



# Mission Critical

Oil & Gas | Marine | Military | Aviation

BUILT TO  
SURVIVE  
EXTREME  
WORKING  
CONDITIONS.



# About Winmate

## About Winmate

Winnate Inc. is a rugged computing and embedded solutions provider for industries operating in some of the most challenging environments. Founded in 1996 in Taipei, Taiwan where its headquarters, research and development facility, and production lines are located, today the company has offices and service centers worldwide.

Winnate develops rugged industrial-grade computing solutions that advance the edge AI system, and Industrial Internet-of-Things (IoT). Industrial display and panel PC, HMI, embedded systems, IoT gateways to rugged tablets and handheld devices for industries ranging from transportation and logistics to marine and military, railway, oil and gas, smart grid, healthcare, and field services. Winnate also provides professional services in customizing products and project management create a unique solution for specific customer's needs.

## The Winnate Difference

### Innovation and Ruggedness

Blending innovations and ruggedness, our products are designed to meet the requirements of vertical markets' environmental standards.

### Engineering Intelligence

We are committed to maintaining the highest standards in engineering excellence to ensure our products deliver reliability, durability, and optimized performance.

### Quality Commitment

Quality assurance and entire engineering processes are under go in-house. This is why we invested significantly in our state-of-the-art testing facility and offer global support.

“ **INNOVATIVE  
TECHNOLOGY FOR  
OPERATIONAL  
EXCELLENCE.** ”

### Efficiency

Our team is committed to efficiency and maintaining the shortest possible development cycles. From design to testing the whole development process undergoes in-house to achieve the market advantage in speed and quality.

### Reliability

Reliability, service and support are part of our foundation. Every product undergoes the scrutiny of industrial standards testing to verify electrical, mechanical, thermal, and firmware design performance.

# Customized Solutions

Years of experience allow Winmate to offer customized solutions for different applications.

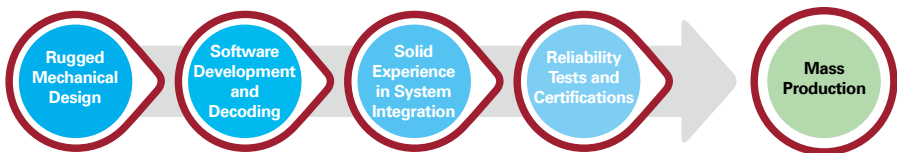
From product design to accessories, our engineering team designs and support the system integration process.

- CUSTOMIZED CONFIGURATION
- CUSTOM OS IMAGE
- CUSTOM BIOS
- ENCLOSURE DESIGN
- PERIPHERALS AND OPTIONS
- CUSTOM-DESIGNED ACCESSORIES

## Technical Know-How

We understand that, for enterprises operating in rugged or potentially hazardous environments, the access to the cutting-edge solutions purpose-built for their applications is imperative. As a result, Winmate locates its resources from project research and design, software development and customization, product verification and validation, to testing all in house in order to gain maximized freedom to research and implement the latest technologies available.

**The latest technologies we deploy for our rugged products:**



- Dry and wet optical bonding
- Panel enhancement for sunlight readability
- Anti-reflection (AR) and anti-glare (AG) glass protection coating
- Light sensor
- Hyper dimming
- Electronic potting
- Touch screen integration: projected capacitive, resistive or SAW touch
- Waterproof enclosure
- Military EMI and mesh coating
- Wireless capabilities
- Data capture devices integration
- Defroster for ultra-low temperature environments
- Stainless steel SUS 316/ AISI 316
- Shock and vibration resistance
- Wide-range operation temperature



## Overview

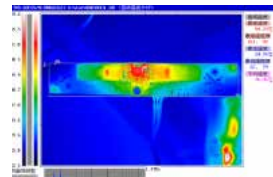
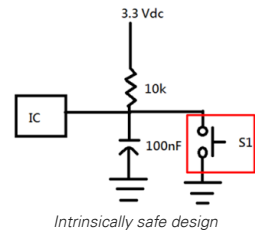
Oil rigs and remote pipeline locations are some of the most dangerous and challenging work environments anywhere. Winmate rugged computers are designed for the harsh environments of an oil refinery or a drilling rig and come with ATEX Zone 2 and Class 1 Division 2 (C1D2) certifications. By employing automated processes, oil and gas companies can increase the number of production wells, improve production control and reap the benefits of modern technologies.

## Technology

Winmate has technology know-how for production and development of explosion-proof devices:

### Intrinsic Safety Schematic Design

Our engineers design the intrinsic safety schematics for explosion-proof product line. Our engineers design the electronic system to ensure that the temperature under all fault conditions can never rise to a value which may cause the ignition of explosive gasses.



