

产 品 承 认 书

(SPECIFICATION)

日期/DATE: 2022/08/01
编号/NUMBER: 228764-1
版本/VERSION: A1

客户名称

CUSTOMER: VIVACHEK

客户料号

CUSTOMER P/N: AG426

晟天编号:

PART MODEL: HZ8764WC

频率:

FREQUENCY: GSM&eMTC

产品名称:

PRODUCTNAME: Built-in FPC antenna

晟天承认 APPROVAL OF SUPPLIER		
编制DEAWN BY	审核CHECKED BY	核准APPROVED BY
黄浩Hao Huang	林国富 Guofu Lin	肖大田 Datian Xiao

客户承认 APPROVE BY CUSTOMER

变更履历
(Change of curriculum vitae)

NO	Versions	Date of change	Overview of changes	Reason for change
1	A1	2022.08.01	Initial Release	-----

目录
(Catalog)

1		测试设备(Test Equipment)	Page 4
2		样机图片(Prototype pictures)	Page 5
3		匹配(Matching)	Page 6
4		测试数据(Test Data)	Page 7-9
5		环境规范、包装(Environmental specifications, packaging)	Page 10
6		工程图(Engineering drawings)	Page 11
7		辐射方向图(Radiation direction map)	Page 12-13

1. 测试设备 (Test Equipment)

E5071C网络分析仪 Network Analyzer



7*4*3M微波暗室 Microwave darkroom



2.

样机图片

Prototype pictures

Please see the EUT photos in the external photos.

3. 匹配 Matching

3.1 开关匹配

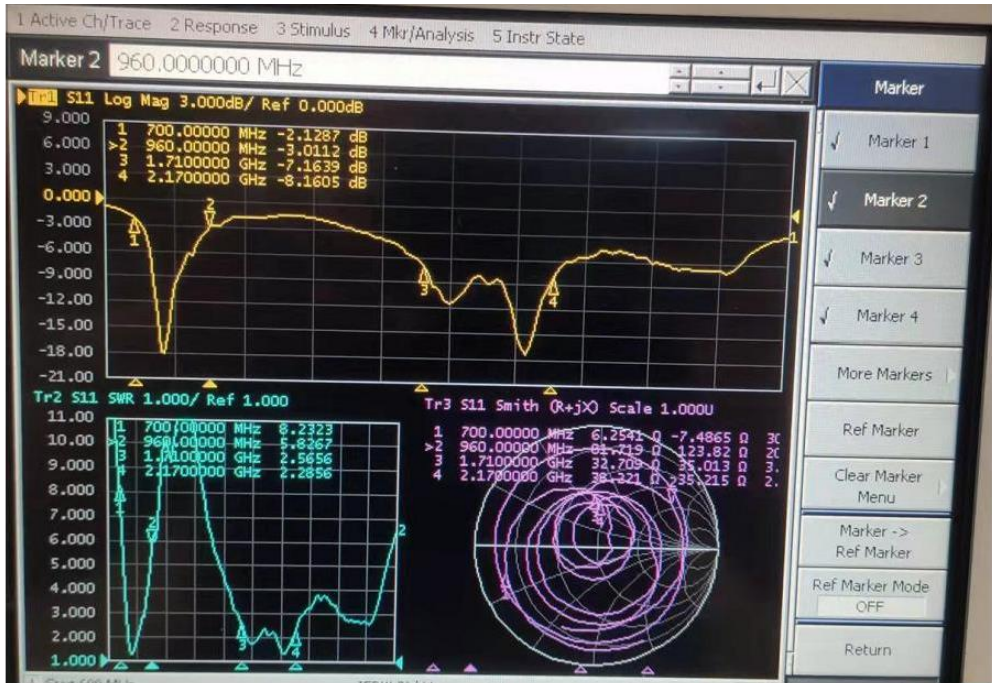
Please check the switch matching of the antenna in the operation description.

3.2 天线匹配 Antenna Matching

Please check the antenna matching in the operation description.

