

WAREHOUSE & LOGISTICS

**Warehouse Management/
Manufacturing/
Logistics**

A woman wearing an orange hard hat and a blue shirt with an orange safety vest is operating a forklift in a warehouse. She is looking forward, and the forklift's controls and mast are visible. The background shows warehouse shelving with boxes.

**SOLUTIONS TO DRIVE
SUPPLY CHAIN INNOVATION**

Q1 - 2024

About Winmate

Founded in 1996, Winmate Inc. is a pioneer in rugged computing technology. Winmate has provided business leaders worldwide with reliable, robust solutions for the most challenging industrial conditions for over two decades. From R&D to manufacturing to in-house testing, Winmate Inc. manages the entire product development process with ready-made products available for quick deployment. Today Winmate's innovative approach has helped countless enterprises at every level with equipment automation and seamless Industrial Internet of Things (IIoT) integration.

From the industrial display, panel PC, HMI, embedded systems to rugged mobile devices, Winmate caters to industries ranging from transportation and logistics to marine and military, railway, oil, and gas, and provides customization services to create a unique solution for specific customer requirements.

The Winmate Difference

Innovation and Ruggedness

With innovation 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 conducted in-house. It is why we invested significantly in our state-of-the-art testing facility with additional global support.

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

Efficiency

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

Reliability

Reliability, service, and support are part of our foundation. Every product scrutinizes 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.

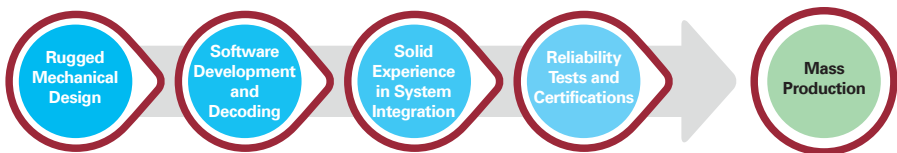
From product design to accessories, our engineering team designs and support the system integration process.

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

Technical Know-How

We understand that access to cutting-edge solutions purposely built for their applications is imperative for enterprises operating in rugged or potentially hazardous environments. As a result, Winmate locates its resources from project research and design, software development and customization, product verification and validation, and in-house testing 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

Logistics and Transportation

Overview

In the warehouse environment, the ability to mount mobile devices and computers to forklifts, trucks, tuggers, and inventory pickers is essential for maximizing productivity. From inventory management to order fulfillment, asset tracking, shipping, and receiving, the warehouse floor is a complex ecosystem requiring highly efficient technology to keep things running smoothly.

Our vehicle mount computers include:

- The latest Android™ or Windows® operating system
- Robust wireless communications
- Vehicle mounting solutions

Winmate's rugged vehicle-mounted computers and rugged tablets are designed to fit seamlessly into forklifts and other warehouse vehicles, which helps minimize errors, streamline ordering and inventory management, and improve operational efficiencies.

Industrial Challenges

• In-vehicle installation

Computer hardware tailored for warehouse and logistics must be compatible with RAM mount or VESA mount in-vehicle installation methods.

• Unstable power supply from the vehicle

Instability during start-up and shutdown can cause system crashes and restarting issues. Devices that receive power from the vehicle must have a solution to ensure stable performance in unstable power supply situations.

• Working in cold storage areas

In a large warehouse environment, forklifts frequently go back and forth between the cold storage areas and room-temperature environments. The computer devices must show stable performance in low and high temperatures.

• Driver's safety

The computer must not distract the driver.

• Strong vibration

Devices installed on a forklift must be rugged enough to withstand all-day operations and vibration from the vehicle.

Technology

- RAM mount and VESA mount solutions
- Wide-range power input and ignition control
- Built-in defroster to work in cold storage
- Screen blanking function to automatically control screen behavior
- Waterproof, dust, and drop resistant IP65-rated enclosure
- Accessories tailored for warehouse and logistic applications



**WE DELIVER RUGGED COMPUTING
SOLUTIONS FOR YOUR LOGISTIC NEEDS.**



RUGGED HANDHELD COMPUTERS

Rugged and robust handheld computers with built-in data collection options can stay connected no matter where the task takes you!



RUGGED TABLETS

Portable and wireless rugged tablet computers can survive in any environment and get real work done.



VEHICLE-MOUNTED COMPUTERS

Rugged vehicle-mounted computers are used for data collection in the warehouse and logistic applications, designed to fit seamlessly into forklifts, trucks, and other vehicles.

Application Story

Forklift Automation



Background

In our increasingly interconnected world, transportation and logistics play a crucial part in a globalized world that's keeping goods and workers on the move. Forklifts equipped with Winmate's vehicle-mounted computers can solve challenges in material handling. Modernized automated technology stands to reduce labor costs, minimize errors, streamline ordering and inventory management, and improve operational efficiencies.

