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ZEBRA HC100 PRINTER SPECIFICATIONS

Specifications are provided for reference and are based on printer tests using Zebra brand wristbands. Results may vary in actual application settings Zebra recommends always qualifying any application with thorough testing.

Standard Features

- Quick & easy media cartridge loading
- Automatic media loading – no user contact with the media during loading or removal
- 300 dpi print resolution (12 dots/mm)
- Prints at 2 inches / second
- Direct thermal printing of bar codes, text, and graphics
- Dual-wall frame, impact resistant plastic
- ZPL® or ZPL II® programming language
- 32 bit RISC processor
- 16 MB Std SDRAM memory (4 MB available to user)
- 8 MB Std Flash memory (2 MB available to user)
- Zebra E³ Printhead Energy Control
- Dual communications interface: Serial & USB
- Odometer for print length tracking
- Illuminated Media Low / Media Out indicator
- Tool-less print head and platen replacement
- Unicode™ compliant for multi-language printing
- XML Enabled Printing—allows XML communications from information systems
- Instant media calibration – no wasted media
- 16 resident expandable bitmap fonts
- One resident scalable font
- Head-up sensor
- Media low and out sensors
- Standard Tear-off mode feature

Optional Features

- **Ethernet - ZebraNet 10/100 Internal Print Server** – Factory installed only, offered in combination with serial and USB interfaces
- **Wireless 802.11 b/g - ZebraNet Internal Wireless Plus Print Server** – Factory installed only, offered in combination with serial / USB interface. Advanced wireless security – including WPA and WPA2
- **Font Packs** – Asian and other international font kits
- **Factory installed 64MB** (58 MB user available) Flash Memory option
- **ZBI 2.0** – Factory or field installed

ZebraLink Solutions

Software

ZebraDesigner™ Pro – An intuitive, easy-to-use software program for creating complex wristband and label designs, purchased separately (option)

ZebraDesigner – Offers basic features for simple wrist band and label design (standard)

ZebraDesigner for XML – A design tool for designing and distributing wristband templates for later recalling and printing via XML data streams

ZebraNet Bridge Enterprise – Centrally manage Zebra printers from a single PC screen anywhere on your global network (option)

ZebraNet Utilities v7.0 – Provides enhanced printing, conversion, and administration capabilities; message management and more (standard)

ZebraDesigner Driver – Zebra driver compliant with Windows 95/98/2000/2003/ME/NT/XP, and Vista (downloadable from www.Zebra.com)

Zebra Universal Driver – A printer driver compatible with Windows 98SE/NT/2000/XP/2003

ZBI 2.0 – Powerful programming language that lets printers run standalone applications, connect to peripherals, and much more (option)

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 (standard with ZBI 2.0)

Networking Options

Ethernet - ZebraNet 10/100 Internal Print Server – Factory installed only, offered in combination with serial / USB interface

Wireless 802.11 b/g – ZebraNet Internal Wireless Plus Print Server - Factory installed only, offered in combination with serial / USB interface. Advanced wireless security – including WPA and WPA2

Firmware

ZPL II – Universal language for Zebra printers. Simplifies wrist band and label formatting and enables format compatibility with existing systems that run Zebra printers.

Web View – Connect and control Zebra bar code printers via the printer's Web interface using a common Web browser.

Alert – Printers equipped with ZebraNet print servers will notify you via any email-enabled, wired, or wireless device to minimize downtime.

Printing Specifications

- Resolution: 300 dots/inch (dpi) (12 dots/mm)
- Dot size (W x L):
0.0033 in. x 0.0039 in. (0.084mm x 0.099mm)
- Minimum print length: 3 in. (76 mm)
- 3 wristband widths: 0.75 in., 1.00 in., and 1.1875 in. (19.05, 25.4, and 30.16 mm)
- Bar code modulus "X" dimension: 300 dpi = 3.33 mil to 32.67 mil

Z-Band Wristband Cartridge Specifications

- Wristbands** feature patent-pending silver antimicrobial coating, which test results show effectively protects the wristband against *S. aureus*, *P. aeruginosa*, *E. coli*, and MRSA

Wristband Options:

Z-Band Direct (adhesive closure)

Size	Adult	Adult	Adult	Pediatric	Infant
Inches	0.75 x 11.00	1.00 x 11.00	1.1875 x 11.00	1.00 x 7.00	1.00 x 6.00
Millimeters	19.05 x 279.4	25.4 x 279.4	30.16 x 279.4	25.4 x 177.8	25.4 x 152.4
Color	White	White Red Blue Yellow Green Orange Pink Purple	White	White	White

Z-Band QuickClip (clip closure)

- Adult: 1.1875 x 11.00 in. (30.16 x 279.4 mm)
- Infant/Pediatric: 1 x 7 in. (25.4 x 177.8 mm)
- Color-coding clips**
 - Red, Blue, Yellow, Green, Pink, and Purple

Calibration Procedure

- The HC100 is equipped with a NEW automatic calibration feature that requires no media motion thus wasting no wristbands.

