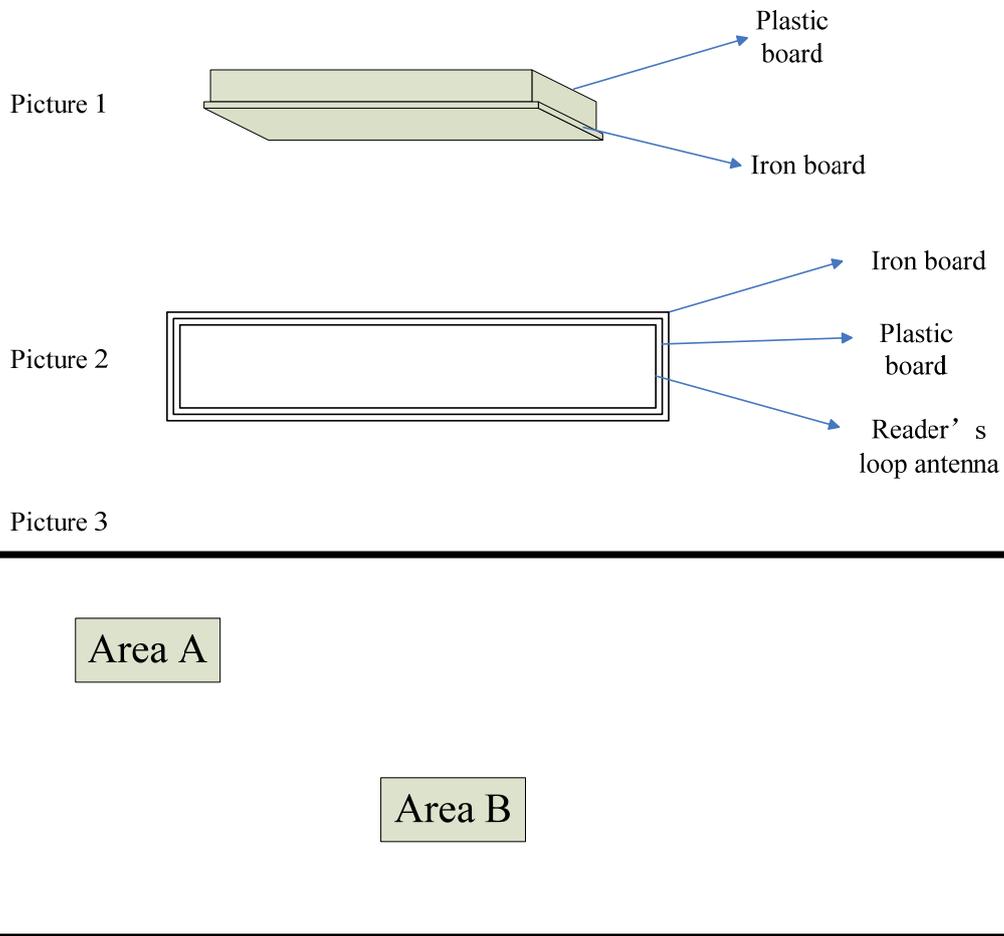


## The Problem of 13.56M Tag antenna



Picture1 & picture2 is the frame of reader's antenna, the antenna is build in the plastic board and on the iron board, next picture is the photograph of my real reader's antenna.



You can see the loop antenna is so big, now I begin my first test.

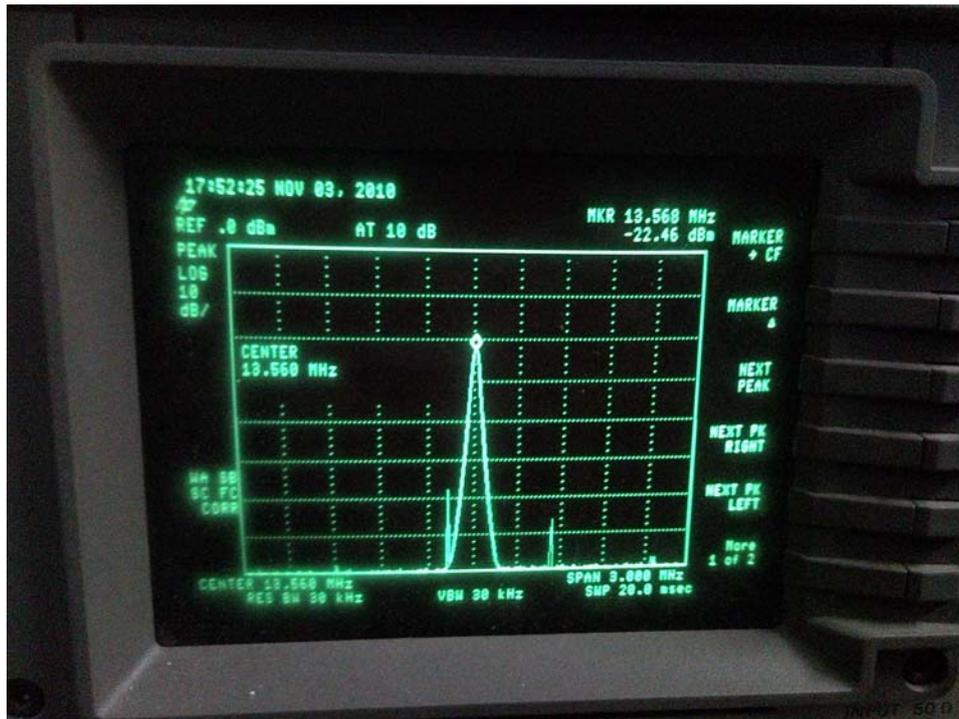
First, I place the RFID tag in area A ( picture 3), then measure the inductive power at the RFID IC is -22.60dbm, at this place RFID reader can't communicate with the tag.