Core Products

- Vehicle-mounted computers

Main Challenges

- Working in cold storage areas
- High level of vibration
- Mounting onto the forklift
- The device is subject to drops and breakage

“**TECHNOLOGIES TO SIMPLIFY WAREHOUSE MANAGEMENT AND SPEED UP WAREHOUSE OPERATIONS.**”

Why Winmate

- Reliable solution for cold environments
- Modular system that is easy to replace
- Vibration resistance
- RAM mount solution



Application Diagram: Forklift Automation

Application Story

Inventory Management



Background

Data collection, advanced communication, and connectivity are essential for efficient warehouse operations. Winmate's rugged tablets and mobile computers enable automation in the warehouse, which increases material handling, reduces costs associated with handling delays, and streamlines the supply chain. A built-in barcode scanner or RFID reader makes tracking incoming and outgoing shipments easier and enables warehouse inventory information to be monitored in real-time. Check a shipment's status and locate inventory records instantaneously. Advanced communication options enable uninterrupted communications and connectivity.

Core Products

- Rugged mobile computer
- Rugged tablet

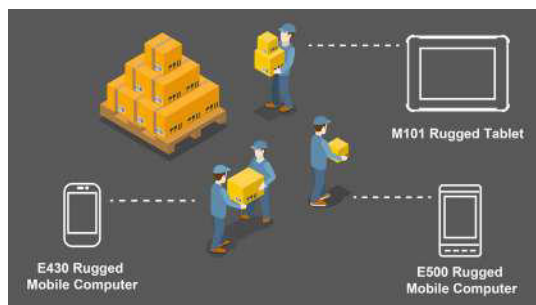
**“STREAMLINE ORDERING
AND INVENTORY
MANAGEMENT, AND
IMPROVE OPERATIONAL
EFFICIENCIES.”**

Main Challenges

- Scanning different types of barcode
- Working a full day

Why Winmate

- Rugged construction
- Integrated barcode scanner
- High capacity battery and battery hot-swap
- Fast and efficient customization service



Application Diagram: Inventory Management

Application Story

AMR Lift Truck



Background

As technologies for sensing, mapping, and navigation have improved over the last decade, AGV (Automated Guided Vehicles) and Autonomous Mobile Robots (AMR, or Industrial Mobile Robots) are now available as an alternative to forklift trucks in warehousing, intralogistics industry, and factories. While AGVs often work in an environment separated from humans to maintain safety, AMR lift truck offers flexibility in navigating the workspaces through autonomy technology that combines data from cameras, LiDAR, and machine learning. The AMR's main components include an HMI controller, computing unit, battery, motors, sensors, and camera.

Core Products

- 7 to 14 inches Android / Windows vehicle-mounted computers
- 8 to 15 inches G-Win VM series Panel PC

“AMR LIFT TRUCK IS CONSIDERED MORE FLEXIBLE.”

Main Challenges

- Indoors to outdoors material flow
- Wide range of connectivity with stable computing capabilities

Why Winmate

- Reliable and versatile computing capabilities
- Each product has been tested based on the MIL-STD 810G/H against vibration, drop, and impact.



Application Diagram: Winmate rugged computers are designed durable and silent, adopting a fanless cooling system.

Application Story

Port Management



Background

The customer looked for tablets that can be carried around in hand and mounted in vehicles. Winmate offers a rugged tablet computer for the client to mounted in cars or carry on hand; it is user-friendly and easy to use. For better communication, our tablets offer 4G LTE WWAN, WLAN, GPS, and BT for port management solutions; also, they are certified by MIL-STD-810G and IP65 standards. Winmate solution brings you ruggedness and helps to increase productivity.

Core Products

- 10.4" Vehicle Mounted Computer, FM10
- 8" Rugged Tablet, M900P

Main Challenges

- Fast delivery
- Easy to carry

“IMPROVE EFFICIENCIES
WITH VEHICLE-MOUNTED
COMPUTERS.”

Why Winmate

- Local support in Singapore/ Malaysia
- Competitive price
- Follow up tight with the right channel
- Provide the POC unit on time to match customer urgent demand



Application Diagram: Low-power components of industrial computers prevent overheating and are less likely to achieve high temperatures in the first place.

Custom Configuration



Memory



Bluetooth



WLAN



Brightness



Protection
Glass

Application



Energy Efficiency

**EFFICIENCY REDEFINED:
YOUR WAREHOUSE,
YOUR WAY**

Elevate Warehouse Operations with the 15" Windows Panel PC. Seamlessly integrated with Windows OS, it empowers real-time data management and precision control, optimizing energy usage and reducing costs. Experience smarter, eco-friendly warehousing with this cutting-edge technology.

