

Antenna specification of the W120 project

Customer name: Shenzhen Dunsh Electronics Co., Ltd

Customer product name: W120

Product name: Antenna assembly


Supplier Model Number: Right headphone antenna: 336039-IB

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

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order number	edition	state	Start and end date	person liable	page number	remarks
1	R:a	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	<i>Close industry wisdom</i>	<i>Su Guanfeng</i>	<i>Zeng Xiang good</i>	
RF	Chen Kehong			

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

The demander's judgment result: <input type="checkbox"/> qualified <input type="checkbox"/> unqualified			
Development & Design Engineer / Date	SQE Engineer / Date	Purchasing Leader / Date	Development Manager approval / date

catalogue

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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 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 $50\% \pm 15\%$

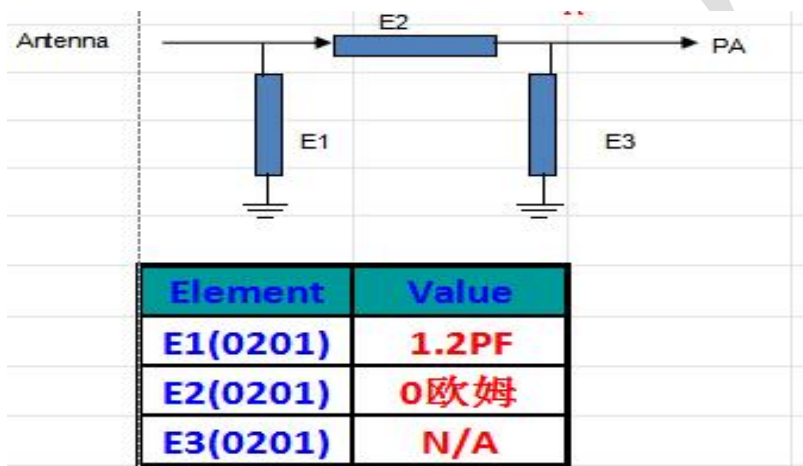
Test method: DUT is fixed in the center of the turntable with H plane, on the same horizontal line as the center of the horn antenna.

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.

