

USM Box PC Series

Edge Intelligence
for Retail and Hospitality

Digital Signage
Edge Computing
AI Expansion
Workload Consolidation



ADVANTECH

Enabling an Intelligent Planet



IOT Solutions
Alliance

WISE-DeviceOn

www.advantech.com

Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com

Edge Intelligence Box PCs

About the USM Series

Aimed at markets that require cost-effective high-performance computing, Advantech's USM box PC series are ultra-compact devices equipped with the latest Intel® processor to support diverse functions. These box PCs are highly extendible and can be integrated with various peripherals to facilitate a wide range of retail and hospitality applications.

Features

Multiple I/O facilitates a variety of applications



Compatible with extension modules and PCIe devices



Additional peripherals can be easily integrated



Multiple mount options for flexible installation



Added-value support for software, such as DeviceOn



WISE-DeviceOn

Always Connected To Matter



The USM series are equipped with Advantech's WISE-DeviceOn remote management software for increased operational efficiency and to facilitate software and hardware integration.

Remote Management

Real-Time Monitoring



- Connection/hardware status
- Software/peripheral status
- Failure notifications

Remote Control



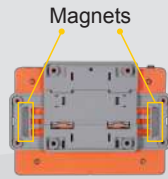
- Power controls
- Audio, backlight controls
- Software controls

Troubleshooting



- Screenshots
- Remote desktop

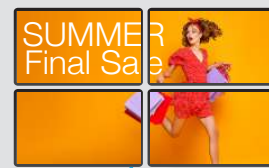
USM-110



Magnets
Multiple mount options
(wall, pole, DIN rail,
magnet, VESA)

- Ultra-compact RISC-based signage player offers powerful computing and efficient operation
- Supports diverse mount options for easy installation
- HDMI 2.0 up to 3840 x 2160 resolution; HDMI 1.4 up to 1920 x 1080 resolution

USM-210



Easy-access HDD/SSD

- Full HD video output provides superb graphics performance
- User-friendly design ensures easy maintenance
- 4K independent display @ 30fps, 4 x 1080p, 2x2 video wall with one 4K video

Digital Signage

Edge Computing

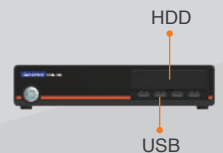
UBX-310



USB
Front-facing USB for
easy maintenance

- 6th gen. Intel® Core™ i3/i5/Celeron® J1900 processor
- Compact, slim, and fanless POS system enables efficient operations
- Diverse mount options ensure flexible installation
- Multiple I/O and peripherals for easy expansion
- Supports WISE-DeviceOn software

USM-260



HDD
USB
Easy-access USB and
HDD trays

- Intel® Core™ i3-6100TE/i5-6500TE/i7-6700TE processor
- Compact and slim design (with fan) saves installation space
- 2 x easy-access 2.5" HDD/SSD trays for data backups
- Dual displays: DP+HDMI, DP+VGA, or HDMI+VGA
- Supports WISE-DeviceOn software

USM-500R



4 x extra PCIe slots



- 8th/9th gen. Intel® Core™ i5-8500T processor offers high-performance computing
- PCIe slots support NVIDIA, Intel Movidius™, and VEGA series GPUs
- High expandability with 4 x additional PCIe slots for integrating a graphics card, capture card, or FPGA card
- Reliable platform enables edge computing and AI/graphics processing
- M.2 SSDs and SATA HDDs provide convenient storage