10"~15" G-WIN Windows Panel PC G-WIN GS Series



“

PRECISION MEETS PERFORMANCE

”

- 10.1" ~ 15", with Projected Capacitive Multi-Touch (P-CAP)
- IE Series: Intel® Celeron® Elkhart Lake N6211 (up to 2.6 GHz) processor, Windows 10 IoT Enterprise, Linux Ubuntu 20.04 (Optional)
- IB Series: Intel® Celeron® Bay Trail N2930 (2M Cache, up to 2.16 GHz) processor, Windows 10 IoT Enterprise, Linux Ubuntu 18.04 (Optional)

Fanless design

Optical bonding for sunlight viewability

VESA mounting solutions

Edge-to-edge design

7"~15" G-WIN Android Panel PC

G-WIN GS Series

NEW
PRODUCT



“ ACCURACY FUSED WITH EXCELLENCE ”

- 7" ~ 15", with Projected Capacitive Multi-Touch (P-CAP)
- IM Series: ARM A53 Quad Core 2.0GHz, Android 11 (Upgradable to Android 13), Linux OS (Optional)
- FA Series: NXP i.MX6 Dual Core, 1.0 GHz, Android 6.0 (Optional), Debian 7.0 (Optional), Linux OS (Optional)

Fanless design

Full IP65 Panel PC

Ultra-low power consumption

1 x LAN, 1 x RS232, 1 x USB, 1 x Micro USB, 1 x Micro SD

Custom Configuration

Up to
4 GB

Memory

Up to
32 GB

Storage



WLAN



Brightness



Bluetooth

Application



Optimal Energy Consumption

UNLOCK WAREHOUSE EXCELLENCE

Transform your warehouse operations with the 15" Android Panel PC. Seamlessly integrated with Android and Linux OS, it revolutionizes real-time data management and precise control, resulting in efficient energy utilization and cost reduction. Embrace a smarter, eco-conscious approach to warehousing with this state-of-the-art technology.

Custom Configuration



Memory



Bluetooth



HDMI



Brightness



Protection
Glass

Application



Quality Control

PRECISION IN EVERY SHIPMENT, QUALITY CONTROL AT ITS BEST

The 23.8" Windows Panel PC revolutionizes quality control in logistics and warehouses. With its expansive screen and powerful processing capabilities, it provides a comprehensive platform for real-time monitoring, data analysis, and quality assurance, ensuring that every product meets the highest standards before reaching its destination.

7" ~ 24" G-WIN Windows Panel PC G-WIN GC Series



“UNLEASHING WAREHOUSE POWER TODAY”

- 7" ~ 23.8" with Projected Capacitive Multi-Touch (P-CAP)
- IB Series: Intel® Celeron® N2930 (up to 2.16 GHz), Windows 10 IoT Enterprise (Optional), Linux Ubuntu 20.04 (Optional)
- IE Series: Intel® Celeron® Elkhart Lake N6211 (up to 2.6 GHz), Windows 11 IoT Enterprise SAC (Optional), Windows 10 IoT Enterprise (Optional), Linux Ubuntu 22.04 (Optional)
- IP Series: Intel® Pentium® N4200 Apollo Lake (up to 2.5 GHz), Windows 10 IoT Enterprise (Optional), Linux Ubuntu 18.04 (Optional)
- IF Series: Intel® 9th Generation Core™ i3/i5/i7 Processor (Coffee Lake Refresh), Windows 10 IoT Enterprise (Optional), Linux Ubuntu 20.04 (Optional)

Front IP65 for protection against water and dust

A true flat, easy-to-clean front surface with edge-to-edge design

Fanless cooling system and ultra low power consumption

7" ~ 24" G-WIN Android Panel PC

G-WIN GC Series



“ UNLOCK WAREHOUSE POTENTIAL ”

- 7" ~ 23.8" with Projected Capacitive Multi-Touch (P-CAP)
- IM Series: ARM A53 Quad Core 2.0GHz CPU, Android 11.0, Linux Yocto 5.10.104 and Ubuntu (Optional)
- IQ Series: Qualcomm® Snapdragon™ 660 octa-core, 2.2 GHz CPU, Android 9.0

Front IP65 for protection against water and dust

A true flat, easy-to-clean front surface with edge-to-edge design

Support Android or Linux operating system

Plenty of I/O, including 1 x Micro USB, 2 x USB 2.0; 1 x RS232/422/485; 1 x RJ45; 1 x Micro SD Slot; 1 x Micro HDMI (Optional)

Custom Configuration



Memory



Bluetooth



HDMI



Brightness



Protection Glass

Application



Digital Documentation

DIGITAL POWERHOUSE AT YOUR FINGERTIPS

Revolutionize Warehouse Efficiency with the 15" Android Panel PC. Experience a paperless transformation with seamless digital documentation. Streamline record-keeping, enhance accuracy, and optimize workflows like never before.

Custom Configuration



Memory
(W12IE3S-
GSB1)



BT



WWAN



GPS/
GLONASS



WLAN



M12 Type



SIM Card
Slot

Application



Inventory Management

NAVIGATING STOCK BEYOND PRECISION

The 12.3" Panel PC redefines inventory management with its user-friendly touch-screen interface, enabling warehouse managers to easily monitor, track, and update inventory in real-time. Powered by the robust Intel® Celeron® N6211 Elkhart Lake processor, it ensures accuracy and efficiency, all from a single accessible hub.

