05/07/2022

Equipment Autorisation Division
Federal Communications Commission
7435 Oakland Mills Road
Columbia, MD 21046

Subject: Class II permissive change Request
FCC ID: 2A2HY-REFLECTORB5 Granted on: 02/23/2022

To whom may concern:
Pursuant to CRF Section 2.1043, Reflect Innovation 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.

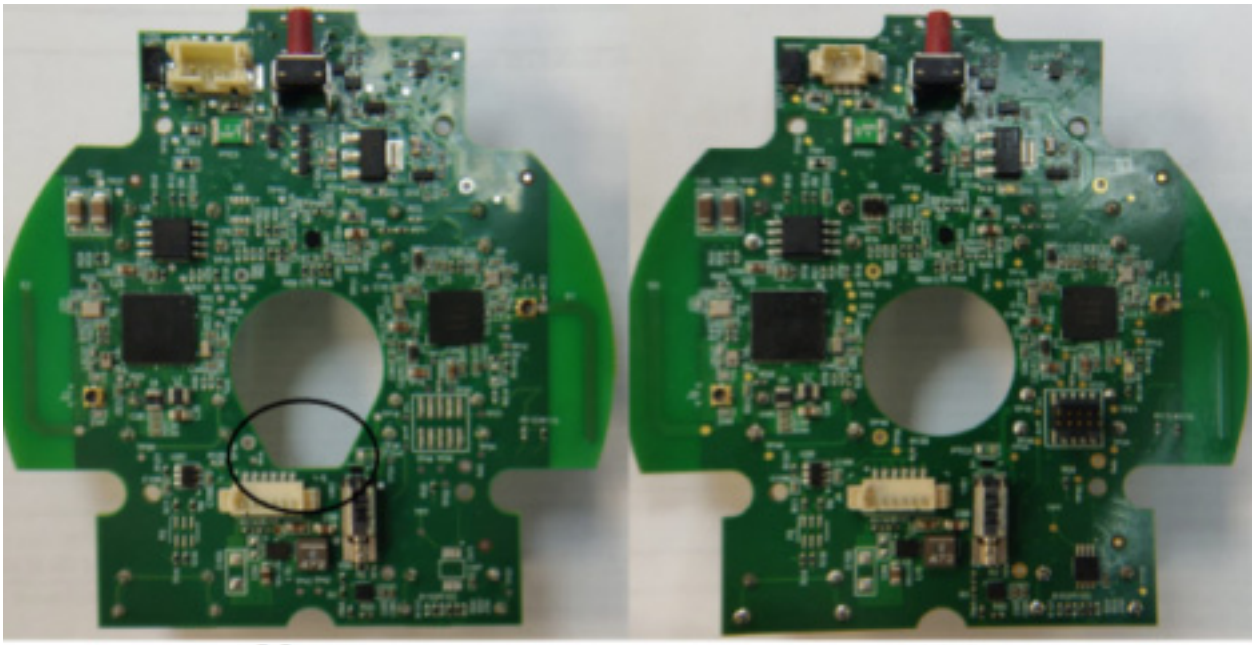
Change list:

1. Spring coating with tin.
2. Poron circle - We added a poron circle to the battery place.
3. Connector cable - we changed the length of the connector cable.
4. Light guide - we changing the texture of the plastic part.
5. eBOM - We removed and updated some components for various reasons:
    i. Save BOM cost for unnecessary components that we used only for development
    ii. Improve current consumption
    iii. Replace unavailable components
6. Battery - We changed one approved battery with another approved battery. Both rely on standard 18650 cell.
7. Main PCB Layout - We did 3 layout changes on the Main PCB:
    i. Changed battery connector to fit the new one
    ii. Made the hole in the middle of the PCB a bit bigger so the new battery’s
8. Protection circuit will fit in it.
    i. Added test points for easier factory testing
9. LEDs PCB Layout - We did 2 layout changes on the LEDs PCB:
    i. Rotated the 6 pin connector wires - The reason is that we wanted to be able to use COTS Molex wire with no need to invert its wires.
    ii. Added test points for easier factory testing.

Main PCB layout

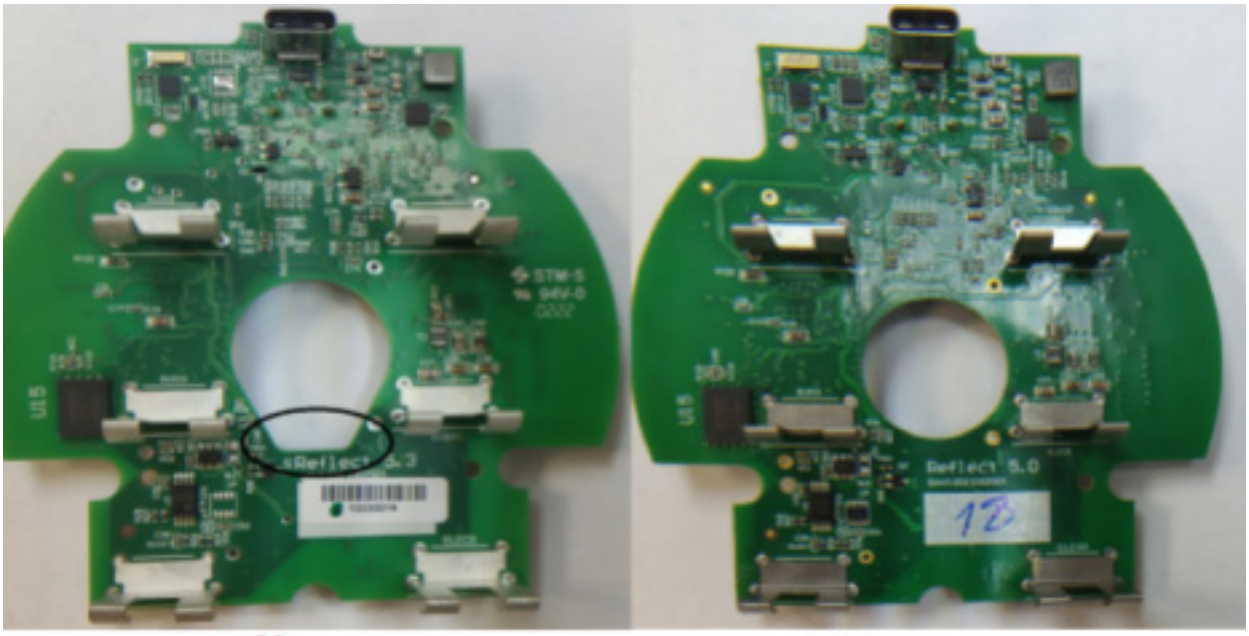
Side A

New **Original**



New Old

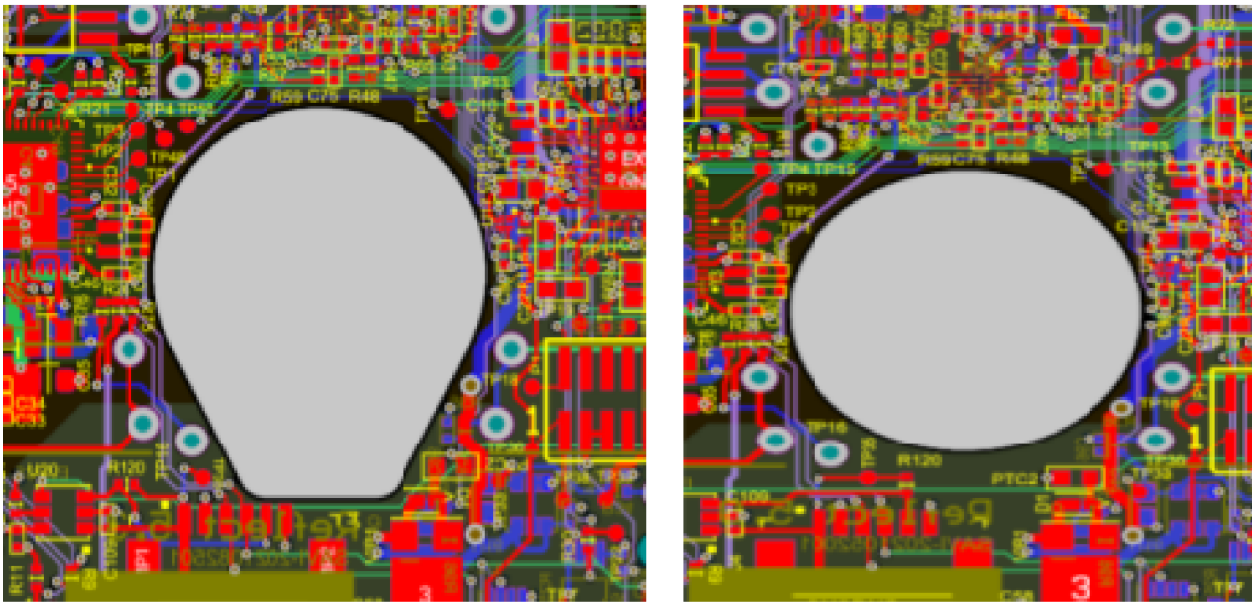
Side B



New Old

Electrical drawing of both sides

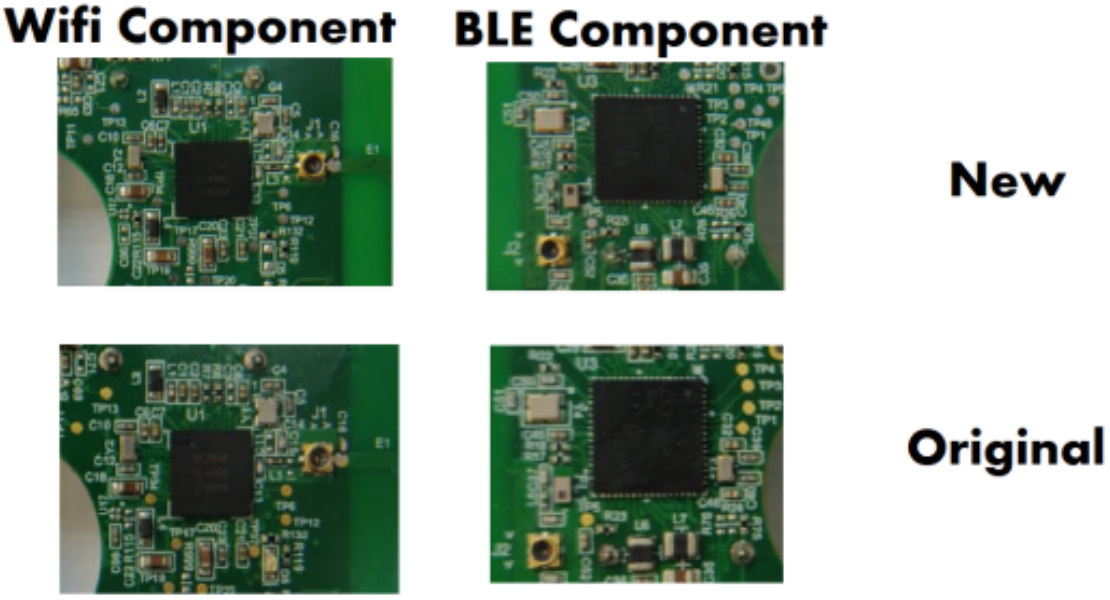
New **Original**



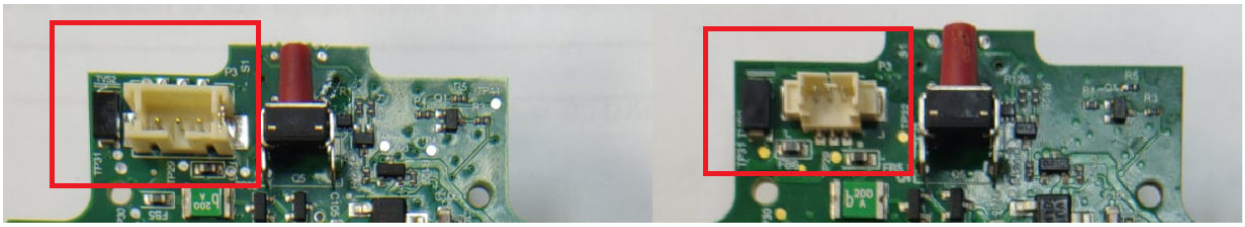
New Original

Wifi component & BLE component

The RF Components are the same in both PCBs as seen below.



Changed battery connector to fit the new battery



New Original

The new connector p/n: B3B-PH-SM4-TB(LF)(SN). Connector header surface mount 3 position 0.049" (1.25mm)

The old connector p/n: 53398-0367. Connector header surface mount 3 position 0.049" (1.25mm)

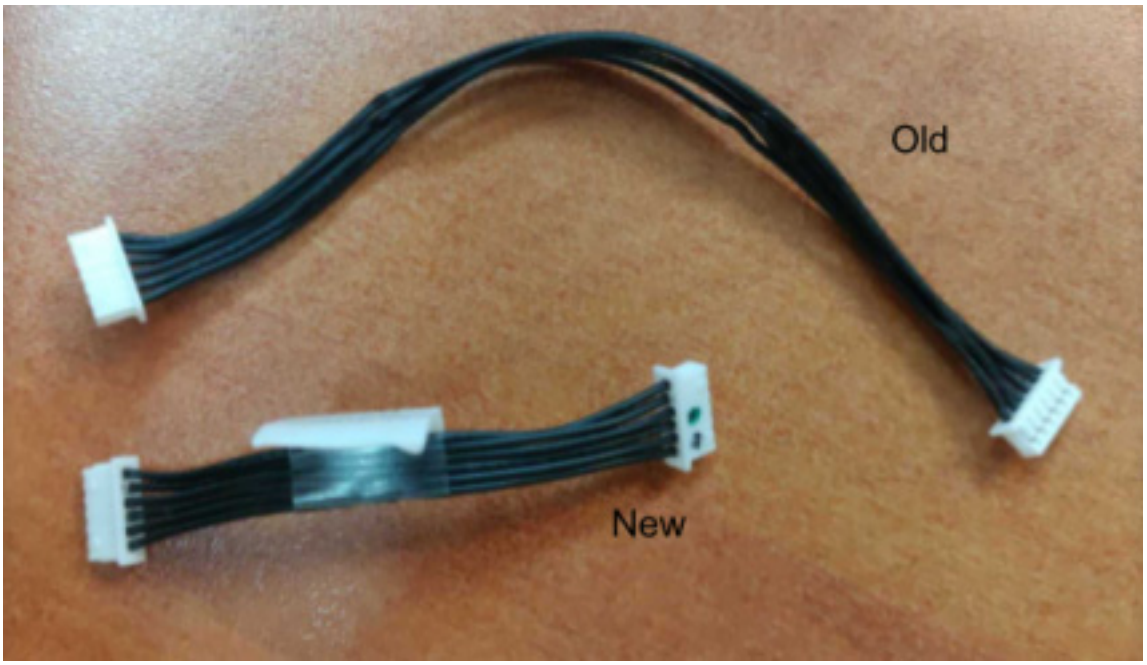
Battery

We changed one approved battery with another approved battery

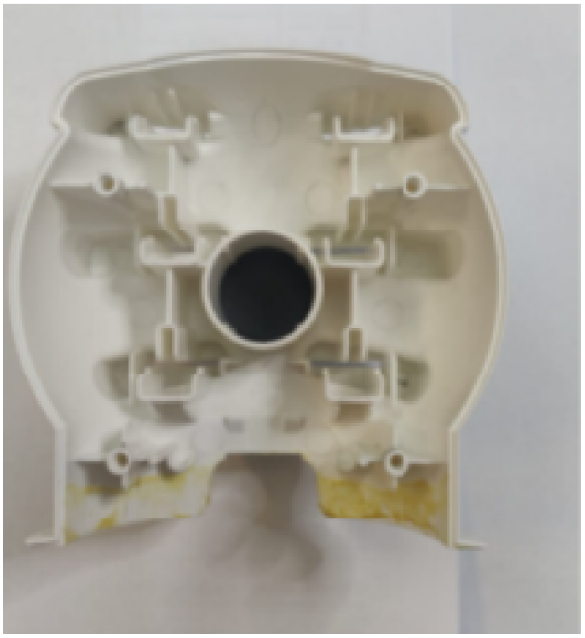
New

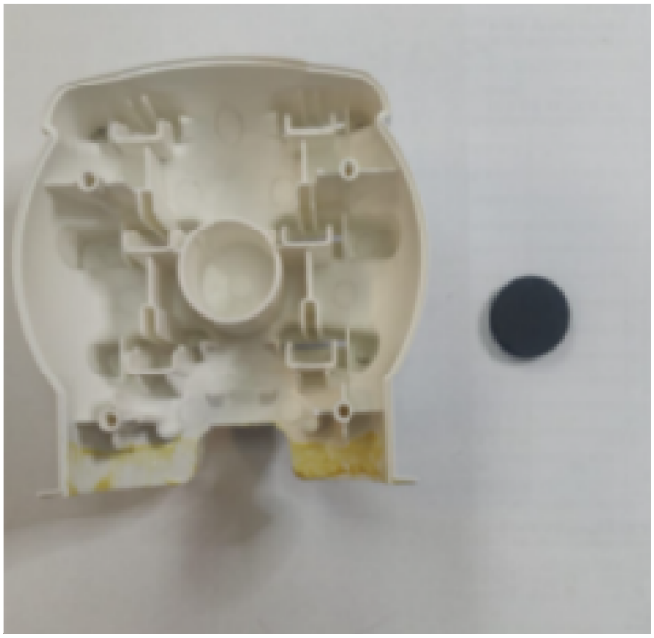
Original

Connector cable
PICOBLADE 6 CIRCUIT 50MM, Molex
p/n: 0151340600

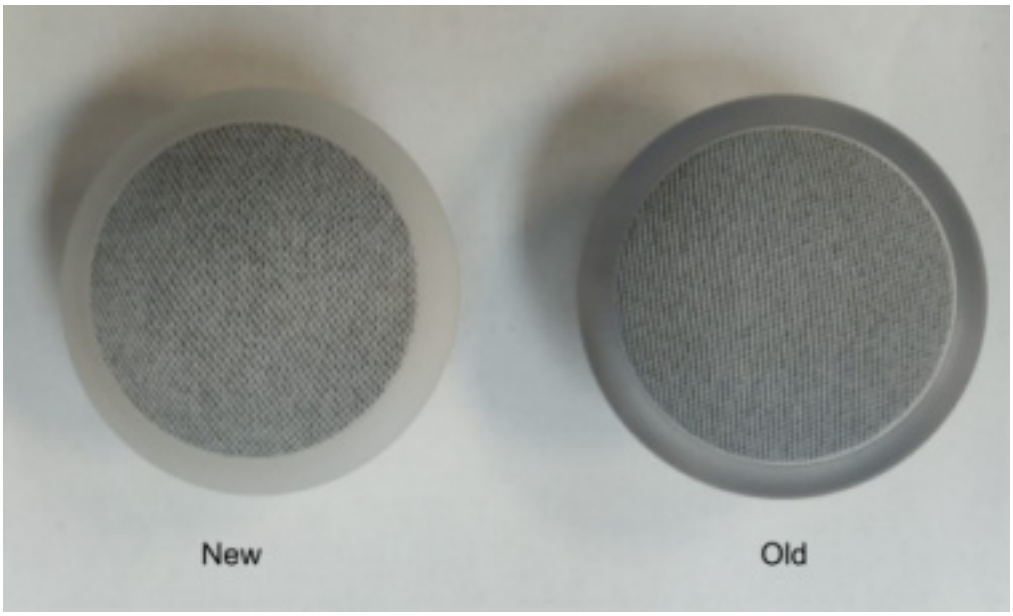


Poron circle
We added a poron circle to the battery place like the photo below**.**
We added the Drawing file of the circle .
The reason we did it is to make sure that the battery is held softly in its position. It’s a standard solution for battery positioning.





Light guide: We changed the texture of a plastic part



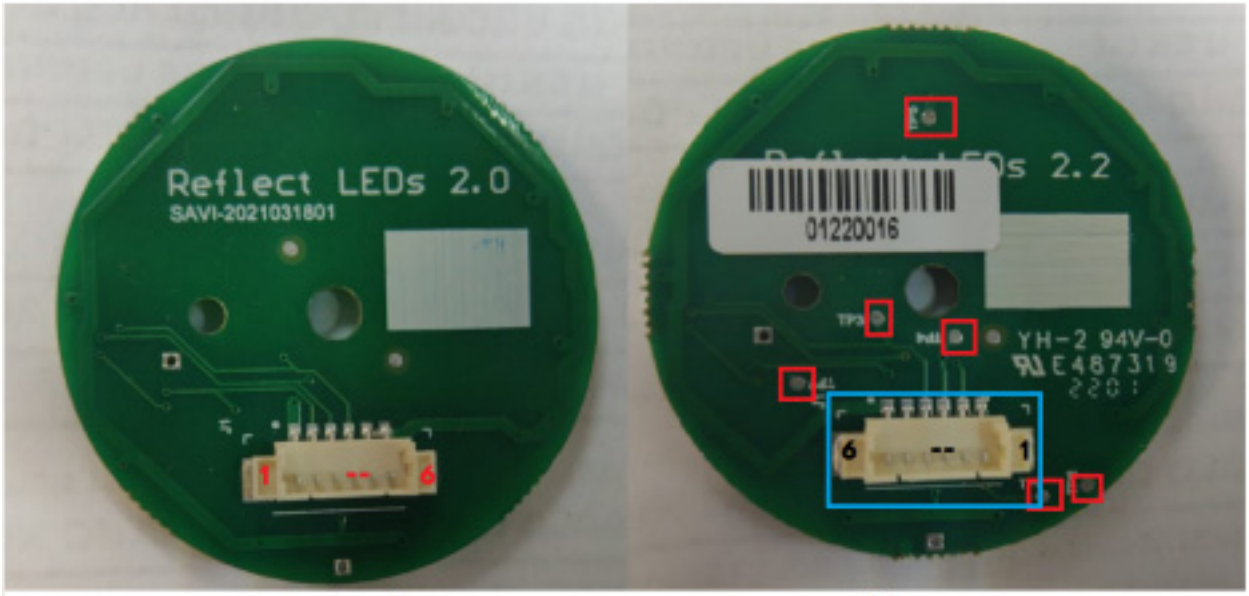
We added the Manufacturer's report of the material - Reference 5
The Manufacturer's report has 2 options : 20% and 60% of RAL 9003. We are using the 20% RAL 9003. →

LEDs PCB layout: We did 2 layout changes on the LEDs PCB.
We did 2 layout changes on the LEDs PCB:

i. Rotated the 6 pin connector wires - The reason is that we wanted to be able to use Commercial off-the-shelf Molex wire, and needed to rotate the connector to do so.

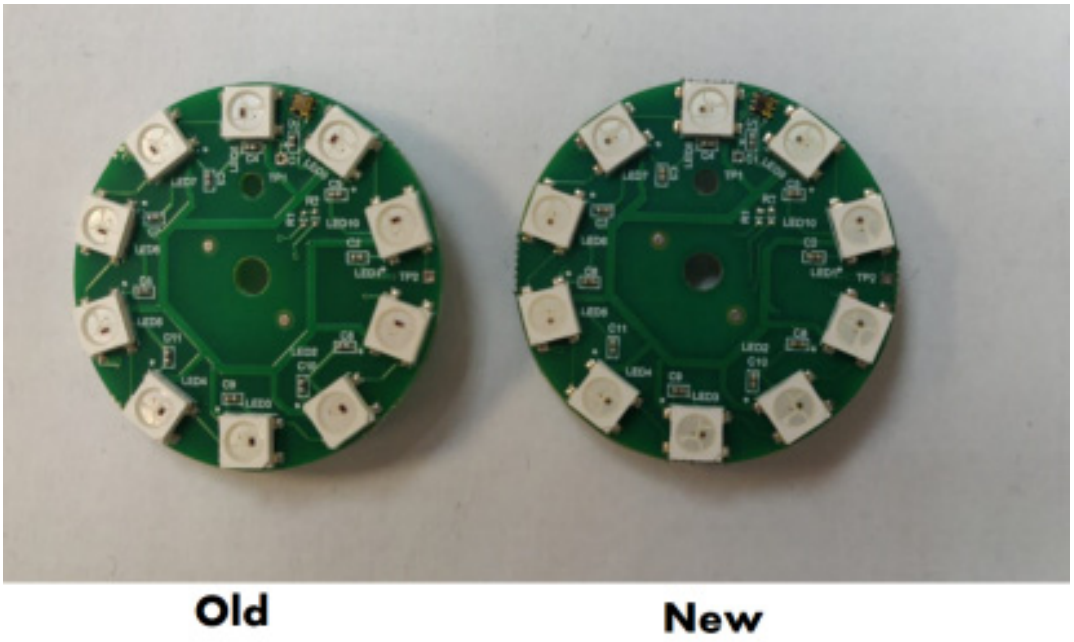
ii. Added test points for easier factory testing

Side A



i. In red are the test points we added.

Side B



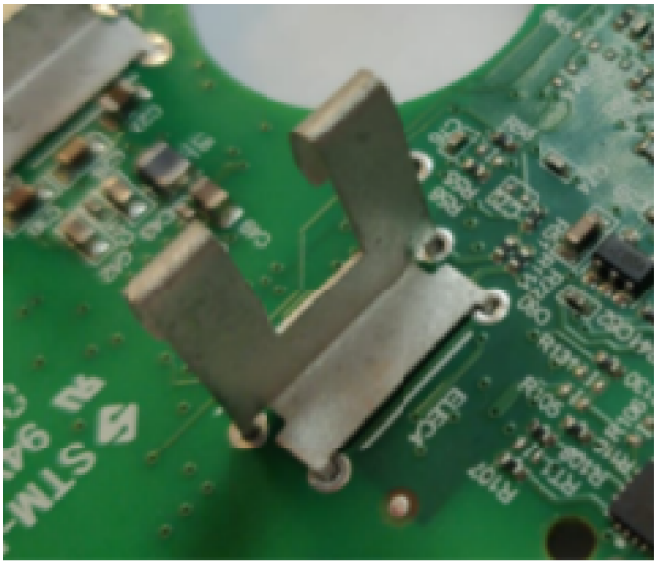
Spring coating with tin:

The circuit have 6 soldered springs that touches the electrodes that goes to the outer part of the device.

The material that we used for both the old and new springs is the same Stainless steel (also called SS316).

On the final product we coated the springs so they will be soldered more easily to the board (Stainless steel rejected the tin with the old springs).

Note that these are internal parts that the user doesn't touch or interact with.



New - SS316 coating with tin

Old - SS316 without tin

Sincerely,

Signature:

Name: Noga Sapir

Company Name: Reflect Innovation Ltd.