

# RUC-1000G

The 19" 2U Rugged Rack-Edge AI GPU Computer supports up to a 600-watt GPU with PCIe Gen 5, achieving an optimal performance of 4,000 AI TOPS.

## Features

- Intel® Core™ Ultra 200S Series CPU; Dual 2.5" SSD/HDD with RAID 0/1
- Up to 4,000 TOPS for real-time Edge AI; 600W GPU & PCIe Gen 5 Support
- Rich I/O: 1x 10GbE, 2x 2.5GbE, 10x USB, 6x COM Ports
- 8V to 48V Wide-Range DC-in with Built-in Ignition Power Control
- Wide Operating Temperature Range: -25°C to 60°C



## Specifications

Processors	CPU	Intel® Core™ Ultra 9 285/285T	Intel® Core™ Ultra 7 265/265T	Intel® Core™ Ultra 5 245/245T
	TDP	65W/35W	65W/35W	65W/35W
	# of Cores	24	20	14
	P-core Base Freq.	2.5G/1.4GHz	2.4G/1.5GHz	3.5G/2.2GHz
System	Chipset	Intel® W880		
	Memory	2 x SO-DIMM (supports DDR5 ECC/non-ECC, up to 6400 MHz, max. 64GB)		
I/O Interfaces	Display	1 x HDMI, supports up to 4096 x 2160 @ 30 Hz 2 x DP++, supports up to 4096 x 2160 @ 60 Hz		
	Ethernet	1 x 10 GbE, RJ45 (AQC113) 2 x 2.5 GbE, RJ45 (Intel® i226-IT)		
	AMT	Supports Intel® vPro/ AMT		
	USB	8 x USB 3.2 Gen 2 (10Gbps) 2 x USB 2.0		
	COM	2 x RS-232/422/485 (COM1 with 5V/12V power support) 4 x RS-232		
	CAN Bus	1 x CAN Bus 2.0B (optional)		
	Audio	1 x Mic-in 1 x Line-out		
	DIO	8-bit isolated DIO(4-in/4-out, terminal block, optional)		
Storage	2.5" SATA	2 x 2.5" (supports RAID 0/1)		
	M.2 M Key	1 x M.2 2280 M-key (PCIe Gen4x4)		
Expansion Slot	M.2 E Key	1 x M.2 2230 E-key (PCIex1/USB2.0)		
	M.2 B Key	1 x M.2 3042/3052 B-key with dual nano-SIM slot (PCIex1/USB 3.2 Gen1/USB2.0) 1 x M.2 3042/3052 B-key(PCIex1/USB 3.2 Gen1/USB2.0)		
	PCIe Slot	1 x PCIe Gen4 x4 slot 2 x PCIe Gen5 x16 slot (1 x PCIe x16 or 2 x PCIe x8 signal, support up to 600 watts) (The max GPU in size 348 x 146 x 72 mm)		
Power	Power input	8V to 48 V DC-in, 3-pin terminal block (V+, GND, IGN) <sup>1</sup>		
	Remote switch	2-pin terminal block (Remote, GND)		
Mechanical	Mounting	Wall-mount, Rack-mount (Side by side mode only)		
	Dimensions (WxDxH)	440 x 488.9 x 85mm (Side by side mode) 220 x 488.9 x 170mm (Stack mode)		
	Weight	12.2 kg		
Environment	Operating Temp.	35W CPU: -25° C to 60° C <sup>2,3</sup> 65W CPU: -25° C to 50° C <sup>2,3</sup>		
	Storage Temp.	-40° C to 85° C		
	Relative Humidity	10 to 95% (non-condensing)		
	EMC	CE, FCC, BSMI		
	Safety	CE-LVD, CB, BSMI		
	Vibration	Operating: MIL-STD 810H Method 514.8, Category 4		
	Shock	Operating: MIL-STD 810H Method 516.8, Procedure I, Table 516.6-II; 20 G 11ms		
Green	GA (RoHS)			

