USM-170

8K Ultra-compact x86-Based Box PC

DeviceOn/iService

Features

- Equipped with DeviceOn/iService software for remote device management
- Built-in Intel 11th Gen Celeron, Core-i3/i5/i7 processor, and an independent TPM 2.0 chip to deliver a stable, high-performance, and secure operating experience
- Supports triple display to extend a visible range and provide the detailed video contents
- Superior video quality to offer a vivid image: 8K video resolution via one USB-C output(DisplayPort protocols; 4K video resolution via two HDMI outputs
- Supports up to 32GB memory (1 x DDR4 3200Hz SO-DIMM, non-ECC)
- Two M.2 2280 SSD slots to support RAID 0/1 that offers a complete data backup solution
- Various mounting options: Desktop, VESA, and wall mounting.
- Can be integrated with optional WiFi and Bluetooth combo module, and 4G LTE module*
- Supports Windows 10, 11, or Linux
- RED Compliance

Introduction

Advantech USM-170 is an ultra-compact box PC that is used for offices, retail applications, etc. It features Intel Tiger Lake series processor to boost system performance and working efficiency. The USM-170 enables 8K video resolution by the USB-C output that delivers vivid and high-quality A/V experiences. It also supports TPM 2.0 and RAID 0/1 function to offer complete system security and data protection solution. It is an ideal mini PC for retail applications.

Specifications

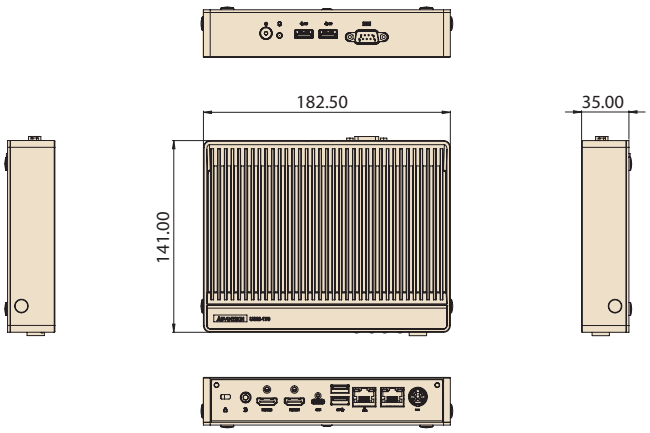
Processor	Processor	Intel 11 Tiger Lake; Celeron/i3/i5/i7 Celeron 6305E Core-i3, 1115G4E Core-i5, 1145G7E and 1135G7E Core-i7, 1185G7E and 1165G7
	Chipset	Integrated in SoC
Graphics		Intel Integrated Graphics
Security	TPM	TPM 2.0
Memory	Technology	DDR4-3200 *1
	Max. Capacity	32GB
Thermal Solution		Fanless
Resolution		Up to 8K UHD (7680 x 4320 @ 60Hz)
I/O - Rear	Video	USB-C: Support up to 8K UHD (7680 x 4320 @ 60Hz); HDMI 1, 2: Support up to 4K(4096 x 2160@60Hz)
	Audio	Line-out *1
	USB	USB 3.2 Gen2 Type A(Blue) *2 USB-C(Supports DP 1.4, 8K@60Hz video output, 5V/2A, USB 3.2 Gen2 data transfer) *1
	LAN	RJ45 *2 (LAN1- i219: 10/100/1000 Mbps; LAN 2 - i255: up to 2.5 Gbps)
	Antenna	Antenna connector *2
	Power Jack	DC 12~24V power jack w/ lock *1
	Anti-theft Lock	Kensington Lock *1
I/O - Front	USB	USB 3.2 Gen2 Type A (Blue) *2
	Serial	DB9 *1 (RS232/485/RS422 by BIOS)
	Button	Power Push Button Circle (Black) *1, button w/ power LED (Dark Green)
Internal I/O	Power Connector	6 pin pitch2.5 wafer *1
	USB2.0 Connector	5 pin pitch1.0 *2
	SATA	Co-layout with M.2 M-key *2
LED		HDD Access (Green) *1
Mounting		VESA/Desk(detachable food pad)/Wall
Expansion	WiFi/BT	M.2 E-key 2230 *1
	LTE	M.2 B-key 3042 *1 (Optional BOM)
	Storage	M.2 M-key 2280 *2
RAID		Supports RAID 0/1
Operating System		Windows 10 64-bit/Windows 11; Linux
Temperature		Operating: 0~ 45 °C
Target Dimensions (W x D x H)		182.5 x 141.5 x 35 mm
Certifications	EMC	CE, FCC, CCC, BSMI, UKCA, RF RED
	Safety	UL, CB, CCC, BSMI

All product specifications are subject to change without notice.