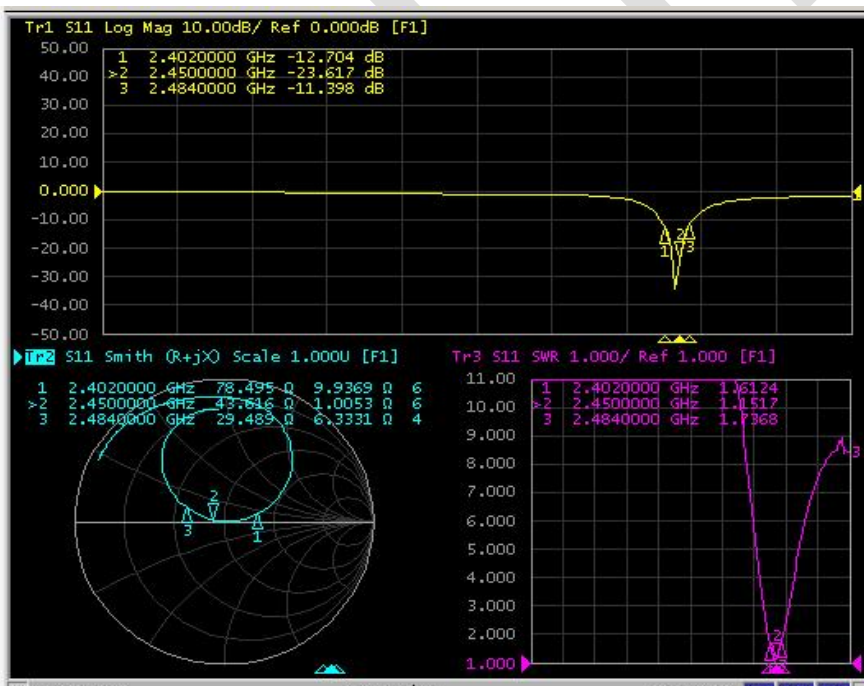
2.2.2 Conduction data

	Channel	power	sensitivity
R	0	10.1	-94.0
	39	9.9	-94.0
	78	9.9	-94.0

2.2.3 Match circuit is shown below the figure-R



2.2.4 S11-R



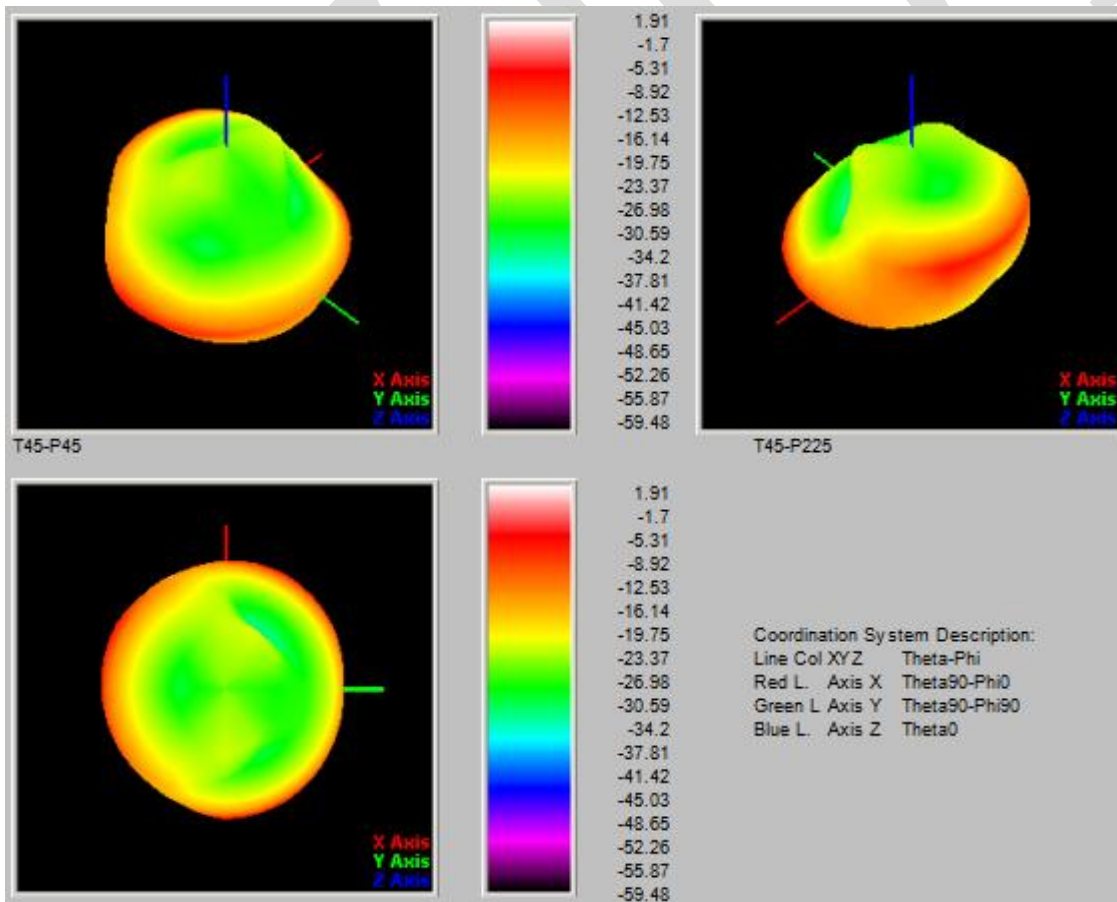
2.2.5 Notes for installation

THOT

2.2.6 passive data-R

Freq (MHz)	Effi (%)	Gain (dBi)
2400	18	1.12
2410	19	1.2
2420	21	1.36
2430	22	1.41
2440	23	1.32
2450	24	1.48
2460	25	1.36
2470	24	1.52
2480	23	1.36
2490	20	1.20
2500	18	1.12

