

06/05/2024

Subject: Class II permissive change Request
FCC ID: ATUMM300

Granted on:06/15/2023

To whom may concern:

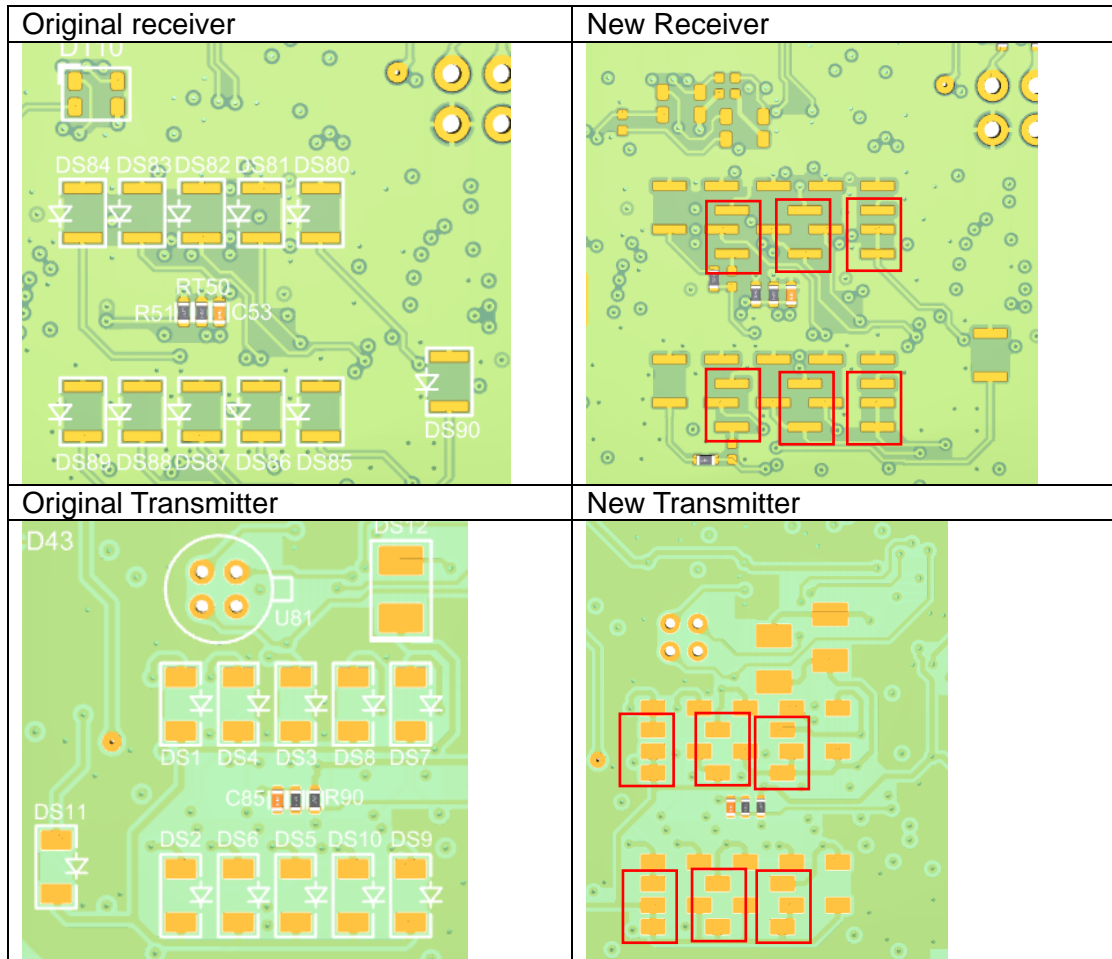
Pursuant to CRF Section 2.1043, SCR (Engineers) Ltd. requests a Class II permissive change to update the filing. All of the changes are not effect to the RF performance, function and power.

Change list:

1. Added IR LED additional footprints Placement.
2. Removed two unused GPIOs traces between BLE module and MCU.
3. Remove SD card footprint option and discreate components that support it.
4. Update RGB Led blue line resistors values to increases the illumination.
5. Update fourteen resistors value from 2.49ohm to 2.2ohm.
6. Add serial model number.

