



SUNNYWAY

4G&5G Glue Stick Antenna

PN: SH19280IB56



Sunnyway Technology

Add: Building 65-302, No.421 Hongcao Road, Xuhui District, Shanghai

Tel: +86-021-6484 2326 Fax: +86-021-6484 2328

Email: sales@sunny-way.com Web: www.sunny-way.com

1. Electrical Specifications

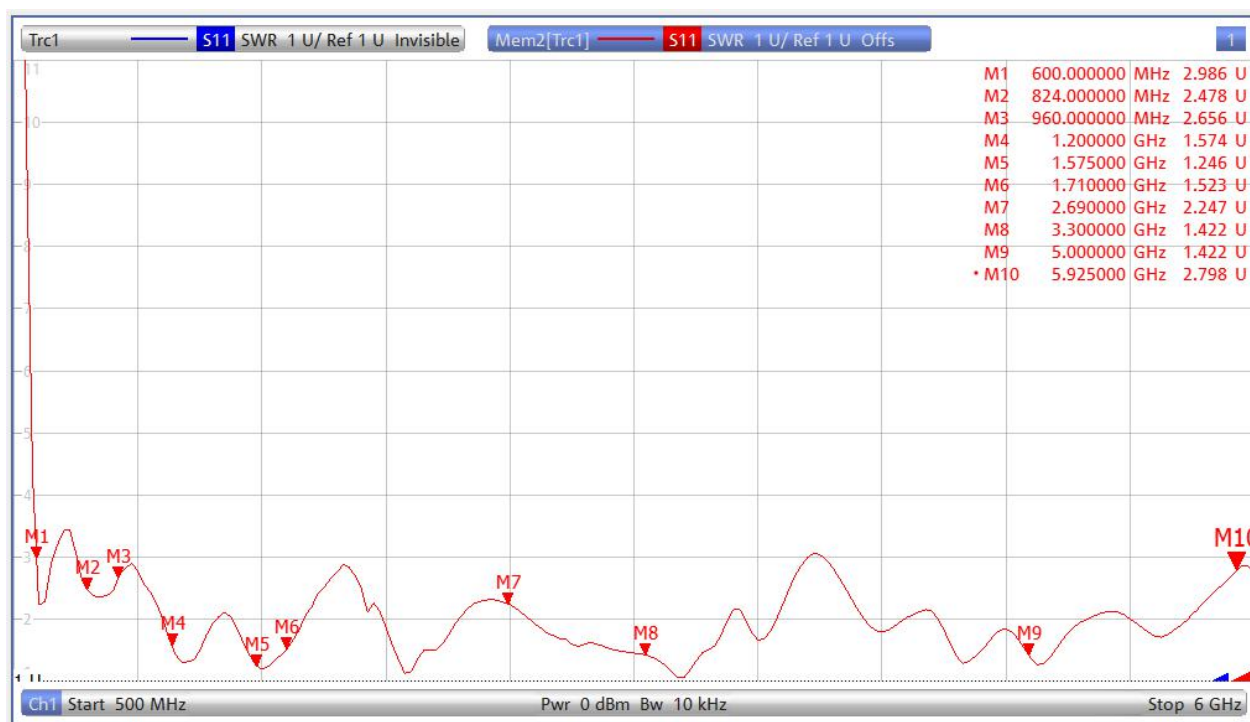
Frequency range	600~6000mhz
Peak Gain(dBi)	3~4dBi
Average Gain(dBi)	-1~-3dB
Polarization mode	Linear
VSWR	~2-3
Return Loss	~-6
Efficiency(%)	40~60%
Radiation pattern	Omni-Directional
Output impedance (Ω)	50
Max. Input Power(W)	25

