PRODUCT SPEC SHEET
ZEBRA MC3190-Z



ZEBRA MC3190-Z

BUSINESS-CLASS HANDHELD RFID READER

BRING THE BENEFITS OF RFID TO THE CARPETED SPACE

The MC3190-Z represents another RFID first from Zebra — the first business-class handheld RFID reader designed specifically to extend RFID beyond industrial spaces and into customer facing and business environments. This highly versatile device is at home in the retail storefront, the carpeted business office and hospitals as well as the warehouse and manufacturing production line. The MC3190-Z starts with the same signature rugged design and high performance found in all Zebra industrial handheld RFID products, and adds the ergonomics required for all day comfort and ease of use. At just half the weight of its industrial counterparts, the MC3190-Z is the lightest UHF RFID rugged handheld reader on the market — period. Its well-balanced, gun-style grip brings comfort to the most read-intensive applications. And the advanced, high efficiency Zebra RFID reader engine increases workforce productivity with faster read rates that increase throughput.

ZEBRA MAX RFID ANTENNA FOR MAXIMUM RFID PERFORMANCE

Until now, enterprises have been forced to choose between two types of antennas: linear polarization for a longer read range or circular polarization for wider coverage. The MC3190-Z antenna combines the advantages of these two technologies into a patented omnidirectional antenna that offers the best of both worlds — a superior read range and superior coverage area. The orientation insensitive antenna delivers extraordinary reliability and there's no need to precisely align the reader with the tag. As a result, workers can accurately and rapidly capture RFID tags on even the most challenging items — from a pile of clothing in a retail store or a box of files in the office to a shelf full of data tapes in the data center.

GET SUPERIOR VALUE — ZEBRA'S SIGNATURE RUGGED DESIGN AND DUAL DATA CAPTURE FUNCTIONALITY

The MC3190-Z offers the best of form and function with Zebra MAX Rugged and Zebra MAX Data Capture. While the MC3190-Z is designed for the carpeted space, Zebra MAX Rugged provides Zebra's flagship rugged specifications to ensure dependable operation and a maximum lifecycle in any environment. The reader passes one of the industry' s most stringent impact tests, able to survive a 4 ft./1.2 m drop to concrete across the entire operating temperature range. In our unique endurance test, the MC3190-Z performs reliably after 1,000 1.64 ft./0.5m hits in our tumble drum. And with IP54 sealing, the device can withstand dust, spills and the routine wipedowns required in healthcare and other challenging environments. Zebra MAX Data Capture puts two best-in-class advanced data capture technologies in one device — the ability to read RFID tags and scan bar codes. This versatility translates into fewer devices to purchase and manage. And just because the MC3190-Z offers advanced RFID technology does not mean you need to sacrifice bar code performance. The device accurately captures even damaged and poor quality 1-D bar codes.

EASY-TO-USE ROBUST LOCATING CAPABILITY

Until now, RFID handheld readers identified the general proximity of an item — for example, a shelf. The MC3190-Z offers a unique combination of intuitive audible and visual cues to quickly guide a worker to the location of any desired item. As the device moves closer to a specific item, a tone beeps louder and faster, while a sliding graphical bar increases in size. The result? Employees can rapidly locate any individual item, regardless of where it may be, faster and easier than ever before.

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FEATURES

Business-class RFID handheld for global deployments

Supports regions based on European RFID frequencies (ETSI EN 302-208) and US RFID frequencies

Zebra RFID reader engine

Delivers advanced, high efficiency read performance for faster read rates and higher throughput

Zebra's patented omnidirectional MAX RFID Antenna

Orientation insensitive design eliminates the need to align reader and tag for faster and more accurate reads

Pinpoint locating technology

A unique combination of intuitive audible and visual cues easily guides workers to a specific item

Proven platform

Built on the proven, widely adopted MC3100 platform

Easy-to-use Application Programming Interfaces (APIs)