12" G-WIN GS Series Panel PC

W12IE3S-GSB1/ W12MG3S-GSB1

**NEW
PRODUCT**



“EXCELLENCE IN LOGISTICS SUCCESS”

- 12.3", 8:3 Ratio, 1920 x 720 panel with projected capacitive multitouch screen
- Intel® Celeron® N6211 Elkhart Lake, Windows 10 IoT Enterprise, Linux OS (Optional) (W12IE3S-GSB1)
- ARM 2 x A78 2.2GHz + 6 x A55 2.0GHz Android 13 (W12MG3S-GSB1)
- M12 waterproof connectors
- IP65 waterproof and dustproof

Shock and vibration resistance according to MIL-STD-810H

Support Windows 10 IoT Enterprise or Linux

Fanless design

Optical bonding for sunlight viewability

VESA mounting solutions

12" G-WIN GC Series Panel PC W12IE3S-GCB1/ W12IM3S-GCB1



“ERGONOMIC WORKPLACES WITH ENHANCED USABILITY”

- 12.3", 1920 x 720 panel with projected capacitive multitouch screen
- Intel® Celeron® Elkhart Lake N6211 processor, Windows 10 IoT Enterprise, Linux OS (Optional) (W12IE3S-GSB1)
- IM Series: ARM A53 Quad Core 2.0GHz CPU, Android 11, Linux OS (Optional) (W12IM3S-GCB1)

Optical bonding for sunlight viewability

Front IP65 for protection against water and dust

Fanless cooling system and ultra-low power consumption

Shock and vibration resistance according to MIL-STD-810G

Custom Configuration



Memory



Storage



HDMI



Bluetooth

Application



Mobile Integration UNLEASH LOGISTICS BEYOND BOUNDARIES

The 12.3" Panel PC isn't confined to warehouse walls. It seamlessly integrates into mobile environments too. With adaptable power input, rugged design, and versatile operating system options, this dynamic device becomes the ultimate co-pilot for delivery vehicles, enhancing route navigation, real-time updates, and on-the-go control.

Custom Configuration



Barcode
Reader
(DRMBH)



NFC RFID
Reader



WWAN

Application



Easy to Use, Easy to Operate

INFINITE APPLICATIONS WITH THE OPEN PLATFORM

P400RM9 offers strong compatibility, security, and live image service with HD cameras.

Meets SOTIMobiControl standards, supports third-party apps, and fits diverse sectors: transportation, logistics, retail, security, energy, construction, government, hospitality, and manufacturing.

P400M9 Series Rugged Handheld Computer

P400M9/ P400M9DMR/ P400M9DMRBH



FC CE

“ RESILIENT AND RUGGED. ”

- 4", 800 x 480 Panel with direct optical bonding
- Cortex-A73 + Cortex-A53 (Octa-core up to 2.0 GHz)
- Android 11

Compatible PoC application

Support WLAN, BT, WWAN (Optional)

Easy to use, easy to operate

Optional DMR

Optional VHF/ UHF Radio

P500M9 Series Rugged Handheld Computer

P500M9/ P500M9DMR



“ **ROBUST AND RELIABLE.** ”

- 5", 1280 x 720 Resolution
- CortexA73 + CortexA53 (Octacore up to 2.0 GHz)
- Android 11

IP65 waterproof and dustproof

Optional 1D/2D Barcode Reader for data collection

Optional NFC function

Optimized Mechanism Design for handheld

Optional DMR

Optional VHF/ UHF Radio

Custom Configuration



Barcode
Reader
(DRMBH)



NFC RFID
Reader



WWAN

Application



Simple to Navigate, Simple to Manage

LIMITLESS POSSIBILITIES
WITH THE OPEN INTERFACE

P500RM9 boasts robust compatibility and security, enhanced by HD cameras for live image services. It aligns with SOTIMobiControl standards, facilitates third-party app integration, and caters to a wide range of industries, including transportation, logistics, retail, security, energy, construction, government, hospitality, and manufacturing

Custom Configuration



WWAN



NFC RFID
Reader



Barcode
Reader
(E500RM9)



Smart Card
Reader
(E500RM9)



Battery
Hotswap
(E500RM9)



Fingerprint
Reader
(E500RM9)

Application



Courier Shipping Service

COMPACT AND DURABLE HANDHELD COMPUTER

Rugged specifications of the compact E500QK handheld computer mean that personnel can take photos, enter data, and take photos in any harsh environment. The latest Android operating system offers tremendous potential for developing or adapting mobile computer applications.

