



Kiiroo, Spot

Revision History

Rev.	Date	Description
1.0	26.02.2025	Initial version

Project member(s)

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EXECUTIVE SUMMARY

This document details the specifications of the device referred to as Kiiroo Spot. The device contains one Bluetooth antenna.

The device is an adult toy designed to be used next to the human body. The antenna has been designed such that the performance is maximized when the antenna is near the body or between two bodies. For certification purposes, only free-space measurements are included.

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MEASUREMENT SETUP

The results given have been measured in free-space conditions. In the case of simulated results, the results are from free-space conditions in the simulation software.

MEASUREMENT RESULTS

Return loss

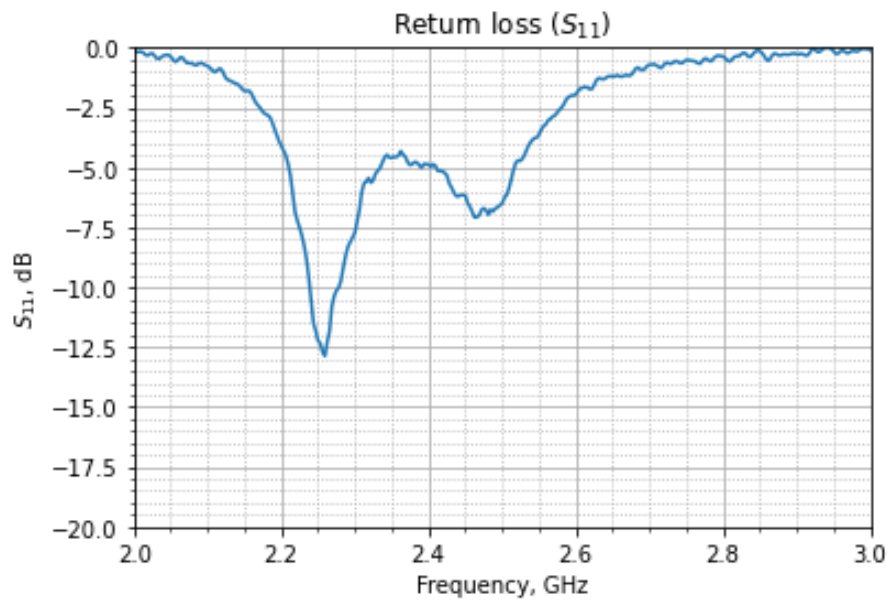


Figure 1: Return loss (S_{11}).

Total efficiency

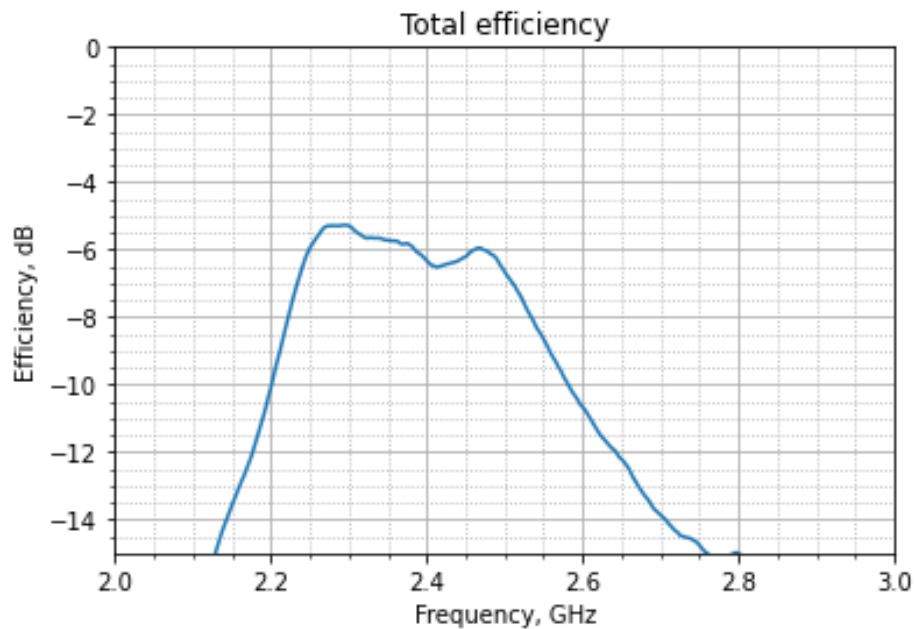


Figure 2: Antenna total efficiency.

