



REGULATORY TESTING FROM START TO CERTIFICATE

Intro

Antenna gain documentation required for all FCC Part 15 devices. Must provide either an antenna datasheet/ specification or a test report with gain measurements and plots. This Information cannot be held confidential.

Additionally, proprietary information of the design itself can remain confidential in either the 'operational description' or 'schematic'.

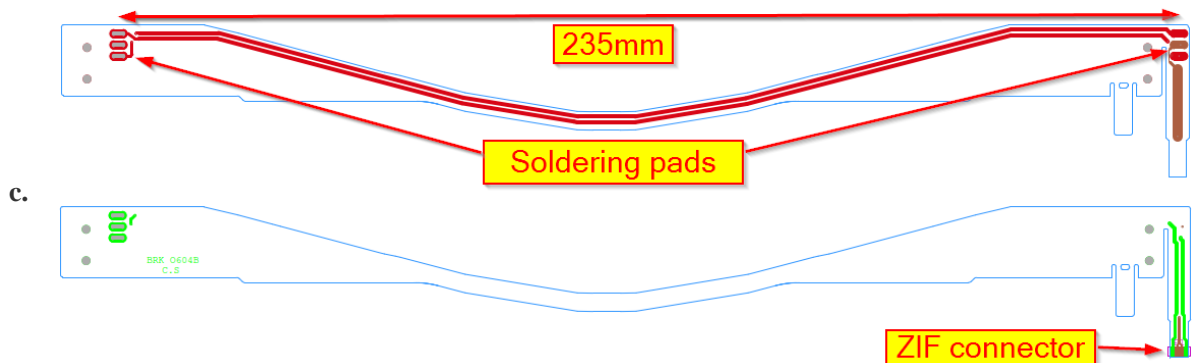
Example of antenna specification:

1. **Company:** OTI
2. **Product name:** MRFN900
3. **RF module/chip:** RC632
4. **Antenna description**

Antenna type	Flex PCB
Antenna manufacturer	
Antenna datasheet	
Frequency range	13.56MHz+-7KHz
Modulation	ASK
Antenna gain max (peak)	0dBi
Cable loss	NA
VSWR	NA
Connector type	ZIF connector

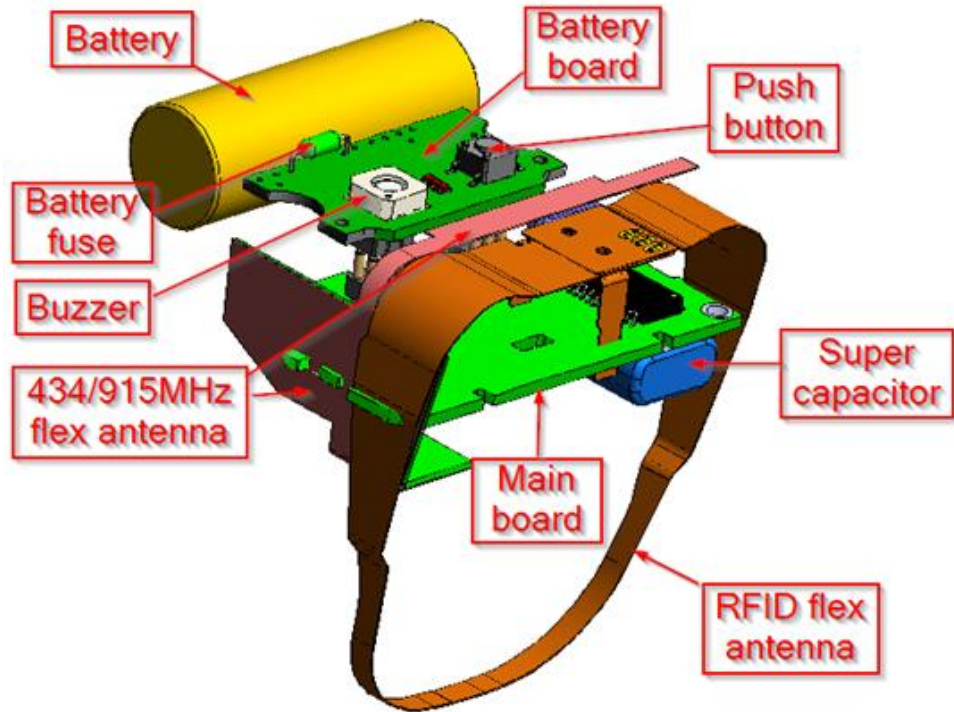
5. Antenna layout:

- a. The antenna is constructed of flex PCB which is folded and soldered to create a loop antenna of two turns.
- b. The connection to the PCB is via ZIF connector



d. Antenna environments:

- i. The picture below shows the NFC antenna environments.
- ii. The RC632 NFC transceiver IC is located on the main board.



iii.

6. Antenna parameters:

- a. The NFC antenna serves near field inductive coupling with RFID tags.
- b. Its dimensions are very small compared to the 13.56MHz wave length.
- c. Hence its far field radiation parameters are extremely poor and also not relevant to its intended operation.
- d. This is the reason for the NA (Not Applicable) entries in above table.