

Antena Test Report

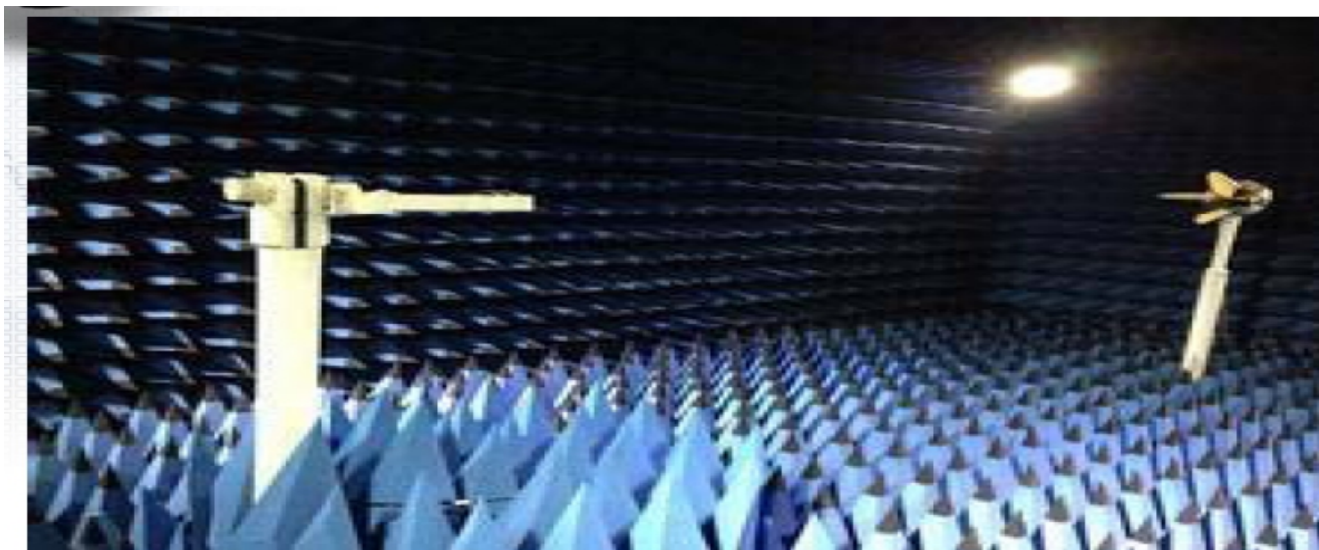
Customer name: Dongguan Zhuojia Intelligent Technology Co., Ltd.

Frequency: 2.4G

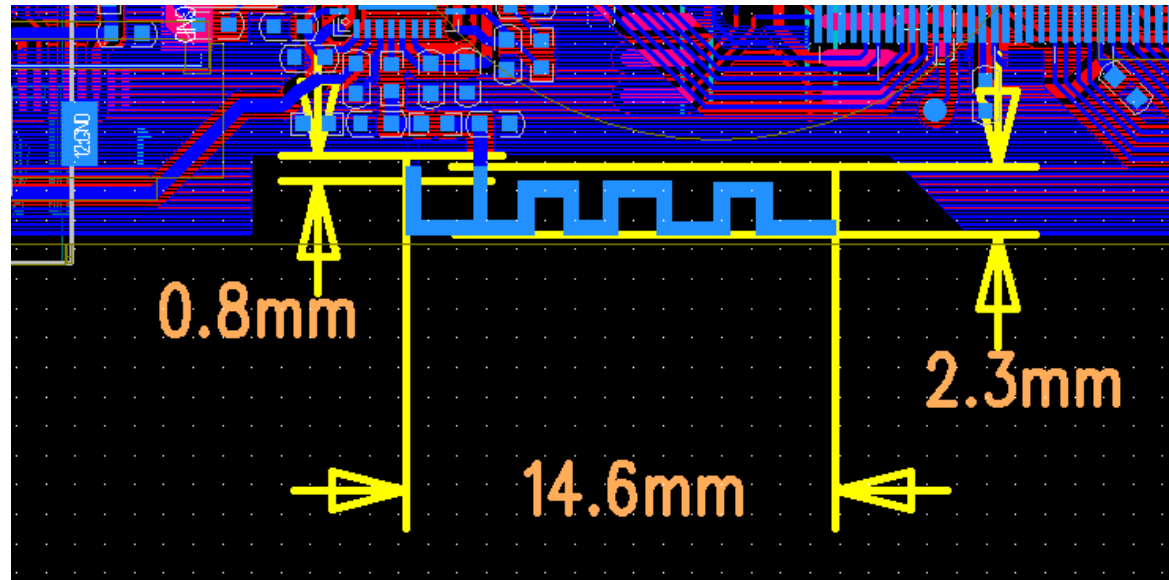
Versions: A

Test system

Sequence Number	Test Item	equipment
S parameter	VSWR	Agilent 5071C & Agilent 5062A
OTA Test	TRP&TIS	Agilent 8960 E5515C & Agilent 4438C & CMW500 & CMW270 ETS&SATIMO
Gain & Efficiency	Gain & Efficiency	ETS&SATIMO Agilent 5071C



