



金汇马M186A WIFI天线测试报告

Antenna Design And Test Report

报告调试版本: V3.0

报告日期: 2023年3月31日星期五



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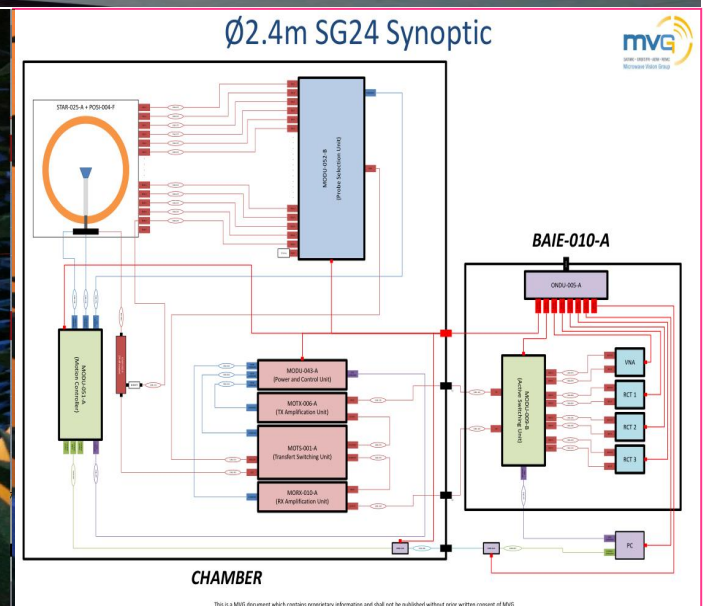
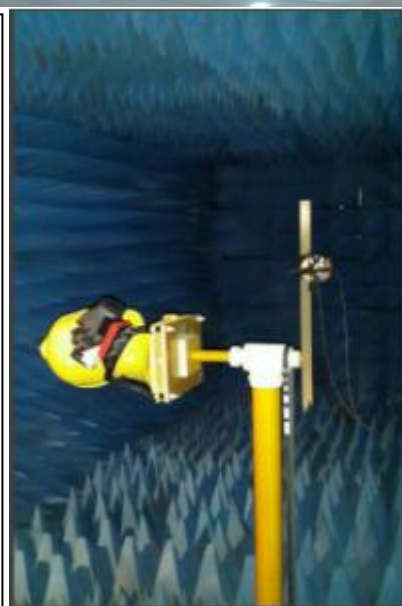
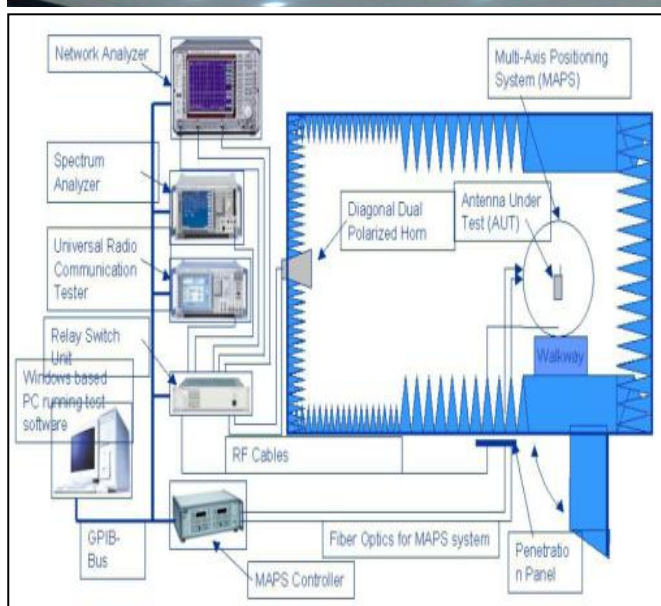
附加说明

