

Digital Signage: The Communication Revolution Continues

The IBASE SI-83 Digital Signage Player Moves Digital Signage to the Forefront of Sophisticated Message Delivery and Interaction

The world is a far more exciting place than it used to be only a decade ago. Smartphones and digital tablets have revolutionized the way humans interact with both media and each other. These game-changing devices have also created a hunger for new, more sophisticated ways to communicate that entertain, inform and invite interaction all at the same time.

Take a small child to a special exhibition at a museum these days and you will see them drawn immediately to digital displays where they are excited by the visual experience. Their fingers search intuitively for the part of the screen that allows them to access more pictures and animate the display.

At the same time, octogenarians who thought personal computers a chore are finding digital tablets a natural and intuitive way to watch films, read books, make appointments, and connect with family and friends. Not to be outdone, the generations in between are deep into friending, tweeting, pinning, and instantly staying in touch using sleek hand-held devices with screens full of options, movement, and color that they control with the touch of a finger. And this phenomenon is worldwide.

Because of heightened expectations, advertisers and retailers, along with government and public service organizations, face a serious challenge in finding compelling and cost-effective ways to inform, entertain, and interact with today's audiences. Cardboard signs are not going to attract visually sophisticated consumers, but exciting, animated, and responsive digital signage displays will. Public spaces provide countless opportunities to reach world audiences eager to interact by using their phones and other personal communication devices.

Technology Is Ready and Digital Signage Is Moving Full Speed Ahead

Wherever people are waiting, strolling, or doing their week's shopping, digital signage is already waiting to delight, serve, and sell to them. The good news is that most of the technology required for exciting visual experiences — sleek, lightweight flat display panels, powerful digital chips for media processing, standard physical connections for networking, protocols for remote management, and the Cloud for easy mass storage — has already been developed and standardized for other uses. The element that will bring all these elements together is the IBASE SI-83 Digital Signage Player, a media appliance that is purpose-built, powerful, easy-to-manage, and more cost-effective now that it is remotely accessible.

Here are just a few of the ways in which you may already have seen digital signage in use:

- **Public Spaces** — Digital signage is delivering information in transportation hubs such as airports and train stations where people need up-to-the minute scheduling information and directions to local transportation and hospitality services such as hotels and restaurants.
- **Workplaces** — Digital signage provides company messages, health and safety updates, and special alerts to employees.

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- **Malls** — Digital signage is the ideal vehicle for advertising and building brand awareness, in addition to providing an exciting new way to promote new products and announce special promotional events that encourage brand loyalty.
- **Retail Stores** — Digital signage can influence customer behavior by directing shoppers to selected areas of the store where special sales or demonstrations like fashion shows or cooking classes are taking place, providing easy-to-use directory assistance, and maximizing time-in-store by promoting restaurant, juice bars, and other refreshment spots, or special service areas such as gift wrap, targeted kiosks, or meeting spaces.

The IBASE SI-83 Digital Signage Player enhances all these experiences by supporting sophisticated displays in Ultra HD or multiple screens with remote management that easily refreshes content and increases uptime while lowering costs. Consumers are not only more completely engaged visually but can also interact with the display, which allows the sponsor to collect analytics that provide demographics and measure levels of customer interest in specific products or product characteristics.

What Should You Look for in a Digital Signage Player?

Two of the most important characteristics of a digital signage player are size (it must be small and slim enough so that nobody sees it) and durability (it must be rugged and reliable enough so that nobody has to physically service it).



As the latest product in a distinguished, award-winning line of media players created expressly for digital signage, the IBASE SI-83 is designed to be smaller in every dimension than other media players (every inch is critical), without sacrificing dependability. Its sturdy chassis is made of the finest lightweight aluminum, a material that also improves heat dissipation. The entire unit weighs slightly less than two pounds and can be hidden easily within a display.

As an expert in media player design and construction, IBASE uses world-class components, including a complete industrial-grade computer-on-a-board from Intel[®], the legendary creator of technology known for powerful media processing and communications capabilities along with high reliability and a long product lifecycle. Reliability and lifecycle are especially important in lowering the total cost-of-ownership of digital signage installations because media players may be required to run 24/7 for years in highly trafficked locations.

The ultra slim chassis (30 mm) of the SI-83 also includes standards-based VESA compatibility with connections for Wi-Fi, Bluetooth, and 3G Wireless. Although the SI-83 can “disappear” into the narrow spaces behind almost any panel display, it is completely accessible to remote management because of its wireless communications capabilities that allow seamless point-to-point communication, data collection, and interactive messaging.

The SI-83 can also safely be used internationally since it has been certified for use in the European Union (CE), the United States (UL and FCC), and China (CCC).

Engineering Experience Results in Must-Have Special Features

IBASE's years of experience with previous generations of media players are reflected in the special design features that its engineers devise. IBASE's profound understanding of the conditions under which the SI-83 will be used, for example, has led IBASE to include a unique segregated ventilation design, which keeps airflow contaminants away from electronic components.

Why is this important? When you design a media player for a digital signage display, you know it can be used anywhere. What kind of ventilation system will the surrounding area have? How dusty will the air be? Will the floor be sandy or gritty? By paying special attention to internal ventilation design, IBASE engineers help maximize system reliability because electrical components work best in a clean internal environment.

