

AESEB3 Project antenna material requirements specification

Customer name: Guoheng Intelligent Technology (Huizhou) Co., LTD

Customer name: AESEB3

Product name: Right antenna

Supplier model: 336054-IB(R)

Change Content CV:

order number	edition	state	availability date	person liable	page number	remarks
1	R:A	editio princeps	2026.3.19	Li Jieyi	9	

The Supplier acknowledges the signature of the following documents:

Responsible person / date		IQC / Date-	Review / Date	Approval / Date
MD	Feng jiwu	Su Guanfeng	Zeng Xiang hao	
RF	Chen Kehong			

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

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

Catalogue

1. OVERVIEW	3
1.1 SCOPE OF APPLICATION	3
1.2 PROJECT BASIC INFORMATION	3
2. TECHNICAL INDEX REQUIREMENTS	3
2.1 INTRODUCTION OF TEST ITEMS AND EQUIPMENT	3
2.2 ACTIVE REPORTING	3
2.2.1 TEST INSTRUCTIONS	3
2.2.2 PASSIVE DATA OF L-ANTENNA	4
2.2.3 ANTENNA ACTIVE PARAMETERS-FREE	5
2.2.4 ANTENNA ACTIVE PARAMETERS-HEAD MODEL	5
2.2.5 ANTENNA MATCHING CHANGE	5
2.2.6 ANTENNA FIELD MEASUREMENT DATA	6
3. STRUCTURAL DRAWINGS	7
3.1 RIGHT HEADPHONE ANTENNA DRAWING	7
4. BILL OF MATERIAL	8
5. PACKAGING DIAGRAM	9
(THIS FIGURE IS ONLY A PACKAGING DIAGRAM, SUBJECT TO THE ACTUAL MASS PRODUCTION).....	9

1. Overview

1.1 Scope of application

This requirement specifies the antenna technical requirements and material requirements specifications for AESEB3 products.

This requirement applies to the selection, testing and acceptance of AESEB3 _antenna.

1.2 Project basic information

Antenna name:	<u>AESEB3</u>
Antenna frequency:	BT : 2400-2500MHZ
Antenna material:	FPC antenna
Antenna version:	R:A

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

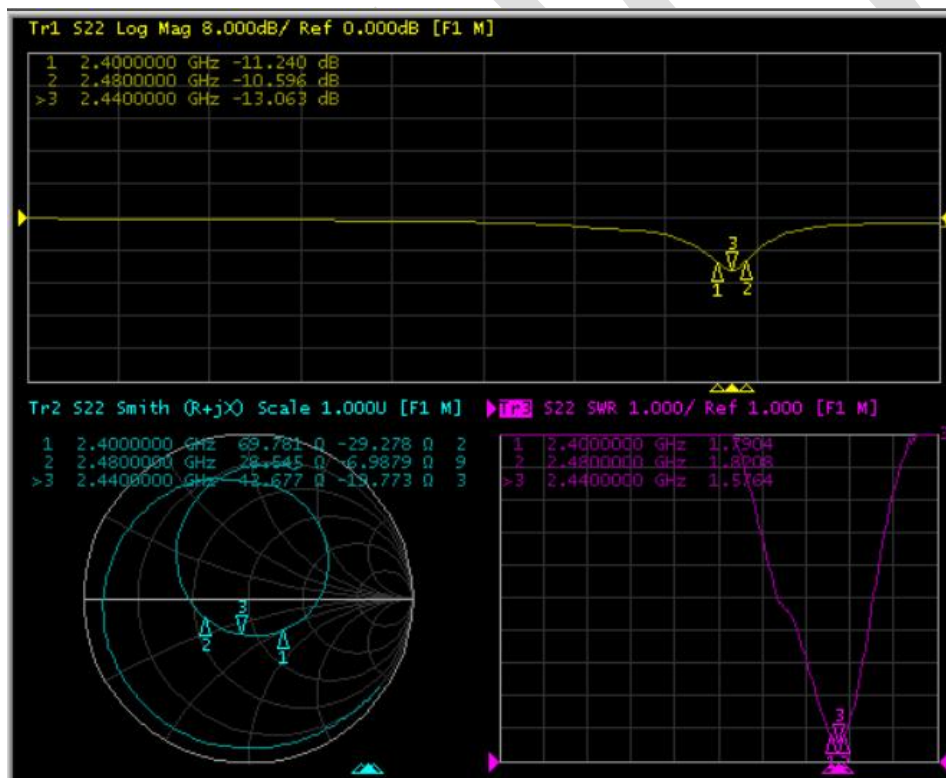
Test environment: temperature $22^{\circ}\text{C} \pm 3^{\circ}\text{C}$, humidity $50\% \pm 15\%$

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 Passive data of L-antenna

Freq(MHz)	Effi (%)	Gain(dbi)
2400	17.8	-0.73
2410	19.3	-0.62
2420	20.5	-0.50
2430	22.1	-0.42
2440	23.6	-0.31
2450	21.8	-0.41
2460	20.5	-0.56
2470	19.3	-0.60
2480	18.1	-0.82



