

Heart rate bands Project antenna specification

Customer name SUUNTO

Product name: Heart rate belt

Antenna name: FPC antenna

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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 Heart rate bands products.

This requirement applies to the selection, testing and acceptance of Heart rate bands antennas.

1.2 Project basic information

Antenna name: FPC Antenna
 Antenna frequency: BT:-2400MHz-2500MHz
 Antenna material: FPC
 Antenna manufacturer: SHENZHEN YUSHENG COMMUNICATION EQUIPMENT CO., LTD
 Antenna type: PIFA
 Antenna size: View drawings
 Manufacturer address: 4A,4th Floor, Building 2, Nantai Cloud Innovation Valley, Guangming District, Shenzhen

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

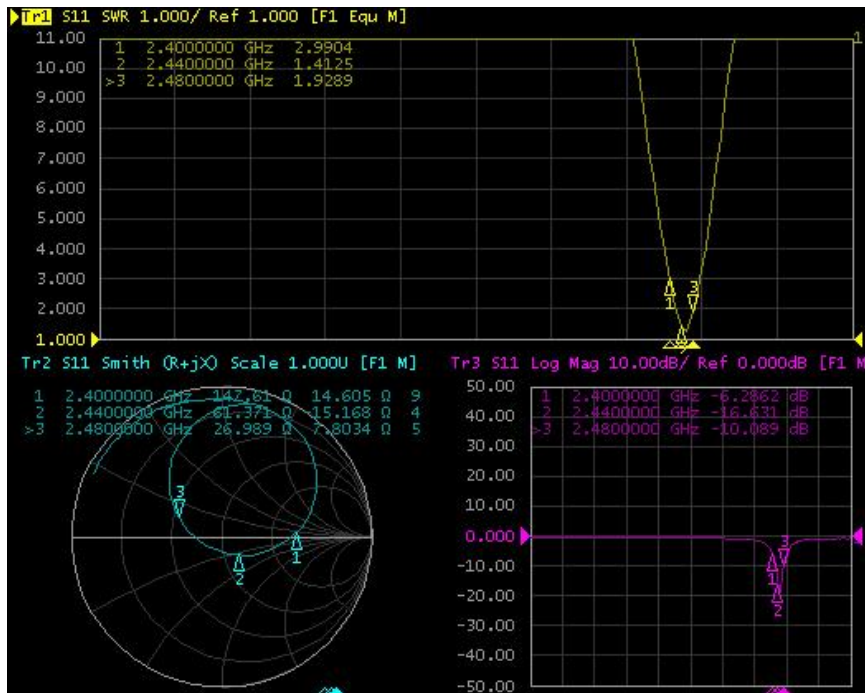
Test tools: Agilent8960 instrument, R & SCMW500, full wave far field ETS dark room, high precision positioning system and its controller and computer with automatic test program

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.

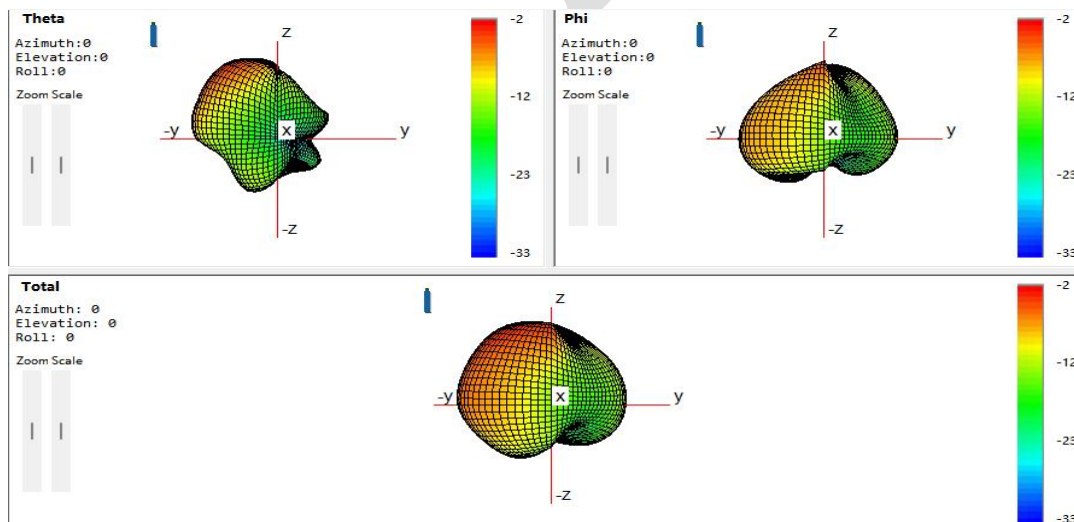
The positioning system enables the DUT to rotate in the whole sphere to satisfy the high-precision 3 D positioning. Each RF instrument and turntable controller communicate with the PC with automatic test software through the GPIB interface.

