OTA TEST REPORT

Client Information:

Applicant.....:	**Zhejiang OKAI Vehicle Co.,Ltd.**
Address add..... :	**No.8 Xinfa Road, Xinbi Street, Jinyun County, Lislhui,Zhejiang,321400, China**
Product Name.....:	**PCB Antenna**
Model Name..... :	**HY_LEB_IG**
Date of Test.....:	**3 Mar. 2025**
Date of Issue.....:	**3 Mar. 2025**

Report Prepared by : Menglong Huang

(Menglong Huang)

Report Approved by : Leo Li

(Leo Li)

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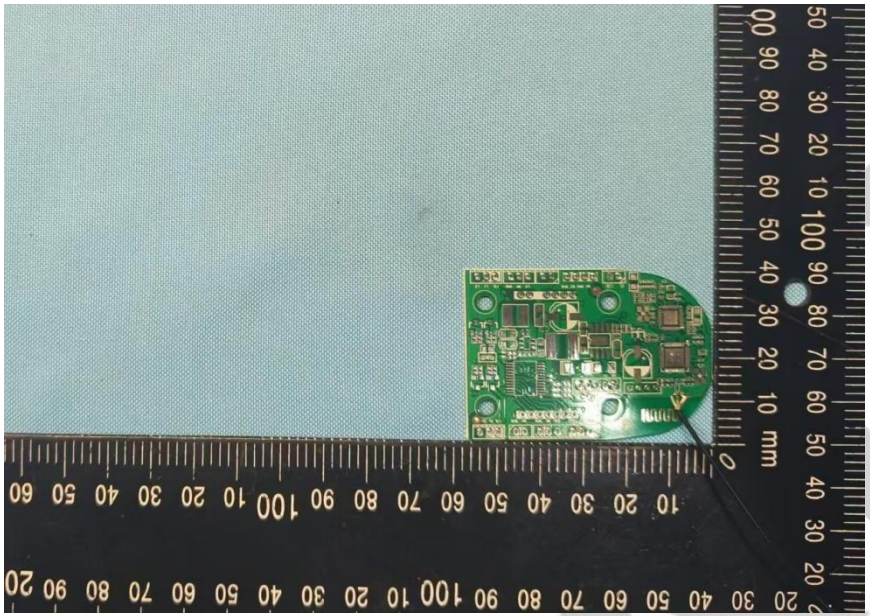
Revision History

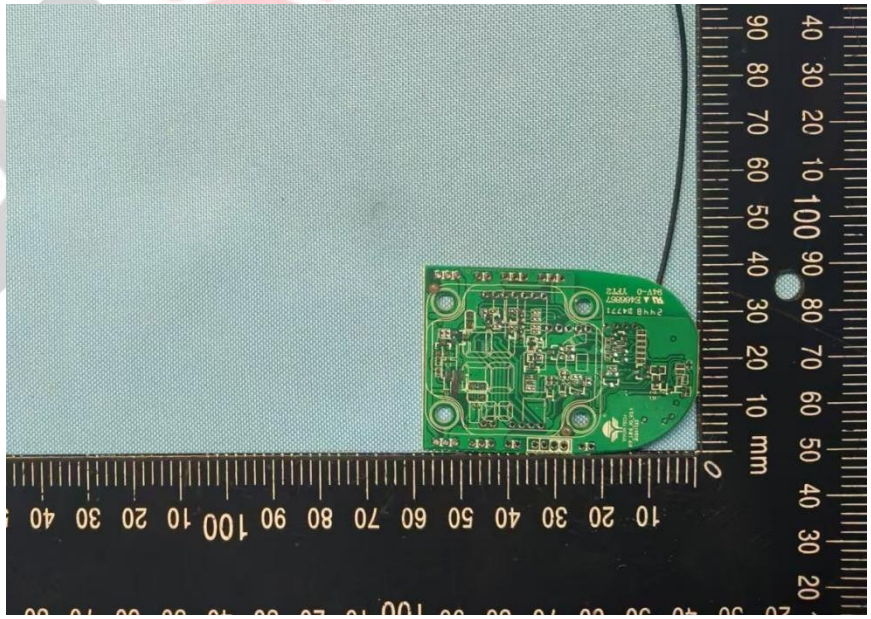
Rev.	Issue Date	Report No.	Effect Page	Contents
00	3 Mar. 2025	SHATBL2502016	ALL	Initial Issue

1. Device list

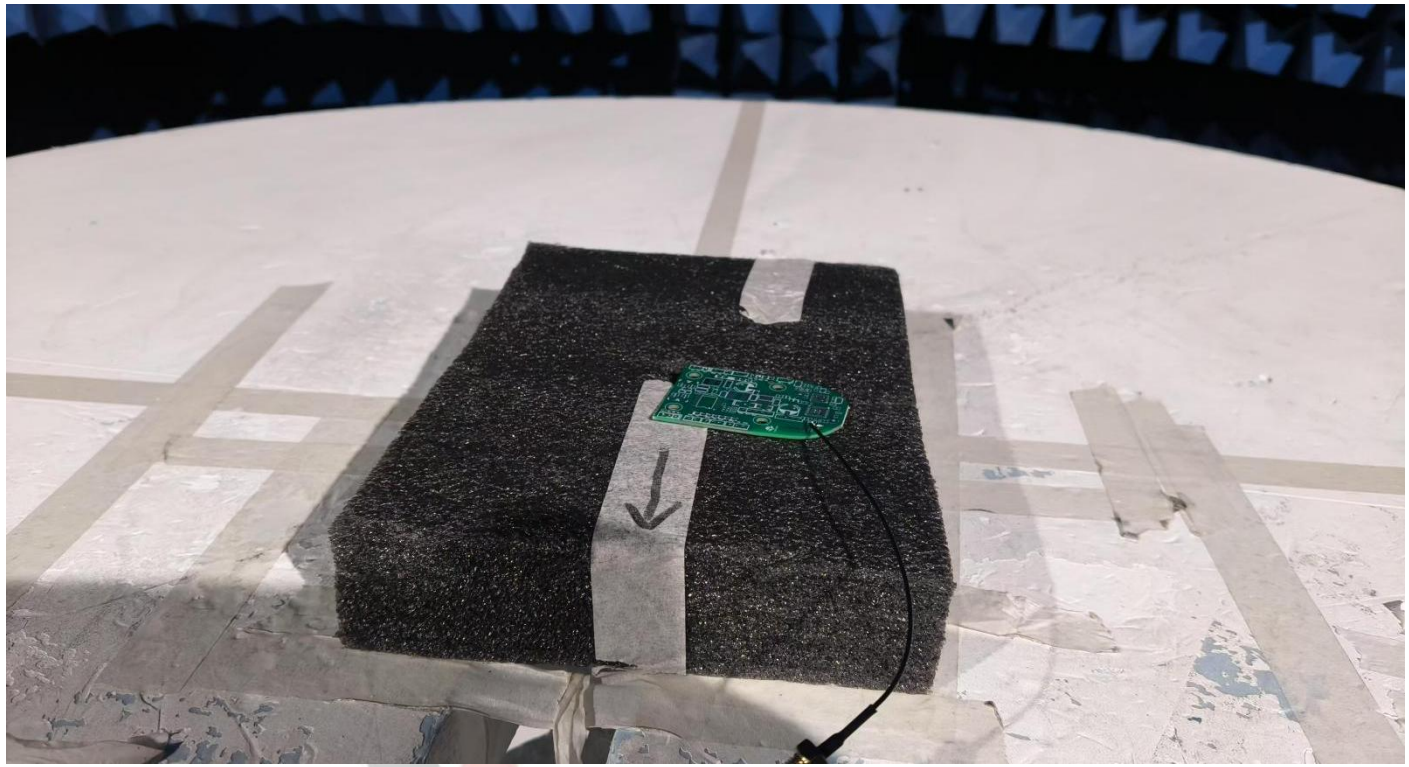
Equipment	Manufacturer	Model	Cal. Date	Cal. Due
TEST RECEIVER	R&S	ESPI	Nov 10, 2024	Nov 09, 2025
CMW500	R&S	CMW500	Nov 10, 2024	Nov 09, 2025
Network Analyzer	AGILENT	E5071C	Nov 10, 2024	Nov 09, 2025
Frequency Spectrograph	AGILENT	N9020A	Nov 10, 2024	Nov 09, 2025

2.Sample photo





3.Test layout



4. Results Summary

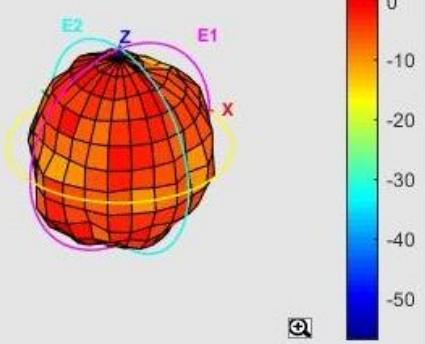
Overview

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)
2400	40.55	-3.92	2.09	6.01
2410	40.74	-3.90	2.26	6.16
2420	37.24	-4.29	1.93	6.22
2430	39.81	-4.00	2.38	6.38
2440	36.81	-4.34	2.14	6.48
2450	38.19	-4.18	2.13	6.31
2460	38.02	-4.20	2.24	6.44
2470	39.54	-4.03	2.49	6.52
2480	39.17	-4.07	2.49	6.56
2490	38.46	-4.15	2.25	6.40
2500	34.99	-4.56	1.74	6.30

5. Radiation Pattern/Efficiency

2.40GHz

Total

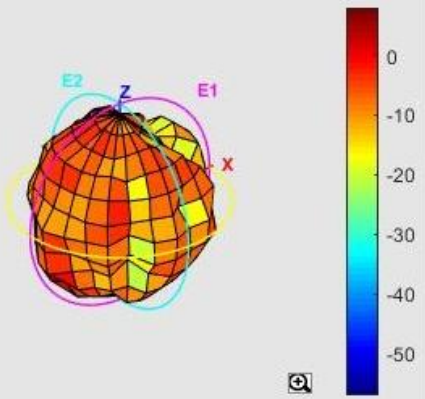


Text

G

	1	2
1	Summary	Total
2	Frequency	2.4GHz
3	Ant. Port Inp. Pow. (dBi)	0.00
4	Rad. Pow. (dBi)	-3.92
5	Rad. Pow. 0-90 (dBi)	-7.95
6	Rad. Pow. 90-180 (dBi)	-6.10
7	Peak EIRP (dBi)	2.09
8	Directivity (dBi)	6.01
9	Efficiency (dB)	-3.92
10	Efficiency (%)	40.55
11	Gain (dBi)	2.09