1. DC input (8V to 12V) is for light-load power on or operation only.

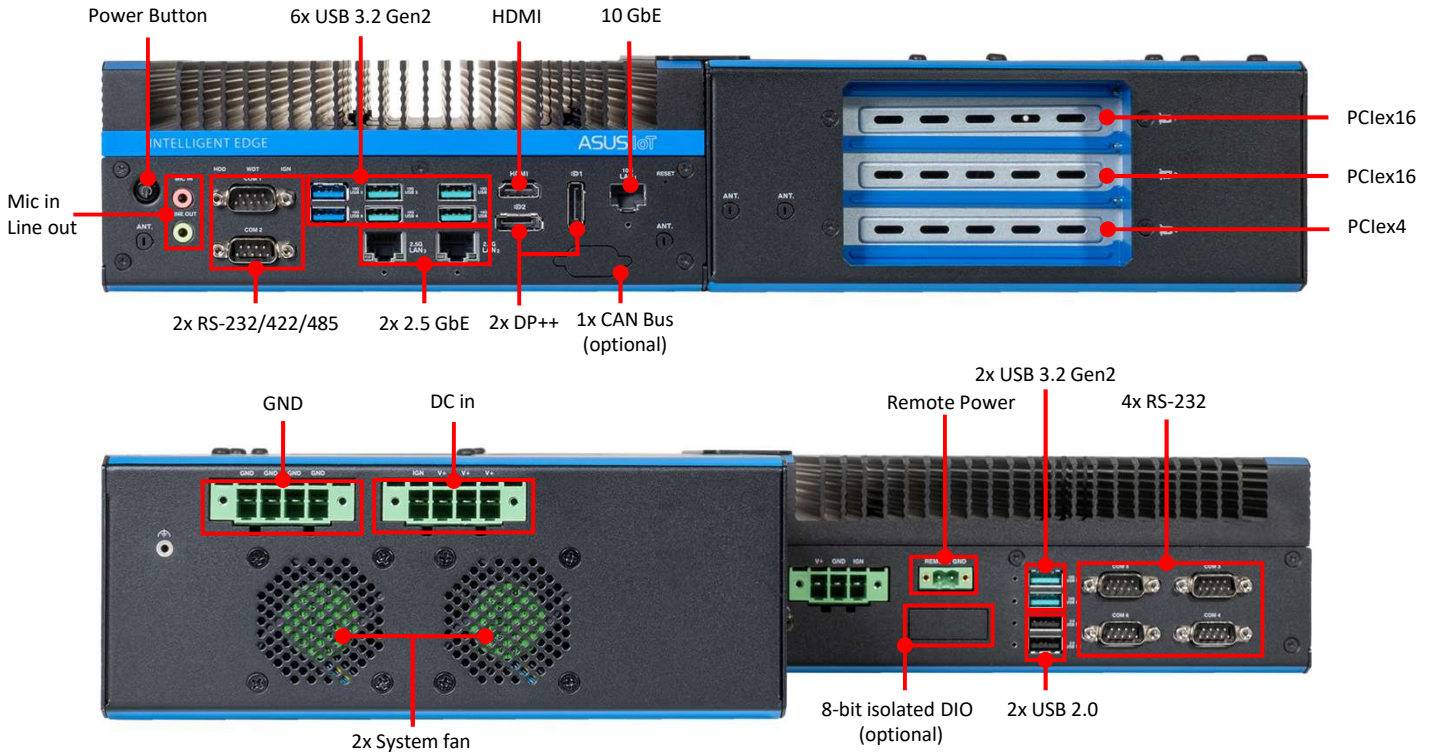
2. For wide-temperature applications, industrial memory and storage are required.