2. Mechanical and Environmental Specification

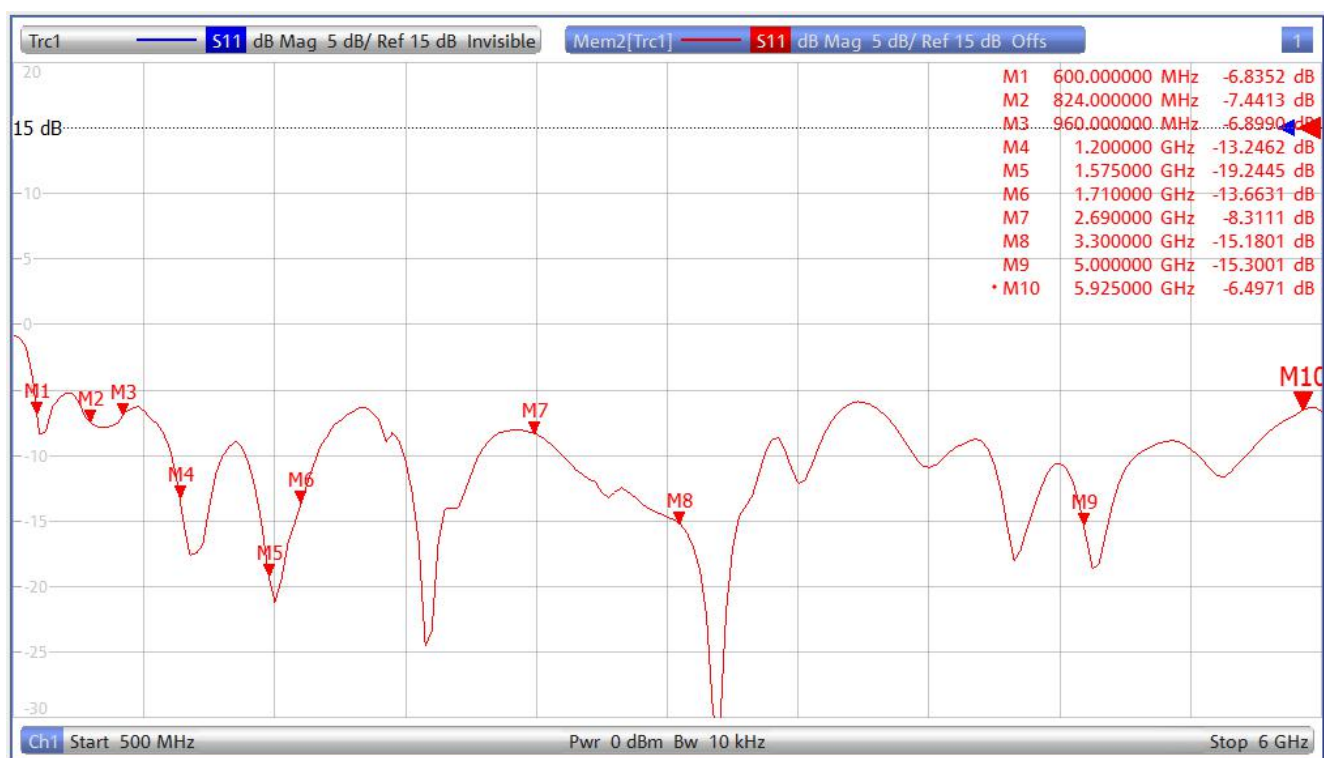
Mounting Type	Connector Mount
Connector Type	SMA (M)
Antenna size(mm)	220 x 28 x 8
Material	ABS+PC
Operating Temperature (°C)	- 40 °C ~ + 85 °C
Storage Temperature(°C)	- 40 °C ~ + 85 °C

3. Antenna parameters

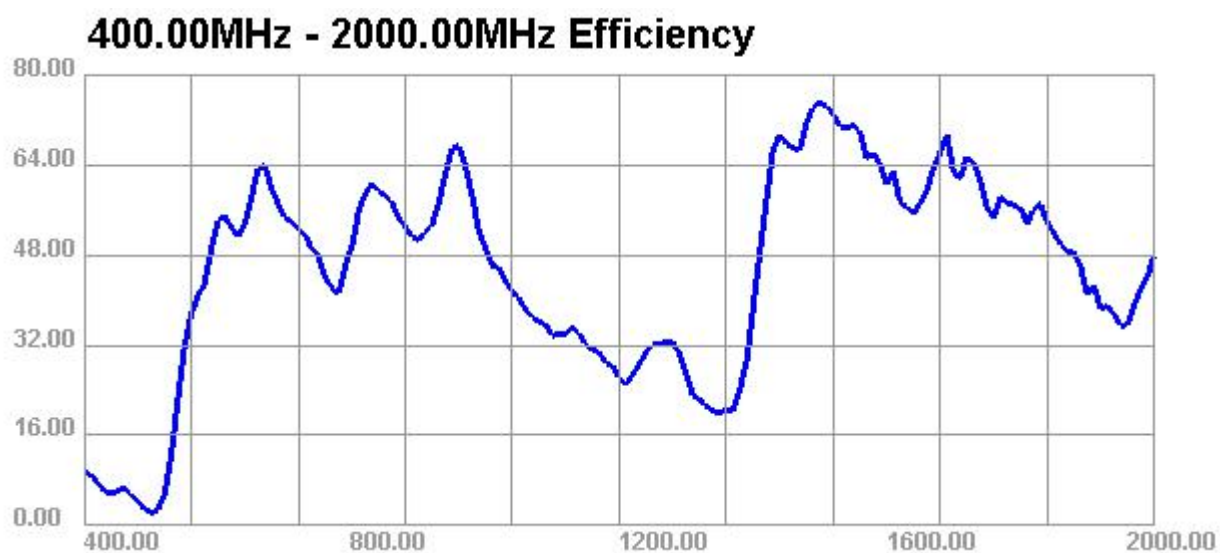
FRE (MHz)	600	824	960	1200	1575	1710	2690	3300	5000	5925
VSWR	2.9	2.4	2.6	1.5	1.2	1.5	2.2	1.4	1.4	2.7
Return Loss	-6.8	-7.4	-6.8	-13.2	-19.2	-13.6	-8.3	-15.1	-15.3	-6.4
Eff(%)	49.9	42.8	62.9	36.2	75.4	67.8	50.8	47.6	52.6	44.4
PEAK Gain(dBI)	0.63	1.58	2.65	-0.75	1.87	1.25	0.99	1.44	1.88	3.02



