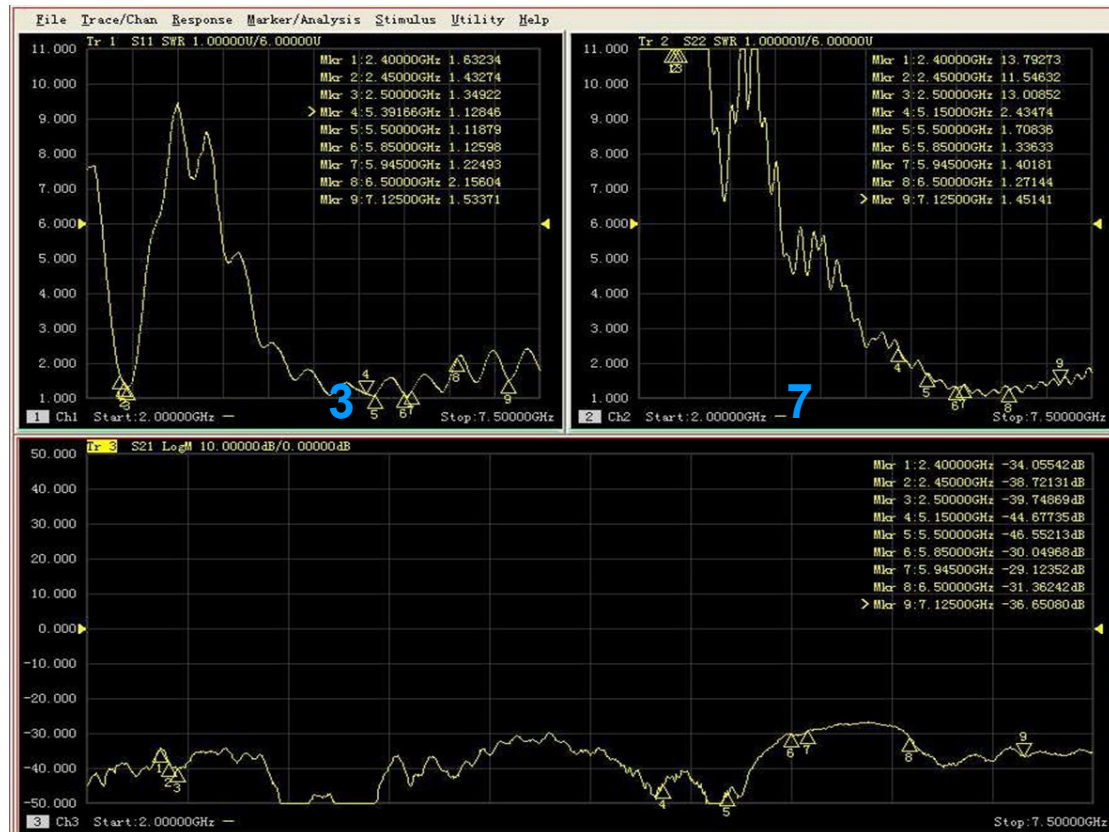
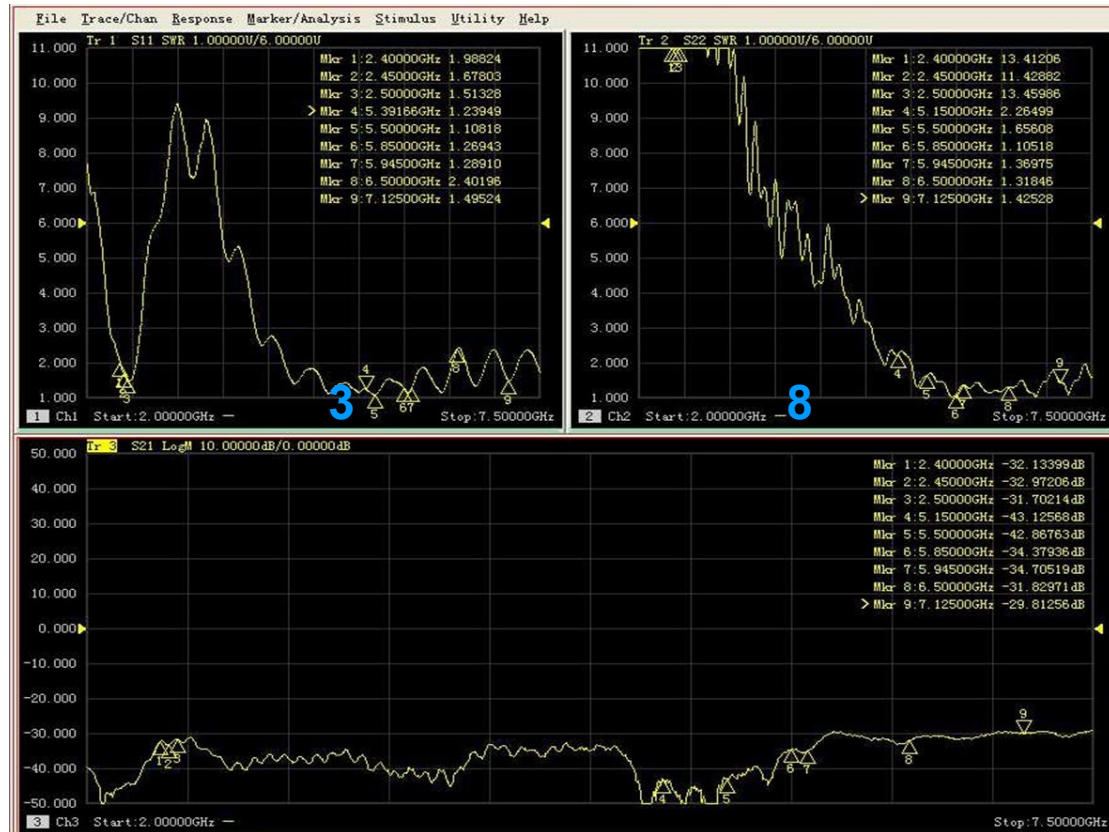


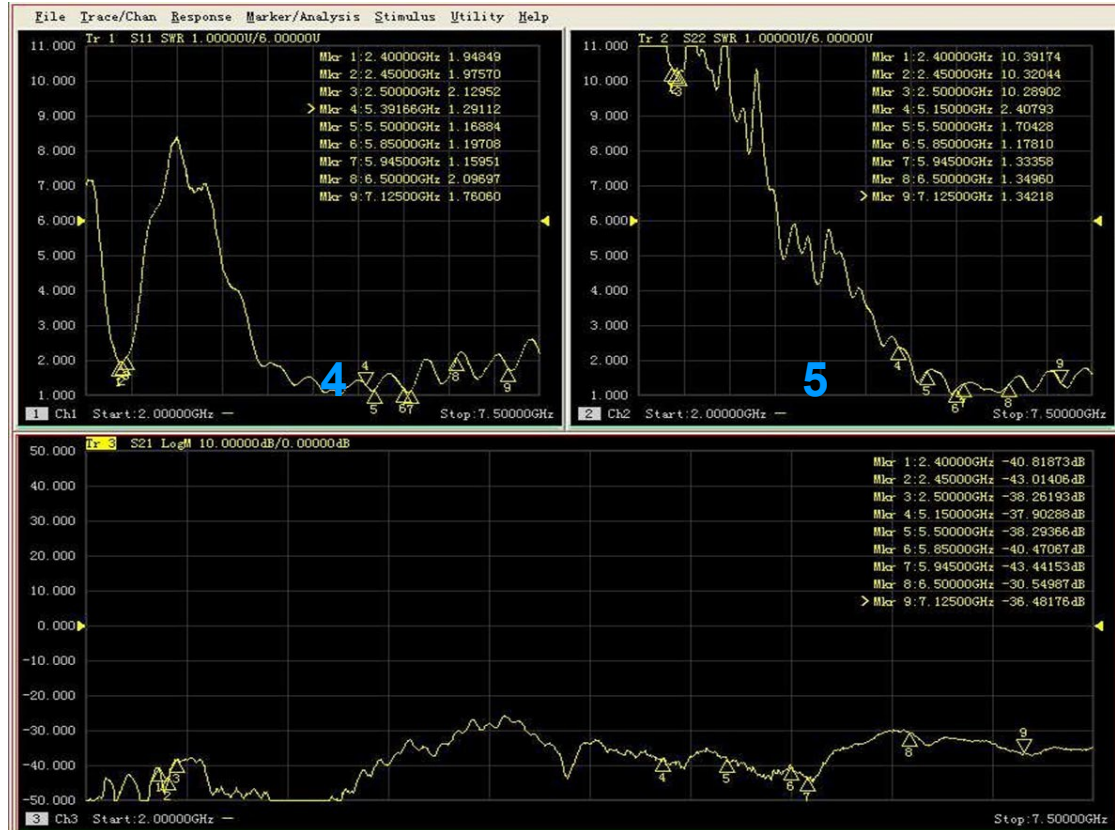
## 2. S-Parameters(VSWR&isolation)



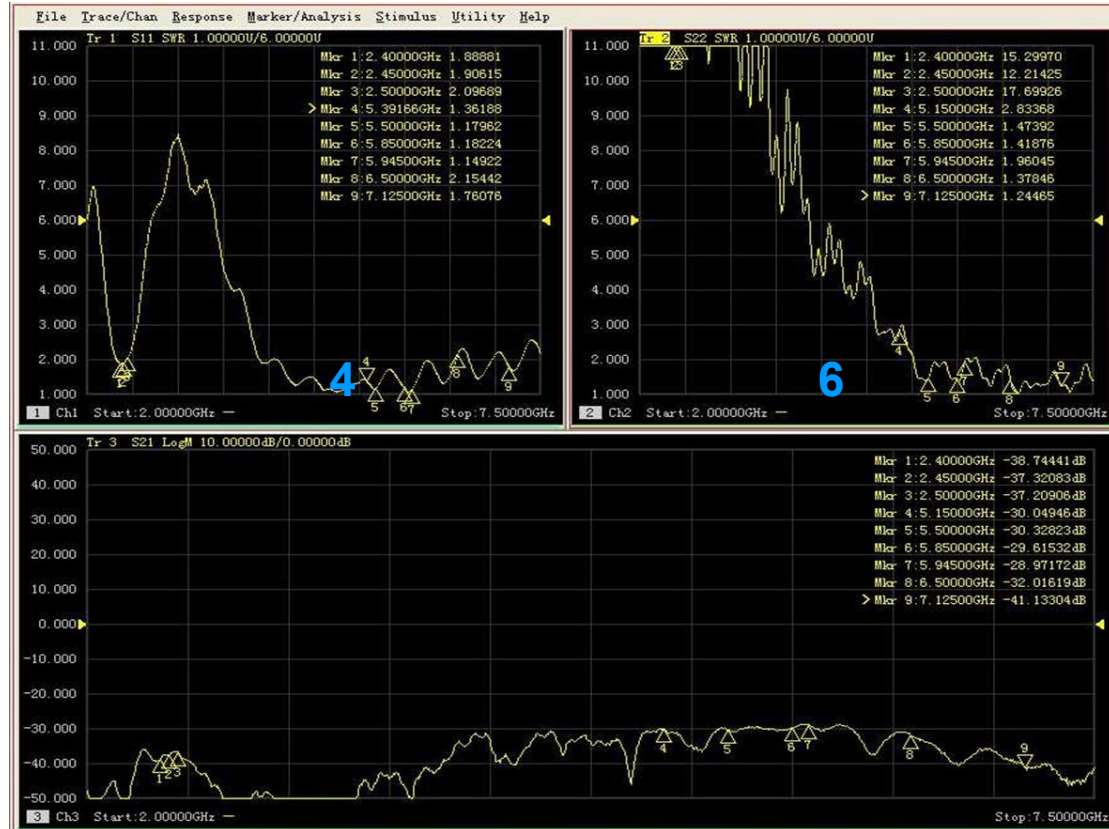
## 2. S-Parameters(VSWR&isolation)



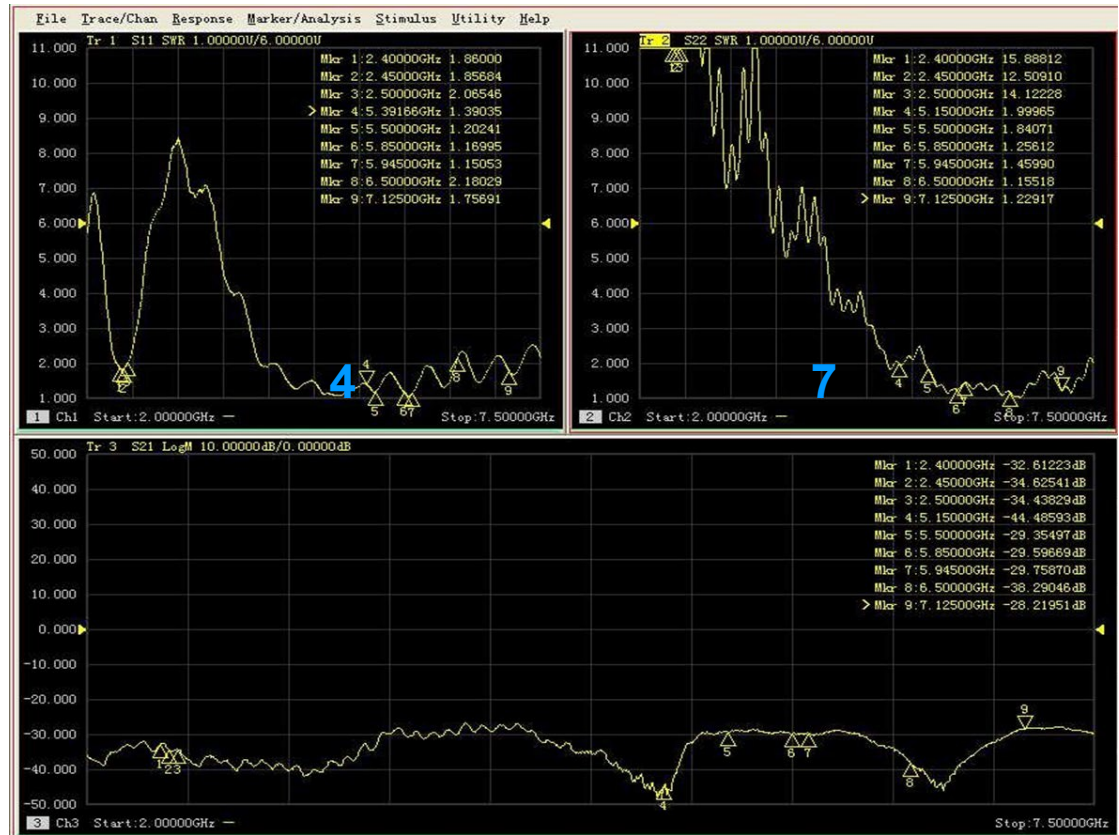
## 2. S-Parameters(VSWR&isolation)



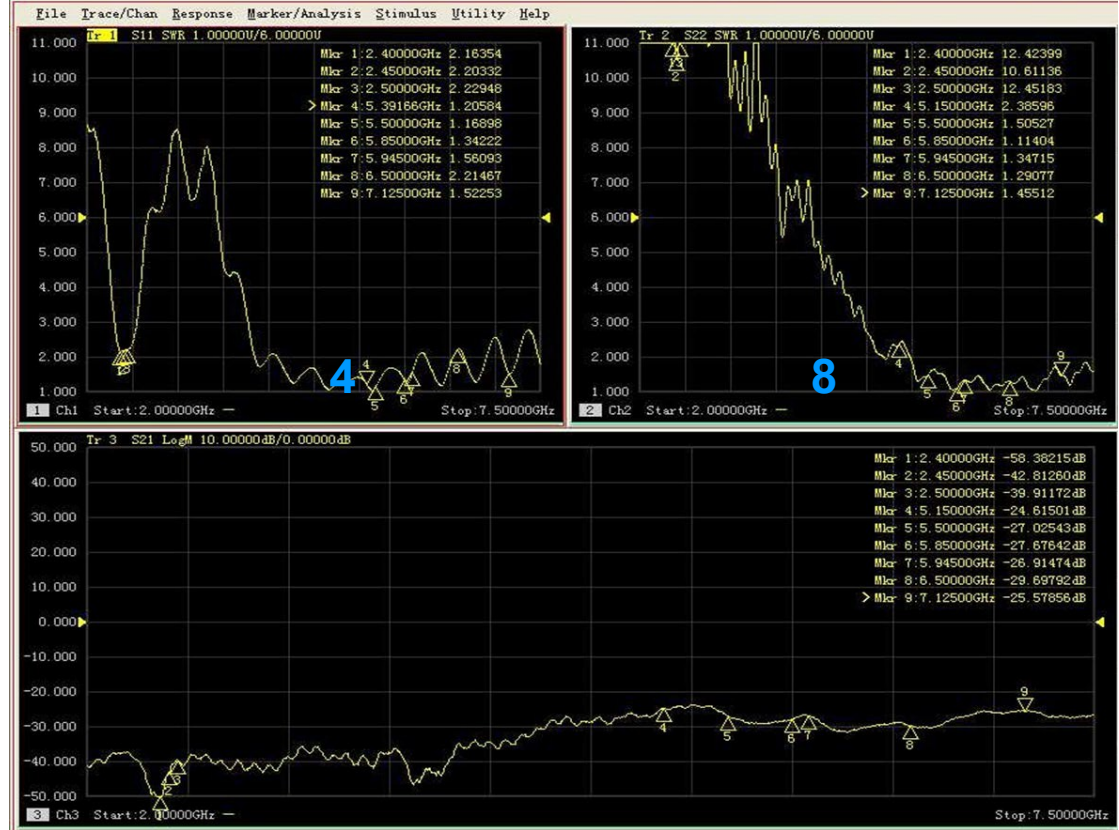
## 2. S-Parameters(VSWR&isolation)



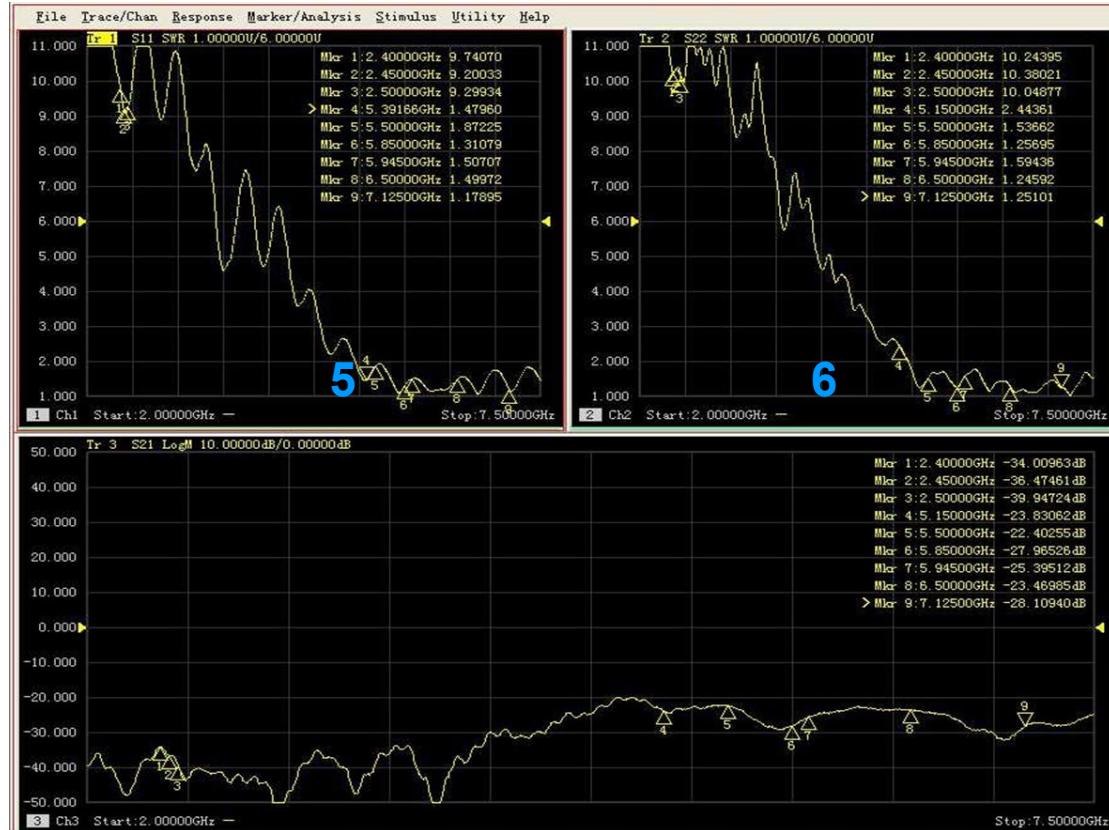
# 2. S-Parameters(VSWR&isolation)



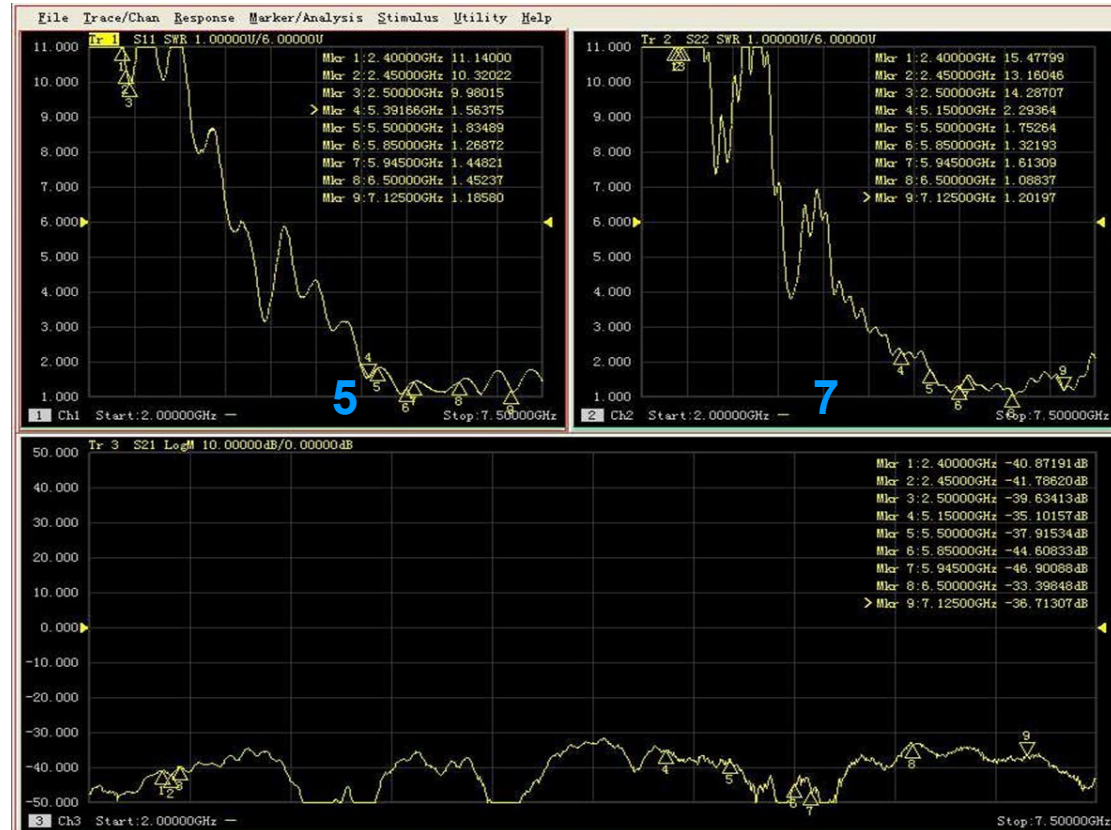
# 2. S-Parameters(VSWR&isolation)