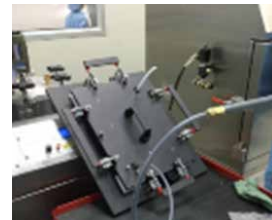
*Thermal design*

### Non-Sparking Device

Our design guarantees that ignition of a hazardous atmosphere does not occur. This is achieved by ensuring that only low voltages and currents enter the hazardous area and that no significant energy storage is possible.

### No-Air Potting Process

Winmate performs no-air potting of electronic components in-house. Potting prevents the substrate from failing in harsh environments or from vibrations or other potentially damaging uses.



*Potting process*

# Application Story

## Operator Control HMI for Oil Drilling Rig



### Background

In the Oil & Gas industry, complex process control is needed at all stages, from exploration, extraction and transportation, to the refinement and the distribution of fossil fuels. Most of the time, these processes occur in harsh environments with the constant threat of dangerous substances in the air where combustion can occur when proper precautions aren't looked after.

### Core products

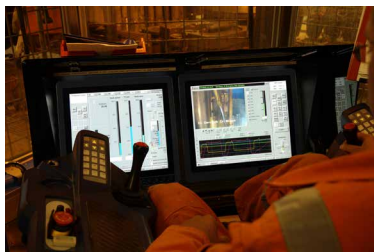
- ATEX Aluminum Panel PC
- ATEX Stainless Display
- ATEX DIN-Rail Box OC

### Main Challenges

- Hazardous working environment
- Wide operating temperature
- Explosion proof solution

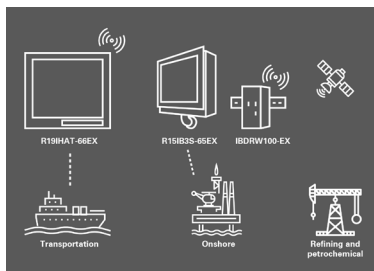
### Why Winmate

- C1D2, ATEX Zone 2 certified
- Big, high brightness, and optical bonded display
- Wide operating temperature



Winate's ATEX certified computing HMI

### Application Diagram



Hazardous Locations

# ATEX Embedded Computing

## IBDRW100-P-EX

### Custom configuration



Memory



Storage



Wi-Fi



4G



qualified  
device  
Member of Siemens

### Application



### Petrochemical Processing Plant

"STABLE PERFORMANCE  
IN A COMPACT RUGGED  
DESIGN."

Winmate's fanless  
compact DIN Rail Box PC  
IBDRW100-P-EX was  
integrated as the system  
controller of a monitoring  
system in a petrochemical  
plant to control and monitor.  
5 onsite data.

**“COMPACT. FOR HAZARDOUS  
LOCATIONS.**

**”**

- Intel® Pentium® N4200
- DIN-Rail mount
- Windows® 10 IoT Enterprise, Ubuntu 18.04 LTS

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Class 1, Division 2, ATEX Zone 2

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Certified AWS IoT Greengrass

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RS232/422/485 communication port, switch by BIOS

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Four RJ-45 for Giga LAN with LED, DIDO port (9in, 9out)

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VGA video output

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One USB 3.0, three USB 2.0

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Fanless, streamlined enclosure

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Aluminum housing

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Wide operating temperature -20°C to 60°C

### Accessories

#### Standard

Power Adapter  
Terminal Block  
Adapter

Power Cable  
Cable Holder Kit

Open Wire Cable  
DIN Rail Mount Clip

Terminal Block DI/DO

# 15" ATEX Panel PC

## R15IB3S-65EX



“OPTIMIZE PERFORMANCE  
IN HAZARDOUS LOCATIONS.”

- 15", 1024 x 768 screen
- Intel® Celeron® N2930
- Windows® 10 IoT Enterprise

Class 1, Division 2, ATEX Zone 2, IECEx Zone 2

4 GB DDR3L SO-DIMM 1333 MHz

64 GB mSATA SSD

Projected capacitive touch, optical bonding

Fanless, highly efficient heat dissipation

Stainless housing

VESA mount

Wide power input 9~36 V DC with isolation

Operating temperature -20°C to 50°C

### Accessories

Standard			
RS232 Cable	USB Cable	RJ45 Cable	Power Adapter
Ethernet Extension Adapter	USB Adapter	Power Cord	VESA Screws

### Custom configuration



Memory



Storage



High Brightness  
1000 nits

### Application



### Gas Pipe Monitoring

“GAS DISTRIBUTION  
PROCESS VISUALIZATION  
AND OPERATOR  
CONTROL.”

ATEX-certified 15" panel PC  
R15IB3S-65EX visualizes each  
step of the gas distribution  
journey from extraction to  
refinery to improve production  
control and monitor possible  
leakage.



# 19" ATEX Panel PC R19IHAT-66EX

## Custom configuration



High Brightness  
1000 nits



Wi-Fi



Bluetooth



“ **EXPLOSION PROOF.  
FOR SAFE OPERATIONS.** ”

## Application



### Oilfield Drilling Monitoring System

“THE HIGHEST STANDARD  
IN RELIABILITY AND  
SERVICE.”

