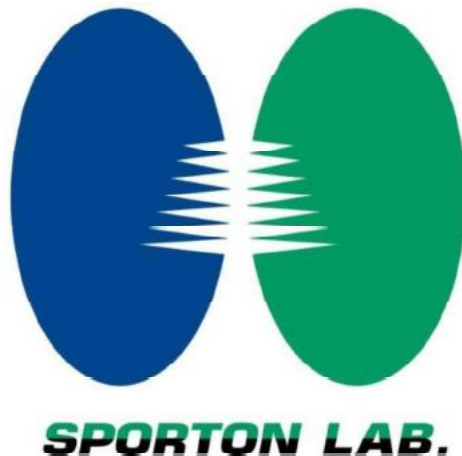




OTA Antenna Performance Data Summary

MANUFACTURER	: M5Stack Technology Co., Ltd
EQUIPMENT	: M5PowerHub
BRAND NAME	: M5Stack
MODEL NAME	: PowerHub
ANTENNA TYPE	: Whip Antenna
DEVICE RECEIVING DATE	: Aug. 14, 2025
TEST DATE	: Aug. 14, 2025

Tested by:

Jinshan Zheng

Jinshan Zheng / Senior Engineer

Reviewed by:

Johnny Chen

Johnny Chen / Manager

Sporton International Inc. (Shenzhen)

1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055

People's Republic of China



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Revision History

DATA NO.	VERSION	DESCRIPTION	ISSUED DATE
QQ581115	1.0	Initial issue of Data Summary	Aug. 15, 2025



1. Administration Data

1.1 Testing Laboratory

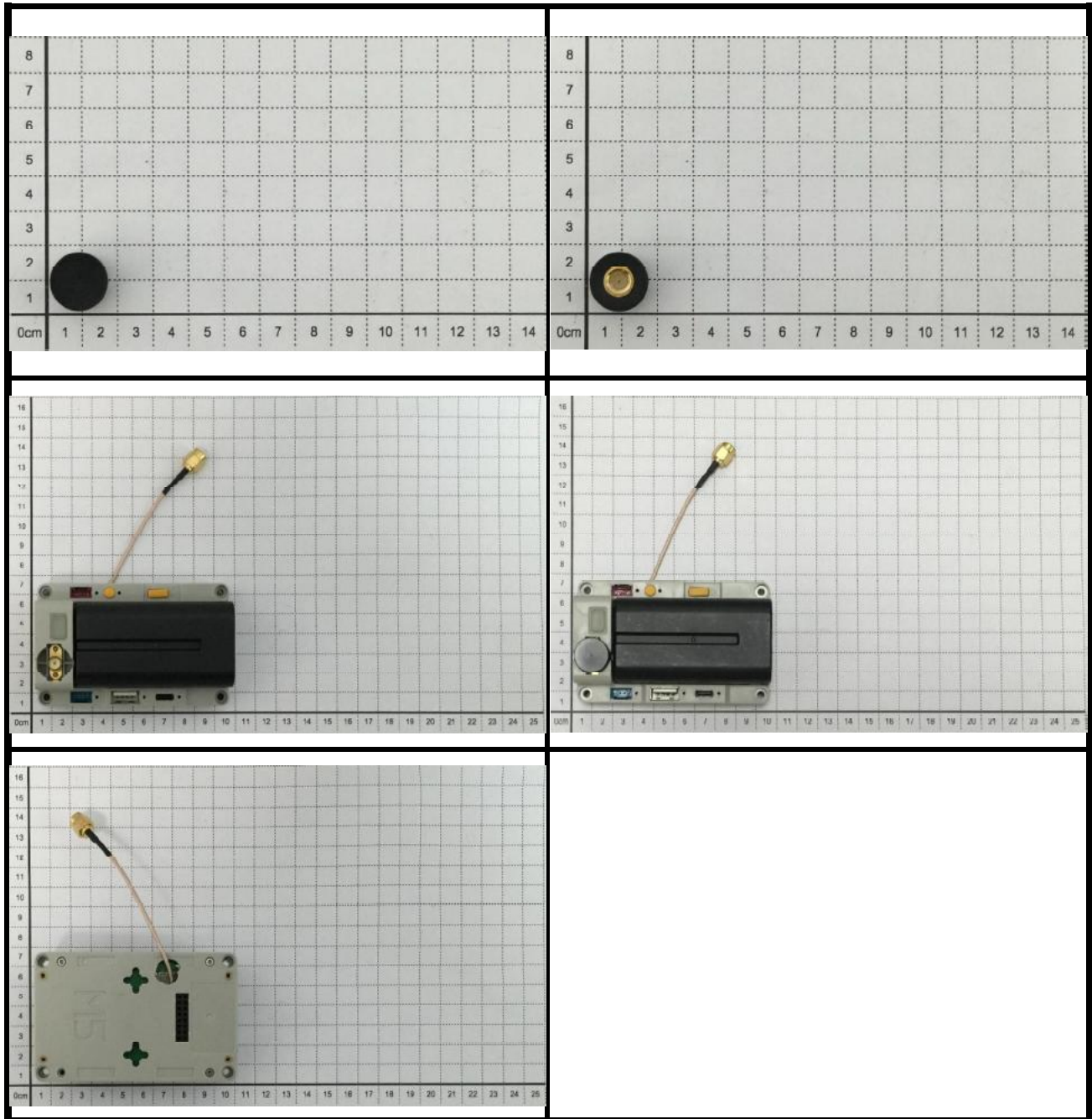
Test Site	Sporton International Inc. (Shenzhen)
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055, People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595
Chamber	☐ OTA01-SZ ☒ OTA02-SZ ☐ OTA03-SZ

