

# The Main FPC Touch & Antenna Sample Confirmation

Customer	Shenzhen TANGMAI Technology Co., Ltd.		
Project Name	T750S-L	Date	2023-2-11
Project NO.		Notes	FPC Antenna
Customer material NO.	SN0992		
Frequency Range	BT		
Designed By	RF Engineer	Structural Engineer	
Checked By	Engineering Manager		
Client's Approval			

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

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1. Specification overview

This specification describes the condition of the T7550S-L built-in FPC antenna in the BT frequency band.

2. FPC Touch + antenna appearance



3. Electrical property

3.1. Antenna band

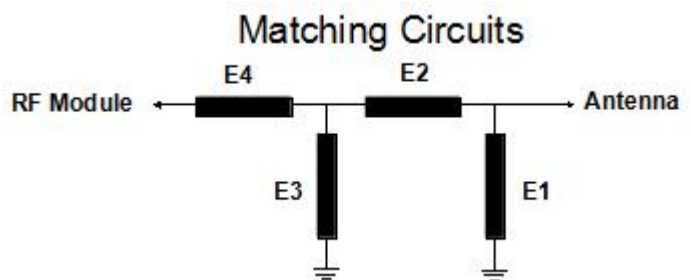
	BT
Transmitting band(MHz)	2400MHz-2500MHz

3.2. Matching circuit

Test point is behind antenna connector (RF test port), see figure below

1. BT antenna matching.

Element	Value
E1(0402)	The motherboard match is not modified
E2(0402)	0 Ω
E3(0402)	NC
E4(0402)	0 Ω



3.3. Return loss

BT VSWR+ Return

	Resonant point range(MHz)	Frequency point(MHz)/Maximum return loss(dB)	
		2400	2500
	2400-2500	VSWR	1.45
			1.34

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		Return loss	-15	-17
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## 3.4. Antenna gain

Frequency range	Antenna gain
2400-2500MHz	1dBi

## 4. Appearance structure

4.1. FPC Antenna material  
FPC

## 5. Note

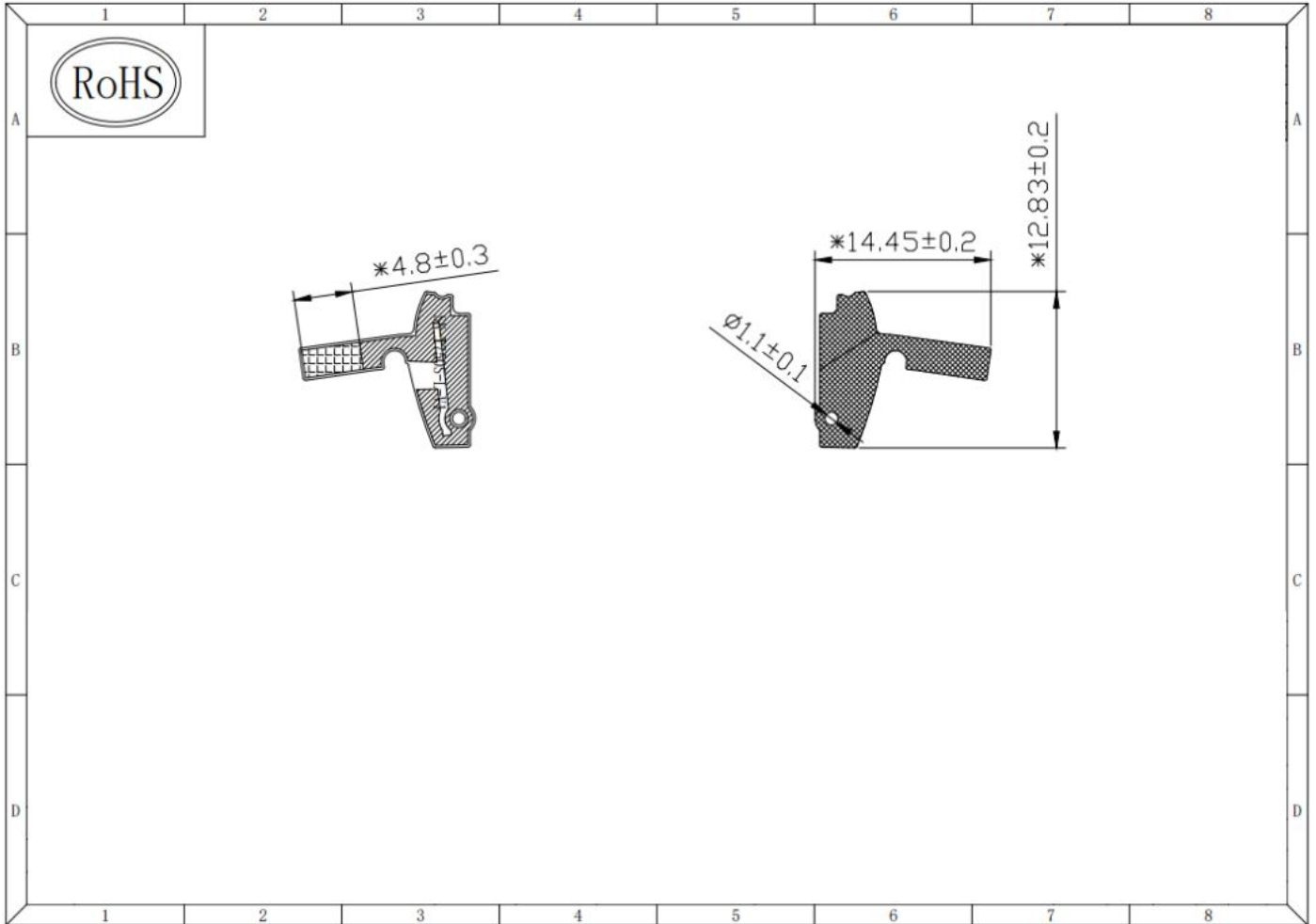
(Electrical performance test report)

