ZEBRA
CAPTURE YOUR EDGE

ZD220™ Printer Specifications

Specifications are provided for reference and are based on printer tests using Zebra brand supplies. 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

- 4 ips print speed
- ZPL II® and EPL2™ programming languages
- Connectivity: USB 2.0
- OpenACCESS™ design for easy media loading
- 203 dpi print resolution (8 dots/mm)
- 4.09” (104 mm) print width
- Direct thermal and thermal transfer printing of barcodes, text and graphics
- 128 MB of Flash memory
- 128 MB SDRAM
- Head-up sensor
- Movable black mark sensor, limited range from center to left side, fixed off-center gap sensor
- 5” outside diameter media capability
- Fan-fold media feed slot
- Link-OS® Basic printer operating system
- Unicode compliant for multi-language printing
- 16 resident expandable ZPL II® bitmap fonts
- Two resident scalable ZPL fonts
- Multiple DOS and Windows® codepage support
- Windows drivers
- Printer utilities
- Linear & 2-D barcode symbologies
- ENERGY STAR® Certified, meets Energy Efficiency Level VI
- Two-year standard warranty

OPTIONAL FEATURES

- Factory installed peeler
- Optional media core adapters are available to accommodate 1.5” , 2” and 3” ID core sizes

SOFTWARE

- This printer is supported by a core set of Print DNA Basic applications and capabilities. For more information visit www.zebra.com/printdna.
- Set-Get-Do commands to set and get printer configuration details
- ZPL II – Universal language for Zebra printers. Simplifies label formatting and enables format compatibility with existing systems that run Zebra printers
- EPL2 – Eltron Programming Language simplifies label formatting and enables format compatibility with legacy applications
- EPL1 – Line Mode available on ZD220d

MEDIA SPECIFICATIONS

- Media Width:
  1.00" - 4.40" (25.4 - 112 mm)
- Label Length:
  - Minimum 1.0” (25.4 mm)
  - Maximum 39” (991 mm)
  - Core inner diameter: Standard - 0.5”/12.7 mm, 1.0”/25 mm.
  - Optional adaptor kit - 1.5”/37.1 mm.
- Max Roll Outer Diameter: 5.00” (127 mm)
- Media Thickness: 0.003" (0.08mm) min, 0.0075 (0.1905mm) max
- Media Sensing: gap, black line, notch
- Media Type:
  - Roll-fed or fan-fold
  - Label stock (die cut or continuous, direct thermal or thermal transfer)
  - Tag stock (die cut or continuous, direct thermal or thermal transfer)
  - Receipt paper (continuous, direct thermal)
  - Wristband stock (direct thermal or thermal transfer) (Z-Band 4000)

PRINTER SPECIFICATIONS

Resolution	203 dpi resolution (8 dots / mm)
Speed inch/Sec - ips (mm/sec)	4 ips (102)
Dot Pitch	0.0049” (0.13 mm)
Max. Print Length	39.0” (991 mm)
Min. Print Length	One Dot
Max. Print Width	4.09” (104 mm)
Min. Print Width	One Dot

ZPL PROGRAMMING LANGUAGE (ZPL/ZPL II)

- Communicates in printable ASCII characters
- Compatible with mainframe, mini and PC 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°)
- Slew command
- Programmable label quantities with print, pause
- Status messages to host upon request

RIBBON SPECIFICATIONS

	ZD220t ONLY
Ribbon Outside Diameter	1.34”/ 34 mm (74 m)
Ribbon Standard Length	244’ (74 m)
Ribbon Ratio	• 1:1 media to ribbon (74 m)
Ribbon Width	1.33”/ 33.8 mm ~ 4.3”/ 109.2 mm
Ribbon Core I.D.	• 74 m ribbon 0.5”/ 12.7 mm

FONT SPECIFICATIONS: 203 DPI (8 DOT / MM)

Font	Matrix (in dots) (H × W)	Type†	Minimum Character Size (H × W) in inches (mm)	Max CPI
A	9 × 5	U-L-D	.044" x .030"	33.3
B	11 × 7	U	.054 × .044	22.7
C, D	18 × 10	U-L-D	.088 × .059	16.9
E	28 × 15	OCR-B	.138 × .098	10.2
F	26 × 13	U-L-D	.128 × .079	12.7
G	60 × 40	U-L-D	.295 × .236	4.2
H	21 × 13	OCR-A	.103 × .093	10.8
GS	24 × 24	SYMBOL	.118 × .118	8.5
P-V	20 × 18	U-L-D	Backward compatible w/ S-300 Scalable (Smooth) Font	
Ø	15 × 12	U-L-D		

