## Car Electronics Business



Advances in digital network technologies for automobiles have created significant possibilities in the car electronics market. Since its entry into this market in 1980, Kenwood, which has emphasized a consumer business, has launched many innovative and sophisticated products by leveraging its marketing power, its product planning ability, and its product development capability based on technology for high sound quality. In this way, Kenwood has built a high brand presence across the world.

In the consumer audio business, Kenwood is now expanding the line-up of proposal-oriented products, which are capable of spurring new demand, to consolidate its global presence by using the latest digital network technologies. Among these products are car audio systems featuring seamless integration with digital media equipments, including digital audio players and USB devices that are rapidly growing in popularity; and new systems that can expand the functions of line-fitted audio/visual products. Kenwood is also focusing on the development of emerging markets, mainly the BRIC nations, to enhance its revenue base.

In the growing consumer multimedia business, Kenwood has developed a user interface oriented merchandising strategy by adopting touch-sensitive panels and voice recognition systems earlier than its competitors. Kenwood has commercialized a new concept car navigation system that combines the core of a portable navigation device with a car AV system, and is pushing forward with its worldwide marketing. We are putting new proposal-oriented products on the market, including a car navigation system with an AV system that has sophisticated entertainment functions, such as playback and manipulation of video content recorded on Apple Computer's iPod®, the first such function in the industry, and a built-in terrestrial digital TV tuner. We have also begun to develop a competitive core platform of portable navigation devices for the global market, aiming to commercialize it in 2008.

In the OEM business, Kenwood is attracting new customers and expanding global operations by taking advantage of its advanced technologies, its product planning and development capabilities, its reliability, and its brand presence which are recognized in the consumer market. In addition, Kenwood has enhanced its development and production system through aggressive up-front investments to strengthen its presence not only in the finished product business, but also in the component business. For example, Kenwood increased its production capacity by expanding the Shanghai Plant, and it built a new test course at Nagano Plant. Furthermore, Kenwood is working hard to boost business competitiveness and to increase profitability by promoting vertical integration among Japanese plants and overseas plants, and by transferring the production lines for components to overseas plants.

# Communications Equipment Business



Since its foundation, Kenwood has operated the Communications Equipment business using the high-frequency technology, developing proprietary techniques and high know-how in the field of "wireless communication", which is not included in the Car Electronics and Home Electronics businesses. Kenwood has increased its market share of Land Mobile Radio equipment, becoming the world's second largest supplier. To achieve this, Kenwood has speedily complied not only with various countries' laws and regulations on radio waves but also with digitization of radio equipment, which requires cutting-edge technologies. Kenwood has supplied radio systems that require extremely high reliability, privacy and security, durability and operability to the Team Vodafone McLaren Mercedes of Formula One (F1) world championship race as an official supplier for 17 years.

Kenwood now focuses on the business of wireless radio equipment, including primarily Land Mobile Radio equipments as well as amateur wireless radios and specially-designated low power transceivers. Kenwood has expanded businesses in the U.S., the largest market for Kenwood, by enhancing the cooperative system of marketing, sales, development and production, as well as in Europe by strengthening sales and applied technology functions. We have also boosted sales activities in Russia and Asia, particularly China, where growth is spectacular, as well as emerging markets which are projected to grow, including East Europe, the Middle East, Latin America and Africa. Furthermore, we have launched the production of Land Mobile Radio equipment at our Shanghai Plant, in anticipation of an expansion of our business and growth of the Chinese market.

In response to the digitization of the wireless communication system in the Land Mobile Radio field, Kenwood completed the introduction of the digital wireless radio system for use in F1 world championship race and the commercialization of Digital Land Mobile Radio equipment in compliance with P25 (Digital Land Mobile Radio system for public safety institutions such as police and fire departments) of the U.S.

Meanwhile, Kenwood is focusing on business expansion through business alliances and M&As. As part of this, we acquired the wireless radio operations of Toyo Communication Equipment Co., Ltd. (then) in June 2004. With this acquisition, we were able to secure in Japan a dominant presence in the wireless radio market where we can now supply a large number of products to public agencies and power utilities through excellent sales networks; and huge resources and technologies relating to radio equipment operations. And we are now striving to expand the radio equipment business in the domestic market. We have also started making full-scale efforts for the establishment of standards for digital radio systems for business & industry sector and the sales expansion of digital radio equipments, under business alliances with Icom Inc., the EADS Group, the leading European aerospace and defense entity, and European radio-related companies. In May 2007, we converted Zetron, Inc., a U.S. systems-based communication company, into our subsidiary. We are qualitatively expanding the wireless radio equipment business from a supplier of radio terminals to a provider of system solutions in order to build a foundation from which to make a new leap in this business.