☒: Indicates the chamber(s) used in this data summary.

1.2 Applicant

Manufacturer Name	M5Stack Technology Co., Ltd
Address	5F, Tangwei Stock Commercial Building Youli Road, Bao'an District, Shenzhen, Guangdong, China

2. Product Photo





3. Measurement Environment

3.1 Ambient Condition

Temperature (°C):	25±5°C	Humidity (%):	<60%
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3.2 Measurement Uncertainty

The maximum expanded measurement uncertainty (k=2, at a 95% confidence level) as below:

TRP						
Normal	617-698 MHz	699-798 MHz	814-894 MHz	1695-1780 MHz	1850-2020 MHz	2300-2800 MHz
Free Space	1.45	1.38	1.26	1.40	1.47	1.52
TIS						
Normal	617-698 MHz	699-798 MHz	814-894 MHz	1850-2020 MHz	2110-2180 MHz	2300-2800 MHz
Free Space	1.91	1.86	1.77	1.92	1.88	1.96

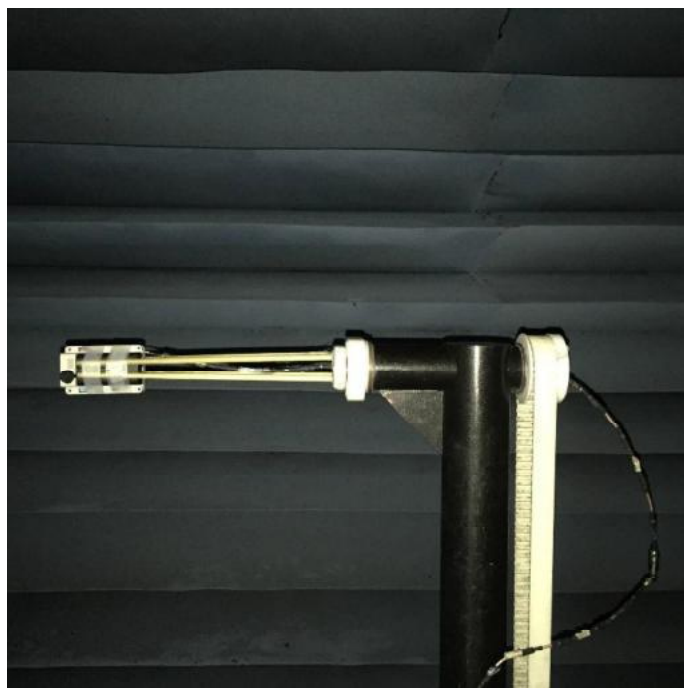


4. Summary of Test Result of Antenna Gain

Test / Position	Antenna Gain / Free Space				
	Frequency (MHz)	Directivity (dBi)	Avg Gain(dBi)	Efficiency (%)	Peak Gain(dBi)
2.4G WIFI	2400	3.01	-9.43	11.41	-6.41
	2410	2.96	-9.87	10.31	-6.91
	2420	2.85	-10.37	9.19	-7.52
	2430	2.80	-11.00	7.95	-8.19
	2440	2.89	-11.47	7.13	-8.58
	2450	2.94	-12.10	6.17	-9.16
	2460	2.77	-12.67	5.41	-9.89
	2470	2.74	-13.35	4.62	-10.61
	2480	2.62	-14.15	3.84	-11.53
	2490	2.65	-14.89	3.25	-12.24
	2500	2.76	-15.88	2.58	-13.12

