Antenna

2BBVCUAP1

Revision 1.1

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11-Jan-2024

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Revision History

Rev	Date	Author	Description
0.1	20-Nov-2023	R. Williams	Document Creation
1.0	13-Dec-2023	R. Williams	Release
1.1	11-Jan-2024	R. Williams	Antenna manufacturer name and address added

Table of Contents

1 Report Summary

The Vuse Pro device model TF16-UAP1 with FCCID: 2BBVCUAP1 has antenna gain characteristics shown in Table 1. The device was tested in two configurations:

- Without charging cable attached
- With charging cable attached

Table 1: Antenna gain summary

Measurement	Gain without charging cable (dBi)	Gain with charging cable (dBi)
Peak Gain (2402-2480 MHz)	+3.36	+1.12
Average Gain (2402-2480 MHz)	-2.72	-5.58

2 Antenna Description

The antenna manufacturer is HUIZHOU TRUSTWIN ELECTRONICS DEVELOPMENT CO LTD.

Address: Heshan Industrial Yuanzhou Town Bolou County HuiZhou City Guangdong province, China.

The embedded antenna is a flexible circuit connected to the main PCB via a coaxial cable.

Figure 1: Antenna element

The embedded antenna element couples to the device metal casing efficiently producing a ¾ wavelength radiating system.

Frequency range of interest is 2402 MHz to 2480 MHz.

3 Test Setup

Testing was performed at Antenna Test Lab (ATL) in Raleigh, NC, USA.

For passive gain measurements, a coaxial cable is attached to the PCB at the single ended antenna driving point of the radio IC. The radio IC is disconnected for the purpose of antenna testing. The device is reassembled into its metal casing.

