

Product Number: GC-2458N2076-L=260

Dongguan Gaochang Electronic Technology Co., Ltd

Product specification

CUSTOMER: _____

CUSTOMER P/N: _____

OUR MODEL NO: GC-2458N2043W-L=280

SPECIFICATIONS: External White Ultrasonic Antenna Model G for WIFI

Q' TY: _____

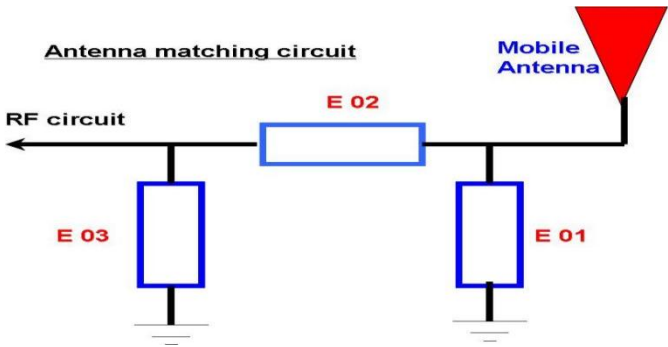
Date: 2026-8-6

Dongguan Gaochang Electronic Technology Co., Ltd			The customer admitted
Engineering	Quality	Approved	Signature (seal)
Engineer Xie	Engineer Huang	Engineer Gao	

1. Technical Specification

A. Electrical Characteristics	
Working Frequency Range	2400~5850MHz
S.W.R.	2400~5850MHz:<2.0
Antenna Gain(avg.)	2400~5850MHz: 2dBi±0.5dBi
Impedance	50ohm
B. Material	
brass	
C. Environmental	
Operation Temperature	-45℃~+85℃
Storage Temperature	-45℃~+85℃

2. Matching Circuits



Element	Value	Vender
E1(0402)	OPEN	/
E2(0402)	SHORT	50 Ω
E3(0402)	OPEN	/

Note: The match has not been changed.

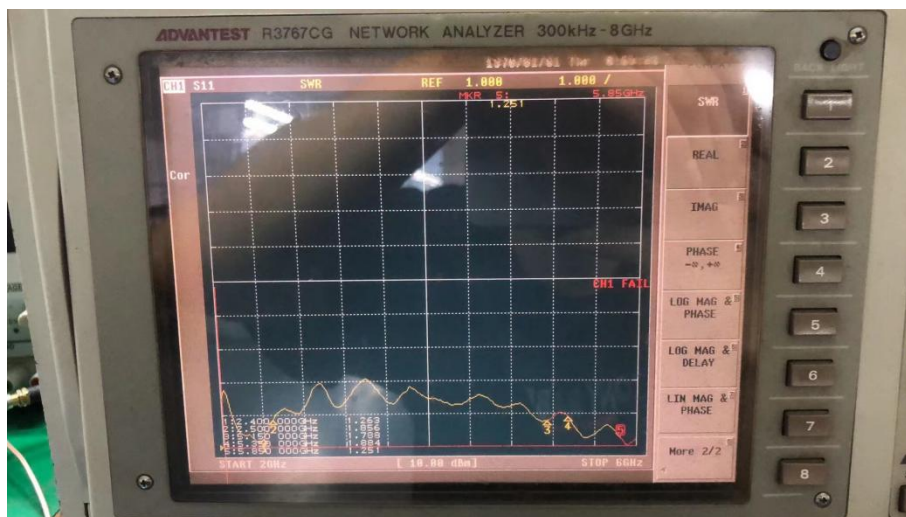
3.Curing antenna S11 Testing Result.

The S11 parameter was performed using a Agilent 8753D Network Analyzer and BEST'S test fixture that was using customer-providing device.

VSWR (Voltage standing wave ratio)

The Voltage Standing Wave Ratio (VSWR) is an indication of how good the impedance match is. VSWR is often abbreviated as SWR. If the transmission line and the antenna are not matched, the antenna will not accept all the power from the transmission line. The part it does not accept is reflected back and forth between the transmitter and the antenna. This sets up a fixed wave pattern along the line which we can measure and which is called the voltage standing wave ration(VSWR).The VSWR (ratio of maximum voltage to the minimum voltage along the line)expresses the degree of match between the transmission line and the antenna. When the VSWR is 1 to 1(1:1) the match is perfect and all the energy is transferred to the antenna prior to be radiated. When the VSWR is 1.5:1, 96% of the power reaches the antenna. By definition VSWR can never be less than 1.VSWR and reflected power are different ways of measuring and expressing the same thing. A high VSWR is indication that the signal is reflected prior to being radiated by the antenna.

