MC65

Rugged software configurable dual 3.5G WAN Enterprise Digital Assistant (EDA)



Make the most out of every minute in the field — with the Motorola MC65

Supercharge your mobile workforce and redefine productivity with the toughest, most flexible EDA on the market. Workers have multiple tasks and limited time. With the MC65, they have the tools in hand to get their jobs done right — right now. Desktop-like performance provides instant access to the applications and information back at the office. Shave hours of time out of the work week by capturing and processing just about any type of data on site, quickly and easily — from a single document to hundreds of bar codes, a library of photos or a signature. Activate and reactivate the MC65 on virtually any cellular network in the world, eliminating the need to purchase network technology (GSM or CDMA) specific devices, extending device lifecycle and ensuring that each and every worker has the best connection possible. Add a customizable user interface that makes doing business easier than ever and you have a real workforce multiplier — a device that turns paperwork and repeat visits into more tasks completed per day.

Streamline and error-proof processes with advanced data capture

The MC65 does it all —1D and 2D bar codes, photos complete with embedded notes, documents, signatures and more. Poorly printed or damaged bar codes a problem? Not for the MC65. Our most advanced scanning technology allows the rapid-fire capture of items as they are removed from the delivery truck, so your customers get what they ordered, every time.

With the MC65, an equipment inspector can capture a photo, add comments and automatically embed a geostamp via integrated GPS, sending supervisors the information they need to get the right technician to the right location to complete a repair. And that repair technician can take and transmit live video to collaborate with a specialist to troubleshoot a problem. A city building inspector can capture a document, complete with legible fine print and a signature, keeping all forms related to a code enforcement case in hand. And when account managers scan the product inventory remaining on the shelves in a grocery store, the resulting real-time count creates real-time accurate sales orders and production schedules.

Connect to virtually any carrier network in the world — GSM or CDMA

The MC65 offers a Motorola first — the ability to connect to virtually any wireless carrier around the world. Both 3.5G GSM HSPA and CDMA EVDO Rev A software configurable cellular radios are built into the device, allowing you to select the network that will provide the best coverage for your workers. Do your workers travel through large territories best served by different networks? Need to activate on a different network for workers in a different office? No problem. This single device can be deployed and re-deployed on virtually any network, anywhere in the world, making purchasing and device management easy — and maximizing your return on investment.

FEATURES

HIGH-POWERED PLATFORM

The most advanced mobile operating system

Microsoft's Windows® Embedded Handheld 6.5 increases interoperability with existing enterprise infrastructure; enhances security features; provides a more flexible development platform; improves mobile messaging collaboration

Powerful microprocessor designed for mobility

The MSM 7627 @ 600 MHz with multi-processor architecture delivers desktop-like multimedia performance — even on the most demanding applications

The memory to support any application

512MB RAM/1GB Flash and a user accessible microSD card slot with support up to 32GB provide the memory space required to enable robust performance for database and other processing intensive applications

Protects your application investments

Support for Motorola's Enterprise Mobility Developer Kit (EMDK) APIs preserves existing application investments by enabling easy and cost-effective porting of applications from other Motorola mobile computers

COMPREHENSIVE WIRELESS CONNECTIVITY

Works on any cellular network WAN

Motorola MAX *FlexWAN* provides true network independence with the industry first software configurable dual 3.5G broadband WAN; supports GSM HSPA and CDMA-EVDO Rev A; deploy and re-deploy a single pool of devices anywhere in the world on virtually any network

Works on any wireless LAN

The 802.11a/b/g tri-mode radio connects to both 2.4Ghz and 5Ghz WLANs for cost-effective voice and data connectivity in the office and hot spots; 802.11a support enables segmentation of voice traffic to ensure voice quality

The most advanced Bluetooth functionality

Bluetooth® v2.0 with EDR provides a wireless connection to more device types, including modems, printers, headsets and more; simplifies pairing; improves security; reduces power consumption

THE MOST RUGGED EDA

Motorola MAX *Rugged* for industry leading rugged design — and reliability

Drop (impact) test: multiple 6 ft./1.8 m drops per MIL-STD 810G

Tumble (endurance) test: reliable operation after 1,000 1.5 ft./0.5 m consecutive tumbles (2,000 drops) in Motorola's tumble drum

