ZEBRA® GK420D™ & GK420T™ PRINTER SPECIFICATIONS

Specifications are provided for reference and are based on printer tests using Genuine Zebra™ supplies 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

- Maximum speed 5 ips (127 mm/sec)
- OpenACCESS™ design for easy media loading
- 203 dpi print resolution (8 dots/mm)
- Direct thermal (d) and Thermal transfer (t) printing of bar codes, text, and graphics
- Fully-enclosed 5.0" (127 mm) media compartment
- Dual-wall frame construction
- ZPL II® programming language
- EPL2 page mode programming language
- EPL Line Mode support (GK420d)
- 32 bit RISC processor
- 8 MB Standard SDRAM memory (3 MB available to user)
- 4 MB Standard Flash memory (1.5 MB available to user)
- Zebra E³™ Printhead Energy Control
- Triple communications interface: Serial, USB & Parallel
- User interface feed button (ZPL® style)
- Odometer for print length tracking
- Unicode™ compliant for multi-language printing
- Auto-calibration of media
- 16 resident expandable bitmap fonts (ZPL language)
- One resident scalable font (ZPL language)
- 5 resident expandable bitmap fonts (EPL language)
- Auto-switching 100-240V power supply
- IEC 60601-1 Certified (GK420 Healthcare models only)
- Transmissive and reflective media sensing
- Head-up sensor
- Programmable print speed: 2, 3, 4 & 5 ips (51, 76, 102, 127 mm/sec)
- Standard tear-off mode feature
- Zebra printer driver for Windows®
- ENERGY STAR® 2.0 qualified

Optional Features

- **Dispenser (peeler)** – Label peel and present with label present sensor (not available on GK420 Healthcare)
- **Ethernet -** 10/100 internal offered in combination with USB interface (replaces Serial and Parallel ports)
- **Font Packs** – Asian and other international font kits
- **Power Cord** – US, Europe, UK, Australia, Argentina, Japan, and China
- **ZBI 2.0™** – Field installed via activation key

Accessories

- **ZKDU™ and KDU Plus™** – keyboard display units for stand-alone printing solutions

ZebraLink Solutions

Software

- **ZebraDesigner™ Pro** – An intuitive, easy-to-use software program for creating complex label designs (option)
- **ZebraDesigner** – Offers basic features for simple label design (standard)
- **ZebraNet™ Bridge Enterprise** – Centrally manage Zebra printers anywhere on your global network from a single PC screen (option)
- **ZebraNet Utilities v 7.0** – Provides printer administration, management, alerting capabilities and more for Windows® 95/98/2000/2003/ME/NT/XP (standard)
- **ZebraDesigner™ Windows Driver** – Microsoft certified for Windows Vista®, Windows 7, Windows 8 Windows 8.1, Windows 2008, and Windows 2012 (downloadable from www.Zebra.com)

- **ZBI 2.0** – Powerful programming language that lets printers run standalone applications, connect to peripherals, and much more (option)
- **ZBI-Developer** – Programming environment for developers to simplify creation, testing and distribution to printers of complex ZBI 2.0 programs (standard with ZBI 2.0)
- **POS Driver** – Supports **i**ntegration with Windows-based point-of-sale applications.

Networking Options

Ethernet - 10/100 internal - Offered in combination with USB & Serial interface (replaces Serial and Parallel ports)

Firmware

- **EPL2** – Eltron Programming Language simplifies label formatting and enables format compatibility with legacy applications
- **EPL** – Line Mode support (GK420d) enables format compatibility with legacy applications
- **ZPL II** – Zebra Programming Language Provides sophisticated label formatting and printer control. Compatible with tabletop and mobile 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

Parameter	203 dpi (8 dots/mm)
Dot pitch	0.0049" (0.125 mm)
Maximum print length	39.0" (991 mm)
Minimum print length	0.005" (0.127 mm – one dot)
Print length in line mode	Unlimited (GK420d)
Maximum print width	4.09" (104 mm)
Minimum print width	0.005" (0.127 mm – one dot)
Programmable print speed	2, 3, 4 & 5 ips (51, 76, 102, 127 mm/sec)
Bar code modulus "X" dimension	203 dpi = 5 mil to 50 mil

Media Specifications

NOTE: For optimum print quality and printer performance, use of Zebra genuine supplies is recommended.
- Media Width: 0.75" (19 mm) – 4.25" (108 mm)
- Label Length:
  - Using tear off mode:

Minimum Length	Model	Printing Mode
0.38" (9.7 mm)	GK420d	Direct thermal
0.38" (9.7 mm)	GK420t	Thermal transfer
0.5" (12.7 mm)	GK420t	Direct thermal

  - Minimum using dispenser - 0.50" (12.7 mm)
  - Maximum - 39.00" (990 mm)
- Core Inner Diameter: 0.5" (12.7 mm), 1.0" (25.4 mm), 1.5" (37.1 mm)
- Max Roll Diameter: 5.00" (127 mm)
- Media Thickness: 0.003" (0.08 mm) - 0.0075" (0.19 mm)
- Media Sensing: fixed reflective and transmissive gap, black line, and notch
- Media Types: Roll-fed or fan-fold, die cut or continuous direct thermal labels with or without black line, tag stock, continuous receipt paper, and wristbands
- Dispenser peeler (optional) may not work with all media types and should be tested for media compatibility.

Calibration Procedure

- The GK420 is equipped with a standard auto-calibration feature that can be set to initiate automatically during start-up of the printer – utilizing two to four labels to calibrate for efficient operation and less waste. The printer will also save the new settings in memory until the next calibration is performed.
- A manual calibration procedure can also be performed, if required. Consult your User's Guide for more details on the specific manual calibration steps.

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 (0º, 90º, 180º, 270º)
- Slew command
- Programmable label quantities with print, pause
- Status messages to host upon request

ZPL Font Specifications
203 dpi (8 dots/mm)

Font	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 .030"	33.3
B	11 x 7	U	.054" x .044"	22.7
C,D	18 x 10	U-L-D	.089" x .059"	16.9
E	28 x 15	OCR-B	.138" x .098"	10.2
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	21 x 13	OCR-A	.103" x .093"	10.8
GS	24 x 24	SYMBOL	.118" x .118"	8.5
P-V		U-L-D	Backward compatible w/ S-300	
Ø	15 x 12	U-L-D	Scalable (Smooth) Font	

U = upper case, L = lower case, 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

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

EPL Font Specifications
203 dpi (8 dots/mm)

Font	Width (dot)	Height (dot)	CPI
1	8	12	20.3
2	10	16	16.9
3	12	20	4.5
4	14	24	12.7
5	32	48	5.6
8-Simp	32	32	6.3*
8-Trad	32	32	6.3*

* Spacing of Asian characters is controlled via the i command. The formula for CPI is 203 / (32 + i). Thus as i increases, CPI decreases. For example: If i = 2, CPI = 203/34 = 6.0

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, and GS1 DataBar (formerly RSS)
- **2-dimensional Barcodes:** Maxicode (modes 2,3,4,6), PDF417, MacroPDF417, QR Code, Data Matrix, and Aztec

Communications Specifications

- Centronics® Parallel (36 Pin) connector ports
- RS-232 auto-sensing, adaptive Serial interface, DB-9
- USB V1.1, bi-directional
- Internal 10/100 Ethernet – optional (replaces Serial and Parallel ports)

Electrical Specifications

- Auto-detectable (PFC Compliant) 100-240VAC, 50-60Hz rated at 70Watts
- ENERGY STAR 2.0 qualified printers
- IEC 60601-1 Certified (GK420 Healthcare models only)

Agency Approvals

G-Series GK420 Models (excluding Healthcare):

- **Emissions**: FCC Part 15, Subpart B (Class B), ICES 003 , VCCI, C-Tick, CQC, EAC, KCC, BSMI, ICES-003
- **Emissions and Susceptibility**: EN55022 (Class B), EN55024, EN61000-3-2, EN61000-3-3
- **Safety**: CB Scheme IEC 60950-1, TUV NRTL, C-Tick, CCC, NOM, EAC, KCC, BSMI, BIS

GK420 Healthcare Models:

- **Emissions**: FCC Part 15, Subpart B (Class B), ICES 003
- **Emissions and Susceptibility**: EN55022 (Class B), EN55024, EN61000-3-2, EN61000-3-3
- **Safety**: CB Scheme IEC 60950-1, TUV NRTL

Physical Specifications
(*no options installed*)

	GK420d	GK420t
Height	6.0" (152 mm)	7.5" (191 mm)
Width:	6.75" (171 mm)	7.6" (193 mm)
Depth:	8.25" (210 mm)	10.0" (254 mm)
Weight:	3.0 lbs (1.4 kg)	4.6 lbs (2.1 kg)

Environmental Specifications

- Operating Temperature: 40º to 105ºF (4.4º to 41ºC)
- Storage Temperature: -40º to 140ºF (-40º to 60ºC)
- Operating Humidity: 10% to 90% non-condensing R.H.
- Storage Humidity: 5% to 95% non-condensing R.H.

