

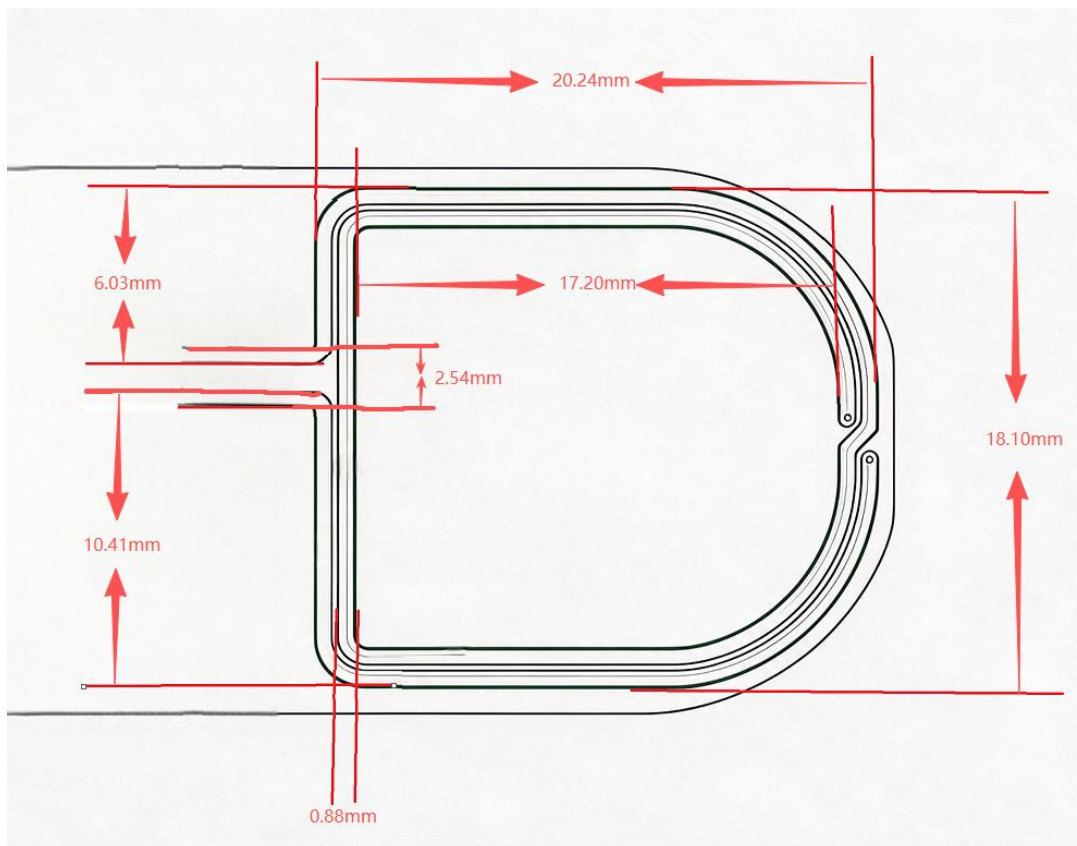
ANTENNA SPECIFICATION

1. Summarize

This specification document provides detailed information on the geometric dimensions and electrical parameters of the antennas equipped for the NFC Tap, serving as a basis for equipment design, integration, and performance verification.

2. Antenna

a. geometric dimensioning



3. Electrical parameters

a. Coil parameters:

Turns: 2 ;

b. Substrate:

1. Relative Electrical Permittivity, ϵ_r : 4.6 ;

2. Thickness, h : 1.0mm;

c. Performance parameters:

1. Segmentation Mode: Vertical;
2. Segments: 16 ;
3. Equivalent Inductance: 2.17uH (@13.56MHz) 。
4. Antenna type: PCB Antenna;
5. Antenna gain: 0dBi;

4. Function adaptation

Mainly used for NFC RF function, it achieves stable RF signal coupling and processing through coil structure and electrical parameters.

5. General Instructions

- a. Installation and integration: The antenna must be installed strictly according to the geometric dimensions and mechanical structure requirements of the equipment, ensuring reliable connection with the Tire Pressure Monitor system motherboard circuit and guaranteeing signal transmission quality.
- b. Performance verification: During the equipment production and debugging phase, it is necessary to verify the identification distance, signal stability, and other indicators of the corresponding working frequency of 13.56MHz based on the antenna parameters to ensure that the functional requirements of the Tire Pressure Monitor system are met.
- c. Environmental adaptability: The performance of the antenna is affected by environmental factors such as metal interference, temperature, humidity, etc. In practical applications, the interference of the installation environment on the antenna needs to be considered, and shielding and protective measures should be taken if necessary.

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