



MC75A

Premium 3.5G Worldwide Enterprise Digital Assistant (EDA)



The next evolution in EDA power

Motorola's MC75A takes its place as one of the world's premier EDAs, offering more enterprise-class features and functionality than any other device in its class. Turbocharged with many Motorola Mobility Architecture eXtension (MAX) features, the MC75A addresses the top business mobility needs, offering maximum processing power, rugged design, flexibility in extending solution reach, data capture capabilities, connectivity options, security and manageability. Two options — 3.5G WWAN/WLAN and WLAN only — enable enterprises to standardize on a single device for workers inside the four walls and out in the field. Add a field proven ergonomic design that is easy-to-hold, easy-to-carry and easy-to-use, and you have maximum value in a minimum footprint — all at the right price.

Maximum power

The MC75A offers the most robust processing platform in the EDA class today, from operating system to memory architecture, including Microsoft Windows Mobile 6.5; the fastest processor, the PXA320 @ 806 MHz; and 256 MB RAM/1GB Flash with a user accessible microSD slot to accommodate up to 32GB of additional storage. As a result, the MC75A delivers consistent desktop-like performance, regardless of whether your applications incorporate high resolution video, documents and images or you need thick client applications.

Motorola's most rugged EDA

With Motorola MAX Rugged, you can count on reliable operation inside and outside the enterprise — the MC75A meets or exceeds MIL-STD 810G requirements for stress (drop) testing as well as IEC specifications for tumble and sealing. The MC75A is built to survive drops to concrete from as high as 5 ft./1.52 m. Motorola's tumble drum test proves that the device can endure 1,000 consecutive 1.6 ft./.5 m tumbles (2,000 hits) — and still deliver dependable performance. And the IP54 sealing rating enables use in dusty environments and exposure to rain or spills. The result is a dramatic reduction in repair requirements and downtime, providing a strong return on asset (ROA).

Maximum flexibility

The MC75A offers a level of flexibility that puts it in a class of its own, with a feature set that includes many Motorola-unique capabilities.

The only EDA to offer five keypads. Numeric, QWERTY, DSD, AZERTY and QWERTZ keypads enable maximum data entry simplicity for virtually any application anywhere in the world. Enterprises can standardize on a single device for many different workgroups with different application needs, simplifying the mobility architecture as well as reducing training and support costs.

Motorola Integrated Voice Solutions: unparalleled integrated voice interoperability. Inside the four walls, different workgroups often require different types of devices that run on different networks — from mobile computers and VoWLAN devices to two-way radios. The result is 'islands of voice' — the inability for cross-communications between device families. The MC75A eliminates this issue. The integrated TEAM Express voice client enables push-to-talk instant communications with other TEAM Express-enabled Motorola mobile computers, TEAM smartphones and two-way radios (Radio Link Server required). With powerful and highly cost-effective one-to-one and one-to-many voice communications between all workers inside the four walls, the enterprise enjoys lightning

fast response times, improved productivity and decision-making — as well as increased customer service, satisfaction and retention.

Motorola MAX Locate for more robust location-based applications. Integrated aGPS/GPS technology opens up a world of possible location-based applications — including real-time navigation, better fleet management, the ability to geostamp a photo for proof of condition or capture coordinates for proof of delivery in transportation and logistics or proof of service for inspections and maintenance. The best-in-class implementation includes the SiRFstarIII GSC3f/LP GPS chipset for robust coverage even in challenging urban canyons and areas of dense foliage, providing more users with location-based services in more areas. And the low-power chipset delivers top-notch accuracy with minimal power requirements, conserving battery power.

Enterprise-class motion sensing with Motorola MAX Sensor. MAX Sensor enables business-class implementation of one of the most popular consumer-style cellular phone technologies in the MC75A — the accelerometer. In addition to the typical ability to automatically switch between portrait and landscape display based on the orientation of the device, many additional features can be enabled in seconds, right out of the box. Power management features help ensure full shift battery power. For example, the device can automatically revert to sleep mode if movement is not detected in a specified period of time, or if the display is face down. The ability to detect and log drops helps increase worker accountability for device condition. And the open architecture allows enterprises to integrate the accelerometer data into customized applications that can help improve the safety of field service technicians working in remote areas and prevent device theft.

