TEST REPORT

Reference No......	:	WTX25X02025661W
Applicant	:	Rheem
Address	:	1100 Abernathy Rd Ste 1700, Atlanta, GA 30328
Manufacturer.....	:	Rheem
Address	:	1100 Abernathy Rd Ste 1700, Atlanta, GA 30328
Product Name	:	900MHz Antenna for User Interface and Connectivity Module
Model No......	:	100-10006565
Standards	:	ANSI/ IEEE 149-2021
Date of Receipt sample	:	2025-02-20
Date of Test.....	:	2025-02-20 to 2025-02-24
Date of Issue	:	2025-02-24
Test Report Form No.	:	WTX_IEEE 149
Test Result.....	:	**Pass**

Remarks:
The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of approver.

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Tested by:

Mike Shi/Project Engineer

Approved by:

Jason Su/Manager

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Report version

Version No.	Date of issue	Description
Rev.00	2025-02-24	Original
/	/	/

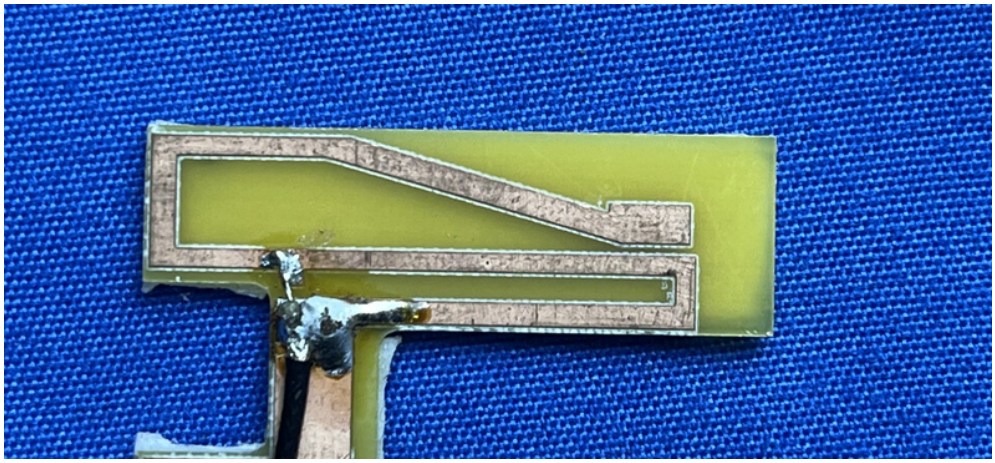
1.GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

General Description of EUT	
Product Name:	900MHz Antenna for User Interface and Connectivity Module
Trade Name:	/
Model No.:	100-10006565
Adding Model(s):	/
Note: The test data is gathered from a production sample, provided by the manufacturer.	

Technical Characteristics of EUT	
Frequency Range:	900-930MHz
Gain of Antenna:	-6.29dBi (Max.)
Type of Antenna:	PCB antenna
Size:	L*H:27.6*6.9mm

Dimension:



2. SUMMARY OF TEST RESULTS

Standards	Description of Test Item	Result
ANSI/ IEEE 149-2021	IEEE Recommended Practice for Antenna Measurements	Compliant

N/A: not applicable

3. Antenna Test Configurations

3.1 Test Location

Name:	Sushi TOWE Wireless Testing(Shenzhen)Co., Ltd.
Address:	F 401/101, Building E, Hongwei Industrial Zone, No. 6, Liuxian 3rd Road, Bao'an District, Shenzhen,518133

