



Project: PM37

Producer: ZP

Date: 2023.05.03

Baseus PM37 RF Test Report

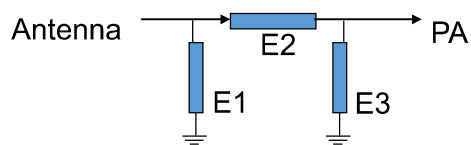
Project resume							
Date	Antenna version	Software version	Hardware version	Reason for Change	Change content	Tester	Notes
20230503						ZP	

directory:

- Antenna matching
- Passive data
- OTA data
- Field measurement data
- Environmental treatment
- conclusion



Antenna matching



Tag Number	parameter
E1	NC
E2	0Ω
E3	NC

Passive data

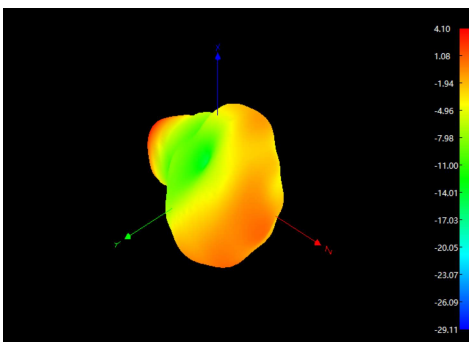
free space

Frequency MHz	Efficiency dB	Efficiency %	Gain dBi
2400	-3.51	44.57	4.1
2410	-3.48	44.87	3.52
2420	-3.17	48.19	3.87
2430	-3.26	47.21	3.31
2440	-2.97	50.47	3.13
2450	-3.09	49.09	2.98
2460	-3.41	45.6	2.38
2470	-3.45	45.19	2.48
2480	-3.34	46.34	2.39
平均值	-3.25	47.28	3.09

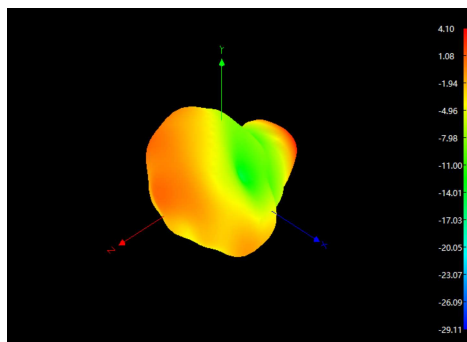


PM37-Passive-Data.et

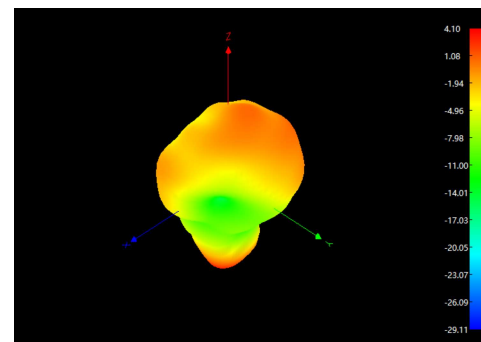
2400



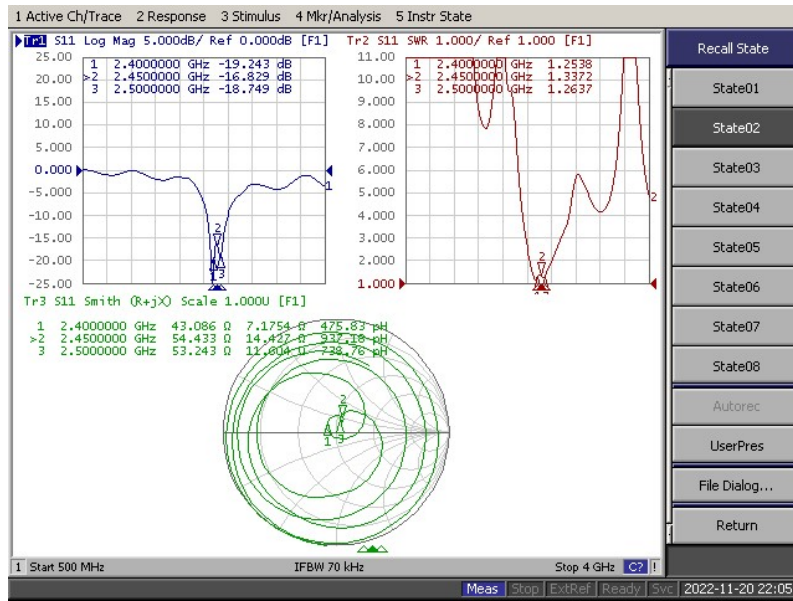
2410



2420



LOG MAG@VSWR@SMITH@

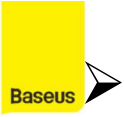


OTA date

OTA Test			
	Channel	TRP (dBm)	TIS (dBm)
Free space	CH 0	3.87	-90.09
	CH39	4.02	-89.86
	CH78	3.86	-89.14



