



深圳市中科无线技术有限公司

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www.zkant.com

Product Specification

Customer Name: HUiDa

Project Name: HD402-NA

Product Spec: 4G Main Antenna

REV: V1.0

Date: 2024-05-27

drawing	check	approved
Huang yongjun		

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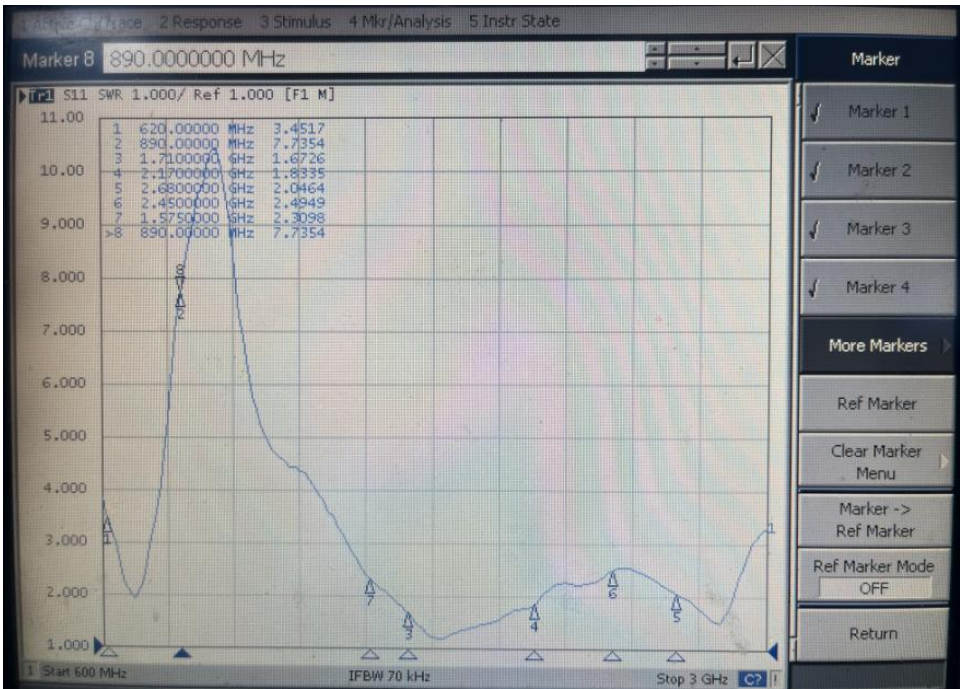
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1. Project Chart

