

# L156AD-M1

## 15.6inch Rugged Laptop with Intel® Alder Lake Processor



### KEY FEATURES

- 12th generation Intel® Processor Family – Alder Lake Processor
- 15.6" FHD Panel resolution with PCAP touch
- Optional discrete Nvidia Graphic card
- Dual battery with hot-swappable design for whole-day-work
- Anti-glare technology for sunlight readability
- Magnesium alloy enclosure with double injection for drop protection
- IP65 waterproof and dustproof
- Optional GPU Graphic Cards

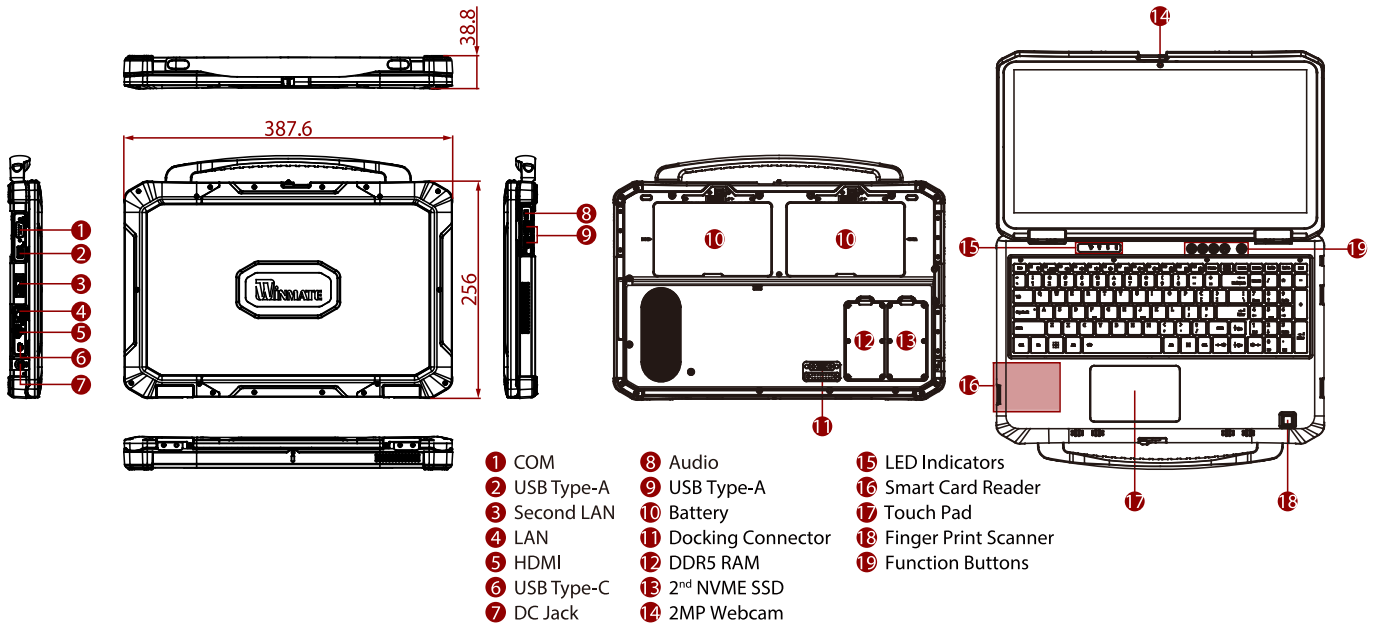


### SPECIFICATIONS

Display			
<b>Bonding</b>	Optical Bonding for Sunlight Viewability	<b>Type</b>	Projected Capacitive Multi Touch
<b>Resolution</b>	1920x1080	<b>Size</b>	15.6 inches
<b>Contrast Ratio</b>	800:1	<b>Panel Brightness</b>	800.0 nits
<b>View Angles</b>	85,85,85,85		
System Specification			
<b>Processor</b>	Intel Core i7-12700H (up to 4.7GHz) Intel Core i9-12900H (up to 5.0GHz) (Optional)	<b>Memory</b>	8+8GB DDR5 SDRAM 16+16GB DDR5 SDRAM (Optional) 32+32GB DDR5 SDRAM (Optional)
<b>Storage</b>	256GB M.2 NVMe SSD 512GB M.2 NVMe SSD (Optional) 1TB M.2 NVMe SSD (Optional) 2TB M.2 NVMe SSD (Optional) 2nd storage available with up to 2TB M.2 NVMe SSD (Optional)	<b>Security</b>	Trusted Platform Module (TPM) 2.0 Kensington Lock
<b>Operating System</b>	Windows 10 IoT Enterprise LTSC (64 bit) Windows 11 IoT Enterprise SAC (64 bit) (Optional)	<b>WLAN</b>	Support
<b>BT</b>	Support	<b>WWAN</b>	4G LTE (Optional)
<b>GNSS</b>	GPS, GLONASS	<b>RFID</b>	HF RFID reader 13.56 MHz (Optional)
<b>Smart Card Reader</b>	Smart Card Reader	<b>Fingerprint Scanner</b>	Fingerprint scanner (Optional)
<b>Discrete GPU</b>	M1: T1000 MXM Graphic card (Optional) M2: A2000 MXM Graphic card (Optional) M3: A370 MXM Graphic card (Optional)		
