THE ZEBRA MC55N0 SERIES

RUGGED WI-FI ENTERPRISE MOBILE COMPUTER FOR MANAGERS AND TASK WORKERS

DRIVE PRODUCTIVITY AND EFFICIENCY INSIDE THE ENTERPRISE TO A NEW LEVEL

With the MC55N0 Series, managers and task workers who spend their days inside your company walls have everything they need to take instant action, anywhere in your facility — indoors and outside. When it comes to meeting the needs of your workforce, the MC55N0 excels, offering organisations in the U.S. and Europe the right level of features, the right level of rugged design and support for the most demanding business applications. The result? Workers in retail, hospitality, manufacturing, healthcare and government agencies can complete more tasks more accurately in less time, improving productivity and customer care.

THE MOST RUGGED DESIGN YET IN THIS CLASS — PERIOD

The MC55N0 Series is built to last, giving workers a device they can count on and businesses a maximum return on investment (ROI). This rugged device is built for use inside your buildings as well as outdoor areas of your facilities — and our toughness tests prove it. The MC55N0 delivers outstanding performance, even after exposure to heat, cold, dust, water — and 1,000 consecutive tumbles in our rotating tumble drum. And all models can be sanitized with many common cleaners without harming the housing or the sensitive electronics, helping prevent the spread of bacteria when devices are shared.

PURE BUSINESS ON THE INSIDE — SMART STYLING ON THE OUTSIDE

The MC55N0 Series is the perfect blend of form and function. The comprehensive capabilities allow workers to scan bar codes; snap pictures; view videos and access business critical applications. The compact and lightweight mobile computer is easy to carry and easy to use, with a sleek design that is at home in front of customers.

THE POWER TO HANDLE VIRTUALLY ANY APPLICATION

Give your workers the best in class mobile application performance, even for the most demanding multimedia applications. Packed with the latest in technology, our powerful platform offers the most current mobile operating system for the enterprise, as well as the fastest processor and largest memory footprint in this device class. And the 802.11n radio substantially increases wireless bandwidth — so you can count on your wireless applications to perform just as well as applications running on a wired desktop computer.

CAPTURE THE DATA YOU NEED — WHEN AND WHERE YOU NEED IT

Three scanner options let you pick the model that will deliver the best performance for your organisation. Our SE960 1-D laser scan engine provides best-in-class performance for 1-D bar codes, including near contact to medium range decoding of even the widest bar code. And the two variants of our revolutionary SE4500 2-D imager deliver true laser-like performance and omnidirectional scanning of both 1-D and 2-D bar codes.The SE4500-SR offers the best range on medium and low density 1-D and 2-D bar codes. The SE4500-DL is optimized for medium to high density bar codes in addition to the bar codes found on driver's licenses and other identification documents — ideal for border crossings as well as the healthcare and electronics industry. And if you need to capture photos, videos, or documents in addition to bar codes, no problem — just add our high-resolution 3.2 MP autofocus colour camera.

ZEBRA

FEATURES
HIGH-POWERED PLATFORM

MPA ✓ **Zebra MAX** *MPA 2.0*
Our latest best-in-class standards-based technology architecture that provides numerous benefits

Powerful microprocessor designed for mobility
The Marvell® PXA320 @ 806 MHz provides best-in-class application performance coupled with ubiquitous mobility inside the enterprise — even on the most demanding multi-media applications

The memory to support any application
256MB 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

The most advanced mobile operating system for the Enterprise
Microsoft's Windows® Mobile® 6.5 increases interoperability with existing enterprise infrastructure; enhances security features; provides a more flexible development platform; improves mobile messaging collaboration

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

THE INTELLIGENCE TO SENSE AND ACT ON THE ENVIRONMENT

Get real value with our business-class implementation of the accelerometer. We start with the typical ability to automatically switch the display between portrait and landscape modes based on device orientation, and build from there. Right out of the box, you can get the power saving functionality that helps ensure full shift operation on a single battery charge. With just a few clicks, you can configure the device to enter sleep mode if movement is not detected in a specified period of time, or if the display is face down. In addition, the MC55N0 automatically detects and logs drops, helping to increase worker accountability for device condition. And the open architecture allows enterprises to integrate the accelerometer data into customised applications to improve the safety of technicians working in remote areas of your facility — and prevent device theft.

THE ZEBRA ADVANTAGE: WORLD CLASS PARTNERS SUPPORT

When you choose Zebra, our award-winning partner channel provides access to a best-in-class, broad set of ready-to-go and custom applications in your industry, minimizing deployment time and cost. No matter what help your business might need, we have a service that delivers. If you are implementing your first mobility solution, we can provide assistance at every stage — from planning and assessment through design, deployment and ongoing management and support. If you are adding new 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. Since even the most rugged devices require a support plan, Service from the Start with Comprehensive Coverage will keep your devices up and running at peak performance. This unique all-inclusive service covers normal wear and tear as well as internal and external components damaged through accidental breakage, significantly reducing unforeseen repair expenses.