The 19" aluminum panel PC was implemented as part of an oilfield drilling monitoring system that now allows for better control over operations.

- 19", 1280 x 1024 screen
- Intel® Core™ i7-4650U
- Windows® 10 IoT Enterprise,

Class 1, Division 2 & ATEX Zone 2

4 GB DDR3L SO-DIMM

128 GB mSATA SSD

Projected capacitive touch, optical bonding

Fanless cooling system

Aluminum housing

Touch screen control physical button

VESA mount, panel mount

Wide power input 9~36V DC with isolation

Wide operating temperature -40°C to 70°C

## Accessories

### Standard

Open Wire Cable	Terminal Block DI/DO	Terminal Block Adapter	VESA Screws
Cable Holder Clip	DIN Rail Mount Clip	Power Converter Cable (0.15 m)	Power Cord

### Optional

Side Handle	WiFi Antenna Extension Cable
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# 10.1" x86 ATEX Rugged Tablet

## M101S-EX Series



“ **ROBUST TABLET TO  
WITHSTAND INDUSTRIAL USE.** ”

- 10.1" 1920 x 1200 PCAP touchscreen
- Intel® Core™ i5-7200U
- Windows 10 IoT Enterprise

2 MP webcam front camera
8 MP rear camera with autofocus with LED flash
Glove/ Rain/ Stylus mode, support active pen
Wi-Fi, Bluetooth 5.0, GPS, GLONASS
USB 3.0 Type-A, USB 3.0 Type-C
IP65 waterproof and dustproof
MIL-STD-810G shock, vibration and drop resistance
ATEX Zone 2 and C1D2
Operating temperature -10°C to 50°C
Sunlight readable with anti-glare solution

### Accessories

Standard			
Adapter and Power Cord	Capacitive Stylus	Standard Battery	
Optional			
Smart Card Reader (M101P)	Vehicle Dock (Without VGA output)	Vehicle Cradle	Battery Charger
Desk Dock	High Capacity Battery	Hand Strap	UHF RFID Reader
VESA Mount Kit	Shoulder Strap	Carry Bag	Micro HDMI Cable
Vehicle Charger			

### Custom configuration

4G

AR & AG Screen

Micro SD Card Slot

Barcode Reader

HF RFID Reader

Micro HDMI Port

High Capacity Battery 16hr

### Application



### Power Station Field Service

“DESIGNED FROM THE INSIDE OUT TO BE DURABLE FOR USE IN EXPLOSIVE ATMOSPHERE.”

A highly mobile rugged tablet is necessary, that won't break down during mission-critical tasks where hardware failures could lead to large costs or endanger workers and assets.

Custom configuration



AR & AG  
Screen



Additional  
Storage

Application



Maintenance and  
Repair Service

“DO MORE IN THE FIELD.”  
A combination of ruggedness, mobile computing, and communication capabilities that empowers your mobile workforce with the right solution for getting the field services done efficiently, from resource allocation, operation streamlining, to work status tracking and more!

10.1” Arm ATEX Rugged Tablet  
M101Z Series



“ LIGHTWEIGHT MOBILITY  
FOR FIELD WORK. ”

- 10.1” 1920 x 1200 PCAP touchscreen
- Qualcomm® Snapdragon™ 660
- Android 9.0

8 MP front camera

13 MP rear camera

Wi-Fi, Bluetooth, GPS, AGPS

IP65 waterproof and dustproof

MIL-STD-810G shock, vibration and drop resistant

ATEX Zone 1 and C1D2

Operating temperature -10°C to 50°C

Accessories

Standard			
Adapter and Power Cord	Capacitive Stylus	Standard Battery	
Optional			
Desk Dock	Vehicle Dock	Vehicle Cradle	Battery Charger
Hand Strap	VESA Mount Kit	Carry Bag	Mobile Printer
Active Pen			

# Marine



## Overview

Winmate understands the needs of the marine industry and provides solutions to the unique challenges that the industry faces.

- **Ruggedness:** Winmate reliability tests ensure optimal performance in harsh environments, including exposure to humidity, shock and vibration.
- **Panel Options:** Transflective screen or a high brightness display.
- **Viewability:** Numerous combinations of display and touch technologies as well as backlight intensities help enable sunlight viewability.
- **Design and Electronics:** Powder coated aluminum housings feature anti-corrosion protection.

## Industrial Challenges

To meet the regulatory requirements of the marine industry, Winmate offers certified solutions for shipping navigation, monitoring and surveillance, and ship automation systems. Winmate understands the needs of the marine industry and provides solutions to industrial challenges:

- **Extreme environments**  
Marine equipment faces extreme environments such as temperature changes, strong vibration, water drops.
- **Accurate chart depiction**  
Accurate chart displaying is crucial in maritime applications.
- **Day, night and dusk**  
On-board computers must provide viewability in day, night and dusk conditions.