## 2. S-Parameters(VSWR&isolation)

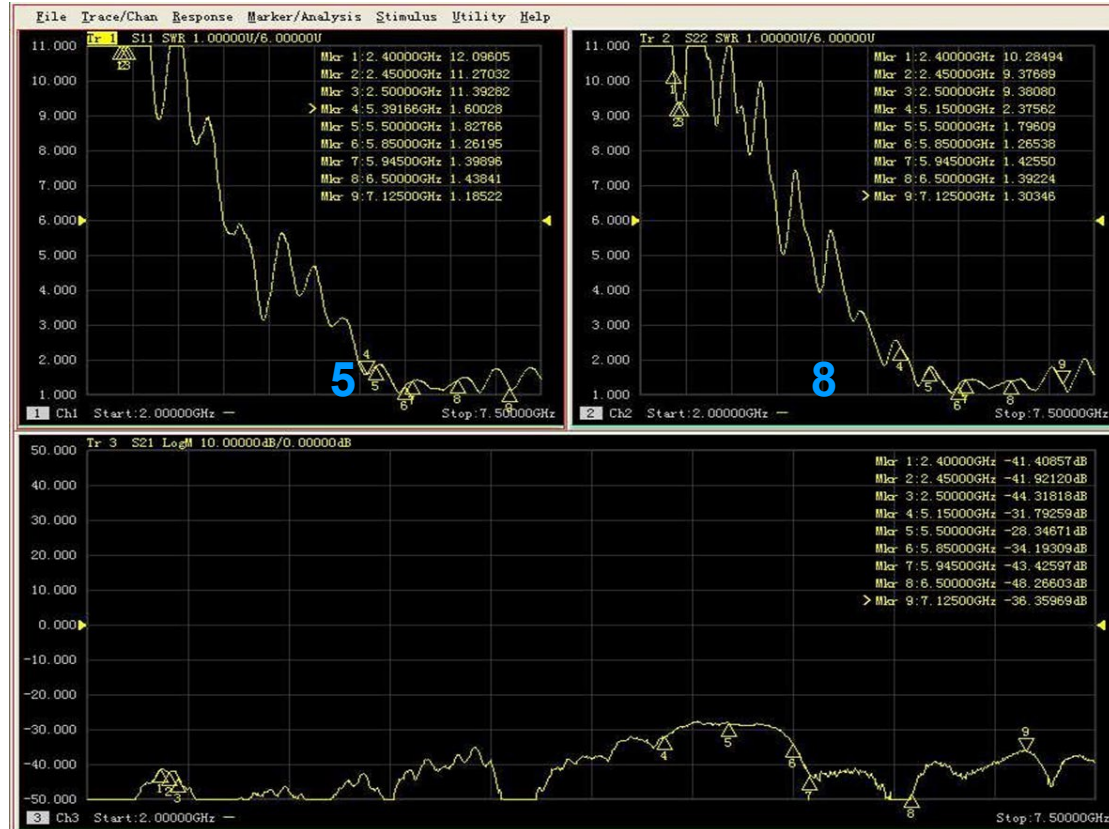


## 2. S-Parameters(VSWR&isolation)

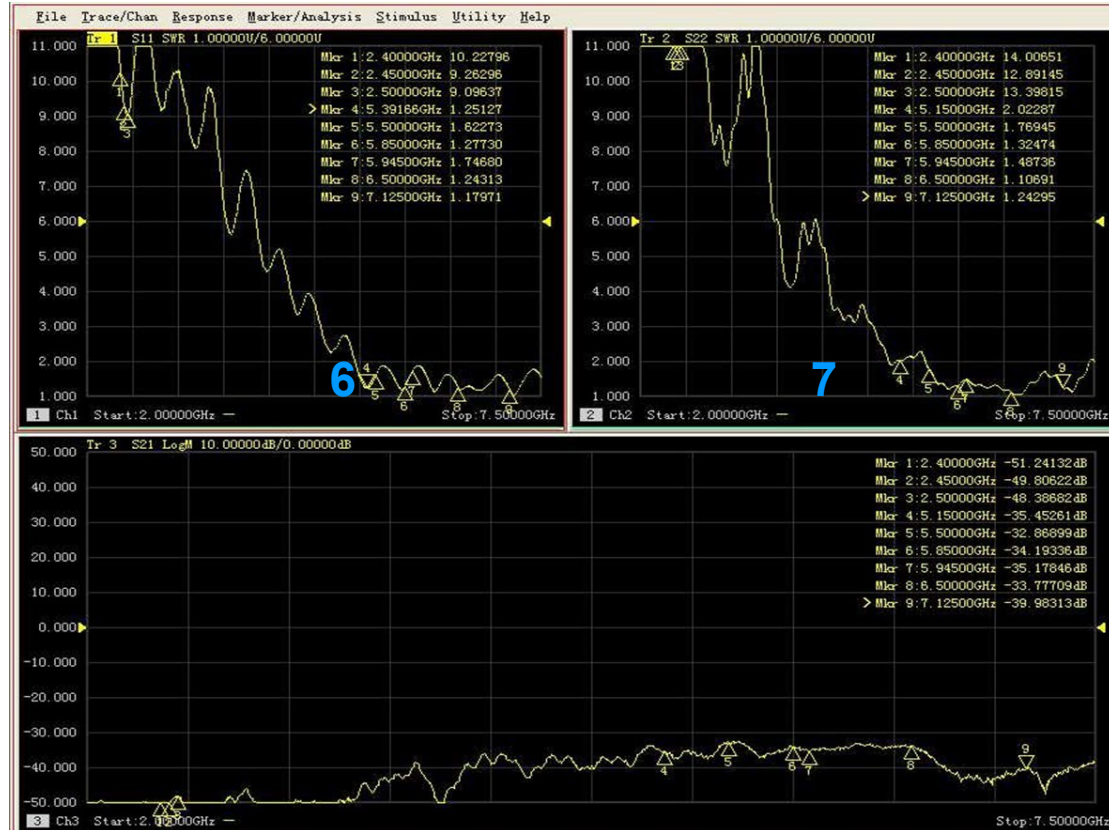




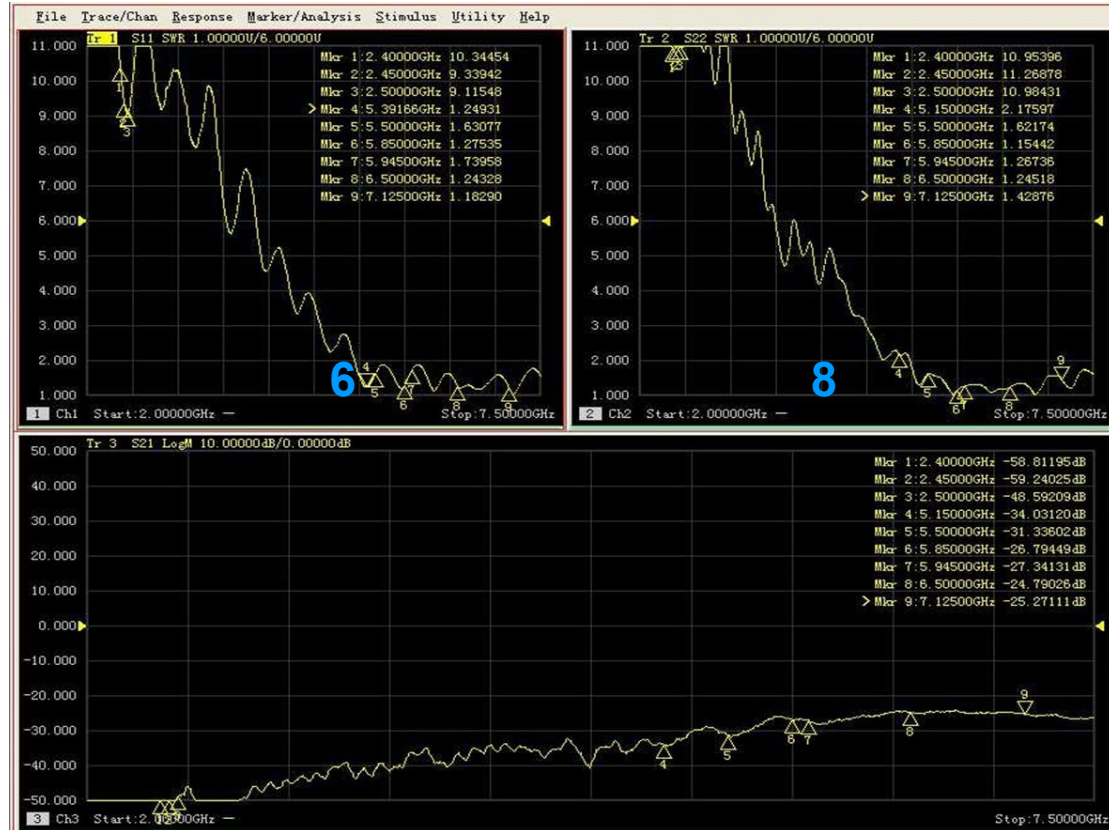
## 2. S-Parameters(VSWR&isolation)



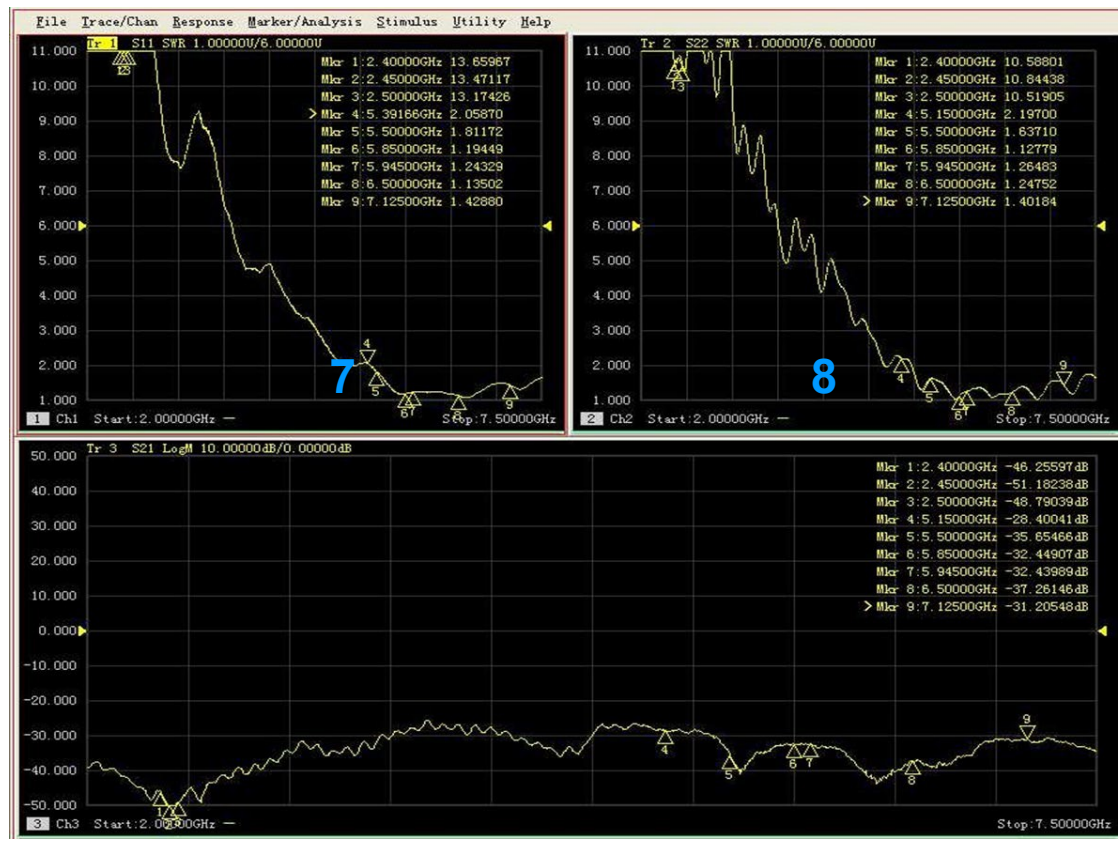
## 2. S-Parameters(VSWR&isolation)



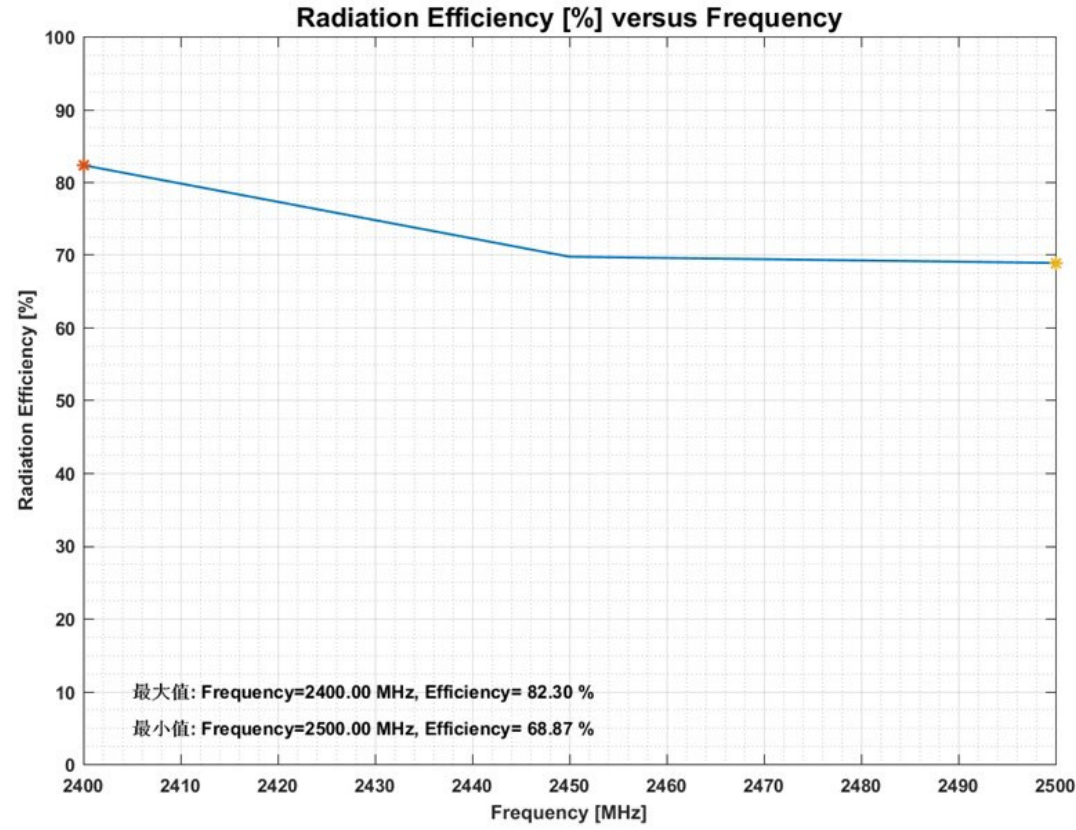
## 2. S-Parameters(VSWR&isolation)



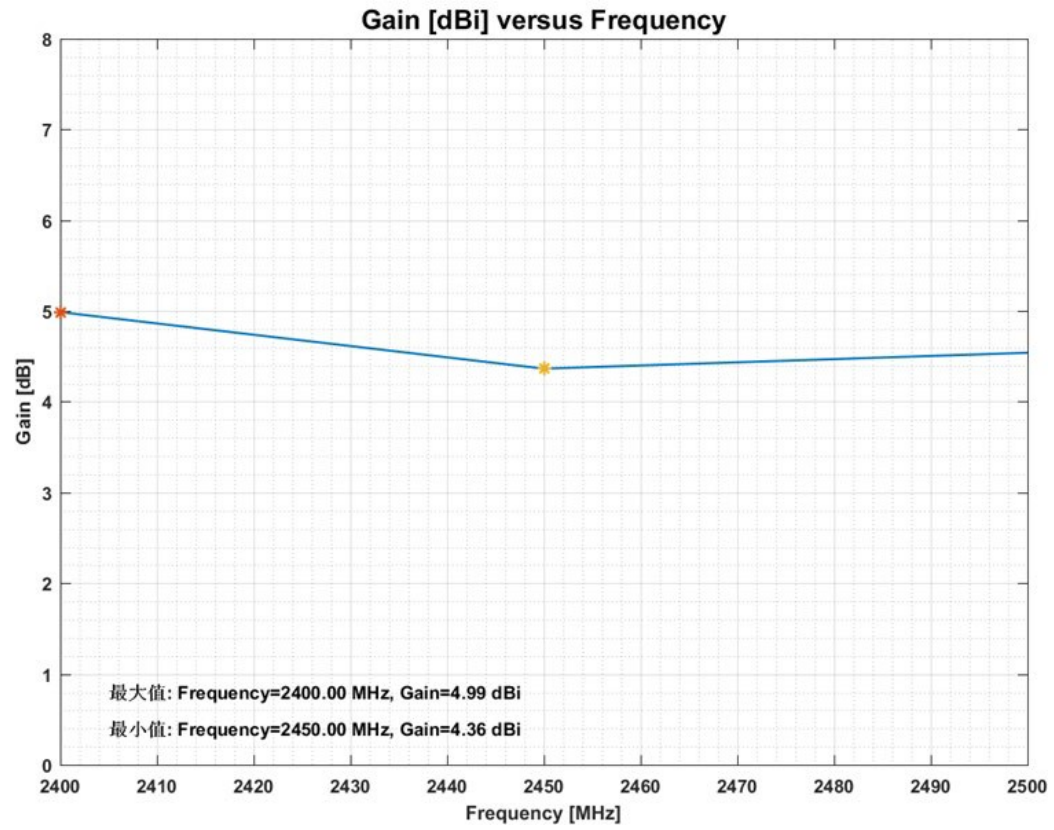
# 2. S-Parameters(VSWR&isolation)



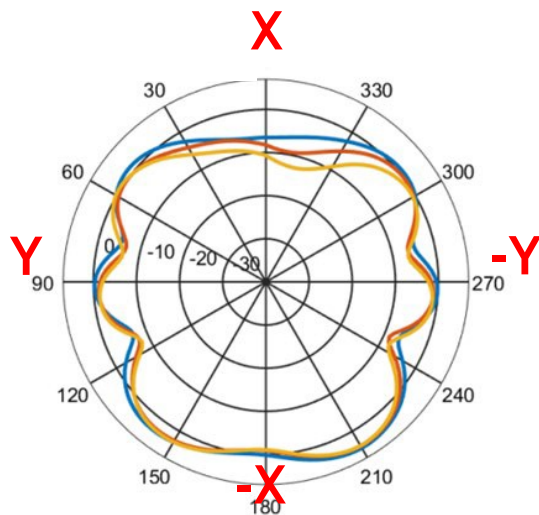
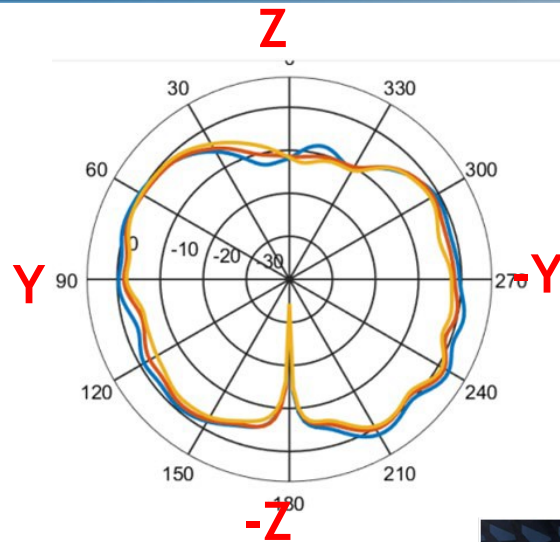
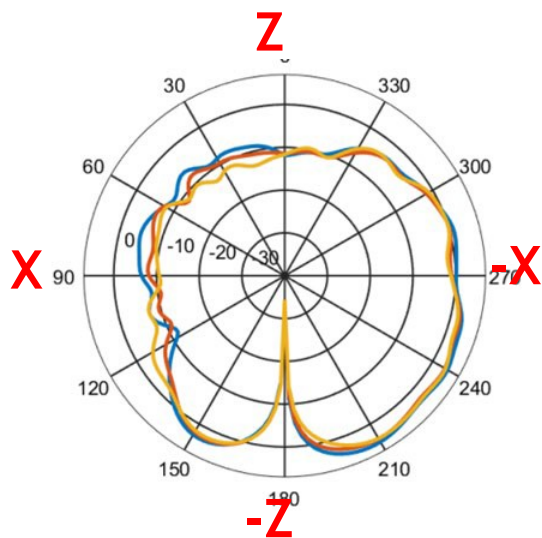
### 3. Antenna Efficiency (Bluetooth)



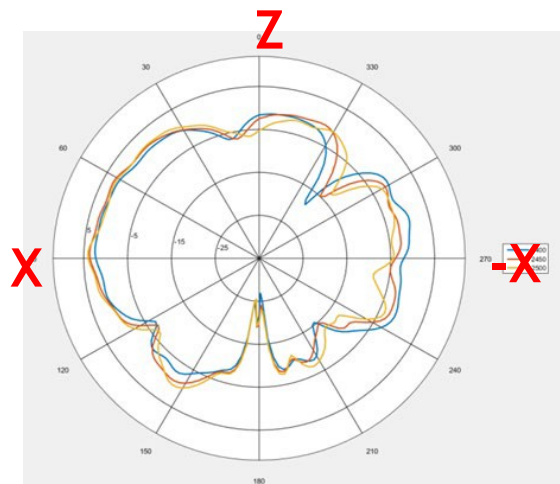
### 3. Peak Gain (Bluetooth)



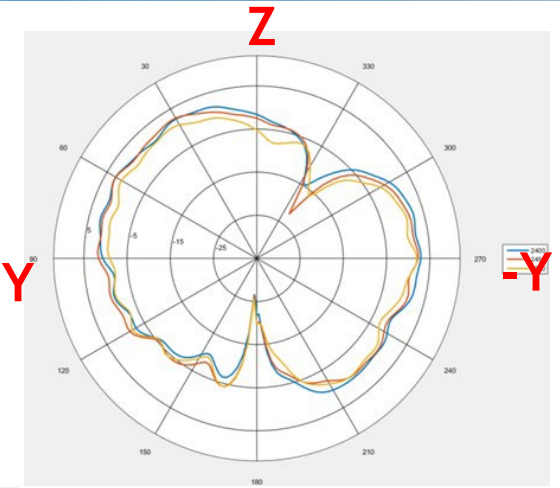
# 4. Radiation patterns (Bluetooth-2G)



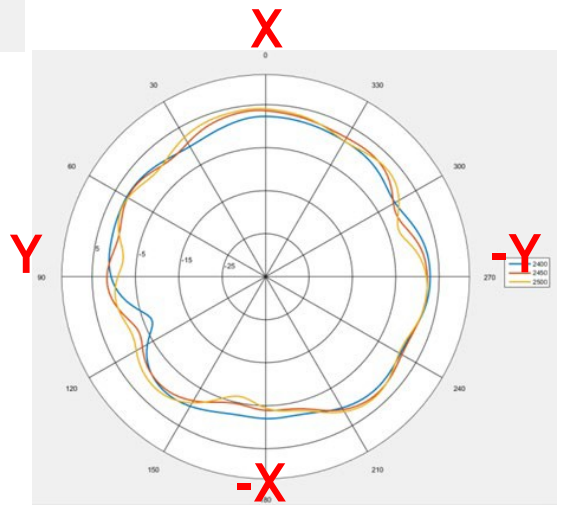
# 4. Radiation patterns (Ant1-2G)



