

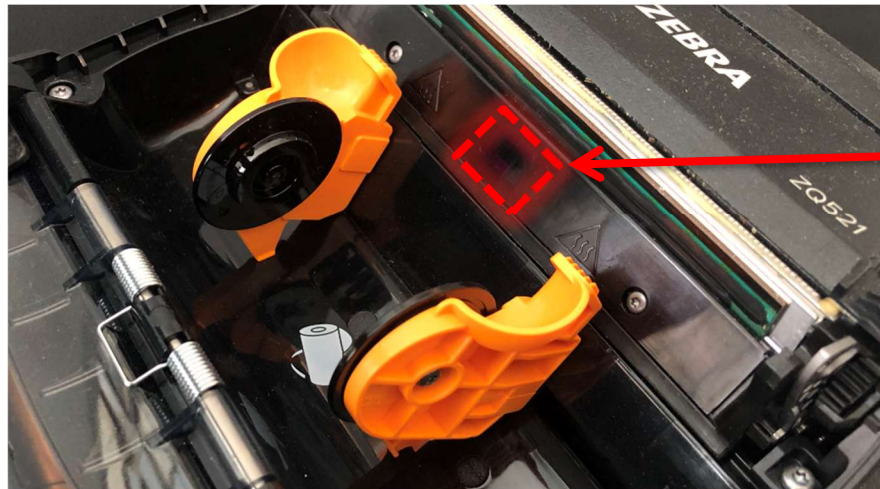
## Specifying inlay placement for ZQ511 and ZQ521 RFID mobile printers

Zebra ZQ521 and ZQ511 RFID printers do not require specific inlay placements. The patented coupler antenna and RFID calibration algorithm automatically configures optimal RFID settings for the inlay, chip, and label size being used. See the User's Manual and RFID ZPL Programming Guide 3 for more details.

Zebra manufacturers RFID labels optimized for ZQ511R and ZQ521R. Details and pricing can be found here: [www.zebra.com/us/en/products/supplies/rfid-labels-tags.html](http://www.zebra.com/us/en/products/supplies/rfid-labels-tags.html)

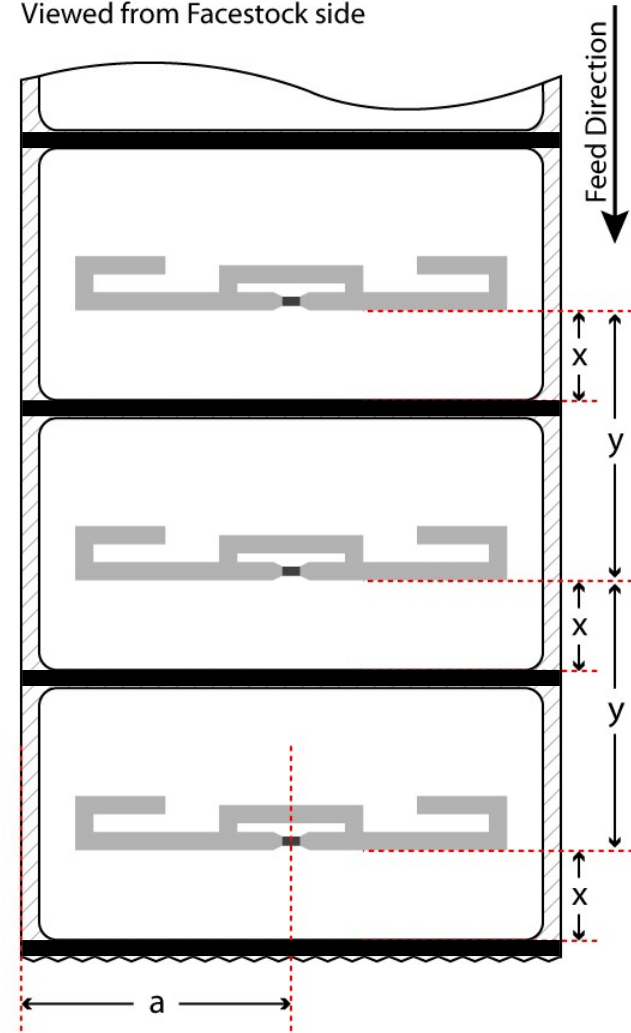
### Best practices to consider when selecting RFID media for ZQ521R and ZQ511R:

- Only Direct Thermal media with Black Mark sensing is supported.
- Maximum roll OD on ZQ521R is 2.4" on a 0.75" core ID
- Maximum roll OD on ZQ511R is 2.0" on a 0.75" core ID
- Inlays should be centered across the media width with position tolerance of +/- 2mm (parameter 'a' in the diagram on the right).
- For labels longer than ~1", place inlays ~10-15mm from the trailing edge of the black mark with a production tolerance of +/- 2mm (parameter 'x' in the diagram on the right).
- Small labels with a pitch of less than 1" (parameter 'y' in the diagram on the right) may require the printer to backfeed a short distance to align the inlay for encoding. This can be minimized or eliminated by designing the label to maximize distance 'x', as shown in the diagram on the right. An inlay position 'x' of at least 10mm is ideal.
- The RFID coupler antenna is located in the center of the media path, directly behind the printhead. Approximate location of the encode zone is shown below.
- Always test RFID media before manufacturing or purchasing a large quantity.



Approximate location of RFID Encode Zone

Viewed from Facestock side



Parameter	Name	Definition
<b>a (mm)</b>	Inlay Center	Left liner edge to inlay center.
<b>x (mm)</b>	Inlay Position	Trailing edge of mark to leading edge of inlay antenna
<b>y (mm)</b>	Inlay Pitch	Inlay antenna leading edge to inlay antenna leading edge.

Disclaimer: the information contained in this guideline is subject to the warranty disclaimers, limitations of liability and indemnification provisions contained in the zebra technologies corporation inlay guidelines terms of use. Guidelines are subject to change without notice.