Need to clarify as below:

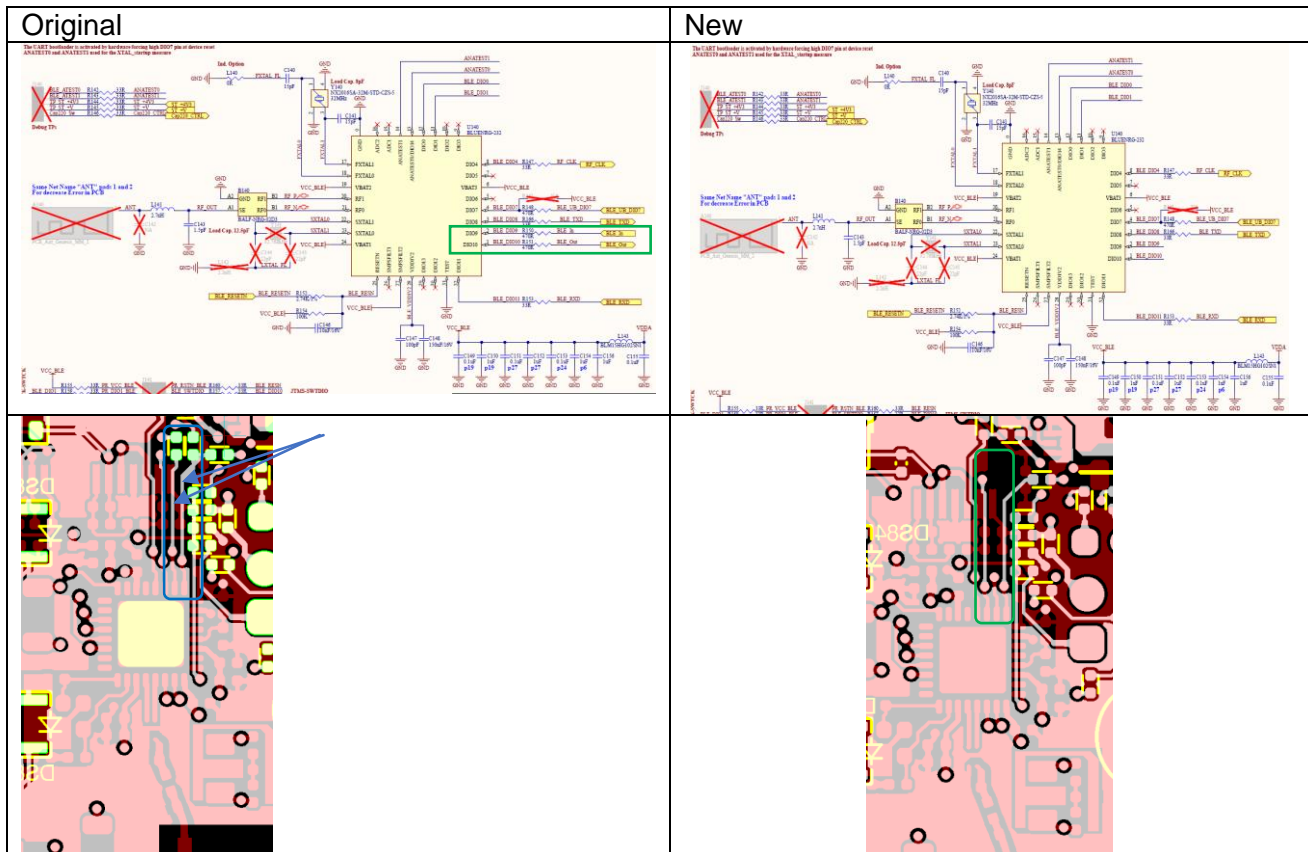
1. Add six IR LED footprints Placements in the product Transmitter and Receiver PCBAs. BLE chip and antenna are on the top side of the PCB, IR LEDs change done on the bottom of the PCB and does not affect the controlled impedances and antenna design.
The PCB stack up was not change.



