

# L140AD-4

14-inch Ultra Rugged Laptop with Intel® Core™ i5-1235U



## KEY FEATURES

- 12th Gen. Intel® Processor Family – Alder Lake Processor
- 14" 1920 x 1080 FHD LED panel with direct optical bonding
- Antiglare technology for sunlight readability
- Dual battery with hotswappable design for wholeday work
- Magnesium alloy enclosure with double injection for drop protection
- Integrated smart card reader or 2nd GigaLAN port

## INTRODUCTION

The Winmate L140 Series Rugged Laptop delivers exceptional performance, durability, and versatility for demanding environments. Powered by the Intel® Alder Lake processors, it features a sunlight-readable FHD display with direct optical bonding and anti-glare technology. Designed with a magnesium alloy enclosure and dual hot-swappable batteries, it ensures all-day reliability. Winmate has established itself as the number one supplier in the rugged laptop and rugged tablet market, driving advancements in rugged computing technology

## SPECIFICATIONS

### Display

<b>Bonding</b>	Optical Bonding for Sunlight Viewability	<b>Resolution</b>	1920x1080
<b>Size</b>	14.0 inches	<b>Contrast Ratio</b>	800:1
<b>Panel Brightness</b>	700.0 nits	<b>View Angles</b>	85,85,85,85
<b>Type</b>	Projected Capacitive Multi Touch		

### System Specification

<b>Processor</b>	Intel Core i5-1235U (up to 4.4GHz) Intel Core 5 120U (up to 5GHz)(Optional)	<b>Memory</b>	8GB DDR5 SDRAM 16GB DDR5 SDRAM (Optional) 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 11 IoT Enterprise LTSC (64 bit) Windows 10 IoT Enterprise LTSC (64 bit) (Optional)	<b>WLAN</b>	Support
<b>BT</b>	Support	<b>WWAN</b>	4G LTE (Optional) 5G (Optional)
<b>GNSS</b>	GPS, GLONASS	<b>RFID</b>	HF RFID reader 13.56 MHz (Optional)
<b>Smart Card Reader</b>	Smart Card Reader (Mutually exclusive with 2nd LAN)	<b>Fingerprint Scanner</b>	Fingerprint scanner (Optional)

### Camera

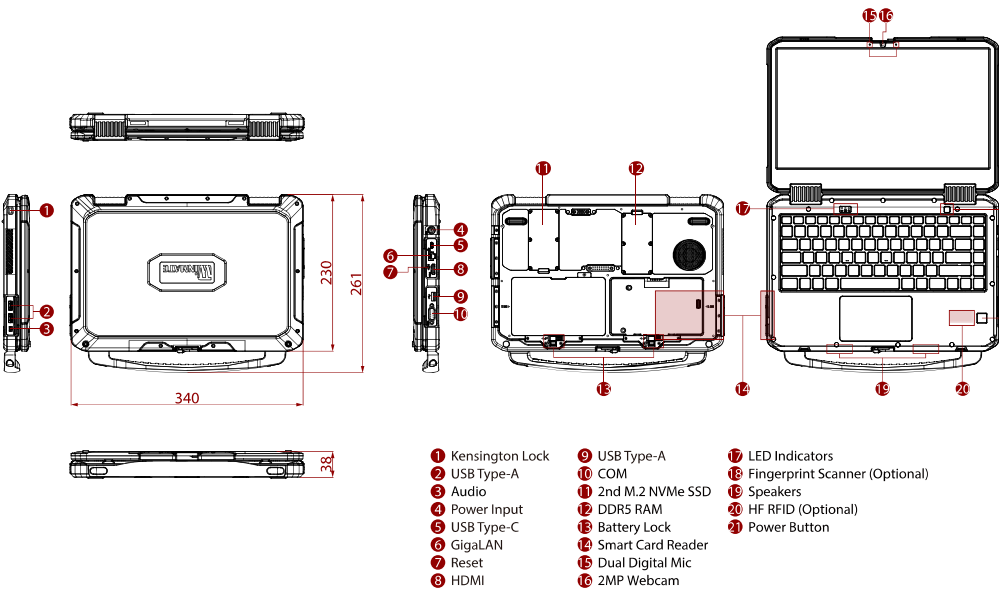
<b>Front Camera</b>	2MP front camera
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### Mechanical

