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Innovation Industrial Park, North District, Nanshan District, Shenzhen

Material Acknowledgement

Suppliers: Shenzhen XinHengYang Technology Co.Ltd

A65L-MAIN-XHY AND

A65L-DIV-XHY AND

Model: A65L-WGB-XHY

Product Name: On the antenna assembly

Specification

s / Models: _____

Antenna

trademark: _____

Color: _____

Address: _____

Contact /

Phone: _____

Supplier (with official seal)

Structural Department	R&D Department	Quality Department	Project Department	

Customer review

ID Department	Structural Department / Special Project	Hardware Department	Packaging engineering	Quality Department

Specifications

The report mainly provides A65L GSM+WCDMA +LTE,performance parameter test, antenna for built-in antenna:

2、Electrical performance

2-1 Specification Standard

The A65L antenna operates in the

GSM-850 820-894MHz

GSM-900 880-960MHz

DCS-1800 1710-1880MHz

PCS-1900 1850-1990MHz

WCDMA-850 820-894MHz

WCDMA-1700 1710-2170MHz

WCDMA-1900 1850-1990MHz

LTE Band 2/25:1850-1990MHz

LTE Band 4:1710-1755MHz

LTE Band 5/26: 820-894MHz

LTE Band 12: 699-716MHz

LTE Band 17:704-716MHz

LTE Band 25: 1930.7-1994.3 MHz

LTE Band 26(part90): 859.7-868.3 MHz

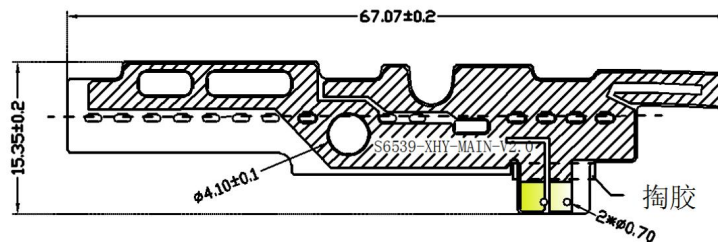
LTE Band 26(part22): 869.7-893.3 MHz

LTE Band 41: 2535-2675MHz

LTE Band 66: 1710-1780MHz

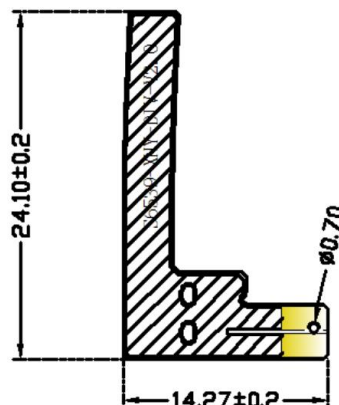
LTE Band 71: 663-698MHz, which generates resonances in this ;The following table shows the mass production performance test indicators for the A65L design antenna:

GSM/WCDMA/LTE ant 67.0mm*15.3mm



BT WIFI ANT 26.9mm*18.5mm

DIV ANT 24.1mm*14.2mm



2-2 gain test

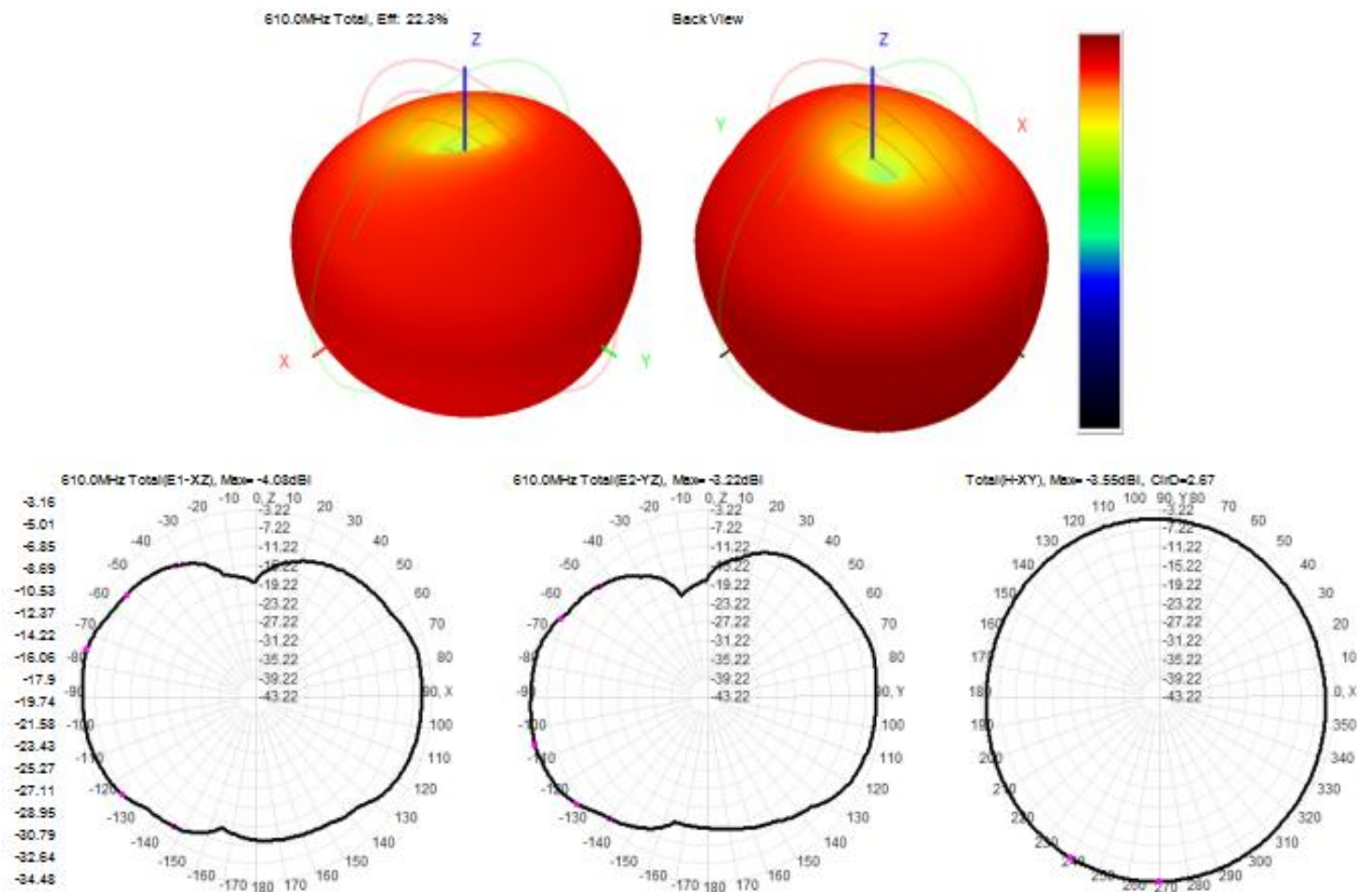
Main antenna gain

Frequency (MHz)	Gain (dBi)	Frequency (MHz)	Gain (dBi)	Frequency (MHz)	Gain (dBi)	Frequency (MHz)	Gain (dBi)	Frequency (MHz)	Gain (dBi)
610.0	-3.16	720.0	0.16	820.0	-2.39	1700.0	-1.18	2300.0	-2.00
620.0	-2.96	730.0	0.09	830.0	-1.78	1710.0	-0.99	2310.0	-2.05
630.0	-2.27	740.0	-0.38	840.0	-1.61	1720.0	-0.87	2320.0	-2.23
640.0	-1.49	750.0	-0.74	850.0	-1.56	1730.0	-0.88	2330.0	-2.31
650.0	-1.24	760.0	-0.98	860.0	-1.61	1740.0	-0.81	2340.0	-2.51
660.0	-1.19	770.0	-1.35	870.0	-1.69	1750.0	-0.92	2350.0	-2.83
670.0	-1.26	780.0	-1.63	880.0	-1.78	1760.0	-1.13	2360.0	-3.12
680.0	-1.41	790.0	-1.99	890.0	-1.61	1770.0	-1.40	2370.0	-3.24
690.0	-1.41	800.0	-2.57	900.0	-1.56	1780.0	-1.62	2380.0	-3.74
700.0	-1.67			910.0	-1.61	1790.0	-1.84	2390.0	-3.64
				920.0	-1.03	1800.0	-1.94	2400.0	-3.08
				930.0	-1.06	1810.0	-2.34	2410.0	-2.57
				940.0	-1.05	1820.0	-2.85	2420.0	-2.16
				950.0	-0.62	1830.0	-3.24	2430.0	-1.63
				960.0	0.37	1840.0	-3.39	2440.0	-1.15
						1850.0	-3.31	2450.0	-0.36
						1860.0	-2.89	2460.0	0.34
						1870.0	-2.35	2470.0	0.75
						1880.0	-1.79	2480.0	0.99
						1890.0	-1.16	2490.0	1.06
						1900.0	-0.59	2500.0	1.24
						1910.0	-0.18	2510.0	1.36
						1920.0	-0.05	2520.0	1.63
						1930.0	-0.01	2530.0	1.57
						1940.0	-0.04	2540.0	1.65
						1950.0	-0.05	2550.0	1.67
						1960.0	-0.13	2560.0	1.40
						1970.0	0.04	2570.0	1.08
						1980.0	0.23	2580.0	0.66
						1990.0	0.56	2590.0	0.26
						2000.0	0.71	2600.0	0.28
						2010.0	0.70	2610.0	0.46
						2020.0	0.72	2620.0	0.57
						2030.0	0.54	2630.0	0.58
						2040.0	0.08	2640.0	0.92
						2050.0	-0.43	2650.0	1.06
						2060.0	-0.64	2660.0	1.06
						2070.0	-0.85	2670.0	1.13
						2080.0	-1.03	2680.0	1.05
						2090.0	-1.16	2690.0	0.92
						2100.0	-1.09	2700.0	0.92
						2110.0	-1.17		
						2120.0	-1.05		
						2130.0	-0.94		
						2140.0	-0.85		
						2150.0	-0.92		
						2160.0	-0.93		
						2170.0	-1.20		

