

# L140AD-4K

14-inch Ultra Rugged Laptop with Intel® Core Processor



CE

FCC

IC

IP65

MIL-STD-461G

MIL-STD-810H

## KEY FEATURES

- 12th & 13th Gen Intel® Processor Options
- 14" 3840x2160 4K 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® 12th & 13th Gen Intel® processor options, it features a sunlightreadable 4K display with direct optical bonding and antiglare technology. Designed with a magnesium alloy enclosure and dual hotswappable batteries, it ensures allday 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			
Type	Projected Capacitive Multi Touch	Resolution	3840x2160
Size	14.0 inches	Contrast Ratio	1400:1
Panel Brightness	500.0 nits	View Angles	89,89,89,89
System Specification			
Processor	Intel Core i5-1235U (up to 4.4GHz) (Default) Intel Core i5 120U (up to 5GHz)(Optional)	Memory	8GB DDR5 SDRAM (Default) 16GB DDR5 SDRAM (Optional) 32GB DDR5 SDRAM (Optional)
Storage	256GB M.2 NVMe SSD (Default) 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)	Security	Trusted Platform Module (TPM) 2.0 Kensington Lock
Operating System	Windows 11 IoT Enterprise LTSC (64 bit) (Default) Windows 10 IoT Enterprise LTSC (64 bit) (Optional)	WLAN	Support
BT	Support	WWAN	4G LTE (Optional) 5G (Optional)
GNSS	GPS, GLONASS	RFID	HF RFID reader 13.56 MHz (Optional)
Smart Card Reader	Smart Card Reader (Mutually exclusive with 2nd LAN)	Fingerprint Scanner	Fingerprint scanner (Optional)
Camera			
Front Camera	2MP front camera		
Mechanical			
Dimension	340 x 230 x 38 mm	Weight	2.8 kg
Cooling System	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 (Default) 2nd LAN (Mutually exclusive with one USB-A & Smart Card Reader) (Optional)	<b>Indicator</b>	3x LED Indicator for Power, Battery, Capslock 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>	USA: MILSTD810H Method 516.8 Procedure I NATO: STANAG 4370/AECTP400 Edition 3 Method AECTP 402 – Procedure I
<b>Vibration</b>	USA: MILSTD810H Method 514.8 Procedure I NATO: STANAG 4370/AECTP400 Edition 3 Method AECTP 401 – Procedure I	<b>IP rating</b>	IP65
<b>Drop</b>	USA: MIL-STD-810H Method 516.8, 4 ft NATO: STANAG 4370/AECTP400 Edition 3 Method AECTP 404 – Procedure II, 4 ft	<b>EMC</b>	USA: MIL-STD-461G CE101, CE102, RE101, RE102, CS118 (Default) 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)
<b>TEMPEST</b>	(Default) USA: NSA NISTISSAM TEMPEST/192 (Optional) NATO: SDIP27 (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**

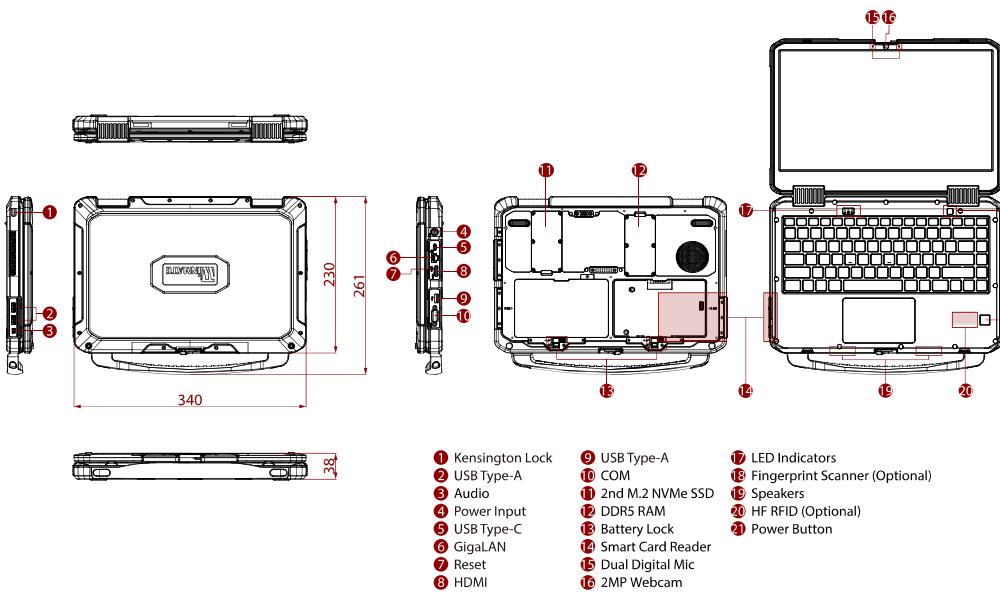
<b>Button</b>	1 x Power, 2 x volume key, 2 x Programmable Function Keys QWERTY keyboard with RGB backlight
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**Power**

<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 /

1. Accessories and Integrated Options may vary depending on your configuration.
2. Total usable memory and storage will be less dependent upon actual system configuration.
3. 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.
4. The USB Type-C connector follows USB 3.0 standard, which does not support Alternate Mode (ALT) or USB Power Delivery (USB-PD).
5. The battery life is measured at dimming LCD brightness. Varies depending on the usage conditions, or when an external device is attached.
6. The 2D drawing is simplified drawing and some components are not marked in detail.
7. Length measurements do not include protrusions. Weight varies with options.
8. TPM 2.0 available upon request.
9. SOTI is available upon request.
10. 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.