3. No thermal throttling occurs under 100% CPU loading (PassMark BurnInTest); ambient air flow is required.

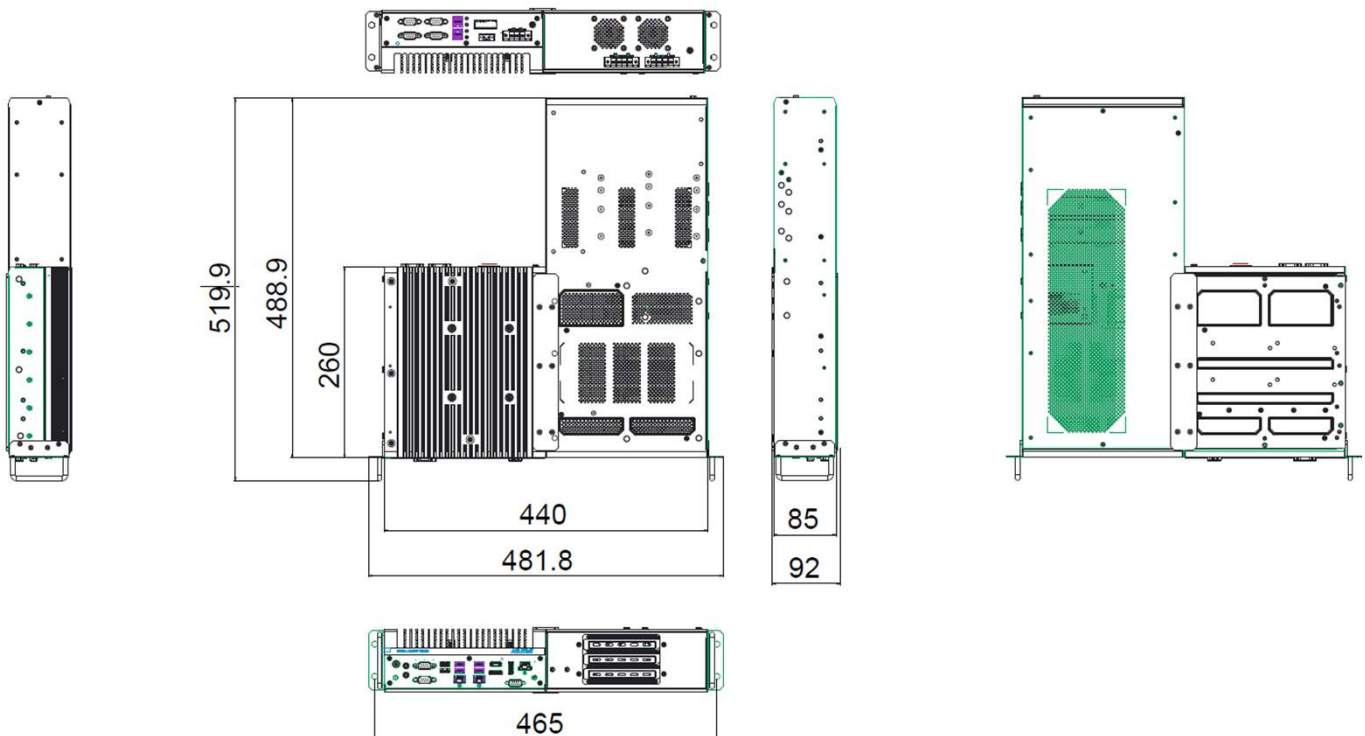
## Specifications (Cont.)

<b>Security</b>	TPM	dTPM v2.0 (onboard)
<b>Others</b>	Watch dog timer	Supported
	OS	Windows® 11 IoT Enterprise (64-bit) / Linux by Project support