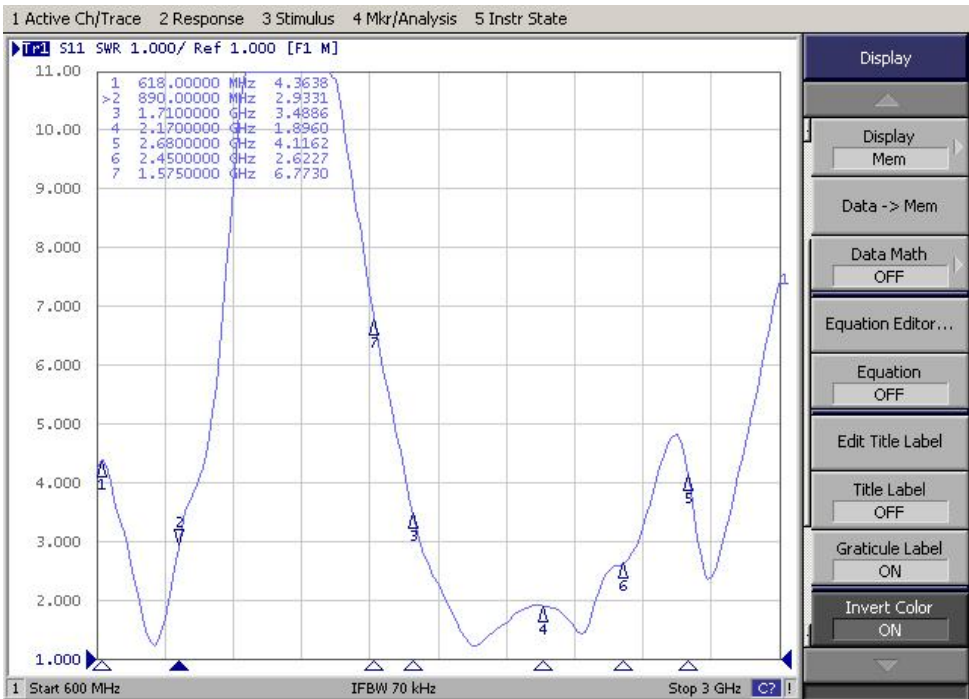


2. Testing Data :

Main Antenna SWR



Div Antenna SWR



Main Antenna Gain Efficiency

Frequency	Efficiency / %	MaxGain/dBi
600	32.81	-1.34
615	33.81	-1
630	32.81	-1.06
645	25.88	-1.52
660	29.65	1.44
675	24.6	-0.69
690	27.54	1.66
705	25.23	2.33
720	28.58	2.08
735	29.58	0.66
750	33.96	1.6
765	36.64	1.03
780	42.07	1.72
795	42.85	2.57
810	44.57	2.68
825	41.5	2.64
840	41.11	2.21
855	36.39	1.02
870	30.2	0.52
885	25	-0.57
900	16.48	-2.83
915	12.76	-3.46
930	8.69	-5.3
945	6.67	-5.57
960	4.57	-8.31

Frequency	Efficiency / %	MaxGain/dBi
1700	51.64	2.64
1750	52.72	3.14
1800	53.95	2.92
1850	60.81	5.18
1900	58.34	4.1
1950	59.57	4.26
2000	59.84	4.77
2050	54.58	3.69
2100	53.33	3.62
2150	50.58	3.07
2200	48.87	4.08
2250	43.35	3.31
2300	40.83	2.68
2350	39.54	2.42
2400	40.46	2.53
2450	39.26	1.72
2500	38.11	1.19
2550	38.02	1.55
2600	41.11	1.59
2650	41.88	0.55
2700	41.78	0.68

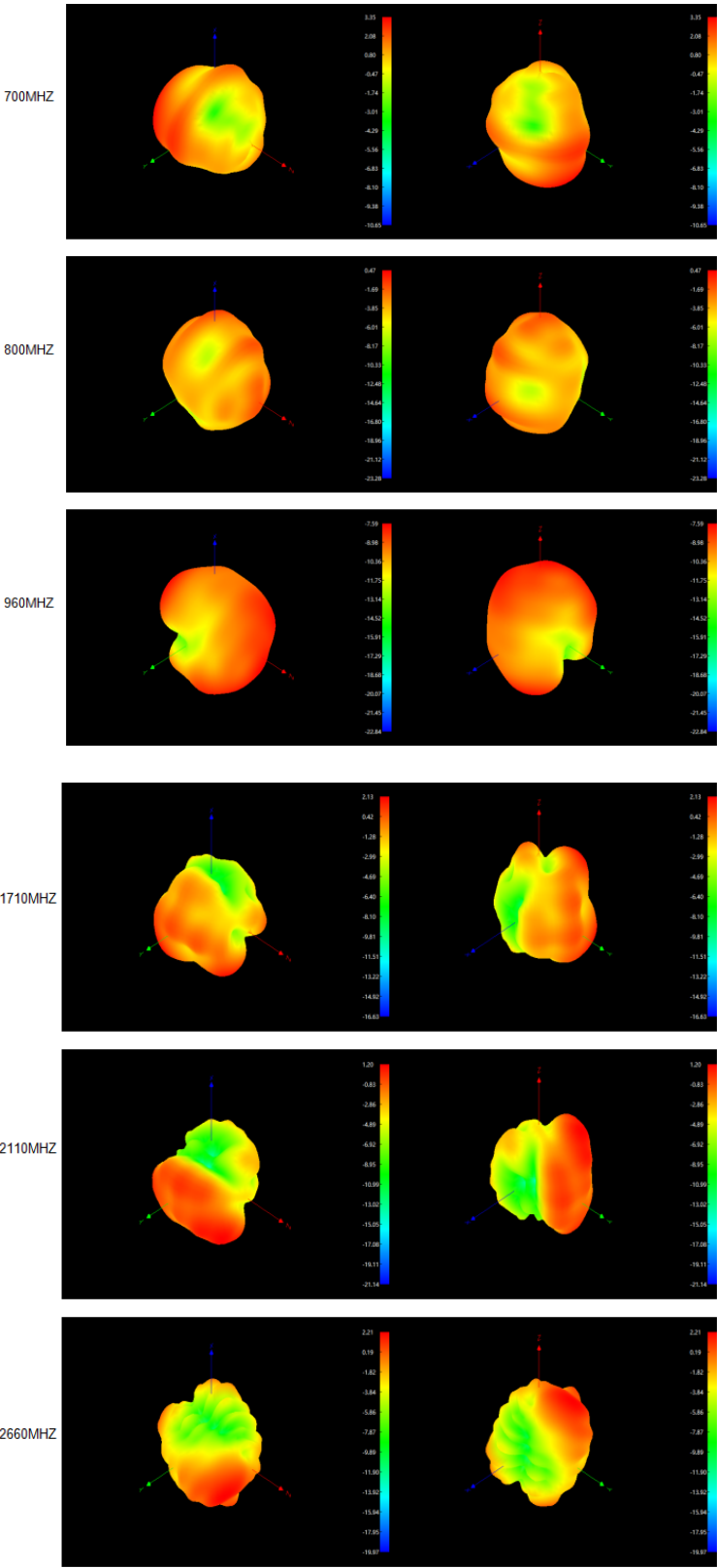
Div Antenna Gain Efficiency :

