

Hisense OPS Brings More Compute Power to Interactive Displays

Hisense adds Intel® Core™ i5 processor performance to digital displays using the Intel Open Pluggable Specification (OPS) improving interactivity, collaboration and educational outcomes



As classrooms adopt richer content, AI-enhanced tools, and collaboration platforms, there is a growing need for smart digital displays in educational settings. Using a touch interface or a computer, teachers and students can interact with each other on these displays whether or not they are in the same classroom.

To maximize the effectiveness, these displays require compute power, whether this is the teacher's laptop or a discrete server. However, these compute systems require educators and IT to manage cables and can limit student interactivity.

Another option is a small form factor integrated computer that uses Intel Open Pluggable Specification (OPS). OPS provides an industry standard for modular computing units that plug into an OPS slot on designated interactive flat panel displays. This architecture reduces cabling friction, standardizes compute and streamlines usability for educators. It also improves security, manageability and maintenance for IT departments.

Hisense, an Intel® Industry Solutions Builders partner, and leading developer and provider of educational displays is using the OPS standard to develop its Hisense OPS (SKU: S02EMS5CA21B).

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Hisense OPS Leverages Display Expertise

The Hisense OPS combines Hisense's display expertise and seamless OPS integration with the proven performance, platform stability, and security features of Intel® Core™ processors.

The first Hisense displays to incorporate the Hisense OPS are the three displays that make up the Hisense GOBOARD Live Pro (WM6FE) interactive display product line. This touch screen display is available in 60", 75", or 86" screen sizes, and integrates a smart whiteboard, eight-array microphone and a 61W stereo speaker that supports Dolby Atmos. The 4K display has an integrated camera and easy screen sharing that can be used for conference calls.

Some of the key features and specifications of the GOBOARD Live Pro include:

- Integrated collaboration features for brainstorming, collaboration and hybrid education.
- Performance and storage for smooth video, AI functionality and application storage.
- Flexible, high-throughput wireless or wired connectivity.
- User experience enhancements including built-in conferencing apps, simple user interface and personalized widgets.

What is Intel OPS?

Open Pluggable System (OPS) was authored by Intel but is now an open source standard adopted broadly by display manufacturers. OPS defines the physical interface (80-pin connector) and signaling between a modular PC and an interactive flat panel display. OPS modules can utilize powerful Intel® processors to deliver all the power of a desktop computer for interactive displays, enhancing interoperability within interactive displays that follow the OPS standard.

The specification is designed so the modules are easy to install – just slide the compute module into the slot on the back of the screen. The result is a cable-free option that replaces the need for teachers to manually connect their own laptops or other computers to the display.

OPS-compatible modules support modern operating systems and can include remote management capabilities that simplify ongoing monitoring and maintenance. Certain modules feature processors and operating systems that support long lifecycles of up to 10 years. These products have a refresh cycle that is longer than the display and thus they can be reused in new displays for better sustainability. Depending on vendor implementation, OPS modules may offer very high usability, remote manageability, low TCO, dedicated cybersecurity and easy installation and upgrades.

Powered by Intel® Core™ Processors

The Hisense OPS module benefits from the compute power of Intel® Core™ i5 processors for compute performance, stunning visuals and enhanced collaboration.

Hisense selected SKUs from the Intel® Core™ i5 processor family for its OPS module to provide the essential performance, efficiency, and platform stability required for demanding interactive applications in classrooms and meeting rooms, including the Intel® Core™ i5 12450H processor. This processor features four Performance-cores (dual-thread)

and four Efficiency-cores (single-thread) for a total of 12 threads. Performance cores have a max turbo frequency of 4.40GHz. For the Efficient cores, the max turbo frequency is 3.30 GHz.

The processor also has built in Intel® UHD Graphics. This GPU capability allows the Hisense displays to offer smooth, multi-display performance at screen resolutions of up to 4096 x 2304 (HDMI) or 7680 x 4320 (DisplayPort). The processor base power is 45W.

Other features of the Intel Core i5 processor include PCIe 4.0 connectivity, LPDDR5-5200 memory support, and backwards compatibility. These features power a wide range of use cases across industries, providing the performance foundation for AI-enabled applications and immersive experiences in education. OPS modules built on Intel® platforms can leverage extended lifecycle support options for up to 10 years of availability and Windows 11 IoT Enterprise Long-Term Servicing Channel (LTSC) 2024, depending on vendor implementation.



Figure 1. Hisense OPS computer with 80-pin OPS connector for connecting to a digital display.

Conclusion

Classroom experience, collaboration and remote learning are all important aspects of education today and can be made better with the right technology. Interactive flat panel displays are on the leading edge of these trends. With the right camera, microphone, screen resolution, software and other features, these displays enable students and teachers to interact in meaningful ways.

Compute power is needed in these displays to deliver all the promised benefits. Intel OPS provides a way to embed the equivalent of a desktop computer into a display without kludgy cabling or added cybersecurity and management issues. Intel and Hisense have created an OPS computer that is standardized, modular and delivers reduced management and seamless upgrades. With the Hisense OPS and Hisense GOBOARD Live Pro, educators have a powerful new solution for their classrooms.

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[Hisense OPS](#)

[Hisense Commercial Displays for Education](#)

[Intel® Core™ Processors](#)

[Intel® Industry Solutions Builders](#)

[Improving Classroom Experience with Display Panels Based on Intel's Open Pluggable Specification \(OPS\)](#)



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