

Antenna Regulatory Information

Antenna Product Type	WWAN Main/ WWAN Aux Antenna
Model Name / Number	SZ900 / SZ901
ODM Model Name/ Number	SZ900 / SZ901
Revision	A01
Provided Date	2009/08/25
Manufacturer Part No	WDAN-1BQBK302-1F (WWAN Main)
ODM Part No	

Company	HON HAI PRECISION IND. Co., Ltd
Address	No.2,Zihyou St.,Tucheng City, Taipei County 236, Taiwan
Tel	+886-2-22683466
FAX	+886-2-22686220
Web	http://www.foxconn.com

1. Specifications

Antenna Specifications

Antenna Type(Material, Technology)		Metal, Modified PIFA	
Antenna Model Number		WDAN-1BQBK302-1F (WWAN Main)	
Operating Frequency Range		Low Band: 824MHz ~ 960MHz	
		High Band: 1710MHz ~ 2170MHz	
Peak Gain (dBi)	Low Band 824 ~ 960MHz	WWAN Main	-0.29 dBi
	High Band 1710 ~2170MHz	WWAN Main	3.45 dBi
			-
Radio Connector	Manufacturer/Type	Foxconn / mini RF connector	
	Part Number	SGX0001	
Mid-Line Connector Type (If Applicable)		N/A	

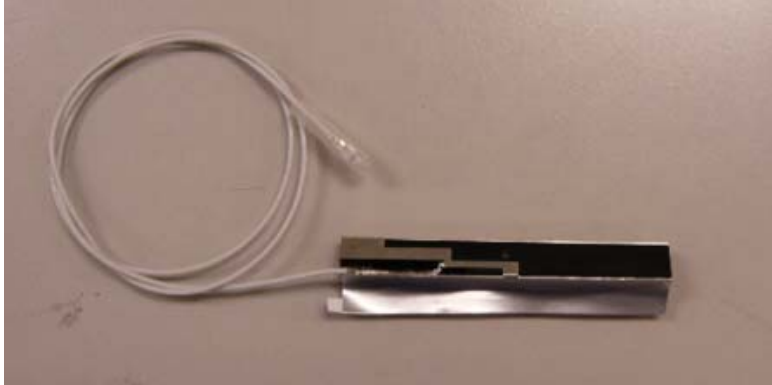
Remark: Peak Gains include all system losses (connector, cable, etc)

Cable Specifications

Cable Parameters		WWAN Main		WWAN Aux	
Length (mm)		435			
Loss (Including Connectors)		0.9GHz	0.805dB	0.9GHz	
		2.0GHz	1.203dB	2.0GHz	
Description	Color	White			
	Diameter	1.13 mm (low loss)			
	Manufacturer	Foxconn			