Rapid and cost-effective application development

Zebra 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

THE ZEBRA END-TO-END ADVANTAGE

When you choose the MC3190-Z, you enjoy the advantages of a world-class partner channel, world-class management solutions and world-class services. Our award-winning partner ecosystem offers a best-in-class, broad set of ready-to-go and custom applications for the MC3190-Z, minimizing deployment time and cost. Compatibility with Zebra's Mobility Services Platform (MSP) and the Zebra Mobility Suite offers extraordinary centralized control over all your Zebra devices, including the ability to remotely stage, provision, monitor, troubleshoot, secure data on the devices and much more. And since your employees will count on the MC3190-Z every day, our Service from the Start with Comprehensive Coverage will help keep your devices up and running at peak performance. This unique service includes normal wear and tear, as well as coverage for internal and external components damaged through accidental breakage at no additional charge — significantly reducing your unforeseen repair expenses.

For more information on how you can bring the benefits of RFID into new areas of your business, please visit us on the web at **www.zebra.com/mc3190z**or access our global contact directory at **www.zebra.com/contact**

FEATURING Zebra MOBILITY ARCHITECTURE EXTENSIONS (MAX)



MAX *Rugged*



MAX *Data Capture*

MA

Zebra Mobility Architecture eXtensions (MAX) allows Zebra mobile computers to deliver extraordinary value — a truly unprecedented return on investment (ROI) and total cost of ownership (TCO). This unique set of Zebra features turbo charges Zebra mobile computers, driving ease-of-use, ease-of-management, flexibility, modularity, lifecycle and overall system performance to new heights. Features in the MC3190-Z include...

MAX Rugged

With MAX Rugged, you can count on a device built for the most demanding business environments. A minimum of three specifications — industry leading mechanical stress and endurance tests plus environmental sealing — insures dependable performance and maximum lifecycle.

MAX Data Capture

Integrate best-in-class advanced data capture functionality, including: 1-D, 2-D and DPM bar code scanning; signature capture; high resolution image and document capture; RFID and more.

MAX RFID Antenna

Maximize the performance of your RFID solutions with this patented orientation insensitive antenna. The unique combination of linear and circular polarization maximizes read range and coverage area, delivering the extraordinary reliability required to capture tags — even on the most challenging items.

MAX Secure

MAX Secure provides the security features required to ensure secure data transmissions over either the WLAN or the WWAN — including highly sensitive applications in government and public safety.

SPECIFICATIONS CHART

stringent industry security regulations, including sensitive government applications

Zebra MAX Rugged: meets and exceeds MILSTD 810F standards for drop, tumble and sealing

Built for all day enterprise use; provides dependable operation despite the inevitable drops and spills; provides extended lifecycle; withstands wipe downs

Zebra MAX Data Capture

Offers exceptional RFID and bar code scanning functionality in a single device; eliminates the need to purchase two devices, reducing capital and operational costs

PHYSICAL CHARACTERISTICS

Dimensions	7.6 in. H x 4.7 in. W x 6.4 in. D 19.34 cm H x 11.94 cm W x 16.26 cm
Weight	22.93 oz./650 g (including battery, stylus, narrow keypad & strap)
Display	3 in. QVGA color display (320 x 320) touchscreen with backlight
Battery	Li-Ion 4,800 mAh @ 3.7Vdc (2X Battery only)
Network Connections	RS232; USB (host and client)
Keypad	48-key Alpha-Numeric; 28-key Numeric
Data Capture Options	RFID, 1-D laser scanner and 2-D imager

PERFORMANCE CHARACTERISTICS

CPU	Marvell PXA320 @ 624 MHz
Operating System	Microsoft® Windows Embedded Handheld 6.5.3
Memory	256MB RAM/1GB Flash as shipped, user expandable

USER ENVIRONMENT

Drop Spec	Multiple 4 ft./1.2 m drops to concrete across the operating temperature range, Multiple 5 ft./1.5 m drops to concrete at ambient temperature 73° F/23° C; meets and exceeds MIL-STD 810G
Tumble Spec	500 1.64 ft./.5 m tumbles (1,000 drops) at room temperature; meets and exceeds MIL-STD 810F
Operating Temp	14° F to 122° F/-10° C to 50° C
Storage Temp	-22°F to 160° F/-30°C to 70°C
Sealing	IP54; Meets and exceeds MIL-STD 810F
Humidity	5-95% non-condensing
Electrostatic Discharge (ESD)	+/-15kv VDC air discharge, +/-8kv VDC direct discharge, +/-8kv indirect discharge
Ambient Lighting Tolerance	Tolerant to typical artificial indoor and natural outdoor (direct sunlight) lighting

