

PRODUCT SPEC SHEET
ZEBRA MT2000 SERIES



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A NEW BREED OF HANDHELD MOBILE TERMINALS

THE INTELLIGENCE OF A MOBILE COMPUTER AND THE SIMPLICITY OF A SCANNER

The MT2000 Series represents another industry first from Zebra — the marriage of the simplicity of a scanner with the brainpower of a mobile computer and an ultra-ergonomic gun-style form factor. The result is a handheld mobile terminal, a highly flexible device capable of streamlining many scan-intensive business processes in a wide variety of industries — from the front to back door in manufacturing plants, retail establishments, warehouses, hospitals and more. The easy-to-use affordable mobile terminal offers a unique hybrid design, able to function as both a scanner and a mobile computer throughout the business day. The MT2000 Series can be utilized right out of the box as a scanner — either tethered to a point of sale (POS), laptop or other computing system — or as a standalone wireless mobile computer capable of enabling inventory and other scan-intensive applications anywhere in the enterprise.

FLEXIBLE DEPLOYMENT MODES — WIRELESS, CORDLESS, CORDED AND BATCH

Two models provide the flexibility to meet a wide variety of business needs — the MT2090 and the MT2070. The MT2090 offers integrated 802.11a/b/g for real-time direct application connectivity anywhere in your environment, ideal for put-away and picking in the retail backroom and warehouse aisles to material tracking, quality control and error-proofing on the manufacturing floor. Both models offer integrated Bluetooth® for a convenient cordless connection to a host device up to 300 feet (91.44 m) away — such as a Point-of-Sale (POS) or workstation. The MT2000 Series can operate in real-time or batch mode, increasing application flexibility. And regardless of whether the device is connected to your wireless LAN or to a host device, support for the latest wireless security protocols keeps your data safe — and helps ensure compliance with PCI and other government regulations.

COMPREHENSIVE DATA CAPTURE

The MT2000 Series is loaded with advanced data capture capabilities. Choose the scan engine that best meets your bar code scanning requirements — a 1-D laser scanner or 2-D imager, both delivering Zebra's signature performance.

FEATURES

Comprehensive connectivity options — including wireless, cordless and corded

802.11a/b/g connectivity provides complete wireless freedom throughout your facility; Bluetooth® enables wireless connectivity as far as 300 feet (91.44 m) away from a Bluetooth-enabled host device; USB and RS-232 provides a flexible corded connection to host devices

Comprehensive data capture options — 1-D, 2-D and images

Eliminates the need to purchase multiple devices to capture different types of data

The 1-D laser scanner offers an extraordinary range, able to capture even damaged and poor quality bar codes from as close as one inch/2.54 cm to as far as 192 inches/487.68 cm away. The industry-leading 2-D imager provides the flexibility to capture 1-D and 2-D bar codes as well as signatures, images and video. In addition, the world-class 2-D imager re-sets the bar for imaging technology, providing extraordinary scan speeds on both 1-D and 2-D bar codes — eliminating the need for businesses to sacrifice scanning performance for 2-D capability.

ZEBRA'S SIGNATURE RUGGED DESIGN FOR MAXIMUM RELIABILITY

This entry level value-priced mobile terminal offers the same drop specification as Zebra's high-end rugged devices — a 6 ft./1.8 m drop test performed across the entire operating temperature range. You get reliable performance whether the device is dropped at room temperature on carpet or tile — or out on the loading dock and in outdoor shopping areas in extreme winter cold or summer heat. While the drop specification defines the maximum survivable impact height, the tumble test defines endurance — the MT2000 Series experienced no degradation in performance after 250 tumbles in a rotating drum, which subjects the device to 500 consecutive 3.2 ft./1 m drops. And IP54 sealing provides dependable operation in spite of exposure to dusty environments or splashing liquid, such as a beverage spill.

INDUSTRY-LEADING ERGONOMICS

The MT2000 Series exemplifies Zebra's expertise in industrial design. The handle-forward design balances easily in the hand and combines with a gun form factor, bringing all day comfort to even the most scan-intensive applications. The shiftable alphanumeric keypad helps ensure easy data entry — regardless of whether your applications require primarily numeric or text-based entry — or both. And soft keys enable the completion of a wide range of actions with the single press of a button.