Theta



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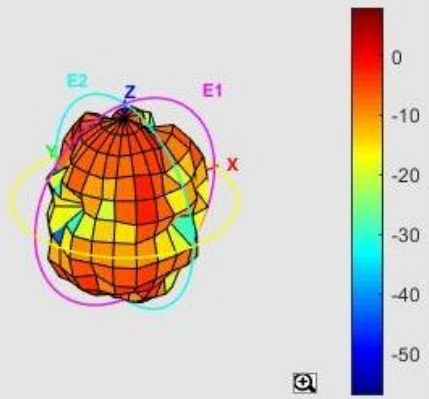
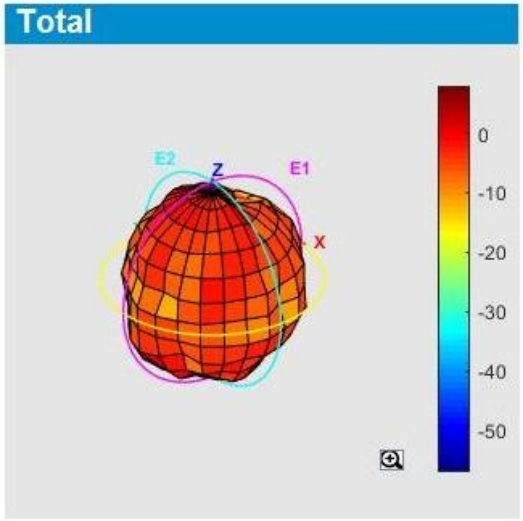
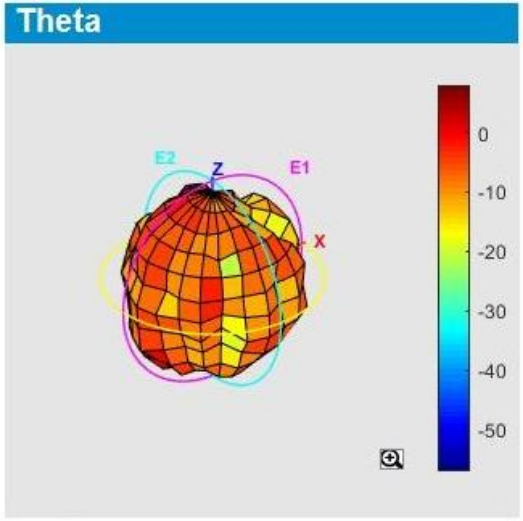


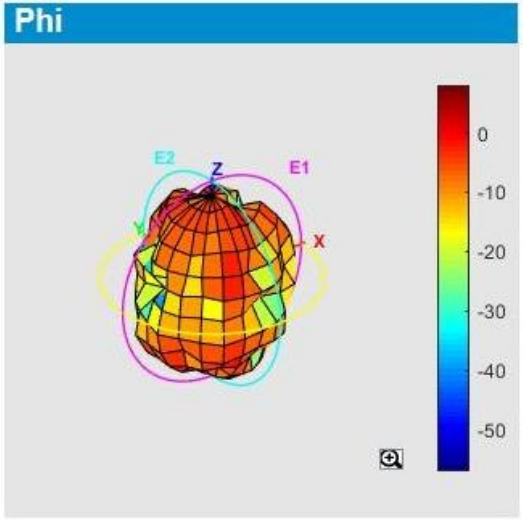
2.41GHz



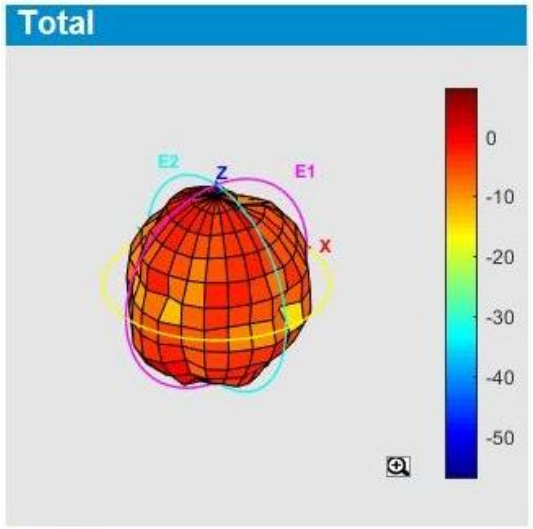
Text

	1	2
1	Summary	Total
2	Frequency	2.41GHz
3	Ant. Port Inp. Pow. (dBi)	0.00
4	Rad. Pow. (dBi)	-3.90
5	Rad. Pow. 0-90 (dBi)	-7.97
6	Rad. Pow. 90-180 (dBi)	-6.06
7	Peak EIRP (dBi)	2.26
8	Directivity (dBi)	6.16
9	Efficiency (dB)	-3.90
10	Efficiency (%)	40.74
11	Gain (dBi)	2.26



