

WAG-F-LTE12-00-217 Specification

1. Explanation of part number :

WAG - F - LTE12 - 00 - 217
(1) (2) (3) (4) (5)

(1) Product Type: Wireless Antenna

(2) Material: FPCB

(3) Frequency : 734-960MHz ,1710-2690MHz

(4) Coaxial Cable Type : no cable

(5) Suffix : 217

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 GH6772 model, and all characteristics were measured in the customer's machine. .

4-1. Frequency Band:

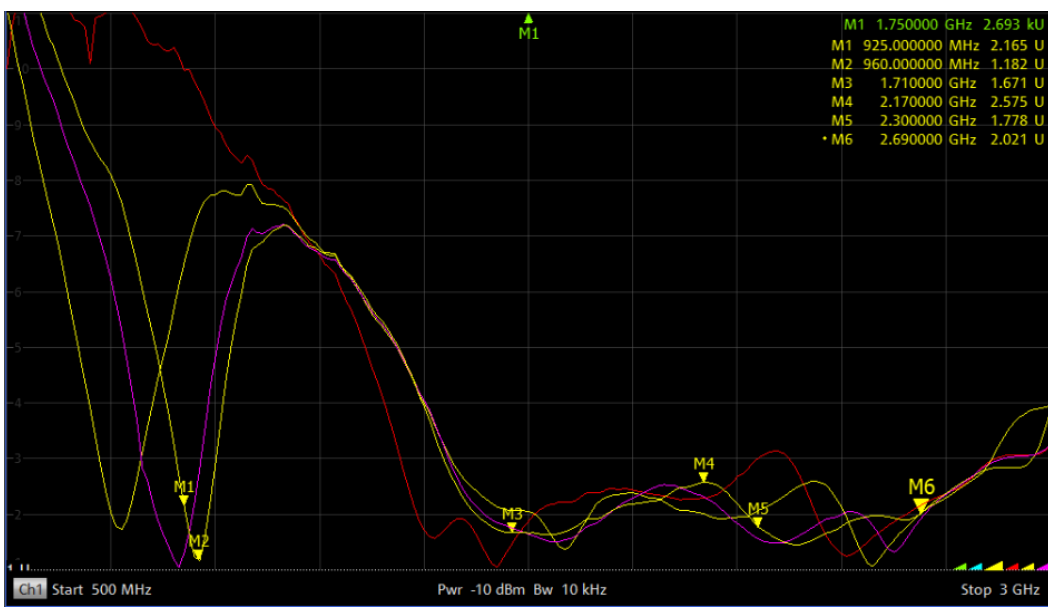
Frequency Band	MHz
Main	734-960,1710-2690

4-2. Impedance

50 ohm nominal

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4-3. VSWR

Frequency Band	925	960	1710	2170	2300	2690	
4-3-1. Typical Value:	≤ 3	≤ 2	≤ 2.5	≤ 2.5	≤ 2	≤ 2.5	
4-3-2. Measuring Method	1. A 50Ωcoaxial 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:

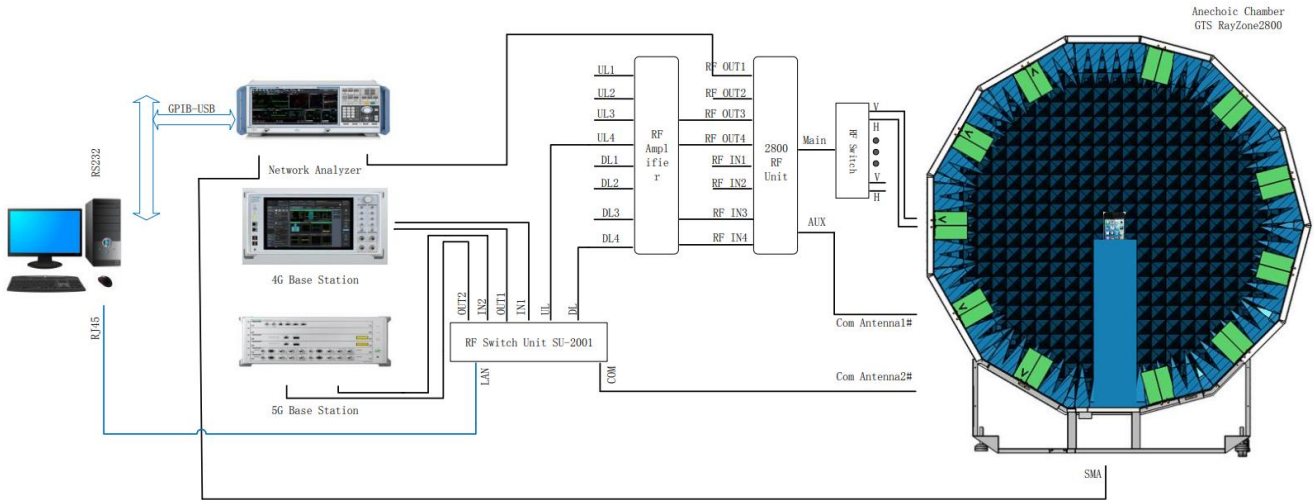
Microwave chamber, Network analyzer, and standard antenna.

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.

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4-4.2 Antenna Efficiency

	RF1			RF2			RF3			RF4		
	效率 (dB)	效率 (%)	增益 (dBi)	效率 (dB)	效率 (%)	增益 (dBi)	效率 (dB)	效率 (%)	增益 (dBi)	效率 (dB)	效率 (%)	增益 (dBi)
699	-20.1	1.0	-17.4	-21.2	0.8	-18.1	-11.9	6.4	-8.7	-18.0	1.6	-15.3
704	-19.5	1.1	-16.8	-21.1	0.8	-17.8	-11.2	7.5	-8.3	-17.3	1.9	-14.7
707	-19.6	1.1	-16.9	-21.2	0.8	-18.0	-11.2	7.6	-8.1	-17.4	1.8	-14.9
710	-19.3	1.2	-16.7	-21.2	0.8	-18.3	-10.7	8.4	-7.8	-17.0	2.0	-14.6
716	-19.3	1.2	-16.8	-21.4	0.7	-18.7	-10.7	8.5	-7.8	-17.0	2.0	-14.7
729	-18.4	1.5	-16.0	-21.3	0.7	-18.6	-9.5	11.3	-6.9	-16.1	2.5	-13.8
734	-18.1	1.5	-15.7	-21.3	0.7	-18.6	-9.1	12.4	-6.5	-15.8	2.6	-13.5
737	-17.8	1.7	-15.4	-21.3	0.7	-18.6	-8.7	13.6	-6.1	-15.5	2.8	-13.1
740	-17.5	1.8	-15.2	-21.2	0.8	-18.6	-8.3	14.8	-5.9	-15.2	3.0	-12.9
746	-17.4	1.8	-14.9	-21.5	0.7	-18.9	-8.2	15.1	-5.7	-15.0	3.2	-12.6
751	-17.3	1.9	-14.8	-21.8	0.7	-19.0	-8.1	15.4	-5.6	-14.7	3.4	-12.4
756	-17.3	1.9	-14.7	-22.0	0.6	-19.2	-8.0	16.0	-5.4	-14.6	3.5	-12.3
777	-17.2	1.9	-14.6	-23.4	0.5	-20.7	-8.5	14.1	-5.9	-14.0	4.0	-11.7
782	-17.6	1.7	-15.0	-24.0	0.4	-21.3	-8.8	13.3	-6.2	-14.3	3.7	-12.0