5. Description for EUT Testing Position

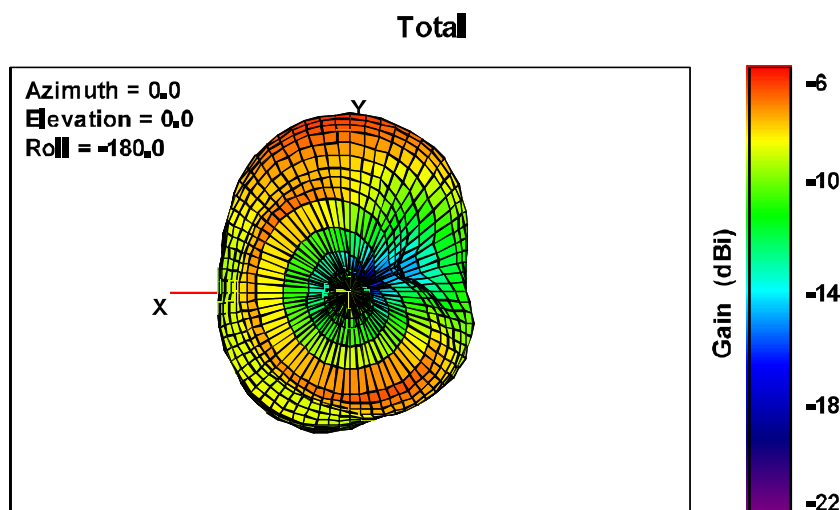
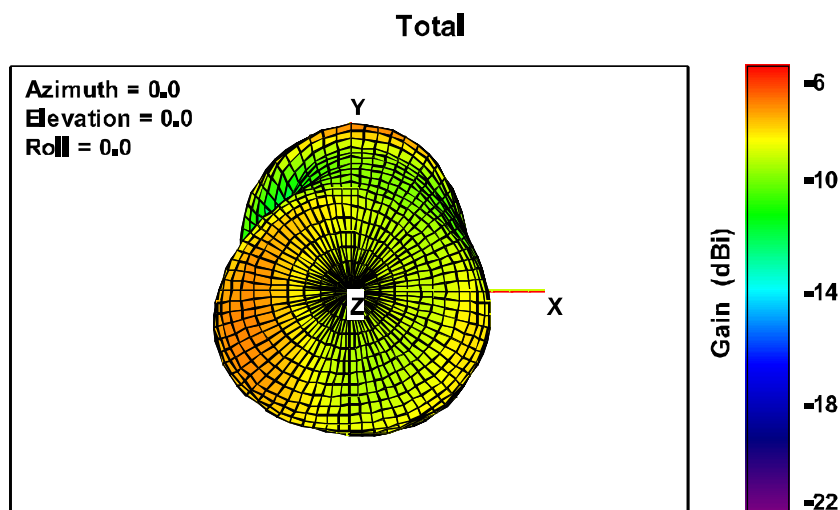
Placed and fixed with tape shown as below.



Free Space

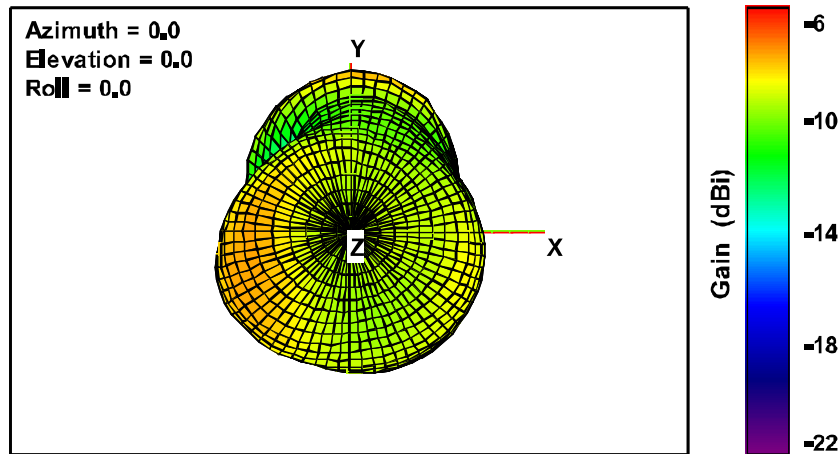
6. Free Space Position Antenna Gain Patterns

Please refer to as below.

