

SAMPLE SPECIFICATION FOR APPROVAL

样品承认书

供应商名称 Supplier name	Shenzhen Credits Technologies Limited Co.
产品型号 Product model	Q18-WIFI/BT
产品名称 Product name	Q18 WIFI/BT ANT
产品规格 Product spec	FPC
适用项目 Applicable projects	Q18-WIFI/BT
送样时间 Sample time	2025-9-10
物料编码 Part number	4. Q18. 3701. 1

公司/Name: Shenzhen Credits Technologies Limited Co.

地址/Add : R304 Building Tianshi, Meiheyigu Industry Zone,Bao'an District, Shenzhen,Guangdong

电话/Tel :

传真/Fax:

邮箱/Email:

ANTENNA SPECIFICATION0

CUS P/N : Q18 –WIFI/BT
CREDITS P/N :

ApplicationDate: 2025-9-10
Editor:

Rev: R:A0
Page 1 of 6

Index

1.			General Description	1
2.			Electrical Specifications	2
	2-1		Set-up	2
		2-1-1	Frequency Band	2
		2-1-2	Impedance	2
		2-1-3	Matching Requirements	2
		2-1-4	VSWR	2
	2-2		Test Data	3to4
		2-2-1	VSWR	3
		2-2-2	TRP&T	4
3.			Mechanical Specification	5to7
	3-1		Mechanical Configuration	5
		3-1-1	Mechanical Configuration	5
		3-1-2	Mechanical Configuration	6
	3-2		Measurement Data	7
	3-3		Salt-Spray Test	7
4.			Environment Characteristics	7

ANTENNA SPECIFICATION0

CUS P/N : Q18 –WIFI/BT
CREDITS P/N :

ApplicationDate: 2025-9-10
Editor:

Rev: R:A0
Page 2 of 6

1. General Description

This report summarizes the electrical performance results of the proposed Internal antenna to support the Q18-WIFI/BT, program. The antenna is an assembly LTE



2. Electrical Specifications

2-1 Set-up

2-1-1 Frequency Band

Frequency Band	Tx(MHz)	Rx(MHz)
WIFI	2400 ~ 2500	
BT	2400 ~ 2500	

2-1-2 Impedance

Nominal Impedance(including matching circuit) : 50 ohms

2-1-3 Matching Requirements

The matching circuit on the PCB of the handset is according to Figure 1

Optimum matching circuit is highly dependent on the handset and thus.

Final matching circuit layout and values will be defined when handset is available.

※Measuring a 50Ω test jig is connected to a network analyzer to measure the VSWR

※※All test value is done in customer approval fixture.