PROTECT YOUR DATA WITH GOVERNMENT GRADE SECURITY

Native FIPS 140-2 Level 1 certification* brings government grade security to businesses and government agencies alike, providing easy and cost-effective compliance with HIPAA, PCI and other industry security regulations.

EXTENSIVE APPLICATION FLEXIBILITY

The industry standard Microsoft® .Net Framework development environment enables the easy creation of new applications. In addition, porting existing batch and real-time applications developed for Zebra's mobile computers and scanners, such as the Phaser, is virtually effortless — the new MCL Designer Software (optional) includes a built-in legacy application converter, and the MCL client is pre-loaded on the MT2000 to easily port new applications. The result is a cost-effective migration path that allows enterprises to upgrade to the latest mobile device technology to further improve workflow automation and employee productivity — while preserving existing application investments.

A RAPID RETURN ON INVESTMENT (ROI) — AND A LOW TOTAL COST OF OWNERSHIP (TCO)

With the MT2000 Series, you can count on an exceptional ROI and TCO. The multi-function hybrid device eliminates the need to purchase separate bar code scanners and mobile computers, greatly reducing capital and operational costs. Zebra's flagship mobile device management solution, Mobility Services Platform (MSP), minimizes the most expensive aspect of any mobility solution — day-to-day management of mobile devices. MSP provides extraordinary centralized control, allowing IT to remotely stage, provision, monitor and troubleshoot devices — regardless of where in the world they are located. And since even the most rugged devices need a support plan, Service from the Start with Comprehensive Coverage sets the standard for post-deployment support by including normal wear and tear as well as accidental damage to internal and external components. Employee uptime is protected while unforeseen repair expenses are reduced.

*Available on MT2000 Series Bluetooth-enabled mobile terminals

For more information on how you can leverage the power of the MT2000 Series in your enterprise, please visit us on the web at www.zebra.com/mt2000 or access our global contact directory at www.zebra.com/contact

— today and in the future

Superior 1-D laser scanning technology

First time rapid capture of even damaged and poor quality bar codes for all 1-D codes over a large working range — from 1 in./2.54 cm to as far as 192 in./487.68 cm

A new standard for 2-D imaging

Aggressive performance on 1-D and 2-D bar codes plus the ability to capture signatures, still photos and video; omnidirectional 1-D and 2-D bar code scanning improves productivity by eliminating the need to align scanner and bar code

Windows CE 5.0 operating system

Easy to scale and highly reliable industry-standard open architecture

Pre-loaded MCL client

Provides the platform independence required to easily connect to legacy applications as well as develop new ones

Forward-scanning pistol grip

Easy-to-grip well-balanced design; reduces fatigue in scan-intensive environments for full shift comfort

Rugged design

A 6 ft./1.8 m drop specification plus a tumble specification

SPECIFICATIONS CHART

PHYSICAL CHARACTERISTICS

Dimensions 7.8 in H x 3.1 in. W x 5.0 in. D
19.8 cm H x 7.8 cm W x 12.7 cm D

Weight 13.5 oz/378 gm

Display 320 X 240 QVGA color graphic display

Battery 2400 mAh Li-Ion @3.7Vdc

Communication Interface USB 2.0 Host and RS-232

Keypad 21-key single stroke numeric and shifted alpha, 4-way navigation button with 2 soft keys for application control

Color Dark Gray

PERFORMANCE CHARACTERISTICS

CPU IntelXScale PXA270 @312MHz

Operating System Microsoft® Windows CE 5.0

Memory 64MB/64MB

Application Development Environment Microsoft Windows client CE EMDK; Zebra EMDK; MCL Designer V 3.0 (MCL Client pre-loaded on both the MT2070 and the MT2090; pre-licensed on the MT2070 only)

USER ENVIRONMENT

Operating Temperature -4° to 122° F/-20° TO 50° C

Storage Temperature -40° to 160° F/-40° TO 70° C

Humidity 5% to 95% non-condensing

Drop Specification 6 ft./1.8 m drop to concrete over the operating temperature range