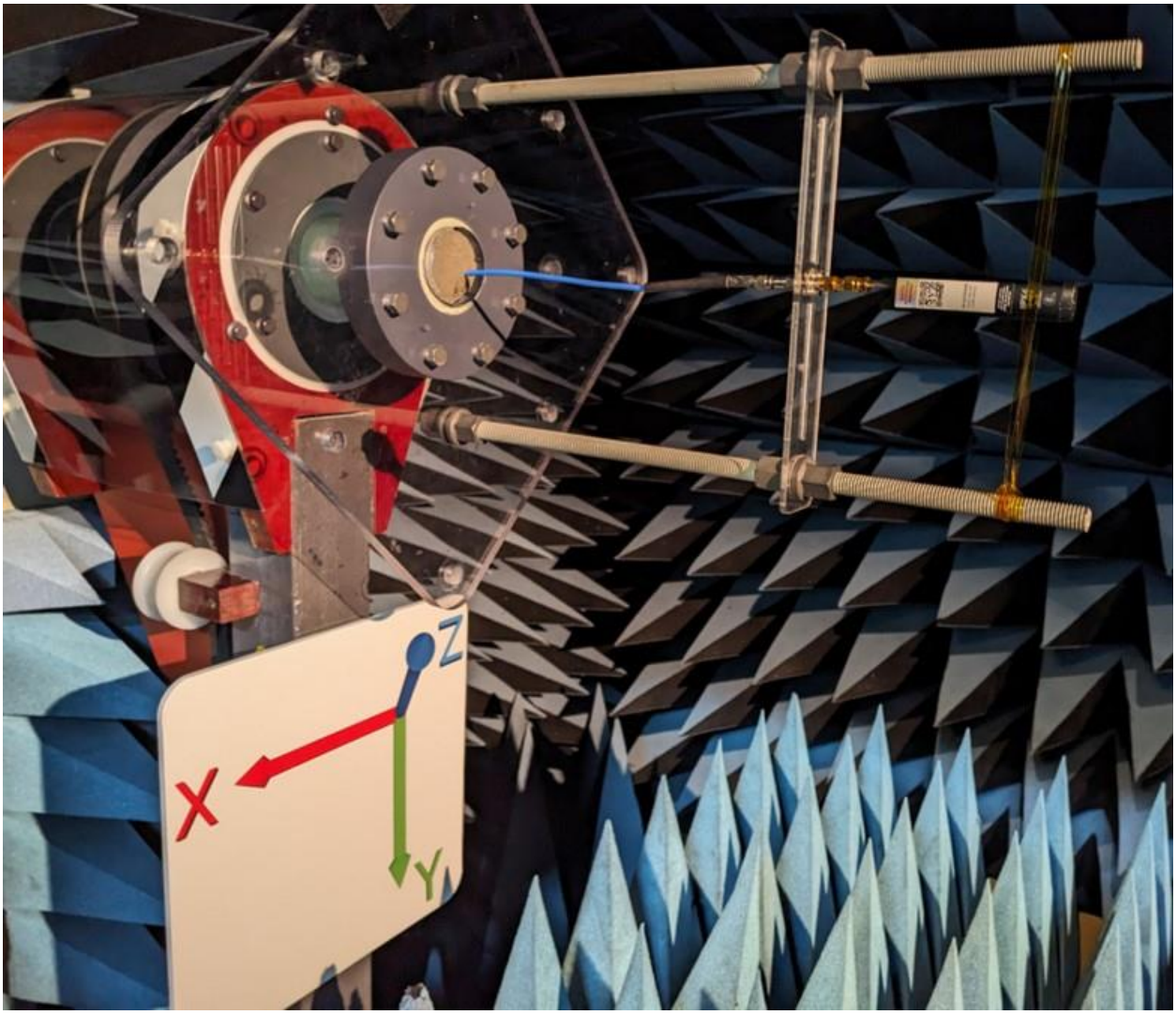

Figure 2: Test setup - no charging cable

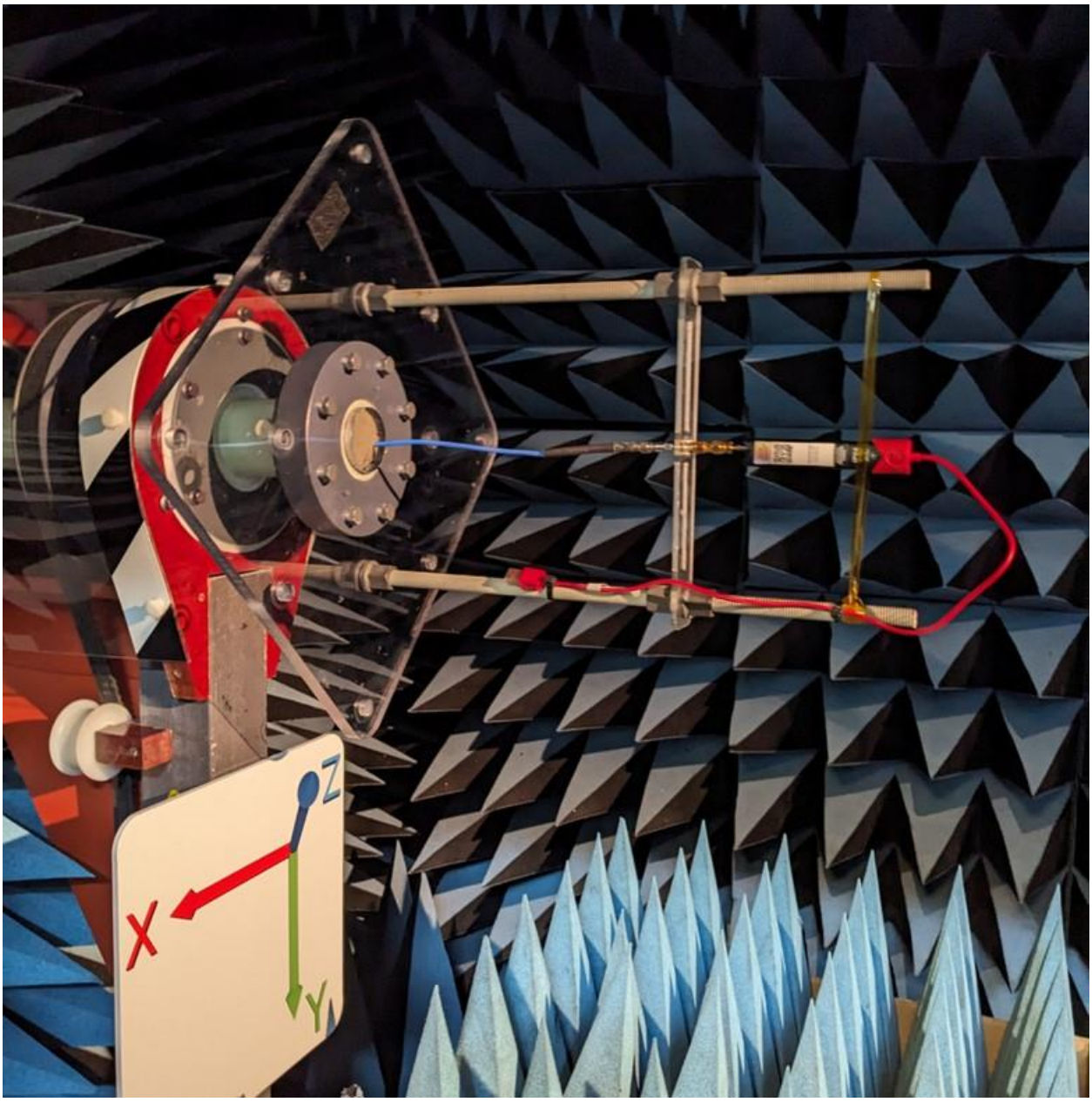

Figure 3: Test setup - charging cable attached

4 Antenna Patterns

3D rotatable patterns and result tabulations are available in the accompanying data package.

