

## Antenna Sample Confirmation

Customer	Shenzhen TouchGUI Technology Co., Ltd		
Project Name	K26	Date	2022-02-08
Project NO.		Notes	wire antenna
Frequency Range	2.4~2.4835GHz		
Designed By	RF Engineer	Structural Engineer	
Checked By	Engineering Manager		
Client' s Approval			

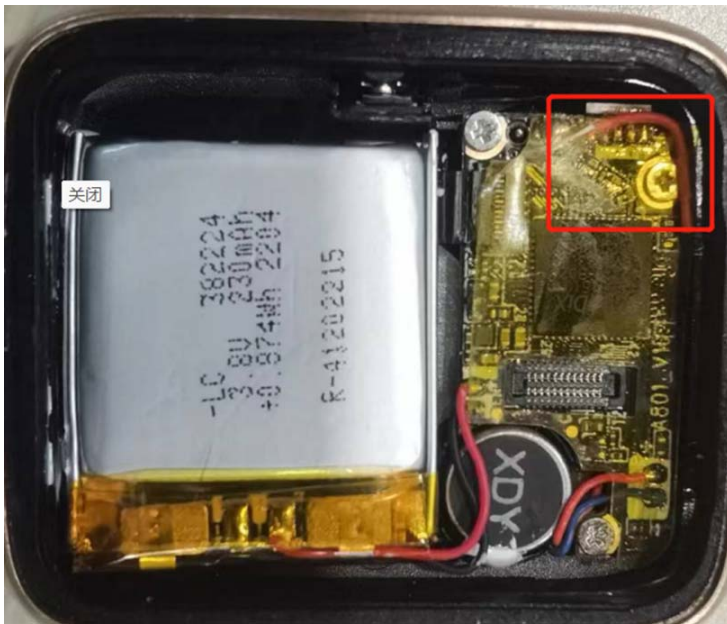
Designer: SINAWELL Electronics(Shenzhen) Co., Ltd.

Add: 712-717, Block A Jinfulai Building,49-1 Dabao Road,Xinan 28<sup>th</sup> area,Baoan District,Shenzhen,China

Specification Overview

This specification describes the status of the K26 built-in linear antenna in the frequency band 2.4 to 2.4835GHz.

1, Antenna appearance



2, The electrical

2.1. Antenna frequency band

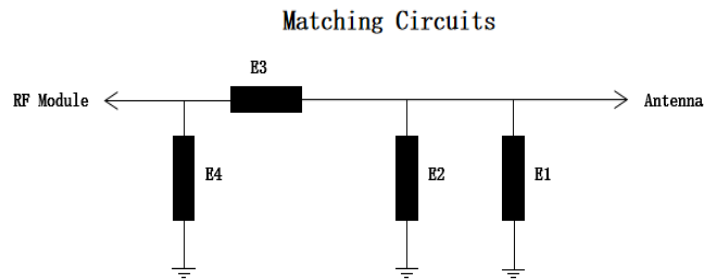
	BT
TX(MHz)	2400MHz-2483.5MHz

2.2, building-out circuit

The matching circuit test point is behind the antenna connector (RF test port), as shown in the following figure

2.2.1. BT antenna loading coil.

Element	Value
D14(0402)	N/C
C4(0402)	N/C
R8(0402)	0NH
C5(0402)	N/C



2.2.2 RL (return loss)

BT VSWR+ Return

	Range of resonant points (MHz)	frequency point(MHz)/Maximum return loss(dB)	
			2400
	2400-2483.5	VSWR	1.72
		Return loss	-11.41
			2483.5
			1.84
			-10.51

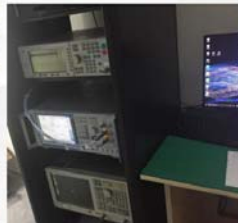
2.2.3 antenna gain

Channel	0	39	78
Gain	-9.53dBi	-9.8dBi	-9.87dBi
Gain diagram	<p>Horizontal</p>	<p>Horizontal</p>	<p>Horizontal</p>

Passive Test For BT			
Freq	Effi	Effi	Gain
(MHz)	(%)	(dB)	(dBi)
2400	11.14	-9.53	-3.32
2410	11.06	-9.56	-3.11
2420	10.93	-9.62	-3.16
2430	10.79	-9.67	-2.97
2440	10.71	-9.7	-3.01
2450	10.47	-9.8	-3.13
2460	10.5	-9.79	-3.09
2470	10.49	-9.79	-3.1
2480	10.58	-9.76	-3.03
2490	10.36	-9.84	-3.48
2500	10.03	-9.87	-3.05

### 2.2.4 Test equipment diagram

## 实验室测试环境及设备

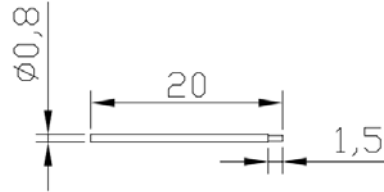


测试项目	测试设备
S11, S12, VSWR, LOSS	网络分析仪E5071B, E5062A
Efficiency, Gain 3D Radiation Pattern	Satimo SG16暗室, GP7*4*3暗室, E5071B
TRP, TIS	Satimo SG16暗室, GP7*4*3暗室, 8960, CMW500, MT8820C, E4438C,

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Shenzhen cape deep communication technology co.,LTD

## 3,appearance and structure

### 3.1The antenna material



Wire antenna