



# Healthcare

FUTUREPROOF  
YOUR  
HEALTHCARE  
MANAGEMENT

# About Winmate

Founded in 1996, Winmate Inc. is a pioneer in rugged computing technology. For over two decades, Winmate has provided business leaders worldwide with reliable, rugged solutions made for the most challenging industrial conditions. 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 industrial display and panel PC, HMI, embedded systems, and IoT gateways to rugged tablets and handheld devices, Winmate caters to industries ranging from transportation and logistics to marine and military, railway, oil and gas, and also provides customization services to create a unique solution for specific customer requirements.

## The Winmate Difference

### Innovation and Ruggedness

Blending 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. This 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. From design to testing, the whole development process is conducted 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.

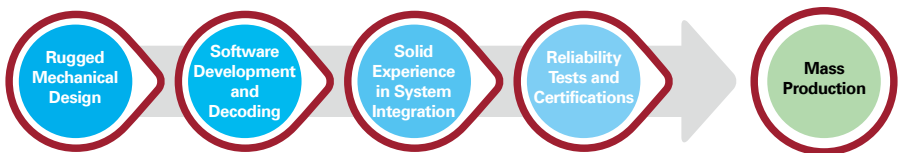
From product design to accessories, our engineering team designs and support the system integration process.

- 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

# Healthcare Solutions

## Overview

Technology has long played an imperative role in streamlining hospital operations and improving patient care. In hospital environments, performance, reliable and accurate image reproduction are imperative. From medical images to patient data, the hospital environment is a complex ecosystem that requires advanced technology to keep it running smoothly.

### Our medical imaging solutions include :

- Surgical and clinical display
- Durable design and know-how in medical images visualization

Expand your medical and healthcare business with the Winmate. As a technology solutions leader, Winmate values our partners. As a partner, you are a vital instrument in ensuring the customer needs are understood and that their expectations are exceeded every time.

## Technology

### Certification & Quality Approvals

Winmate developed and implemented a quality management system based on a process management approach that has demonstrated its ability to provide consistent products that meet customer and applicable regulatory requirements.

The quality system complies with the international standard ISO 9001:2008 and the standards which apply to related industries.

Winmate achieved ISO 13485:2016 and EN ISO 13485:2016 certification for its' design, development, production, installation, and servicing of medical devices. This achievement also enables Winmate to expand its medical-related product line, and create new opportunities for our original design manufacturer (ODM), original equipment manufacturer (OEM), and rebranding partners.



What does this mean for you? Winmate's certification confirms any portable panel PCs and mobile tablets we develop for use in the Healthcare industry are safe and meet all regulatory design requirements.



## YOUR HEALTHCARE APPLICATION. OUR RUGGED COMPUTING SOLUTION.

### Industrial Challenges

- **Real Time Information**

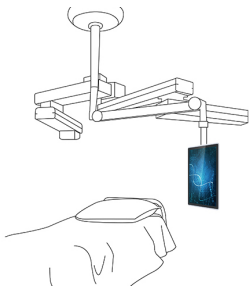
The trend in Healthcare applications is to get patients' information in real time for a quick response. Cost saving, online data available everywhere and reduced loading of personnel are the key benefits of this solution. Physicians, clinicians, nurses and ambulance workers who take care patients can focus on helping them, instead working with papers and reports.

- **Reliable and Accurate Image Reproduction**

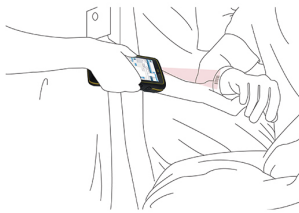
In hospital environments, performance, reliable, and accurate image reproduction are imperative. From Healthcare images to patient data, the hospital environment is complex ecosystem that requires advance technology to keep it running smoothly. The Display with a UHD 4K (3840 x 2160) resolution and a 3D LUT for color accuracy; helps minimize errors and improve hospital operational efficiencies.

- **Complex Environment**

The need is to reduce cable cluttering and maintenance downtime.



Patient Monitoring Display



Point-of-Care



Patient Identification and Report

# Application Story

## Patient Care



## Background

Portable and mobile devices dive into hospital environments. The ability to gather and access information with the touch of a fingertip, and carry it around wherever you go is invaluable for those working in this sector. Portable and mobile computers allow paramedics and nurses to instantly access and keep patient records. They use the tablets to schedule patient checkups in both outpatient and inpatient wards, issue and authorize prescriptions, record and transmit patient data in multimedia format and use instant live video conferencing and chat features to enhance collaboration. With technological advancements healthcare professionals can to provide better patient care.