2-2 Test Data

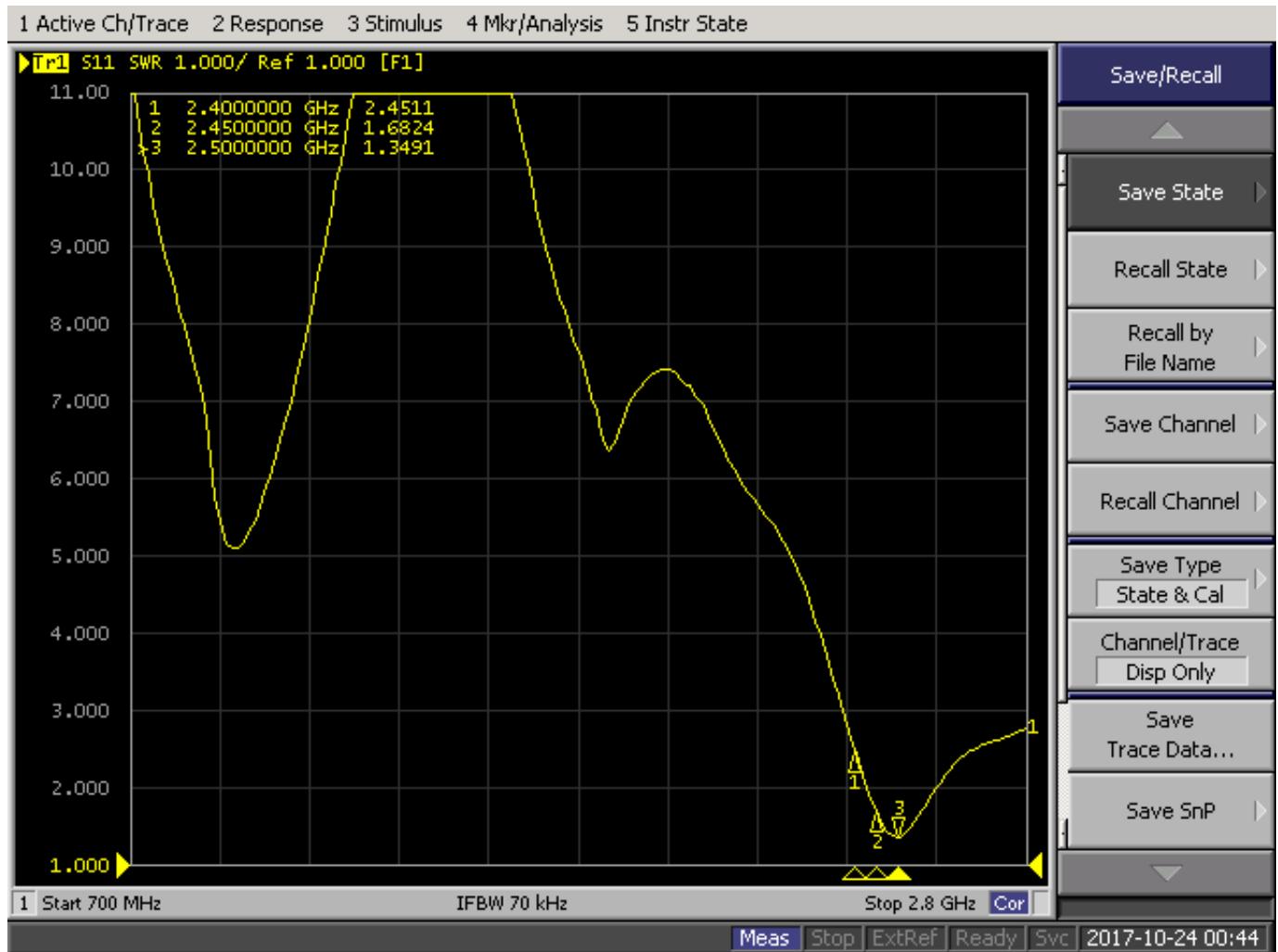
Model No:Q18-WIFI/BT	File:
CREDITS NO:	Note: wifi-VSWR
Sample No:	
Test Condition: Free Space	Matching:
Confirmation:	Engineer:

ANTENNA SPECIFICATION0

CUS P/N : Q18 –WIFI/BT
CREDITS P/N :

ApplicationDate: 2025-9-10
Editor:

Rev: R:A0
Page 3 of 6



2-3-1 GSM/LTE GAIN/ EFFICIENCY)

