

# L140AD-4

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



CE

FCC

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## 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
- Flip design for quick switching between rugged laptop and rugged tablet modes
- 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. The flip design offers quick switching between laptop and tablet modes, making it ideal for field operations, industrial tasks, and mission-critical applications.

## 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)	<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	<b>Rear Camera</b>	8MP rear camera with autofocus and LED light (Optional)
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## Mechanical

<b>Dimension</b>	340 x 230 x 38 mm	<b>Weight</b>	2.65 kg
<b>Cooling System</b>	Fan Design		

## IO Ports

<b>USB Port</b>	1 x USB 3.0 (Type C) 3 x USB 3.0 (Type A) (One USB-A is mutually exclusive with 2nd LAN)	<b>Serial Port</b>	1 x DB9 (RS232 / RS422 / RS485, switchable with optional software)
<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 Dual Digital Mic With Noise Cancellation Dual Speaker
<b>LAN</b>	1 x RJ45-10/100/1000 GigaLAN port Optional 2nd LAN (Mutually exclusive with one USB-A & Smart Card Reader)	<b>Indicator</b>	4x LED Indicator for Power, Battery, HDD, RF status

## Environment

<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, 4 ft	<b>EMC</b>	MIL-STD-461G CE101, CE102, RE101, RE102, CS118 (Default) MIL-STD-461G CS101, CS114, CS115, CS116, RS101, RS103 MIL-STD-461G RE102 Ground Army Grade (Optional)

## Certification

<b>Certification</b>	CE, FCC
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## Security Function

<b>SOTI MobiControl</b>	SOTI MobiControl Compliance	<b>Kensington Lock</b>	Kensington Lock Support
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## Control

<b>Button</b>	1 x Power, 2 x volume key, 2 x Programmable Function Keys QWERTY keyboard with RGB backlight
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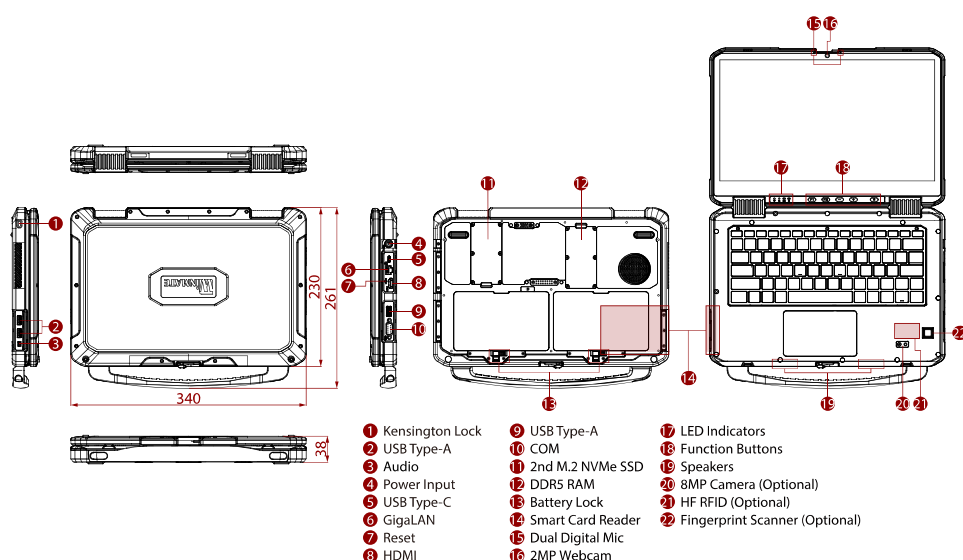
## Power

<b>Battery</b>	Hot-swappable 2 x 11.55V, typ. 3220 mAh Li-Ion Battery (3S1P)	<b>Battery Operating Time</b>	Standard Battery: 11 hours
<b>Power Rating</b>	19V DC	<b>Adapter</b>	100-240V, 50-60Hz / 19V DC

## Accessory

<b>Accessory</b>	Adapter and Power Cord Standard Battery	<b>Optional Accessory</b>	Spare Battery (Optional) Battery Charger (Optional) Vehicle Charger (Optional) Carry Bag (Optional)
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## 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.