Healthcare Features
(Healthcare models only)

- Disinfectant-ready plastics
- Approved cleaning agent ingredients (see separate "Guide to Disinfecting and Cleaning Zebra Healthcare Printers" for more details):
  - Isopropyl and Ethyl alcohol (including wipes)
  - Ammonium
  - Hydrogen peroxide
  - Phosphoric acid
  - Bleach/sodium hypochlorite
  - Mild dish soap
- Medical-grade power supply certified to IEC 60601-1 standards to protect patient and staff safety by reducing the risk of electrical shock
- Enable production of labels that meet the Clinical and Laboratory Standards Institute® (CLSI) harmonization standard
- Certified and recommended by all of the leading Electronic Health Records (EHR) providers

Preventative Maintenance

Zebra recommends cleaning the printer 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. (For Healthcare models see separate "Guide to Disinfecting and Cleaning Zebra Healthcare Printers")

Zebra® Xi4™ High-Performance Printers

Zebra's built-to-last *Xi*™ series printers are legendary for their rugged durability, consistently outstanding print quality, fast print speed, long life and unparalleled reliability in demanding applications. These qualities translate into low total cost of ownership—making them a smart investment for organizations with high-volume, mission-critical or specialty labeling applications.

Xi4 printers build on this legacy to boost your operational productivity with up to 40 percent faster print speeds on select models, faster 10/100 Ethernet connection speeds, and enhanced early warning systems for reduced downtime. Other advanced and flexible features include a large, easy-to-read front panel for simple setup with optional customizable menu and support for a wider assortment of languages. Integration is easier with a variety of network connectivity options, while ZebraLink™ Solutions provide remote printer management capabilities.

Enhanced Features

Print speeds up to 14"/356 mm per second (110Xi4™ and 140Xi4™) for increased batch and print/apply productivity

LCD content and navigation customizable to user needs

Large, easy-to-use LCD screen simplifies setup

Flexible connectivity including simultaneous parallel/Ethernet

Advanced ribbon- and media-low LCD/e-mail alerts

On-board diagnostic tools and adjustments to ensure optimum print quality

RFID Ready (110Xi4) now standard

ACHIEVE NEW LEVELS OF HIGH PERFORMANCE WITH INCREASED PRODUCTIVITY, FLEXIBILITY AND IMPROVED ROI.

Productivity That Won't Quit

Drive down operations downtime with the all-metal *Xi* series' rugged dependability and premium performance.

FAST Xi4 printers easily keep pace with your high-volume production line.

- Xi4 models with 14"/356 mm-per-second print speeds provide one of the fastest technologies on the market, improving productivity in batch printing and print-and-apply lines.
- Fast processing and throughput raise productivity.
- Powerful memory stores more label formats, fonts and graphics.
- Durable metal printhead mechanism delivers outstanding print quality over the long run, reducing or eliminating downtime for printhead replacement.

DEPENDABLE For mission-critical and 24/7 operations, every minute down means money out the window. Turn up your uptime with Xi4 printers.

- The long-proven *Xi* series platform is designed and built to work nonstop, all day, every day.
- Quickly identify and resolve printer issues with early warning systems that indicate when to service the printhead and change ribbons/media, and with remote printer management/monitoring.

DURABLE Industrial-strength Xi4 printers withstand the most demanding operating environments.

- Rugged, heavy-gauge steel housing and metal interior components brush off bangs and bumps.
- Enclosed operating mechanisms block out debilitating dust and dirt.
- Printers operate trouble-free in a wide range of temperatures and humidity levels.

Flexible for Specialty Labeling Applications

- Handles everything from paper to specialty label and tag stocks.
- Easy change-over from one label media to the next.
- Consistently outstanding print quality on the widest range of media thicknesses.
- From tiny component labels, to compliance labels, to wide-web (e.g., chemical drum) labels, the Xi4 offers a wide range of print widths and resolutions to fit various applications.

Strong Return on Your Investment

- Reliable performance over the long run minimizes maintenance needs and total cost of ownership.
- With one printer model and Zebra's wide range of label materials and sizes, you can address a variety of printing applications, reducing the need to purchase different printers for every specific labeling application.
- The wireless connectivity option frees you from paying for recabling with every physical reconfiguration of your operations.

ENTERPRISE FRIENDLY

FEATURES AND OPTIONS

Zebra's Xi4 is loaded with features and options that make the printers easy to set up, easy to integrate and easy to use.

Easy to Integrate

- The included internal ZebraNet® 10/100 Print Server (Ethernet) and secure 802.11b/g wireless connectivity options meet the needs of evolving network environments.
- Integrating and maintaining Xi4 printers remotely is simple with Zebra's centralized management tools that leverage the power of ZebraLink™ Solutions.

Printer Setup Made Simple

Printer setup and configuration is now **click-simple**.
- Easy-to-follow wizards quickly guide you through configuration.
- Fast changes—whether you are adding a new printer, moving an existing printer to a new location or adding new capabilities.

Printer Auto-configuration

Using the new "Mirror" feature, Xi4 printers can leverage your existing server infrastructure to automatically retrieve user-defined configurations, including files, formats, graphics and firmware.

Customizable Menus

Design and create customized menus.
- Menus can now contain just the items you define.
- Store multiple profiles on the printer and switch between them as needed.
- Contact Zebra's Development Services group for assistance.

Supplies Monitoring

Monitor supply levels proactively.
- New supplies monitoring feature works in real time.
- Printer alerts users when ribbon and media levels are running low, before they run out.

Zebra's Enterprise Connector Solution

Streamline your printing process!
- Print barcode labels directly from Oracle's BI Publisher.
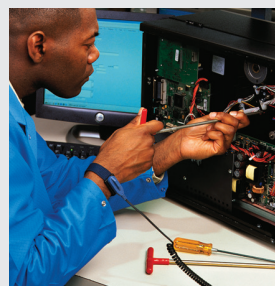- Easy to implement and manage.

ZebraNet™ Bridge Enterprise

Deploy, manage and monitor your Xi4 printers from a single PC screen anywhere on your global network—all from a user-friendly Windows® interface.

Genuine Zebra™ Supplies

Ensure consistent print quality, reduce downtime and increase productivity in your printing process with genuine Zebra supplies. We manufacture each supplies product with the exact same materials every time so you always get crisp, readable and scannable output without needing to adjust the printer darkness setting between rolls.

ZebraCare™ Service

Increase printer uptime, and reduce lost productivity and unbudgeted repair costs, by selecting a ZebraCare Depot or ZebaCare On-Site service agreement. A cost-effective means of planning and budgeting your annual maintenance expenditures, your agreement ensures that trained Zebra technicians will bring your printer back to factory specifications. Zebra offers a variety of plans to fit your budget and business needs.

