PRODUCT SPEC SHEET
ZEBRA MC9500-K SERIES



ZEBRA MC9500-K SERIES

A PREMIUM INDUSTRIAL-CLASS MOBILE COMPUTER — RAISING THE BAR FOR RUGGED KEY-BASED FIELD MOBILITY APPLICATIONS

The next evolution in rugged design, ergonomics, features, functionality and performance The MC9500-K Series leverages the flagship features and functionality of Zebra's signature MC9000 Series rugged mobile computers, while introducing many new capabilities defined through extensive research and testing in logistics, parcel/post, direct store delivery (DSD), field service, public safety and sales force automation applications in some of the world's leading organizations. The result is a device that is as different on the inside as it is on the outside — a groundbreaking product with an unsurpassed feature set that takes rugged mobile computing innovation to a new level. With the MC9500-K Series, you can simply expect more: a more rugged design, more data capture options, more intelligence, more processing power and better ergonomics, all in a sleeker, lighter and easier-to-use form factor that offers true carrier independence as well as a completely new approach to accessories, battery and backroom management.

SPECIFICATIONS CHART

PHYSICAL CHARACTERISTICS

Dimensions	9.2 in. H x 3.5 in. W x 2 in. D 23.36 cm H x 8.89 cm W x 5.08 cm D
Weight	22 oz./623 g (including battery, stylus, keypad & strap)
Display	3.7 in. VGA Color (TFT) Display (640 x 480) with touch panel and backlight
Touchpanel	Polycarbonate analog resistive touch
Backlight	LED backlight
Keypad Options	Modular: alpha primary; numeric telephony, numeric calculator, alpha numeric
Expansion Slot	microSD slot — supports up to 32 GB
Notifications	Programmable LEDs; Audio notifications; Vibrator alerts

DATA CAPTURE

Scanning	1D Scanner; 2D Imager; 3 MP auto-focus flash-enabled digital color camera with symbology decode software
Scan Angle	Optimized for scanning (15° downward angle)
Options	Integrated Magnetic Stripe Reader (MSR) with encrypted head (optional)

COLOR CAMERA

Resolution	3 megapixel
Illumination	User controllable flash
Lens	Autofocus

1D LASER SCANNER (SE950)

Range on 100% UPCA	24 in./60 cm

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Features

Zebra MAX Rugged:

Next generation rugged

design:

industry leading drop and tumble tests, IP67 sealing, Monocoque housing and integrated internal antennas (WWAN, WLAN and GPS); meets and exceeds applicable MIL-STD and IEC specifications for drop, tumble, sealing and other environment parameters

Next generation ergonomic design — sleeker, smaller, easier-to-grip rugged form factor delivers a new level of comfort and easy one-handed operation for key-based applications

Zebra MAX FlexWAN for true carrier independence — support one or more networks and change networks as needed with this flexible family. Purchase with one of three different WAN modules, or add and change WAN modules to meet the needs of your mobile workforce, right in your back room:

Zebra MAX Keypad:

Modular field swappable keypad options with new ergonomics — alpha primary , numeric telephony, numeric calculator, and full alpha numeric

Extremely durable Polycarbonate Insert Mold Decorated (IMD) keypad

Best-in-class display with advanced LCD technology for easy viewing in any

PERFORMANCE CHARACTERISTICS

CPU	Marvell PXA320 @ 806 MHz
Operating System	All models except MC959B: Windows Mobile 6.5 (Classic and Professional editions) MC959B: Windows Mobile 6.1
Memory	256MB RAM/1GB Flash

USER ENVIRONMENT

Drop Specification	6 ft./1.8 m drop to concrete across the operating temperature range; meets and exceeds applicable MIL-STD-810G drop specifications
Tumble Specification	2000 3.2 ft./1 m tumbles (4,000 hits) at room temperature; meets and exceeds applicable IEC tumble specifications
Operating Temperature	-4° F to 122° F/-20° C to 50° C
Storage Temp.	Ambient to -40° F/-40° C Ambient to 158° F/70° C RH 95%
Sealing	IP67 sealing; meets and exceeds applicable IEC sealing specifications
Humidity	5 - 95% non-condensing
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
ESD	±15kv Air discharge, ±8kv direct discharge, ±8kv indirect discharge
Altitude	-1,200 ft. to 12,000 ft. operational; 15,000 ft. shipping
Key and Trigger	1 million presses
Light Immunity	Readability: Incandescent – 450 ft. candles; Sunlight – 8000 ft. candles; Fluorescent: 450 ft. candles

BATTERY

Power	PowerPrecision Lithium ion battery 4800 mAh – with State of Charge and State of Health indicators
Resolution	4 Mil minimum element width
Roll	±35° from vertical
Pitch Angle	±65° from normal
Skew Tolerance	±50° 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: 8000 Ft Candles (86,111 Lux) Note: LED lighting with high AC ripple content can impact scanning performance.
Scan Rate	104 (±12) scans/sec (bi-directional)
Scan Angle	47° ±3° default; 35° ±3° reduced

ZEBRA INTERACTIVE SENSOR TECHNOLOGY

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

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); CCXv4 certified; support for IPv6; FIPS 140-2 Certified
Antenna	Internal antenna w/diversity
Data Rates Supported	1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48 and 54 Mbps
Voice Communications:	Voice-over-IP ready, Wi-Fi™-certified, IEEE 802.11a/b/g direct sequence wireless LAN, Wi-Fi Multimedia™ (WMM), Zebra Voice Quality Manager (VQM)

