

SU10 Project antenna specification

Customer name: Songtuo

Customer name: SU10

Product name: SU10-LDS antenna

Change Content CV:

order number	edition	state	Start and end date	person liable	page number	remarks
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Responsible person / date		IQC/ date	Review / Date	Approval / Date
MD				
RF				

The Demander acknowledges the signature (please send it back after the confirmation):

The demander's judgment result: ☐ qualified ☐ unqualified			
Development & Design Engineer / Date	SQE Engineer / Date	Purchasing Leader / Date	Development Manager approval / date

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1. Overview

1.1 Scope of application

This requirement specifies the antenna technical requirements and material requirements specifications for SU10 products.

This requirement applies to the selection, testing and acceptance of SU10 antennas.

1.2 Project basic information

Antenna name:	<u>SU10</u>
Antenna frequency:	BT:-2400MHz-2500MHz
Antenna material:	LDS

2. Technical index requirements

2.2.1 Introduction of test items and equipment

inventory	test item	equipment
Active test	TRP,TIS	Integrated tester, microwave darkroom

2.2.2 Test instructions

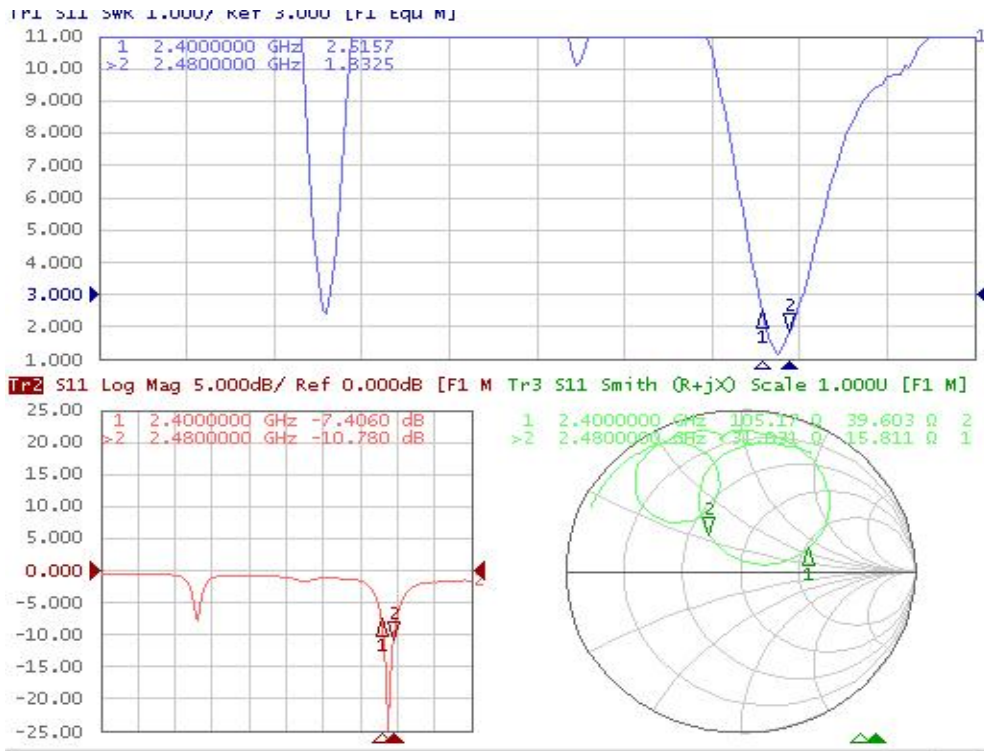
Test tools: Agilent8960 instrument, R & SCMW500, full wave far field ETS dark room, high precision positioning system and its controller and computer with automatic test program

Test environment: temperature $22^{\circ}\text{C} \pm 3^{\circ}\text{C}$, humidity $50\% \pm 15\%$