Additional Notes



主天线设计频段: main antenna design spectrum	GSM850/900/1800/1900 WCDMA1/2/5
天线类型: Type of antenna	PIFA
副天线设计频段: Deputy antenna design spectrum	WIFI/BT
天线类型: Type of antenna	PIFA
分集天线频段: Frequency diversity antenna	GPS
天线类型: Type of antenna	PIFA

报告版本: Report version	日期 Date	内容 Content
V1.0	2023.03.21	Antenna debugging test data
V2.0	2023.03.28	
V3.0	2023.03.31	Antenna test data

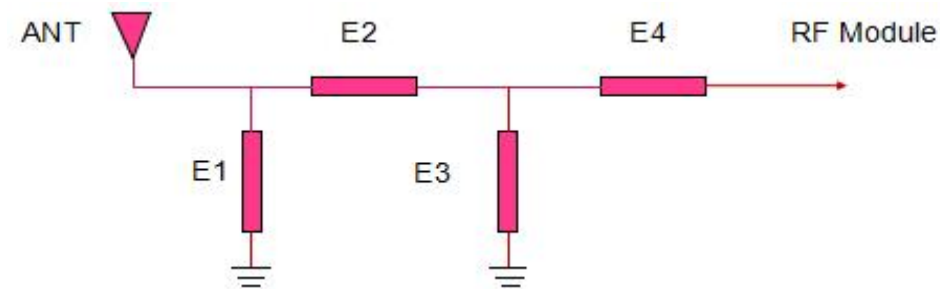


Three far-field 3D all-wave microwave dark room laboratory system and one MVG SG24LT (Satmio) near-field 3D microwave dark room laboratory system (synchronized with relevant national laboratories)

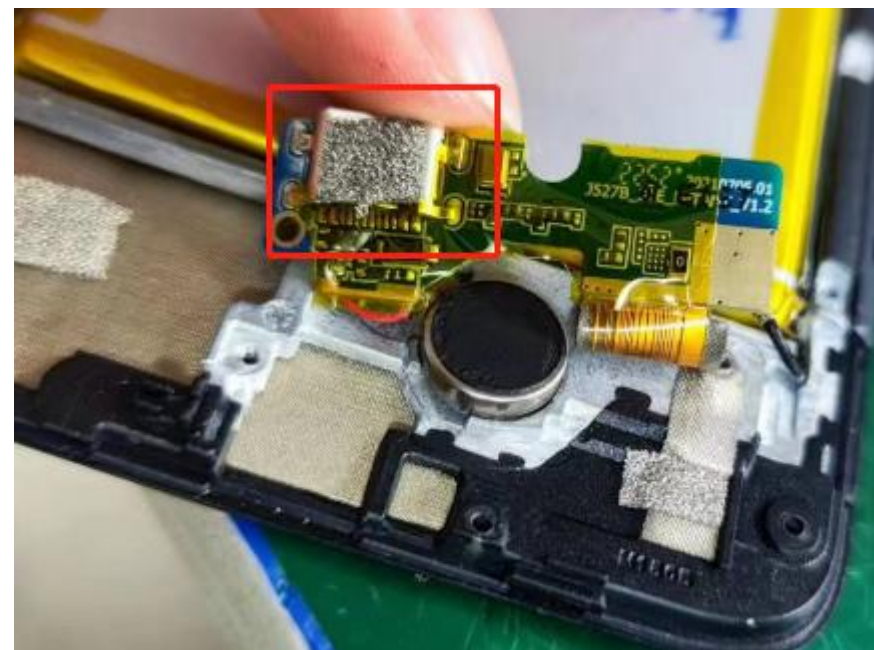


匹配电路

主天线设计: main antenna design		副天线设计: Deputy antenna design		分集天线设计: Diversity antenna design	
元件 Element	值 Value	元件 Element	值 Value	元件 Element	值 Value
E1(0402):	N/A	E1(0402):	N/A	E1(0402):	N/A
E2(0402):	N/A	E2(0402):	N/A	E2(0402):	N/A
E3(0402):	N/A	E3(0402):	N/A	E3(0402):	N/A
E4(0402):	N/A	E4(0402):	N/A	E4(0402):	N/A

