Report No.: SHATBL2209009

OTA TEST REPORT

ClientInformation:

Applicant.....:	**Bartec USA LLC.**
Address add..... :	**44231 Phoenix Drive, Sterling Heights, Michigan 48314, United States**
Product Name.....:	**RITE-SENSOR Blue®**
Model Name..... :	**RS-3000**
Date of Test.....	**14 Sep. 2022**
Date of Issue.....	**14 Sep. 2022**

Report Prepared by : qiyaozhao

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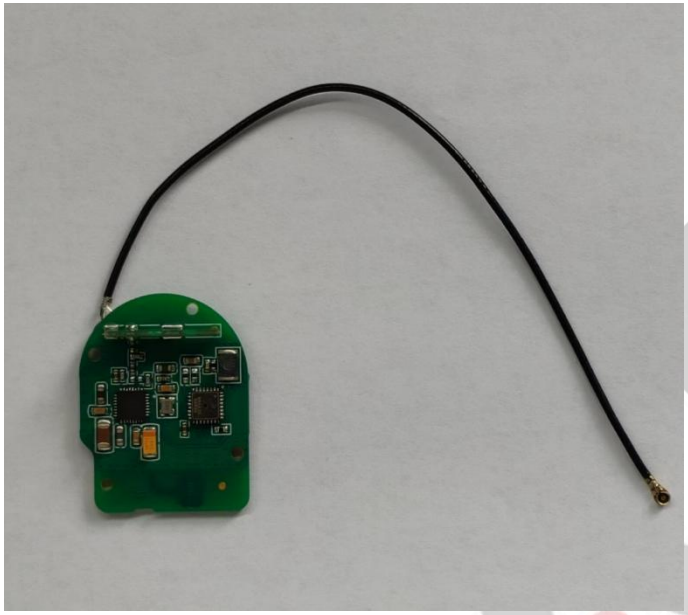
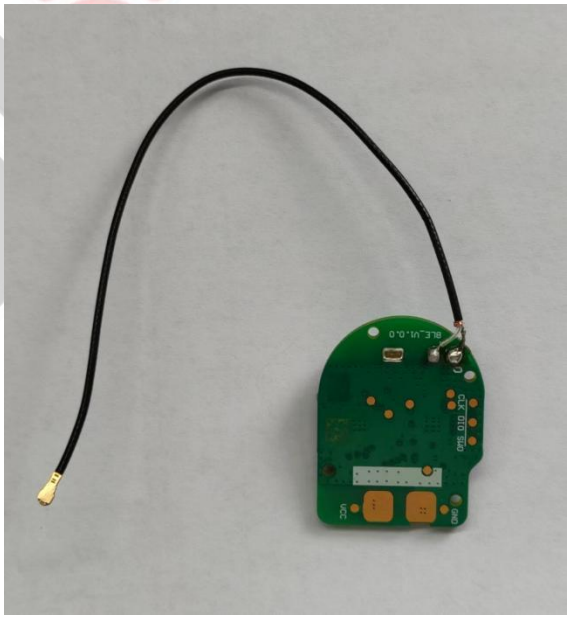
Revision History