2.2.3 Antenna test data

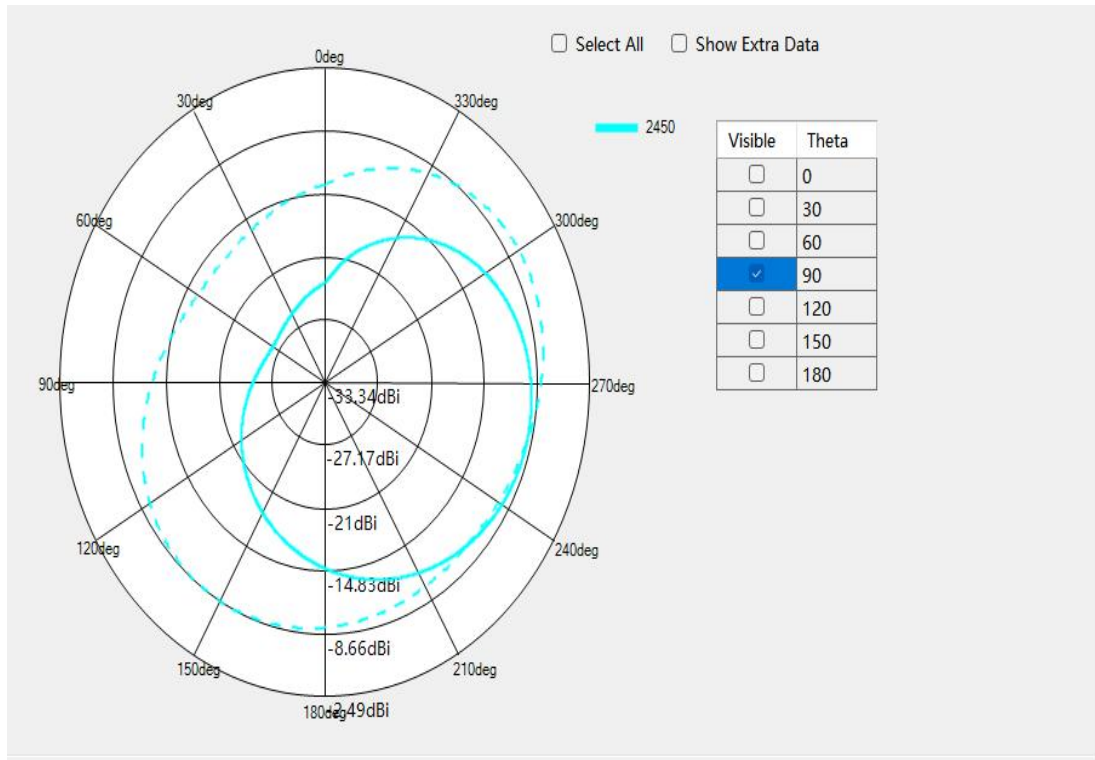


ARM			
Freq(MHz)	Efficiency(dB)	Gain(dBi)	Efficiency(%)
2400	-9.78	-3.22	10.53
2410	-9.46	-2.91	11.32
2420	-9.1	-2.58	12.3
2430	-8.89	-2.42	12.9
2440	-8.71	-2.23	13.46
2450	-8.59	-2.1	13.83
2460	-8.64	-2.19	13.68
2470	-8.85	-2.36	13.03
2480	-9.08	-2.64	12.35

2.2.4 Antenna directional diagram



arm



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4.Bill of Materials

709003 (Heart rate bands) -BOM

edition: R:A

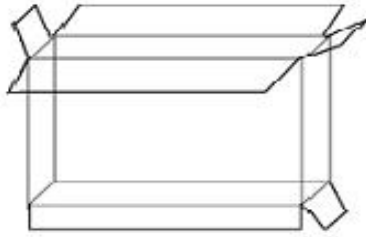
client: 709

Type of aircraft: 709003

Set a date: 20250828

Item	*Material code	*Material name	name	*Machine type	Specification and model	colour	*UNIT.	dosage	remark
1	709003-IA	BT-FPC		Heart rate bands	BLACK BT-FPC Electrolytic copper weld 22.20*6.66*0.12MM	black	PCS	1	
1.1	709003-IA-01	BT-FPC		Heart rate bands	BLACK BT-FPC Electrolytic copper weld 22.20*6.66*0.12MM	black	PCS	1	
verify:			examine:			manufacture: FJW			

5.Package drawing

Packaging method diagram		
product name	FPC antenna	
P / N	709003	
Project model	Heart rate bands	
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		