PM37-OTA.xls



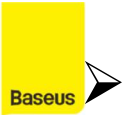
Field testing - distance test

Bluetooth distance test

Test instructions:

1. Place the test phone at a height of about 120cm above the ground, fix the phone and connect the prototype to the Bluetooth of the phone
2. The tester should wear the prototype normally, gradually move away from the phone in one direction, find a maximum distance where the music does not get stuck, turn 360 degrees at this distance, and shake his head back, forth, left, and right 15 degrees. The music does not get stuck, and record the maximum distance where the music does not get stuck as the Bluetooth distance.
3. Call pull distance test: the mobile phone is connected to the prototype Bluetooth, and the headset is normally worn. The mobile phone is placed in a designated position, meeting the requirements that no more than two slight noises and no more than two jams occur within five minutes of a call. The maximum distance recorded that the call signal has good sound quality and no jams is the call Bluetooth distance
4. Music dual ear/single ear Bluetooth distance \geq 15 meters Call Bluetooth distance \geq 12 meters Distance between headphones \geq 10 meters
5. Test phone: Samsung S10

Prototype number	Stage	Test mobile	Tester	BMI	Test area	L distance test	R distance test	Test the distance between the dual headphones and the phone	L Distance test between two earphones	Call distance test	Front pocket	back pocket	Cover one's ears (Cover both ears tightly at the same time)	test result	notes
Charging Box Version:		V1.0		Earphone version:		V2.0.08		Test date:	2022/12/23			Test Weather:		clear	
1#	EVT	S10			Open area										
2#		S10		Open area	Open area										



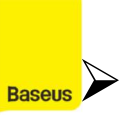
Field testing - anti-interference test

Anti-interference test

Testing requirements:

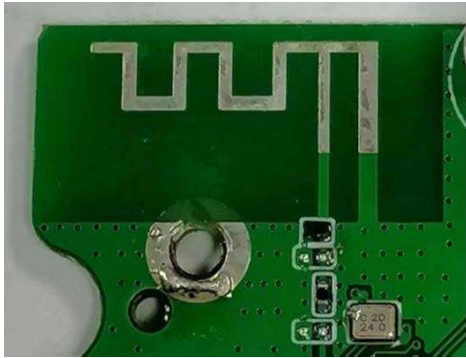
1. During testing, it is necessary to confirm whether the antenna status is the latest and whether the RF test is qualified. It is tentatively planned to test once per stage
2. Testers should follow the prescribed route during the testing process to avoid any deviation in the test results
3. Standard for collecting stutters: Whenever there is a sound stuttering (sound discontinuity), it is recorded once, and the number of consecutive stutters is recorded
4. During the testing process, the tester automatically adjusts their walking speed and cannot stop in place, maintaining a state of motion
5. The local songs will be played continuously along the subway route during the subway route. You need to listen to songs and make phone calls at the subway interchange station and the high-speed railway north station, record the abnormal times and compare with the contrast machine
6. Mobile phone placement: To travel: Top down, screen facing inward and sticking to the skin, Back travel: Top down, screen facing outward
7. Test mobile phones: Samsung S10, Hongmi K30, headphone comparison machine: Huawei FreeBuds 3, OPPO Enco X, test quantity not less than 5PCS

Charging Box Version:		Earphone version:		date of observation:		Test Weather:							
Sample name/number	Headphone battery level	Test route	test phase	tester	BMI	heightcm	phone	Play music			Answer and make phone calls		
								Phone location	Stuck Times	Stuck duration	Phone location	Stuck Times	Stuck duration
1#		Subway line	EVT				SUMS10	Front right			Front right		
2#							SUMS10	Front left			Front left		
1#		High speed railway station					SUMS10	Front right			Front right		
2#							SUMS10	Front left			Front left		
1#		crossroads					SUMS10	Front right			Front right		
2#							SUMS10	Front left			Front left		



environmental treatment

Antenna area



Antenna size



Manufacturers: SHENZHEN XUNNCHI SPECIAL CIRCUIT TECHNOLOGY CO.,LTD

Address: Shenzhen city, Bao'an District, Songgang Street, Xi tou community eight industrial district, No. 2 C, No. 4 Industrial Road, No. 2008, Junqi Wisdom Business Park



conclusion

- 1.This antenna is in the form of a PIFA antenna
- 2.The average efficiency of this antenna is 47.28%
- 3.The peak gain of this antenna is 4.1dBi

Continuous preferred continuous improvement