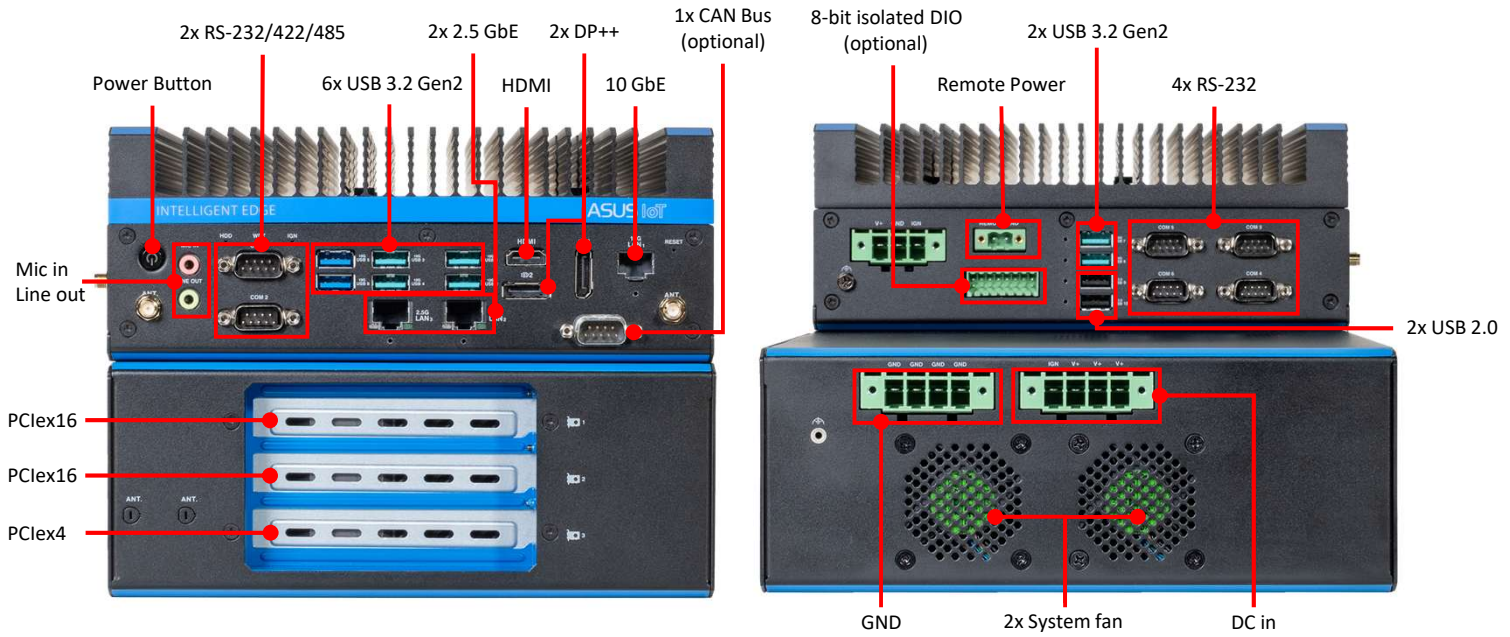
## Appearance (Side-by-Side Mode)



