



Shenzhen dongxintong electronic technology co., ltd

ShenZhen Eastong Electronic technology Co., LTD

E.S Antenna Design

& Mobile Phone OTA (CTIA)

Test Report

Design for: Voronoi Z18FFZ



Shenzhen dongxintong electronic technology co., ltd



date	version	situation
2023-02-13	A	FPC

1 Overview.....1-2

2 project description.....1-2

[3 Debugging Settings 3](#)

[3.1 Standing wave \(VSWR\) and return loss 3](#)

[3.2 TRP/TRS was tested in ETS 7m×4m×4m 3D darkroom using Agilent8960\(5515C\) and 8011. 3 3.3](#)

[Matching Circuit Description\) 3](#)

[4 Effective Radiated Power Summation \(Trp\) 3 5](#)

[EFE Active Isotopic Sensitivity Summation \(TIS\) 4](#)

[6 Environmental Treatment](#)



Shenzhen dongxintong electronic technology co., ltd

1 Overview

This report is mainly used to describe the parameter description of the antenna tested by Eastcom Electronics for the Vongog Z18FFZ project.

2 project description

Project name: Vongog Z18FFZ,
mobile phone model: straight
board computer,

Mobile phone frequency band: GSM/4G

Antenna form: made into PIFA

antenna form. Motherboard:
CA300A-V1.0

3 debugging settings

3. 1 Standing wave (VSWR) and Return Loss.

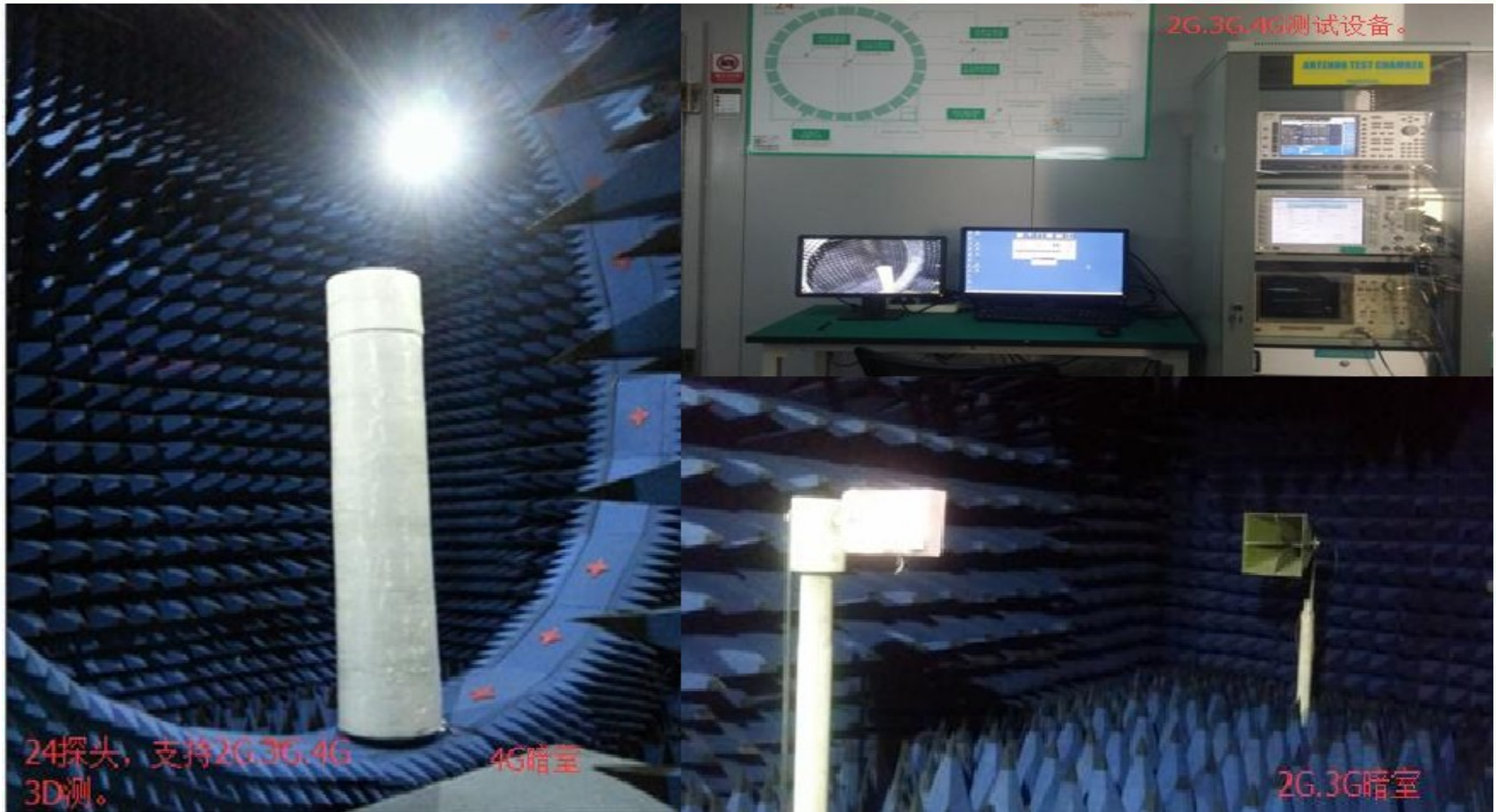
VSWR is tested by connecting Agilent E5062B to the hand mechanism, and the state is free space.