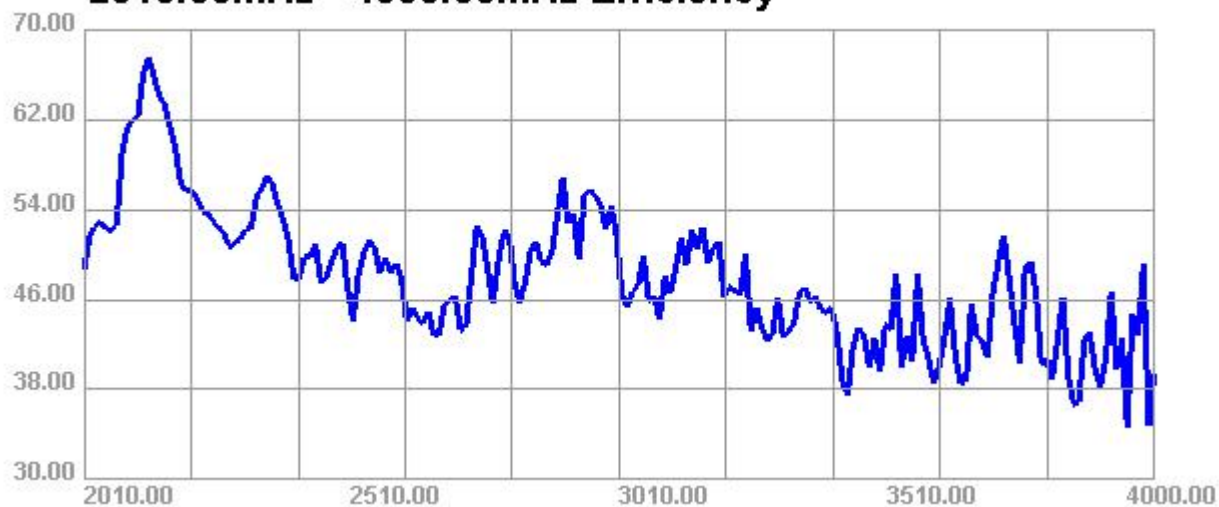
VSWR



Return Loss



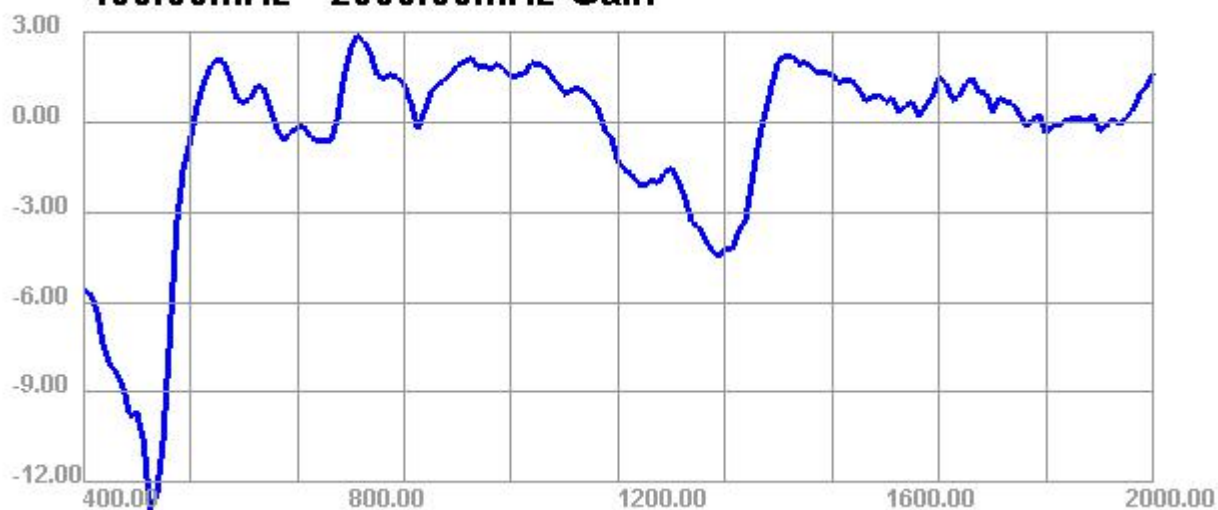
2010.00MHz - 4000.00MHz Efficiency



4010.00MHz - 6000.00MHz Efficiency



400.00MHz - 2000.00MHz Gain



**2010.00MHz - 4000.00MHz Gain****4010.00MHz - 6000.00MHz Gain**

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
600	54.02	-2.67	2.09	2010	48.69	-3.13	1.67	4010	31.12	-5.07	0.67
610	54.96	-2.6	2.01	2020	51.62	-2.87	1.75	4020	45.46	-3.42	1.43
620	53	-2.76	1.44	2030	52.58	-2.79	1.94	4030	43.11	-3.65	1.51
630	51.16	-2.91	0.76	2040	52.89	-2.77	2.18	4040	43.49	-3.62	1.45
640	53.62	-2.71	0.65	2050	52.29	-2.82	2.43	4050	34.39	-4.64	1.03

