

BMW ICON SF

Antenna Measurement Report

AMOTECH / Antenna Group

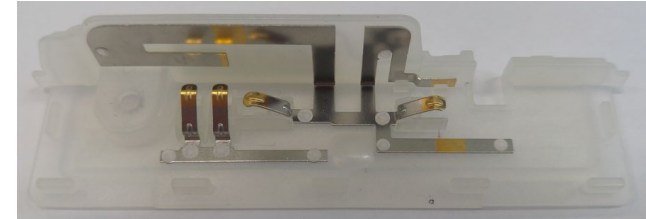
<i>Customer</i>	<i>LGE VS</i>
<i>Model</i>	<i>BMW ICON SF</i>
<i>Application</i>	<i>LTE/Sub6 & WiFi 6e</i>
<i>Antenna Type</i>	<i>Carrier + Metal Press Type</i>
<i>Date</i>	<i>2025. 03. 17</i>
<i>Written by</i>	<i>CY JEONG</i>
<i>Contact</i>	<i>jeongchangyun@amotech.co.kr</i>

1. Summary of the antenna test (LTE/Sub 6)

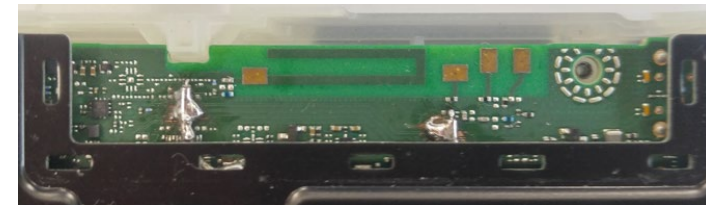
Table

	Min-Mean	Mean-Mean	3D	Peak (3D)	Mean-Mean (Average)
617	-27.53	-25.85	-25.13	-19.33	-20.94
699	-24.73	-22.27	-21.17	-16.42	
746	-24.15	-21.36	-19.80	-13.06	
787	-16.31	-14.26	-10.64	-3.75	
824	-16.63	-10.90	-6.96	2.09	-10.31
894	-13.53	-9.57	-6.45	1.42	
960	-13.58	-10.46	-7.86	-1.07	
1710	-10.95	-6.39	-6.35	1.67	-5.68
1850	-8.79	-5.56	-5.47	2.72	
1920	-9.79	-5.43	-5.43	2.99	
1990	-8.77	-5.06	-5.20	2.35	
2170	-9.58	-5.97	-6.52	1.31	
2300	-10.78	-6.64	-6.72	1.51	
2360	-10.13	-6.01	-6.62	2.23	-6.27
2500	-8.63	-5.62	-6.42	0.45	
2690	-10.55	-6.81	-8.76	-1.64	
3300	-16.45	-11.68	-13.11	-5.80	
3800	-20.22	-15.26	-17.45	-7.84	-13.82
4200	-21.10	-17.10	-19.64	-11.34	
4400	-19.87	-15.78	-18.34	-9.81	
4700	-16.00	-11.47	-13.93	-5.29	
5000	-15.80	-11.59	-13.95	-5.96	

Antenna Structure

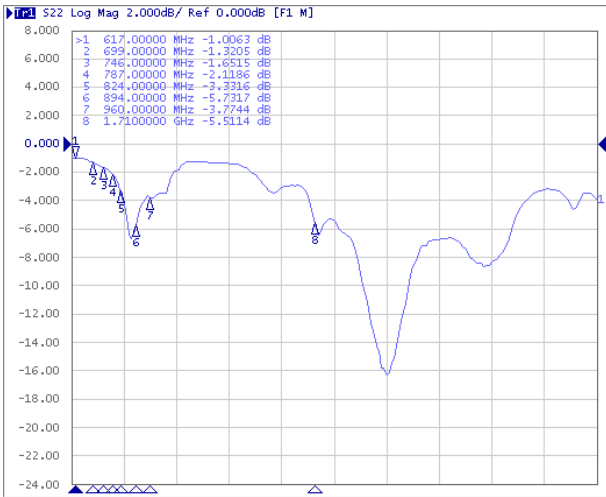


PCB

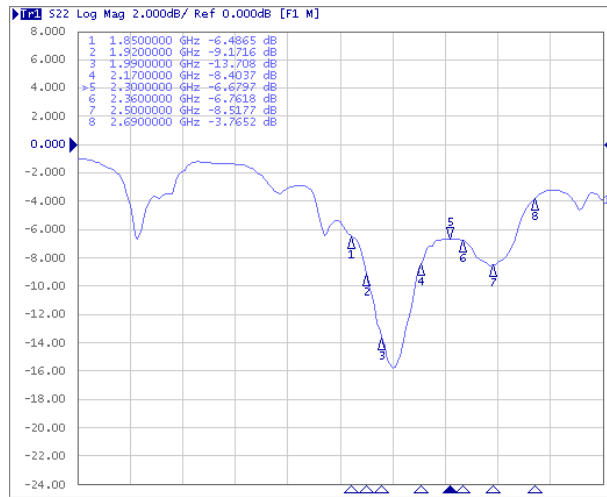


1-1. Summary of the antenna test (LTE/Sub 6)

