MC75A Series

PREMIUM 3.5G WORLDWIDE ENTERPRISE DIGITAL ASSISTANT (EDA)

THE NEXT EVOLUTION IN EDA POWER
Zebra's MC75A Series 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 Zebra Mobility Architecture eXtension (MAX) features, the MC75A addresses top business mobility needs, offering maximum processing power, rugged design, flexibility in extending solution reach, data capture capabilities, connectivity options, security and manageability. Three models meet the needs of every worker: a WLAN-only model for workers inside the four walls; a WLAN model designed to meet the special needs in healthcare environments; and a 3.5G WWAN/WLAN model for your field workforce. 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 Embedded Handheld; a 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. 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.

ZEBRA'S MOST RUGGED EDA
With Zebra 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 can handle multiple 6 ft./1.6 m drops plus 1,000 consecutive 1.6 ft./.5 m tumbles (2,000 drops) * and still deliver dependable performance. The IP54 sealing rating enables use in dusty environments and exposure to rain or spills. The disinfectant-ready MC75A Series helps prevent the spread of germs to patients and caregivers in a hospital as well as shift workers in other industries who share devices. All models can be sanitized with many common cleansers, without harming the plastics or the sensitive scanning components. And with Hazardous Location certified models, you can easily extend the power of mobility to areas where flammable materials are present. The result? Fewer repairs and maximum uptime, 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 Zebra-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.

Zebra MAX Locate for more robust location-based applications. Integrated aGPS/GPS technology opens up a

ZEBRA

FEATURES
MAXIMUM POWER
Powerful microprocessor designed for mobility: PXA320 @ 806 MHz
Desktop-like multimedia performance optimized for longer shift life
Microsoft OS: Windows® Embedded Handheld
Increased inter-operability 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
Zebra 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 many common cleansers to prevent the spread of germs as well as enable cleaning if the device is exposed to dust, dirt, grease, spils and more; can be used safely in areas with ignitable materials (Hazardous Location certified models only)

MAXIMUM CONNECTIVITY OPTIONS ' AND
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 GSC3/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 Zebra 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 MC75A captures virtually any type of data and performs almost any business function, streamlining and reducing errors in your business processes. As the inventor of bar code scanning, Zebra offers unparalleled 1D and 2D scanning technology. The SE950 scan engine provides best-in-class 1D bar code scanning performance, while the SE4500, Zebra's revolutionary imager engine, delivers equally stunning performance on 1D and 2D bar codes. Two options provide the flexibility to address your unique bar code requirements. For 1D or 2D intensive applications and maximum reading distance, choose the SR4500-SR. For 1D and 2D intensive applications with smaller and higher density bar codes, including those found on some driver's licenses, choose the SR4500-DL. 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.

COMPREHENSIVE ACCESSORY FAMILY EXPANDS SOLUTION REACH
The Magnetic Stripe Reader (MSR) and Mobile Payment Module (MPP) 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. Zebra'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 EVDO 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 ZEBRA MAX SECURE
The Zebra 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 Zebra'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. Zebra MAX MPA (Mobile Platform Architecture) provides an industry standard platform that enables easy integration into your existing technology environment. Since all Zebra mobile computers share this common platform, existing applications developed for other Zebra mobile computers can be ported effortlessly and seamlessly to the MC75A, enabling exceptionally rapid deployment and improving the return on investment for existing applications. Additionally, Zebra’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 Zebra 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 Zebra Mobility Suite enables extraordinary centralized control of your MC75A devices. Zebra 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 ZEBRA ADVANTAGE: WORLD CLASS PARTNERS AND WORLD CLASS SUPPORT
Zebra’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, Zebra 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.zebra.com/mc75a, www.zebra.com/mc75a0hc (healthcare model) or access our global contact directory at www.zebra.com/contact

The MC75A Series in action inside the four 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.
Hospitality
Healthcare

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

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.
Transportation & Logistics

