

RUC-1000D

Preliminary

Half-rack & rugged fanless embedded computer at the edge supports Intel® Core™ Ultra 200S series CPU with Intel® W880 chipset, support up to six 2.5" SSD, RAID 0/1/5/10 and rich I/O

Features

- Supports Intel® Core™ Ultra 200S series CPU with W880 chipset
- Supports up to six 2.5" SSD tray & RAID 0/1/5/10
- Rich I/O with 1x 10GbE, 2x 2.5 GbE, 10x USB, 6x COM
- 8 to 48V wide-range DC-in w/ built-in ignition power control
- Wide operating temperature range: -25° C to 70° C



Specifications

Processors	CPU	Intel® Core™ Ultra 9 285T	Intel® Core™ Ultra 7 265T	Intel® Core™ Ultra 5 245T
	TDP	35W	35W	35W
	# of Cores	24	20	14
	P-core Base Freq.	1.4GHz	1.5GHz	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		
	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" 4 x 2.5" hot-swappable SSD tray (with SSD Chassis, optional)		
	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)		
Power	Power input	8 to 48 V DC-in, 3-pin terminal block (V+, GND, IGN)		
	Remote switch	2-pin terminal block (Remote, GND)		
Mechanical	Mounting	Wall-mount		
	Dimensions	220 x 260 x 85mm 220 x 260 x 140mm (with SSD Chassis, optional)		
	Weight	TBD		
Environment	Operating Temp.	-25° C to 70° C ^{1,2}		
	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)		
Security	TPM	dTPM v2.0 (onboard)		
Others	Watch dog timer	Supported		
	OS	Windows® 11 IoT Enterprise (64-bit) / Linux by Project support		

1. For wide temperature demand, the industrial memory & storage are required.

2. No thermal throttling occur with 100% CPU loading via PassMark BurnInTest; Ambient with air flow.