Automated Teller Machine

ATM

OKI aims to make the leap from leading Japan's ATM industry to becoming a global leader.

Since developing the world's first cash recycling ATM, OKI has captured a significant share in the Japanese market as a leading producer of these products. Hereafter, OKI will promote global business development as it moves forward with development of ATMs that offer even higher performance and respond to ever expanding market needs.

OKI was the first company in Japan to successfully commercialize the use of online ATMs in 1977. In 1982, OKI developed the world's first ATM featuring a banknote recycling method that uses deposited banknotes directly as funds for withdrawals. From that point forward, OKI has consistently been the prime mover in the evolution of ATM-related technologies in Japan, and has been bolstering usability (basic user friendliness), accessibility (taking the elderly and handicapped into consideration) and security with technologies such as biometrics verification.

Focusing on the need for rapid cash recycling ATMs, OKI has remained ahead of the competition, pioneering the development of this technology. In reference to product development, OKI utilizes the mechatronics technology it has developed over many years in the areas; such as automatic identification functions for determining banknote authenticity, and deterioration as well as technology that accurately recycles bank-notes. The use of deposited banknotes as funds for withdrawal—enabled through cash recycling ATMs—makes it possible for financial institutions to more effectively manage cash. At present, OKI is positioning itself to be Japan's leading vendor through its ATM products.

At the same time, China currently has the fastest market growth rates of any country overseas. Accompanying the development of China's economy is the significant increase of banknotes being circulated. Given the heightened need for effective and improved cash management in China, the popularity of ATMs is increasing rapidly, and they are progressively replacing cash dispensers (CD). Owing to the development and introduction of space saving, large-capacity ATMs that match market needs in China, OKI is gaining a top-level commercial share in the Chinese market.

In addition, we forecast that the demand to switch from CDs to ATMs will become more prevalent in both Europe and North America, where the use of CDs is still widespread. When this occurs, demand for efficient and space-saving cash recycling ATMs is expected to become quite large. OKI is one of the few companies in the world, amongst other Japanese companies, that has such technology, and thus expects a major business opportunity.

By tapping into new overseas markets and providing ATMs that match the needs of individual countries, OKI will further respond to global needs through various initiatives that include the development of new ATM models. OKI will step up its efforts to further promote global business development with the aim of making the leap from boasting the leading shares of the Japanese market to becoming top performers globally.

Unified Communication Products

OKI contributes in enhancing customers' corporate value through unified communications environment.

OKI is providing a unified communications environment that displays a high degree of synergy through the combination of a diverse selection of communications network products. Under the C3 Concept (Contact, Communication, Convergence), OKI is promoting a wide array of product development.

To enable businesses to secure competitive superiority in the present age, a wide array of communication channels that include data and voice applications are integrated and optimized via IP networks. Thus, the need exists for fully-realized unified communications. Under its C3 Concept, OKI offers high-level unified communications environments, including seamless communication environments that link work sites to management, office environments that offer no constraints regarding time or place and contact environments for building close ties with customers.

OKI's unified communication commence in 1996 when it introduced Japan's first VoIP*1 system, BS1100, a VoIP gateway, and subsequently launched CTstage®, Japan's first CTI*2 system, making efforts to generate new markets that integrate information and communications. As Japan's first unified messaging system integrating email, voice and fax mail and, later equipped with full-fledged call center functions, CTstage currently commands the No.1 market share for call center systems in Japan. In addition, from the earliest days of IP telephony products, OKI has been the driving force in market creation and development. Among its accomplishments was the 2004 release of the largest-scale domestic IP telephony server made, the IP CONVERGENCE® Server SS9100, which is able to adopt full-fledged IP-PBX products for large corporations. Furthermore, OKI added the Visual Nexus® video conference system to its portfolio of products in 2007.

OKI's greatest strength regarding unified communications lies in the power of each individual product and these products' high level of SIP*3 linkage. In each communication sector (IP telephony, "software phone" applications, video conferencing, IP contact centers and security & mobility features), there are OKI products that boast a high market share and it is possible to seamlessly link each product through SIP, particularly with SS9100. In addition, because of OKI's openness to actively disclose APIs,*4 it is easy to link business applications. OKI's diverse array of products can be used in a wide range of combinations to ensure that numerous businesses realize high-level, companywide unified communications, including contact center and video conferencing linkages.