# Technology

## ECDIS Color Calibration

Winmate Marine Displays and Panel PCs can be adjusted to day, dusk or night mode to accommodate any lighting situation. Color settings are calibrated at the factory for the accurate color reproduction according to the IEC 61174 ECDIS Standard.

### Certificate

Winmate marine products are built and tested according to the DNV 2.4 Standard, IEC60945 and IACS-E10.

	DNV GL is an independent foundation with the objectives of safeguarding life, property and the environment at sea and on shore. DNV certification pertains to the quality of ships, offshore units and installations of the system and components. DNV requirements are harmonized with IACS Unified Requirements E10 and IEC publication 60945.
	International Association of Classification Societies (IACS) is an organization that provides technical support and guidance for promoting the safety of life, property and the environment through the verification of compliance with technical and engineering standards for the design, construction and life-cycle maintenance of ships, offshore units and other marine-related facilities.
	Equipment wished to be use in navigation and radio communication systems is to comply with IEC 60945, "Maritime navigation and radio communication equipment and systems – General Requirements- Method of testing and required test results"

## Innovative Solutions

All Winmate marine products are built and tested according to DNV 2.4 Standard, IEC60945 and IACS-E10.

- Winmate reliability test ensure optimal performance in harsh maritime environments.
- Powder coated aluminum housing feature anti-corrosion protection, handle significant vibration and shock as well as operation in high humidity.
- Enhanced panel viewability and backlight intensity.
- Transflective screen or a high brightness display.
- ECDIS color calibration to accurately display navigational charts.

# Application Story

## Bridge Workstation



## Background

Winmate's marine panel PC was installed as a part of a marine bridge system designed to plot and monitor a vessel's position. The system features Automatic Identification System (AIS) Class B transport and electronic chart system. The updates of charting material are distributed to the craft through Wi-Fi router installed on board.

## Core products

- 15~26" ECDIS Panel PC

## Main Challenges

- Customized software settings

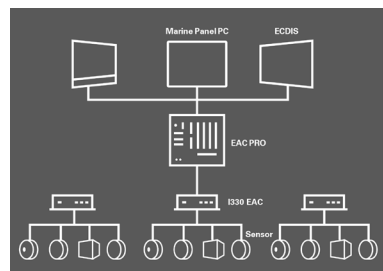
## Why Winmate

- Certified DNV GL for marine applications
- ECDIS calibrated display with multitouch
- NMEA 0183 and DIDO interfaces for marine devices communication
- Vibration, shock, corrosion resistance



*Winmate's DNV GL certified panel PC*

## Application Diagram



*Bridge*

# Marine Embedded Computing

## I330EAC-IKW

### Custom configuration



Memory



2<sup>nd</sup> Storage



NMEA 0183



DI/DO

### Application



### Vessel Communication Solution

“EFFECTIVE  
MARINE DEVICES  
COMMUNICATION.”

High-performance embedded system that feature an NMEA 0183 interface and digital input/output for effective marine device communication.



“ABUNDANT INTERFACES  
AND RUGGED CONSTRUCTION.”

- Intel® Core™ i5-7200U
- Windows® 10 IoT Enterprise
- IEC 60945 Test Report

64 GB mSATA SSD

Four USB 3.0

HDMI, VGA, DVI output

RS232/422/485

Two LAN ports

Aluminum housing

Power input 9~36V DC with 1.5KV isolation

Vibration, shock resistant DNV 2.4 (Class A)

Wide operating temperature -15~55°C

### Accessories

#### Standard

AC Adapter

Power Cable

# 15"~ 26" Marine Panel PC ECDIS Series

## Custom configuration



Color  
Calibration



AR  
Glass



NMEA 0183



DI/DO



## “PROCESSING POWER AND USER-FRIENDLY INTERFACE.”

- 15"/19"/24"/26" with PCAP touchscreen
- Intel® Core™ i5-5250U
- Windows 10/7
- IEC 60945, DNVGL-CG-0339, IACS E10

## Application



## Bridge System

“ECDIS COMPLIANCE TO  
REPRODUCE ACCURATE  
CHART DISPLAY.”

Marine panel PC featuring a flat edge-to-edge surface and PCAP touchscreen. Large screen and responsive touch allow for intuitive user controls of the bridge system.

- 
- RS232/422/485, RS232, two USB 3.0
  - Capacitive touch keys for display control
  - Day, dusk, and night mode
  - 0%~100% backlight brightness dimming control
  - Panel mount, VESA mount
  - Vibration resistant DNV 2.4 (Class A)
  - Wide power input 9~36V DC with isolation
  - Front IP66 waterproof and dustproof
  - Wide operating temperature -15~55°C
- 

## Accessories

### Standard

AC Adapter	Power Cable	3pin Terminal Block	Black Screw Bolts
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### Standard

Four 5pin Terminal Block 3.81(Phoenix Type)



# 10.4"~24" Marine Panel PC VR Knob Series

## Custom configuration



Memory



AR  
Glass



PCAP  
Touchscreen



Mounting  
Bracket



RS-422/  
485



“

**CORROSION RESISTANT.**

”

## Application



### Boat Command Center

“GREAT VIZUALIZATION.  
OF THE DASHBOARD.”

