

iMZ Series Mobile Printer

Specifications are provided for reference and are based on printer tests using Zebra® brand media and accessories. Results may vary in actual application settings or when using other than recommended Zebra supplies. Zebra recommends always qualifying any application with thorough testing.

STANDARD FEATURES

- Direct thermal printing of barcodes, text and graphics
- 203 dpi resolution (8 dots / mm)
- Print speed: up to 4 ips (76.2 mm / s)
- CPCL and ZPL programming languages
- Resident fixed and scalable fonts
- 400 MHz 32-bit ARM processor with 128 MB RAM
- 128 MB Flash supports downloadable programs, receipt formats, fonts, and graphics
- USB port
- 1620 mAh battery
- Built in battery charger
- Optical out of media sensing using fixed center position sensor
- Tear bar for easy receipt dispensing
- Supports vertical and horizontal printing
- Printer can be used in any orientation
- Fixed media roll width
- “Clamshell” design for easy media loading
- Management: Mirror, SNMP, Web server (with customizable HTML pages), Wavelink Avalanche®
- Four LEDs as User Interface indicators
- 4ft (1.2 m) drop to concrete (multiple times)
- Label odometer
- Bluetooth® 2.1
 - Security modes 1 – 4
 - Bluetooth printing from Apple devices (iOS 6, iOS 5)



iMZ220™

iMZ320™

OPTIONAL FEATURES

- ZebraNet™ 802.11a/b/g/n radio with support for:
 - WEP, TKIP and AES encryption
 - WPA and WPA2
 - 802.1x (with WEP, WPA or WPA2)
 - EAP-FAST, EAP-TTLS, EAP-TLS, PEAP, LEAP
 - 802.11d and 802.11i
 - Simultaneous Bluetooth 3.0 dual radio
 - Wi-Fi Certification
 - Fast roaming using Pairwise Master Key (PMK) caching, Opportunistic Key Caching (OKC), or EAP Fast Session resumption
 - Support for Ad Hoc mode
- Dual radio 802.11a/b/g/n and Bluetooth 3.0 radio
- Linerless printing (with silicone platen roller only) through a Development Services Group
- ZBI 2.x — Powerful programming language that lets printers run standalone applications, connect to peripherals, and much more

CHARGING OPTIONS

- Charge the battery inside the printer using:
 - AC adapter
 - Four Bay Power Station
 - Vehicle Charging Cable

LINK-OS® SOFTWARE SOLUTIONS

Print Touch — Simplifies Bluetooth pairing and launches web-based help pages with Near Field Communication enabled devices.

Profile Manager w/ AirWatch connector — Quickly connect your printer with the AirWatch device management system via WLAN and Ethernet.

Link-OS Software Development Kit — Simplifies printing application development with support for Windows®, Apple®, Android™, WinCE®, WinMobile® and Blackberry® platforms

ZebraDesigner™ Pro — An intuitive, easy-to-use software program for creating complex label designs

ZebraDesigner — Basic features for simple label design

ZebraNet Bridge Enterprise — Centrally manage Zebra printers anywhere on your global network.

ZebraDesigner Driver — Zebra driver compliant with Windows 2000, 2003, XP, 2008, Vista®, 7, 8

Zebra Setup Utility — Single printer configuration utility

ZBI-Developer — Programming utility makes it dramatically easier for programmers to create and test complex ZBI 2.0 programs and distribute them to the printer

SOFTWARE SOLUTIONS

Zebra Validated Solutions can be found at www.zebra.com/validation

ACCESSORIES

- Spare Batteries
- AC Adapter
- Four Bay Power Station
- Vehicle Charging Cable (with lighter adapter)
- Shoulder Strap
- Protective Silicone Skin
- Durability Enhancing Case (IP54 rating when used)
- USB Cable

MEDIA SPECIFICATIONS

NOTE: For optimum print quality and printer performance, use of genuine Zebra Supplies is recommended

Attribute	iMZ 220	iMZ 320
Media Width	2.0" (±0.03") 50.8 mm (±0.76 mm)	3.0" (±0.03") 76.2mm (±0.76 mm)
Maximum Print Width	1.9" (48.3 mm)	2.9" (73.7 mm)
Maximum Roll Length	66.7' with 2.4 mil paper. 48' with 3.2 mil paper.	66.7' with 2.4 mil journal. 48' with 3.2 mil paper.
Label Roll ID Core	0.4" (10.2 mm) to 0.75" (19 mm)	0.4" (10.2 mm) to 0.75" (19 mm)
Label Roll OD Maximum	1.88" (47.8 mm)	1.88" (47.8 mm)
Maximum Media Thickness	4 mil (0.1016 mm)	4 mil (0.1016 mm)

PHYSICAL SPECIFICATIONS

Attribute	iMZ 220	iMZ 320
Height	5.34" (135.6 mm)	5.34" (135.6 mm)
Width	3.18" (80.8 mm)	4.11" (104.4 mm)
Depth	2.26" (57.4 mm)	2.26" (57.4 mm)
Weight*	0.70 lbs. (0.32 kg)	0.75 lbs. (0.34 kg)

*Weight with battery and no media.