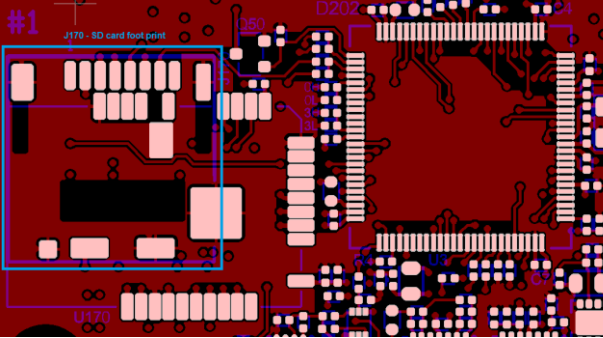
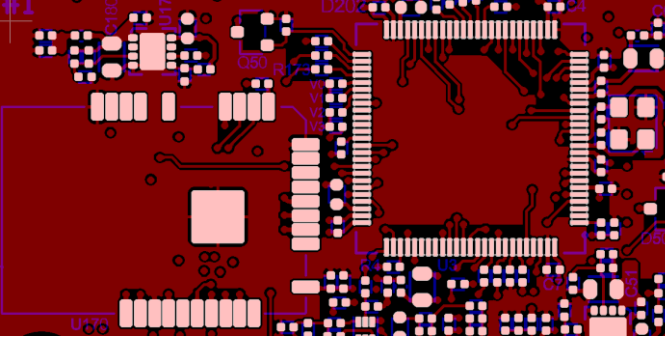
2. We removed two unused GPIOs between BLE chip and MCU, those GPIO lines did not implemented in the software.

This change is insignificant due to the following points:

- The GPIO lines are discreet.
- The GPIO lines are on the other side of the BLE Chip.
- The GPIO lines path on the bottom layer when the BLE chip on top layer.
- The GPIO lines didn't effect on the copper balance of the antenna.



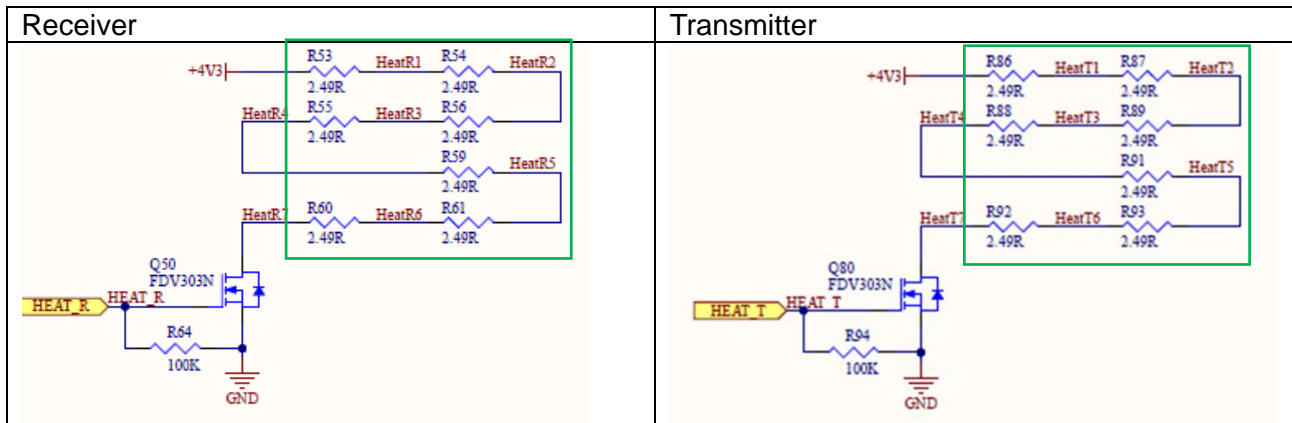
3. SD card socket layout been removed, Part of the free location been used to add optional DC to DC circuit layout (for future use).

Original	New
 The image shows the original PCB layout. A blue rectangular box highlights the area where the SD card socket footprint (J170) was located. Other components like U170, U8, and various resistors and capacitors are visible. The board is populated with various electronic components and has a red solder mask.	 The image shows the new PCB layout. The SD card socket footprint (J170) has been removed, and the area has been repurposed for a DC to DC circuit layout. The new layout includes components like U170, U8, and various resistors and capacitors, along with a new DC to DC circuit layout. The board is populated with various electronic components and has a red solder mask.