In the electrical performance test report, 3D darkroom data provided by the manufacturer,  
The following table format

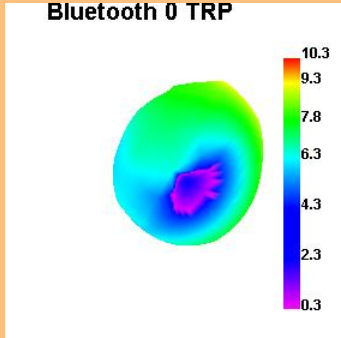
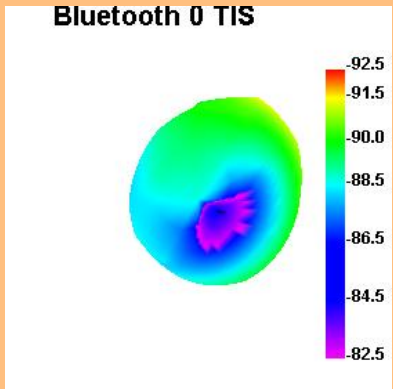
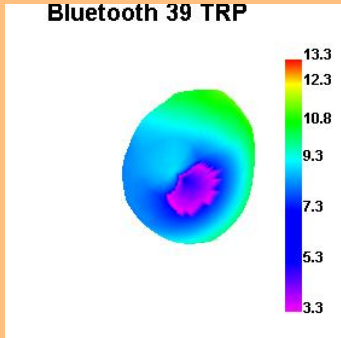
Appendix I: Structural drawings

Appendix II (Electrical Performance Test Report)

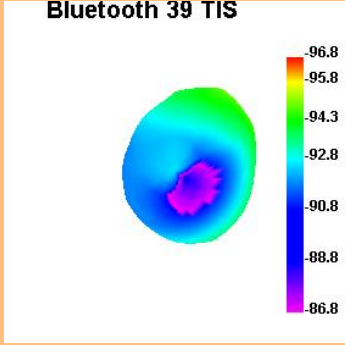
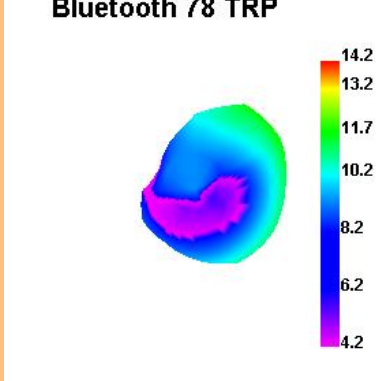
## FPC Structural Drawings



### 3D Test Report

BT	Channel	3D coupling testing	field strength pattern
TRP	0	6.2	 <p>Bluetooth 0 TRP</p> <p>Color scale: 0.3 to 10.3</p>
TIS	0	-88.34	 <p>Bluetooth 0 TIS</p> <p>Color scale: -82.5 to -92.5</p>
TRP	39	8.58	 <p>Bluetooth 39 TRP</p> <p>Color scale: 3.3 to 13.3</p>

Confirmation of Sample

TIS	39	-92.02	<p><b>Bluetooth 39 TIS</b></p> 
TRP	78	9.05	<p><b>Bluetooth 78 TRP</b></p> 
TIS	78	-90.55	<p><b>Bluetooth 78 TIS</b></p> 