

# USM-600

## Dual-Board Workstation with Intel® Pentium®/Core™ i3/i5/i7 Processor for Edge AI Applications



### Features

- Dual CPU boards for performing multiple edge AI processes simultaneously
- Embedded 8/9th gen Intel® Pentium®/Core™ i3-9100TE/i5-9500TE/i7-9700TE CPU
- Multiple I/O: 2 x LAN, 6 x USB 3.1, 4 x HDMI
- 2 x M.2 SSDs and 4 x SATA HDDs with Raid 0, 1, 5 support
- 2 x PCIe x16 and 1 x PCIe x8 slots
- 2 x M.2 E-key for Wi-Fi/LTE module

### Introduction

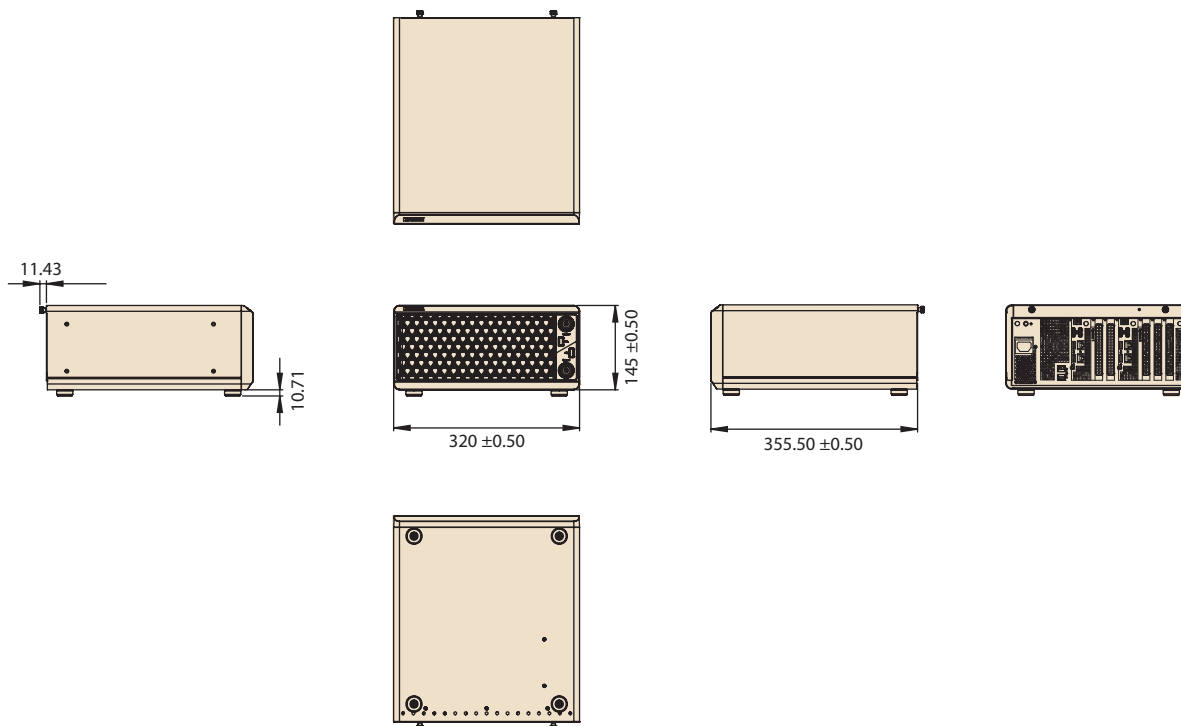
Developed together with Intel, USM-600 is a dual-board workstation that features two CPU boards in a single unit, which allows multiple edge AI tasks to be processed simultaneously. The provision of multiple I/O, including up to three PCIe slots, supports the integration of various expansion modules and cards, such as an Intel® Movidius™ card and/or graphics card, making it ideal for computer vision and imaging applications. USM-600 can be connected to diverse devices and monitors via USB and HDMI for easy deployment in retail and hospitality environments, public facilities, and office buildings. Moreover, USM-600 provides customers with a high-performance solution for implementing a modular edge computing architecture that supports AI-based video/image processing for people counting and facial recognition tasks.

