#### 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.



#### **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 <u>www.zebra.com/mc3190z</u>or access our global contact directory at <u>www.zebra.com/contact</u>

### FEATURING Zebra MOBILITY ARCHITECTURE EXTENSIONS (MAX)

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

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

Integrate best-in-class advanced data capture functionality, including: 1-D, 2-D and DPM bar code scanning; signature

MAX Secure provides the security features required to ensure secure data transmissions over either the WLAN or the

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

overall system performance to new heights. Features in the MC3190-Z include...

capture; high resolution image and document capture; RFID and more.

reliability required to capture tags - even on the most challenging items.

WWAN — including highly sensitive applications in government and public safety.





### MAX Rugged

MAX Rugged

MAX Data Capture

**MAX RFID Antenna** 

MAX Secure



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

### SPECIFICATIONS CHART

dependable performance and maximum lifecycle.

#### PHYSICAL CHARACTERISTICS

## WIRELESS PAN DATA AND VOICE COMMUNICATIONS

Dimensions	7.6 in. H x 4.7 in. W x 6.4 in. D		
Dimensions	19.34 cm H x 11.94 cm W x 16.26 cm	Bluetooth®	Region dependent
Weight	22.93 oz./650 g (including battery, stylus, narrow keypad & strap)	PERIPHERALS AND ACCESSORIES	
Display	3 in. QVGA color display (320 x 320) touchscreen with backlight	Cradles	Single-slot USB/RS232 charging cradle with spare battery well
Battery	Li-lon 4,800 mAh @ 3.7Vdc (2X	Chargers	Four-slot battery charger; adaptor for universal battery charger
- for a set	Battery only)	Printers	Supports Zebra-approved printers
Network Connections	RS232; USB (host and client)	Other Accessories	Charging cables, magnetic stripe
Keypad	48-key Alpha-Numeric; 28-key Numeric	-	reader
Data Capture	RFID, 1-D laser scanner and 2-D imager	GEOGRAPHIC AVAILABILITY	
Options		Supported regions based on European RFID frequencies (ETSI EN 302-208) and US RFID frequencies*	
PERFORMANC	E CHARACTERISTICS	-	
CPU	Marvell PXA320 @ 624 MHz	RFID	
Operating System	Microsoft® Windows Embedded Handheld 6.5.3	RFID Power Output	EU: 1 watt ERP for Europe US: 1 watt EIRP
Memory	256MB RAM/1GB Flash as	RFID Antenna Type	Integrated Orientation Insensitive
	shipped, user expandable	Frequency Range	EU: 865-868 MHz; US: 902-928 MHz
		Standards	EPC Gen 2 DRM (DRM compliant
USER ENVIRO	NMENT	Supported	up to 0.5W)
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	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,
Tumble Spec	500 1.64 ft./.5 m tumbles (1,000 drops) at room temperature; meets and exceeds MIL-STD 810F	RF Exposure	IEC 60950-1 <u>EU</u> : EN 50360; EN 50364 <u>USA</u> : FCC Part 2, FCC OET Bulletin 65 Supplement C <u>Canada</u> : RSS-102 <u>Japan</u> : ARIB STD T56 Australia: Radiocommunications
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	WLAN, Bluetooth and RFID	Standard 2003 <u>EU</u> : EN 300 328, EN 301 893 : EN 302 208 <u>US</u> : FCC Part 15.247, 15.407 <u>Canada</u> : RSS-210 <u>Australia</u> : AS/NZS 4268
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	Laser Safety A21CFR1040.10, IEC/EN 60825-1	
		Model Numbers for R , MC319ZEU	egulatory Certifications: MC319ZU

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

#### WARRANTY

The MC3190-Z 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.

#### WIRELESS LAN VOICE AND DATA COMMUNICATIONS

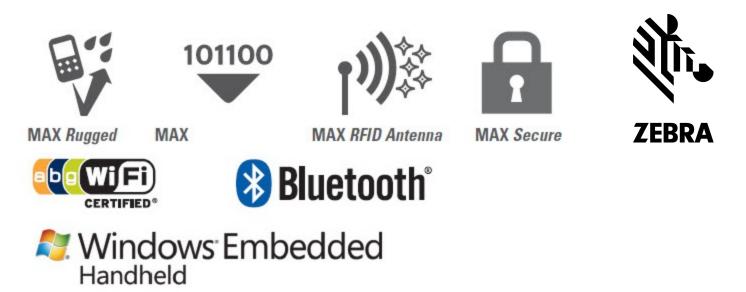
#### RECOMMENDED SERVICES

COMMUNICATIONS		Customer Services:	Service from the Start with
Radio	Tri-mode IEEE® 802.11a/b/g	_	Comprehensive Coverage
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	1 - LED lighting with h scanning performance	gh AC ripple content can impact
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)	_	

### **MC3190-Z APPLICATIONS**

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

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:



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**ZEBRA TECHNOLOGIES**