5" Android Rugged Handheld Computer E500RM9/ E500QK



“ **RUGGED DESIGN
BUILT TO SURVIVE.** ”

- Android 11.0, ARM A73 x 4 (2.0 GHz) + A53 x 4 (E500RM9)
- Android 9.0, Qualcomm® Snapdragon™ 660 (E500QK)
- 5", 1280 x 720 Panel with direct optical bonding

Optical bonding for sunlight viewability

8 MP webcam, 13 MP rear camera with autofocus

WLAN, BT, GPS/ GLONASS

Ambient light sensor, E-compass, Gyro, acceleration sensors

IP65 and IP67 waterproof and dustproof

4.3" Android Rugged Handheld Computer

E430RQ8



“ RUGGED EFFICIENCY ON-THE-GO. ”

- 4.3", 800 x 480, PCAP touchscreen
- Qualcomm® Snapdragon™ 660 (Octa-Core 2.2 GHz)
- Android 9.0

8 MP webcam, 13 MP rear camera with autofocus

Ambient light sensor, E-compass, Gyro & acceleration sensors

WLAN, BT

USB 3.0 Type C (OTG), docking connector

NFC (Read / Write, Peer-to-Peer mode)(Optional)

260g lightweight portability

IP65 waterproof and dustproof

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

Custom Configuration



Barcode
Reader



NFC RFID
Reader

Application



Delivery Services

RUGGED MOBILITY IN A POCKET-SIZED DEVICE

A famous chain store now uses versatile 4.3" Rugged Mobile Computer E430 with integrated 1D/2D barcode scanner to increase delivery services' efficiency. Ultimate productivity and data collection tools combined in a pocket-sized device to speed up delivery time and increase customer satisfaction.

Custom Configuration



Memory



Storage



Barcode Reader



WWAN



RFID Reader



Micro HDMI Port



Smart Card Reader



Expansion Port

Application



Distribution Center

IMPROVES OPERATOR PRODUCTIVITY

The M101EKB can handle the challenges of the modern warehouse, even in cold storage environments. The

QWERTY keypad allows comfortable typing even while wearing thick gloves. The detachable front panel provides mobility for forklift operators who wish to perform tasks outside the forklift.

8" Windows Vehicle Mounted PC M101EKB



“ QWERTY KEYPAD TO INPUT DATA IN ANY CONDITIONS. ”

- Intel® Elkhart Lake Celeron® N6211 Processor
- 8", 1280 x 800 wide viewing angle with PCAP touch
- Windows 10 IoT Enterprise

IP65 waterproof and dustproof

ISO/IEC 9995-3 QWERTY Keypad

Removable battery with hotswap function for all day productivity

MIL-STD-810H rugged housing

Optional extendable UHF RFID reader

Optional built-in 1D/2D barcode, HF RFID reader

7" Windows Forklift Computer

FM07P



“ FORKLIFTS POWERED BY INTELLIGENCE ”

- Intel® Celeron N3350 (Apollo Lake) Processor
- 7", 1024 x 600 panel with P-CAP
- Wide power input 9-36V DC with ignition
- Windows 10 IoT Enterprise, Linux, Ubuntu 20.04 (Optional)

Wide operating temperature range -20°C to 60°C

IP65 waterproof and dustproof

Shock and vibration resistance according to MIL-STD-810G

Programmable function keys

Built to survive the extreme temperature range

Wide power input 9-36V DC with ignition optional
isolation power solution

Custom Configuration

Up to
8 GB

Memory

Up to
128 GB

Storage



WWAN



GNSS



Bluetooth

Application



Warehouse Operations

**EFFICIENCY AT EVERY
ELEVATION WITH
FORKLIFT TECH**

Winmate's forklift computers seamlessly integrate into warehouse vehicles, with versatile mounting options and high-performance Intel processors that enhance inventory management and reduce errors.

Custom Configuration



WWAN



NFC RFID
Reader



SIM Card Slot

7" ARM A53 Android Vehicle Mounted PC FM07M



“VEHICLE POWER SOLUTION.”

- ARM A53 Quad Core 2.0GHz Processor
- 7", 1024 x 600 panel with Projected Capacitive Multi-Touch screen
- Android 11, Linux Yocto, Linux Ubuntu OS

Wide power input 9-24V DC with ignition

Wide-range operating temperature

RAM mount, support VESA mount

M12 waterproof connectors , IP65 waterproof and dustproof

Shock and vibration resistance according to MIL-STD-810H

Application



Easy In-Vehicle Installation

SUPPORTS BOTH VESA AND RAM MOUNTS

Winmate FM07M supports both VESA mount and RAM mounts to help you save the time and ease installing the vehicle-mounted computer. The FM07M is easily mounted and fully-rugged, helps you to have higher work efficiency.

7" Windows Vehicle Mounted Computer FM07/ FM07E



“ VIBRATION AND SHOCK-PROOF DESIGN. ”

- Intel Celeron N3350 or Intel Pentium N4200 (FM07)
- Intel Celeron N6211(FM07E)
- 7", 1024 x 600 panel with projected capacitive Multi-Touch screen
- Wide power input 9-36V DC with ignition
- Windows 10 IoT Enterprise, Linux, Ubuntu 20.04 (Optional)

M12 waterproof connectors

IP65 waterproof and dustproof

Shock and vibration resistance according to MIL-STD-810G

Programmable function keys

Built to survive the extreme temperature range

Custom Configuration



Memory



WWAN

Application



Warehouse Management

IMPROVE OPERATIONAL EFFICIENCIES WITH VEHICLE MOUNTED COMPUTERS

Winmate's vehicle-mounted computers are designed to fit seamlessly into forklifts and other vehicles in a warehouse complex. With a range of mounting options and high-performance Intel processors to choose from, these VMCs can minimize errors and streamline inventory management.