*1: VoIP (Voice over Internet Protocol) is a technology that enables voice communication over an IP network.
*2: CTI: Computer Telephony Integration (technology that integrates phones and faxes in computer systems)
*3: SIP: Session Initiation Protocol (call control protocol)
*4: API: Application Programming Interface

Dedicated Short Range Communication

DSRC Technology

OKI is pursuing the evolution of communications between people, automobiles and roadways through the utilization of DSRC technology.

OKI is promoting the development of multiple applications for DSRC*1, utilizing cutting-edge information technology with the aim of realizing a safe, secure and comfortable traffic environment. Based on this, OKI is pursuing the further evolution of ITS*2 to establish new networks among people, automobiles and roadways.

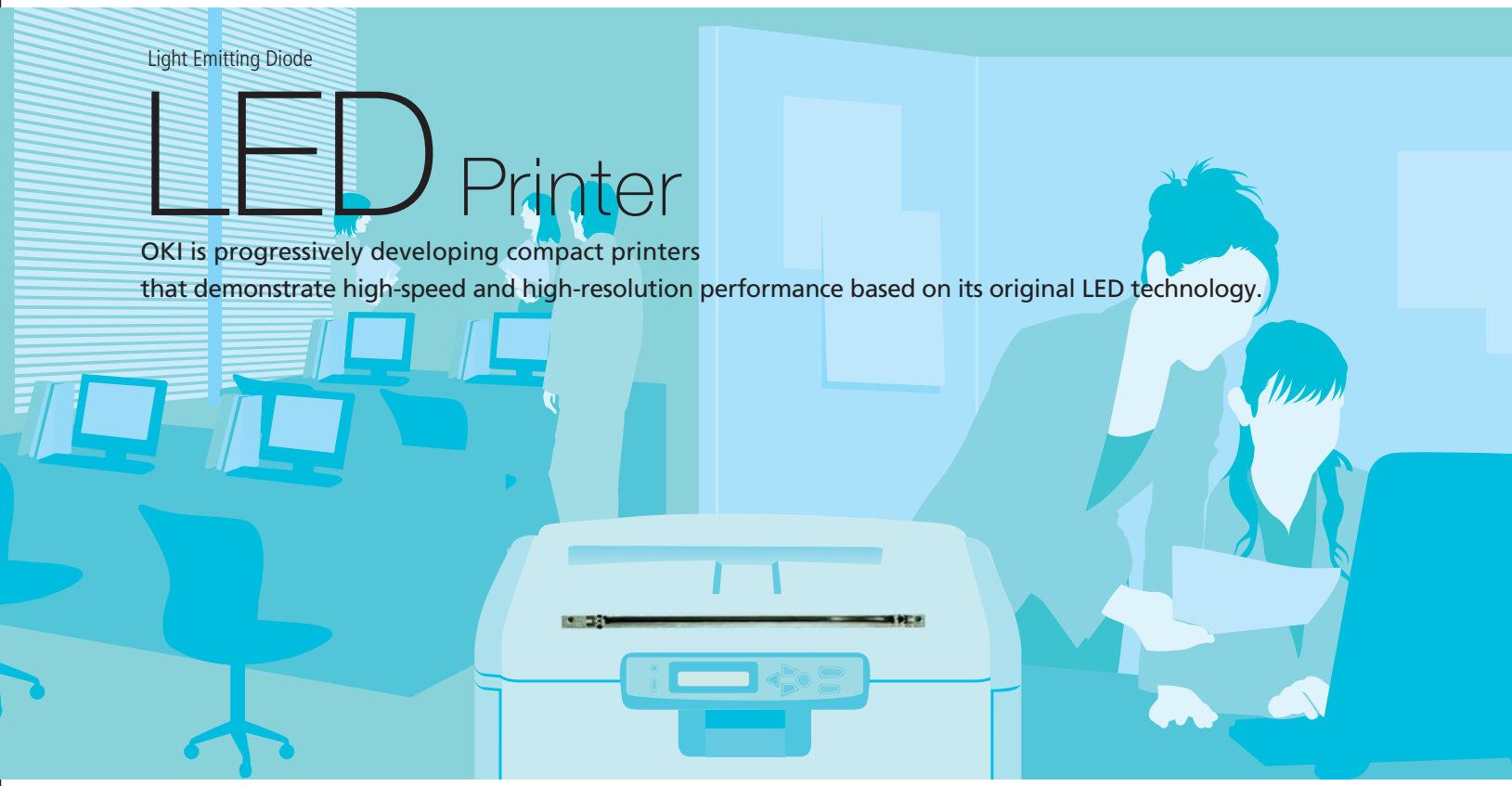
DSRC is a communication method with a narrow range of applications in road-to-vehicle communication, epitomized by ETC,*3 management systems for commercial vehicles and other applications. However, DSRC extends beyond this, opening up the possibility for such diverse applications as vehicle-to-vehicle and person-to-vehicle communication. The development of ITS, which establishes networks among people, automobiles and roadways through cutting-edge information and communication technology, is indispensable for realizing a safe, secure and comfortable traffic environment for everyone. Despite DSRC having a communication range of only several to several dozen meters, thanks to its direct two-way communication capabilities with high-speed and high-capacity features, the multiplicity of possible applications of ITS include such functions as collision avoidance at low-visibility intersections and the provision of local tourist information.