AI Expansion

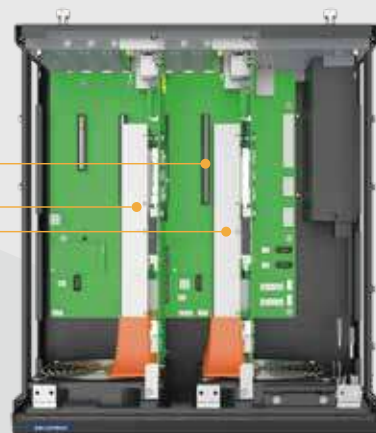
Mini Edge Workstation

USM-600



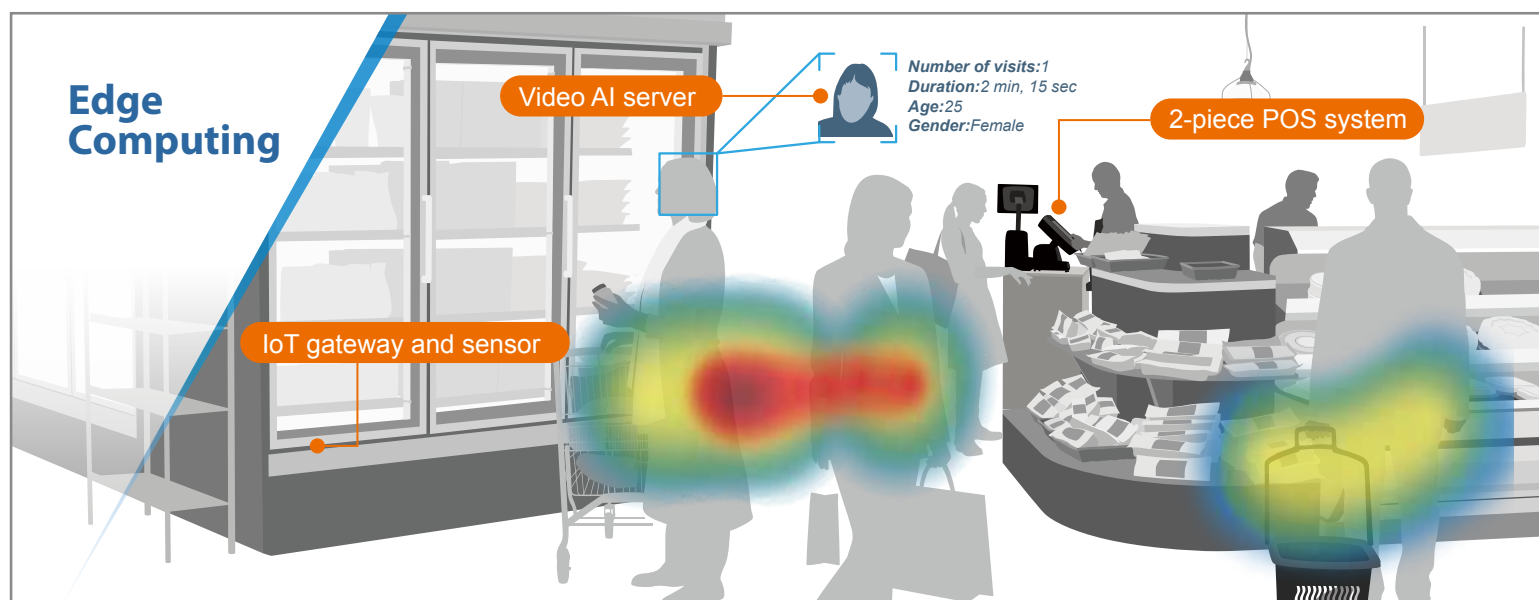
