Antenna specification of the W120 project

Customer name: Shenzhen Dunsh Electronics Co., Ltd

Customer product name: W120

Product name: Antenna assembly

Supplier Model Number: Left headphone antenna: 336039-IA

Supplier Address: 407-411, Floor 4, Building 2, Nantaiyun Chuanggu Park, southeast of the intersection of Guangming Avenue and Dongchang Road, Guangming District, Shenzhen City

Change Content CV:

order number	edition	Start and end date	person liable	page number	remarks
1	R:a	2024-04-24	Li Jieyi	10	

The Supplier acknowledges the signature of the following documents:

Responsible person / date		IQC / Date-	Review / Date	Approval / Date
MD	Close industry wisdom	Su Guanfeng	Zeng Xiang good	
RF	Chen Kehong			

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

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

catalogue

1. Overview

1.1 Scope of application

This requirement, provided **W120** Antenna technical requirements and material requirements specifications.

This requirement applies to the selection, testing and acceptance of the W120 antenna.

1.2 Project basic information

Antenna name:	**W120**
Antenna frequency:	BT：2400MHz-2500MHz
Antenna material:	FPC

2. Technical index requirements

2.1 Introduction of test items and equipment

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

2.2 Active Reporting

2.2.1 Test instructions

Test tools: Agilent8960 instrument, R & S CMW500, full wave far field ETS dark room, high precisio n positioning system and its controller and computer with automatic test program

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

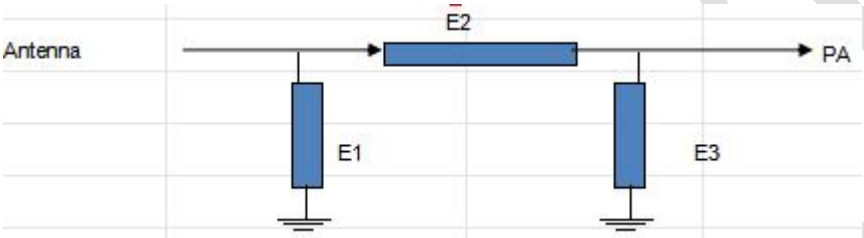
Test method: DUT is fixed in the center of the turntable with H plane, on the same horizontal line as the center of the horn antenna.

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 the PC with automatic test software through the GPIB interface.

2.2.2 Conduction data

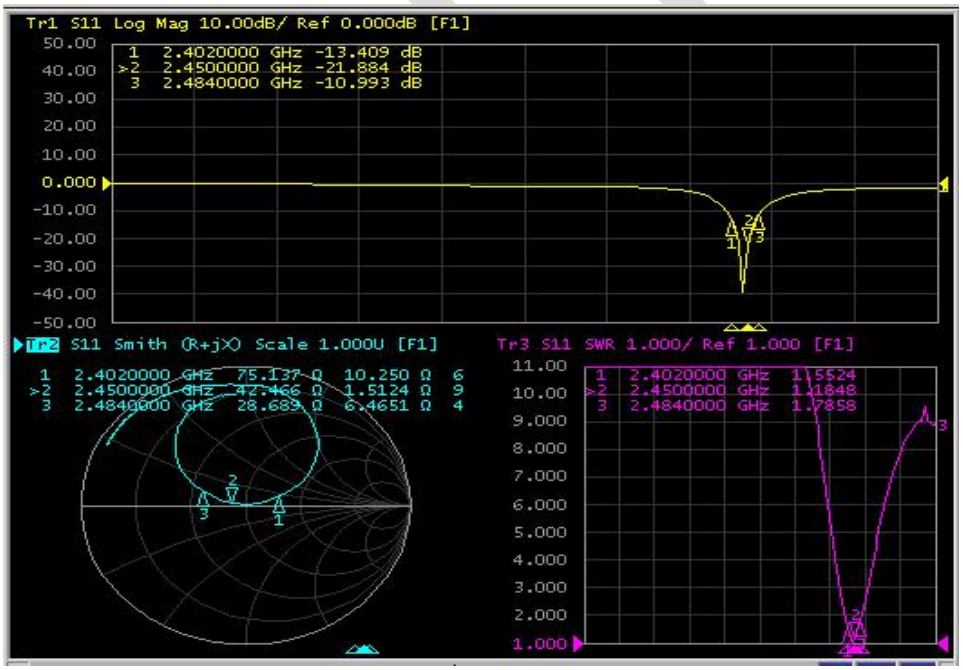
	Channel	power	sensitivity
L	0	9.8	-94.0
	39	9.9	-94.0
	78	9.8	-94.0

