

Shenzhen Haotiancheng Wireless
Technology Co., LTD

Name: Sample Approval

Version: V1.0

date: 2025.09.10

Sample Approval Letter

Project Name: WS03

Sample Name: BT antenna

Sample SPEC: FPC material, 3M300 with adhesive backing (for the WS01
project antenna)

Customer PN.: Left antenna 03WS01AANT001/ Right antenna 03WS01AANT002

Transfer Date: 2025.09.10

Supplier Confirm	Project	Engineer	Quality
	Xiao Qiang	Michael	Gu Shuang
date	2025.09.10	2025.09.10	2025.09.10

Customer confirm	PM	Electron	MD	PD	QE
date					

conclusion	☐ Batch use of MP	☐ Limits use () K	☐ ROHS
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Supplier name:Shenzhen Haotiancheng Wireless Technology Co., LTD

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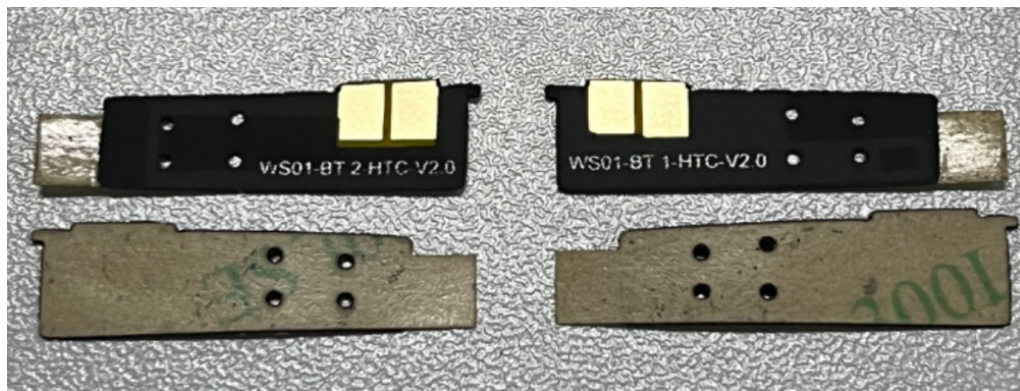
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1. This recognition document describes the status of the built-in antenna of the Longitudinal Infinity WS03, which operates on the BT frequency band and is a WS01 project antenna. The manufacturer is Shenzhen Haotiancheng Wireless Technology Co., LTD.

2. Appearance

The shapes of the two antennas have been modified (the upper edge of the gold finger has been expanded outward by 0.5mm), and the silk-screen characters on the antennas have also been modified (V1.0 has been changed to V2.0).

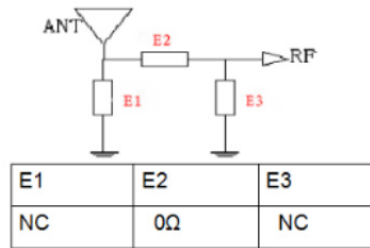


3. Electrical performance

3.1. Antenna Frequency Band

	WIFI/BT
Transmission frequency band(MHz)	2400~2500
Receiving frequency band(MHz)	2400~2500