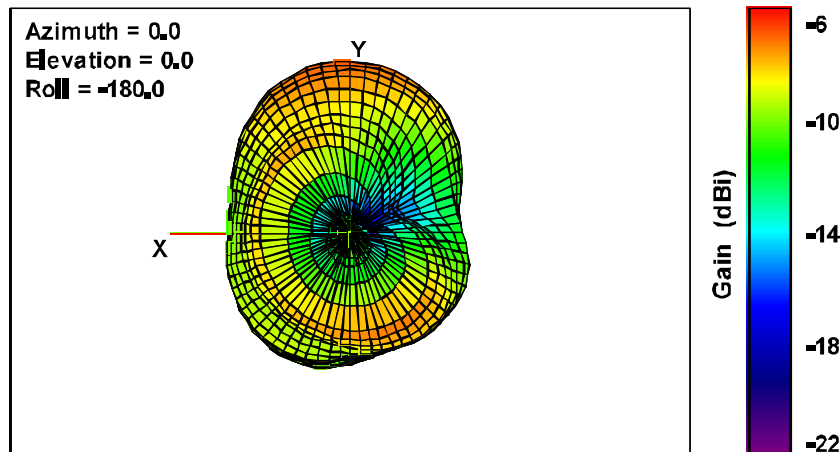


Free Space for 2400MHz

Total

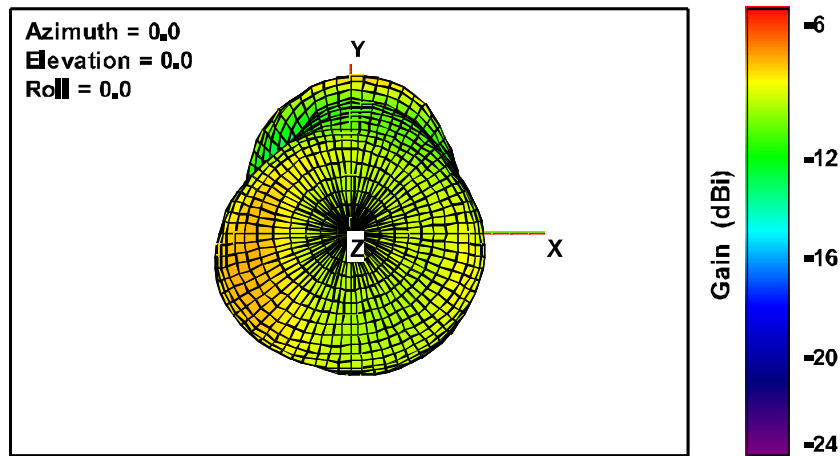


Total

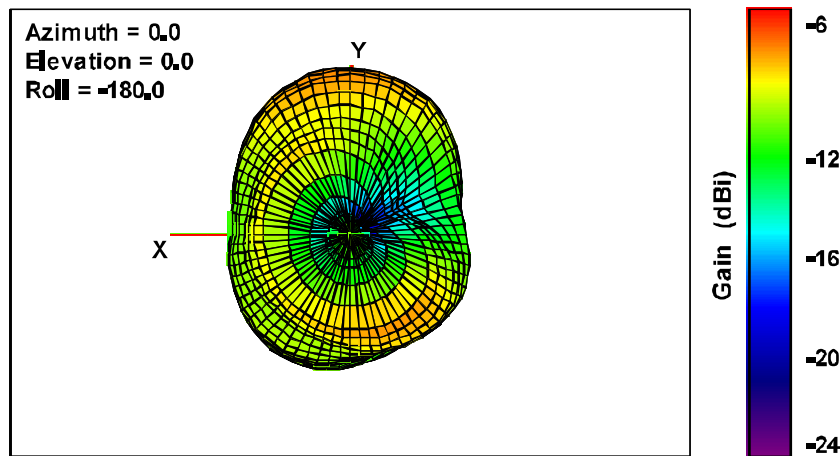


Free Space for 2410MHz

Total

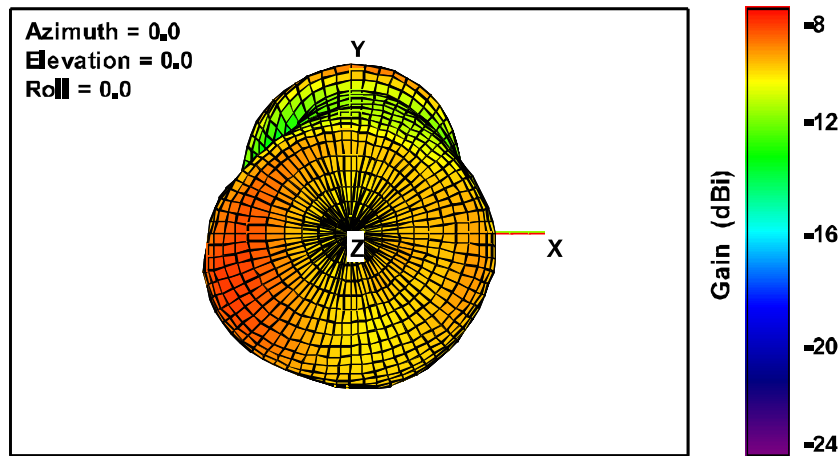


Total

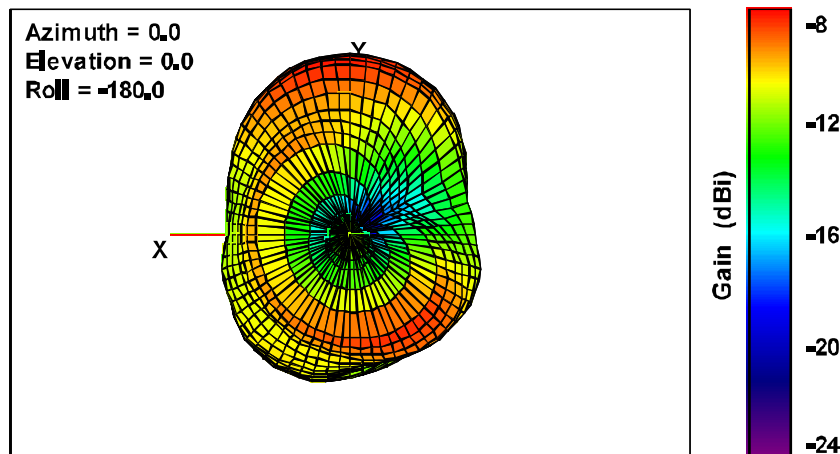


Free Space for 2420MHz

Total

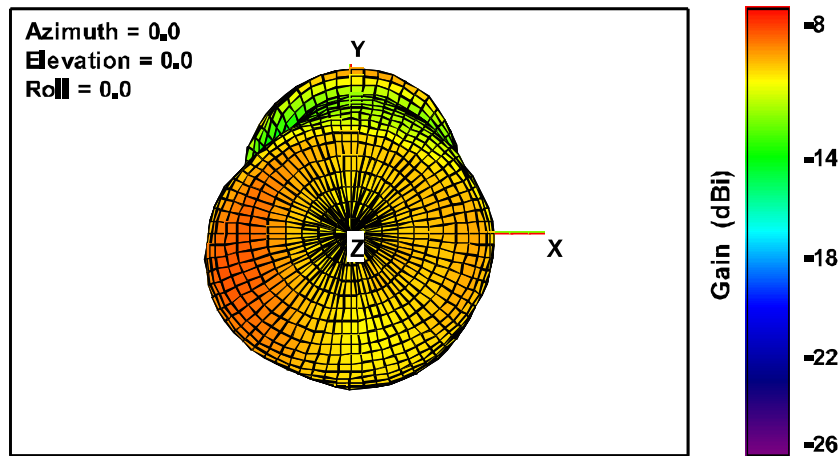


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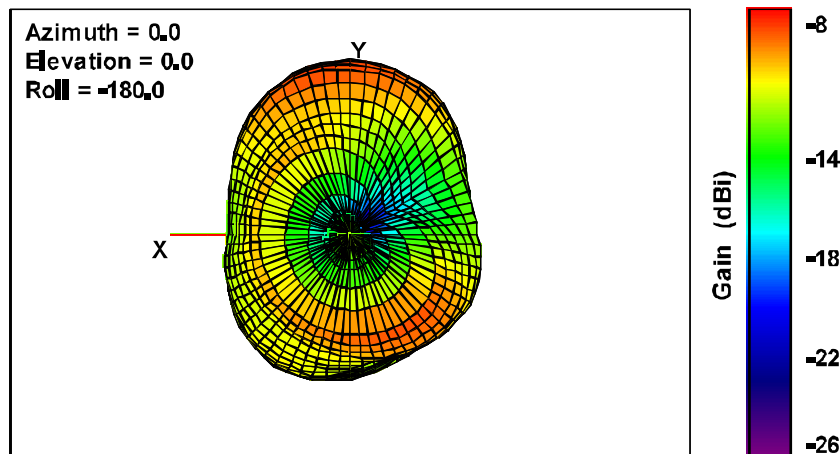