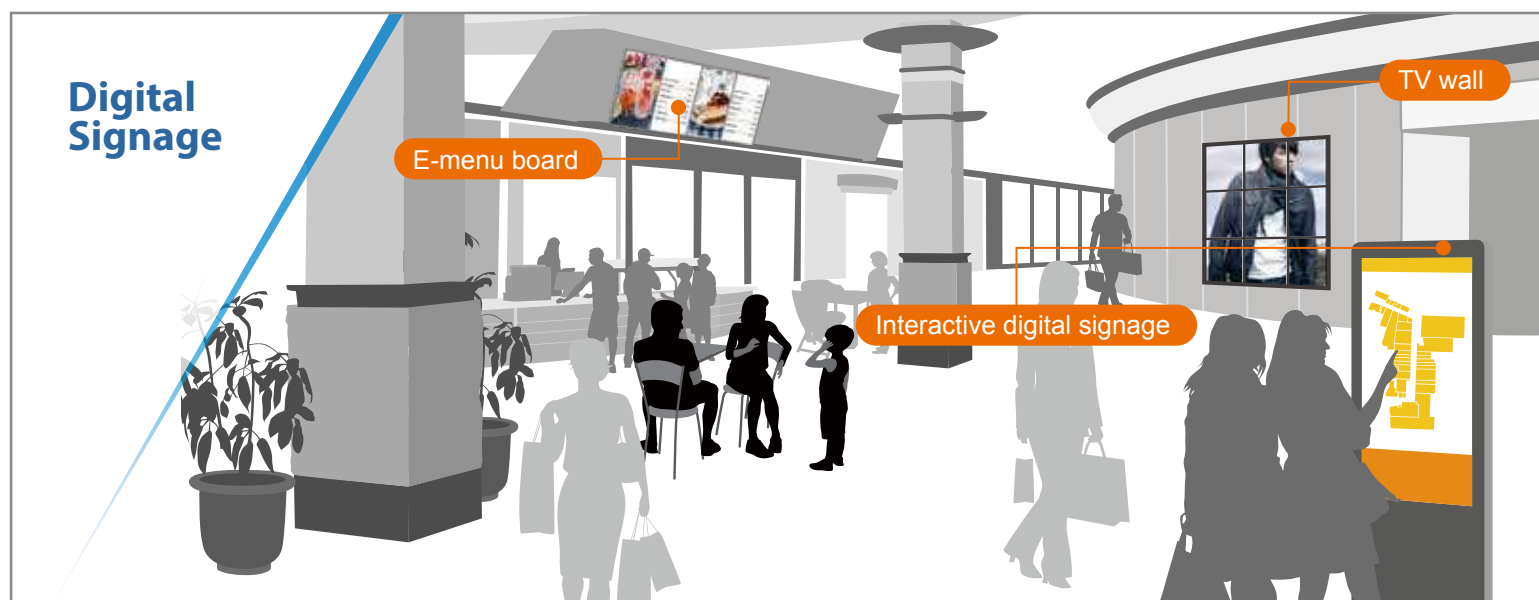
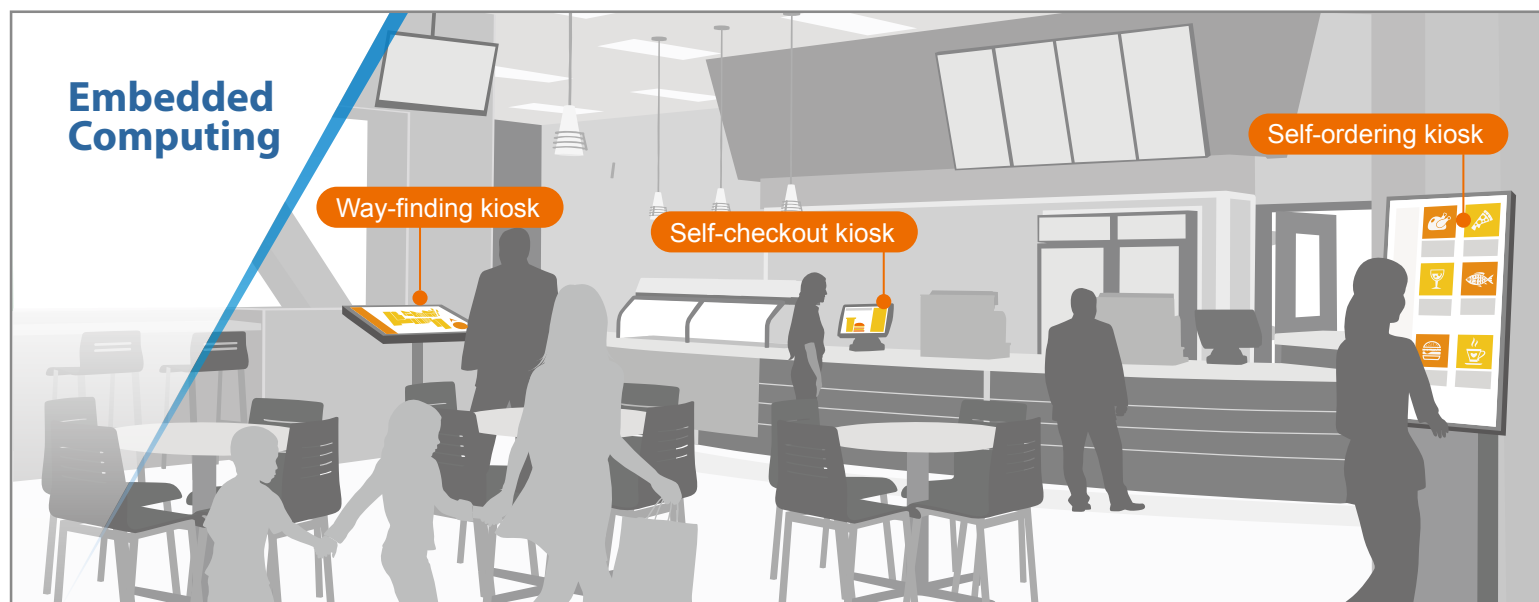
PCIe slot