A prominent application of DSRC can be found in the use of ETC, which has become indispensible on the expressways in Japan. The introduction of ETC has enabled smooth fee collection and reduced traffic congestion. Drawing on close links between the public and private sector, research into this system began in 1993 and it went into full-scale operation in certain sections in 2001. At present, users can pay tolls nationwide using the same in-vehicle equipment and the same card, making the development of this large-scale ETC system unique in the world. As one of its core vendors, OKI has been engaged in R&D into ETC systems from the very beginning.

In addition to ETC applications, it is anticipated that new applications will be created for DSRC, which is already utilized in a wide range of areas, including parking lot and other fee payment systems, and information displays both in and around train stations. For example, through the connection of DSRC attachments to mobile phones, research is progressing into the development of safety support, such as DSRC vehicle-to-vehicle communications attachments for mobile phones that will allow the exchange of positioning information among pedestrians as well as vehicles. Another area of research is in information support systems, where car navigation systems are geared toward the driving comfort for tourists by enabling users to access a variety of information on tourist attractions based on vehicle-to-vehicle transmissions.

From here onward, OKI will pursue the evolution of communications among people, automobiles and roadways as it contributes to the development of ITS by making full use of its cutting-edge information and communication technology.

*1: DSRC: Dedicated Short Range Communication
*2: ITS: Intelligent Transport System
*3: ETC: Electronic Toll Collection



Light Emitting Diode

LED Printer

OKI is progressively developing compact printers that demonstrate high-speed and high-resolution performance based on its original LED technology.

OKI will strengthen its position as the global leader of LED*1 printers by building on its advanced and unique technologies—primarily focusing on Epi Film Bonding technology—with the aim of developing high-speed, high-resolution, compact LED printers.

OKI provides monochrome printers, color printers, multifunctional printers and dot-impact printers specialized for business use to over 120 countries worldwide. In the latter half of the 1970's, when using laser light sources was more of a standard, OKI developed its LED print-heads that arranges LEDs in a high-density configuration. OKI became a pioneer in producing LED printers that utilize LEDs as a light source, and today, these LED print-heads are used in its monochrome, color and multifunctional printers. LED printers have advantages not found in laser printers. Because the laser method involves light striking a photosensitive drum through a lens as a single laser beam rotates a polygonal mirror, delicate adjustments are required and there are difficulties associated with reducing equipment size. However, the LED method involves the arrangement of LED luminous points within the ample width of the photosensitive drum, with each point responding to one printed dot. For this reason, it is possible to install LED print-heads close to photo-sensitive drums, making it easy to reduce equipment sizes. High-speed and high-resolution printing is also possible owing to writing via multiple LEDs.

Taking even further advantage of these features, OKI made a technological breakthrough with the development of epitaxial film bonding (EFB) technology in 2007. EFB is a technology that, without need of adhesives, bonds thin film material by utilizing the intermolecular bonding force working between the films. The use of this technology makes it possible to integrate thinned LED—consisting of two different materials used in LED print-heads—with IC drivers. Due to this, the new LED print-heads are half the size of conventional products, while reducing production processes and materials have contributed greatly to enhanced cost efficiencies.

Through the application of EFB technology, OKI successfully developed the 1,200dpi*2 LED print-head in 2008, which has been reduced to the same size as the 600dpi LED print-head. Consequently, it is possible to reduce the size of the main unit, even when set to 1,200dpi high resolution. In addition, this technology significantly reduces supply current by achieving nearly twice the luminous efficiency compared with conventional LEDs, thus contributing to energy conservation.

Being highly rated worldwide, OKI's LED printers received a number of awards in the fiscal year ended March 2009 in such countries as the United States, United Kingdom and China. Developing its advanced and unique technology even further, OKI is strengthening its position as a global leader of LED printers.

*1 LED: Light Emitting Diode
*2 dpi: dots per inch