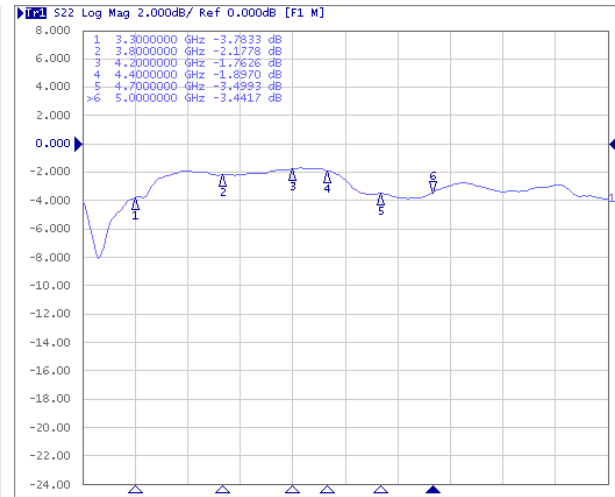
S-Parameter(S11) _ Low



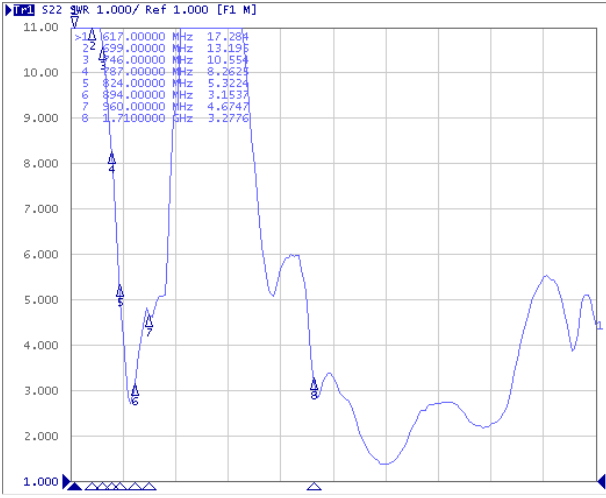
S-Parameter(S11) _ Middle



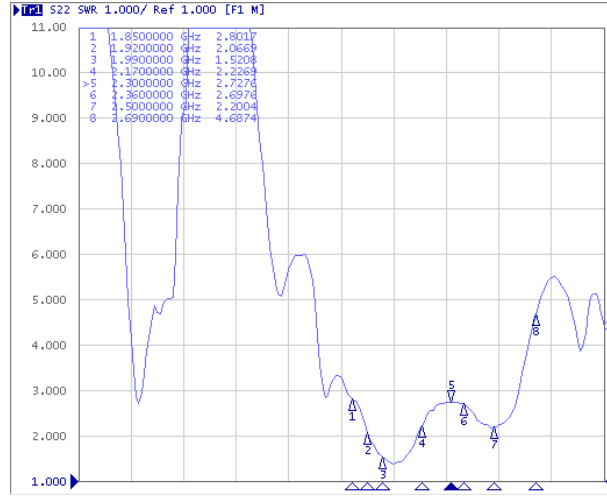
S-Parameter(S11) _ High



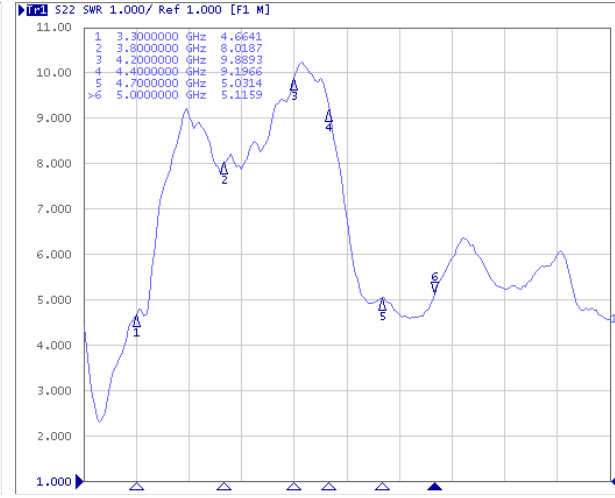
VSWR _ Low



VSWR _ Middle



VSWR _ High

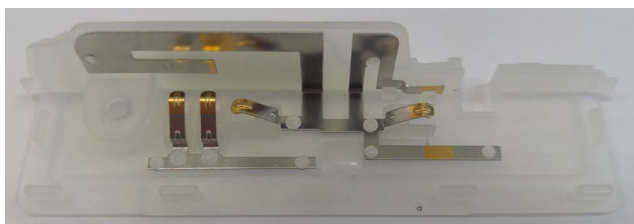


2. Summary of the antenna test (WiFi 6E)

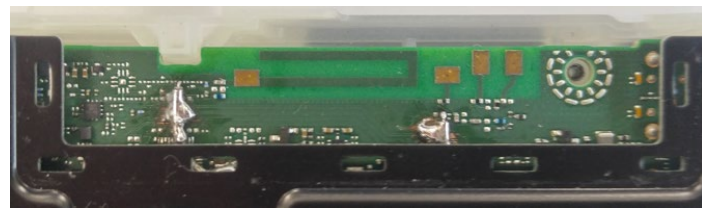
Table

	Min-Mean	Mean-Mean	3D	Peak (3D)	Mean-Mean (Average)
2400	-10.84	-4.93	-6.54	0.45	-4.74
2442	-9.82	-4.38	-6.02	0.88	
2485	-10.05	-4.91	-6.56	0.00	
5150	-10.48	-3.23	-5.06	4.15	-3.61
5500	-11.69	-3.40	-5.25	3.17	
5850	-13.78	-4.20	-7.31	0.78	
5925	-13.92	-3.95	-7.08	2.24	-6.17
6525	-15.58	-5.55	-7.68	1.65	
7125	-18.21	-9.00	-10.78	-0.95	