650	58.31	-2.34	0.77	2060	52.16	-2.83	2.64	4060	36.11	-4.42	0.88
660	63.28	-1.99	1.22	2070	52.58	-2.79	2.82	4070	38.15	-4.19	0.94
670	63.9	-1.95	1.13	2080	58.89	-2.3	3.81	4080	49.56	-3.05	1.99
680	59.84	-2.23	0.43	2090	61.28	-2.13	3.73	4090	43.87	-3.58	2.08
690	57.08	-2.44	-0.25	2100	61.89	-2.08	3.52	4100	38.87	-4.1	1.47
700	54.64	-2.62	-0.63	2110	62.29	-2.06	3.47	4110	36.38	-4.39	1.04
710	53.95	-2.68	-0.33	2120	66.13	-1.8	4.09	4120	39.72	-4.01	0.94
720	52.83	-2.77	-0.2	2130	67.51	-1.71	4.1	4130	44.73	-3.49	1.77
730	51.62	-2.87	-0.16	2140	65.74	-1.82	4.18	4140	43.21	-3.64	1.98
740	49.12	-3.09	-0.51	2150	64.02	-1.94	4.13	4150	35.69	-4.47	1.37
750	47.87	-3.2	-0.61	2160	63.28	-1.99	3.87	4160	35.22	-4.53	0.54
760	44.15	-3.55	-0.6	2170	61.31	-2.12	3.79	4170	37.21	-4.29	1.38
770	42.23	-3.74	-0.64	2180	59.28	-2.27	3.39	4180	38.59	-4.14	1.3
780	41.14	-3.86	0.08	2190	56.11	-2.51	3.37	4190	38.32	-4.17	0.68
790	45.86	-3.39	1.54	2200	55.74	-2.54	3.01	4200	33.43	-4.76	0.24
800	49.41	-3.06	2.42	2210	55.73	-2.54	2.98	4210	34.54	-4.62	0.78
810	55.54	-2.55	2.87	2220	54.97	-2.6	2.92	4220	35.7	-4.47	1.39
820	58.95	-2.29	2.68	2230	53.78	-2.69	3.09	4230	40.96	-3.88	2.4
830	60.69	-2.17	2.26	2240	53.74	-2.7	2.94	4240	35.1	-4.55	0.24
840	59.29	-2.27	1.52	2250	52.91	-2.76	2.92	4250	39.5	-4.03	3.66
850	58.53	-2.33	1.47	2260	52.48	-2.8	3.06	4260	34.09	-4.67	0.11

860	57.42	-2.41	1.56	2270	51.94	-2.85	2.84	4270	43.24	-3.64	1.63
870	54.63	-2.63	1.5	2280	50.68	-2.95	2.6	4280	42.13	-3.75	1.7
880	53.07	-2.75	1.21	2290	51.09	-2.92	2.68	4290	41.42	-3.83	1.74
890	51.18	-2.91	0.64	2300	51.35	-2.89	2.54	4300	35.61	-4.48	0.7
900	50.74	-2.95	-0.25	2310	52.26	-2.82	2.7	4310	35.73	-4.47	0.93
910	52.07	-2.83	0.34	2320	52.31	-2.81	2.62	4320	36.93	-4.33	1.09
920	53.19	-2.74	1.02	2330	55.05	-2.59	2.64	4330	43.35	-3.63	1.5
930	57.31	-2.42	1.26	2340	55.94	-2.52	2.63	4340	45.1	-3.46	1.87
940	62.26	-2.06	1.35	2350	56.95	-2.45	2.6	4350	42.65	-3.7	1.45
950	67.05	-1.74	1.58	2360	56.24	-2.5	2.45	4360	39.92	-3.99	0.82
960	67.4	-1.71	1.9	2370	54.43	-2.64	2.18	4370	41.72	-3.8	0.8
				2380	53.09	-2.75	2.18	4380	43.15	-3.65	2.03
1420	57.58	-2.4	0.31	2390	51.17	-2.91	1.81	4390	40.81	-3.89	1.23
1430	66.71	-1.76	1.26	2400	47.84	-3.2	1.33	4400	41.17	-3.85	1.55
1440	69.42	-1.58	2.05	2410	47.92	-3.19	1.43	4410	39.71	-4.01	0.76
1450	67.77	-1.69	2.17	2420	49.86	-3.02	1.77	4420	43.13	-3.65	1.93
1460	67.03	-1.74	2.23	2430	49.74	-3.03	1.25	4430	41.01	-3.87	2.29
1470	66.64	-1.76	1.93	2440	50.89	-2.93	1.34	4440	43.45	-3.62	2.14
1480	71.5	-1.46	1.98	2450	47.54	-3.23	0.87	4450	40.76	-3.9	1.39
1490	74.3	-1.29	1.79	2460	48.02	-3.19	0.99	4460	41.59	-3.81	2.47
1500	75.01	-1.25	1.62	2470	49.31	-3.07	0.62	4470	39.53	-4.03	2.03

