



Features:

- Rugged & compact, fanless designed box structure;
- Powerful Intel Alder Lake 12th Gen. Core i5-1235U processor;
- Dual DDR5 memory, max. up to 64GB, 2* M.2 & 1 SATA 3.0 storage;
- DC Terminal, wide 9~36V power input, 1 SW remote switch;
- 2 RJ45, optional with 3G/4G/LTE, 5G, Wi-Fi/BT and Wi-Fi 6;
- 2 USB3.1, 2 USB3.0, 1 USB-C, 6 COM, 1 HDMI, 1 DP, Audio;
- 2 M.2 and 1 Mini-PCIe expansion slots;
- Industrial operating -20 ~ +60°C temp. range.

Specification



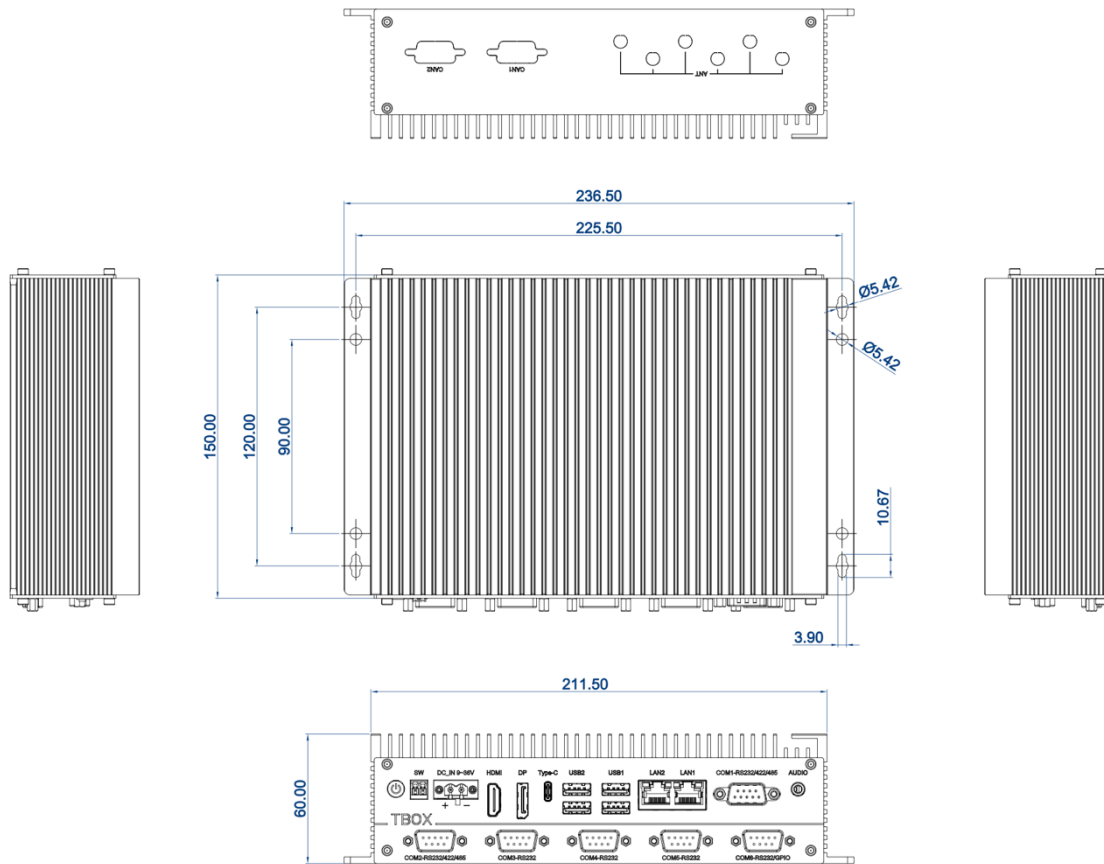
System	BIOS	SPI AMI EEI BIOS
	CPU	Intel 12 th Gen. Core i5-1235U processor
	CPU Ghz	10 cores (2P+8E), 12 threads, 1.20Ghz, TDP 15W
	TPM	Intel PTTMP2.0
	Memory	SO-DIMM, DDR5-4800 Mhz, Dual channels, Max. up to 64GB
	Storage	1* M.2 2280 M-Key slot (PCIe x4 Gen IV, NVMe) SSD, 1* M.2 2280 M-Key slot (SATA) SSD ^[1] , 1* SATA3.0 SSD
	Graphic	Intel Iris Xe Graphics (Up to 80 EUs, 1.20Ghz)
	Network	1* Intel I226 (2.5GbE), 1* Intel I219 (1.0GbE) Network chips, optional support 3G/4G/5G/Wi-Fi/BT, Wi-Fi6 wireless
	Audio	On-board Realtek ACL897 Audio controller
	Expansion	1* M.2 (NGFF) B-Key 3042/3052 slot, 1* M.2 E-Key 2240 slot, 1* Mini-PCIe slot, 1* Sim card slot
Watchdog	0 ~ 256 seconds programmable	
Operating system	Win10 IoT 2021 LTSC; Win10 (21H2), Win11(21H2 or later); Linux Kernel 5.17 or later	
IO interface	Serial port	COM1/2: RS232/RS485/RS422 (BIOS control); COM3/4/5/6: RS232
	Ethernet	2* RJ45
	Audio	1* Mic-in/Line-out (2 in 1, 3.5mm Jack)
	USB	2* USB3.1 type-A (USB3.2 Gen2x1 10Gbps), 2* USB3.0 type-A (USB3.2 Gen1x1 5Gbps), 1* USB-C (USB3.1 & DP1.4)
	Display	1* HDMI1.4 (Max. resolution to 4K@30Hz), 1* DP++ (Max. support 8K @30Hz)
	Power input	1* 2 pin, phenix terminal
	GPIO	8* GPIO (Optional via 1* DB9)
Structure	Box structure and surface	Aluminum alloy, anodizing and anti-scratch treatment
	Color	Silver
	Mount method	Desktop, wall mount
	Cooling system	Finned aluminum heatsinks
	Indicator & Button	Power switch, Power LED, HDD LED
	Dimension	236.5 * 150.0 * 60.0 (mm)
	Net weight	About 1.6 KG
Power & Environmental	Operating temp.	-20 ~ + 60 (°C)
	Storage temp.	-40 ~ + 80 (°C)
	Humidity	10 ~ 95% @ 10C (No condensation)
	Vibration	50 ~ 500 Hz, 1.5G, 0.15mm peak to peak
	Shock	10G/Peak (11 ms)
	Power input	DC terminal 9~36V range
	Power consumption	About 25W
	Certificate	CE/FCC/ROHS