787	-17.2	1.9	-14.6	-23.9	0.4	-21.2	-8.7	13.4	-6.1	-13.9	4.1	-11.6
791	-17.3	1.9	-14.6	-24.2	0.4	-21.6	-8.9	13.0	-6.3	-13.9	4.1	-11.5
806	-17.5	1.8	-14.8	-25.2	0.3	-22.4	-10.1	9.7	-7.5	-14.3	3.7	-11.6
815	-17.1	1.9	-14.4	-25.7	0.3	-22.9	-10.6	8.7	-8.0	-13.9	4.1	-11.2
821	-16.9	2.1	-14.1	-25.9	0.3	-23.2	-10.8	8.3	-8.2	-13.3	4.7	-9.9
824	-16.2	2.4	-13.4	-25.6	0.3	-22.8	-10.6	8.8	-8.0	-12.9	5.1	-10.0
832	-15.7	2.7	-12.9	-26.0	0.2	-23.3	-11.2	7.6	-8.6	-12.5	5.6	-9.7
836	-15.8	2.6	-12.9	-26.0	0.3	-23.3	-11.4	7.3	-8.6	-12.6	5.5	-9.8
847	-15.3	2.9	-12.3	-26.4	0.2	-23.5	-12.0	6.3	-9.1	-11.9	6.4	-9.0
849	-15.1	3.1	-12.0	-26.4	0.2	-23.6	-12.2	6.1	-9.2	-11.6	6.9	-8.7
862	-13.9	4.1	-10.7	-26.2	0.2	-23.2	-12.5	5.7	-9.4	-10.5	9.0	-7.4
869	-13.7	4.3	-10.5	-26.2	0.2	-23.4	-13.2	4.8	-10.1	-10.3	9.3	-7.4
880	-13.5	4.4	-10.3	-26.6	0.2	-23.4	-14.1	3.9	-11.1	-10.2	9.6	-7.3
881	-13.3	4.7	-10.1	-26.2	0.2	-23.2	-13.9	4.1	-10.9	-9.9	10.2	-7.1
894	-13.1	4.9	-9.8	-26.8	0.2	-23.8	-15.0	3.2	-12.1	-9.8	10.5	-6.8
897	-12.5	5.7	-9.0	-26.5	0.2	-23.5	-15.0	3.2	-12.1	-9.5	11.1	-6.4
915	-11.9	6.4	-8.1	-26.6	0.2	-23.5	-15.6	2.8	-12.6	-9.9	10.2	-6.5
925	-11.5	7.2	-7.6	-27.1	0.2	-23.9	-16.3	2.4	-13.0	-10.0	10.1	-6.5
942	-10.7	8.5	-6.8	-27.2	0.2	-24.0	-17.5	1.8	-14.2	-10.9	8.1	-7.3
960	-10.4	9.2	-6.6	-27.0	0.2	-23.8	-18.4	1.4	-15.0	-12.1	6.1	-8.4