3.1. Matching circuit



The match remains unchanged

3.2. Impedance Requirements

3.3. 50 ohm

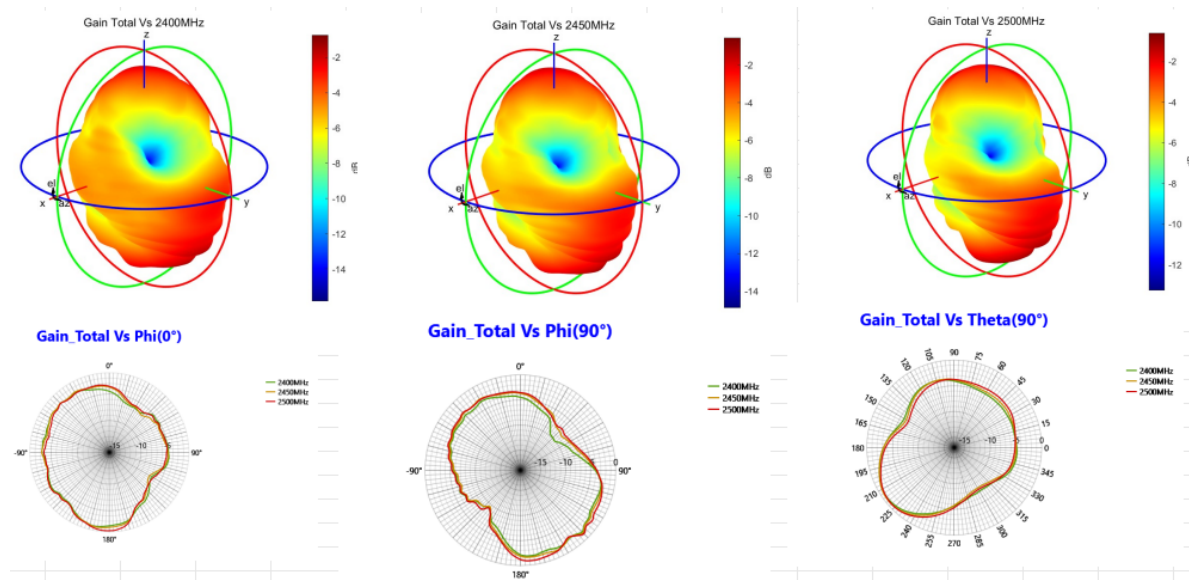
3.4 .BTAntenna test data

Band	TRP/TIS	L	M	H
BT_A (1号)	TRP	2.18	2.46	2.78
	TIS			-92.82
BT_B (1号)	TRP	19.98	19.75	19.01
	TIS			-91.81

3.5 .Antenna passive gain efficiency

Frequency(MHz)	Gain(dBi)	Efficiency(%)
2400	-0.72	40.33
2410	-0.66	40.98
2420	-0.6	41.49
2430	-0.57	41.76
2440	-0.56	41.99
2450	-0.55	41.75
2460	-0.52	42.09
2470	-0.58	41.65
2480	-0.51	41.65
2490	-0.59	40.87
2500	-0.6	41.2