SPECIFICATIONS AT A GLANCE*

Printer Name

Xi4

Standard Features

- Print methods: Thermal transfer or direct thermal
- 32 bit 133 Mhz RISC processor
- 64 MB on-board linear Flash memory
- 16 MB SDRAM memory
- Internal real-time clock
- Advanced label/media counters
- Auto calibration—printer calibrates when printer is turned on or when printhead is closed using approximately two labels
- Early warning systems—provide low label, low ribbon and clean printhead alerts via the front panel and ZebraLink alerts
- New full-function front panel and large, multilingual, back-lit LCD display—with user-programmable password protection
- Clear media side door—easy monitoring of supplies usage without opening the printer systems
- Thin film printhead with Element Energy Equalizer™ (E³™) for superior print quality
- Serial RS-232 and bi-directional parallel ports—with auto detect
- Internal ZebraNet 10/100 Print Server (Ethernet)
- Dual media sensors—transmissive and reflective, selectable through software or front panel
- ENERGY STAR® qualified (140Xi4, 170Xi4™, 220Xi4™)

Operating Characteristics

Environment

- Operating Temperature:
  40° F/5° C to 105° F/40° C (Thermal Transfer)
  32° F/0° C to 105° F/40° C (Direct Thermal)
- Storage/Transport Environ.:
  -40° F/-40° C to 140° F/60° C
- Operating Humidity: 20-85% non-condensing
- Storage Humidity: 5-85% non-condensing

Electrical

- Universal power supply with power-factor correction 90-264 VAC; 48-62 Hz
- Serial RS-232 and bi-directional parallel ports—with auto detect
- USB 2.0 port
- ENERGY STAR qualified (140Xi4, 170Xi4, 220Xi4)

Agency Approvals

- IEC 60950-1, EN 55022 Class B, EN 55024, EN 61000-3-2, EN 61000-3-3

Media Characteristics

Labels

- Max. Roll Size: 8"/203 mm O.D. on a 3"/76 mm I.D. core
- Thickness (label & liner): .003"/.076 mm to .012"/.305 mm
- Media Types: Continuous fanfold, die-cut or black mark
- For optimum print quality and printer performance, use genuine Zebra supplies

Ribbons

- Ribbon is recommended to be at least as wide as media
- Max. Roll Size: 3.2"/81.3 mm O.D. on a 1"/25.4 mm I.D. core
- Standard Lengths: 1,476'/450 m or 984'/300 m; provides 3:1 & 2:1 media roll to ribbon ratios
- Ribbon Setup: Ribbon wound ink side out

ZebraLink Solutions

Software

- ZebraDesigner™ Pro
- ZebraDesigner
- ZebraDesigner for XML
- ZebraNet™ Utilities v 7.0
- ZebraNet Bridge Enterprise
- Zebra Enterprise Connector

Networking

- ZebraNet Wireless Plus Print Server
- ZebraNet 10/100 Print Server

Firmware

- ZPL® or ZPL II® programming language—selectable through software or front panel
- XML-Enabled printing—direct-connect integration for barcode label printing; eliminates license fees and print server hardware and lowers customization and programming costs
- ZBI 2.1™—allows printers to run applications, prompt users through control-panel commands and use files stored on the printer as a data source

Fonts/Graphics/Symbologies

Fonts and Character Sets

- Unicode™-compliant Global Printing
- Bitmap fonts A through H and GS symbols are expandable up to 10 times; height and width independent
- Smooth, scalable font Ø (CG Triumvirate™ Bold Condensed) is expandable dot-by-dot; height and width independent
- IBM® Code Page 850 International Characters
- Contains UFST® from Montotype Imaging, Inc.
- 61 MB user available non-volatile memory storage for downloadable objects
- 12 MB user-available SDRAM

Graphic Features

Supports user-defined fonts and graphics—including custom logos

Barcode Symbologies

- Linear Barcodes: Code 11, Code 39, Code 93, Code 128 with subsets A/B/C and UCC Case C 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, Planet Code
- 2-Dimensional: Codablock, PDF417, Code 49, Data Matrix, MaxiCode, QR Code, MicroPDF417, TLC 39, GS1 DataBar (RSS), Aztec

Options and Accessories

- Rewind
- Cutter and catch tray
- Bi-fold media door with clear panel
- Media supply spindle for 3"/76 mm core or 40 mm core
- Applicator interface
- Scalable and international fonts

Supplies

For optimal printing quality and proper printer performance across our product line, Zebra strongly recommends the use of genuine Zebra supplies as part of the total solution. Specifically, the Xi4 printer is designed to work only with genuine Zebra printheads, thus maximizing safety and print quality.

ENERGY STAR

ZEBRA TECHNOLOGIES

ZXP Series 1 Card Printer

AFFORDABLE CARD PRINTING WITH AN EASY-TO-USE, SPACE-SAVING DESIGN

The ZXP Series 1™ card printer provides high-quality card printing at an affordable price. Ideal for low-volume, single-sided printing applications in color or monochrome, the ZXP Series 1 offers a complete card printing solution with minimal upfront investment. These features along with Zebra's eco-friendly print cartridges make it the best entry-level printer on the market.

Genuine Zebra Supplies
The ZXP Series 1 card printer is designed to work only with Zebra® eco-friendly Load-N-Go drop-in ribbon cartridges.

Ease of Use
The ZXP Series 1 requires little technical support or user training. Operation is made simple with an intuitive user interface and color touch points. The quick-replace Load-N-Go™ smart ribbons have the added benefit of being eco-friendly, using less plastic and more biodegradable material than many competing brands. Print Touch™ uses Near Field Communication (NFC) to instantly retrieve helpful information about the ZXP Series 1 from any NCF-enabled smart device.

Compact Size and Network Manageable
A small footprint allows the ZXP Series 1 to fit in the tightest workspaces, making it the right choice when space is limited. Its compact and durable design, and advanced network printer management software tools, make the ZXP Series 1 perfect for multiple small office installations, or large deployments of distributed card printers.

No Compromise, High-Quality Cards
You can count on the ZXP Series 1 to print clear, sharp and color-rich images when you need them, where you need them. Its optional magnetic stripe encoding, Ethernet connectivity and support for multiple card thicknesses permit the ZXP Series 1 to meet a variety of business needs.

More ease-of-use features are just a touch away
The ZXP Series 1 offers Zebra's Print Touch technology to connect your smartphone or tablet to additional printer information and data with a simple touch. Print Touch makes it easy to save time and money in IT and tech support departments. Just hold your NFC-enabled smartphone or tablet up to the Zebra Print Touch logo on the printer to:

- See important information about that specific printer.
- Immediately access Zebra's extensive ZXP Series 1 knowledge base of how-to-videos and product support.

Zebra CardStudio™ Software
Zebra's CardStudio™ is an easy-to-learn, easy-to-operate complete card design and card issuance software suite. It makes designing and printing high quality photo ID cards and other cards easy, with basic to advanced features, and support for all Zebra card printers. For more information, visit www.zebra.com/cardstudio.

For more information on the ZXP Series 1 Card Printer, visit www.zebra.com/zxpseries1 or access our global contact directory at www.zebra.com/contact

ZXP Series 1 Specifications

PRINTER NAME

ZXP Series 1

STANDARD FEATURES

- Eco-Friendly Load-N-Go drop-in ribbon cartridges
- ZRaster™ host-based image processing
- Auto calibration of ribbon
- USB 2.0 connectivity
- Microsoft® Certified Windows drivers
- Print Touch NFC tag for online printer documentation and tools
- 100 card covered feeder (30 mil)
- 45 card capacity output hopper (30 mil)
- 16-character LCD operator control display
- 300 dpi (11.8 dots/mm) print resolution
- Two-year warranty on printer
- Two-year (unlimited passes) original printhead

PRINTER SPECIFICATIONS

- Dye-sublimation thermal transfer direct to card
- Full color or monochrome printing
- Single-sided printing
- 545 cph monochrome
- 130 cph YMCKO
- Edge-to-edge printing on standard CR-80 media

MEDIA SPECIFICATIONS

Note: The ZXP Series 1 printer is designed to work only with Zebra Series 1 eco-friendly Load-N-Go drop-in ribbon cartridges.