3. 2 TRP/TRS was tested with Agilent8960(5515C) in ETS 7m×4m×4m 3D darkroom.

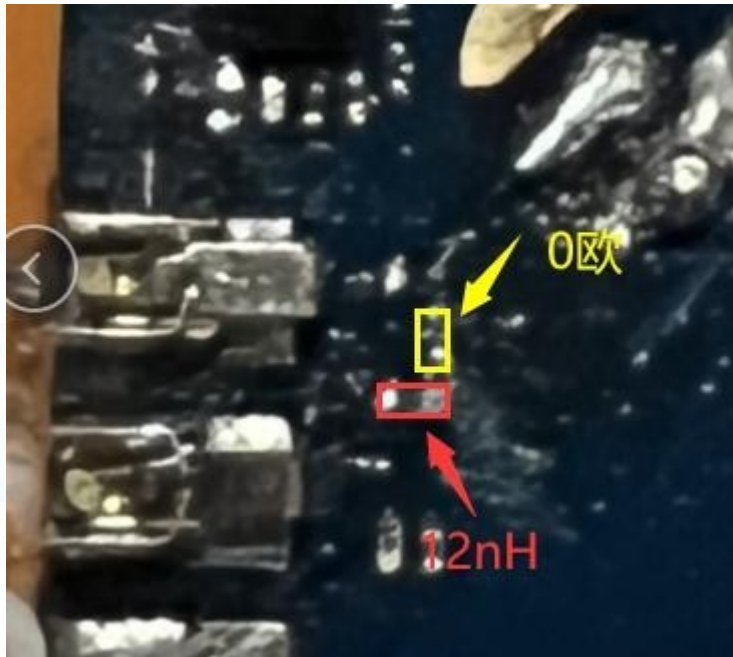
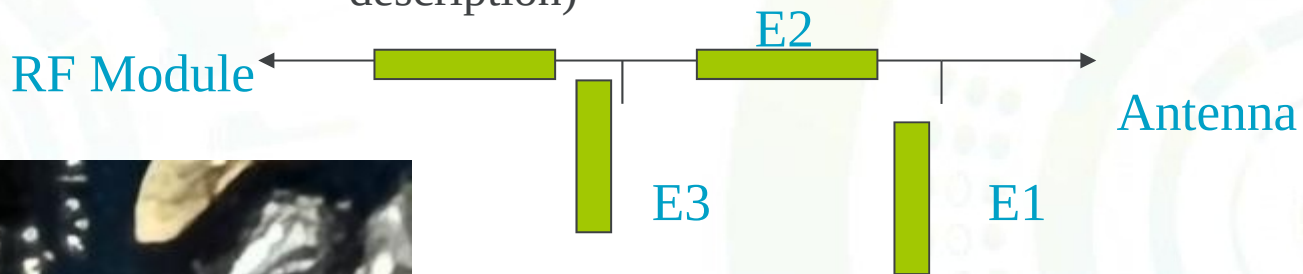


Shenzhen dongxintong electronic technology
co., ltd

2. Advanced technology and equipment



Matching Circuit Description (matching circuit description)



Element	Value	Vender
E1(0402)	12nH	
E2(0402)	0 ou	
E3(0402)		
E4(0402)		

Matching has been modified.