Realized gain, simulated

The following results are from simulations.

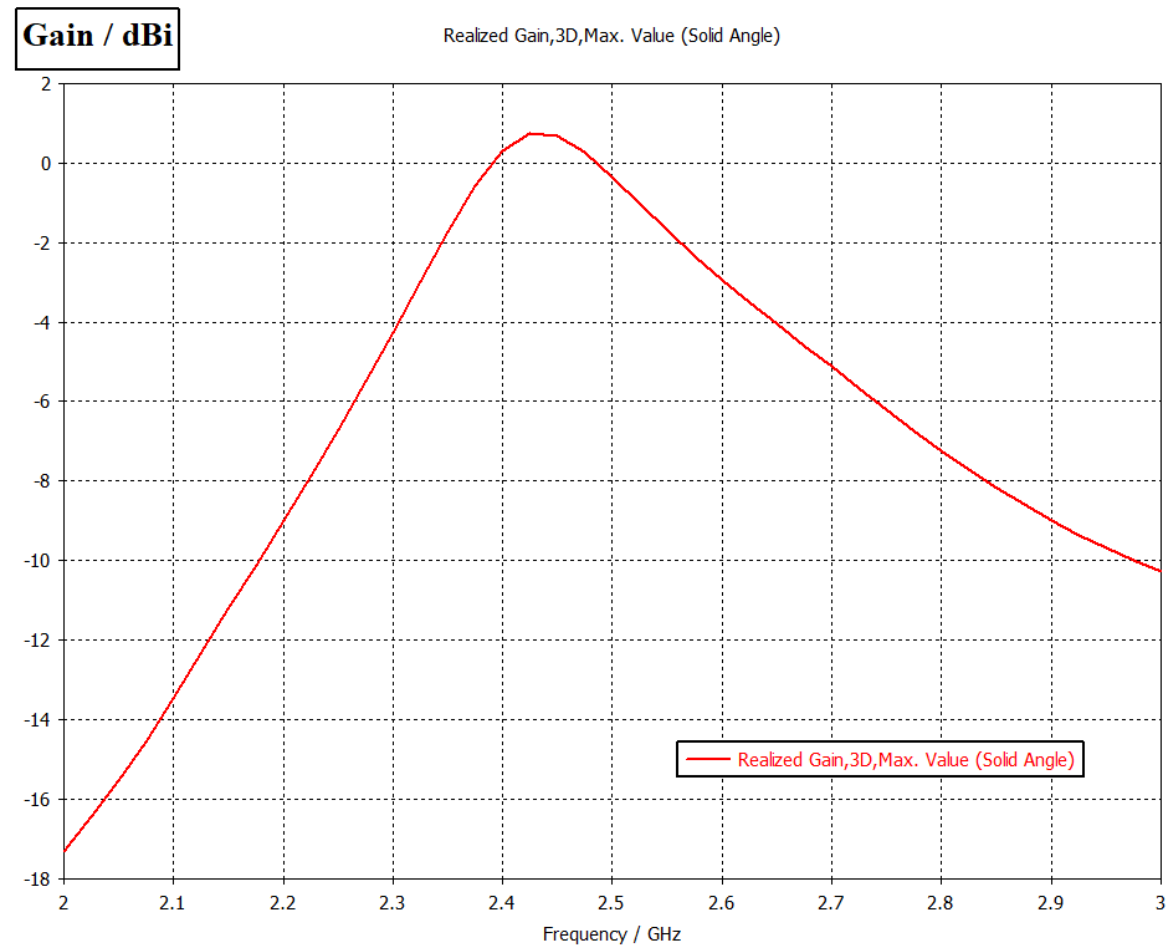


Figure 3: Maximum realized gain, simulated.