2. Antenna Assembly

Antenna Body



WWAN Main

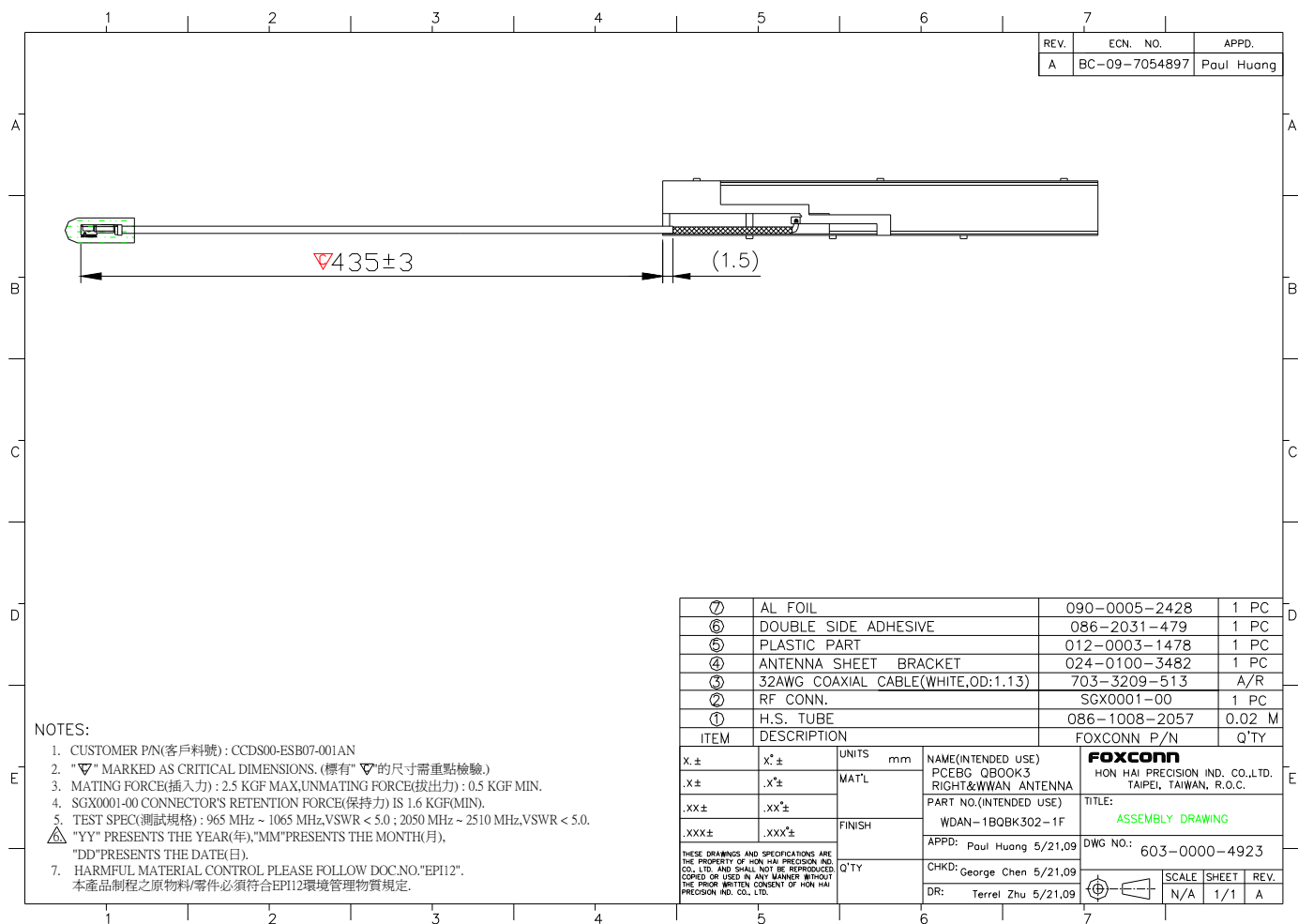


WWAN AUX

3. Antenna Assembly Installed in The Notebook

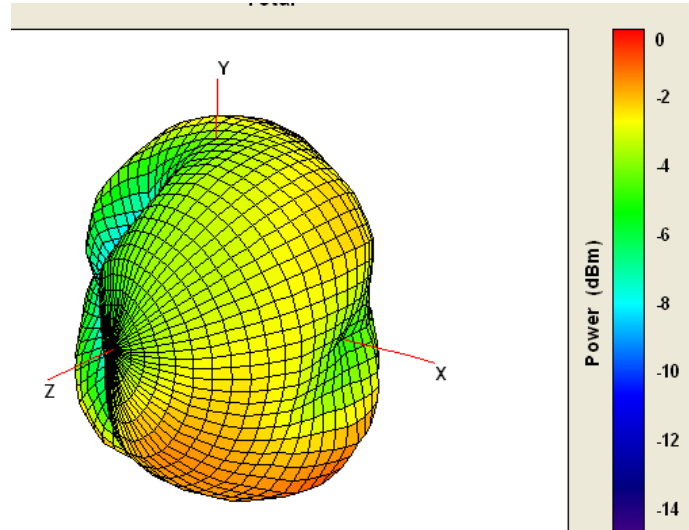


4. Mechanical Drawing of Antennas



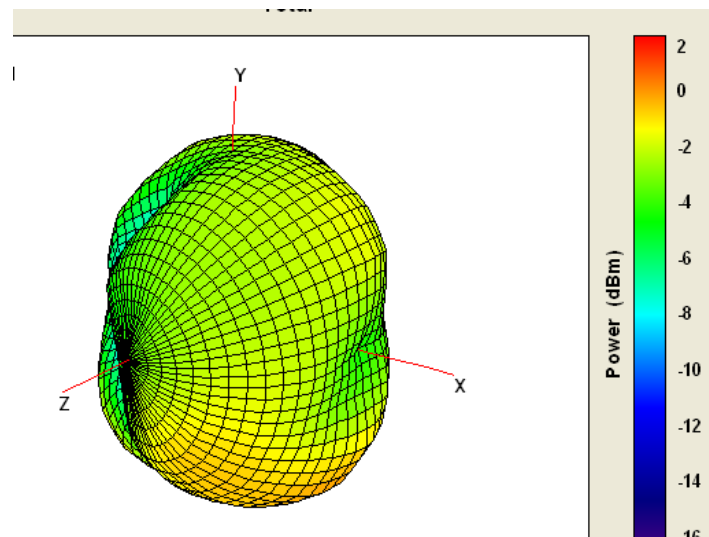
5. Antenna Gain Patterns

Main Antenna -1 (Low Band)



824MHz

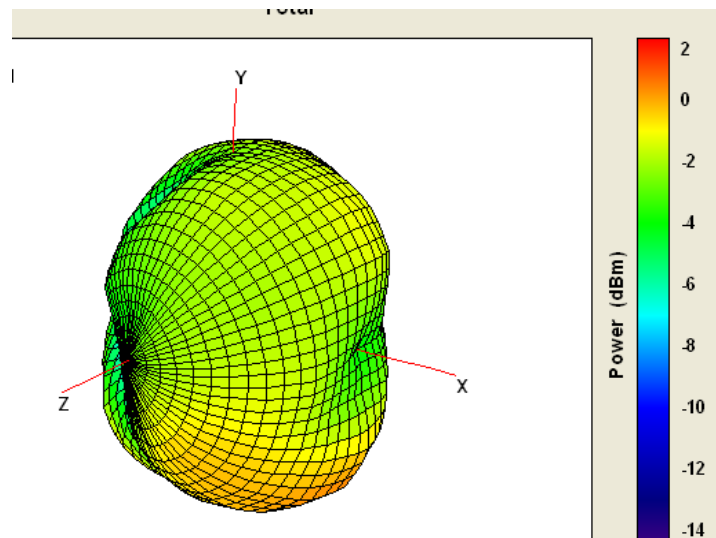
824MHz	H (Peak)	V (Peak)	H+V (Peak)	H (Avg)	V (Avg)	H+V (Avg)
XY Plane	-3.61	-1.79	-0.70	-7.00	-4.85	-2.78
YZ Plane	-8.00	-2.78	-2.43	-13.79	-6.10	-5.41
ZX Plane	-2.80	-4.53	-1.67	-4.90	-9.88	-3.70



836MHz

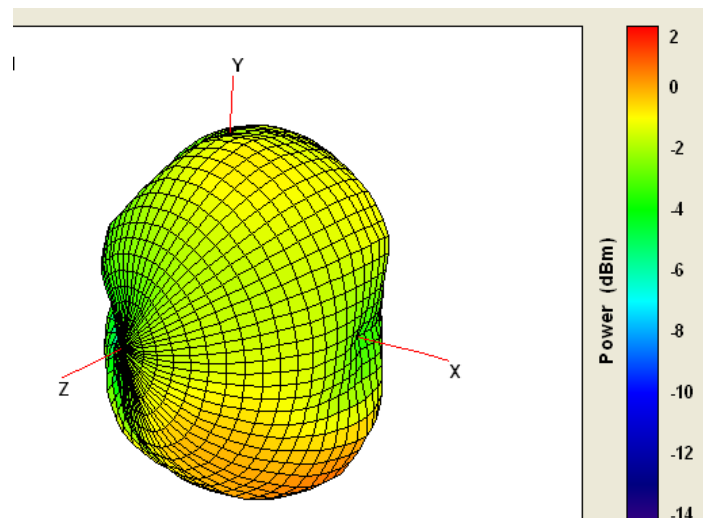
836MHz	H (Peak)	V (Peak)	H+V (Peak)	H (Avg)	V (Avg)	H+V (Avg)
XY Plane	-2.81	-1.01	0.03	-6.49	-4.26	-2.22
YZ Plane	-7.86	-2.02	-1.74	-13.81	-5.50	-4.90
ZX Plane	-2.40	-3.42	-1.11	-4.29	-9.00	-3.03

Main Antenna -2 (Low Band)



849MHz

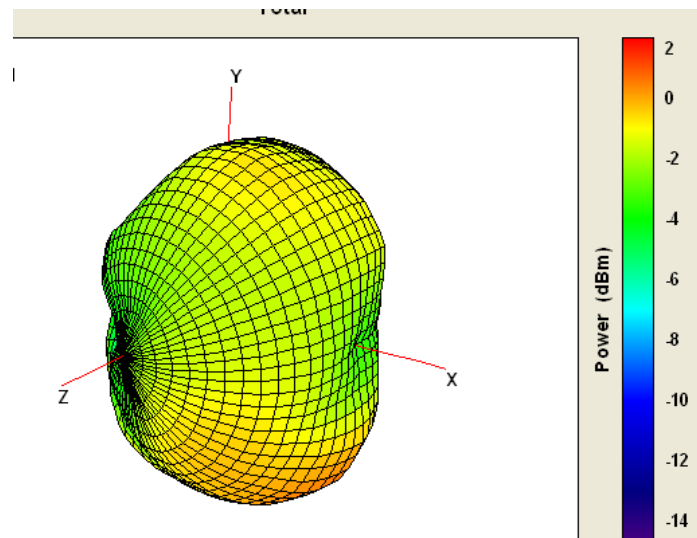
<i>849MHz</i>	<i>H (Peak)</i>	<i>V (Peak)</i>	<i>H+V (Peak)</i>	<i>H (Avg)</i>	<i>V (Avg)</i>	<i>H+V (Avg)</i>
XY Plane	-2.35	-0.44	0.57	-6.05	-3.93	-1.86
YZ Plane	-7.81	-1.69	-1.41	-13.90	-5.17	-4.63
ZX Plane	-2.28	-2.45	-0.72	-3.86	-8.32	-2.53



