



# HEALTHCARE MOBILE COMPUTERS

RUGGED DISINFECTANT-READY MOBILE COMPUTERS FOR NEXT GENERATION HEALTHCARE MOBILITY

## IMPROVE PATIENT CARE AND SAFETY WITH THE NEXT EVOLUTION IN MOBILE COMPUTERS

Take the quality of care, patient safety and healthcare worker productivity to the next level in your institution with Motorola's healthcare mobile computing portfolio. With our easy-to-use and easy-to-carry devices, your healthcare workers can access patient information, perform a triple check to verify the right medication is about to be administered to the right patient, monitor patient vital signs, place pharmacy and lab orders, access test results and more — all in just seconds, anywhere inside your healthcare facility.

Add government-grade security for HIPAA compliance, a rugged design to endure daily use inside the hospital, a disinfectant-ready housing designed to withstand regular exposure to the harsh cleaning agents required to prevent the spread of bacteria, powerful tools for centralized management of all your mobile devices — including attached device accessories — and you have maximum value in a minimum footprint, all at the right price.

#### STREAMLINE AND ERROR-PROOF YOUR HOSPITAL APPLICATIONS WITH MOTOROLA MAX DATA CAPTURE

With our healthcare mobile computers in hand, your staff can electronically capture and transmit virtually any type of data from patient bedside right to your business systems. Our revolutionary scan engine delivers unparalleled performance on every 1D and 2D bar code and is optimized for the read ranges and bar code densities common in healthcare — including those on small vials and test tubes. Omnidirectional scanning provides true point and shoot scanning simplicity — no need to align the bar code in the field of view. First-time, every time scanning of even damaged and poor quality bar codes enhances user confidence and data capture speed. In addition, the integrated 3.2 megapixel autofocus color flash-enabled camera enables the easy capture of high-resolution photographs, video footage and documents — complete with legible fine print.

#### THE POWER TO SUPPORT ALL OF YOUR POINT-OF-CARE APPLICATIONS

With our healthcare mobile computers, your clinical staff can count on consistent best-in-class mobile application performance, regardless of whether your applications incorporate high resolution video, documents and images or large databases that must be resident on the device. This family offers a robust processing platform, from operating system to memory architecture, including Microsoft Windows Mobile 6.5; a Marvell™ PXA320 processor with 806 MHz of blazing speed; and 256MB RAM/1GB Flash with a user accessible microSD slot to accommodate up to 32GB of additional storage. And the ability to automatically switch between portrait and landscape display modes with a flick of the wrist provides additional real-estate and easier viewing for more complex applications.

#### A RUGGED DESIGN BUILT FOR **LIFE IN THE HOSPITAL**

Our healthcare devices are built to last — and our toughness tests prove it. Motorola MAX Rugged. Motorola's set of signature rugged specifications — including MIL-STD 810G — ensures outstanding performance. Even after exposure to heat, cold, dust, drops, spills, wipedowns, constant disinfecting and 1,000 consecutive tumbles in our rotating tumble drum, the devices continue to operate reliably. The result is a dramatic reduction in repair requirements and downtime and a strong return on asset (ROA).

In addition, the ability to frequently disinfect our mobile computers throughout the day helps prevent the spread of bacteria among patients and caregivers. The special housing can be safely sanitized with many common cleaning agents, without damaging the plastics or the sensitive electronic components.

#### TALK TO WORKERS WITH DIFFERENT **DEVICE TYPES ON DIFFERENT NETWORKS**

Inside the hospital, different types of workers use different types of devices. Administrators may carry Motorola's TEAM VoWLAN phones. Physicians may carry Motorola's small pocketable mobile computers, the ES400. Nurses and lab technicians may carry our healthcare mobile computers for point-of-care applications as well as mobile voice. Biomedical engineers and materials management personnel may carry the MC75A or MC55A0.