Free Space for 2430MHz

Total

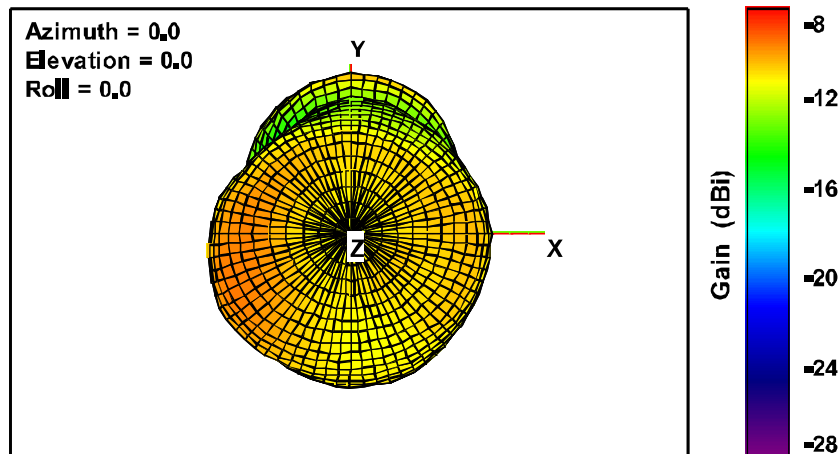


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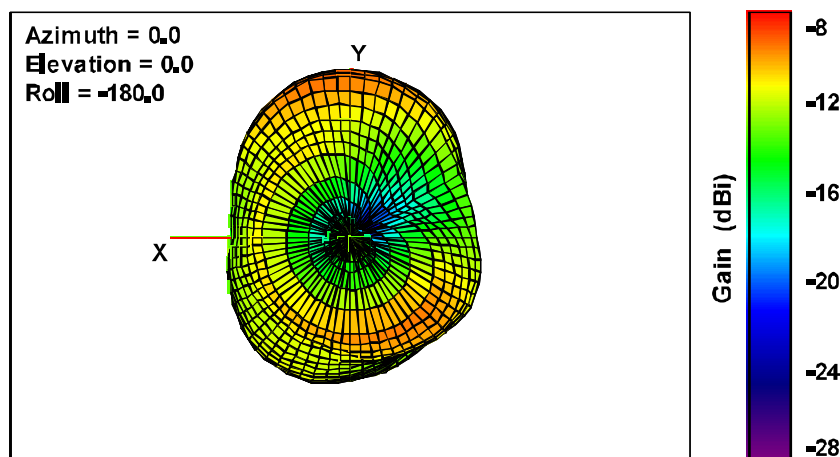


Free Space for 2440MHz

Total

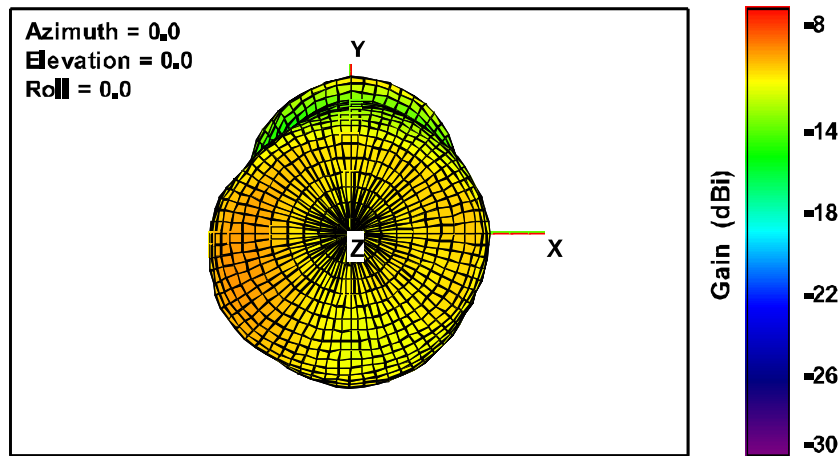


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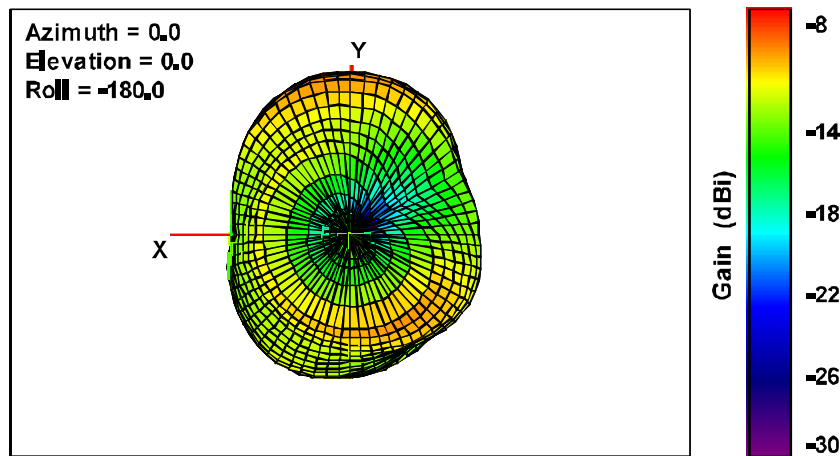


