

IAD70

Intel® Core™ Alder Lake LGA 1700 Mini-ITX Embedded SBC



KEY FEATURES

- 12th/14th Gen Intel® Core™ Alder Lake S / Raptor Lake S Refresh Socket LGA 1700 i9 / i7 / i5 / i3 processor
- 2 x SODIMM, DDR5 4800MHz, support up to 64GB (Max. 32GB for each slot)
- Multi display supports DP 1.4a / HDMI 2.0b (Optional)
- 2 x Intel® Ethernet Controller
- 12 V Single Voltage Power Input
- Mini ITX Form Factor (170 x 170 mm)

INTRODUCTION

Winmate's Mini-ITX Embedded Board offers a compact, high-performance solution for a wide range of industrial applications, including automation, transportation, medical, and gaming. Powered by optional processors such as Intel® Core™, Celeron®, or Atom™, and supporting up to 16GB of DDR4 memory, it delivers fast, reliable performance for multitasking and complex tasks. With extensive I/O options, including Gigabit Ethernet, USB 3.0, HDMI, and multi-display support, it ensures seamless integration and enhanced visual experiences. Built with industrial-grade components, it is designed to withstand harsh environments, making it a durable, efficient choice for space-constrained applications.

SPECIFICATIONS

System Specification

WLAN	Support (Optional)	BT	Support (Optional)
Processor	Intel® Core™ i3-12100TE(up to 4.00GHz) (Default) Intel® Core™ i5-12500TE(up to 4.3GHz) (Optional) Intel® Core™ i7-12700TE(up to 4.6GHz) (Optional) Intel® Core™ i9-12900TE(up to 4.8GHz) (Optional) Intel® Core™ i3-14100T(up to 4.4GHz) (Optional) Intel® Core™ i5-14500T(up to 4.8GHz) (Optional) Intel® Core™ i7-14700T(up to 5.2GHz) (Optional) Intel® Core™ i9-14900T(up to 5.5GHz) (Optional)	Chipset	Intel® R680E
Memory	2 x non-ECC SO-DIMM RAM, up to 64GB (32GB per DIMM)	Storage	128GB SSD(Default) (Default) 256GB SSD (Optional) 512GB SSD (Optional) 1TB (Optional) 2TB (Optional) 4TB 2 x SATA III for 2.5" SSD/HDD up to 2TB(RAID Support) (Optional)
Ethernet controller	2 x Intel® Ethernet Controller	Security	TPM 2.0
Operating System	Windows 11 IoT Enterprise (64 bit) (Optional) Windows 11 Pro 64 bit (Optional) Linux Ubuntu 22.04(Do not support Wake on Touch) (Optional)		

IO Ports

Power Input	1 x 12V DC, Din4 pin connector	USB Port	4 x USB 3.2 Gen2x1 (10Gbps, TypeA)
Video	1 x DP1.4a DP++ , Max resolution up to 4096x2160@60Hz (Default) 1 x HDMI 2.0b , Max resolution up to 4096x2160@60Hz (Optional)	Audio	Mic in Line out

Expansion Port	1 x M.2 2280 M-Key Slot (for NVME SSD) 1 x M.2 2230 E-Key Slot (for Wi-Fi module) 1 x PCIe 4.0 (x16) slot	LAN	2 x 2.5 Giga LAN RJ45 Connector
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Internal IO Ports

Power input	1 x 6pin(1x6) for 12V DC in	Power output	2 x 2pin(1x2) red wafer for 5V DC out 1 x 2pin(1x2) yellow wafer for 12V DC out
USB	2 x 8pin(2x4) for 4 x USB2.0	Serial port	2 x 10pin(2x5) for RS232 2 x 10pin(2x5) for RS232/422/485
Display	1 x 40pin DF13 connector for LVDS (Default) 1 x 30pin DF13 connector for eDP 1.4a , Max resolution up to 4096x2304@60Hz (Optional)	Backlight	1 x 7pin(1x7) for panel backlight
SATA	2 x SATA III 1 x 8pin(2x4) for SATA power	DIDO	1 x 14pin(2x7) for Digital input/output
VR	1 x 3pin(1x3) for Digital panel backlight brightness control 1 x 3pin(1x3) VR/Software brightness switch jumper 1 x 3pin(1x3) PWM/DC brightness switch jumper 1 x 3pin(1x3) 3.3V/5V PWM Level switch jumper	Fan	1 x 3pin(1x3) for CPU Fan 1 x 3pin(1x3) for System Fan
OSD	1 x 10pin(2x5) for OSD control	Speaker	2 x 2pin(1x2) for Speaker
Backup battery	1 x RTC battery holder		

Certification

Certification	CE, FCC
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Mechanical

Dimension	170 x 170 mm
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Environment

Operating Humidity	10% to 95% RH, Non-Condensing	Operating Temperature	0°C to 60°C
Storage Temperature	-40°C to 70°C		

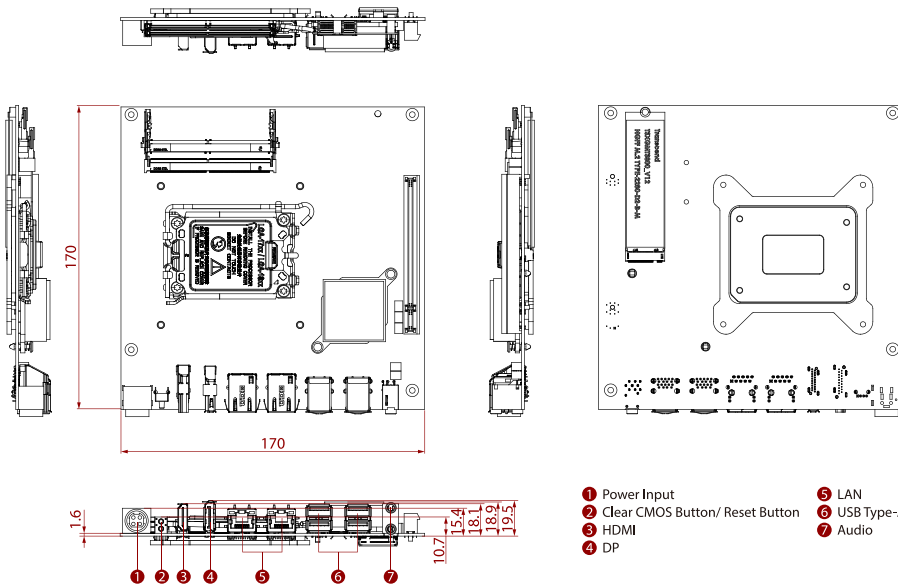
Accessory

Accessory	1 x Installation Guide	Optional Accessory	1 x SATA cable (94H007Z070K0) (Optional) 1 x SATA Power cable (94HE08Z150E0) (Optional) 2 x COM cable (94G309E100E1) (Optional) 1 x 2-Port USB 2.0 Type A cable (94E808E080K0) (Optional) 1 x 12V 220W Adapter (922D220W12V0) (Optional) 1 x Power cord (Varies by country) (Optional) 1 x CPU Heatspreader with Fan (98K000A000N0) (Optional) 1 x Membrane (98K000A000N1) (Optional) 2 x Speaker (61262000007) (Optional)
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Power

Power Rating	12V DC in
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DIMENSIONS UNIT:MM



NOTE

1. This is a simplified drawing and some components are not marked in detail.
2. Please contact our sales representative if you need further product information.
3. All specifications are subject to change without prior notice.
4. The product shown in this datasheet is a standard model. For diagrams that contain customized or optional I/O, please contact the Winmate Sales Team for more information.