Maximum realized gain (2.4-2.483 GHz)	+0.737 dBi
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RADIATION PATTERNS, SIMULATED

The following results are from simulations.

3D plot (2.45 GHz)

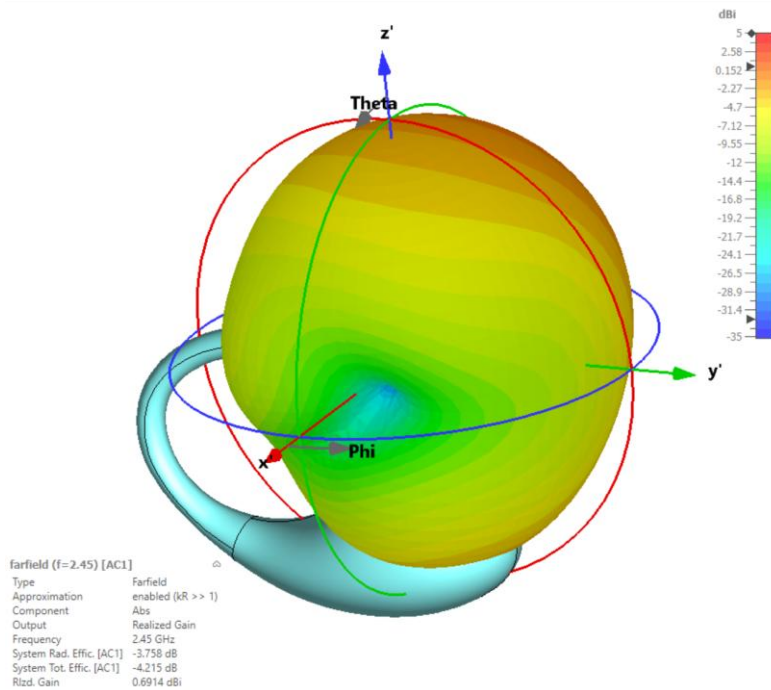


Figure 4: 3D radiation pattern at 2.45 GHz, simulated.

XZ plane (2.45 GHz)

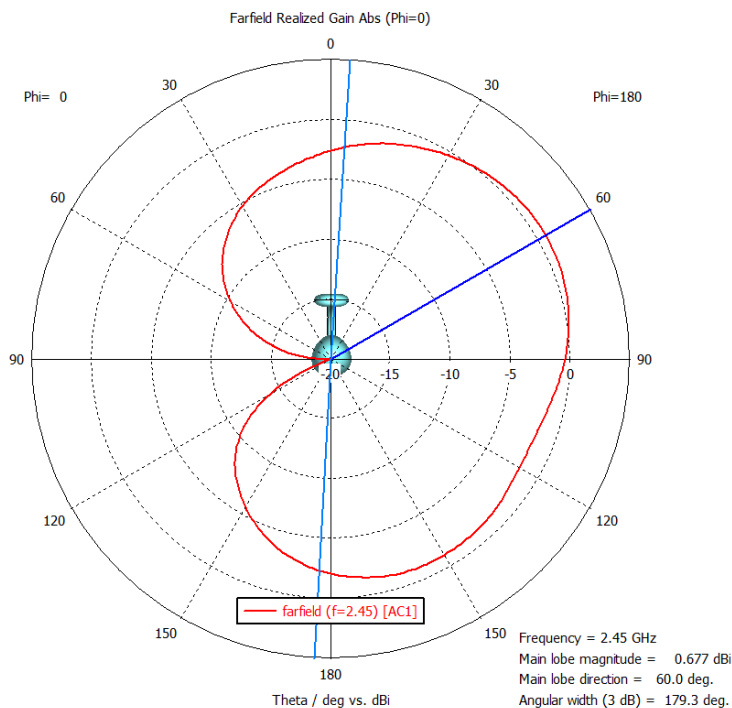


Figure 5: XZ plane radiation pattern at 2.45 GHz, simulated.