4. 测试数据
Test Data

4.1、Switch 00 Status Passive
Test Data



Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
800	45.17	-3.45	-0.83	1700	46.21	-3.35	1.18
810	46.93	-3.29	-0.71	1720	43.49	-3.62	1.17
820	49.48	-3.06	-0.59	1740	40.58	-3.92	1.05
830	51.18	-2.91	-0.5	1760	45.86	-3.39	1.37
840	48.69	-3.13	-0.74	1780	49.93	-3.02	1.67
850	49.64	-3.04	-0.62	1800	42.06	-3.76	1.1
860	43.41	-3.62	-1.2	1820	40.77	-3.9	0.75
870	42.28	-3.74	-1.3	1840	39.22	-4.06	0.22
880	37.49	-4.26	-1.88	1860	35.99	-4.44	0.01
890	39.6	-4.02	-1.76	1880	31.11	-5.07	-1.21
900	36.29	-4.4	-2.14	1900	29.16	-5.35	-1.83
910	37.99	-4.2	-1.8	1920	30.19	-5.2	-1.22
920	36.74	-4.35	-1.89	1940	30.54	-5.15	-1.41
930	33.41	-4.76	-2.33	1960	32.15	-4.93	-0.74
940	32.57	-4.87	-2.52	1980	36.22	-4.41	0.2
950	28.18	-5.5	-3.23	2000	40.06	-3.97	0.8
960	26.31	-5.8	-3.55	2020	42.78	-3.69	0.91
				2040	46.06	-3.37	1.02
				2060	53.86	-2.69	1.46
				2080	53.76	-2.7	1.41
				2100	53.39	-2.73	1.1
				2120	43.02	-3.66	0.3
				2140	37.58	-4.25	-0.49
				2160	38.23	-4.18	-0.65
				2180	35.13	-4.54	-0.94

4.2、Switch 10 Status Passive Test Data



Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
700	18.42	-7.35	-4.15
710	24.41	-6.13	-2.72
720	27.54	-5.6	-2.18
730	31.22	-5.06	-1.79
740	33.61	-4.73	-1.7
750	34.59	-4.61	-1.79
760	35.84	-4.46	-1.73
770	35.82	-4.52	-1.72
780	33.44	-4.76	-1.95
790	32.85	-4.83	-2.04
800	33.94	-4.69	-1.96
810	34.22	-4.66	-1.98
820	32.22	-4.92	-2.35
830	34.42	-4.63	-2.12
840	30.92	-5.1	-2.6
850	33.42	-4.76	-2.26
860	28.45	-5.46	-2.95
870	28.59	-5.44	-2.94
880	25.74	-5.89	-3.45
890	28.02	-5.53	-3.17
900	26.48	-5.77	-3.53

有源测试数据 Active test data

Test	eMTC1 TRP			eMTC2 TRP			eMTC3 TRP			eMTC4 TRP					
Result	18050	18300	18550	18650	18900	19150	19250	19575	19900	20000	20175	20350			
Frequency (MHz)	1925	1950	1975	1855	1890	1905	1715	1747.5	1780	1715	1732.5	1750			
TRP (dBm)	18.33	17.99	18.47	19.27	18.84	18.58	16.75	17.01	17.04	17.18	17.59	17.66			
MAX (dBm)	21.7	21.89	22.61	22.8	22.96	22.45	21.16	21.06	21.39	21.55	21.89	21.71			
Test	eMTC1 TIS			eMTC2 TIS			eMTC3 TIS			eMTC4 TIS					
Result			850			1150			1900			2350			
Frequency (MHz)			2185			1985			1875			2180			
TIS (dBm)			-94.83			-96.19			-95.97			-94.76			
Test	eMTC5 TRP			eMTC12 TRP			eMTC13 TRP			eMTC20 TRP			eMTC25 TRP		
Result	21500	21625	21750	23050	23095	23130	23205	23230	23255	24200	24300	24400	27260	27435	27610
Frequency (MHz)	885	897.5	910	703	706.5	710	779.5	782	784.5	837	847	857	708	725.5	745
TRP (dBm)	17.11	17.98	17.86	16.17	16.29	17.18	16.72	16.83	16.67	17.27	18.21	17.67	16.96	17.35	16.55
MAX (dBm)	19.33	20.25	20.21	18.4	18.17	18.9	19.66	19.98	19.64	20.39	20.32	20.82	19.07	19.92	18.01
Test	eMTC5 TIS			eMTC12 TIS			eMTC13 TIS			eMTC20 TIS			eMTC25 TIS		
Result			3750			5130			5255			6400			9610
Frequency (MHz)			955			740			753.5			816			798
TIS (dBm)			-94.52			-92.73			-93.11			-95.25			-94.06

