



The Expanding Horizons of Digital Signage

Developments in digital signage hardware continue to drive growth in new applications and placements.

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The way businesses communicate with their customers is undergoing a profound transformation. At the forefront of this evolution is digital signage, a technology that has moved far beyond its traditional applications and traditional locations.

Once limited to basic advertising displays on store walls, digital signage is now revolutionizing customer experiences across a multitude of industries and in a variety of locations. From retail and healthcare to transportation, hospitality, education, and entertainment, digital signage is enhancing engagement, improving efficiency, and driving sales in unprecedented ways, redefining the customer experience by offering dynamic, interactive, and responsive communication solutions tailored to meet the unique needs of diverse sectors.

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Revolutionizing customer experiences across industries

Although digital signage has been around for decades, its use continues to expand thanks to a host of new technologies appearing in the marketplace.

The digital signage market is expected to reach \$26.1 billion by 2028, a 6.9% compound annual growth rate compared with \$18.7 billion in 2023, according to a recent [Markets and Markets report](#). Continued growth is attributed to the increasing adoption of digital signage in commercial applications, growing demand for digital signage in infrastructural applications, surging demand for 4K and 8K displays and constantly increasing technological advancements related to displays, the report said.

Additionally, digital signage is increasingly being used in new and innovative ways, breaking traditional boundaries and enhancing the customer experience.

Retailers are at the forefront of adopting digital signage to captivate shoppers and drive sales. By showcasing dynamic promotions, personalized advertisements, and real-time inventory updates, retailers can respond to consumer preferences instantly, creating a more engaging and convenient shopping journey. For instance, a digital shelf can display product details, reviews, and even suggest complementary items, enhancing the likelihood of purchase.

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“Real-time updates on schedules, delays, and gate changes ensure passengers are well-informed, reducing stress and improving the flow of foot traffic.”

In the corporate world, digital signage is streamlining internal communications and enhancing employee engagement. From welcome messages in lobbies to real-time data dashboards in offices, these displays ensure employees are informed and motivated. Digital signage can also support wayfinding, meeting room management, and emergency notifications, contributing to a more efficient and responsive workplace environment.

Healthcare facilities are leveraging digital signage to improve patient care and operational efficiency. In waiting areas, digital displays provide educational content, entertainment, and real-time updates on wait times, reducing patient anxiety and perceived wait times. Wayfinding solutions guide patients through complex hospital layouts, while digital signage in clinics and wards can display important health information and updates, ensuring clear communication between healthcare providers and patients.

Transportation hubs such as airports, train stations, and bus terminals are using digital signage to enhance traveler experiences. Real-time updates on schedules, delays, and gate changes ensure passengers are well-informed, reducing stress and improving the flow of foot traffic. Additionally, advertising on these digital platforms reaches a captive audience, presenting lucrative marketing opportunities for businesses.



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Educational institutions are increasingly adopting digital signage to create dynamic learning environments. In universities and schools, digital displays provide important announcements, event schedules, and emergency information. Campus-wide digital signage networks ensure students, faculty, and visitors are well-informed and engaged.

In the hotel and hospitality industry, digital signage is redefining guest services. From digital concierge services and wayfinding to personalized welcome messages, hotels are using this technology to create a more personalized and efficient guest experience. Conference centers within hotels benefit from digital signage by displaying event schedules and directional information, ensuring smooth operation of events and satisfaction of attendees.



And in the entertainment sector, digital signage is enhancing the audience experience at venues such as theaters, concert halls, and sports arenas. Dynamic displays showcase upcoming events, promotions, and real-time updates, keeping attendees informed and engaged.

Technology to meet a variety of needs

Once of the technological tools helping to expand the application of digital signage solution is the media player. Small enough to be mounted behind a display, powerful enough to show a variety of video formats and

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including connectivity options that make it possible to update content in real time, today's media players are helping to drive the current digital display revolution.

One media player recently appearing on the market is the SI-663 series of 8K digital signage players from IBASE Technology.

Powered by a 13th/12th Gen Intel® Core™ processor, the SI-663 series player delivering unparalleled performance, energy efficiency, and exceptional visuals, helping retailers, enterprises, healthcare, transportation, hotel and hospitality, education, and entertainment customers to market and increases sales by enhancing customer experiences through improved efficiency and responsiveness.



