Solution Brief

Financial Services, Hospitality, Government, Education, Transportation

Giada Chooses Intel® Core™ Processors for Outside Signage PC

Ruggedized Giada AE613 industrial PC supports up to three 8K resolution displays; company chose Intel® Core™ processors for low power, high compute performance and integrated GPU for smooth video playback

Businesses, brands, and municipalities are driving the growth of outdoor digital signage solutions as they seek new ways to inform, boost visibility and make an impact.

With interactivity and new high-resolution screens, outdoor digital signage is especially effective in busy, well-travelled areas where these signs can attract attention and engagement. Businesses can use outdoor digital signage for directions, instructions, product info, branding info or customer assistance.

To deliver high-impact outdoor digital signage, solutions need a semi-industrial PC that can drive the video on the screens and process interactivity. The outdoor location of these signs means the PC must have a ruggedized design that can be installed in an outdoor cabinet or enclosure that doesn't have environmental control.

Giada is a leader in outside digital signage PCs and an Intel® Industry Solutions Builders partner. Giada turned to Intel® technology for its latest high-performance AE613 industrial PC.

Industrial PC with a Choice of Two CPUs

The Giada AE613 (see Figure 1) is a semi-industrial PC that is designed for outdoor signage applications. Based on either the Intel® Core™ i3-1315U processor or the Intel® Core™ i5-1335U processor, the Giada AE613 features performance, graphics processing and a low thermal design point of 15W. It runs on the 64-bit versions of either Windows 11 or Linux Ubuntu.

The system has an M2 slot for either a Wi-Fi 6E module or 3G/4G modules for wireless communications.

The ruggedized Giada AE613 has a passive thermal cooling system that does not require a fan and supports a wide operating temperature range (-20° – 60° Celsius / -4° - 140° Fahrenheit). This makes the computer suitable for signage applications in a variety of indoor / outdoor locations.

The systems' flexible power input voltage (12 V~24 V) allows for international use.

With two HDMI ports and one DisplayPort output, the AE613 can support up to three displays. The GPU functionality built into the Intel® Core™ processor allows the system to support up to 8K resolution for clear and immersive multimedia applications.

The Intel® processors support Intel vPro® technology that can be used in AE613 applications to efficiently and securely manage large device fleets remotely. Intel® Hardware Shield is a part of Intel vPro and provides protection of the PC hardware providing below the OS security, application and data protection and advanced threat detection.

Figure 1. The front-panel of the Giada AE613 features two USB 3.2 Gen 2 ports, two COM ports, and audio out and microphone in jacks. Ports on the back panel include two HDMI connectors, one DisplayPort, two 1GbE LAN connections, two more USB 3.2 ports and two USB 2.0 ports. The system can accommodate two 4G cellular antennas.

Cost-Effective and Low Power Compute

Giada has built different AE613 models around two 13th Gen Intel® Core™ processors: the Intel Core i3-1315U processor or the Intel Core i5-1335U processor. Intel Core processors feature integrated AI acceleration and are known for delivering efficient processing power balanced by cost effectiveness and low power consumption.

The Intel Core i3-1315U processor features two Performance-cores and four Efficient-cores for a total of eight threads. The max turbo frequency of the Performance-cores is 4.50 GHz, and the Efficient-core max turbo frequency is 3.30 GHz. The device features Intel® UHD Graphics for 13th Gen Intel Core Processors operating at 1.25GHz.

The Intel Core i5-1335U processors feature two Performance-cores and eight Efficiency-cores for a total of 12 threads. The max turbo frequency of the Performance-cores is 4.60 GHz, and the Efficient-core Max Turbo Frequency is 3.40 GHz. The device features Intel® Iris® Xᵉ Graphics operating at 1.25GHz. It also is enabled with PCIe Gen 4 for fast I/O, and support for DDR4/DDR5 memory.

Smart City Adds Wayfinding Kiosks using Giada AE613

One coastal region in Australia is building a master-planned smart city that features residential living, shopping, offices, and a hospital. The development is designed to be a world-class and vibrant hub of commercial and cultural activity.

When the developers sought a digital signage solution to help tourists and others to find their way in the new city center it turned to Giada for a solution based on the AE613.

The new kiosks had to be interactive and required a robust embedded system that could handle challenging outdoor conditions and deliver reliable performance.

Conclusion

As seen in this smart city example, outdoor digital signage is both functional and cutting edge. With ultra-high resolution screens and touch-based interactivity, outdoor digital signage meets the need to inform and entertain. Giada provides a significant part of the solution – an industrial computer that can drive the displays and provide smooth video playback. With Intel Core processors and other technologies, Giada has been able to build the AE613 industrial computer to provide the highest levels of performance.

Learn More

Giada Technology

Giada AE613

Intel® Core™ processors

13th Gen Intel® Core™ processors with Intel vPro®

Intel® Industry Solutions Builders

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