## Core products

- 10.1" Healthcare Tablet Computer M101P-ME

## Main Challenges

- Expansion adapter module design for USB connection
- Must be able to work with vehicle docking
- Customized housing with anti-bacterial material

## Why Winmate

- Integrated barcode scanner for data collection
- Medically certified vehicle docking
- Medically certified IEC/EN 60601-1, IEC 60601-1-2

“**MOBILE HEALTHCARE TECHNOLOGIES FOR BETTER PATIENT CARE.**”



Application Diagram: Patient Care

# 4.3" Android Healthcare Rugged Handheld Computer E430RM4L-ME



“**COMPACT TOOL FOR DATA COLLECTION.**”

- 4.3" PCAP touchscreen
- A53 (Quad-Core 1.3 GHz)
- Android 7.0

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2 GB RAM, 16 GB eMMC

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Micro USB, micro SD card slot

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2 MP front camera, 8 MP rear camera with autofocus

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Automatic screen rotation

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Optional antimicrobial surface coating

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Up to 20 hr battery operating time

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With 1D/2D barcode and NFC reader

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IP65 waterproof and dustproof

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

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## Custom configuration



WWAN



Antimicrobial  
Surface Coating

## Application



### **MRT Diagnostic Room**

“DATA COLLECTION  
AND REAL-TIME  
COMMUNICATIONS”

Compact 4.3-inch rugged handheld computer E430RM4L with a built-in barcode scanner and Wi-Fi helps doctor's assistants check patient records and make calls to other departments.

# 5" Android Healthcare Rugged Handheld Computer

## E500RM8-ME

### Custom configuration



WWAN



Antimicrobial Surface Coating



Hotswap Battery



“

**DROP RESISTANT.  
MOBILE. RUGGED.**

”

### Application



### Laboratory

“BUILT-IN BARCODE SCANNER FOR IDENTIFICATION PURPOSES”

The 5-inch rugged mobile computer with built-in barcode scanner E500RM8-ME helps laboratory technicians to identify a probe and dispatch it to the right department for analysis.

- 5" PCAP touchscreen
- A53 (Quad-Core 1.3 GHz)
- Android 7.0

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2 GB RAM, 16 GB eMMC

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Micro USB, micro SD card slot

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Two SIM card slots

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2 MP front camera, 8 MP rear camera with autofocus

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Automatic screen rotation

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Optional antimicrobial surface coating

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1D/2D barcode reader and NFC reader

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IP65 waterproof and dustproof

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

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# 7" Android Healthcare Rugged Tablet M700DM8-ME



## Custom configuration



WWAN



Hotswap Battery



Barcode Reader



Antimicrobial  
Surface Coating



FCCE

“ **LIGHTWEIGHT MOBILITY  
IN POCKET SIZE.** ”

- 7" PCAP touchscreen
- A53 (Quad-Core 1.3 GHz)
- Android 7.0

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2 GB RAM, 16 GB eMMC

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Micro USB, Micro SD card slot

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SIM card slots

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2 MP front camera, 8 MP rear camera with autofocus

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Automatic screen rotation

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WLAN, BT, GPS/AGPS/GLONASS

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1D/2D barcode reader (Optional)

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IP65 waterproof and dustproof

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

## Application



### **Patient Identification**

“INSTANTLY ACCESS AND  
KEEP PATIENT RECORDS  
UPDATED”

Rugged and compact the Winmate M700DM8-ME with built-in barcode scanner helps streamline the patient admittance process, track medication and identify patients throughout their entire stay in a hospital.

# 10.1" Windows Healthcare Rugged Tablet M101P-ME

## Custom configuration



Memory



High  
Brightness



WWAN



High  
Capacity  
Battery



Barcode  
Reader



HF RFID  
Reader



“

**DROP RESISTANT.  
MOBILE. RUGGED.**

”

- 10.1", 1920 x 1200 PCAP touchscreen
- Intel® Pentium® N4200 1.10 GHz, up to 2.50 GHz
- Windows 10 IoT Enterprise

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Certified IEC 60601-1, 60601-1-2

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Housing enhanced with antimicrobial properties

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Long battery life

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USB 3.0 (Type C) connector

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Optional 1D/2D barcode scanner to scan medications or wrist bands

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Lightweight, rugged, IP65 waterproof and dustproof

