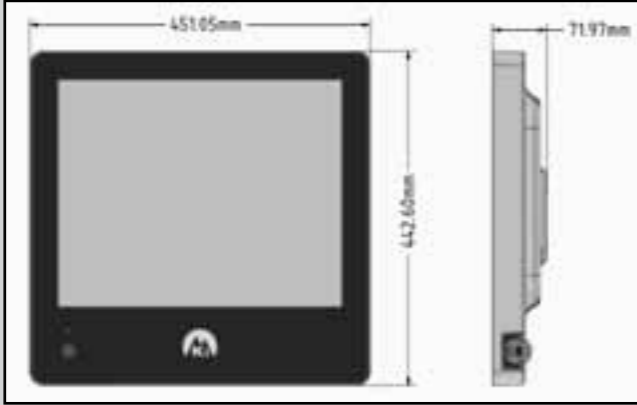


## PC Specification Summary

Screen	19" 1280x1024 Integrated touch-screen (Zytouch™) with zero drift and high light transmission.
Processor & Chipset Options	Intel® Atom N270, 945GME, 8280GHM, 2-4GB SRAM DDR2 Intel® i5/i7, HM55, 2-8GB SRAM DDR3 Consult K2 Medical Systems for further options.
Audio	Internal HDA CODEC, in-built microphone, audio line-in via rear Expansion connector. Integrated sound transducer/loudspeaker for high quality audio.
Isolated Interfaces	1 x Serial Port, full handshaking lines, Basic Insulation @ 240Vac (floating I/O). 1 x Ethernet Port, 100\1000BaseT, Basic Insulation @ 240Vac (floating I/O).
General Purpose Interfaces (I/O available at rear Accessory and Expansion interfaces, pin via rugged RJ45 connectors).	Accessory Connector: USB Port Internal firmware communications Expansion Connector: USB Port Audio Line In Power out
General Purpose Interfaces	Standard USB accessible under Compact Flash cover.
Disk Drive	Compact Flash card accessible in-situ via enclosure cover. Internal SATA SSD option (Solid State Drive).
Fingerprint Reader	Optical Secugen® scanner.
Expansion	Optional Wireless LAN.
Environmental	IP54 enclosure, with IP65 sealed front.
Mechanical	<10.5kg 75mm VESA Mount centrally positioned at device rear. 
Approvals	CE Marked UL approval on request BS EN 60601-1:1990 Medical electrical equipment. Part 1. General requirements for safety. BS EN 60601-1-2:2007 Medical electrical equipment. Part 1-2. Electromagnetic compatibility – Requirements and tests. BS EN 60601-1-4:1997 Medical electrical equipment. Part 1-4. General requirements for safety - Programmable electrical medical systems. BS EN 60601-1-6:2007 Medical electrical equipment. Part 1-6. General requirements for safety - Usability.
Operating System	Full support of Windows® XP Embedded and Windows®7. Consult K2 Medical Systems for further options and Linux support.
Accessories	K2 Medical Systems can supply a range of K2MS Portal™ accessories including mounting arms, mobile carts, battery backed PSUs and medical grade keyboards and mice.



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0040-9-0006

# K2MS Portal™

## Medical Grade PC for the clinical environment.



- Touchscreen
- Wipe-clean
- Medical Grade
- Fingerprint Reader
- Rugged, Strong Design
- Sealed & Silent Operating



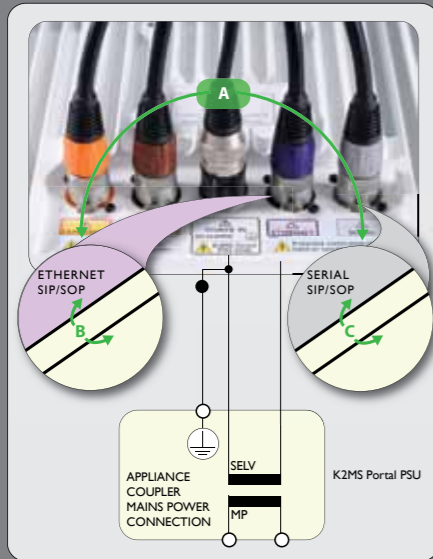
This stunning new product provides a peerless panel PC solution for medical applications. Designed solely for the demanding and specialised clinical bedside environment the K2MS Portal™ features an unrivalled wipe-clean design with integrated separation measures to ensure Medical Electrical System safety compliance.



## Medical Electrical Safety System

The K2MS Portal™ is a true medical device and carries the appropriate regulatory approvals to international Medical Electrical Equipment safety standards (IEC/EN 60601-1 family). This is not a commercial or industrial grade product being supplied with a medical PSU for clinical applications as with most medical panel PCs.<sup>2</sup>

K2MS Portal™ includes two fully isolated electrical interfaces; an Ethernet port and a Serial port. These isolated interfaces allow for the direct and safe connection to other medical or non-medical electrical equipment and hospital IT networks without the need for additional separation measures and the associated cost and bulk of these devices. The Ethernet and Serial ports are floating and isolated from all internal circuits and the Protective Earth. Isolation is implemented to Basic Insulation levels for European mains voltages.



## Robust Design

The K2MS Portal™ is a rugged and strong product, built to ensure long service life. It will withstand the knocks and rigors that may be expected within a stressful clinical environment.

- The device is sealed to an environmental protection rating of IP54 on all surfaces, ensuring no adverse effects from liquid spillages.
- The rear and side enclosure of the device is manufactured from a single aluminium casting for maximum strength.
- Toughened solid glass front; not only does this front ensure a peerless wipe-clean design but it is also very strong and difficult to scratch or damage. The glass front is subject to the 2" steel ball drop/impact test.<sup>3</sup>
- Electrical interfaces to the K2MS Portal™ are carried via rugged connectors at the product rear with good provision for strain relief and thereby long service life.

<sup>2</sup>The whole device is rated at IP54 not just the product front which is completely sealed. Some panel PCs apply their environment protection rating to the front only.

<sup>3</sup>IEC/EN 60601-1 3rd edition 15.3.4. impact test. The standard includes an exemption whereby the 6.5J impact test need not be applied to flat panel displays. The K2MS Portal™ does not use this exemption, considering the front display to be an integral part of the enclosure and therefore subject to the full tests thereby ensuring a strong, rugged device.



## Fingerprint Reader

The K2MS Portal™ features an integrated optical fingerprint reader for the quick, reliable and secure authentication of users. This may be used for a number of purposes from network logon to user authentication of data contributing to electronic patient records. Fingerprint recognition solves security issues caused by users sharing PIN numbers and swipe cards being swapped or shared.



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## CF Access

The enclosure features access to a Compact Flash card and standard USB socket. This can run the operating system and applications making software upgrades as simple as 'popping' in a new card.

## Fan-less and Silent Running

The K2MS Portal™ is completely silent in use with a sealed, fan-less construction. Solid state flash technology is used for optional internal disk drives, giving ultimate reliability with the added benefit silent operation; there is no audible disk whir.

## On/Off Button & status LED

The device's standby power button and tri-colour status LED are positioned underneath the glass front of the product, maintaining the superior wipe-clean design. A special purpose sensor monitors for a touch at the switch position. The performance of the sensor has been optimised by K2 Medical Systems to ensure no false triggering from cleaning wipes and touches or from liquid spillages.

## Internal Loudspeaker Transducer

Integrated sound capabilities are completed by a special audio transducer fixed within the enclosure. This transducer effectively causes the enclosure to act as a speaker baffle when driven with an appropriate electronic signal. This unique design allows for high quality audio sound produced from the device without the holes and vents normally required for speakers and sound.

## Infection Control

Great care has been taken to deliver a superior design that addresses the wipe-clean needs for today's HCAI (Healthcare Associated Infection) control measures. The front of the device is effectively a sheet of flat, toughened glass. The touch-screen sensor and on/off control are implemented behind this glass. Areas of the device touched and handled by users during normal use are completely free from difficult to clean joints or crevices. The solid glass front also ensures optimal image quality from the display which will not degrade from continual use.

The wipe-clean design philosophy carries through to the rear and sides of the product which are finished in a hard gloss paint and shaped for ease of cleaning. The joint between the glass front and enclosure side is filled by hand at manufacture with a silicon sealant. These measures ensure a leading design for ease of cleaning, compatible with a wide range of cleaning materials and methods.

