acknowledgement

product description:	Manufacturer:	**Shenzhen Yusheng Communication Equipment Co., LTD**	Project model: DR03 Specifications / Colors: Date of signature: Note: (This cover requires supplier seal)
	Material Name:	BT-FPC	
	Material Code:	R:a	
appendix:	version number:		

þ Electrical and mechanical performance description (specifications) ☐ manufacturing flow chart

þ QC engineering drawing þ sample

þ CPK Report the þ full-size measurement report

þ Reliability test report þ Packaging mode

þ List of raw materials / RoHS Report / HF / REACH

(Everything needs to be provided)

Add: 407-411, Floor 4, Building 2, Yuntai Chuanggu Park, southeast of the intersection of Guangming Avenue and Dongchang Road, Guangming District, Shenzhen

Approval:

	department	**Confirm content**				**Confirm the results**	**Valfirm person / date**
Technical confirmation field	Supplier quality	☐ RoHS material ☐ Non-RoHS materials	☐ Compliance with the REACH requirements	☐ Meet the halogen-free requirements	☐ Other environmental protection requirements		
	Design department ID:	☐ Customer request ID	☐ color confirmation	☐ Surface process validation	☐ Shell, hardware, key material		
	construction engineer	☐ 2D drawing file dimensional confirmation ☐ Specification and technical requirements	☐ Focus on controlling the dimension labeling ☐ electrical performance parameters	☐ adaptation validation ☐ function	☐ Shell, hardware, key material ☐ effect		
	hardware engineer	☐ 2D drawing file dimensional confirmation ☐ Specification and technical requirements	☐ Focus on controlling the dimension labeling ☐ electrical performance parameters	☐ adaptation validation ☐ function	☐ Shell, hardware, key material ☐ effect		
	Research and development quality:	☐ Test criteria confirm the ☐ appearance	☐ Normative dimension labeling (key ruler cun)	☐ reliability verification ☐ adaptation validation	☐ Function ☐ effect		

Final Confirmation of the Project Manager:	☐ Acknowledge the integrity of the documents ☐ Normalization of dimensions (key dimensions)	☐ Specification and technical requirements ☐ appearance	☐ Electrical performance parameters ☐ function ☐ effect

Conditions of recognition: ☐ formal recognition

☐ limited recognition

☐ disallow

Distribution department: ☐ IQC ☐ supplier ☐ customer ☐ after-sales ☐ SQE / text control

☐ other_____

QF -QMP -QA 01-01

catalogue

1. Overview

1.1 Scope of application

This requirement specifies the antenna technical requirements and material requirements specifications for DR03 products.

This requirement applies to the selection, testing and acceptance of DR03 antennas.

2. Technical index requirements

2.1 Introduction of test items and equipment

inventory	test item	equipment
S11 parameter	Standing wave ratio, echo loss	network analyzer
Active test	TRP,TIS	Integrated tester, microwave darkroom
Passive test	Gain, efficiency	network analyzer