869MHz

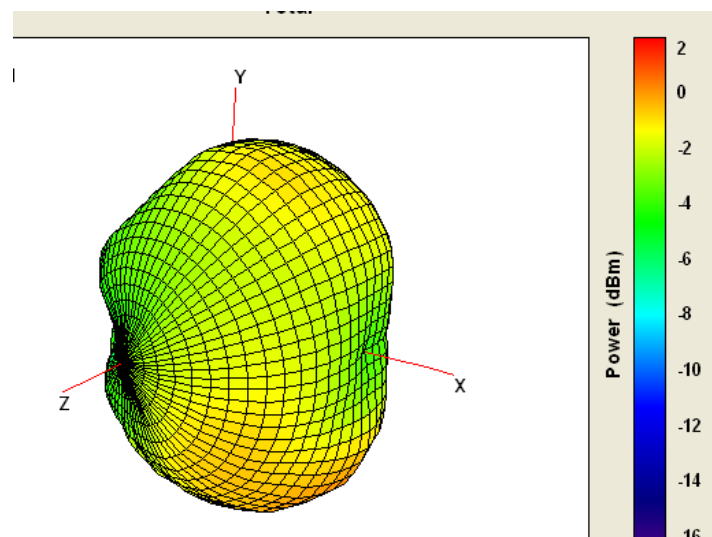
<i>869MHz</i>	<i>H (Peak)</i>	<i>V (Peak)</i>	<i>H+V (Peak)</i>	<i>H (Avg)</i>	<i>V (Avg)</i>	<i>H+V (Avg)</i>
XY Plane	-2.39	-0.29	0.86	-5.68	-3.88	-1.68
YZ Plane	-7.83	-1.50	-1.26	-13.96	-4.99	-4.47
ZX Plane	-1.68	-1.99	-0.17	-3.50	-8.02	-2.19

Main Antenna -3 (Low Band)



880MHz

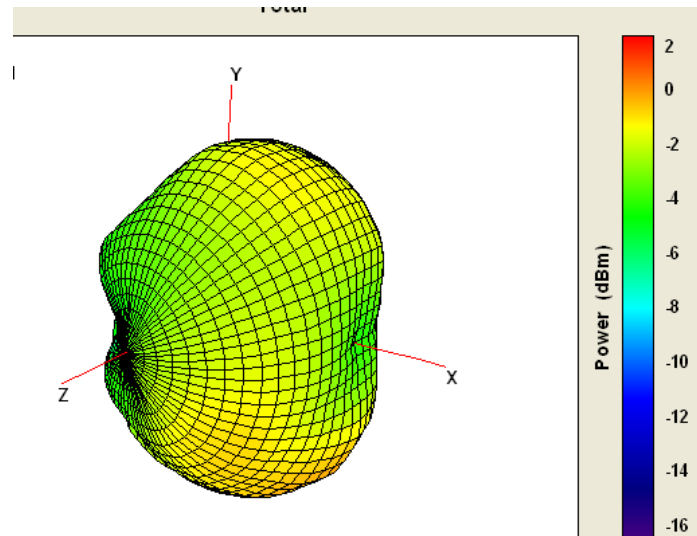
880MHz	<i>H (Peak)</i>	<i>V (Peak)</i>	<i>H+V (Peak)</i>	<i>H (Avg)</i>	<i>V (Avg)</i>	<i>H+V (Avg)</i>
XY Plane	-2.35	-0.54	0.72	-5.70	-4.08	-1.81
YZ Plane	-8.17	-1.47	-1.28	-14.15	-5.06	-4.55
ZX Plane	-1.69	-2.16	-0.26	-3.63	-8.17	-2.32



894MHz

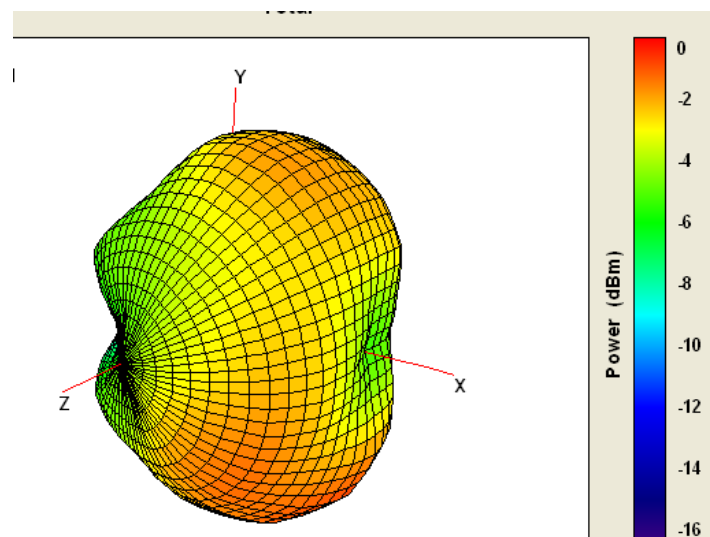
894MHz	<i>H (Peak)</i>	<i>V (Peak)</i>	<i>H+V (Peak)</i>	<i>H (Avg)</i>	<i>V (Avg)</i>	<i>H+V (Avg)</i>
XY Plane	-2.26	-1.09	0.33	-5.92	-4.61	-2.21
YZ Plane	-8.91	-1.54	-1.37	-14.50	-5.39	-4.89
ZX Plane	-2.04	-2.61	-0.59	-4.04	-8.58	-2.73

Main Antenna -4 (Low Band)



900MHz

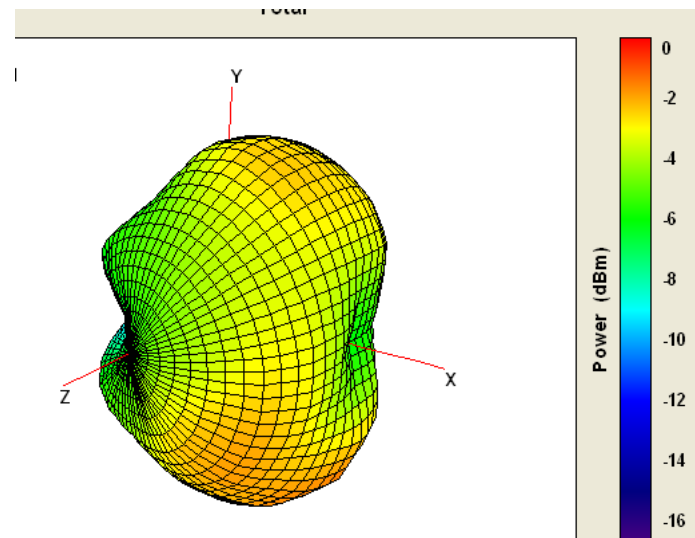
900MHz	H (Peak)	V (Peak)	H+V (Peak)	H (Avg)	V (Avg)	H+V (Avg)
XY Plane	-2.37	-1.49	0.04	-6.12	-5.01	-2.52
YZ Plane	-9.25	-1.72	-1.57	-14.64	-5.71	-5.18
ZX Plane	-2.36	-2.99	-0.87	-4.34	-8.90	-3.03