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1710	-5.8	26.6	-1.6	-6.2	24.1	-2.3	-5.9	25.5	-2.1	-5.8	26.2	-1.7
1732	-5.8	26.0	-2.1	-6.2	24.3	-2.4	-6.0	25.1	-2.5	-5.9	25.9	-2.1
1747	-6.0	25.3	-2.3	-6.2	23.7	-2.7	-6.1	24.6	-2.7	-5.9	25.5	-2.4
1755	-6.1	24.5	-2.4	-6.4	23.1	-2.8	-6.3	23.7	-2.9	-6.1	24.7	-2.5
1805	-6.7	21.3	-2.9	-6.7	21.5	-3.5	-7.9	16.4	-4.8	-6.6	21.8	-2.9
1842	-8.0	15.8	-4.3	-7.8	16.7	-4.7	-10.5	8.9	-4.9	-7.9	16.2	-4.1
1850	-8.0	15.9	-4.3	-7.6	17.3	-4.5	-10.3	9.3	-4.4	-7.9	16.4	-4.1
1880	-8.2	15.2	-3.9	-7.6	17.4	-4.0	-9.8	10.4	-4.1	-8.2	15.3	-3.9
1900	-8.6	13.8	-4.3	-7.5	17.7	-3.9	-8.9	12.8	-3.8	-8.7	13.5	-4.3
1910	-8.6	13.9	-4.2	-7.5	17.9	-3.8	-8.6	13.7	-3.8	-8.7	13.5	-4.3
1920	-8.8	13.3	-4.3	-7.6	17.6	-3.7	-8.6	13.7	-4.1	-9.0	12.6	-4.4
1930	-8.8	13.2	-4.3	-7.3	18.7	-3.4	-8.1	15.4	-3.8	-9.1	12.2	-4.5
1940	-9.0	12.6	-4.6	-7.3	18.7	-3.4	-7.8	16.4	-3.7	-9.5	11.3	-4.8
1950	-9.1	12.2	-4.6	-7.3	18.8	-3.3	-7.6	17.3	-3.5	-9.7	10.7	-5.1
1960	-9.7	10.7	-5.0	-7.7	17.1	-3.7	-7.8	16.5	-3.8	-10.3	9.3	-5.8
1980	-9.9	10.2	-5.4	-7.6	17.2	-3.8	-7.8	16.7	-3.9	-10.7	8.4	-6.1
1990	-10.2	9.6	-5.6	-7.6	17.4	-3.7	-7.6	17.3	-3.8	-11.0	7.9	-5.9
2010	-11.0	8.0	-6.6	-8.3	14.8	-4.4	-8.1	15.4	-4.3	-11.6	6.9	-5.4
2040	-11.1	7.8	-6.9	-7.6	17.4	-3.8	-7.2	19.2	-3.4	-11.0	8.0	-4.2
2070	-11.4	7.2	-7.6	-7.8	16.6	-3.8	-7.3	18.5	-3.9	-10.2	9.5	-3.9
2110	-12.0	6.3	-7.0	-8.3	14.8	-4.1	-7.7	16.8	-4.4	-9.7	10.8	-3.9
2132	-11.8	6.6	-6.1	-8.2	15.1	-3.9	-7.4	18.3	-4.1	-9.0	12.6	-3.5
2140	-11.8	6.6	-6.0	-8.4	14.6	-4.1	-7.5	17.7	-4.4	-9.0	12.6	-3.6
2155	-11.2	7.6	-5.0	-8.4	14.3	-4.1	-7.3	18.5	-4.2	-8.4	14.6	-3.1
2170	-10.8	8.4	-4.4	-8.2	15.2	-3.7	-7.0	20.0	-3.8	-8.0	16.0	-2.8
2250	-8.1	15.6	-2.0	-8.9	12.8	-4.2	-6.9	20.6	-2.9	-6.5	22.4	-1.9
2300	-6.1	24.6	-0.4	-9.6	11.1	-4.5	-6.3	23.4	-1.9	-5.3	29.5	-0.7
2350	-6.0	25.3	-1.1	-10.5	9.0	-6.5	-7.5	17.6	-2.7	-5.9	25.7	-2.0
2400	-5.7	27.2	-2.0	-9.2	12.2	-3.6	-8.0	15.9	-2.8	-5.9	25.5	-3.1
2410	-5.9	26.0	-2.3	-9.0	12.6	-3.2	-8.3	14.7	-3.1	-6.2	24.1	-3.3
2420	-6.1	24.6	-2.6	-9.0	12.7	-3.1	-8.8	13.3	-3.4	-6.5	22.4	-3.3
2430	-6.0	25.3	-2.6	-8.3	14.8	-2.4	-8.9	13.0	-3.5	-6.5	22.4	-3.1
2440	-6.2	24.1	-3.1	-7.9	16.1	-2.3	-8.9	12.8	-3.6	-6.7	21.3	-3.2
2450	-6.1	24.7	-3.3	-7.7	17.0	-2.3	-9.0	12.7	-3.7	-6.6	21.7	-3.1
2460	-5.9	25.7	-3.3	-7.2	19.0	-1.9	-9.1	12.4	-3.8	-6.6	21.9	-2.8
2470	-6.2	24.2	-3.2	-6.9	20.3	-1.7	-9.1	12.3	-3.8	-6.9	20.4	-2.8
2480	-6.2	24.3	-3.1	-6.7	21.5	-1.8	-8.6	13.8	-3.6	-6.8	21.0	-2.6
2490	-6.0	25.4	-2.9	-6.4	22.7	-1.7	-8.2	15.0	-3.7	-6.6	22.0	-2.4
2500	-6.2	23.7	-3.1	-6.7	21.5	-2.1	-8.4	14.3	-4.3	-6.9	20.4	-2.7
2535	-6.0	24.9	-3.0	-6.4	23.2	-2.4	-7.4	18.0	-2.6	-6.7	21.3	-2.5
2570	-6.2	24.1	-2.8	-6.2	23.8	-2.9	-6.7	21.3	-2.1	-7.1	19.4	-2.9
2593	-6.5	22.2	-2.8	-6.6	22.1	-3.5	-6.8	20.9	-2.7	-7.5	17.7	-3.6
2595	-6.4	22.8	-2.7	-6.5	22.5	-3.4	-6.7	21.4	-2.6	-7.4	18.2	-3.6
2620	-7.0	20.2	-2.9	-6.8	20.7	-3.8	-6.9	20.4	-3.1	-7.7	17.1	-3.0
2655	-6.8	21.0	-2.4	-6.6	21.9	-3.7	-6.7	21.5	-3.4	-7.1	19.5	-3.0
2690	-6.4	23.0	-1.9	-6.3	23.3	-3.1	-6.4	22.7	-3.5	-6.7	21.6	-3.2