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

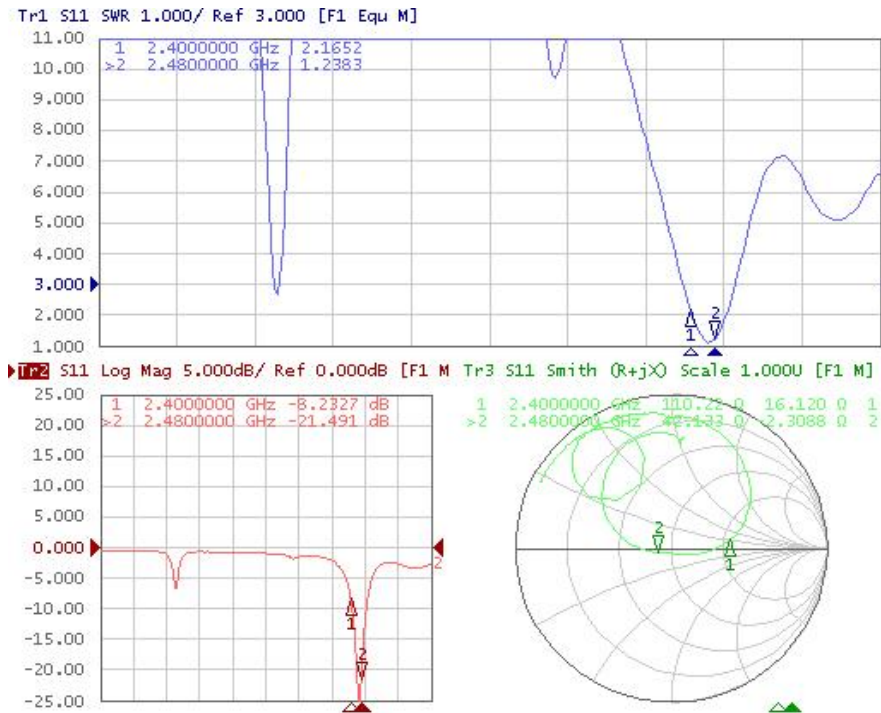
The positioning system enables the DUT to rotate in the whole sphere to satisfy the high-precision 3 D positioning. Each RF instrument and turntable controller communicate with the PC with automatic test software through the GPIB interface.

2.2.3 Antenna test-passive data-L



L-headform			
Freq (MHz)	Efficiency (dB)	Gain (dBi)	Efficiency (%)
2400	-11.91	-7.06	6.44
2410	-11.79	-6.92	6.62
2420	-11.69	-6.78	6.78
2430	-11.63	-6.73	6.87
2440	-11.61	-6.64	6.91
2450	-11.55	-6.55	6.99
2460	-11.64	-6.49	6.86
2470	-11.86	-6.57	6.52
2480	-12.05	-6.59	6.24
2490	-12.22	-6.56	6
2500	-12.46	-6.61	5.67
AVE	-11.86	-6.68	6.53

2.2.4 Antenna test-passive data-R

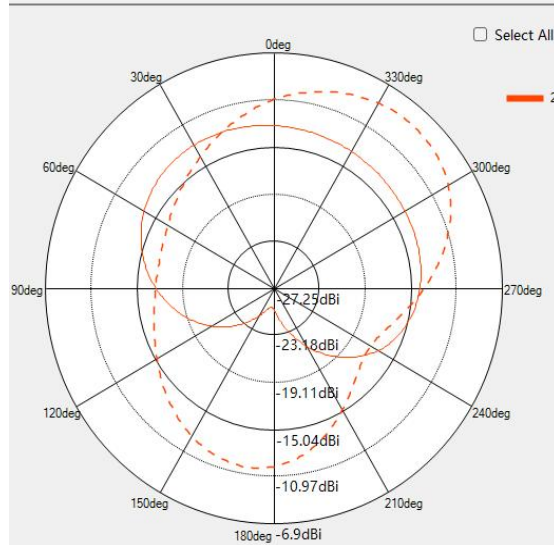
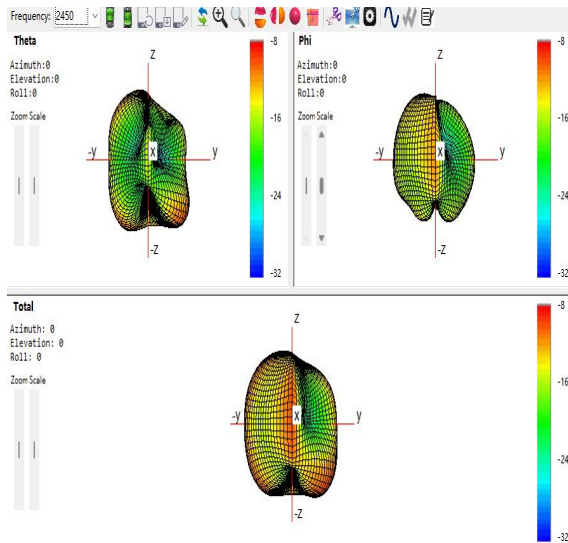