915MHz

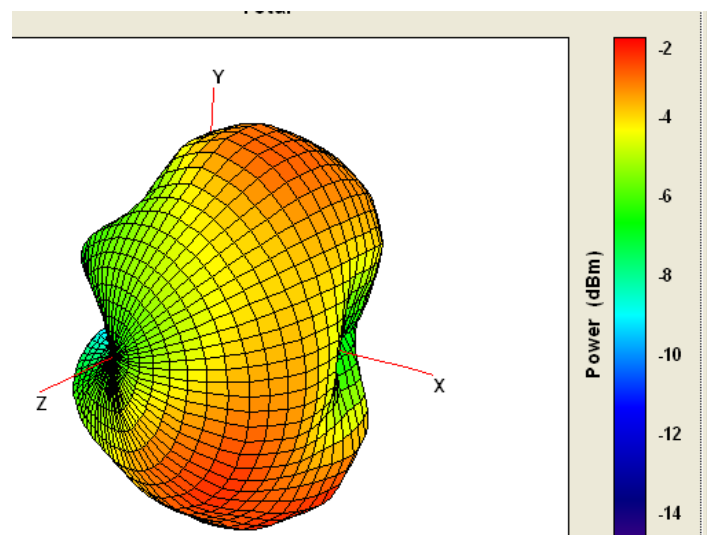
915MHz	H (Peak)	V (Peak)	H+V (Peak)	H (Avg)	V (Avg)	H+V (Avg)
XY Plane	-2.72	-2.46	-0.64	-6.62	-6.02	-3.30
YZ Plane	-9.96	-2.21	-2.09	-14.78	-6.55	-5.94
ZX Plane	-3.05	-3.86	-1.58	-4.97	-9.69	-3.71

Main Antenna -5 (Low Band)



925MHz

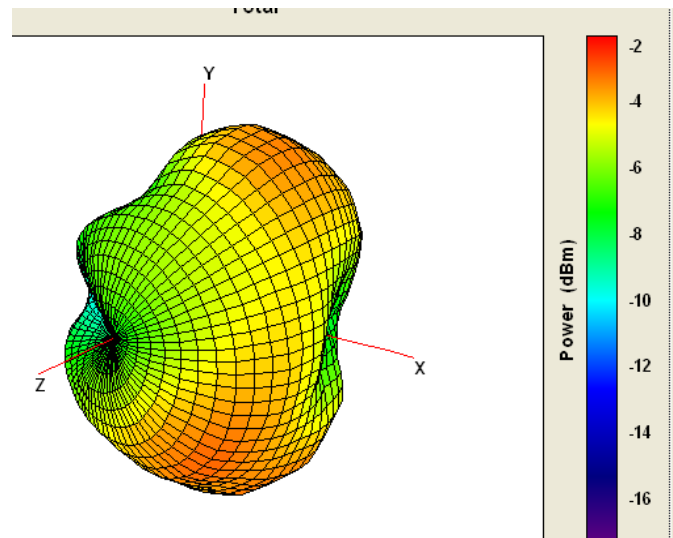
925MHz	H (Peak)	V (Peak)	H+V (Peak)	H (Avg)	V (Avg)	H+V (Avg)
XY Plane	-3.16	-3.29	-1.30	-7.13	-6.86	-3.98
YZ Plane	-10.47	-2.83	-2.70	-14.89	-7.30	-6.60
ZX Plane	-3.70	-4.61	-2.25	-5.55	-10.35	-4.30



940MHz

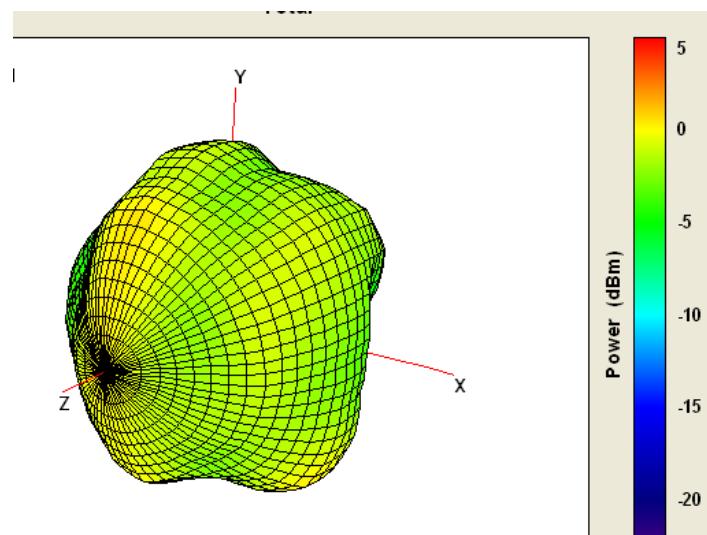
940MHz	H (Peak)	V (Peak)	H+V (Peak)	H (Avg)	V (Avg)	H+V (Avg)
XY Plane	-3.52	-4.28	-1.63	-7.64	-7.76	-4.69
YZ Plane	-11.04	-3.54	-3.36	-14.89	-8.03	-7.22
ZX Plane	-4.58	-5.35	-3.05	-6.20	-11.02	-4.96

Main Antenna -6 (Low/High Band)



960MHz

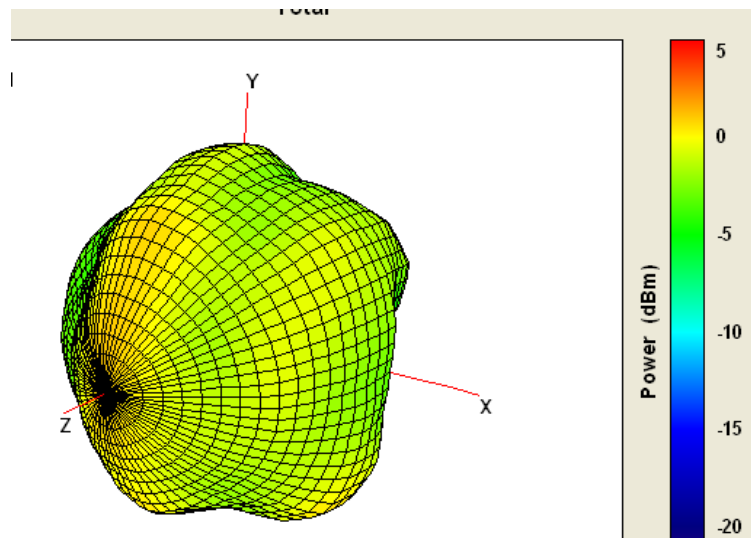
960MHz	<i>H (Peak)</i>	<i>V (Peak)</i>	<i>H+V (Peak)</i>	<i>H (Avg)</i>	<i>V (Avg)</i>	<i>H+V (Avg)</i>
XY Plane	-3.61	-5.30	-1.63	-8.32	-8.65	-5.47
YZ Plane	-11.92	-4.39	-4.15	-15.25	-8.67	-7.81
ZX Plane	-5.44	-6.23	-3.77	-7.00	-11.78	-5.75