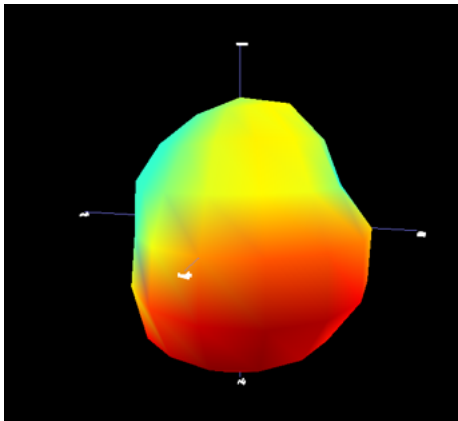
VSWR



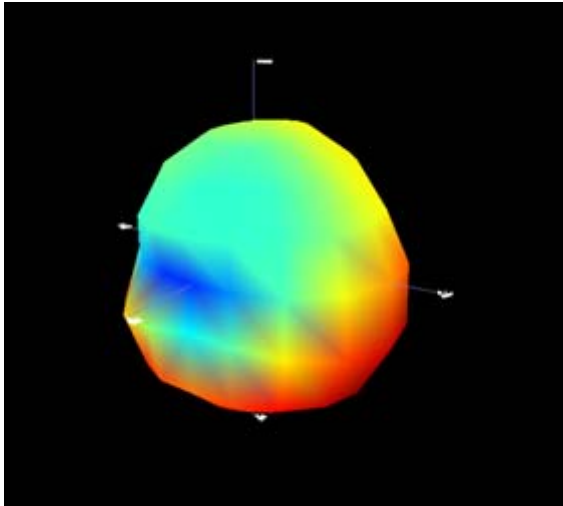
Marker	2400MHz	5100MHz	5850MHz
S.W.R	<2.0		