The marine panel PC installed in a boat command center allows you to view all of your boat's vital signs directly from your computer. Customized dimming setting increase the visibility in dusk or night time.

- 10.4"~24" screen with resistive touchscreen
- Intel Atom® N2600
- Windows 7
- IEC 60945, DNV 2.4, IACS-E10 certified

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4 GB SODIMM DDR3

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1 x SATA2, 1 x Mini PCIe slot (mSATA SSD)

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Two USB 2.0, VGA

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Two RS232, RS232/422/485

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RAM mount, VESA mount

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Vibration, shock resistant DNV 2.4 (Class A)

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Power input 9~36V DC with ignition

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Front IP66 waterproof and dustproof

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Wide operating temperature -15~55°C

## Accessories

### Standard

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Screw bolts

### Standard

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Power Cord

# 15"~26" Marine Display

## ECDIS Series



### PROCESSING POWER AND USER-FRIENDLY INTERFACE.

- 15"/19"/24"/26" screen with PCAP touchscreen
- IEC 60945, DNVGL-CG-0339, IACS E10

RS232/422/485
Capacitive touch keys for display control
Day, dusk, and night mode
0%~100% backlight brightness dimming control
Panel mount, VESA mount
Vibration resistant DNV 2.4 (Class A)
Wide power input 9~36V DC with isolation
Front IP66 waterproof and dustproof
Wide operating temperature -15~55°C

### Accessories

<b>Standard</b>			
AC Adapter	Power Cable	3pin Terminal Block	Black Screw Bolts
<b>Standard</b>			
Four 5pin Terminal Block 3.81(Phoenix Type)			

### Custom configuration

Color Calibration	AR Glass
NMEA 0183	DI/DO

### Application



### Navigation System

“FULL RANGE DIMMING AND ECDIS COMPLIANCE.”

Large brilliant 26" LCD with user-friendly projected capacitive touch screen offers better navigation experience and quick-switch to adjust between day, dusk, and night-time ECDIS modes for maritime applications.

# 10.4"~24" Marine Display Knob Series

## Custom configuration



PCAP  
Touchscreen



SAW  
Touch



AR  
Glass



Mounting  
Bracket



**“ BRIGHTNESS CONTROL  
WITH DIMMING KNOB. ”**

- 10.4"~24" screen with resistive touchscreen
- IEC 60945, DNV 2.4, IACS-E10 certified

RGB, composite video

VGA, S-Video, DVI-D

PIP function

RAM mount, VESA mount

Vibration, shock resistant DNV 2.4 (Class A)

Power input 24 V DC with isolation

Front IP66 waterproof and dustproof

Wide operating temperature -15~55°C

## Navigation Simulator

**"FAST DEPLOYMENT WITH  
EXISTING NAVIGATION  
SYSTEM."**

Winmate 24" marine monitor with resistive touchscreen was installed in a navigation system of a marine training center. Transmission of RGB and composite video signal was required to integrate with existing systems.

## Accessories

### Standard

DVI Cable

Composite Cable

VGA Cable

Screw Bolts

RS232 Cable

S-Video Cable

### Standard

Power Cord

# Military



## Overview

Winmate's rugged computing devices for military applications are designed to be tough and durable, and undergo rigors of testing to ensure safety and performance, going beyond military standard compliance.

Winmate understands the needs of the military industry and provides solutions that can overcome these industrial challenges:

- MIL-STD 810-G Testing: For MIL-STD 810G compliance, Winmate tests the product against extreme environmental conditions (temperature, shock, vibration, humidity).
- MIL-STD 461-F Testing: For MIL-STD 461F compliance, detailed testing specification ensures that the product meets the requirements for the control of electromagnetic interference.



Built to survive drops, shocks, liquid spills, vibrations, dust, salt, and extreme temperatures, our specially designed military line of products has been tested for compliance to military MIL-STD-810G environmental and MIL-STD 461F EMC standards.



# Technology

## Military Certifications

All Winmate military products are built and tested according to military standards MIL-STD-810 and MIL-STD-461.

