

1. What is the ZT400 Series

The ZT400 Series printer is the current generation of Zebra's mid-range Tabletop printers. The ZT400 fills the better category within the Industrial product family and will replace the legacy ZM and RZ printers. The ZT400, like the legacy ZM, is intended to offer maximum feature flexibility to address a broad range of applications.

There are two printers in the ZT400 Series; the ZT411 and the ZT421. Both printers share the same internal mechanical components, electrical components and control board. The primary difference between the two printers is the print width and maximum print resolution.

	ZT411	ZT421
Maximum print width	4.09"/104mm	6.6"/168mm
Maximum print speed	14"/356 mm per second	12"/305 mm per second
Print resolution	203, 300, 600 dpi/8, 12, 24 dots per mm	203 and 300 dpi/8 and 12 dots per mm

2. How should the ZT400 Series be positioned?

The ZT400 Series printers fit within the Better category of the tabletop product line. The ZT400 sits below the best category (ZT600 Series and ZT510) and above the good category (ZT200 Series).

The ZT400 is intended for customers that need to print a variety of different label formats on a variety of different media types. These printers can be deployed in an industrial environment. The ZT400 Series is ideal for applications where adaptability is needed but with lower volume requirements than the ZT600 Series and ZT510 printers. The ZT400 Series printers are suited for applications up to two to four rolls of labels per day. The number of labels on a roll varies depending on the size of the label so duty cycle is best described in rolls per day.

3. What are the target applications for the ZT400 Series?

Because the ZT400 printers offer a cost-effective option for rugged, industrial printing needs, they are ideal for use in a wide variety of applications in Manufacturing, Transportation & Logistics, Retail and Healthcare markets.

With high-resolution printing capabilities, up to 600 dpi, the ZT411 is an option for applications that require high resolution printing. For applications that utilize very small labels such as electronics, Zebra recommends the ZT600 series.

4. What are the differences between the ZT411/ZT421 and the legacy ZM400/ZM600

The ZT400 printers offer incremental improvements in basic performance and other specifications, however the new printer offers significant improvements in design, usability and features. A key element of the underlying design philosophy of all the ZT Series of printers is the inclusion of features to make the printers more appealing to end users. The design team leveraged the experience gained in the design of the ZT200 Series printers and built on and extended the improvements made to the ZT200 to create an even better printer in the ZT400. In addition, the team conducted user interviews to determine the key customer pain points. This input was used as the basis for the design changes, focusing on addressing customer needs and concerns with existing printers. The ZT series of printers are more user friendly than previous generations of printers with simpler use and maintenance. This is an important competitive differentiator that leverages and builds on the Zebra reputation for quality and durability.

	ZT411		ZM400	
Maximum print speed	203 dpi	14"/356 mm per second	203 dpi	10"/254 mm per second
	300 dpi	10"/254 mm per second	300 dpi	8"/203 mm per second
	600 dpi	4"/102 mm per second	600 dpi	4"/102 mm per second
Maximum print width	4.09"/104 mm		4.09"/104 mm	
Standard communications	Ethernet, Serial, USB 2.0, Bluetooth 4.1, Dual USB Host, two open communication slots		USB 2.0, Serial and Parallel	
Optional communications	Wireless dual radio with 802.11ac Wi-Fi and Bluetooth 4.1, Parallel (bi-directional interface), 10/100 Ethernet, applicator interface		Ethernet, Wireless 802.11 b/g	
Standard RAM	256MB RAM memory (8MB User Available)		16 MB SDRAM	
Standard flash	512MB Flash memory (64 MB User Available)		8 MB Flash (2 MB User Available)	
Optional memory	NA		64 MB Flash (58 MB User Available)	
Processor	ARM Cortex A7		32 bit	
User interface	4.3-inch color touch display with intuitive menu for quick operation and settings management		Back-lit, multiline graphic LCD display	
Link-OS enabled	Yes		No	
User set up and maintenance	Print Touch, dynamic QR codes and setup wizards		None	
Print quality	Thin film print head with E3® Element Energy Control Printhead element out detection		Thin film print head with E3® Element Energy Control	