### Specifications

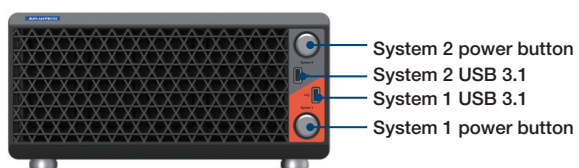
	CPU Board	G5400/ G5400T	i3-8100/ 8100T	i5-8500/ 8500T	i7-8700/ 8700T	i3-9100TE	i5-9500TE	i7-9700TE	
Dual CPU Board	Core Quantity	2/2	4/4	6/6	6/6	4	6	8	
	Base Frequency	3.7 GHz/ 3.1 GHz	3.6 GHz/ 3.1 GHz	3 GHz/ 2.1 GHz	3.2 GHz/ 2.4 GHz	2.2 GHz	2.2 GHz	1.8 GHz	
	Cache	4 MB/4 MB	6 MB/6 MB	9 MB/9 MB	12 MB/12 MB	6 MB	9 MB	12 MB	
	TDP	58W/25W	65W/35W	65W/35W	65W/35W	35W	35W	35W	
	Memory	2 x Dual-channel DDR4 SODIMM 2666 MHz, non-ECC (up to 64 GB)							
	HDD/SSD	2 x M.2 SSDs and 4 x SATA HDDs with Raid 0, 1, 5 support							
	Network(LAN)	6 x Gigabit Ethernet ports							
	External I/O	6 x USB 3.1 (2 x in front panel) 6 x Gigabit Ethernet (RJ45) 4 x HDMI							
	Audio	2 x Mic-In, 2 x Line-Out							
	Internal Connectors	2 x M.2 2280 2 x M.2 B Key (LTE storage) 2 x COM							
	Dimensions (W x H x D)	320 x 145 x 355.5 mm/12.59 x 5.7 x 13.99 in							
	Weight	9 kg/19.84 lb							
	Operating System	Windows 10, Android 10, Linux Ubuntu 20							
Environmental	Operating Temperature	0 ~ 40 °C/32 ~ 104 °F							
	Relative Humidity	10 ~ 95% @ 40 °C/104 °F non-condensing							
	Vibration	1G							
	Shock	10G							
Power	Input Rating	100 ~ 240 V <sub>AC</sub> , 50 ~ 60 Hz, 8 ~ 4A, 500W maximum							

## Dimensions

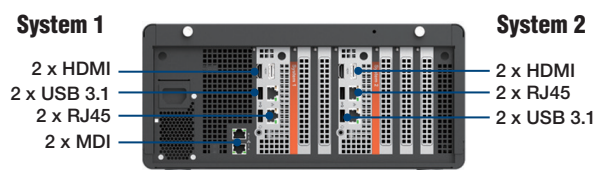
Unit: mm



## Front View



## Rear View



## Accessories

	Part Name	Description
CPU Board	96MPPC-3.7-4M-11T	Intel® Pentium® G5400 dual-core, 3.7 GHz, 4 MB, 1151P
	96MPPC-3.1-4M-11T	Intel® Pentium® G5400T dual-core, 3.1 GHz, 4 MB, 1151P
	96MPI3C-3.6-6M11T	Intel® Core™ i3-8100 quad-core, 3.6 GHz, 6 MB, 1151P
	96MPI3C-3.1-6M11T	Intel® Core™ i3-8100T quad-core, 3.1 GHz, 6 MB, 1151P
	96MPI5C-3.0-9M11T	Intel® Core™ i5-8500 six-core, 3 GHz, 9 MB, 1151P
	96MPI5C-2.1-9M11T	Intel® Core™ i5-8500T six-core, 2.1 GHz, 9 MB, 1151P
	96MPI7C-3.2-12M11T	Intel® Core™ i7-8700 six-core, 3.2 GHz, 12 MB, 1151P
	96MPI7C-2.4-12M11T	Intel® Core™ i7-8700T six-core, 2.4 GHz, 12 MB, 1151P
	96MPI3CR-2.2-6M11T	Intel® Core™ i3-9100TE quad-core, 2.2 GHz, 6 MB, 1151P
	96MPI5CR-2.2-9M11T	Intel® Core™ i5-9500TE six-core, 2.2 GHz, 9 MB, 1151P
96MPI7CR-1.8-12M11	Intel® Core™ i7-9700TE eight-core, 1.8 GHz, 12 MB, 1151P	
Memory	AQD-SD4U4GN24-SP	4 GB SODIMM DDR4 2400 512x16 1.2V Samsung
	AQD-SD4U4GN24-HP	4 GB SODIMM DDR4 2400 512x16 1.2V Hynix
	AQD-SD4U8GN24-SE	8 GB SODIMM DDR4 2400 1Gx8 1.2V Samsung
	AQD-SD4U8GN24-HE	8 GB SODIMM DDR4 2400 1Gx8 1.2V Hynix
	AQD-SD4U16N24-SE	16 GB SODIMM DDR4 2400 1Gx8 1.2V Samsung
AQD-SD4U16N24-HE	16 GB SODIMM DDR4 2400 1Gx8 1.2V Hynix	
Storage	96FD25-ST256G-M13	Micron 1300 2.5" SATA III, 256 GB, 3D TLC (0 ~ 70 °C/31 ~ 158 °F)
	96FD25-ST512G-M13	Micron 1300 2.5" SATA III, 512 GB, 3D TLC (0 ~ 70 °C/31 ~ 158 °F)
	96FD25-ST1T-M13	Micron 1300 2.5" SATA III, 1 TB, 3D TLC (0 ~ 70 °C/31 ~ 158 °F)
	96ND500G-ST-WD5KG1	WD IPC 500 GB 2.5" SATA III, 5K RPM, 128 MB, 7 MM
	96ND1TB-ST-WD5KG	WD IPC 1 TB 2.5" SATA III, 5K RPM, 128 MB, 7 MM
	96FD25-S128-TS	KIOXIA SSSTC Semi-WT SSD 128 GB 2.5" SATA III TOS 96-layer TLC
	96FD25-S256-TS	KIOXIA SSSTC Semi-WT SSD 256 GB 2.5" SATA III TOS 96-layer TLC
	96FD25-S1TB-TS	KIOXIA SSSTC Semi-WT SSD 1 TB 2.5" SATA III TOS 96-layer TLC
96FD25-S512-TS	KIOXIA SSSTC Semi-WT SSD 512 GB 2.5" SATA III TOS 96-layer TLC	
Wi-Fi Module	EWM-W163M201E	802.11 a/b/g/n/ac, Atheros QCA6174A-5, 2T2R, with Bluetooth 4.2 Low Energy (A ~ E key)
	EWM-W195M201E	802.11 a/b/g/n/ac, Atheros QCA6174A-5, 2T2R, with Bluetooth 4.2 Low Energy (A ~ E key)
	EWM-W157M201E	802.11 a/b/g/n/ac, RTL8821CE, 1T1R, with Bluetooth 4.2 Low Energy (A ~ E key)
	EWM-W159M201E	802.11 a/b/g/n/ac, RTL 8822CE-CG, 2T2R, with Bluetooth 5.0 (A ~ E key)
	EWM-W192M201E	Intel® Wireless-AC 9260, M.2 2230, 2T2R, 802.11AC + Bluetooth 5.0, without vPro (MM: 958867)
	EWM-W192M202E	Intel® Wireless-AC 9260, M.2 2230, 2T2R, 802.11AC + Bluetooth 5.0, vPro support (MM: 957712)
EWM-W192M205E	Intel® Wireless-AC 9260, M.2 2230, 2T2R, 802.11 AC+BT5.0, i-temp version (MM: 99A4FZ )	
Power Cable	1700024848-01	Power Cord BSMI 3P 7A 125V 180cm(Taiwan)
	1700000237-11	Power Cord PSE 3P 12A 125V 183cm with FANUC P/N(Japan)
	1700000596-11	Power Cord CCC 3P 10A 250V 183cm(China)
	1700018704	Power Cord BSI 3P 10A 250V 180cm(United Kingdom)
	1700018705	Power Cord EU 3P 10A 250V 183cm(European)
	1700018706	Power Cord UL 3P 10A 125V 183cm(USA)
	1700019338	Power Cord SABS 3P 10A 250V 180cm(South Africa)
	1700022938-01	Power Cord KCC 3P 10A 250V 300cm(Korea)
	1700022939-01	Power Cord SAA 3P 10A 250V 300cm(Australia)
	1700022999-01	Power Cord SIRIM 3P 10A 250V 300cm(Malaysia)
	1700023517-01	Power Cord SNI 3P 10A 250V 300cm(Indonesia)
	1700025112-01	Power Cord INMETRO 3P 10A 250V 180cm(Brazil)
	1700030491-01	Power Cord CCC 3P 10A 250V 200cm(China)