 <b>MIL-STD-461E/F</b>	<p>MIL-STD-461 is a United States Military Standard that describes how to test equipment for electromagnetic compatibility.</p> <p>Specifically, MIL-STD-461F details testing specification to ensure the conducted emissions (CE), conducted susceptibility (CS), radiated emissions (RE), and radiated susceptibility (RS) of a system can meet the requirements for the control of electromagnetic interference.</p> <ul style="list-style-type: none"><li>• MIL-STD-461 Method - CE101/CE102: Conducted Emissions</li><li>• MIL-STD-461 Method - RE101/RE102: Radiated Emissions</li><li>• MIL-STD-461 Method - CS101/CS106/CS109/CS114/CS115/CS116: Conducted Susceptibility</li><li>• MIL-STD-461 Method - RS101/RS103: Radiated Susceptibility</li></ul>
 <b>MIL-STD-810F/G</b>	<p>The MIL-STD-810 test series are approved for use by all departments and agencies of the United States Department of Defense (DoD).</p> <p>The standard describes environmental management and engineering processes that can be of enormous value to generate confidence in the environmental worthiness and overall durability of a system design.</p> <ul style="list-style-type: none"><li>• MIL-STD-810 Method 501.4: High Temperature</li><li>• MIL-STD-810 Method 502.4: Low Temperature</li><li>• MIL-STD-810 Method 507.4: Humidity</li><li>• MIL-STD-810 Method 514.5: Vibration</li><li>• MIL-STD-810 Method 516.5: Shock</li></ul>

## Military Connectors

Winmate military panel PC and display come with MIL-DTL-38999 type I and III connectors – high-performance cylindrical connectors for cable-to-panel applications in military, air traffic control, or other mission-critical situations.

**MIL-DTL-38999/I  
Power Connector**

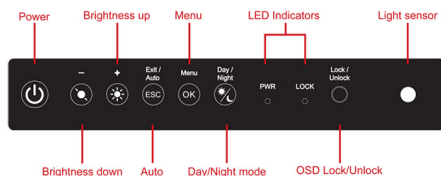


**MIL-DTL-38999/III  
VGA/RS232/USB-A/LAN**



## Panel Viewability & OSD Control

The high-resolution display is fully rugged offering optimized visibility with optical bonding, and comes with easy-to-use front panel control. The advanced computing platform enables faster searches and real-time information, providing rapid response capabilities.



# Application Story

## Military Vehicle



## Background

In modern military vehicles, precise navigation and robust communications are essential for safe tactic operations. Winmate provides rugged, vibration and shock resistant computing solutions that are designed to be mounted inside military vehicles.

## Core products

- G-WIN Military Panel PC
- Military Console Rack Panel PC
- 4K UHD Military Display

## Main Challenges

- Strong vibration
- Mounting solution in confined space

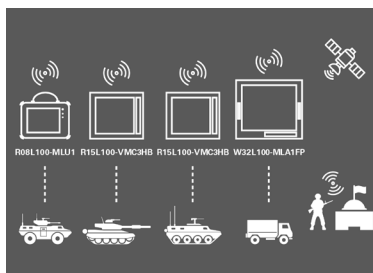
## Why Winmate

- Wireless communications WWAN, WLAN and GPS
- Tested for vibration, shock resistance MIL-STD-810G
- Tested for EMI MIL-STD-461



*Tank navigation*

## Application Diagram



*Military Vehicle*



# 17"~24" Military Panel PC Rack Mount

## Custom configuration



Memory



Storage



Resistive  
Touchscreen



AR  
Glass



EMI Mesh  
Coating



RS232



DC Power  
Input

## Application



### Military Training Center

"COMPATIBLE WITH  
OUR EXHISTING SYSTEM  
DESIGN."

Military grade panel PC was  
installed in a new military  
training center facility in  
Europe. The solution simulates  
real experience on the field.



## “ POWERFUL PROCESSING AND LATEST OS. ”

- 17"~24" with AR glass
- Intel® Core™ i5-7200U
- Windows® 10 IoT Enterprise,

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8 GB DDR4-2133

---

64 GB M.2 B Key SATA III

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Two USB 3.0, one HDMI

---

Two RJ45 for Ethernet

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RS232/422/485

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Vibration, shock MIL-STD 810F/G, EMC MIL-STD 461E/F

---

Power connector MIL-DTL-38999/1

---

Power input AC 110~240V

---

Console mount, VESA mount

---

Front IP65 waterproof and dustproof

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Wide operating temperature -20~60°C

## Accessories

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Power Cord MIL-DTL-38999/1

---

Driver CD

---

User Manual



# 17"~24" Military Panel PC Rack Mount



“ **TAILORED FOR MILITARY APPLICATIONS.** ”

- 17"~24" screen with AR glass
- Intel® Celeron® N2930
- Windows 10/8/7

4 GB DDR3L 1066/1333
64 GB MSATA SSD
USB 2.0, USB 3.0, HDMI
Two RJ45 for Ethernet
RS232/422/485
EMC MIL-STD 461E/F
Vibration, shock MIL-STD 810F/G
Power connector MIL-DTL-38999/1
Power input AC 110~240V
Console mount, VESA mount
Front IP65 waterproof and dustproof
Wide operating temperature -20~60°C

## Accessories

Power Cord MIL-DTL-38999/1	Driver CD	User Manual
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## Custom configuration

Up to  
8 GB

Memory

Up to  
256 GB

Storage

Resistive  
Touchscreen

AR  
Glass

EMI Mesh  
Coating

RS232

9~36V  
DC

DC Power  
Input

## Application



## Military Base Airport

“RUGGED HOUSING FOR  
VEHICLE DEPLOYMENT”

The G-WIN Military Panel PC  
was mounted in an armored  
vehicle for vibration resistant  
data visualization for armed  
forces.