Features of the SI-663 series digital signage player include:

- Offers high-quality graphics content with 3x display outputs
- Industrial-grade robust fanless and separate flow ventilation designs
- iSMART energy-saving, smart-control technology (enables auto power on/off scheduling/power resume/OS recovery/low-temp guardian functions)
- Peripheral Device Power Control (PDPC) function
- Optional 5G, WiFi, Bluetooth or capture card connectivity
- 24/7 Operation
- Designed for menu board and video wall signage

Both the SI-663 and SI-663-N feature dimensions of 175mm(6.9")W x 212mm(8.3")D x 37mm(1.5")H and can operate in temperatures ranging from 0°C to 45°C (32°F to 113°F), making them the ideal solution for nearly any location.

The SI-663 series of digital signage players showcase iSMART energy-saving smart control and Observer advanced remote monitoring technologies and offers versatile connectivity, including DP1.4++, HDMI 2.0b, DVI-D

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interfaces, and USB 3.2 ports. The systems provide multiple M.2 expansion options for storage, 5G/LTE, Wi-Fi, and Bluetooth capabilities, enhancing their customization potential.

Added security and reliability are assured with TPM 2.0, vPro, and a watchdog timer. The newly designed "Peripheral Device Power Control (PDPC)" allows users to control the power of peripheral devices (based on USB power) through software, like an external USB type A port or an internal M.2 slot. Users only need to turn off the power of the peripheral and then turn it on through the software to restore the peripheral to normal operation.

The SI-663 features an industrial-grade separate flow ventilation design for challenging environments and versatile installation scenarios and weighs 1.5 kg. It comes with Intel Core i7-1265UL processor, 8GB DDR5 4800 SO-DIMM memory and 256GB M.2 storage.

The compact signage player is certified with CE, FCC Class B, CCC, and runs on Windows 10 IoT Enterprise (64-bit) and Linux Ubuntu (64-bit), catering to different operating system needs.

Engaging like never before

Digital signage is no longer limited to static displays in retail stores. Its expansion into new locations across various industries is driving enhanced customer experiences through improved efficiency and responsiveness.

As technology continues to evolve, the potential for digital signage to innovate further and integrate into new areas seems boundless. Embracing these advancements allows businesses and public spaces to not only market their products and services more effectively but also create a more engaging and satisfying experience for their customers.

SI-663 (Flow ventilation design) and SI-663-N (Fanless design)

11th Gen Intel® Core™ / Celeron® U-Series 13th/12th Gen Intel® Core™ Processor Signage Player with Intel® SoC Integrated Graphics and 1x HDMI 2.0/1x DP 1.4/1x DVI-D Processor Fanless Signage Player with 1x HDMI, DP and DVI



- iSMART intelligent energy-saving technology - enables power on/off scheduling and power resume functions
- Supports 13th/12th Gen Intel® Core™ processors
- 1x HDMI 2.0 / 1x DP++ 1.4 / 1x DVI-D
- 2x DDR5-4800 SO-DIMM, dual channel, Max. 64GB
- 1x M.2 B-Key (3052) for 5G
- 1x M.2 E-Key (2230) for WiFi, Bluetooth or capture card options
- TPM 2.0, vPro and watchdog timer
- Industrial-grade robust and compact design (fanless for SI-663-N)

Source: IBASE Technology

ABOUT THE SPONSOR:

IBASE Technology Inc. is a reputable manufacturer and supplier of industrial motherboards, embedded systems, panel PCs, digital signage players and network appliances in the Industrial PC and fast-growing AIoT markets. Since it was established in 2000, IBASE has been committed to the production of high-quality products, and to the rendering of excellent services. The company is publicly listed on the Taipei Exchange (TPEX: 8050) and is now a leading global provider of innovative industrial and embedded computing products. IBASE has a full range of digital signage system products catering across vertical markets including retail, fast food, hospitality, education and financial. Depending on their requirements, customers can choose the models based on performance, number of displays, resolution and ventilation designs. For more information, please visit www.ibase.com.tw.

IBASE is a Titanium member of the [Intel® Partner Alliance](#) that offers exclusive resources for AI, cloud, high-performance computing, and other solution areas to help plan, build, and deliver more customer value. As an Intel-recognized top-tier partner, IBASE works together with Intel and the ecosystem to deliver the most advanced products and solutions to our customers.

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