

Motorized Deadbolt Bluetooth Antenna Location (Red)

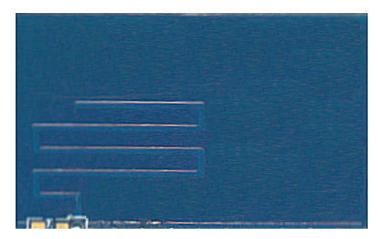


4 Impedance matching

Meander-like PCB antenna can be tuned to the required 50 Ω impedance by matching the impedance circuitry with the π topology. In Figure 2, the impedance matching area is marked with a dashed line. Under nominal conditions, this antenna exhibits and impedance very close to the required nominal impedance (50 Ω).

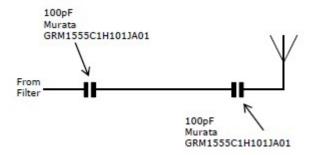
To check the performance of this design, a sample antenna was manufactured (according to the specifications covered by this document). The figure below shows this antenna.





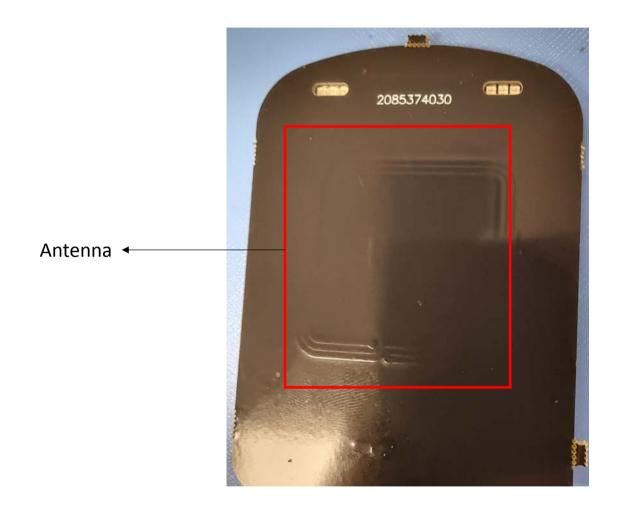
Assuming that the manufactured sample exhibits the expected performance (no impedance matching necessary), the impedance matching circuitry is bypassed by two 100 pF capacitors connected in series, as shown in the figure below.

Figure 5. Bypassing impedance matching circuitry - Direct RF connection



All electrical parameters of the meander-like antenna have been measured at connection to the band-pass filter (BPF) with the frequency span covering frequencies from 2.4 GHz to 2.5 GHz.

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13.560 MHz Antenna, Motorized Deadbolt.

