



Test Report

for metraTec RR15 Reader Module Internal PCB Loop Antenna

Date: January 2026

Version: 1.0

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1 Mechanical Dimensions

The internal loop antenna is at the PCB edge and 40x30 mm in size.

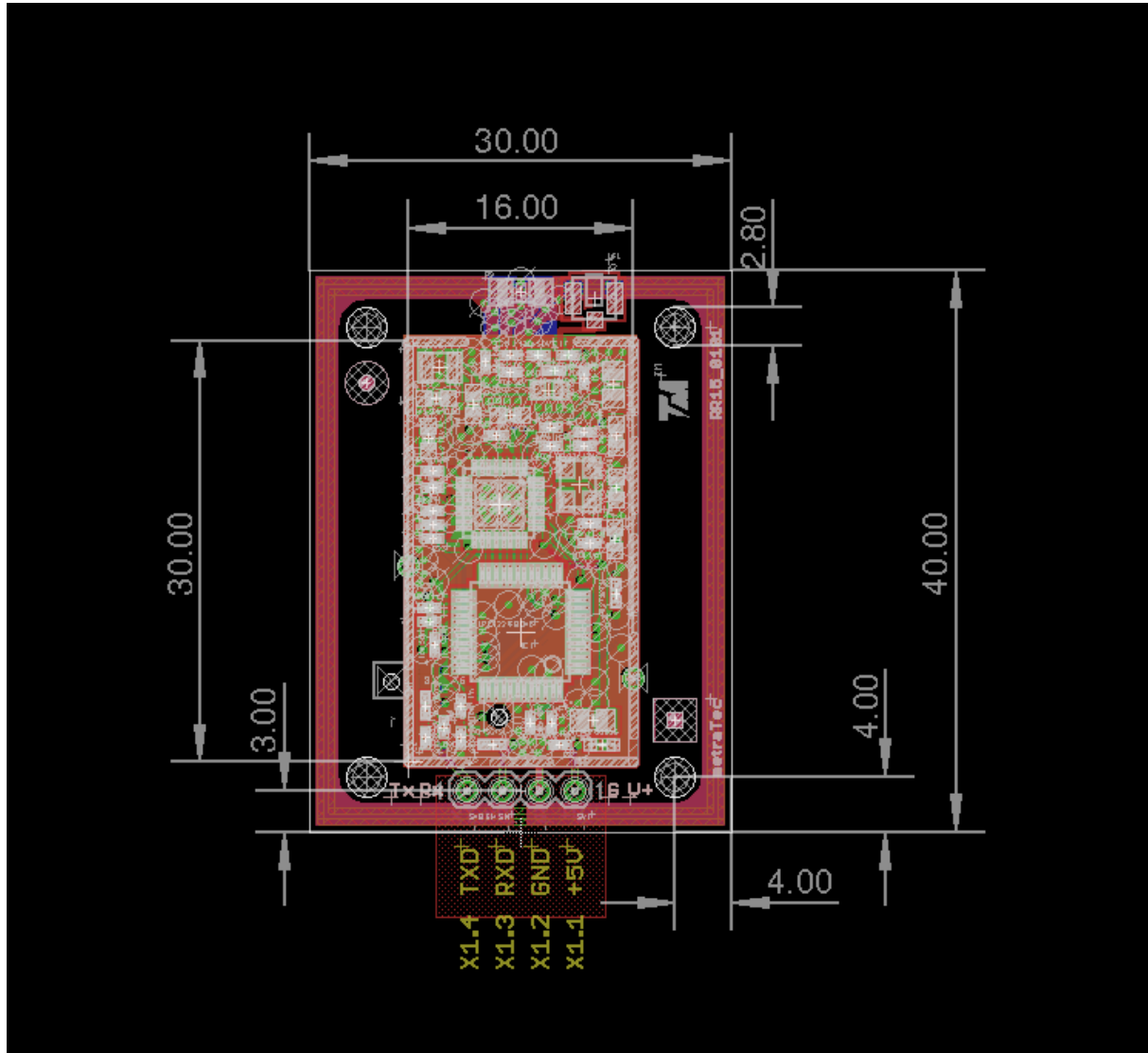


Fig. 1: Antenna Dimensions

2 Peak Gain

The antenna peak gain was measured using a nose to nose test with two DeskID_NFC at 0.3m distance. The short distance is necessary as the antenna is a near field antenna with very low farfield gain.