MAX Data Capture for maximum business functionality. The ability to capture virtually any type of data and perform almost any business function ensures that the MC75A can meet your application needs today and well into the future. As the inventor of bar code scanning, Motorola offers unparalleled 1D and 2D scanning technology. The SE950 scan engine provides best-in-class 1D bar code scanning performance, while the SE4500, Motorola's revolutionary imager engine, delivers equally stunning performance on 1D and 2D bar codes. In addition, the SE4500 offers omni-directional scanning, eliminating the need to align bar code and scanner, and providing the intelligence to capture even damaged and poor quality bar codes. 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 MC75A in action inside the enterprise walls



Retail

The MC75A enables the complete mobile associate, providing the power to answer customer questions, manage inventory, line bust, process purchases and more, right on the spot.



Manufacturing

The MC75A offers the rugged design required to survive life in a manufacturing plant, enabling remote system monitoring, inventory counts, replenishment, ID verification and more.



Healthcare

Able to withstand wipe downs and sanitization, the MC75A enables the many mobile point of care (POC) applications, from medication administration and specimen collection to nurse call, charge capture and inventory management.

Comprehensive accessory family expands solution reach

The Magnetic Stripe Reader (MSR) and Mobile Payment Module (MPM) enable workers to process purchases virtually anywhere in the world — from the retail sales floor to the customer's doorstep. Third party peripherals, such as an RFID reader, enable users to leverage RFID data to streamline and error-proof inventory and other workflows. Motorola's Bluetooth®-enabled RS507 Imager, worn on two fingers, provides hands-free scanning convenience. And a trigger handle allows workers to switch between handheld and industrial-style gun form factors in seconds, providing comfort for the most scan intensive tasks.

Maximum connectivity options

With the MC75A, your workers hold the universe of wireless connectivity options in their hands. WWAN functionality provides a connection to the fastest available cellular networks. Support for 3.5G HSDPA or CDMA EVDQ Rev A provides workers anywhere in the world with high-performance broadband speeds. Comprehensive 802.11a/b/g support provides a seamless cost-effective WLAN connection inside the four walls and in hot spots — and support for 802.11a allows the granular segmentation of voice traffic, ensuring quality of service for VoWLAN communications. Bluetooth provides a wireless connection to a wide range of Bluetooth-enabled peripherals, such as headsets and printers. Support for the latest Bluetooth technology — v2.1 with EDR — provides simple one-step easy pairing, improved security and reduced power consumption. And support for

IrDA enables wireless communications with a wide range of existing business equipment — from medical equipment to fax machines.

Government-grade security with Motorola MAX Secure

The Motorola MAX Secure feature set keeps your data safe and secure, regardless of whether the MC75A is connected to the WWAN or the WLAN. Native FIPS 140-2 Level 1 certification and support for the most advanced encryption and authentication algorithms as well as Virtual Private Networks (VPNs) provides the compliance required for government level applications as well as stringent industry regulations — including PCI in retail and HIPAA in healthcare. And Motorola's deep knowledge of wireless infrastructure enables the integration of FIPS and other security requirements without the typical impact on WLAN performance.

Maximum ease of application development and device manageability

In addition to the right set of features for your users and applications, the MC75A also offers the functionality required to reduce IT time and cost, including:

Rapid and cost-efficient application development.

Motorola MAX MPA (Motorola Platform Architecture) provides an industry standard platform that 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 effortlessly and seamlessly to the MC75A,

The MC75A in action in the field



Field Service/Sales

The MC75A supports robust automation out in the field, enabling real-time dynamic work order assignment, proof of service, sales order management, asset management and the ability to process COD transactions.



T&L

With a rugged design that can survive life in a truck, the MC75A enables real-time pick-up and delivery, inventory management, proof of location and condition and more.



Government

Its rugged design and FIPS 140-2 certification enable state, local and federal governments to leverage the MC75A to improve operational efficiency and better protect revenues — and constituents.

enabling exceptionally rapid deployment and improving the return on investment for existing applications. Additionally, Motorola's robust award winning partner channel provides access to a world of well-tested best-in-class line of business applications, further reducing application development time and costs.

Another Motorola tool, PocketBrowser, is built on Pocket Internet Explorer and Internet Explorer, providing a familiar and easy-to-use environment that enables the simple and rapid development of applications that incorporate the wide range of advanced data capture capabilities integrated into the MC75A — from bar code scanning to signature capture.