Frequency/Mhz	Efficiency / %	MaxGain/dBi
700	34.36	2.98
710	33.04	2.36
720	30.48	0.89
730	26.73	0.77
740	25.64	1.05
750	23.33	1.32
760	23.17	0.93
770	26.61	-0.31
780	27.73	-0.23
790	24.66	0.05
800	19.91	-1.14
810	21.04	0.55
820	22.28	0.75
830	23.12	0.94
840	24.77	1.04
850	25.41	1.27
860	28.18	1.2
870	28.84	1.31
880	31.33	1.71
890	34.04	1.55
900	35.81	1.28
910	37.67	0.93
920	38.73	0.02
930	40.93	-0.1
940	40.93	-0.44
950	42.56	0.15
960	40.09	0.25

Frequency/Mhz	Efficiency / %	MaxGain/dBi
1710	25.29	-0.11
1760	31.77	0.62
1810	40.55	3.21
1860	35.4	3.36
1910	31.05	2.25
1960	30.83	1.79
2010	28.91	1.13
2060	28.44	1.53
2110	31.84	1.93
2160	36.06	1.95
2210	33.81	1.57
2260	38.11	0.78
2310	41.88	4.87
2360	41.88	5.5
2410	36.06	4.49
2460	29.92	3.12
2510	24.23	1.02
2560	23.38	1.53
2610	23.95	0.91
2660	21.18	0.83