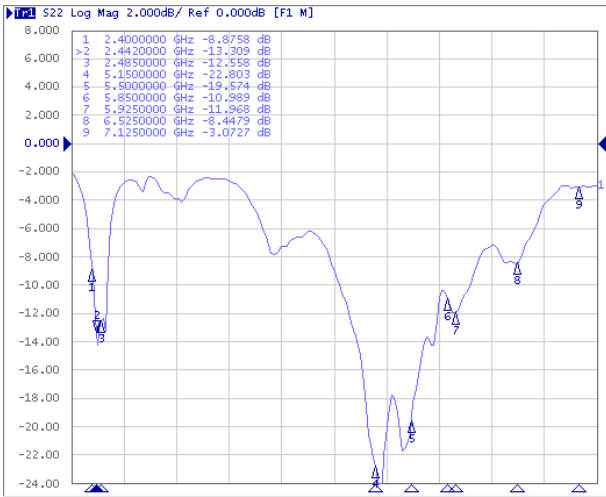
Antenna Structure



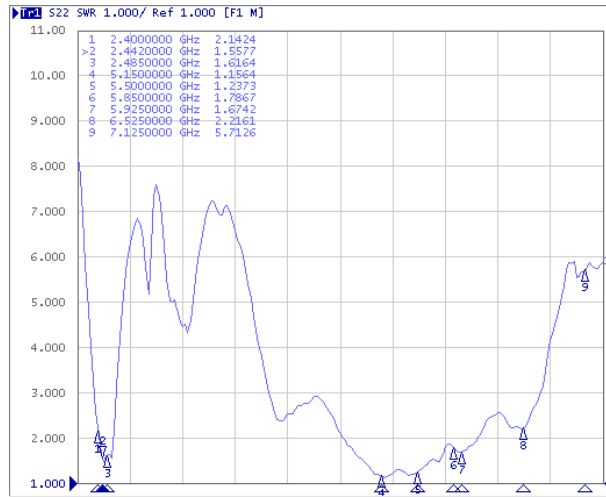
PCB



S-Parameter(S11)

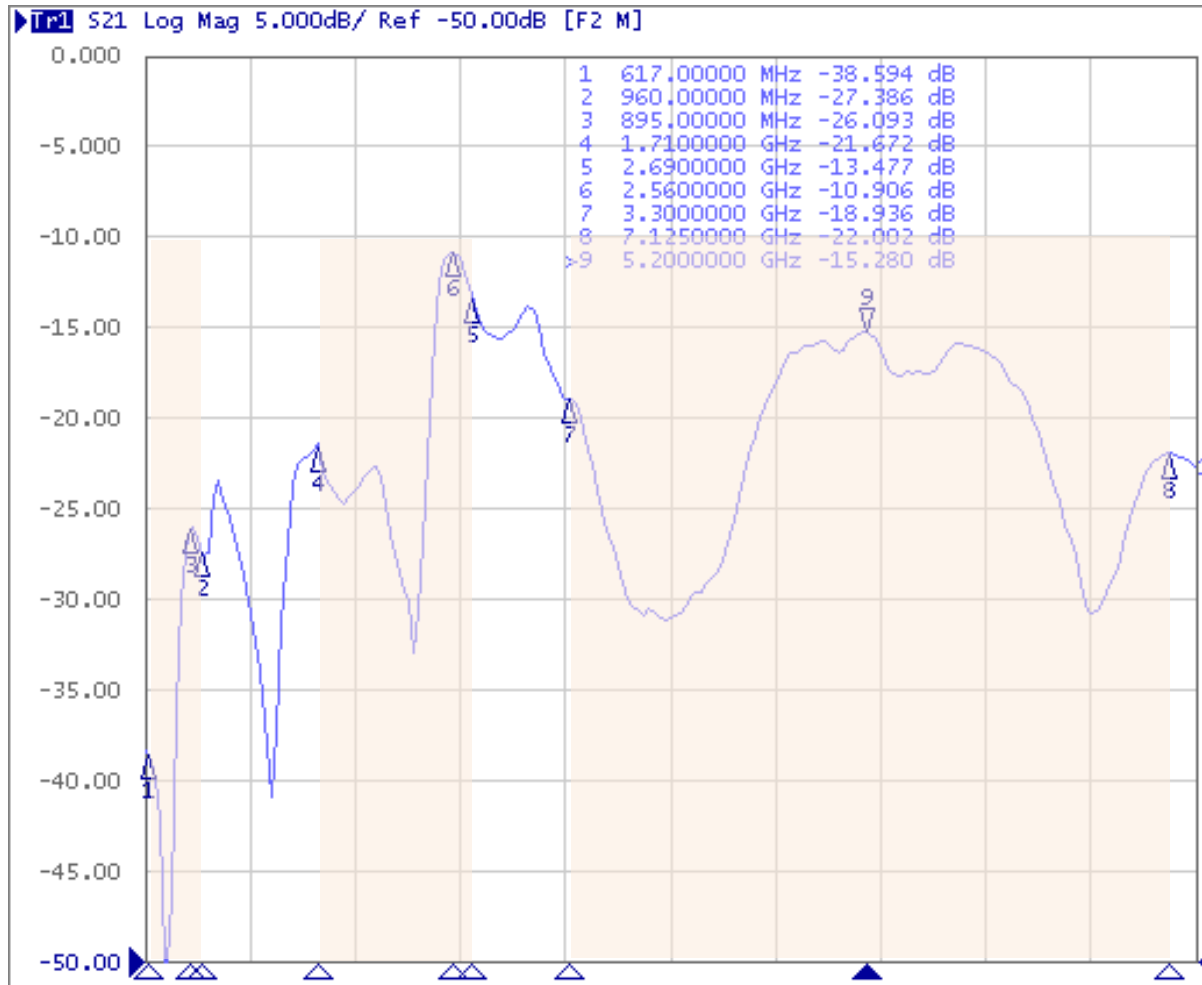


VSWR



3. Summary of the antenna test (Isolation)

Isolation



617	-38.59
960	-27.38
895(Peak)	-26.09
1710	-21.67
2690	-13.47
2560 (Peak)	-10.90
3300	-18.93
7125	-22.00
5200 (Peak)	-15.28

3D Peak gain of the antenna test (LTE/Sub 6)

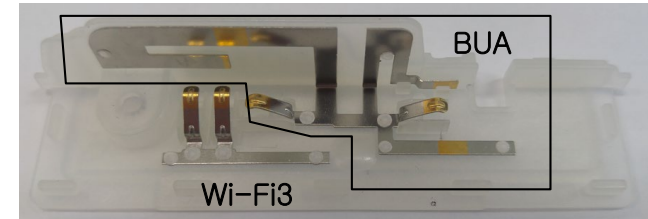
BUA

	Min-Mean	Mean-Mean	3D	Peak (3D)	Mean-Mean (Average)
824	-16.63	-10.90	-6.96	2.09	-10.31
894	-13.53	-9.57	-6.45	1.42	
960	-13.58	-10.46	-7.86	-1.07	
1710	-10.95	-6.39	-6.35	1.67	-5.68
1850	-8.79	-5.56	-5.47	2.72	
1920	-9.79	-5.43	-5.43	2.99	
1990	-8.77	-5.06	-5.20	2.35	
2170	-9.58	-5.97	-6.52	1.31	
2300	-10.78	-6.64	-6.72	1.51	-6.27
2360	-10.13	-6.01	-6.62	2.23	
2500	-8.63	-5.62	-6.42	0.45	
2690	-10.55	-6.81	-8.76	-1.64	

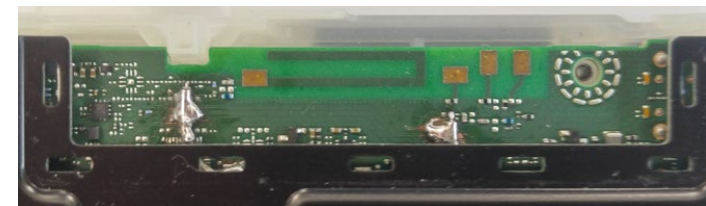
Wi-Fi3

	Min-Mean	Mean-Mean	3D	Peak (3D)	Mean-Mean (Average)
2400	-10.84	-4.93	-6.54	0.45	-4.74
2442	-9.82	-4.38	-6.02	0.88	
2485	-10.05	-4.91	-6.56	0.00	
5150	-10.48	-3.23	-5.06	4.15	-3.61
5500	-11.69	-3.40	-5.25	3.17	
5850	-13.78	-4.20	-7.31	0.78	
5925	-13.92	-3.95	-7.08	2.24	-6.17
6525	-15.58	-5.55	-7.68	1.65	
7125	-18.21	-9.00	-10.78	-0.95	

Antenna Structure



PCB



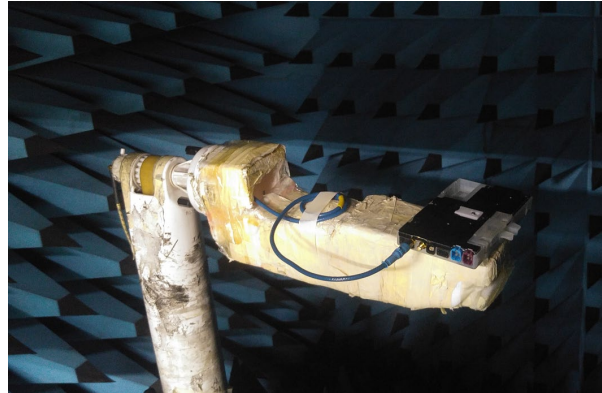
BMW ICON SF

Antenna Measurement Report

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<i>Customer</i>	<i>LGE VS</i>
<i>Model</i>	<i>BMW ICON SF</i>
<i>Application</i>	<i>LTE/Sub6 & WiFi 6e</i>
<i>Antenna Type</i>	<i>Carrier + Metal Press Type</i>
<i>Date</i>	<i>2025. 03. 19</i>
<i>Written by</i>	<i>CY JEONG</i>
<i>Contact</i>	<i>jeongchangyun@amotech.co.kr</i>

