

## ASSA Bluetooth antenna

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## **ASSA schematic and PCB layout**







## Setup

The module was soldered to a PCB of the same size as the main PCB specified by ASSA. Having the Module on the PCB results in a more realistic scenario. The connector for the external antenna (J23 MM8130) was desoldered and a 50ohm semirigid cable was connected just before the antenna matching component.





With only one matching component available, the best solution was to use a 2nH inductor at position C12. This resulted in a return loss below -9.7dB for the frequency span 2400-2480MHz and a minimum efficiency of -2.3dB which should be considered good. Radiation pattern is that of a typical dipole. The measurements can be seen on the coming slides.