Last updated: 11-May-2022

Dimensions

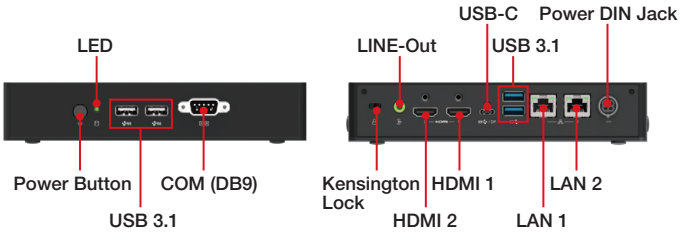
Unit: mm



Ordering Information

P/N	Description
USM-170H-BCL30	USM-170 Celeron 6305E barebone
USM-170H-BI330	USM-170 i3_1115G4E barebone
USM-170H-BI530	USM-170 i5_1145G7E barebone
USM-170H-BI531	USM-170 i7_1135G7 barebone
USM-170H-BI730	USM-170 i7_1185G7E barebone
USM-170H-BI731	USM-170 i7_1165G7 barebone
USM-170H-UCL30	USM-170 Celeron 6305E barebone, TAA
USM-170H-UI330	USM-170 i3_1115G4E barebone, TAA
USM-170H-UI530	USM-170 i5_1145G7E barebone, TAA
USM-170H-UI730	USM-170 i7_1185G7E barebone, TAA

I/O Interface



Optional Accessories

Product	P/N	Usage	Description
Memory	AQD-SD4U8GN26-SE	1	8G SO-DDR4-2666 1GX8 1.2V SAM
	AQD-SD4U16N26-SB	1	16G SO-DDR4-2666 2GX8 1.2V SAM
	AQD-SD4U32GN26-SB	1	32G SO-DDR4-2666 2GbX8 1.2V SAM
	AQD-SD4U32GN26-HB	1	32G SO-DDR4-2666 2GbX8 1.2V HYX
	AQD-SD4U8GN32-SE	1	8GB DDR4 SODIMM-3200 1GbX8 SAM
	AQD-SD4U16GN32-SE	1	16GB DDR4 SODIMM-3200 1GbX8 SAM
	AQD-SD4U32GN32-SB	1	32GB DDR4 SODIMM-3200 2GbX8 SAM
Storage	96FD80-N032-TR71	1 or 2	Transcend M.2 2280 32GB SATA3 MLC
	96FD80-N064-TR71	1 or 2	Transcend M.2 2280 64GB SATA3 MLC
	96FD80-N128-TR71	1 or 2	Transcend M.2 2280 128GB SATA3 MLC
	96FD80-N256-TR71	1 or 2	Transcend M.2 2280 256GB SATA3 MLC
	96FD80-N512-TR71	1 or 2	Transcend M.2 2280 512GB SATA3 MLC
	96FD80-N032-TR72	1 or 2	Transcend M.2 2280 32GB SATA3 SAM MLC
	96FD80-N064-TR72	1 or 2	Transcend M.2 2280 64GB SATA3 SAM MLC
	96FD80-N128-TR72	1 or 2	Transcend M.2 2280 128GB SATA3 SAM MLC
	96FD80-N256-TR72	1 or 2	Transcend M.2 2280 256GB SATA3 SAM MLC
	96FD80-N128-TS	1 or 2	KIOXIA SSSTC SEMI-WT SSD 128GB 2280 SATA3 Tos 96 TLC -25°C ~ +85 °C
	96FD80-N256-TS	1 or 2	KIOXIA SSSTC SEMI-WT SSD 256GB 2280 SATA3 Tos 96 TLC -25°C ~ +85 °C
	96FD80-N512-TS	1 or 2	KIOXIA SSSTC SEMI-WT SSD 512GB 2280 SATA3 Tos 96 TLC -25°C ~ +85 °C
	96FD80-N1TB-TS	1 or 2	KIOXIA SSSTC SEMI-WT SSD 1TB 2280 SATA3 Tos 96 TLC -25°C ~ +85 °C
WiFi, BT Combo Module, antenna	EWM-W159M201E	1	M.2 2230 WiFi5+BT5.0 module
	1750008717-01	2	Dipole Ant. D.B 2.4/5G WIFI 3dBi SMA/M-R BLK
	1750008799-01	2	Cable Ant.SMA/F-R-BH MFH4/113 BLK L170
HDMI Cable	1700023855-11	2	M Cable HDMI 19P(M)/HDMI 19P(M) 100cm w/Lock
Power Cord	1702002600	1	Power Cord UL 3P 10A 125V 183cm
	1700018705	1	Power Cord EU 3P 10A 250V 183cm 180°
	1700000596-11	1	Power Cord CCC 3P 10A 250V 183cm
	1700001714	1	Power Cord BSMI 3P 7A 125V 183cm
	1700018704	1	Power Cord BSI 3P 10A 250V 180cm (UK)
	1700000237	1	Power Cord PSE 3P 12A 125V 183cm
	1702031836	1	Power Cord SAA 3P 10A 250V 183cm (AU)