

[illegible]

WAG-F-LTE12-00-185 Specification

1. Explanation of part number :

WAG F LTE12 00 185
(1) (2) (3) (4) (5)

(1) Product Type: Wireless Antenna

(2) Material: FPC

(3) Frequency : 617~960/1710~2690 MHz

(4) Coaxial Cable Type : 00

(5) Suffix : 185

2. Storage Condition:

Temperature -40 to +85°C
Humidity 20 to 65 %RH

Recommended storage condition:

Store in room condition as listed below: Temperature -20°C~+45°C, Humidity 80% Max.

3. Operating Condition:

Temperature -40 to +85°C
Humidity 10 to 85 %RH

4. Electrical Specification :

Those specifications were specially defined for WLAN model, and all characteristics were measured in the customer's machine. .

4-1. Frequency Band:

Frequency Band	MHz
DIV	617~960/1710~2690 MHz

4-2. Impedance

50 ohm nominal

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ANGLES=± HOLEDIA=±



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DESIGNED BY:Eason APPROVED BY: dongdongzhan

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4-3. VSWR

Frequency Band	700	960	1710	1990	2300	2690	
4-3-1. Typical Value:	≤ 9.0	≤ 3.5	≤ 2.5	≤ 3.0	≤ 2.5	≤ 3.5	
4-3-2. Measuring Method	1. A 50Ω coaxial cable is connected to the pcb antenna. Then this cable is connected to a network analyzer to measure the VSWR. 2. Keeping this jig away from metal at least 20 cm.						
4-3-3. Picture							

4-4. Efficiency and Gain

4-4.1 Measuring equipment

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Measuring instrument:

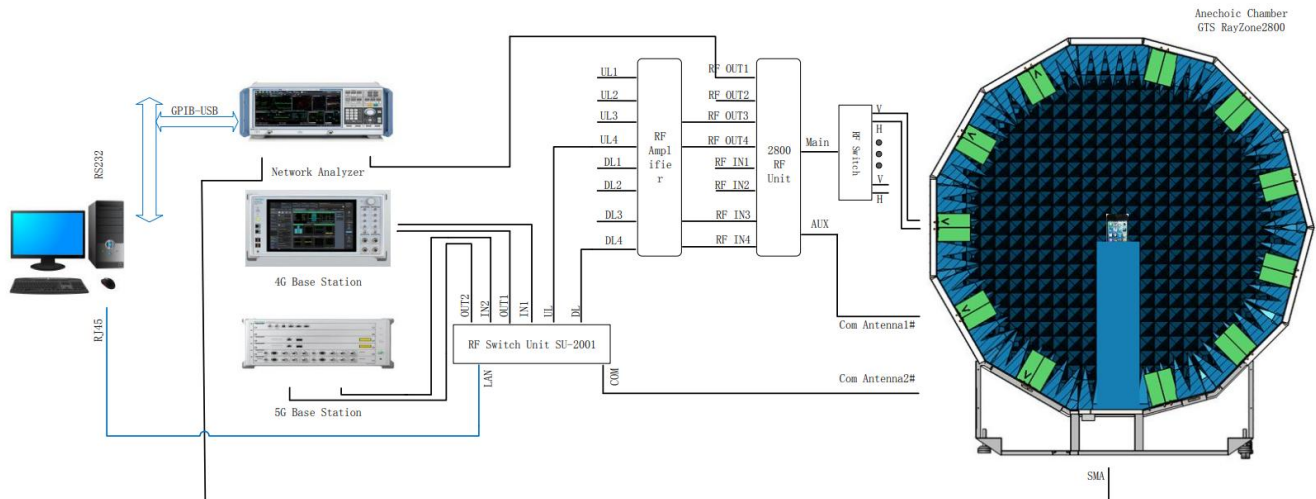
Microwave chamber, Network analyzer, and standard antenna.

Instructions for microwave chamber:

This is a microwave chamber set up by our company in Suzhou, This microwave chamber belongs to a set of near-field measurement system. The size of the chamber is 2.95M * 3M * 3M.



RayZone2800 Test Setup



The microwave chamber, shown above, using a unique multi-probe technique, The aim is to reduce the measurement time of the whole measurement system. The measuring system use multi-probe array instead of single probe to scan the measured surface of the antenna under test, a single probe has the capability of measuring orthogonal polarization amplitude and phase, it also has a wide frequency range, the corresponding multi-probe array is switched quickly by electronic switch, greatly improved the measurement efficiency.

The probe model: MA186960A(400MHz~7.5GHz) . Because of its capability of broadband frequency and the orthogonal polarization function, the number of probes needed to be equipped with the system is reduced; The small size of the probe reduces the coupling between the probes, make it is possible to insert probes of other frequency bands between probes, then a single system can support a wider frequency range.

4-4.2 Efficiency and Gain

frequency	efficiency	efficiency	gain
700	3%	-15.23	-16.92

frequency	efficiency	efficiency	gain
2080	13%	-8.79	-8.96

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710	2%	-16.99	-16.87
720	2%	-16.78	-16.21
730	3%	-15.23	-16.23
740	3%	-14.95	-16.41
750	3%	-14.95	-16.28
760	3%	-14.81	-16.1
770	4%	-13.87	-15.79
780	4%	-13.77	-15.79
790	4%	-13.57	-15.54
800	5%	-13.37	-15.27
810	5%	-13.28	-15.04
820	5%	-13.19	-15.02
830	5%	-13.10	-14.62
840	5%	-12.84	-14.43
850	5%	-12.68	-14.12
860	6%	-12.52	-13.37
870	6%	-12.37	-12.99
880	6%	-12.15	-12.32
890	7%	-11.87	-12.01
900	7%	-11.61	-11.83
910	7%	-11.31	-11.86
920	8%	-11.19	-12.18
930	8%	-10.92	-13.27
940	8%	-11.19	-14.62
950	7%	-11.67	-15.1
960	6%	-11.94	-15.83
1710	11%	-9.51	-8.26
1720	12%	-9.17	-7.99
1730	13%	-8.79	-7.92
1740	14%	-8.70	-7.8
1750	14%	-8.60	-7.63
1760	14%	-8.48	-7.28
1770	15%	-8.30	-7.02
1780	15%	-8.21	-6.59
1790	16%	-8.10	-6.22

2090	14%	-8.70	-8.85
2090	14%	-8.45	-8.85
2100	14%	-8.60	-8.58
2110	15%	-8.36	-8.97
2120	15%	-8.18	-8.5
2130	16%	-8.07	-8.3
2140	17%	-7.67	-8.52
2150	16%	-7.85	-7.9
2160	16%	-7.93	-7.82
2170	16%	-8.01	-8.25
2180	16%	-8.10	-8.09
2190	15%	-8.12	-8.15
2200	16%	-7.90	-8.56
2210	17%	-7.80	-8.96
2220	17%	-7.72	-9.34
2230	17%	-7.64	-9.85
2240	18%	-7.54	-10.87
2250	17%	-7.75	-11.87
2260	17%	-7.83	-12.07
2270	16%	-7.85	-12.12
2280	15%	-8.12	-12.2
2290	15%	-8.21	-12.68
2300	15%	-8.39	-13.96
2310	14%	-8.42	-13.93
2320	15%	-8.18	-14.82
2330	16%	-8.01	-15.11
2340	17%	-7.83	-15.12
2350	17%	-7.75	-16.18
2360	18%	-7.57	-15.35
2370	18%	-7.50	-15.39
2380	19%	-7.19	-15.64
2390	17%	-7.80	-15.88
2400	17%	-7.77	-17.2
2410	16%	-8.04	-17.15
2420	16%	-8.01	-17.35

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1800	16%	-7.90	-5.77
1810	17%	-7.62	-5.18
1820	18%	-7.35	-4.79
1830	19%	-7.26	-4.19
1840	18%	-7.40	-3.77
1850	18%	-7.57	-4.01
1860	17%	-7.59	-3.12
1870	17%	-7.67	-3.07
1880	17%	-7.83	-3.58
1890	16%	-7.90	-3.16
1900	17%	-7.62	-3.75
1910	18%	-7.54	-4.02
1920	18%	-7.42	-4.53
1930	18%	-7.52	-4.6
1940	17%	-7.75	-4.96
1950	17%	-7.67	-5.21
1960	16%	-7.85	-5.88
1970	16%	-7.90	-6.15
1980	15%	-8.15	-7.04
1990	15%	-8.30	-7.15
2000	15%	-8.36	-7.13
2010	14%	-8.48	-7.93
2020	14%	-8.70	-8.05
2030	13%	-8.76	-8.39
2040	13%	-8.93	-8.9
2050	12%	-9.07	-8.84
2060	13%	-8.79	-9.06
2070	14%	-8.63	-9.41

2430	18%	-7.40	-17.17
2440	19%	-7.24	-17.05
2450	19%	-7.12	-16.85
2460	20%	-7.06	-16.78
2470	18%	-7.38	-16.95
2480	18%	-7.40	-17.45
2490	17%	-7.59	-17.76
2500	17%	-7.67	-18.17
2510	17%	-7.75	-16.97
2520	17%	-7.83	-16.58
2530	15%	-8.12	-15.9
2540	15%	-8.36	-15.2
2550	16%	-7.90	-14.71
2560	17%	-7.75	-14.65
2570	18%	-7.57	-15.24
2580	17%	-7.59	-14.63
2590	17%	-7.62	-14.83
2600	17%	-7.83	-15.04
2610	16%	-7.93	-15.02
2620	18%	-7.54	-16.11
2630	17%	-7.59	-15.15
2640	17%	-7.75	-15.13
2650	18%	-7.42	-15.06
2660	17%	-7.75	-15.09
2670	19%	-7.19	-15.03
2680	19%	-7.17	-14.98
2690	19%	-7.26	-15.51
2080	18%	-7.42	-8.96