Test	GSM850 TRP			EGSM TRP			DCS TRP			PCS TRP		
Result	128	190	251	975	62	124	512	698	885	512	661	810
Frequency (MHz)	824.2	836.6	848.8	880.2	902.4	914.8	1710.2	1747.4	1784.8	1850.2	1880	1909.8
TRP (dBm)	30	30.48	30.23	29.4	28.31	28.5	26.65	26.01	27.02	26.43	27.08	27.28
MAX (dBm)	32.3	32.77	32.49	31.55	30.55	30.74	30.49	30.15	31.55	29.78	30.55	30.77
Test	GSM850 TIS			EGSM TIS			DCS TIS			PCS TIS		
Result			251			124			885			810
Frequency (MHz)			893.8			959.8			1879.8			1989.8
TIS (dBm)			-104.52			-103.27			-103.13			-103.03

5.

环境规范、包装

Environmental specifications, packaging

Operating Temperature Range: -40°C ~ +85°C

Storage Temperature Range: -40°C ~ +120°C

Antenna be exposed in a 35°C, 5% salt fog chamber for 24 hours then check the appearance and performance against the specifications in normal temperature.

The antenna is subjected to the following test:

Temperatures: +70°C and 90%--95%RH

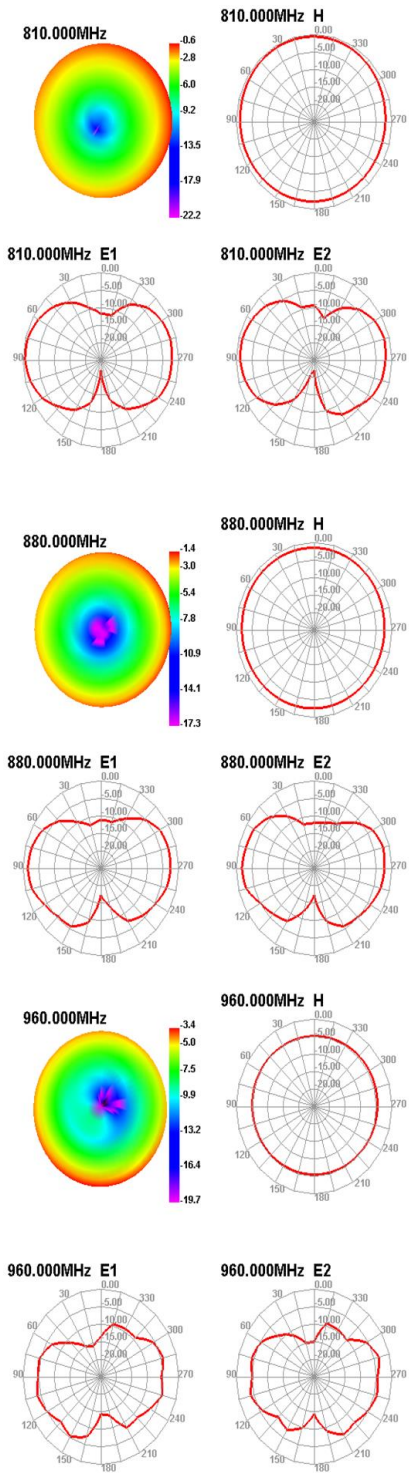
Test Duration: 24 Hours

The antenna should not undergo any structural or functional change and remain within the electrical/mechanical specification.

The antennas will be packed in bags, There are 200or 500 antennas per bag. The bags are packed in corrugated fibreboard over box.

7. 辐射方向图
(Radiation direction map)

Passive_00:



Passive_10:

