Examples of “Global Products Incorporating Advanced Technology” Businesses

A 2.5-inch IPS low-temperature polysilicon TFT LCD for a digital Still camera

LCD panels are used in a host of electronic equipment. They are key display devices supporting a highly advanced information society.

Hitachi has won strong support from many customers for its LCDs featuring proprietary In-Plane Switching (IPS) technology. This technology offers outstanding features such as a wide viewing angle, improved color reproducibility and a superior response speed for half tones. In small and medium-sized LCDs, Hitachi supplies high-performance, high-resolution displays for mobile phones, digital cameras, video game devices and other applications that utilize Selectivity Enlarging Laser Crystallization (SELaX) technology. SELaX achieves low production yields.

Hitachi has already achieved an areal density of 230 gigabit per square inch, the highest level at the time of development. China is another source of potential growth, with rapid expansion in the HDD market anticipated in this country. Hitachi has been upgrading production, sales and support systems in this country.

An advanced CD-Measurement SEM

HDDs are seeing rapidly expanding use in digital consumer electronics and other new fields in addition to existing IT applications, namely servers and PCs. Significant growth in HDD demand is expected in the coming years. With the broadest lineup of products in the industry and world-class R&D capabilities, Hitachi is well positioned to benefit. And it leads the industry in the highly promising field of 2.5-, 1.8- and 1.0-inch small HDDs. It is also developing high areal density technology that will make possible smaller HDDs with greater storage capacity using perpendicular magnetic recording technology.

Hitachi strengthened its R&D capabilities in this area through a merger with TOKKD LTD. and Hitachi Unisys Automotive, Ltd. that brought together a host of technologies. In other news, Hitachi established Hitachi Vehicle Energy, Ltd. with Shin-Kobe Electric Machinery Co., Ltd. and Hitachi Maxell Ltd., both of which have much experience in battery businesses.

As a leading manufacturer of plasma TVs, Hitachi has helped create the plasma TV market through accomplishments such as the launch of the world’s first 32-inch 37-inch high definition plasma TVs and models incorporating high-capacity HDDs. Hitachi has also created "Wooo World," new lifestyle proposals that use plasma TVs as the nucleus for combining DVD cameras, HDD/DVD recorders and other new-generation AV devices. These efforts have won Hitachi strong applause from many customers in Japan. Hitachi also has been just as much a driving force in markets overseas. In markets from Asia to the U.S. and Europe, Hitachi has had a hand in creating plasma TV markets worldwide. This year, Hitachi will raise its profile further in AV digital consumer electronics through a tie-up with Paramount Pictures for promoting the blockbuster movie, “War of the Worlds.”

In-plane Switching (IPS) technology

Four functions are essential to an automobile: driving, steering, braking and communicating. Toward creating Intelligent Transport Systems (ITS) that fuse these four functions, Hitachi is seeking to expand its automotive systems business by concentrating on four promising areas in three fields: “environment” (engine management systems and electric powertrain systems), “safety” (drive control systems) and “information” (vehicle information systems).

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Semiconductors are key devices for all manner of products, from mobile phones, digital consumer electronics and computers to automobiles and industrial equipment. As needs increase for semiconductors with even finer lines, the equipment for manufacturing and inspecting them must incorporate ultra-fine lithography and inspection and analysis technologies of a nanometer order. Hitachi can meet these exacting demands. It develops, manufactures and sells advanced equipment for manufacturing and inspection and analysis of semiconductors. Furthermore, Hitachi can supply the highly advanced equipment that is required for the mass production of cutting-edge semiconductors. These include, for example, electron beam lithography systems, dry etching systems and x-ray systems. Hitachi supplies high-performance, high-resolution and a superior response speed for half tones. Moreover, Hitachi sells inspection systems for 300mm wafers and systems for 450mm wafer inspection. Hitachi also sells x-ray systems for inspection of semiconductor devices and chip mounters, among other products. Hitachi supplies equipment for the whole value chain of the semiconductor manufacturing process, from wafer manufacture and inspection and analysis of semiconductors to wafer bonding and chemical vapor deposition (CVD). Hitachi is well positioned to benefit from advances in the quality of semiconductor technologies of a nanometer order. Hitachi can meet these exacting demands. As a leading manufacturer of plasma TVs, Hitachi has helped create the plasma TV market through accomplishments such as the launch of the world’s first 32 inch/37 inch high definition plasma TVs and models incorporating high-capacity HDDs. Hitachi has also created “Wooo World,” new lifestyle proposals that use plasma TVs as the nucleus for combining DVD cameras, HDD/DVD recorders and other new-generation AV devices. These efforts have won Hitachi strong applause from many customers in Japan. Hitachi also has been just as much a driving force in markets overseas. In markets from Asia to the U.S. and Europe, Hitachi has had a hand in creating plasma TV markets worldwide. This year, Hitachi will raise its profile further in AV digital consumer electronics through a tie-up with Paramount Pictures for promoting the blockbuster movie, “War of the Worlds.” In order to strengthen this business further, Hitachi made Fujitsu Hitachi Plasma Display Limited a subsidiary, with the aim of unifying business strategy from the production of panels to assembly of finished products. Hitachi is also promoting a wide-ranging strategic partnership with Matsushita Electric Industrial Co., Ltd. in a broad range of plasma TV fields, including development, production, marketing and intellectual property.

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Hitachi is determined to constantly deliver new value by pursuing endless possibilities without being constrained by conventional thinking. And we will also vigorously take on the challenge of unfamiliar business fields.

As has been our hallmark, we will continue to “breathe life into the coming age.”

A breath of new life.
A catalyst of change.

To enable and usher in the new era.