R15L100-67N1-NI

15" G-WIN Full IP67 NVIS Display

CE
FC
IP67

KEY FEATURES

- High Quality 15-inch Panel, 1024 x 768 resolution, 1000 nits
- P-cap multi touch screen Optical Bonding with Panel to increase the clarity and transparency
- Optional True Flat 5 Wire Resistive Touch Optical Bonding with Panel
- Optional Anti-Reflective Protection Glass Optical Bonding with Panel
- Dust/ Water proof design with VESA mount Full IP67 Monitor
- Aluminum Die-Casting Housing with Anti-Corrosion Treatments
- Build in ambient Light sensor
- -20°C to 60°C wide operating temperature
- Wide Range 9 to 36V DC Input with isolation. Optional for Ignition On/Off delay
- Support Day Mode/NVIS Mode
- Compliance MIL-STD-3009

INTRODUCTION

Winmate's Defence NVIS Display Series is engineered for mission-critical performance in military and defense operations. Available in sizes from 8.4 inch to 21.5 inch, these displays feature a variety of touchscreen options, including 5-wire/4-wire resistive and projected capacitive (PCAP) technologies. Built to support both Day Mode and NVIS Mode, each unit complies fully with MIL-STD-3009, ensuring compatibility with night vision goggles (NVGs) without compromising visibility or safety. With rugged anti-corrosion housing, wide -20°C to 60°C temperature tolerance, and IP65/IP67 protection, this series offers dependable performance in harsh, tactical environments.

SPECTRUM DIAGRAM

Image 1: RGB Color Gamut Comparison (CIE 1931 Chromaticity Diagram)
This diagram compares the color gamut of LCDs using different backlights—CCFL, White LED, and RGB LED—against the NTSC television color gamut. Each triangle shows the color range that each backlight technology can produce. RGB LED offers the widest gamut, while CCFL has the smallest.
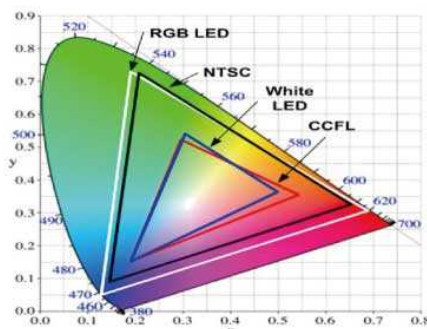
Image 2: CIE 1976 Chromaticity Diagram
This chart maps various colors in the CIE 1976 uniform chromaticity space. It shows specific color targets like GTLS GREEN, GTLS ORANGE, and their positions relative to the white point (WHITE LOCUS). This is typically used for precise color calibration in display and lighting technologies.

**Image 3: NVG Spectral Response Curve**
This graph shows the spectral sensitivity of Night Vision Goggles (NVG), Class A and Class B. It plots the relative response (%) over wavelengths from 450 nm to 950 nm. Both classes are most sensitive to wavelengths from about 625 nm (red) to 900 nm (near-infrared), indicating their performance range in low-light environments.
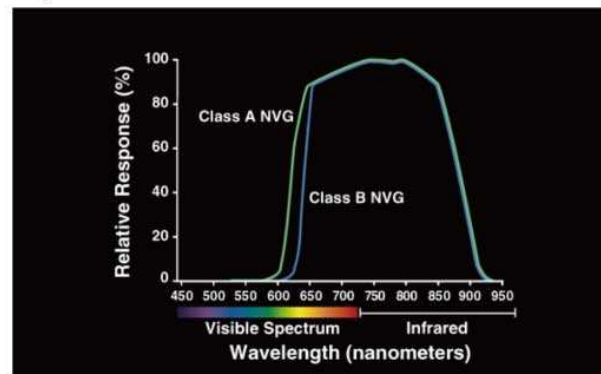
Image 1

※ Reference: Du, K., Liu, Y., Song, T., & Xue, Q. (2021). Color-independent visible light communications based on color space: State of the art and potentials. Journal of Communications and Networks, 23(1), 1—15. Figure 2: CIE1931 color space chromaticity diagram, p. 4.

Image 2
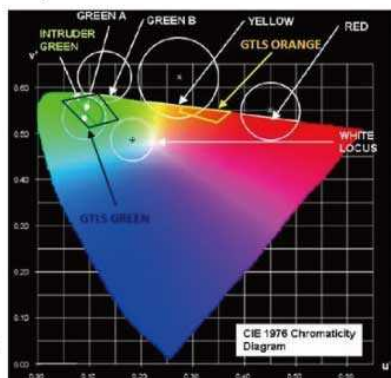
※ Reference: Petr_P. (2010), Osvity pilotn í ch a vojensk ch hodinek — č ä st sedm ú . [Blog post]. Chronomag Forum.

