

1. Please note that the 731 states that the PC is for part 24, part 15C and part 25B. However, only a test report for part 24 has been provided. IF the changes are for part 15C and 15B, please provide the necessary test reports for those rule parts. If the PC is only for part 24 please justify no change to part 15C and 15B.

Response

The PC is only for part 24. Part 15C is not affected because the Bluetooth transmitter has not been changed. Also Part 15B is not affected because RF components have not been changed.

2. Please provide data showing compliance to the radiated spurious emissions portion of part 24. Alternately, please justify why radiated emissions is not affected by the changes implemented.

Response

Radiated emissions are not affected, because RF components have not been changed. SAR testing was carried out because of the possible effects of grounding the bezel.

3. Please provide internal photos showing the changes if possible.

Response

Prior to change, the A-cover bezel was not grounded. Satisfactory ESD performance was achieved by connecting the bezel through a spring on the A-cover, to a clip on the UI frame and then to the Bezel contact pad on the main pwb as shown in Figure 1. A spark gap was implemented on the pwb as shown in Figure 1 below

With the new PWB this spark gap has been shorted as shown in Figure 2. This is a copper only change; no component values have been changed.

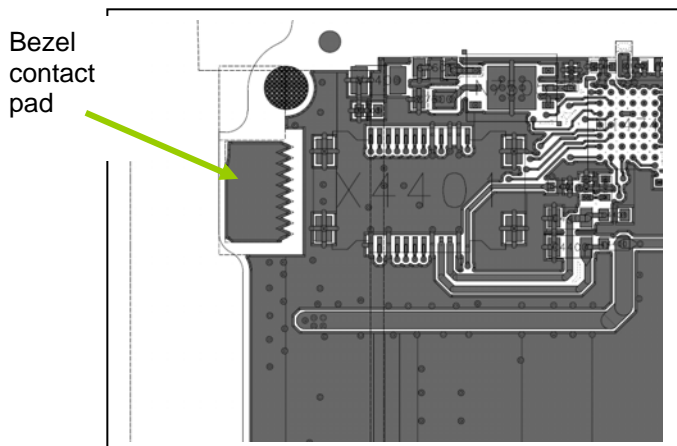


Figure 1 – Ungrounded Pad

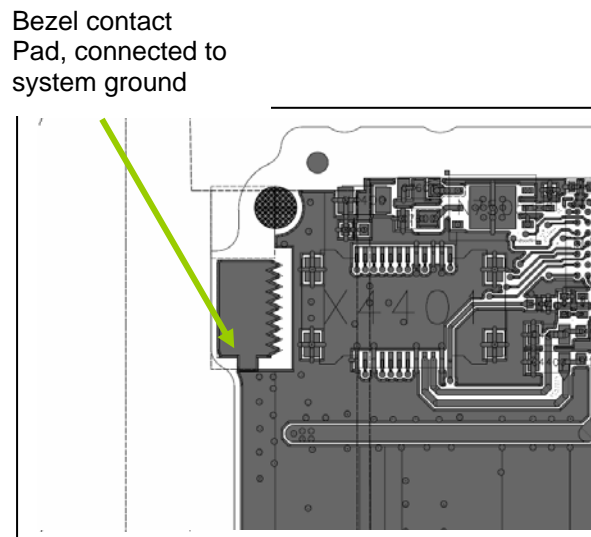


Figure 2 – Grounded Pad

Vibra Pad Change

The clearance round the vibra pads has been increased as shown in Figures 3 and 4 below

