

SPORTON LAB.

Antenna Test Report

REPORT NO. OQ230126001
APPLICANT : Tesla
MANUFACTURER : Tesla
EQUIPMENT : V4 Supercharger NA Connector/Handle
DATE OF RECEIPT : June 28, 2023
DATE OF TEST : June 28, 2023
ISSUE DATE : September 13, 2023

Reviewed by:



SPORTON LAB.

Neil Kao / Manager

We, SPORTON INTERNATIONAL (USA) INC., would like to declare that the tested sample has been evaluated in accordance with the procedures and shown the compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL (USA) INC., the test report shall not be reproduced except in full.

The declared product specification for EUT presented in this report is provided by the manufacturer / applicant, and the manufacturer / applicant takes all the responsibilities for the accuracy of product specification.

SPORTON INTERNATIONAL (USA) INC.



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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
OQ230126001	1.0	Initial issue of report	September 13, 2023



1. Test Laboratory

Test Site	Sporton International Inc. <input type="checkbox"/> EMC & Wireless Communications Laboratory <input type="checkbox"/> Wensan Laboratory <input checked="" type="checkbox"/> Sporton International (USA) Inc.
Telephone Number	EMC & Wireless Communications Laboratory: TEL: +886-3-327-3456; FAX: +886-3-328-4978 Wensan Laboratory: TEL: +886-3-327-0838; FAX: +886-3-327-0855 Sporton International (USA) Inc. TEL: +1-408-904-3300
Address	EMC & Wireless Communications Laboratory: No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan Wensan Laboratory: No.58, Aly. 75, Ln. 564, Wenhua 3rd Rd., Guishan Dist., Taoyuan City 333, Taiwan Sporton International (USA) Inc.: 1175 Montague Expressway, Milpitas, CA 95035 USA
Chamber	EMC & Wireless Communications Laboratory: <input type="checkbox"/> OTA01-HY <input type="checkbox"/> OTA03-HY <input type="checkbox"/> OTA04-HY <input type="checkbox"/> OTA05-HY Wensan Laboratory: <input type="checkbox"/> OTA07-HY <input type="checkbox"/> OTA08-HY <input type="checkbox"/> OTA10-HY Sporton International (USA) Inc.: <input type="checkbox"/> OTA01-CA <input checked="" type="checkbox"/> OTA02-CA

: The chamber(s) which used to perform the test in this test report.



2. Client Information

2.1 Applicant

Company Name	Tesla
Address	3500 Deer Creek Road, Palo Alto CA 94304, U.S.A.
Contact Person	Viraj Andrabadu Kurundu Patabendige / vandrabadukurundu@tesla.com

2.2 Manufacturer

Company Name	Tesla
Address	3500 Deer Creek Road, Palo Alto CA 94304, U.S.A.
Contact Person	Viraj Andrabadu Kurundu Patabendige / vandrabadukurundu@tesla.com



3. Equipment Under test (EUT) Information

3.1 Description of EUT

Product Feature & Specification	
EUT Type	V4 Supercharger NA Connector/Handle
Brand Name	Tesla
Model Name	1877513-XX-Y
Antenna Type	PCB



4. Measurement Environment

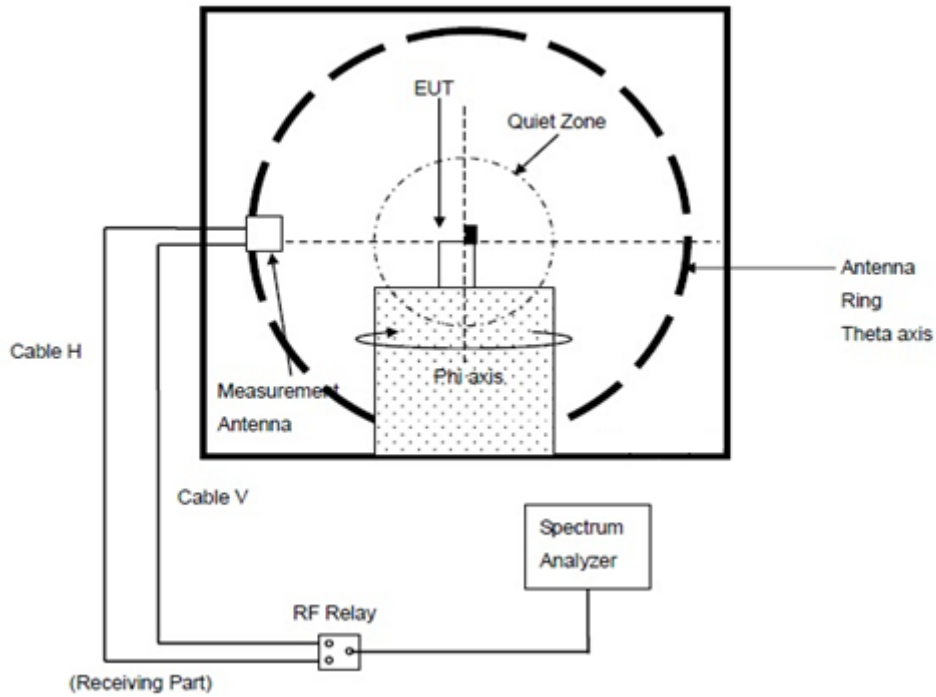
Ambient Condition

Temperature (°C):	25°C +/- 5°C	Humidity (%):	<60%
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Test Equipment List

Name	Manufacturer	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
Spectrum Analyzer	R&S	FSU26	200748	2023/05/25	2024/05/24
RF Switch	R&S	OSP120	100322	NCR	NCR
Multi-Axis Positioner Controller	ETS-Lindgren	2090	N/A	NCR	NCR
Measurement Horn Antenna	EMCO	3165-01	N/A	NCR	NCR