Custom Configuration



WWAN



GPS/
GLONASS



UPS
Battery



Brightness



CANBUS



DIDO



Audio

Application



Reliable And Rugged

WORKABLE IN HOT AND COLD WAREHOUSE

To meet the challenging nature of cold chain solutions, our rugged computers are built with thermal sensors to automatically activate and deactivate the defroster (optional) to avoid inner condensation and provide stable performance.

10.4" / 12.1" / 14" Android Forklift Computers

FM10Q-V/ FM12Q-V/ FM14Q-V



“ WIDE RANGE OPERATING TEMPERATURE. ”

- All in one design, Integrated I/O function
- Qualcomm Snapdragon™ 660 octa-core, 2.2 GHz CPU, Android 9
- 10.4" / 12.1", 1024 x 768 Panel with PCAP touchscreen
- 14", 1920 x 1080 Panel with PCAP touchscreen

Wide power input 10-60V DC with ignition

Wide range operating temperature

Support VESA mount

High-performance Qualcomm® Snapdragon™ CPU

Compact housing with anti-scratch P-Cap multi-touch screen

Vibration and shock-proof design ensure reliable performance

IP65 waterproof and dustproof vehicle mounted computer

10.4" / 12.1" / 14" Windows Vehicle Mounted PC

FM10AD-V/ FM12AD-V/ FM14AD-V



“ ENABLE AUTOMATION IN THE WAREHOUSE. ”

- All in one design, Integrated I/O function
- 12th Gen. Intel® Processor Family – Alder Lake Processor
- 10.4" / 12.1", 1024 x 768 Panel with PCAP touch screen
- 14", 1920 x 1080 Panel with PCAP touch screen

IP65 waterproof and dustproof

Wide power input 10-60V DC with ignition

Wide range operating temperature

Support VESA mount

1 x USB 2.0 port, 1 x USB 3.0 Type-C (OTG), 2 x COM Port, 1 x Micro SD card slot, 1 x SIM card slot, 1 x LAN, 1 x DIDO (Optional), 1 x CANBUS (Optional), 1 x Audio (Optional)

Custom Configuration



WWAN



GPS/
GLONASS



Brightness



CANBUS



DIDO



Audio

Application



Advanced Communications

ENABLE UNINTERRUPTED COMMUNICATIONS

In a large warehouse environment, forklifts usually go back and forth between the cold and regular ambient storage. The rugged computers must show the same stable performance in both low and high temperatures.

Custom Configuration



WWAN



GPS/
GLONASS



UPS
Battery



Brightness



CANBUS



DIDO



Audio

Application



Minimize Errors and Streamline Inventory Management

WITH A RANGE OF MOUNTING OPTIONS

The vehicle mounted computers or tablet PCs installed on a forklift must be rugged enough to withstand all-day operations with vibration from the vehicle.

10.4" / 12.1" / 14" Windows Vehicle Mounted PC

FM10E-V/ FM12E-V/ FM14E-V



“ WIDE RANGE OPERATING TEMPERATURE. ”

- All in one design, Integrated I/O function
- Intel® Elkhart Lake x6425E Processor
- 10.4" / 12.1", 1024 x 768 Panel with PCAP touch screen
- 14", 1920 x 1080 Panel with PCAP touch screen

IP65 waterproof and dustproof

Wide power input 10-60V DC with ignition

Wide range operating temperature

Support VESA mount

10.4" / 12.1" Android Vehicle Mounted PC

FM10Q/ FM12Q



**“ FOR YOUR UNIQUE ANDROID
IN-VEHICLE APPLICATION. ”**

- 1024 x 768 with PCAP touchscreen
- Qualcomm® Snapdragon™ 660 octa-core, 2.2 GHz
- Android 9.0

RAM mount/ VESA mount

Field replaceable front panel to reduce service costs

IP65 waterproof and dustproof

Wide range -30°C to 50°C operating temperature

GPS/ GLONASS, G-Sensor, Temp. Sensor

Magnesium alloy back cover with plastic bezel

Fanless design

1 x USB 3.0 Type-C (OTG) (tablet), 1 x DB9 connector for 2 x USB 2.0 port (docking)

Custom Configuration



WWAN



Brightness
800 nits



UPS Battery



GPS

Application



Forklift Automation

MEETING A VARIETY OF CUSTOMER REQUIREMENTS

Winmate's FM10Q/FM12Q are powerful vehicle mounted computers that features a Qualcomm® Snapdragon™ 660 CPU and Android 9.0 operating system. The Android-based platform allows fast development of a variety of customized applications for every level across the enterprise.

