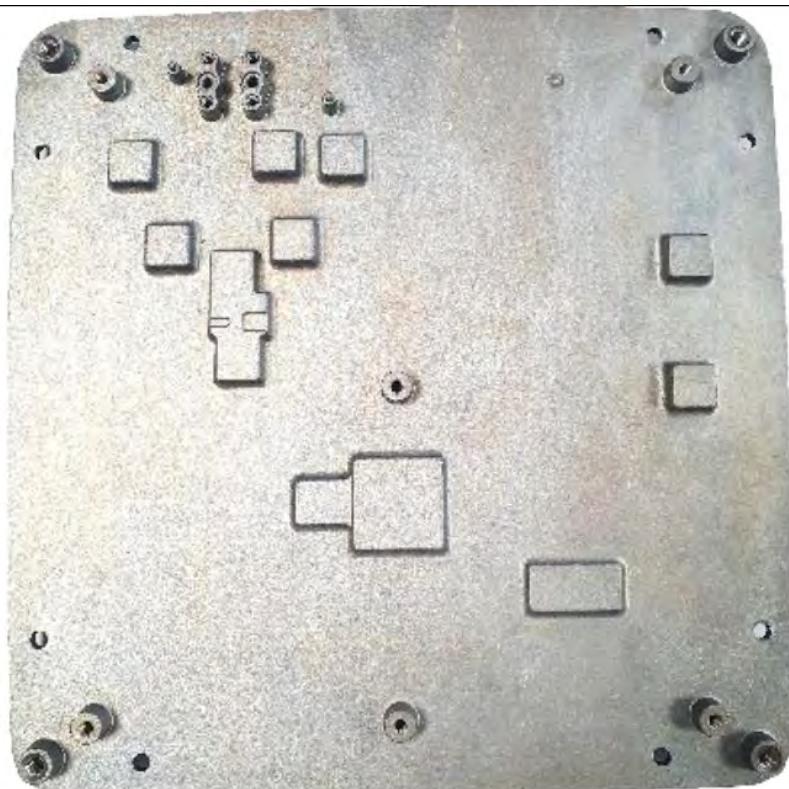


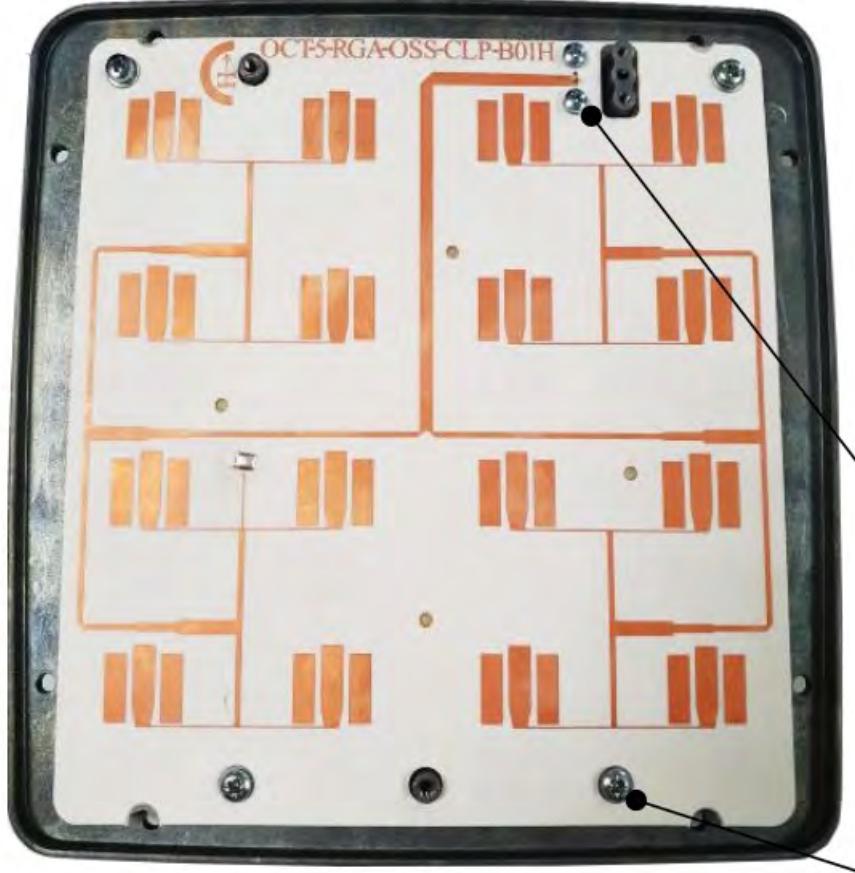
Inside the enclosure, the PCB is attached to the chassis