2.2.3 The matching circuit is shown below the figure-L



Element	Value
E1(0201)	N/A
E2(0201)	0欧姆
E3(0201)	N/A

2.2.4 S11-L

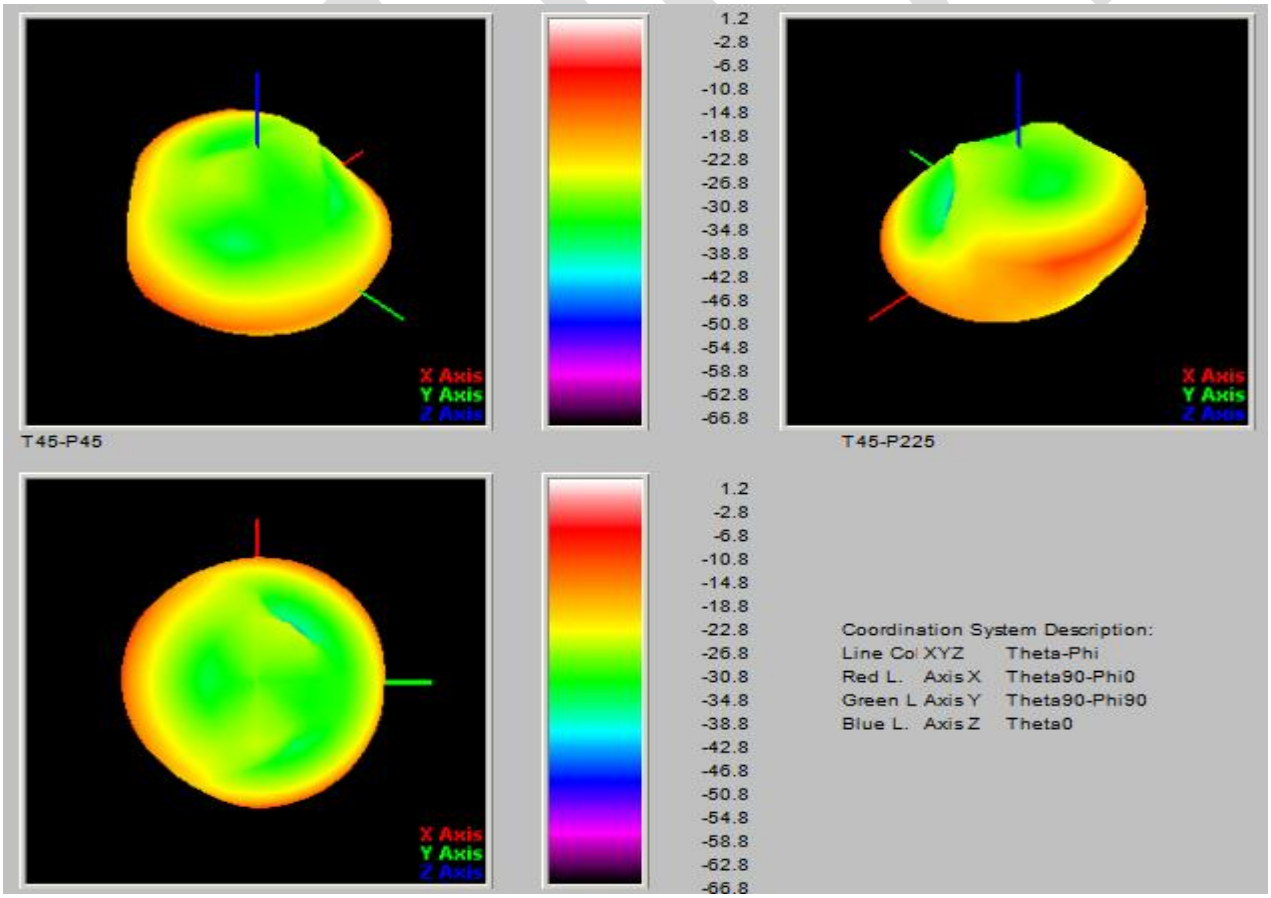


2.2.5 Notes for installation

2.2.6 No-Source data-L

Freq (MHz)	Effi (%)	Gain (dBi)
2400	17	0.68
2410	19	0.75
2420	20	0.85
2430	21	1.1
2440	23	1.18
2450	25	0.96
2460	23	0.85
2470	21	0.68
2480	19	0.54
2490	18	0.61
2500	16	0.57