Tumble Specification 250 3.2 ft./1 m tumbles (500 drops)

Environmental Sealing IP54

ESD ±15kVDC air discharge,

SECURITY CERTIFICATION

Certified compliant with FIPS 140-2 (available on MT2000 Series Bluetooth-enabled mobile terminals)

WIRELESS LAN DATA COMMUNICATIONS

Radio Tri-mode IEEE® 802.11a/b/g

Output Power 100mW US and international

Antenna Internal

Data Rates Supported 802.11b – 11MBPS;
802.11a – 54MBPS;
802.11g – 54MBPS

Frequency Range Country dependant: typically 2.4 to 2.5 GHz for 802.11b/g and 5.15 to 5.825GHz for 802.11a

CORDLESS DATA COMMUNICATIONS

Bluetooth 2.4Ghz class I radio – 300 feet (91.44 m) open air

PERIPHERALS AND ACCESSORIES

Cradles Single slot charge only cradle, Single slot multi-interface with Bluetooth cradle, Single slot charge only fork lift cradle, 4-slot charge only cradle, 4-slot Ethernet cradle

Chargers Four slot battery charger

Other Accessories Belt holster, desk cup, Intellistand

Printers Supports Zebra approved 3rd party printers

REGULATORY

Electrical Safety Certified to UL60950-1, CSA C22.2 No. 60950-1, EN60950-1

EMI/RFI North American: FCC Part 2 (SAR), FCC Part 15 Subpart B - Class B, RSS210, EU: EN 301-489-

of 500 3.2 ft./1 m drops (250 tumbles) and IP54 sealing combine to help ensure reliable operation in spite of everyday drops, bumps and exposure to dust and liquids

Government grade security with Zebra MAX Secure

FIPS 140-2 certification enables compliance with the most stringent industry security regulations, including HIPAA, PCI and requirements for sensitive government applications*

Compatible with Zebra's Mobility Services Platform (MSP)

Provides complete centralized management capabilities, including the ability to stage, provision, monitor and troubleshoot all MT2090 devices from a single remote location; dramatically simplifies and reduces the time and cost of day-to-day device management

High resolution high contrast color QVGA display

Easy to view regardless of lighting — from bright sunlight to dimly lit warehouses

21-key enhanced keypad

Shifted alphanumeric functionality simplifies data entry; soft keys enable design of easy-touse applications with a

±8kVDC direct/indirect discharge

1, 489-17

highly intuitive interface

Ambient Lighting Tolerance

Tolerant to typical artificial indoor and natural outdoor (direct sunlight) lighting conditions. Fluorescent, Incandescent, Mercury Vapor, Sodium Vapor, LED1: 450 Ft Candles (4,844 Lux) Sunlight: 8000 Ft Candles (86,111 Lux)

Laser Safety

IEC Class 2/FDA Class II in accordance with IEC60825-1/EN60825-1

Tempered glass exit window

Resists scratching and increases device lifecycle

WARRANTY

The MC2000 Series is warranted against defects in workmanship and materials for a period of 36 months from date of shipment, provided that the product remains unmodified and is operated under normal and proper conditions.

Microsoft .NET development environment

Provides application flexibility: easily develop new applications as well as port existing applications to the MT2000

DATA CAPTURE OPTIONS

Options 4 configurations: 1D Laser, 1D/2D Imager, 1D/2D HD Imager, DPM Imager

RECOMMENDED SERVICES

Customer Services Service from the Start with Comprehensive Coverage

SYMBOLGY DECODE CAPABILITY

1D UPC/EAN (UPCA/UPCE/UPCE1/EAN-8/EAN-13/JAN-8/JAN-13 plus supplements, ISBN (Bookland), Code 39 (Standard, Full ASCII, UCC/EAN-128, ISBT-128 Concatenated), Code 93, Codabar/NW7, Zebra Plessey, I 2 of 5 (Interleaved 2 of 5 / ITF, Discrete 2 of 5, IATA, Chinese 2 of 5), GS1 DataBar (Omnidirectional, Truncated, Stacked, Stacked Omnidirectional, Limited, Expanded, Expanded Stacked, Inverse), Base 32 (Italian Pharmacode)