	ZT421		ZM600	
Maximum print speed	203 dpi	12"/305 mm per second	203 dpi	10"/254 mm per second
	300 dpi	10"/203 mm per second	300 dpi	8"/203 mm per second
Maximum print width	6.6"/168 mm		6.6"/168 mm	
Standard communications	Ethernet, Serial, USB 2.0, Bluetooth 4.1, Dual USB Host, two open communication slots		USB 2.0, Serial and Parallel	
Optional communications	Wireless dual radio with 802.11ac Wi-Fi and Bluetooth 4.1 Parallel (bi-directional interface), 10/100 Ethernet, applicator interface		Ethernet, Wireless 802.11 b/g	
Standard RAM	256MB RAM memory (8MB User Available)		16 MB SDRAM	
Standard flash	512MB Flash memory (64 MB User Available)		8 MB Flash (2 MB User Available)	
Optional memory	NA		64 MB Flash (58 MB User Available)	
Processor	ARM Cortex A7		32 bit	
User interface	4.3-inch color touch display with intuitive menu for quick operation and settings management		Back-lit, multiline graphic LCD display	
Link-OS enabled	Yes		No	
User set up and maintenance	Print Touch, dynamic QR codes and setup wizards		None	
Print quality	Thin film print head with E3® Element Energy Control Printhead element out detection		Thin film print head with E3® Element Energy Control	

The following list some of the standard features on the ZT400 that were not available on the ZM

- Dynamic QR codes provide “on-demand,” web-based support to resolve printer errors quickly.
- Lighted media and ribbon paths make it easy to see inside the printer, even in poorly lit environments.
- Link-OS environment
 - o Cloud Connect securely and directly interacts with the cloud for printing and device management
 - o Profile Manager to manage one printer, batches of printers or all Link-OS printers across a network anywhere in the world.
 - o Print Touch web page launching features using Near Field Communications (NFC), making it easy to access Zebra’s extensive knowledge base of how-to videos and product support.
- End-user-installable media handling options
- Standard Serial, USB, Ethernet and Bluetooth features—as well as two open media slots
- 14 ips maximum print speed
- Bi-fold media door decreasing overall operating space by 35%
- Increased processing power and user memory.
- USB host port enables simple printer configuration by easily transferring data from a USB flash drive via mirroring and expanded mapped-drive memory capabilities.

5. What is the difference between the ZT410/ZT420 and the ZT411/ZT421?

The ZT411 and ZT421 were launched in October 2019 as replacements for the ZT410 and ZT420. This launch was a product line refresh, not a completely new product. The ZT411/ZT421 added the following features:

- Color touch display
- Standard dual USB host ports
- Printhead element out detection
- Bluetooth 4.1 (upgraded from 2.1)
- Optional RFID on-metal tagging (ZT411 only)
- Optional applicator interface card
- Adjustable transmissive sensor

6. Will all options from the ZT410 and ZT420 be compatible with the ZT411 and ZT421 printers?

Yes, all options are compatible with the ZT411 and ZT421.

7. Can a customer purchase a model without the color touch display?

No, the only display option is the color touch.

8. How easy is it to reconfigure a ZT400?

The ZT400 Series have two available slots for additional communication cards. Zebra offers dual radio 802.11ac with Bluetooth 4.1, Parallel and Ethernet communication cards for the ZT400 Series. These cards can be installed without removing the cover from the printer. The card slides into the back of the printer. The process for adding a communication card takes less than two minutes.

It is similarly easy to field install media handling options. Peel, cutter and liner take up can be installed in less than five minutes and do not require access to the power side of the printer. The ZT400 Series come with connectors installed on the printer firewall to attach the wiring for the media handling options.

Similarly, the RFID module can be easily installed and does not require the installation of an encoder on the power side of the printer.

