OUT OF SIGHT AND SOUND

The AV/IT segment comprises audio and visual equipment (including amplifiers and receivers, speaker systems, and Digital Sound Projector™ products), commercial network karaoke equipment, routers, and IP conferencing systems. Yamaha is a leader in markets driven by music, sound and networks where it exploits its technical expertise in music, sound, and networks to develop and supply high-quality products that meet customer expectations.

Fiscal 2006 performance
Shipments of the Company’s newly launched YSP series of Digital Sound Projector™ were favorable. Overall sales of home theater systems, though, declined amid a depressed market among certain other factors. By geographic area, sales rose in the U.S. market because Yamaha broadened its distribution through such sales channels as mass merchandisers, but sales dropped in Japan and Europe. Sales of home theater systems in China, meanwhile, were poorer than expected, the result of delays in the development of a local sales network. The segment’s sales of virtual private network (VPN) routers to small and medium-sized enterprises likewise suffered, amid fierce price competition.

Segment sales thus fell 2.3% year on year, to ¥75.9 billion, while operating income declined from ¥3.7 billion to ¥2.1 billion. Although ongoing efforts to cut production costs were successful, a reduction in gross profit margins caused by fierce competition served to compound the effect of lower sales.
Market trends and business strategy
AV equipment
Rapid technological progress characterizes the market for AV equipment, which is gradually shifting toward large flat-panel TVs, high-definition picture, and high-quality sound. Terrestrial digital broadcasting illustrates this ongoing evolution toward digital content. Consumers are also increasingly downloading music for iPods and mobile phones, a trend that is exerting a marked effect on the way that people enjoy music.

The existing market for consumer audio equipment in Japan is shrinking. But falling prices continue to raise demand for flat-panel TVs, which, in turn, stimulates demand for video playback equipment and peripheral sound systems for televisions. The market is also fragmenting with the popularity of portable audio players and a revival in demand for HiFi audios. In overseas markets, such as the United States and Europe, fierce competition continues to push prices down, and growth has slackened for AV receivers and home theater systems.

In Yamaha’s view, the key to securing the support of customers and markets and to generating business growth is to understand diverse user requirements and to develop products that meet those needs in a timely manner. Yamaha also believes in the necessity of offering consumers a total package of products and services for the enjoyment of sound, music, and pictures. In the year ended March 2006, Yamaha introduced a variety of products that aim to take advantage of the expanding markets for flat-panel TVs and portable audio players.

Launched to critical acclaim in fiscal 2005 was the YSP series of Digital Sound Projector™, which offers flat-panel TV viewers exceptionally realistic sound. YSP home theater systems represent a new concept in true 5.1-channel surround sound. Using a single, compact, front-mounted unit, this system reflects five beams of sound off the walls of the viewer’s room. This eliminates the need for surround-sound speakers and the inconvenience of speaker wires. Ease of installation, moreover, has helped to make the YSP series extremely popular.

In fiscal 2006, Yamaha extended the YSP series by introducing the YSP-800 and YSP-1000 models, which suit different sizes of television screen. YSP series sales rose significantly as a result of the new models, because of a doubling of the number of retail outlets handling the range, and on account of an aggressive promotional campaign that also encompassed distinctive selling and merchandising methods. Yamaha plans to focus on penetrating more markets around the world and to cooperate with TV manufacturers to develop YSP system and television combinations to target the distribution sector. The intent is to expose as many consumers as possible to the product.

In AV receivers, Yamaha launched its RX-V659 and RX-V559 models during the year under review. Both are compatible with iPod. Equipped with Yamaha’s original Compressed Music Enhancer function, these receivers are capable of the high-quality sound of digital music in compressed formats. Yamaha is also upgrading other of its AV receivers by incorporating this function.

In Japan, Yamaha launched its NX-A01 speaker in a joint campaign with a major mobile carrier. This compact cubic speaker features...
Swing Radiator Bass™, an original playback enhancement technology for low-pitched sounds developed by Yamaha to appeal to new generations of people listening to music on the move. Despite its compact size, the NX-A01 delivers surprisingly rich bass playback. It works with portable music players and mobile phones.