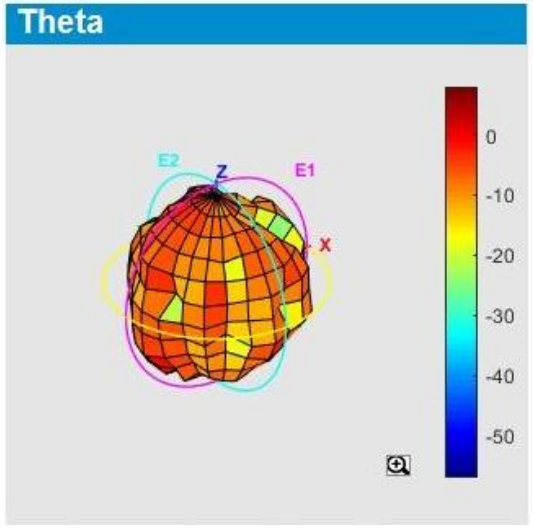


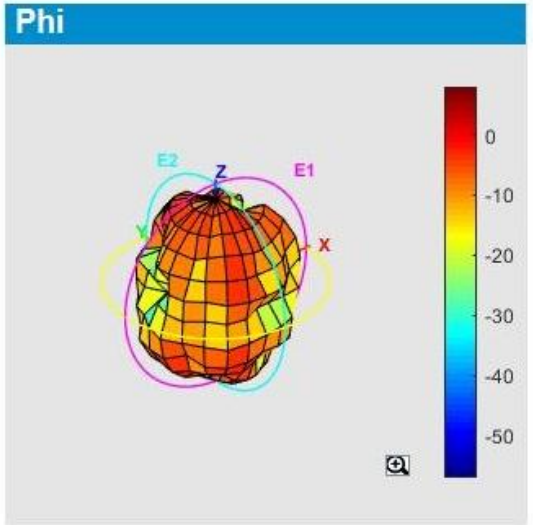
2.42GHz



Text

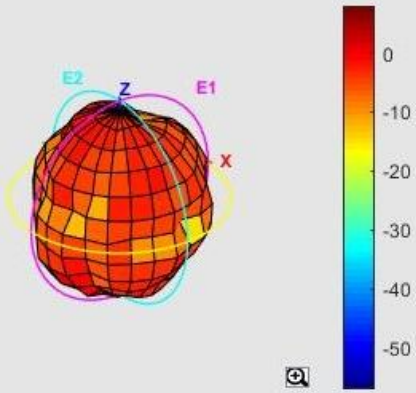
	1	2
1	Summary	Total
2	Frequency	2.42GHz
3	Ant. Port Inp. Pow. (dBi)	0.00
4	Rad. Pow. (dBi)	-4.29
5	Rad. Pow. 0-90 (dBi)	-8.35
6	Rad. Pow. 90-180 (dBi)	-6.45
7	Peak EIRP (dBi)	1.93
8	Directivity (dBi)	6.22
9	Efficiency (dB)	-4.29
10	Efficiency (%)	37.24
11	Gain (dBi)	1.93





2.43GHz

Total

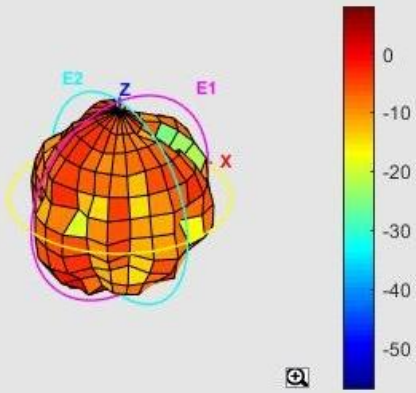


Text

G

	1	2
1	Summary	Total
2	Frequency	2.43GHz
3	Ant. Port Inp. Pow. (dBi)	0.00
4	Rad. Pow. (dBi)	-4.00
5	Rad. Pow. 0-90 (dBi)	-8.03
6	Rad. Pow. 90-180 (dBi)	-6.19
7	Peak EIRP (dBi)	2.38
8	Directivity (dBi)	6.38
9	Efficiency (dB)	-4.00
10	Efficiency (%)	39.81
11	Gain (dBi)	2.38

Theta



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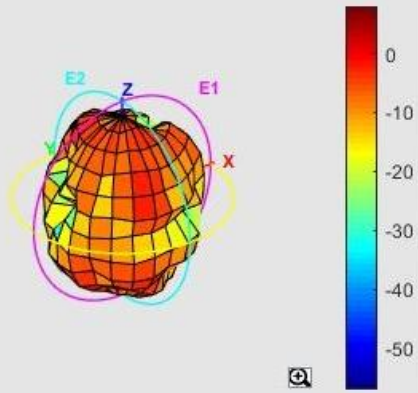
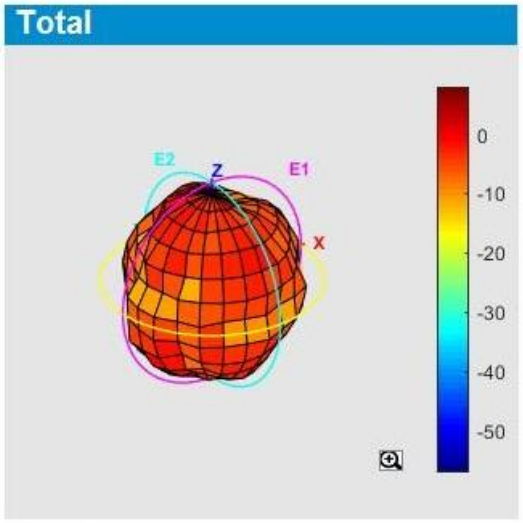
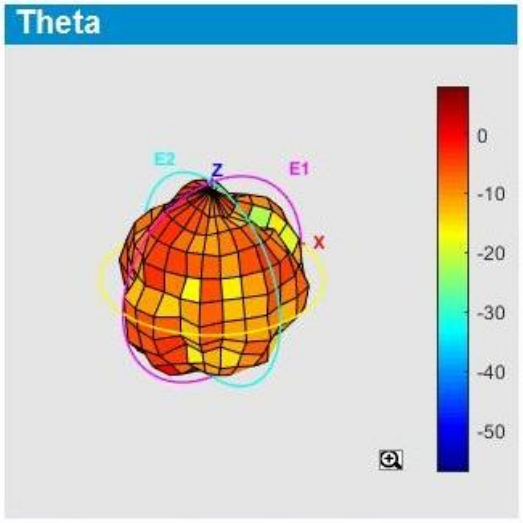