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.
## SPECIFICATIONS CHART

### PHYSICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>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</td>
</tr>
</tbody>
</table>
| Weight (including standard battery) | WWAN standard 1.5X battery: 14.9 oz./423 g  
WLAN standard 1.5X battery: 14 oz./398 g |
| Display                          | PenTile® 3.5 in. color VGA (640x480) super bright 650+ NITS (luminous) |
| Touch Panel                      | Glass analog resistive touch                        |
| Display Backlight                | LED backlight                                       |
| Standard Battery                 | Rechargeable Lithium Ion 3.7V, 3600 mAh Smart Battery |
| Extended 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)         |
| Comm. Interface                  | Ethernet (via cradle); Full-speed USB, host (USB 1.1) or client (USB 2.0) |
| Notification                     | Vibrator and LED                                    |
| Keypad Options                   | Numeric; QWERTY; DSD; AZERTY; QWERTZ                |
| Audio                            | VoWWAN; VoWLAN; support for wired and wireless (Bluetooth) headsets; headset, handset and speaker phone modes |

### USER ENVIRONMENT

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temp.</td>
<td>14° F to 122° F/-10° C to 50° C</td>
</tr>
<tr>
<td>Storage Temp.</td>
<td>-40° F to 158° F/-40° C to 70° C (w/o battery)</td>
</tr>
<tr>
<td>Humidity</td>
<td>95% non-condensing</td>
</tr>
<tr>
<td>Drop Spec</td>
<td>Multiple 6 ft./1.6 m drops, per MIL-STD 810 specifications</td>
</tr>
<tr>
<td>Tumble Spec</td>
<td>1,000 1.6 ft./.5 m tumbles (2,000 drops); per applicable IEC tumble specifications</td>
</tr>
<tr>
<td>Sealing</td>
<td>IP54 per applicable IEC sealing specifications</td>
</tr>
<tr>
<td>IrDA</td>
<td>Infra-red port for connection to printers and other devices</td>
</tr>
<tr>
<td>Clock</td>
<td>Integrated real time clock</td>
</tr>
<tr>
<td>Light Immunity</td>
<td>Readability: Incandescent 450 ft. candles; Sunlight 8000 ft. candles; Fluorescent 450 ft. candles</td>
</tr>
<tr>
<td>Display</td>
<td>Readability: Incandescent 450 ft. candles; Sunlight 8000 ft. candles; Fluorescent 450 ft. candles</td>
</tr>
<tr>
<td>Electrostatic Discharge (ESD)</td>
<td>±15kV air discharge, ±8kV direct discharge</td>
</tr>
</tbody>
</table>

### PERFORMANCE CHARACTERISTICS

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU</td>
<td>PXA320 @ 806 MHz processor</td>
</tr>
<tr>
<td>Operating System</td>
<td>Microsoft® Windows Embedded Handheld</td>
</tr>
<tr>
<td>Memory</td>
<td>256MB RAM; 1GB Flash</td>
</tr>
<tr>
<td>Interface</td>
<td>RS-232, USB 1.1</td>
</tr>
</tbody>
</table>

### WIRELESS WAN DATA AND VOICE COMMUNICATIONS

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>WWAN Radio</td>
<td>GSM: HSDPA; CDMA: EVDO Rev A</td>
</tr>
<tr>
<td>GPS</td>
<td>Integrated, Autonomous and Assisted-GPS (A-GPS) through SUPL; SiRFstarIII GSC3/LP chipset</td>
</tr>
</tbody>
</table>

### 2-D IMAGER ENGINE (SE4500-SR)

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focal Distance</td>
<td>From center of exit window: SR '7.5 in./19 cm</td>
</tr>
</tbody>
</table>

**HAZARDOUS LOCATION CERTIFICATIONS**

UL Class I, II, III Division 2, Groups A, B, C, D, F, G certifications enable use in areas where ignitable elements may be present, such as flammable liquids, gases, dusts, solids, fibers and flyings, ideal for inventory counts of dangerous materials or inspections of weaponry and munitions.