wifi

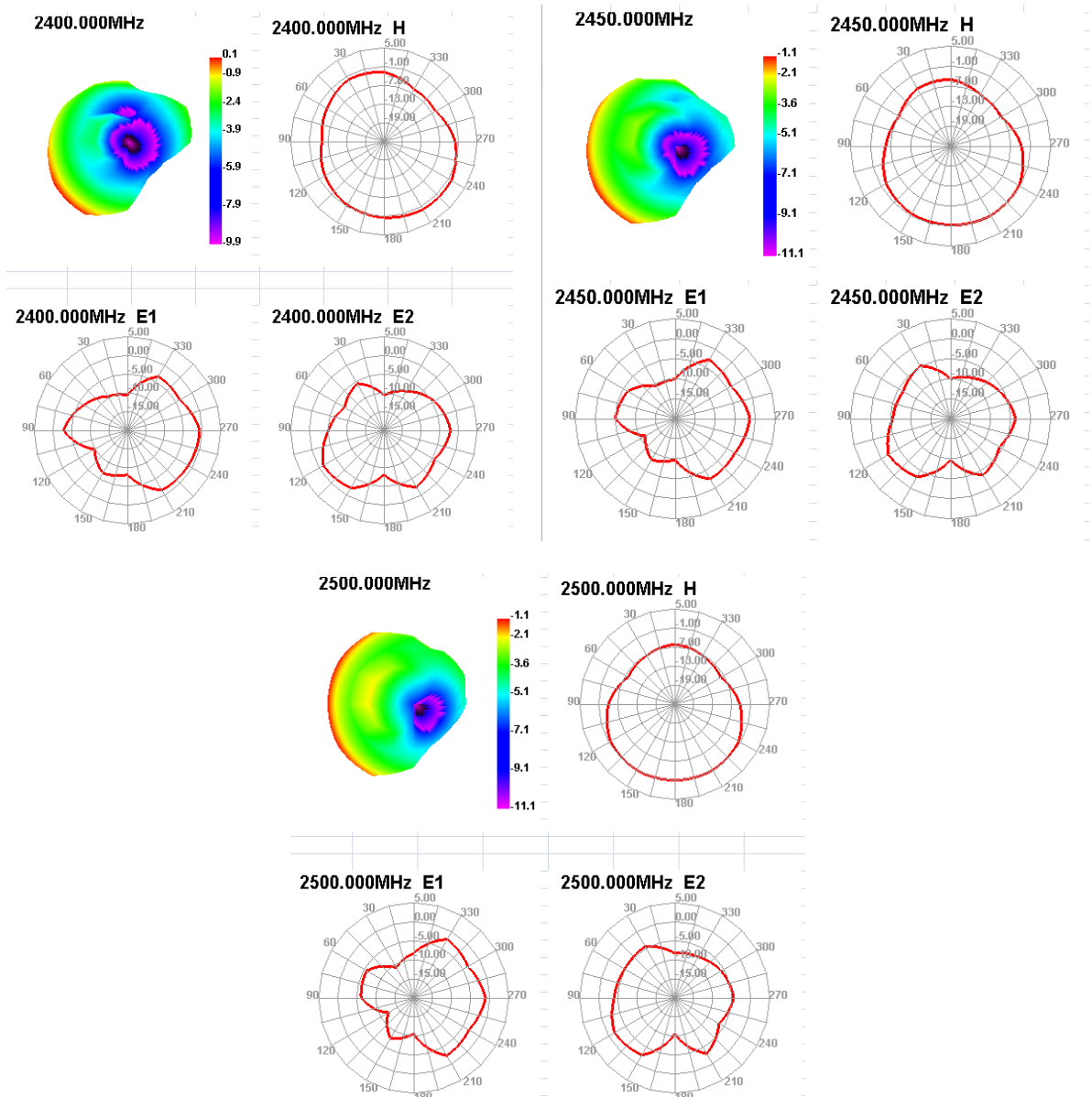
ANTENNA SPECIFICATION0

CUS P/N : Q18 –WIFI/BT
CREDITS P/N :

ApplicationDate: 2025-9-10
Editor:

Rev: R:A0
Page 4 of 6

Passive Test For BT										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	irectivity (dBi)	Beamwidth (3dB)
2400	29.26	-5.34	-0.97	-3.12	15.516	13.749	-0.97	-18.59	4.37	30
2410	29.01	-5.37	-0.96	-3.11	15.309	13.699	-0.96	-18.78	4.42	30
2420	30.82	-5.11	-0.73	-2.88	16.292	14.533	-0.73	-18.59	4.39	30
2430	29.22	-5.34	-0.97	-3.12	15.392	13.827	-0.97	-18.61	4.38	30
2440	28.26	-5.49	-1.14	-3.29	14.853	13.403	-1.14	-18.66	4.35	30
2450	31.22	-5.06	-0.78	-2.93	16.533	14.685	-0.78	-18.29	4.28	30
2460	30.26	-5.19	-1.01	-3.16	16.101	14.161	-1.01	-18.35	4.18	30
2470	29.09	-5.36	-1.18	-3.33	15.338	13.75	-1.18	-18.19	4.18	30
2480	30.98	-5.09	-0.92	-3.07	16.26	14.724	-0.92	-17.7	4.17	30
2490	31.33	-5.04	-0.94	-3.09	16.452	14.883	-0.94	-17.7	4.1	30
2500	31.37	-5.04	-0.97	-3.12	16.393	14.976	-0.97	-18.36	4.06	30