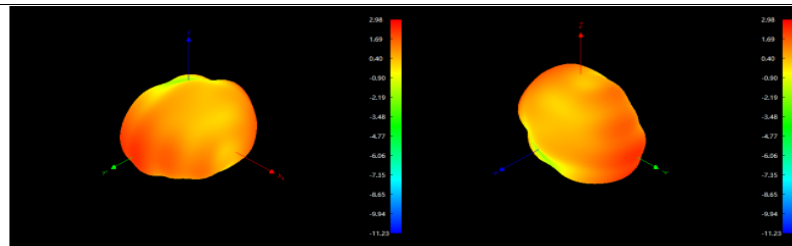
3D

Main Antenna

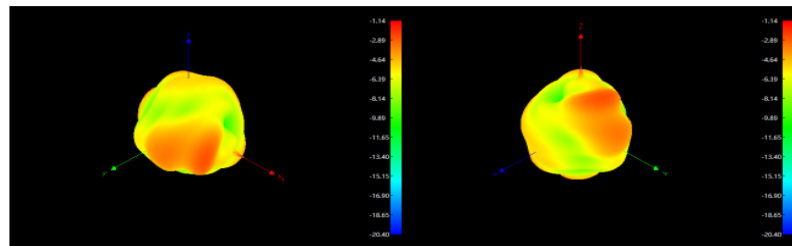


DIV Antenna

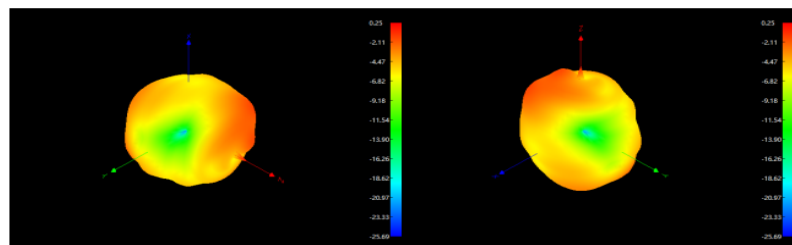
700MHZ



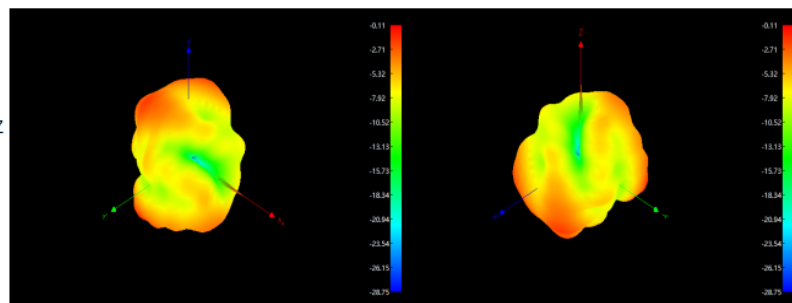
800MHZ



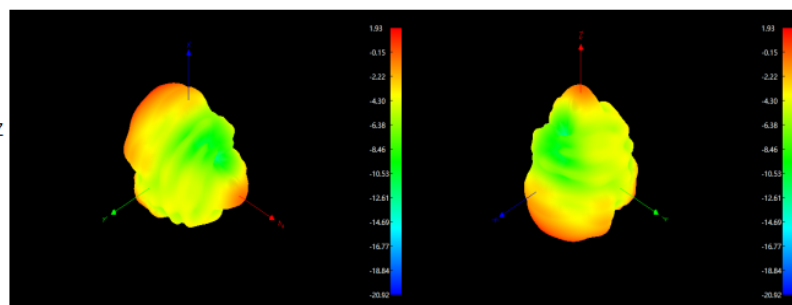
960MHZ



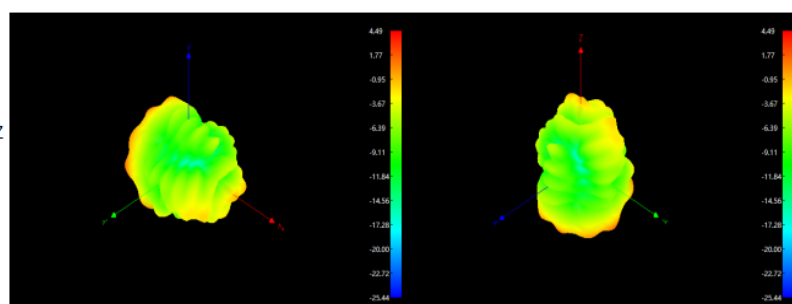
1710MHZ



2400MHZ



2700MHZ