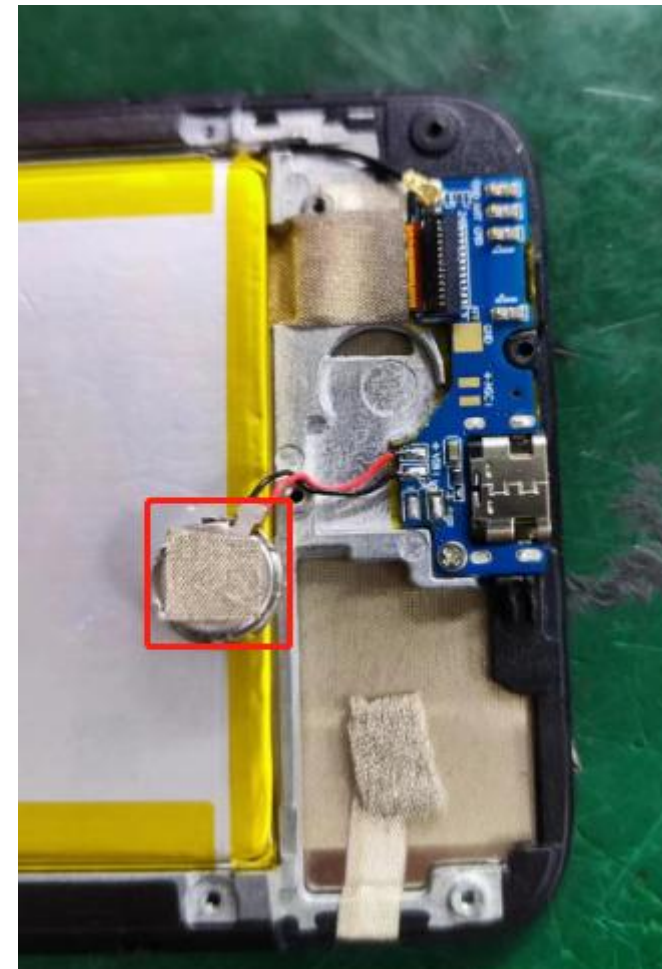


USB interface is grounded with conductive foam.



The motor is grounded with double-sided conductive cloth.

Others should be treated in the original environment.





标准	BAND	GSM900			DCS1800			
自由空间	CHANNAL	1	62	124	512	699	885	
	TRP	26.66	27.51	27.17	24.02	23.57	23.44	
	TIS	--	--	-100.05	--	--	-102.14	
	BAND	GSM850			PCS1900			
	CHANNAL	128	190	251	512	661	810	
	TRP	24.57	25.36	25.78	24.9	25.52	25.69	
	TIS	--	--	-101.15	--	--	-102.08	
	备注：3D数据							



标准	BAND	WCDMA2100			WCDMA850		
自由空间	CHANNAL	L	M	H	L	M	H
	TRP	17	16.76	17.21	14.16	15.46	15.66
	TIS	--	--	-102.89	--	--	-101.69
	BAND	WCDMA1900					
	CHANNAL	L	M	H			
	TRP	16.86	16.59	16.29			
	TIS	--	--	-100.04			
	备注：3D数据						



标准	BAND	GSM900			DCS1800			
自由空间	CHANNAL	1	62	124	512	699	885	
	TRP	26.39	26.47	26.36	23.62	23.2	23.19	
	TIS	--	--	-99.26	--	--	-101.73	
	BAND	GSM850			PCS1900			
	CHANNAL	128	190	251	512	661	810	
	TRP	26.22	26.03	25.34	24.28	25.3	25.72	
	TIS	--	--	-101.87	--	--	-101.63	
	备注：3D数据							