3.1 Test Environments

Environments Parameter	Temperature	Voltage	Humidit
NTNV	25° C	--	50%

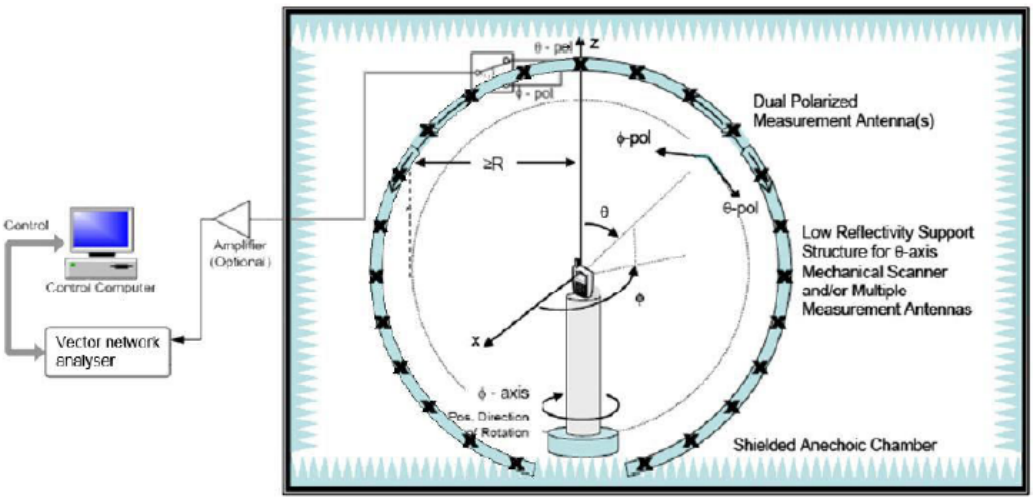
3.2 Test Equipment List

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Anechoic Chamber	ETS	AMS8923	Q2225	2023-06-09	2028-06-08
RF Switch	ETS	EMCenter	251211	/	/
Vector network analyzer	R&S	ZNB8	101413	2024-07-17	2025-07-16

3.3 Measurement Uncertainty

The uncertainty is calculated using the methods suggested in the“Guide to the Expression of Uncertainty in Measurement" (GUM) published by ISO. When the test result is a critical value,we will use the measurement uncertainty give the judgment result based on the 95%Confidence intervals.

3.4 Test Setup

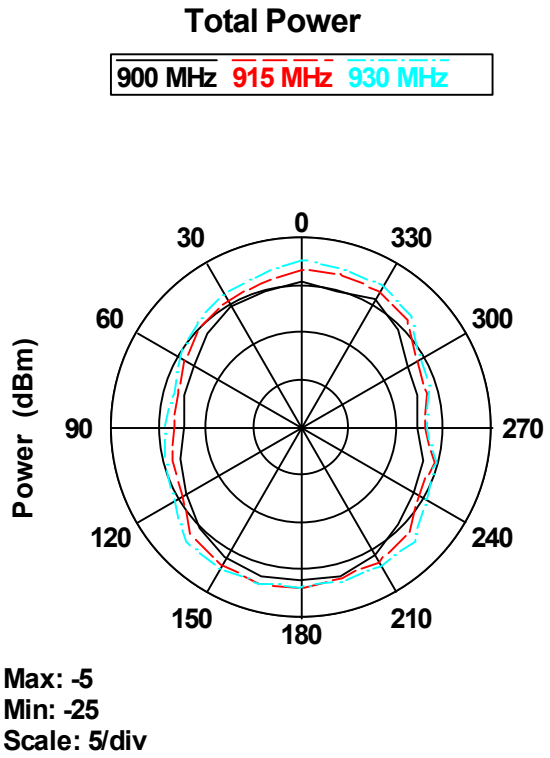


4. Antenna Test Result

4.1 Gain and Efficiency

Fre(MHz)	Eff(dB)	Eff(%)	Gain(dBi)
900	-11.03	7.90	-8.03
901	-10.94	8.05	-7.88
902	-10.89	8.15	-7.84
903	-10.86	8.20	-7.87
904	-10.82	8.29	-7.94
905	-10.74	8.44	-7.83
906	-10.62	8.68	-7.68
907	-10.50	8.91	-7.60
908	-10.44	9.04	-7.56
909	-10.44	9.03	-7.56
910	-10.47	8.97	-7.55
911	-10.44	9.03	-7.47
912	-10.33	9.26	-7.34
913	-10.19	9.57	-7.18
914	-10.09	9.79	-7.13
915	-10.06	9.87	-7.10
916	-10.07	9.85	-7.07
917	-10.05	9.88	-7.04
918	-9.98	10.04	-6.91
919	-9.89	10.26	-6.84
920	-9.81	10.45	-6.79
921	-9.78	10.52	-6.75
922	-9.79	10.50	-6.76
923	-9.79	10.50	-6.70
924	-9.72	10.66	-6.55
925	-9.59	10.98	-6.39
926	-9.47	11.31	-6.29
927	-9.41	11.44	-6.32
928	-9.42	11.43	-6.34
929	-9.45	11.34	-6.40
930	-9.45	11.36	-6.35

4.2 Radiation Pattern 2D View



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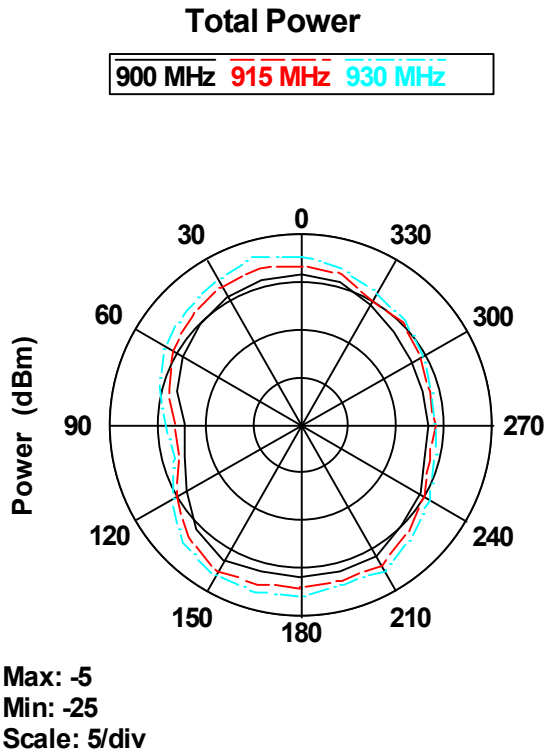

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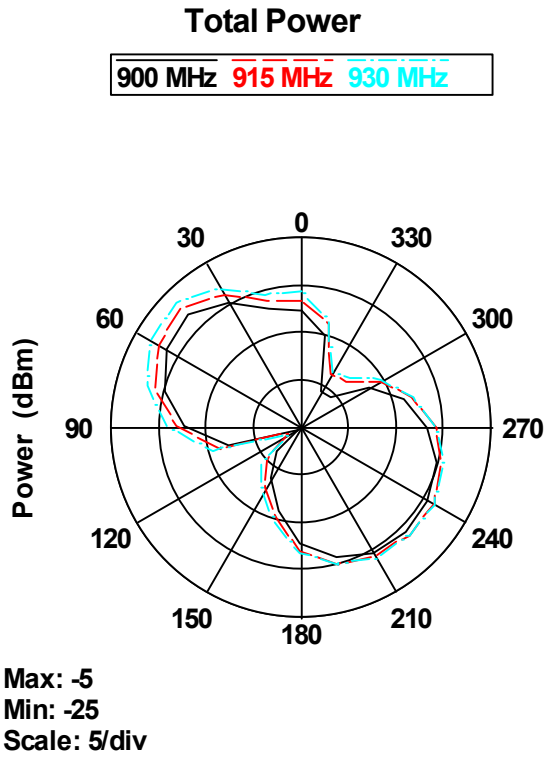
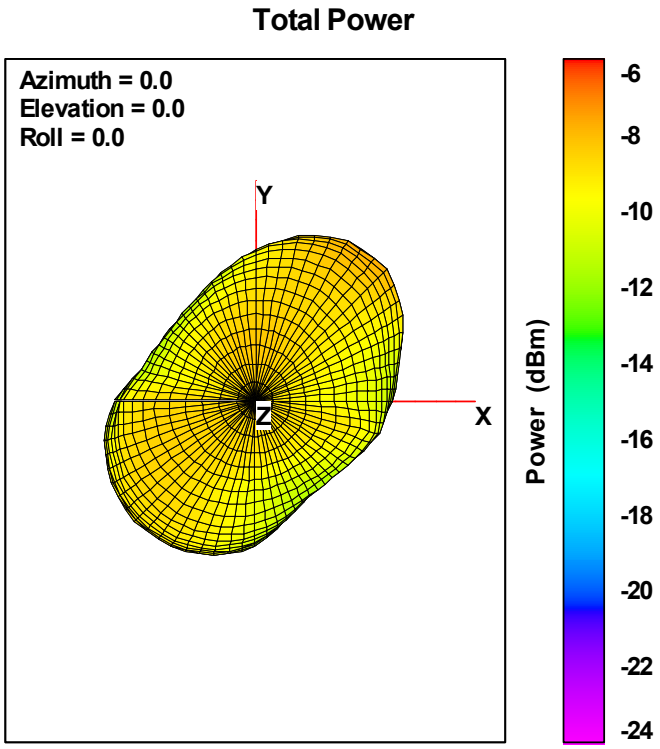
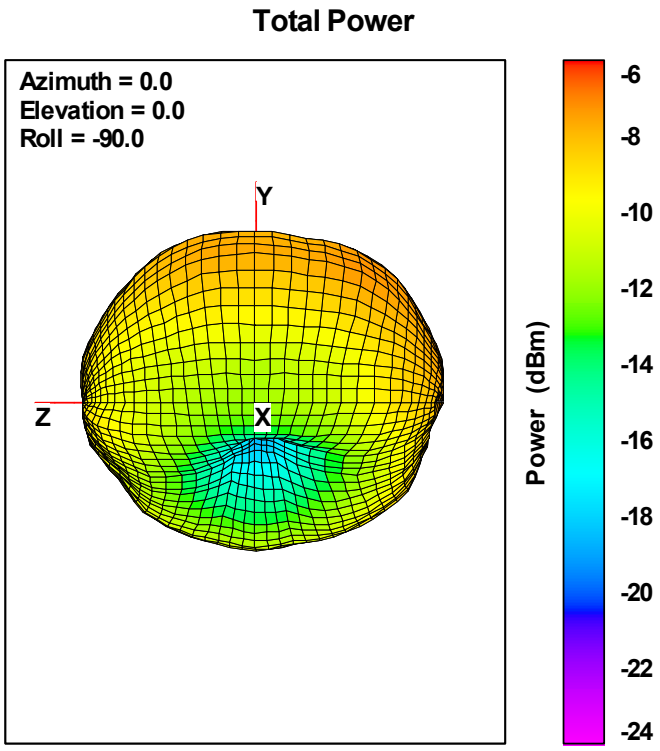

Total Power
900 MHz
915 MHz
930 MHz
0
30
330
60
300
90
270
120
240
150
210
180
Power (dBm)
Max: -5
Min: -25
Scale: 5/div