**-Z**

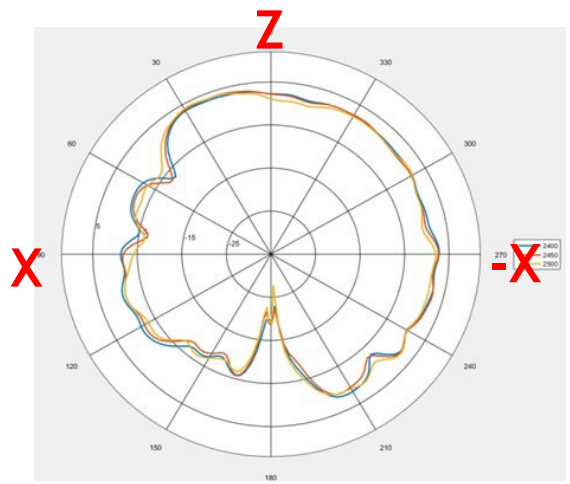


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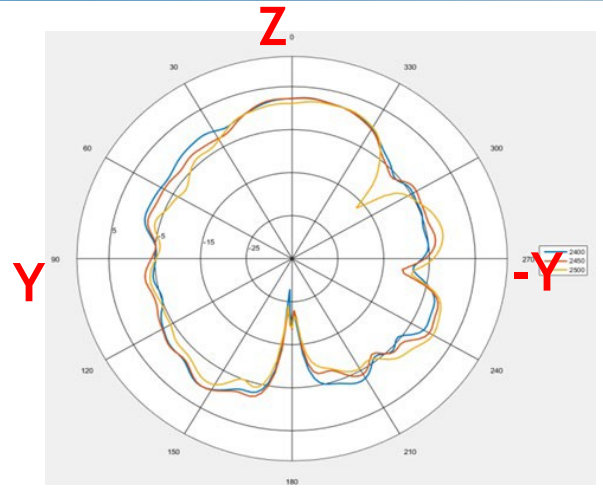




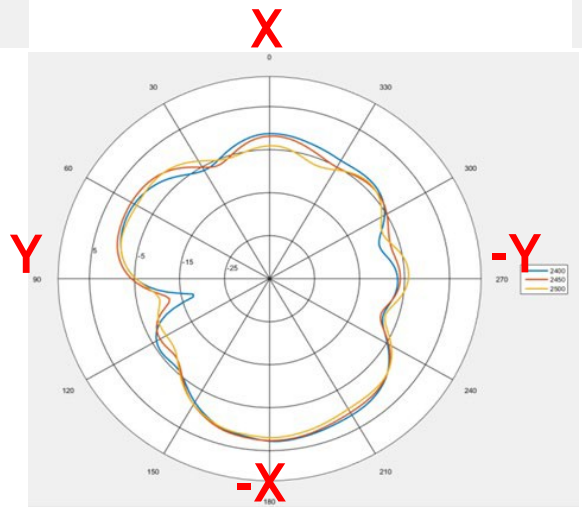
# 4. Radiation patterns (Ant2-2G)



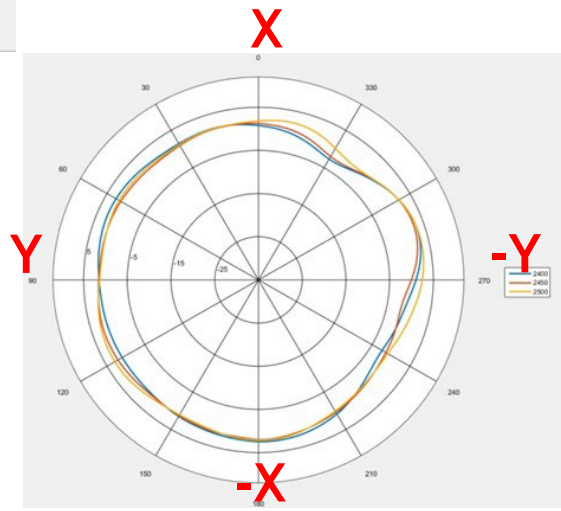
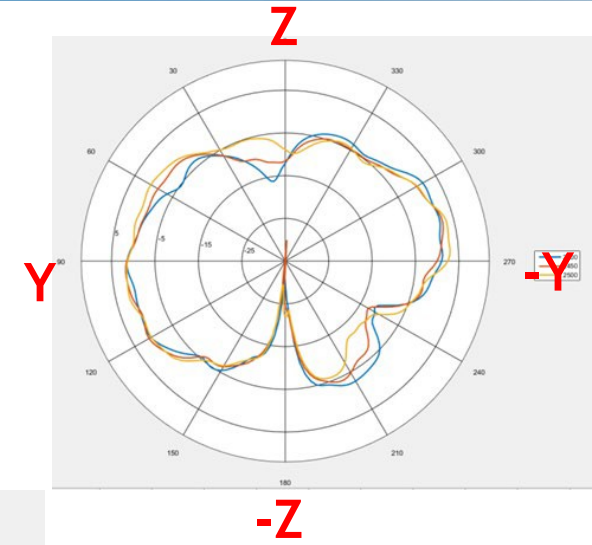
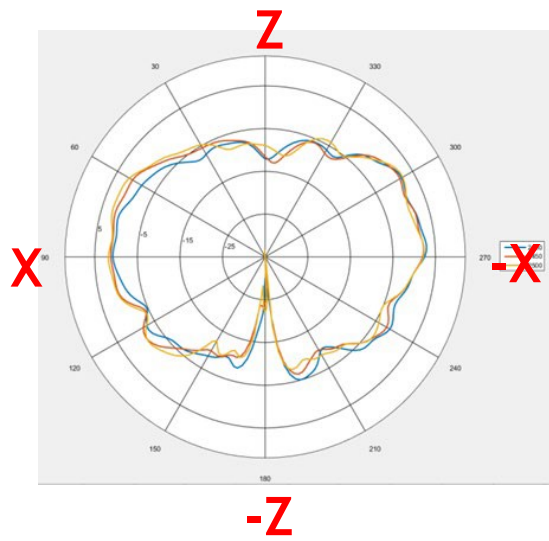
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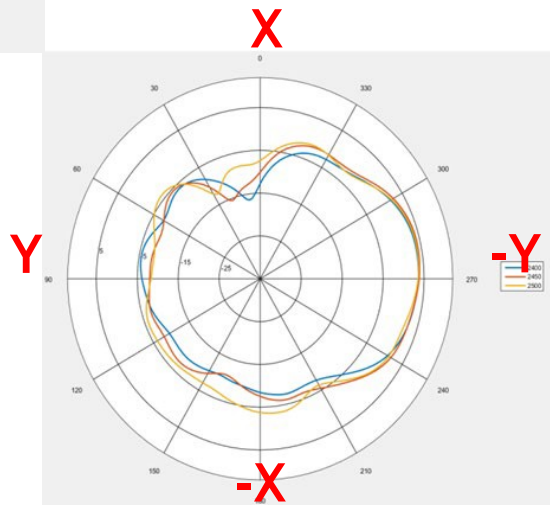
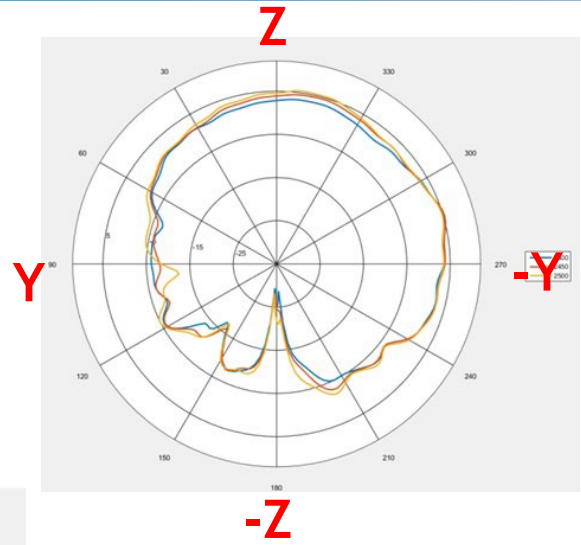
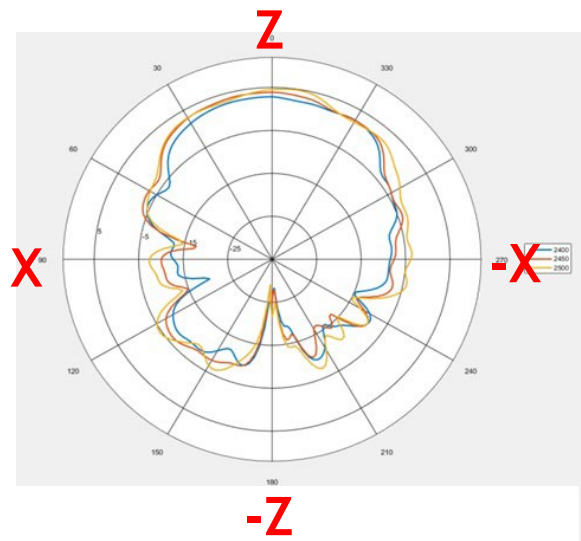
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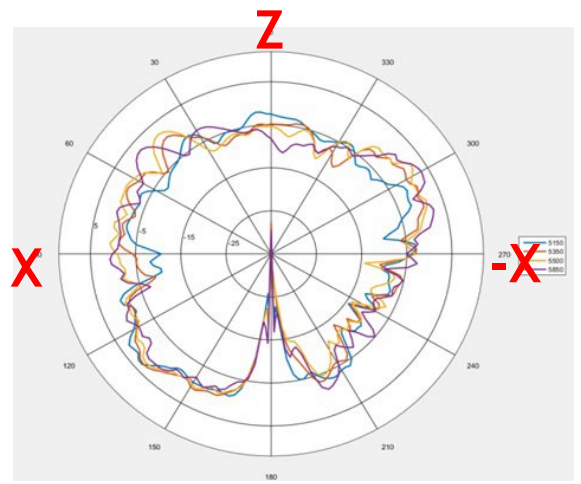
# 4. Radiation patterns (Ant3-2G)



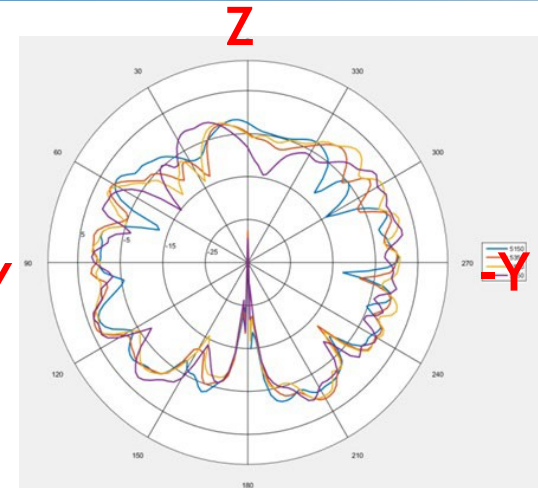
# 4. Radiation patterns (Ant4-2G)



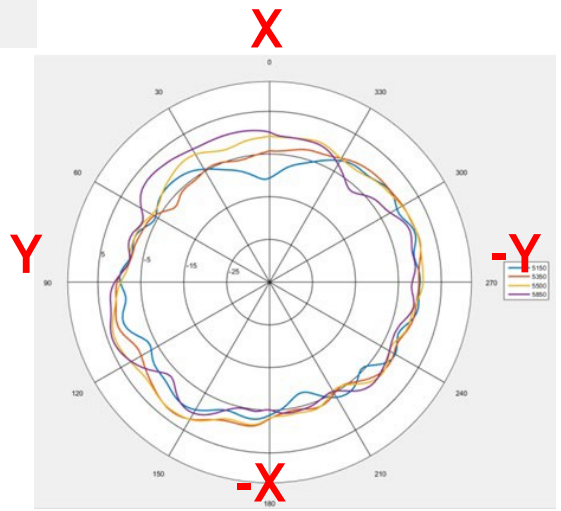
# 4. Radiation patterns (Ant1-5G)



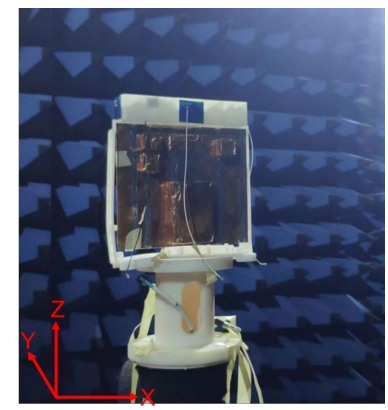
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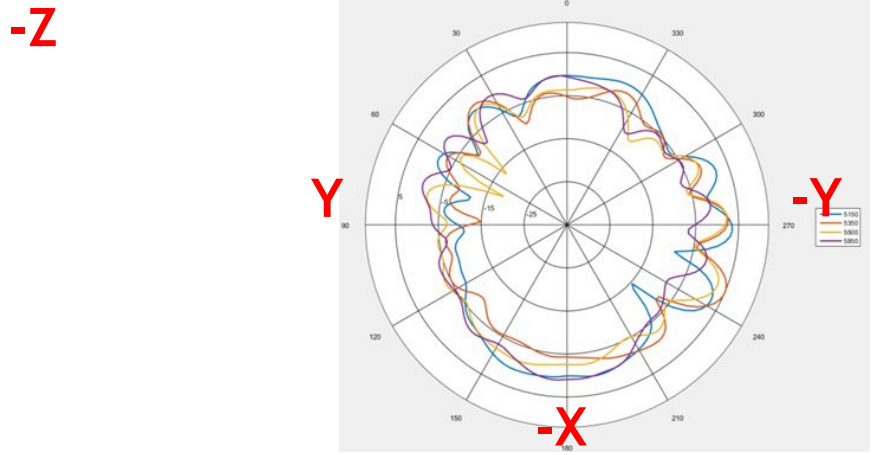
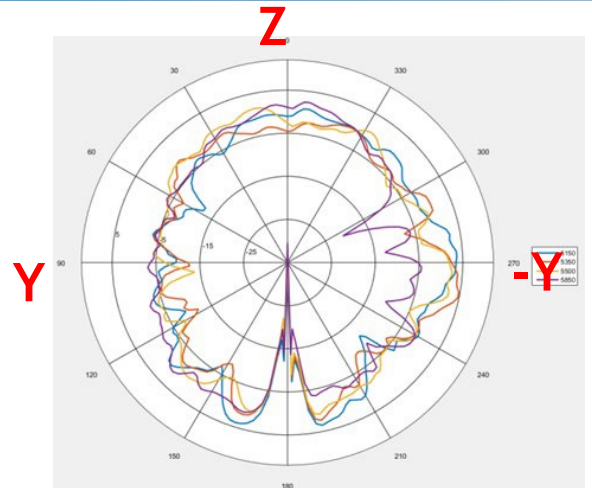
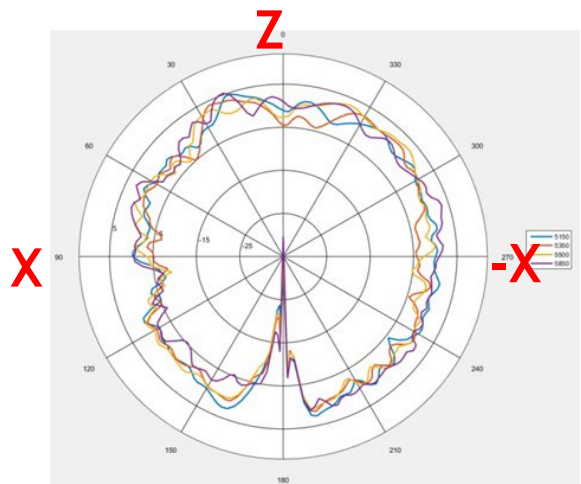
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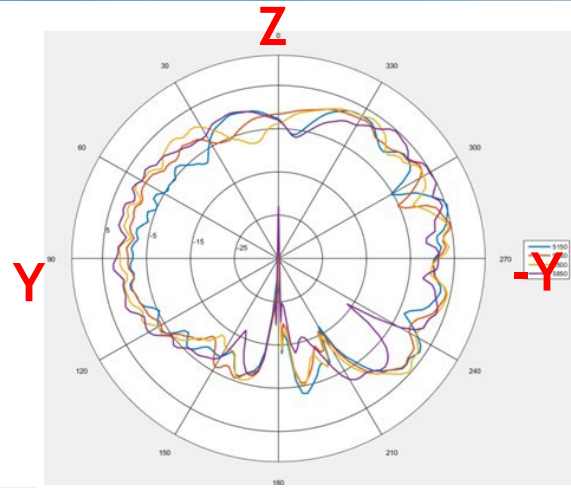
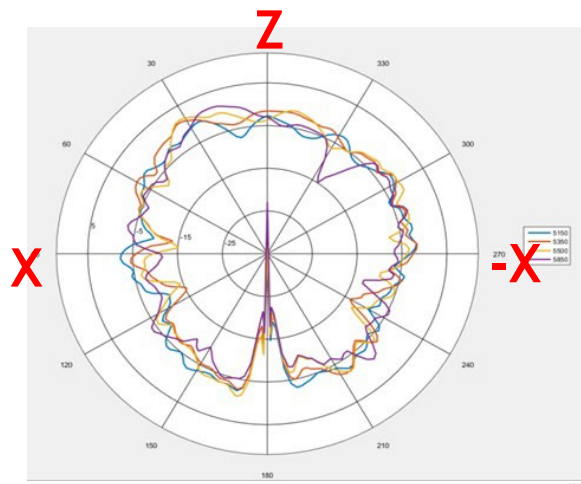
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# 4. Radiation patterns (Ant2-5G)

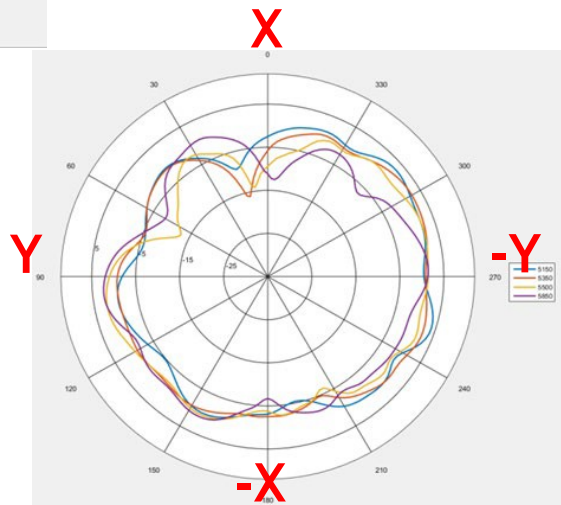


# 4. Radiation patterns (Ant3-5G)

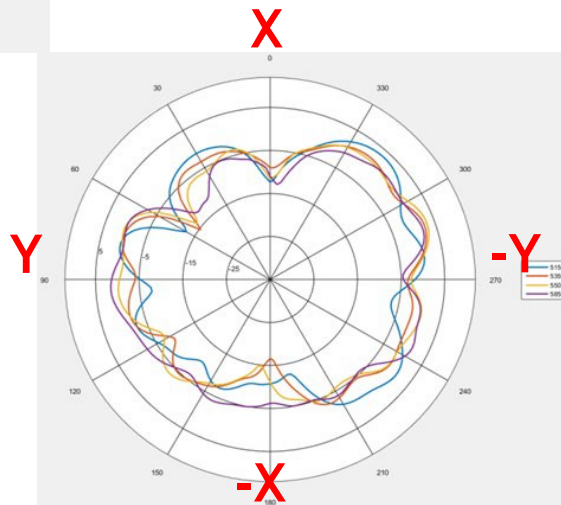
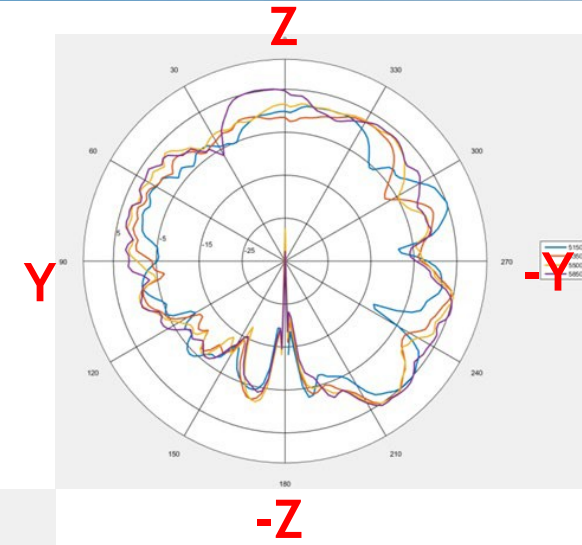
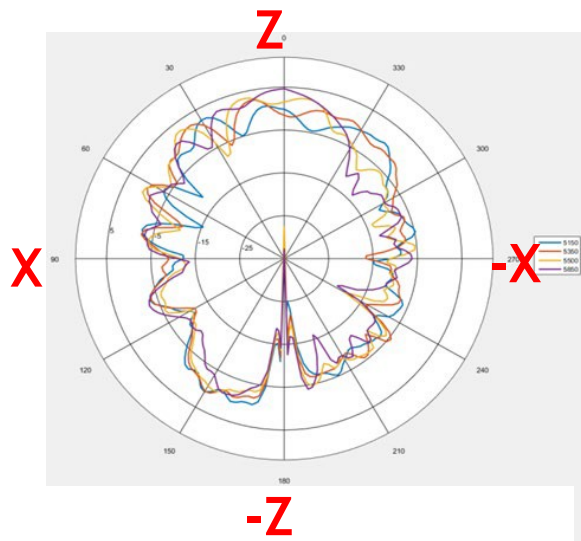


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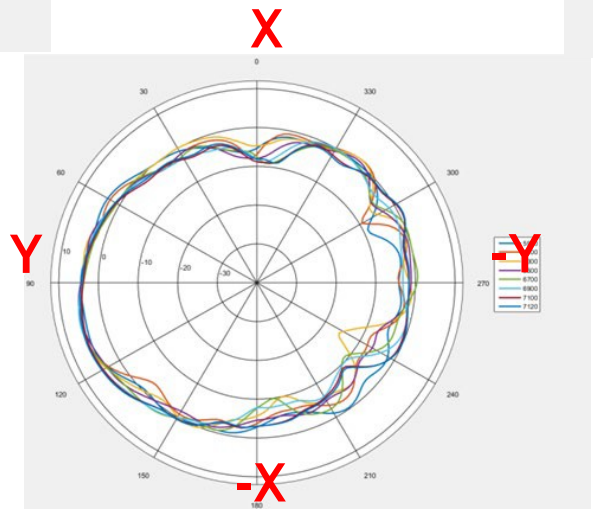
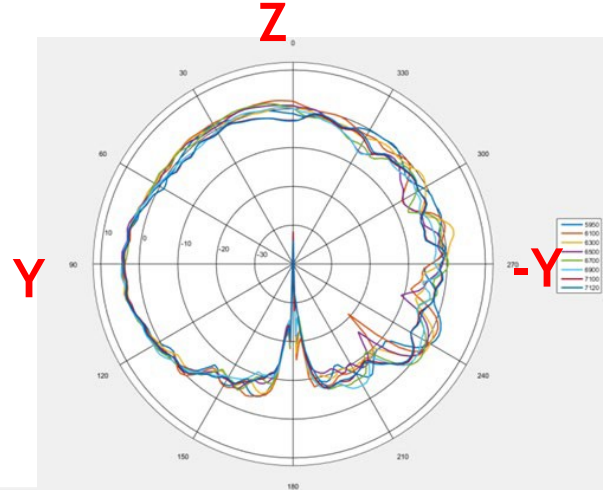
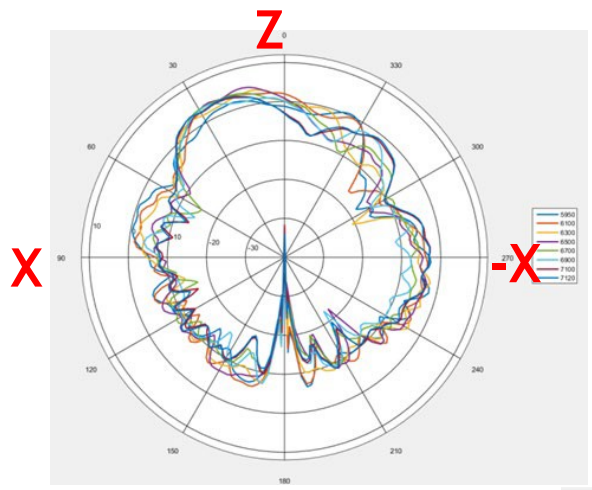
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# 4. Radiation patterns (Ant4-5G)