2023-11-17 Device Solutions BLE eCig Antenna.zip

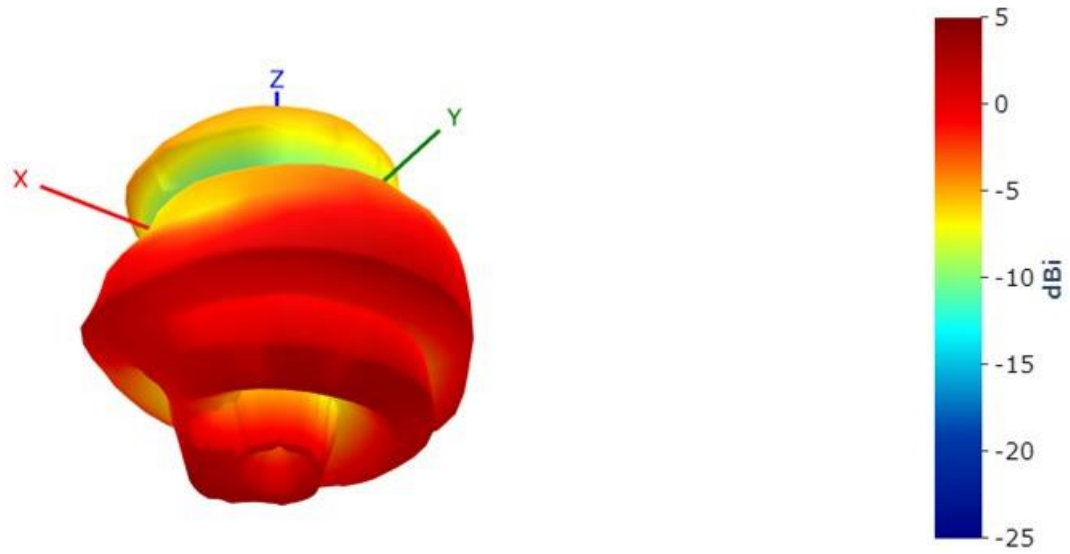

Figure 4: Antenna pattern - charging cable not attached

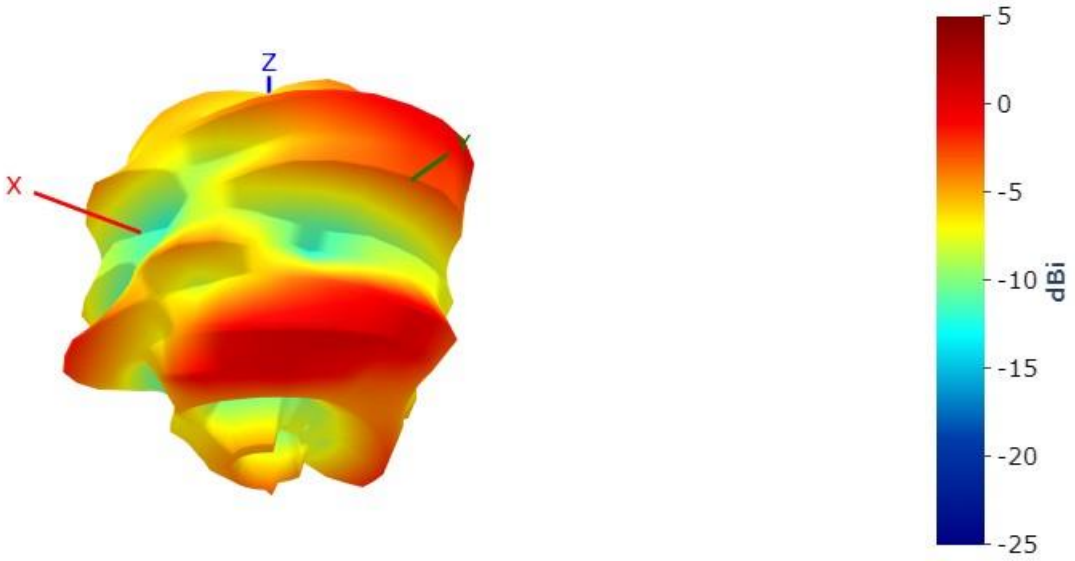

Figure 5: Antenna pattern - charging cable attached