Zebra ix Series™ intelligent technology automatically detects and authenticates ribbon

Integrated cleaning roller included with each ribbon

Media Starter Kit: 1 YMCKO ribbon, 100 30-mil PVC cards

Specially designed cleaning supplies simplify preventive maintenance

True Colours® ix Series Ribbon
- YMCKO: 100 images/roll
- Black Monochrome: 1000 images/roll
- White Monochrome: 500 images/roll

Card Compatibility
For optimum card quality and printer performance, use genuine Zebra card supplies. For more information, see www.zebra.com/cards.

- Card Thickness: 10 – 40 mil
- Card Size: CR-80, ISO 7810 format, Type ID-1, 2.12" (54 mm) x 3.38" (86 mm)
- Card Material: PVC and PVC composite
- Spot color or monochrome print only on < 20 mil card thickness

OPERATING CHARACTERISTICS

Environmental	Operating Temperature: 60°F to 86°F/15°C to 30°C
	Operating Humidity: 20% to 65% non-condensing
	Storage Temperature: 23°F to 131°F/-5°C to 55°C
	Storage Humidity: 20% to 70% non-condensing
	Media Storage:
	• Temperature: 41°F to 77°F/5°C to 30°C
	• Humidity: 35% to 65% non-condensing
	• Do not store in direct sunlight

OPERATING CHARACTERISTICS (continued)

Electrical	Auto-switching single-phase AC power
	Operating range: 90-132VAC and 190-264VAC RMS
	Frequency range: 47-63 Hz
	FCC Class A

PHYSICAL CHARACTERISTICS

Length	9.3" (236 mm)
Width	7.9" (200 mm)
Height	13.0" (330 mm)
Weight	11.6 lbs (5.3 kg)

COMMUNICATION AND INTERFACE CAPABILITIES

USB V2.0 (cable included) — standard

Built-in 10/100 Ethernet — optional*

SOFTWARE TOOLS

Microsoft Windows® Certified Printer Drivers Supported: Windows® XP (32 bit), Windows Vista® (32 and 64 bit), Windows Server® 2003 (32 bit), Windows 7® (32 and 64 bit), Windows Server 2008 (32 and 64 bit), Windows 8® and Win 8 Pro (32 and 64 bit), Windows Server 2012 (64 bit)

Please see www.zebra.com for up to-date listing of supported systems.

OPTIONAL FEATURES

Magnetic stripe encoder — ISO 7811 (new and pre-encoded); tracks 1, 2 and 3; high and low coercivity; stripe down; 30 mil cards only

10/100 Ethernet connectivity*

Single card cleaner rolling kit*

Manual front card feeder bezel*

Zebra OneCare extended product warranty programs

PRODUCT WARRANTY

The ZXP Series 1 is warranted against defects in workmanship and materials for a period of 2 (two) years from the date of shipment. For the complete warranty statement, please visit: www.zebra.com/warranty.

RECOMMENDED SERVICES

The Zebra OneCare Service portfolio of Essential, Select and Premier maximizes the availability and productivity of your devices. Key features include 24/7 technical support, comprehensive coverage, advance replacement and software updates. Optional Visibility Services are available. For more information go to www.zebra.com/zebraonecare.

For optimum print quality and printer performance, use genuine Zebra supplies.

Specifications subject to change without notice.

*Field upgradeable option

Ideal for These Applications

Retail and Hospitality
- Loyalty, gift and membership cards
- Hotel, cruise or other hospitality cards

Identification and Access
- Employee ID cards
- Access control cards
- Visitor badges
- Business cards
- ID cards for inventory or goods

Government and Education
- Student ID cards
- Library cards
- Recreational facilities and member-use ID cards
- Certification cards

ZEBRA

NA and Corporate Headquarters | +1 800 423 0442 | inquiry4@zebra.com

QLn Series Mobile Printers

ZEBRA'S QLN FAMILY OF DIRECT THERMAL MOBILE LABEL AND RECEIPT PRINTERS

Zebra's popular QL™ family of direct thermal mobile label and receipt printers has built a highly satisfied following based upon its proven drop-resistant durability; user-friendly, productivity-boosting features; and easy integration. As Zebra's third generation of QL printers, the QLn™ series extends these QL-platform benefits to the "nth" power — whether you choose the QLn220™ for print widths up to 2 inches or the QLn320™ for 3-inch-wide printing.

QLn320   QLn220

The printers' over-molding and tempered-glass display — coupled with their seamless, one-piece design — make them more durable than ever before. These printers can boost your operation's productivity through their larger, sharper, easier-to-navigate display; faster, higher-quality printing; a variety of proactive alerts that help keep working printers in employees' hands; and many convenient charging accessories. And, your IT department will find the QLn printers more intuitive to integrate into existing platforms thanks to Zebra's Link-OS® environment. Other features such as Zebra® Global Printing and improved network performance — including 802.11n wireless LAN capability for more robust and reliable connectivity and throughput — also make integration easier.

With Zebra's Link-OS environment — an innovative operating system combining a powerful Multiplatform Software Development Kit (SDK) and software applications — the QLn printers are easy to integrate, manage and maintain from any location around the globe. Enabled with Print Touch™, these Link-OS printers offer web page launching features using Near Field Communication (NFC), making it easy to access Zebra's extensive knowledge base of how-to videos and product support.

Easier to Integrate, Manage, and Maintain

New features make it easier to integrate the QLn printer into your existing network and manage it from anywhere in the world — saving you IT time and costs.

Easier to Integrate
Move your business forward without the cost or stress of upgrades. Backwards compatibility with QL and QL Plus™ models lets you upgrade to the QLn printer without changing media or label formats. The inclusion of the legacy CPCL programming language also allows mixed networks of QL / QL Plus and QLn products.

Be assured of full compatibility with many other Zebra printers thanks to Zebra's ZPL® programming language. And with ZBI 2.x™, directly connect your printers with legacy host systems and peripheral devices, such as scanners and scales.

Maintain robust and reliable connectivity, even for your largest data transfers, with Wi-Fi®-certified connectivity. Zebra's 802.11n solution has dual-band support (5 GHz and 2.4 GHZ) and is fully compatible with 802.11a and 802.11b/g standards, so you can easily move business operations to the less-crowded 5 GHz band.

The Link-OS tools include:
- Software Development Kit — create printing applications for Windows®, Apple®, Android™, Windows® CE, Windows® Mobile and BlackBerry® platforms.
- Cloud Connect — connect to the Cloud directly and securely, forwarding data from any port.
- Virtual Devices — support multiple programming languages on one printer and integrate Zebra Link-OS printers into existing legacy systems.
- Print Touch — simplify Bluetooth® pairing and launch Web-based help pages with NearField Communication-enabled devices.

Quickly configure single printers with the Zebra Setup Utility and enable global printer management with ZebraNet™ Bridge Enterprises.

For more information about the QLn Series Mobile Printers, visit www.zebra.com/qln or access our global contact directory at www.zebra.com/contact

Efficiently print and optimize your labels with ZebraDesigner™ Pro for label design and ZebraDesigner drivers for Windows. Print multiple languages on a single label using Zebra's Unicode™ UTF-16-compliant Global Printing Solution.

Work with the confidence that comes with industry-leading solutions. The QLn420 features improved communication with leading handheld terminals that have been tested and verified for maximum interoperability when using the printer with validated terminals. Zebra Independent Software Vendor (ISV) Partners create industry-leading software solutions to solve business problems, and Zebra works closely with these ISVs to integrate printing and other capabilities of Zebra products. Zebra-validated applications can be found at www.zebra.com/validation.

Easier to Manage
Manage all aspects of your networked Link-OS printers from just one screen with Profile Manager. There's no need to switch between applications to get the job done, and you can manage the simple admin console remotely on your PC, tablet or smartphone.

Keep printers in service longer by managing specific, local printer and battery issues remotely over a wired IP network, including Serial and Bluetooth, via a Zebra Ethernet cradle. And with AirWatch™ Connector, you can quickly connect your printer with the AirWatch device-management system via WLAN and Ethernet.

Automatically update printer firmware and configuration from a file server over 802.11 or Ethernet interfaces with the mirror function.

