



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'.



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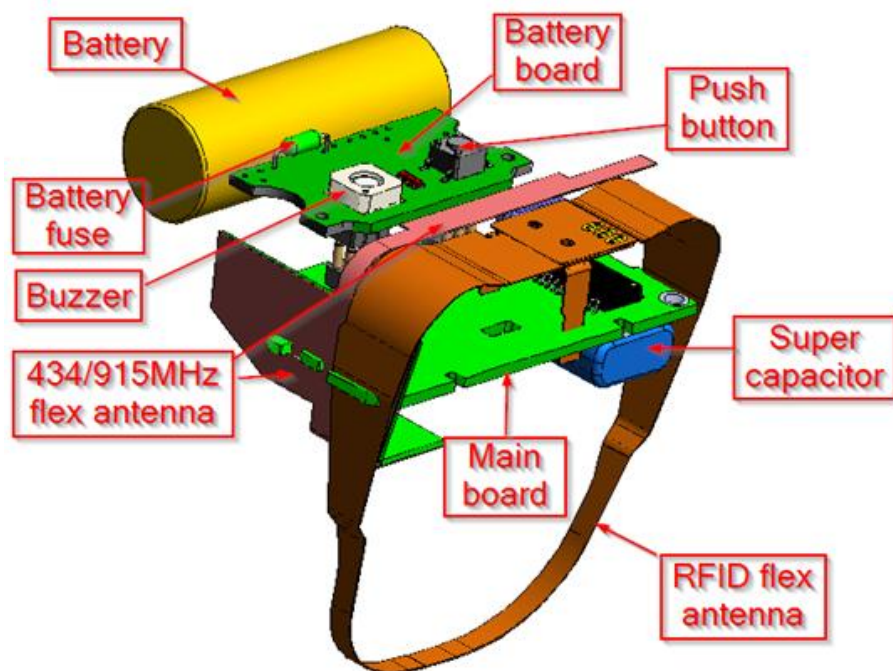
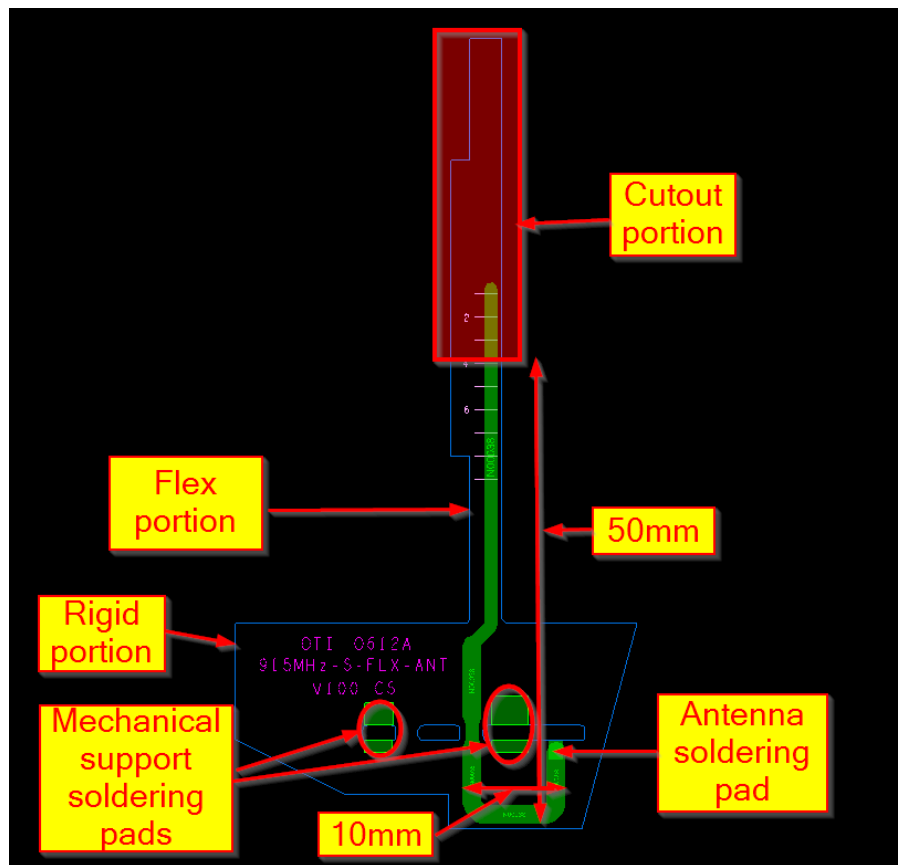
Example of antenna specification:

1. Company: OTI
2. Product name: MRFN900
3. RF module/chip: CC1020
4. Antenna description

Antenna type	Flex/rigid PCB
Antenna manufacturer	
Antenna datasheet	
Frequency range	915MHz +-100KHz
Modulation	FSK
Antenna gain max (peak)	0dBi
Cable loss	NA
VSWR	~2.9
Connector type	Direct soldering

5. Antenna layout:

- a. The antenna consists of a single copper trace on combination of flex/rigid PCB as per below picture.
- b. The original length of the antenna is reduced by cutting its top as shown in below picture.
- c. The antenna is soldered to the transmitter which is located on a vertical PCB (Main Board) which sticks out through the slots in the rigid portion.
- d. The flex portion of the antenna is folded in an arc inside the housing.
- e. Below picture of the whole assembly shows the antenna “environments”.
 - i. The picture shows the 434MHz antenna. The 915MHz antenna is shorter.
 - ii. The RFID loop antenna, the PCBs and the housing - all affect the antenna radiation efficiency and pattern in a complex way.





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6. Antenna radiation pattern

- a. No available data.
- b. Only antenna peak gain was measured.