

DS-230

13/12th Generation Intel® Core™ Processor SDM Player



Features

- Intel SDM-L (Smart Display Module - Large) form factor
- 13/12th Generation Intel® Core™ Processor
- Dual channel DDR4-3200 SO-DIMM, up to 32 GB
- 3 independent displays: Golden Finger (HDMI 2.0, DP1.4a), Front Bracket (DP1.4a)
- Supports Real 4K resolution
- Supports Microsoft Windows 10 with proven compatibility and can be upgraded to Microsoft Windows 11
- Easy installation and maintenance with Intel® SDM slot-in design

WISE-PaaS/ DeviceOn WISE-PaaS/SignageCMS McAfee Acronis



Introduction

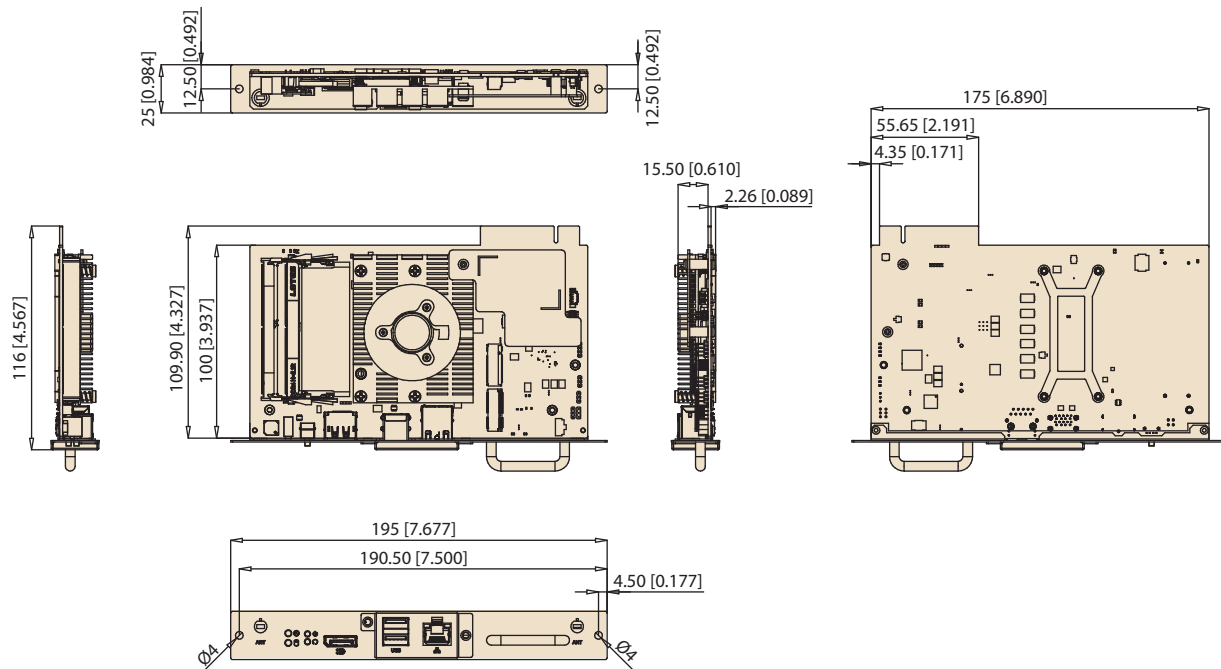
The DS-230 design is based on the Intel SDM specification and is powered by 12/13th Gen. Intel® Core™ processors. DS-230 delivers 4K UHD output and smooth content streaming via a card edge connector, while maintaining high-energy efficiency. DS-230 allows slot-in integration that reduces space requirements and lowers deployment and field maintenance costs. It also features built-in I/O such as HDMI, DP, USB 3.1, and a single LAN (RJ-45). DS-230 enables media playback and display and is ideal for all-in-one signage applications with space constraints.