3. Mechanical Specification

ANTENNA SPECIFICATION0

CUS P/N : Q18 –WIFI/BT
CREDITS P/N :

ApplicationDate: 2025-9-10
Editor:

Rev: R:A0
Page 5 of 6

3-1-1 *Mechanical Configuration*

3-2 *Measurement Data*

3-3 *Salt-Spray test*

35°C, 85%RH, 48Hours(According to MIL-STD-810E)The salt-spray is generated from a 5% salt solution., The VSWR, Gain, Radiation Pattern must be met specifications after the salt-spray test.

4. *Environment Characteristic*

NO.	ITEM	TEST CONDITION	SPECIFICATION
4-1	High Temperature/Humidity Storage Test(non operating)	1.Temperature: +70 ±2°C 2.Humidity: 90~95%RH 3.Time: 48hrs	No material deformation is allowed.
4-2	Low Temperature/Humidity Storage Test(non operating)	1.Temperature: -30±2°C 2.Humidity: 0%RH 3.Time:48hrs	The VSWR, Gain, Radiation Pattern must be met specifications after these test.

ANTENNA SPECIFICATION0

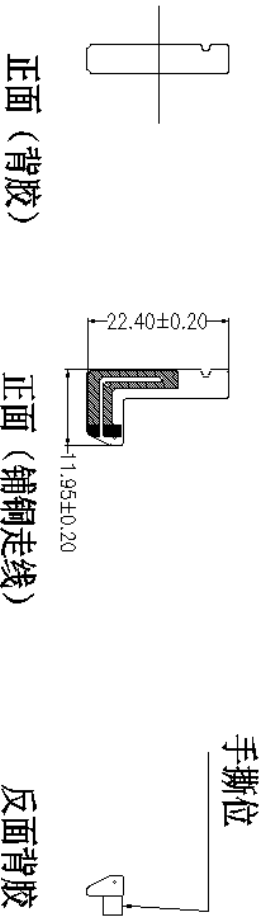
CUS P/N : Q18 –WIFI/BT
CREDITS P/N :

ApplicationDate: 2025-9-10 Rev: R:A0
Editor: Page 6 of 6

版本	说明	审核	日期	批准

- 铜箔
- 镀金
- 双面胶

哑光黑色FPC, 亮黑色丝印



- 备注:
- 图纸所标尺寸为产品尺寸; 打“★”为严格控制尺寸 (100%必须等级A) ; 打“*”为重要尺寸 (制作模具要控制, 模具验收必须等级B) , 其它为设计参考尺寸等级C; 100%需检测
 - 表面涂层需涂好, 不能露铜。
 - 外形需冲切光滑平顺, 且不能冲切到内部线路。
 - 包装和运输过程中, 产品不能撞伤、划伤以及损伤等。
 - 质量要求见WIFI质量文件, WIFI/M, E-08规定;
 - FPC天线成品未经过科瑞迪斯公司确认, 材料不能随意更改

公差		制图	日期: 2025-9-10	单位: mm	版本: A1	比例: 1:1	审核编号
5 DIMD	±0.04	射频	日期:	材料: Q18-4G	产品名称	页码: 1/1	
MATERIAL	RoHS (PPM)		日期:	工艺	图例		
CU	≤100						
FE	10-35						
CU	≤1000	审核					
GR+	≤1000						
GR+	50-100	批准					
GR+	≤1000		日期:				
PBOE	≤1000			图例: A4	图例: [Symbol]	图例: [Symbol]	