R-headform			
Freq(MHz)	Efficiency(dB)	Gain(dBi)	Efficiency(%)
2400	-10.88	-4.41	8.16
2410	-11.51	-4.47	7.07
2420	-10.98	-4.47	7.98
2430	-11.14	-4.58	7.69
2440	-11.35	-4.71	7.33
2450	-11.51	-4.79	7.06
2460	-11.88	-4.01	6.48
2470	-11.71	-4.27	6.74
2480	-12.30	-4.5	5.89
2490	-12.41	-4.58	5.74
2500	-12.67	-4.69	5.41
AVE	-11.67	-4.50	6.86

2.2.5 Antenna test-active data

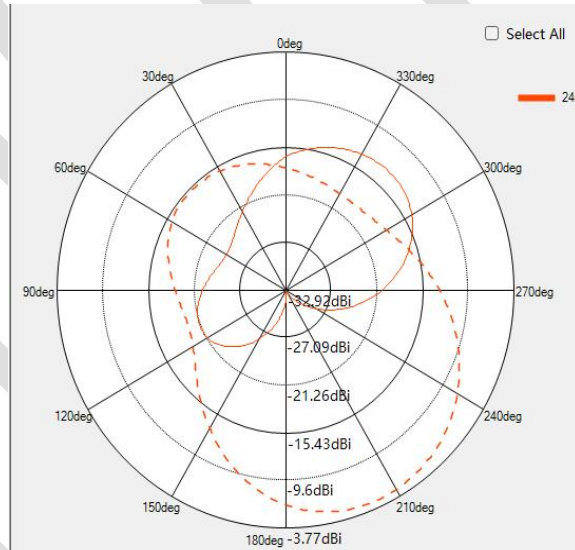
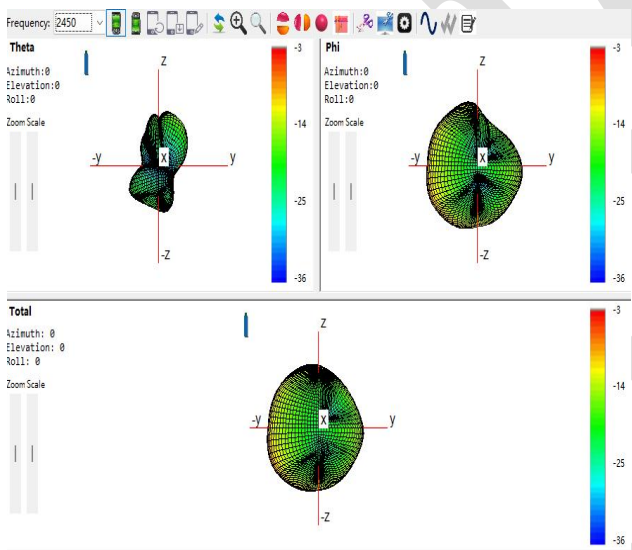
CH		
	L/headform	R/headform
0	-2.3	-1.01
39	-1.91	-1.67
78	-2.98	-2.72
0	-82.18	-83.98
39	-83.59	-84.62
78	-83.34	-84.57

