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Asukanet Co., Ltd.

Kanda Kogyo Co. Ltd.

Seven-Eleven Japan Co., Ltd.

Toshiba Tec Corp.

Mitsui Chemicals, Inc.

Mitsui & Co. Plastics Ltd.

Toshiba Tec Corporation

 **Mitsui & Co. Plastics Ltd.**



The World's First* Touchless Aerial Display POS Register!

Digi POS Trial to Begin in 7-Eleven Stores

Asukanet Co., Ltd. (Hiroshima, Hiroshima; President: MATSUO Yuji), Kanda Kogyo Co. Ltd. (Himeji, Hyogo; Representative Director: TAKASHIMA Ichiro), Seven-Eleven Japan Co., Ltd. (Chiyoda-ku, Tokyo; President: NAGAMATSU Fumihiko), Toshiba Tec Corp. (Shinagawa-ku, Tokyo; President and CEO: NISHIKORI Hironobu), Mitsui Chemicals, Inc. (Minato-ku, Tokyo, President & CEO: HASHIMOTO Osamu) and Mitsui & Co. Plastics Ltd. (Chiyoda-ku, Tokyo; Representative Director and President: MORI Katsunori) today announced plans to trial a new cashless self-checkout system using touchless aerial display technology. The Digi POS registers will start being rolled out across six 7-Eleven convenience stores in Tokyo on Tuesday, February 1, 2022.

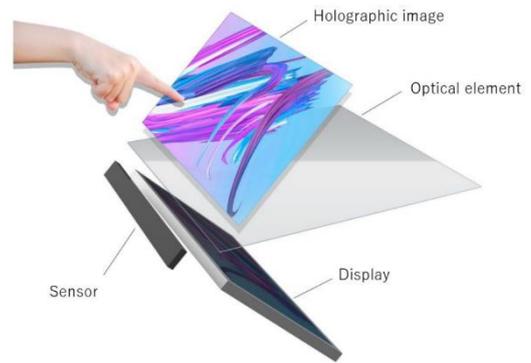
While aerial displays are already in use, mainly in hotel and office reception kiosks and as digital signage, this trial will mark the first time for such displays to be used in a POS register anywhere in the world.* The technology displays a holographic image of the register screen in mid-air, which the user operates just like a physical touch panel.

Through this new retail experience, the partners in the trial aim to verify the project's objectives of creating additional sales opportunities by reducing the space taken up by POS counters and offering greater safety and peace of mind via fully contactless shopping.

*According to a survey by Asukanet

Division of roles

| | |
|-----------------------|--|
| Asukanet | Developing, manufacturing and selling aerial display plates; jointly developing aerial display modules used in the POS registers |
| Kanda Kogyo | Developing, manufacturing and selling aerial display modules; jointly developing aerial display modules used in the POS registers |
| Seven-Eleven | Equipping 7-Eleven stores with Digi POS for use by customers and verifying their effectiveness |
| Toshiba Tec | Creating the POS payment system and handling its installation and assembly in stores |
| Mitsui Chemicals | Developing, manufacturing and selling the Structbond™ adhesive used in the aerial display plates; jointly developing aerial display modules used in the POS registers and providing project leadership and technical support |
| Mitsui & Co. Plastics | Selling aerial display modules and jointly developing aerial display modules used in the POS registers |



*Images for illustrative purposes

Overview of the Digi POS project

Project overview

| | |
|-----------------|--|
| Launch date | Rollout to begin Tuesday, February 1, 2022 |
| Stores involved | Six 7-Eleven stores across Tokyo |
| Purpose | To provide customers with a new shopping experience, enable staff to operate registers safely and with peace of mind, and verify register counter space efficiency gains |
| Details | The effectiveness of Digi POS cashless self-checkout systems equipped with aerial display technology will be verified via their use by customers |

Digi POS specifications

| | |
|------------------------------|---|
| Payment methods accepted | Seven & i Group's Nanaco e-money card, e-money cards issued by transport providers, iD, QUICPay+, Rakuten Edy, credit and debit cards, barcode payments and Apple Pay |
| Items available for purchase | In-store products (cannot be used to pay for alcohol, tobacco, stamps, postcards, revenue stamps, parcel delivery services, internet service and public utility payments, parcel collection services, cash vouchers or e-money recharges) |
| Size | 317.5 mm wide by 600 mm deep (Approx. 70% the size of existing registers) |
| Purchase and payment process | The customer scans the barcodes on the products they are purchasing and then makes payment |

Aerial displays

Aerial displays project holographic images in mid-air, enabling users to operate touch screens without physically touching them. The unit consists of (1) a display, (2) an optical element (aerial display plate) and (3) sensor modules.