CPU boards (VDDs)



- 8th/9th gen. Intel® Core™ i processors
- 2 x smart VDD boards for host management, edge computing, and AI introduction
- High expandability with up to 3 x PCIe slots
- Supports Movidius™ Myriad X VPUs (VEGA Series), video capture cards (DVP Series), NVIDIA GPU cards, and FPGA cards
- Supports RAID arrays for increased data reliability

Application Scenarios



Product Specifications



Product	UBX-310F	UBX-310D	USM-110	USM-210
Processor	6th gen. Intel® Core™ i3-6100U/i5-6300U	Intel® Celeron® J1900	Arm® Cortex®-A17 quad-core	Intel® Celeron® J3455
Memory	1 x DDR4 2133 MHz, up to 16GB	1, Up to DDR3L 1333 MHz 8GB	2 x DDR3L 1333 MHz, up to 4GB	1 x DDR3L 1600 MHz, up to 8GB
Display	1 x HDMI, 3840 x 2160 @30 Hz 1 x VGA/SXGA, 2048 x 1152 @60 Hz	1 x HDMI, 1920 x 1200 @ 60 Hz 1 x VGA, Up to SXGA 2560 x 1600 @ 60 Hz	HDMI1, Native 4K resolution up to 3840 x 2160 @ 60 Hz (default 1080p) HDMI2, 1920 x 1080 @ 60 Hz (no audio output)	3, HDMI 1/2/3, 3840 x 2160 @ 30 Hz (HDMI 1.4) 1, HDMI 4, 2048 x 1152 @ 60 Hz (extend mode only, can only be used when one of other ports is active, no audio output)
Expansion	2 x Full-size mini PCIe	1 x Full-size mini PCIe	1 x mini PCIe for 4G module (optional) 1 x M.2 for Wi-Fi module (optional) 1 x SIM card slot	1 x M.2 2280 E-key
Storage	1 x 2.5" SATA 3.0 HDD/SSD 2 x mSATA	1 x 2.5-inch SATA 2.0 HDD/SSD 1 x mSATA	Onboard eMMC Flash, 16GB Micro SD extension	1 x 2.5" SATA 3.0 HDD/SSD 1 x M.2 2280 B-key for storage or 3042 for 4G (auto detect)
Front I/O	1 x USB 2.0	1 x USB 2.0, Up to 1 x USB 3.0, Up to 3 x COM	4 x USB 2.0	2 x Audio (Line-out, Mic-in), 1 x COM, 2 x USB 2.0
Rear I/O	1 x VGA, 1 x HDMI, 2 x RJ-45, 4 x COM, 2 x USB 2.0, 4 x USB 3.0, 1 x RJ11, 1 x Line-out, 1 x Mic-in, 1 x DC jack	1 x VGA, 1 x HDMI, 1 x RJ-45, 3 x COM, 4 x USB 2.0, 1 x LPT, 1 x RJ11, 1 x Line-out, 1 x Mic-in, 1 x DC Jack	2 x HDMI, 1 x RJ-45, 1 x COM, 1 x OTG USB, 1 x Line-out	4 x HDMI, 2 x RJ-45, 1 x COM, 2 x USB 3.0, 1 x Line-out, 1 x Mic-in, 1 x DC jack
Internal I/O	-	-	-	-
Power	ATX 12V	ATX 12V	ATX 12V	ATX 19V
Operating System	Windows 7/10, POSReady 7, Android 6.0	Windows 7/10, POSReady 7, Android 6.0	Android 6.0/8.1, Linux Debian 9.0 (does not support 4K)	Windows 10, Android 8.1, Ubuntu 18.04



