

# L156AD-4KM1

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



### KEY FEATURES

- 12th generation Intel® Processor Family – Alder Lake Processor
- 15.6" 4K 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

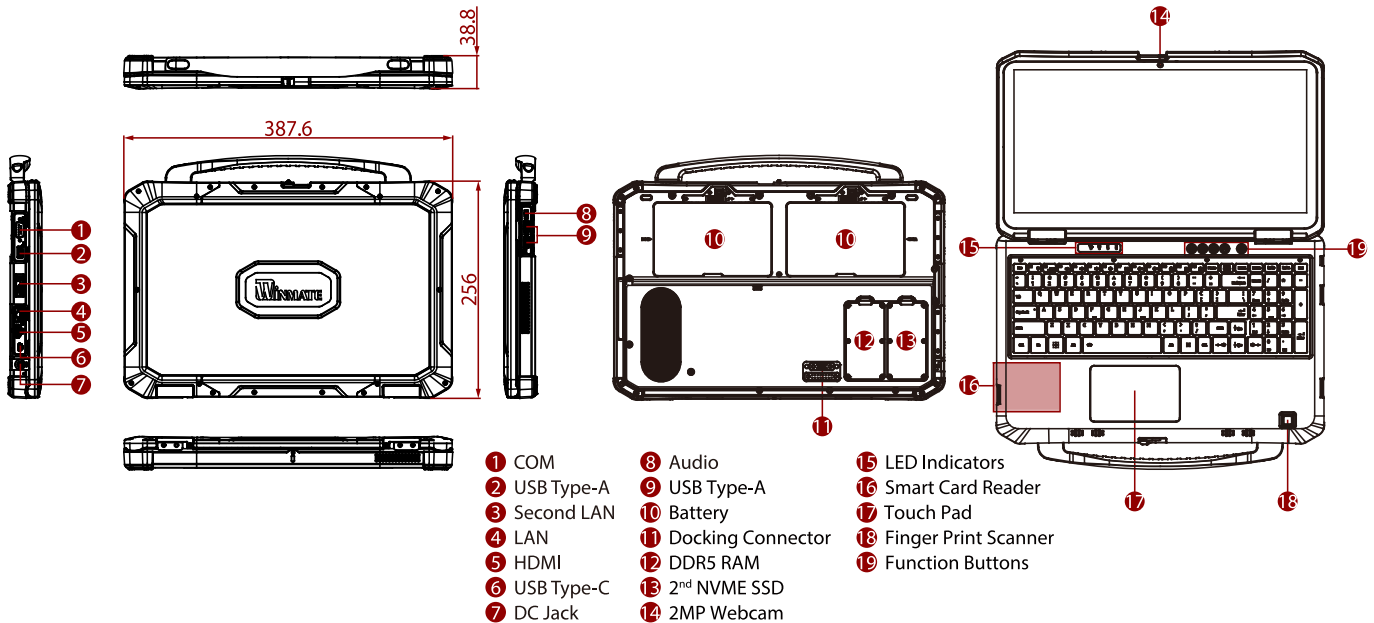


### SPECIFICATIONS

| Display                  |   |                            |  |
|--------------------------|---|----------------------------|--|
| <b>Bonding</b>           | Optical Bonding for Sunlight Viewability  | <b>Type</b>                | Projected Capacitive Multi Touch   |
| <b>Resolution</b>        | 3840x2160   | <b>Size</b>                | 15.6 inches  |
| <b>Contrast Ratio</b>    | 800:1   | <b>Panel Brightness</b>    | 400.0 nits   |
| <b>View Angles</b>       | 85,85,85,85   |                            |  |
| System Specification     |   |                            |  |
| <b>Processor</b>         | Intel Core i7-12700H (up to 4.7GHz)<br>Intel Core i9-12900H (up to 5.0GHz) (Optional)   | <b>Memory</b>              | 8+8GB DDR5 SDRAM<br>16+16GB DDR5 SDRAM (Optional)<br>32+32GB DDR5 SDRAM (Optional) |
| <b>Storage</b>           | 256GB M.2 NVMe SSD<br>512GB M.2 NVMe SSD (Optional)<br>1TB M.2 NVMe SSD (Optional)<br>2TB M.2 NVMe SSD (Optional)<br>2nd storage available with up to 2TB M.2 NVMe SSD (Optional) | <b>Security</b>            | Trusted Platform Module (TPM) 2.0<br>Kensington Lock                               |
| <b>Operating System</b>  | Windows 10 IoT Enterprise LTSC (64 bit)<br>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)<br>M2: A2000 MXM Graphic card (Optional)<br>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<br>Dual Speaker<br>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)<br>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,<br>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<br>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.