4. Update D200 to D204 RGB Led blue line resistors value to increase the blue illumination.

Original	New
<p>D200 LRTBGVSR-U4V3-JW-A6BB-D8-S1U2-7Z +4V3Led 5 4 R R202 432R 1% R R 6 A G C G 1 H G2 R203 620R H G 3 A B C B 3 H B2 R204 320R H B</p> <p>D201 LRTBGVSR-U4V3-JW-A6BB-D8-S1U2-7Z +4V3Led 5 4 R R205 432R 1% R R 6 A G C G 1 H G1 R206 620R H G 3 A B C B 3 H B1 R207 220R H B</p> <p>D202 LRTBGVSR-U4V3-JW-A6BB-D8-S1U2-7Z +4V3Led 5 4 R R208 432R 1% R R 6 A G C G 1 H G2 R209 620R H G 3 A B C B 3 H B2 R210 220R H B</p> <p>D203 LRTBGVSR-U4V3-JW-A6BB-D8-S1U2-7Z +4V3Led 5 4 R R211 432R 1% R R 6 A G C G 1 H G3 R212 620R H G 3 A B C B 3 H B3 R213 220R H B</p> <p>D204 LRTBGVSR-U4V3-JW-A6BB-D8-S1U2-7Z +4V3Led 5 4 R R214 432R 1% R R 6 A G C G 1 H G4 R215 620R H G 3 A B C B 3 H B4 R216 220R H B</p>	<p>The resistor been update to 100ohm</p>

5. The resistor value has updated to 2.2ohm the increases the current from 123mA to 154mA.



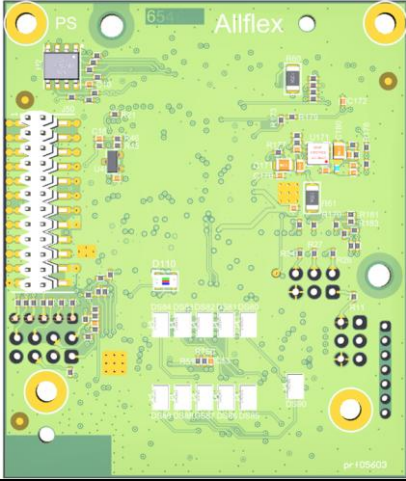
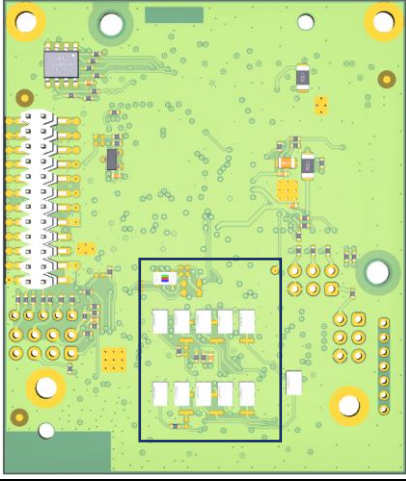
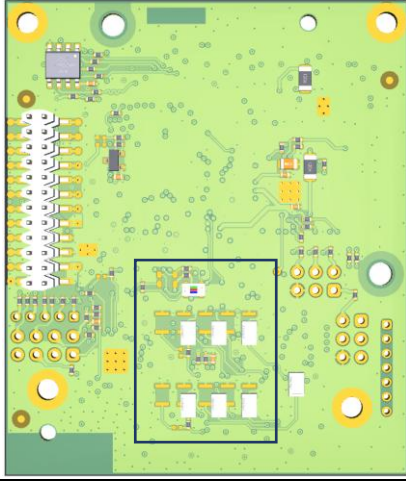
- a. The Delaval milk meter product family includes four models MM100, MM300, MM302 and MM304 with different components population that enable and disable product features, The MM300 is the full featured and the rest models different by the following:
 - i. Single led indication instead of five.
 - ii. Remove RGB led.
 - iii. Remove Thermopile.
 - iv. IR LED placement and number.
- b. RF performances are not affected by the described reduced features.