### BATTERY PERFORMANCE

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standby time</td>
<td>150 hours</td>
</tr>
<tr>
<td>Talk time</td>
<td>5 hours</td>
</tr>
</tbody>
</table>
| User profiles                    | **Outdoor WAN+GPS:** 15 min/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 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
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

DATA CAPTURE SPECIFICATIONS

Five Configuration Options
Standard model available in four configurations: Options: 1-D laser scanner; 2-D imager; 1-D laser scanner and camera; 2-D imager and camera

Healthcare model (MC75A0-HC) configured with 2-D imager, 3.2 MP camera, QWERTY keypad and WLAN/WPAN (no WWAN)

COLOR CAMERA

Resolution
3.2 megapixel

Illumination
User controllable flash

Lens
Auto focus

1-D LASER SCANNER (SE950)

Range on 100% 24 in./60 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)

2-D IMAGER ENGINE: SE4500-DL

Focal Distance
From center of exit window: SR ' 5 in./13 cm

Sensor Resolution
752 x 480 pixels

Field of View
Horizontal: 33°; 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)

ZEBA INTERACTIVE 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
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
**UPCA**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolution</td>
<td>4 Mil minimum element width</td>
</tr>
<tr>
<td>Roll</td>
<td>± 35° from vertical</td>
</tr>
<tr>
<td>Pitch Angle</td>
<td>± 65° from normal</td>
</tr>
<tr>
<td>Skew Tolerance</td>
<td>± 50° from normal</td>
</tr>
<tr>
<td>Ambient Light Immunity</td>
<td>Tolerant to typical artificial indoor and natural outdoor (direct sunlight) lighting conditions. Fluorescent, Incandescent, Mercury Vapor, Sodium Vapor, LED: 450 Ft Candles (4,844 Lux) Sunlight: 8000 Ft Candles (86,111 Lux)</td>
</tr>
<tr>
<td>Scan Rate</td>
<td>104 (± 12) scans/sec (bi-directional)</td>
</tr>
<tr>
<td>Scan Angle</td>
<td>47° ± 3° default; 35° ± 3° reduced</td>
</tr>
</tbody>
</table>

**PERIPHERALS AND ACCESSORIES**

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication and Charging Cables</td>
<td>Serial and USB v1.1 charging cables, printer cables, vehicle charging cable, power/charging cable</td>
</tr>
<tr>
<td>Battery Chargers</td>
<td>4-slot battery charger (1X, 1.5X and 2.5X), universal battery charger (requires adapters for 1X, 1.5X and 2.5X capacity batteries)</td>
</tr>
<tr>
<td>Vertical-specific attachments</td>
<td>Snap-on Magnetic Stripe Reader (MSR); Payment Snap-on (Debit and Credit); Mobile Payment Module; Mobile Payment Module with Chip and PIN; Snap-on Biometric Fingerprint/Smartcard Reader; Trigger Handle</td>
</tr>
<tr>
<td>Electrical Safety</td>
<td>Certified to UL / cUL 60950-1, IEC / EN60950-1</td>
</tr>
<tr>
<td>EMI/RFI</td>
<td>USA: FCC Part 15; Canada: ICES 003 Class B; Europe: EN5022 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-22</td>
</tr>
</tbody>
</table>

**CLEANING INSTRUCTIONS**

**Approved Cleanser**

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 MC75A Series and should not come in contact with the device: ammonia solutions, compounds of amines or ammonia; acetone; ketones; ethers; aromatic and chlorinated hydrocarbons; aqueous or alcoholic alkaline solutions; ethanolamine; toluene; trichloroethylene; benzene; carbolic acid; TB-lysoform

**Cleaning Instructions:**

Do not apply liquid directly to the MC75A Series. 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 MC75A Series.
from date of shipment, provided that the product remains unmodified and is operated under normal and proper conditions.

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

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

MC75A Series 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 MC75A Series, such as hand sanitizers that contain ethanolamine, hands must be completely dry before handling the MC75A Series to prevent damage to the plastics.