



Powerful Integrated Displays. Smaller Footprints.

The new Intel® Smart Display Module (Intel® SDM) specification supports the sleekest displays with maximum integration flexibility.

“In 2010, NEC, Intel, and Microsoft formed a global strategic alliance and created the Open Pluggable Specification (OPS). Our focus was to deliver an optimized computing platform offering a more streamlined and high performance standard for digital signage, interactive whiteboards, and mission-critical applications. Today, OPS is integral to NEC’s large-format displays and integration projectors. NEC sees the Intel® Smart Display Module (Intel® SDM) architecture as a natural evolution and is excited to expand our ability to deliver reliability, performance, standardization, and ease of use on a broader range of display form factors.”

Richard Ventura

Vice president, Business Development and Solutions, NEC Display Solutions of Americas



Creating display solutions that deliver lasting value

Sophisticated systems of digital displays play an increasingly vital role in organizations of all types. From wayfinding services on digital signs and public kiosks to engaging hospitality experiences to critical bedside terminals, connected digital displays deliver real business value.

Intel previously helped bring standardization to the highly fragmented integrated media player market with the Open Pluggable Specification (OPS). Now, as digital displays get thinner, and display installations become more integrated into power-efficient environmental designs, Intel is offering the Intel® Smart Display Module Small (Intel® SDM-S) and Intel® Smart Display Module Large (Intel® SDM-L) specification. This specification and reference design delivers the same level of intelligence and interoperability as OPS, but in our smallest form factor yet to advance the thinnest integrated displays.

Nearly a third the size of OPS, Intel® SDM Small does not have housing, so it can accommodate new designs and applications that require minimal space with maximum performance. Intel® SDM Large offers a slightly larger form factor—it is nearly the size of OPS, although thinner.

Easily integrates into slim designs

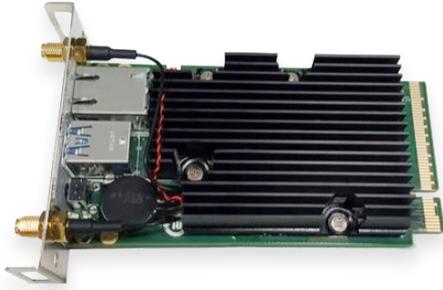
Consumers and businesses desire sleek, unobtrusive displays and manufacturers have responded with designs that, just a few years ago, would have seemed impossibly thin. Without an enclosure, Intel® SDM Small is just 60 mm x 100 mm with a maximum thickness of 20 mm (depending on the choice of thermal solution), or roughly the size of a credit card. Intel® SDM Large is 175mm x 100mm.

Future-proofed connector

Intel® SDM offers high-speed PCIe* connectivity that supports multiple generations of Intel® processors. This connector will also support higher bandwidth and higher resolution displays, and it provides built-in I/O that eliminates the need for external I/O—further reducing the space required.

Choose from a range of compute platforms

Intel® SDM expands Intel processor support to include a wide range of options—from the compact and energy-efficient Intel Atom® processor to the performance-driven Intel® Core™ processors.



Intel® Smart Display Module Small (Intel® SDM-S)



Intel® Smart Display Module Large (Intel® SDM-L)

“As a leading outdoor public information display (PID) provider, Litemax is excited to begin supporting the Intel® Smart Display Module (Intel® SDM) specification. Intel® SDM modules are a cost-effective way to create digital displays with integrated intelligence that are easy to maintain. This scalable, exchangeable concept will create many opportunities for our customers to generate new experiences.”

David King
General Manager of Litemax



“The Intel® Smart Display Module (Intel® SDM) form factor specification allows Quanta to design tiny modules that easily slot into very slim displays. This provides scalable functions and features and enables the creation of digital signage with built-in intelligence that works right out of the box.”

Terrisa Chung
BU1 Vice President and General Manager
Quanta Computer Inc.



Support for new use cases

Whether externally plugged in to a display or built in, Intel® SDM enables the cost-effective design and management of the sleekest all-in-one displays, point-of-sale (POS) devices, projectors, interactive kiosks, and video walls. Intel® SDM also supports the latest visual IoT applications like user-friendly bedside terminals for hospital patients or factory automation solutions.

Powerful device management

Often, the true cost of a digital display solution is not in the implementation, but in its management. Intel® SDM offers the seamless device management that only Intel can offer.

Hardware-based security measures

As digital displays become more central to business operations, and as they take over duties in healthcare and retail, it's imperative that they be protected with the highest degree of security possible. Intel® SDM, by incorporating the latest in Intel® hardware-based security, can help keep digital displays from being a point of vulnerability for the businesses that employ them.

New designs, new interactions, more value

Ultraslim displays with integrated computing capability are reshaping how people and businesses interact with each other and the world.

Intel® SDM advances this more connected future by allowing for the integration of robust computing capabilities into the slimmest of displays for future-proofed designs that deliver lasting value.

INTEL® SMART DISPLAY MODULE (INTEL® SDM) KEY SPECIFICATIONS	
Targeted applications	Commercial solution optimized for digital signage and visual IoT applications such as AIOs, kiosks, professional monitors, POS, projectors
CPU scalability	<ul style="list-style-type: none"> Intel® SDM Small: Up to Intel® Core™ Y processor (~10W TDP) Intel® SDM Large: Up to Intel® Core™ H processor (~45W TDP)
Form factor (mm)	<ul style="list-style-type: none"> Intel® SDM Small: 60 mm x 100 mm x ~20 mm Intel® SDM Large: 175 mm x 100 mm x ~20 mm
Thermal solution	Integrated on module
Interface connector	<ul style="list-style-type: none"> Card edge: standard PCIe* x8 (98 pins) Optional port expansion on I/O panel
Connector features	High-speed I/O, and professional and expanded features, e.g., panel control signals, IoT interface, SPI, and UART
Operating environment	Commercial grade
Product availability	Ecosystem branded, licensed to third party
Serviceability	Professionally serviceable

Learn more about Intel® SDM and other Intel® digital display solutions >

“By offering scalable, future-proofed capabilities, the Intel® Smart Display Module (Intel® SDM) solves key challenges for digital signage network operators and integrators. The 7th Generation Intel® Core™ processors offer high performance, fanless reliability, and plenty of RAM and storage, and deliver longer-lasting value than existing integrated solutions. With full support for Windows* and Linux*, our customers never have to be locked into a proprietary ecosystem with limited adoption.”

Bryan Mongeau
Vice President of Technology, BroadSign



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