Bare chassis look like this:



Antenna PCBs are attached on the opposite side of the chassis:

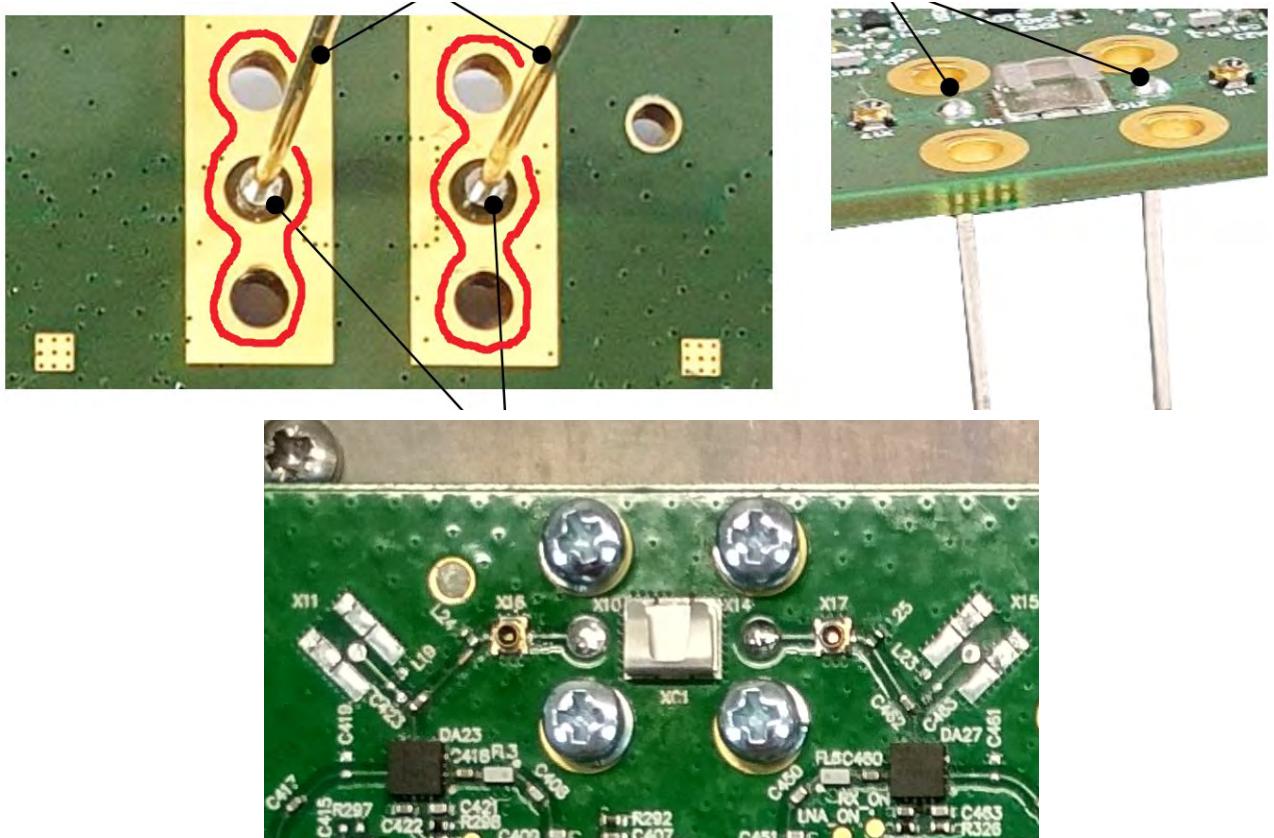


Electrical connection between main PCB and antenna PCBs is arranged by conducting central pins that pass through the chassis not touching its walls. Here's the closeup of the chassis region:

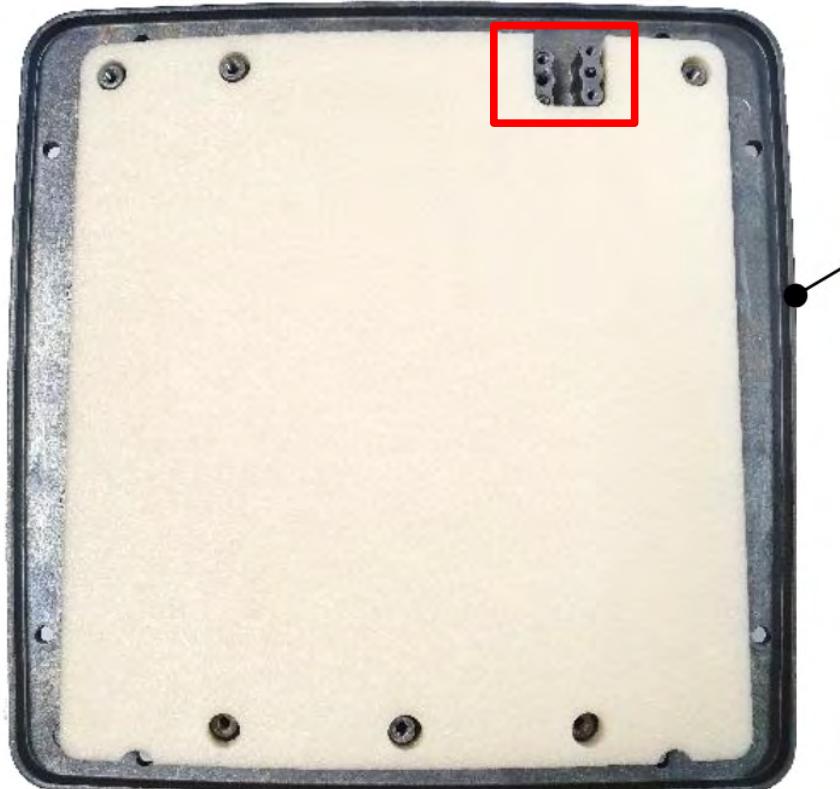


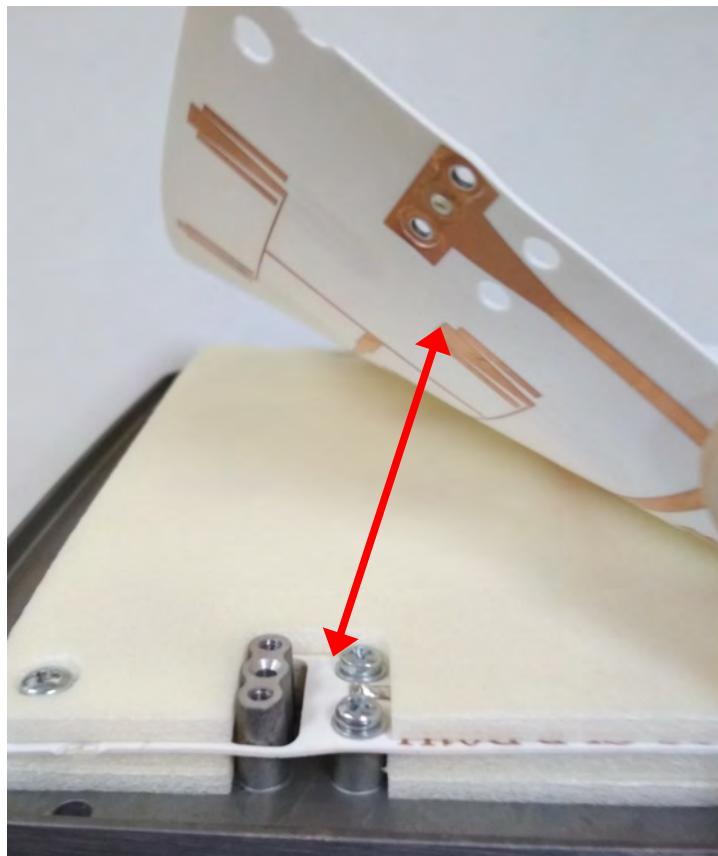
These two pedestals form coaxial connection. In centers of both there are pass-through, air-filled holes (green circles), their walls act like grounding conductors of coaxial lines.

Two conductive pins are soldered to signal lines of the transceiver part on the main PCB, these pins pass through the very middle of central holes in the pedestals, not touching the walls. These pins act like central (aka signal) conductors of coaxial lines. When PCB is being attached to the chassis, it is pressed against pedestals (red lines show where) and then fastened with screws. Pedestals themselves are conductive (chassis is a monolith detail, made of EN47100 alloy) and contact with copper ground layer of the main PCB, thus forming continuous “ground domain”.



On the opposite antenna side the connection is similar. There are also two pedestals, pedestals contact with grounded conductors of the antenna (adding antenna to the common “ground domain”)





Central pins of coaxial lines are here soldered to antenna conductors



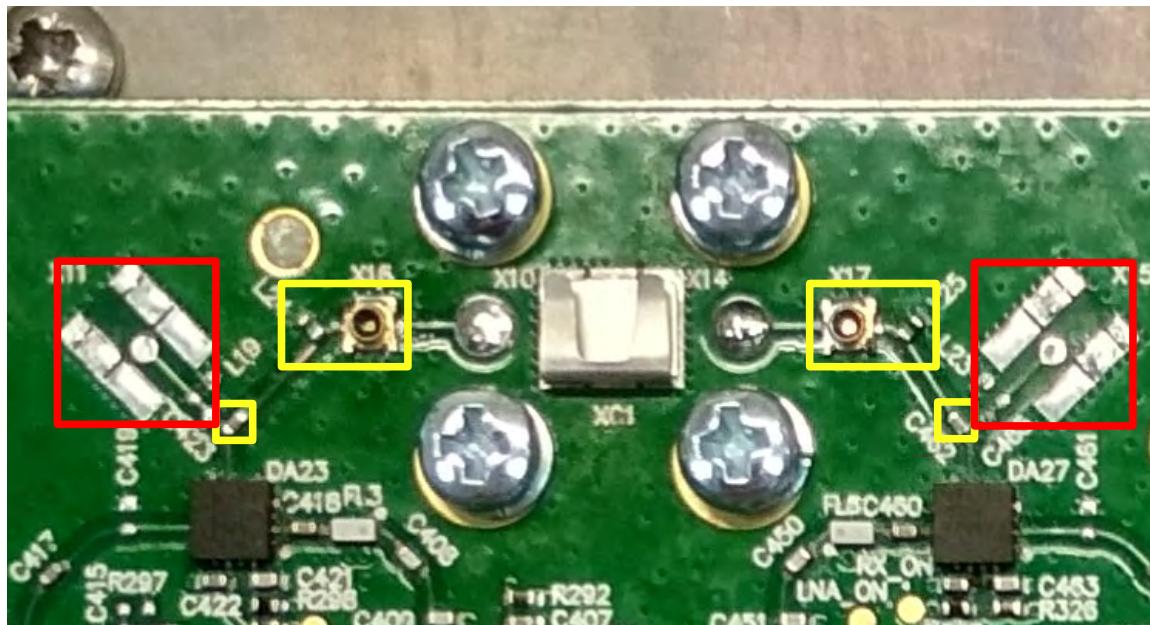
Because pins are soldered at both ends, the whole connection is monolithic and permanent, antenna can't be detached without desoldering.

In older model, Q5-23/04500, connection of the main PCB to the antenna is done by two coaxial cables, attached to onboard u.fl connectors

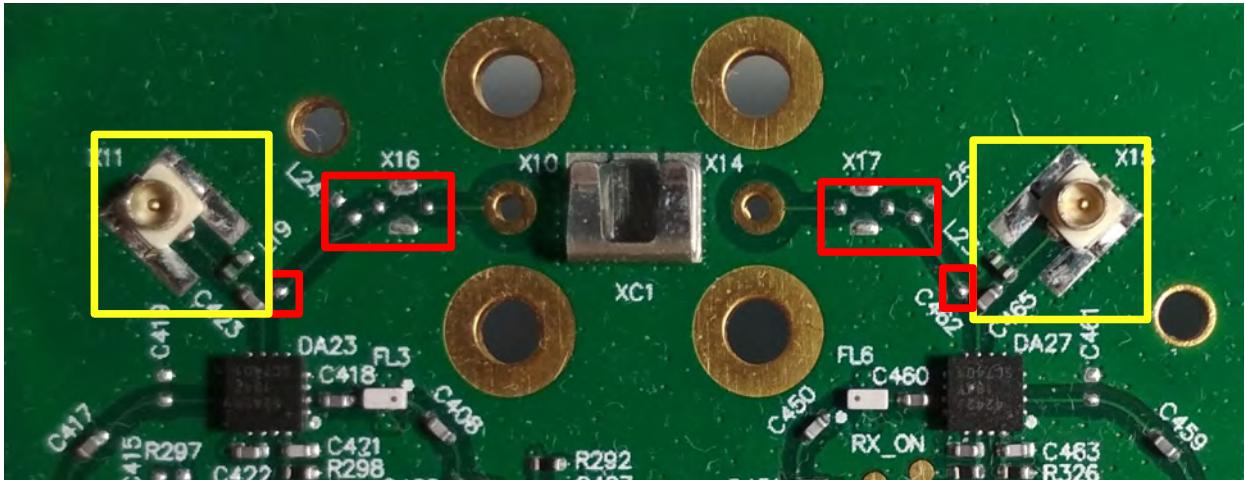


Difference in the way antennas attached results in slight difference in the PCB

In Q5-18 parts that are in yellow frames are soldered, parts in red frames are not placed



In Q5-23 parts that are in yellow frames are soldered, parts in red frames are not placed



In both cases C423,462 and L24,23 are the same parts, they are just soldered differently depending on what particular Quanta 5 model is being assembled.

Here's another closeup of Q5-23, without colored frames, to give more impression on optionally soldered parts