# 8.4"~15" G-WIN Military Panel PC

## G-WIN Military

### Custom configuration



Memory



Storage



EMI Mesh  
Coating



RS232



DC Power  
Input



AR  
Glass



### Application



### Military Base Airport

"FAST COMPUTING AND  
RICH CONNECTIVITY"

Console rack mount panel PC  
with powerful processor and  
latest operating system now  
controls traffic in a military  
base airport.

## " WIRELESS CONNECTIVITY AND RUGGED FORM FACTOR."

- 8"/10.4"/15" screen with resistive touchscreen
- Intel® Celeron® N2930
- Windows® 10 IoT Enterprise,

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4 GB DDR3L 1066/1333

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64 GB mSATA SSD

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Mini PCIe expansion slot

---

USB 2.0, USB 3.0

---

HDMI, two RJ45 for Ethernet

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RS232/422/485

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EMC MIL-STD 461E/F

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Vibration, shock MIL-STD 810F/G

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Power connector MIL-DTL-38999/1

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Power input 12V DC

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VESA mount, bracket stand

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Front IP65 waterproof and dustproof

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Wide operating temperature 20~70°C

### Accessories

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Power Cord MIL-DTL-38999/1

# 27"~40" Military Display

## 4K UHD Rack Mount



“ULTRA HD RESOLUTION IN  
A MILITARY FORM FACTOR.”

- 7" 1280 x 720 PCAP touchscreen
- Arm Cortex-A53
- Android 7.0

1.07B colors
VGA, DVI, Display Port 1.2
HDMI 1.4, HDMI 2.0
LED backlight, TFT active-matrix, IPS technology
Ambient light sensor, dimming
Power connector MIL-DTL-38999/1
Console mount, VESA mount
Front IP65 waterproof and dustproof

### Accessories

Standard		
Power Cord MIL-DTL-38999/1	VGA Cable	DVI Cable
HDMI Cable	Display Port Cable	User Manual
Optional		
RS232 Remote Control Shielding Cable	USB Cable for Touch	

### Custom configuration



High  
Brightness



P-Cap Touch



AR  
Glass

### Application



### Flight Simulator

“TRUE COLOR  
DEPICTION.”

Mounted in a console, Winmate’s 40” display was installed in the military training center for the simulation of tactical operations on the field. The 4K UHD resolution makes a difference and allows visualization of every small detail of the complex training program with lots of charts, diagrams and hardly visible marks.

# 17"~32" Military Display Resistive Rack Mount

## Custom configuration



P-Cap Touch



AR  
Glass



EMI Mesh  
Coating



DC Power Input



## Application



### Command Room

"MILITARY GRADE  
COMPLIANCE"

The military console rack display was mounted in a command center on a military base. Full military compliance and ruggedness allows for easy implementation.

**"RUGGED CONSTRUCTION AND  
SCRATCH RESISTANT SCREEN."**

- 17"~32" screen with resistive touchscreen
- Vibration, shock MIL-STD 810F/G
- EMC MIL-STD 461E/F

VGA, DVI

5 x BNCs (R,G,B,H,V)

Power connector MIL-DTL-38999/1

Power input AC 110~240V

Console mount, VESA mount

Front IP65 waterproof and dustproof

Wide operating temperature -20~60°C

## Accessories

### Standard

Power Cord MIL-DTL-38999/1

VGA to 5 BNC Shielding Cable

VGA Cable

User Manual

DVI Cable

### Optional

RS232 Remote Control Shielding Cable

RS232 Touch Shielding Cable

# 8.4" / 10.4" Ultra-Rugged Tablet

## Intel Pentium N4200 Series



“ **BUILT TO HANDLE THE TOUGHEST TASKS.** ”

- 8.4"/ 10.4" anti-scratch resistive touchscreen
- Intel® Pentium® N4200
- Windows 10 IoT Enterprise

4 GB SODIMM DDR3L-1866, 64 GB M.2 SSD
WLAN, Bluetooth 5.0, GPS
MIL-STD-38999 connectors: LAN/ USB 2.0, RS232/ RS422
MIL-STD-38999 power input connector
Battery operating time 8 hours
IP54 waterproof and dustproof
MIL-STD-810G shock, vibration and drop resistance

### Accessories

Standard			
Adapter and Power Cord	Standard Battery	Touch Stylus	MIL-STD-38999 Cable
Optional			
Adjustable Kickstand	Desktop Docking	Vehicle Charger Kit	Car Power Charger
Soft Shell Case	Hand Strap	Shoulder Strap	Carry Bag

### Custom configuration

Up to  
8 GB

Memory

Up to  
512 GB


Storage

4G

3G

3G

3G



GLONASS

### Application



### Military Field Exercises

“RUGGED AND ERGONOMIC.”