EMPOWER YOUR INDOOR WORKFORCE TO GET MORE DONE IN A DAY — WITH THE ZEBRA MC55N0 SERIES

To find out how, visit **www.zebra.com/mc55N0** or access our global contacts directory at **www.zebra.com/contact**

SPECIFICATIONS CHART AVAILABLE IN U.S. AND EUROPE

COLOR CAMERA

Resolution	3.2 megapixel
Illumination	User controllable flash
Lens	Auto focus

PHYSICAL CHARACTERISTICS

Dimensions	With rechargeable 2400 mAh Lithium Ion battery: 5.78 in. L x 3.03 in. W x 1.06 in. D 147 mm L x 77 mm W x 27 mm D
Weight	11.1 oz./315 g (with rechargeable 2400 mAh Lithium Ion battery)
Display	3.5 in Colour VGA, super bright 900 NITS
Touch Panel	Glass analog resistive touch
Display Backlight	LED backlight
Standard Battery	Rechargeable Lithium Ion 3.7V, 2400 mAh Smart Battery
Extended Battery	Rechargeable Lithium Ion 3.7V, 3600 mAh Smart Battery
Backup Battery	Ni-MH battery (rechargeable)

1-D LASER SCANNER (SE960)

Optical Resolution	0.005 in. minimum element width
Roll	± 35° from vertical
Pitch Angle	± 65° from normal
Skew Tolerance	± 40° from normal
Ambient Light Immunity	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: 10000 Ft Candles (107,640 Lux) **Note:** LED lighting with high AC ripple content can impact scanning performance.
Scan Rate	104 (± 12) scans/sec (bidirectional)
Scan Angle (typical) *	Wide: (Default) 47°; Medium: 35°; Narrow: 10°

2-D IMAGER ENGINE (SE4500-SR AND SE4500-DL)

Sensor Resolution	752 H x 480 V pixels (gray scale)

	18mAh 2.4V (not user accessible)
Expansion Slot	microSD slot (maximum 32GB)
Comm. Interface	USB 1.1 Host and Client
Notification	Audible tone plus multi-colour LEDs, Vibrate
Keypad Options	Numeric, QWERTY, AZERTY and QWERTZ
Audio	Speaker, microphone, receiver (for handset mode use) and Bluetooth audio headsets

PERFORMANCE CHARACTERISTICS

CPU	Marvell™ PXA 320 @ 806 MHz processor
Operating System	Microsoft® Windows Mobile® 6.5 Classic
Memory	256 MB RAM/1 GB Flash

USER ENVIRONMENT

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 Spec	Multiple 6 ft./1.8 m drops per MIL-STD 810G specifications
Tumble Spec	1000 1.6 ft./0.5 m tumbles (equivalent to 2,000 hits) per IEC tumble specifications
Sealing	IP64 per IEC sealing specifications
Clock	Integrated real time clock
Electrostatic Discharge (ESD)	15KV Air 8KV Touch

WIRELESS LAN VOICE AND DATA COMMUNICATIONS

Radio	Quad-mode IEEE® 802.11a/b/g/n
Security	Legacy, WPA and WPA2 WEP (40 or 104 bit), TKIP and AES TLS, TTLS (MS-CHAP), TTLS (MS-CHAP v2), TTLS (CHAP), TTLS (MD5), TTLS (PAP), PEAP-TLS, PEAP (MSCHAP v2), PEAP (EAP-GTC), EAP-FAST-TLS , EAP-FAST (MS-CHAP v2), EAP-FAST (EAP-GTC) and LEAP
Antenna	Internal
Data Rates Supported	802.11b/g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48 and 54 Mbps

Roll	360°
Pitch Angle	± 60° from normal
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	
SR Focus Range	
5 mil Code 39:	Near: 2.1 in./53 mm) Far: 7.5 in ./191 mm
100% UPC/EAN:	Near: 1.6 in./41 mm) Far: 15.5 in./394 mm
6.7 mil PDF417:	Near: 3.4 in./86 mm Far: 7.1 in. /180 mm
DL Focus Range	
5 mil Code 39:	Near: 1.4 in./36 mm Far: 7.3 in. /185 mm
100% UPC/EAN:	Near: 1.6 in./41 mm Far: 12 in./ 305 mm
5 mil PDF417:	Near: 2.8 in./71 mm Far: 4.5 in. /114 mm

BATTERY PERFORMANCE

User Profiles	Minimally 8 hours based on 600 scans and WLAN transmits per hour with display on and standard capacity battery

DATA CAPTURE OPTIONS

Options	Multiple configurations available: 1-D SE960 laser scanner; 2-D SE4500-SR imager; 2-D SE4500-DL imager; 3.2 megapixel colour camera option available

PERIPHERALS AND 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
Vertical Specific Attachments	Snap-on magnetic stripe reader (MSR); snap-on trigger handle

reliability
Drop (impact) test
Multiple 6 ft./1.8 m drops per MIL-STD 810G
Tumble (endurance) test per IEC tumble specifications
Reliable operation after 1,000 1.6 ft./0.5 m consecutive tumbles (2,000 hits) in Zebra's tumble drum
IP64 sealing per IEC sealing specifications
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 industrial-grade 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

AUTOMATE THE CAPTURE OF VIRTUALLY ANY TYPE OF DATA

101100 ▼ **Zebra MAX** *Data Capture* **for advanced high-performance multi- mode data capture**
Choose one of four bar code scanning options that can read even damaged and poor quality codes:

1-D Scanners
SE960: High performance 1-D scanning — adaptive scanning maximizes the range and enables scanning of codes that are damaged or underneath shrinkwrap.