9. What media handling options are available for the ZT400 series?

The ZT400 series media handling options include:

- Rewind: internally rewinds a full roll of printed labels on 3" core, or peels and rewinds liner (Factory installed only)
- Peel: A front mount, passive peel option
- Peel: Liner take-up option – additional full roll liner take-up spindle accommodates standard printer base
- Cutter: A front mount guillotine cutter and catch tray, 1" I.D. Core Media Supply Hanger
- 1 in. I.D. Core Media Supply Hanger (ZT411 only)
- Ink-side in ribbon supply (ZT411 only)

10. What are the connectivity options?

In addition to standard USB, serial, Ethernet and Bluetooth, the ZT400 Series has optional:

- Parallel (Bi-directional interface)
- Wireless dual radio with 802.11ac Wi-Fi and Bluetooth 4.1
- Ethernet
- Applicator interface

11. Can the printer connect directly to an industrial ethernet network?

Optional firmware is available that allows the ZT400 Series printers to connect directly to an industrial Ethernet network via the standard RJ-45 connector. This capability is called Network Connect for printers and works with Ethernet/IP networks.

12. What does Network Connect include?

- Direct connection to PLCs without requiring a converter box.
- An Electronic Data Sheet (EDS) file for Ethernet/IP and the config data for conformance testing of specific device types.
- Add-on profiles specific to Ethernet/IP and Logix Studio 5000 make programming easier, eliminating the need to write extensive code to handle frequent tasks.
- A reduction in the time it takes for the PLC developer to integrate the Link-OS printer.

13. How do I add this capability to the printer?

The customer must complete a CAG request form to download the special firmware.

14. What is a dual wireless card?

The dual wireless card contains both an integrated 802.11ac Wi-Fi and Bluetooth 4.1. The Bluetooth is MFi certified.

15. Do the ZT400 Series printers support IPv6?

Yes, Zebra offers an external IPv6 print server that connects to the optional internal Parallel port.

Printer Features

16. What are the dimensions of the printer?

	ZT411 (closed)	ZT421 (closed)
Width	10.6"/269 mm	13.25"/336.55 mm
Height	12.75"/305 mm	12.75"/305 mm
Depth	19.50"/495 mm	19.50"/495 mm
Weight	36 lb./16.33 Kg	40 lb./18.14 Kg

17. Can the same ribbon and media used for the ZM Series printers be used in the ZT400 series?

Yes, as long as the size requirements are met. Always recommend genuine Zebra supplies due to potential quality issues with non-Zebra ribbon and media. Poor quality ribbon will shorten print head life and impact print quality. The ribbon must be wound ink side out for the standard printer.

Lower quality media when the printer is used in direct thermal mode will also shorten print head life. This is because the back of low quality thermal media is not coated and acts as an abrasive as it moves through the print head.

18. Does the ZT400 series support RFID?

Yes, RFID is an option for the ZT400. Supports tags compatible with UHF EPC Gen2 V2.0/ISO 18000-63.

19. What is Zebra's RFID On-metal Tagging Solution?

Zebra offers a version of the ZT411 that enables users to print and encode Silverline labels that are designed to work on a variety of surfaces including metallic cylinders and other challenging surfaces. This on-metal tagging solution can be ordered from the factory or upgraded in the field. The on-metal tagging solution is only available for 203 dpi and 300 dpi models.

20. Is the RFID On-metal Tagging Solution the same as the standard UHF RFID model?

No. The on-metal tagging solution is different than the standard UHF RFID model. Silverline tags are thicker than standard RFID tags so a modified print mechanism is needed to allow the thicker tags to pass under the printhead without binding.

21. Does the printer support USB Host?

Yes, we offer two standard USB Host ports, which open a number of new capabilities utilizing the printer, not an additional client, to locally manage files, input data and configure the printer. USB mirror is ideal for local, fast replication of firmware, files and configurations for ease of setup and maintenance. Print Station supports local data input and form-filling without a client via USB connected scanners and keyboards. Print USB file is used to print formats, download firmware and execute files from a USB flash drive (memory stick). USB file transfer provides the transfer and storage of files between the printer memory and the USB flash drive.

22. Does the printer support Bluetooth?

Bluetooth 4.1 is integrated on the control panel and supports Windows Mobile, Google Android and Apple iOS. In addition, the optional dual wireless radio card contains Bluetooth 4.1.

23. What comes in the box?

- Printer
- Power cord
- Documentation (safety guide and warranty card)