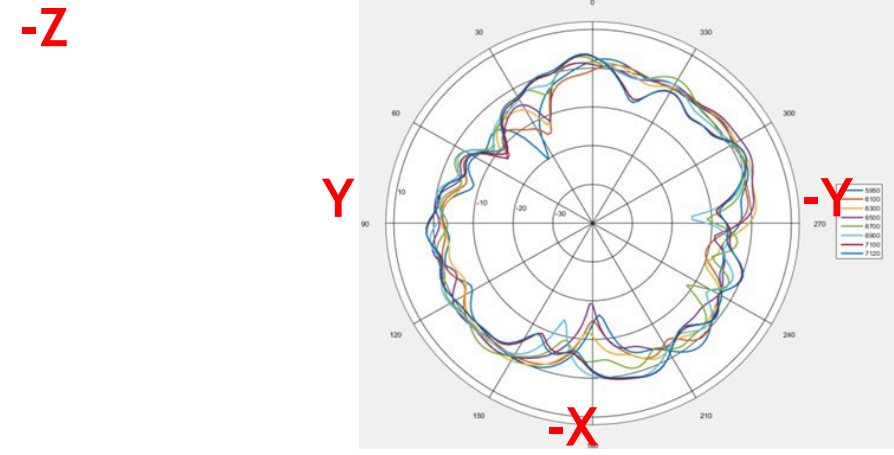
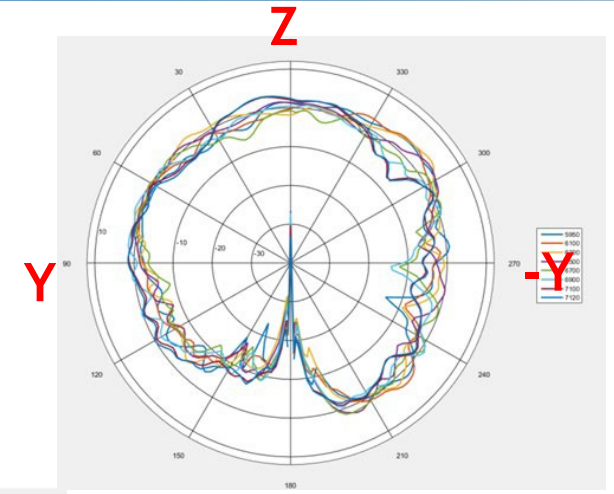
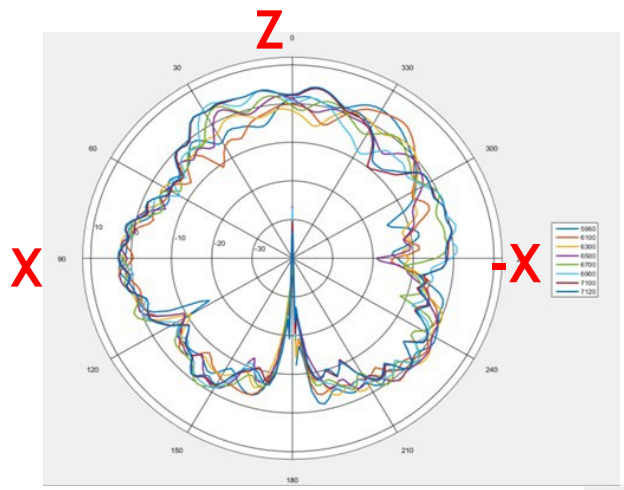


# 4. Radiation patterns (Ant5-6G)

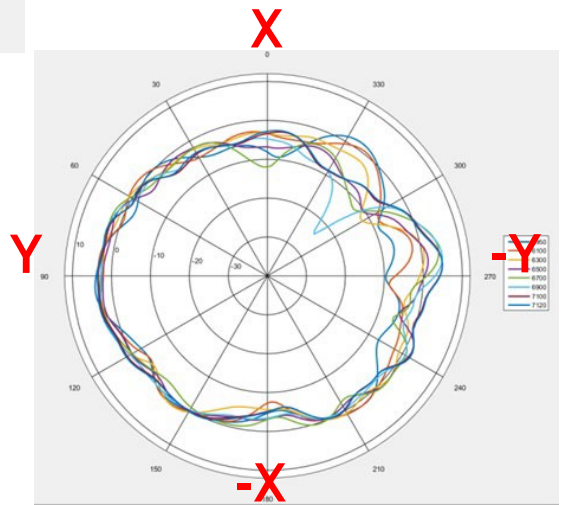
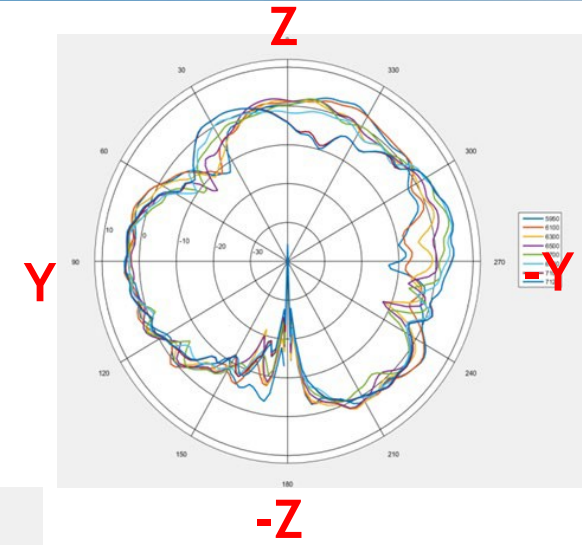
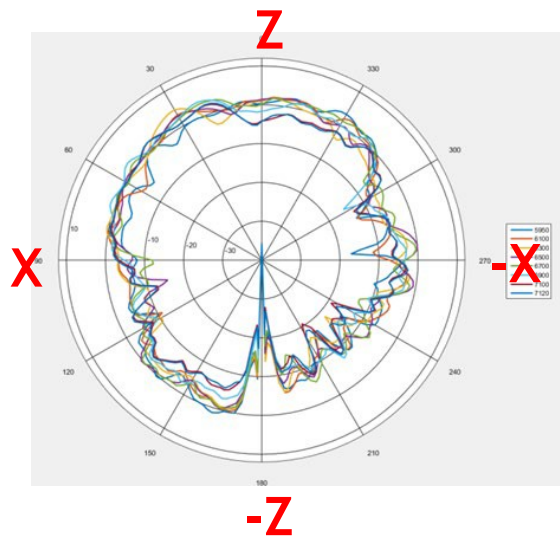




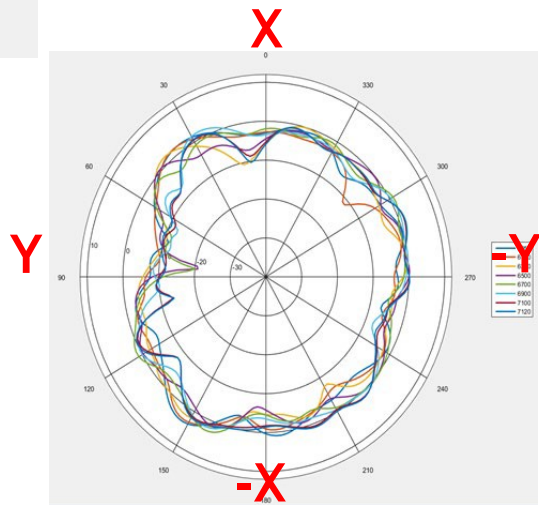
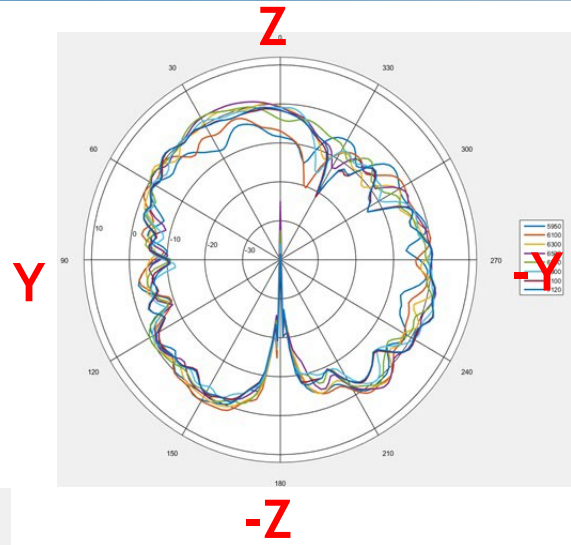
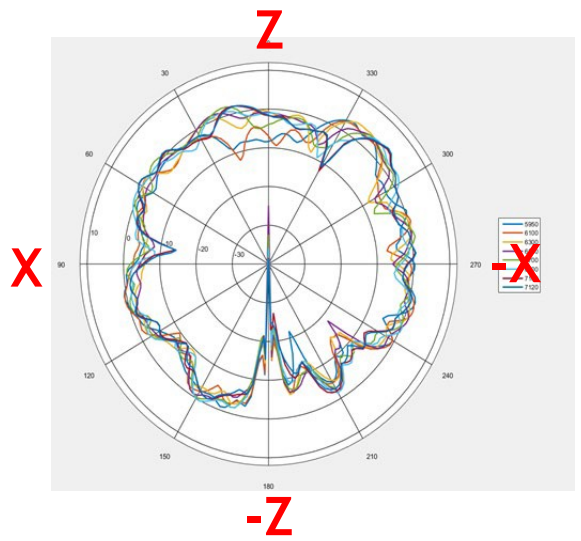
# 4. Radiation patterns (Ant6-6G)



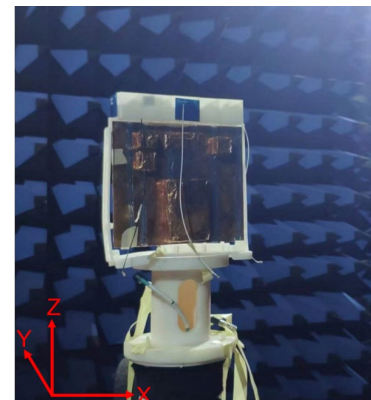
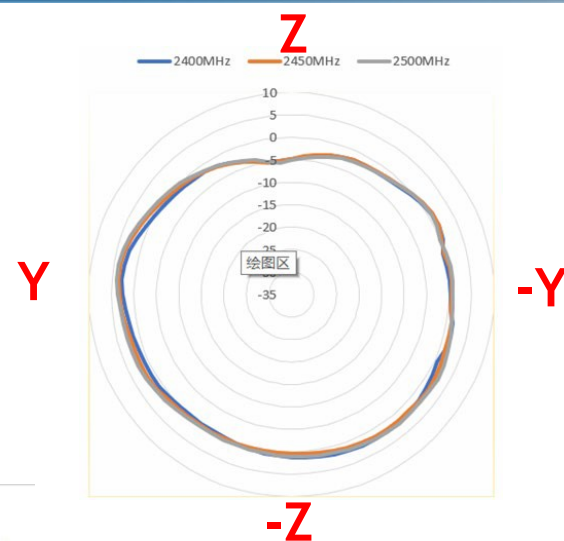
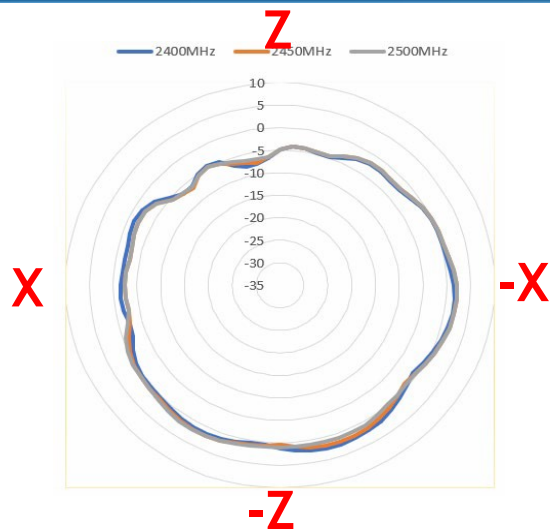
# 4. Radiation patterns (Ant7-6G)



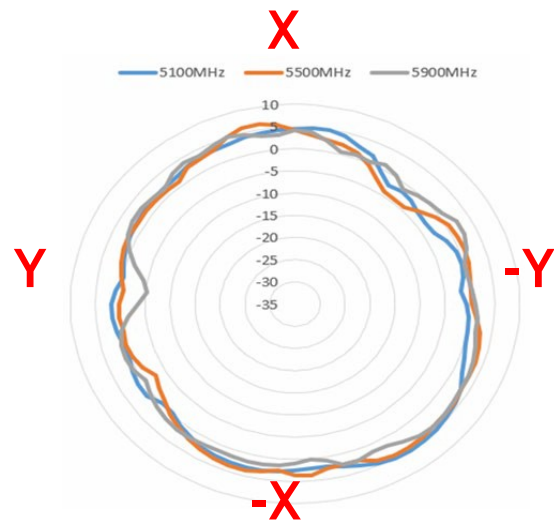
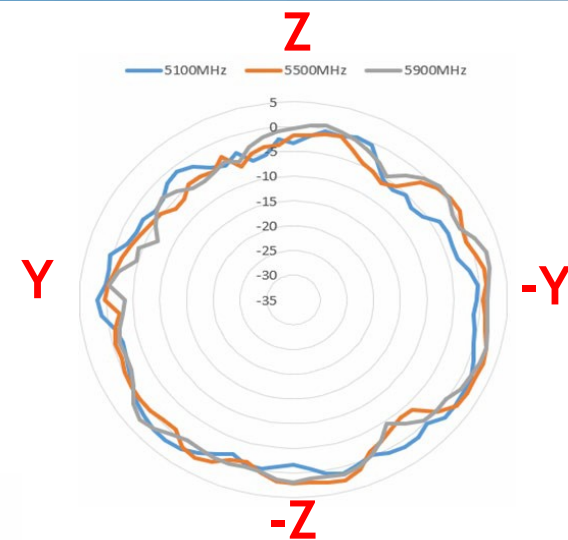
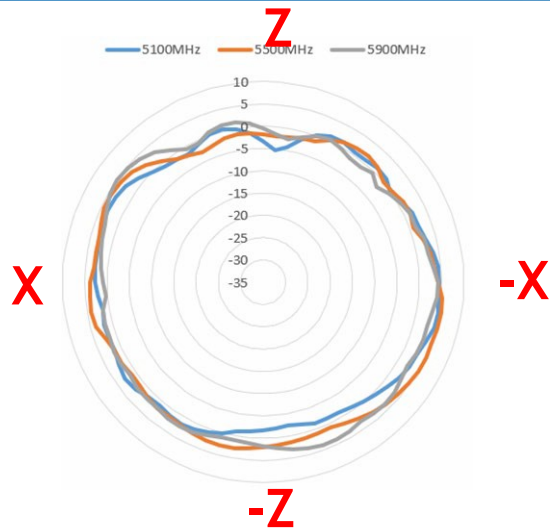
# 4. Radiation patterns (Ant8-6G)



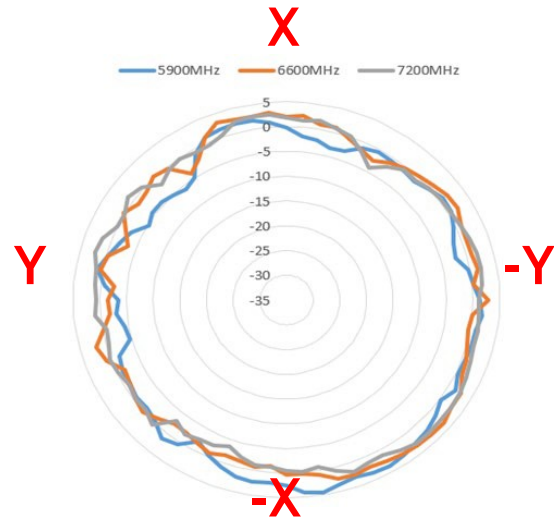
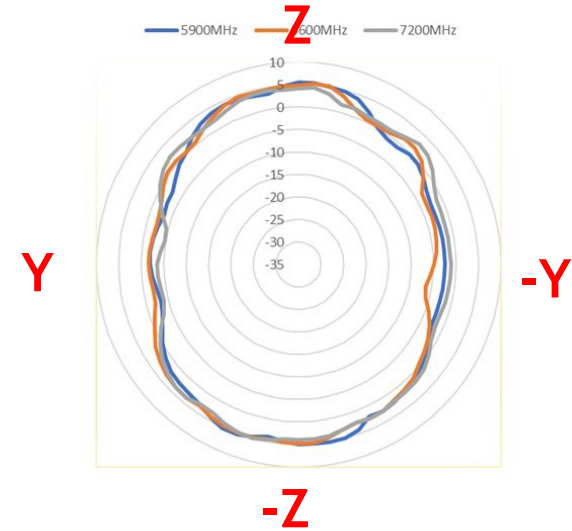
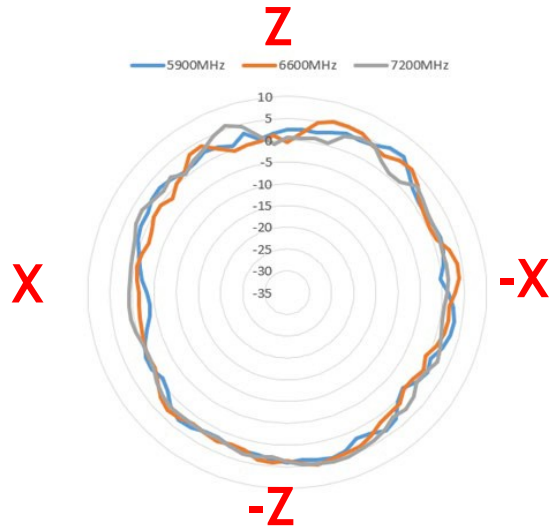
# 4. Radiation patterns (1&2&3&4 system coverage 2.45GHz)



# 4. Radiation patterns (1&2&3&4 system coverage 5.5GHz)



# 4. Radiation patterns (5&6&7&8 system coverage 6GHz )



## 5. Summary(Bluetooth)

1.The measurements are as follows:

	2G	
Frequency (MHz)	Gain(dBi)	Efficiency(%)
2400	4.99	82.30
2450	4.36	69.73
2500	4.54	68.87

## 5. Summary

1.The measurements are as follows:

	2G							
Frequency(MHz)	Gain(dBi)				Efficiency(%)			
	1	2	3	4	1	2	3	4
2400	4.56	4.37	4.38	4.29	71.38	69.53	72.15	76.38
2450	4.68	4.75	4.39	4.15	72.08	73.68	70.38	70.25
2500	4.38	4.15	4.25	4.38	70.42	72.68	72.28	71.08
5150	5.75	5.34	5.65	5.41	72.36	73.15	71.34	70.29
5500	5.15	5.05	5.72	5.09	71.09	70.29	75.45	71.38
5850	5.42	5.34	5.28	5.13	73.08	71.38	77.19	73.07

	6G							
Frequency(MHz)	Gain(dBi)				Efficiency(%)			
	5	6	7	8	5	6	7	8
5925	5.05	5.27	5.05	5.43	71.08	71.53	72.48	71.28
6300	5.12	5.42	5.18	5.67	70.15	72.68	70.38	71.25
6800	5.35	5.1	5.75	5.18	70.42	72.48	71.27	72.25
7125	5.12	5.28	5.18	5.05	72.46	71.25	72.36	71.35



## 5. Summary

1.The measurements are as follows:

Item	Frequency (MHz)	Correlated Gain(dBi)	Uncorrelated Gain(dBi)
1&2&3&4	2400	8.32	2.36
	2450	8.19	2.18
	2500	8.34	2.33
	5150	7.56	1.71
	5500	7.88	2.23
	5850	7.88	2.17

Item	Frequency (MHz)	Correlated Gain(dBi)	Uncorrelated Gain(dBi)
5&6&7&8	5925	8.88	3.03
	6500	8.75	2.81
	7125	9.17	3.21

## 5. Summary

1.The measurements are as follows:

Antenna	VSWR	Mutual Isolation (dBi) 2G Band				Mutual Isolation (dBi) 5G&6G Band							
		1-2G	2-2G	3-2G	4-2G	1-5G	2-5G	3-5G	4-5G	5-6G	6-6G	7-6G	8-6G
<b>1-2G</b>	1.57									-32.17	-28.7	-41.41	-37.15
<b>2-2G</b>	1.6	-30.64								-28.50	-29.35	-32.52	-61.80
<b>3-2G</b>	1.44	-32.15	-40.17							-36.22	-36.6	-34.05	-31.70
<b>4-2G</b>	1.9	-29.08	-22.96	-27.83						-38.26	-37.20	-34.43	-39.91
<b>1-5G</b>	1.14									-31.50	-28.50	-31.30	-31.29
<b>2-5G</b>	1.09					-39.78				-28.45	-26.00	-30.61	-26.10
<b>3-5G</b>	1.02					-30.01	-26.68			-34.86	-30.96	-30.04	-34.37
<b>4-5G</b>	1.47					-31.25	-27.08	-26.1		-37.9	-28.97	-29.35	-27.02
<b>1-6G</b>	1.49					-31.63	-28.45	-34.86	-37.9				
<b>2-6G</b>	1.24					-28.52	-30.14	-30.96	-29.61	-22.4			
<b>3-6G</b>	1.13					-31.29	-30.61	-30.15	-29.35	-35.1	-32.86		
<b>4-6G</b>	1.24					-28.50	-36.83	-34.37	-24.68	-28.34	-26.79	-28.4	

f=2400MH	E_total																								
z																									
Phi(deg)	Theta(deg)																								
	-180	-165	-150	-135	-120	-105	-90	-75	-60	-45	-30	-15	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-24.90	-9.79	-8.50	-11.70	-1.86	-1.08	-1.22	1.11	-0.20	-7.10	-3.71	-0.51	-0.99	-5.00	0.06	1.40	2.25	2.90	2.80	1.35	-5.49	-2.30	-2.95	-7.54	-24.90
15	-24.90	-8.82	-3.73	-3.39	-0.97	-0.25	-0.90	1.39	-0.31	-7.07	-3.14	-1.33	-0.99	-3.57	0.70	1.78	2.48	2.57	1.67	0.27	-4.92	-2.66	-3.41	-8.34	-24.90
30	-24.90	-7.23	-0.94	0.73	1.75	0.55	1.02	1.67	-0.40	-3.24	-2.38	-2.18	-0.99	-2.63	0.74	2.03	2.40	1.86	0.52	-0.34	-4.80	-2.59	-3.69	-8.72	-24.90
45	-24.90	-5.67	0.44	2.95	3.27	0.79	2.04	0.78	0.47	-0.25	-2.16	-3.02	-0.99	-1.38	0.92	2.27	2.38	1.95	1.77	0.40	-5.43	-3.11	-3.82	-8.37	-24.90
60	-24.90	-5.06	0.71	3.06	1.84	0.44	1.44	0.64	2.39	-0.22	-3.68	-3.39	-0.99	0.01	1.60	2.32	3.43	3.12	2.62	-1.44	-3.35	-4.36	-4.44	-7.49	-24.90
75	-24.90	-5.32	0.86	1.48	-1.35	-0.20	2.71	2.78	2.31	-2.25	-8.20	-3.47	-0.99	1.44	2.57	2.26	4.09	2.98	2.20	-0.74	-1.13	-4.87	-6.41	-6.41	-24.90
90	-24.90	-6.11	1.00	1.33	0.55	2.32	3.61	3.17	1.03	-4.99	-12.16	-3.55	-0.99	2.20	3.02	1.73	3.29	2.82	1.06	-0.40	-2.32	-5.27	-8.42	-5.83	-24.90
105	-24.90	-6.85	0.54	0.99	-0.45	1.87	2.37	0.06	-3.37	-12.45	-9.50	-4.03	-0.99	2.43	2.75	0.40	0.16	-0.49	-5.17	-3.37	-4.42	-8.46	-8.56	-5.85	-24.90
120	-24.90	-6.84	-0.74	-2.18	-1.88	1.03	0.02	-2.12	-4.10	-9.07	-6.65	-5.05	-0.99	2.17	1.75	-3.04	-2.72	-5.48	-3.02	-1.74	-4.99	-7.53	-7.58	-6.48	-24.90
135	-24.90	-6.50	-2.67	-5.40	-1.25	1.84	1.45	1.22	0.34	-1.85	-4.03	-6.79	-0.99	1.52	-0.04	-8.33	0.17	-1.42	0.80	-0.98	-2.45	-4.49	-7.01	-7.60	-24.90
150	-24.90	-6.45	-3.44	-3.57	-1.81	2.37	2.02	2.12	1.93	0.45	-2.40	-7.64	-0.99	0.84	-1.86	-7.41	0.89	0.04	0.28	-2.96	-1.99	-5.15	-7.67	-8.60	-24.90
165	-24.90	-6.87	-3.02	-2.29	-4.43	1.98	2.67	3.05	2.39	1.03	-0.98	-6.58	-0.99	0.11	-3.41	-6.70	0.16	0.08	-1.53	-3.63	-2.27	-10.14	-9.70	-9.53	-24.90
180	-24.90	-7.43	-2.92	-2.26	-5.55	1.44	2.83	2.94	2.25	1.33	-0.07	-5.21	-0.99	-0.42	-3.73	-6.99	-0.17	0.95	-1.28	-1.32	-1.88	-12.61	-9.00	-9.81	-24.90

