



DONGGUAN ZCONNLINK ELECTRONIC TECHNOLOGY CO., LTD

SPECIFICATION FOR APPROVAL

Customer Name: MAKEBLOCK

Customer P/N: EW010496000

Material Name: Internal FPC Antenna

Supplier P/N: 830106030107

Description: CZ001 2.4G BT Antenna V1.1

Version: V1.1

Customer Approval		
Engineer	QA	Approval
Signed Or Sealed		
Date	2025.06.02	

Supplier Name: Dongguan Zconnlink Electronic Technology Co.,Ltd

Supplier Address: No:90 Dapantian Road,Jingju Village,Dalingshan Town Dongguan City

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E-mail: jonathan.lee@zconnlink.com



SPECIFICATION

Supplier P/N: 830106030107

Description: CZ001 2.4G BT Antenna V1.1

Material Name: Internal FPC Antenna

Supplier Name: ZCONNLINK

Manufacturer: ZCONNLINK

Remark: _____

Prepared	Review	Approval
Eric Wang 2025.06.02	Sally Lee 2025.06.02	Jonathan Lee 2025.06.02

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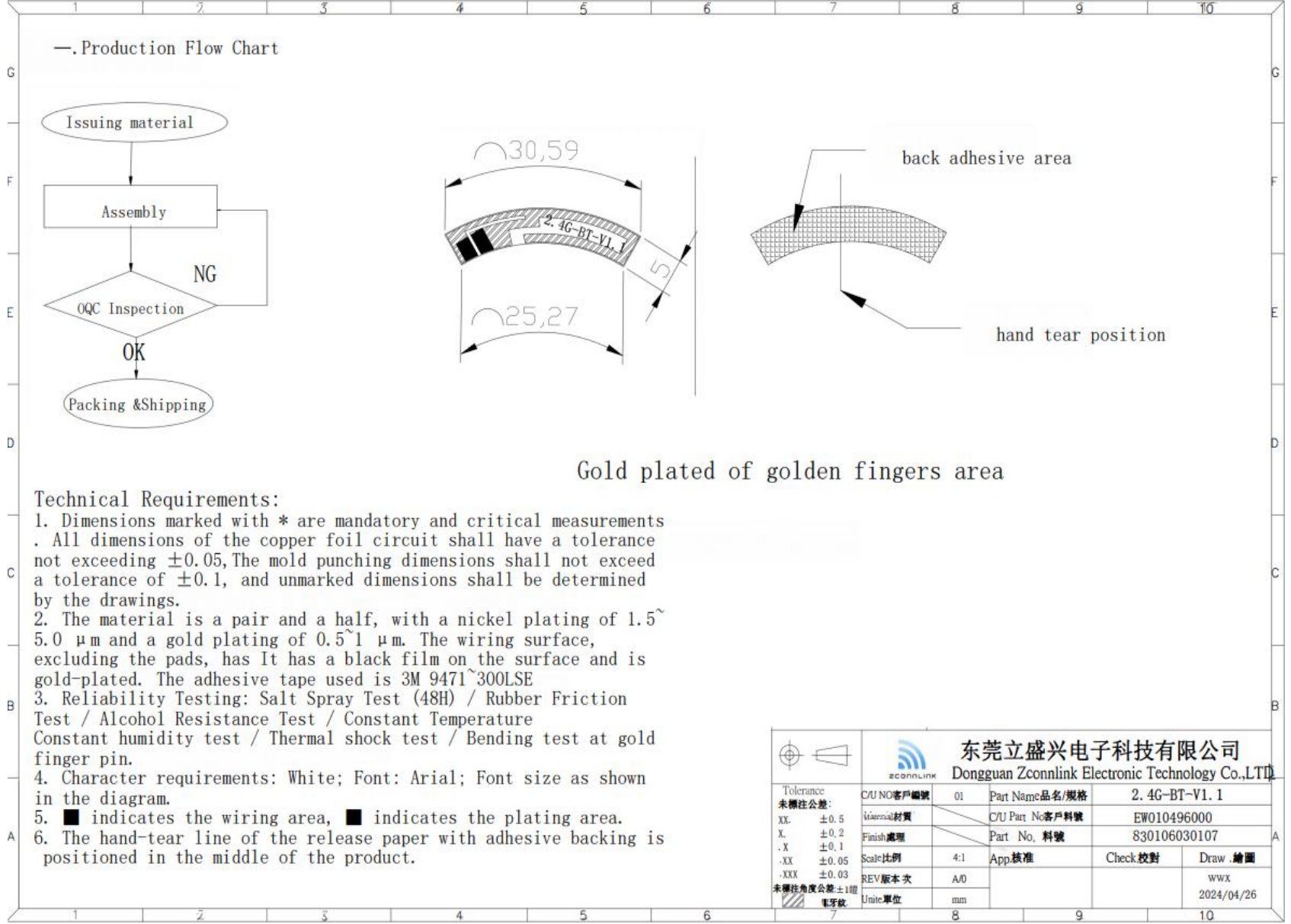


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One. Engineer Drawing





Electrical Parameters:

Frequency Band	2.4~2.5GHz
Impedance	50Ω
VSWR	≤2.5
Shortage Temperature	-20℃~+65℃
Operating Temperature	-20℃~+65℃

Two. Material List:

No:	Part Name:	Major material
1	2.4G Main body	FPC



Three:Environment And Reliability Test

Test item	Test basis	Judge requirement	Test equipment	Sample no Rejects (PCS)
Vibration	According to the B/T2423.48-199 prescribed method	1.No structural damage 2.Electrical meets the standard	Vibration tester	10/0
Drop	According to the B/T2423.8-1995 prescribed method	1. Drop height (mm) 1000 2. Smooth floor surface 3. Total number of falls (No:) 80	Drop tester	10/0
Constant temperature and humidity	According to the B/T 2423.3-93 chapter 5 prescribed method	1. Temperature (°C) 40 ± 2 2. humidity (%) 90~95 3. Time (h) 21 4. Recovery time (h) 1	Constant temperature and humidity Tester	10/0
Salt spray	B/T 2423.17-93 Temperature 55°C humidity $\geq 95\%$ NaCl ≥ 5	1.After working for 48 hours, remove and air-dry for 2 hours before resuming normal operation	Salt spray tester	10/0
High-temperature storage	B/T 2423.4-93 Temperature 70°C	1.24-hour recovery to room temperature 2.No structural damage 3.Electrical meets the standard	Constant temperature and humidity Tester	10/0



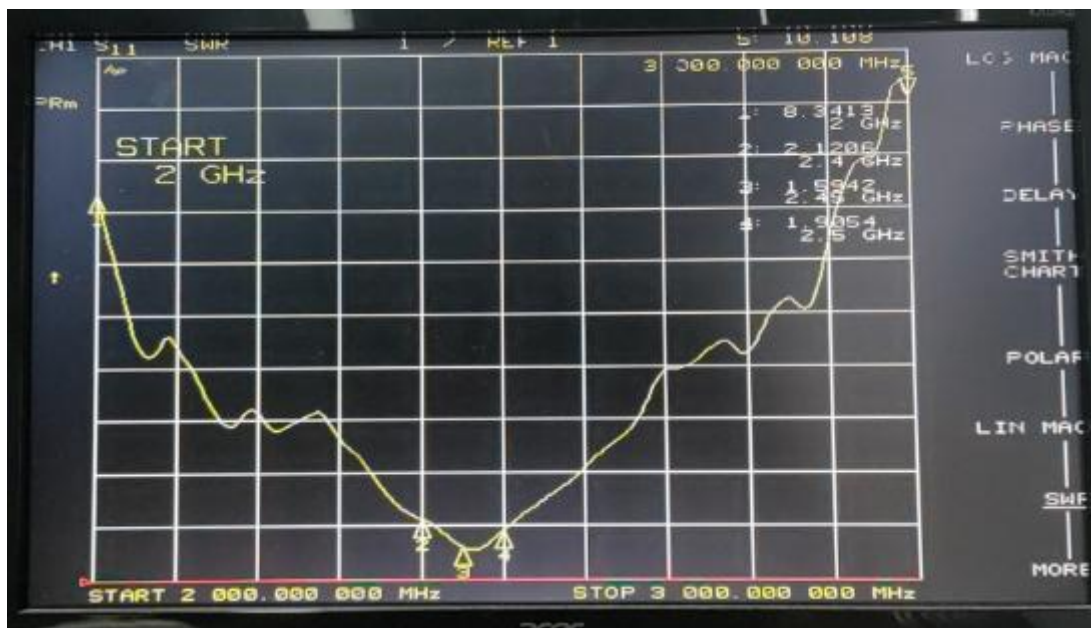
Four. Sample test report:

No:	Item	Standard	N01	N02	N03	N04	N05
1	VSVR Max	≤ 2.5	1.53	1.62	1.49	1.55	1.63
2	Impedance	$50 \Omega \pm 10$	50	49	47	43	45
3	Dimension	$30.59 \pm 2\text{mm}$	30.93	3.94	30.91	30.92	30.92



Five. BT Performance Test:

HP8753D

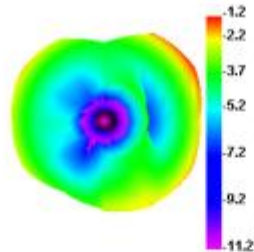




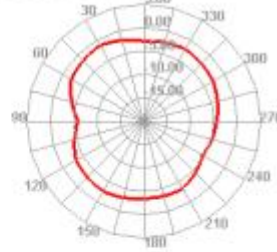
Six: BT Passive Test:

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)
2400	30	-5.23	-1.23	-3.38
2410	31.81	-4.97	-0.96	-3.11
2420	28.81	-5.4	-1.27	-3.42
2430	36.76	-4.35	-0.16	-2.31
2440	32.05	-4.94	-0.72	-2.87
2450	38.96	-4.09	0.16	-1.99
2460	38.35	-4.16	0.14	-2.01
2470	34.05	-4.68	-0.25	-2.4
2480	44.24	-3.54	1.07	-1.08
2490	35.85	-4.46	0.25	-1.9
2500	37.39	-4.27	0.48	-1.67

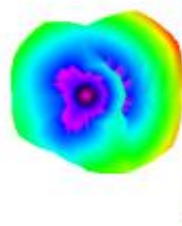
2400.000MHz



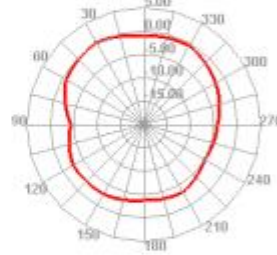
2400.000MHz H



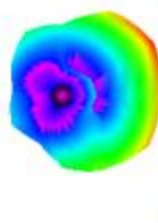
2450.000MHz



2450.000MHz H



2500.000MHz



2500.000MHz H

