacturing test applications. Thus, the majority of Tek's semiconductor test systems are used in the development and manufacture of proprietary IC's and/or sophisticated electronic-end-products, rather than in the production of semiconductors themselves.

This distribution is emphasized by a look at the major market segments for Tektronix STS products, arranged in descending order of dollar volume:

(1)Computers and peripherals manufacturers (IBM, DEC, etc.)

(2) Military/aerospace equipment manufacturers (Hughes, Martin-Marietta, McDonnell-Douglas, etc.)

(3) Communications equipment manufacturers (Bell Telephone, Western Electric, etc.)

(4) Automobile manufacturers (General Motors, Ford, etc.)

(5) Consumer product manufacturers

(6) Semiconductor manufacturers (Motorola, TI, etc.)

The STS line extends from the S3250, designed for production testing and optimized for incoming inspection or production final test, to the highly-sophisticated S3280, designed especially for testing the super-fast, emitter-coupled-logic (ECL) family of devices. The S3280 incidentally, is the only dedicated, automated system for testing LSI (large-scale-integrated) ECL devices on the market. In between are the S3260 and S3270, both engineering characterization types with more power (i.e., more clock phases, more sophisticated computer hardware) than the smaller S3250.

IN A CLASS BY THEMSELVES

Three factors set STS products apart from the general run of test instruments. First, there is no such thing as an off-the-shelf system. All systems are tailored specifically to the customer's application. Second, each system requires its own unique software, which also must be developed at Tektronix, to meet the customer's specific testing requirements. Third, there is the difference in the dollars involved in a single sale —usually measured in hundreds of thousands and, on occasion, in millions. Finally, there is the time required for the selling effort — sometimes a year or more from the first sales call to receipt of an order.

Because of these factors, marketing and selling STS systems calls for a tightly-knit team, ready to support the customer in every way. For instance, Tektronix maintains its own facilities at the Walker Road plant for training STS customers in the areas of hardware, software and maintenance, where on-going classes are in session year around. STS service specialists are assigned to strategically-located service centers, so that Tektronix can offer 24-hour turnaround, on-site maintenance and repair contracts to its customers. It is this kind of customer support that has identified Tektronix as something other than a "scope company" in the STS market.

THE SELLING PROCEDURE

Selling an STS system is an arduous, time-consuming process, but the rewards are commensurate with the effort required. A typical sale starts with the STS Sales Specialist and a potential user at some junior level in a large company, and proceeds through several levels of decision makers over a period of several months, to the VP or presidential level, before a final decision is made. STS Marketing is usually called upon for extensive assistance in this process, in the form of special sales presentations or a team of experts to assist in the selling effort. At some early stage, usually after a flip-chart or 35mm slide presentation, the customer is persuaded to visit Tektronix, where he can see the proposed system in an actual working environment. (A customer may set aside 10-20 thousand dollars just to investigate a proposed STS purchase.)
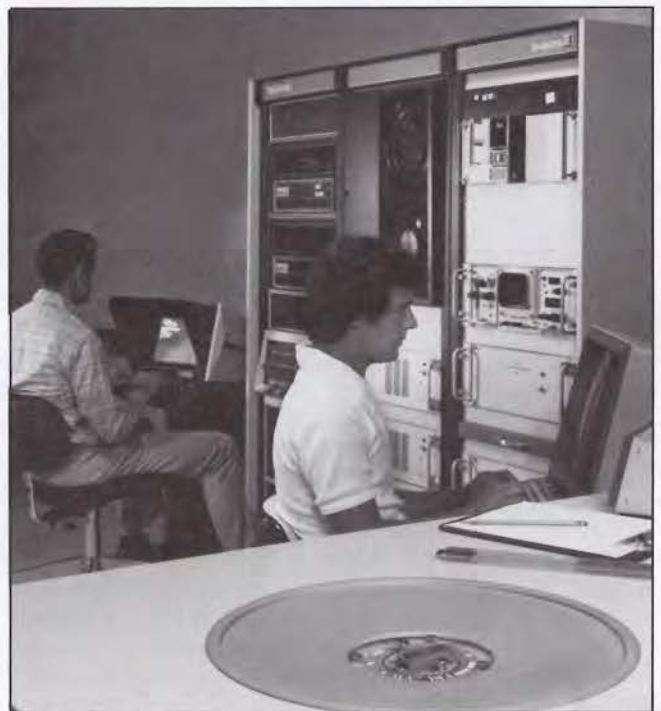