2.2 Active Reporting

2.2.1 Test instructions

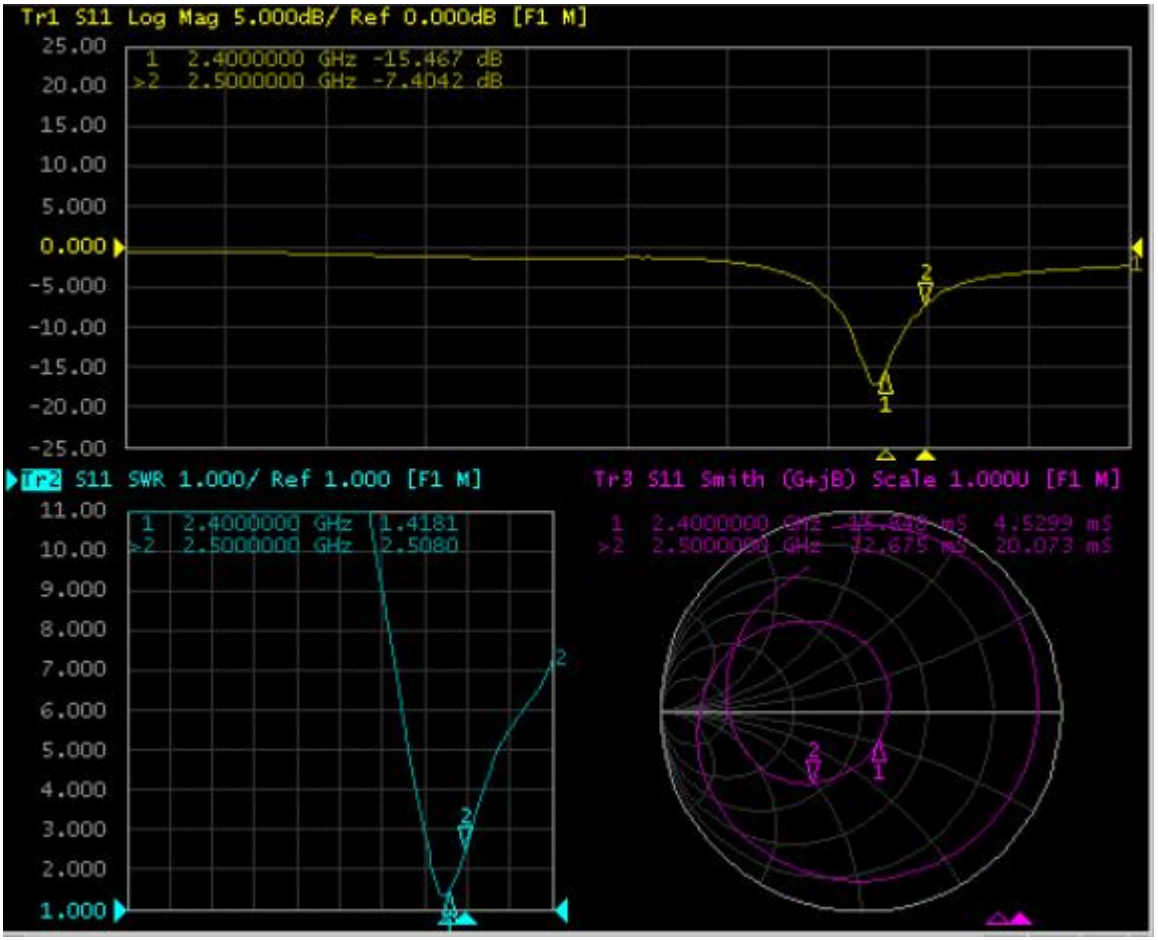
Test tools: Agilent8960 instrument, R & SCMW500, full wave far field ETS dark room, high precision positioning system and its controller and computer with automatic test program

Test environment: temperature 22℃± 3℃, humidity 50% ± 15%

Test method: DUT is fixed in the center of the turntable with H plane, on the same horizontal line as the center of the horn antenna.

The positioning system enables the DUT to rotate in the whole sphere to satisfy the high-precision 3 D positioning. Each RF instrument and turntable controller communicate with PC with automatic test software through GPIB interface.

2.2.2 Antenna S11 passive parameters



2.2.3 BT antenna Passive parameter -FS

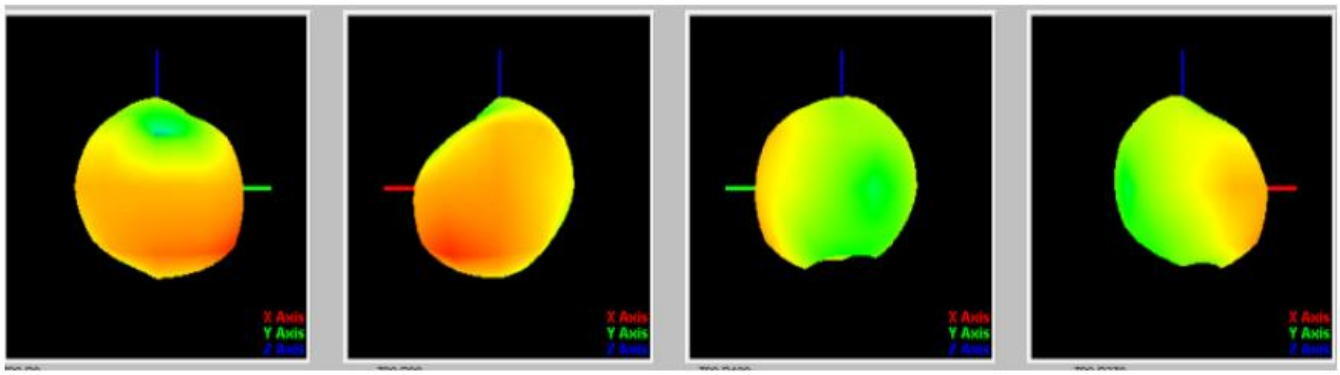
Test	Free-space								
Test Point ID	1	2	3	4	5	6	7	8	9
Freq.(MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480
Efficiency (%)	20.5	20.8	21.5	21.7	22.6	22.8	22.3	21.7	21.4
productiveness (dB)	-6.88	-6.82	-6.68	-6.64	-6.46	-6.52	-6.64	-6.70	-6.51
gain (dBi)	-3.45	-3.32	-3.22	-2.88	-2.72	-2.73	-2.52	-2.74	-2.98

2.2.4 BT antenna Passive parameters -ARM

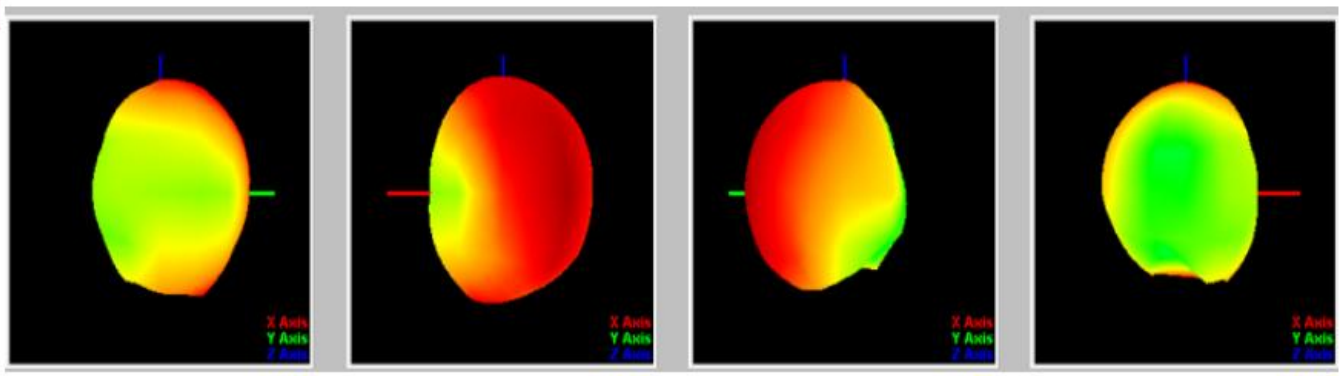
Test	ARM								
Test Point ID	1	2	3	4	5	6	7	8	9
Freq. (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480
Efficiency (%)	8.5	8.8	9.3	9.7	10.3	10.6	10.1	9.5	8.8
productiveness (dB)	-10.71	-10.56	-10.32	-10.13	-9.87	-9.75	-9.96	-10.22	-10.56
gain (dBi)	-5.94	-5.73	-5.71	-5.65	-5.56	-5.54	-5.77	-5.74	-5.87