IP64 sealing: complete protection against dust and splashing liquids

Patented Monocoque 'unibody' housing: greatly improves structural stability and ability to handle the twisting common in a fall or bump

Patented I/O connector: improves the reliability and durability of the accessory point of interface

Improved shock absorption for internal components: a rigid yet lightweight magnesium frame encases the main circuit board and all electronics

Rugged display construction: space between display and touchscreen helps prevent damage to the display

The most rugged EDA design yet — period

The MC65 is built to last, so your workers have a device they can count on while your business enjoys a maximum return on investment (ROI). We designed it with features that ensure reliable operation despite drops and exposure to heat, cold, dust, and moisture. Tested for toughness, the device passes our own stringent drop and tumble tests and meets environmental sealing, military standard (MIL-STD) and IEC specifications. Structural stability has been improved with our patented unibody housing and a special internal component provides extra protection for sensitive electronics. There's even a patented spring-loaded accessory interface that prevents damage if the MC65 is dropped while attached to a peripheral, like a magnetic stripe reader (MSR).

Finally — a user interface built for business

Complex devices can leave users struggling to find and access features, instead of focusing on the task at hand. With the Motorola Enterprise User Interface (MEUI), workers can access everything they need to do their job with a tap or two — from business applications to data capture and conference call functions to email and text messages. Either your employees or IT staff can tailor this unique customizable business-class interface to simplify use, streamlining everyday tasks and improving productivity.

Hear every word on every call

Every call counts — whether you're talking to customers, supervisors, co-workers or other business associates. But out in the field, background noise can wreak havoc with phone conversations. The MC65's Dual-Microphone Noise Cancellation technology makes sure that all anyone will hear is you. Our leading-edge noise reduction and echo cancellation technology uses one microphone to capture the speaker's voice and a second to identify and eliminate distracting background noise, including wind, crowds, vehicles or other conversations in the area.

Sensor technology that makes good business sense

The MC65 is a new class of device, one that is able to sense its environment and take action to conserve battery power, provide consistent screen visibility and adjust ringer settings. For example, the integrated accelerometer reacts to motion, or the lack of motion. You can automatically switch to portrait or landscape display modes to match the device orientation. The

ADVANCED DATA CAPTURE

Motorola MAX *Data Capture* for advanced high-performance multi-mode data capture

Motorola's latest generation 2D imager: delivers unparalleled laser-like performance on both 1D and 2D bar codes; reads even damaged and poor quality codes; omni-directional reading eliminates need to align bar code and scanner window for rapid-fire comfortable scanning

3.2 autofocus flash-enabled digital color camera with user-controllable flash: can capture photos, videos, documents with legible fine print and bar codes (for non-intensive scanning applications)

COMPREHENSIVE VOICE

Motorola MAX *Voice* delivers advanced voice functionality and voice quality

Leading-edge noise reduction and echo cancellation technology eliminates background noise; high quality speakerphone, microphone and transducer provide robust support for handset, Bluetooth headset and speakerphone modes

ADVANCED USER FEATURES

Industry first business-class interface — the Motorola Enterprise User Interface (MEUI)

This customizable business-class interface provides faster and easier access to features and applications; allows users to tailor the interface to improve their unique workflow and maximize on-the-job efficiency

Motorola MAX *Sensor* for the intelligence to sense — and act — on the environment

Motion sensing: automatically rotates screen; powers down when not in use to preserve battery; enables utilization of sensor data in custom applications

Light sensing: automatically adjusts display as workers move between indoors and outdoors to maintain visibility at all times

Sound sensing: automatically adjust settings based on environmental noise levels — such as reducing ringer volume and activating vibration mode

Anywhere anytime accurate GPS with Motorola MAX *Locate*

Enables a signal lock in challenging areas such as urban canyons and deep inside buildings where GPS is typically not available; highly precise positioning improves application accuracy; provides users with location-based services in more areas; supports Autonomous and Assisted GPS with gpsOneXTRA™

ADVANCED PHYSICAL FEATURES

Advanced ergonomic design for ease of use and user comfort

Specifically designed for one-handed operation — data entry is easy regardless of hand size with minimal movement

MC65 can also power down to sleep mode when the device is placed face down or remains untouched for a pre-defined period of time. With full access to the accelerometer data, you can create custom business applications that help identify a potential man down, improving the safety of remote field workers. As workers travel from inside buildings to bright sunlight, the display automatically adjusts to save power, ensuring the screen is readable at all times. And when workers enter a noisy or quiet area, ringer volume and vibration mode are automatically adjusted to make sure calls are not missed and co-workers in the vicinity are not disturbed.

mobile computers and peripherals as well as mobile devices from other manufacturers. And our Service from the Start with Comprehensive Coverage support program is a unique service that protects your investment and keeps your MC65 devices operating at peak performance. This program sets the standard for post-deployment support by including normal wear and tear, as well as coverage for internal and external components damaged through accidental breakage — significantly reducing your unforeseen repair expenses. This truly comprehensive service also covers all the items that ship 'in the box' at no additional charge, including the stylus, screen protector, hand strap and battery door.

The Motorola end-to-end advantage

When you choose the MC65, you enjoy the advantages of world-class partners, world-class management solutions and world-class services. Our partners provide a best-in-class broad set of ready-to-go and custom applications that minimize deployment time and cost. Our Mobility Services Platform allows you to manage your entire mobility solution — including Motorola

For more information on how the MC65 can redefine the productivity of your mobile workforce, please visit us on the web at www.motorola.com/MC65 or access our global contact directory at www.motorola.com/enterprisemobility/contactus

Crystal clear text and graphics with Motorola MAX *Display*



3.5 inch extra-crisp PenTile® high-resolution color VGA touchscreen display is easy to view in virtually any lighting condition — indoors and outside; additional white pixel improves contrast; energy efficient

A family of keypads for global flexibility

QWERTY, AZERTY, QWERTZ, Numeric, PIM and DSD keypads enable the MC65 to support a wide range of applications in just about any geography

Compatible with MC55 accessories

Upgrade from the MC55 to the latest mobile technology advancements while preserving your existing accessory investments

WIRED NETWORK SECURITY OVER ANY WIRELESS NETWORK

Make sure only authorized users access your devices, your data and your network

Compatibility with Motorola's Mobile Security Suite provides device-level protection — a firewall, intrusion prevention, enforced authentication, data encryption and integrity monitoring protect the data that is resident on and in transit to and from your MC65 devices; Mobile Virtual Private Networks (MVPNs) bring wired-line security to wireless communications without the typical performance degradation

EASY CENTRALIZED MANAGEMENT

Easy global remote management of your devices — and their accessories

Compatibility with Motorola's Mobility Services Platform (MSP) enables comprehensive and flexible centralized management of Motorola mobile computers and non-Motorola mobile computers and peripherals, anywhere in the world, all from a single console

END-TO-END SUPPORT SERVICES

Increase uptime and reduce support costs with all-inclusive support plan

Optional Service from the Start with Comprehensive Coverage covers normal wear and tear as well as internal and external components damaged through accidental breakage for both device and select accessories