1710MHz

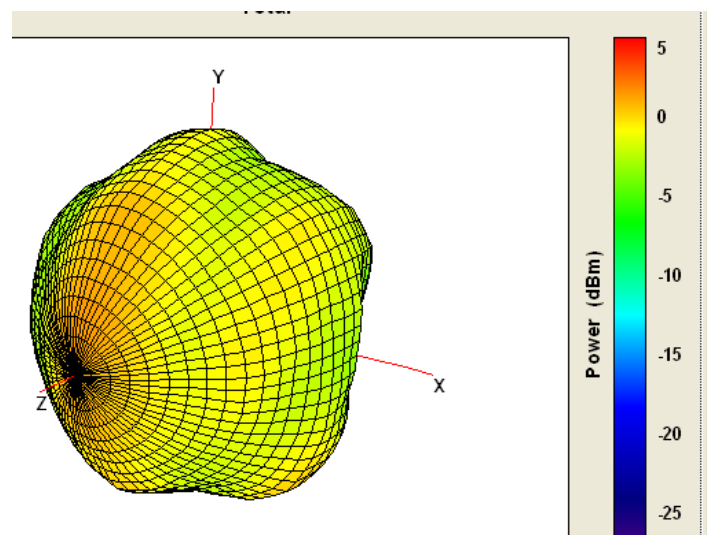
1710MHz	<i>H (Peak)</i>	<i>V (Peak)</i>	<i>H+V (Peak)</i>	<i>H (Avg)</i>	<i>V (Avg)</i>	<i>H+V (Avg)</i>
XY Plane	-0.97	-3.87	0.08	-5.40	-8.74	-3.74
YZ Plane	-10.34	0.31	0.34	-15.97	-4.81	-4.49
ZX Plane	0.54	-12.36	0.57	-2.90	-18.30	-2.78

Main Antenna -7 (High Band)



1750MHz

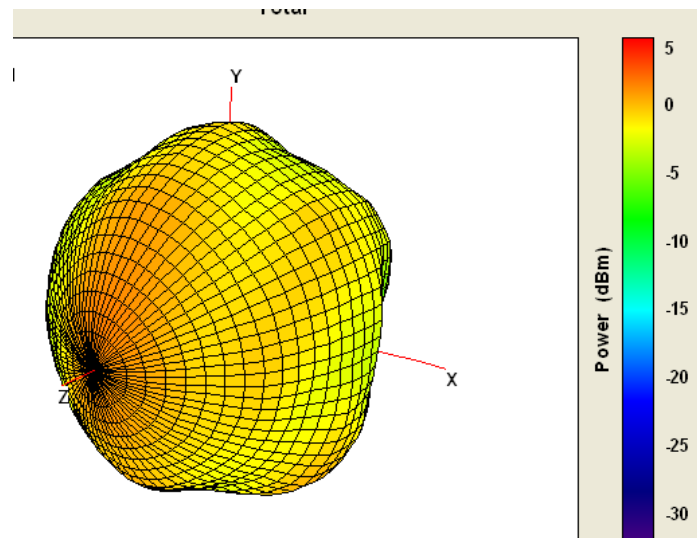
1750MHz	<i>H (Peak)</i>	<i>V (Peak)</i>	<i>H+V (Peak)</i>	<i>H (Avg)</i>	<i>V (Avg)</i>	<i>H+V (Avg)</i>
XY Plane	-0.73	-3.46	0.40	-4.85	-8.42	-3.27
YZ Plane	-10.31	1.05	1.06	-15.69	-4.37	-4.06
ZX Plane	1.06	-12.36	1.08	-2.35	-17.89	-2.23



1785MHz

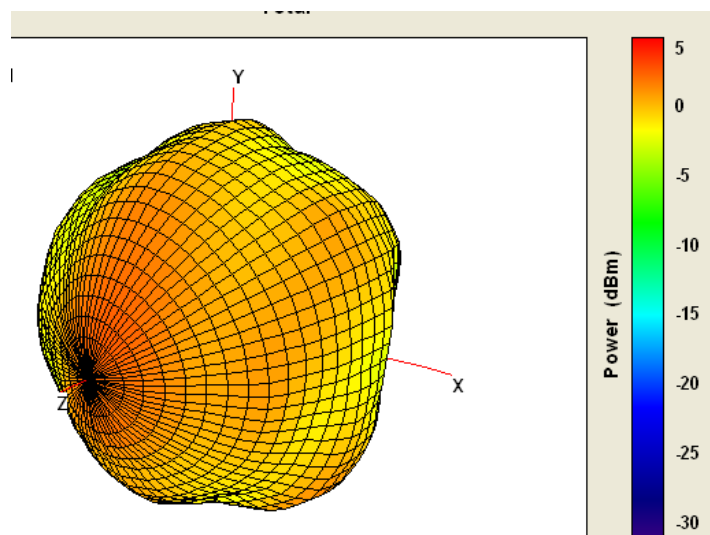
1785MHz	<i>H (Peak)</i>	<i>V (Peak)</i>	<i>H+V (Peak)</i>	<i>H (Avg)</i>	<i>V (Avg)</i>	<i>H+V (Avg)</i>
XY Plane	-0.64	-3.48	0.16	-4.81	-8.62	-3.30
YZ Plane	-10.62	1.20	1.21	-15.70	-4.46	-4.14
ZX Plane	1.44	-12.10	1.46	-2.29	-16.98	-2.15

Main Antenna -8 (High Band)



1805MHz

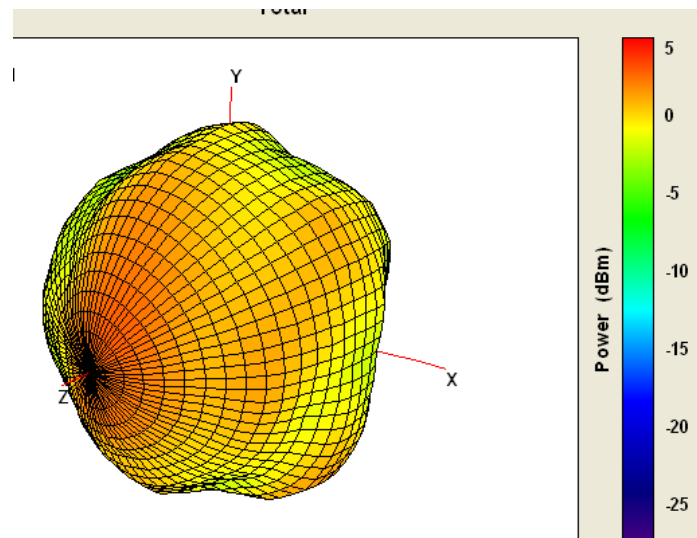
1805MHz	<i>H (Peak)</i>	<i>V (Peak)</i>	<i>H+V (Peak)</i>	<i>H (Avg)</i>	<i>V (Avg)</i>	<i>H+V (Avg)</i>
XY Plane	-0.66	-3.47	0.15	-4.83	-8.65	-3.32
YZ Plane	-10.41	1.49	1.50	-15.56	-4.30	-3.99
ZX Plane	1.57	-10.71	1.59	-2.22	-15.83	-2.04