1510	74.48	-1.28	1.65	2480	50.69	-2.95	0.71	4480	42.24	-3.74	2.38
1520	72.98	-1.37	1.58	2490	51.01	-2.92	0.78	4490	39.09	-4.08	1.46
1530	70.82	-1.5	1.31	2500	46.94	-3.28	0.4	4500	40.12	-3.97	2.06
1540	70.67	-1.51	1.42	2510	44.19	-3.55	0.22	4510	39	-4.09	0.65
1550	71.01	-1.49	1.36	2520	48.24	-3.17	0.46	4520	43.09	-3.66	2.05
1560	69.95	-1.55	1.09	2530	50.23	-2.99	0.55	4530	43.12	-3.65	1.61
1570	65.02	-1.87	0.7	2540	51.25	-2.9	0.45	4540	40.55	-3.92	1.58
1580	66.11	-1.8	0.84	2550	50.63	-2.96	0.2	4550	43.52	-3.61	1.59
1590	64.11	-1.93	0.9	2560	48.36	-3.16	-0.38	4560	43.44	-3.62	1.75
1600	60.65	-2.17	0.65	2570	49.73	-3.03	-0.35	4570	42.53	-3.71	1.63
1610	62.74	-2.02	0.8	2580	48.35	-3.16	-0.23	4580	38.99	-4.09	1.56
1620	57.43	-2.41	0.3	2590	49.28	-3.07	-0.71	4590	42.6	-3.71	1.88
1630	56.51	-2.48	0.58	2600	47.77	-3.21	-0.42	4600	35.71	-4.47	0.57
1640	55.3	-2.57	0.65	2610	44.1	-3.56	-0.84	4610	37.88	-4.22	1.18
1650	57.29	-2.42	0.19	2620	45.36	-3.43	-0.85	4620	34.3	-4.65	0.17
1660	59.55	-2.25	0.57	2630	44.37	-3.53	-0.52	4630	35.03	-4.56	0.99
1670	63.56	-1.97	0.84	2640	43.91	-3.57	-0.33	4640	29.7	-5.27	0.13
1680	66.2	-1.79	1.49	2650	45.01	-3.47	-0.18	4650	29.08	-5.36	-0.17
1690	69.23	-1.6	1.3	2660	42.8	-3.69	-0.22	4660	31.04	-5.08	0.11
1700	62.62	-2.03	0.74	2670	42.95	-3.67	-0.62	4670	33.61	-4.74	0.57
1710	61.56	-2.11	0.86	2680	45.61	-3.41	-0.48	4680	32.61	-4.87	-0.1

1720	65.6	-1.83	1.29	2690	45.96	-3.38	-0.47	4690	30.74	-5.12	0.13
1730	64.37	-1.91	1.47	2700	46.21	-3.35	-0.39	4700	36.28	-4.4	0.21
1740	61.22	-2.13	0.96	2710	43.28	-3.64	-0.18	4710	35.35	-4.52	1.55
1750	56.56	-2.47	0.95	2720	43.59	-3.61	-0.25	4720	39.65	-4.02	0.75
1760	54.62	-2.63	0.33	2730	48.11	-3.18	0	4730	38.09	-4.19	0.65
1770	58.33	-2.34	0.83	2740	52.6	-2.79	0.28	4740	37.69	-4.24	0.62
1780	57.28	-2.42	0.66	2750	51.62	-2.87	-0.02	4750	36.91	-4.33	1.31
1790	56.9	-2.45	0.61	2760	48.81	-3.11	0.03	4760	42.9	-3.68	3.35
1800	56.37	-2.49	0.27	2770	45.74	-3.4	-0.1	4770	42.03	-3.76	1.83
1810	53.59	-2.71	-0.16	2780	49.3	-3.07	0.2	4780	41.7	-3.8	1.43
1820	56.17	-2.5	0.11	2790	52.02	-2.84	0.65	4790	38.9	-4.1	1.5
1830	57.07	-2.44	0.24	2800	51.88	-2.85	0.7	4800	40.27	-3.95	2.12
1840	53.75	-2.7	-0.39	2810	47.54	-3.23	0.54	4810	41.32	-3.84	1.88
1850	51.93	-2.85	-0.09	2820	45.8	-3.39	0.23	4820	45.08	-3.46	2.24
1860	49.88	-3.02	-0.09	2830	47.57	-3.23	0.57	4830	46.61	-3.32	2.4
1870	48.74	-3.12	0.06	2840	50.26	-2.99	0.17	4840	45.17	-3.45	2.85
1880	48.59	-3.13	0.09	2850	51.18	-2.91	0.38	4850	45.15	-3.45	2.91
1890	45.9	-3.38	0.12	2860	49.27	-3.07	0.19	4860	46.93	-3.29	1.83
1900	41.1	-3.86	-0.01	2870	49.14	-3.09	0.24	4870	53.49	-2.72	2.79
1910	42.52	-3.71	0.25	2880	50.29	-2.98	0.55	4880	55.06	-2.59	2.54
1920	38.5	-4.14	-0.3	2890	53.6	-2.71	1.05	4890	56.83	-2.45	3