2.2.6 Antenna test-Passive Apple diagram-Directional chart-L



headform

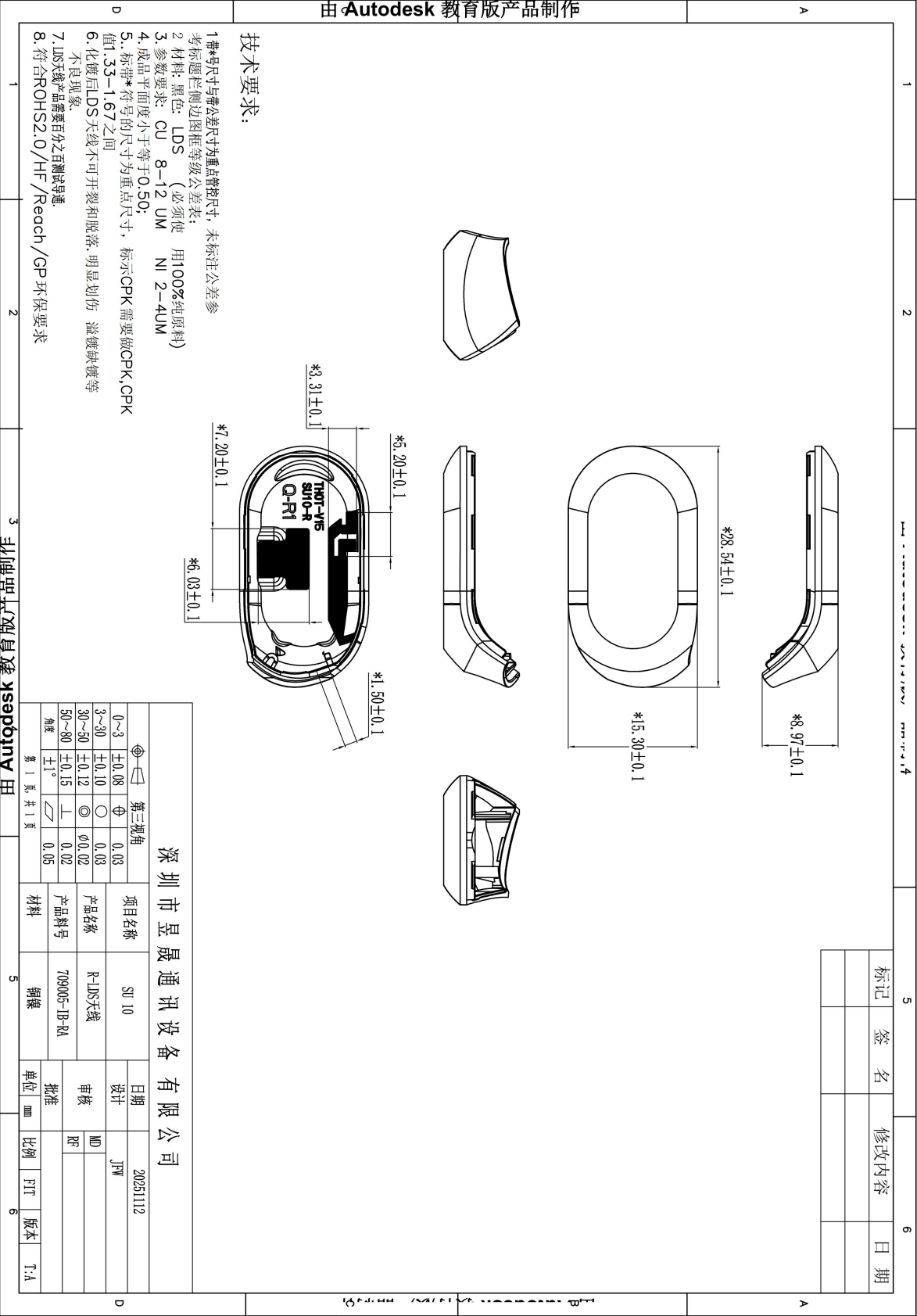
2.2.7 Antenna test-Passive Apple diagram-Directional chart-R