Another critical consideration is power consumption. To both use power wisely and protect the system, IBASE includes a unique technology called iSMART in the SI-83. Building on the work of the European Union in Eco design for energy-related products (EuP/ErP), iSMART provides important functions such as automatic power on/off scheduling, power failure detection, and temperature monitoring to reduce downtime, which is especially important in low temperature environments. iSMART also allows in-system programming through the BIOS and provides 4KB NVRAM to save confidential data such as digital signatures that can be used to protect software.

Complementary Management Software Aims to Lower Total Cost of Ownership

Because IBASE uses 4th generation Intel[®] Core™ processors in its SI-83 media player, customers can take full advantage of Intel[®] Active Management Technology 9.0 (Intel[®] AMT 9.0), a robust set of out-of-band hardware-based remote management and maintenance capabilities that are a subset of Intel[®] vPro™ technology. Remote management of digital signage installations can significantly lower total cost of ownership and reduce upgrade and maintenance services by keeping installations operational and avoiding costly on-site visits.

Uptime is always important to suppliers of digital signage systems and their customers, but in some cases, constant availability is critical in locations such as airports, train stations, medical emergency rooms, and 24-hour convenience stores. Intel AMT 9.0 enables IT staff at a remote location to monitor, repair, and protect networked digital signage systems — even when specific devices are powered off, not responding, or have software issues.

System health checks can be set up that include detection by the motherboard of voltage variations in edge devices, along with remote BIOS-level access to enable an always-on system core that enhances the reliability and availability of application software tools such as content management systems. Intel AMT 9.0 can also detect device-level failures or anomalies, and allow operators to remotely pinpoint the source of problems or points of failure.

If a technician must physically handle a problem, Intel AMT 9.0 can provide information that helps ensure that the on-site technician can fix a problem efficiently in one visit. By correctly diagnosing a problem remotely and pinpointing the correct skill set, equipment, and/or replacement parts needed during the initial visit, no repeat visits should be required. Industry studies show that technicians dispatched with only sketchy problem descriptions need to return at least once in as many as 20% of all cases.

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Why IBASE Uses Intel® Technology Inside

As an expert in industrial-strength design, IBASE knows that it needs the most reliable and powerful processors available for its digital signage players, especially if the processors have complementary management software built specifically for the chips. For these reasons, IBASE chose 4th generation Intel Core Processors with Mobile Intel® QM87 Chipsets.

Intel has been designing processors and related software for digital signage systems since the market for them was in its infancy. The Intel Core processors that IBASE uses in its SI-83 players are based on Intel® 22nm process technology with 3-D tri-gate transistors. IBASE chose this Intel® platform because it provides all of the following:

- **Excellent performance** for all types of digital signage applications, which can include interactivity, viewer analytics, and 4K Ultra HD video playback
- **Power for stunning graphics** that enable rich media, immersive visuals, and multiple displays
- **Flexibility** because Intel incorporates standardized compatibility and scalability as design goals
- **Cost-saving features** that include built-in hardware support for remote manageability, security, and power management
- **Future growth** because Intel constantly studies where the market for digital signage is going so that it knows what the market needs now and what it will need in the future



Intel® technology helps enable these features and benefits in the SI-83:

- **High-End Media and Graphics** — Powerful display capabilities for video, 2-D/3-D graphics, and interactive content
- **Rich Media Outputs** — Two DisplayPort 1.2 and one HDMI 1.4a outputs for extremely high video resolution of 3840x2160 (4K), 4K Ultra HD, or three independent Full HD video playbacks
- **Flexible I/O** — Mini PCI-E(x1) slot for Wi-Fi, Bluetooth, 3G Wireless, and TV tuner options, and one USB 2.0 and two USB 3.0 ports
- **Strong Security with Remote Management** — Supported as hardware functions
- **Extremely Compact Chassis** — Unit dimensions of 175mm(W) x 116mm(D) x 32mm(H) [6.9”(W) x 4.6”(D) x 1.18”(H)]
- **State-of-the-Art Energy Efficiency** — Automated power scheduling and power-protection features for extreme environments through IBASE’s unique iSMART technology

Contact Us Now about the IBASE SI-83 Digital Signage Player

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IBASE representatives are located worldwide, and are always ready to answer your questions and provide the information you need to build or upgrade your digital signage system. For more information, please visit www.ibase.com.tw or contact us at sales@ibase.com.tw.

About IBASE Technology Inc.

Focused on the design and manufacture of state-of-the-art embedded systems and boards, IBASE Technology Inc. (IBASE) has become a leader in the digital signage field by providing innovative products that combine maximum reliability, minimal footprint, and very low Total Cost of Ownership (TCO). By incorporating Intel®'s latest chipset technology and dedicated high-speed memory, IBASE can support cutting-edge features such as Full HD and multiple displays. IBASE also includes special features such as iSMART technology for energy efficiency and uniquely-designed integral mounting brackets for trouble-free installation. In addition, IBASE players are fully compatible with world-class digital signage software solutions from leading providers, such as Scala, Omnivex, DISE, YCD, PDC, Quividi, Stinova, ComQi, Signagelive, and X2O Media.

IBASE is an Associate member of the Intel® Internet of Things Solutions Alliance, a global ecosystem of 250-plus member companies that provide scalable, interoperable solutions that accelerate deployment of intelligent devices and end-to-end analytics. Learn more at intel.com/IoTSolutionsAlliance.

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