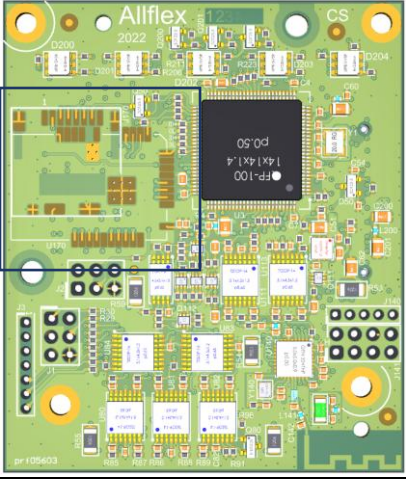
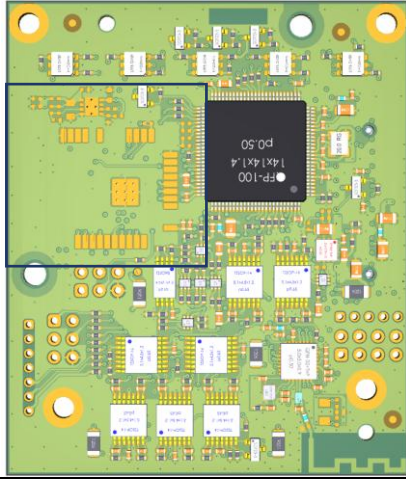
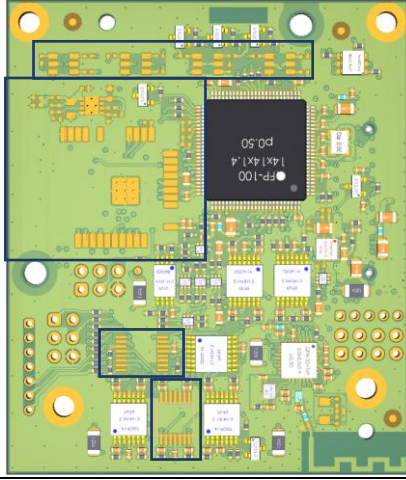
Conclusion:

The described changes in the list above cover under 178919 D01 Permissive Change Policy v06 paragraph III. PRINTED CIRCUIT BOARD (PCB) OR HARDWARE CHANGES subparagraph F.

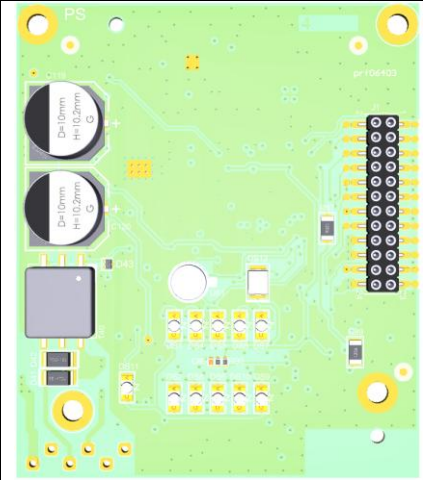
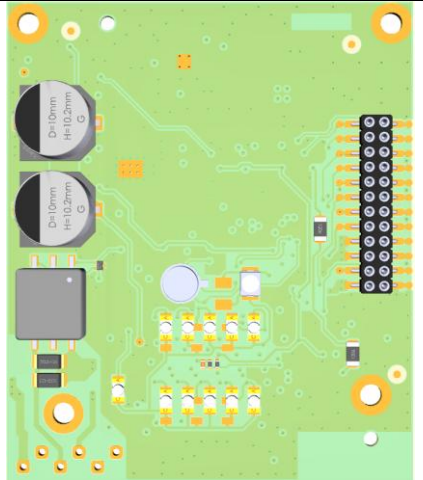
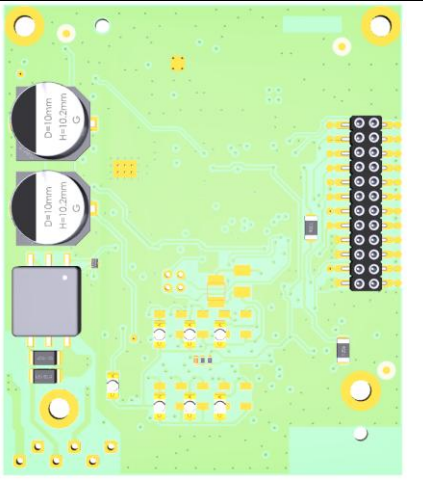
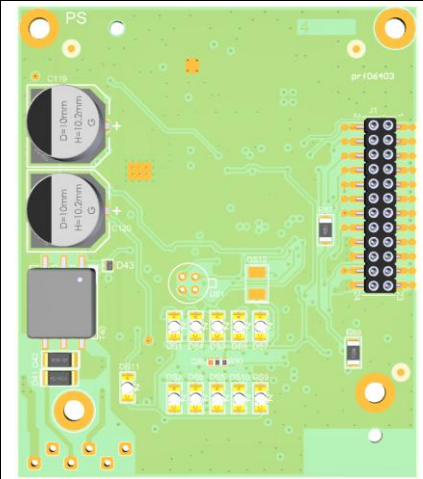
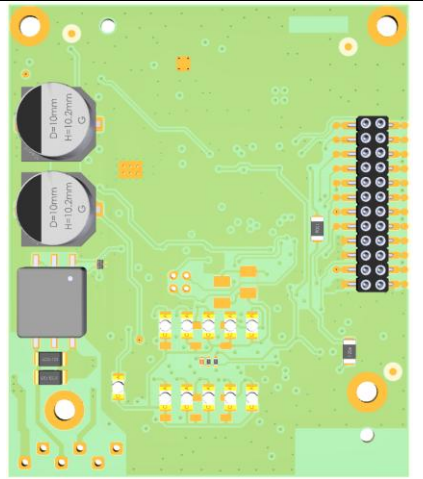
Provide a comparison of old and new photos to Mark out the differences.