Manage QLn printers using most of the popular third-party management software solutions. The printers also fully support Simple Network Management Protocol (SNMP).

Easier to Maintain
Reduce wasted time and lost productivity with the PowerPrecision+ battery, which indicates the power and health of a printer's battery.

Effortlessly manage your printers and firmware by connecting your devices to your wired Ethernet network and / or cradle.

Easier and More Efficient to Use

Multiple enhancements deliver significant operational advantages over the previous-generation QL and QL Plus series mobile printers.

Easier to Use
The QLn family of printers were designed to optimize business processes through easy operation and mobility — reducing training requirements and increasing worker productivity.

Meet the increasing demand for mobile printing across different operating systems. QLn printers are "Made for iPod® / iPhone® / iPad®" certified and also support Android and Windows devices via Multiplatform SDK apps.

Easily operate the printer using simple-to-navigate controls and a user-friendly interface, which includes a help menu and alert messages.

Quickly access Zebra's extensive knowledge base of how-to videos and product support with Print Touch-enabled Web page launching features.

Conveniently carry and store the printer thanks to a smaller design.

Achieve faster, higher-quality printing with lower power use through Power Smart Print Technology™.

Experience higher performance:
- Faster processing and throughput.
- Increased memory that handles printer's advanced functions and future firmware improvements, and stores more complex fonts, graphics and images.

Increase user and operational efficiencies with convenient charging accessories.

Longer Printer Uptime
Improve operational productivity and reduce costs associated with downtime through fewer printing interruptions.

Monitor and manage the printer remotely using the Windows PC-based AirWatch Connector.

Prevent associates from being stuck printerless in the middle of their work. The printer enables proactive maintenance by displaying printer alert messages, battery charge and health status.

Avoid the downtime and costs of unnecessarily sending the printer away for servicing. Many issues can be remotely diagnosed and resolved (including firmware updates, configuration changes, and adding new fonts or graphics) over an Ethernet connection.

Mobile A to Z

From Accessories, to Supplies, to Zebra OneCare Service

Lithium-Ion Charging Accessories

Ethernet Cradle

Single-bay QLn
Ethernet Cradle

4-bay QLn
Ethernet Cradle

Connect QLn printers to your wired Ethernet network via the QLn Ethernet cradle to enable easy remote management by your IT or operations staff — helping to ensure each printer is operating optimally and ready for use. The Ethernet cradle can communicate over 10 mbps or 100 mbps networks using auto-sense.

The single-bay QLn Ethernet cradle also charges the battery while it is in the printer, while the 4-bay version (with optional wall mount kit) charges four printers at a time. The 4-bay version includes an internal Ethernet switch and second Ethernet port, so you can link and manage four 4-bay QLn Ethernet cradles (a total of 16 printers) from one port.

The printer remains fully functional so you can print while it is in either cradle. The cradle's LED lights indicate DC power and Ethernet-link status.

Remote printer management over your Ethernet allows:

- Battery management for monitoring battery health. Knowing each battery's lifespan stage simplifies central management of your spare-battery pool.
- Firmware management for updating printer firmware, eliminating the need for IT staff to travel to the local user site, or for the printer to be sent back to a central location for updating.
- Print management for updating templates, fonts and graphics in order to print new label formats.
- Device management for updating startup (e.g., config. sys), WML (front panel) or HTML (browser) files to enhance or change configuration and status collection.
- Network management for updating encryption keys or certificate files to maintain the highest level of security.
- Problem resolution and troubleshooting local printer issues that may otherwise require the printer to be sent in for repair.
- Ability to manage Bluetooth printers, which traditionally have been off-network.

What comes with the cradle?
Unit with AC Adapter: Cradle, AC adapter, power cord and document CD including cradle user manual and installation guide.

Cradle Unit: Cradle and document CD including cradle user manual and installation guide (AC adapter can be purchased separately).

AC Adapter

Connect the AC adapter to your QLn and wall outlet to charge the printer's PowerPrecision+ battery while in the printer. The printer can print labels and perform other functions during charging. Shown with printer for reference purposes; printer is not included.

Charger

The smart charger will fully charge a single standalone QLn PowerPrecision+ battery in less than four hours. In addition to indicating battery-charge status, it leverages the battery's PowerPrecision design to indicate battery health, allowing you to more accurately manage your spare battery pool. Specifically, LEDs show whether the battery is "good," has a "diminished capacity," is "past useful life" or is "unusable" and should be replaced. The charger comes with charging base and power cord. Shown with printer for reference purposes; printer is not included.

Lithium-Ion Charging Accessories

Extended Capacity PowerPrecision+ Battery

The Extended Capacity PowerPrecision+ battery option provides twice the battery capacity over the standard PowerPrecision+ battery, providing double the power for increased uptime. No need to upgrade your existing QLn printer — you can purchase this as a standalone accessory to use with your current QLn220 or QLn320. Or, order it as a configurable printer option so your printer ships ready to go with this powerful accessory. The choice is yours.

Quad Battery Charger

The quad battery charger is designed to simultaneously charge up to four QLn PowerPrecision+ batteries (removed from the printer) in about three hours. Lights on the charger indicate when individual batteries are 80 percent charged and when fully charged. Note the quad battery charger does not indicate battery health, as provided with the smart charger. Comes with the charging unit, a power supply, and power cord.

Carrying Straps / Cases

Hand Strap: Allows the printer to be carried by hand.

Shoulder Strap: Allows the printer to be carried over the shoulder.

Soft Case: Add an extra layer of protection for harsh environments with a soft case. While in the case, the printer is IP54-rated for resistance to windblown water and dust. Case provides openings for changing the media and batteries and all connectors are accessible. Includes shoulder strap.

Genuine Zebra Supplies

Ensure consistent print quality, reduce downtime and increase productivity in your printing process with genuine Zebra supplies. We manufacture each supplies product with the exact same materials every time so you always get crisp, readable and scannable output without needing to adjust the printer darkness setting between rolls.

Zebra OneCare Service

Increase printer uptime and reduce lost productivity and unbudgeted repair costs by selecting a Zebra OneCare service agreement. A cost-effective means of planning and budgeting your annual maintenance expenditures, your agreement ensures that trained Zebra technicians will bring your printer back to factory specifications. Zebra offers a variety of plans to fit your budget and business needs.

QLn Series Specifications

PRINTER NAME

QLn220

QLn320

STANDARD FEATURES

- Apple® iOS, Android, Windows Mobile and BlackBerry® connectivity
- Direct thermal printing of barcodes, text and graphics
- CPCL, EPL™ and ZPL® programming languages
- 256 MB Flash supports downloadable programs, receipt formats, fonts and graphics (64 MB available for user storage)
- 2450 mAh (nominal) 18.1 Wh removable, rechargeable PowerPrecision+ Li-Ion battery
- Built-in battery charger
- Serial and USB ports (both support strain relief)
- Belt clip for unobtrusive and convenient printing (not compatible with extended capacity battery)
- Black mark and gap media sensing using fixed center position sensors
- Easy-to-use peel and present mode
- Label present sensor for issuing labels one at a time
- Tear bar for easy media dispensing
- Center-loading media locking for variable roll widths
- "Clamshell" design for easy media loading
- Management: Mirror, SNMP, Web server, Profile Manager, AirWatch® and Wavelink Avalanche®
- Large, easy-to-read LCD control panel (240 x 128 pixels)
- LCD can be customized using WML (text and icons)
- 5-way navigation buttons, two software defined keys
- Printer alerts on the display, help menus
- Tolerance of multiple drops from 5'/1.52 m to concrete
- IP43 dust- and water-resistance rating (IP54 with soft case)
- 400 MHz 32-bit ARM processor
- XML support
- Supports vertical and horizontal printing
- Printers can be used in any orientation
- QR barcode links to web-based help pages
- Zebra Print Touch simplifies Bluetooth pairing and launches web-based help pages with Near Field Communication (NFC) enabled devices
- Label odometer
- NTP (Network Time Protocol) support via WiFi or Ethernet