Free Space for 2450MHz

Total

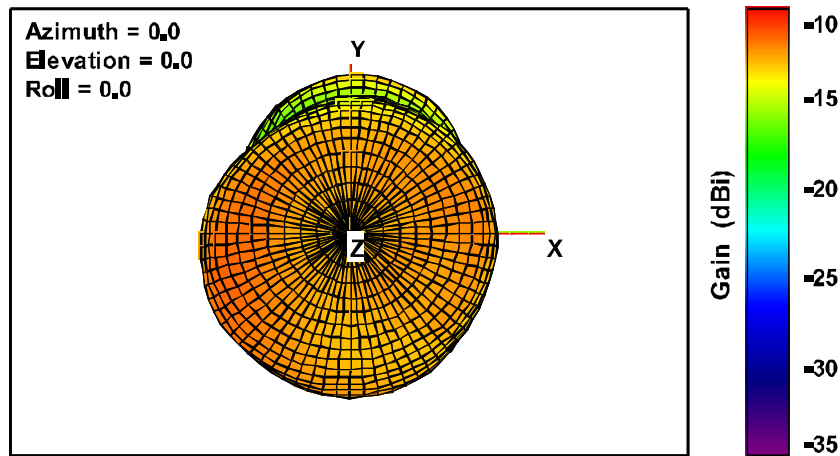


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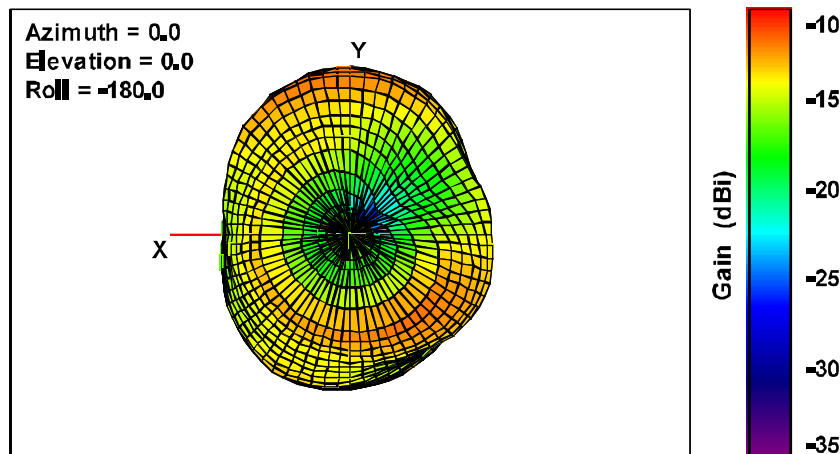


Free Space for 2460MHz

Total

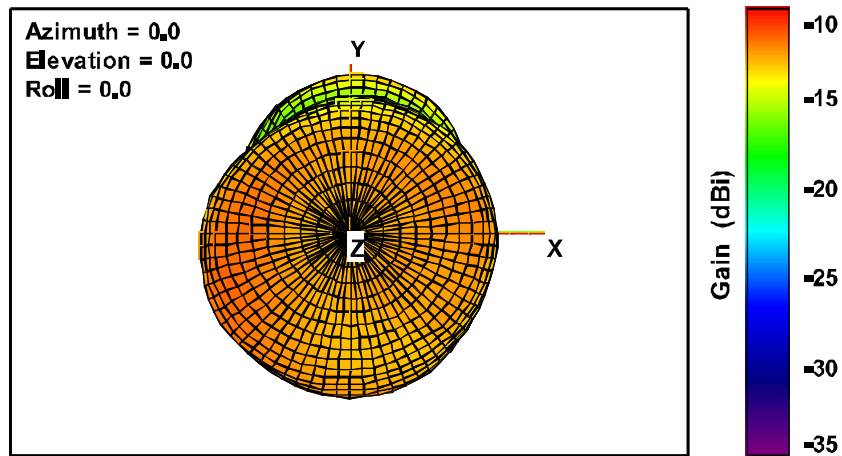


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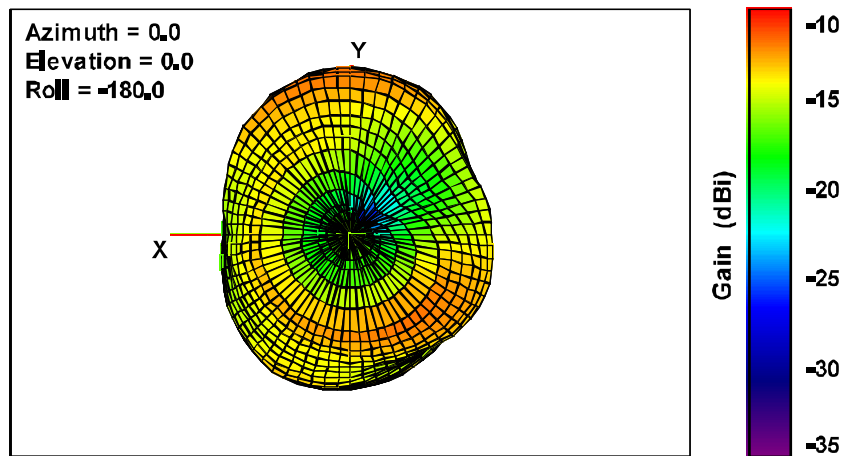