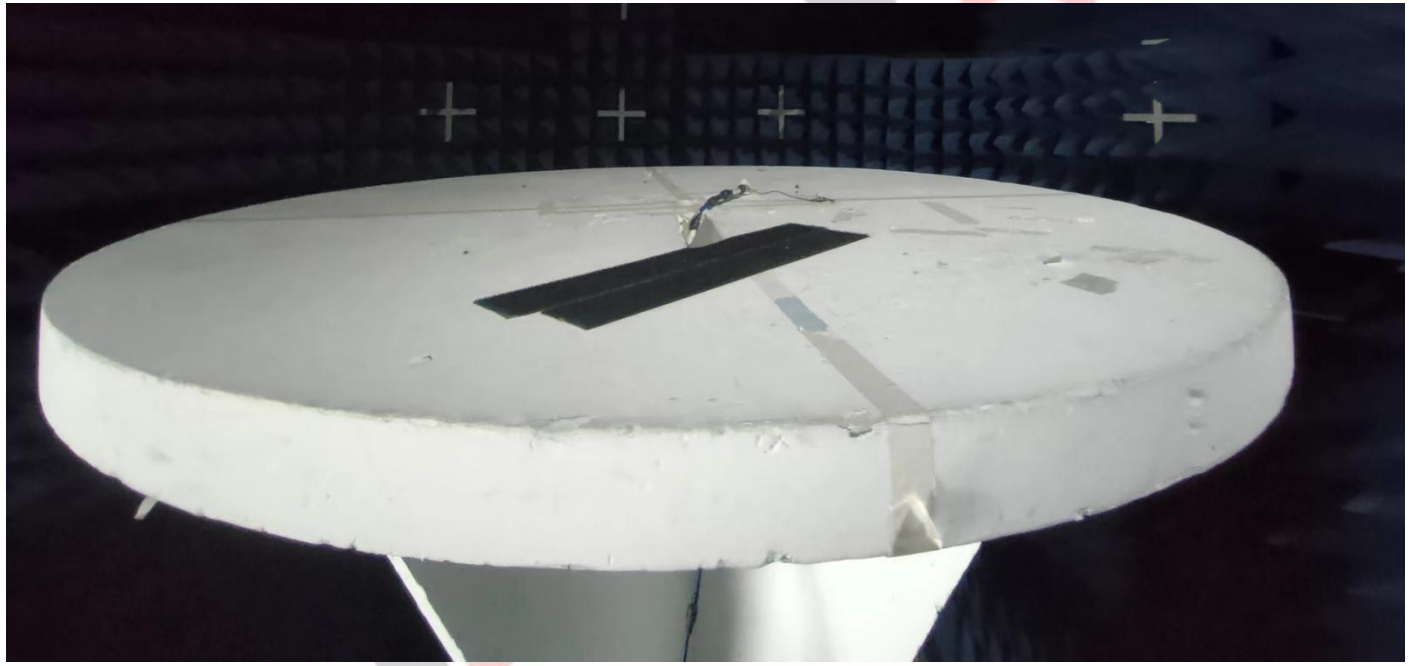
Rev.	Issue Date	Report No.	Effect Page	Contents
00	15 Sep. 2022	SHATBL2209009	ALL	Initial Issue

1.Sample photo





2.Test layout



3. Results Summary

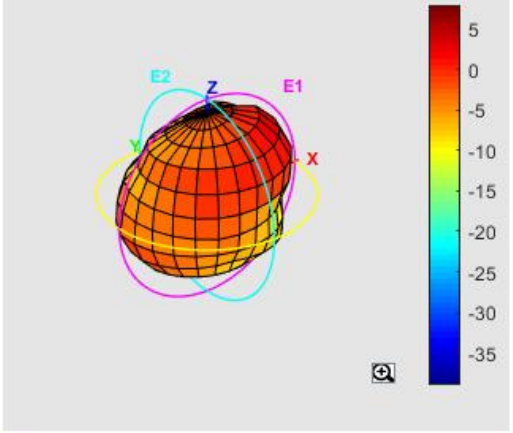
Overview

Test / Position	Free Space										
Communication System	Gain										
frequently	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Avg Gain	**-4.6**	**-4.6**	**-4.3**	**-4.1**	**-4.1**	**-4.0**	**-4.0**	**-4.2**	**-4.1**	**-4.2**	**-4.4**
Peak Gain	2.3	2.1	1.8	1.3	0.8	0.7	1.2	1.4	1.9	1.8	1.3
Directivity	6.8	6.6	6.0	5.4	4.8	4.7	5.2	5.6	6.0	6.0	5.7
Efficiency	-4.6	-4.6	-4.3	-4.1	-4.1	-4.0	-4.0	-4.2	-4.1	-4.2	-4.4
Efficiency (%)	**34.8**	**34.9**	**37.5**	**38.6**	**39.4**	**40.2**	**39.7**	**37.8**	**38.7**	**38.1**	**36.6**
Gain	2.3	2.1	1.8	1.3	0.8	0.7	1.2	1.4	1.9	1.8	1.3
Note											

4. Radiation Pattern/Efficiency

2.40GHz

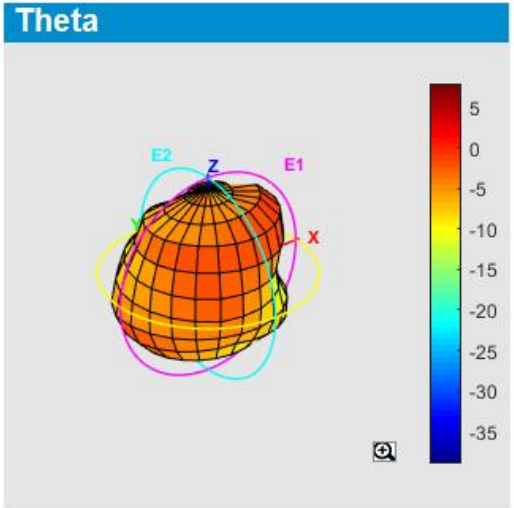
Total



Text

	1	2
1	Summary	Total
2	Frequency	2.4GHz
3	Ant. Port Inp. Pow. (dBi)	0.00
4	Rad. Pow. (dBi)	-4.59
5	Rad. Pow. 0-90 (dBi)	-6.35
6	Rad. Pow. 90-180 (dBi)	-9.36
7	Peak EIRP (dBi)	2.25
8	Directivity (dBi)	6.84
9	Efficiency (dB)	-4.59
10	Efficiency (%)	34.75
11	Gain (dBi)	2.25

Theta



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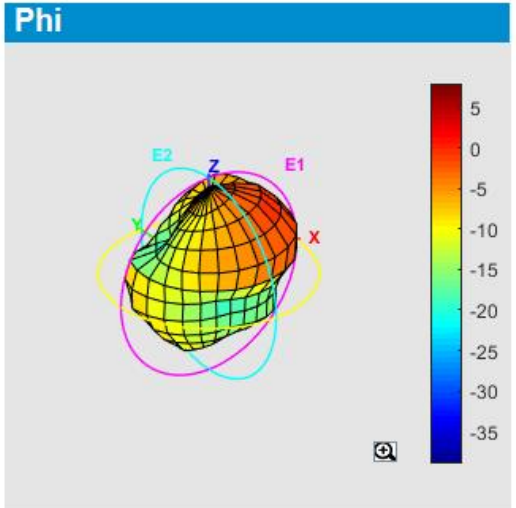
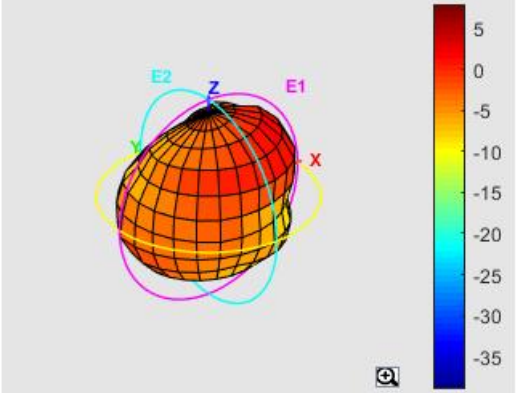


2.41GHz

Total



Text

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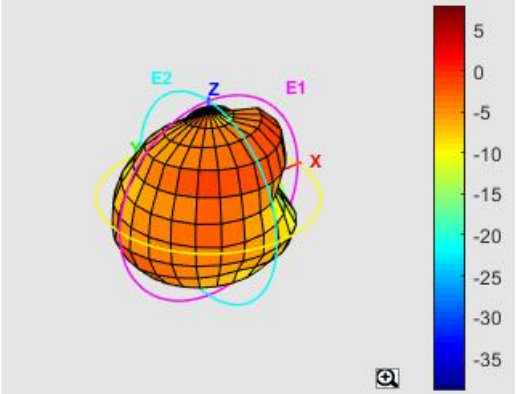
1	Summary	Total
2	Frequency	2.41GHz
3	Ant. Port Inp. Pow. (dBi)	0.00
4	Rad. Pow. (dBi)	-4.57
5	Rad. Pow. 0-90 (dBi)	-6.46
6	Rad. Pow. 90-180 (dBi)	-9.09
7	Peak EIRP (dBi)	2.06
8	Directivity (dBi)	6.63
9	Efficiency (dB)	-4.57
10	Efficiency (%)	34.91
11	Gain (dBi)	2.06

Theta



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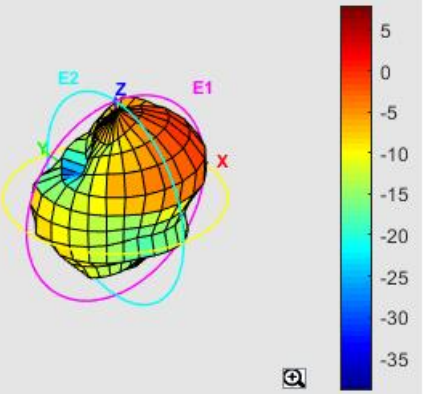
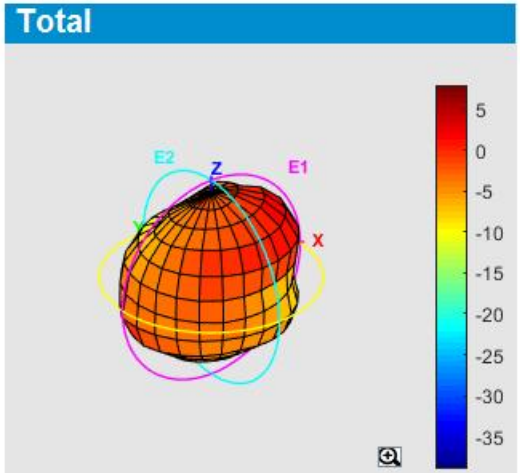


2.42GHz

Total

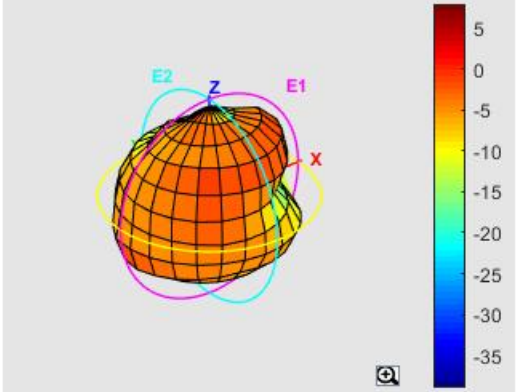


Text

G

	1	2
1	Summary	Total
2	Frequency	2.42GHz
3	Ant. Port Inp. Pow. (dBi)	0.00
4	Rad. Pow. (dBi)	-4.26
5	Rad. Pow. 0-90 (dBi)	-6.24
6	Rad. Pow. 90-180 (dBi)	-8.61
7	Peak EIRP (dBi)	1.75
8	Directivity (dBi)	6.01
9	Efficiency (dB)	-4.26
10	Efficiency (%)	37.50
11	Gain (dBi)	1.75

Theta



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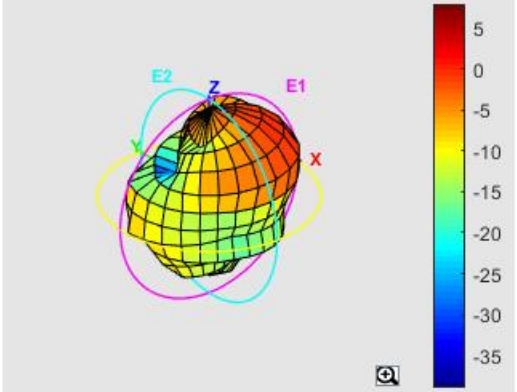
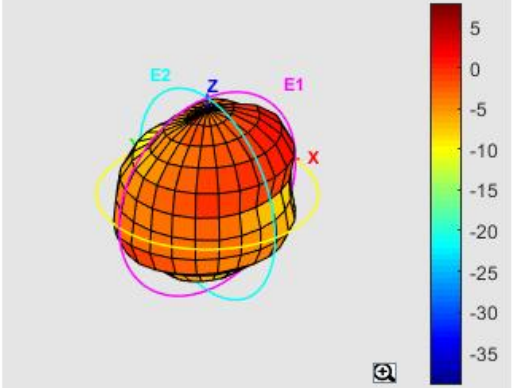


2.43GHz

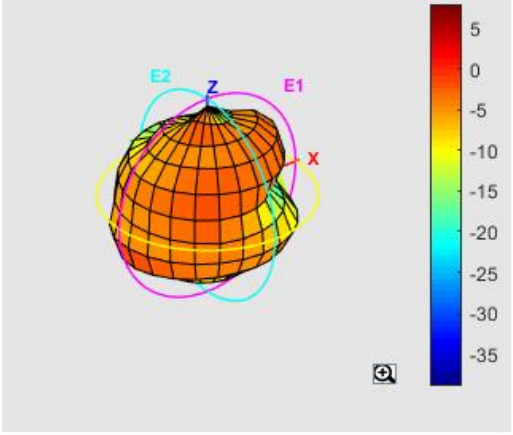
Total



Text

	1	2
1	Summary	Total
2	Frequency	2.43GHz
3	Ant. Port Inp. Pow. (dBi)	0.00
4	Rad. Pow. (dBi)	-4.13
5	Rad. Pow. 0-90 (dBi)	-6.27
6	Rad. Pow. 90-180 (dBi)	-8.23
7	Peak EIRP (dBi)	1.29
8	Directivity (dBi)	5.42
9	Efficiency (dB)	-4.13
10	Efficiency (%)	38.64
11	Gain (dBi)	1.29

Theta



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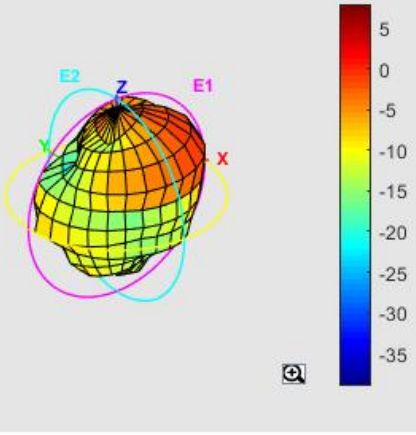
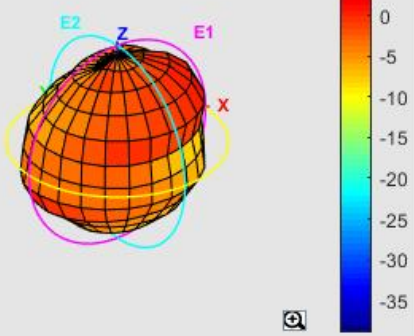


2.44GHz

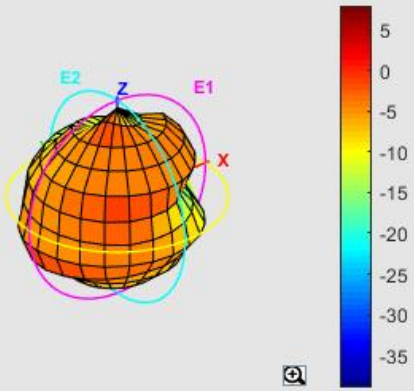
Total



Text

	1	2
1	Summary	Total
2	Frequency	2.44GHz
3	Ant. Port Inp. Pow. (dBi)	0.00
4	Rad. Pow. (dBi)	-4.05
5	Rad. Pow. 0-90 (dBi)	-6.29
6	Rad. Pow. 90-180 (dBi)	-7.99
7	Peak EIRP (dBi)	0.75
8	Directivity (dBi)	4.80
9	Efficiency (dB)	-4.05
10	Efficiency (%)	39.36
11	Gain (dBi)	0.75

Theta



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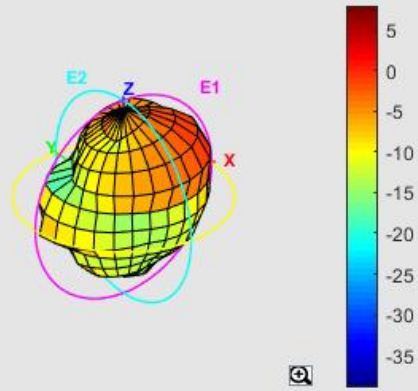
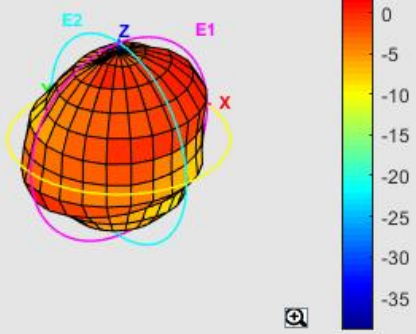


2.45GHz

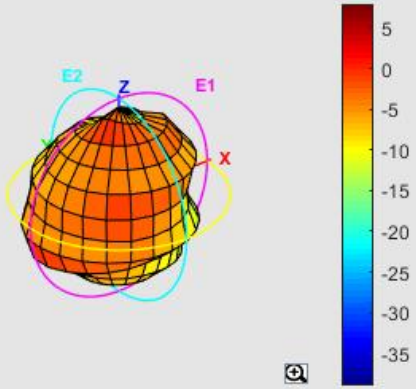
Total



Text

	1	2
1	Summary	Total
2	Frequency	2.45GHz
3	Ant. Port Inp. Pow. (dBi)	0.00
4	Rad. Pow. (dBi)	-3.96
5	Rad. Pow. 0-90 (dBi)	-6.09
6	Rad. Pow. 90-180 (dBi)	-8.07
7	Peak EIRP (dBi)	0.71
8	Directivity (dBi)	4.67
9	Efficiency (dB)	-3.96
10	Efficiency (%)	40.18
11	Gain (dBi)	0.71

Theta



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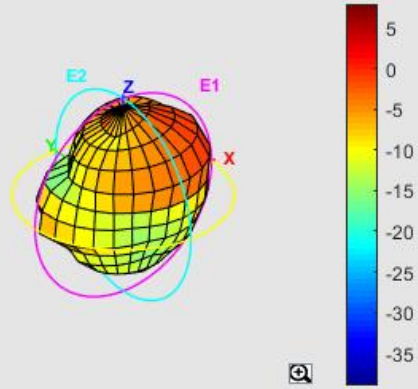
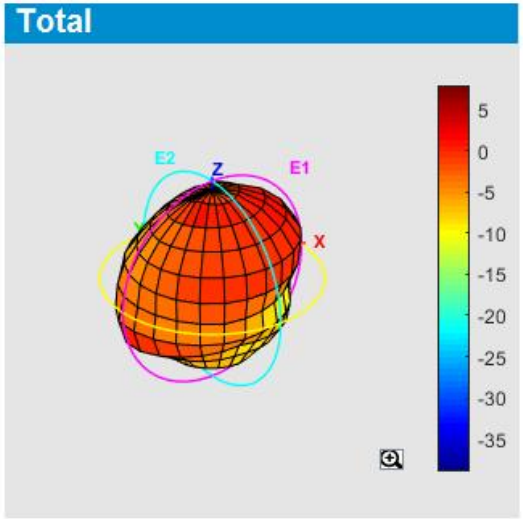


2.46GHz

Total

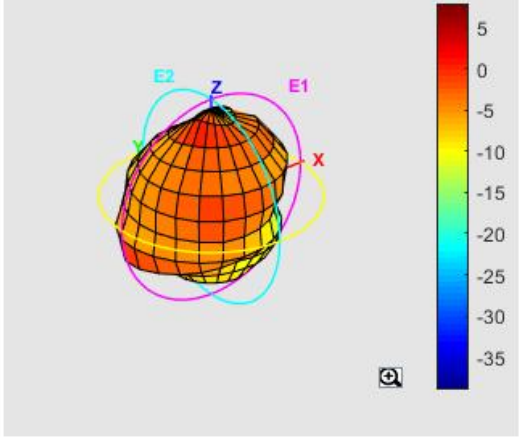


Text

G

	1	2
1	Summary	Total
2	Frequency	2.46GHz
3	Ant. Port Inp. Pow. (dBi)	0.00
4	Rad. Pow. (dBi)	-4.01
5	Rad. Pow. 0-90 (dBi)	-5.94
6	Rad. Pow. 90-180 (dBi)	-8.46
7	Peak EIRP (dBi)	1.20
8	Directivity (dBi)	5.21
9	Efficiency (dB)	-4.01
10	Efficiency (%)	39.72
11	Gain (dBi)	1.20

Theta



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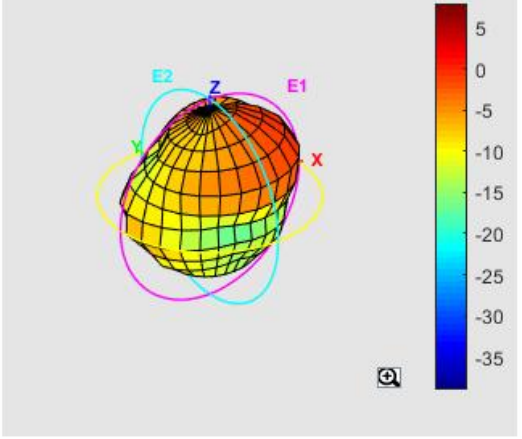
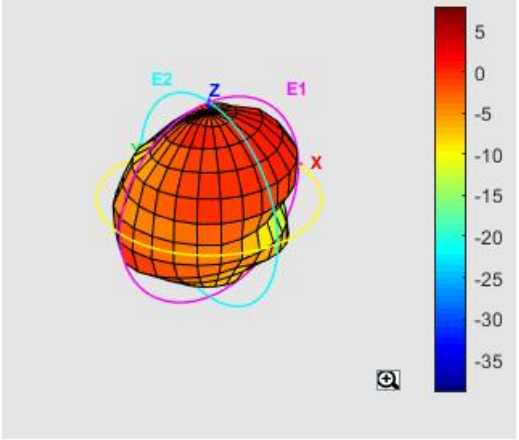