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

## Application

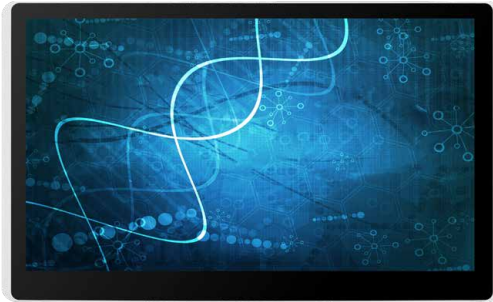


### Patient Care

“IMPROVES EFFICIENCY  
AND SAVES TIME FOR  
REGULAR CHECKUPS”

With a 10.1-inch tablet computer M101P-ME, nurses can easily access patient information any time from any place. If needed, the M101P-ME can also retrofit medication schemes and doctor prescriptions.

# 15.6" Healthcare Display W15L100-PTA3-ME



FC CE

“ **FOR MEDICAL IMAGING  
AND CLINICAL DATA  
VIZUALISATION.** ”

- 15.6", 1920 x 1080 resolution
- Projected capacitive multi-touch
- Housing with antimicrobial properties

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VGA input and HDMI input

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Stylish and elegant design

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Certified IEC 60601-1:2005, IEC 60601-1-6:2010,  
EN60601-1-2 (Ed. 4.0)

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Support VESA mount

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## Custom configuration

N/A

## Application



## **Diagnosis and Clinical Review**

“SHARP & BRIGHT  
IMAGES”

Winmate 15.6" healthcare display allows monitoring patient information and supports various mounting options for added convenience of diagnosis and clinical review.

# 32" 4K UHD Healthcare Display M320TF

## Custom configuration



AR Glass



DICOM



High  
Brightness



Backlight  
Sensor



Calibration  
Software



## Application



## Diagnosis and Clinical Review

"OPTIMIZED DISPLAY SOLUTIONS TO IMPROVE VISUALIZATION FOR AID IN CRITICAL DIAGNOSIS"

The M320TF display with 4K UHD resolution offers a user-friendly interface designed to improve workflow for healthcare environments, facilitate patient care while meeting the regulations of the healthcare industry.

“ **PIXEL-PERFECT IMAGES  
FOR CLINICIANS.** ”

- 32", 3840 x 2160 resolution
- Projected capacitive touch
- Chassis, VESA mount

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Certified IEC 60601, EN60950-1

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4K signal input HDMI/ DP/ SDI

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3D LUT color scheme

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Backlight sensor, ambient light sensor

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Housing with antimicrobial properties

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Support VESA mount

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# 32" 4K UHD Healthcare Display M320TF-SDI



## “NEXT LEVEL OF HEALTHCARE IMAGING.”

- 32", 3840 x 2160 resolution
- Projected capacitive touch
- Chassis, VESA mount

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Certified IEC 60601, EN60950-1

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4K signal input HDMI/ DP/ 12G-SDI

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3D LUT color scheme

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Backlight sensor, ambient light sensor

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Housing with antimicrobial properties

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Support VESA mount

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### Custom configuration



AR Glass



DICOM



High  
Brightness



Backlight  
Sensor



Calibration  
Software

### Application



#### **Surgical Display**

“4K SIGNAL  
TRANSMISSION TO A  
DISTANCE FOR UP TO 150  
METERS”

The M320TF-SDI is a 32" surgical display with a 12G-SDI interface to ensure the precise imagery remains unchanged from the video source to the 4K display and allows healthcare providers to have the most accurate imaging.

# 32" 4K UHD Healthcare Display W32L100-PTA1



## Custom configuration



High Brightness



PCAP Touch



HDMI

## Application



### Clinical Research Laboratory

"REQUIRED LUMINANCE  
AND CONTRAST"

Winmate 32" healthcare display W32L100-PTA1 features outstanding luminance, contrast, and wide viewing angles to give visual access to all the details and provide a level of visibility previously unknown to physicians.



**“DELIVERING ACCURATE IMAGE  
REPRODUCTION.”**

- 32", 3840 x 2160 resolution
- Projected capacitive touch
- Chassis, VESA mount

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Certified IEC 60601

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Bottom side keys x 5

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Fanless and ventless design, easy-to-clean

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Support VGA, DVI, DP

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Support IR remote controller

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Support VESA mount

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Housing with antimicrobial properties

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# M101P-ME

RUGGED  
HEALTHCARE  
TABLET  
COMPUTER FOR  
BETTER PATIENT  
CARE



**WinMATE**



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