1840MHz

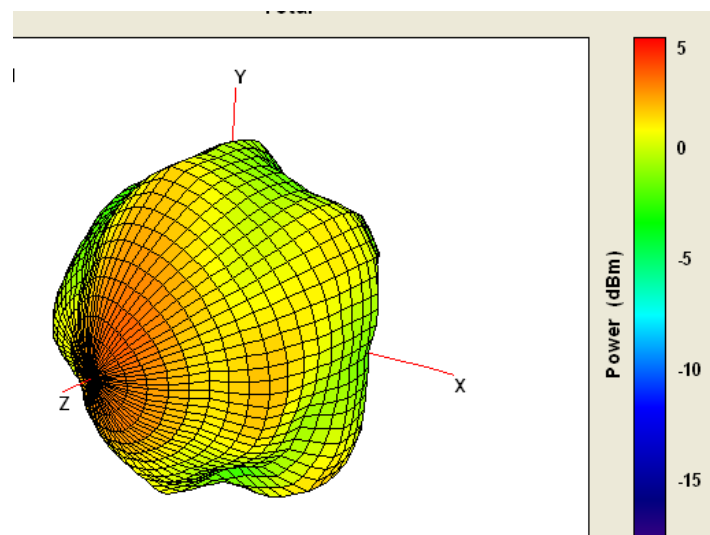
1840MHz	<i>H (Peak)</i>	<i>V (Peak)</i>	<i>H+V (Peak)</i>	<i>H (Avg)</i>	<i>V (Avg)</i>	<i>H+V (Avg)</i>
XY Plane	0.00	-2.79	1.34	-4.04	-7.63	-2.46
YZ Plane	-9.38	2.36	2.36	-14.18	-3.30	-2.96
ZX Plane	2.36	-9.06	2.36	-1.48	-14.45	-1.27

Main Antenna -9 (High Band)



1850MHz

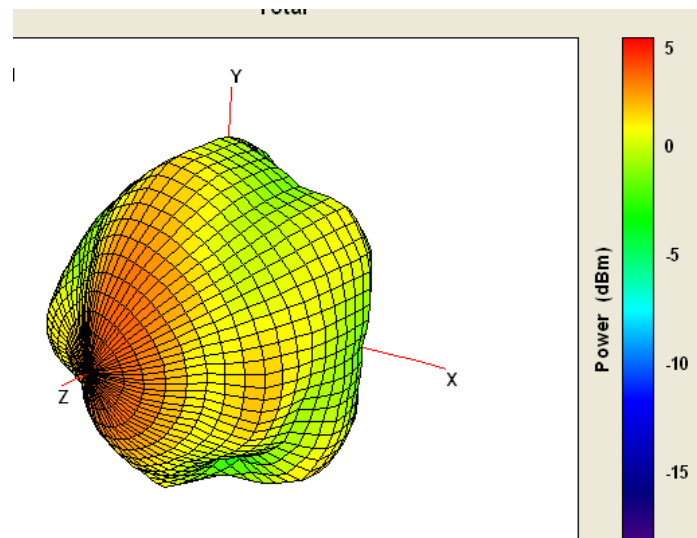
<i>1850MHz</i>	<i>H (Peak)</i>	<i>V (Peak)</i>	<i>H+V (Peak)</i>	<i>H (Avg)</i>	<i>V (Avg)</i>	<i>H+V (Avg)</i>
XY Plane	0.09	-2.58	1.45	-3.96	-7.49	-2.36
YZ Plane	-9.13	2.62	2.62	-13.88	-3.05	-2.71
ZX Plane	2.62	-8.82	2.62	-1.34	-14.09	-1.12



1880MHz

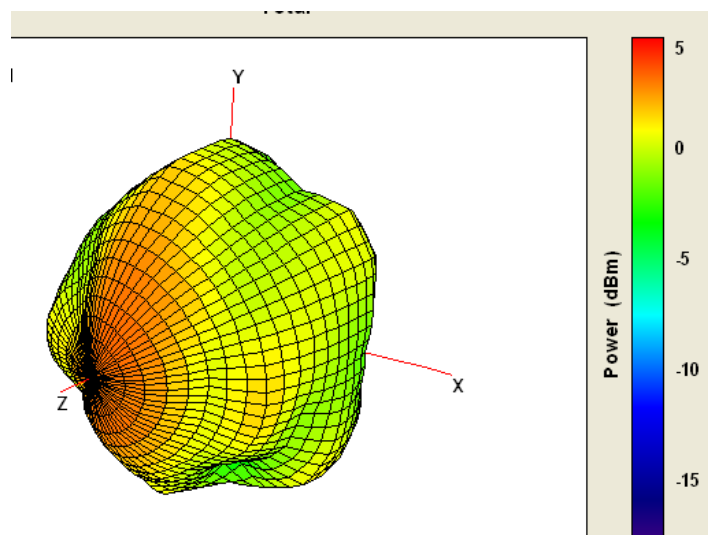
<i>1880MHz</i>	<i>H (Peak)</i>	<i>V (Peak)</i>	<i>H+V (Peak)</i>	<i>H (Avg)</i>	<i>V (Avg)</i>	<i>H+V (Avg)</i>
XY Plane	0.14	-2.20	1.59	-3.86	-7.21	-2.21
YZ Plane	-8.63	3.24	3.24	-13.37	-2.50	-2.16
ZX Plane	3.24	-6.98	3.24	-1.06	-12.80	-0.78

Main Antenna -10 (High Band)



1910MHz

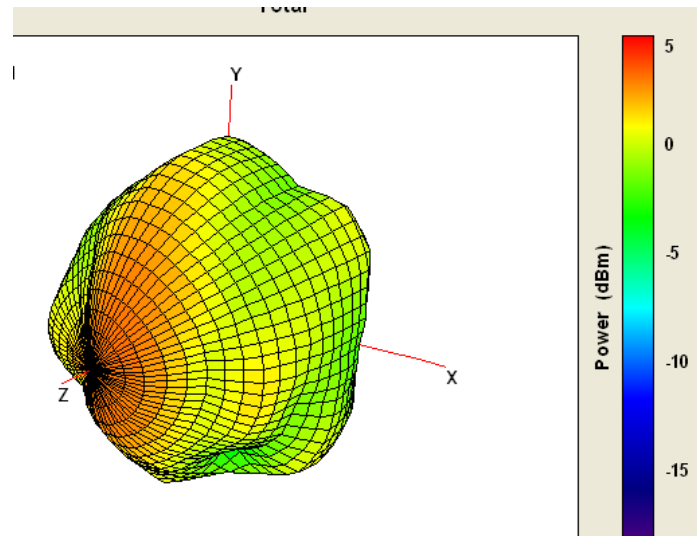
1910MHz	<i>H (Peak)</i>	<i>V (Peak)</i>	<i>H+V (Peak)</i>	<i>H (Avg)</i>	<i>V (Avg)</i>	<i>H+V (Avg)</i>
XY Plane	0.31	-2.22	1.26	-3.94	-7.31	-2.30
YZ Plane	-7.86	3.45	3.46	-13.34	-2.41	-2.07
ZX Plane	3.45	-5.84	3.46	-0.83	-12.22	-0.53