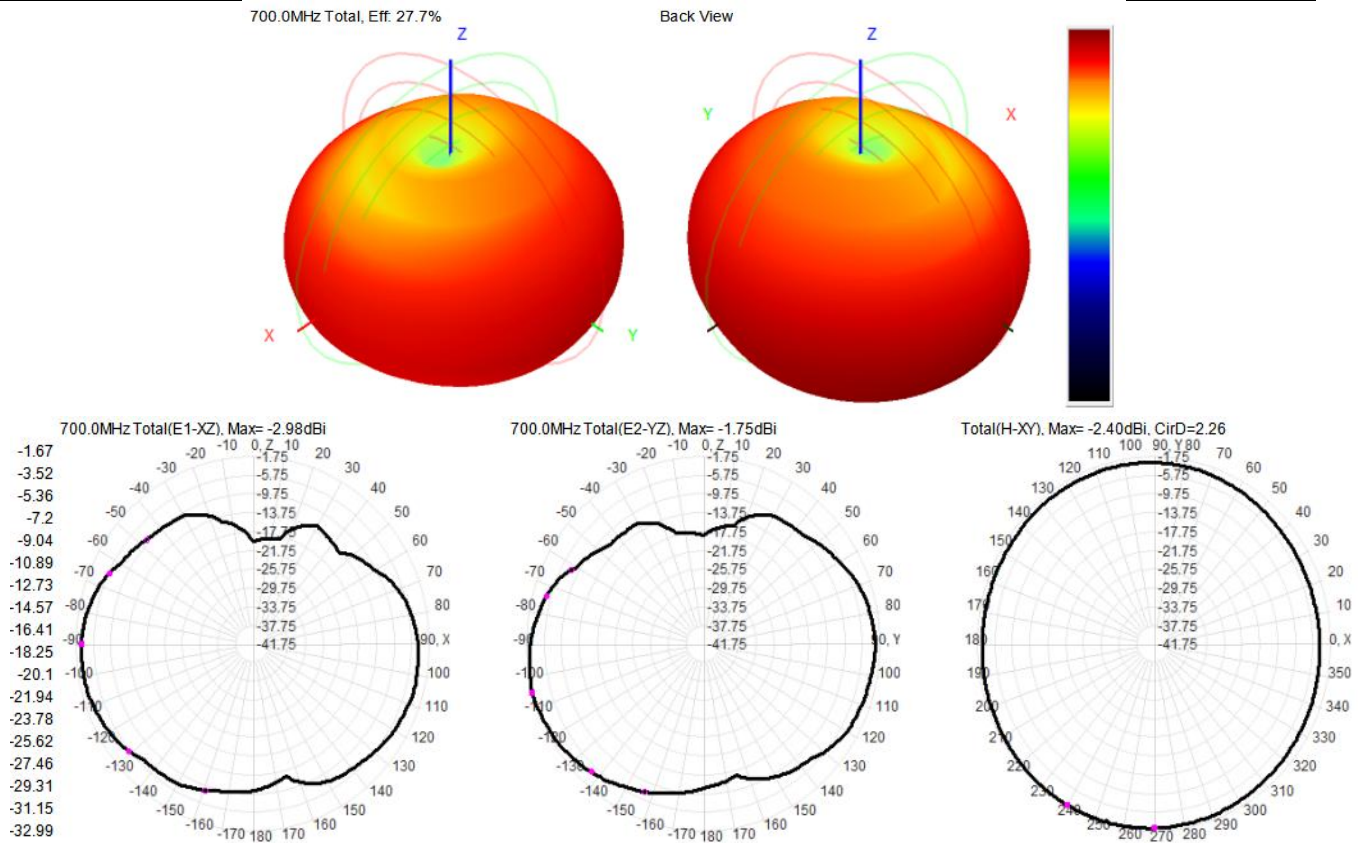
GPS/WIFI antenna gain

Frequency (MHz)	Gain (dBi)	Frequency (MHz)	Gain (dBi)
1550.0	-0.44	2400.0	-2.72
1555.0	-0.33	2410.0	-2.62
1560.0	-0.24	2420.0	-2.43
1565.0	-0.15	2430.0	-2.12
1570.0	-0.08	2440.0	-1.95
1575.0	-0.01	2450.0	-1.89
1580.0	-0.01	2460.0	-1.75
1585.0	-0.10	2470.0	-1.62
1590.0	-0.24	2480.0	-1.45
1595.0	-0.39	2490.0	-1.59
1600.0	-0.54	2500.0	-1.71