2.47GHz

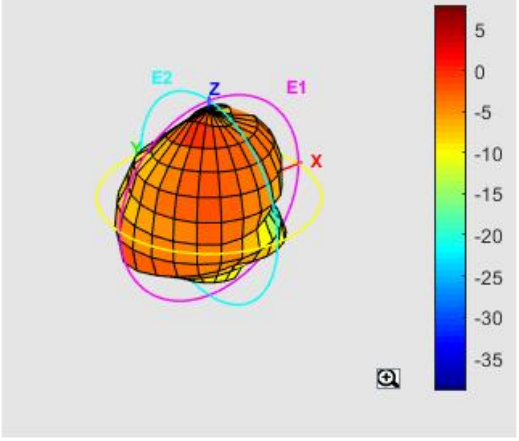
Total



Text

	1	2
1	Summary	Total
2	Frequency	2.47GHz
3	Ant. Port Inp. Pow. (dBi)	0.00
4	Rad. Pow. (dBi)	-4.23
5	Rad. Pow. 0-90 (dBi)	-6.07
6	Rad. Pow. 90-180 (dBi)	-8.86
7	Peak EIRP (dBi)	1.39
8	Directivity (dBi)	5.62
9	Efficiency (dB)	-4.23
10	Efficiency (%)	37.76
11	Gain (dBi)	1.39

Theta



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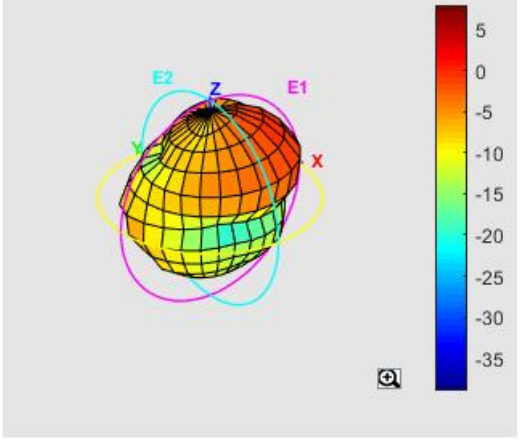
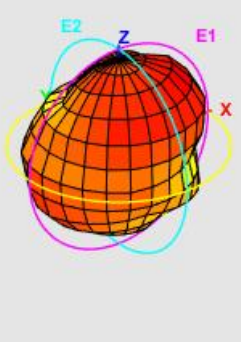


2.48GHz

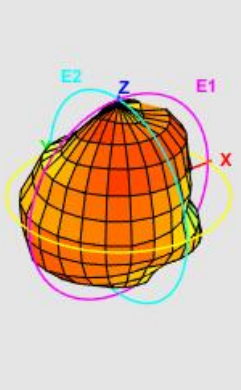
Total



Text

	1	2
1	Summary	Total
2	Frequency	2.48GHz
3	Ant. Port Inp. Pow. (dBi)	0.00
4	Rad. Pow. (dBi)	-4.12
5	Rad. Pow. 0-90 (dBi)	-6.04
6	Rad. Pow. 90-180 (dBi)	-8.59
7	Peak EIRP (dBi)	1.88
8	Directivity (dBi)	6.00
9	Efficiency (dB)	-4.12
10	Efficiency (%)	38.73
11	Gain (dBi)	1.88

Theta



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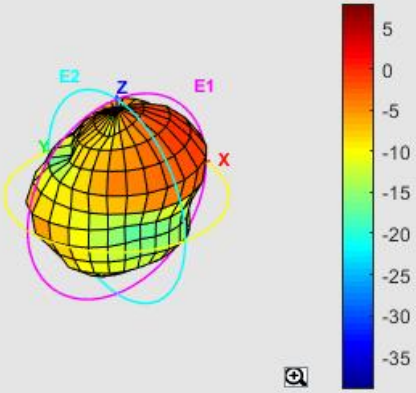
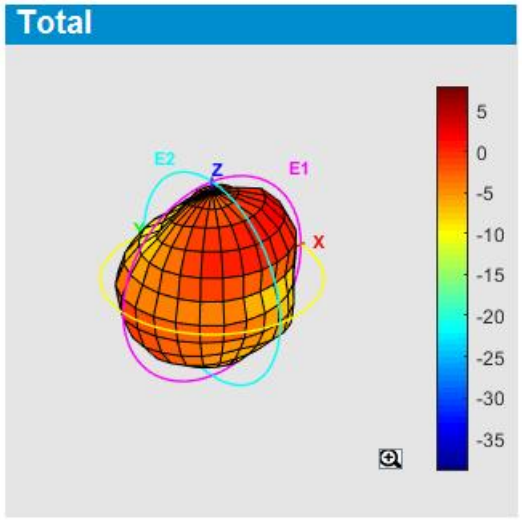
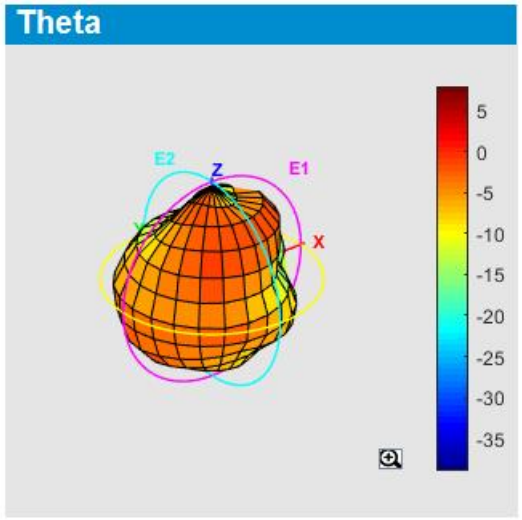