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, wristband 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 wristband quantities with print, pause
- Status messages to host upon request

Standard Printer Font Specifications

300 dpi (12 dots/mm)

Font	Matrix			Type*	Character Size					
	Height	Width	Inter-character Gap		Inches			Millimeters		
	Height	Width	Inter-character Gap		Height	Width	Char/inch	Height	Width	Char/mm
A	9	5	1	U-L-D	.035	0.020	50.5	0.89	0.50	1.98
B	11	7	2	U	.043	0.030	33.7	1.09	0.76	1.32
C,D	18	10	2	U-L-D	.070	0.040	25.3	1.78	1.01	0.99
E	41	20	6	OCR-B	.160	0.086	11.7	4.06	2.18	0.46
F	26	13	3	U-L-D	.101	0.053	18.9	2.57	1.34	0.74
G	60	40	8	U-L-D	.234	0.158	6.3	5.94	4.03	0.25
H	30	19	9	OCR-A	.177	0.092	10.8	2.97	2.35	0.43
GS	24	24	2	SYMBOL	.094	0.086	11.7	2.38	2.18	0.46
P	20	18	N/A	U-L-D	.078	.059	N/A	1.98	1.51	N/A
Q	28	24	N/A	U-L-D	.109	.079	N/A	2.77	2.02	N/A
R	35	31	N/A	U-L-D	.137	.102	N/A	3.47	2.60	N/A
S	40	35	N/A	U-L-D	.156	.116	N/A	3.96	2.94	N/A
T	48	42	N/A	U-L-D	.187	.139	N/A	4.75	3.53	N/A
U	59	53	N/A	U-L-D	.230	.175	N/A	5.84	4.45	N/A
V	80	71	N/A	U-L-D	.312	.234	N/A	7.92	5.96	N/A
0	Default: 15 x 12			U-L-D	Scalable					

*U = Uppercase, L = Lowercase, D = Descenders

*Font Matrices for 12 dot/mm (300 DPI) Print heads

- 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.

Bar Code Symbolologies

- Bar Code Ratios:** 2:1 (non-rotated) and 3:1
- Linear Bar Codes:** 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:** PDF417, MicroPDF-417, Code 49, Maxicode, Codablock, Data Matrix, QR code, and Aztec

Communications Specifications

- RS-232 Serial interface, DB-9
- USB 2.0
- **ZebraNet 10/100 Internal Print Server** – Factory only installation
- **ZebraNet Internal Wireless Plus Print Server** – Wireless 802.11 b/g - Factory only installation

Electrical Specifications

- Universal power supply (PFC Compliant) 100-240VAC, 50-60Hz (70 Watts) External Power Supply
When printing nearly all black the power supply would be putting out around 2 amps @24 volts. (P = I X E)
2.08 amps times 24 volts equals 50 watts.

Agency approvals

- **Emissions: FCC Part 15, Subpart B, VCCI, C-Tick**
- **Emissions and Susceptibility: (CE): EN55022 Class-B, and EN55024**
- **Safety: CB Scheme IEC 60950-1:2001, TUV NRTL,**
- **Power Supply – IEC 60601-1:1995**

Physical Specifications

	HC100
Height**	7 in. (178 mm)
Width:	5 in. (127 mm)
Depth:	9.5 in. (242 mm)
Weight:	3.1 lbs (1.4 kg)

** Requires 6 in. (153mm) above printer to load cartridge

HC100 Environmental Specifications

- Operating Temperature: 40° to 104°F (4.4° to 40°C)
- Storage Temperature: -40° to 140°F (-40° to 60°C)
- Operating Humidity: 20% to 85% non-condensing R.H.
- Storage Humidity: 5% to 85% non-condensing R.H.

Wristband Cartridge Environmental Specifications

- Service Temperature: -40° to 140° F (-40° to 60° C)
- Storage Temperature: 32° to 70° F (0° to 21° C) at 35% to 50% RH

Preventative Maintenance

- Zebra recommends cleaning the printer on a regular basis using standard Zebra printer parts and cleaning supplies. Consult your *User Guide* for further details.