2-D Imagers
Zebra's SE4500 latest generation 2-D imager offers unparalleled laser-like performance on both 1-D and 2-D bar codes and

	802.11a: 6, 9, 12, 18, 24, 36, 48 and 54 Mbps 802.11n: MCS0 to MSC7 up to 72.2 Mbps
Operating Channels	Chan 36-165 (5180 – 5825 MHz), Chan 1-13 (2412-2472 MHz)

WIRELESS PAN DATA

Bluetooth	Class II, v 2.1 Enhanced Data Rate (EDR); integrated antenna

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 MC55N0 Series 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 and TB-lysoform.
Cleaning Instructions:	Do not apply liquid directly to the MC55N0 Series. Dampen a soft cloth or use premoistened 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 MC55N0 Series. The mobile computers 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 MC55N0 Series, such as hand sanitisers that contain ethanolamine, hands must be completely dry before handling the MC55N0 Series to prevent damage to the plastics.

Soft Goods	Rigid and soft case holsters, Bluetooth headsets

* Visit www.zeba.com/mc55n0 for a complete list of available peripherals and accessories

REGULATORY

Electrical Safety	Certified to UL 60950-1, second edition, CAN/CSA-C22.2 No. 60950-1-07, IEC 60950-1 Edition 2.0 2005-12, EN 60950-1:2006 + A11:2009
Environmental	RoHS-compliant
WLAN and Bluetooth (PAN)	<u>USA:</u> FCC Part 15.247, 15.407 <u>EU:</u> EN 300 328, EN 301 893
RF Exposure	<u>USA:</u> FCC Part 2, FCC OET Bulletin 65 Supplement C <u>EU:</u> EN 50360: 2001 (Max average 10g SAR 0.472 W/Kg), EN 62311: 2008, EN 62209-1:2006, EN62209-2:2010, EN62479:2010
EMI/RFI	<u>USA:</u> FCC Part 15, Class B <u>EU:</u> EN55022 Class B, EN 55024: 1998 + A1: 2001 + A2: 2003, EN 61000-3-2: 2006 (Class B), EN 61000-3-3: 2008, EN 50121-3-2: 2006, EN 50121-4: 2006, EN 301 489-1, EN 301 489-17, EN 60601-1-2, IEC 60601-1-2: 2007, (Modified)
Laser Safety	IEC/Class 2/FDA II in accordance with IEC60825-1: (Ed 2.0)/EN 60825-1:2007

WARRANTY

The MC55N0 Series 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: Managed Device Service Support; Service from the Start with Comprehensive Coverage

omnidirectional rapid-fire easy scanning — no need to align bar code and aiming pattern. Choose one of two options:

SE4500-SR: Optimised for low/medium density standard range scanning of 1-D/2-D bar codes

SE4500-DL: Optimised for medium to high density 1-D/2-D bar codes as well as the PDF bar codes found on driver's licenses and other identification cards — ideal for gate access and border crossings for identity management; patient wristbands and unit doses in healthcare point of care applications; and the high density codes common in the electronics industry

High resolution camera
Add a 3.2 MP auto-focus flash-enabled digital colour camera with user-controllable flash to capture photos, videos, documents with legible fine print and bar codes (for intermittent scanning applications)

BUSINESS-CLASS MOTION SENSING

Zebra MAX *Sensor* for the intelligence to sense — and act — on motion
Automatically rotates screen to match device orientation; automatically reverts to sleep mode when not in use to preserve battery power; landscape mode improves the display of data-intensive applications; enables utilisation of sensor data in custom applications

ADVANCED ERGONOMICS

Advanced sleek 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

Crystal clear text and graphics with Zebra MAX *Display*

3.5 inch extra-crisp high-resolution colour VGA touchscreen display is easy to view in virtually any lighting condition — indoors and outside; additional white pixel improves contrast; energy-efficient engineering delivers twice the brightness at half the power of typical displays

A family of keypads for global data entry flexibility
Numeric, QWERTY, AZERTY and QWERTZ support a wide range of applications all around the world

PRESERVE EXISTING ACCESSORY INVESTMENTS

Backwards compatibility with all MC55 accessories
Upgrade to the latest mobile technology advancements while preserving your existing accessory investments

EASY CENTRALIZED MANAGEMENT

Easy global remote management of your devices — and their accessories
Compatibility with Zebra's Mobility Services Platform (MSP) enables comprehensive and flexible centralized management of a broad range of mobile products and their attached 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

MAX Rugged

MAX Secure

MAX Sensor

MAX Data Capture

MAX MPA

MAX Display

ZEBRA

a b g **WiFi** n DRAFT
CERTIFIED

Bluetooth®

Windows Mobile®

ZEBRA TECHNOLOGIES