WIRELESS PAN DATA AND VOICE COMMUNICATIONS

Bluetooth®	Region dependent

PERIPHERALS AND ACCESSORIES

Cradles	Single-slot USB/RS232 charging cradle with spare battery well
Chargers	Four-slot battery charger; adaptor for universal battery charger
Printers	Supports Zebra-approved printers
Other Accessories	Charging cables, magnetic stripe reader

GEOGRAPHIC AVAILABILITY

Supported regions based on European RFID frequencies (ETSI EN 302-208) and US RFID frequencies*

RFID

RFID Power Output	EU: 1 watt ERP for Europe US: 1 watt EIRP
RFID Antenna Type	Integrated Orientation Insensitive
Frequency Range	EU: 865-868 MHz; US: 902-928 MHz
Standards Supported	EPC Gen 2 DRM (DRM compliant up to 0.5W)

REGULATORY

EMI/EMC	FCC Part 15 Class B, ICES 003 Class B, IEC 60601-1-2, EN 301 489-1, EN 301 489-17, EN 301 489-3
Electrical Safety	UL 60950-1, CSA C22.2 No. 60950-1, IEC 60950-1
RF Exposure	EU: EN 50360; EN 50364 USA: FCC Part 2, FCC OET Bulletin 65 Supplement C Canada: RSS-102 Japan: ARIB STD T56 Australia: Radiocommunications Standard 2003
WLAN, Bluetooth and RFID	EU: EN 300 328, EN 301 893 : EN 302 208 US: FCC Part 15.247, 15.407 Canada: RSS-210 Australia: AS/NZS 4268
Laser Safety	A21CFR1040.10, IEC/EN 60825-1

Model Numbers for Regulatory Certifications: MC319ZUS , MC319ZEU

	conditions. Fluorescent, Incandescent, Mercury Vapor, Sodium Vapor, LED1: 450 Ft Candles (4,844 Lux) Sunlight: 8000 Ft Candles (86,111 Lux)

WIRELESS LAN VOICE AND DATA COMMUNICATIONS

Radio	Tri-mode IEEE® 802.11a/b/g
Security	WPA2 (Personal or Enterprise); 802.1x; EAPTLS; TTLS (CHAP, MS-CHAP, MS-CHAPv2, PAP or MD5); PEAP (TLS, MSCHAPv2, EAPGTC); LEAP, EAP-FAST (TLS, MS-CHAPv2, EAP-GTC); CCXv4 certified; support for IPv6; FIPS140-2 Certified
Data Rates Supported	802.11a: up to 54 Mbps, 802.11b: up to 11 Mbps, 802.11g: up to 54 Mbps
VoIP-Ready	Optional (region dependent)

WARRANTY

The MC3190-Z is warranted against defects in workmanship and materials for a period of: Terminal twelve (12) months: Battery: one (1) year. For complete warranty statement, go to: http://www.zebra.com/warranty

RECOMMENDED SERVICES

Customer Services:	Service from the Start with Comprehensive Coverage

1 - LED lighting with high AC ripple content can impact scanning performance

MC3190-Z APPLICATIONS

INDUSTRY	APPLICATION
Retail Sales Floor; POS; backroom	• Inventory/cycle counting • Automatic replenishment • Receiving/shrink control • Item finding="left">
Enterprise Business offices/carpeted spaces	• Asset/IT management • File and document tracking • Item finding
Healthcare Hospitals; clinics	• Asset management (for high value critical assets) • Patient tracking • Item finding
Manufacturing/Warehousing (environmentally controlled) Production line; warehouse aisles and loading docks	• Work in Process (WIP) • Receiving/shipping

As the first business-class handheld RFID reader, the MC3190-Z enables the extension of RFID beyond industrial spaces and into customer facing and business environments. Industries and applications included as above:



MAX *Rugged*



MAX



MAX *RFID Antenna*



MAX *Secure*



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