†U—Uppercase L—Lowercase D—Descenders

- 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 & Ø Smooth font (CG Triumvirate™ Bold Condensed*)
- 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 independent, while maintaining edges to a max. 1500 x 1500 dots
- 64 MB user available non-volatile memory storage for downloadable objects
- 8 MB user-available SDRAM

* Contains UFST® from Agfa Monotype Corporation

ZPL BARCODE SYMBOLOGIES

- Barcode ratios: 2:1 (non-rotated) and 3:1
- Linear barcodes: Code 11, Code 39, Code 93, Code 128, UPC-A, UPC-E, EAN-8, EAN-13, EAN-14, UPC-A and UPC-E with EAN 2 or 5 digit extensions, Plessey, POSTNET, Standard 2 of 5, Industrial 2 of 5, Interleaved 2 of 5, LOGMARS, MSI, Codabar, and GS1 DataBar (formerly RSS)
- 2-dimensional barcodes: PDF417, MicroPDF-417, Code 49, Maxicode, Codablock, Data Matrix, QR code, and Aztec

EPL PROGRAMMING LANGUAGE (EPL2)

- ASCII EPL2 programming language (Page Mode)
- Field Rotations
- Variable field support (up to 100)
- Counter support (up to 10)
- Variable field addition and subtraction
- Status reporting
- Form, fonts and graphics storage
- Simple set of formatting commands
- Support of selected barcode

FONTS SPECIFICATIONS

Type	Width	Height	SP	CPI	Chars
Font1	8	12	2	20.3	160
Font2	10	16	2	16.9	160
Font3	12	20	2	4.5	160
Font4	14	24	2	12.7	160
Font5	32	48	4	5.6	80

EPL BARCODES SYMBOLOGIES)

- Linear barcodes: Code 39, Code 128A, B & C (User selectable/Auto), UCC/EAN-128, Code 93, Codabar, Interleaved 2 of 5, UPC-A, UPC-E, UPC-A with 2 and 5 add on, UPC-E with 2 and 5 add on, EAN 13, EAN 8, EAN 13 with 2 and 5 add on, EAN 8 with
- 2 and 5 add on, Postnet (5, 9, 11, & 13 digit) Japanese Postnet, Plessey (MSI-1), MSI-3, German Post Code, RSS-14 (limited, truncated, stacked)
- 2-dimensional barcodes: Maxicode (modes 2,3,4,6), PDF417 (MicroPDF417 and MacroPDF417), Data Matrix

CODE PAGES SUPPORTED

- DOS: 437, 850, 851, 852, 855, 857, 860, 861, 862, 863, 865, 866, 869, 737, Big 5, GB2312, GB18030
- Windows: 1250, 1251, 1252, 1253, 1254, 1255, 1256, and 1257

INTERFACE/CONNECTIVITY TYPES

- USB:
  - Version 2.0 full speed, bi-directional
  - Connector – Type B Female

ELECTRICAL SPECIFICATIONS

- Auto-ranging external power supply with C13 type connector
- Output: 24 VDC, 3.125A
- Input: 100-240 VAC, 50-60 Hz
- ENERGY STAR 2.0 qualified; Energy Efficiency Level VI certified

AGENCY APPROVALS

- IEC 60950-1, EN55022 Class B, EN55024, EN61000-3-2, EN61000-3-3, FCC Class B, ICES-003, FCC 15.209; 15.247(d), IC RSS 247, EN 300 328, EN 301 893, EN 62311, cTUVus
- CE Marking, VCCI, C-Tick, S-Mark, CCC, CU, BSMI, KCC, SABS, IN-Metro, BIS, NOM

PHYSICAL SPECIFICATIONS

ZD220	
Dimensions	Thermal Transfer • 10.5 in. L x 7.75 in. W x 7.5 in. H • 267 mm L x 197 mm W x 191 mm H Direct Thermal • 8.6 in. L x 6.9 in. W x 5.9 in. H • 220 mm L x 176 mm W x 151 mm H
Weight	2.5 lbs./1.1 kg

OPERATING ENVIRONMENT

ZD220	
Operating Temperature	40°F to 105°F (5°C to 41°C)
Storage Temperature	-40°F to 140°F (-40°C to 60°C)
Operating Humidity	10% to 90% non-condensing
Storage Humidity	5% to 95% non-condensing

PREVENTATIVE MAINTENANCE

Zebra recommends cleaning the printer on a regular basis using standard Zebra cleaning supplies. Refer to the User's Guide for more details.

CLEANING

The exterior is cleaned with a lint-free cloth, and if necessary, a mild detergent solution or desktop cleaner can be used. Interior components (printhead, platen, media path, and dispenser bar) are cleaned with alcohol or blown air.

For more information, visit www.zebra.com/zd200

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