Free Space for 2470MHz

Total

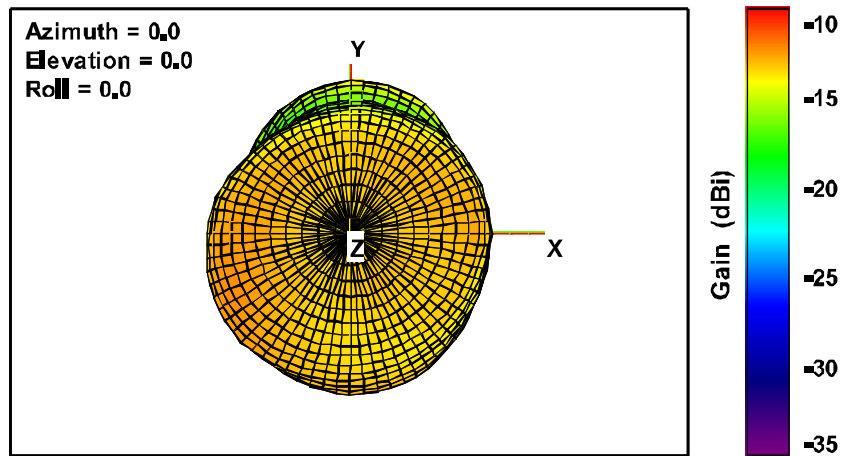


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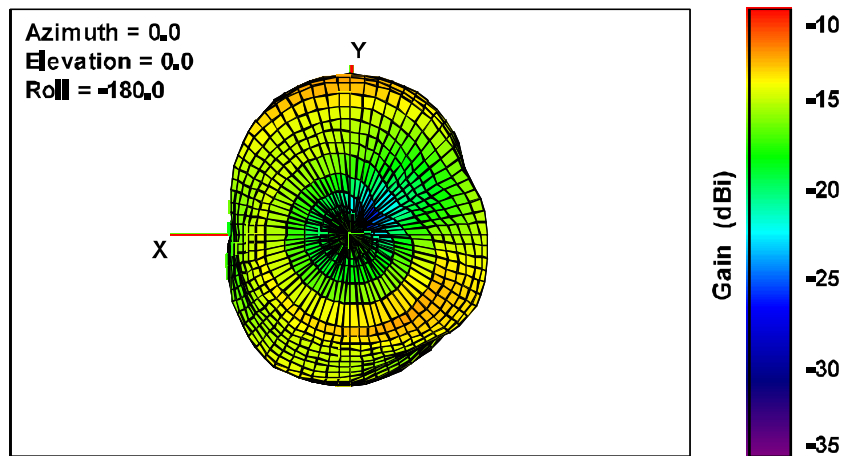


Free Space for 2480MHz

Total

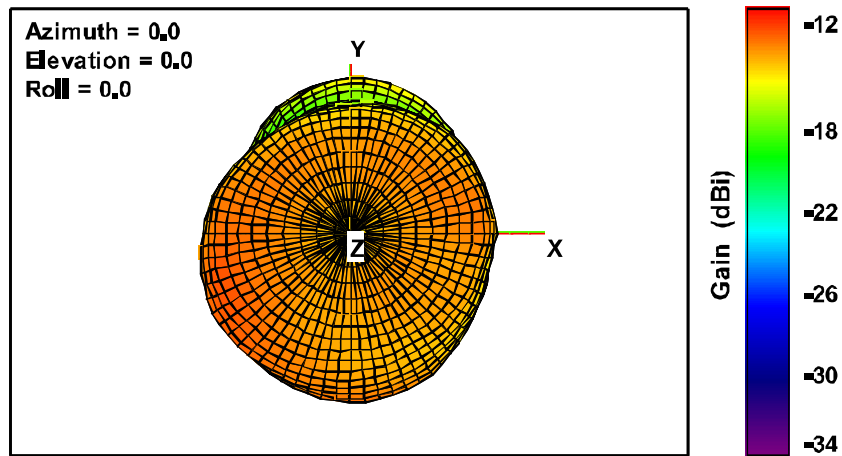


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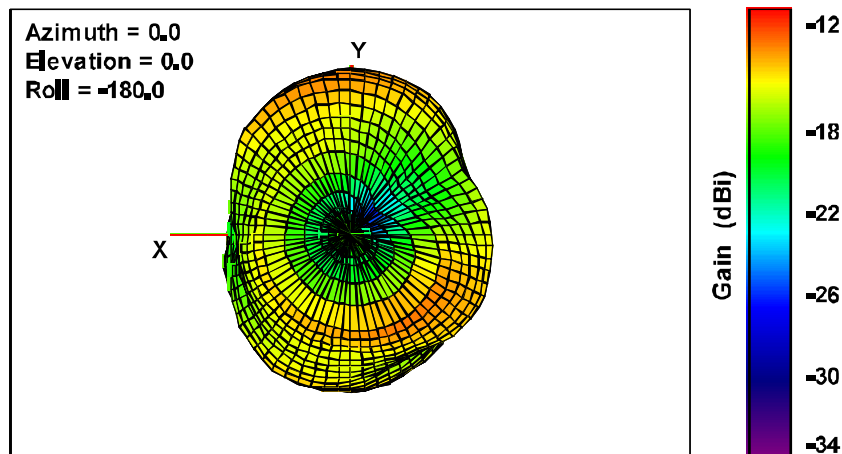


Free Space for 2490MHz

Total



Total



Free Space for 2500MHz

--THE END--