2.2.5 Antenna pattern -BT

FS

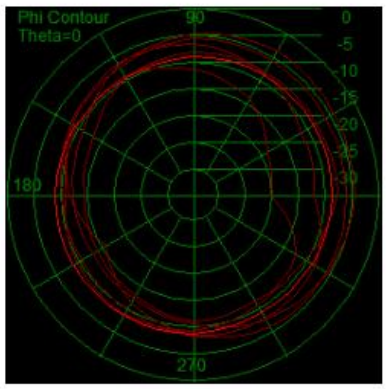


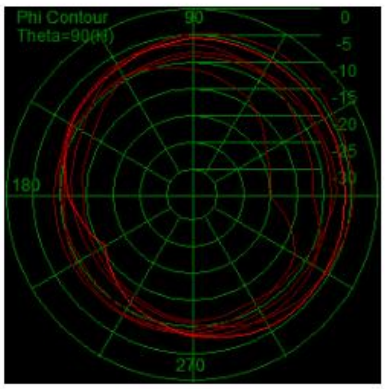
ARM

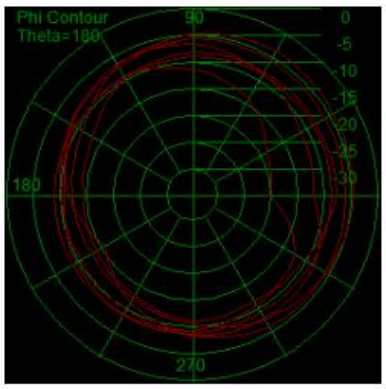


2.2.6 Antenna plan -BT-ARM

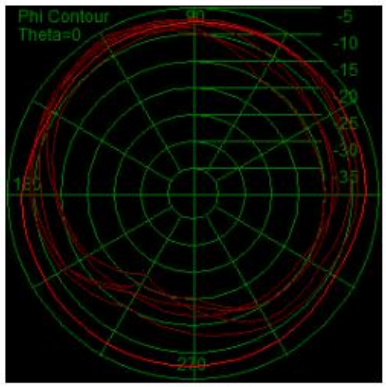
FS

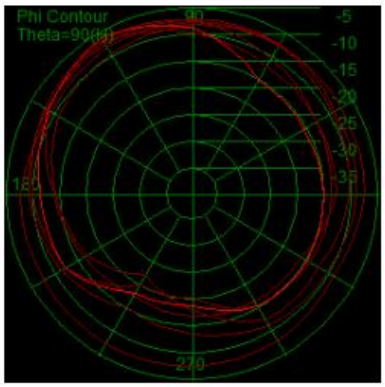


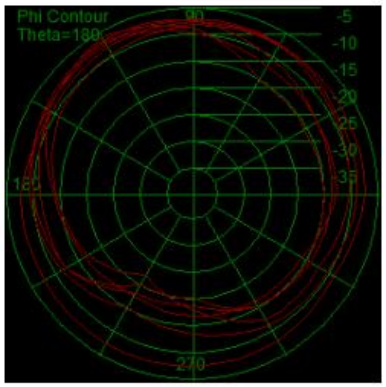




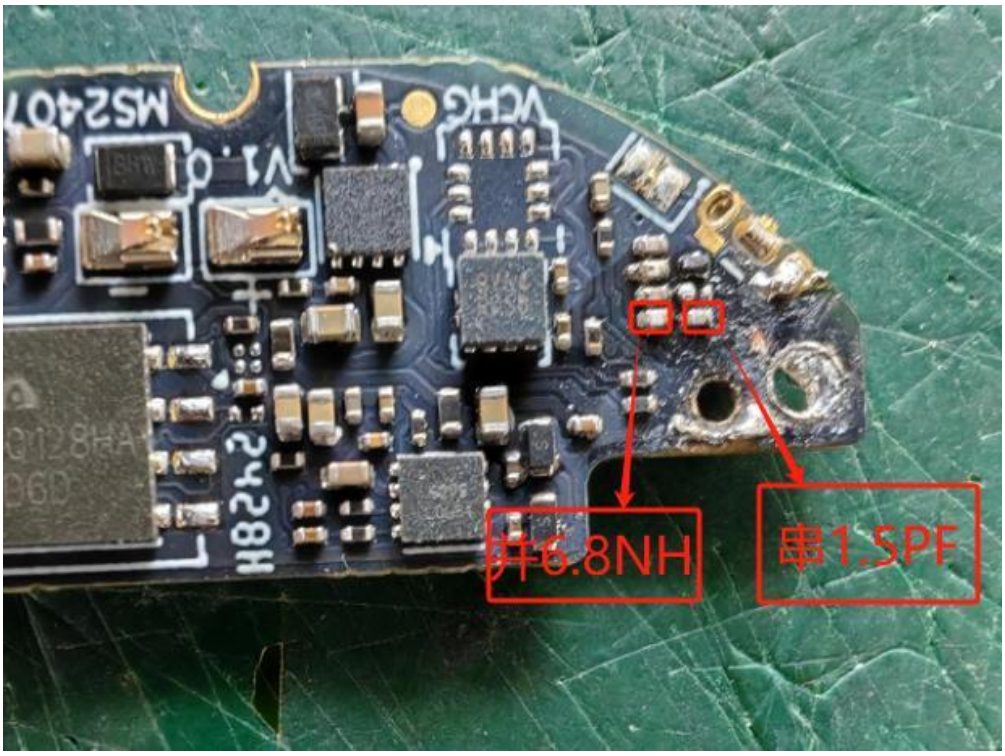
ARM



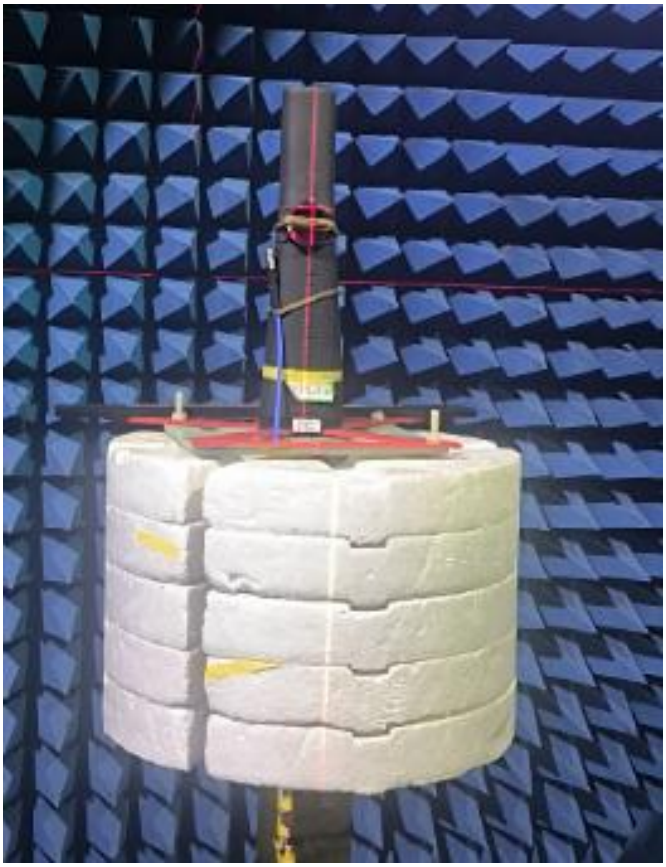




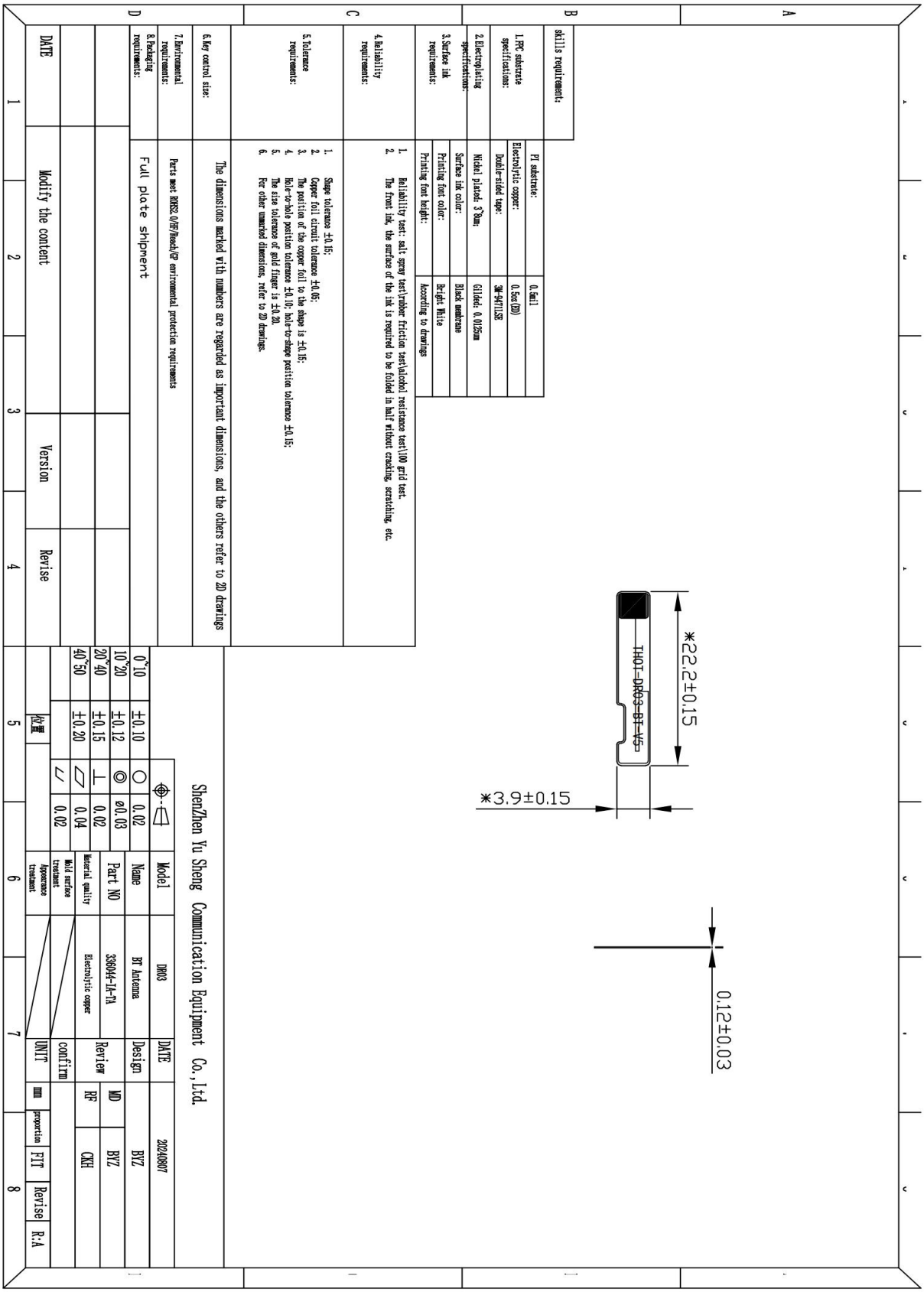
2.2.7 antenna loading coil



2.2.8 Antenna test environment



3. Engineering drawing file



4. Bill Of Material

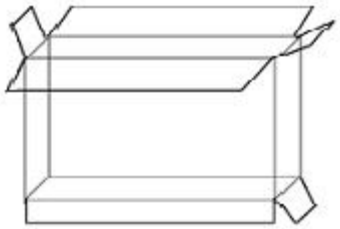
Shenzhen Yu Sheng communication preparation Co., LTD

063044 (DR03) -BOM

edition: R:A client: 063 Type of aircraft: 063044 Set a date: 2024/10/24