Now , I move the tag from area A to area B, and measure again, the inductive power is -22.46 dbm, but in this area the RFID reader can read or write the tag well.

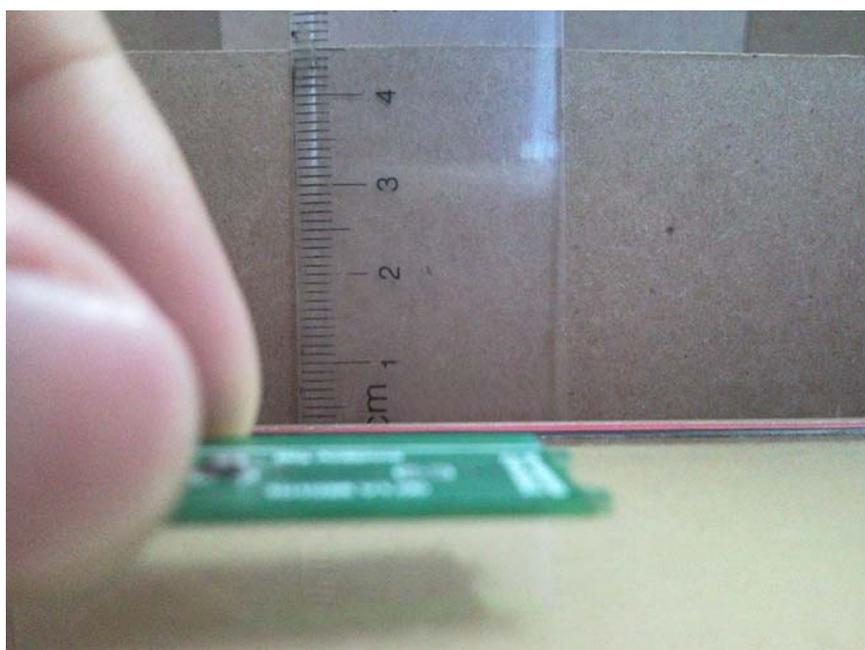


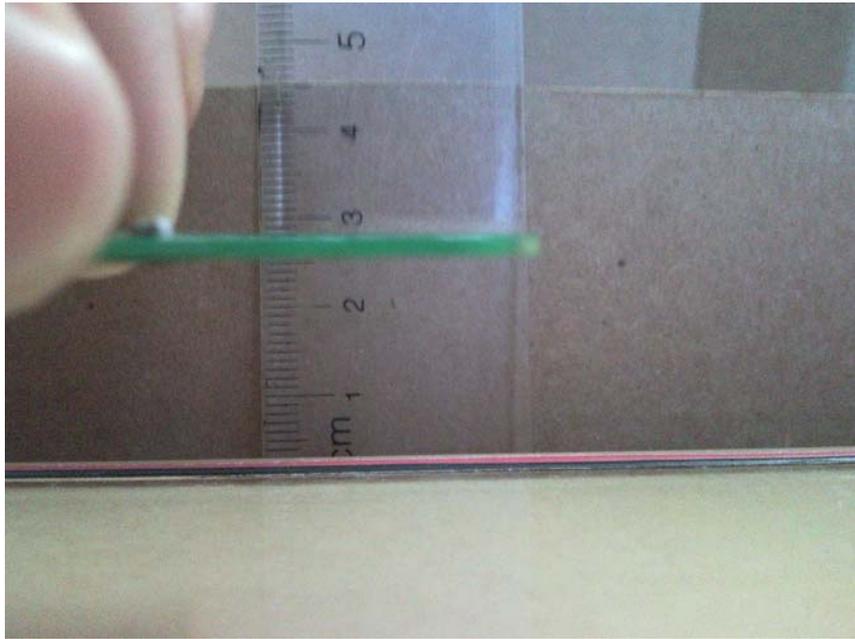


So can somebody tell me why is it? I means in two area the power is same, but why one place can communicate well, another one is failed?

Now the second test is beginning.

See the next pictures





First I place the tag above the plastic board about 5mm, the reader can't communicate with the tag, then I move it higher, they can communicate now. I measure the power at these point, the second higher point is stronger than the lower point. In my opinion, it should be stronger at the lower point, because like the next picture, the power at the center of the circle is most strong. So can somebody explain this phenomenon.