Shenzhen dongxintong electronic technology co., ltd

switching circuit

Element	thoroughfare	Value	Vender
E1(L0655)	RF2	6.8nH	B28AB
E2(L0656)	RF1	0 ou	Remaining frequency band

4. Antenna test data 1#

GSM	GSM900			DCS1800		
Let	one	62	124	512	698	885
TRP	27.8	27.3	27.0	24.1	24.2	24.9
TIS	-103.4	-103.0	-102.3	-103.0	-103.3	-102.4

GSM	GSM850			PCS1900		
Let	128	190	251	512	661	810
TRP	27.0	27.3	27.9	24.8	24.7	24.1
TIS	-103.3	-102.9	-102.3	-103.5	-103.0	-102.7

4. Antenna test data 1#

WCDM A	W850			W900		
Let	4357	4408	4458	2937	3013	3088
TRP	17.3	17.8	18.0	18.0	17.9	17.3
TIS			-103.1			-102.8

WCDM A	W1900			W2100		
Let	9662	9800	9938	10562	10700	10838
TRP	17.8	17.5	17.9	18.0	17.2	17.2
TIS			-102.5			-102.4

4. Antenna test data

LTE	B2			B3		
Let	L	M	H	L	M	H
TRP	17.6	17.8	17.3	17.0	17.3	17.9
TIS			-89.6			-90.6

LTE	B4			B7		
Let	L	M	H	L	M	H
TRP	18.0	17.7	17.2	17.9	17.6	17.0
TIS			-90.21			-89.3

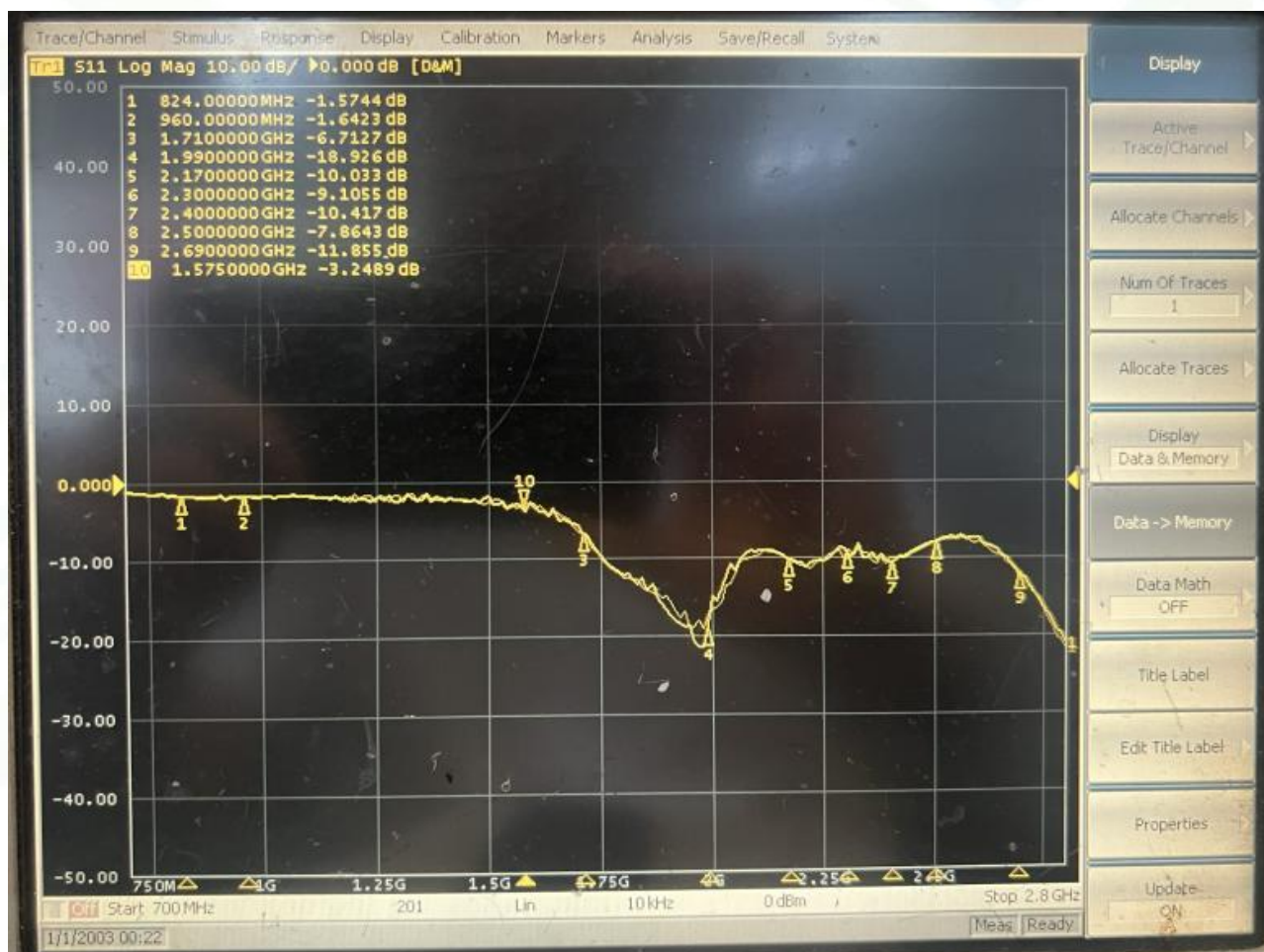
4. Antenna test data

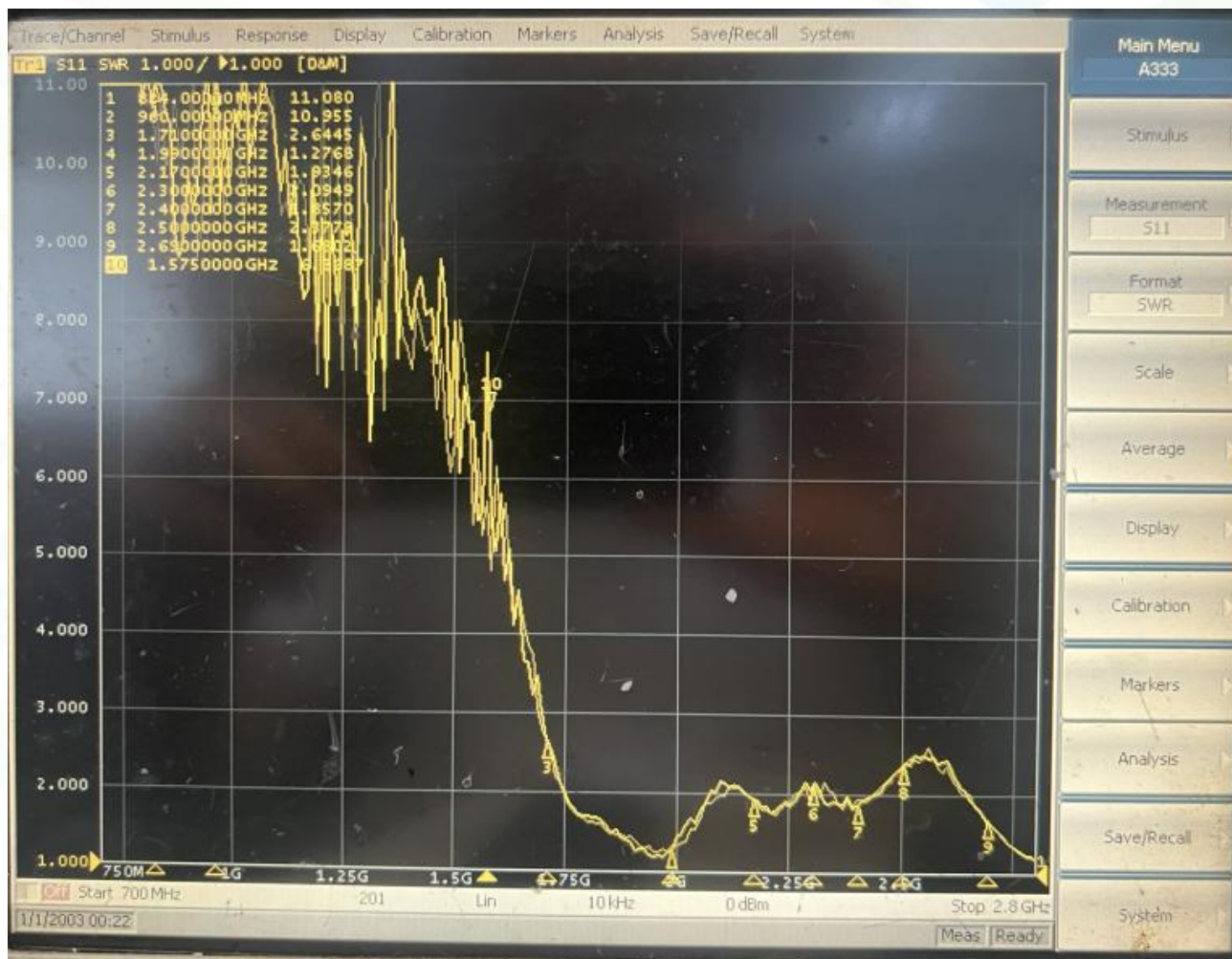
LTE	B28A			B28B		
Let	L	M	H	L	M	H
TRP	14.2	14.6	15.0	14.6	15.1	15.1
TIS			-90.3			-90.0