REGULATORY

lighting 3.7 inch color high resolution VGA display (640 x 480) with digitizer and backlight

Mobility Platform Architecture (MPA) 2.0, provides the latest best-in-class technology platform and enables easy and cost-effective porting of applications from other Zebra mobile computers

Next generation performance:

powerful Marvell PXA320 @ 806 MHz microprocessor, larger memory footprint and a user accessible micro-SD card

Microsoft Windows Mobile 6. x operating system increases interoperability and security (Windows Mobile 6.5 for integrated voice and data models; Windows Mobile 6.1 for data-only MC959B model)

Zebra MAX Sensor — Interactive Sensor Technology (IST) offers leading edge motionbased applications

Zebra MAX Locate:

Supports Assisted and Autonomous GPS; SUPL 1.0 compliant — enables a signal lock in challenging areas where signals are typically weak, such as urban canyons and indoors

WLAN:

802.11a/b/g tri-mode radio; comprehensive VoIP support FIPS 140-2 certification ensures data security — even in sensitive government applications

WPAN:

Bluetooth® v2.1 with EDR IrDA for wireless connectivity to existing business equipment

Zebra MAX Data Capture:

Multi-mode data capture: industry leading 1D/2D bar

Standby Time	150 hours
Talk Time	8 hours (minimum/suspend mode)
User Profiles	**Outdoor WAN+GPS:** 15 min./hour voice communication, 10KB transmission every 10 min, and GPS on all time, default out-of-box configuration of other parameters, minimum 8 hours of operation **Outdoor Voice:** 15 min./hour voice communication, default out-of-box configuration of other parameters, minimum 8 hours of operation **Outdoor Scan:** 600 scans and WAN transmits per hour, default out-of-box configuration of other parameters, minimum 8 hours of operation

WIRELESS WAN VOICE AND DATA COMMUNICATIONS

Radio	Modular 3.5G WAN (GSM HSDPA or CDMA EVDO Rev A) MC959B: Modular 3.5G Dual-WAN (GSM HSUPA and CDMA EVDO Rev A)
Frequency Band	HSDPA: 850, 900, 1800,1900, and 2100 MHz EVDO Rev A: 850 and 1900 MHz

WIRELESS PAN DATA AND VOICE COMMUNICATIONS

Bluetooth®	Class II, v2.1 with Enhanced Data Rate (EDR); integrated antenna; FIPS 140-2 compliant
IrDA	Infra-red port for connection to printers and other devices

VOICE AND AUDIO

Audio	VoWWAN; VoWLAN; rugged audio connector; high-quality speakerphone; support for wired and wireless (Bluetooth) headsets; headset, handset and speaker phone modes (Applies to all models except MC959B, which is data only)

Electrical Safety	IEC/UL/CSA/EN 60950-1
Environmental	RoHS 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, T66, T70, T71 Australia: AS/NZS 4268
Wireless Wide Area Network	**GSM-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 S 024 HAC compliant **CDMA-EVDO** USA: FCC Part 22, Part 24 Canada: RSS-129, RSS-133 HAC compliant NOTE: Data only MC959B model is not HAC compliant
RF Exposure	±50° from normal
Ambient Light Immunity	USA: FCC Part 2, FCC OET Bulletin 65 Supplement C Canada: RSS-102 EU: EN 50360 Japan: ARIB STD T56 Australia: Radiocommunications 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 301 489-7, EN 301 489-17, EN 301 489-19, EN 301 489-24, EN 60601-1-2, EN 50121-3-2, EN 50121-4 Australia: AS/NZS CISPR-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 Zebra representative

NETWORK COMMUNICATIONS

I/O	USB 2.0 Client (High Speed) or USB 1.1 host (Full Speed); USB (via 1-bay cradle) or Ethernet (via 4-bay cradle)

code scanning plus 3 megapixel (2048 x 1536) autofocus flash-enabled optional digital color camera with decode and high resolution document capture capability

High quality speakerphone, microphone and receiver for multiple voice modes — handset, headset and speakerphone

Zebra MAX Backroom Management: gamechanging backroom management through an industry-first Universal Accessory System

Zebra MAX Battery:

high capacity battery with unique, industry-first battery information indicators for state of charge and state of health, greatly simplifying battery management

IEEE 1725 compliance for the entire MC9500-K system — all models, batteries and power-related accessories (such as cradles and charging cables) MSP compatibility — comprehensive and flexible centralized management of all devices, anywhere in the world, all from a single console

PERIPHERALS AND ACCESSORIES*

Communication and Charging Cables	Charge only cable, auto charge cable, USB charge/sync cable, DEX cable, modem adapter cable
Battery Chargers/ Cradles	4-slot battery charger; 1-slot battery charger; 4-bay Ethernet cradle; 4-bay charge only cradle; single bay USB cradle; vehicle battery charger using auto charge cable; vehicle cradle with charging capabilities
Application Specific Attachments	Snap-on magnetic stripe reader
Soft Goods	Rigid and soft case holsters

WARRANTY

The MC9500-K 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.

*** For a complete list of MC9500-K Peripherals and Accessories, please visit www.zebra.com/mc9500k**

HAZARDOUS LOCATION CERTIFICATIONS

UL Class I, II, III Division 2, Groups A, B, C, D, F, G (Select Configurations Only)

RECOMMENDED SERVICES

Customer Services
Service from the Start with Comprehensive Coverage

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