

PixController, Inc.

How to change 310MHz RF Reception to 315MHz RF Reception on PixController RF Board

To be used with PixController 315MHz RF Wireless Sensors Products



Introduction:

PixController RF Wireless products such as the UndercoverEye™ Series, DigitalEye™ RF, DVREye™ RF, Raptor Wireless Sensor Version, Remote VideoEye™, and Sony LANC RF camera products can be upgraded to use the new 315MHz Wireless Sensor products from PixController, Inc.

All that is needed to use the new 315MHz Wireless Sensor products is to switch a crystal on the RF transmission boards. This "How To" manual will cover product which used the PixController RF Board, which are the UndercoverEye, UndercoverEye Trekker™, UndercoverEye™ HDD, DigitalEye™ RF, DVREye™ RF, Remote VideoEye™, and Sony LANC RF camera system.

Note:

This does not include any of the Raptor Wireless Sensor version product which are the standard Raptor Wireless Sensor Version and the UndercoverEye™ Raptor camera. These products will need to be sent back to PixController, Inc. to have the crystal replaced.

Voiding Warranty:

Replacing the crystal on your PixController RF board will void the warranty of camera product. If you do not wish to perform this procedure please contact PixController, Inc. for replacing the crystal and pricing information.

Step 1:

Locate the PixController RF board on your PixController camera product. See Figure 1.

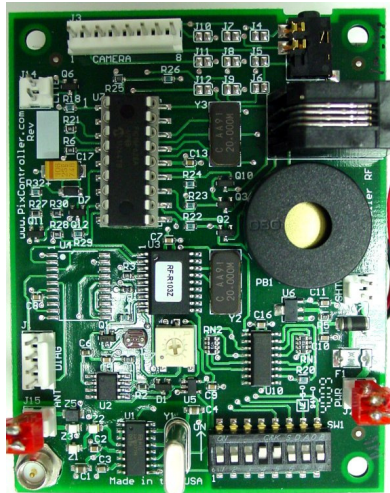


Figure 1: PixController RF Board

Step 2:

Locate the crystal which needs to be removed from the board, see Figure 2. First remove the PixController RF board from the camera product and gently heat up the 2 crystal leads on the back side of the board and use small pliers to remove the crystal. **Be sure not to force the crystal out or you will damage the board.**

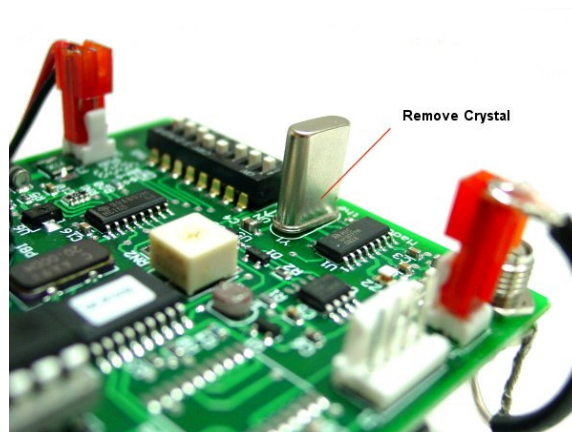


Figure 2: Remove old crystal from RF board

Step 3:

Replace the crystal with a 4.8970 MHz crystal such as the crystal shown in Figure 3. This crystal can be purchased from www.digikey.com part number XC1023CT-ND. Note, this is a surface mount crystal package and the crystal removed is a through-hole version. The through-hole version of this product is very hard and almost impossible to locate, but the surface mount product is readily available.



Figure 3: New 4.8970 MHz Crystal

Step 4:

The crystal will need to be modified slightly before soldering it into the PixController RF board. Bend down the 2 metal tabs on the bottom of the 4.8970 MHz crystal as shown in Figure 4.

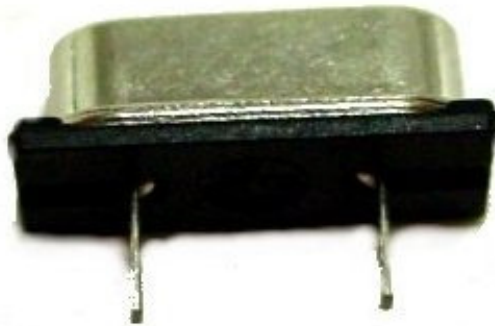


Figure 4: Bend tabs down on crystal

Step 5:

Next, solder the 2 metal tabs on the hole locations from the crystal removed from the PixController RF board. Note, the metal tabs will not fit into the holes. Rather you will need to solder the tabs flush to the board as shown in Figure 5.

The project is now complete.

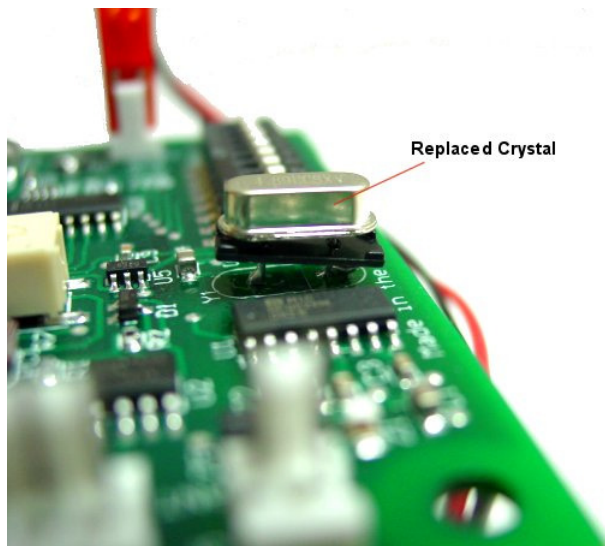


Figure 5: Replace crystal on RF board