

T1-AL50

Intel® Alder Lake/Raptor Lake-P/H Series Processor
based Ultra-Compact Mini PC



Features

- CPU: 12th/13th Gen Intel® Core™ Alder Lake/Raptor Lake-P/H Series
- Memory: Dual Channel SO-DIMM DDR4 up to 64GB
- Display: Intel® Iris® Xe Graphics eligible, displays via DP, HDMI, TBT4
- I/O Ports: 1 x TBT4, 4 x USB3.2, 2 x LAN(2.5GbE), CTIA Audio Jack
- Storage & Expansion: M.2 Key M Slot for 2280 NVMe SSD,
M.2 Key M Slot for 2280 NVMe/SATA SSD, M.2 Key E Slot for 2230 WiFi&BT
- Power: 19V/20V DC-in



Introduction

The Maxtang T1-AL50 is an ultra-compact Mini PC powered by 12th and 13th Gen Intel® Core™ Alder Lake and Raptor Lake-P/H Series processors, offering a flexible balance of computing performance and compact deployment. With processor options featuring up to 14 cores and 20 threads, dual-channel DDR4 memory up to 64GB, and integrated Intel® Graphics, the T1-AL50 is designed to handle demanding multitasking, multimedia, and edge computing workloads within a compact 127 × 127 × 50.5 mm chassis.

Despite its small footprint, the T1-AL50 provides versatile connectivity and expansion, including dual 2.5GbE LAN, Thunderbolt™ 4, HDMI, DisplayPort, and four USB 3.2 ports. Two M.2 Key M slots provide flexible NVMe and SATA storage options, while an M.2 Key E slot supports Wi-Fi and Bluetooth connectivity. Combining high-performance mobile processors, expandable storage and memory, high-speed networking, and versatile display connectivity, the T1-AL50 is well suited for business computing, digital signage, meeting and collaboration systems, self-service kiosks, and other space-constrained commercial deployments.