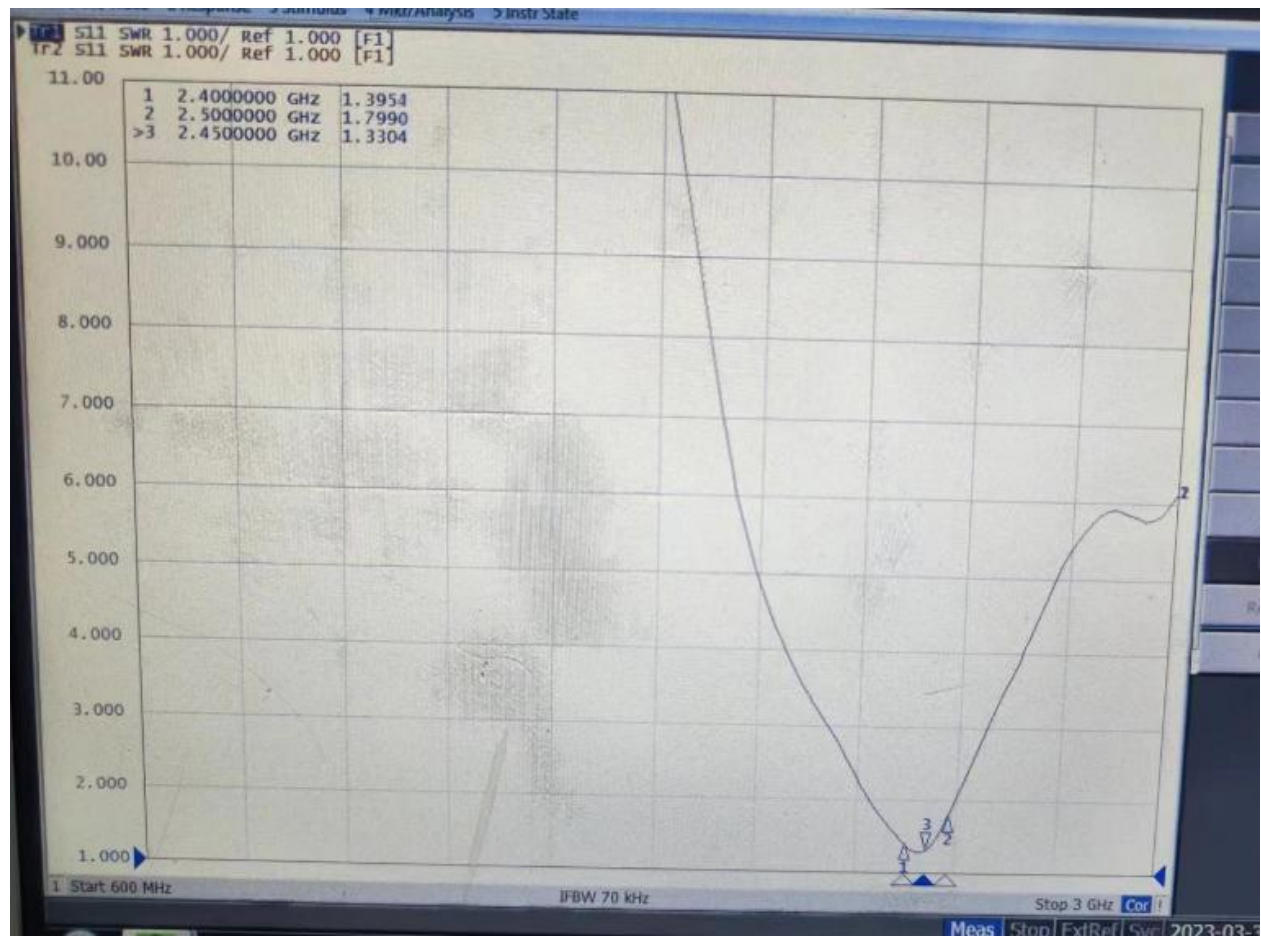
标准	BAND	WCDMA2100			WCDMA850		
自由空间	CHANNAL	L	M	H	L	M	H
	TRP	17.08	16.44	17.49	15.26	15.56	15.64
	TIS	--	--	-102.78	--	--	-101.85
	BAND	WCDMA1900					
	CHANNAL	L	M	H			
	TRP	17.33	16.69	17.08			
	TIS	--	--	-100.33			
	备注：3D数据						