## Home Electronics Business



The Home Electronics business is another of our longstanding operations like the wireless radio equipment business. Since our commercialization of a high-class FM tuner using advanced high-frequency technology and honored as the world's best, Kenwood has expanded the business under the concept of "high fidelity" and expanded its presence as an audio system manufacturer around the world. At the same time, Kenwood has produced many proprietary sound technologies that significantly improve quality, and continued to offer fresh, attractive sound entertainment for the market, at a time when media technology shifted from analog to digital. This concept remains meaningful even after the drastic restructuring due to market maturity and quickly changing trends.

Taking the spread of new digital media as a great business opportunity, Kenwood is now commercializing digital media products including digital audio players to realize the highest sound quality in a given product space. At the same time, Kenwood is proposing new "seamless entertainment" by connecting these players to home audio and car electronics products. Kenwood established its "Sound Meister Edition," a product line for which its Sound Meister was engaged in a detailed process from product design to selection of components. This strategy was implemented

in order to enhance product lines consisting of high value-added models, in line with the above significant changes in the market.

In the field of pure audio, Kenwood has enhanced its high-fidelity audio product lines using traditional high-fidelity technology fused with the latest digital technology. Kenwood has also commercialized products that are seamless with digital audio players and personal computers through a USB terminal.

In the field of portable audio, Kenwood develops products by combining a proprietary patent technology which can reproduce sound that approaches CD-quality by complementing the high register lost when compressing CD music data; new high sound quality technologies required in the digital media era, such as an original lossless compression method that enables users to record data on HDD with nearly the same sound quality as CDs; and analog technologies that only a manufacturer specializing in audio can

Kenwood will continuously strive to open up new grounds for "sound entertainment" with higher fidelity and more entertainment, by leveraging cutting-edge digital media and networking environment, while focusing on its traditional high-fidelity reproduction.

#### For Reinforcement of the Core Businesses

#### Strategic Technologies Development

Kenwood conducts research and development of cutting-edge technologies that are one step ahead of the times, in anticipation of the full-scale arrival of a fully digitized and networked society. Kenwood focuses on development of competitive next-generation technologies and products, which relate to each business, particularly in the consumer electronics field where technological innovation is remarkable. Such technologies and products include home and car electronic products that are compatible with the DLNA (Digital Living Network Alliance)\* standard and car multimedia products that conform to the next-generation ITS service. We are also proactively promoting our technical development to realize a unique, seamless entertainment by combing the three core businesses. Therefore we are sitting to apply the wireless communications technologies to car electronics and home electronics, which both belong to the consumer electronics field.

\*DLNA (Digital Living Network Alliance): An alliance of a group of leading companies in the digital appliance, mobile device, and personal computer industries to promote standardization for achieving interactive connectivity in the digital era.



Compact data communication module in compliance with the DLNA guidelines

#### Speaker and Amplifier Business

Despite the widespread progress of digital media, speaker and amplifier remain a sensitive field as they rely on the physical phenomenon of air oscillation to convey sound. Kenwood has accumulated extensive proprietary analog technologies and relevant know-how through a painstaking process of trial and error in its high fidelity design as well as development of new materials for speaker system. Kenwood aims to offer added value that is more attractive to the market through the reproduction of high fidelity sound based on the above technologies and know-how. Contributing to both the Car Electronics business and the Home Electronics business, Kenwood will also establish a speaker and amplifier business to further enhance the audio sector.



Sneaker system condensed with the know-how developed over



Power amplifier equipped with the latest technology for high sound

### **Sound Quality Research**

Kenwood has enhanced its presence as an audio manufacturer with the concept of "reproduction of original sound." Although the emergence of new media such as flash memory and HDD popularizes the compression of music data. Kenwood is always aiming to "reproduce the original sound" applicable to new media and software by taking advantage of its own sound quality technology, the know-how that it has gradually accumulated over a long time, and the latest digital technology. For this purpose, Kenwood has established a Sound Quality Research Office to seek the latest sound quality technology on a daily basis. Kenwood is making efforts to carry over its sound quality technology and know-how gradually accumulated through trial and error to these new markets in the future.

When commercializing audio products, Kenwood spares no effort in seeking the finest sound quality throughout the design process, including detailed tasks such as the selection of components under the strict control of the Sound Meister, the superintendent responsible for sound quality. These efforts are directed to enabling Kenwood to provide high quality sound product lines that meet the various needs in the field of home, portable and car-mounted audio.



60th anniversary commemorative prestige car audio "TRIO Model", realizing the ultimate function of reproduction of original sound