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

Optional Intellistand

Increases application flexibility by providing a hands-free mode

2D TLC-39, Aztec (Standard, Inverse), Maxicode, DataMatrix/ECC 200 (Standard, Inverse), QR code (Standard, Inverse, Micro)

See Decode Zone charts on back

PDF417 PDF417 (Standard, Macro), Composite Codes (CC-A,CC-B,CC-C)

Multiple indicators: beeper mode, pager mode and LEDs

Provides dependable user feedback in a wide range of environments

Postal U.S. Postnet and Planet, U.K. Post, Japan Post, Australian Post, Netherlands KIX Code, Royal Mail 4 State Customer, upu fics 4 State Postal, USPS 4CB

MT2000 SERIES TYPICAL DECODE RANGES (TRIGGER MODE)

DEPTH OF FIELD		
Label Density	English	Metric
MT 2070/2090-SL (Standard Range Laser)		
Code 39 - 4 mil 0	0.10 - 2.80 in.	254 - 7.112 cm
Code 39 - 5 mil 0	0.20 - 5.30 in.	508 - 13.462 cm
Code 39 - 7.5 mil	0.50 - 10.40 in.	1.27 - 26.416 cm
UPC 100% - 13 mil	0.20 - 21.90 in.	0.508 - 55.626 cm
Code 39 - 20 mil	** - 29.10 in.	** - 73.914 cm
Code 39 - 40 mil	** - 42.10 in.	** - 106.934 cm
Code 39 - 55 mil	** - 51.20 in.	** - 130.048 cm
MT 2070/2090-ML (Medium Range Laser)		
Code 39 - 5 mil	0.10 - 11.80 in.	0.254 - 29.97 cm
Code 39 - 7.5 mil	0.10 - 18.20 in.	0.254 - 46.23 cm
UPC 100% - 13 mil	0.20 - 26.30 in.	0.508 - 66.80 cm
Code 39 - 20 mil	0.20 - 46.10 in.	0.508 - 117.09 cm
Code 39 - 40 mil	** - 95.00 in.	** - 241.30 cm
Code 39 - 55 mil	** - 100.00 in.	** - 254.00 cm
Code 39 - 100 mil	** - 192.00 in.	** - 487.68 cm
MT 2070/2090-SD (Imager Standard Range)		
Code 39 - 5 mil	1.20 - 6.30 in.	3.048 - 16.002 cm
Code 39 - 7.5 mil	0.20 - 10.60 in.	0.508 - 26.924 cm
UPC 100% - 13 mil	** - 15.40 in.	** - 39.116 cm
Code 39 - 20 mil	** - 23.20 in.	** - 58.928 cm
PDF - 6.67 mil	2.50 - 6.10 in.	6.35 - 15.494 cm
PDF - 10 mil	0.70 - 9.60 in.	1.778 - 24.384 cm
PDF - 15 mil	** - 14.20 in.	** - 36.068 cm
MT 2070/2090-HD (Imager High Density Range)		
Code 39 - 3 mil	0.50 - 2.90 in.	1.27 - 7.366 cm
Code 39 - 5 mil	0 - 4.10 in.	0 - 10.414 cm
Code 39 - 7.5 mil	0.10 - 5.50 in.	0.254 - 13.97 cm
UPC 100% - 13 mil	0.60 - 6.10 in.	1.524 - 15.494 cm
Code 39 - 20 mil	** - 10.30 in.	** - 26.162 cm
PDF - 4 mil	0.80 - 2.60 in.	2.032 - 6.604 cm
PDF - 5 mil	0.50 - 3.00 in.	1.27 - 7.62 cm

PDF - 6.67 mil	20 - 3.60 in. 0.	0.508 - 9.144 cm
PDF - 10 mil	0.40 - 4.50 in.	1.016 - 11.43 cm
PDF - 15 mil	** - 5.90 in.	** - 14.986 cm

** Near decode distance is limited by the field of view Decode distances are measured under ambient light of 35 (\pm 5) foot-candle in the plane of the farthest bar code.



ZEBRA

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ZEBRA TECHNOLOGIES