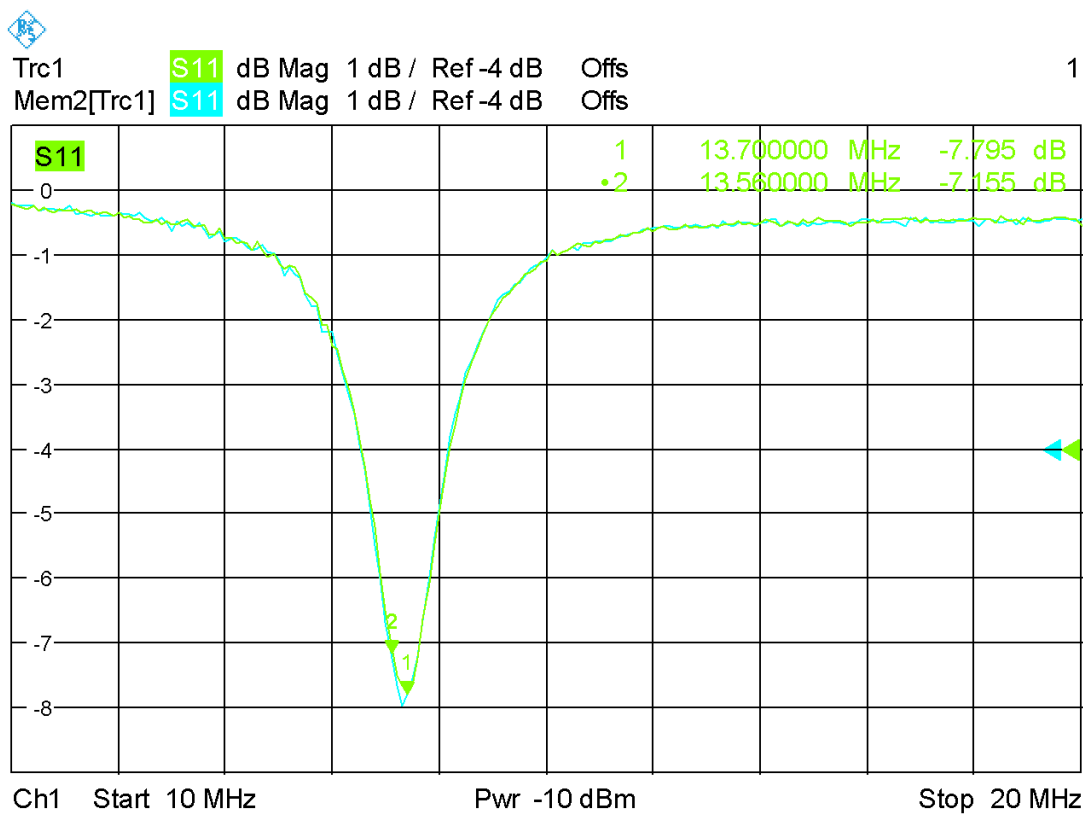
The measured farfield gain is:

$G = -18 \text{ dBi}$

We state that All measurements were performed in the farfield and therefore additional antenna gain documentation is not required.

3 Antenna Resonance Frequency and Return Loss

The antenna resonance is 13.7 MHz and close to the RF carrier frequency of 13.56 MHz. The matching is at a good value of -8dB.



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Fig. 2:

Return Loss of the internal antenna

4 Version Control

<i>Version</i>	<i>Change</i>	<i>by</i>	<i>Date</i>
1.0	created	TM	15.1.2026

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