PRINTER SPECIFICATIONS

Resolution	203 dpi/8 dots per mm
Memory	128 MB RAM; 256 MB Flash (standard)
Maximum Print Width	QLn220: 1.9"/48 mm QLn320: 2.8"/72 mm
Maximum Print Speed	Up to 4"/102 mm per second
Media Sensors	Black mark and gap media sensing using fixed center position sensors; label present sensor for issuing batch labels one at a time
Print Length	Minimum: 0.5"/12.7 mm Maximum: 32"/813 mm
Power	2450 mAh (nominal) 18.1 Wh removable, rechargeable PowerPrecision+ Li-Ion battery

MEDIA CHARACTERISTICS

Maximum Label and Liner Length	QLn220: 0.5"/12.7 mm to 32"/813 mm QLn320: 0.5"/12.7 mm to 32"/813 mm or continuous
Maximum Media Width	QLn220: 0.63"/16 mm to 2.18"/55.4 mm QLn320: 1.0"/25 mm to 3.125"/79 mm
Maximum Media Roll Size	QLn220: 2.2"/55.9 mm OD on a 0.75"/19 mm or 1.375"/34.9 mm QLn320: 2.6"/66 mm OD on a 0.75"/19 mm or 1.375"/34.9 mm
Thickness	2.3 mil to 5.5 mil tag stock and 6.5 mil label stock
Media Types	Die-cut labels and tags, linerless labels, receipt paper, black bar and gap sensing

OPERATING CHARACTERISTICS

Environment	Operating Temperature: 32°F to 122°F/0°C to 50°C Operating Humidity: 10% to 90% non-condensing Storage/Transportation Temperature: -13°F to 158°F/-25°C to 65°C Storage Humidity: 10% to 90% non-condensing
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

PHYSICAL CHARACTERISTICS

	QLn220	QLn320
Length	6.5"/165 mm	6.8"/173 mm
Width	3.5"/89 mm	4.6"/117 mm
Height	2.75"/70 mm	3.3"/84 mm
Weight (w/battery)	1.25 lbs/0.57 kg	1.6 lbs/0.73 kg

Note: The Extended Capacity Li-Ion smart battery option adds 0.20 lbs/0.09 kg to the weight and 0.6"/16 mm to the height of either QLn series printer.

COMMUNICATION AND INTERFACE CAPABILITIES

ZebraNet® 802.11n 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

Bluetooth 3.0 radio
- Security modes 1 – 4
- "Made for iPod/iPhone/iPad" certified
- Key Bonding

10/100 Ethernet support (via charging cradle)

Cabled Communications Specifications
- USB 2.0 full-speed interface (12 Mbps)
- Mini-B connector with optional strain relief
- Serial interface: 14-pin RS-232C port for communication to terminal or other host up to 115.2 Kbps

Ideal for These Applications

Retail
- Inventory / price display compliance
- Click and collect
- Inventory management, cycle count
- Receiving, put-away, reverse logistics
- Picking, staging, packing, shipping

Manufacturing
- Raw materials
- Finished goods

Transportation and Logistics
- Receiving, put-away, reverse logistics
- Inventory management, cycle count
- Cross-docking
- Picking, staging, packing, shipping

QLn Series Specifications

SOFTWARE TOOLS

Link-OS Solutions

Document Design — Quickly design a customized print solution using your business data and Zebra's intuitive, plug-and-print design tools.

Device Integration — Zebra offers apps and products designed to help you integrate Zebra devices into your existing systems.

Device Management — Manage your print operations locally and globally with Zebra's suite of device management tools.

Developer Tools — Provides you the tools you need to create your own apps, including documentation, source code, programming languages, templates and more.

FIRMWARE

CPCL, EPL and ZPL programming languages

ZBI 2.x™ — powerful programming language that lets printers run standalone applications, connect to peripherals, and much more

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

FONTS AND GRAPHICS

Standard Fonts: 25 bitmapped, 1 smooth, scalable (CG Triumvirate Bold Condensed*)

Optional Fonts: downloadable bitmapped/scalable fonts

International Character Sets (optional): Chinese 16 x 16 (traditional), 16 x 16 (simplified); Japanese 16 x 16, 24 x 24; Korean Mincho

*Contains UFST® from Agfa Monotype Corporation.

OPTIONS AND ACCESSORIES

Charging Options — Inside the Printer
• AC adapter
• Single cradle: QLn-EC — single bay Ethernet and charging cradle (not compatible with extended capacity battery)
• Quad cradle : QLn-EC4 — quad bay Ethernet and charging cradle, with internal switch and stacking port (not compatible with extended capacity battery)

Charging Options — Outside the Printer
• SC2 single battery charger
• Quad battery charger

Vehicle charger with cigarette lighter adapter

Spare batteries

4900 mAh (nominal) removable extended capacity Li-Ion battery (4-cell bump out pack)

Carrying Options
• Shoulder strap
• Hand strap
• Soft case (IP54 rating when used) — not compatible with extended capacity battery

Linerless printing (with silicone platen roller only)

ZBI 2.x

Printer stand for tabletop mounting

Serial and USB cables with strain relief

PRODUCT WARRANTY

The QLn Series Printers are warranted against defects in workmanship and materials for a period of 1 (one) year from the date of shipment. For the complete warranty statement, please visit: www.zebra.com/warranty.

RECOMMENDED SERVICES

The Zebra OneCare Service portfolio of Essential, Select and Premier maximizes the availability and productivity of your devices. Key features include 24/7 technical support, comprehensive coverage, advance replacement and software updates. Optional Visibility Services are available. For more information go to www.zebra.com/zebraonecare.

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Specifications subject to change without notice.

ZEBRA

Zebra® MC40-HC

Mobile Computer

IMPROVE PATIENT SAFETY, THE PATIENT EXPERIENCE AND HEALTHCARE STAFF PRODUCTIVITY WITH THE FULLY-FEATURED POCKET-SIZED MC40-HC.

Your patients chose you as their healthcare provider. In order to keep that patient, you need to deliver the very best in care. And delivering the best care possible requires healthcare staff to have right-now access to whatever information is required to not only take instant action — but to take the right action.

The MC40-HC gives your healthcare staff everything needed to make the right decision in a split second, all in a device that rivals the design of today's coolest mobile devices, including smartphones. Your healthcare staff will instantly feel comfortable with the all-touch MC40-HC. With the familiar Android™ operating system, healthcare staff already know how to interact with the device, virtually eliminating training. It is just a little bigger than a smartphone, but still easily fits in a pocket, where it is always handy. But the similarities to consumer-style devices end there.

Our Mobility Extensions (Mx) infuse Android with the enterprise-class features required in the critical environment of healthcare — robust Wi-Fi connections that keep staff connected via voice and to real-time data; security features that protect data and help meet HIPAA requirements and complete remote control over devices as well as their applications. And with enterprise-class data capture, nurses and lab technicians can count on easy first time every time scanning of any bar code, ensuring accuracy in medication administration and specimen collection — where errors can have extreme consequences.

THE MC40-HC — THE NEW FACE OF HEALTHCARE MOBILITY.

For more information, visit www.Zebra.com/mc40HC or access our global contact directory at www.zebra.com/contact

The New Face of Healthcare Mobility.

Cool styling — and all the features you need to deliver the highest quality care.

DISINFECTANT-READY WITH ENTERPRISE-CLASS DURABILITY

You get the durability that Zebra Technologies is famous for — the MC40-HC simply works, despite drops, bumps, spills and constant sanitizing. And Gorilla Glass improves the durability of three of the most vulnerable features — the display and the scanner and camera exit windows.

ADVANCED SCANNING TECHNOLOGY

Nurses and clinical staff can count on dependable scanning of any 1D or 2D bar code displayed on a computer screen or printed on paper — even if the codes are dirty, poorly printed or damaged.

Omni-directional scanning delivers point-and-shoot simplicity — there is never a need to align the device and bar code. And the extra wide best-in-class working range and field of view make bar code capture easier than ever.

A LARGE 4.3 INCH TOUCH DISPLAY

Provides the screen real-estate to support information-intensive apps, such as electronic health records and real-time feeds of patient vital signs.

ANDROID FORTIFIED FOR THE ENTERPRISE

Mx adds new features that transform Android from a consumer operating system (OS) to a true enterprise-class operating system, adding the enterprise-class security, manageability, wireless connection quality and data capture feature support your organization requires.

A POWERFUL VOICE CONNECTION TO NEARLY ANY OTHER MOBILE DEVICE IN THE HOSPITAL

With our unique integrated voice solutions, the MC40-HC is push-to-talk (PTT) ready right out of the box, easily connecting to other PTT-enabled Zebra mobile computers, two-way radios and third party popular smartphones. And Workforce Connect Voice^ turns any MC40-HC into a mobile deskphone with robust PBX functionality.

^ Workforce Connect Voice is only available in some regions.

USER REPLACEABLE BATTERY FOR GUARANTEED AVAILABILITY ALL SHIFT, EVERY SHIFT

An average of up to 8 to 10 hours of operation on a single charge virtually eliminates downtime due to a dead battery during a shift; user-swappable batteries protect device uptime and increase device utilization for a stronger return on investment.

RICH PHOTOGRAPHIC INTELLIGENCE

The high-resolution 8 MP camera enables the capture of photos that document patient condition, plus documents that are highly legible, all with the quick press of a button.

MOBILITY DNA

Every strand of your mobility platform is simpler with Zebra's Mobility DNA. That's because, from the start, you have the industry's most comprehensive suite of mobility must-haves to accelerate your solution. More off-the shelf end-user apps, more robust administration utilities and easier app development. Additional Mobility DNA solutions in the MC40 include:

- Simulscan
- StageNow
- EMDK
- AppGallery
- SwipeAssist
- Enterprise Browser
- ShareCradle
- TekSpeech® Pro
- All-touch Terminal Emulation

CLEANING INSTRUCTIONS

Recommended Cleanser Active Ingredients

100% of the active ingredients in a cleaning solution should consist of one of the following: isopropyl alcohol; bleach/sodium hypochlorite; hydrogen peroxide; mild dish soap.

Harmful Ingredients

The following chemicals at certain concentrations and/or combinations are known to damage the plastics on the MC40-HC mobile computers and should not come in contact with the device: ammonia solutions, compounds of amines or ammonia; acetone; ketones; ethers; aromatic and chlorinated hydrocarbons; aqueous or alcoholic alkaline solutions; ethanolamine; toluene; trichloroethylene; benzene; carbolic acid; TB-lysoform.

Cleaning Instructions

Do not apply liquid directly to the MC40-HC mobile computers. Dampen a soft cloth or use pre-moistened wipes. Do not wrap the device in the cloth or wipe, but gently wipe the unit. Be careful not to let liquid pool around the display window or other places. Allow the unit to air dry before use.

Special Cleaning Notes

Many vinyl gloves contain phthalate additives, which are often not recommended for medical use and are known to be harmful to the housing of the MC40-HC mobile computers. The devices should not be handled while wearing vinyl gloves containing phthalates, or before hands are washed to remove contaminant residue after gloves are removed. If products containing any of the harmful ingredients listed above are used prior to handling the MC40-HC mobile computers, such as hand sanitizers that contain ethanolamine, hands must be completely dry before handling the devices to prevent damage to the plastics.

Approved Cleaning Products

Due to the requirements of many use cases, the following products have been tested and approved for use with the MC40-HC: PDI Super Sani-Wipes, PDI Sani-Cloth Plus, Metrex Caviwipes, and Clorox Dispatch with Bleach. Please note that some of these products have chemicals listed above as harmful, but the levels of concentration and combination with other chemicals for these listed products have shown to not cause an issue. Contact the service desk with any questions regarding approved cleaners and disinfectants for the MC40-HC terminal.

Specifications Chart*

PRODUCT NAME	
MC40-HC	

PHYSICAL CHARACTERISTICS	
Dimensions	5.66 (H) x 2.87 (W) x 0.79 (D) "/ 143.91 (H) x 72.8 (W) x 20.1 (D) cm
Weight	9.38 oz./ 266.1g (with battery)
Display	• 4.3" capacitive • 480 x 800; 300 NIT • Corning Gorilla Glass 3
Touchpanel	Capacitive dual-touch
Backlight	LED backlight
Power	PowerPrecision 2680mAh Li-Ion rechargeable battery
Backup Battery²	• NiMH battery (rechargeable) • 15mAh 3.6V (not user accessible)
Connectivity	USB 2.0 OTG connector
Notification	LED, audio and vibration
Keypad	On-screen keypad
Disinfectant Ready	Yes

PERFORMANCE CHARACTERISTICS	
CPU	800MHz OMAP 4 dual-core processor³
Operating System	Android 4.4.4 (KitKat) **Mobility Extensions (Mx)** adds a layer of features that turns Android into a true enterprise-class OS.
Memory	1GB RAM/ 8GB Flash

USER ENVIRONMENT	
Operating Temperature	32~104˚F/ 0~40˚C
Storage Temperature	-40~158˚F/ -40~70˚C
Humidity	5%~85% RH non-condensing
Drop Specification	• Multiple 4'/ 1.2m drops per MIL-STD 810G • Multiple 3'/ 0.9m drops to tile
Tumble Specification	500 (1.6'/ 0.5m) tumbles; meets and exceeds IEC tumble specifications
Sealing	IP54
ESD	• ± 15kVdc air discharge • ± 8kVdc direct discharge • ± 2kVdc indirect discharge
Corning Gorilla Glass 3	Touchpanel; scanner exit window and camera exit window

INTERACTIVE SENSOR TECHNOLOGY (IST)	
Motion Sensor	3-axis accelerometer provides motion-sensing for dynamic screen orientation and power management
Light Sensor	Automatically adjusts display backlight brightness
Proximity Sensor	Prevents unwanted keypresses in handset mode

AUDIO	

• High-quality speakerphone
• Wireless (Bluetooth) headset support
• PTT headset support
• Handset/ speakerphone modes

DATA CAPTURE	
Imager	SE4710
Camera	Rear-facing 8 MP auto-focus with aiming for bar code scanning and image capture.
Data Types	• 1D/2D bar codes • Photographs • Video • Signatures • Documents

COMMUNICATION AND MESSAGING	

Workforce Connect PTT Express Client included for instant PTT calling right out of the box.⁴ **Workforce Connect Voice Client** Certified to enable PBX handset functionality and more inside the four walls. Supports **Workforce Connect PTT Pro** for more robust PTT functionality and **Workforce Connect Messaging** for text messaging over Wi-Fi and cellular networks.

PERIPHERALS AND ACCESSORIES	

• Accessories include single^ and 5-slot^ charging cradles
• Single^ and 4-slot^ battery chargers
• Holster and a wearable carrying solution
• BT connectivity to RS507 Ring Scanner.
• Visit www.zebra.com/mc40 for a complete list of accessories.
^ In patient-friendly color, Healthcare White.

WIRELESS LAN	
Radio	Tri-mode IEEE® 802.11a/b/g/n/d/h/i/k/r
Security	• Security Modes: Legacy, WPA and WPA2 • Encryption: WEP (40 and 128 bit), TKIP and AES • Authentication: TLS, TTLS (MS-CHAP), TTLS (MS-CHAP v2), TTLS (PAP), PEAP (MS-CHAP v2), PEAP (GTC), FAST (MS-CHAP v2), FAST (GTC), LEAP. Data in motion: FIPS 140-2 Level 1 Data at Rest: FIPS 140-2 Level 1
Data Rates	• 802.11b: 1, 2, 5.5, 11 Mbps • 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11n: 6.5, 13, 19.5, 26, 39, 52, 58.5, 65 Mbps • 802.11n with SGI: 7.2, 14.4, 21.7, 28.9, 43.3, 57.8, 65, 72.2 Mbps
Fast Roam	Pre-Authentication, PMKID Caching, Opportunistic Key Caching (OKC), Cisco CCKM, Zebra HFSR, 802.11r
Certifications	Wi-Fi, CCXv4
Operating Channels	Chan 36~165 (5180~5825MHz), Chan 1~13 (2412~2472MHz); actual operating channels/frequencies depend on regulatory rules and certification agency

WIRELESS PAN	

• Bluetooth Class II, v 2.1 with EDR; integrated antenna
• Bluetooth 4.0 (Bluetooth Smart)

REGULATORY	

Visit www.zebra.com/mc40hc for regulatory information

WARRANTY	

Subject to the terms of Zebra's hardware warranty statement, the MC40-HC is warranted against defects in workmanship and materials for a period of 1 (one) year from the date of shipment.

