RFID Accessory Reference Document

There are a variety of items which may be used to implement various aspects of your RFID implementation. Some of these items are detailed below:

- Offset Materials
- Plastic Hanging Tags
- Cable Ties
- Cable Tie Mounts

Offset Materials

Offset material is used to create a gap between the RFID label/tag and a metal or other conductive object. This prevents the "detuning" of the RFID antenna and chip caused by the conductive object absorbing the RFID radio waves. There are specialized RFID tags designed to be placed onto conductive objects; however, these tags will not fit through a bar code printer. DPAS AIT software can encode these tags individually if needed.

We have found the following to be good offset material in testing:

- Low-Density Foam Weather Stripping, 1" wide, 3/16" thick
- Closed Cell Sponge w/ PSA, 1" wide, 3/16" thick
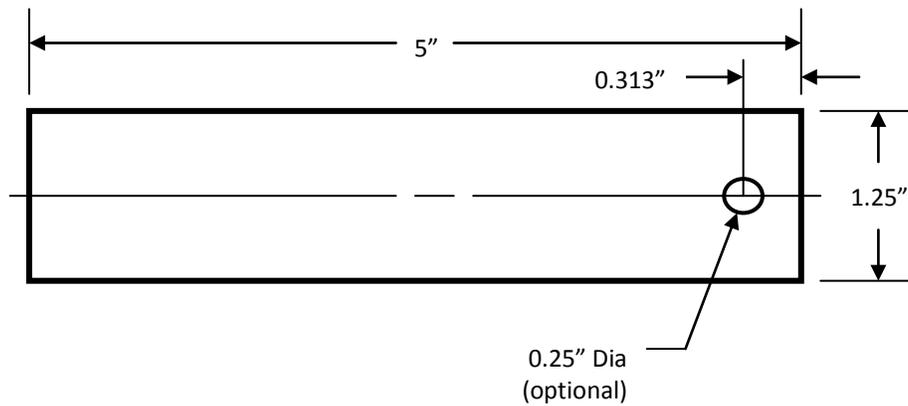
Plastic Hanging Tags

Another option to compensate for the detuning of the label/tag is to use a plastic strip which can be affixed to the object using a plastic cable tie or other material. The plastic itself gives some protection from detuning but the nature of the hanging tag is that it hangs in mid-air giving it the needed protection.

A good material to use is:

- General Purpose Styrene Sheet, 0.04" thick – Cut to a size of 1.25" × 5" with a 0.25" hole at one end

See the next page for a diagram of the hanging tag.

If the 0.25" diameter hole is not created when the tag is ordered, you can use a standard single-hole punch to create the hole when needed.
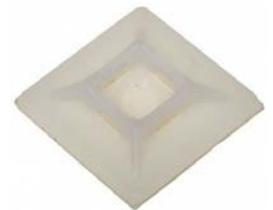
Cable Ties

Cable ties can be used to affix the hanging tag to an object. Cable ties can come in a variety of lengths and colors. The two most popular colors are white/natural and black.

A good length for attaching hanging tags is the 4" cable tie.

Cable Tie Mounts

Cable tie mounts are used when there is no easy way to attach a cable tie. These mounts have an adhesive backing which allows them to be affixed to an object and then the hanging tag can be attached to the mount using a cable tie. Cable tie mounts come in two colors: white/natural and black.

The typical cable tie mount is: 1" × 1" 4-Way Adhesive Cable Tie Mount

Each of these items can be purchased from a variety of commercial vendors.

Remember that each RFID tagging situation is unique and the solutions outlined in this white paper may not satisfy all of your needs. Please feel free to contact the DPAS RFID Team via the DPAS Call Center for any specific questions you may have.

DPAS Call Center
E-Mail: DPASSupport@Leidos.com
Toll Free: 1-844-843-3727