INTEROPERABILITY

Tested with hand held terminals including:

- iPod Touch (5th and 4th Generation), iPhone 5, iPhone 4 and iPad 3
- Zebra: MC75A, MC40, MC55
- Honeywell: Dolphin 6000, 7800
- Android Devices: Zebra ET1, Nexus 7, Galaxy III S

APPLICATION FLEXIBILITY

iMZ printers are designed to support a wide variety of applications and media types. Please consult the CPCL or ZPL programming manual for configuration details. Zebra recommends always qualifying any application with thorough testing.

CPCL PROGRAMMING LANGUAGE

- Communicates in printable ASCII characters
- Compatible with Servers, PCs, mobile terminals, and smartphone hosts
- Downloadable objects include graphics, bitmap fonts, label templates and formats
- Automatic memory allocation for format while printing
- Automatic serialization of fields
- Automatic printhead temperature compensation
- Format inversion (white on black)
- Four position field rotation (0°, 90°, 180°, 270°)
- Programmable label odometer
- Monitor and report battery voltage and temperature
- Easy network and security configuration
- Standard Fonts: 25 bitmapped, 1 smooth, scalable (CG Triumvirate Bold Condensed*)
- Optional Fonts: downloadable bitmapped / scalable fonts
- International Character Sets (optional): Chinese (traditional) 16x16; Chinese (simplified) 16x16, 24x24; Japanese 16x16, 24x24; Korean Mincho, Meong; Russian
- Scalable text feature
- Standard resident fonts can be rotated in 90° increments
- Supports user defined fonts, graphics and logos
- Text concatenation to assign different character styles
- Allows text magnification 1 to 16 times
- Proportional and fixed-width fonts

*Contains UFST® from Agfa Monotype Corporation

CPCL FONT MATRICES: 203 DPI (8 DOTS / MM) PRINTHEADS

Fonts	Matrix (in dots) (H × W)	Minimum Character Size (H × W)	Maximum CPI
0 Standard	9 × 8	0.044" × 0.039"	25.4
1 (Minimum Width)	48 × 13	0.236" × 0.064"	15.6
1 (Maximum Width)	48 × 39	0.236" × 0.192"	5.2
2 (OCR-A)	12 × 20	0.059" × 0.099"	10.2
4 Size 0 (Minimum Width)	47 × 11	0.232" × 0.054"	18.5
4 Size 0 (Maximum Width)	47 × 43	0.232" × 0.212"	4.7
5 Size 0 (Minimum Width)	24 × 7	0.118" × 0.034"	29
5 Size 0 (Maximum Width)	24 × 23	0.118" × 0.113"	8.8
6 (MICR)	27 × 28	0.133" × 0.138"	7.3
7	24 × 12	0.118" × 0.059"	16.9

CPCL BARCODE SYMBOLOGIES

- Barcode Ratios: 1.5:1, 2:1, 2.5:1, 3:1, 3.5:1
- Linear Barcodes: Code 39, Code 93, UCC / EAN128, Code 128, Codabar (NW-7), Interleaved 2-of-5, UPC-A, UPC-E, 2 and 5 digit add-on, EAN-8, EAN-13, 2 and 5 digit add-on
- 2D Barcodes: PDF417, MicroPDF417, MaxiCode, QR Code, GS1 / DataBar™ (RSS) family, Aztec, MSI / Plessey, FIM Postnet, Data Matrix, TLC39

CPCL GRAPHICS

- Lines, boxes, and patterns
- PCX images

ZPL PROGRAMMING LANGUAGE

- Supports version X.18 (and later)
- Communicates in printable ASCII characters
- Compatible with Servers, PCs, mobile terminals, and smartphone hosts
- Downloadable objects include graphics and bitmap fonts, label templates and formats
- Automatic memory allocation for format while printing
- Automatic serialization of fields
- Format inversion (white on black)
- Mirror-image printing
- Four position field rotation (0°, 90°, 180°, 270°)
- Programmable label odometer
- Slew command
- Programmable label quantities with print, pause
- Advanced Discovery — quickly discover a wide range of printer data with one simple request
- Status messages to host upon request
- Character Fonts: Standard bitmapped Zebra fonts: A, B, C, D, E (OCR-B), F, G, H, (OCR-A), GS, P, Q, R, S, T, U, V and Ø Smooth font (CG Triumvirate Bold Condensed).
- Supports Unicode UTF-8, UTF-16, and several other single and multi-byte international character sets (See ZPL programming guide for more details)
- Supports user defined fonts and graphics — including custom logos
- Bitmap fonts are expandable up to 10 times, height and width independent. Fonts E and H (OCR-B and OCR-A), however, are not considered in spec when expanded.
- Smooth scalable font Ø (CG Triumvirate Bold Condensed) is expandable dot-by-dot, height and width
- Unicode Swiss 721 font available

