

NEW ENGLAND NEWSPAPER OF THE YEAR TELEGRAM & GAZETTE



A12 Weather
Sunny to partly cloudy;
high 66, low 47

C1 People
Ex-Shrewsbury author talks
about Germans and Holocaust

D3 Sports
St. John's baseball team
beats Holy Name

E1 Business
Kopin Corp. pushes
personal video frontier



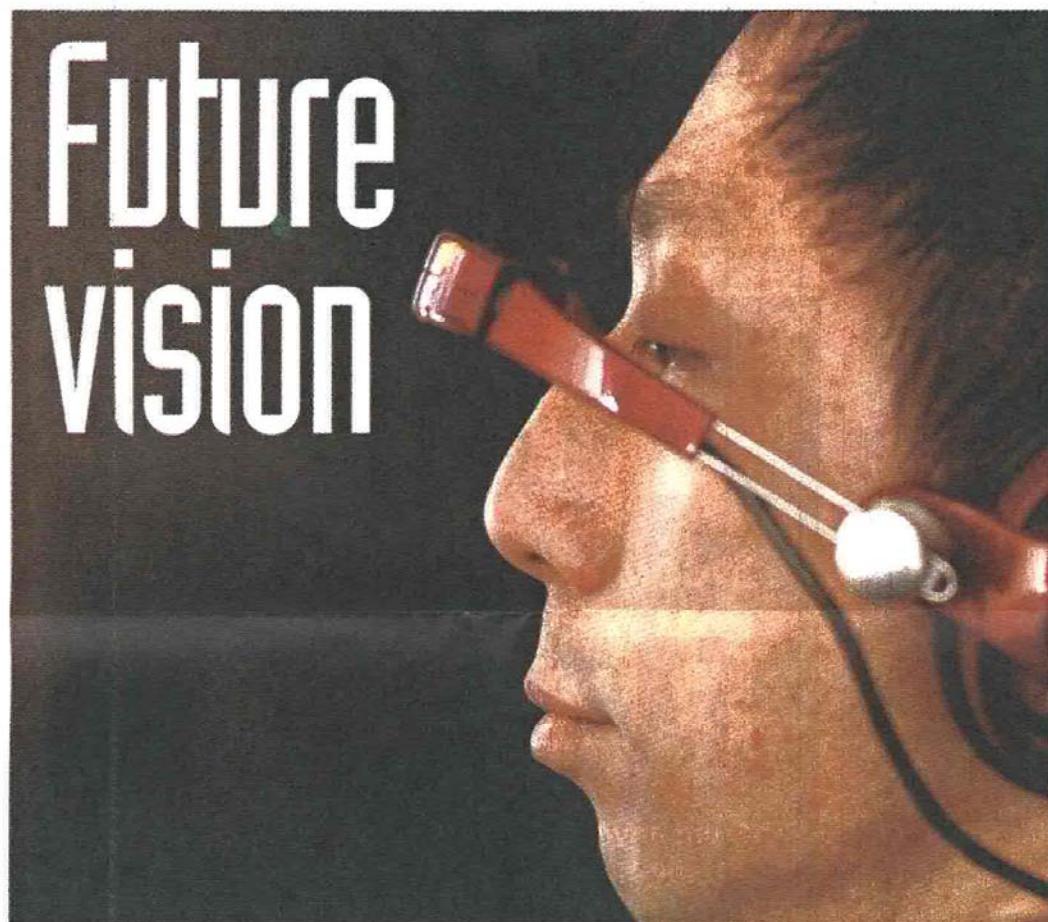
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WORCESTER, MASSACHUSETTS

60 CENTS



ED COLLIER

Yasufumi Sakakibara of the Japanese company Ryoden tries on virtual-reality eyewear yesterday at Kopin Corp.'s quarters in Westboro.

Kopin
marks
20 years
of big
advances
in tiny
technology

By Jim Bodor
TELEGRAM & GAZETTE STAFF

WESTBORO — In one corner, a group of Japanese businessmen watched the animated film "The Incredibles" on personal video headsets that looked like sunglasses.

Nearby, a helicopter pilot's helmet equipped with integrated night-vision goggles stared out at the crowd.

Both products are powered by technology developed by Kopin Corp. of Westboro and Taunton, which yesterday celebrated its 20th anniversary by declaring 2005 the beginning of a revolution in what is being called the "mobile video market."

Such devices — including eyeglasses that show movies beamed to them over a wireless Internet connection — are expected to generate \$5.4 billion in sales by 2009, according to

research firm InStat/MDR.

Kopin makes tiny, high-resolution screens that allow such devices to be created. Just as Intel Corp. makes the chips used in personal computers, Kopin makes the technology used to power the mobile video market, company officials like to say.

Yesterday, with more than 200 visitors from across the globe on hand, Kopin displayed some of the more intriguing applications of its technology while company officials offered thoughts on the future of the mobile video market.

"We believe the mobile video revolution is here, and will change how we communicate and entertain around the world," said Hong Choi, chief technology officer of Kopin.

By 2009, mobile video may infiltrate our world in surprising and useful ways, Kopin officials and researchers believe.

The technology could be used to create hel-

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Kopin celebrates 20 years with gaze into the future

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ments that allow a person to play a virtual card game, or indicate how fast a baseball is traveling during a game.

Integrating the technology with cell phones, personal digital assistants and DVD players can allow for such features as high-resolution movie viewing on a cell phone.

Small-screen projection systems inside automobiles can be linked to a global positioning system to offer live and accurate directions, on a high-resolution screen near the eye, to a driver in motion.

"This really highlights an emerging technological tidal wave," said John C.C. Fan, co-founder and chief executive of Kopin. "The mobile video age is hard to envision today, but it will affect each and every one of us in the future. We think we'll be a catalyst of the new mobile video age."

Kopin is creating a "disruptive technology," said Clayton Christensen, a Harvard Business School professor who spoke at yesterday's gathering at the company. The company's technology — and the devices created with it — are "simple, affordable, convenient, and, at some point, will intersect with the needs of mainstream technology users," he said.

This is the kind of technology, such as cell phones or even portable radios before that, that can sneak up on the world and rapidly spread in popularity, Mr. Christensen said.

He compared it to the adoption of the personal computer. While Digital Equipment Corp. and others focused on improving mini-computers, personal computers quietly captured market share — even though they weren't as technologically



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Harvard Business School professor Clayton Christensen speaks during yesterday's Kopin Corp. event in Westboro.

advanced as mini-computers, he said. But they were inexpensive and easy to use.

Kopin, which has 400 employees, has yet to turn its technology into profit. Last year, the company, which also makes transistors used in cell phones at its Taunton plant, lost \$13.8 million on sales of \$87.3 million.

But yesterday's gathering may be a signal that the company expects that to change.

Before the event, the company

announced that it expects to record a profit of between 1 cent and 3 cents per share when it posts first quarter results on Thursday. Quarterly sales will be between \$18.6 million and \$19.6 million, the company said.

Kopin shares rose 24 cents, to \$3.15 per share in trading yesterday on the Nasdaq Stock Market yesterday.

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