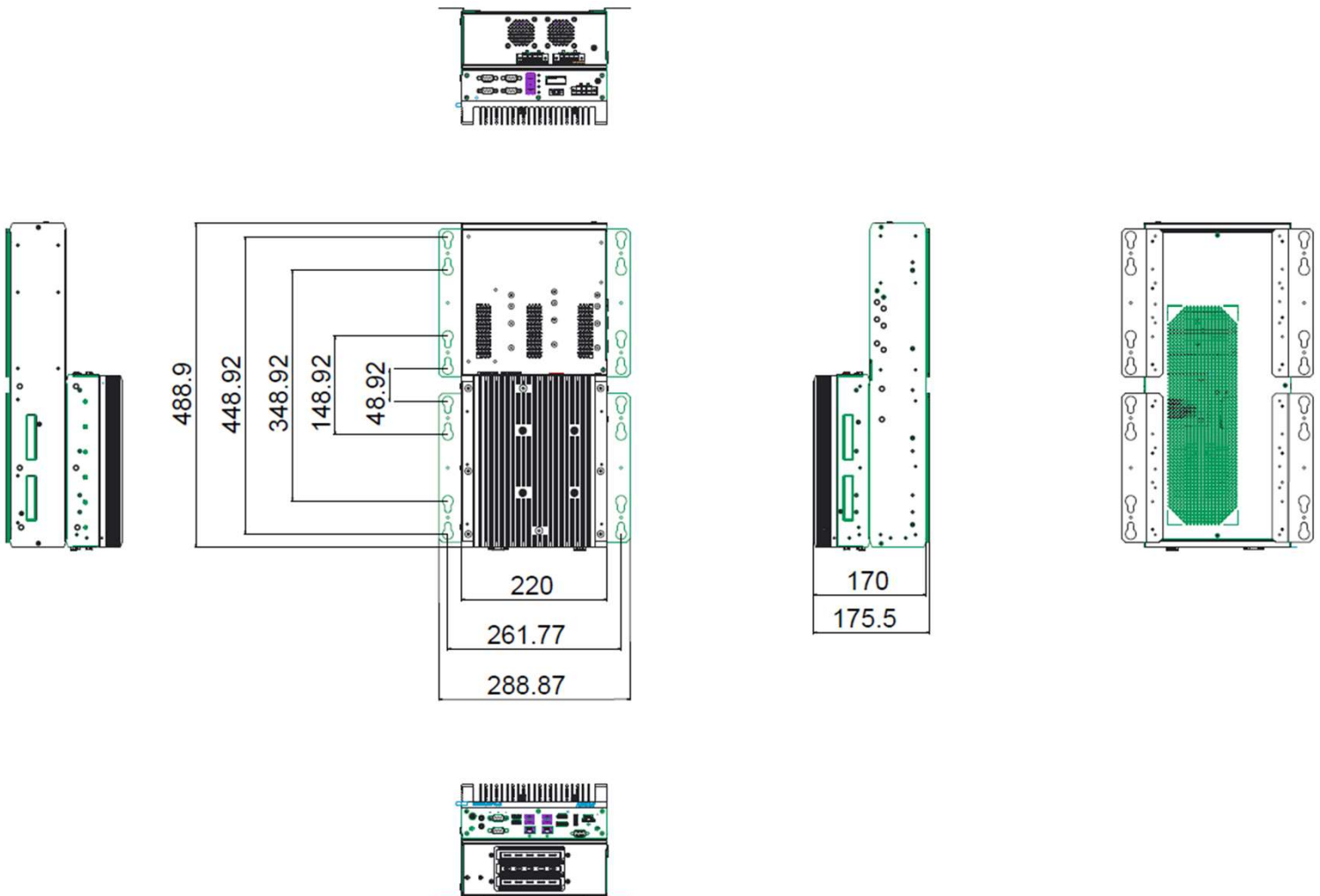
## Dimensions (Side-by-Side Mode) (mm)



# Appearance (Stack-Mode)



# Dimensions (Stack-Mode) (mm)



## Ordering Information:

CPU	Chipset	SO-DIMM	LAN	2.5" SATA	COM	USB	PCIe	OP Temperature
Intel® Core™ Ultra 200S	W880	2	3	2	6	10	2x PCIe x16 1x PCIe x4	-25~60°C/ 0~40°C

\* Please check with your importer or integrator for system level certification.

## Packing List:

Item	Qty
4-pin power terminal blocks	2
2-pin remote power terminal block	1
8-pin to 8-pin (6+2) Expansion card power cable	1
12+4 pin to 12+4 pin GPU power cable	1
Wall mount kit	4
Wall mount screw pack	2
Anti shock & vibration damper pack	2
Rackmount handles (Side-by-side mode only)	2
Rackmount handles screw pack (Side-by-side mode only)	1
SSD screw pack	2

## Optional Accessories:

Item	Description
<b>POWER SUPPLY</b>	
	Power Supply, 1500W 24V, input voltage 100 to 264VAC, output voltage 24VDC with 63A DC load, -20 to 60°C operating temperature
<b>POWER CABLE</b>	
	CABLE O-RING TER. TO OPEN X2 1.5M
<b>POWER CORD</b>	
	Power cord with United States (US) plug
	Power cord with Europe (EU) plug
	Power cord with China (CN) plug
	Power cord with United Kingdom (UK) plug