ZPL GRAPHICS

- Lines, boxes (with optional rounded corners)
- Circles, ellipses
- Images (several different formats, see ZPL manual)
- Compressed Images

ZPL FONT MATRICES: 203 DPI (8 DOTS / MM) PRINTHEADS

Fonts	Matrix (in dots) (H × W)	Type†	Minimum Character Size (H × W)	Maximum CPI
A	9 × 5	U-L-D	0.044" × 0.030"	33.3
B	11 × 7	U	0.054" × 0.044"	22.7
C, D	18 × 10	U-L-D	0.089" × 0.059"	16.9
E	28 × 15	OCR-B	0.138" × 0.098"	10.2
F	26 × 13	U-L-D	0.128" × 0.079"	12.7
G	60 × 40	U-L-D	0.295" × 0.236"	4.2
H	21 × 13	OCR-A	0.103" × 0.093"	10.8
GS	24 × 24	SYMBOL	0.118" × 0.118"	8.5
P	20 × 18	U-L-D	0.098" × 0.089"	N / A
Q	28 × 24	U-L-D	0.138" × 0.118"	N / A
R	35 × 31	U-L-D	0.172" × 0.153"	N / A
S	40 × 35	U-L-D	0.197" × 0.172"	N / A
T	48 × 42	U-L-D	0.236" × 0.207"	N / A
U	59 × 53	U-L-D	0.290" × 0.261"	N / A
V	80 × 71	U-L-D	0.394" × 0.349"	N / A
Ø	15 × 12	U-L-D	Scalable (Smooth) Font	

† U = Uppercase L = Lowercase D = Descenders

ZPL BARCODE SYMBOLOGIES

- Barcode Ratios: 2:1, 3:1, 5:2, 7:3
- Linear Barcodes: Code 11, Code 39, Code 93, Code 128, ISBT-128, UPC-A, UPC-E, EAN-8, EAN-13, UPC-A and UPC-E with EAN 2 or 5 digit extensions, Planet Code, Plessey, POSTNET, Standard 2 of 5, Industrial 2 of 5, Interleaved 2 of 5, LOGMARS, MSI, Codabar, and GS1 DataBar™ (RSS)
- 2D Barcodes: PDF417, MicroPDF-417, Code 49, TLC39, Maxicode, Codablock, Data Matrix, QR code, Aztec

INTERNET PROTOCOLS (OVER 802.11A/B/G/N)

- UDP / TCP
- DHCP / BootP
- FTP / Mirror
- HTTP
- SMTP / POP3
- Telnet, LPD, SNMP

CABLED COMMUNICATIONS SPECIFICATIONS

- USB 2.0 Full Speed Interface (12 Mbps)
 - Mini-B connector

ENVIRONMENTAL SPECIFICATIONS

- Operating Temperature: 14°F to 122°F (10°C to 50°C)
- Charging Temperature: 32°F to 104°F (0°C to 40°C)
- Storage Temperature: -4°F to 140°F (-20°C to 60°C)
- Relative humidity:
 - Operation: 10% to 90% non-condensing
 - Storage: 10% to 90% non-condensing
- IP Rating: 42 (IP54 with protective case)

ELECTRICAL SPECIFICATIONS

- Smart Battery:
 - 7.4 V, 1620 mAh (nominal), rechargeable Li-ion
 - Life: 300 Cycles (full charge and discharge) recommended, 600 cycles maximum
 - Max charge time: 3.5 hours
- Print duty cycle: 2,TBD inches / day (TBD mm / day)
- DC charging input: 12 VDC ±10% at 2A maximum

AGENCY APPROVALS

- Emissions: FCC Part 15, Subpart B, EN55022 Class-B, EN60950, EN55024 and VCCI class B
- Susceptibility: EN55024, EN61000-4-2, EN61000-4-3, EN61000-4-4, and EN61000-4-5
- Safety: CE, UL, TUV, CSA
- International marks: NOM, C-Tick, VCCI, S-Mark, PSE, CCI, MII
- Bluetooth SIG registered, CCX v4 ASD and Wi-Fi certified.

PREVENTATIVE MAINTENANCE

Zebra recommends cleaning the iMZ Series printers on a regular basis using standard Zebra printer parts and cleaning supplies. Consult your User's Guide for further details.

- **Cleaning:** The exterior is cleaned with a lint-free cloth, and if necessary, a mild detergent solution or desktop cleaner. Interior components are cleaned with 70% isopropyl alcohol (IPA) or blown air to remove any particles.
- **Battery:** It is recommended that the battery be fully discharged several times by cycling it to maximize performance.

For more information, visit www.zebra.com/imzseries



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