标准	BAND	GSM900			DCS1800			
自由空间	CHANNAL	1	62	124	512	699	885	
	TRP	26.19	26.54	26.19	24.06	23.69	23.72	
	TIS	--	--	-99.71	--	--	-102.51	
	BAND	GSM850			PCS1900			
	CHANNAL	128	190	251	512	661	810	
	TRP	25.62	25.58	25.52	25.34	25.88	25.6	
	TIS	--	--	-101.26	--	--	-102.17	
	备注：3D数据							



标准	BAND	WCDMA2100			WCDMA850		
自由空间	CHANNAL	L	M	H	L	M	H
	TRP	16.85	16.99	16.57	15.17	15.33	15.86
	TIS	--	--	-101.26	--	--	-100.82
	BAND	WCDMA1900					
	CHANNAL	L	M	H			
	TRP	16.98	16.42	16.28			
	TIS	--	--	-100.45			
	备注：3D数据						

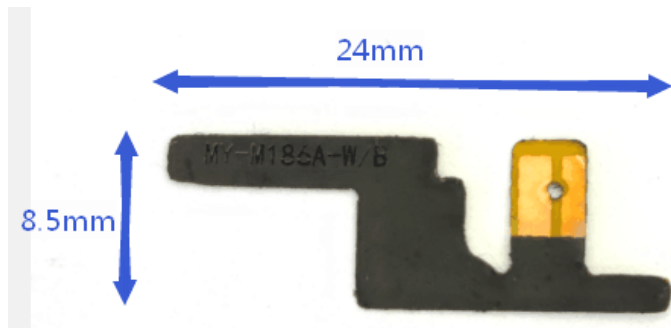


驻波比

Test Data

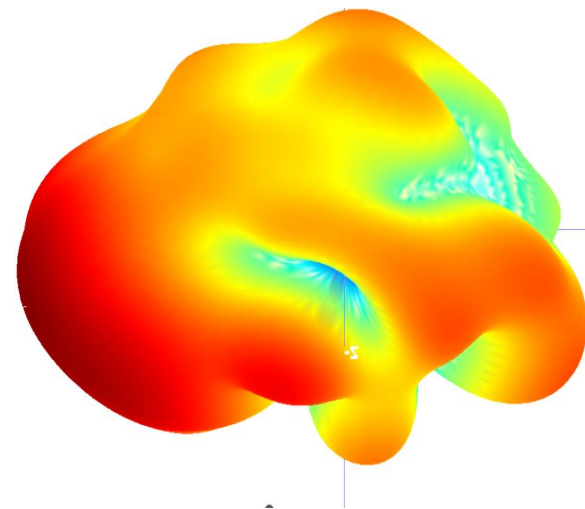
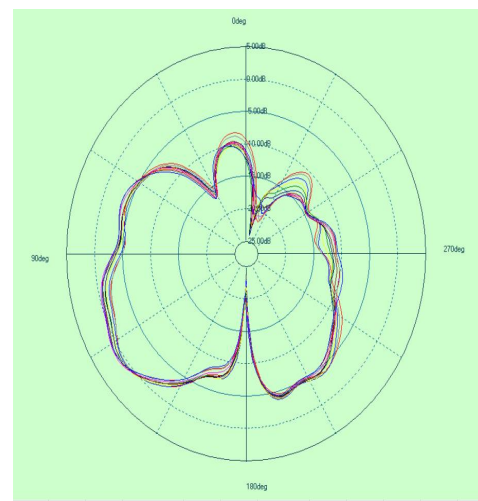
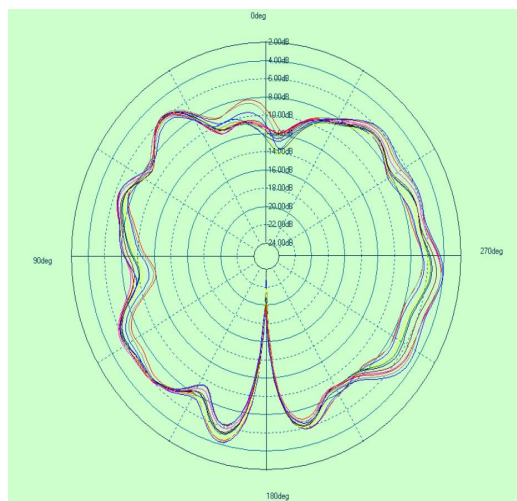