Image 3

※ Reference: Transport Canada. (n.d.). Civil Aviation Use of NVG. Operational Standards Division, p. 9.

SPECIFICATIONS

Display

Touch / Glass	Projected Capacitive Multi Touch Screen Bonding With Panel Ture Flat Resistive Touch Screen Bonding With Panel (Optional) Ture Flat Protection Glass Bonding With Panel (Optional)	Resolution	1024x768
Size	15.0 inches	Contrast Ratio	2500:1
Panel Brightness	1000/NVIS nits	Display Color	16.7M Colors
View Angles	88,88,88,88	Active Area	304.1x228.1 mm

Mechanical

Dimension	379.4 x 278.4 x 58 mm	Weight	3.8 kg
Mounting	VESA mount	Enclosure	Aluminum Housing Pre finish: Surtec 650, Type II, Class 3 Coating: Polyester powder coating
Cooling System	Fanless Design		

Environment

Operating Humidity	10% to 90% RH, Non-Condensing	Operating Temperature	-20°C to 60°C
Storage Temperature	-30°C to 70°C	Shock	MIL-STD-810G Method 516.6 Procedure I
Vibration	MIL-STD-810G Method 514.6 Procedure I	IP rating	IP67

Certification

Certification	CE, FCC

IO Ports

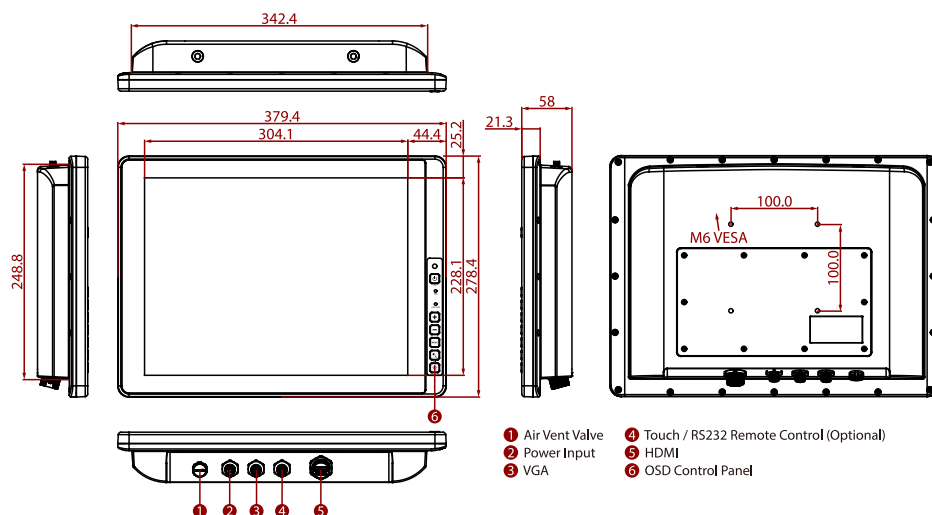| Power Input	1 x M12 waterproof connector for 9~36V DC	USB Port	1x M12 type connector for Touchscreen via USB signal
Serial Port	1 x M12 type connector for Touchscreen via RS232 signal (Optional) 1 x M12 type connector for RS232 Remote Control (Optional)	Video	1x M12 type connector for VGA input 1x Waterproof connector for HDMI input
Indicator	1 x LED Indicator for power 1 x LED Indicator for lock/unlock status		

Control

Button	1 x "Power" key to power on the device. 1 x "+" key to increase screen brightness. 1 x "-" key to decrease screen brightness. 1 x "Menu" key can Automatically or manually adjusts brightness of the display screen 1 x Day / Night Mode button 1 x LED indicator brightness adjustment button 1 x Ambient Light sensor

Accessory

Accessory	External open wire Power cable with waterproof connector External USB cable with waterproof connector for Touch External VGA cable with waterproof connector External HDMI cable with waterproof connector Waterproof caps VESA screws	Optional Accessory	100~240V AC to DC 50W Adapter with power cord (Optional) External COM cable with waterproof connector (Optional)

Revised:V.250710.250704

DIMENSIONS   UNIT:MM

342.4

379.4
304.1
44.4
25.2
21.3
58
248.8
228.1
278.4

100.0
M6 VESA
100.0

❶ Air Vent Valve
❷ Power Input
❸ VGA
❹ Touch / RS232 Remote Control (Optional)
❺ HDMI
❻ OSD Control Panel