f=2450MH	E_total																								
z	Phi(deg)																								
Phi(deg)	Theta(deg)																								
0	-180	-165	-150	-135	-120	-105	-90	-75	-60	-45	-30	-15	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-24.14	-8.72	-8.37	-12.53	-3.85	-1.54	-2.76	-0.98	-0.69	-14.15	0.13	0.30	-1.57	-3.43	0.72	2.63	3.55	3.72	4.53	2.15	-2.67	-0.07	-0.17	-6.84	-24.14
15	-24.14	-7.67	-2.48	-3.64	-1.43	-1.22	-1.83	0.52	-0.29	-6.21	-0.19	-0.43	-1.57	-2.54	1.16	2.80	4.06	3.81	4.13	0.65	-3.42	-0.76	-1.39	-7.27	-24.14
30	-24.14	-6.25	0.54	1.27	2.33	-0.23	1.84	2.59	0.97	-1.20	-0.49	-1.12	-1.57	-2.25	1.11	2.61	3.80	3.26	1.99	-0.14	-3.51	-2.16	-1.90	-7.50	-24.14
45	-24.14	-4.97	1.69	3.82	4.23	2.01	3.41	1.88	3.06	1.33	-1.24	-1.70	-1.57	-2.03	0.59	2.06	2.26	1.48	1.67	0.77	-4.30	-3.46	-1.98	-7.32	-24.14
60	-24.14	-4.59	1.14	2.89	2.73	0.95	2.21	2.06	3.94	0.81	-2.91	-1.98	-1.57	-1.22	0.65	1.90	1.84	1.82	2.76	-0.99	-6.45	-3.47	-2.93	-6.17	-24.14
75	-24.14	-5.37	-0.84	-0.01	-1.01	0.27	2.89	3.76	2.23	-2.08	-7.19	-2.30	-1.57	0.36	2.34	2.72	3.78	2.57	1.15	-2.02	-0.82	-3.75	-4.80	-4.35	-24.14
90	-24.14	-6.98	-0.88	1.33	0.24	2.03	3.31	2.69	0.22	-6.80	-11.10	-2.87	-1.57	1.54	3.61	2.58	3.64	2.68	2.45	0.90	-0.35	-3.61	-6.03	-3.24	-24.14
105	-24.14	-7.99	0.64	0.10	-1.74	1.20	1.28	-1.87	-4.76	-9.04	-7.09	-4.15	-1.57	2.21	3.81	1.42	1.83	1.09	-0.47	0.43	-2.53	-4.14	-5.71	-3.00	-24.14
120	-24.14	-6.96	0.39	-3.78	-1.04	2.08	0.17	0.66	-0.66	-2.54	-4.68	-5.87	-1.57	2.21	3.16	-0.63	-1.10	-2.11	-1.25	0.01	-3.01	-4.42	-4.97	-3.70	-24.14
135	-24.14	-5.79	-0.97	-2.18	-0.15	2.59	3.39	2.99	2.09	0.56	-2.77	-7.40	-1.57	1.83	2.21	-4.13	-0.91	-2.00	0.85	-0.54	-1.34	-3.39	-5.21	-5.28	-24.14
150	-24.14	-5.65	-0.84	-0.31	-1.47	3.02	3.29	3.23	2.79	1.74	-1.36	-6.69	-1.57	1.37	1.46	-7.67	-0.63	-2.26	-0.85	-2.52	-1.81	-4.97	-7.08	-6.92	-24.14
165	-24.14	-6.22	0.07	0.12	-2.80	2.87	3.93	3.86	3.14	2.09	-0.12	-4.78	-1.57	0.82	0.64	-14.40	-1.04	-2.14	-3.78	-3.71	-3.88	-10.58	-10.66	-8.41	-24.14

f=2500MH	E_total																								
z	Theta(deg)																								
Phi(deg)	-180	-165	-150	-135	-120	-105	-90	-75	-60	-45	-30	-15	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-23.40	-9.23	-5.92	-12.58	-5.47	-5.32	-3.95	-2.40	-2.11	-9.66	-0.40	-1.09	-4.67	-2.81	1.13	2.50	2.84	2.35	4.62	2.29	-1.52	-1.56	0.74	-6.81	-23.40
15	-23.40	-8.58	-1.53	-3.57	-1.44	-4.96	-1.78	0.61	-0.40	-5.78	-0.76	-1.41	-4.67	-2.01	1.54	2.72	3.79	3.10	4.50	1.63	-2.63	-1.65	-0.69	-7.42	-23.40
30	-23.40	-7.33	0.94	1.08	2.41	0.48	2.11	2.51	1.48	-1.21	-1.11	-1.66	-4.67	-1.88	1.39	2.93	4.17	3.22	3.21	-0.61	-3.98	-2.25	-2.45	-7.51	-23.40
45	-23.40	-6.72	0.99	2.60	3.96	2.54	3.22	1.55	2.81	0.51	-1.42	-2.02	-4.67	-2.13	0.62	2.91	3.55	1.73	0.71	0.67	-3.58	-5.34	-2.68	-7.65	-23.40
60	-23.40	-7.43	-1.79	0.51	1.35	-0.47	1.11	2.81	2.74	-0.69	-2.74	-2.63	-4.67	-2.09	-0.88	1.63	1.24	0.42	2.30	0.14	-4.80	-6.66	-2.38	-7.22	-23.40
75	-23.40	-9.08	-3.47	-1.23	-3.74	-1.90	2.56	3.13	0.79	-3.68	-6.75	-3.98	-4.67	-1.21	-0.70	0.81	1.70	0.69	0.20	-3.83	-3.18	-3.80	-4.69	-5.35	-23.40
90	-23.40	-8.98	-0.52	0.40	-1.55	0.25	2.70	1.43	-1.33	-9.52	-9.03	-5.84	-4.67	-0.22	1.38	1.00	1.83	0.42	-0.43	-0.75	-1.55	-4.05	-8.09	-3.57	-23.40
105	-23.40	-6.74	0.73	-1.64	-1.91	1.40	-1.15	-3.24	-5.37	-4.11	-6.68	-8.35	-4.67	0.42	2.33	-0.12	0.09	-0.63	-0.05	0.10	-2.94	-4.39	-5.13	-2.53	-23.40
120	-23.40	-5.12	0.23	-2.34	0.53	0.54	1.27	0.51	0.18	-1.00	-5.41	-9.66	-4.67	0.46	1.78	-2.14	-1.49	-2.22	0.19	1.17	-4.37	-3.26	-3.22	-2.71	-23.40
135	-23.40	-4.39	-0.30	-0.20	-1.50	1.40	3.11	1.15	1.04	0.09	-3.34	-8.47	-4.67	0.11	0.83	-3.48	-0.53	-0.48	2.04	0.27	-3.10	-3.08	-4.07	-4.01	-23.40
150	-23.40	-4.66	0.25	-0.14	-3.72	2.17	2.16	1.41	1.17	1.26	-1.55	-6.27	-4.67	-0.31	0.26	-4.13	-0.98	-1.33	-0.44	-1.88	-2.85	-5.23	-7.05	-5.84	-23.40
165	-23.40	-5.73	0.96	-0.96	-2.43	2.01	3.95	2.39	2.01	1.84	0.05	-4.11	-4.67	-0.76	-0.19	-7.20	-2.51	-3.85	-5.93	-5.55	-6.00	-11.05	-9.00	-8.11	-23.40

f=5150MH z	E_total																								
Phi(deg)	Theta(deg)																								
0	-180	-165	-150	-135	-120	-105	-90	-75	-60	-45	-30	-15	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-19.77	-3.14	-1.51	-8.45	-7.73	-6.12	-1.22	-2.26	-1.20	-3.94	-2.50	-3.10	-0.51	-3.84	-1.59	-2.88	-3.58	-0.26	-7.85	0.71	2.75	3.58	2.03	0.26	-19.77
16	-19.77	-5.61	-2.10	-3.92	-4.39	-5.57	-4.31	-2.61	-0.27	-2.90	-6.49	-4.39	-0.51	-4.76	-0.46	-4.52	-4.69	-1.40	-5.54	0.45	3.71	4.21	1.12	-0.53	-19.77
30	-19.77	-8.60	-0.77	-2.46	-1.58	-2.28	-1.09	-3.87	-0.57	-1.30	-10.13	-4.71	-0.51	-5.34	-2.06	-6.33	-2.48	-2.37	-3.71	1.49	3.28	3.31	-0.81	-2.17	-19.77
46	-19.77	-5.79	1.00	-3.51	2.82	0.11	-2.27	-8.13	-1.04	-3.36	-10.38	-4.30	-0.51	-4.92	-3.67	-9.05	-0.19	-6.49	-0.74	1.74	2.69	1.16	-3.81	-3.02	-19.77
60	-19.77	-3.12	0.54	-4.60	3.79	2.24	1.39	-4.69	-4.54	-4.06	-6.16	-3.82	-0.51	-3.93	-1.97	-5.73	-0.73	-0.87	-2.74	2.71	1.74	1.53	-7.26	-2.74	-19.77
76	-19.77	-0.93	1.11	-4.47	3.00	1.84	2.01	-3.18	-6.92	-2.38	-2.25	-3.54	-0.51	-3.09	-3.32	-4.93	0.08	-1.00	-0.70	3.26	1.64	1.54	-5.00	-3.21	-19.77
90	-19.77	0.56	1.17	-1.72	1.70	-0.25	1.75	-0.71	-11.17	-7.49	-0.75	-3.00	-0.51	-2.46	-5.76	0.43	3.25	-0.05	1.91	3.02	-0.49	1.68	-5.60	-3.42	-19.77
106	-19.77	0.38	1.88	1.19	0.31	0.64	2.44	-4.55	-8.16	-6.16	0.71	-1.28	-0.51	-1.27	-3.79	2.22	3.23	-4.46	2.63	-0.46	1.36	3.04	-0.46	-3.56	-19.77
120	-19.77	-0.89	0.87	2.20	-0.55	1.53	1.51	-2.78	-4.39	-5.43	1.64	-1.25	-0.51	-0.79	-1.12	2.04	2.91	-1.76	-1.14	-2.85	-0.56	3.91	-1.33	-3.25	-19.77
136	-19.77	-1.12	0.76	-0.06	1.06	-0.15	1.14	-0.28	-3.77	-1.19	0.05	-2.88	-0.51	-0.97	0.65	0.68	-0.84	1.28	3.51	-2.26	2.00	-0.02	-1.88	-19.77	
150	-19.77	-0.32	0.58	-0.04	1.42	1.14	-0.18	-0.98	-2.67	-1.65	-4.96	-3.46	-0.51	-1.35	0.44	-0.92	0.24	-0.43	1.80	-0.88	-1.48	0.01	0.20	-1.65	-19.77
166	-19.77	0.24	1.18	2.21	1.65	1.50	-4.23	-0.96	-2.92	-2.94	-3.12	-3.45	-0.51	-2.09	-0.30	-3.38	-2.26	-3.49	-0.48	-2.66	-17.06	-5.02	-1.95	-2.29	-19.77

f=5500MH  
z E\_total

Phi(deg)	Theta(deg)																								
0	-180	-165	-150	-135	-120	-105	-90	-75	-60	-45	-30	-15	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-15.6	-13.7	-7.7	-12.6	-9.7	-9.7	-1.6	1.3	2.3	0.3	-3.0	-4.6	-3.8	-4.1	-6.3	2.7	0.8	1.0	1.2	-2.8	0.5	2.9	1.0	-0.6	-15.6
16	-15.6	-14.1	-7.1	-6.5	-7.9	-6.5	-1.7	-0.7	1.1	0.8	-3.3	-4.2	-3.8	-3.9	-2.8	2.3	2.5	2.5	-0.1	-0.8	2.1	3.2	0.4	-2.0	-15.6
30	-15.6	-8.7	-3.7	-7.5	-8.5	-4.3	-3.5	-1.5	0.8	-0.1	-3.9	-3.8	-3.8	-4.4	-2.0	1.4	3.5	3.2	0.8	1.0	2.8	2.7	-1.1	-3.8	-15.6
46	-15.6	-5.4	-1.7	-7.6	-0.4	2.3	-0.3	2.0	0.5	-1.5	-2.9	-3.9	-3.8	-4.7	-0.8	-0.5	2.6	2.7	0.2	0.4	0.6	0.7	-4.1	-5.3	-15.6
60	-15.6	-5.3	-0.6	-9.1	0.2	0.3	-1.2	-0.4	-2.3	-4.1	-0.6	-5.5	-3.8	-3.0	-2.5	-6.8	1.4	0.3	-1.7	1.1	0.0	-0.2	-8.1	-6.2	-15.6
76	-15.6	-4.3	-0.9	-7.7	2.1	1.4	0.2	0.6	-0.4	1.7	-1.3	-5.8	-3.8	-1.4	-6.3	-12.5	1.2	-0.8	-0.2	2.9	-1.9	-0.3	-14.6	-6.9	-15.6
90	-15.6	-3.5	2.5	-3.0	1.6	2.3	1.9	2.6	2.7	3.2	-1.4	-5.6	-3.8	-0.6	-8.2	-7.5	1.9	-1.5	1.4	3.6	0.0	0.3	-10.7	-5.9	-15.6
106	-15.6	-3.4	-0.3	-2.5	2.2	3.0	2.9	3.8	1.8	1.8	-4.9	-6.9	-3.8	-1.2	-14.1	-3.2	4.9	2.8	5.2	3.7	1.4	0.2	-9.7	-6.0	-15.6
120	-15.6	-3.6	-0.7	1.4	0.2	2.9	2.4	1.6	-0.2	0.6	-7.9	-7.2	-3.8	-3.2	-6.1	0.0	4.3	3.0	4.6	1.9	3.5	1.0	-2.5	-8.6	-15.6
136	-15.6	-2.7	-0.8	-0.3	0.3	0.4	1.2	1.2	-2.5	-0.8	-13.1	-6.2	-3.8	-5.4	-6.3	-0.9	2.6	3.4	4.3	-3.6	0.3	-1.4	-2.5	-9.1	-15.6
150	-15.6	-0.9	-1.5	0.2	-0.1	-2.9	0.5	-0.1	-2.2	1.5	-7.9	-5.7	-3.8	-5.9	-6.3	-2.6	2.1	2.1	3.4	-0.7	-1.1	-9.6	-1.5	-8.1	-15.6
166	-15.6	-0.2	-0.3	1.2	-0.9	-3.2	1.8	-1.2	-0.3	2.7	-7.0	-5.1	-3.8	-5.2	-3.9	-1.1	1.9	0.5	-0.9	-7.4	-6.6	-9.0	-8.2	-10.7	-15.6

f=5850MH		E_total																							
z																									
Phi(deg)	Theta(deg)																								
0	-180	-165	-150	-135	-120	-105	-90	-75	-60	-45	-30	-15	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-16.95	-11.16	-6.39	-7.93	-6.54	-5.91	-2.65	2.33	2.66	-1.83	-6.24	-8.01	-8.33	-3.80	-1.48	1.51	-2.14	0.45	0.37	-8.99	-1.15	1.08	-1.23	-4.43	-16.95
16	-16.95	-9.67	-8.30	-12.12	-8.85	-4.45	-2.92	-1.19	1.22	-2.35	-5.98	-10.19	-8.33	-3.71	-2.87	2.36	0.35	1.22	0.57	-8.18	0.69	2.13	-1.11	-6.72	-16.95
30	-16.95	-8.32	-4.62	-7.47	-8.56	-4.03	-4.42	0.57	0.93	-2.51	-8.42	-11.11	-8.33	-5.15	-5.01	3.68	2.71	2.32	0.50	-4.47	1.72	1.47	-3.62	-7.78	-16.95
46	-16.95	-5.91	-4.67	-8.55	-2.36	-0.37	-0.50	0.81	-2.15	-3.41	-7.29	-13.76	-8.33	-5.80	-4.86	3.29	1.74	0.41	1.11	-1.28	1.44	0.56	-5.46	-7.92	-16.95
60	-16.95	-6.89	-3.84	-9.67	-2.02	-2.88	-3.76	-1.20	-10.77	-7.10	-3.49	-19.14	-8.33	-3.12	-2.36	0.11	-2.15	-1.66	-1.69	-3.72	0.35	1.03	-12.44	-6.77	-16.95
76	-16.95	-9.33	0.96	-10.17	-2.41	-1.05	-2.23	-0.74	-1.10	-2.80	-6.18	-11.24	-8.33	-1.37	-1.25	-5.18	-4.88	-3.64	-2.19	-0.49	-1.48	-0.38	-11.18	-7.33	-16.95
90	-16.95	-5.74	0.18	-11.05	-1.18	-3.90	-2.16	0.93	0.58	-0.87	-5.33	-13.12	-8.33	-0.71	-2.81	-6.36	-0.68	-7.95	0.56	1.94	-0.11	1.75	-6.23	-8.28	-16.95
106	-16.95	-5.08	-0.82	-4.49	1.04	-2.24	0.09	2.86	0.04	-6.92	-8.80	-10.59	-8.33	-2.13	-6.93	-3.92	0.04	-3.16	3.63	2.59	1.54	-1.34	-5.36	-4.82	-16.95
120	-16.95	-4.88	-2.01	-3.95	0.23	-0.48	-1.95	1.13	-3.39	-10.44	-3.76	-13.86	-8.33	-3.74	-8.52	-2.63	0.59	0.62	2.64	1.52	3.82	-1.61	-2.16	-7.60	-16.95
136	-16.95	-2.43	-2.34	-0.75	-0.42	-2.51	-5.45	0.15	-5.86	-9.27	-4.20	-7.56	-8.33	-4.15	-5.54	-1.89	-2.89	2.43	-1.45	-2.61	3.65	-2.68	-1.42	-12.64	-16.95
150	-16.95	-1.47	-1.59	-1.61	-0.31	-10.13	-2.39	0.67	-0.87	-11.79	-0.39	-5.72	-8.33	-4.54	-5.07	-3.63	-0.11	4.58	0.99	-4.61	-0.20	-11.39	-0.47	-12.75	-16.95
166	-16.95	-2.44	-1.03	-0.49	-0.80	-9.44	0.14	1.43	-1.53	-2.05	-1.99	-4.87	-8.33	-5.91	-5.69	-2.83	2.80	3.00	-2.28	-12.80	-3.01	-8.75	-4.06	-13.35	-16.95



f=2400MH z	E_total																								
Phi(deg)	Theta(deg)																								
0	-180	-165	-150	-135	-120	-105	-90	-75	-60	-45	-30	-15	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-16.73	-4.63	2.90	-1.23	1.38	3.05	3.40	1.63	2.42	2.43	3.02	2.74	3.20	3.94	4.14	-3.28	-1.25	-2.95	-0.76	0.33	-0.76	-4.07	-7.12	-6.82	-16.73
15	-16.73	-4.07	3.04	-1.29	0.91	3.08	3.01	1.19	0.96	1.33	2.87	2.84	3.20	3.54	4.16	-2.14	-0.25	-3.12	-3.16	-0.73	-1.04	-4.16	-6.82	-5.32	-16.73
30	-16.73	-4.15	2.76	-0.23	-0.63	2.04	2.24	1.11	-0.68	-0.42	2.52	2.91	3.20	3.17	4.00	-1.11	-0.43	-0.87	-5.50	-4.93	-3.93	-5.74	-6.78	-4.82	-16.73
45	-16.73	-4.74	1.72	0.87	-2.01	-1.94	0.83	2.29	1.77	0.23	2.34	3.01	3.20	2.78	3.67	-0.40	-0.41	1.37	-1.84	-6.54	-4.93	-5.00	-6.77	-4.94	-16.73
60	-16.73	-5.29	-0.08	0.14	0.09	-4.46	-3.97	-0.22	2.11	1.62	2.41	3.07	3.20	2.42	3.14	-0.60	-0.19	1.26	0.18	-7.74	-2.40	-0.84	-3.61	-5.01	-16.73
75	-16.73	-5.34	-2.57	-2.30	0.80	-1.51	-7.49	-6.68	-2.65	-0.16	1.85	3.01	3.20	1.85	1.96	-0.47	-0.76	0.29	-0.18	-8.80	-4.15	0.77	-0.26	-4.26	-16.73
90	-16.73	-5.00	-2.51	-4.51	-1.49	-2.18	-5.94	-4.42	-3.48	-4.37	0.63	2.87	3.20	1.27	-0.08	-0.25	-1.35	-1.24	-4.22	-3.80	-1.78	-0.13	0.74	-3.26	-16.73
105	-16.73	-4.97	-0.40	-7.88	-3.18	-5.10	-8.35	-2.98	-1.97	-1.03	0.36	2.88	3.20	0.92	-3.33	-3.56	-1.65	-5.28	-14.84	-2.58	-0.02	-0.64	0.39	-2.71	-16.73
120	-16.73	-5.74	0.45	-7.37	-4.06	-3.90	-4.79	-5.32	-3.91	1.34	1.99	3.23	3.20	1.14	-3.03	-11.61	-6.37	-5.37	-5.74	0.42	0.57	-0.63	0.21	-3.10	-16.73
135	-16.73	-7.57	-0.38	-5.69	-8.65	-6.32	-2.29	-4.77	-8.95	0.85	3.56	3.81	3.20	1.75	0.17	-1.66	-5.67	-6.32	-5.01	-0.08	1.95	-1.08	1.02	-4.38	-16.73
150	-16.73	-9.07	-2.52	-5.74	-10.68	-10.85	-2.53	-1.78	-8.71	-0.93	4.00	4.14	3.20	2.23	1.94	1.54	0.00	-2.20	-1.25	-0.78	1.98	-1.21	1.84	-5.43	-16.73
165	-16.73	-8.53	-5.62	-5.00	-3.44	-2.08	-1.35	-1.59	-3.52	-3.06	4.04	4.17	3.20	2.58	2.82	2.48	2.07	0.68	2.13	1.70	1.60	-1.11	2.52	-5.38	-16.73
180	-16.73	-7.06	-7.04	-4.16	-0.96	0.20	-0.72	-2.74	-1.49	-3.36	4.12	3.99	3.20	2.72	3.01	2.48	2.44	1.56	3.30	2.94	1.39	-1.19	2.86	-4.73	-16.73