2.2.7 Direction diagram-R



2.2.8 Antenna OTA

free space		Channel	TRP (dBm)	TIS (dBm)
	R	0	3.21	-88.85
		39	3.32	-88.32
		78	3.61	-89.47

Head model data		Channel	TRP (dBm)	TIS (dBm)
	R	0	-0.86	-82.79
		39	-0.69	-83.05
		78	-0.57	-83.4

2.2.9 Pull distance test

model	test	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

A				由 Autodesk 教育版产品制作																																															
skills requirements:				<table border="1"> <tr> <td>PI substrate:</td> <td>Electrolytic copper (half to half)</td> </tr> <tr> <td>Electrolytic copper specifications:</td> <td>0.5oz(20)</td> </tr> <tr> <td>Double-sided tape:</td> <td>94-97138</td> </tr> <tr> <td>Nickel plating:</td> <td>3*mm</td> </tr> <tr> <td>Surface ink color:</td> <td>GI/Red 0.025mm</td> </tr> <tr> <td>Surface ink requirements:</td> <td>Mat black</td> </tr> <tr> <td>Printing font color:</td> <td>WHITE</td> </tr> <tr> <td>Printing font height:</td> <td>According to drawings</td> </tr> </table>				PI substrate:	Electrolytic copper (half to half)	Electrolytic copper specifications:	0.5oz(20)	Double-sided tape:	94-97138	Nickel plating:	3*mm	Surface ink color:	GI/Red 0.025mm	Surface ink requirements:	Mat black	Printing font color:	WHITE	Printing font height:	According to drawings																												
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4.Reliability requirements:				<ol style="list-style-type: none"> 1. Reliability test: salt spray test(vulcan friction test/alcohol resistance test/100 grid test. 2. The front ink, the surface of the ink is required to be folded in half without cracking, scratching, etc. 																																															
5.Tolerance requirements:				<ol style="list-style-type: none"> 1. Slope tolerance ± 0.15; 2. Copper foil circuit tolerance ± 0.05; 3. The position of the copper foil to the shape is ± 0.15; 4. Hole-to-hole position tolerance ± 0.10; hole-to-shape position tolerance ± 0.15; 5. The size tolerance of gold finger is ± 0.20; 6. For other unmarked dimensions, refer to 2D drawings. 																																															
6.Key control size:				The dimensions marked with numbers are regarded as important dimensions, and the others refer to 2D drawings																																															
7.Environmental requirements:				Parts meet RoHS2.0/REACH/2/ environmental protection requirements																																															
8.Packaging requirements:				The packaging shall be in PB bags, the quantity of each bag shall be 100PCS, and the packing bag shall be marked																																															
DATE				<table border="1"> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> </tr> <tr> <td></td> <td>Modify the content</td> <td></td> <td>Version</td> <td>Revise</td> <td></td> <td></td> <td></td> </tr> </table>				1	2	3	4	5	6	7	8		Modify the content		Version	Revise																															
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4. Bill Of Material

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	

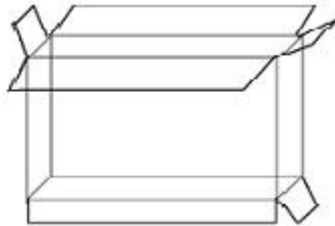
4.2	336039-ID-02-TA	WHITE Shell components		W120	WHITE Shell components	WHITE	PCS	1	Outsourced procurement
4.3	336039-ID-03-TA	assemble		W120	assemble		PCS	1	
5	336039-IE-TA	Pink BT-L assembly		W120	FPC+Shell components+assemble		PCS	1	
5.1	336039-IA-01-TA	L-FPC		W120	Pink L-FPC Electrolytic copper (half 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

Packaging method diagram	
product name	Antenna components
P / N	336039
Project model	W120
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	