Yamaha has been working on the cutting edge of sound production for more than 100 years. The Company continually pursues the latest technology to enhance listening pleasure and to provide customers with new and enjoyable listening experiences. A prime example of this is CINEMA DSP™ (Digital Sound Field Processing), a technology that is based on an analytical database of the sound characteristics of the world’s leading theaters and concert venues collected over more than 20 years. CINEMA DSP™ is also a product of Yamaha’s design expertise in venue acoustics and wealth of experience in PAs and mixing desks. By recreating the sounds of world-famous venues, this technology ensures a grippingly realistic audio experience that enhances video playback. CINEMA DSP™ continues to underpin Yamaha’s leading position in the markets for consumer audio equipment.

Elsewhere, efforts are progressing to promote the further integration of design, development, materials purchasing, manufacturing, sales, and customer service functions within the AV business. Using supply chain management (SCM) initiatives that forge more efficient linkages from planning to sales, Yamaha is focusing on cutting product delivery lead times in this segment based on its network of production bases across Japan, Malaysia, Indonesia, and China.

Commercial network karaoke equipment
Yamaha develops and manufactures network karaoke equipment for the Japanese market in conjunction with a leading network karaoke provider. Sales of these products declined amid a stagnating market and an ensuing downward movement in price. Widespread adoption of broadband has enabled users to take advantage of uplink networking capabilities to upload singing data, creating possibilities for new content-based services such as auditioning or singing performance evaluation. By adding ideas and outstanding features such as these, Yamaha intends to be the frontrunner in the market.

Routers
Yamaha entered this business in 1995 and since then has been a leading provider of routers in Japan, with a key turning point being development of the Internet. Amid increasing broadband penetration within the commercial sector in Japan, Yamaha offers home-based businesses and small to medium-sized enterprises (SMEs) with multiple operating bases a range of multifunctional all-in-
one routers such as the RT57i. Yamaha routers are centered on technologies such as VPN, which offer a reliable platform for secure communications. Yamaha's RTX1100 VPN router and other models have been accepted as the industry standard for SMEs.

Price-based competition in the market for VPN routers intensified during fiscal 2006 with the entry of new suppliers. Yamaha's strategy remains to develop this business steadily by introducing more high-value-added models featuring QoS* technologies to achieve effective bandwidth utilization. Yamaha is also planning to extend its business into the Chinese market.

IP conferencing systems
The market for IP conferencing systems continues to grow at a double-digit pace as companies seek tools that can lower travel and other meeting-related expenses while helping to improve inter-operational communications and productivity. Demand for such products is forecast to more than double over the next few years, particularly in China. As the size of handled data increases in IP conferencing systems, the market is also progressively shifting from analog and ISDN-based products to digital IP conferencing systems that can realize smoother communications for meeting purposes.

Today's audio quality for IP conferencing systems still tend to suffer from problems related to network quality and bandwidth control, often resulting in degraded speech quality and lack of connection stability. There is plenty of scope to improve the sound processing aspects of these products. Yamaha has decided to enter this market and is developing new IP conferencing systems that will solve such problems. By combining the expertise in professional audio equipment accumulated over many years in developing DSP technology, speakers, microphones and other products with the network technology cultivated from router, business Yamaha aims to supply new IP conferencing systems that deliver and play stable sound, which are just some of the benefits of IP.

Although more firms began to enter the IP conferencing systems market from late 2005, there are few products on the market that use advanced network technology. Yamaha's IP conferencing systems have been evaluated highly for their sound quality achieved through original sound processing technology, and because they offer optimized solutions due to the incorporation of the router. The full launch of the multiple product lines is scheduled for the second half of fiscal 2007. Yamaha plans to generate maximum growth by coordinating sales of IP conferencing systems with router business.

Technical glossary
*QoS (Quality of Service):
QoS is the general term for technologies that are used to control the quality of the communications over a network. They work by guaranteeing communications quality in specific applications and stabilizing operation, based on key indicators such as bandwidth, delay and packet loss.