

品名：WAG-F-LTE12-00-088 工规

History List

[illegible]

WAG-F-LTE12-00-088 Specification

1. Explanation of part number :

WAG – F – LTE12 – 00 – 088
(1) (2) (3) (4) (5)

(1) Product Type : Wireless Antenna

(2) Material : FPC

(3) Frequency : 699-960Mhz, 1710-2170, 2500-2690 Mhz

(4) Coaxial Cable Type : 00

(5) Suffix : 088

2. Electrical Specification :

2-1. Frequency Band:

Frequency Band	MHz
GSM	699-960Mhz, 1710-2170, 2500-2690 Mhz

UNLESS OTHER SPECIFIED TOLERANCES ON:

X=±2 X.X=±0.1 X.XX=±0.05

ANGLES=± HOLEDIA=±



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INPAQ TECHNOLOGY CO., LTD.

SCALE:

UNIT: mm

DRAWN BY: 王婷

CHECKED BY: 张涛

DESIGNED BY: 余超

APPROVED BY: 范东亚

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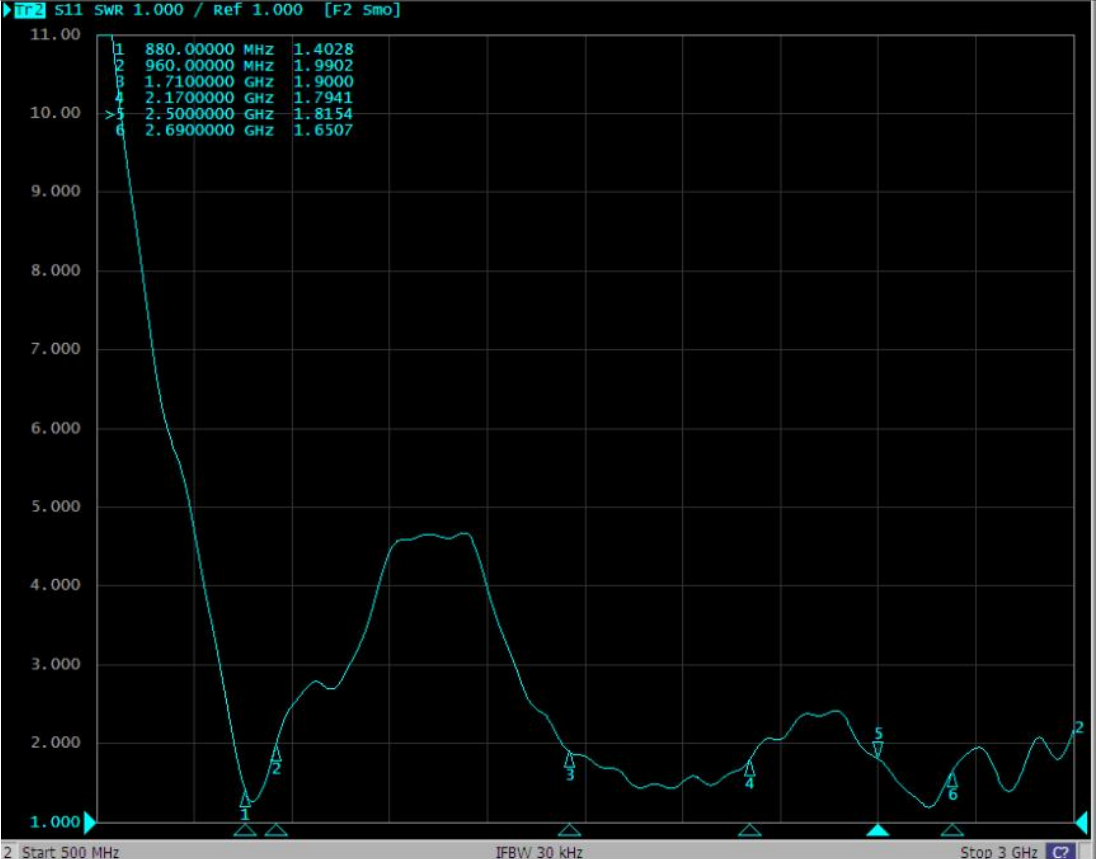
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2-2. Impedance

50 ohm nominal

2-3 VSWR:

Frequency Band	880	960	1710	2170	2500	2690
2-3-1. Typical Value:	≤ 2	≤ 2	≤ 2.5	≤ 2.5	≤ 2.5	≤ 2
2-3-2Measuring Method	1. A 50 Ω coaxial cable is connected to the fpcb 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.					
2-3-3Picture						

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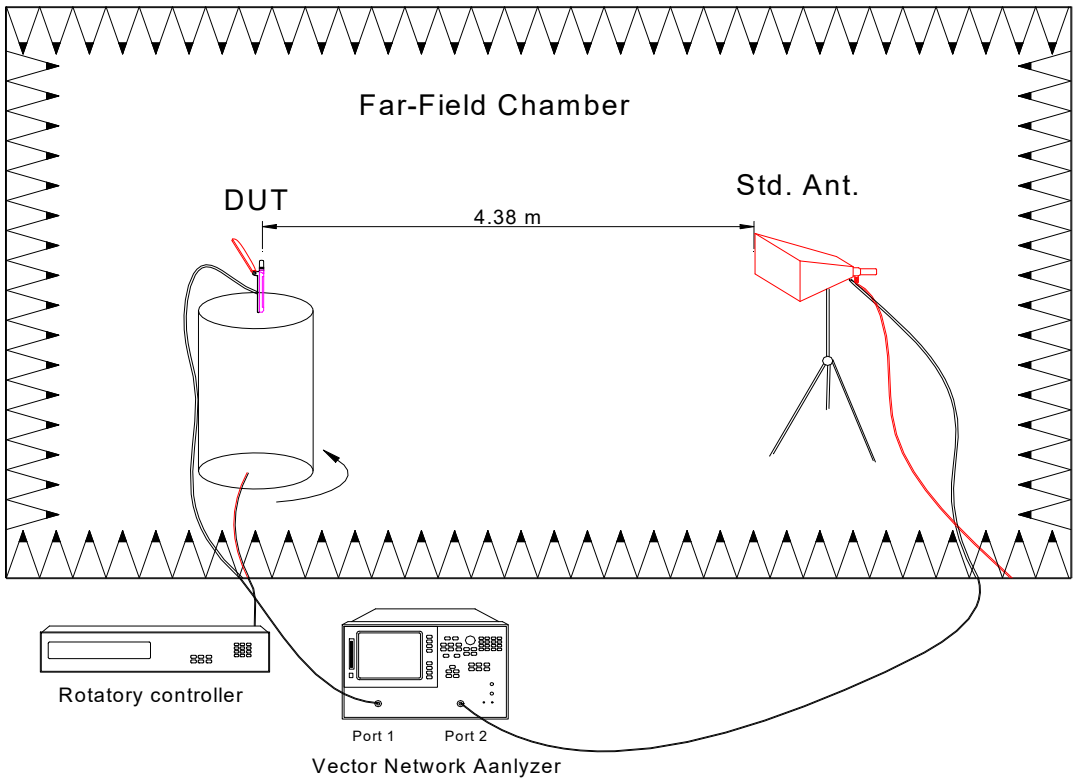
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2-4. Measure and Chamber

2-4-1 Measure method

1. Using a low loss coaxial cable to link a standard handset jig
2. Fixed this handset jig on chamber's rotator plane
3. Linking jig into network analyzer port and using a probing horn antenna to collect data.
4. Using another standard gain horn antenna to calibrated those data

2-4-2 Chamber definition



1. An anechoic chamber (8mx4mx3.5m) which satisfied far-field condition was applied to avoid multi-path effect
2. The quiet room region is 40cmx40cmx40cm at the center of rotator
3. The distance between DUT and standard antenna is 4.38 m
4. Probing antenna (9120D horn antenna) and standard gain horn antenna (BBHA9120 LPF 700MHz ~6GHz)

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2-4-3 Antenna OTA

			BHHL	BHHR
B1	TRP	18050	15.52	14.24
		18300	15.52	14.17
		18550	14.83	13.62
	TIS			
		550	-92.27	-91.94
B3	TRP	19250	14.2	13.21
		19575	15	13.92
		19900	15.74	14.54
	TIS			
		1900	-94.27	-93.45
B5	TRP	20450	9.25	11.02
		20525	9.63	11.32
		20600	9.83	11.12
	TIS			
		2600	-85.28	-85.03
B7	TRP	20850	15.44	15.22
		21100	15.13	14.81
		21350	14.74	14.38
	TIS			
		3350	-91.25	-92.63
B8	TRP	21500	10.54	11.82
		21625	11.13	11.96
		21750	11.18	11.58
	TIS			
		3750	-84.9	-85.3
B20	TRP	24200	9	10.82
		24300	9.48	10.72
		24400	9.42	10.06
	TIS			
		6400	-83.7	-85.2
B28	TRP	27260	9.14	10.85
		27435	9.16	11.29
		27610	8.83	11.3
	TIS			
		9610	-85.23	-86.18

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GSM850	TRP	128	17.72	20.55
		190	19.86	19.55
		251	18.78	19.01
	TIS			
		251	-96.48	-96.99
GSM900	TRP	975	18.76	20.03
		38	19.36	19.95
		124	19.64	19.8
	TIS			
		124	-96.16	-96.23
GSM1800	TRP	512	20.19	18.84
		699	20.8	19.11
		885	21.7	19.82
	TIS			
		885	-102.03	-99.86
W1	TRP	9612	15.24	13.99
		9750	15.07	13.8
		9888	14.43	13.26
	TIS			
		10838	-103.34	-103.27
W8	TRP	2712	10.17	11.46
		2788	10.77	11.59
		2863	10.97	11.35
	TIS			
		3088	-97.94	-98.24