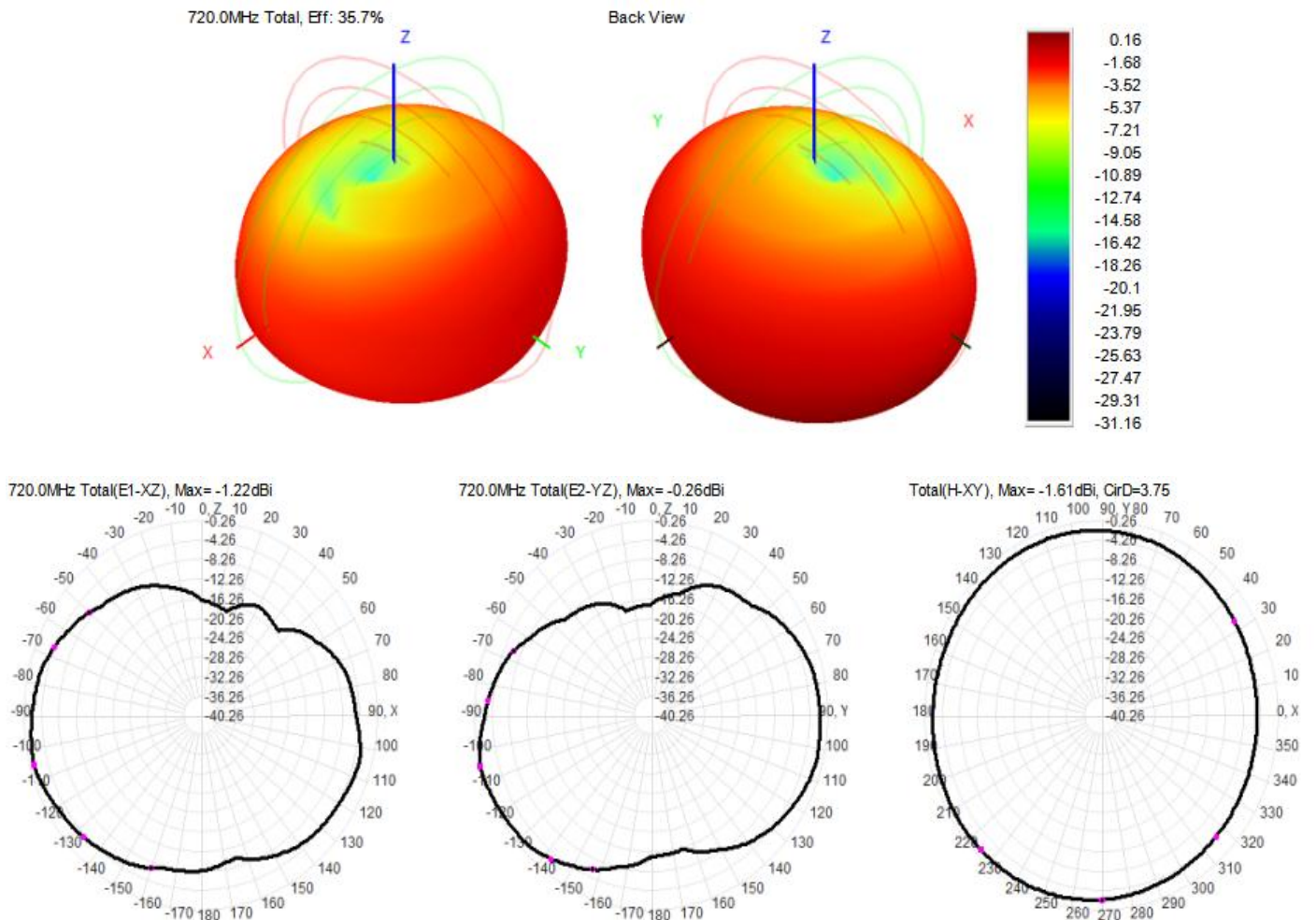
610MHz-700MHz

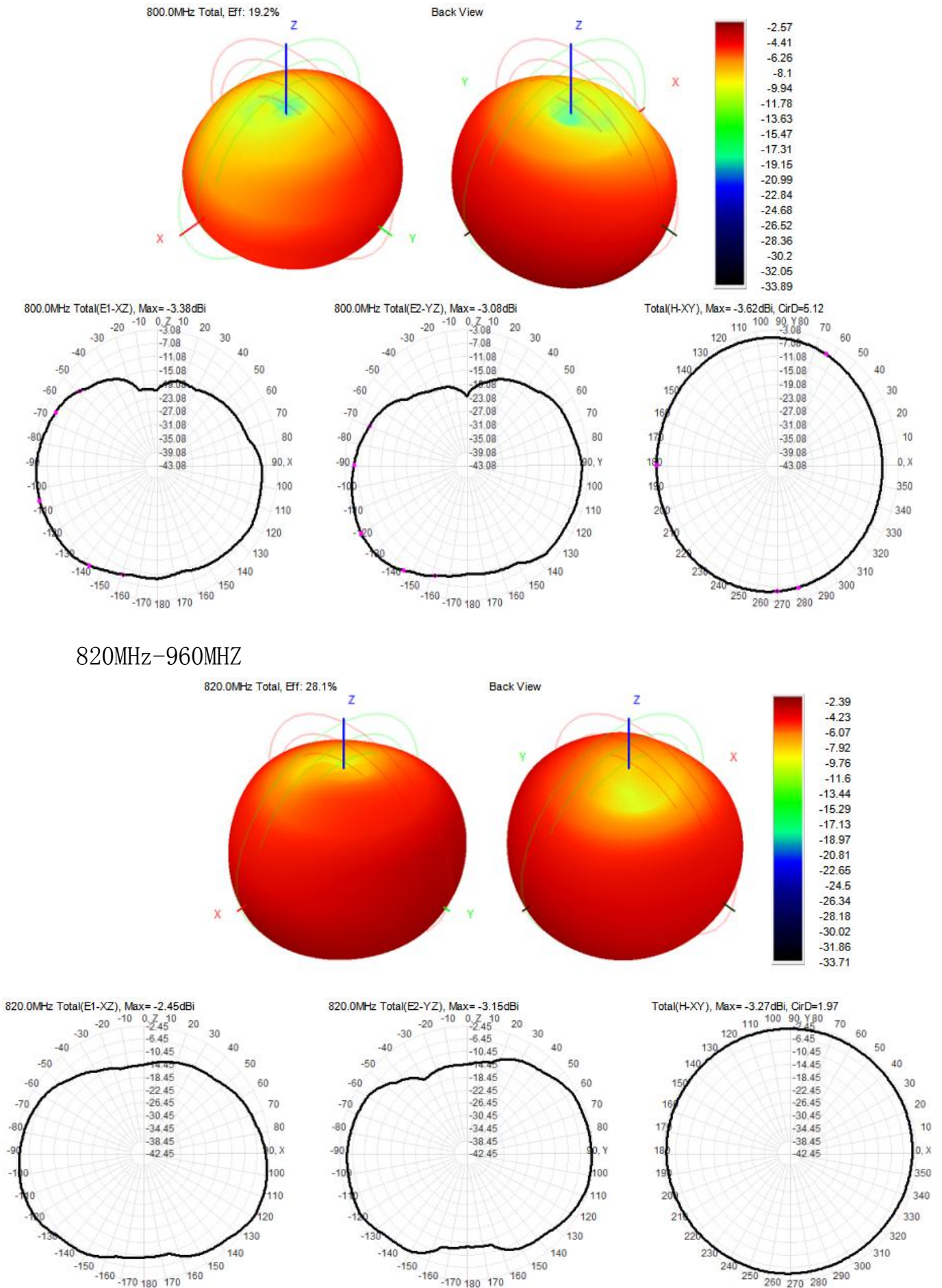


Confidential Information

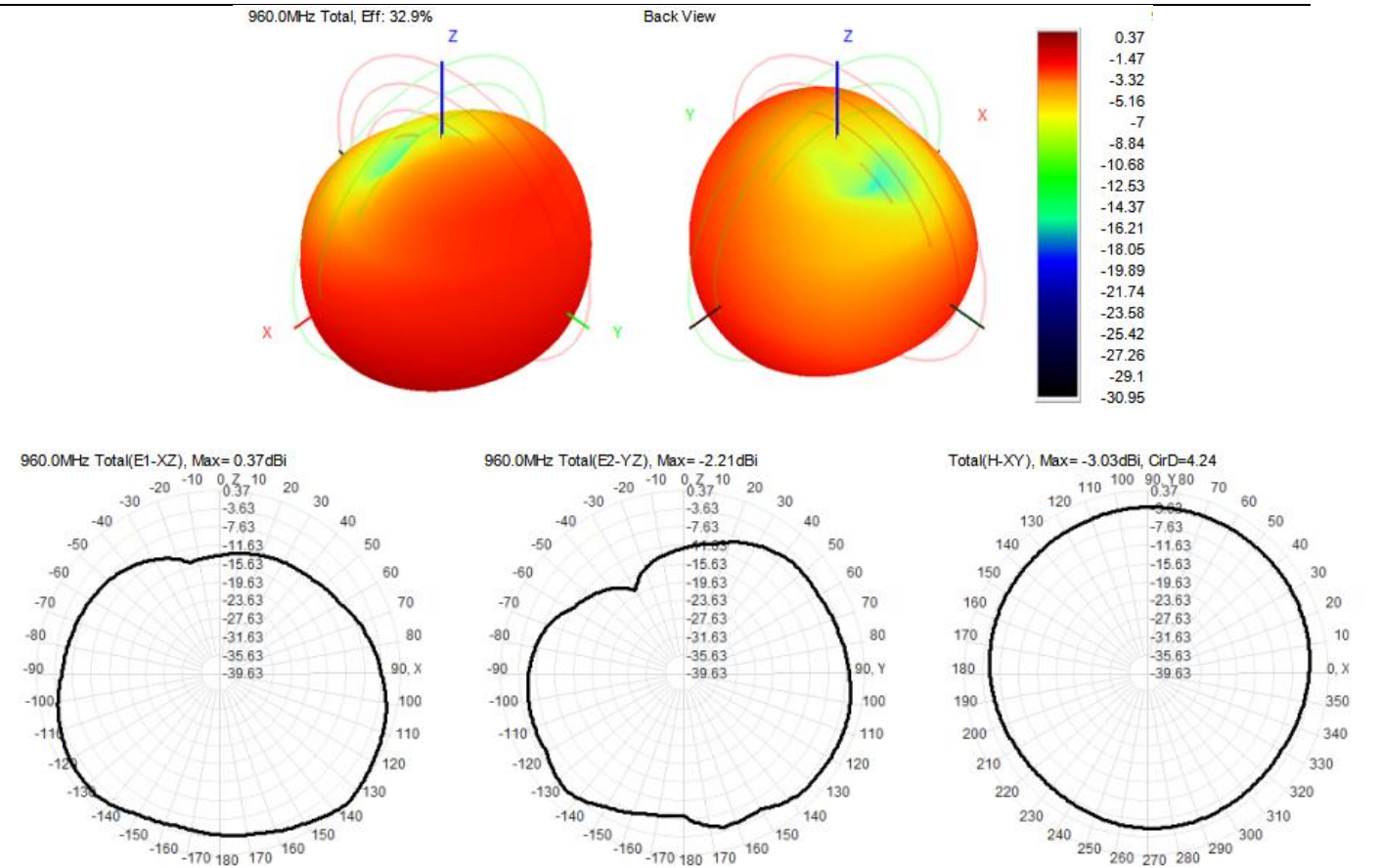


720MHz-800MHZ

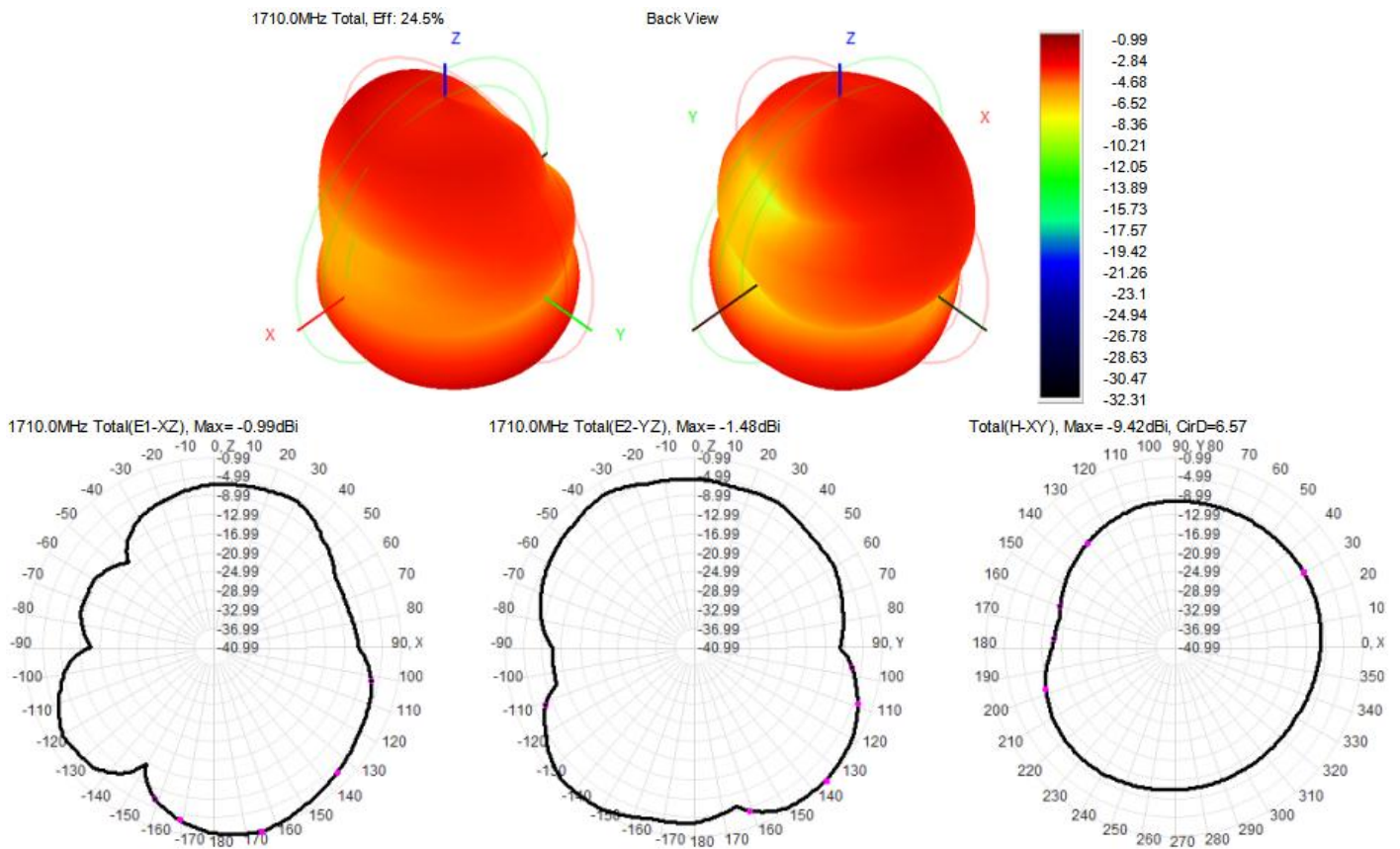




Confidential Information



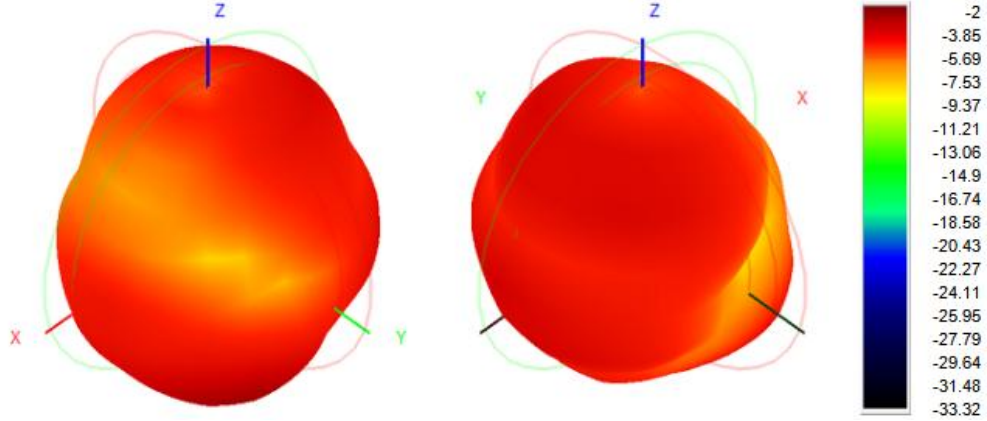
1710MHz-2170MHZ



2300MHz-2690MHz