#### **FEATURES**

#### **MAXIMUM POWER**

Powerful microprocessor designed for mobility: PXA320 @ 806 MHz Best in class mobile application performance optimized for longer shift life

#### Microsoft's latest enterprise operating system:

Windows® Mobile® 6.5 Increased interoperability with existing enterprise infrastructure; enhanced security features; more flexible development platform; improved mobile messaging collaboration

256MB RAM/1GB Flash Provides memory space required to enable robust performance for database applications

User accessible microSD card slot Provides additional memory and expandable functionality up to 32GB

#### **MAXIMUM RUGGED DESIGN**

Motorola MAX Rugged: Industry-leading drop, tumble and sealing specifications with a disinfectant-ready housing Lightweight yet rugged;

built for year-round use in nearly any environment; can be sanitized with common medical disinfectants to help prevent the spread of bacteria and disease

#### **MAXIMUM WIRELESS PERFORMANCE**

WLAN: 802.11a/b/g tri-mode radio; comprehensive VoIP **support** Cost-effective voice and data connectivity in the hospital, nursing home, clinic and beyond; 802.11a enables segmentation of voice traffic to ensure voice quality

WPAN: Bluetooth® v2.1 with EDR Wireless connectivity to modems, printers, headsets and more; additional profiles for expanded connectivity to more device types with either Microsoft or Stonestreet stacks; v2.1 simplifies pairing, improves security and reduces power consumption

IrDA (MC75A0-HC only) Wireless connectivity to legacy medical and other business equipment

#### **MAXIMUM MANAGEABILITY**

#### Comprehensive centralized device management

Compatibility with Motorola Mobility Services Platform (MSP) and Motorola Mobility Suite provides superior centralized and remote management of a broad range of mobile products and their attached peripherals, anywhere in the world, all from a single console

And campus security as well as custodial and patient transport staff may carry two-way radios. Typically, these devices cannot 'speak' to each other, resulting in 'islands of voice'. But Motorola's Integrated Voice Solutions provide instant push-to-talk communications between these devices. And in the critical care setting of a hospital, the powerful and highly cost-effective one-to-one and one-to-many voice communications across workgroups ensures the lightning fast response times that save lives and improve the patient experience.

### ADVANCED POWER MANAGEMENT FOR FULL SHIFT OPERATION

Enterprise-class accelerometer technology injects our mobile computers with the intelligence to save power whenever a device is not in use. For example, devices can automatically revert to sleep mode if movement is not detected in the period of time you specify, or if the display is placed face down on a surface. In addition, Motorola-unique wireless LAN (WLAN) features also reduce processing requirements by filtering out unnecessary system traffic, conserving power for application access.

#### **MAXIMUM CONNECTIVITY OPTIONS**

Simplify life for your clinical staff and your IT department with comprehensive wireless connectivity inside the facility. Support for 802.11a/b/g enables easy integration with virtually any wireless LAN — as well as the flexibility to segment voice traffic to ensure quality of service for VoWLAN communications. With the latest Bluetooth technology, clinical staff can connect wirelessly to a wide range of Bluetooth-enabled peripherals — from headsets and printers to medical equipment.

### EASY HIPAA COMPLIANCE WITH GOVERNMENT-GRADE SECURITY

Motorola MAX *Secure* keeps your data safe with the most advanced set of security features available in this product class. Native FIPS 140-2 Level 1 certification and support for the most advanced encryption and authentication algorithms as well as Virtual Private Networks (VPNs) provide the compliance required for government-level applications, easily meeting HIPAA regulations. And Motorola's deep knowledge of wireless infrastructure enables the integration of FIPS and other security requirements without negatively impacting WLAN performance.

#### **FEATURES** (continued)

#### **MAXIMUM SECURITY**

Motorola MAX Secure FIPS 140-2 certification and support for the most advanced encryption and authentication algorithms as well as Virtual Private Networks (VPNs) enables compliance with the most stringent industry security regulations, including sensitive government applications; MSP enables remote wipe and lock in the event a device is lost or stolen

#### **MAXIMUM FLEXIBILITY**

MPA Motorola MAX MPA: Mobility Platform
Architecture 2.0 Provides the latest best-in-class technology architecture; preserves existing application investments by enabling easy and cost-effective porting of applications from other Motorola mobile computers

101100 Motorola MAX Data Capture: multi-mode data capture Capture high quality pictures, documents and signatures as well as 1D and 2D bar codes in a single device to improve patient safety and reduce data errors; optimized for the read ranges and high density bar codes typical in healthcare

Motorola MAX Sensor Enterprise-class Interactive Sensor Technology (IST) enables leading edge motion-based applications, including dynamic screen orientation, power management and free-fall event logging

#### Multiple voice modes: handset, headset and speakerphone

Flexibility to use the right mode at the right time; high quality speaker, microphone and receiver provide superior voice quality and performance

3.5 inch color high definition VGA display (640 x 480) with the latest in LCD technology Easy to view in virtually any lighting; supports display of high resolution images including video and maps