MC65 Specifications

Physical Characteristics	
Dimensions:	6.38 in. L x 3.03 in. W x 1.32 in. D (with antenna) 162.2 mm L x 77 mm W x 33.5 mm D (with antenna)
Weight:	12.5 oz./359g (with rechargeable 3600mAh Lithium Ion battery)
Display:	PenTile® 3.5 in Color VGA, super bright 650+ NITS
Touch Panel:	Glass analog resistive touch
Backlight:	LED backlight
Standard Battery:	Rechargeable Lithium Ion 3.7V, 3600 mAh battery;
Backup Battery:	Li-Mn02 (rechargeable) 25mAh 3.0V (not user-accessible or replaceable)
Expansion Slot:	microSD slot (supports up to 32GB)
Communication Interface:	USB 2.0 High Speed (host and client)
Notification:	Audible tone plus multi-color LEDs
Keypad Options:	Numeric, QWERTY, AZERTY, QWERTZ, PIM and DSD
Audio:	Dual microphone support with noise cancellation; vibrate alert; speaker; Bluetooth headset
Performance Characteristics	
CPU:	MSM Qualcomm 7627@ 600 MHz (multi-processor architecture)
Operating System:	Microsoft Windows® Embedded HandHeld 6.5
Memory:	512MB RAM/1GB Flash
User Environment	
Interfaces:	Motorola Enterprise UI: customizable homescreen, enhanced dialer and enterprise camera solution
Operating Temperature:	14° F to 122° F/-10° C to 50° C
Storage Temperature:	-40° F to 158° F/-40° C to 70° C
Humidity:	5 to 95% non-condensing
Drop Specification:	Multiple 6 ft. drops per MIL-STD 810G specifications
Tumble Specification:	1,000 1.6 ft./0.5 meter tumbles (2,000 drops) at room temperature; per applicable IEC tumble specifications
Sealing:	IP64; per applicable IEC sealing specifications
Vibration:	4g's PK Sine (5Hz to 2KHz); 0.04g2/Hz Random (20Hz to 2KHz); 60 minute duration per axis, 3 axis
Thermal Shock:	-40° F to 158° F/-40° C to 70° C rapid transition
Electrostatic Discharge (ESD):	± 15kv Air discharge, ± 8kv direct discharge, ± 8kv indirect discharge
Battery Performance	
Standby Time:	100 Hours
Talk Time:	6 Hours
User Profiles:	8 Hours (user profile dependent)

Motorola Interactive Sensor Technology (IST)	
Motion Sensor:	3-axis accelerometer that enables motion-sensing applications for dynamic screen orientation and power management
Light Sensor:	Ambient light sensor to auto adjust display backlight brightness
Data Capture	
Options:	Three configurations available: 2D SE4500-SR imager; 2D SE4500-SR imager + 3.2 MP Camera; 2D SE4500-DL imager + 3.2 MP Camera
Data Types:	1D and 2D bar codes, photographs, video, signatures, documents
Camera	
Resolution:	3.2 megapixel
Illumination:	User controllable flash
Lens:	Autofocus
2D Imager Engine (SE4500)	
Focal Distance:	From center of exit window: SR - 7.5 in./19 cm
Sensor Resolution:	752 x 480 pixels
Field of View:	Horizontal 40°; Vertical 25°
Optical Resolution:	WVGA 752H X 480V pixels (gray scale)
Roll Tolerance:	360°
Pitch Tolerance:	± 60° from normal
Skew Tolerance:	± 60° from normal
Ambient Light (from total darkness):	Indoor: 450 ft. candles (4845 lux) Outdoor: 9000 ft. candles (96,900 lux) Sunlight: 8000 ft. candles Fluorescent: 450 ft. candles
Ranges:	

SR Focus Range	Near	Far
5 mil Code 39:	2.1 in./53 mm	7.5 in./191 mm
100% UPC/EAN:	1.6 in./41 mm	15.5 in./394 mm
6.7 mil PDF417:	3.4 in./86 mm	7.1 in./180 mm

DL Focus Range	Near	Far
5 mil Code 39:	1.4 in./36 mm	7.3 in./185 mm
100% UPC/EAN:	1.6 in./41 mm	12 in./305 mm
5 mil PDF417:	2.8 in./71 mm	4.5 in./114 mm

Aiming Element (VLD):	655 nm ± 10 nm Laser
Illumination Element (LED):	625 nm ± 5 nm LEDs (2x)
Field of View:	Horizontal: 39.6°; Vertical: 25.7°
Voice and Audio	
Voice and Audio:	VoWWAN; VoWLAN; PTT, VoIP-ready; high-quality speakerphone; support for wireless (Bluetooth) headsets; support for PTT headsets, handset and speaker phone modes

MC65

Rugged software configurable dual 3.5G WAN Enterprise Digital Assistant (EDA)