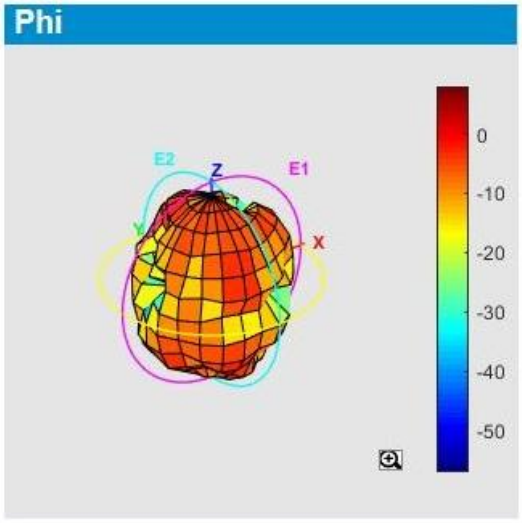
2.44GHz



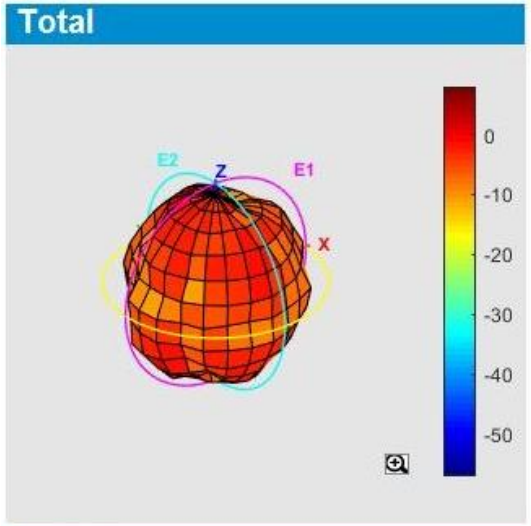
Text

	1	2
1	Summary	Total
2	Frequency	2.44GHz
3	Ant. Port Inp. Pow. (dBi)	0.00
4	Rad. Pow. (dBi)	-4.34
5	Rad. Pow. 0-90 (dBi)	-8.36
6	Rad. Pow. 90-180 (dBi)	-6.53
7	Peak EIRP (dBi)	2.14
8	Directivity (dBi)	6.48
9	Efficiency (dB)	-4.34
10	Efficiency (%)	36.81
11	Gain (dBi)	2.14