4.Test 3D report

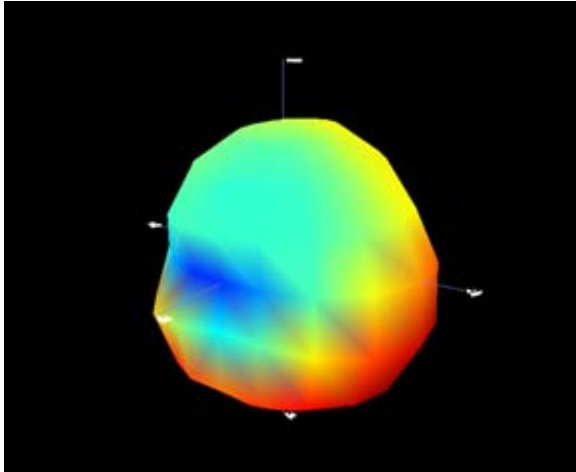
frequency: 2400MHZ gain: 2.07dbi



frequency: 5100MHZ gain: 2.58dbi



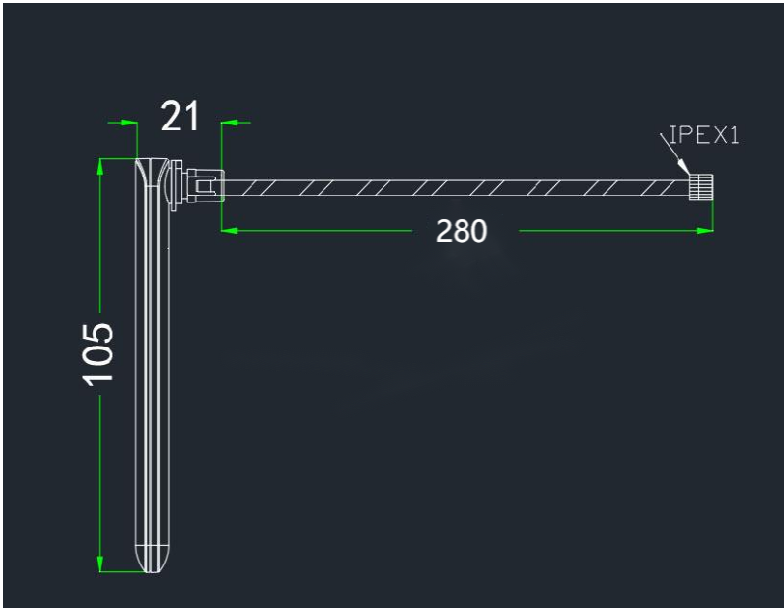
frequency: 5800MHZ gain: 1.02dbi



5. Passive test data

Passive Test For 2.4G-5.8G												
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHIS (%)	Max (dB)	Min (dB)	irectivity (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
2400	57.5	-2.4	2.07	-0.08	24.923	32.58	2.07	-9.72	4.48	60	45.51	45.06
2450	66.13	-1.8	2.88	0.73	28.662	37.469	2.88	-9.65	4.67	120	45.36	44.92
2500	73.09	-1.36	3.4	1.25	31.353	41.742	3.4	-8.38	4.76	60	45.93	45.51
5000	50.08	-3	2.63	0.48	19.157	30.92	2.63	-15.2	5.63	60	49.33	49.3
5050	47.87	-3.2	2.13	-0.02	18.457	29.414	2.13	-19.16	5.32	30	48.99	49.03
5100	50.88	-2.93	2.58	0.43	19.701	31.179	2.58	-16.57	5.52	90	49.4	49.42
5150	50.39	-2.98	2.71	0.56	19.225	31.167	2.71	-17.01	5.68	90	49.51	49.62
5200	51.41	-2.89	2.89	0.74	19.269	32.144	2.89	-17.74	5.78	90	49.88	49.93
5250	50.52	-2.97	2.86	0.71	19.441	31.082	2.86	-19.86	5.83	150	50.05	50.08
5300	46.22	-3.35	2.45	0.3	18.027	28.193	2.45	-22.1	5.8	180	49.91	49.86
5350	45.71	-3.4	2.21	0.06	17.891	27.824	2.21	-21.26	5.61	180	50.3	50.23
5400	48.42	-3.15	2.35	0.2	18.946	29.471	2.35	-19.82	5.5	150	49.93	49.9
5450	46.33	-3.34	1.81	-0.34	18.3	28.032	1.81	-18.38	5.16	120	49.96	49.92
5500	50.01	-3.01	2	-0.15	20.197	29.811	2	-15.77	5.01	120	50.05	50.1
5550	50.67	-2.95	2.37	0.22	20.577	30.091	2.37	-15.58	5.32	120	50.39	50.49
5600	45.95	-3.38	1.9	-0.25	19.192	26.761	1.9	-14.4	5.28	150	50.3	50.36
5650	42.84	-3.68	1.41	-0.74	18.329	24.511	1.41	-15.2	5.09	240	50.34	50.36
5700	39.64	-4.02	0.61	-1.54	17.428	22.214	0.61	-15.39	4.63	240	50.48	50.46
5750	43.71	-3.59	0.8	-1.35	19.202	24.505	0.8	-19.44	4.4	270	50.66	50.59
5800	44.33	-3.53	1.02	-1.32	19.4	24.929	1.02	-20.06	4.37	150	50.5	50.47
5850	48.15	-3.17	1.39	-0.76	21.257	26.897	1.39	-19.21	4.56	150	51.22	51.05
5900	45.18	-3.45	0.78	-1.37	20.231	24.947	0.78	-18.19	4.23	120	50.81	50.68
5950	51.8	-2.86	1.15	-1	24.039	27.764	1.15	-17.55	4.01	150	52.34	52.13
6000	55.28	-2.57	0.85	-1.3	26.165	29.116	0.85	-15.57	3.42	270	52.58	52.51

6. Product appearance diagram



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Product physical white G model 1.13 gray L=280MM-IPEX (7*1.2 waterproof ring) (N2043)

Salt spray test

Test purpose: To test the antenna's resistance to salt spray corrosion

Test method:

Solution content: 5% sodium chloride solution (prepared with distilled water, 95ml distilled water+5g sodium chloride)

Place the antenna in the salt spray test chamber and hang it with a rope to prevent uneven solution spraying or surface failure.

The antenna needs to be immediately placed in the testing box. The experimental period is 48 hours. During the experiment, it is not allowed to remove it midway.

After the experiment, remove the antenna, clean it with cotton cloth and ion air gun, and let it dry at room temperature for 49 hours. Then, inspect the appearance, mechanical properties, and electrical properties of the antenna.

Test report		admit	confirm 代 工	Experimenter 杨工
Test content and antenna model: Dual frequency external antenna				
Test objective: To test the appearance, mechanical properties, and electrical performance changes of the antenna in a salt spray environment.				
Test quantity: 5pcs				
Before the test				
NO.			appear ance	Mechanical and electrical properties
1#			N/A	meet the requirements
2#			N/A	meet the requirements
3#			N/A	meet the requirements
4#			N/A	meet the requirements
5#			N/A	meet the requirements
after the experiment				
NO.				
1#			N/A	meet the requirements
2#			N/A	meet the requirements

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3#			N/A	meet the requirements
4#			N/A	meet the requirements
5#			N/A	meet the requirements
Result judgment: The salt spray test has ended, the appearance is OK, the antenna is in good contact with the motherboard (multimeter test is conductive), and the mechanical properties have not changed. Signal testing shows that the standing wave varies within a range of ± 0.3, which meets the allowable testing requirements.. In summary, the dual frequency external antenna meets the requirements of salt spray testing.				