Specifications

Form Factor	SDM	L (Large)
Processor System	CPU	Intel 13th Gen Raptor Lake U300E, i5-1335U, i5-1345UE (vPro Enterprise) Intel 12th Gen Alder Lake Pentium 8505, i5 1235U (vPro essential), i3-1215U
	TDP	15W
	BIOS	AMI uEFI 128 Mbit
Memory	Technology	2 x DDR4 3200MHz 260-pin SODIMM
	Max. Capacity	32GB (16GB per SODIMM)
Display	Controller	CPU integrated
	Graphic Engine	Intel® Iris® Xe
	Video format	H.265/HEVC, H.264/AVC, MPEG2, VC1/WMV9, VP8, JPEG/MJPEG, VP9
	Output	HDMI 2.0 & DP1.4a from golden finger, DP1.4a from front bracket
	Max. Resolution	3840 x 2160 @ 60Hz
Storage	SATA/NVMe	M.2 2242 M Key
	DP 1.4a	1
I/O Interface	USB	2 x USB3.2 Gen2
	LAN (RJ-45)	Intel i226LM 2.5G (in vPro supported CPU) Intel i226V 2.5G (in non-vPro supported CPU)
	M.2	1 x 2230 (E key) for WiFi module
	SDM I/O Interface	PCIe x8. The pin define follows Intel® SDM specifications. USB3.2 Gen1 x1, HDMI 2.0 x1, Display Port 1.4a x1, UART, I2C, 12V DC-In
	Management	ACPI 3.0
Power Requirement	Power Consumption	Max: 12V@5.5A
	Power Type	ATX/AT Mode
	Power Input Voltage	12V DC-in (± 5%, Via Golden Finger)
Watchdog Timer	Output	Interrupt, system reset
	Interval	255 levels timer interval. By SUSI4.0 API
Physical Characteristics	Dimensions (W x H x D)	175 x 100 x 20 (SDM-L compliant)
	Weight	1 Kg
Environment	Operating Temperature	0 – 55 °C (with 0.7m/s air flow)
	Thermal Solution	Active
	Relative Humidity	95% @ 40 °C (non-condensing), Operating
Software Development Kit	Operating System	Windows 11 (64bit), Windows 10 (64bit)
	Signage Software	WISE-PaaS/RMM, WISE-PAAS/SignageCMS, WISE-PaaS/EdgeSense
Certification	Electromagnetic	CE/FCC, CB, UKCA,RCM, VCCI, EMC (Class B)

Dimensions

Unit: mm



Ordering Information

Part Number	Description
DS-230GB-U0B1E	DS-230, RPL U300E, Barebones
DS-230GB-U1B1E	DS-230, RPL i5-1335U, Barebones
DS-230GB-U3A1E	DS-230, i5 1345UE, Barebones
DS-230GB-U0A1E	DS-230, Pentium 8505, Barebones
DS-230GB-U1A1E	DS-230, i5 1235U, Barebones
DS-230GB-U2A1E	DS-230, i3 1215U, Barebones
DS-230GB-U0A1U	DS-230, Pentium 8505, Barebones, for US
DS-230GB-U1A1U	DS-230, i5 1235U, Barebones, for US
DS-230GB-U2A1U	DS-230, i3 1215U, Barebones, for US

RAM & Storage

Part Number	Description
SQR-SD4S4G3K2HNPG	Memory, SQ, DDR4 4GB, Hynix
SQR-SD4S8G3K2HNBG	Memory, SQ, DDR4 8GB, Hynix
SQR-SD4S16G3K2HNBG	Memory, SQ, DDR4 16GB, Hynix
SQR-SD4N4G3K2WNERG	Memory, SQ, DDR4 4GB, Winbond
SQR-SD4N8G3K2WNERG	Memory, SQ, DDR4 8GB, Winbond
SQR-SD4N4G3K2NPNPHB	Memory, SQ, DDR4 4GB, Nanya
SQR-SD4N8G3K2NPNBHB	Memory, SQ, DDR4 8GB, Nanya
SQF-C4MV2-128GDEDC	Storage, M.2 2242, SQ,128GB
SQF-C4MV2-256GDEDC	Storage, M.2 2242, SQ,256GB
SQF-C4MV2-512GDEDC	Storage, M.2 2242, SQ,512GB

Packing List

Part Number	Description
-	DS-230 x 1
2006V10120	QSG(Quick Start Guide)
2026V10100	China RoHS for DS-230
-	Screws for M.2

Embedded OS

Part Number	Description
20706WLE1S0094	Win 11 IoT 2024 En, 64b Entry
20706WX1ES0124	Win 10 IoT 2021 En, 64b Entry

Optional Items

Part Number	Description
EWM-W165M202E	Wifi/BT module, 802.11 ac/a/b/g/n, BT 4.1
1751000342-01 x 2	WiFi 6E Dipole ANTENNA
EBC-V101GB-POA1E	SDM Docking Station with 12V@7A adaptor
1750008653-01	Cable Ant. SMA 200mm
1750008800-01	Cable Ant. SMA 100mm

Note: If Wi-Fi is required, the package must include the module, antenna, and antenna cable.

External I/O

Front