For complete warranty statement, please visit: http://www.zebra.com/warranty

RECOMMENDED SERVICES	

Zebra *OneCare*

ZEBRA

Asia-Pacific Headquarters | +65 6858 0722 | contact.apac@zebra.com

ZEBRA VH10 SERIES

PRODUCTIVITY. INGENIOUSLY ENGINEERED.

Every day, the workers in your forklifts and other material handling equipment are under pressure to move more product in, through and out of the warehouse to meet customer demands. It will take a new level of efficiency. It will take a new level of accuracy. It will take the VH10. The VH10 is built to provide the real-time information this workforce needs to get the job done fast and right – in your warehouse aisles, out in the yard or in a freezer. You get productivity , ingeniously engineered — with all the features you need for truly flawless fulfillment in your most demanding environments.

Fits in virtually any material handling vehicle
Multiple mounting options, including standard RAM mounts and a 10-second quick release mount, plus a compact size make mounting easy, even in the smallest vehicles.

Flexible wireless connectivity options
Only Zebra offers support for Wi-Fi and Narrowband, bringing you the best of both worlds. Support for 802.11a/b/g/n Wi-Fi provides compatibility with virtually any wireless LAN and plenty of bandwidth to support the modern graphical user interfaces of today's demanding applications. Narrowband support provides robust, affordable and secure wireless connectivity for simple data transactions in expansive outdoor areas such as seaports, rail yards, airports and expansive outdoor yards in manufacturing plants — regardless of the presence of obstacles that typically create coverage holes, such as metal containers, liquids or even other 2.4 GHz wireless networks.

Easily customize to meet your specific business needs
Add a Zebra corded or cordless scanner for fast and accurate capture of any bar code — even codes that are dirty or damaged. Add a push-to-talk microphone to enable instant voice communications with vehicle operators.

Maximize uptime and minimize TCO with field serviceability
Replace the two elements that are most vulnerable to damage in minutes, right in your facility — the keyboard and touchscreen — no need to send to a service depot.

Freezer-ready for the coldest supply chain
With the VH10f you get true frost and condensation free operation in freezers with touchscreen and board heaters, smart temperature sensors that automatically control the heaters and heating speed, an elastomeric keyboard that works despite icing and more.

Backwards compatibility for cost-effective upgrades
Use the same mounts, accessories and applications you have today for your prior Zebra vehicle mount mobile computers, allowing you to cost-consciously upgrade to the latest technologies to improve productivity, customer service and satisfaction.

WHERE IS THE VH10 AT HOME?
Industries
- Warehousing
- Manufacturing
- Transportation

Environments
- Warehouses
- Cold storage/freezer
- Indoor and outdoor yards
- Airports
- Intermodal terminals (such as seaports and railway yards)

GET MAXIMUM PRODUCTIVITY AND FLAWLESS FULFILLMENT IN YOUR MOST CHALLENGING ENVIRONMENTS WITH THE VH10.

For more information, please visit **www.zebra.com/vh10**

TECHNICAL SPECIFICATIONS

PHYSICAL CHARACTERISTICS

Dimensions	10.87 in. W x 9.37 in. H x 3.54 in. D 276 mm L x 238 mm W x 90 mm D
Weight	8.1 lbs./3.66 kg (includes integrated UPS battery)
Construction	Cast aluminum; modular
Keyboard Options	Integrated full alpha numeric keyboard with 67 keys; QWERTY and AZERTY; 12 direct function keys; LED backlight
Power	Internal power supply 12-48V nominal, designed for forklift power ; standard 5 min super capacitor backup; one week real-time clock backup
Optional UPS Battery	Optional internal 5000 mAh rechargeable battery for operation during power loss/brown out provides 15 minutes session persistence at a minimum during forklift battery swap
Display	8 in. color: 800 x 480; brightness 640 NITs; LED backlight
Display Defroster (VH10f Model)	Heated touch screen evaporates external condensation when moving out and in freezers
Touchscreen	Rugged 5-wire technology; provides high "touch life" for heavy use; passive stylus or finger operation
Interface Ports	2 USB host ports (one on the top, one on the bottom) 1 powered USB host port with 12V/1.5A 1 3.5 mm audio jack 2 full function UART RS-232 with 5V/1000mA for external devices
Mounting	Quick release mount; standard RAM mounts;

USER ENVIRONMENT (CONTINUED)

Sealing	IP66
Integrated Sensors*	Motion (accelerometer); temperature; ignition
ESD	±15kV air discharge, ±8kV direct discharge
Shock/Vibration	IEC 60721-3-5M3
Thermal Shock	-22° to 122° F/-30° to 50° C
Salt Fog	48 hours of 5% solution at 35° C
Solar Radiation	MIL STD 810-G, Method 505.5, Procedure II

WIRELESS DATA COMMUNICATIONS

WLAN	IEEE 802.11a/b/g/n
Narrowband	UHF bands: 403 – 470 MHz Channel Spacing: 12.5 - 25 kHz RF power: 500 - 1,000mW; Transmission speed: 4.8/9.6 kbps @ 12.5 kHz, 9.6/19.2 kpbs @ 25 kHz
Antenna	Internal or external 2.4 and 5 GHz antennas; external Narrowband antenna
WPAN	Bluetooth® V2.0 + EDR

SUPPORT AND SERVICES

Service from the Start Primary: A unique service that covers normal wear and tear as well as accidental damage to internal and external components. Includes a collection option with pre-paid ground freight on return shipments.

ACCESSORIES

Accessories include: Pre-regulator; antennas; screen protector; push-to-talk speaker/microphone; mounts; USB Ethernet adapter (For a complete list of accessories , visit **www.zebra.com/vh10**)

REGULATORY

Electrical Safety	UL/cUL/IEC/EN 60950-1 Indoor

	adapters for legacy mounts; heavy duty mount; cantilever mount		use	
		EMI/RFI	*North America*: FCC Part 15, Class B *Canada*: ICES 003 Class B *EU*: EN55022, EN 301 489-1, EN 301 489-17	
Audio	High volume 93dBA beeper Optional push-to-talk speaker/ microphone			

PERFORMANCE CHARACTERISTICS

CPU	TI OMAP 3, 800 MHz
Operating System	Windows® CE 6.0
Memory	512MB RAM and 1GB Flash
Bundled Applications	Internet Explorer 6; Windows Mobile Device Center; Wordpad; ActiveSync
Terminal Emulation	TekTerm; Wavelink; Stay-Linked; Naurtech
Additional Software	SOTI MobiControl; Kiosk Mode; Total Recall; Active Remote Configuration (A.R.C.)
Application Development	Software Development Kit

USER ENVIRONMENT

Operating Temp.	-22° to 122° F/-30° to 50° C
Storage Temp.	-22° to 140° F/-30° to 60° C
Humidity	5% to 95% RH condensing with internal heating

WLAN/Bluetooth	*USA*: FCC Part 15.247, 15.407 *Canada*: RSS-210 *EU*: EN 300 328, EN 301 893
Environmental	RoHS/WEEE/REACH compliant
Flammability	IEC UL94-VO

WARRANTY

Subject to the terms of Zebra's hardware warranty statement, the VH10 Series is warranted against defects in workmanship and materials for a period of 1 (one) year from the date of shipment. For complete warranty statement, go to: www.zebra.com/warranty

* Narrowband models do not support Motion Sensor (accelerometer).

ZEBRA TECHNOLOGIES