

KX1 project, antenna specification document

Customer name: Botslab

Customer product name: KX1

Product name: Antenna assembly

Product specification: See the BOM table for more details

material code: 231100308 Antenna Assembly (Kai Gold)

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The Supplier acknowledges the signature of the following documents:

Responsible person / date		IQC/ date	Review / Date	Approval / Date
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The demander's judgment result: ☐ qualified ☐ unqualified			
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1. Overview

1.1 Scope of application

This requirement specifies the antenna technical requirements and material requirements specifications for KX 1 products.

This requirement applies to the selection, testing and acceptance of KX 1 antenna.

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 & 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 with the 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, turntable controller and PC with automatic test software pass through GPIB and interface

2.2.2 Antenna passive data

Freq (Mhz)	Effi (%)	Effi (db)	Gain (dbi)
2400MHZ	62. 2%	-2. 06	2. 75
2410MHZ	63. 2%	-1. 99	3. 10
2420MHZ	64. 1%	-1. 93	3. 02
2430MHZ	63. 5%	-1. 97	3. 15
2440MHZ	65. 5%	-1. 84	3. 44
2450MHZ	66. 4%	-1. 78	3. 27
2460MHZ	65. 9%	-1. 81	3. 50
2470MHZ	64. 3%	-1. 92	3. 36
2480MHZ	63. 1%	-2. 00	3. 29
2490MHZ	62. 6%	-2. 03	2. 98
2500MHZ	61. 1%	-2. 14	2. 87