10.4" / 12.1" Windows Vehicle Mounted PC FM10E/ FM12E

Custom Configuration



Memory



Storage



WWAN



“ DATA COLLECTION IN LOGISTICS APPLICATIONS. ”

- 1024 x 768 Panel with PCAP Touch
- Intel® Elkhart Lake x6425E Processor
- Windows 10 IoT Enterprise

1x SO-DIMM, DDR4 3200, 4 GB Memory

WLAN, BT, GPS/AGPS

G-Sensor, light sensor, temperature sensor

2 MP front camera

Screen blanking function for driver's safety

RAM mount, support VESA mount

Power input 10-60V DC with ignition control

IP65 waterproof and dustproof

MIL-STD-810H vibration, shock resistant

Application



Forklift Automation

ULTRA-RUGGED
TOUCH SCREEN
FOR THE TOUGHEST
ENVIRONMENTS

The large screen with the latest mobility platform for future-proofing, and features that will make the transition to a completely different OS as painless as possible.

8" Windows Rugged Tablet M900P/ M900PT



**PORTABLE AND
POWERFUL SOLUTION.**

- 8", 1280 x 800, PCAP touchscreen
- Intel® Pentium® N4200 (2M Cache, up to 2.5 GHz)
- Windows 10 IoT Enterprise

4 GB LPDDR4, 64 GB SSD

Light sensor, g-sensor, Gyro

2 MP webcam, 8 MP rear camera with autofocus

WLAN, BT, GPS, GLONASS

USB 3.0 (Type A), USB 3.0 (Type C), docking connector

D-sub for vehicle gateway connection

Built-in smart card reader (Default M900PT)

IP65 waterproof and dustproof

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

Custom Configuration



Memory



Storage



HF RFID
Reader



Barcode Reader



WWAN

Application



Connected Truck

CONNECTIVITY FOR VEHICLES ON THE ROAD

Winmate developed a smart truck solution for a heavy-duty vehicle. Installed on a dashboard using a vehicle cradle, the 8" rugged tablet M900P and custom-designed vehicle gateway VG-100 now connects in-vehicle systems and allows status monitoring of semi-trucks in Europe.

Custom Configuration



Memory



Storage



WWAN



Smart Card
Reader
(M140TGT)



RFID Reader



GNSS



Battery
Hotswap

Application



Where Workflow Meets Simplicity

PRECISION IN EVERYTAP AND SWIPE

Our 14" Windows rugged tablet is your ultimate tool for streamlining order management. With a spacious screen, it brings clarity to details, specifications, and shipping instructions

14" Windows Rugged Tablet M140TG/ M140TGT



“EFFICIENT LOGISTICS THROUGH INFORMATION GATHERING”

- 14", 1920 x 1080 wide viewing angle LED Panel
- 11th Gen. Intel® Processor Family – Tiger Lake Processor
- Windows 10 IoT Enterprise

Optical bonding and Antiglare technology for sunlight readability

WLAN, BT, GPS/GLONASS

G-Sensor, Light sensor, Gyro

2 MP front camera, 8 MP rear camera with auto focus

Hot-swappable battery for whole day work

IP65 waterproof and dustproof

MIL-STD-810H vibration, shock resistant

75x75 VESA Mount

10.1" Windows Rugged Tablet S101TG/ S101EK



“ **OPTIMUM SIZE,
MAXIMUM PRODUCTIVITY.** ”

- 10.1", 1920 x 1200 WUXGA with PCAP touch
- 11th generation Intel® Tiger Lake processor (S101TG)
- Intel® Elkhart Lake Celeron® N6211 (S101EK)

4 GB DDR4, 128 GB SSD, micro SDXC card slot

Light sensor/ g-sensor/ Gyro

2MP Webcam , 8MP Auto-focus rear camera

Anti-glare touch treatment

USB 3.0 Type-A, USB 3.0 Type-C, RJ45-10/100/1000 GigaLAN port, Micro SDXC slot, docking connector

WLAN, BT, GPS, GLONASS

Support hand/ gloves and rain mode

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

Custom Configuration

Up to 32 GB	Up to 2 TB	Up to 512 GB
Memory (S101TG)	Storage (S101TG)	Storage (S101EK)
WWAN	Barcode Reader	Expansion Port
Battery Hotswap		

Application



Inventory Control

MANAGE, OPTIMIZE.
THRIVE

The future of inventory management in warehouse logistics depends on tech integration. Windows rugged tablets have boosted productivity, accuracy, and customer satisfaction. These devices will stay at the forefront of innovation as the industry evolves, helping businesses meet fast-paced logistics demands.