Camera			
<b>Front Camera</b>	2MP front camera		
Mechanical			
<b>Dimension</b>	387.6 x 256 x 38.8 mm	<b>Weight</b>	2.8kg
<b>Cooling System</b>	Fan design		
IO Ports			
<b>USB Port</b>	3 x USB 3.0 (Type A), 1 x USB 3.0 (Type C)	<b>Serial Port</b>	1 x DB9 (RS232 / RS422 / RS485, software switchable)
<b>SD Card Slot</b>	1 x Micro SDXC Slot	<b>SIM Card Slot</b>	1 x Nano SIM card slot
<b>Video</b>	1 x HDMI 4K Output (Optional)	<b>Audio</b>	1 x Audio combo 3.5mm audio combo jack

<b>LAN</b>	2 x RJ45-10/100/1000 GigaLAN port	<b>Indicator</b>	Dual Digital Mic With Noise Cancellation Dual Speaker 4x LED Indicator for Power, Battery, HDD, RF status
<b>Environment</b>			
<b>Operating Humidity</b>	10% to 90% RH, non-condensing	<b>Operating Temperature</b>	-20°C to 60°C
<b>Storage Temperature</b>	-30°C to 70°C	<b>Shock</b>	MIL-STD-810H Method 516.8 Procedure I
<b>Vibration</b>	MIL-STD-810H Method 514.8 Procedure I	<b>IP rating</b>	IP65
<b>Drop</b>	MIL-STD-810H Method 516.8, 3 ft	<b>EMC</b>	MIL-STD-461G CE101, CE102, RE101, RE102, CS118 (Default) MIL-STD-461G CS101, CS114, CS115, CS116, RS101, RS103 (Optional)
<b>Certification</b>			
<b>Certification</b>	CE, FCC		
<b>Security Function</b>			
<b>SOTI MobiControl</b>	SOTI MobiControl Compliance	<b>Kensington Lock</b>	Kensington Lock Support
<b>Control</b>			
<b>Button</b>	1 x Power, 4 x Programmable Function Keys		
<b>Power</b>			
<b>Battery</b>	Hotswappable 2 x 11.55V typ. 3220 mAh Lilon Battery (3S1P)	<b>Battery Operating Time</b>	Standard. Battery: 11 hours
<b>Power Rating</b>	19V DC	<b>Adapter</b>	100-240V, 50-60Hz, 230W / 19V DC
<b>Accessory</b>			
<b>Accessory</b>	Adapter and Power Cord Standard Battery		

## 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.