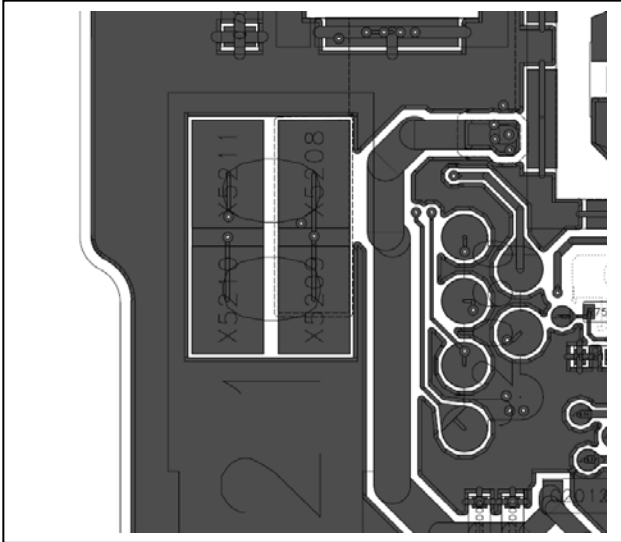


Figure 3: Old vibra pad layout

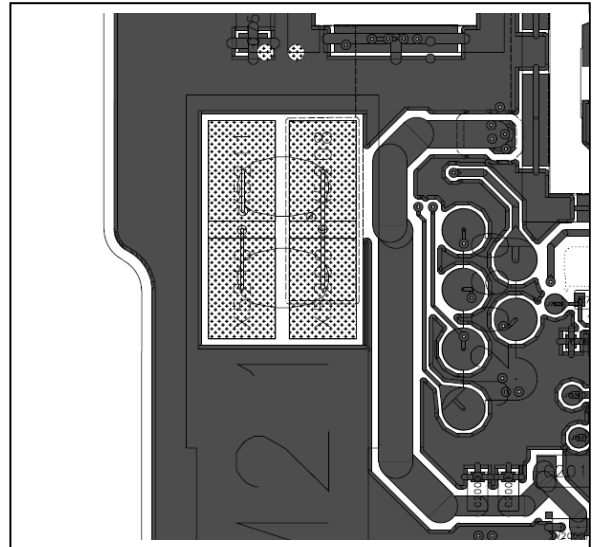


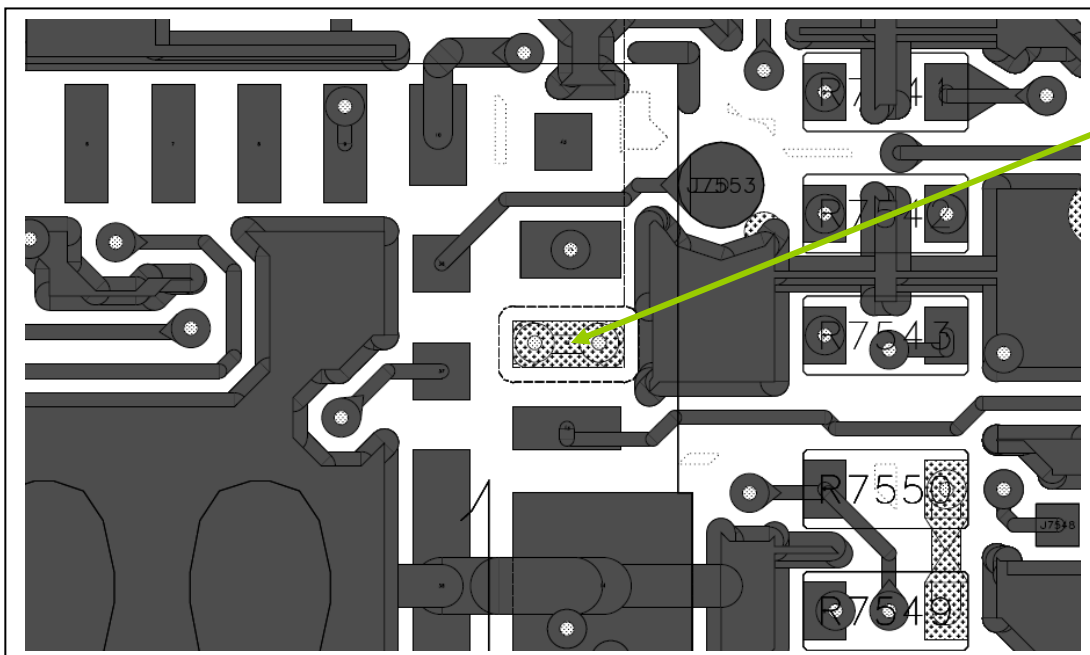
Figure 4: New vibra pad layout

The two vibra decoupling capacitors have decreased in value to compensate for the change in capacitance between the vibra pads and ground.

FM Radio

Copper change to improve the grounding and shielding under the FM Antenna.

- 1) Remove Vias from Pin 12 of D5001 and track and under the device.
- 2) Additional GND vias from layer 8 to layer 6 to improve ground stitching.
- 3) Increase the GND areafill on layer 7 under pin 13 to improve shielding from signal tracks on layer 6.



