

# ZEBRA 140XiII PRINTER SPECIFICATIONS

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## Standard Features

- Full function front panel and multilingual back-lit LCD display with user programmable password protection
- Thin film print head with E-cubed Element Energy Control<sup>3</sup>®
- Thermal transfer and thermal direct printing of bar codes, text, and graphics
- Dual media sensors, transmissive and reflective, selectable through software or front panel
- ZPL® or ZPL II® programming language, selectable through software or front panel
- Dual 32 bit processors, 1 RISC and 1 CISC processor
- 1MB RAM memory
- Type II Series C & D PC Card Interface, memory only
- Communications via serial RS-232/422/485 and Centronics® parallel
- Zebra® printer driver for Windows 3.X and 95 operating systems

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## Optional Features

140Xi2 Field Installable Kits	Part Number
External ZebraNet PrintServer II (10Base-T)	<u>46692</u>
Internal ZebraNet PrintServer II (10Base-T)	<u>46689</u>

ZebraNet Wireless Card Socket Option Kit -without ZebraNet Printserver II	48631
ZebraNet Wireless Card Socket Option Kit -with Internal ZebraNet Printserver II	48632
ZebraNet Wireless Card Socket Option Kit -with External ZebraNet Printserver II	48633
Cutter	48353
Cutter Catch Tray	48459
Internal Fan-Fold Media Supply Bin (Not Compatible with Rewind or Peel Options)	40276
Rewind Option Field Install Kit	48355
Cutter/Rewind field install kit	48154
Media Supply Spindle	48253M
Twinax Interface	<a href="#">G48924</a>
Coax Interface	<a href="#">G48925</a>
Applicator port/Real Time Clock	47868
Applicator Port Only	49726M
1 Meg Memory Upgrade (Discontinued)	46931
8 Meg Memory Upgrade	46938
8 Meg PCMCIA Flash Memory Card	46999-0008
Enhanced Ribbon Take-up Spindle Kits (NAPOKON) - Complete Upgrade	48250
Enhanced Ribbon Take-up Spindle Kits (NAPOKON) - Spindle/Clutch Assembly Only	48251M
Enhanced Ribbon Take-up Spindle Kits (NAPOKON) - Bar and Hub Only	48251-2M
Maintenance Packing Kits	48311PM

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- Full-width rotary knife cutter and catch tray, operates under software control cutting labels individually or in strips
- Media rewind spindle - rewinds finished roll internally onto 3" core, or enables label peel and liner rewind for print-and-apply
- RAM memory expandable up to 2, 3, 5 or 9Mb for longer labels or additional storage of fonts, graphics, logos, templates, and label formats
- IBM® Twinax interface - emulates IBM® System 3X and AS/400 printers
- IBM® Coax interface - emulates IBM® System 3270 printers
- ZebraNet2 MPS - provides Ethernet connectivity

- Applicator interface - provides status and control signals for applicators and remote control devices
- On-line bar code verifier
- Media supply spindle (in lieu of standard hangar)
- Internal fan-fold media supply bin (in lieu of media rewind spindle option)
- Clear media side door - easy monitoring of supplies usage without opening the printer
- PC memory cards in 1, 2, 4, or 8Mb - for additional storage of fonts, graphics, logos, templates, and label formats, or pre-programmed with optional and international scalable fonts
- Additional fonts available on EPROM
- BAR-ONE® Windows-based WYSIWYG on-screen label design and print application software
- ZebraNet Wireless Card Socket-provides an internally integrated wireless option and supports multiple third party LAN radio cards

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## Media Specifications

- Media type: continuous, die-cut, or black mark
- Media width (label and liner):
  - 1.57" (40mm) to 5.51" (140mm)
- Minimum label length: \*
  - Rewind mode: 0.25" (6mm)
  - Peel mode: 0.5" (13mm)
  - Tear-off mode: 0.7" (18mm)
  - Cutter mode: 1.5" (38mm)
- Media thickness (label and liner):
  - 0.003" (0.076mm) to 0.012" (0.305mm)
- Maximum full-width media thickness for cutter:
  - 0.23mm (0.009")
- Maximum media roll size:
  - 8.0" (203mm) O.D. on a 3" (76mm) I.D. core
- Transmissive (gap) sensing standards:
  - Interlabel gap: 2 - 4mm, preferably 3mm
  - Sensing notch: 0.25"W (6mm) x 0.12"L (3mm)
  - Sensing hole: 0.125" (3mm) diameter
- Reflective (black mark) sensing standards:
  - Black mark length (parallel to inside media edge): 0.12" - 0.43" (3 - 11mm)

- Black mark width (perpendicular to inside media edge): 0.43" (> 11mm)
- Black mark location: within 0.040" (1mm) of inside media edge:
- Black mark density: >1.0 Optical Density Units (ODU)
- Maximum media density: 0.5 ODU

\*Media registration and minimum label length are affected by media type and width, ribbon type, and print speed. Performance improves as these factors are optimized. Zebra recommends always qualifying any application with thorough testing.

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## Ribbon Specifications

- Ribbon width: 1.57" (40mm) to 5.1" (130mm)
- Standard Lengths: 984' (300m) or 1476' (450m) Provides 2:1 and 3:1 media roll to ribbon ratios
- Maximum ribbon roll size: 3.2" (81.3mm) O.D. on a 1.0" (25.4mm) I.D. core
- Ribbon wound coated-side out

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## Font Specifications

Fonts	Matrix (in dots) (H x W)	Type†	Minimum Char. Size (H x W)	Maximum C.P.I.
A	9 x 5	U-L-D	.044" x .029"	33.9
B	11 x 7	U	.054" x .044"	22.6
C,D	18 x 10	U-L-D	.088" x .059"	16.9
E	41 x 20	OCR-B	.138" x .098"	10.1
F	26 x 13	U-L-D	.128" x .079"	12.7
G	60 x 40	U-L-D	.295" x .236"	4.2

H	30 x 19	OCR-A	.103" x .093"	10.7
GS	24 x 24	SYMBOL	.118" x .118"	8.4
◆	variable	U-L-D	variable	N/A

† U - Uppercase L - Lowercase D - Descenders

- Bitmap fonts A through H and GS symbols are expandable up to 10 times, height and width independent
- Smooth scalable font ◆ (CG Triumvirate Bold Condensed) is expandable dot-by-dot, height and width independent
- IBM® Code Page 850 International Characters

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## Bar Code Symbolologies and Specifications

- Bar code modulus "X" dimension:
  - Picket fence (non-rotated) orientation = 3.3 mil to 33 mil
  - Ladder (rotated) orientation = 3.9 mil to 39 mil
- Bar code ratios: 2:1, 7:3, 5:2, and 3:1
- Linear bar codes: Code 11, Code 39, Code 93, Code 128 with subsets A/B/C and UCC Case Codes, ISBT-128, UPC-A, UPC-E, EAN-8, EAN-13, UPC and EAN 2 or 5 digit extensions, Plessey, Postnet, Standard 2 of 5, Industrial 2 of 5, Interleaved 2 of 5, LOGMARS, MSI, Codabar
- 2-dimensional bar codes: Codablock, PDF-417, Code 49, DataMatrix, Maxi Code

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## Zebra Programming Language® (ZPL® and ZPL II®)

- Communicates in printable ASCII characters
- Compatible with mainframe, mini, and PC hosts
- Downloadable objects include graphics, scalable and bitmap fonts, label templates and formats
- Object copying between memory areas (RAM and PC memory card)
- Adjustable print cache

- Data compression
- 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, cut control
- User programmable password
- Status messages to host upon request

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## Communications Specifications

- High-speed parallel interface, Centronics® compatible
- High-speed serial interfaces:
  - RS-232C and RS422 with DB25F connector
  - RS-485 with multi-drop capability to network multiple printers from a single host
  - Configurable baud rate (110 - 57.6kB), parity, data bits, and stop bits
  - Software (XON/XOFF) or hardware (DTR/DSR) communication handshake protocols
- ZebraNet2 MPS Ethernet network print server (10BASE2 or 10BASE-T)
- IBM® Twinax interface - emulates IBM® System 3X and AS/400 printers
- IBM® Coax interface - emulates IBM® System 3270 printers
- Applicator interface with DB15F connector

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## Electrical Specifications

- Universal power supply with power-factor correction
  - 90-264VAC, 48-62 Hz
- Power consumption:
  - Idle = 19W
  - Printing = 180W (printing pause test label at speed A)
  - Standby = 25W

- Agency approvals: UL 1950, CISPR 22 (class B), IEC 950, 801-2, -3, and -4 standards, CSA 950, Canadian Doc. (class A), FCC (class A), CE compliance

Model	Inrush	Idle	Printing
140XiII	2.9 Arms/ 1 cyc	18.2 W  22.7 VA	179.6 W  188.3 VA

- Inrush is the RMS value of the first positive and negative current pulse at turn on at 120V, 60 Hz.
- Idle is power in standby mode after power-up sequence is over, at 120V 60 Hz.
- Printing is the peak power used during printing of the Pause Test label at speed A and 120Vac, 6

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## Physical Specifications

- Height: 15.5" (393.7mm)
- Width: 11.15" (283.2mm)
- Depth: 19.5" (495mm)
- Weight: 55lbs. (25.0kg)

## Environmental Specifications

- Operating environment:
  - Thermal transfer = 41° to 104°F (5° to 40°C)
  - Thermal direct = 32° to 104°F (0° to 40°C)
  - 20% to 85% non-condensing R.H.
- Storage/Transportation environment:
  - minus 40° to 140°F (-40° to 60°C)
  - 5% to 85% non-condensing R.H.

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## Printing Specifications

- 203 dpi resolution (8 dots/mm)
- Dot size (W x L):0.0049" x 0.0049" (0.125mm x 0.125mm)

- First dot location measured from inside media edge:
  - 0.10" +/-0.035" (2.5mm +/-0.89mm)
- Maximum print width: 5.04" (128mm)
- Maximum non-continuous media print length:
  - 1MB memory = 30" (762mm)
  - 2 - 9MB memory = 39" (990mm)
- Maximum continuous media print length:
  - 1MB memory = 30" (762mm)
  - 2MB = 70" (1778mm)
  - 3MB = 110" (2794mm)
  - 5 - 9MB = 110" (2794mm)
- Media registration tolerance:
  - \*Vertical = < +/-0.070" (+/-1.8mm) on non-continuous media
  - Horizontal = < +/-0.070" (+/-1.8mm)
- Programmable print speeds:
  - 2.4" (61mm), 3" (76mm) through 12" (305mm) per second in 1" (25mm) increments
- Bar code modulus "X" dimension:
  - Picket fence (non-rotated) orientation = 4.9 mil to 49 mil
  - Ladder (rotated) orientation = 4.9 mil to 49 mil

\*Media registration and minimum label length are affected by media type and width, ribbon type, and print speed. Performance improves as these factors are optimized. Zebra recommends always qualifying any application with thorough testing.