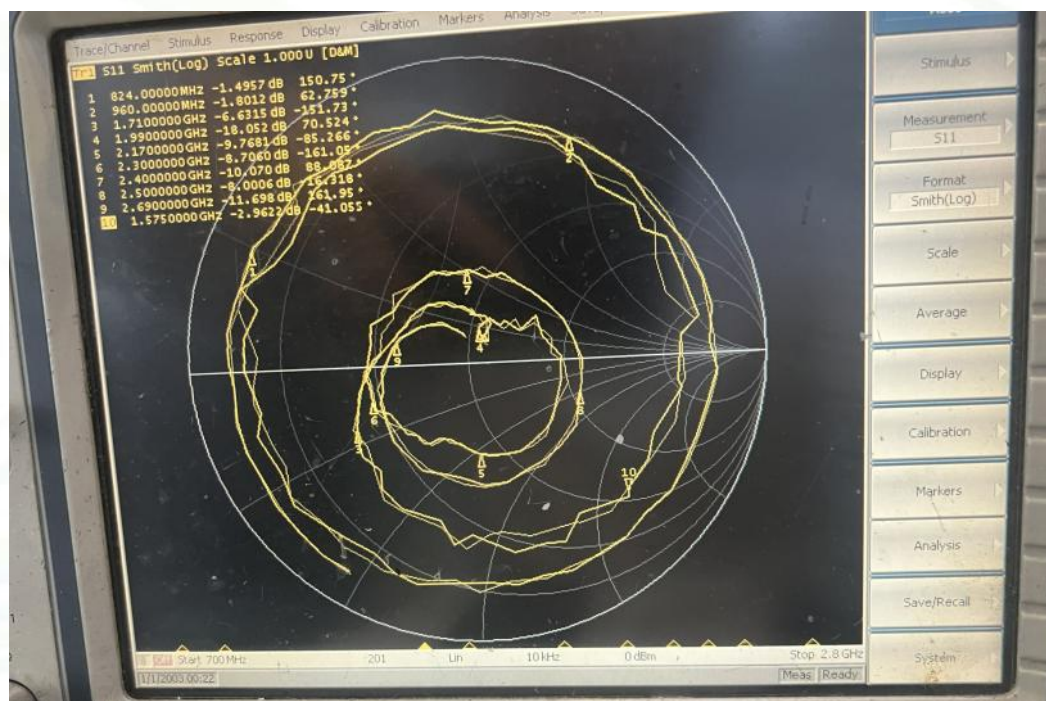
Environmental treatment: paste the conductive cloth as shown below.



BT







Frequency (MHz)	Gain(dB)		
	Max	Min	Avg
2400	1.02	-22.0965	-12.3695
2450	1.35	-24.5323	-10.5012
2500	0.78	-29.4952	-9.18523

Technical drawing of a rectangular plate. The top dimension is labeled 25 ± 0.1 . The bottom dimension is labeled 6.

1. 带*号尺寸为重点尺寸, 未注公差按图纸公差.

1.带*号尺寸为重点尺寸,未注公差按图纸公差.				深圳市东信通电子科技有限公司									
				第三角法		机种	Z18DRJ-FMG	日期	2022-07-06	页码	1/1		
				来料公差参见标准	○	0.02	品名	BT导线	设计	陈海海	审核		
				10以下	±0.05	◎	0.03	料号	112-C03	审核	工程		
				10~20	±0.10	⊥	0.02	材质			射频		
				20~40	±0.15	▱	0.04	模面处理		确认			
				40以上	±0.20	∠	0.02	外观处理	本色	单位	□□	比例	
日期	修 改 内 容			版 本	备 注		请勿实测图纸		FIT	版本	T:A		



Shenzhen dongxintong electronic technology
co., ltd

Thank you