**Comprehensive accessory suite** Add-on functionality expands solution reach, protects investment and maximizes TCO — rich accessory ecosystem offers hands-free scanning, RFID (3rd party accessory) and more

### GET YOUR APPLICATIONS UP AND RUNNING FAST

In addition to offering the right set of features for your users and applications, our healthcare mobile computers also reduce IT time and cost by enabling rapid and cost-efficient application migration and development. The Motorola standard platform enables easy integration into your existing technology environment. Since all Motorola mobile computers share this common platform, existing applications developed for other Motorola mobile computers can be ported to our healthcare product line with minimal effort. If you are deploying new applications, our robust award winning partner channel offers well-tested best-in-class healthcare applications. And another Motorola tool, PocketBrowser, makes it easy for your own resources to develop applications in-house. This tool provides a familiar and easy-to-use environment that enables the easy incorporation of the wide range of advanced data capture capabilities available in our devices — from bar code scanning to document and signature capture.

## POWERFUL CENTRALIZED MANAGEMENT OF YOUR MOBILE PRODUCTS — AND THEIR PERIPHERALS

A Motorola-unique toolset provides unparalleled management of your mobile devices. Motorola Mobility Services Platform (MSP) allows your IT department to remotely stage, provision, monitor and troubleshoot tens of thousands of devices in locations all around the world, all from a central location. The result is a radical reduction of one of the largest costs associated with mobility — day-to-day management. Device-level intrusion protection solutions allow the addition of extra layers of security to protect data that is resident on the device and in transit to and from a wide variety of mobile products and your network. And AppCenter allows you to easily define which device features and software applications users can access, preventing unauthorized device usage that could reduce productivity.

### THE MOTOROLA ADVANTAGE: WORLD CLASS SUPPORT

No matter what services you need, we have you covered. If you are implementing your first mobility solution, we can provide assistance at every stage from planning through design and deployment. If you are adding new healthcare applications, we can help you identify whether your present wireless LAN can handle the increased load — as well as any other gaps that need to be addressed to ensure smooth deployment. And since even the most rugged devices require a support plan, our Service from the Start with Comprehensive Coverage will keep your devices up and running at peak performance, providing the peace of mind you need in your critical care environment. This unique all-inclusive service covering normal wear and tear as well as internal and external components damaged through accidental breakage, all at no additional charge, significantly reduces your unforeseen repair expenses. And options such as Commissioning Service and Express Shipping further minimize downtime in the unlikely event a repair is required.

For more information on how you can improve patient safety and worker efficiency in your healthcare organization with our healthcare mobile computing portfolio, please visit us on the Web at www.motorola.com/mc75a0hc, www.motorola.com/mc55a0hc or access our global contact directory at www.motorola.com/enterprisemobility/contactus

### **SPECIFICATIONS CHART**

	MC55A0-HC	MC75A0-HC		
PHYSICAL CHARAC	TERISTICS			
Dimensions	5.78 in. L x 3.03 in. W x 1.1 in. D 14.7 cm L x 7.7 cm W x 2.8 cm D	6 in. L x 3.3 in. W x 1.7 in D 15.24 cm L x 8.4 cm W x 4.4 cm D		
Weight	11.9 oz./338 g (including standard battery)	14 oz./398 g (including standard battery)		
Display	PenTile® 3.5 in Color VGA, super bright 650+ NITS	Transflective color 3.5" full VGA with backlight, 640 x 480		
Touch Panel	Glass analog resistive touch			
Display Backlight	LED backlight			
Standard Battery	Rechargeable Lithium Ion 3.7V, 3600 mAh Smart Battery			
Extended Battery	N/A	Rechargeable Lithium Ion 3.7V, 4800 mAh Smart Battery		
Backup Battery	Ni-MH battery (rechargeable) 18mAh 2.4V (not user accessible)	Ni-MH battery (rechargeable) 15mAh 2.4V (not user accessible)		
Expansion Slot	microSD slot with SDHC Support (maximum 32GB)			
Comm. Interface	USB 1.1 host and client	Ethernet (via cradle); full-speed USB 1.1 host or client; RS-232; Infra-red (IrDA) port for connection to printers and other devices		
Notification	Audible tone plus multi-color LEDs, Vibrate			
Keypad Options	QWERTY; Numeric			
Audio	VoWLAN; TEAM Express compliant; support for Bluetooth headsets; handset and speaker phone modes	VoWLAN; TEAM Express compliant; support for wired and Bluetooth headsets; handset and speaker phone modes		
PERFORMANCE CH	ARACTERISTICS			
CPU	MarveII™ PXA 320 @ 806 MHz processor			
Operating System	Microsoft® Windows Mobile® 6.5 Classic			
Memory	256MB RAM; 1GB Flash			
<b>USER ENVIRONME</b>	NT			
Operating Temp.	14° F to 122° F/-10° C to 50° C			
Storage Temp.	-40° F to 158° F/-40° C to 70° C			
Humidity	95% non-condensing			
Drop Specification	Multiple 6 ft./1.8 m drops per MIL-STD 810G specifications			
Tumble Specification	1,000 1.6 ft./0.5 m tumbles (2,000 hits)			
Sealing	IP64 per IEC sealing specifications	IP54 per IEC sealing specifications		
Clock	Integrated real time clock			
Electrostatic Discharge (ESD)	15KV Air; 8KV Touch			
BATTERY PERFORM	MANCE			
User Profiles	Minimally 8 hours based on 600 scans and WLAN transmits per hour with display on and standard capacity battery			
DATA CAPTURE OP	TIONS			
Options	2D SE4500-DL imager; 3.2 MP auto-focus flash-enabled digital color camera; captures 1D and 2D bar codes, color photographs and video, signatures and documents			

### **SPECIFICATIONS CHART** (continued)

	MC55A0-HC		МС75АО-НС		
2D IMAGER ENGINE	(SE4500-DL)				
Sensor Resolution	752 H x 480 V pixels (gray scale)				
Roll	360°				
Pitch Angle	± 60°	from norr	nal		
Skew Tolerance	± 60° from normal				
Ambient Light	Total darkness to 9,000 ft. candles/96,900 lux				
Aiming Element (VLD)	655 nm ± 10 nm				
Illumination Element	625 nm ± 5 nm				
Field of View	Horizontal: 40°; Vertical: 25°				
Ranges	100% UPC/EAN: 1.6 in	Near ./36 mm a./41 mm ./71 mm	Far 7.3 in./185 mm 12 in./305 mm 4.5 in./114 mm		
COLOR CAMERA					
Resolution	3.2 megapixel				
Illumination	User controllable flash				
Lens	Auto focus				
WIRELESS LAN VOI	CE AND DATA COMMUNICATIONS				
WLAN Radio	Tri-mode IEEE® 802.11a/b/g				
Security	WPA2, WEP (40 or 128 bit), TKIP, TLS, TTLS (MS-CHAP), TTLS (MS-CHAP v2), TTLS (CHAP), TTLS-MD5, TTLS-PAP, PEAP-TLS, PEAP (MS-CHAP v2), AES, LEAP, CCXv4 certified; FIPS 140-2 certified				
Antenna	Internal (Primary and Diversity)				
Data Rates Supported	1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48 and 54 Mbps				
Operating Channels	Chan 8-165 (5040 — 5825 MHz), Chan 1-13 (2412-2472 MHz), Chan 14 (2484 MHz) Japan only Actual operating channels/frequencies depend on regulatory rules and certification agency				
Voice Communication	Voice-over-IP ready, Wi-Fi™-certified, IEEE 802.11a/b/g direct sequence wireless LAN, Wi-Fi Multimedia™ (WMM), Motorola Voice Quality Manager (VQM)				
WIRELESS PAN DAT	ГА				
Bluetooth	Class II, v 2.1 Enhanced Data Rate (EDR); integrated antenna				
PERIPHERALS AND	ACCESSORIES*				
Backwards Compatibility	MC55AO-HC is backwards compatible with MC55, MC55AC and MC65 accessories		5AO-HC is backwards compatible with MC70, MC75 MC75A accessories		
Communication and Battery Chargers/ Cradles	Charge only cable; auto charge cable; USB charge/sync cable; 4 slot battery charger toaster; 4-slot Ethernet cradle; 4-slot charge only cradle; single slot USB cradle; vehicle holder using auto charge cable; vehicle cradle with charging capabilities	charg cable cradl vehic for 1.	ge only cable; serial and USB v1.1 charging cables, serial ge/sync cable, USB charge/sync cable, power/charging a, vehicle charging cable, single slot USB or serial charge e, 4-slot ethernet cradle, 4-slot charge only cradle, ele cradle with charging capability (requires adapters 5X and 2.5X capacity batteries), 4-slot battery charger, ersal battery charger, printer cables		

<sup>\*</sup> Visit www.motorola.com/mc55a0hc or www.motorola.com/mc75a0hc for a complete list of available peripherals and accessories

### **SPECIFICATIONS CHART** (continued)

	MC55A0-HC	MC75A0-HC		
MOTOROLA INTE	RACTIVE SENSOR TECHNOLOGY			
	Motion-sensor: 3-axis accelerometer that enables motion-sensing applications for dynamic screen orientation, power management and free-fall detect			
REGULATORY				
Electrical Safety	Certified to UL/cUL 60950-1, IEC/EN60950-1			
Environmental	RoHS-compliant			
WLAN and Bluetooth (PAN)	USA: FCC Part 15.247, 15.407 Canada: RSS-210, RSS 310 EU: EN 300 328, EN 300 440-2, EN 301 893 Japan: ARIB STD-T33, ARIB STD-T66, ARIB STD-T70 & T71 Australia: AS/NZS 4268	USA: FCC Part 15.247, 15.407 Canada: RSS-210 EU: EN 300 328, EN 301 893 Japan: ARIB STD-T33, ARIB STD-T66, ARIB STD-T71 Australia: AS/NZS 4268		
RF Exposure	USA: FCC Part 2, FCC OET Bulletin 65 Supplement C Canada: RSS-102 EU: EN 50392 Australia: Radiocommunications Standard 2003	USA: FCC Part 2, FCC 0ET Bulletin 65 Supplement C Canada: RSS-102 EU: EN 50360 Australia: Radiocommunications Standard 2003		
EMI/RFI	North America: FCC Part 15, Class B Canada: ICES 003 Class B EU: EN55022 Class B, EN 301 489-1, EN 301 489-17, EN 301 489-19, EN 60601-1-2	North America: FCC Part 15, Class B Canada: ICES 003 Class B EU: EN55022 Class B, EN 301 489-1, EN 301 489-3 EN 301 489-7, EN 301 489-17, EN 301 489-24, EN 60601-1-2 Australia: AS/NZS CISPRA-22		
Laser Safety	IEC/Class 2/FDA II in accordance with IEC60825-1/EN 60825-1			
*For countries outsid	le USA, Canada, European Economic Area, Japan or Australia con	sult your local Motorola representative		
WARRANTY				
	All Motorola mobile computers are warranted against defects in workmanship and materials for a period of 12 months fror date of shipment, provided that the product remains unmodified and is operated under normal and proper conditions			
RECOMMENDED	SERVICES			
	Customer Services: Service from the Start with Comprehensive Coverage			

#### **CLEANING INSTRUCTIONS**

#### **Approved Cleanser Active Ingredients:**

100% of the active ingredients in any cleaner must consist of one or some combination of the following: isopropyl alcohol; bleach/sodium hypochlorite; hydrogen peroxide; mild dish soap

#### **Harmful Ingredients:**

The following chemicals are known to damage the plastics on the MC55A0-HC/MC75A0-HC mobile computers and should not come in contact with the device: ammonia solutions, compounds of amines or ammonia; acetone; ketones; ethers; aromatic and chlorinated hydrocarbons; acqueous or alcoholic alkaline solutions; ethanolamine; toluene; trichloroethylene; benzene; carbolic acid; TB-lysoform

#### **Cleaning Instructions:**

Do not apply liquid directly to the MC55A0-HC/MC75A0-HC mobile computers. Dampen a soft cloth or use pre-moistened wipes. Do not wrap the device in the cloth or wipe, but gently wipe the unit. Be careful not to let liquid pool around the display window or other places. Allow the unit to air dry before use.

#### **Special Cleaning Notes:**

Many vinyl gloves contain phthalate additives, which are often not recommended for medical use and are known to be harmful to the housing of the MC55A0-HC/MC75A0-HC mobile computers. The devices should not be handled while wearing vinyl gloves containing phthalates, or before hands are washed to remove contaminant residue after gloves are removed. If products containing any of the harmful ingredients listed above are used prior to handling the MC55AO-HC/MC75AO-HC mobile computers, such as hand sanitizers that contain ethanolamine, hands must be completely dry before handling the devices to prevent damage to the plastics.









Sensor



101100



MPA







Part number SS-HCMC. Printed in USA 11/10. MOTOROLA, MOTO, MOTOROLA SOLUTIONS and the Stylized M Logo are  $trademarks\ or\ registered\ trademarks\ of\ Motorola\ Trademark\ Holdings,\ LLC\ and\ are\ used\ under\ license.\ All\ other\ trademarks$ are the property of their respective owners. ©2010 Motorola, Inc. All rights reserved.

