
Antenna Sample Confirmation

Customer	Shenzhen Taiji Internet of Things Technology Co., Ltd		
	Shenzhen Kaipushen Communication Technology Co., Ltd		
Project Name	OY72	Date	2023-06-20
Project NO.		Notes	Bluetooth wire 0.8*20mm
Customer Material No	G0115010002		
Frequency Range	BT		
Designed By	RF Engineer	Structural Engineer	
Checked By	Engineering Manager		
Client's Approval			

Designer: Shenzhen Kaipushen Communication Technology Co., Ltd

Add: 2 Floor, Yulong Office building, Longcheng Industrial Zone, 440 Longguan Road, Longhua District, Shenzhen, China

1. Overview of specifications

This specification describes the condition of OY72 built-in wire antenna, Its frequency band is BT.

2. Antenna appearance



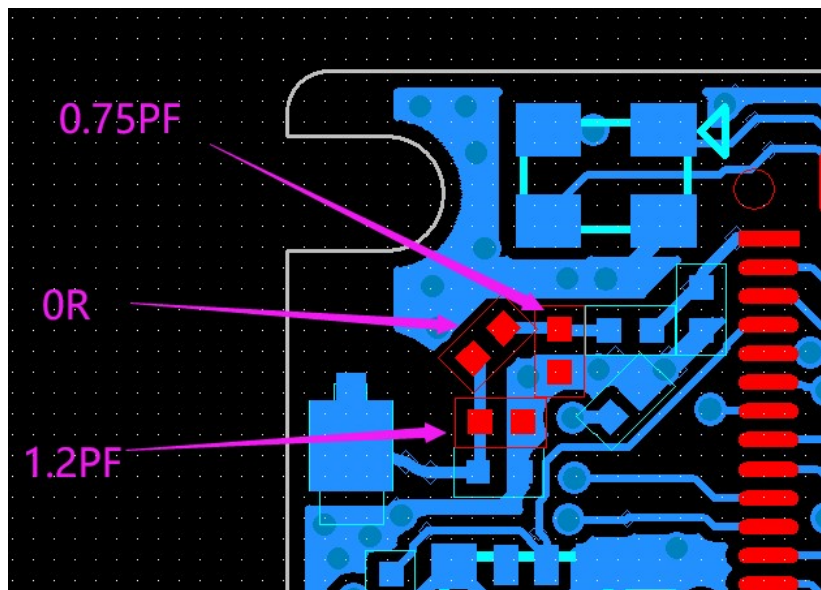
3. Electrical

3.1. Antenna band

	BT
(MHz)	2402MHz-2480MHz

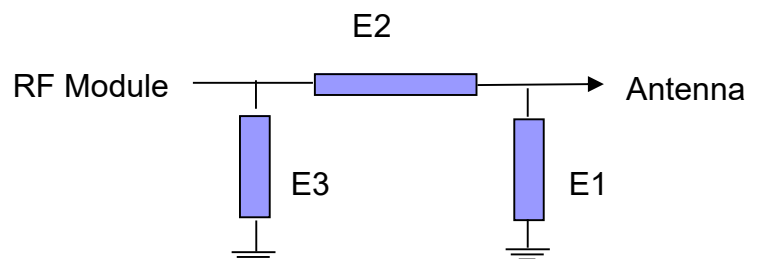
3.2. Matching circuit

The test point is the bonding pad of antenna, as shown below.



1. BT Matched antenna .

Element	Value
E1	1.2PF
E2	0R
E3	0.75PF



3.3. Return Loss

BT VSWR+ Return

	(MHz)	(MHz)/(dB)	
	2400-2500		2400
		VSWR	2.155
		Return loss	-11.08
			2480
			1.626
			-14.36

3.4 Antenna gain

Channel	0	39	78
Gain	-6.28dBi	-4.08dBi	-3.85dBi
Gain diagram	<p>2400.000MHz H</p>	<p>2440.000MHz E1</p>	<p>2480.000MHz E1</p>

Free space

Freq MHz	Effi	Effi	Gain dBi
2400	10.59	-9.75	-6.28
2410	11.54	-9.38	-5.53
2420	12.6	-9	-5.01
2430	13.74	-8.62	-4.42
2440	14.59	-8.36	-4.08
2450	15.97	-7.97	-2.61
2460	15.96	-7.97	-2.84
2470	16.14	-7.92	-2.54
2480	16.33	-7.87	-3.85
2490	17.29	-7.62	-2.64