Custom Configuration



RFID
Reader



Barcode Reader



WWAN



Battery Hotswap

10.1" Android Rugged Tablet S101M9/ S101M9L



Application



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

- 10.1", 1280 x 800 TFT LCD Display (S101M9L)
- 10.1", 1920 x 1200 TFT LCD Display (S101M9)
- Android 11.0
- ARM A73 x 4 (2.0 GHz) + A53 x 4 (2.0 GHz)

**Documentation
Access**

**WORK SIMPLER, FASTER,
AND BETTER WITH
WINMATE RUGGED
TABLET**

The integration of Android rugged tablets for documentation access transformed the logistics company's warehouse and logistics operations. By digitizing critical documents and fostering real-time communication, they achieved increased efficiency, reduced errors, and improved overall productivity.

4 GB RAM + 32 GB eMMC

8.0 MP camera in front side, 13.0 MP rear camera
(with LED auxiliary light, auto focus)

Anti-glare touch treatment

WLAN, BT, GPS, GLONASS, WWAN (Optional)

Integrated 1D/2D barcode reader (Optional)

Integrated NFC module (Optional)

SOTI MobiControl compliance

10.1" Windows Rugged Tablet M101TG



“ **OPTIMUM SIZE,
MAXIMUM PRODUCTIVITY.** ”

- 10.1", 1920 x 1200 IPS LED Panel with direct optical bonding
- Intel® Core™ i5-1135G7 Tiger Lake processor
- Windows 10 IoT Enterprise

IP65 waterproof

Dustproof, MIL-STD-810H shock, vibration and drop resistance

Sunlight readable with antiglare solution

Hot-swappable battery design

USB Type-C port support power delivery 20V-in

Custom Configuration



Memory



Storage



Barcode
Reader



WWAN



HF RFID
Reader

Application



Quality Inspection

**THE PERFECT
BALANCE BETWEEN
FUNCTIONALITY AND
FORM FACTOR**

The M101TG rugged tablet computers with the quality inspection software app installed serve at the factory's quality inspection department. Maintenance of department, premises, equipment, and learning is now easier than ever with the M101TG.

Custom Configuration



Memory



Storage



WWAN



GigaLAN
Port



Barcode
Reader



HF RFID
Reader

Application



Machinery & Equipment Inspections

HIGH PROCESSING POWER AND BRILLIANT TOUCH SCREEN

The M116TG features high processing power and a brilliant 11.6" touch screen, ideal for checking operation manuals and SOP procedures for live inspection and production supervision.

11.6" Windows Rugged Tablet M116TG



“ HIGH PROCESSING POWER IN A RUGGED ENCLOSURE. ”

- 11.6", 1920 x 1080, 850 nits IPS LED Panel with direct optical bonding
- Intel® Core™ i5-1135G7 Tiger Lake processor
- Windows 11 IoT Enterprise

IP65 waterproof

Dustproof, MIL-STD-810H shock, vibration and drop resistance

Sunlight readable with antiglare solution

Hotswappable battery design

USB Type-C port support power delivery 20V-in

11.6" Windows Rugged Tablet M116P/ M116PT



“

**BRILLIANT SUNLIGHT
READABLE SCREEN.**

”

- 11.6", 1920 x 1080, PCAP touchscreen
- Intel® Pentium® N4200 1.1 GHz, up to 2.5 GHz
- Windows 10 IoT Enterprise

4 GB LPDDR4, 128 GB SSD

Light sensor, G-sensor, Gyro

2 MP webcam, 8 MP rear camera with autofocus

WLAN, BT, GPS, GLONASS, WWAN (Optional)

USB 3.0 (Type A), USB 3.0 (Type C)

Integrated Smart Card Reader (M116PT)

IP65 waterproof and dustproof

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

Custom Configuration



Memory



Storage



WWAN



GigaLAN
Port



Barcode
Reader



HF RFID
Reader

Application



Logistical Operations

SUITABLE FOR FACTORY ENVIRONMENT

The M116P series rugged tablet features high processing capabilities, wireless connectivity options, and data capture modules for extraordinary performance.

A woman with long blonde hair, wearing an orange hard hat, a blue denim shirt, and an orange safety vest, is operating a forklift in a warehouse. She is looking forward and slightly to the right. The forklift's control panel is visible, featuring a digital display with various icons and a steering wheel. The background shows warehouse shelving units filled with cardboard boxes.

INVENTORY MANAGEMENT WITH QUALCOMM-POWERED DEVICES AND SOTI MOBICONTROL

WWW.WINMATE.COM



12.3" G-WIN GS SERIES PANEL PC

W12IE3S-GSB1

INTEL® CELERON® N6211 ELKHART LAKE



12.3" G-WIN GS SERIES PANEL PC

W12MG3S-GSB1

ARM 2 X A78 2.2GHZ + 6 X A55 2.0GHZ



E430RQ8
4.3" RUGGED HANDHELD PDA



FM10Q
**10.4" VEHICLE MOUNTED
COMPUTER**



FM12AD-V
**12.1" VEHICLE MOUNTED
COMPUTER**



FM14E-V
**14" VEHICLE MOUNTED
COMPUTER**