headform

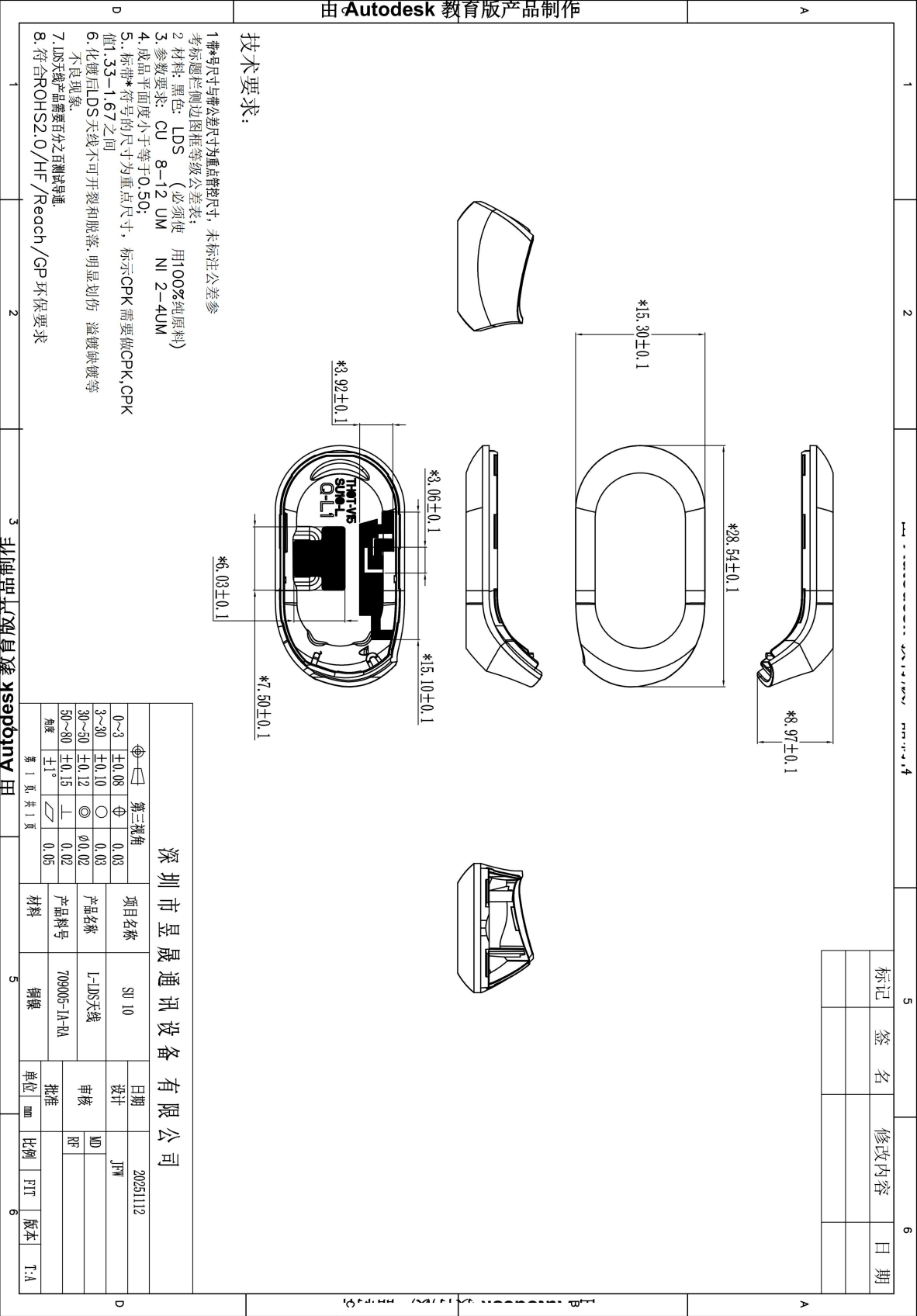
3.工程图纸

3.1 右耳天线组件



3.工程图纸

3.1 左耳天线组件



4. Bill of Materials

709005 (SU10) -BOM

Edition: R:A

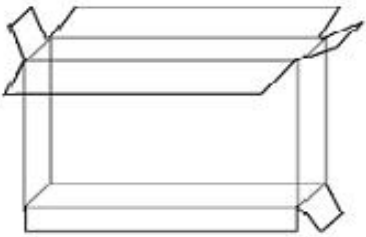
client:709

Model: 709005

date: 20250627

Part No	Material code	*Material name	/	Model	specifications and models	colour	Unit	dosage	remarks
1	709005-IA-RA	L BT-Black components		SU10	Black L -LDS technology		PCS	1	
1.1	709005-IA-01-RA	L-Black components		SU10	L-Black PC LDS special material	Black	PCS	1	
1.2	709005-IA-02-RA	L- circuit		SU10	CU 6-10 UM NI 2-4 UM	hoary	PCS	1	
2	709005-IB-RA	R BT-Black components		SU10	BlackR -LDS technology		PCS	1	
2.1	709005-IB-01-RA	R-Black components		SU10	R-Black PC LDS special material	Black	PCS	1	
2.2	709005-IB-02-RA	R- circuit		SU10	CU 6-10 UM NI 2-4 UM	hoary	PCS	1	
3	709005-IC-RA	L BT-Orange components		SU10	Orange L -LDS technology		PCS	1	
3.1	709005-IC-01-RA	L-Orange components		SU10	L-Orange PC LDS special material	Orange	PCS	1	
3.2	709005-IA-02-RA	L- circuit		SU10	CU 6-10 UM NI 2-4 UM	hoary	PCS	1	
4	709005-ID-RA	R BT-Orange components		SU10	Orange R -LDS technology		PCS	1	
4.1	709005-ID-01-RA	R-Orange components		SU10	R-Orange PC LDS special material	Orange	PCS	1	
4.2	709005-IB-02-RA	R- circuit		SU10	CU 6-10 UM NI 2-4 UM	hoary	PCS	1	
Confirmation:			Review:			Production: FJW			

5.Package drawing

Packaging method diagram		
product name	LDS antenna	
P / N	709005	
Project model	SU10	
File details	Carton Size 1: 270*260*200MM Carton Size 2: 260*200*200MM Carton Size 3: Depending on the order quantity / volume	
	Boating method	Packaging by order quantity
	Total number of binning	Packaging by order quantity
labeling requirement	Tag Size 1: Universal use 100 * 100mm Tag Size 2: According to customer requirements	
matters need attention		
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		
2. Storage temperature: room temperature		
3. Preservation conditions: store them in a cool and dry place		