[1] This M.2 slot Default as SATA SSD, optional as NVMe 4x SSD to support RAID 0/1 (selected by resistors).

TBOX-2D28

Dimension

DIMENSIONAL DRAWING:TBOX-2DX8



DIMENSIONS IN MILLIMETERS

TAICEM
DATE:2024.10.22
REV:E Unit:mm

Ordering information

Part no.	Description
TBOX-2D28	Intel 12 th Gen. Core i5-1235U 10C/12T processor, 2 RJ45, 2 USB3.1, 2 USB3.0, 1 USB-C, 6 COM, 1 HDMI, 1DP, Audio Jack, DC 9~36V, 1 SW, PSU
Optional Accessories	Description
Memory	SO-DIMM, DDR5, 8GB/16GB/32GB/64GB M.2 NVMe SSD: 256GB/512GB/1TB
Storage	M.2 SATA SSD: 256GB/512GB/1TB 2.5" SATA SSD: 128GB/256GB/512GB/1TB 2.5" HDD: 1TB/2TB/4TB
Wireless	Wi-Fi module with BT Integrated, with Antenna All network 4G module, with Antenna 5G network module, with Antenna Wi-Fi 6 module, with Antenna

Packing List

Description	Quantity
Standard TBOX-2D28 Box PC Product	1 piece
60W PSU (Power supply)	1 set
Power Cable & Plug	1 set