All STS systems feature TEKTEST — fully-compatible device-oriented software that enables users to easily test or characterize devices. Graphics provide the user with the ability to "see" the solutions to testing problems.

STS offers a system for all device testing needs — a fast, efficient production test system (S-3250), the ultimate device characterization system for R & D (S-3270), and the state-of-the-art S-3280 for ultra high-speed ECL/CML device testing.

STS ORGANIZATION

STS Marketing is organized into three functional groups: Product Marketing, Applications and Sales Support, all under the managership of Bud McElfresh, who also doubles as manager of the Sales Support group. Ken Lindsay manages the Product Marketing effort, which includes the day-to-day promotion of current products, market research/product planning, major account and market segment management, analysis of current competition, etc. The Applications group, managed by Lynn Peck, is larger than that of most marketing units, and includes a number of ATE experts who are periodically called upon to demonstrate Tek's systems to customers. They also are the ones that develop customer software for testing special devices. Finally, there is the Sales Support group managed, as noted earlier, by Bud McElfresh. Each Sales Support member is assigned to specific STS Sales Specialists, preparing quotes from customer requirements and otherwise working directly with the specialist to bring about a sale.

Asked to summarize Tek's major strengths in the STS field, Ken Lindsay replied, "First, we have the very powerful TEKTEST software. Second, our system to date has been one of the best high-speed engineering systems — the only 20-MHz general-purpose test system on the market. The other systems offer 10 MHz. Now, 20 MHz doesn't sound like much when you're talking about 1-GHz oscilloscopes; but when you talk about 64 input/output channels with 7 to 14 clocks, and everything running at 20 MHz — whew! And to cap these strengths, there is Tektronix as a whole. We live under a corporation that has an extremely good reputation, and that helps a lot."

Not only are sales of Tek's semiconductor test systems outpacing those of the electronics industry as a whole, but the ATE market is expanding faster than the general T & M Market. The outlook for STS sales is thus very encouraging, and is creating a need for more qualified STS Sales Specialists. Ken recalls, with a certain nostalgia, the days when advancement to a specialist's position was seen as a logical and desirable step in an SE's career. "We aren't seeing as much of that lately," he said, "and I think it's unfortunate; because the kind of people we need are top-of-the-line Tek salespeople — people that really know the company and its products. I should think the excitement, the challenge of tackling a multilevel, million-dollar STS sale, to say nothing of the concomitant financial rewards, would be an irresistible attraction." ■

The STS Marketing team: *FRONT ROW (L to R)*, Marci Donalson (Technical Writer); Bob Hopkins (Applications Engineer); Ken Lindsay (Product Marketing Manager); Bill Hodge (3200 Product Line Manager); Lynn Peck (Applications Engineering Manager); Arlene Ledoux (Secretary); Roger Allen (Product Support Specialist); Mick Francetich (Applications Engineer); Charlie Hinchcliff (Test System Programmer); and Jane Rossignoli (Product Support Specialist).

BACK ROW (L to R), Jordan Meiners (Product Support Manager); Ken Charters (Product Support Specialist); Debbie Arseneault (Department Secretary); Bob Rosenoff (Product Support Specialist); Jim Gaskins (Marketing Plan/Research Manager); Gene Pearcy (Applications Engineer Supervisor); Mike Bonham (Market Segment Manager); Bill Kelley (Applications Engineer); Ray Zimmerman (Performance Assurance Engineer); and Dick Winn (Applications Engineer).

Absent from picture: Bud McElfresh (Marketing Manager); Dan Senour (Market Segment Manager); and Dave Frazel (Marketing Program Manager).