<b>Dimension</b>	340 x 230 x 38 mm	<b>Weight</b>	2.65 kg
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Cooling System		Fan Design	
IO Ports			
USB Port	1 x USB 3.0 (Type C) 3 x USB 3.0 (Type A) (One USB-A is mutually exclusive with 2nd LAN)	Serial Port	1 x DB9 (RS232 / RS422 / RS485, switchable with optional software)
SD Card Slot	1 x Micro SDXC Slot	SIM Card Slot	1 x Nano SIM card slot
Video	1 x HDMI 4K Output (Optional)	Audio	1 x Audio combo 3.5mm audio combo jack Dual Digital Mic With Noise Cancellation Dual Speaker
LAN	1 x RJ45-10/100/1000 GigaLAN port 2nd LAN (Mutually exclusive with one USB-A & Smart Card Reader) (Optional)	Indicator	3x LED Indicator for Power, Battery, Capslock status
Environment			
Operating Humidity	10% to 90% RH, non-condensing	Operating Temperature	-20°C to 60°C
Storage Temperature	-30°C to 70°C	Shock	USA: MILSTD810H Method 516.8 Procedure I NATO: STANAG 4370/AECTP400 Edition 3 Method AECTP 402–Procedure I
Vibration	USA: MILSTD810H Method 514.8 Procedure I NATO: STANAG 4370/AECTP400 Edition 3 Method AECTP 401–Procedure I	IP rating	IP65
Drop	USA: MIL-STD-810H Method 516.8, 4 ft NATO: STANAG 4370/AECTP400 Edition 3 Method AECTP 404 – Procedure II, 4 ft	EMC	USA: MIL-STD-461G CE101, CE102, RE101, RE102, CS118 MIL-STD-461G CS101, CS114, CS115, CS116, RS101, RS103 (Optional) MIL-STD-461G RE102 Ground Army Grade  NATO: STANAG 4370/AECTP501 NCE01, NCE02, NRE01, NRE02, NCS12 (Optional) STANAG 4370/AECTP501 NCS01, NCS07, NCS08, NCS09, NRS01, NRS02 (Optional) STANAG 4370/AECTP501 NRE02-2 Land Environment (Optional)
TEMPEST	USA: NSA NSTISSAM TEMPEST/192 (Optional) NATO: SDIP27 (Optional)		
Certification			
Certification	CE, FCC		
Security Function			
SOTI MobiControl	SOTI MobiControl Compliance	Kensington Lock	Kensington Lock Support
Control			
Button	1 x Power, 2 x volume key, 2 x Programmable Function Keys QWERTY keyboard with RGB backlight		
Power			
Battery	Hot-swappable 2 x 11.55V, typ. 3220 mAh Li-Ion Battery (3S1P)	Battery Operating Time	Standard Battery: 11 hours
Power Rating	19V DC	Adapter	100-240V, 50-60Hz / 19V DC
Accessory			
Accessory	Adapter and Power Cord Standard Battery	Optional Accessory	Spare Battery (Optional) Battery Charger (Optional) Vehicle Charger (Optional) Carry Bag (Optional)

## DIMENSIONS UNIT:MM



## NOTE

- / Disclaimer /
- Accessories and Integrated Options may vary depending on your configuration.
  - Total usable memory and storage will be less dependent upon actual system configuration.
  - The actual transfer speed will vary depending on many factors including the processing speed of the host device, file attributes, and other factors related to the system configuration and your operating environment.
  - The USB Type-C connector follows USB 3.0 standard, which does not support Alternate Mode (ALT) or USB Power Delivery (USB-PD).
  - The battery life is measured at dimming LCD brightness. Varies depending on the usage conditions, or when an external device is attached.
  - The 2D drawing is simplified drawing and some components are not marked in detail.
  - Length measurements do not include protrusions. Weight varies with options.
  - TPM 2.0 available upon request.
  - SOTI is available upon request.
  - 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.