Antenna circuit



Efficiency & Gain

Frequency ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Frequency (MHz)	2300.0	2310.0	2320.0	2330.0	2340.0	2350.0	2360.0	2370.0	2380.0	2390.0	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0	2510.0	2520.0	2530.0	2540.0	2550.0	2560.0	2570.0	2580.0	2590.0	2600.0	
Efficiency (dBi)	-11.75	-11.55	-11.34	-9.98	-9.47	-9.57	-9.47	-8.94	-8.16	-7.40	-6.86	-6.55	-6.58	-5.89	-5.82	-5.70	-5.60	-5.71	-5.80	-5.96	-6.23	-6.11	-6.95	-7.29	-7.29	-7.60	-7.87	-8.84	-9.13	-9.76	-9.16	
Gain (dBi)	-7.14	-6.71	-6.75	-5.36	-4.86	-4.96	-4.68	-3.80	-3.09	-2.18	-1.86	-1.52	-1.49	-0.76	-0.45	-0.23	0.30	0.10	0.41	0.32	-0.24	0.14	-0.90	-1.07	-1.03	-1.53	-1.50	-2.52	-2.59	-3.35	-2.66	
Efficiency (%)	6.69	7.00	7.34	10.04	11.29	11.05	11.30	12.77	15.29	18.21	20.61	22.15	22.00	25.75	26.16	26.92	27.53	26.86	26.29	25.33	23.81	24.48	20.20	18.64	18.67	17.39	16.34	13.06	12.23	10.57	12.13	
Directivity (dB)	4.60	4.84	4.59	4.62	4.61	4.61	4.79	5.14	5.06	5.22	5.00	5.03	5.08	5.13	5.37	5.47	5.90	5.81	6.21	6.29	5.99	6.26	6.05	6.23	6.26	6.07	6.36	6.32	6.53	6.41	6.50	
Peak Gain Position (Theta)	150.00	150.00	150.00	45.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	
Peak Gain Position (Phi)	315.00	315.00	315.00	330.00	315.00	315.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	315.00	315.00	315.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	
Efficiency ThetaPol (%)	2.24	2.34	2.42	3.25	3.58	3.46	3.50	3.97	4.66	5.51	6.13	6.58	6.47	7.50	7.37	7.40	7.39	7.18	6.97	6.78	6.46	6.60	5.51	5.12	5.07	4.81	4.49	3.59	3.33	2.85	3.31	
Efficiency PhiPol (%)	4.45	4.66	4.92	6.80	7.70	7.59	7.79	8.81	10.62	12.69	14.48	15.58	15.52	18.25	18.80	19.52	20.14	19.68	19.32	18.55	17.36	17.88	14.68	13.53	13.60	12.58	11.85	9.48	8.90	7.72	8.81	
Upper Hem. Efficiency (%)	3.24	3.39	3.55	4.95	5.52	5.55	5.70	6.31	7.70	8.96	10.15	10.88	10.79	12.57	12.85	13.45	13.47	13.62	12.81	12.24	11.82	11.60	9.64	8.87	8.57	8.24	7.57	6.06	5.71	4.99	5.69	
Lower Hem. Efficiency (%)	3.45	3.62	3.79	5.09	5.76	5.49	5.60	6.46	7.59	9.25	10.46	11.28	11.21	13.18	13.31	13.46	14.06	13.24	13.48	13.09	11.99	12.88	10.55	9.78	10.10	9.15	8.76	7.00	6.52	5.57	6.44	
T90(H)圖度	14.25	16.46	16.42	17.70	17.40	18.23	18.76	19.65	19.86	23.22	20.73	22.93	26.28	25.24	21.65	20.05	19.31	18.45	20.28	22.67	24.09	22.56	20.88	19.70	21.42	23.55	23.37	22.44	19.05	16.82	16.02	
Gain 15deg (dBi)																																
E1(XZ)波瓣宽度	48.00	51.00	56.00	64.00	61.00	64.00	63.00	54.00	62.00	60.00	59.00	56.00	57.00	59.00	62.00	52.00	59.00	55.00	53.00	48.00	50.00	49.00	50.00	59.00	51.00	53.00	55.00	54.00	55.00	56.00		
E1(XZ)前后比	0.65	0.57	0.59	0.25	0.55	0.85	1.23	1.07	1.48	0.71	0.24	0.33	0.63	0.46	0.25	0.00	0.00	0.24	0.45	0.58	1.12	0.94	0.55	0.31	0.00	0.07	0.56	0.12	0.25	0.00	0.00	
E2(YZ)波瓣宽度	114.00	115.00	145.00	145.00	144.00	179.00	181.00	130.00	129.00	124.00	122.00	121.00	121.00	118.00	123.00	125.00	125.00	127.00	126.00	127.00	129.00	129.00	132.00	137.00	132.00	139.00	137.00	136.00	137.00	136.00	135.00	
E2(YZ)前后比	1.00	0.95	0.37	0.50	0.72	0.85	0.38	0.51	0.18	0.45	0.26	0.51	0.49	0.89	0.82	0.86	0.86	0.94	1.05	0.90	1.01	0.94	1.02	1.09	1.66	1.28	1.53	1.73	1.73	1.52	1.44	
最大增益处轴比(P)	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	
顶点(Theta=0)处轴比(P)	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	
仰角10度最差(大)轴比(P)	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	
Hc(XY)波瓣宽度	77.00	79.00	77.00	75.00	75.00	74.00	73.00	72.00	70.00	72.00	74.00	71.00	70.00	68.00	67.00	66.00	65.00	64.00	66.00	64.00	63.00	66.00	66.00	64.00	64.00	65.00	63.00	64.00	62.00	60.00	59.00	
Hc(XY)前后比	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Empty																																