1930	38.94	-4.1	-0.14	2900	56.86	-2.45	1.39	4900	59.71	-2.24	3.46
1940	37.49	-4.26	0.14	2910	52.75	-2.78	0.62	4910	59.67	-2.24	3.55
1950	35.49	-4.5	-0.14	2920	53.67	-2.7	0.76	4920	65.22	-1.86	4.23
1960	35.67	-4.48	0.19	2930	49.55	-3.05	0.07	4930	58.97	-2.29	3.97
1970	39.25	-4.06	0.4	2940	55.33	-2.57	0.38	4940	69.65	-1.57	4.89
1980	41.97	-3.77	0.91	2950	55.82	-2.53	0.33	4950	62.89	-2.01	4.8
1990	44.24	-3.54	1.19	2960	55.24	-2.58	0.09	4960	64.45	-1.91	5.16
2000	47.93	-3.19	1.66	2970	54.4	-2.64	0.23	4970	61.05	-2.14	3.94
				2980	52.28	-2.82	-0.17	4980	65.99	-1.81	5.72
				2990	54.35	-2.65	0.26	4990	59.8	-2.23	4.2
				3000	51.7	-2.87	0.17	5000	65.31	-1.85	4.75
				3010	46.49	-3.33	0.31	5010	62.66	-2.03	4.31
				3020	45.31	-3.44	-0.15	5020	64.7	-1.89	4.11
				3030	46.78	-3.3	0.13	5030	57.43	-2.41	3.87
				3040	47.21	-3.26	1.06	5040	65.73	-1.82	4.16
				3050	49.85	-3.02	1.08	5050	63.68	-1.96	4.6
				3060	45.94	-3.38	0.24	5060	55.09	-2.59	3.16
				3070	46.31	-3.34	1.02	5070	61.52	-2.11	2.87
				3080	44.28	-3.54	0.98	5080	61.95	-2.08	3.55
				3090	48.15	-3.17	1.37	5090	61.1	-2.14	4.01
				3100	46.61	-3.31	1.07	5100	64.99	-1.87	4.28

3110	48.76	-3.12	1.38	5110	74.59	-1.27	4.85
3120	51.4	-2.89	1.48	5120	65.46	-1.84	3.68
3130	49.13	-3.09	1.14	5130	67.03	-1.74	4.21
3140	52.14	-2.83	2.07	5140	68.14	-1.67	4.02
3150	50.44	-2.97	1.27	5150	63.12	-2	3.73
3160	52.51	-2.8	1.31	5160	67.08	-1.73	3.97
3170	49.3	-3.07	0.54	5170	64.96	-1.87	3.84
3180	50.57	-2.96	1.06	5180	69.56	-1.58	4.12
3190	51.24	-2.9	1.42	5190	62.29	-2.06	4.07
3200	46.25	-3.35	0.97	5200	65.09	-1.86	4.37
3210	47.16	-3.26	0.79	5210	66.4	-1.78	4.18
3220	46.8	-3.3	0.78	5220	72.83	-1.38	6.04
3230	46.43	-3.33	0.79	5230	64.64	-1.89	4.4
3240	50.02	-3.01	0.68	5240	62.86	-2.02	4.18
3250	43.27	-3.64	1.1	5250	60.18	-2.21	4.08
3260	45.33	-3.44	0.43	5260	65.76	-1.82	4.31
3270	43.57	-3.61	1.23	5270	64.61	-1.9	5.13
3280	42.4	-3.73	0.37	5280	62.96	-2.01	3.88
3290	42.89	-3.68	0.32	5290	55.45	-2.56	4.5
3300	46.19	-3.35	0.85	5300	62.18	-2.06	4.73
3310	42.62	-3.7	0.28	5310	63.92	-1.94	4.51