Product	USM-260	USM-500R	USM-600
Processor	Intel® Celeron® G3900TE/Pentium® G4400TE/Core™ i3-6100TE/i5-6500TE/i7-6700TE/i3-7101TE/i5-7500TE/i7-7700TE	8th/9th gen. Intel® Core™ i3-8100T/i5-8500T/i7-8700T/i3-9100TE/i5-9500TE/i7-9700TE	8th/9th gen. Intel® Core™ i3-9100TE/i5-9500TE/i7-9700TE/Xeon® E-2278GEL
Memory	2 x DDR4 2133 MHz, up to 32GB	4 x DDR4 2400/2666 MHz, up to 128GB (non-ECC)	4 x DDR4 2600 MHz, up to 128GB (non-ECC)
Display	1 x HDMI 1.4, 4096 x 2160 @24 Hz 1 x VGA, 1920 x 1200 @60 Hz 1 x DP, 4096 x 2160 @60 Hz DP+HDMI, DP+VGA, HDMI+VGA	1 x HDMI, 1920 x 1200 @60 Hz 2 x DP, 4096 x 2304 @60 Hz	2 x HDMI, 4096 x 2160 @60 Hz (HDMI 2.0)
Expansion	1 x Full-size mini PCIe for mSATA 1 x Half-size mini PCIe for PCIe/USB	1 x PCIe x16, 1 x PCIe x4, 1 x PCIe x1, 1 x M.2 2230 E-key for Wi-Fi	2 x Full-size mini PCIe, 2 x PCIe x16, or 1 x PCIe x16 + 2 x PCIe x8, 2 x M.2 2230 E key for Wi-Fi, 2 x M.2 3042 B-key for LTE (optional with storage)
Storage	2 x 2.5" SATA 3.0 HDD/SSD 1 x mSATA (via mini card slot)	2 x SATA 2.5-inch SATA 3.0 HDD/SSD, 1 x M.2 2280 M-key, 1 x NVMe PCIe x4, 1 x SATA M.2	6 x 2.5" SATA 3.0 HDD/SSD, 2 x M.2 2280 B-key (optional with LTE)
Front I/O	4 x USB 2.0	2 x USB 2.0	2 x Power Switch, 2 x USB 3.0
Rear I/O	1 x VGA, 1 x DP, 1 x HDMI, 2 x RJ-45, 2 x COM, 4 x USB 3.0, 1 x Line-out, 1 x Mic-in, 1 x DC jack	1 x HDMI, 2 x DP, 2 x RJ-45, 1 x COM, 4 x USB 2.0, 4 x USB 3.1, 1 x Line-out, 1 x Mic-in	2 x HDMI, 2 x RJ-45, 2 x USB 3.0, 1 x Audio (Mic-in, Line-out) for each smart VDD module, 2 x Ethernet Switch
Internal I/O	-	2 x USB 2.0, 2 x USB 3.0, 5 x COM (4 x RS-232, 1 x RS-232/422/485 with auto flow control on QG2/WG2), 1 x COM (RS-232/422/485 with auto flow control supported on L), 6 x SATA 3.0 (QG2) /8 x SATA 3.0 (WG2), 1 x colay M.2 M-key, 4 x (L), 1 x PS/2, 1 x M.2 M-key, 1 x M.2 E-key	1 x RS-232/485/422 with 5V/RI support for each smart VDD module
Power	ATX 19V	AC 100 ~ 240V	AC 100 ~ 240V
Operating System	Windows 7/10, POSReady 7	Windows 10	Windows 10

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