With military application-tailored accessories the 8.4" Ultra-Rugged Tablet R08IP8M-RTU1ML offers an ultimate solution for military training. Withstands the rigors of harsh environments: dust, rain, and drops on the ground.

# 8.4" / 10.4" Ultra-Rugged Tablet Intel Core i5 Series

## Custom configuration

Up to  
**16 GB**

Memory

Up to  
**512 GB**

Storage

Up to  
**512 GB**

2nd Storage

**4G**

4G

**3G**

3G



GLONASS



## “FEATURES MILITARY-SPECIFIC INTERFACES.”

”

## Application



## Tactical Operations

“POWERFUL, COMPACT,  
AND RUGGED.”

Durable housing of 10.4"

Ultra-Rugged Tablet

R10IWK8M-RTT2ML is strong enough to withstand shocks, jolts, drops, and prolonged vibration. and impervious to incursion by dust, dirt, water and other liquids, or any contaminant.

- 8.4"/ 10.4" anti-scratch resistive touchscreen
- Intel® Core™ i5-8265U
- Windows 10 IoT Enterprise

4 GB SODIMM DDR3L-1866, 128 GB M.2 SSD

WLAN, Bluetooth 5.0, GPS

MIL-STD-38999 connectors: LAN/ USB 2.0, RS232/ RS422

MIL-STD-38999 power input connector

Battery operating time 8 hours

IP54 waterproof and dustproof

MIL-STD-810G shock, vibration and drop resistance

## Accessories

### Standard

Multi-functional  
Desktop Docking  
Shoulder Handle  
(Carrying Belt)

Adjustable  
Kickstand  
Spare Part Battery

Vehicle Mounting  
Charger Kit  
Car Power Charger

Soft case  
Carry Bag

Handstrap

# 13.3" Ultra-Rugged Tablet

## M133KML Series



“ **FIELD MOBILITY FOR MISSION CRITICAL.** ”

- 13.3" 1920 x 1080 PCAP touchscreen
- Intel® Core™ i5-7200U
- Windows 10 IoT Enterprise

4 GB SODIMM DDR4-2400, 128 GB M.2 SSD
Touch supports Glove/ Rain/ Stylus mode
WLAN, Bluetooth 5.0, GPS/ GLONASS
HDMI output to external display
2 MP webcam, 5 MP rear camera with autofocus and LED
Battery operating time 11 hours
Connectors MIL-STD-38999: LAN/USB 2.0, Power/ RS232
MIL-STD-810G shock, vibration and drop resistance
Full IP65 waterproof and dustproof

### Accessories

Standard			
Adapter and Power Cord	Standard Battery	Touch Stylus	Stand with Integrated Handle
Optional			
Adjustable Kickstand	Desktop Docking	Vehicle Charger Kit	Car Power Charger
Soft Shell Case	Hand Strap	Shoulder Strap	Carry Bag

### Custom configuration

Up to  
**16 GB**

Memory

Up to  
**512 GB**

Storage

Up to  
**512 GB**

2nd Storage

**4G**

4G

**3G**

3G



Battery  
Hotswap

### Application

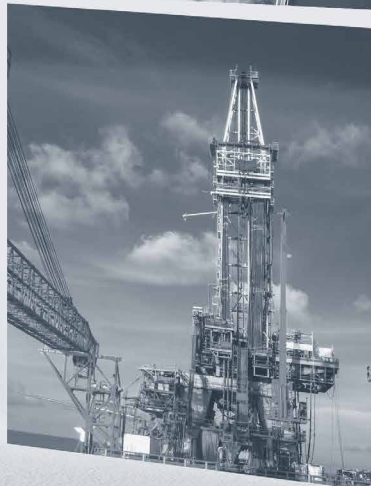
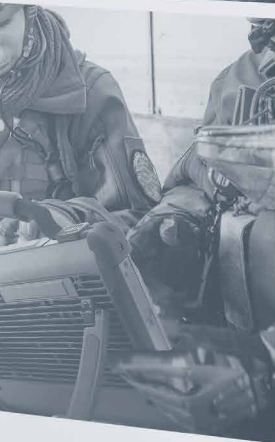


### Combat Mission Navigation

“BRILLINAT LARGE  
SUNLIGHT READABLE  
SCREEN.”

Ranger commander uses the M133KML ultra-rugged tablet to explain the combat mission and points. Designed for those in the field, the M133KML features adjustable handle easy convertible, to kickstand for extra convenience. 28





# **TOMORROW'S TECHNOLOGY FOR TODAY'S CHALLENGE**

RUGGED COMPUTING PRODUCTS FOR MISSION  
CRITICAL.



WINMATE



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