TRP Measurement Setup – ETS-Lindgren AMS-8923





5. Summary of Test Results

5.1 Declaration

Declaration of Conformity:
The judgment of conformity in the report is based on the measurement results excluding the measurement uncertainty.
Comments and Explanations:
None

5.2 Abbreviations and Definitions

Please note the following abbreviations in this section:

FS = Free Space

5.3 Testing Engineers:

Kaying Xiong



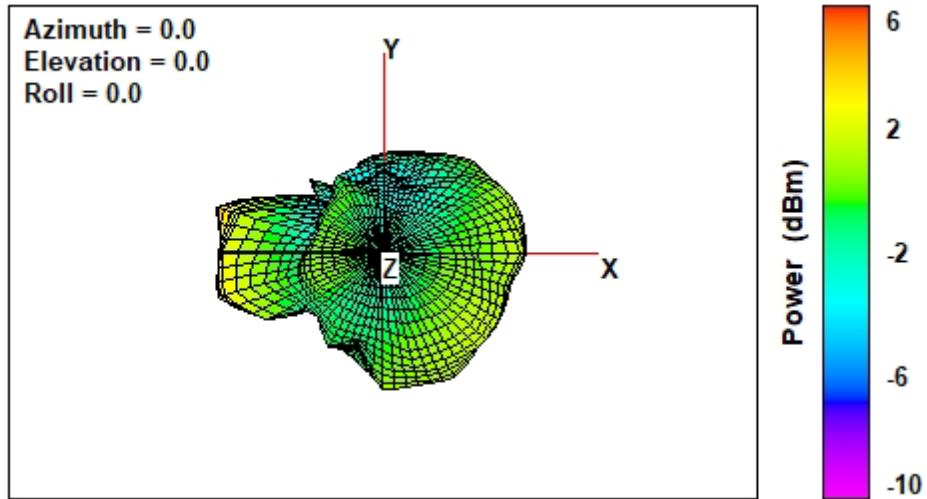
5.4 Summary Table

SC V4 NA Handle	BLE RF OTA Performance	
Freq (MHz)	2402	2480
Power Setting	5	5
Conducted Power On the Sample (dBm)	2.0	1.6
Peak EIRP (dBm) <i>Active Antenna Measurements</i>	5.5	5.7
Peak Antenna Gain (Peak EIRP – Conducted Tx Power)	3.5	4.1

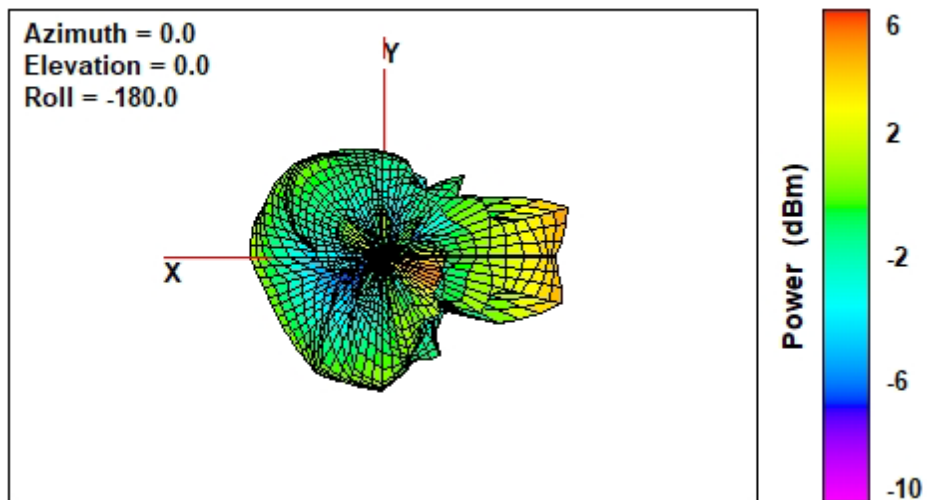
Appendix A 3D pattern

2402 MHz

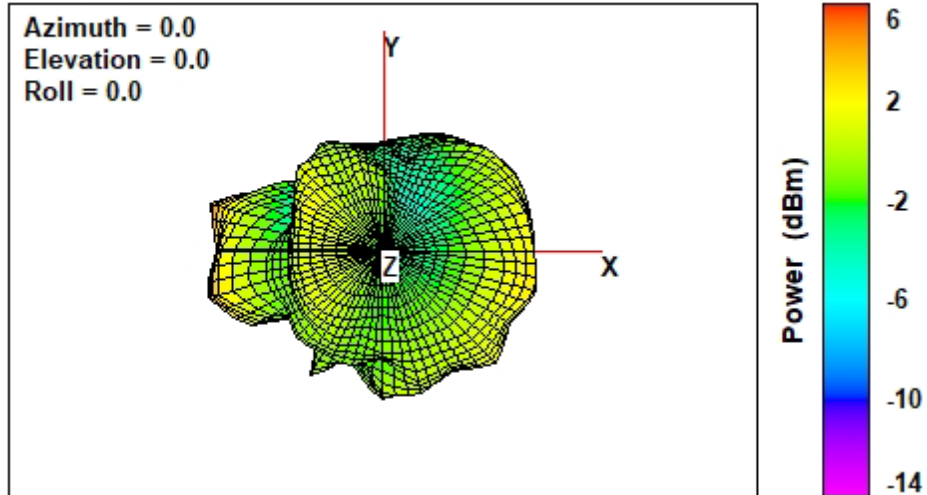
Total



Total



2480 MHz
Total



Total

