

Newline OPS PC Powers Interactive Displays for Education

Newline OPS PC turns high-resolution displays into tools to engage students and for educational collaboration; OPS PC uses Intel Open Pluggable Specification and Intel® Core™ Ultra processors



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First there was the chalkboard and then came dry erase boards – both of which were critical to successful education. Now, in the computer and internet era, which enable students to be educated anywhere and everywhere, these front-of-the-classroom boards are being upgraded with interactive displays.

With screen sizes up to 86”, touchscreen interactivity, and integrated cameras and microphones, these displays help educators to engage their students and encourage collaboration.

One of the essential components of this solution is a high-performance, yet compact computer that can deliver consistent responsiveness and support modern education workloads, including Cognitive AI and Multimodal AI-enhanced applications that help improve learning outcomes. Newline, an Intel® Industry Solutions Builders partner, has built the OPS PC - a solution that uses Intel Open Pluggable Specification (OPS) along with Intel® Core™ Ultra processors.

Family of Onboard Computers

The Newline OPS PC family of onboard computers can work in all Intel OPS-compatible big screen interactive displays from Newline. The product family is designed for a wide variety of applications from corporate meetings to healthcare, and government, but it is optimized for use in schools ranging from primary grades to university level.

There are three members of the OPS PC family that are based on Intel Core Ultra processors. These processors feature a combination of multi-threaded Performance cores, single-threaded Efficiency cores, and Low Power cores, along with built-in graphics and integrated AI acceleration. This helps deliver responsive real-world AI performance while supporting best-in-class total cost of ownership (TCO) for educational deployments.

The WB7E120U version of the OPS PC features an Intel® Core™ Ultra 7 Processor 155H¹ which has a 16-core CPU configuration, eight X^e cores of Intel Arc graphics, and integrated AI acceleration. The WB5E820U version of the OPS PC features an Intel® Core™ Ultra 5 Processor 125H which has 14-CPU cores, seven X^e cores of Intel Arc graphics, and integrated AI acceleration. Both of these PCs feature preinstalled and licensed versions of Windows 11 Pro.

All of the products feature eight GB of RAM and a 256 GB SSD for storage. The OPS PC has built-in Wi-Fi 6E and Bluetooth 5.3 and wired connections including 1GbE and HDMI 2.0. With the built-in OneKey Recovery feature, the OPS PC can be quickly restored in the case of a system failure.

The OPS PC can work in all Newline displays that feature an OPS connector. The displays that are designed for educational facilities, include:

- Newline Z Pro is a high performance interactive display that is available in four display sizes: 55", 65", 75" or 86". The Z Pro features a built-in microphone array, modular camera and 4K resolution.
- Newline C Series is a versatile, user-friendly and cost-effective interactive display that is available in 65", 75", or 86" sizes. It features a touch panel and 4K resolution.

Intel Open Pluggable Specification

The Intel Open Pluggable Specification defines the physical interface (80/120-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 in an interactive display, 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 or meeting presenters to manually connect their own laptops or stretch cables from other computers to the display.

OPS-compatible modules support Windows, Linux or other modern operating systems and can include remote management capabilities that simplify ongoing monitoring and maintenance. Depending on vendor implementation, OPS modules may offer very high usability, remote manageability, low TCO, dedicated cybersecurity and easy installation and upgrades.

Conclusion

Big screen, high resolution displays are becoming a mandatory tool for the modern educational classroom. That's because they deliver effective learning environment that fits with the increasing trends of educational digitalization and hybrid and distance instruction. But advanced features such as live video and audio, interactivity, specialized apps need computing performance. The Newline OPS PC makes it easy to add this functionality through its support for the slide-in capability of Intel Open Pluggable Specification, and the integrated AI acceleration and real-world performance of Intel Core Ultra Processors.

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[Intel® Core™ Ultra Processors \(Series 1\)](#)

[Intel® Arc™ Graphics](#)

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¹The Intel® Core™ Ultra 5 Processor 125H has four Performance cores, eight Efficiency cores and two Low Power cores. The Intel® Arc™ graphics supports up to 18 trillion operations per second (TOPS), and the AI accelerator has 11 TOPS. With the CPU, the device provides up to 33 TOPS.

The Intel® Core™ Ultra 7 Processor 155H has six Performance cores, eight Efficiency cores and two Low Power cores. The GPU features eight Xe cores with up to 18 TOPS, and integrated AI acceleration that has 11 TOPS of performance. With the CPU, the device provides up to 33 TOPS.

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