3.6 .Antenna passive radiation apple image



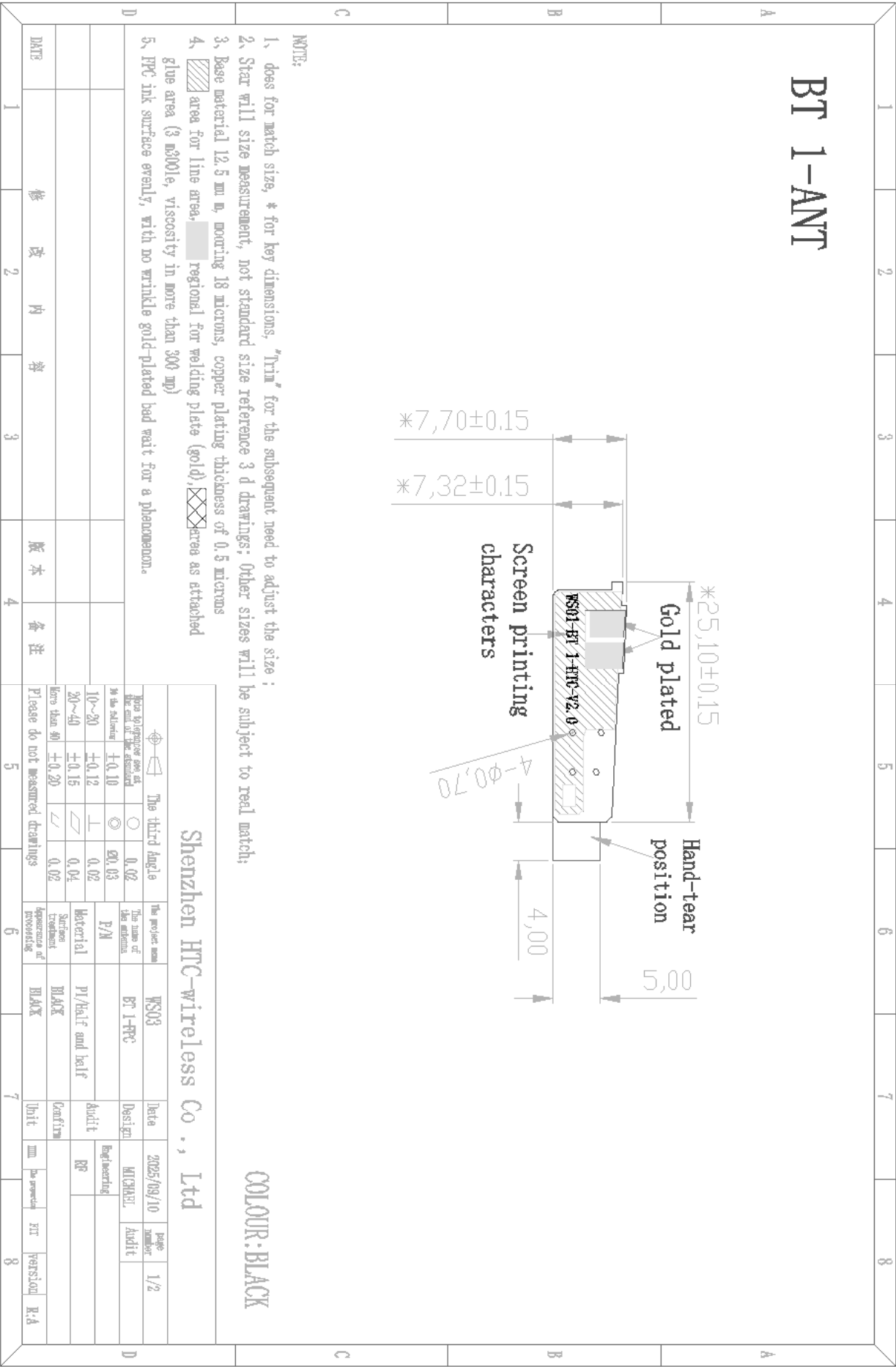
4 Appearance Structure

4.1 Antenna Material

Antenna material: FPC antenna, black ink, gold plating on exposed copper areas.

Base material + double-sided tape + release paper

4.2 Structural Drawings



Technical drawing of a component with the following dimensions and labels:

- Overall width: $5,00$
- Top section width: $4,00$
- Hand-tear position
- Gold plated
- Screen printing characters: $4-\phi 0,70$
- MS01-BT 2-HC-V2.0
- Bottom section width: $*24,30 \pm 0,15$
- Bottom section width: $*7,32 \pm 0,15$
- Bottom section width: $*7,70 \pm 0,15$

1, does for match size, * for key dimensions, "Trim" for the subsequent need to adjust the size ;
2, Star will size measurement, not standard size reference 3 d drawings; Other sizes will be subject to reel match;

3. Base material 12.3 mm, mounting 16 microns, copper plating thickness of 0.5 microns
4.  area for line area,  regional for welding plate (gold),  area as etched glue area (3 m30le, viscosity in more than 300 mp)
5. FPC ink surface evenly, with no wrinkle gold-plated bed wait for a phenomenon.
- | | |
|---|---------------|
|  | The third day |
|  | |
| With an irregular area of | |

Shenzhen HTC-wireless Co., Ltd									
 Horn for reference only at the end of the standard for the following	The third angle		The project name		Date	2025/09/10	page number	2/2	
	 $10^{\circ} \sim 20^{\circ}$ ± 0.12 $20^{\circ} \sim 40^{\circ}$ ± 0.15 Less than 40° ± 0.20	 0.02 0.03 0.02 0.04 0.02	The name of the antenna		Design	MICHAEL	Drawit		
	P/N		RF 2-FPC		Engineering		RF		
	Material		PI/half and bairf		Drawit				
	Surface treatment		HMMK		Confirm				
Please do not measured drawings			Agreement at processing		Unit	mm	The projection	3rd	Particular
5			6		7		8		

[illegible]

5 Packaging method

The antennas are shipped in single pieces and then packed into PP substitutes. A small PP bag contains 100 pieces, which are then stacked and placed in a large PP bag for packaging. Finally, they are packed in a small box, with two packs of antennas in each small box. The specific quantity is subject to the actual shipment.