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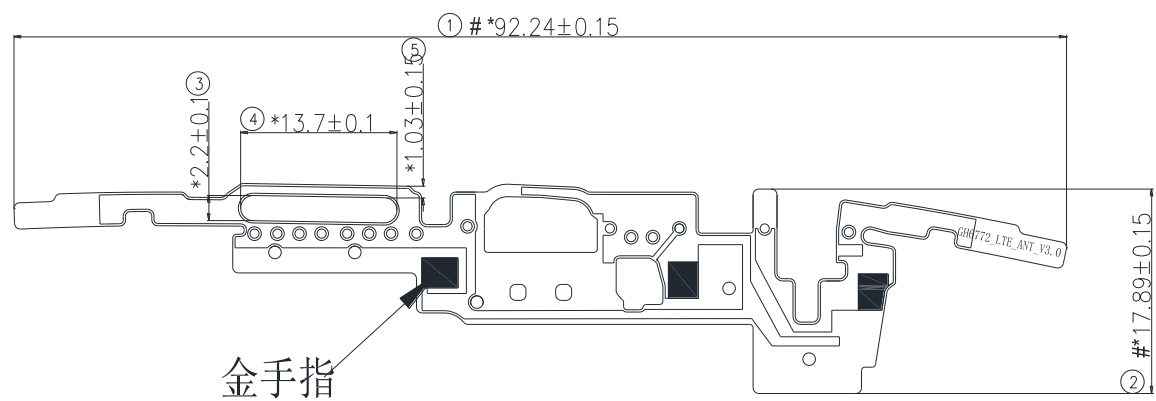
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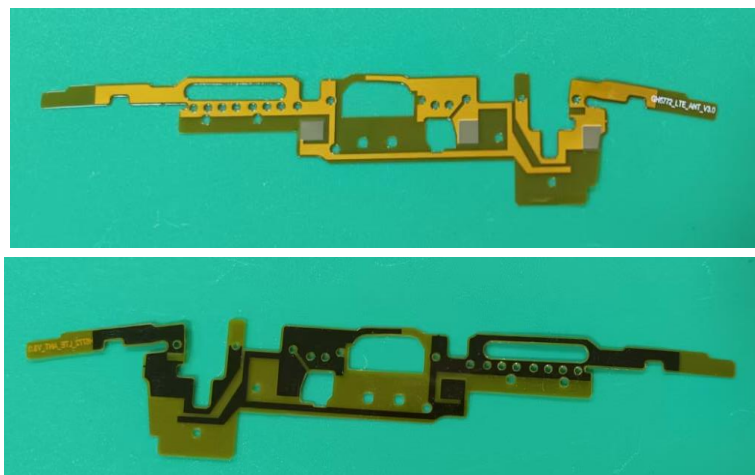
5. Mechanical Specification:

工程图上"*"号为入料检验尺寸；"○"标为全尺寸；"# "号为 Cpk 量测尺寸标注指示



6. Assembly precautions:

Physical Picture:



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