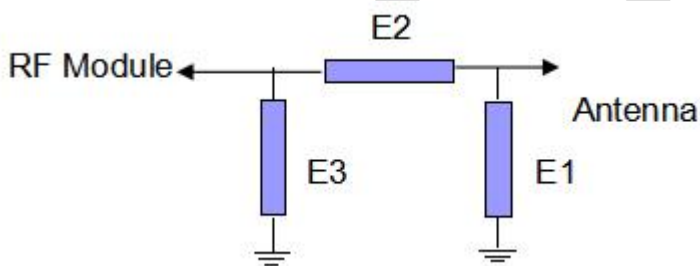
2.2.3 Antenna Active Parameters-Free

Channel No.	Free space test data/L	
	TRP (dBm)	TIS (dBm)
0	4.13	-87.15
39	4.54	-87.21
78	4.20	-86.59

2.2.4 Antenna Active Parameters-Head Model

Channel No.	Free space test data/L	
	TRP (dBm)	TIS (dBm)
0	1.35	-83.47
39	1.46	-83.55
78	1.32	-82.85

2.2.5 Antenna matching change



BT 天线	Element	Value
	E1 (0402)	N/A
	E2 (0402)	0 欧姆
	E3 (0402)	N/A

2.2.6 Antenna field measurement data

test method:	1. Distance Testing: Connect the smartphone to Bluetooth headphones and place the device on a non-metallic stand at a height of 60 cm. The tester wears the headphones while walking at a distance and performs a 360-degree rotation. Determine the maximum distance at which call sounds and music playback within the headphones remain uninterrupted, and measure the distance.	
	2. Close-range testing: The tester carries a mobile phone (preferably in the rear pocket of pants with the main earpiece facing the Bluetooth earphones) to conduct rotational tests on the human body to detect any disengagement.	
	3. Hands-over-test: The tester wears headphones and connects to a mobile phone to play music, testing two scenarios: 1) Fingertip-up test to assess whether the music playback is interrupted; 2) Fingertip-back test to evaluate whether the music playback is interrupted.	
Testing location:	In the open area outside our building (see test environment)	
testing facility:	Iphone 6	
testing facility:	listen to music	1. When the left and right ears serve as mutual primary ears during the pull distance test, no lagging phenomenon was observed within 12 meters.
		2. Close-range test: Not yet tested
		3. Hands-over-the-test: Not yet tested

3.structural drawings

3. 1 Right headphone antenna drawing

1	2	3	4	5	6	7	8								
A skills requirements: 1. PFC substrate specifications: 2. Electroplating specifications: 3. Surface requirements: 4. Reliability requirements: 5. Tolerance requirements: 6. Key control size: 7. Environmental requirements: 8. Packaging requirements: DATE 1. 0 ml Electrolytic copper: 0.5oz(16) Double-sided tape: 2M-9471LSB Nickel plating: 30um Surface cover film: Wet black Printing font color: Bright black According to drawings Reliability test: salt spray test(rubber friction test)(alcohol resistance test)(100 grid test. The front ink, the surface of the ink is required to be folded in half without cracking, scratching, etc. Shape tolerance ± 0.15. Copper foil circuit tolerance ± 0.05. The position of the copper foil to the shape is ± 0.15. Butt-hole position tolerance ± 0.10 hole-to-shape position tolerance ± 0.15. The size tolerance of gold finger is ± 0.20. For other unrelated dimensions, refer to 2D drawings. The dimensions marked with numbers are regarded as important dimensions, and the others refer to 2D drawings				10⁻¹⁰ 20⁻⁴⁰ 40⁻⁵⁰ 位置				0.02 0.03 0.02 0.04 0.02				Model ASB3B3 DATE 20251121			
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4.Bill Of Material

336054 (AESEB3) BOM

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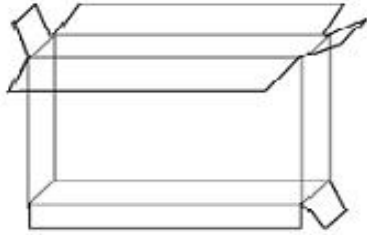
client: 336

Type of aircraft: 336054

Set a date: 2025/8/25

Item	*Material code	*Material name	name	*Machine type	Specification and model	colour	*UNIT.	dosage	remark
2	336054-IB-TA	R Antenna		AESEB3	Black R-FPC Electrolytic Copper Half and Half Black Cover Film Plated Gold 23.07 * 9.29 * 0.12mm	black	PCS	1	
2.1	336054-IB-01-TA	R Antenna-FPC		AESEB3	Black R-FPC Electrolytic Copper Half and Half Black Cover Film Plated Gold 23.07 * 9.29 * 0.12mm	black	PCS	1	
verify:			examine:			manufacture: BYZ			

5. Packaging diagram

Packaging method diagram		
product name	Antenna components	
P / N	336054	
Project model	<u>AESEB3</u>	
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		

(This figure is only a packaging diagram, subject to the actual mass production)