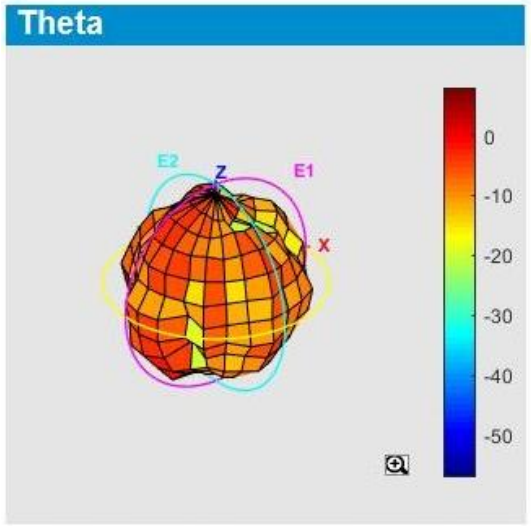


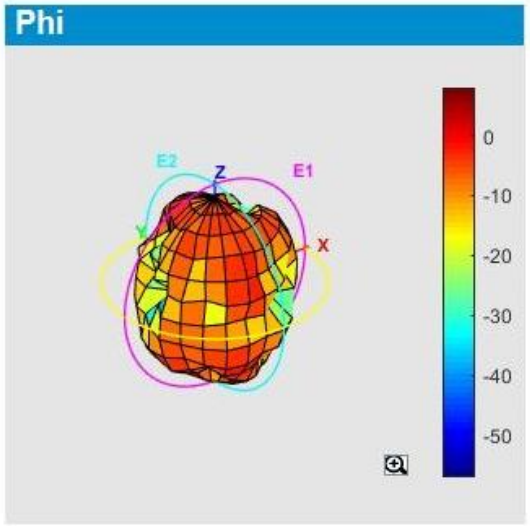
2.45GHz



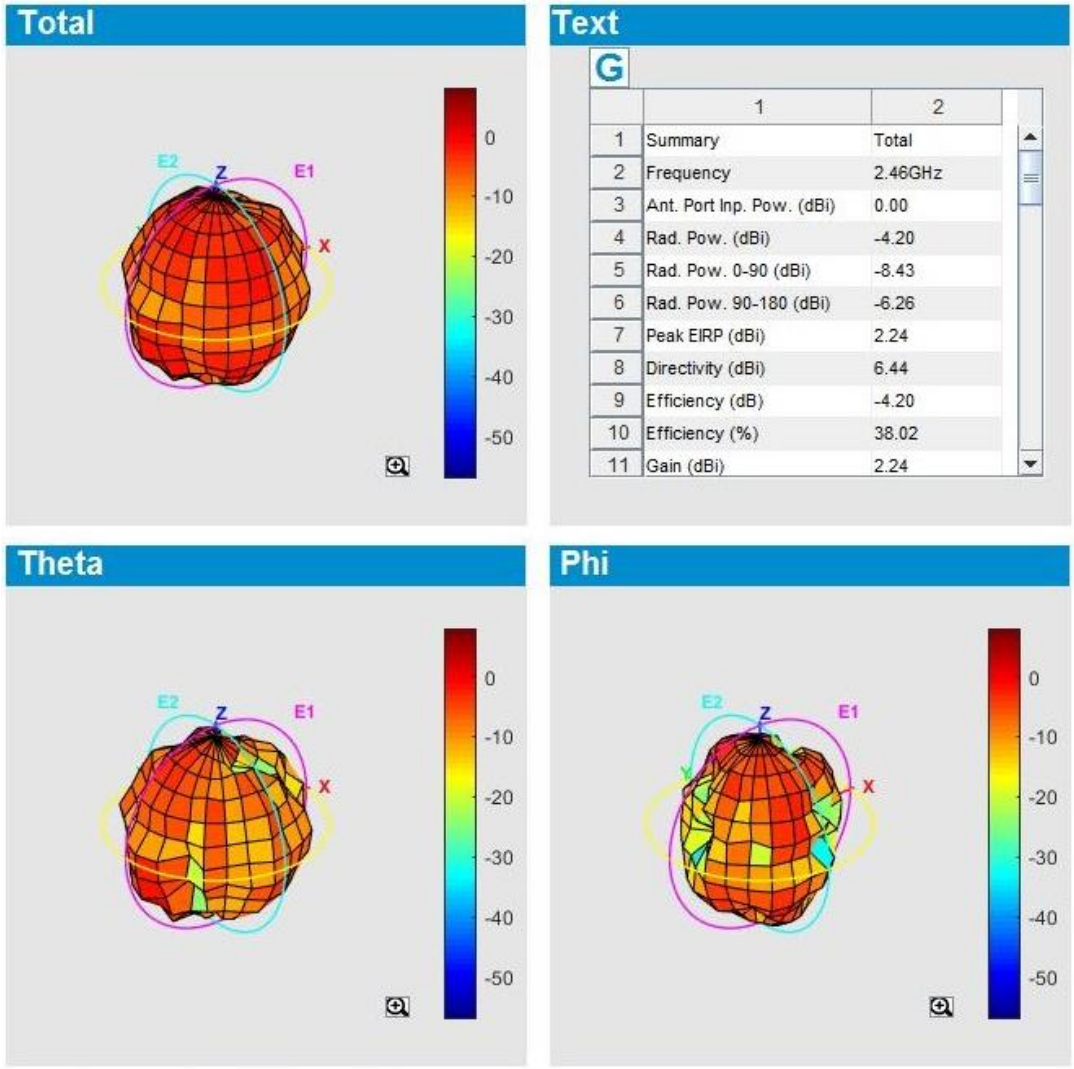
Text

	1	2
1	Summary	Total
2	Frequency	2.45GHz
3	Ant. Port Inp. Pow. (dBi)	0.00
4	Rad. Pow. (dBi)	-4.18
5	Rad. Pow. 0-90 (dBi)	-8.32
6	Rad. Pow. 90-180 (dBi)	-6.30
7	Peak EIRP (dBi)	2.13
8	Directivity (dBi)	6.31
9	Efficiency (dB)	-4.18
10	Efficiency (%)	38.19
11	Gain (dBi)	2.13

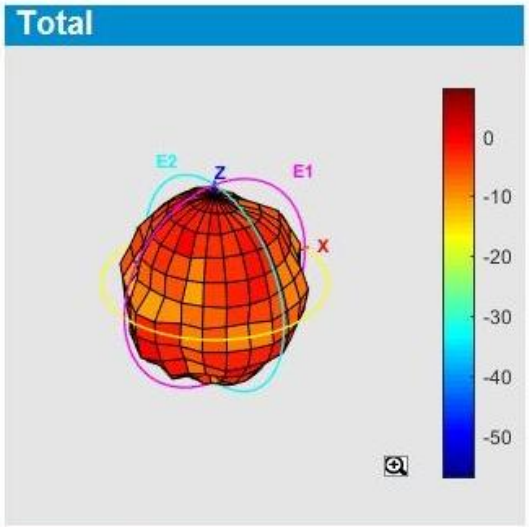




2.46GHz

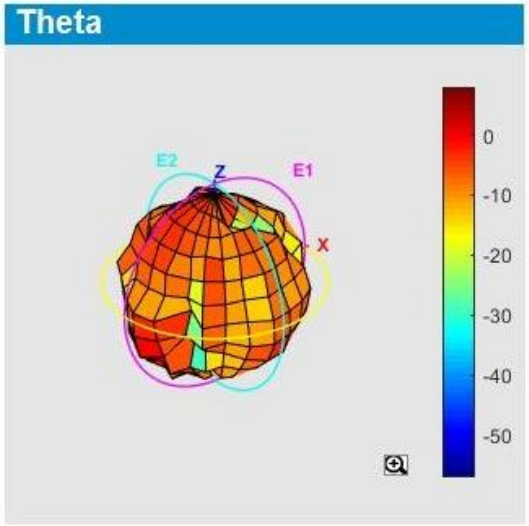

Total
E2
Z
E1
X
0
-10
-20
-30
-40
-50
Text
G
1 2
1 Summary Total
2 Frequency 2.46GHz
3 Ant. Port Inp. Pow. (dBi) 0.00
4 Rad. Pow. (dBi) -4.20
5 Rad. Pow. 0-90 (dBi) -8.43
6 Rad. Pow. 90-180 (dBi) -6.26
7 Peak EIRP (dBi) 2.24
8 Directivity (dBi) 6.44
9 Efficiency (dB) -4.20
10 Efficiency (%) 38.02
11 Gain (dBi) 2.24
Theta
E2
Z
E1
X
0
-10
-20
-30
-40
-50
Phi
E2
Z
E1
X
0
-10
-20
-30
-40
-50

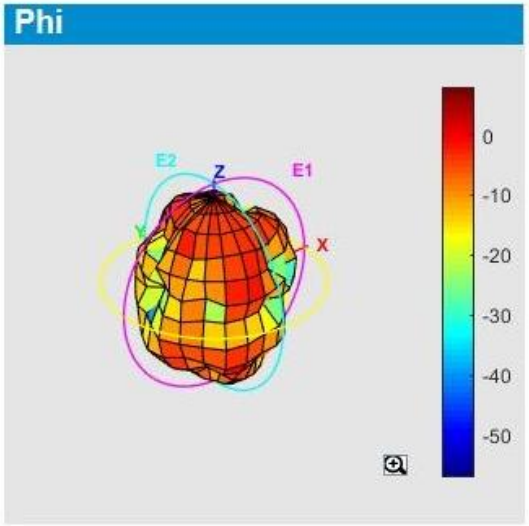
2.47GHz



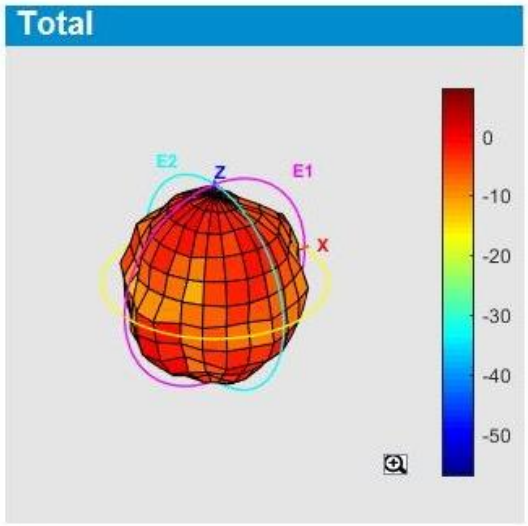
Text

	1	2
1	Summary	Total
2	Frequency	2.47GHz
3	Ant. Port Inp. Pow. (dBi)	0.00
4	Rad. Pow. (dBi)	-4.03
5	Rad. Pow. 0-90 (dBi)	-8.28
6	Rad. Pow. 90-180 (dBi)	-6.08
7	Peak EIRP (dBi)	2.49
8	Directivity (dBi)	6.52
9	Efficiency (dB)	-4.03
10	Efficiency (%)	39.54
11	Gain (dBi)	2.49



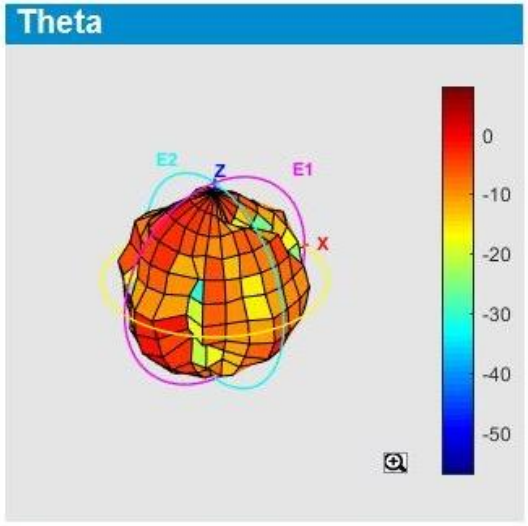


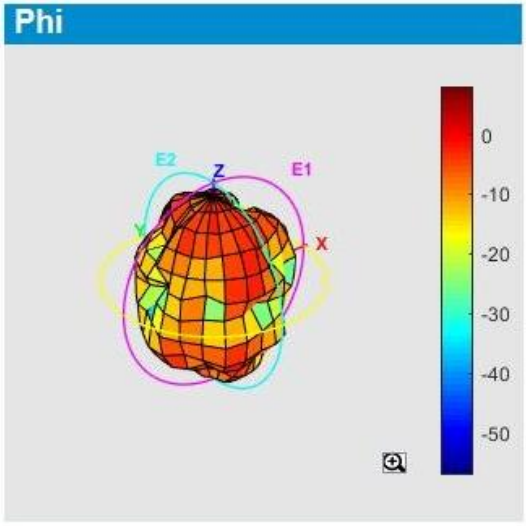
2.48GHz



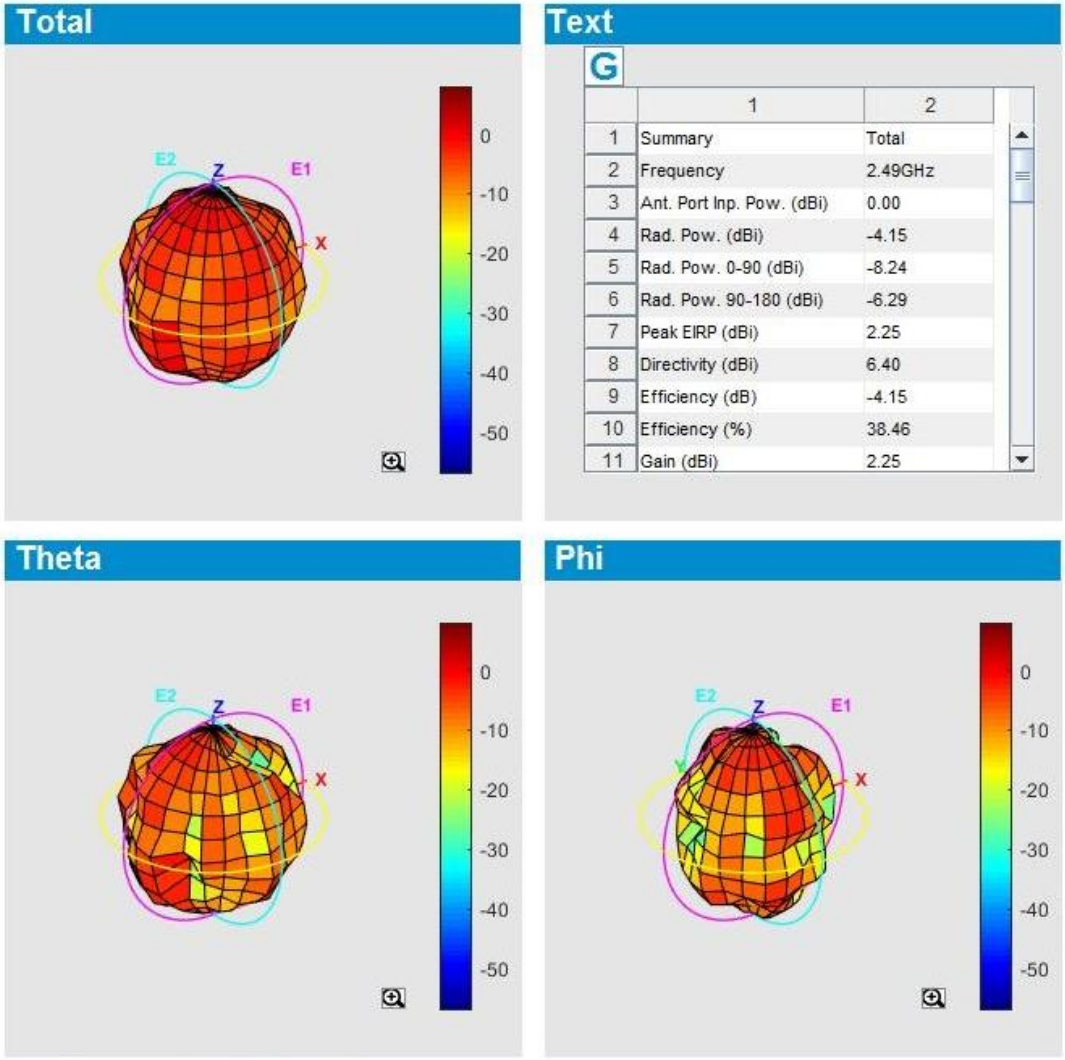
Text

	1	2
1	Summary	Total
2	Frequency	2.48GHz
3	Ant. Port Inp. Pow. (dBi)	0.00
4	Rad. Pow. (dBi)	-4.07
5	Rad. Pow. 0-90 (dBi)	-8.27
6	Rad. Pow. 90-180 (dBi)	-6.14
7	Peak EIRP (dBi)	2.49
8	Directivity (dBi)	6.56
9	Efficiency (dB)	-4.07
10	Efficiency (%)	39.17
11	Gain (dBi)	2.49

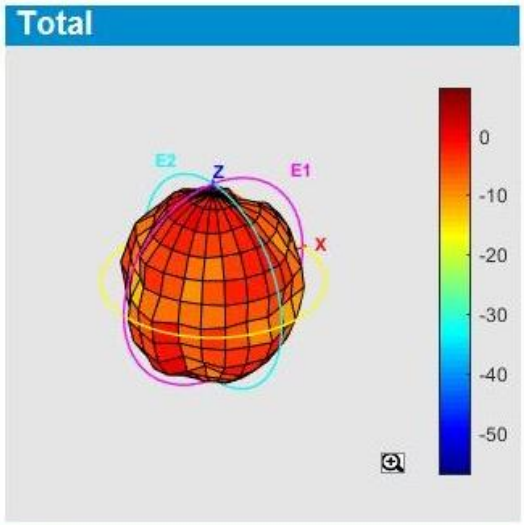




2.49GHz


Total
E2
Z
E1
X
0
-10
-20
-30
-40
-50
Text
G
1 2
1 Summary Total
2 Frequency 2.49GHz
3 Ant. Port Inp. Pow. (dBi) 0.00
4 Rad. Pow. (dBi) -4.15
5 Rad. Pow. 0-90 (dBi) -8.24
6 Rad. Pow. 90-180 (dBi) -6.29
7 Peak EIRP (dBi) 2.25
8 Directivity (dBi) 6.40
9 Efficiency (dB) -4.15
10 Efficiency (%) 38.46
11 Gain (dBi) 2.25
Theta
E2
Z
E1
X
0
-10
-20
-30
-40
-50
Phi
E2
Z
E1
Y
X
0
-10
-20
-30
-40
-50

2.50GHz



Text

G

	1	2
1	Summary	Total
2	Frequency	2.5GHz
3	Ant. Port Inp. Pow. (dBi)	0.00
4	Rad. Pow. (dBi)	-4.56
5	Rad. Pow. 0-90 (dBi)	-8.58
6	Rad. Pow. 90-180 (dBi)	-6.76
7	Peak EIRP (dBi)	1.74
8	Directivity (dBi)	6.30
9	Efficiency (dB)	-4.56
10	Efficiency (%)	34.99
11	Gain (dBi)	1.74