2300.0MHz Total, Eff: 22.2%

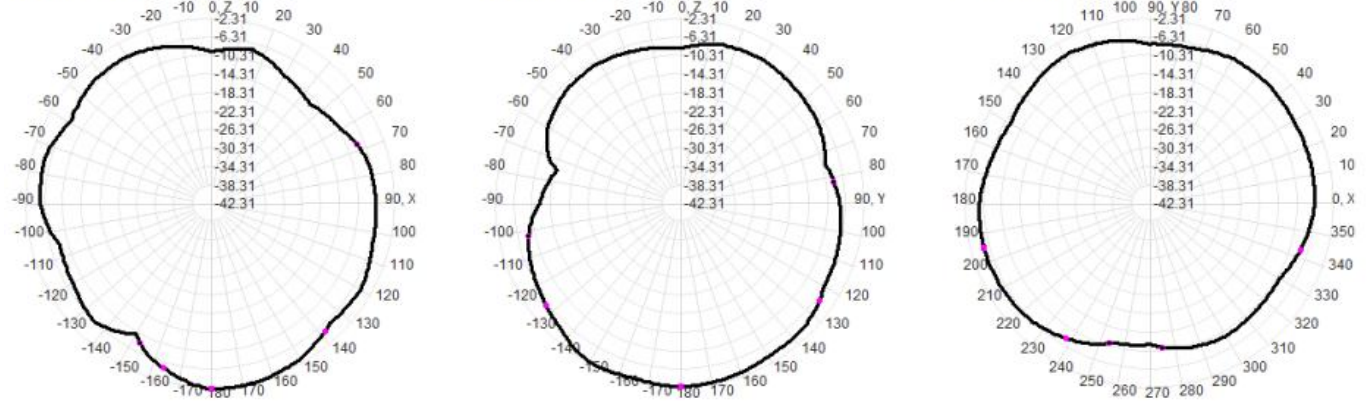
Back View



2300.0MHz Total(E1-XZ), Max=-2.31dBi

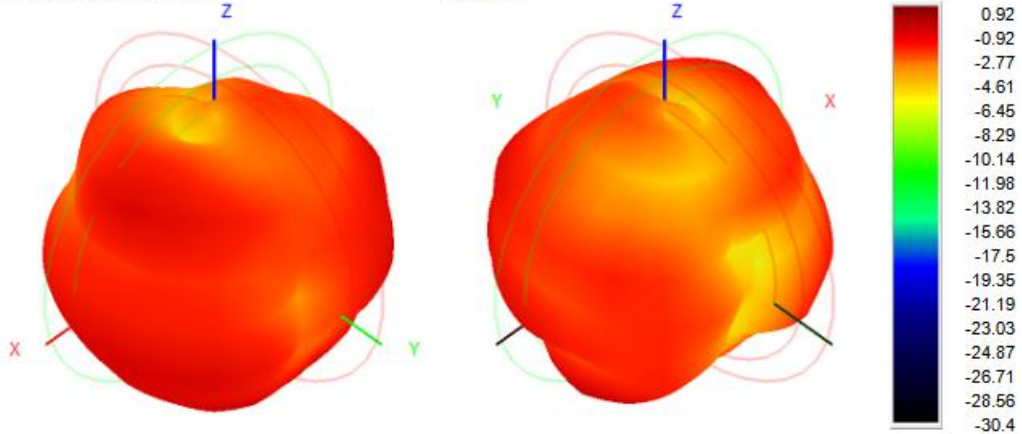
2300.0MHz Total(E2-YZ), Max=-2.84dBi

Total(H-XY), Max=-5.19dBi, CirD=6.73



2690.0MHz Total, Eff: 36.1%

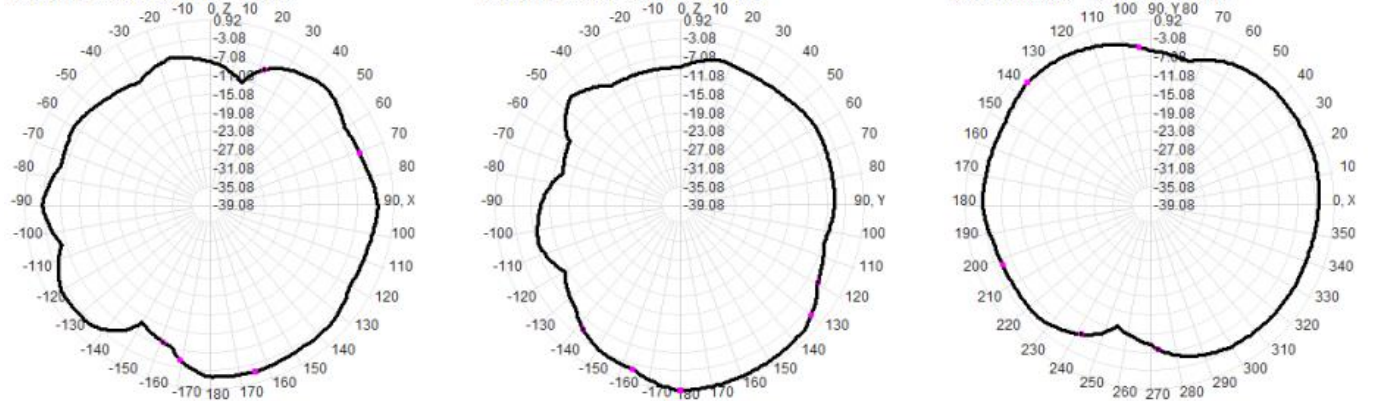
Back View



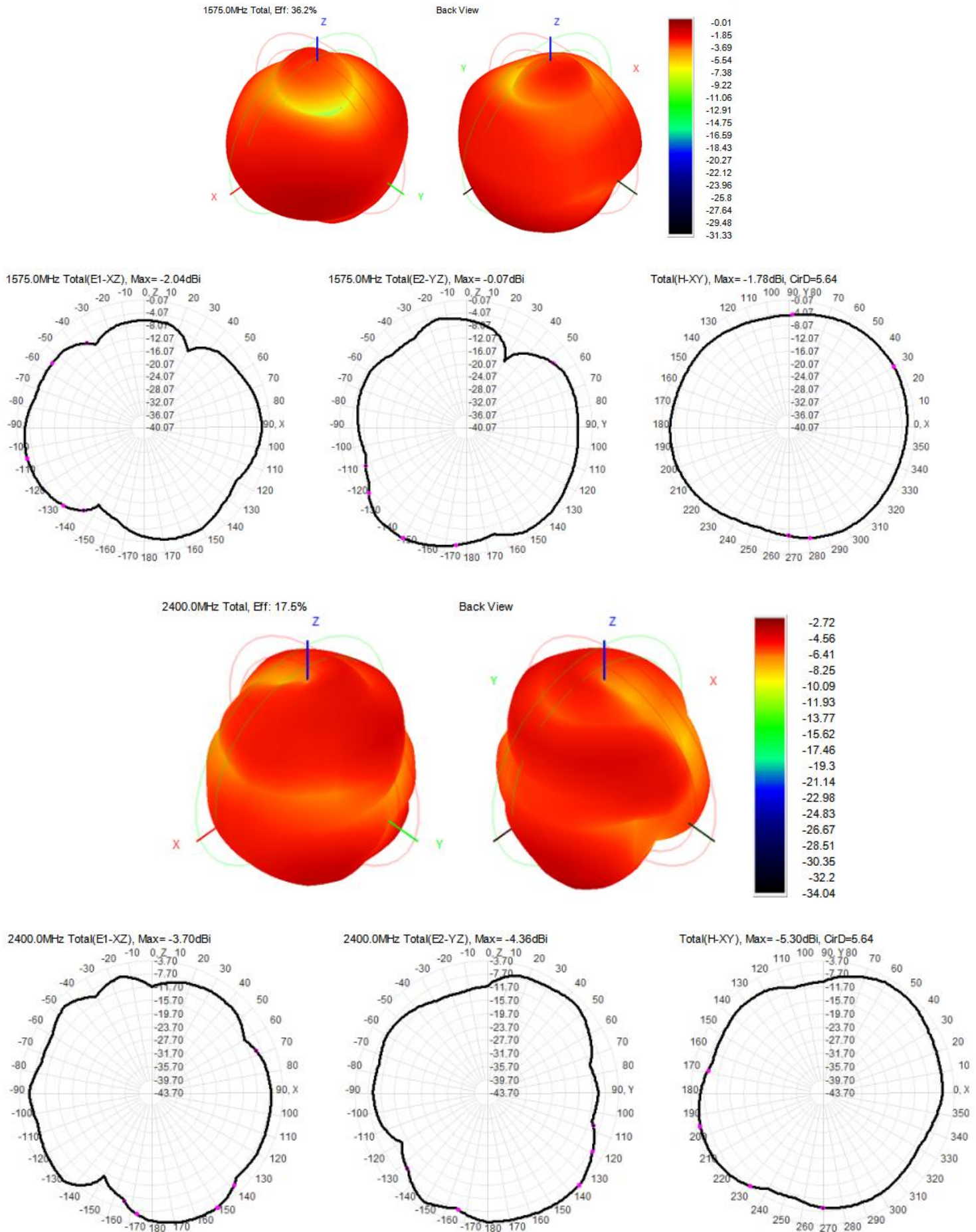
2690.0MHz Total(E1-XZ), Max=-1.85dBi

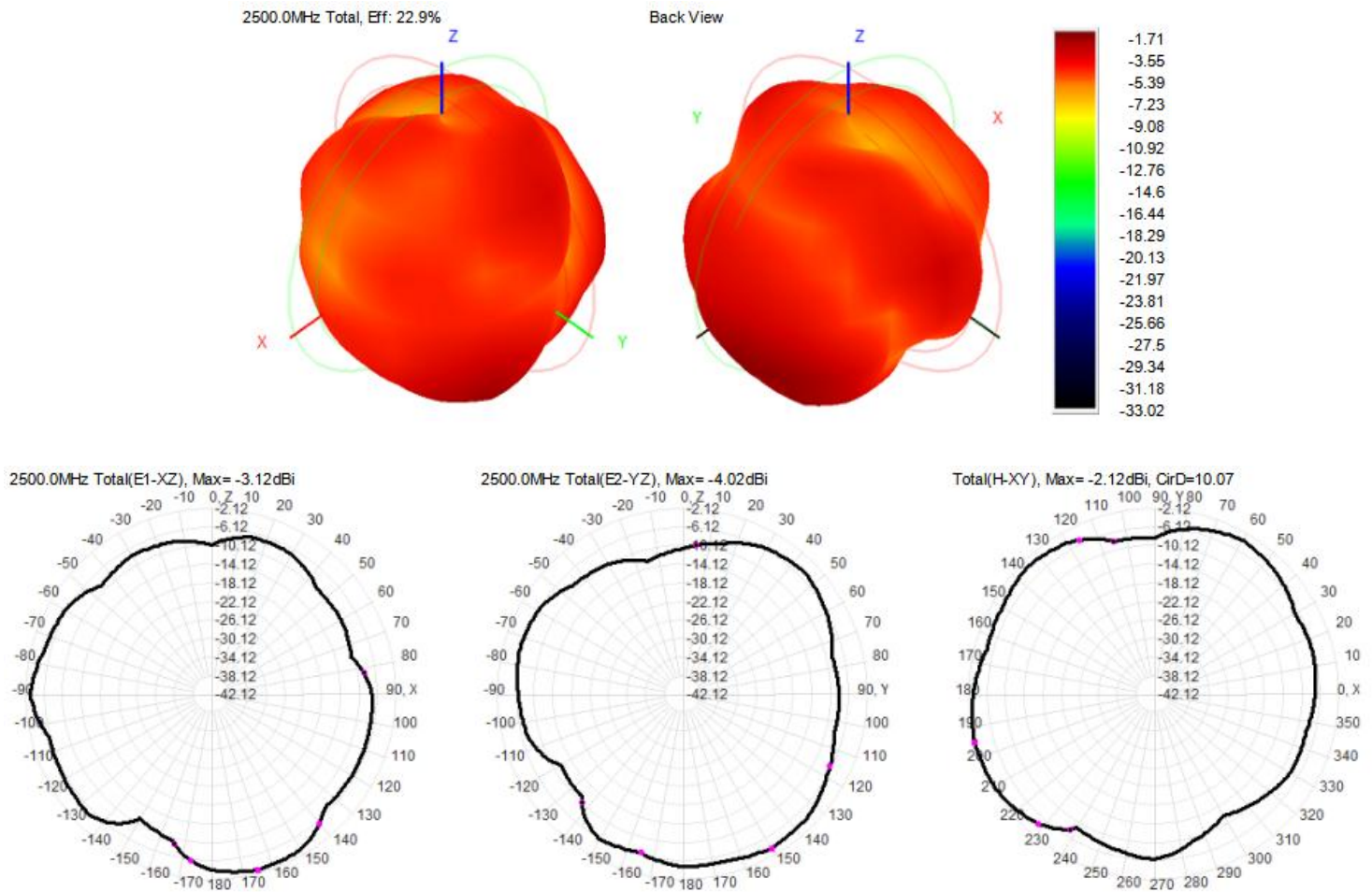
2690.0MHz Total(E2-YZ), Max=0.92dBi

Total(H-XY), Max=-1.73dBi, CirD=10.40



1575MHZ/2400MHZ-2500MHZ





2-3 Active antenna test data

BAND	TRP/TIS	L	M	H	BAND	TRP/TIS	L	M	H
GSM850	TRP	25.48	25.54	25.66	LTE B5	TRP	16.71	15.43	16.51
	TIS			-101.06		TIS			-88.71
GSM900	TRP	26.14	25.73	25.46	LTE B12	TRP	15.47	15.43	15.63
	TIS			-101.12		TIS			-88.04
DCS1800	TRP	23.9	24.33	24.5	LTE B17	TRP	15.82	15.35	16.57
	TIS			-102.37		TIS			-88.17
PCS1900	TRP	24.8	25.26	25.88	LTE B25	TRP	17.75	17.76	17
	TIS			-102.75		TIS			-89.51
WCDMA850	TRP	15.29	15.22	15.51	LTE B26	TRP	16.55	16.19	16.03
	TIS			-100.03		TIS			-88.82
WCDMA1700	TRP	14.19	14.25	14.37	LTE B66	TRP	16.17	15.59	16.25
	TIS			-102.34		TIS			-87.85
WCDMA1900	TRP	17.12	17.27	16.91	LTE B71	TRP	14.01	14.97	14.27
	TIS			-102.86		TIS			-87.18
LTE B2	TRP	17.46	17.61	17.02	LTE B41	TRP	15.71	15.67	15.79
	TIS			-90.73		TIS			-90.94
LTE B4	TRP	15.68	16.53	17.49					
	TIS			-90.72					