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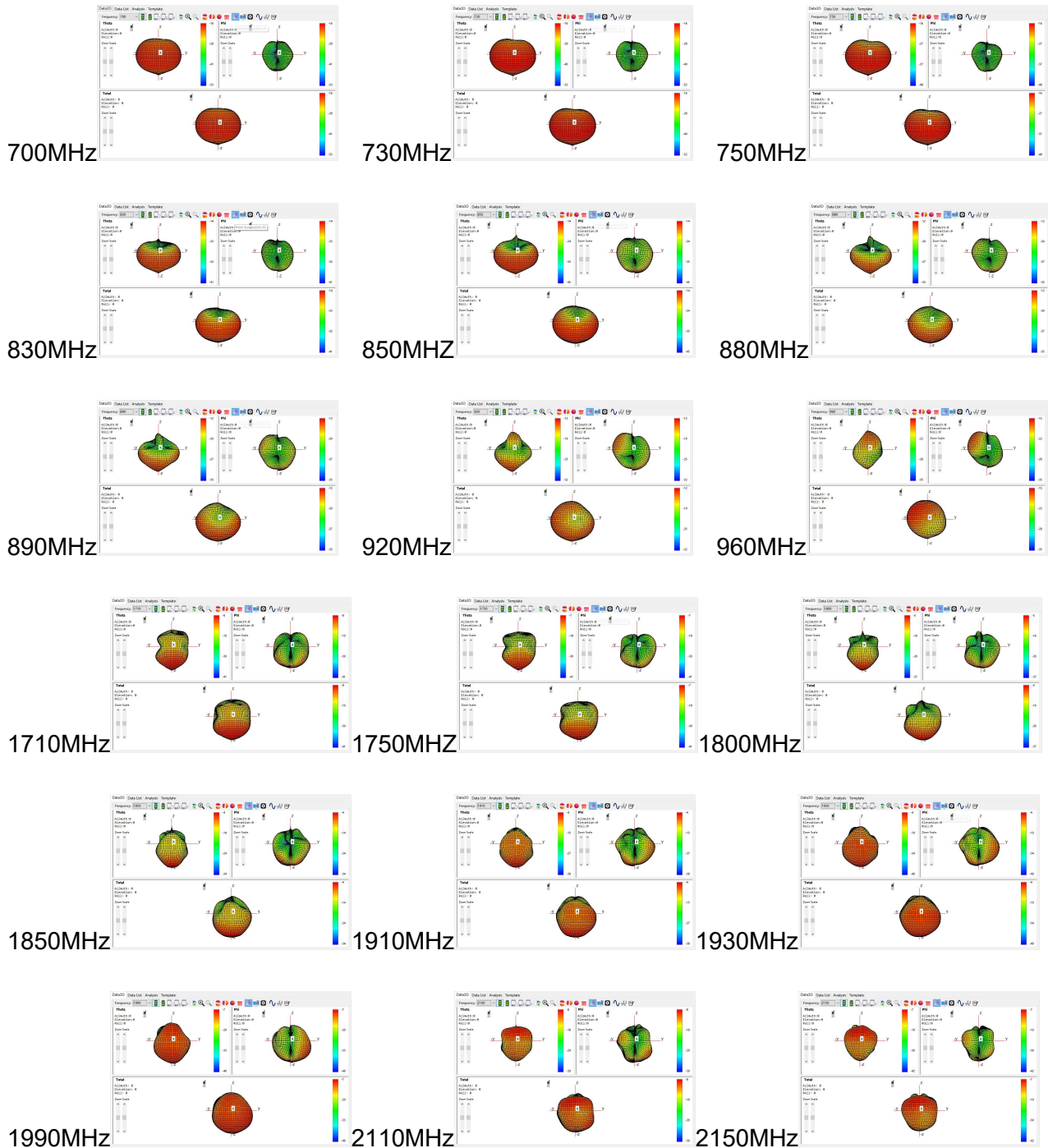
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5. Antenna 3D Radiation Pattern:



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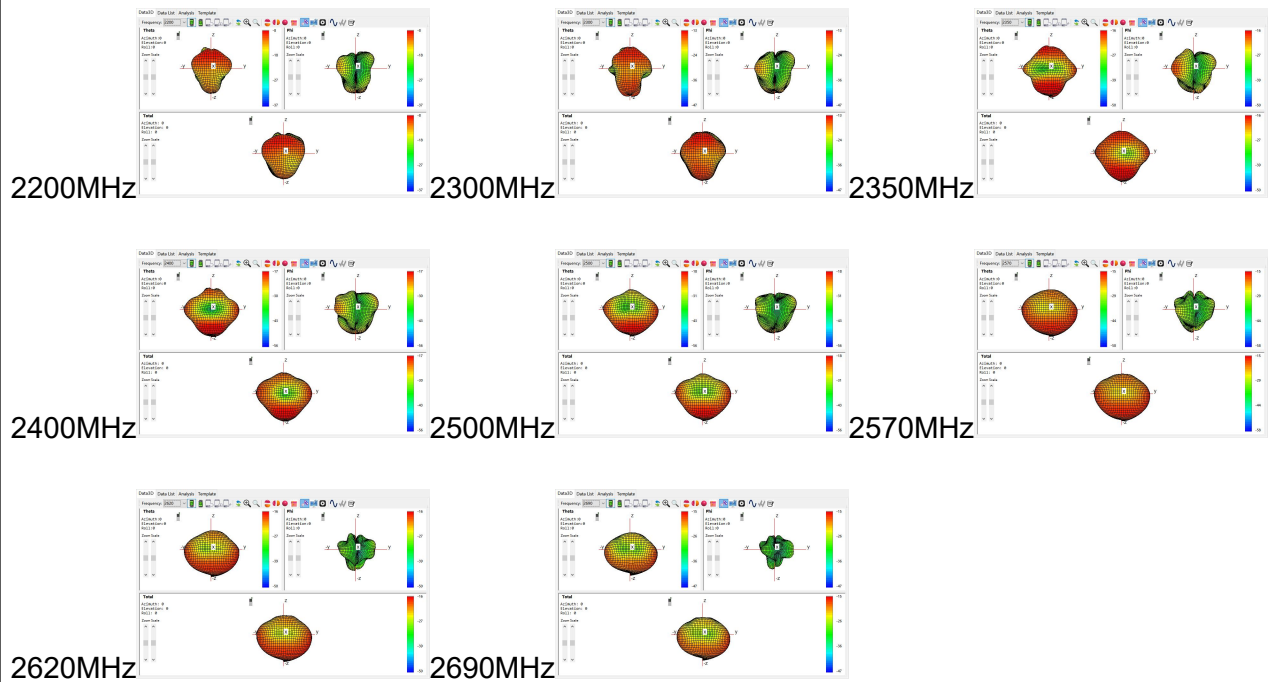
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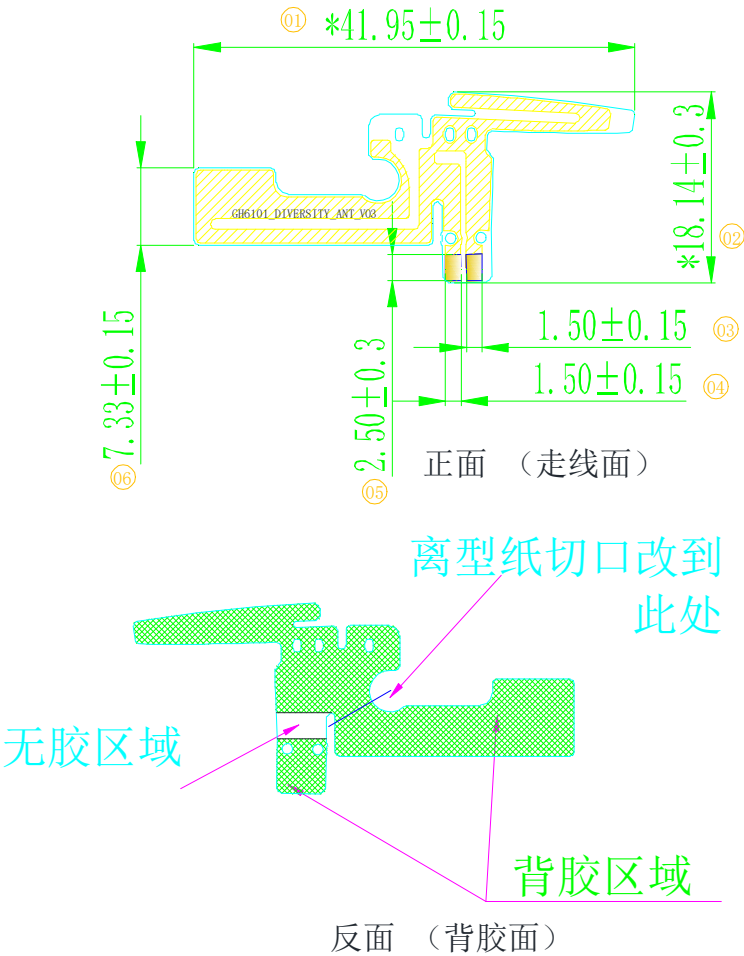
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6. Mechanical Specification:



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