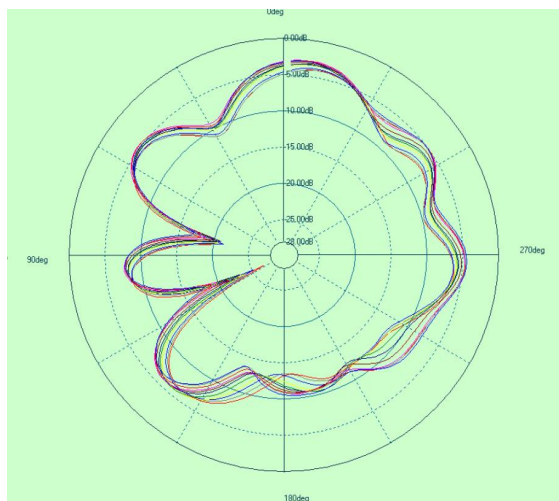
Frequency	Efficiency	Efficiency .	Gain . dB
2400000000.00	20.69%	-7.5231	0.372814353
2410000000.00	20.41%	-7.59269	0.369421968
2420000000.00	20.41%	-7.59319	0.499103719
2430000000.00	21.01%	-7.44396	0.702264093
2440000000.00	21.16%	-7.41002	0.677244285
2450000000.00	21.18%	-7.40521	0.712508383
2460000000.00	22.02%	-7.20821	0.962061847
2470000000.00	22.82%	-7.02854	1.126823936
2480000000.00	22.50%	-7.09871	0.968810602
2490000000.00	22.37%	-7.12789	0.876257997
2500000000.00	22.74%	-7.04627	0.963061534

Antenna Photo:





方向图





WIFI/BT test report

Measured effect of WIFI
The signal is stable 10M from the router.

BT measured effect
Data transfer to each other is 10m.