XY plane (2.45 GHz)

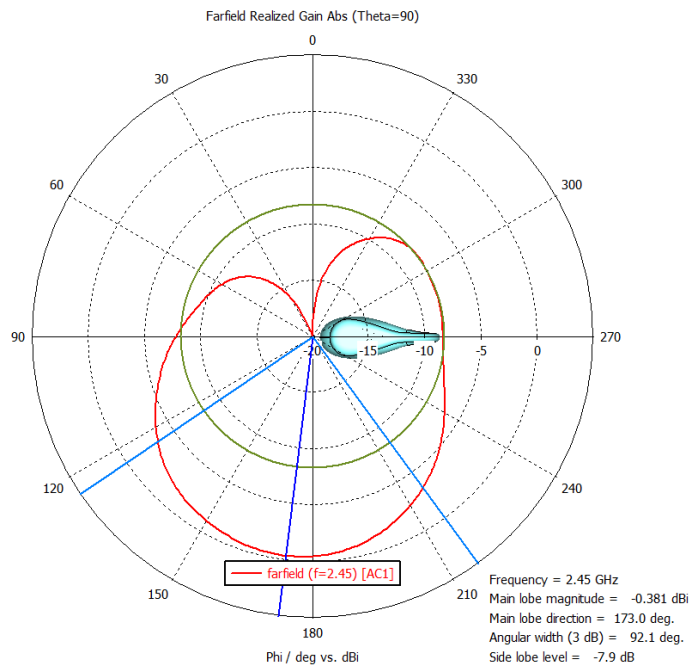


Figure 6: XY plane radiation pattern at 2.45 GHz, simulated.

YZ plane (2.45 GHz)

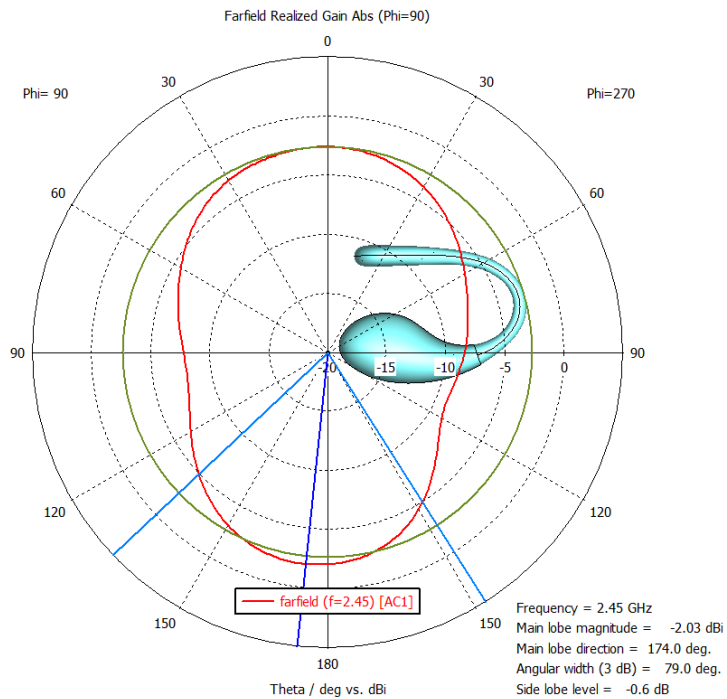


Figure 7: YZ plane radiation pattern at 2.45 GHz, simulated.

CONCLUSIONS AND RECOMMENDATIONS

The antenna performs as expected in free space.

HOW DID WE DO?

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