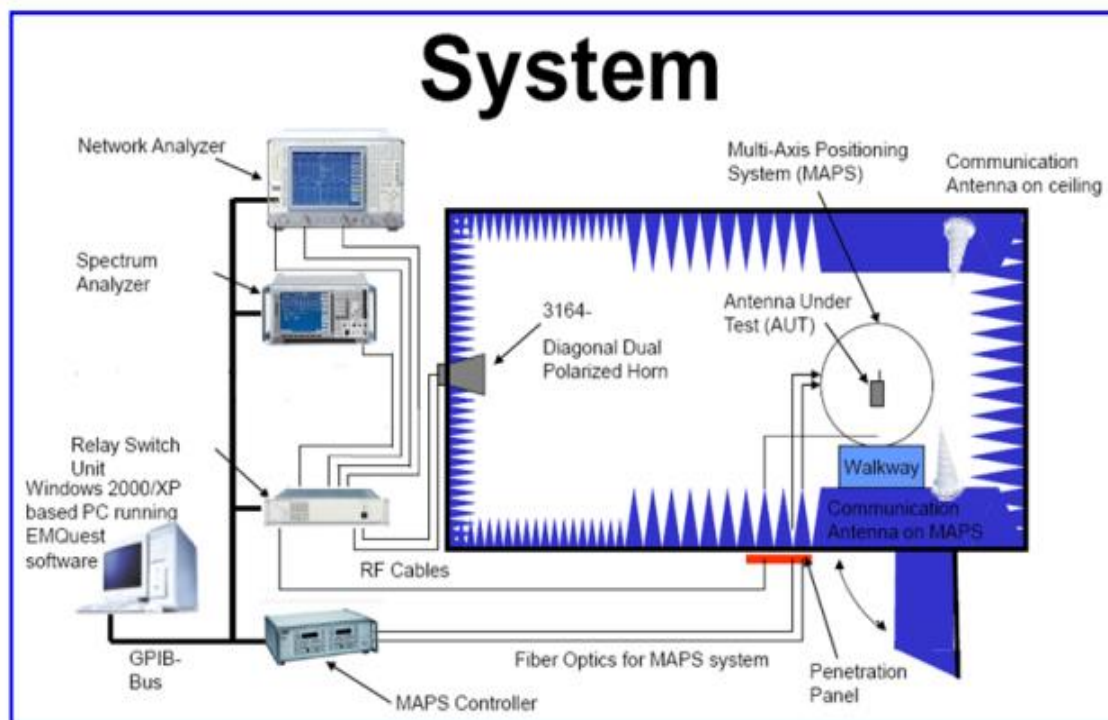


3. Testing Equipment and Principle

1. Test Equipment:

Agilent 8753D 5071B
Network Analyzers :Agilent E5515C
Communications Test Set:CMW500
3D Chamber Test System:

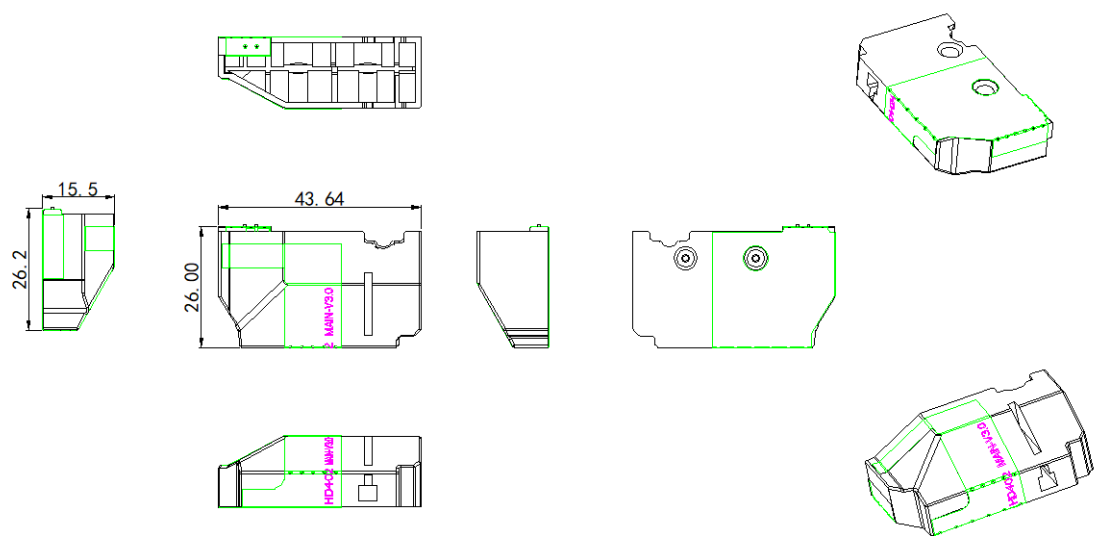
2. Test block :





4. Product Drawing

1. Main antenna Drawing



2. DIV antenna Drawing