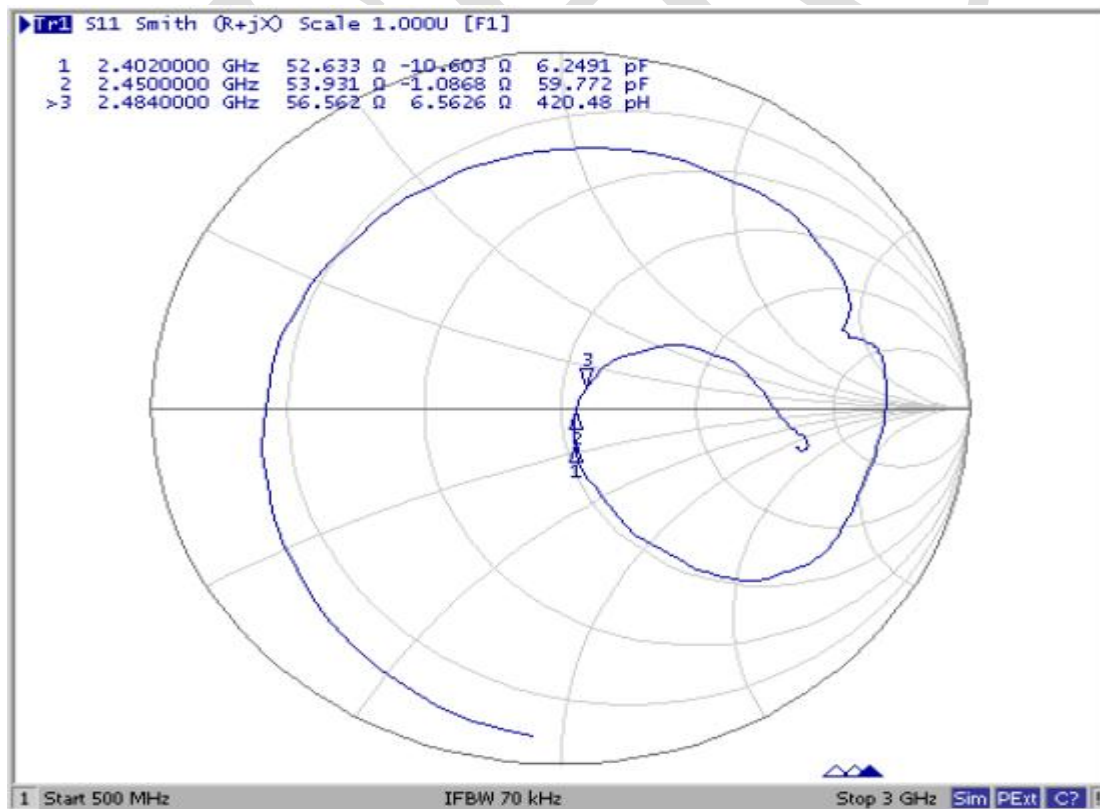
2.2.3 Antenna passive data-VSWR



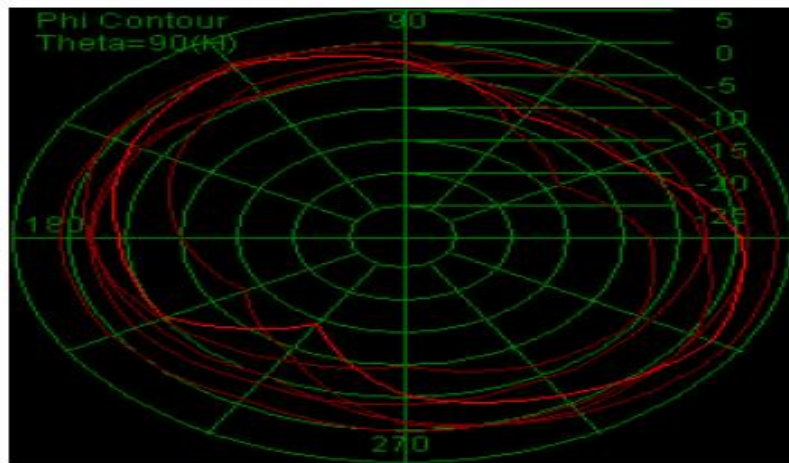
2.2.4 Antenna passive data Log Mag



2.2.5 Antenna passive data Smith

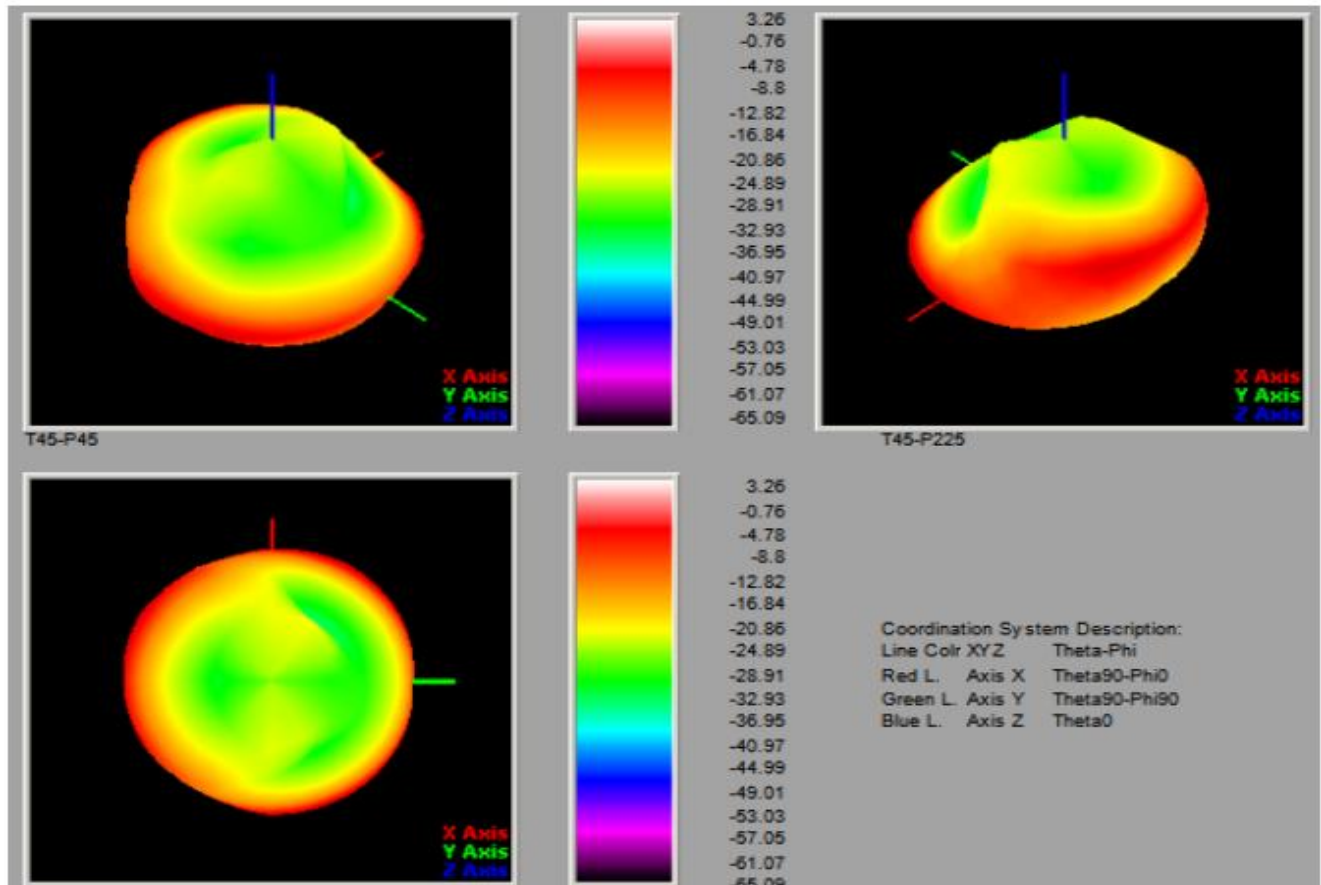


2.2.6 Antenna passive data-2D Pattern



Frequency (Mhz)	Max	Min
2400	2.75	-9.21
2450	3.27	-8.68
2500	2.87	-8.47

2.2.7 Antenna passive data-3D Pattern



2.2.8 ota information

	2.4 b模			2.4 g模		
Channel	1	6	12	1	6	12
TRP (dBm)	16.78	16.61	17.51	14.9	15.32	15.7
TIS (dBm)	-82.82	-83.01	-83.32	-69.68	-70.58	-70.96

	2.4n		
Channel	1	6	12
TRP (dBm)	14.83	15.29	15.69
TIS (dBm)	-67.78	-68.07	-68.89

3.structural drawings