2.2.7 Direction diagram-L



2.2.8 Antenna OTA

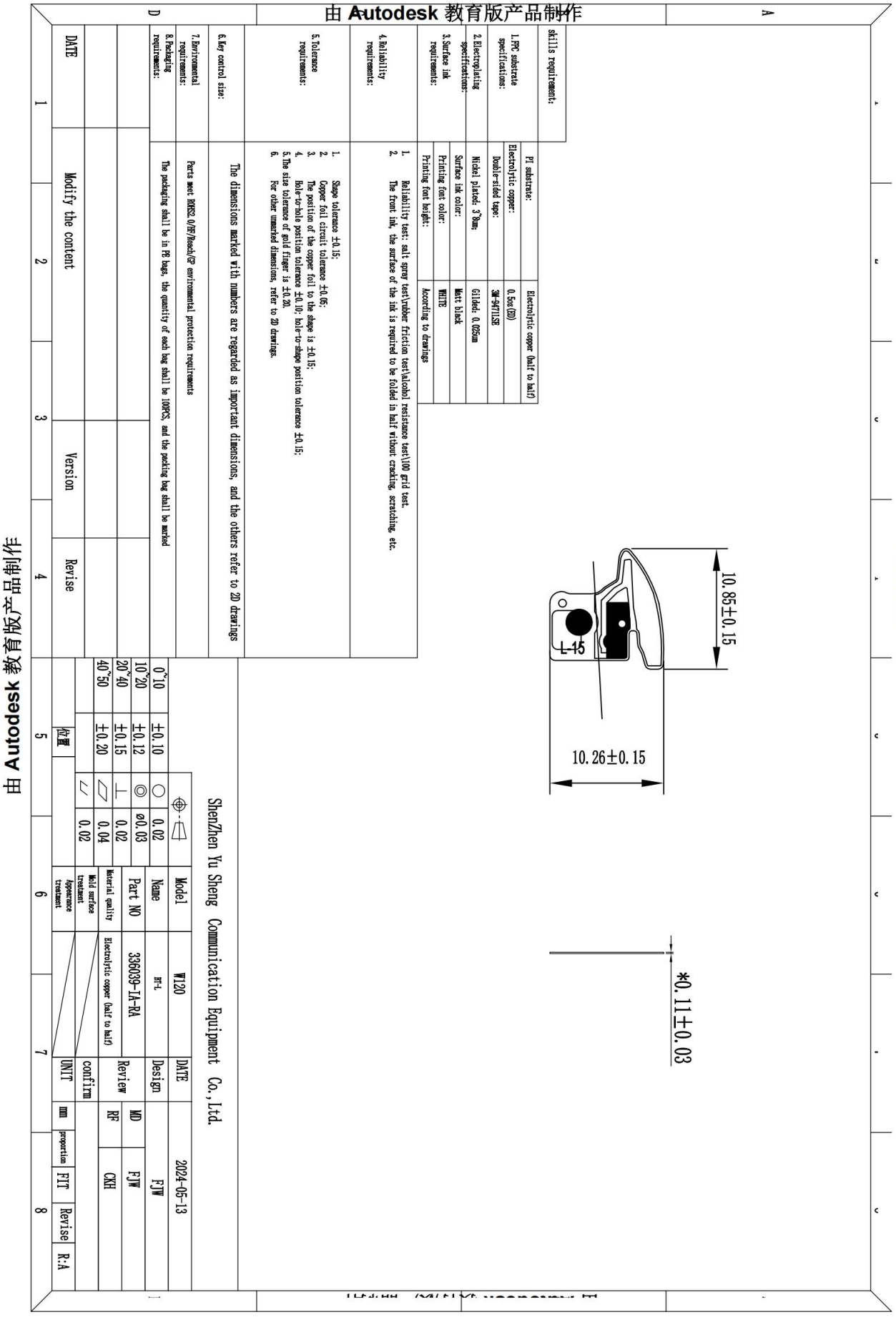
	Channel	TRP（dBm）	TIS（dBm）	
L	0	2.25	-87.65	free space
	39	2.36	-88.11	
	78	2.69	-88.32	

	Channel	TRP（dBm）	TIS（dBm）	
L	0	-1.36	-82.69	Head model data
	39	-1.38	-83.44	
	78	-1.25	-83.47	

2.2.9 Pull distance test

model machine	test controler	BMI	time	Host side	testing facility	Test location	distance	sum up
1#	lay out	30	10:00-14:00	auto	iphone6	THOT balcony	13m	Distance can reach the standard

3.structural drawings



4. Bill Of Material

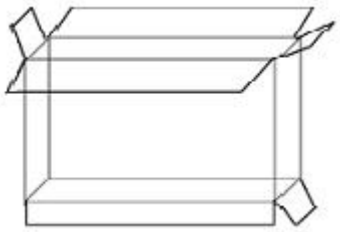
Shenzhen Yusheng Communication Equipment Co.,LTD