Passvie Chamber



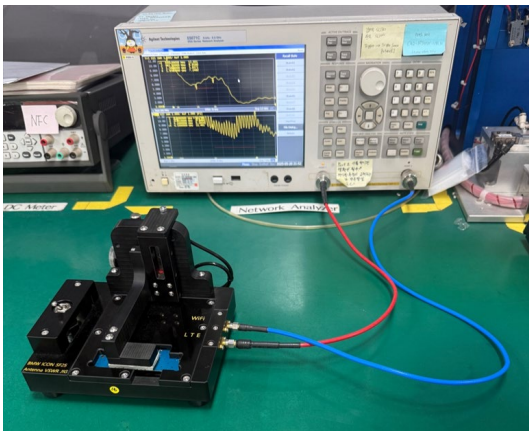
측정 장비



E5071B

교정 일자 : 2024.12.20

JIG

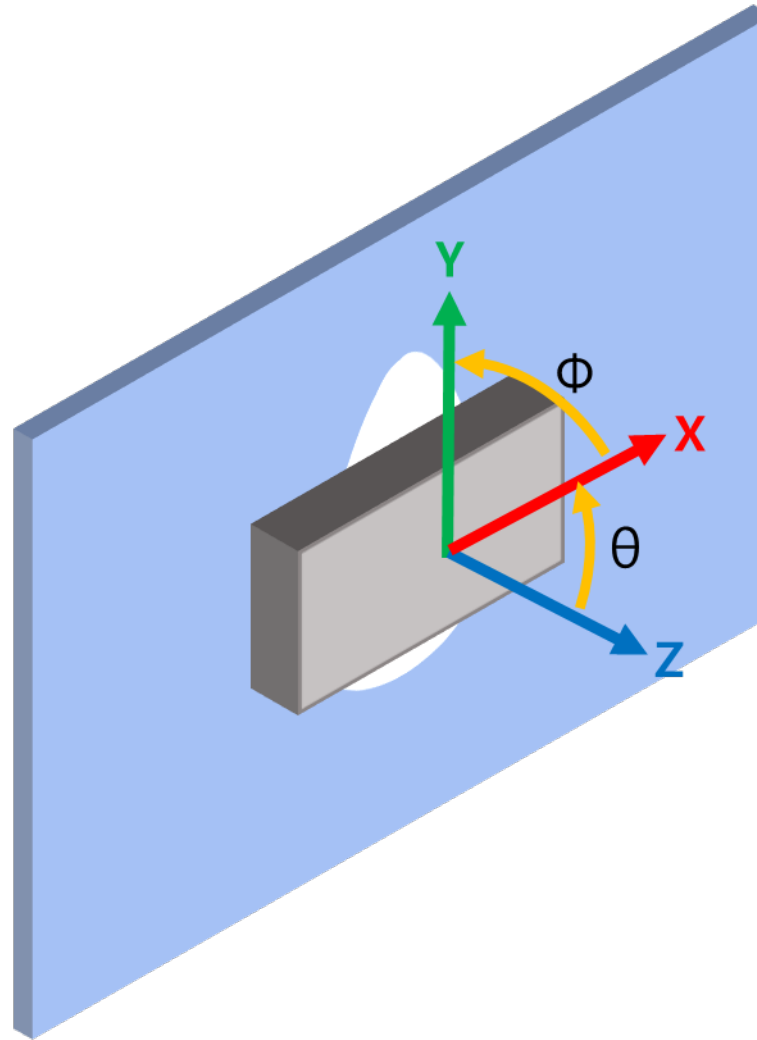


측정 장비



E5071B

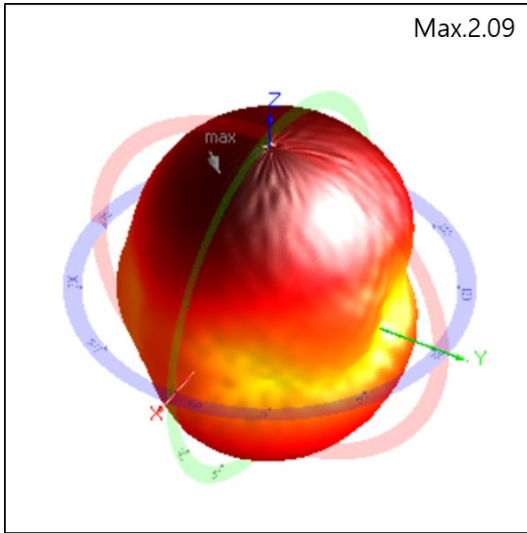
교정 일자 : 2024.12.17



2. 3D Radiation pattern & Peak gain

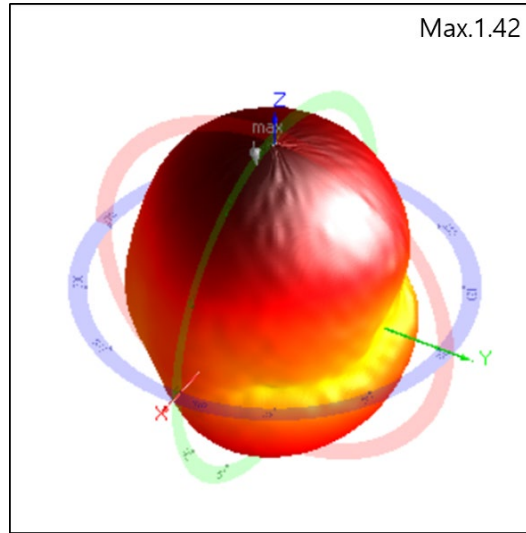
[824MHz]

Max.2.09



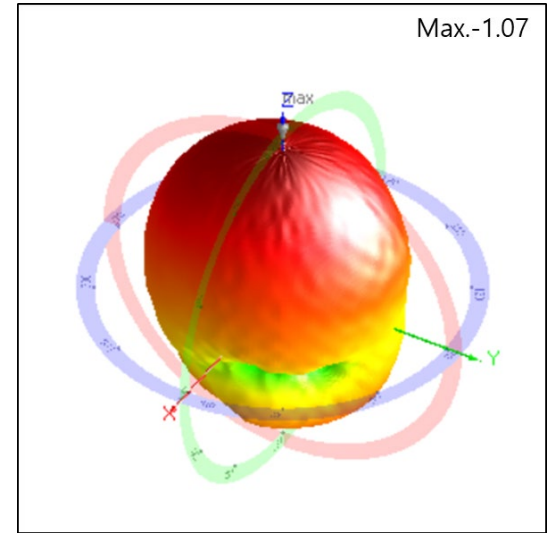
[894MHz]