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2-4- Antenna Efficiency

Frequency (MHz)	Peak Gain (dB)	Average Gain (dB)	Efficiency (%)
880	-3.88	-6.81	20.86
881	-3.81	-6.77	21.04
894	-3.94	-7.13	19.39
897	-3.62	-6.87	20.56
915	-3.19	-6.47	22.53
925	-3.20	-6.39	22.98
942	-3.83	-6.91	20.36
960	-4.50	-7.59	17.42
1710	-0.21	-4.71	33.79
1732	-0.28	-4.29	37.22
1747	-0.28	-3.91	40.60
1755	-0.10	-3.76	42.10
1805	0.19	-3.29	46.86
1842	0.16	-3.63	43.34
1850	0.07	-3.85	41.22
1880	0.32	-4.29	37.20
1900	-0.28	-4.97	31.81
1910	-0.76	-5.40	28.85
1920	-0.91	-5.46	28.42
1930	-1.35	-5.80	26.29
1940	-1.57	-5.90	25.69
1950	-1.72	-6.05	24.83
1960	-1.57	-6.21	23.96
1980	-1.15	-6.13	24.36
1990	-1.33	-6.34	23.21
2010	-1.18	-6.16	24.18
2040	-1.57	-6.50	22.39
2070	-0.91	-6.24	23.75
2110	-0.20	-5.93	25.54
2132	-0.53	-6.12	24.44
2140	-0.50	-6.02	25.00
2155	-0.31	-5.69	26.99
2170	-0.10	-5.40	28.85
2250	1.07	-4.36	36.61
2300	0.71	-4.38	36.46
2350	0.71	-4.07	39.22

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2400	0.22	-4.60	34.70
2410	0.41	-4.34	36.81
2420	0.27	-4.43	36.07
2430	-0.55	-5.20	30.17
2440	0.12	-4.73	33.61
2450	-0.16	-5.02	31.45
2460	-0.42	-4.99	31.72
2470	-0.74	-5.06	31.20
2480	-0.82	-4.79	33.20
2490	-0.53	-4.73	33.66
2500	-0.36	-4.45	35.89
2535	-1.23	-4.63	34.46
2570	-1.94	-5.28	29.65
2593	-1.94	-5.17	30.41
2595	-1.99	-5.15	30.56
2620	-2.32	-5.06	31.19
2655	-2.49	-5.57	27.71
2690	-3.12	-6.52	22.28

Frequency (MHz)	Peak Gain (dB)	Average Gain (dB)	Efficiency (%)
791	-2.91	-6.30	23.44
806	-2.72	-6.02	25.01
815	-2.25	-5.47	28.40
821	-2.06	-5.40	28.87
824	-1.96	-5.20	30.20
832	-2.15	-4.74	33.58
836	-1.90	-4.92	32.21
847	-2.13	-5.07	31.10
849	-2.50	-4.98	31.74
862	-3.06	-5.18	30.31
869	-3.31	-5.36	29.10
880	-3.97	-5.70	26.94
881	-3.73	-6.07	24.71
894	-3.85	-6.44	22.71

Frequency (MHz)	Peak Gain (dB)	Average Gain (dB)	Efficiency (%)
704	-3.73	-7.20	19.07
707	-3.41	-6.81	20.86
710	-3.32	-6.52	22.30
716	-2.72	-6.66	21.58
729	-2.52	-6.37	23.07
734	-2.37	-6.01	25.09

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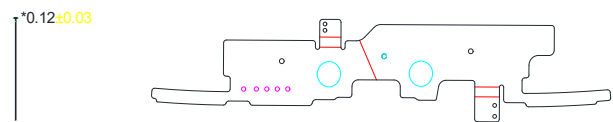
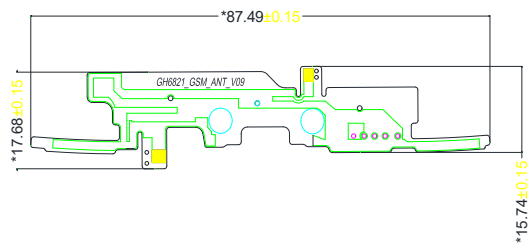
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737	-2.19	-5.74	26.66
740	-2.49	-5.45	28.49
746	-2.56	-5.97	25.31
751	-2.85	-5.57	27.71
756	-3.17	-5.89	25.74
777	-3.59	-5.95	25.42
782	-3.95	-6.14	24.31
787	-3.85	-6.13	24.36
791	-4.10	-6.35	23.20
806	-4.45	-7.43	18.09

3. Antenna Dimensions (mm) :



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