Ite	*Material code	*Material name	name	*Machine type	Specification and model	colour	*UNIT.	dosage	remark
1	063044-IA-TA	BT-FPC		DR03	FPC electrolytic copper half-on-half pressure film 22.2*3.9*0.12MM	black	PCS	1	
1.1	063044-IA-01-TA	BT-FPC		DR03	FPC electrolytic copper half-on-half pressure film 22.2*3.9*0.12MM	black	PCS	1	
verify:			examine:				manufacture: BYZ		

5. Packaging information

<table>
<tr><td colspan="3">Packaging method diagram</td></tr>
<tr><td>product name</td><td colspan="2">FPC antenna</td></tr>
<tr><td>P / N</td><td colspan="2">063044</td></tr>
<tr><td>Project model</td><td colspan="2">DR03</td></tr>
<tr><td rowspan="3">File details</td><td>Carton Size 1:
270*260*200MM
Carton Size 2:
260*200*200MM
Carton Size 3:
Depending on the order quantity / volume</td><td>  </td></tr>
<tr><td>Boating method</td><td>Packaging by order quantity</td></tr>
<tr><td>Total number of binning</td><td>Packaging by order quantity</td></tr>
<tr><td>labeling requirement</td><td>Tag Size 1:
Universal use 100 * 100mm
Tag Size 2:
According to customer requirements</td><td></td></tr>
<tr><td colspan="3">matters need attention</td></tr>
<tr><td colspan="3">1. Due to the limitation of order quantity, the packing method of each material is the size of the box according to the total quantity of the order or the physical volume</td></tr>
<tr><td colspan="3">2. Storage temperature: room temperature</td></tr>
<tr><td colspan="3">3. Preservation conditions: store them in a cool and dry place</td></tr>
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