3320	43.14	-3.65	0.82	5320	66.19	-1.79	5.13
3330	43.98	-3.57	0.63	5330	64.24	-1.92	4.34
3340	46.49	-3.33	0.75	5340	66.97	-1.74	4.68
3350	47.09	-3.27	1.14	5350	63.79	-1.95	4.34
3360	45.9	-3.38	0.82	5360	69.29	-1.59	5.27
3370	46.28	-3.35	1.28	5370	62.45	-2.04	4.73
3380	45.15	-3.45	1.44	5380	55.57	-2.55	3.61
3390	44.89	-3.48	1.45	5390	61.54	-2.11	4.27
3400	45.28	-3.44	2.51	5400	60.52	-2.18	4.1
3410	43	-3.67	1.36	5410	61.78	-2.09	4.31
3420	38.73	-4.12	3.13	5420	63.22	-1.99	3.91
3430	37.54	-4.26	-0.14	5430	54.64	-2.62	3.85
3440	41.86	-3.78	1.02	5440	50.23	-2.99	3.1
3450	43.56	-3.61	1.08	5450	63.04	-2	4.52
3460	42.8	-3.69	0.74	5460	59.73	-2.24	3.67
3470	39.93	-3.99	0.62	5470	59.23	-2.27	4.13
3480	42.54	-3.71	1.61	5480	63.79	-1.95	4.28
3490	39.62	-4.02	0.82	5490	68.82	-1.62	4.64
3500	43.82	-3.58	1.37	5500	64.12	-1.93	4.93
3510	43.39	-3.63	1.19	5510	67.84	-1.69	4.6
3520	48.3	-3.16	1.49	5520	62.01	-2.08	4.82

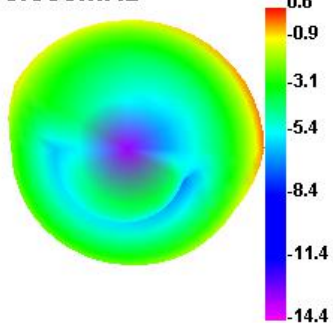
3530	40.1	-3.97	0.7	5530	65.15	-1.86	4.04
3540	42.76	-3.69	0.84	5540	70.16	-1.54	4.74
3550	40.55	-3.92	1.53	5550	62.06	-2.07	4.58
3560	48.21	-3.17	1.89	5560	59.85	-2.23	4.17
3570	42.57	-3.71	1.29	5570	64.57	-1.9	4.51
3580	40.8	-3.89	0.76	5580	61.58	-2.11	4.17
3590	38.63	-4.13	0.91	5590	59.04	-2.29	3.78
3600	40.13	-3.97	0.61	5600	59.59	-2.25	4.08
3610	42.65	-3.7	1.41	5610	60.74	-2.17	3.9
3620	46.1	-3.36	2	5620	59.61	-2.25	4.41
3630	41.09	-3.86	1.01	5630	62.22	-2.06	4
3640	38.55	-4.14	0.78	5640	52.63	-2.79	3.67
3650	38.74	-4.12	1.19	5650	56.17	-2.5	3.62
3660	45.52	-3.42	2.26	5660	54.97	-2.6	4
3670	42.78	-3.69	1.13	5670	62.27	-2.06	3.48
3680	42.27	-3.74	1.42	5680	60.32	-2.2	4.55
3690	40.88	-3.89	1.41	5690	62.35	-2.05	3.86
3700	46.61	-3.32	1.65	5700	55.5	-2.56	3.89
3710	49.33	-3.07	1.41	5710	64.47	-1.91	4.34
3720	51.72	-2.86	2.59	5720	63.2	-1.99	4.25
3730	47.93	-3.19	1.77	5730	65.19	-1.86	4.5

3740	44.03	-3.56	0.83	5740	63.92	-1.94	4.37
3750	40.38	-3.94	1.47	5750	58.33	-2.34	3.6
3760	48.96	-3.1	1.4	5760	61.71	-2.1	4.17
3770	49.46	-3.06	0.97	5770	69.65	-1.57	4.63
3780	46.66	-3.31	0.94	5780	63.12	-2	4.42
3790	40.35	-3.94	-0.28	5790	64.43	-1.91	4.67
3800	40.63	-3.91	-0.34	5800	59.22	-2.28	4.15
3810	39.02	-4.09	-0.18	5810	60.95	-2.15	4.02
3820	42.33	-3.73	0.42	5820	60.69	-2.17	3.57
3830	46.24	-3.35	0.79	5830	66.66	-1.76	4.13
3840	39.2	-4.07	0.42	5840	65.17	-1.86	4.01
3850	36.7	-4.35	-0.32	5850	67.78	-1.69	4.67
3860	36.93	-4.33	0.08	5860	55.44	-2.56	3.95
3870	42.4	-3.73	0.57	5870	66.57	-1.77	3.79
3880	43.08	-3.66	0.77	5880	61.33	-2.12	3.33
3890	39.79	-4	0.83	5890	65.26	-1.85	2.89
3900	38.24	-4.18	0.52	5900	62.7	-2.03	4.25
3910	40.84	-3.89	1.11	5910	59.49	-2.26	3.18
3920	46.69	-3.31	1.34	5920	59.62	-2.25	2.74
3930	39.87	-3.99	1.38	5930	61.71	-2.1	3.25
3940	42.48	-3.72	1.2	5940	63.05	-2	3.14