Wireless WAN Voice & Data Communications	
Radio:	Dual 3.5G: GSM HSPA/HSUPA and CDMA EVDO Rev A
Frequency Band:	UMTS/HSDPA and HSUPA: 850, 1900 and 2100 MHz GSM/EDGE: 850, 900, 1800 and 1900 MHz CDMA/EVDO Rev A: 850 and 1900 MHz
Integrated GPS	
GPS:	Integrated standalone or Assisted-GPS (A-GPS) with gpsOneXTRA™
Wireless LAN Voice and Data Communications	
Radio:	Tri-mode IEEE® 802.11a/b/g
Security:	WPA2 (Personal or Enterprise); 802.1x; EAP-TLS; TTLS (CHAP, MS-CHAP, MS-CHAPv2, PAP or MD5); PEAP (TLS, MSCHAPv2, EAP-GTC); LEAP, EAP-FAST (TLS, MS-CHAPv2, EAP-GTC)
Data Rates Supported:	1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48 and 54 Mbps
Voice Communication:	Voice-over-IP ready, Wi-Fi™-certified, IEEE 802.11a/b/g direct sequence wireless LAN, Wi-Fi Multimedia™ (WMM and WMM-PS) Motorola Voice Quality Manager (VQM), Motorola TEAM Express Ready
Wireless PAN Data and Voice Communications	
Bluetooth:	Class II, v2.0 with Enhanced Data Rate (EDR)
Peripherals and Accessories*	
Communication and Charging Cables:	Charge only cable, auto charge cable, USB charge/sync cable
Battery Chargers/ Cradles:	4-slot battery charger; 4-slot Ethernet cradle; 4-slot charge only cradle; single slot USB cradle; vehicle holder using auto charge cable; vehicle cradle with charging capabilities
Vertical Specific Attachments:	Snap-on magnetic stripe reader (MSR); snap-on trigger handle
Soft Goods:	Rigid and soft case holsters, headsets

* Visit www.motorola.com/mc65 for a complete list of available peripherals and accessories

Regulatory	
Electrical Safety:	IEC/UL/CSA/EN 60950-1
Environmental:	RoHS/WEEE compliant
WLAN and Bluetooth (PAN):	**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-T70, ARIB STD-T71 **Australia:** AS/NZS 4268
Wireless WAN (GSM HSUPA/HSPA):	**Global:** 3GPP TS 51.010, 3GPP TS 34.121, 3GPP TS 34.123 GCF and PTCRB approved **USA:** FCC Part 22, Part 24 **Canada:** RSS-132, RSS-133 **EU:** EN301 511, EN301 908 **Australia:** AS/ACIF S042.1 & 3
Wireless WAN (CDMA-EVDO Rev A):	**USA:** FCC Part 22, Part 24 **Canada:** RSS-132, RSS-133
RF Exposure:	**USA:** FCC Part 2, FCC OET Bulletin 65 Supplement C **Canada:** RSS-102 **EU:** EN 50360; EN 62311 **Australia:** Radio communications Standard 2003
EMI/RFI:	**USA:** FCC Part 15, Class B **Canada:** ICES 003 Class B **EU:** EN55022 Class B, EN 55024, EN 301 489-1, EN 301 489-3, EN 301 489-7, EN 301 489-17, EN 301 489-24, EN 60601-1-2, EN 50121-3-2, EN 50121-4 **Australia:** AS/NZS CISPRA-22
Laser Safety:	IEC Class2 / FDA Class II in accordance with IEC60825-1/EN60825-1

Warranty

The MC65 is warranted against defects in workmanship and materials for a period of 12 months from 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



MAX ***FlexWAN*** **MAX** ***Rugged*** **MAX** ***Display*** **MAX** ***Sensor*** **MAX** ***Data Capture*** **MAX** ***Locate***

Windows Mobile

Wi Fi CERTIFIED

Bluetooth®

MOTOROLA

motorolasolutions.com

ITALSOLUZIONI

Part number SS-MC65. Printed in USA 06/13. 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. ©2013 Motorola Solutions, Inc. All rights reserved. For system, product or services availability and specific information within your country, please contact your local Motorola office or Business Partner. Specifications are subject to change without notice.