f=2450MH z	E_total																								
Phi(deg)	Theta(deg)																								
0	-180	-165	-150	-135	-120	-105	-90	-75	-60	-45	-30	-15	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-17.03	-5.47	1.72	-0.45	1.43	3.19	3.32	1.05	2.14	2.09	3.19	2.55	3.16	4.38	4.47	-1.55	-2.38	-3.80	-1.39	-0.37	-1.40	-5.39	-8.04	-7.38	-17.03
15	-17.03	-4.73	1.65	-1.49	1.46	2.78	2.65	0.31	0.48	1.42	2.74	2.38	3.16	4.02	4.45	-0.97	-0.78	-2.66	-4.71	-1.65	-1.16	-4.75	-8.89	-5.28	-17.03
30	-17.03	-4.72	1.34	-1.30	0.35	1.85	1.47	-0.15	-3.61	-0.92	1.99	2.27	3.16	3.59	4.26	-0.16	-0.89	0.15	-4.68	-10.09	-5.03	-6.07	-7.73	-3.85	-17.03
45	-17.03	-5.45	0.27	-0.29	-1.98	-1.64	0.58	2.22	-1.06	-4.48	1.00	2.31	3.16	3.01	3.80	0.43	-1.24	1.91	0.09	-5.32	-7.27	-4.60	-5.77	-2.89	-17.03
60	-17.03	-6.67	-1.48	-0.86	-0.24	-4.08	-3.60	1.26	1.69	-2.06	0.77	2.52	3.16	2.42	2.85	-0.06	-1.07	1.50	1.12	-4.36	-3.38	-0.28	-2.46	-2.43	-17.03
75	-17.03	-7.95	-3.71	-3.09	1.38	-0.78	-7.55	-4.99	-1.79	-2.00	0.86	2.77	3.16	1.72	0.72	-1.01	-2.25	0.63	0.73	-4.74	-6.79	0.85	0.25	-2.09	-17.03
90	-17.03	-7.74	-3.59	-4.39	-0.02	-1.86	-5.17	-2.94	-2.66	-5.28	0.39	2.89	3.16	1.35	-2.02	-1.85	-2.16	-1.84	-3.15	-2.19	-1.49	-0.28	0.76	-2.04	-17.03
105	-17.03	-6.61	-1.46	-7.57	-0.91	-4.40	-5.68	-3.02	-0.37	-0.76	0.50	3.04	3.16	1.53	-2.81	-6.48	-1.70	-4.85	-9.81	-3.11	0.52	0.22	0.10	-2.64	-17.03
120	-17.03	-6.14	-0.36	-11.50	-2.35	-3.81	-4.09	-6.88	-2.74	1.36	2.08	3.37	3.16	2.01	-0.04	-7.26	-9.20	-4.27	-6.33	-0.65	0.01	0.36	0.03	-4.02	-17.03
135	-17.03	-6.69	-0.58	-8.42	-5.62	-7.85	-3.24	-7.51	-6.04	1.03	3.70	3.94	3.16	2.47	2.19	-0.18	-3.51	-4.99	-5.51	-3.12	0.95	-0.64	0.89	-6.35	-17.03
150	-17.03	-7.87	-2.04	-7.01	-8.87	-12.28	-4.35	-3.03	-8.69	-0.23	4.28	4.35	3.16	2.64	2.99	1.75	1.07	-1.82	-0.57	-1.82	1.26	-0.75	1.44	-7.59	-17.03
165	-17.03	-8.55	-5.04	-6.53	-5.37	-3.40	-2.38	-2.65	-5.29	-1.48	4.38	4.52	3.16	2.65	3.28	2.08	2.22	0.37	2.47	2.20	1.19	-0.20	1.68	-6.70	-17.03
180	-17.03	-7.63	-7.67	-5.56	-1.73	-0.56	-1.32	-3.69	-2.70	-1.59	4.46	4.42	3.16	2.57	3.22	2.10	2.20	1.03	3.28	3.14	1.39	-0.36	1.72	-5.62	-17.03

f=2500MH	E_total																								
z	Phi(deg)																								
Phi(deg)	Theta(deg)																								
0	-180	-165	-150	-135	-120	-105	-90	-75	-60	-45	-30	-15	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-18.38	-3.62	2.20	0.99	1.26	2.29	2.75	0.63	2.35	2.25	2.79	1.71	2.16	4.31	4.74	0.03	-2.40	-3.09	-3.56	-0.21	-2.17	-4.99	-6.60	-8.16	-18.38
15	-18.38	-3.24	2.53	0.59	2.10	1.85	1.97	0.52	2.15	3.01	2.77	1.60	2.16	3.85	4.59	0.27	-0.85	-1.46	-5.24	-2.47	-1.20	-4.08	-7.21	-5.92	-18.38
30	-18.38	-3.48	2.58	0.57	1.91	1.68	0.57	-0.63	-0.87	2.55	2.66	1.58	2.16	3.34	4.20	0.68	-1.18	0.61	-2.79	-9.95	-5.34	-5.97	-5.96	-4.29	-18.38
45	-18.38	-4.43	1.87	0.95	0.40	-0.35	0.19	1.44	-4.41	0.65	2.22	1.76	2.16	2.68	3.36	1.40	-2.10	1.02	-0.07	-3.22	-9.07	-5.21	-4.87	-3.42	-18.38
60	-18.38	-5.99	0.18	-0.03	-0.03	-5.28	-3.10	1.22	-1.36	-0.68	1.79	2.09	2.16	2.07	1.84	0.89	-2.35	-0.07	-0.14	-2.85	-4.74	-0.89	-2.71	-3.38	-18.38
75	-18.38	-8.39	-3.18	-2.08	1.63	-1.65	-6.60	-2.69	-5.01	-2.69	1.38	2.51	2.16	1.46	-1.02	-1.37	-5.43	-0.90	0.00	-2.80	-15.74	-0.55	-0.95	-3.85	-18.38
90	-18.38	-9.42	-5.18	-2.15	1.12	-1.05	-3.49	-0.95	-4.79	-10.78	1.01	2.81	2.16	1.24	-2.21	-3.55	-5.87	-3.33	-4.18	-2.82	-3.68	-1.50	-0.96	-4.67	-18.38
105	-18.38	-8.12	-2.21	-2.89	0.27	-5.97	-5.44	-3.62	-1.66	-5.03	1.03	3.08	2.16	1.38	0.30	-4.80	-4.47	-3.07	-8.50	-5.10	-1.76	0.65	-0.82	-6.27	-18.38
120	-18.38	-6.83	-0.05	-3.85	-0.83	-5.33	-5.47	-8.64	-3.64	-0.57	2.12	3.41	2.16	1.66	2.41	-2.07	-11.13	-2.94	-7.70	-2.97	-2.68	0.78	0.50	-8.05	-18.38
135	-18.38	-6.47	0.52	-3.51	-2.50	-5.66	-2.93	-5.80	-2.80	0.39	3.85	3.97	2.16	1.87	3.45	0.75	-3.34	-4.23	-5.04	-6.01	-0.58	-0.45	1.49	-8.51	-18.38
150	-18.38	-7.23	-0.41	-4.33	-7.41	-10.26	-4.95	-5.25	-3.09	0.12	4.69	4.40	2.16	1.89	3.40	1.27	0.12	-2.69	-0.50	-0.64	0.06	-0.03	1.63	-6.74	-18.38
165	-18.38	-8.55	-3.22	-5.66	-9.62	-2.48	-5.05	-3.41	-3.93	-0.34	4.80	4.53	2.16	1.81	2.99	1.44	1.40	-0.56	2.08	2.12	0.44	0.80	1.84	-4.66	-18.38

f=2400MH z	E_total																								
Phi(deg)	Theta(deg)																								
0	-180	-165	-150	-135	-120	-105	-90	-75	-60	-45	-30	-15	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-24.60	-5.89	-8.59	-3.97	-0.60	-1.13	3.12	2.62	2.55	-0.79	-5.80	-6.09	-11.00	-6.13	-6.97	-3.21	-0.93	1.37	1.41	-1.61	-2.47	-5.06	-7.84	-9.10	-24.60
15	-24.60	-5.80	-9.14	-4.48	0.20	-0.67	2.82	2.89	2.14	-0.92	-8.37	-6.63	-11.00	-7.43	-6.75	-2.30	-0.11	1.82	2.12	0.24	-3.32	-5.73	-8.47	-8.41	-24.60
30	-24.60	-5.82	-6.41	-4.13	-0.16	-0.78	1.66	1.79	0.50	-2.46	-9.79	-6.90	-11.00	-8.28	-5.48	-1.48	0.84	1.88	2.01	0.57	-3.45	-5.52	-7.76	-7.12	-24.60
45	-24.60	-5.85	-3.90	-1.38	-1.12	-0.90	-0.59	-0.74	-1.54	-4.24	-9.45	-6.57	-11.00	-9.55	-4.15	-0.72	2.02	2.85	2.51	0.08	-4.70	-2.77	-4.88	-6.35	-24.60
60	-24.60	-5.80	-2.97	0.09	-0.62	-0.03	-1.70	-3.36	-2.44	-4.29	-8.03	-5.67	-11.00	-11.10	-3.74	-0.48	2.12	3.11	3.18	0.82	-2.67	-0.51	-3.01	-6.82	-24.60
75	-24.60	-5.57	-2.67	-1.58	-3.41	-1.01	-0.60	-0.84	-0.78	-5.24	-5.45	-4.26	-11.00	-12.31	-4.42	-1.21	0.44	1.84	2.97	1.65	0.28	-0.48	-2.88	-8.97	-24.60
90	-24.60	-5.21	-1.96	-3.31	-11.00	-2.29	1.64	2.41	2.17	-2.08	-2.82	-3.10	-11.00	-11.86	-5.84	-3.15	-2.86	-0.03	2.16	1.17	1.36	-3.72	-4.89	-12.04	-24.60
105	-24.60	-4.79	-1.24	-2.01	-3.33	-1.19	3.88	3.28	3.52	1.25	-1.05	-2.23	-11.00	-10.20	-6.25	-2.84	-2.65	-0.45	1.69	1.00	1.90	-6.55	-7.14	-12.49	-24.60
120	-24.60	-4.71	-1.51	-2.08	-2.45	-3.30	2.85	1.27	2.28	0.94	-1.07	-2.01	-11.00	-8.56	-4.55	-0.96	-0.57	0.04	1.56	1.23	1.02	-2.91	-4.67	-9.67	-24.60
135	-24.60	-5.22	-2.90	-3.81	-2.35	-3.09	-0.19	-1.97	-0.57	-1.86	-2.51	-2.39	-11.00	-7.00	-3.04	-0.58	0.47	0.36	1.54	0.55	-2.66	-1.25	-2.73	-7.47	-24.60
150	-24.60	-6.30	-4.77	-5.36	-1.26	-2.61	-1.76	-1.51	-2.04	-4.65	-4.31	-3.25	-11.00	-6.15	-2.91	-1.29	1.55	0.71	2.04	-1.03	-5.87	-1.57	-3.13	-6.56	-24.60
165	-24.60	-8.06	-6.88	-5.39	-1.12	-2.24	0.41	0.52	-1.76	-4.33	-6.06	-4.70	-11.00	-5.85	-3.95	-1.35	2.14	1.26	2.54	-2.11	-2.76	-2.80	-5.50	-6.10	-24.60

f=2450MH	E_total																									
z	Theta(deg)																									
Phi(deg)	0	15	30	45	60	75	90	105	120	135	150	165	180	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-180	-165	-150	-135	-120	-105	-90	-75	-60	-45	-30	-15	0	15	30	45	60	75	90	105	120	135	150	165	180	
0	-23.25	-6.43	-8.72	-5.55	-1.00	-1.45	3.06	2.78	2.53	-0.04	-6.02	-6.64	-10.29	-5.10	-4.59	-1.50	2.03	2.71	2.29	0.93	-1.01	-3.80	-8.74	-10.33	-23.25	
15	-23.25	-7.39	-6.77	-4.01	0.86	-0.29	2.55	3.24	2.15	0.35	-8.37	-7.11	-10.29	-5.48	-4.59	-1.20	1.83	3.10	2.34	1.97	-2.53	-5.46	-11.06	-9.30	-23.25	
30	-23.25	-7.70	-4.76	-2.25	1.41	0.20	1.66	2.35	0.93	-1.07	-9.40	-7.36	-10.29	-5.75	-4.20	-0.74	1.52	3.12	1.91	1.76	-3.14	-7.19	-8.38	-7.31	-23.25	
45	-23.25	-7.56	-3.64	-0.18	1.68	0.78	0.49	0.22	-0.89	-3.09	-9.64	-7.13	-10.29	-6.38	-3.78	-0.02	1.78	3.73	1.86	1.49	-4.74	-3.99	-3.95	-6.06	-23.25	
60	-23.25	-7.29	-4.02	-0.18	1.02	1.17	-0.32	-1.23	-2.55	-3.78	-8.68	-6.35	-10.29	-7.31	-3.95	0.33	1.75	3.75	2.31	2.18	-2.36	-0.69	-2.10	-6.33	-23.25	
75	-23.25	-6.81	-5.25	-4.74	-4.91	-0.91	-0.81	1.07	-2.43	-5.06	-5.99	-5.03	-10.29	-8.58	-4.83	0.20	0.95	2.16	2.52	2.46	1.14	-0.09	-2.66	-8.45	-23.25	
90	-23.25	-6.15	-3.74	-6.51	-12.09	-2.28	1.04	3.52	0.95	-2.59	-3.52	-3.91	-10.29	-9.50	-5.58	-0.24	0.04	0.53	2.65	1.95	2.32	-2.51	-5.51	-11.62	-23.25	
105	-23.25	-5.38	-1.36	-1.91	-1.71	-0.38	3.78	3.80	3.12	-0.08	-1.91	-3.06	-10.29	-9.76	-5.17	0.43	1.19	1.30	3.18	2.06	2.95	-3.46	-6.07	-11.60	-23.25	
120	-23.25	-5.05	-0.73	-1.17	-0.84	-1.51	3.25	1.81	2.34	-1.08	-1.94	-2.84	-10.29	-9.04	-3.91	1.28	1.77	2.23	3.00	2.43	2.35	-1.20	-2.83	-8.33	-23.25	
135	-23.25	-5.41	-1.44	-2.08	-0.86	-0.84	0.49	-0.40	0.44	-3.62	-3.11	-3.14	-10.29	-7.74	-2.96	0.79	1.12	2.27	2.20	1.93	-0.98	-0.86	-1.52	-5.95	-23.25	
150	-23.25	-6.54	-3.12	-3.41	-0.05	-0.90	-0.56	0.81	0.53	-4.00	-4.09	-3.72	-10.29	-6.85	-3.04	-0.65	1.56	1.91	2.18	0.12	-6.29	-2.15	-2.70	-5.23	-23.25	
165	-23.25	-8.72	-5.99	-3.94	0.27	-0.39	1.74	2.40	1.50	-2.40	-4.46	-4.52	-10.29	-6.46	-4.13	-1.15	2.27	1.69	2.55	-2.19	-4.35	-4.27	-6.21	-5.55	-23.25	

f=2500MH z	E_total																																																	
Phi(deg)	Theta(deg)																																																	
	0	15	30	45	60	75	90	105	120	135	150	165	180	0	15	30	45	60	75	90	105	120	135	150	165	180																								
0	-180	-155	-150	-135	-120	-105	-90	-75	-60	-45	-30	-15	0	15	30	45	60	75	90	105	120	135	150	165	180	-180	-155	-150	-135	-120	-105	-90	-75	-60	-45	-30	-15	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-24.96	-7.62	-7.76	-5.64	-3.16	-1.90	2.99	1.52	3.01	-1.01	-3.54	-8.10	-8.29	-7.63	-4.26	-1.08	2.58	2.91	2.56	1.05	-2.10	-2.29	-11.33	-10.72	-24.96	-24.96	-8.47	-7.34	-3.82	-0.15	-1.16	2.24	2.18	2.72	-0.07	-5.50	-9.78	-8.29	-6.53	-4.03	-1.27	2.01	3.30	2.14	2.11	-3.51	-4.33	-12.92	-9.57	-24.96
15	-24.96	-8.66	-6.51	-1.95	0.98	-0.19	0.90	1.43	1.08	-1.04	-7.05	-10.54	-8.29	-5.58	-3.57	-0.88	1.33	3.10	1.83	1.90	-3.21	-7.86	-8.06	-7.42	-24.96	-24.96	-8.39	-5.95	-0.27	1.67	1.01	-0.15	-0.29	-0.70	-2.90	-8.92	-9.78	-8.29	-5.06	-3.45	-0.20	1.42	3.76	2.07	1.59	-3.62	-5.42	-3.75	-6.11	-24.96
30	-24.96	-8.39	-5.95	-0.27	1.67	1.01	-0.15	-0.29	-0.70	-2.90	-8.92	-9.78	-8.29	-5.06	-3.45	-0.20	1.42	3.76	2.07	1.59	-3.62	-5.42	-3.75	-6.11	-24.96	-24.96	-8.04	-7.40	-1.02	1.01	1.06	-0.25	-0.72	-2.33	-3.80	-9.41	-8.16	-8.29	-4.92	-3.80	0.00	1.58	3.98	2.39	2.36	-1.00	-1.49	-2.17	-6.40	-24.96
45	-24.96	-7.51	-11.07	-8.83	-4.09	-1.32	1.33	2.30	-2.54	-4.61	-6.57	-6.19	-8.29	-4.77	-4.34	-0.02	1.46	2.75	2.00	2.80	1.19	-0.32	-3.12	-8.62	-24.96	-24.96	-6.82	-6.96	-11.48	-9.05	-3.05	3.07	3.95	0.58	-2.95	-3.75	-4.91	-8.29	-4.60	-4.30	0.18	1.57	1.37	2.11	2.27	1.37	-1.89	-6.45	-11.93	-24.96
60	-24.96	-5.96	-3.02	-2.57	-1.86	-2.13	4.01	3.08	2.26	-2.10	-2.28	-4.25	-8.29	-4.50	-3.55	1.27	2.71	2.19	3.20	2.30	1.92	-2.13	-6.41	-11.64	-24.96	-24.96	-5.53	-1.81	-0.69	-1.38	-3.06	2.85	1.10	0.72	-4.11	-2.61	-4.43	-8.29	-4.63	-2.71	2.19	2.91	2.89	3.53	2.61	1.93	-1.00	-3.09	-8.46	-24.96
75	-24.96	-5.78	-2.03	-1.09	-1.47	-0.59	0.26	0.17	-0.78	-4.13	-4.13	-5.36	-8.29	-5.05	-1.89	1.96	1.21	2.83	2.54	2.07	-0.91	-1.70	-2.14	-6.44	-24.96	-24.96	-5.78	-2.03	-1.09	-1.47	-0.59	0.26	0.17	-0.78	-4.13	-4.13	-5.36	-8.29	-5.05	-1.89	1.96	1.21	2.83	2.54	2.07	-0.91	-1.70	-2.14	-6.44	-24.96
90	-24.96	-6.84	-3.57	-2.39	-0.04	-1.19	1.02	1.76	0.95	-2.49	-4.87	-6.53	-8.29	-5.68	-1.65	0.19	0.81	2.29	1.61	0.84	-7.30	-3.51	-3.59	-6.06	-24.96	-24.96	-6.84	-3.57	-2.39	-0.04	-1.19	1.02	1.76	0.95	-2.49	-4.87	-6.53	-8.29	-5.68	-1.65	0.19	0.81	2.29	1.61	0.84	-7.30	-3.51	-3.59	-6.06	-24.96
105	-24.96	-9.01	-7.08	-2.55	-0.22	-0.55	3.15	2.81	2.34	-1.24	-4.42	-7.64	-8.29	-6.76	-2.21	-1.77	2.10	0.85	2.16	-1.51	-9.06	-5.10	-6.55	-6.67	-24.96	-24.96	-9.01	-7.08	-2.55	-0.22	-0.55	3.15	2.81	2.34	-1.24	-4.42	-7.64	-8.29	-6.76	-2.21	-1.77	2.10	0.85	2.16	-1.51	-9.06	-5.10	-6.55	-6.67	-24.96
120	-24.96	-9.01	-7.08	-2.55	-0.22	-0.55	3.15	2.81	2.34	-1.24	-4.42	-7.64	-8.29	-6.76	-2.21	-1.77	2.10	0.85	2.16	-1.51	-9.06	-5.10	-6.55	-6.67	-24.96	-24.96	-9.01	-7.08	-2.55	-0.22	-0.55	3.15	2.81	2.34	-1.24	-4.42	-7.64	-8.29	-6.76	-2.21	-1.77	2.10	0.85	2.16	-1.51	-9.06	-5.10	-6.55	-6.67	-24.96
135	-24.96	-9.01	-7.08	-2.55	-0.22	-0.55	3.15	2.81	2.34	-1.24	-4.42	-7.64	-8.29	-6.76	-2.21	-1.77	2.10	0.85	2.16	-1.51	-9.06	-5.10	-6.55	-6.67	-24.96	-24.96	-9.01	-7.08	-2.55	-0.22	-0.55	3.15	2.81	2.34	-1.24	-4.42	-7.64	-8.29	-6.76	-2.21	-1.77	2.10	0.85	2.16	-1.51	-9.06	-5.10	-6.55	-6.67	-24.96
150	-24.96	-9.01	-7.08	-2.55	-0.22	-0.55	3.15	2.81	2.34	-1.24	-4.42	-7.64	-8.29	-6.76	-2.21	-1.77	2.10	0.85	2.16	-1.51	-9.06	-5.10	-6.55	-6.67	-24.96	-24.96	-9.01	-7.08	-2.55	-0.22	-0.55	3.15	2.81	2.34	-1.24	-4.42	-7.64	-8.29	-6.76	-2.21	-1.77	2.10	0.85	2.16	-1.51	-9.06	-5.10	-6.55	-6.67	-24.96
165	-24.96	-9.01	-7.08	-2.55	-0.22	-0.55	3.15	2.81	2.34	-1.24	-4.42	-7.64	-8.29	-6.76	-2.21	-1.77	2.10	0.85	2.16	-1.51	-9.06	-5.10	-6.55	-6.67	-24.96	-24.96	-9.01	-7.08	-2.55	-0.22	-0.55	3.15	2.81	2.34	-1.24	-4.42	-7.64	-8.29	-6.76	-2.21	-1.77	2.10	0.85	2.16	-1.51	-9.06	-5.10	-6.55	-6.67	-24.96

f=5150MH	E_total																								
z	Theta(deg)																								
Phi(deg)	-180	-166	-150	-136	-120	-106	-90	-76	-60	-46	-30	-16	0	16	30	46	60	76	90	106	120	136	150	166	180
0	-17.74	-3.37	-3.37	-4.18	-7.66	-6.54	-2.75	-3.02	-2.24	-5.63	-3.11	-6.74	-3.73	-5.97	-1.16	-3.17	-3.11	-6.76	-2.23	-6.37	-8.80	-3.99	-3.86	-2.86	-17.74
16	-17.74	-3.23	-1.34	-2.03	-4.48	-2.80	-4.65	-0.71	-6.22	-3.04	-5.45	-8.60	-3.73	-5.43	-0.86	-0.89	-1.62	-3.94	-8.77	-9.32	-6.15	-4.50	-15.17	-4.81	-17.74
30	-17.74	-3.24	0.52	-1.87	-4.17	-1.54	-0.22	-0.70	-2.39	-1.95	-5.01	-7.63	-3.73	-4.30	-1.18	0.13	0.10	-1.29	-3.40	-4.86	-3.72	-0.52	-5.21	-7.63	-17.74
46	-17.74	-3.26	1.04	-3.19	-4.05	0.46	1.13	-3.99	-2.64	-2.31	-4.04	-5.22	-3.73	-2.74	-1.43	-3.87	-0.56	-1.35	-0.69	0.07	-1.98	-2.08	-3.41	-8.98	-17.74
60	-17.74	-3.62	-0.65	-1.54	-3.78	1.97	0.93	-0.52	-0.33	-3.81	-2.19	-3.70	-3.73	-1.52	-1.57	-7.20	-3.86	-2.75	-2.88	-1.33	-0.94	-4.43	-6.08	-7.10	-17.74
76	-17.74	-4.40	-8.23	1.28	0.02	-2.97	4.08	3.78	0.01	-3.78	1.36	-2.42	-3.73	-0.54	-2.23	-4.78	-7.76	-6.17	-5.22	-5.39	-2.03	-6.14	-10.25	-6.39	-17.74
90	-17.74	-4.23	-18.14	1.65	1.90	1.55	1.23	4.60	-4.17	0.39	3.08	-1.45	-3.73	-0.12	-3.87	-4.44	-3.81	-3.32	-1.41	-1.34	-3.45	-6.23	-10.03	-7.79	-17.74
106	-17.74	-2.74	-7.85	-0.66	4.04	1.64	2.38	2.76	0.81	5.48	3.07	-0.79	-3.73	-0.22	-4.50	-4.36	-1.47	-1.00	-0.82	-4.75	-6.82	-7.28	-9.87	-9.98	-17.74
120	-17.74	-1.64	-4.60	0.48	3.77	-0.91	2.87	1.71	3.47	4.95	2.06	-1.00	-3.73	-0.76	-2.52	-4.48	-0.87	-1.64	-3.37	-6.99	-6.37	-6.88	-9.73	-10.21	-17.74
136	-17.74	-1.16	-1.47	-1.89	-0.51	-4.12	2.86	0.99	3.66	1.36	0.43	-2.22	-3.73	-1.70	-0.78	-1.71	-0.66	-5.47	-3.47	-3.27	-2.67	-3.71	-5.58	-8.23	-17.74
150	-17.74	-1.33	0.44	-1.07	-4.72	-8.64	0.90	-0.38	1.58	0.65	-0.97	-3.76	-3.73	-2.83	-0.28	-2.16	-2.34	-1.17	-0.01	0.21	-0.86	-2.94	-4.15	-5.88	-17.74
166	-17.74	-1.97	0.46	-0.53	-6.13	-8.83	0.87	-3.16	-2.25	-0.72	-1.51	-5.36	-3.73	-4.63	-1.29	-5.61	-1.65	-1.35	-0.92	-2.10	-3.38	-5.84	-3.60	-4.06	-17.74

f=5500MH	E_total																								
z	Theta(deg)																								
Phi(deg)	-180	-165	-150	-135	-120	-105	-90	-75	-60	-45	-30	-15	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-16.94	-7.13	-2.58	-5.69	-7.96	-5.42	-3.04	-1.60	-0.43	-2.73	-7.24	-2.02	-4.10	-0.36	1.71	-3.28	-3.24	-8.50	-9.33	-9.62	-5.26	-6.20	-4.88	-1.81	-16.94
15	-16.94	-7.46	-2.91	-4.59	-7.29	-3.72	-3.15	-3.30	-0.57	-1.24	-5.31	-2.33	-4.10	0.17	0.96	-3.32	-4.89	-1.91	-6.41	-4.56	-5.21	-5.71	-10.59	-3.12	-16.94
30	-16.94	-8.39	-2.00	-5.73	-2.37	-2.20	-3.64	-3.13	-3.84	-0.66	-5.15	-1.80	-4.10	0.07	0.66	-3.68	-1.77	-1.37	-1.39	-4.28	-2.76	-1.99	-4.30	-4.73	-16.94
45	-16.94	-8.76	-1.58	-9.76	-2.45	-2.73	0.23	-6.46	-2.98	-1.26	-2.10	-0.90	-4.10	-0.89	1.75	-0.08	-1.21	-2.62	-5.55	-2.95	-7.71	-3.66	-5.75	-8.57	-16.94
60	-16.94	-8.13	-1.74	-2.82	-8.05	2.34	1.02	0.10	-1.16	-5.15	0.31	-0.01	-4.10	-2.50	2.73	1.79	-3.89	-6.18	-11.26	-7.22	-4.84	-3.28	-13.61	-9.07	-16.94
75	-16.94	-8.15	-4.83	1.90	-1.15	2.13	2.24	1.11	0.10	-7.15	2.34	0.86	-4.10	-4.64	2.22	1.73	-0.39	-3.13	-4.02	-3.42	-2.11	-4.69	-12.35	-6.72	-16.94
90	-16.94	-7.69	-11.92	3.20	1.64	4.35	2.85	3.32	4.16	0.42	3.89	1.16	-4.10	-5.85	0.26	1.73	1.71	1.46	1.84	0.66	-2.41	-9.31	-10.75	-6.60	-16.94
105	-16.94	-4.42	-4.82	1.49	5.54	2.45	3.01	2.27	4.90	1.53	4.06	0.61	-4.10	-6.06	-1.95	1.65	2.51	3.02	2.89	0.82	-2.60	-8.83	-9.92	-7.63	-16.94
120	-16.94	-2.01	-3.05	0.37	4.68	-2.27	2.07	2.87	1.09	-0.63	2.78	-0.62	-4.10	-4.90	-3.37	-0.83	1.41	1.49	0.91	-3.20	-3.47	-7.74	-13.14	-10.68	-16.94
135	-16.94	-0.68	-0.66	-1.51	-0.15	-5.97	1.50	-1.04	1.18	1.88	1.57	-1.94	-4.10	-2.79	-5.78	-3.69	-1.74	-0.88	-0.66	-0.96	-1.37	-9.92	-7.35	-18.56	-16.94
150	-16.94	-0.37	0.68	-2.92	-3.09	-19.80	0.14	-1.20	1.29	2.99	2.19	-1.92	-4.10	-1.58	-9.31	-10.70	-3.98	-1.01	0.66	1.00	0.90	-2.25	-5.18	-13.54	-16.94
165	-16.94	-0.80	-0.22	-2.78	-4.25	-14.06	-3.40	-5.10	0.61	0.17	2.09	-1.11	-4.10	-1.45	-8.73	-6.18	-3.11	-0.42	-0.92	-2.42	-1.94	-2.99	-2.23	-8.57	-16.94



f=5850MH z	E_total																								
Phi(deg)	Theta(deg)																								
0	-180	-165	-150	-135	-120	-105	-90	-75	-60	-45	-30	-15	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-21.50	-10.71	-6.30	-2.26	-6.46	-13.34	-6.29	-5.91	-3.86	-5.52	-10.92	-5.19	-4.63	-0.13	-1.29	-4.39	-5.15	-4.68	-11.99	-9.40	-7.41	-7.60	-9.99	-5.97	-21.50
15	-21.50	-10.71	-5.34	-4.57	-7.83	-6.35	-2.41	-3.03	-1.61	-2.67	-13.35	-6.48	-4.63	0.79	0.88	-1.51	-0.89	-2.93	-2.20	-4.32	-5.87	-3.75	-4.60	-4.61	-21.50
30	-21.50	-10.60	-6.27	-6.48	-5.37	-2.65	-2.71	-2.37	1.13	-2.16	-10.40	-7.21	-4.63	1.39	1.85	-1.07	-0.24	1.11	-0.54	-1.38	-2.66	-3.52	-3.45	-4.19	-21.50
45	-21.50	-11.48	-7.40	-10.24	-1.21	-3.62	-2.29	-4.48	-0.89	-2.76	-5.27	-6.30	-4.63	1.55	2.33	-1.99	-3.35	-1.13	-3.48	-3.60	-5.21	-5.39	-6.36	-6.02	-21.50
60	-21.50	-13.11	-5.12	-15.26	-2.96	-7.63	-1.43	-2.88	-4.08	-3.06	-2.36	-4.53	-4.63	1.30	1.70	-0.48	-4.19	-4.54	-8.98	-12.83	-7.76	-3.32	-4.75	-6.74	-21.50
75	-21.50	-15.96	-4.89	-7.79	-4.94	-2.14	-1.05	1.61	1.77	1.26	-0.28	-3.59	-4.63	0.47	-0.24	0.45	-1.32	-1.83	-2.82	-5.23	-7.44	-7.39	-8.07	-6.86	-21.50
90	-21.50	-16.28	-3.82	-0.63	-3.51	1.16	1.59	1.36	4.40	3.69	0.39	-4.21	-4.63	-0.82	-2.72	-1.47	0.73	1.12	1.45	0.67	-1.91	-6.39	-9.40	-9.21	-21.50
105	-21.50	-10.98	-7.53	1.29	-1.42	1.67	0.08	-0.52	5.17	2.60	-0.97	-5.62	-4.63	-2.32	-5.07	-2.17	0.78	1.41	0.95	-0.29	-3.83	-9.04	-8.39	-10.72	-21.50
120	-21.50	-8.74	-13.71	-1.33	0.83	-2.88	-2.40	0.43	2.59	0.33	-2.96	-5.36	-4.63	-2.80	-3.34	-0.95	0.20	0.31	-1.43	-3.62	-4.75	-5.13	-6.78	-9.44	-21.50
135	-21.50	-8.04	-4.33	-4.49	-3.73	-4.47	-5.77	-2.86	1.00	1.18	-1.67	-3.43	-4.63	-2.84	-1.73	0.43	0.52	-1.06	-1.26	-1.58	-2.27	-4.84	-9.54	-9.23	-21.50
150	-21.50	-7.00	-2.41	-7.95	-2.64	-7.61	-2.24	-2.41	0.78	-0.35	-1.93	-2.04	-4.63	-3.23	-2.72	-2.66	-3.78	-3.73	0.42	1.34	0.49	-3.89	-18.23	-9.57	-21.50
165	-21.50	-6.21	-5.79	-9.19	-4.82	-14.24	-7.03	-1.98	-3.34	-4.66	-2.85	-0.96	-4.63	-4.14	-6.55	-10.69	-4.60	-4.10	-2.08	-2.22	-0.39	-1.84	-9.95	-10.07	-21.50

f=2400MH z	E_total																								
Phi(deg)	Theta(deg)																								
	-180	-165	-150	-135	-120	-105	-90	-75	-60	-45	-30	-15	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-22.50	-17.27	-10.66	-12.42	-9.20	-9.49	-7.48	-6.67	-3.39	-0.44	3.17	2.90	3.70	3.46	2.38	-1.70	-4.36	-8.45	-11.49	-17.72	-8.31	-7.29	-9.74	-9.74	-22.50
15	-22.50	-15.11	-10.76	-8.73	-7.76	-8.09	-6.01	-7.45	-1.78	0.24	3.29	3.26	3.70	3.41	2.18	-3.24	-5.39	-5.26	-12.56	-19.76	-11.99	-12.80	-21.24	-9.86	-22.50
30	-22.50	-13.18	-7.47	-4.13	-4.85	-11.45	-6.41	-3.75	0.21	0.99	3.35	3.53	3.70	3.49	2.77	-1.55	-3.32	-1.21	-7.43	-15.45	-12.77	-18.03	-11.53	-10.01	-22.50
45	-22.50	-12.35	-4.47	-2.14	0.00	-3.39	-3.01	-0.05	1.60	2.35	3.78	3.83	3.70	3.58	3.74	1.10	-0.58	0.15	-5.66	-9.62	-7.87	-10.62	-10.57	-10.58	-22.50
60	-22.50	-12.86	-4.07	-2.28	3.29	2.78	1.42	1.87	1.92	3.24	4.07	4.05	3.70	3.49	3.94	1.55	-1.09	-1.74	-7.77	-12.56	-8.39	-12.74	-14.12	-10.70	-22.50
75	-22.50	-13.22	-4.62	-1.96	3.11	4.01	3.17	4.35	3.66	3.49	3.70	4.16	3.70	3.10	3.17	1.10	-2.18	-3.39	-5.32	-7.80	-6.32	-16.17	-11.58	-9.97	-22.50
90	-22.50	-11.50	-4.19	-1.95	0.38	3.26	4.04	5.42	3.98	2.78	2.92	4.14	3.70	2.62	2.06	1.07	-1.34	-5.93	-5.84	-7.23	-5.74	-15.00	-9.30	-9.51	-22.50
105	-22.50	-8.97	-3.46	-4.06	-0.39	2.93	4.04	4.55	3.11	1.78	2.27	4.02	3.70	2.16	1.18	1.16	-0.91	-7.62	-7.08	-7.63	-6.31	-13.42	-10.55	-10.20	-22.50
120	-22.50	-7.59	-3.42	-7.34	-0.14	1.86	2.34	2.52	1.97	1.65	2.28	3.91	3.70	1.96	1.27	1.29	-1.56	-5.06	-9.18	-7.25	-6.25	-10.66	-10.90	-12.32	-22.50
135	-22.50	-7.16	-3.48	-9.19	-1.17	-0.31	-1.15	0.44	0.80	1.80	2.69	3.81	3.70	1.97	1.98	1.25	-2.97	-3.40	-9.11	-8.55	-7.19	-10.83	-7.61	-16.73	-22.50
150	-22.50	-7.70	-3.46	-8.40	-2.61	-2.09	-2.23	-1.19	-0.94	1.23	2.95	3.72	3.70	2.16	2.46	0.56	-4.77	-4.36	-9.82	-10.59	-8.57	-14.27	-6.50	-19.75	-22.50
165	-22.50	-8.95	-5.01	-7.19	-5.44	-6.24	-4.69	-5.14	-4.10	-0.16	2.79	3.58	3.70	2.54	2.84	-0.61	-5.50	-6.54	-9.45	-9.48	-9.79	-15.00	-8.00	-18.52	-22.50
180	-22.50	-9.67	-8.75	-7.12	-7.93	-15.62	-10.28	-8.36	-4.33	-1.45	2.44	3.47	3.70	2.85	3.14	-0.53	-3.71	-6.70	-7.75	-9.60	-9.36	-12.66	-10.32	-17.46	-22.50

f=2450MH	E_total																									
z	Phi(deg)																									
Phi(deg)	Theta(deg)																									
	0	-180	-165	-150	-135	-120	-105	-90	-75	-60	-45	-30	-15	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-19.55	-14.27	-15.94	-14.71	-10.02	-6.62	-6.76	-4.49	-3.49	0.69	3.12	3.67	4.82	4.47	3.75	0.27	-2.44	-8.70	-9.24	-11.59	-6.56	-6.32	-7.28	-9.77	-19.55	
15	-19.55	-14.57	-12.20	-7.92	-8.79	-5.18	-5.07	-3.53	-0.83	1.41	3.34	4.20	4.82	4.43	3.51	-0.90	-3.94	-6.04	-13.92	-8.61	-9.49	-9.03	-19.01	-9.91	-19.55	
30	-19.55	-13.02	-6.20	-3.31	-4.60	-8.95	-4.56	-1.66	1.16	1.98	3.80	4.67	4.82	4.43	3.86	0.16	-2.83	-1.43	-9.82	-12.48	-13.29	-14.17	-11.63	-9.42	-19.55	
45	-19.55	-11.36	-3.20	-1.38	0.79	-2.49	-0.89	1.29	1.97	2.96	4.62	5.15	4.82	4.45	4.51	2.17	-0.56	0.49	-4.88	-7.10	-9.36	-9.51	-8.46	-9.41	-19.55	
60	-19.55	-11.02	-2.57	-0.89	4.03	3.53	2.35	2.48	2.16	4.04	5.11	5.43	4.82	4.35	4.49	2.29	-1.64	-1.19	-7.72	-8.46	-8.42	-9.78	-11.20	-9.64	-19.55	
75	-19.55	-10.91	-2.81	-0.76	3.47	4.23	3.15	4.64	3.77	4.52	4.93	5.53	4.82	4.05	3.53	1.49	-3.02	-3.07	-7.89	-8.46	-6.63	-11.85	-11.98	-9.49	-19.55	
90	-19.55	-9.75	-2.81	-1.98	0.46	3.48	4.32	5.84	3.68	3.70	4.22	5.44	4.82	3.67	2.29	1.54	-0.90	-5.48	-7.87	-7.35	-5.66	-11.83	-9.40	-9.40	-19.55	
105	-19.55	-7.77	-2.29	-5.21	-1.25	3.36	4.68	4.90	2.92	2.58	3.44	5.21	4.82	3.23	1.41	2.08	0.84	-6.10	-6.81	-5.10	-7.81	-13.25	-10.64	-10.59	-19.55	
120	-19.55	-6.50	-1.94	-8.81	-1.47	2.34	3.11	2.65	2.45	2.62	3.29	4.99	4.82	2.94	1.56	2.39	0.51	-4.16	-7.62	-3.64	-8.07	-10.76	-10.78	-13.84	-19.55	
135	-19.55	-6.07	-1.95	-11.20	-1.91	0.40	-0.44	0.74	1.81	2.99	3.72	4.79	4.82	2.80	2.19	2.13	-1.44	-2.86	-6.97	-6.48	-6.66	-9.69	-7.12	-20.85	-19.55	
150	-19.55	-6.68	-2.31	-9.78	-1.95	-0.88	-0.86	-0.21	0.23	2.60	4.08	4.66	4.82	2.90	2.54	1.23	-4.28	-4.32	-9.00	-11.85	-6.72	-10.78	-6.30	-17.97	-19.55	
165	-19.55	-8.35	-3.80	-6.95	-2.90	-4.03	-2.64	-4.12	-2.34	1.46	4.07	4.55	4.82	3.25	2.84	0.24	-6.60	-6.61	-10.19	-9.33	-8.21	-12.64	-9.00	-14.40	-19.55	
180	-19.55	-9.62	-6.66	-6.31	-5.97	-11.29	-8.21	-8.51	-2.49	0.52	3.89	4.54	4.82	3.6	3.11	0.68	-4.29	-4.99	-7.21	-6.91	-9.87	-14.76	-14.72	-14.21	-19.55	

f=2500MH z	E_total																								
Phi(deg)	Theta(deg)																								
	-180	-165	-150	-135	-120	-105	-90	-75	-60	-45	-30	-15	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-18.33	-12.36	-9.97	-11.82	-10.01	-4.53	-3.00	-2.61	-1.17	2.44	2.58	4.83	5.63	4.05	3.95	0.78	-2.51	-10.26	-6.71	-9.86	-4.12	-7.68	-6.00	-11.75	-18.33
15	-18.33	-11.79	-11.62	-8.71	-6.65	-4.41	-3.12	-2.31	1.11	2.83	3.16	5.47	5.63	3.98	3.69	0.03	-3.98	-8.43	-7.76	-4.39	-7.17	-9.21	-15.05	-15.44	-18.33
30	-18.33	-10.79	-5.09	-4.35	-3.36	-9.95	-5.70	-1.05	1.80	2.28	3.97	6.00	5.63	4.10	4.07	1.23	-3.29	-3.10	-11.16	-7.23	-11.16	-11.73	-12.18	-12.97	-18.33
45	-18.33	-9.65	-1.66	-1.88	0.59	-2.35	-1.30	1.08	1.06	2.99	5.35	6.49	5.63	4.35	4.96	3.21	-0.15	0.57	-3.56	-5.42	-11.77	-8.75	-8.48	-11.18	-18.33
60	-18.33	-9.15	-1.21	-1.14	3.57	3.52	1.76	1.08	0.91	4.43	6.01	6.69	5.63	4.50	5.23	3.45	-0.72	-0.65	-4.69	-6.74	-9.00	-9.05	-10.42	-10.81	-18.33
75	-18.33	-8.46	-1.97	-0.26	3.13	3.73	2.51	3.93	3.49	4.80	5.68	6.59	5.63	4.50	4.44	2.39	-2.65	-2.74	-8.10	-10.04	-7.18	-12.72	-12.65	-9.91	-18.33
90	-18.33	-7.20	-2.31	-1.38	0.84	3.57	4.12	5.44	3.95	3.74	4.80	6.27	5.63	4.36	3.09	1.91	-0.24	-3.66	-8.19	-7.43	-4.80	-12.61	-9.27	-8.79	-18.33
105	-18.33	-5.55	-2.17	-3.55	0.19	3.68	4.37	4.63	3.73	2.94	3.91	5.77	5.63	4.13	1.72	1.98	2.04	-3.47	-5.63	-3.18	-4.94	-10.75	-8.70	-8.74	-18.33
120	-18.33	-4.56	-2.05	-4.78	-0.64	2.10	2.64	3.14	3.36	3.29	3.61	5.34	5.63	3.93	1.39	1.93	1.53	-3.91	-5.57	-1.66	-4.71	-7.30	-8.00	-10.84	-18.33
135	-18.33	-4.33	-1.90	-5.71	-2.52	-0.83	-1.33	1.15	2.70	3.56	3.86	4.91	5.63	3.79	1.62	1.82	-0.50	-3.65	-5.93	-5.18	-5.32	-5.83	-4.43	-17.82	-18.33
150	-18.33	-5.14	-1.90	-5.97	-2.47	-1.81	-0.84	-0.16	1.09	2.99	4.24	4.58	5.63	3.89	1.66	1.57	-2.62	-4.93	-6.38	-13.75	-5.59	-6.72	-3.28	-21.03	-18.33
165	-18.33	-7.68	-3.05	-6.71	-1.44	-2.91	-1.70	-4.11	-2.24	1.84	4.26	4.26	5.63	4.31	1.94	1.44	-4.06	-5.29	-5.19	-7.76	-7.27	-10.26	-5.06	-14.05	-18.33
180	-18.33	-11.06	-5.40	-7.58	-3.50	-9.21	-5.99	-9.80	-2.49	0.94	4.00	4.08	5.63	4.76	2.49	2.29	-1.67	-2.94	-3.24	-4.80	-9.79	-11.95	-9.04	-12.48	-18.33

f=5150MH z	E_total																								
Phi(deg)	Theta(deg)																								
0	-180	-165	-150	-135	-120	-105	-90	-75	-60	-45	-30	-15	0	16	30	45	60	75	90	105	120	135	150	165	180
0	-22.56	-8.74	-7.83	-7.38	-9.41	-10.76	-11.00	-5.06	-9.43	-1.49	-0.33	-3.84	-0.06	-4.05	2.34	-1.61	-3.52	-3.60	-11.90	-3.37	-10.20	-2.91	0.02	-0.18	-22.56
15	-22.56	-10.34	-4.78	-7.73	-6.81	-13.59	-9.82	-8.67	-9.88	-1.87	-0.71	-3.87	-0.06	-4.39	1.53	-1.74	-2.28	-2.09	-2.93	-4.17	-5.26	-8.06	-3.25	-1.30	-22.56
30	-22.56	-9.38	-3.65	-7.42	-6.72	-6.34	-1.49	-8.84	-5.96	-2.26	-0.86	-3.01	-0.06	-4.52	0.81	-0.72	0.05	-4.24	-0.93	-7.51	-3.14	-7.20	-8.70	-2.70	-22.56
45	-22.56	-7.90	0.37	-6.46	-5.43	-5.16	0.51	-2.85	-4.17	-1.58	-0.48	-1.76	-0.06	-4.39	-0.19	0.24	-2.11	-6.50	-3.01	-6.15	-7.14	-3.25	-8.88	-4.81	-22.56
60	-22.56	-8.69	2.51	-6.13	-0.17	-0.63	0.18	2.34	-4.29	-2.73	0.44	-0.68	-0.06	-3.95	-1.46	0.40	-4.16	-3.40	-12.41	-2.14	-8.50	-7.65	-5.46	-6.45	-22.56
75	-22.56	-8.75	1.34	2.23	-4.35	0.04	-6.35	4.18	-5.86	-3.43	0.79	0.66	-0.06	-2.73	-3.84	-0.90	0.60	-0.53	0.23	-6.44	-3.92	-8.80	-7.78	-5.61	-22.56
90	-22.56	-5.33	-1.33	5.54	-3.58	-0.14	-1.74	3.23	1.92	-3.29	0.86	1.56	-0.06	-1.89	-3.81	-3.22	0.12	-0.33	-4.82	-3.35	-8.98	-4.73	-11.38	-4.58	-22.56
105	-22.56	-2.48	-6.38	1.46	3.57	-1.61	0.20	-5.03	3.84	2.74	-1.11	1.91	-0.06	-1.94	-2.95	-0.05	-1.88	-2.77	-2.21	-8.66	-6.39	-13.21	-8.01	-4.73	-22.56
120	-22.56	-0.92	-1.02	-0.75	2.79	-0.08	-0.01	-1.29	-0.09	2.91	-2.82	1.34	-0.06	-2.70	-4.41	-0.73	-0.76	-3.57	-4.73	-4.03	-10.66	-10.44	-9.94	-5.50	-22.56
135	-22.56	0.31	2.52	2.32	0.10	-0.69	3.68	-0.15	-1.68	-1.59	0.70	-0.19	-0.06	-3.62	-5.07	-2.80	-3.29	-6.43	-9.23	-7.38	-8.02	-6.90	-13.22	-6.35	-22.56
150	-22.56	0.65	2.86	1.19	-0.47	-3.52	2.13	-4.81	-2.58	-3.13	2.60	-1.87	-0.06	-3.70	-2.57	-2.27	-5.71	-8.05	-8.20	-10.45	-7.46	-9.43	-15.50	-6.93	-22.56
165	-22.56	0.37	2.01	-1.22	-5.40	-4.63	-4.50	-9.21	-3.45	-1.42	2.88	-3.45	-0.06	-3.54	-0.98	-1.58	-6.97	-7.05	-8.62	-10.69	-10.18	-10.13	-9.23	-7.58	-22.56
180	-22.56	-0.08	0.34	-2.65	-11.03	-3.46	-11.33	-4.34	-3.47	-1.51	2.44	-4.00	-0.06	-3.78	-0.37	-1.48	-9.06	-5.18	-10.61	-10.44	-9.56	-7.66	-8.12	-8.53	-22.56

f=5500MH z	E_total																								
Phi(deg)	Theta(deg)																								
0	-180	-165	-150	-135	-120	-105	-90	-75	-60	-45	-30	-15	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-22.71	-5.23	-9.64	-7.54	-15.52	-11.61	-8.86	-10.64	-7.60	-5.21	-4.09	-0.48	1.27	3.08	-3.28	-0.33	-1.23	-8.25	-10.60	-5.70	-10.44	-4.99	-0.94	-3.14	-22.71
15	-22.71	-4.29	-13.50	-4.69	-10.54	-6.03	-5.69	-5.05	-4.09	-4.33	-4.11	-0.40	1.27	3.42	-2.30	0.80	-0.86	-8.20	-3.66	-6.70	-9.32	-5.46	-2.73	-4.20	-22.71
30	-22.71	-4.28	-14.89	-2.58	-7.74	-2.16	-4.87	-5.70	-4.11	-3.05	-3.09	-0.15	1.27	3.55	-3.46	-0.47	-4.17	-9.55	-5.27	-12.39	-8.90	-4.80	-6.46	-6.15	-22.71
45	-22.71	-4.49	-5.83	-0.05	0.39	1.90	-3.18	-2.46	-2.25	-1.37	-0.81	0.03	1.27	2.96	-6.64	-0.90	-6.77	-6.24	-8.36	-4.59	-10.53	-4.09	-8.81	-8.36	-22.71
60	-22.71	-4.37	-1.07	-0.85	4.43	-1.91	-0.64	-1.16	2.75	-0.38	1.03	0.72	1.27	1.76	-6.91	0.83	1.16	-0.22	-3.75	-3.87	-7.29	-10.13	-8.06	-6.33	-22.71
75	-22.71	-4.15	3.02	-1.25	2.66	2.41	0.55	-3.71	0.66	1.76	1.98	1.47	1.27	-0.09	-1.85	0.30	3.18	1.59	0.53	-3.55	-5.96	-6.70	-10.18	-3.58	-22.71
90	-22.71	-4.97	2.72	4.54	1.61	4.70	-2.02	-0.47	-3.74	2.60	2.62	1.57	1.27	-1.26	-0.89	1.97	2.05	2.55	0.27	0.14	-6.52	-6.79	-14.22	-2.44	-22.71
105	-22.71	-8.45	-2.53	3.23	2.18	1.09	3.44	0.56	0.71	-0.68	3.26	1.32	1.27	-1.30	-2.74	1.53	3.86	1.17	-2.02	-8.62	-4.86	-14.85	-4.65	-3.42	-22.71
120	-22.71	-8.75	-5.85	-3.29	3.76	0.93	2.11	1.56	2.15	1.42	2.84	1.48	1.27	-0.90	-5.49	-0.93	0.26	-0.18	-6.27	-5.36	-8.16	-6.37	-7.62	-6.86	-22.71
135	-22.71	-4.45	-3.54	-0.64	0.61	0.09	1.15	4.28	0.20	4.28	0.70	2.17	1.27	-0.43	-4.64	-1.66	-0.70	-1.82	-2.82	-9.43	-9.12	-7.81	-21.34	-12.67	-22.71
150	-22.71	-2.82	-0.32	-1.50	-2.41	-2.82	0.65	0.91	-1.16	2.74	-3.85	2.76	1.27	-0.10	-3.39	-4.11	-0.17	-1.17	-7.43	-4.44	-8.73	-18.90	-12.10	-11.62	-22.71
165	-22.71	-2.59	-0.06	-3.38	-5.31	-4.83	-3.94	-9.41	-3.64	-0.64	-6.43	3.02	1.27	-0.13	-3.68	-6.66	-4.08	-5.95	-12.13	-9.10	-10.44	-13.18	-8.85	-7.41	-22.71
180	-22.71	-3.04	-0.81	-4.85	-10.19	-5.66	-10.16	-8.91	-1.65	-0.50	-3.64	3.06	1.27	-0.44	-4.16	-5.43	-7.67	-10.47	-9.40	-12.25	-14.50	-8.06	-9.44	-5.45	-22.71

f=5850MH	E_total																								
z																									
Phi(deg)	Theta(deg)																								
0	-180	-165	-150	-135	-120	-105	-90	-75	-60	-45	-30	-15	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-20.68	-7.73	-10.48	-12.20	-17.45	-11.63	-7.54	-12.34	-10.58	-13.89	-6.69	-0.42	3.09	0.25	-3.50	-1.86	-4.59	-5.39	-11.48	-5.66	-10.57	-10.51	-3.84	-4.53	-20.68
15	-20.68	-7.26	-9.76	-12.30	-9.86	-6.56	-5.23	-3.77	-9.21	-14.24	-8.51	-0.69	3.09	1.21	-1.72	0.58	-4.17	-8.15	-6.46	-8.50	-11.48	-10.51	-4.29	-4.71	-20.68
30	-20.68	-6.93	-10.28	-6.68	-6.36	-4.60	-4.40	-2.00	-4.71	-12.29	-9.91	-0.87	3.09	1.73	-1.03	-0.43	-6.52	-9.75	-7.72	-8.78	-18.01	-9.54	-7.25	-5.47	-20.68
45	-20.68	-7.32	-10.78	0.93	-0.36	1.73	-5.35	-1.13	-2.56	-4.56	-7.84	-0.82	3.09	2.06	-0.33	-2.35	-7.31	-6.32	-12.75	-6.71	-19.71	-8.73	-11.28	-8.29	-20.68
60	-20.68	-7.90	-3.31	2.48	4.28	1.30	-0.01	-2.28	-2.23	-1.86	-3.89	-0.76	3.09	2.57	0.27	-2.57	-0.65	-0.68	-3.52	-4.46	-7.74	-14.48	-11.61	-8.77	-20.68
75	-20.68	-8.18	2.78	0.37	3.54	0.53	-0.53	-7.84	1.35	1.96	-0.04	-1.06	3.09	3.14	-1.71	-2.75	0.82	1.04	-0.59	-3.22	-6.16	-10.11	-10.41	-6.13	-20.68
90	-20.68	-8.76	2.31	4.68	2.92	4.02	-5.06	-1.65	0.58	1.55	1.13	-1.26	3.09	3.42	-6.33	-0.46	1.83	1.87	0.70	-1.31	-5.11	-8.01	-14.39	-6.28	-20.68
105	-20.68	-11.13	-1.50	3.98	2.24	0.62	0.88	-2.59	-0.21	2.08	1.77	-1.31	3.09	3.25	-5.96	-0.71	3.47	2.06	-0.85	-4.36	-4.80	-11.99	-6.58	-9.37	-20.68
120	-20.68	-14.55	-2.51	-2.06	2.95	0.70	0.02	-1.93	3.28	0.47	1.27	-1.40	3.09	2.49	-4.79	-2.53	1.00	-0.35	-3.35	-6.31	-8.68	-6.41	-6.82	-12.13	-20.68
135	-20.68	-12.94	-2.73	-2.55	-0.71	-1.00	0.21	1.37	-0.16	0.13	-1.44	3.09	1.14	-3.24	-1.72	-0.61	-0.74	-6.17	-8.83	-8.74	-12.26	-13.96	-10.39	-20.68	
150	-20.68	-8.37	-3.67	-3.59	-1.64	-5.19	-2.12	-1.74	-2.28	-1.51	-1.98	-1.14	3.09	0.16	-4.17	-3.92	-2.11	-3.99	-5.18	-4.71	-7.07	-11.87	-11.33	-8.81	-20.68
165	-20.68	-5.33	-3.43	-8.03	-2.91	-6.55	-7.81	-7.96	-6.25	-2.45	-4.42	-0.46	3.09	-0.26	-6.42	-11.91	-5.76	-9.90	-6.17	-9.53	-7.49	-11.35	-10.19	-7.99	-20.68
180	-20.68	-4.56	-3.75	-10.35	-9.60	-5.72	-12.51	-5.37	-5.06	-2.21	-3.67	0.14	3.09	-0.39	-6.51	-14.02	-10.12	-12.70	-7.62	-12.87	-15.04	-12.24	-10.39	-7.76	-20.68

f=5925MH	E_total																								
z	Theta(deg)																								
Phi(deg)	-180	-165	-150	-135	-120	-105	-90	-75	-60	-45	-30	-15	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-42.42	-8.76	-11.74	-12.21	-8.77	-3.09	-2.79	-5.81	-14.04	-11.16	-0.84	-1.75	-1.23	1.63	0.45	-1.94	-3.99	-0.90	-5.38	-4.94	-10.27	-12.77	-12.31	-7.29	-42.42
15	-42.42	-10.38	-16.86	-8.27	-6.25	-3.76	-5.19	-6.88	-10.87	-8.26	-0.28	-1.45	-1.23	1.26	0.72	-2.77	-3.00	-2.52	-4.11	-14.45	-3.17	-4.59	-12.02	-7.29	-42.42
30	-42.42	-10.40	-5.04	-5.05	0.02	1.63	-1.19	-5.36	-8.58	-6.91	0.11	-1.18	-1.23	1.13	0.17	-4.04	-1.52	-0.74	-0.86	-2.45	-1.80	-7.35	-9.68	-7.26	-42.42
45	-42.42	-11.11	-4.07	1.13	2.80	1.82	-2.63	-9.49	-10.29	-5.61	0.02	-1.23	-1.23	0.82	0.63	-6.24	-2.41	-0.25	0.76	-0.02	-0.75	-5.48	-9.42	-7.62	-42.42
60	-42.42	-11.04	-4.71	-2.73	2.33	3.83	-1.87	-7.08	-8.96	-4.97	-0.30	-1.67	-1.23	0.40	1.23	-4.66	-2.61	2.68	3.45	0.56	-2.41	-7.42	-11.43	-7.69	-42.42
75	-42.42	-9.49	-4.88	-9.86	0.52	-1.32	-3.81	1.48	-0.94	-2.49	-1.15	-2.21	-1.23	0.36	1.66	-0.79	-0.57	1.46	3.12	-0.38	-0.70	-7.43	-11.46	-6.19	-42.42
90	-42.42	-8.78	-7.47	-8.93	1.31	-1.77	-4.20	-0.57	-0.89	-0.94	-0.30	-2.05	-1.23	0.47	1.32	0.23	0.32	2.54	4.42	3.14	0.53	-1.72	-4.12	-4.82	-42.42
105	-42.42	-9.41	-6.40	-3.86	1.91	-2.48	-4.37	-5.36	-1.25	0.31	0.91	-0.78	-1.23	0.13	-1.07	-2.57	-0.89	2.98	4.45	4.06	3.11	0.61	-3.59	-4.85	-42.42
120	-42.42	-7.90	-4.54	0.85	-1.27	-4.81	-6.41	-8.45	-4.08	0.11	0.82	0.52	-1.23	-0.61	-2.87	-3.26	0.89	4.00	3.44	2.56	1.22	0.41	-6.65	-7.11	-42.42
135	-42.42	-6.03	-1.26	0.45	-1.35	-0.44	-0.14	-0.28	-6.15	-2.77	-0.30	1.43	-1.23	-1.56	-2.21	-3.28	-1.76	0.25	-0.52	-1.56	-3.33	-4.84	-10.25	-10.79	-42.42
150	-42.42	-7.26	-2.21	-3.07	-4.93	-1.27	-0.32	2.19	-2.94	-2.74	-0.61	1.86	-1.23	-1.90	-1.45	-6.25	-2.13	-0.15	0.23	-0.93	-5.28	-3.42	-9.55	-10.30	-42.42
165	-42.42	-7.51	-5.79	-12.91	-10.96	-2.00	-1.61	0.30	-4.00	-3.13	-0.09	1.94	-1.23	-1.92	-1.05	-9.99	-6.54	-1.61	-0.71	-0.63	-2.40	-4.87	-8.85	-8.41	-42.42
180	-42.42	-7.26	-12.25	-16.62	-10.33	-4.05	-4.46	-0.69	-3.61	-2.02	0.40	1.68	-1.23	-1.78	-0.86	-11.52	-12.86	-5.09	-2.25	-2.60	-7.62	-12.04	-11.66	-8.58	-42.42



f=6500MH z	E_total																								
Phi(deg)	Theta(deg)																								
0	-180	-165	-150	-135	-120	-105	-90	-75	-60	-45	-30	-15	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-46.76	-13.34	-8.65	-12.28	-4.78	-3.81	-4.55	-8.82	-14.29	-6.33	-6.46	-6.20	0.82	4.73	3.66	-2.37	-9.20	-5.17	-7.95	-10.12	-9.61	-11.31	-6.50	-8.59	-46.76
15	-46.76	-17.17	-11.85	-10.95	-7.89	-3.98	-4.48	-8.41	-16.07	-9.74	-5.02	-7.20	0.82	4.80	3.45	-4.27	-8.21	-4.25	-4.18	-9.36	-7.15	-9.70	-8.46	-8.62	-46.76
30	-46.76	-13.44	-5.69	-5.23	-2.43	-0.60	-4.88	-6.03	-13.67	-4.39	-4.06	-7.26	0.82	4.84	3.43	-4.52	-5.75	-0.75	-1.61	-4.89	-7.28	-9.94	-5.23	-9.60	-46.76
45	-46.76	-11.92	-2.46	1.74	3.62	1.64	-5.41	-2.95	-5.11	-0.60	-4.40	-6.39	0.82	4.61	3.94	-3.19	-6.12	-1.12	-0.73	-2.38	-2.60	-8.71	-8.91	-10.62	-46.76
60	-46.76	-10.62	-4.50	0.55	1.17	-1.51	-6.39	-1.31	-3.97	-2.08	-5.23	-4.85	0.82	4.01	4.29	-0.15	-6.73	-2.22	0.99	0.77	-2.07	-6.86	-18.23	-10.72	-46.76
75	-46.76	-10.38	-5.12	-8.67	1.67	-3.07	-3.71	-4.19	-9.11	-3.02	-6.51	-3.16	0.82	2.90	3.01	2.24	0.45	1.13	3.67	1.23	-1.56	-7.61	-10.99	-8.47	-46.76
90	-46.76	-11.02	-10.42	-15.66	0.29	-10.77	-1.09	-3.11	-7.03	-2.34	-6.33	-2.14	0.82	1.71	0.63	1.41	0.99	3.89	4.40	3.08	0.98	-2.10	-5.63	-8.22	-46.76
105	-46.76	-9.93	-4.66	-3.10	0.37	-8.99	-0.52	0.28	1.19	2.41	0.12	-0.49	0.82	0.33	-0.80	-3.06	0.09	4.65	5.27	4.87	3.77	0.37	-4.24	-12.09	-46.76
120	-46.76	-8.80	-2.79	-2.71	-3.13	-7.39	-3.32	-1.61	1.94	3.28	3.14	1.46	0.82	-0.79	-2.43	-4.66	-1.80	2.86	3.62	2.01	-0.07	-2.39	-5.99	-15.98	-46.76
135	-46.76	-8.90	-5.34	-0.97	-2.23	-1.15	-0.06	-5.67	-1.30	2.04	4.23	3.17	0.82	-2.17	-4.59	-6.49	-3.35	1.00	0.70	-2.53	-4.05	-7.34	-9.18	-12.58	-46.76
150	-46.76	-11.41	-3.24	-3.31	-2.74	-1.53	-0.90	-0.08	-3.20	0.42	4.49	4.20	0.82	-3.62	-6.26	-10.26	-5.57	-1.32	-1.78	-4.02	-8.53	-7.77	-9.28	-9.52	-46.76
165	-46.76	-10.75	-4.58	-13.37	-3.78	-1.39	-2.86	-2.26	-3.46	-0.77	4.41	4.68	0.82	-5.05	-6.89	-7.67	-10.98	-3.94	-1.59	-3.01	-6.44	-7.52	-9.62	-9.53	-46.76
180	-46.76	-8.78	-6.32	-12.11	-9.78	-8.63	-7.72	-5.25	-8.68	-2.06	3.79	4.72	0.82	-6.03	-6.57	-6.20	-15.30	-8.47	-4.24	-3.55	-4.32	-11.09	-8.88	-12.56	-46.76

f=7125MH	E_total																								
z	Theta(deg)																								
Phi(deg)	-180	-165	-150	-135	-120	-105	-90	-75	-60	-45	-30	-15	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-46.14	-13.49	-12.93	-10.75	-6.68	-4.60	-3.04	-3.84	-10.42	-2.12	-3.32	-6.35	-3.13	2.96	2.88	-1.43	-7.42	-7.32	-8.19	-9.34	-12.90	-12.43	-9.47	-11.97	-46.14
15	-46.14	-11.75	-9.96	-10.94	-5.62	-1.63	-4.01	-4.07	-8.85	-1.66	-6.28	-7.88	-3.13	3.26	3.67	-0.98	-12.61	-7.09	-2.84	-5.35	-8.87	-11.16	-7.85	-11.55	-46.14
30	-46.14	-8.41	-7.55	-3.24	-1.32	0.73	-5.36	-6.57	-3.52	-1.67	-4.12	-7.60	-3.13	3.29	3.79	-0.28	-10.93	-5.41	-2.85	-4.54	-5.46	-10.16	-8.25	-13.06	-46.14
45	-46.14	-6.35	-4.50	-2.67	1.32	1.18	-8.41	-4.29	-1.45	0.74	-2.60	-6.35	-3.13	3.08	3.98	1.47	-6.87	-3.72	-1.43	-2.46	-3.88	-7.18	-15.62	-17.13	-46.14
60	-46.14	-6.54	-4.66	-3.58	0.78	-1.32	-0.97	1.03	-1.45	-0.02	-4.46	-4.49	-3.13	2.41	3.84	2.07	-1.70	-1.41	1.26	0.74	-1.32	-8.76	-14.74	-12.72	-46.14
75	-46.14	-7.43	-6.32	-4.48	-4.90	-4.80	-0.87	-1.75	-1.93	-3.85	-4.45	-2.53	-3.13	0.86	1.86	1.33	0.84	0.95	3.06	2.24	0.15	-1.90	-12.47	-11.89	-46.14
90	-46.14	-8.09	-7.34	-4.25	-4.67	-2.67	-1.63	-4.86	-2.28	-2.76	-2.40	-1.54	-3.13	-1.32	-1.10	-1.35	-1.23	3.21	4.31	3.43	1.19	-0.93	-6.04	-10.01	-46.14
105	-46.14	-10.41	-8.03	-1.62	-0.69	-1.36	-1.32	-0.49	-0.63	-0.07	-2.49	-1.22	-3.13	-3.41	-1.90	-2.59	-1.65	4.10	5.57	4.75	3.04	-0.71	-6.43	-8.85	-46.14
120	-46.14	-15.41	-5.02	-3.68	-6.07	0.57	0.73	1.66	2.09	2.73	-0.43	-1.38	-3.13	-4.23	-1.49	-3.62	-2.62	3.97	5.13	2.74	1.04	-3.69	-7.37	-10.70	-46.14
135	-46.14	-19.91	-5.12	-4.31	-3.43	0.96	-0.73	-3.96	-3.20	3.74	3.11	-0.94	-3.13	-4.57	-1.63	-3.06	-6.86	1.70	2.44	-0.94	-3.90	-7.51	-14.39	-11.01	-46.14
150	-46.14	-14.38	-5.94	-7.76	-3.90	-2.15	-2.37	-8.88	2.34	4.16	0.39	-3.13	-4.58	-1.49	-2.21	-4.86	0.04	0.59	-0.88	-5.45	-8.98	-14.84	-8.79	-46.14	
165	-46.14	-12.85	-8.86	-12.73	-7.46	-6.33	-6.06	-5.10	-3.82	-0.24	3.92	2.10	-3.13	-4.90	-1.01	-3.57	-9.27	-4.20	-3.09	-1.80	-5.32	-8.92	-14.38	-10.54	-46.14
180	-46.14	-12.11	-9.66	-12.95	-14.24	-10.00	-8.07	-7.10	-6.95	-1.51	2.95	2.87	-3.13	-6.10	-2.81	-2.32	-10.79	-3.71	-2.86	-4.37	-6.56	-10.17	-13.61	-13.29	-46.14

f=5925MH	E_total																									
z																										
Phi(deg)	Theta(deg)																									
	0	-180	-165	-150	-135	-120	-105	-90	-75	-60	-45	-30	-15	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-45.39	-2.55	-2.65	-0.04	1.02	-1.12	-13.89	-9.12	-4.78	0.45	4.34	0.43	1.38	-4.60	-5.35	-4.53	-4.44	-1.06	1.86	-0.57	-9.31	-5.86	-6.78	-3.82	-45.39	
15	-45.39	-3.09	-1.21	0.30	-2.64	-8.84	-5.50	-6.01	-5.50	2.27	4.32	0.67	1.38	-5.55	-6.11	-5.29	-5.58	-5.12	-3.10	-2.03	-5.47	-9.62	-8.21	-2.53	-45.39	
30	-45.39	-3.24	-4.86	1.37	-3.63	-1.25	-2.10	-1.79	-0.40	2.56	4.32	0.48	1.38	-5.87	-5.97	-7.93	-8.98	-7.50	-14.44	-5.51	-9.17	-7.71	-9.21	-5.65	-45.39	
45	-45.39	-4.35	-2.20	-2.57	-4.58	0.30	0.69	0.27	-1.98	2.85	3.92	0.50	1.38	-5.80	-4.94	-5.88	-6.37	-7.19	-5.86	-1.91	-0.79	-2.80	-11.05	-7.34	-45.39	
60	-45.39	-6.35	-1.39	-9.13	-7.68	-0.83	-2.52	-0.14	-1.89	2.13	2.82	1.23	1.38	-5.80	-3.50	-6.84	-6.19	-5.08	-5.80	-3.63	-4.07	-5.01	-7.82	-3.77	-45.39	
75	-45.39	-11.40	-1.41	-1.79	-2.99	-11.16	-6.14	-1.42	-2.82	1.86	2.10	1.98	1.38	-4.58	-6.68	-2.41	-2.88	-3.45	-6.74	-5.11	-3.17	-5.73	-9.86	-5.62	-45.39	
90	-45.39	-12.42	-0.10	1.47	-6.02	-7.68	-2.92	-1.83	2.51	3.35	1.56	1.72	1.38	-3.30	-3.09	-1.85	-0.57	-0.96	-2.56	-5.31	-3.37	-8.97	-17.90	-13.87	-45.39	
105	-45.39	-4.27	-2.57	-0.54	-1.88	-1.40	0.49	2.01	0.35	-0.17	-0.45	0.22	1.38	-2.41	-0.65	-2.08	-4.18	-0.98	-1.48	-4.60	-6.36	-4.80	-9.16	-13.65	-45.39	
120	-45.39	-1.56	-1.01	-0.80	-0.30	-0.41	0.75	-0.26	2.65	3.30	0.05	-1.27	1.38	-1.79	-2.11	-0.20	-0.46	-2.97	-5.07	-8.88	-2.71	-8.14	-5.64	-5.94	-45.39	
135	-45.39	-1.78	-6.24	-8.15	-0.12	0.43	0.56	0.43	0.18	2.23	-0.46	-1.82	1.38	-1.14	0.27	0.88	-3.93	-3.10	-0.89	-0.23	0.42	-7.01	-6.78	-2.56	-45.39	
150	-45.39	-6.38	-5.43	-6.83	0.23	-0.62	0.42	-2.50	-2.59	2.25	-2.19	-2.21	1.38	-0.90	2.15	2.24	-2.32	-0.24	0.18	3.22	1.13	-3.15	-5.18	-1.85	-45.39	
165	-45.39	-8.42	-5.74	-5.56	-2.35	-0.92	0.98	-1.36	-4.85	-1.37	-3.29	-3.36	1.38	-0.21	3.61	1.87	-4.64	-3.02	-2.24	2.52	1.23	-2.90	-4.90	-2.00	-45.39	
180	-45.39	-4.26	-8.13	-4.74	-7.62	-0.25	2.30	-0.45	-4.59	-4.34	-5.03	-4.44	1.38	0.36	4.27	0.46	-4.81	-8.76	-11.80	-0.53	1.12	-0.31	-3.07	-2.45	-45.39	