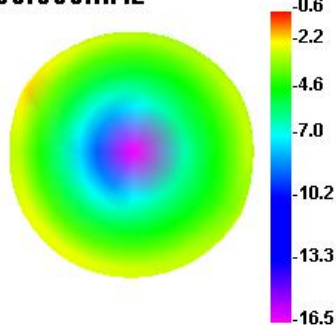
3950	34.68	-4.6	0.47	5950	62.83	-2.02	2.75
3960	44.68	-3.5	1.81	5960	55.82	-2.53	3.19
3970	42.88	-3.68	1.54	5970	60.75	-2.16	2.86
3980	49.1	-3.09	2	5980	58.45	-2.33	3.4
3990	34.71	-4.59	0.42	5990	59.04	-2.29	2.53
4000	39.53	-4.03	0.99	6000	56.32	-2.49	2.13

Directional pattern

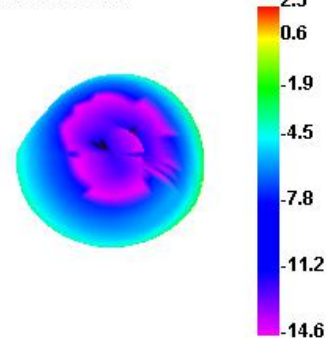
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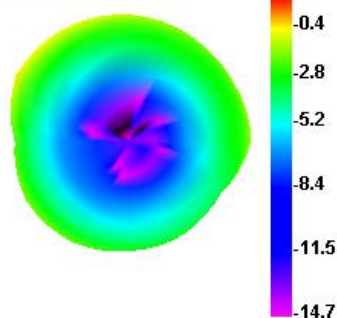
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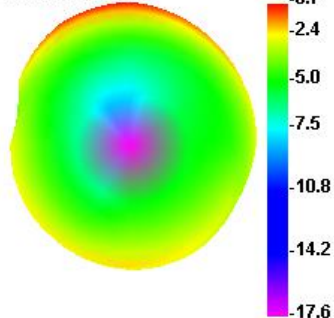
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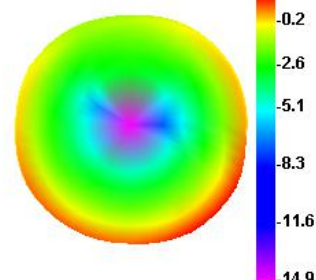
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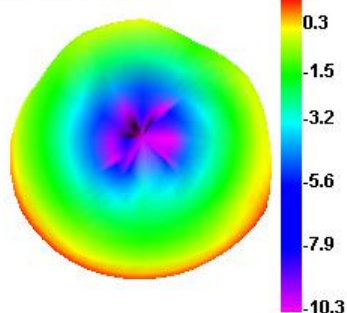
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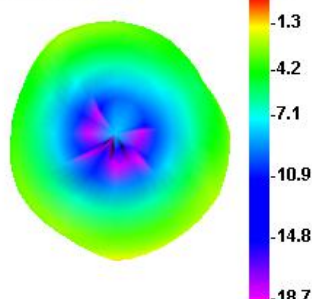
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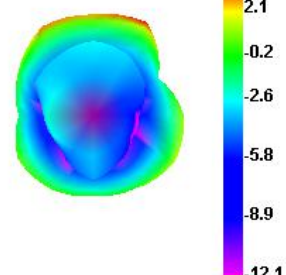
1700.000MHz



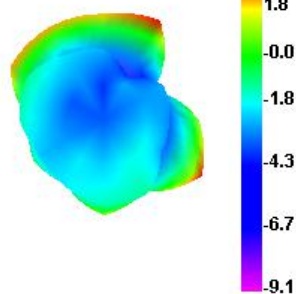
1900.000MHz



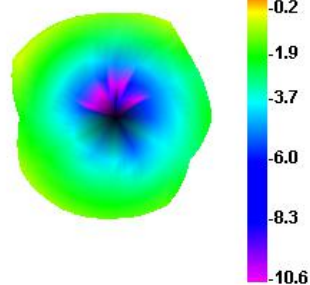
2170.000MHz



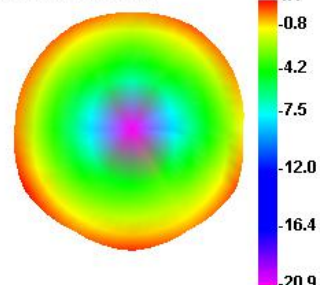
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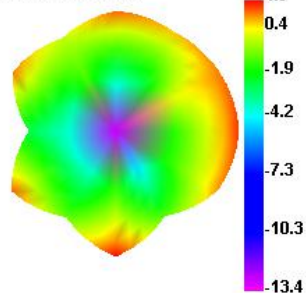
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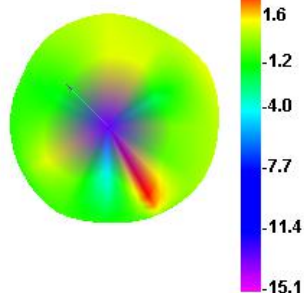
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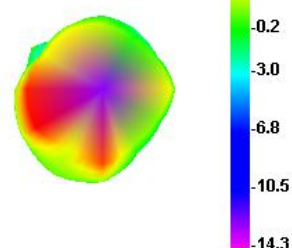
5000.000MHz



5200.000MHz



5900.000MHz





4. Antenna Drawings