Comprehensive centralized tools for cost-effective day-to-day management. Compatibility with the Motorola Mobility Suite enables extraordinary centralized control of your MC75A devices. Motorola Mobility Services Platform (MSP) allows IT to remotely stage, provision, monitor and troubleshoot tens of thousands of devices inside and outside the four walls virtually anywhere in the world, all from a central location, radically reducing one of the largest costs associated with mobility — day-to-day management. Device-level intrusion protection and Mobile Virtual

Private Network (VPN) solutions allow the addition of extra layers of security to protect data that is resident on the device and in transit to and from the MC75A and your network. And AppCenter allows enterprises to easily define which features and software applications users can access, preventing unauthorized device usage that could reduce productivity.

The Motorola advantage: world class partners and world class support

Motorola's award-winning partner ecosystem offers a best-in-class, broad set of ready-to-go and custom applications for a wide variety of industries, minimizing deployment time and cost. And since even rugged devices require a support plan, Motorola offers Service from the Start with Comprehensive Coverage to help keep your MC75A up and running at peak performance. This unique all-inclusive service significantly reduces your unforeseen repair expenses by covering normal wear and tear as well as internal and external components damaged through accidental breakage — all at no additional charge. And options such as Commissioning Service and Express Shipping help to further minimize downtime in the unlikely event your device requires repair.

For more information on how you can leverage the benefits of the MC75A in your enterprise, please visit us on the Web at www.motorola.com/MC75A or access our global contact directory at www.motorola.com/enterprise/contactus

MOTOROLA'S MC75A:

Maximum features...maximum functionality...maximum value.

Maximum power

Powerful microprocessor designed for mobility: PXA320 @ 806 MHz

Desktop-like multimedia performance optimized for longer shift life

Microsoft's latest 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

Lightweight yet rugged; built for year-round use in nearly any environment

Maximum connectivity options — and maximum wireless performance

3.5G WWAN: GSM HSDPA or CDMA-EVDO Rev A broadband connectivity over the cellular network

High performance wireless broadband voice and data anywhere in the world:

- Connection to most carriers in the world with one platform
- Best in class cellular broadband throughput
- Integrated voice and data services: allows workers to conduct a phone call while maintaining a data connection (where supported by carrier)¹
- Internal WWAN diversity antenna provides better signal reception and a more dependable connection

WLAN: 802.11a/b/g tri-mode radio; comprehensive VoIP support

Cost-effective voice and data connectivity in the office and hot spots; 802.11a enables segmentation of voice traffic to protect voice quality

WPAN: Bluetooth® v2.1 with EDR²

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

Wireless connectivity to legacy printers and other business equipment

Maximum manageability

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

Comprehensive centralized device management

Compatibility with Motorola Mobility Services Platform (MSP) and Motorola Mobility Suite provides superior centralized and remote management of all devices anywhere in the world — from a single console

¹ Simultaneous delivery of mobile voice, data and GPS services is carrier dependent. The GSM HSDPA cellular network supports all three services simultaneously. The CDMA EVDO Rev. A network enables the simultaneous delivery of GPS and either voice or data.

² The MC75 offers the option of either the standard Microsoft Bluetooth stack or the platform based Stonestreet One stack, for enhanced application portability.

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

Maximum flexibility

Motorola MAX Data Capture: multi-mode data capture via a bar code scanner plus a color camera

Ability to capture high quality pictures, documents and signatures as well as 1D and 2D bar codes in a single device improves workforce automation, increases productivity and reduces data errors with:

- Motorola's revolutionary 2D imager: delivers unparalleled laser-equivalent performance on 1D bar codes; reads damaged and poor quality codes; enables omni-directional reading
- 3.2 megapixel autofocus flash-enabled color digital camera designed to meet the needs of enterprise class applications
 - Autofocus provides superior image quality for greater application flexibility — including document capture
 - User controllable flash enables workers to activate or de-activate the flash as needed
 - In bar code reading mode, the screen reticule provides an aiming aid to ensure accurate first-time capture of bar codes
 - Preserves application investment: bar code scanning applications that utilize the laser scanner or imager on other Motorola mobile computers require little if any changes, reducing application development costs and enabling rapid deployment