336039(W120)BOM表

edition：T:A　　client：336　　Type of aircraft：336039　　Set a date：2024-05-13

Item	*Material code	*Material name	name	*Machine type	Specification and model	colour	*UNIT.	dosage	remark
1	336039-IA-TA	black BT-L assembly		W120	FPC+Shell components+assemble		PCS	1	
1.1	336039-IA-01-TA	L-FPC		W120	black L-FPC Electrolytic copper (half to half) gold 10.85*10.26*0.11 mm	black	PCS	1	
1.2	336039-IA-02-TA	black Shell components		W120	black Shell components	black	PCS	1	Outsourced procurement
1.3	336039-IA-03-TA	assemble		W120	assemble		PCS	1	
2	336039-IB-TA	black BT-R assembly		W120	FPC+Shell components+assemble		PCS	1	
2.1	336039-IB-01-TA	R-FPC		W120	black R-FPC Electrolytic copper (half to half) gold 12.87*10.57*0.11 mm	black	PCS	1	
2.2	336039-IB-02-TA	black Shell components		W120	black Shell components	black	PCS	1	Outsourced procurement
2.3	336039-IB-03-TA	assemble		W120	assemble		PCS	1	
3	336039-IC-TA	WHITE BT-L assembly		W120	FPC+Shell components+assemble		PCS	1	
3.1	336039-IA-01-TA	L-FPC		W120	WHITE L-FPC Electrolytic copper (half to half) gold 10.85*10.26*0.11 mm	black	PCS	1	
3.2	336039-IC-02-TA	WHITE Shell components		W120	WHITE Shell components	WHITE	PCS	1	Outsourced procurement
3.3	336039-IC-03-TA	assemble		W120	assemble		PCS	1	
4	336039-ID-TA	WHITE BT-R assembly		W120	FPC+Shell components+assemble		PCS	1	
4.1	336039-IB-01-TA	R-FPC		W120	WHITE R-FPC Electrolytic copper (half to half) gold 12.87*10.57*0.11 mm	black	PCS	1	
4.2	336039-ID-02-TA	WHITE Shell components		W120	WHITE Shell components	WHITE	PCS	1	Outsourced procurement
4.3	336039-ID-03-TA	assemble		W120	assemble		PCS	1	
5	336039-IE-TA	Pink BT-L assembly		W120	FPC+Shell components+assemble		PCS	1	
5.1	336039-IA-01-TA	L-FPC		W120	Pink L-FPC Electrolytic copper (half to half) gold 10.85*10.26*0.11 mm	black	PCS	1	
5.2	336039-IE-02-TA	Pink Shell components		W120	Pink Shell components	Pink	PCS	1	Outsourced procurement
5.3	336039-IE-03-TA	assemble		W120	assemble		PCS	1	
6	336039-IF-TA	Pink BT-R assembly		W120	FPC+Shell components+assemble		PCS	1	
6.1	336039-IB-01-TA	R-FPC		W120	Pink R-FPC Electrolytic copper (half to half) gold 12.87*10.57*0.11 mm	black	PCS	1	
6.2	336039-IF-02-TA	Pink Shell components		W120	Pink Shell components	Pink	PCS	1	Outsourced procurement
6.3	336039-IF-03-TA	assemble		W120	assemble		PCS	1	
7	336039-IG-TA	blue BT-L assembly		W120	FPC+Shell components+assemble		PCS	1	
7.1	336039-IA-01-TA	L-FPC		W120	blue L-FPC Electrolytic copper (half to half) gold 10.85*10.26*0.11 mm	black	PCS	1	
7.2	336039-IG-02-TA	blue Shell components		W120	blue Shell components	blue	PCS	1	Outsourced procurement
7.3	336039-IG-03-TA	assemble		W120	assemble		PCS	1	
8	336039-IH-TA	blue BT-R assembly		W120	FPC+Shell components+assemble		PCS	1	
8.1	336039-IB-01-TA	R-FPC		W120	blue R-FPC Electrolytic copper (half to half) gold 12.87*10.57*0.11 mm	black	PCS	1	
8.2	336039-IH-02-TA	blue Shell components		W120	blue Shell components	blue	PCS	1	Outsourced procurement
8.3	336039-IH-03-TA	assemble		W120	assemble		PCS	1	
verify:			examine:			manufacture: BYZ			

5.Schematic diagram of packaging

<table>
<tr><td colspan="3">Packaging method diagram</td></tr>
<tr><td>product name</td><td colspan="2">Antenna components</td></tr>
<tr><td>P / N</td><td colspan="2">336039</td></tr>
<tr><td>Project model</td><td colspan="2">W120</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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