D5001 Pin 12

Figure 9 - Layer before changes

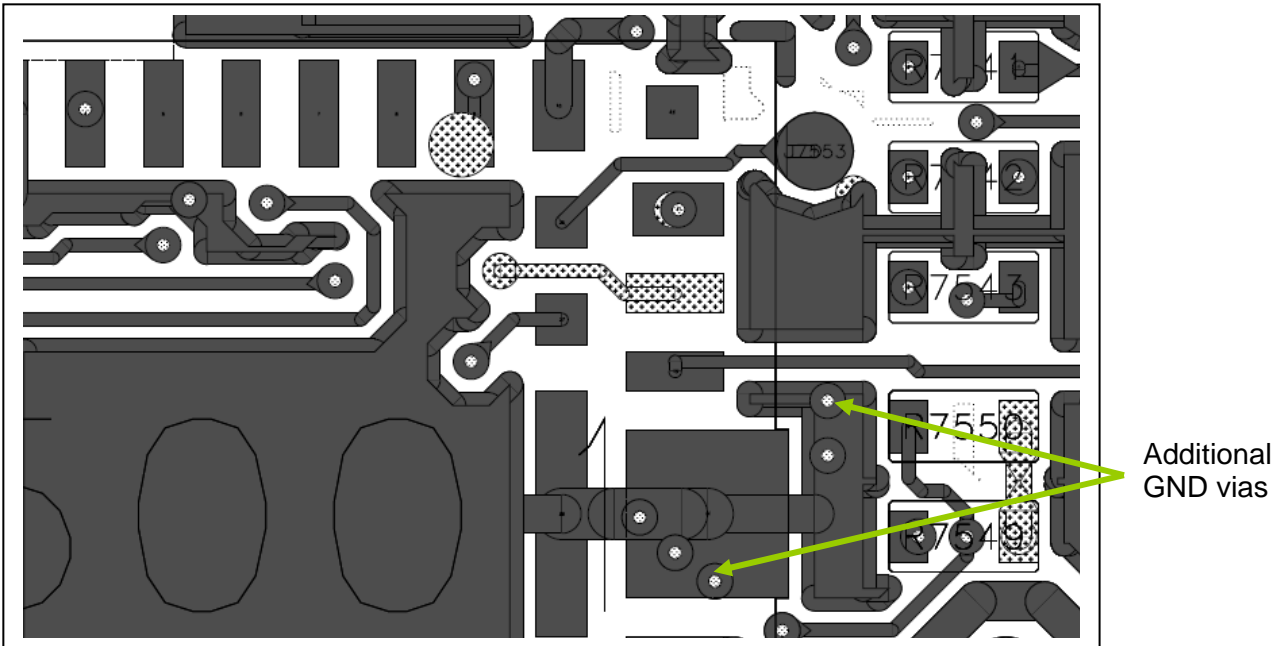


Figure 10 - Layer 8 after changes

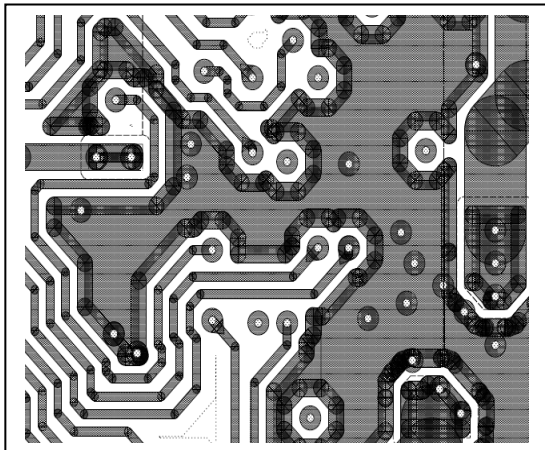


Fig. 11 - Layer 7 Groundfill before changes

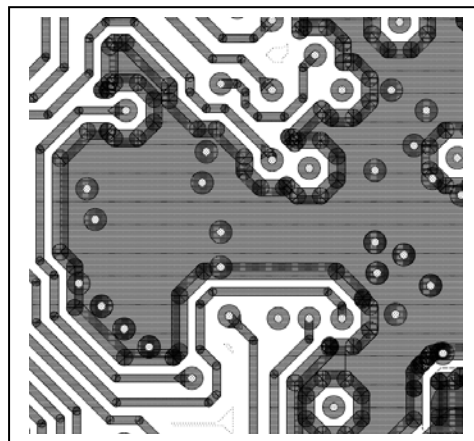


Fig. 12 - Layer 7 groundfill after changes