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

Motorola MAX Locate: SiRFstarIII GSC3ef/LP GPS chipset

Integrated, autonomous and assisted GPS support for robust location-based applications; high performance, power-efficient processor capable of acquiring and maintaining a signal lock in areas where signals are typically weak, expanding the coverage area for GPS applications; faster time to first fix (TTFF); flexibility to operate in either standalone or assisted GPS (aGPS) mode (carrier dependent) for faster and more accurate positioning — especially in challenging areas

Multiple keyboard options: Numeric, QWERTY, DSD, QWERTZ and AZERTY

Flexibility to meet diverse user and application needs

High quality speaker, microphone and receiver

Superior voice quality and performance

Multiple voice modes: handset, headset and speakerphone

Flexibility to use the right mode at the right time

3.5 inch color high definition VGA display (640 x 480) with the latest in LCD technology

Easy to view in any lighting; supports display of high resolution images including video and maps

Backwards compatible with MC70 and MC75 accessories

Provides investment protection for existing investments

Comprehensive accessory suite

Availability of add-on functionality expands solution reach, protects investment and maximizes TCO with rich accessory ecosystem that offers the ability to read debit and credit cards around the world, hands-free scanning, RFID and more

MC75A Specifications

Physical Characteristics

Dimensions:	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 (including standard battery):	WWAN standard 1.5X battery: 14.9 oz./423 g WLAN standard 1.5X battery: 14 oz./398 g
Display:	Transflective color 3.5" full VGA with backlight, 640 x 480
Touch Panel:	Glass analog resistive touch
Backlight:	LED backlight
Main Battery:	Rechargeable Lithium Ion 3.7V, 3600 mAh Smart Battery
Ext. Cap. Battery:	Optional 3.7V, 4800 mAh Smart Battery
Backup Battery:	Ni-MH battery (rechargeable) 15mAh 2.4V (not user-accessible)
Expansion Slot:	microSD slot with SDHC Support (up to 32GB)
Network Connections:	Ethernet (via cradle); full-speed USB, host or client
Notification:	Vibrator and LED
Keypad Options:	Numeric; QWERTY; DSD; AZERTY; QWERTZ
Audio:	VoWWAN; VoWLAN; TEAM Express compliant; support for wired and wireless (Bluetooth) headsets; headset, handset and speaker phone modes

Performance Characteristics

CPU:	PXA320 @ 806 MHz processor
Operating System:	Microsoft® Windows Mobile® 6.5 Classic and Professional
Memory:	256MB RAM; 1GB Flash
Interface:	PS-232, USB 1.1

User Environment

Operating Temperature:	14° F to 122° F/-10° C to 50° C
Storage Temperature:	-40° F to 158° F/-40° C to 70° C (w/o battery)
Humidity:	95% non-condensing
Drop Specification:	Multiple 5 ft. drops to concrete at room temperature; Multiple 4 ft. drops to concrete across the operating temperature range; meets and exceeds applicable MIL-STD 810G specifications
Tumble Specification:	1,000 1.6 ft./5 m tumbles (2,000 drops); per applicable IEC tumble specifications
Sealing:	IP54 per applicable IEC sealing specifications
IrDA:	Infra-red port for connection to printers and other devices
Clock:	Integrated real time clock
Light Immunity:	Readability: Incandescent — 450 ft. candles; Sunlight — 8000 ft. candles; Fluorescent: 450 ft. candles
Electrostatic Discharge (ESD):	±15kV air discharge, ±8kV direct discharge

* For WAN configurations, add 1 in./2.54 cm to the length (L) for the antenna

Battery Performance

Standby time:	150 hours
Talk time:	5 hours
User profiles:	Outdoor WAN+GPS, 15min/hour voice communication, 10kB transmission every 10 min, and GPS on all time, 8 hours of operation. Outdoor Voice, 15 min/hour voice communication, 8 hours of operation, and 75 hours standby time.

