

ZD230TA/DA 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

- 6 ips (152mm per second) maximum print speed
- ZPL II®, EPL2™ and non-Zebra command languages with auto-detect and switch
- Connectivity: USB 2.0
- OpenACCESS™ design for easy media loading
- 203 dpi print resolution (8 dots/mm)
- 104mm print width
- Direct thermal and thermal transfer printing of barcodes, text and graphics
- 8 MB of Flash memory
- 16 MB SDRAM
- Head-up sensor
- Movable black mark sensor, limited range from center to left side, fixed off-center gap sensor, ribbon sensor
- 127mm outside diameter media capability
- Fan-fold media feed slot
- Unicode compliant for multi-language printing
- 16 resident expandable ZPL II bitmap fonts
- Three resident scalable ZPL fonts
- Multiple DOS and Windows® codepage support
- Windows drivers
- Printer utilities
- Linear and 2D barcode symbologies
- ENERGY STAR® Certified, meets Energy Efficiency Level VI

Optional Features

- 300 dpi print resolution (12 dots/mm)
- White color scheme
- USB to Serial

Accessories

- USB to Serial cable; optional media core adapters are available to accommodate 12.7mm, 25.4mm and 38.1mm core sizes

Software

- Zebra Setup Utilities for Windows — easily set up, configure and manage printers
- ZebraDesigner Essentials — easily design, edit and print labels
- 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



Media Specifications

- Media Width: 25.4mm - 112mm
- Label Length:
 - Minimum 25.4mm
 - Maximum 990mm
 - Core inner diameter: 12.7mm and 25.4mm standard and 38.1mm using optional adapters
- Max Roll Outer Diameter: 127mm
- Media Thickness: 0.06mm min, 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)

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

Printer Specifications

Resolution	203 dpi resolution (8 dots/mm)	300 dpi resolution (12 dots/mm)
Speed (mm/sec)	Programmable 102mm, 152mm	76mm, 127mm
Dot Pitch	0.13mm	0.09mm
Max. Print Length	990mm	990mm
Min. Print Length	One Dot	One Dot
Max. Print Width	104mm	106mm
Min. Print Width	One Dot	One Dot

Ribbon Specifications

	ZD230TA ONLY
Ribbon Outside Diameter	66mm (300m) 34mm (74m)
Ribbon Standard Length	300m 74m
Ribbon Ratio	4:1 media to ribbon (300m) 1:1 media to ribbon (74m)
Ribbon Width	33.02 mm 110 mm
Ribbon Core I.D.	25.4mm (300m) 12.7mm (74m)

Font Specifications

- 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
 - 2 MB user available non-volatile memory storage for downloadable objects
 - 2 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

Font Specifications: 203 DPI (8 DOT/MM) and 300 DPI (12 DOT/MM)

Font	Matrix (in dots) (H × W)	Type [†]	Minimum Character Size (H × W) in mm	Max CPI
A	9 × 5	U-L-D	1.118mm × .0762mm	33.3
B	11 × 7	U	1.372mm × 1.118mm	22.7
C, D	18 × 10	U-L-D	2.235mm × 1.498mm	16.9
E	28 × 15	OCR-B	3.505mm × 2.489mm	10.2
F	26 × 13	U-L-D	3.251mm × 2.007mm	12.7
G	60 × 40	U-L-D	7.493mm × 5.994mm	4.2
H	21 × 13	OCR-A	2.616mm × 2.362mm	10.8
GS	24 × 24	SYMBOL	2.997mm × 2.997mm	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

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

EPL Barcodes Symbolologies

- 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 and 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

Fonts Specifications

Type	Width	Height	SP	CPI	Chars
Font 1	8	12	2	20.3	160
Font 2	10	16	2	16.9	160
Font 3	12	20	2	4.5	160
Font 4	14	24	2	12.7	160
Font 5	32	48	4	5.6	80

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, 2.08A or 2.5A
- Input: 100-240 VAC, 50-60 Hz
- ENERGY STAR® 2.0 qualified; Energy Efficiency Level VI certified

Agency Approvals

- CCC; BSMI; KCC; BIS; RCM

Physical Specifications

ZD230TA/DA	
Dimensions	ZD230TA Thermal Transfer model • 267mm L x 202mm W x 192mm H ZD230DA Direct Thermal model • 220mm L x 180mm W x 150mm H
Weight	ZD230TA: 1.8kg ZD230DA: 1.2kg

Operating Environment

ZD230TA/DA	
Operating Temperature	+41F to +104F (+5C to +40C)
Storage Temperature	-40F to +140F (-40C to +60C)
Operating Humidity	25% to 85% non-condensing
Storage Humidity	10% to 90% 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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