Max.1.42



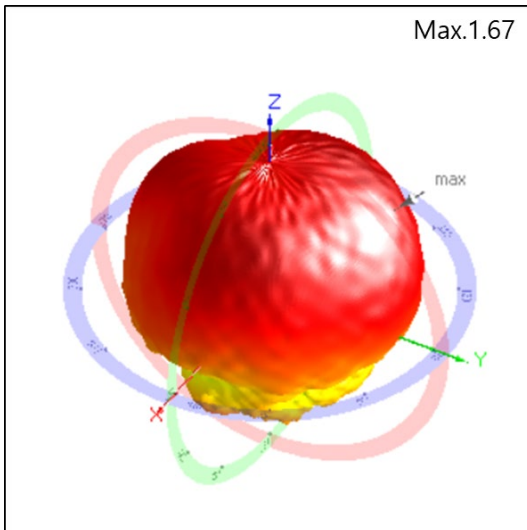
[960MHz]

Max.-1.07



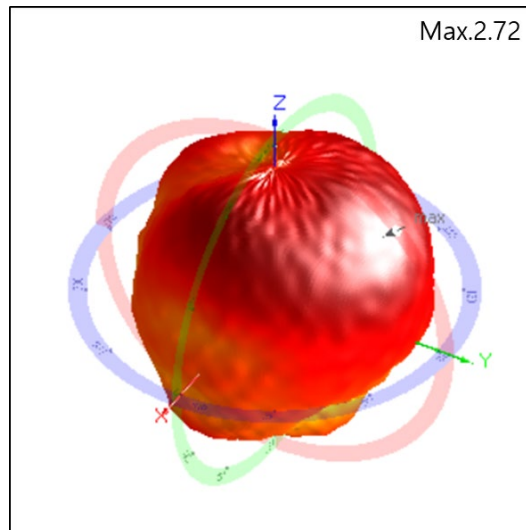
[1710MHz]

Max.1.67



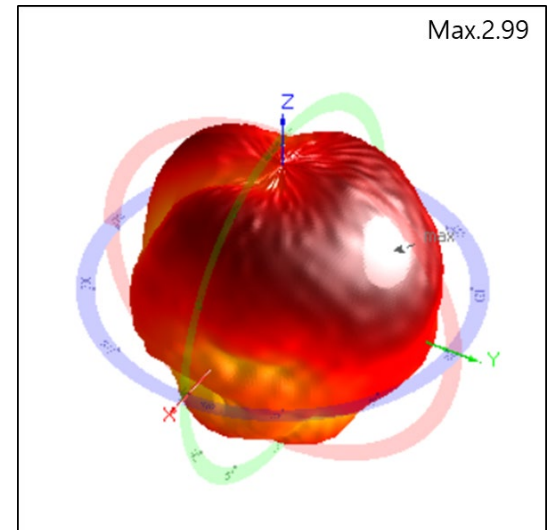
[1850MHz]

Max.2.72



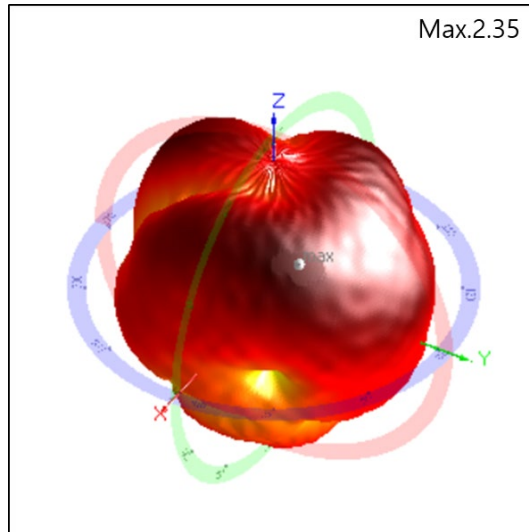
[1920MHz]

Max.2.99

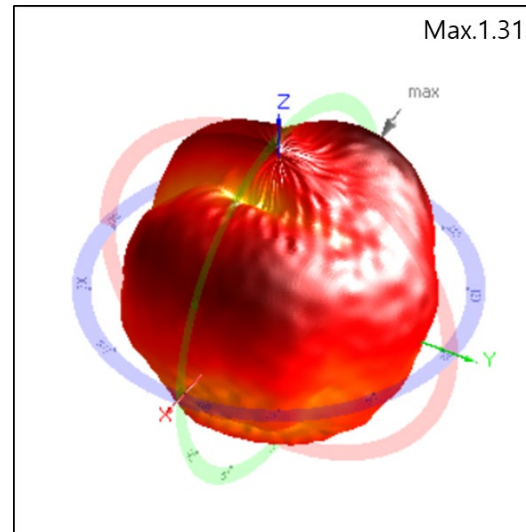


2. 3D Radiation pattern & Peak gain

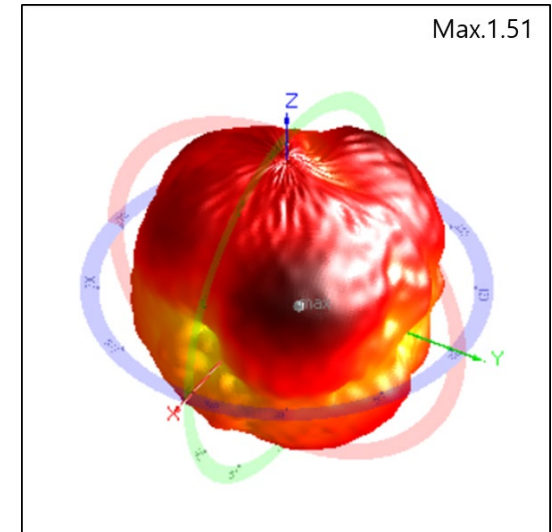
[1990MHz]



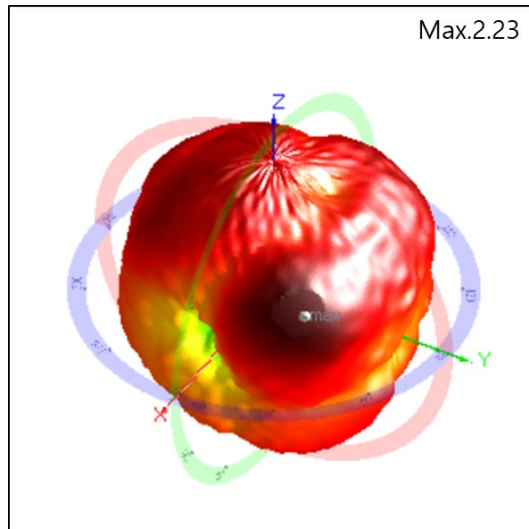
[2170MHz]



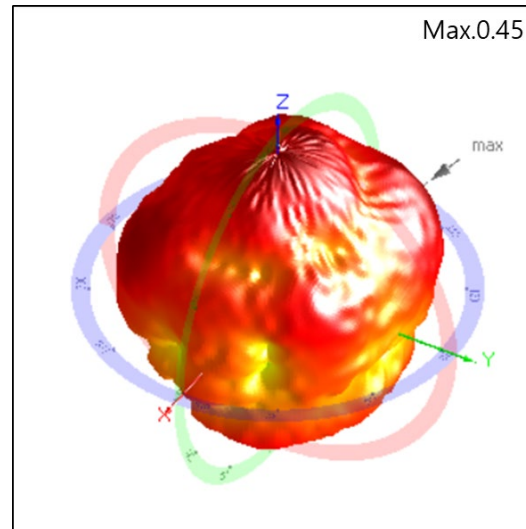
[2300MHz]



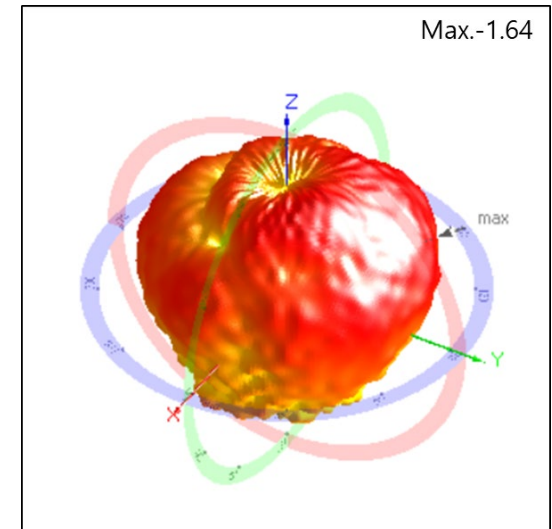
[2360MHz]



[2500MHz]

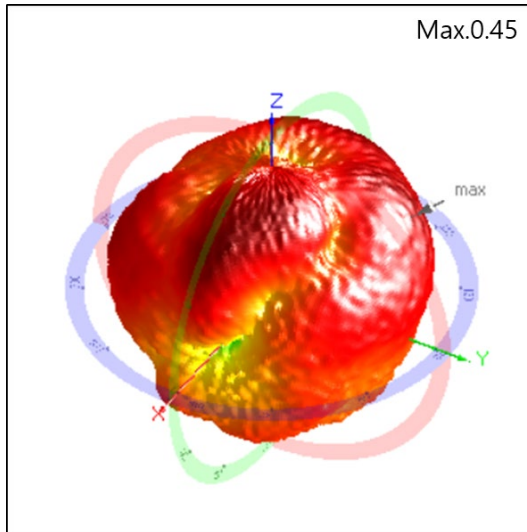


[2690MHz]

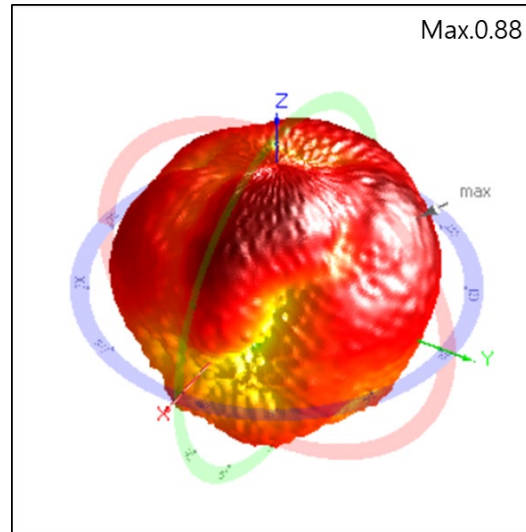


2. 3D Radiation pattern & Peak gain

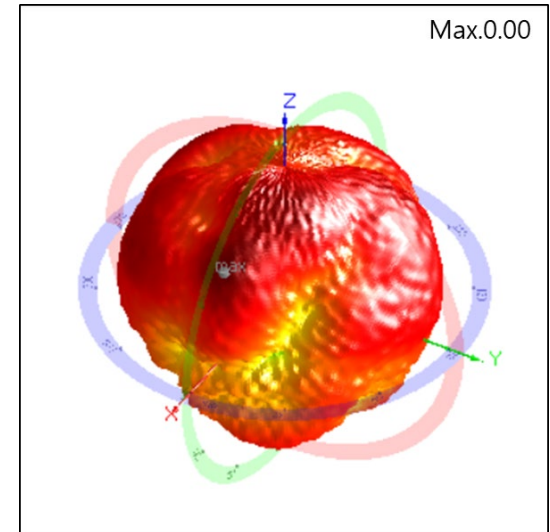
[2400MHz]



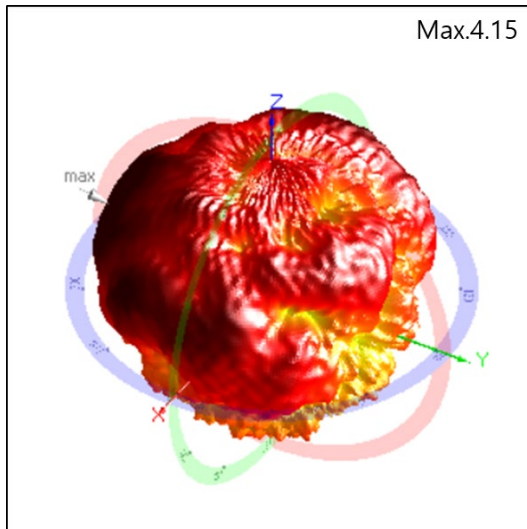
[2442MHz]



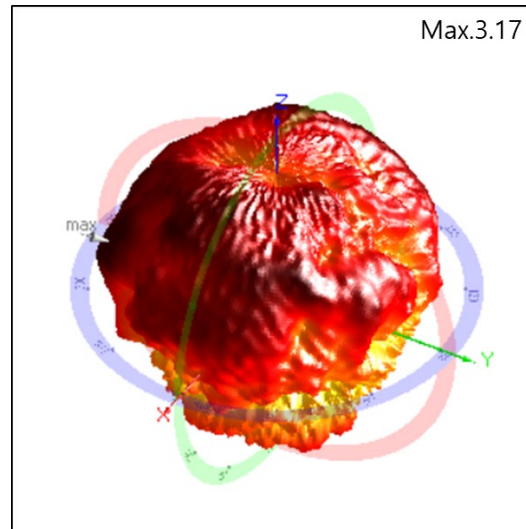
[2485MHz]



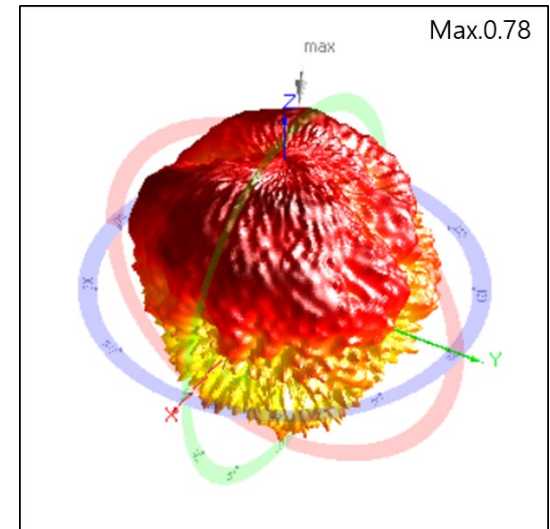
[5150MHz]



[5500MHz]



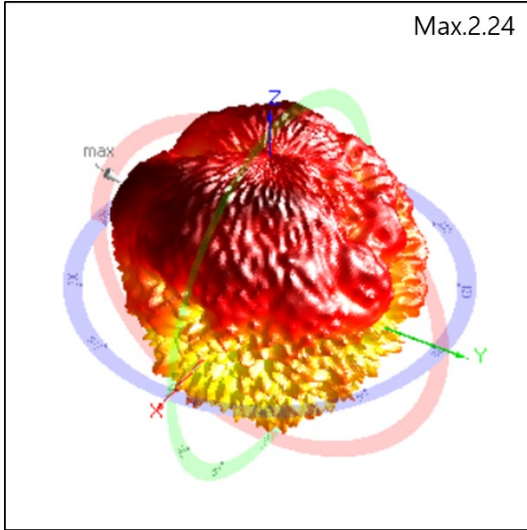
[5850MHz]



2. 3D Radiation pattern & Peak gain

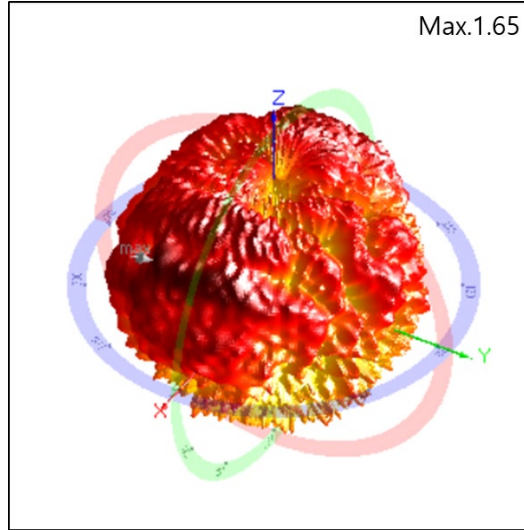
[5925MHz]

Max.2.24



[6525MHz]

Max.1.65



[7125MHz]

Max.-0.95