Picture

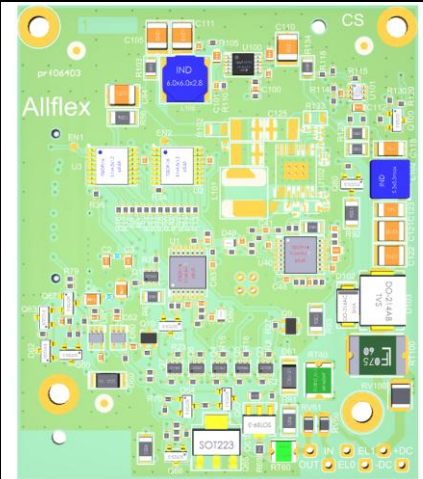
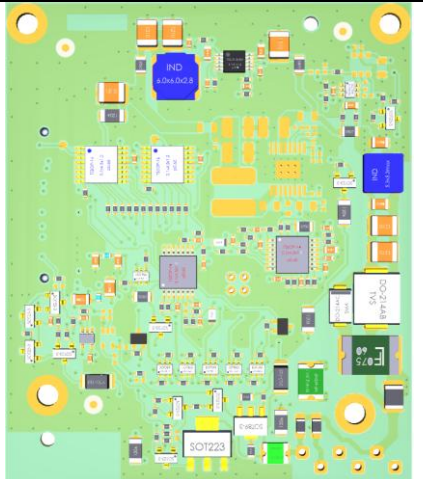
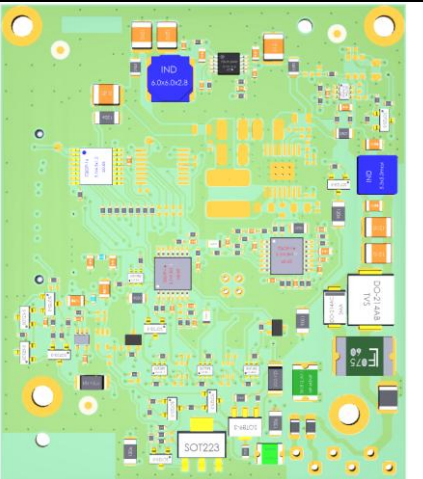
Original:	New:	
Receiver PCBA button		
MM300 and MM100	MM300 and MM100	MM302 and MM304
		

Original:	New:	
Receiver PCBA top		
MM300 and MM100	MM300	MM302,MM304 and MM100
		

Transmitter PCBA button

MM300	MM300	MM302 and MM304
		
MM100	MM100	
		

Original:

Transmitter PCBA Top	New:	
MM300 and MM100	MM300 and MM100	MM302 and MM304
		

Sincerely,

Signature: 

Name: Udi Cohen

Company Name: SCR (Engineers) Ltd.