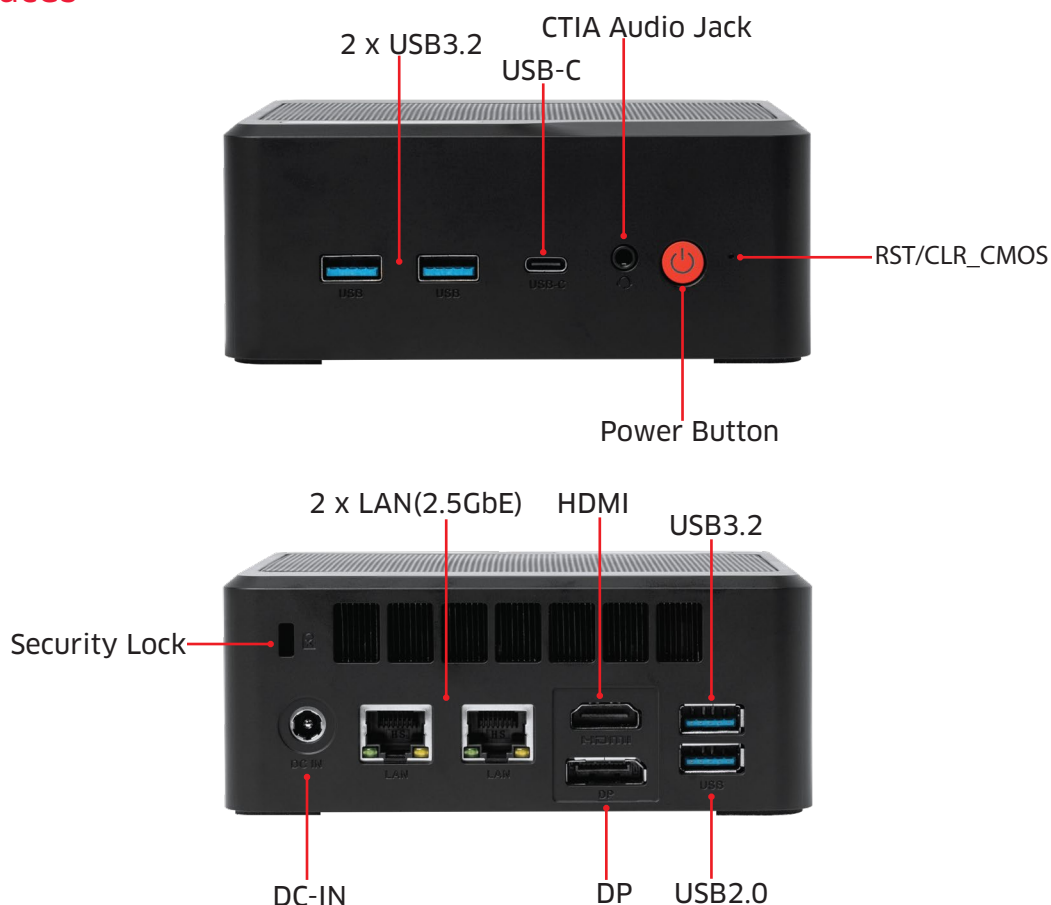
H/W Monitor



Watchdog



I/O Interfaces

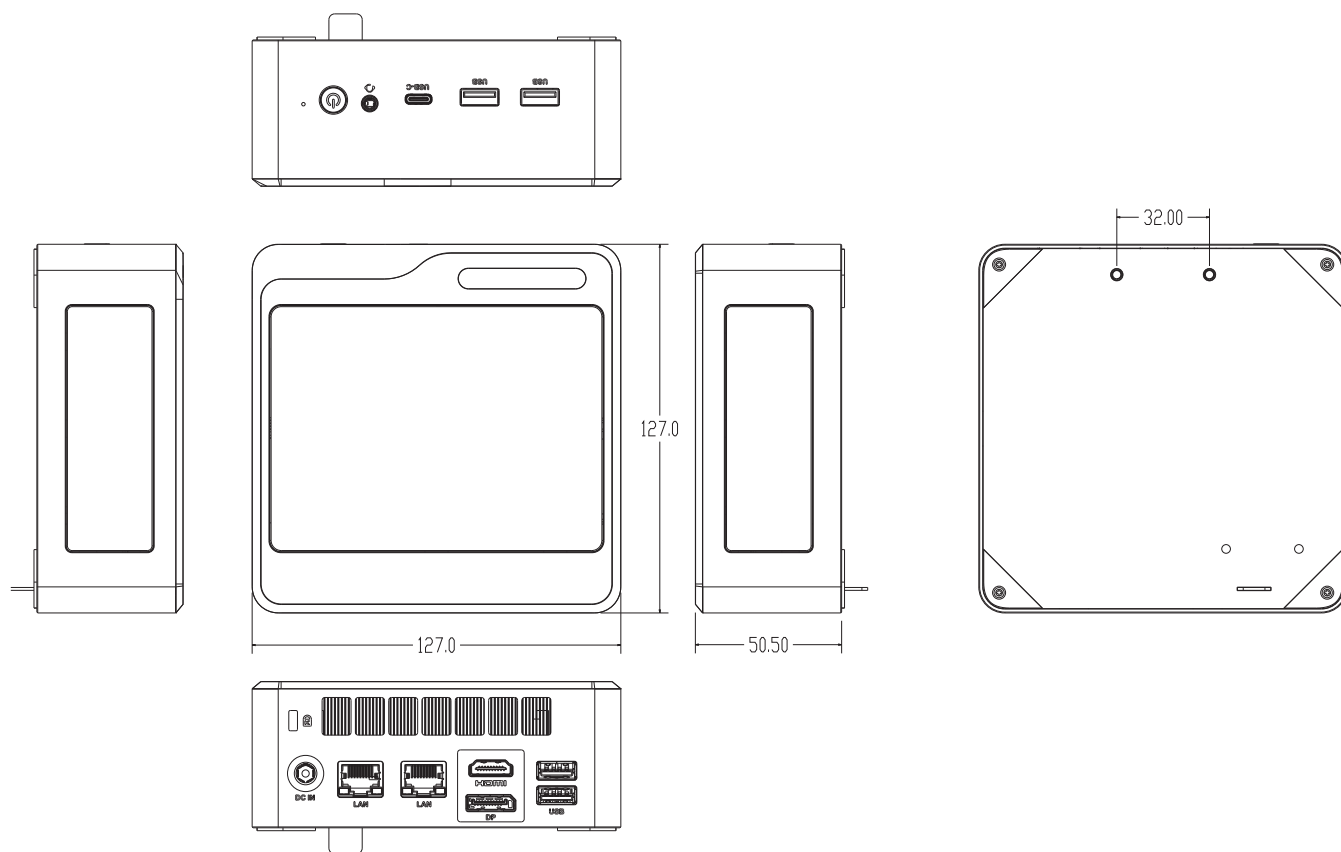


Technical Specifications

Processor	Alder Lake/Raptor Lake-P				
		i5-1240P	i5-1340P	i7-1260P	i7-1360P
	Total Cores/Threads	12C/16T	12C/16T	12C/16T	12C/16T
	P-core Max Frequency	4.4GHz	4.6GHz	4.7GHz	5.0GHz
	E-core Max Frequency	3.3GHz	3.4GHz	3.4GHz	3.7GHz
	Cache	12MB	12MB	18MB	18MB
	Processor Base Power	28W	28W	28W	28W
Processor	Alder Lake/Raptor Lake-H				
		i5-13420H	i5-13500H	i7-12700H	
	Total Cores/Threads	8C/12T	12C/16T	14C/20T	
	P-core Max Frequency	4.6GHz	4.7GHz	4.7GHz	
	E-core Max Frequency	3.4GHz	3.5GHz	3.5GHz	
	Processor Base Power	12MB	18MB	24MB	
	cTDP	45W	45W	45W	
	BIOS	AMI UEFI BIOS			
Memory	Type	Dual Channel SO-DIMM DDR4			
	Max. Capacity	64GB			
Display	GPU	Integrated Intel® Iris® Xe Graphics eligible			
	Interface	1 x DP, 1 x HDMI, 1 x TBT4			
Ethernet	Controller	2 x Realtek RTL8125			
	Speed	10/100/1000/2500Mbps			
Audio	Interface	2 x RJ45			
	Audio Codec	SenaryTech SN6186			
Storage & Expansion	Interface	1 x CTIA 2in1 Audio Jack(Line-out+Mic-in)			
	M.2_N	1 x M.2 Key M Slot for 2280 NVMe SSD			
	M.2_N/S	1 x M.2 Key M Slot for 2280 NVMe/SATA SSD			
Other I/O	M.2_E	1 x M.2 Key E Slot for 2230 Wi-Fi&Bluetooth Module			
	USB3.2	4 x USB3.2			
	USB-C	1 x TBT4			
Dimension	TPM	Optional			
	Size	127 mm x 127 mm x 50.5mm (L x W x H)			
	Weight	N.W. Barebone: 371g			
Power	Standard Port	19V/20V DC-in			
Temperature	Operating Temp.	0°C to 50°C			
	Storage Temp.	-20°C to 70°C			
Cooling		Active			
Operating System		Windows10/11 64bit, Linux 64bit.			

*All specifications and photos are subject to change without notice.

Dimension



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