

# Marketing Report

## Falling Prices, Improved Technology: A Mixed Blessing For Fiberoptics

by Holly Bigelow

"Falling prices and improved technologies have been a mixed blessing in recent months and are two major factors behind a temporary softening of the fiberoptics market," according to Jon Zilber, manager of market research at Kessler Marketing Intelligence, Newport RI. Many trends, including the maturing of long-distance telecom markets, advances in LED technology, and the increasingly complicated decision-making process required for fiber optic system designers, have caused potential buyers to take a breather.

This doesn't mean that no one is buying fiberoptics, however. In telephony, fiberoptics has matured from a custom market to a commodity market, where standard products are sold on the basis of price and specifications. "Once you make this shift, profit margins usually disappear," said Zilber. But before market activity can proceed into more profitable entrepreneurial areas—like the subscriber loop and fiber optic LANs—major questions must be resolved.

One of the first problems is deciding upon a light source. In the past, the rule was simple: use lasers for high-capacity, high-performance systems, and use LEDs for everything else. Most agreed that, over time, laser prices would drop to the point

where cost would not be a limiting factor. Then along came edge-emitting LEDs, which provide enough capacity for subscriber loops, even with fancy services like high-definition TV. So system designers could specify these in singlemode systems, giving them more decision-making options.

This development caught everyone off guard, according to Zilber. The race between lasers and LEDs was intensified. "Eventually one will emerge the victor," Zilber said, "but

**Cash registers and automatic teller machines are a huge market area that is clear-cut multimode territory.**

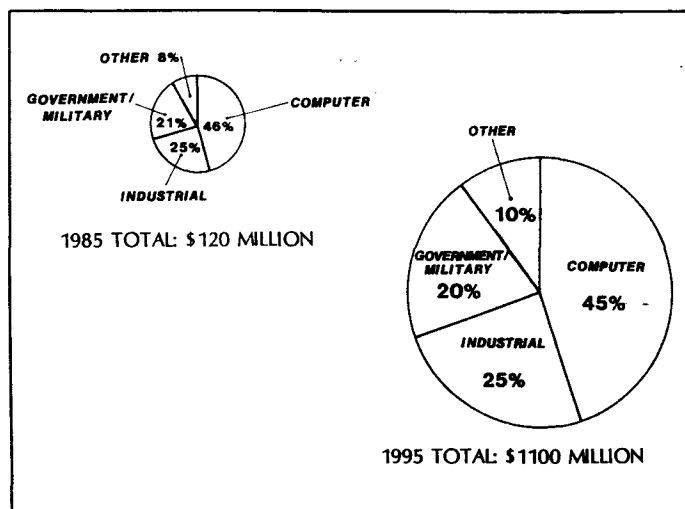
until that happens, people are standing back and watching the technologies battle it out." This wait-and-see attitude is causing an oversupply, so prices are coming down. "Even for the existing longhaul applications, the market is softening," he said.

**Single- vs. Multimode.** Another

confusing issue is the "battle" between singlemode and multimode fiber. Now that singlemode cable costs no more than multimode, there's an incentive to use singlemode everywhere. A study by Kessler, "The U.S. Fiberoptics Market: Changing Roles for Multi-Mode and Single-Mode," shows that the industry was caught off guard by the rapid market penet-

tor, only backbone LANs and risers in buildings will be singlemode, Zilber predicts.

The other big multimode market is in military applications. Military standards for rugged connections and light-source reliability over a wide temperature range are "probably too tough for singlemode to pass," Zilber believes. And even if singlemode sys-



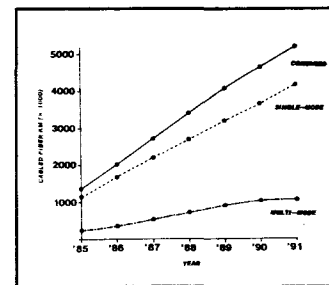
U.S. fiber optic datacom market by application segmentation. Courtesy Kessler Marketing Intelligence, Newport RI.

tration of singlemode fiber. But the report predicts that multimode fiber will increase its market share from 20% to 26% over the next five years.

Growth in the datacom sector is the biggest factor. Another Kessler report, "Fiber optic Data Communications: The Next Profit-Center," shows that the U.S. market for fiberoptics in data communications will grow from \$120 million in 1985 to more than \$1 billion in 1995. This will represent an average annual growth rate of almost 25%, making datacom the fastest-growing segment of the fiberoptics market.

"The argument that 'You may as well put in singlemode,' works for telecom," said Zilber, "but there are still many reasons to use multimode for datacom." Multimode connectors, sources, and electronics are still cheaper. And low-grade applications with an existing requirement of about 1 Mbit/s still have plenty of room for data-rate expansion, even by a factor of 100, with multimode's bandwidth. For example, cash registers and automatic teller machines are a huge retail market area that is clear-cut multimode territory. In the datacom sec-

tems were being specified today, the typical seven-year lead-time for pro-



U.S. fiber optic cable shipments, 1985-1991. Courtesy Kessler Marketing Intelligence.

urements suggests that most military fiber optic installations will remain multimode for some time.

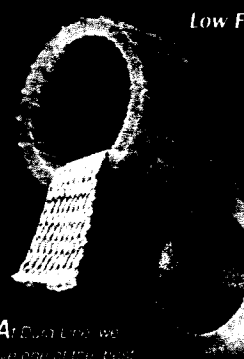
Holly Bigelow is associate managing editor of Fiber optic Product News.





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