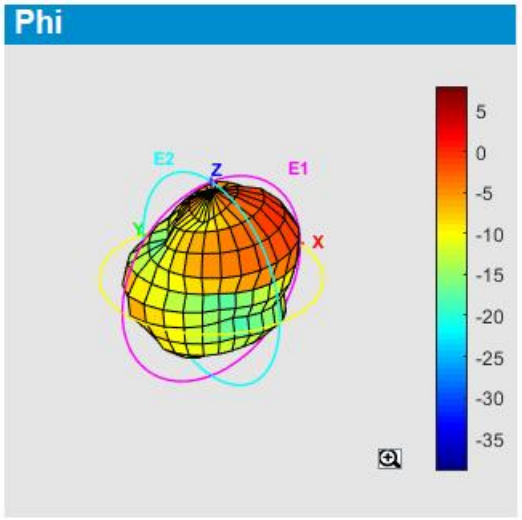
2.49GHz



Text

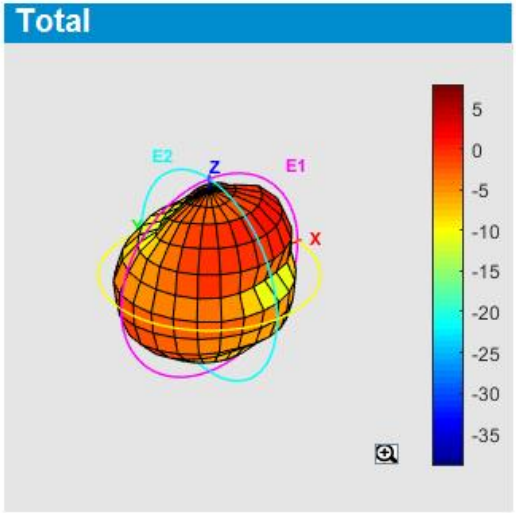
	1	2
1	Summary	Total
2	Frequency	2.49GHz
3	Ant. Port Inp. Pow. (dBi)	0.00
4	Rad. Pow. (dBi)	-4.19
5	Rad. Pow. 0-90 (dBi)	-6.27
6	Rad. Pow. 90-180 (dBi)	-8.40
7	Peak EIRP (dBi)	1.83
8	Directivity (dBi)	6.02
9	Efficiency (dB)	-4.19
10	Efficiency (%)	38.11
11	Gain (dBi)	1.83





2.50GHz

Total

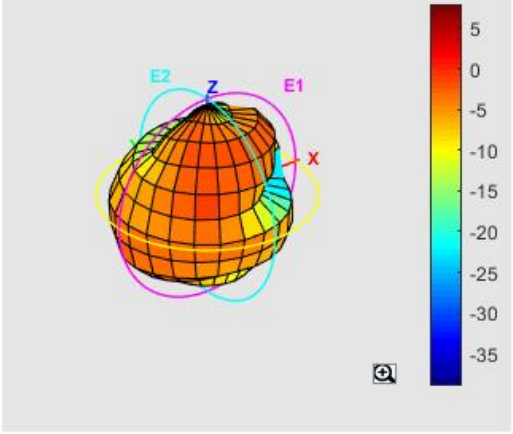


Text

G

	1	2
1	Summary	Total
2	Frequency	2.5GHz
3	Ant. Port Inp. Pow. (dBi)	0.00
4	Rad. Pow. (dBi)	-4.36
5	Rad. Pow. 0-90 (dBi)	-6.57
6	Rad. Pow. 90-180 (dBi)	-8.36
7	Peak EIRP (dBi)	1.32
8	Directivity (dBi)	5.68
9	Efficiency (dB)	-4.36
10	Efficiency (%)	36.64
11	Gain (dBi)	1.32

Theta



Phi