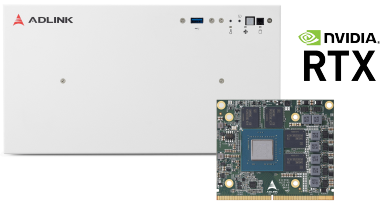
MLB-3102 Medical Box PC

Medical box PC with 12th/13th/14th Gen Intel® Core™ i3/i5/i7/i9 processors (LGA1700 socket), supporting MXM GPU module and Thunderbolt™ 4*

Compliant with IEC 60601-1 / IEC 60601-1-2.



Features

- ADLINK MXM graphics module support (type A/B, up to 120W TDP based on power supply)
- 12th/13th/14th Gen Intel® Core™ i3/i5/i7/i9, Celeron® processor
- Dual SODIMM for up to 64GB DDR5 non-ECC memory (depending on CPU)
- 1x HDMI 2.0, 5x DisplayPort (1 from CPU, 4 from MXM)
- 1x M.2 E-key supporting 1630 or 2230 for Wi-Fi/Bluetooth module, 1x M.2 M-key supporting 2242 or 2280 for SATA/PCIe storage module, 1x M.2 M-key supporting 2242 or 2280 for NVMe & frame grabber
- Reliable Molex 24V DC-in connector
- 2x 2.5GbE Intel® I225-LM Ethernet Controller
- 2x PCIe Gen 3 x4 expansion slot for full-height, half-length add-on card, each slot is 25W power budget and additional Molex 4-pin power cable (12V/1.5A and 5V/2A) support

Software Support

- Win 10/Win 11 IoT Enterprise
- Ubuntu 24.04

Ordering Information

- MLB-3102-i5-12500E/M16GB/512G
- MLB-3102-i7-12700E/M16GB/1TB

Accessories

- Adaptor
  Medical 450W, 24 V / 18.75 A
- Screws package
  3x M3 screws for M.2, 8x M3 screws for HDD try,
  2x M2 screws for MXM card

Optional Accessories

- MXM cooler for A1000/A2000/AD2000 kit: 91-95346-1010
- MXM cooler for A4500/AD3500/AD5000 kit: 91-95346-300E
- Wall Mount Bracket 34-34546-0100-A0 2pcs
- Wi-Fi Kit Intel® AX210: 91-95333-200E

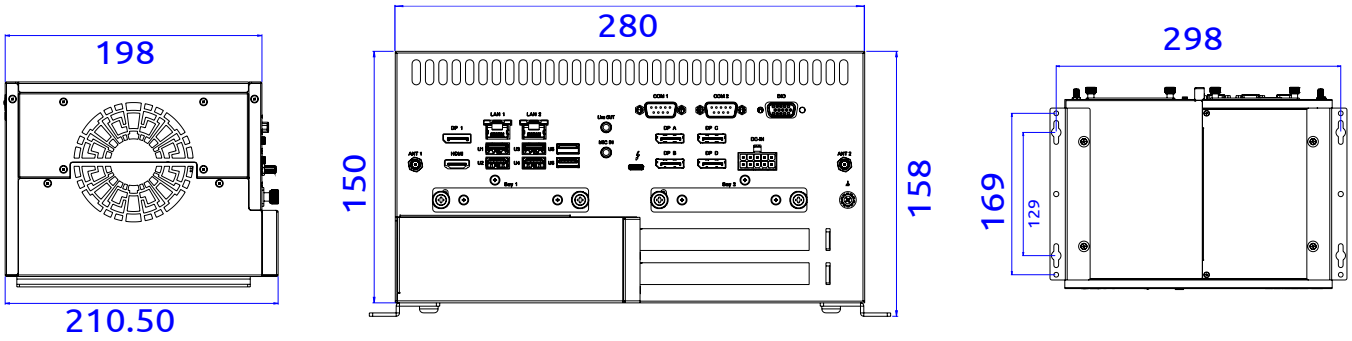
*The Thunderbolt 4 certification applies only to the 12th Gen Intel® Core™ processor-based Box PC.

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Dimensions

Unit: mm



Specifications

Model	MLB-3102	
MXM Support	EGX-MXM-A1000 EGX-MXM-A2000 EGX-MXM-A4500	EGX-MXM-AD2000 EGX-MXM-AD3500 EGX-MXM-AD5000
Processor	Intel® Core™ i9-12900E, 5.0GHz, 14M Cache, 65W TDP, LGA1700, DDR5 4800MHz support Intel® Core™ i7-12700E, 3.6GHz, 12M Cache, 65W TDP, LGA1700, DDR5 4800MHz support Intel® Core™ i5-12500E, 3.0GHz, 7.5M Cache, 65W TDP, LGA1700, DDR5 4800MHz support Intel® Core™ i3-12100E, 3.2GHz, 5M Cache, 60W TDP, LGA1700, DDR5 4800MHz support	
Chipset	Intel® Q670E Chipset	
Memory	Non-ECC DDR5 4800MHz, 2x SO-DIMM, up to 64GB	
I/O Interfaces		
Display	1x HDMI 2.0, 5x DisplayPort (1 from CPU, 4 from MXM)	
Ethernet	2x 2.5GbE (Intel® I225-LM)	
Serial Ports	1x RS-232/422/485, 1x RS-232	
USB	[Front] 1x USB 3.2 gen 2 Type A [Rear] 2x USB 3.2 Gen 2 Type A, 4x USB 3.2 Gen 1 Type A, 1x USB 3.2 Gen 1 Type C	
M.2	1x M.2 E-key supporting 1630 or 2230 for Wi-Fi/BT module, 1x M.2 M-key supporting 2242 or 2280 for PCIe/SATA for storage, 1x M.2 M-key supporting 2242 or 2280 for PCIe Gen 4 x4 for NVMe & frame grabber	
Digital IO	1x DI/DO with 4 in, 4 out	
Audio	Default: Mic in & line out	
TPM 2.0	Default: TPM, w/o TPM	
Expansion slot	2x PCIe Gen 3 x4 expansion slot for full height half length add on card, Total max supports 25W power budget and additional Molex 4 pin power cable (12V/4.17A) support	
Storage		
SATA/PCIe	2x 2.5" SATA 6Gb/s external drive bays 1x M.2 2242/2280 M key support SATA/PCIe gen 3 x 3 to support storge 1x M.2 2242/2280 M key support PCIe gen 4 x 4 to support storge	
Mechanical		
Dimensions	280 x 198 x 150 mm (W x D x H, without foot pads)	
Weight	8.4 kg	
Mounting	Optional wall-mount bracket	
Power Supply		
DC Input	DC 24 input (Molex DC-in jack)	
AC Input	450W (24V/18.75A) AC/DC Medical grade adapter	
Environmental		
Operating Temperature	0°C to 40°C	
Storage Temperature	-20°C to 70°C	
Humidity	5% to 95%, non-condensing	
Vibration	Operating vibration: 2Grms, 5-500Hz, 3 axes, Package (NON-OP) vibration: 3.44Grms, 10-1000Hz, 3 axes (W/MXM, W/SSD)	
EMC	EN55032/35, CE, FCC	
Safety	UL/cUL and CB (62368-1:2014)	
Medical Grade	Compliant with IEC60601-1:2005+A1:2012+A2:2020(3.2edition)/IEC 60601-1-2:2014+A1:2020(4.1edition)	

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