L156MT-M1

15.6-inch Ultra Rugged Laptop with Intel® Arrow Lake Processor



KEY FEATURES

- 15.6” FHD panel resolution with PCAP touch
- 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
- Optional IP66 Waterproof and Dustproof Upgrade

INTRODUCTION

Winmate L156MT-M1 is a 15.6-inch ultra-rugged laptop powered by the Intel® Processor Family – Arrow Lake Processor, engineered for industrial automation, embedded systems, field operations, and mission-critical computing. It combines an FHD PCAP touchscreen, IP65-rated protection with an optional IP66 upgrade, dual hot-swappable batteries, anti-glare technology, and a durable magnesium alloy enclosure with double-injection protection. Designed for OEMs, system integrators, engineers, and project teams, the L156MT-M1 provides a configurable mobile computing platform for demanding factory, field, outdoor, and mission-critical applications.

SPECIFICATIONS

Display

Bonding	Optical Bonding for Sunlight Viewability	**Type**	Projected Capacitive Multi Touch
Resolution	1920x1080	**Size**	15.6 inches
Contrast Ratio	800:1	**Panel Brightness**	1000.0 nits
View Angles	85,85,85,85		

System Specification

Processor	Intel Core Ultra 7 255H (Default) Intel Core Ultra 9 Processor (Optional)	**Memory**	8+8GB (Default) 16+16GB (Optional) 32+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)	**WLAN**	Support
BT	Support	**WWAN**	4G LTE (Optional)
GNSS	GPS, GLONASS	**RFID**	HF RFID reader 13.56 MHz (Optional)
Smart Card Reader	Smart Card Reader	**Fingerprint Scanner**	Fingerprint scanner (Optional)
Discrete GPU	M1: A1000 MXM Graphic card (Optional) M2: A2000 MXM Graphic card (Optional) M3: A500 MXM Graphic card (Optional)		

Camera

Front Camera	2MP front camera		

Mechanical

Dimension	387.6 x 256 x 38.8 mm	**Weight**	3.8 kg
Cooling System	Fan Design		

IO Ports

USB Port	1 x USB 4 (Type C with ALT, PD function) 3 x USB 3.2 (Type A)	**Serial Port**	1 x DB9 (RS232 / RS422 / RS485, software switchable)
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	2 x RJ45-10/100/1000 GigaLAN port	**Indicator**	4x LED Indicator for Power, Drive, Battery1, Bttery2

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: MIL-STD-810H Method 516.8 Procedure I (Default) NATO: STANAG 4370/AECTP400 Edition 3 Method AECTP 402–Procedure I (Optional)
Vibration	USA: MIL-STD-810H Method 514.8 Procedure I (Default) NATO: STANAG 4370/AECTP400 Edition 3 Method AECTP 401–Procedure I (Optional)	**IP rating**	IP65
Drop	USA: MIL-STD-810H Method 516.8 Procedure IV, 4 ft (Default) NATO: STANAG 4370/AECTP400 Edition 3 Method AECTP 404 – Procedure II, 4 ft (Optional)	**EMC**	USA: MIL-STD-461G CE101, CE102, RE101, RE102, CS118(Default) (Default) MIL-STD-461G CS101, CS114, CS115, CS116, RS101, RS103 (Optional) MIL-STD-461G RE102 Ground Army Grade (Optional) NATO: STANAG 4370/AECTP501 NCE01, NCE02, NRE01, NRE02, NCS12(Default) 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, 4 x Programmable Function Keys

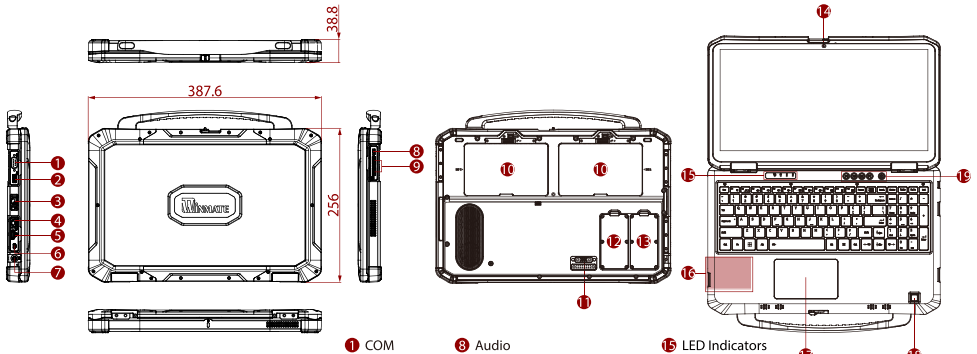
Power

Battery	Hotswappable 2 x 11.55V typ. 3220 mAh LiIon Battery (3S1P)	**Battery Operating Time**	Standard. Battery: 11 hours
Power Rating	19V DC	**Adapter**	100-240V, 50-60Hz, 240W / 20V DC

Accessory

Accessory	Adapter and Power Cord Standard Battery	**Optional Accessory**	Spare Battery (Optional) High Capacity Battery (Optional) Vehicle Charger (Optional) Carry Bag (Optional)

DIMENSIONS UNIT:MM



1. COM
2. USB Type-A
3. Second LAN
4. LAN
5. HDMI
6. USB Type-C
7. DC Jack
8. Audio
9. USB Type-A
10. Battery
11. Docking Connector (optional)
12. 2nd DDR5 RAM
13. 2nd NVME SSD
14. 2MP Webcam
15. LED Indicators
16. Smart Card Reader
17. Touch Pad
18. Finger Print Scanner (optional)
19. Function Buttons

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.

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