Mitsui Chemicals' Structbond™ sealant

Mitsui Chemicals develops, produces and sells Structbond™, a sealant used in liquid crystal, OLED, aerial and various other displays. For the Digi POS aerial display, the Structbond™ XMF range is being used in Asukanet's ASKA3D plate. Boasting outstanding levels of transparency and able to

accommodate the refractive index of layers of resin pasted together, the Structbond™ XMF sealant contributes to the high-resolution holographic images generated by ASKA3D.

Company profiles

◆ **Asukanet Co., Ltd.** <https://aska3d.com/en/company.html>

Asukanet has three key areas of business: photo books, funeral-related services and aerial displays. Asukanet's aerial display business is centered on the ASKA3D plate, a special panel made from glass or resin through which an image is projected, creating an identical holographic image in mid-air at the same distance from the plate as the distance between the plate and display screen on the other side. Asukanet's aerial display technology has been granted a patent due to its employing a new approach, which differs completely from those used in conventional holograms and integral imaging.

◆ **Kanda Kogyo Co. Ltd.** <https://www.kanda-kogyo.co.jp/english/>

Kanda Kogyo's principal business is the assembly and processing of electronic components. The company's display-related businesses have shipped more than 400 million units.

Applying the processing technologies it has developed to date, Kanda Kogyo has succeeded in developing high-quality aerial displays delivering higher intensity holographic images. Kanda Kogyo established the wholly owned subsidiary Miraibar Inc. to design, develop and sell IoT devices and also to design and sell aerial displays. Sales of IoT devices and Mirai Pix aerial displays under the subsidiary have already begun.

In an effort to strengthen its production division, Kanda Kogyo has acquired motor control technology by bringing Vanguard Systems Inc. into its corporate group.

◆ **Seven-Eleven Japan Co., Ltd.** <https://www.sej.co.jp/company/en/>

Operator of the 7-Eleven chain of convenience stores, Seven-Eleven Japan has, since its founding in 1973, created a franchise business that now encompasses a network of around 21,000 outlets across Japan, managed independently by the franchisees who own the stores.

While seeking to enhance convenience tailored to changes in customers' lifestyles and society as a whole, Seven-Eleven Japan constantly pursues innovation in all aspects of its business, from products and services to the in-store environment.

◆ **Mitsui Chemicals, Inc.** <https://jp.mitsuichemicals.com/en/>

Mitsui Chemicals is a chemical company whose main businesses are Mobility, Health Care, Food & Packaging, Basic Materials and Next Generation Business. Following the 2021 launch of its VISION 2030 Long-Term Business Plan, Mitsui Chemicals is transitioning beyond the supply of materials to a perspective that encompasses social challenges. Rather than focusing solely on materials development, Mitsui Chemicals aims to help in advancing the technologies of its customers and society as a whole by offering a variety of solutions.

◆ **Mitsui & Co. Plastics Ltd.** <https://www.mitsui-plastics.com/en/>

Mitsui & Co. Plastics is a trading company specializing in chemicals across a diverse array of fields, from product sales and raw materials for synthetic resins to chemical feedstocks, functional films, display materials, semiconductor and circuit substrate materials and components for electronic devices.

◆ **Toshiba Tec Corp.** <https://www.toshibatec.com/>

A leading company boasting one of the world's top shares of the POS system market, Toshiba Tec has installed POS systems in 7-Eleven stores throughout Japan. Toshiba Tec is promoting data-driven digital transformation while making maximum use of its strong relationships of trust with customers and finely tuned service network.

Putting its corporate philosophy of "Create with You" into practice, Toshiba Tec solves a variety of challenges through co-creation with customers and business partners alike as it seeks to achieve a sustainable society.