THETA=90

4.3 Radiation Pattern 3D View





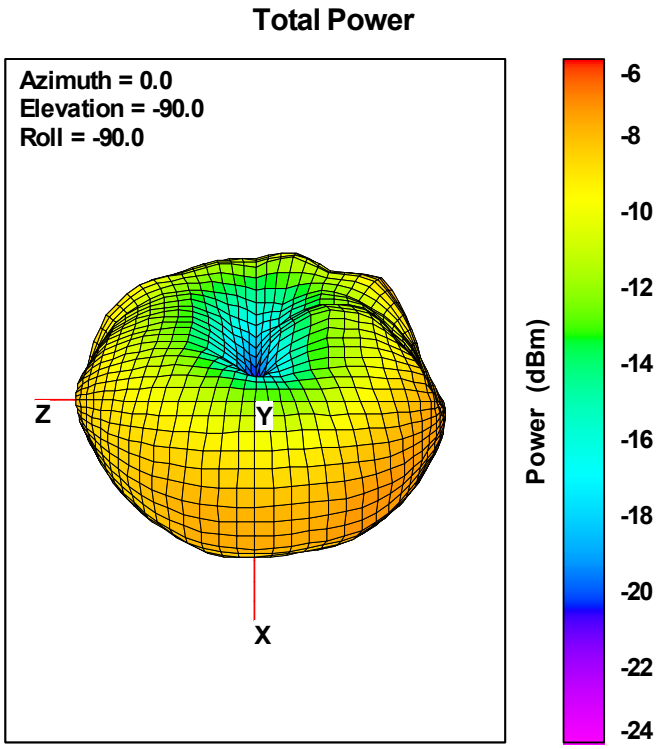
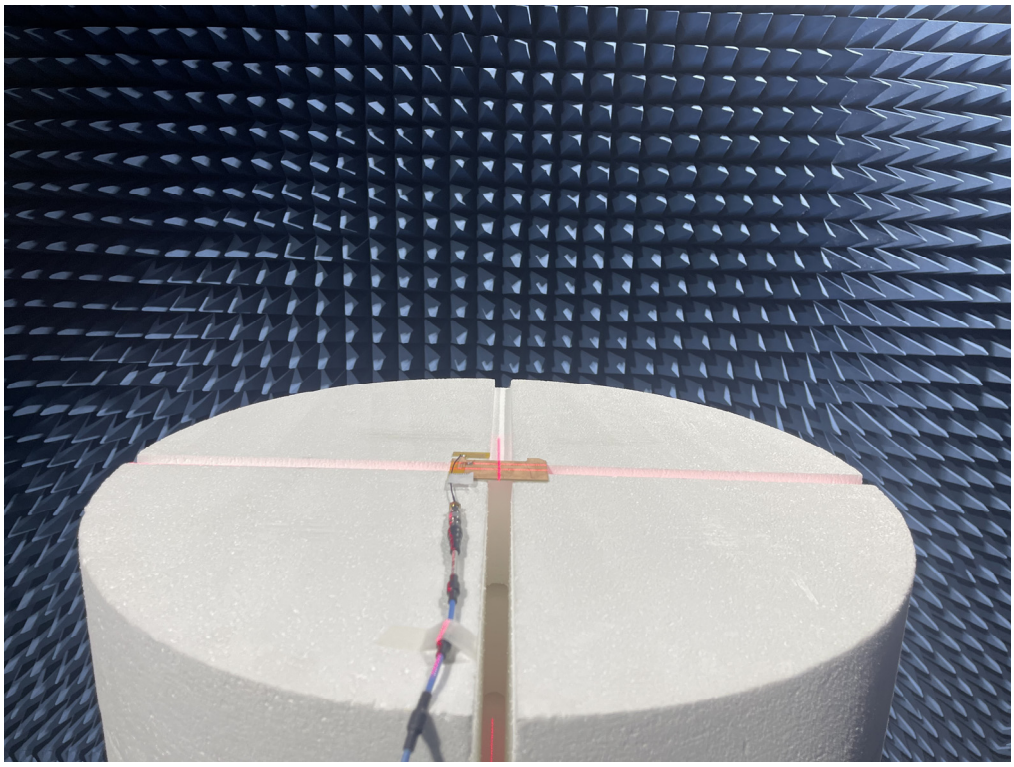

Total Power
Azimuth = 0.0
Elevation = -90.0
Roll = -90.0
Z
Y
X
Power (dBm)
-6
-8
-10
-12
-14
-16
-18
-20
-22
-24

EXHIBIT 1 - TEST SETUP PHOTOGRAPHS

OTA Test View 1:



******* END OF REPORT *******