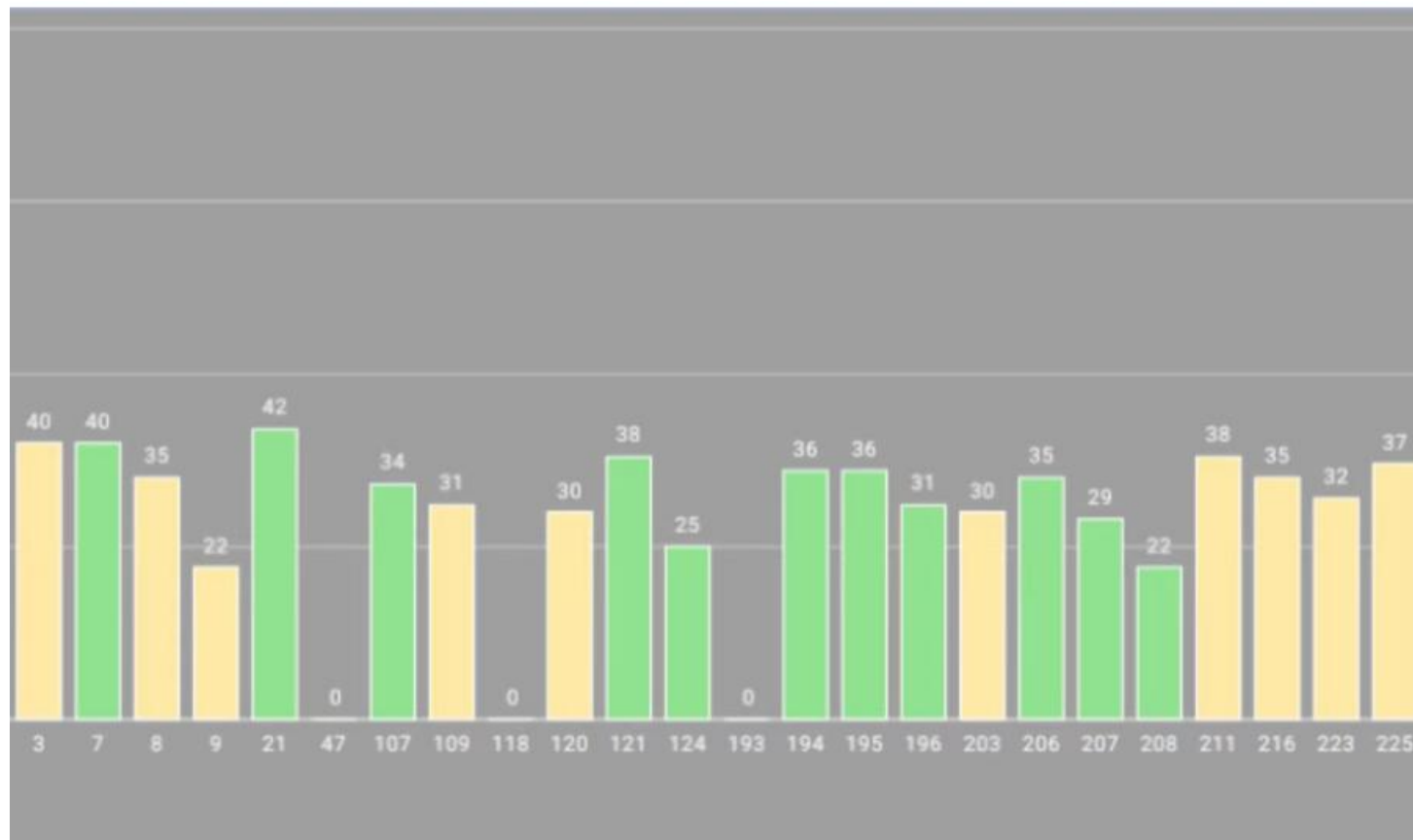


GPS. Survey report

GPS measurement effect

During the day, open position,
cold start positioning within

78S, 11 valid stars, maximum
star value 42.





If you have any questions, please call me. Thank you.



01

Whether the antenna matching circuit is changed or whether the environmental treatment related to the antenna is increased in the report will directly affect the performance of the antenna. Please check it carefully.

02

If your company has the latest trial production or updated products (such as software, ESD, materials, etc.), please provide us as soon as possible for verification, so as to confirm whether the antenna performance is affected by changes.

03

If your company needs to send a third-party testing institution for retest or customer test, please be sure to conduct antenna related test with our company to confirm first. Due to the consistency of motherboard and assembly, as well as differences in antenna assembly and other factors, antenna parameters may be deviated.

谢谢

THANK YOU

如有疑问 请联系我们

日常服务时间：周一至周六 9:00-18:00

总机热线：0755-36615535 销售热线：0755-36615535 传真：0755-82916227

 网址：www.mayaant.com

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