1920MHz

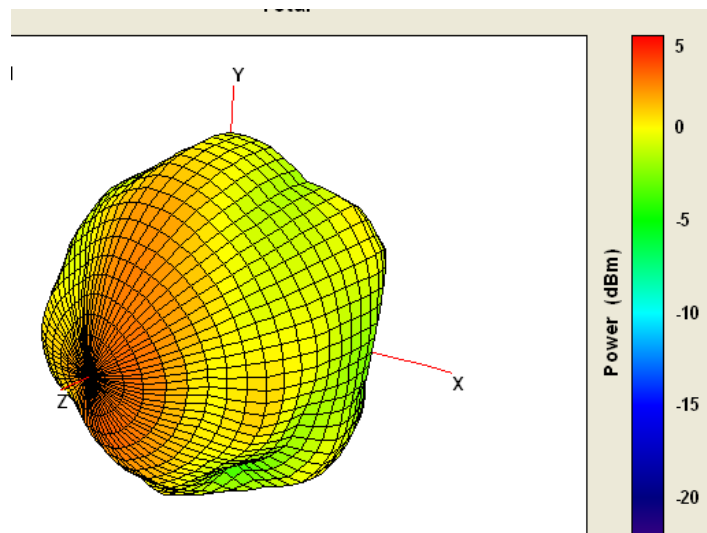
1920MHz	<i>H (Peak)</i>	<i>V (Peak)</i>	<i>H+V (Peak)</i>	<i>H (Avg)</i>	<i>V (Avg)</i>	<i>H+V (Avg)</i>
XY Plane	0.25	-2.34	0.84	-4.09	-7.55	-2.48
YZ Plane	-7.98	3.17	3.18	-13.51	-2.64	-2.30
ZX Plane	3.17	-6.09	3.18	-0.93	-12.45	-0.63

Main Antenna -11 (High Band)



1930MHz

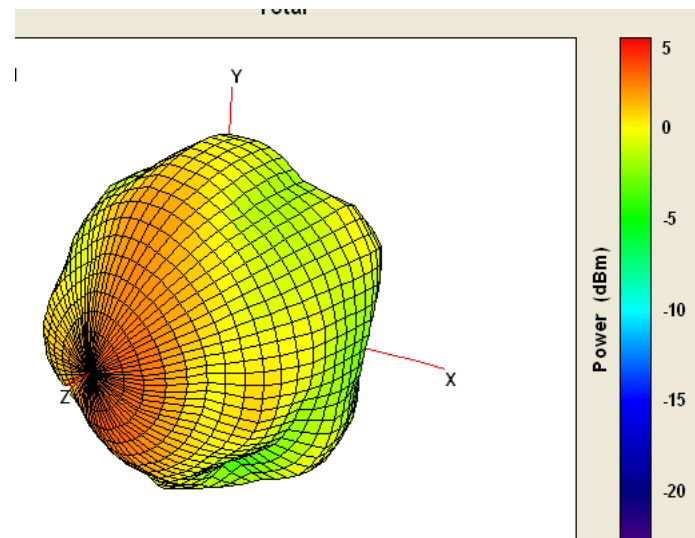
<i>1930MHz</i>	<i>H (Peak)</i>	<i>V (Peak)</i>	<i>H+V (Peak)</i>	<i>H (Avg)</i>	<i>V (Avg)</i>	<i>H+V (Avg)</i>
XY Plane	0.18	-2.47	0.75	-4.26	-7.70	-2.64
YZ Plane	-8.24	3.04	3.05	-13.70	-2.75	-2.41
ZX Plane	3.04	-6.30	3.05	-1.06	-12.53	-0.76



1950MHz

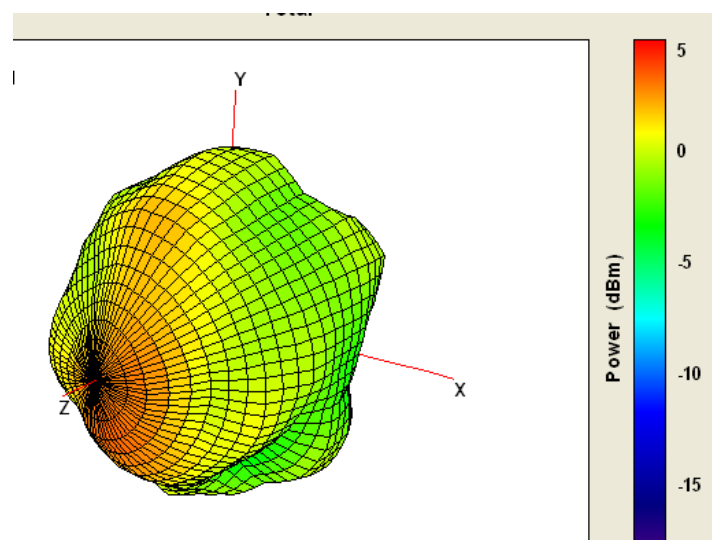
<i>1950MHz</i>	<i>H (Peak)</i>	<i>V (Peak)</i>	<i>H+V (Peak)</i>	<i>H (Avg)</i>	<i>V (Avg)</i>	<i>H+V (Avg)</i>
XY Plane	-0.01	-2.88	0.54	-4.58	-7.93	-2.93
YZ Plane	-8.55	2.89	2.90	-13.91	-2.88	-2.55
ZX Plane	2.92	-6.50	2.97	-1.32	-12.33	-0.99

Main Antenna -12 (High Band)



1960MHz

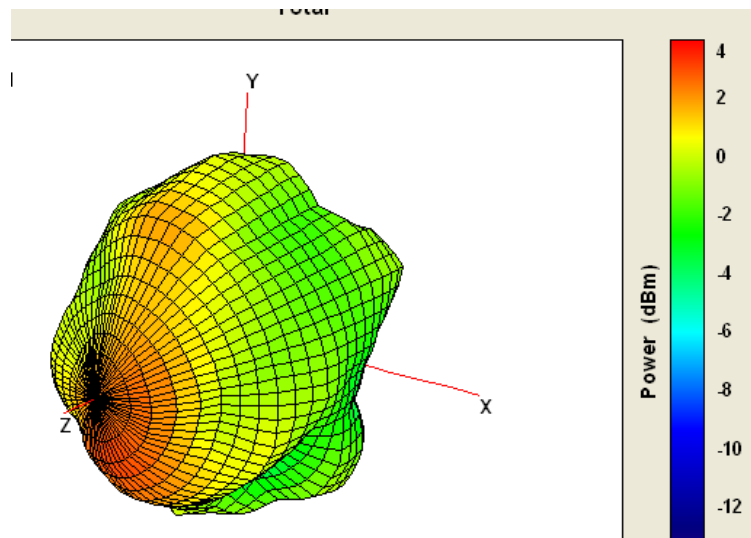
1960MHz	<i>H (Peak)</i>	<i>V (Peak)</i>	<i>H+V (Peak)</i>	<i>H (Avg)</i>	<i>V (Avg)</i>	<i>H+V (Avg)</i>
XY Plane	-0.16	-3.00	0.38	-4.71	-7.86	-2.99
YZ Plane	-8.83	2.97	2.99	-13.97	-2.77	-2.45
ZX Plane	2.98	-6.14	3.04	-1.41	-11.94	-1.04



1980MHz

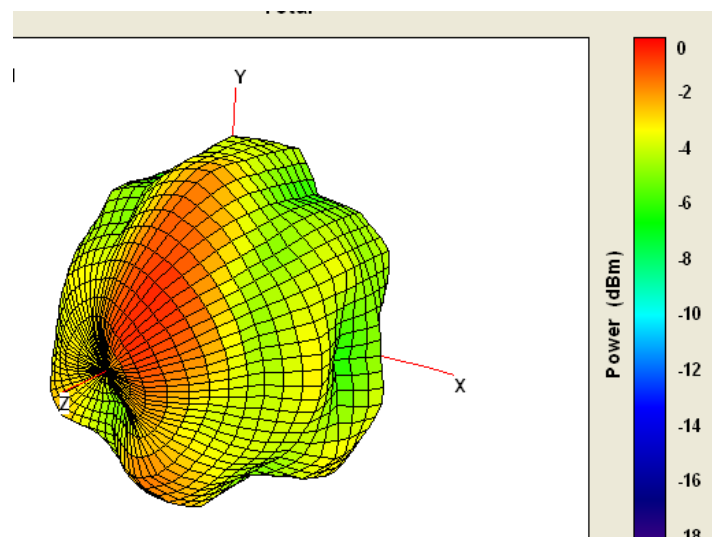
1980MHz	<i>H (Peak)</i>	<i>V (Peak)</i>	<i>H+V (Peak)</i>	<i>H (Avg)</i>	<i>V (Avg)</i>	<i>H+V (Avg)</i>
XY Plane	-0.43	-3.42	-0.09	-4.77	-7.76	-3.00
YZ Plane	-9.24	2.84	2.89	-13.99	-2.71	-2.40
ZX Plane	3.14	-5.27	3.19	-1.49	-11.27	-1.06

Main Antenna -13 (High Band)



1990MHz

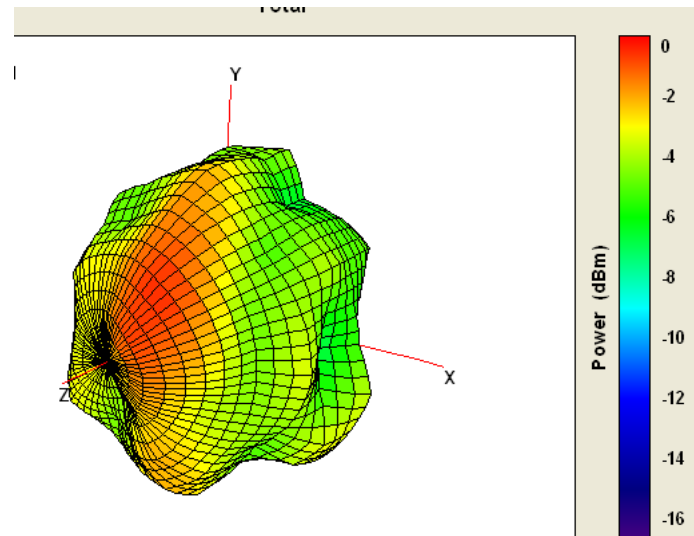
1990MHz	H (Peak)	V (Peak)	H+V (Peak)	H (Avg)	V (Avg)	H+V (Avg)
XY Plane	-0.42	-3.95	-0.08	-4.93	-7.89	-3.15
YZ Plane	-9.98	2.50	2.56	-14.08	-2.94	-2.62
ZX Plane	2.93	-5.18	2.98	-1.69	-11.23	-1.23



2110MHz

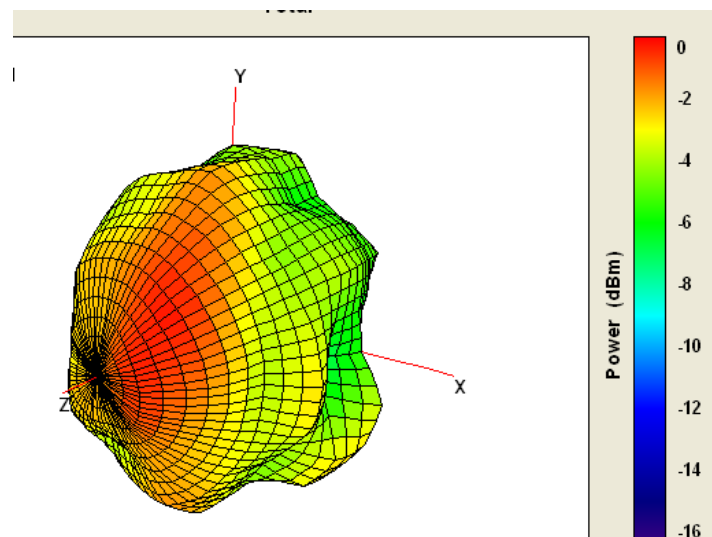
2110MHz	H (Peak)	V (Peak)	H+V (Peak)	H (Avg)	V (Avg)	H+V (Avg)
XY Plane	-3.47	-4.81	-1.63	-7.44	-9.78	-5.44
YZ Plane	-12.36	-1.48	-1.42	-16.93	-6.47	-6.10
ZX Plane	-2.47	-10.95	-2.15	-6.01	-14.57	-5.44

Main Antenna -14 (High Band)



2140MHz

<i>2140MHz</i>	<i>H (Peak)</i>	<i>V (Peak)</i>	<i>H+V (Peak)</i>	<i>H (Avg)</i>	<i>V (Avg)</i>	<i>H+V (Avg)</i>
XY Plane	-3.60	-5.37	-1.63	-7.76	-10.12	-5.77
YZ Plane	-12.36	-1.44	-1.39	-17.16	-6.76	-6.38
ZX Plane	-2.71	-11.87	-2.42	-6.31	-14.92	-5.75



2170MHz

<i>2170MHz</i>	<i>H (Peak)</i>	<i>V (Peak)</i>	<i>H+V (Peak)</i>	<i>H (Avg)</i>	<i>V (Avg)</i>	<i>H+V (Avg)</i>
XY Plane	-3.45	-4.97	-1.63	-7.43	-10.15	-5.57
YZ Plane	-12.36	-0.53	-0.47	-17.24	-6.32	-5.98
ZX Plane	-2.03	-11.12	-2.00	-5.67	-14.86	-5.17