

L140AD-4K

14-inch Ultra Rugged Laptop with Intel® Core Processor



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

Winmate L140AD-4K is a 14-inch Ultra Rugged Laptop with Intel® Core Processor engineered for industrial automation, embedded systems, and mission-critical applications. It combines Intel® processor options, 14-inch display with 3840x2160 resolution, and 12th & 13th Gen Intel® Processor Options to support reliable operation in harsh industrial environments. With 14" 3840x2160 4K LED panel with direct optical bonding, the L140AD-4K helps OEMs, system integrators, and project teams deploy durable, configurable solutions for demanding field, factory, and mission-critical applications.

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 5 120U (up to 5GHz)(Optional)	Memory	8GB (Default) 16GB (Optional) 32GB (Optional)
Storage	128GB SSD (Default) 256GB SSD (Optional) 512GB SSD (Optional) 1TB SSD (Optional) 2TB SSD (Optional) 2nd storage available with up to 2TB 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

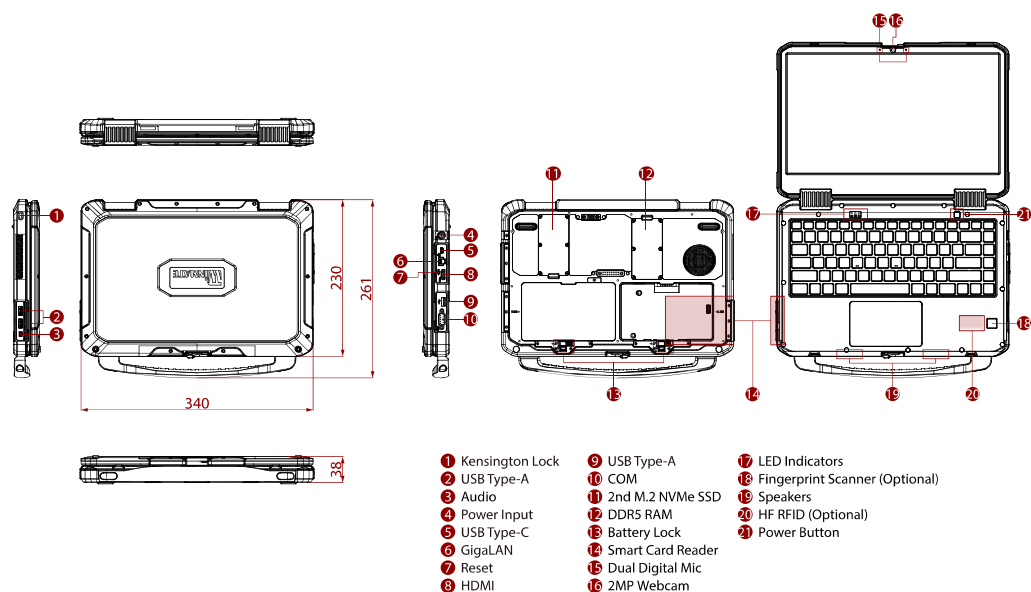
Front Camera	2MP front camera
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Mechanical

Dimension	340 x 230 x 38 mm	Weight	2.8 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 (Default) 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 Procedure IV, 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 (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)
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) High Capacity 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.
- * Some images or content on this page are created or enhanced using generative AI technology. All AI-generated content has been reviewed before publication.