Note: Performance metrics above were measured with Battery reserve option set the highest (72 hours)

Wireless WAN Data and Voice Communications

WWAN Radio:	GSM: HSDPA; CDMA: EVDO Rev A
GPS:	Integrated, Autonomous and Assisted-GPS (A-GPS) through SUPL; SiRFstarIII GSC3f/LP chipset

Wireless LAN Data and Voice Communications

WLAN Radio:	Tri-mode IEEE® 802.11a/b/g
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
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
Spreading Technique:	Direct Sequence Spread Spectrum (DSSS) and Orthogonal Frequency Division Multiplexing (OFDM)
Antenna:	Internal for LAN, External for WAN
Voice Communication:	Integrated Voice-over-IP ready (P2P, PBX, PTT), Wi-Fi™-certified, IEEE 802.11a/b/g direct sequence wireless LAN

Wireless PAN Data and Voice Communications

Bluetooth:	Class II, v2.1 with Enhanced Data Rate (EDR) integrated antenna
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Data Capture Options

Scanning:	1D Scanner; 2D Imager; 3.2 MP auto-focus flash-enabled digital color camera with symbology decode software
Four Configuration Options:	1D laser scanner; 2D imager; 1D laser scanner and camera; 2D imager and camera

Color Camera

Resolution:	3.2 megapixel
Illumination:	User controllable flash
Lens:	Auto focus

1D Laser Scanner (SE950)

Range on 100% UPCA:	24 in./60 cm
Resolution:	4 Mil minimum element width
Roll:	±35° from vertical
Pitch Angle:	± 65° from normal
Skew Tolerance:	± 50° from normal
Ambient Light Immunity:	10,000 ft. candles/107,640 lux
Scan Rate:	104 (+/- 12) scans/sec (bi-directional)
Scan Angle:	47° ± 3° default; 35° ± 3° reduced

2D Imager Engine (SE4500-SR)

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°
Skew Tolerance:	±60°
Pitch Tolerance:	±60°
Roll Tolerance:	360°
Ambient Light Immunity:	9,000 ft. candles/96,900 lux
Aiming LED (VLD):	655 ± 10 nm Laser
Illumination Element (LED):	625 ± 5 nm LEDs (2x)

Motorola Interactive Sensor Technology

Motion-sensor: 3-axis accelerometer that enables motion-sensing applications for dynamic screen orientation, power management and free-fall detect

Peripherals and Accessories

Communication and Charging Cables:	Serial and USB v1.1 charging cables, printer cables, vehicle charging cable, power/charging cable
Battery Chargers:	4-slot battery charger (1X, 1.5X and 2.5X), universal battery charger (requires adapters for 1X, 1.5X and 2.5X capacity batteries)
Vertical-specific attachments:	Snap-on Magnetic Stripe Reader (MSR); Payment Snap-on (Debit and Credit); Mobile Payment Module, Mobile Payment Module with Chip and PIN
Electrical Safety:	Certified to UL / cUL 60950-1, IEC / EN60950-1
EMI/RFI:	USA: FCC Part 15; Canada: ICES 003 Class B; Europe: EN55022 Class B, EN 55024, EN60601-1-2; Australia: AS/NZS CISPR A 22

For countries outside USA, Canada, European Economic Area, Japan or Australia consult your local Motorola representative

For a complete list of MC75A Peripherals and Accessories, please visit www.motorola.com/mc75a

Regulatory

Electrical Safety:	Certified to UL / cUL 60950-1, IEC / EN60950-1
Environmental:	RoHS-compliant
WLAN and Bluetooth:	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
Quad Band GSM/EDGE, plus Tri-band HSDPA:	Global: 3GPP TS 51.010, 3GPP TS 34.121, 3GPP TS 34.123 GCF approved module USA: FCC Part 22, Part 24 Canada: RSS-132, RSS-133 EU: EN301 511, EN301 908 Australia: AS/ACIF S042.1&3
CDMA-EVDO Rev. A:	Verizon and Sprint (For the latest information, contact your local Motorola representative)
RF Exposure:	USA: FCC Part 2, FCC OET 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 301 489-3, EN 301 489-7, EN 301 489-17, EN 301 489-24, EN 60601-1-2 Australia: AS/NZS CISPR A-22
Laser Safety:	IEC Class2/FDA Class II in accordance with IEC60825-1/EN60825-1

For countries outside USA, Canada, European Economic Area, Japan or Australia consult your local Motorola representative

Warranty

The MC75A 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.

The MC75A is a true global product that is supported in all industrial countries. Please visit www.motorola.com for a complete list of supported countries.



MAX Rugged



MAX Secure



MAX Sensor



MAX Data Capture



MAX Locate



MAX MPA

SPECIFICATION SHEET

MC75A
Premium 3.5G Worldwide Enterprise Digital Assistant (EDA)



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