

Sample Confirmation Letter

Project model: OY22E

Sample name:

Bluetooth antenna

signing date: August 15,2023

business	project	quality

Customers fill in

Department	Confirm content	Confirm results	Confirmed by/date
ID	☐ Appearance ID ☐ Color ☐ Surface Technology ☐ Shell ☐ Hardware ☐ Press ☐ Key material quality		
structure	☐ Drawing file size ☐ Key control dimension labeling ☐ Standardization of dimension standards (Is the tolerance reasonable) ☐ Adaptation verification ☐ Shell ☐ Hardware ☐ Key material		
hardware	☐ Specification and technical requirements ☐ Electrical performance parameters ☐ Functional effects		
Research and development quality	☐ Standard ☐ Adaptation effect ☐ Reliability ☐ Function ☐ Effect ☐ Appearance ☐ Standardization of size standards (key dimensions)		
project manager	☐ Confirmation of completeness of information ☐ Specification and technical requirements ☐ Electrical performance parameters ☐ Function ☐ Effect ☐ Appearance ☐ Standardization of size standards (key dimensions)		
Sample signing sequence (provided by procurement, implemented by project manager, followed by each engineer)		Remarks:	

Structural category (shell, button, hardware and TP, LCD, etc): ID/MD → quality → project	Please ensure that the person in charge of signing the sample strictly acknowledges the order and content of the signature!
Electronic device category: MD → Hardware → Quality → Project	
Accessories and packaging materials: Project Manager → MD → Quality	

Form number: TJ-FM-001

Version: A/1

Shelf life: One year after product discontinuation

Shenzhen Qianmu Communication Technology Co., Ltd

Antenna Recognition Letter

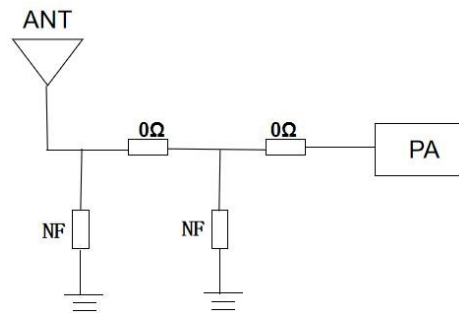
Applicable models	K622B		
customer			
Specification Description			
	Product content	specifications	Customer material code
Specification Description	Bluetooth antenna	Wire length 20mm, wire diameter 0.8mm, one end 1.5mm, black	G0115010006
Change history			
Number	date	version	Description of Change Content
one	August 15, 2023	V1.0	New project
two			

Supplier sample confirmation					
research and development	structure		Auditing	determine	
QiuZhiyuan	WangBo			PASS	
Customer sample confirmation					
electron	structure	project	purchase	quality	Auditing

Reason for rejection or other precautions:

1. Matching circuit - BT antenna

2. Standing wave ratio diagram



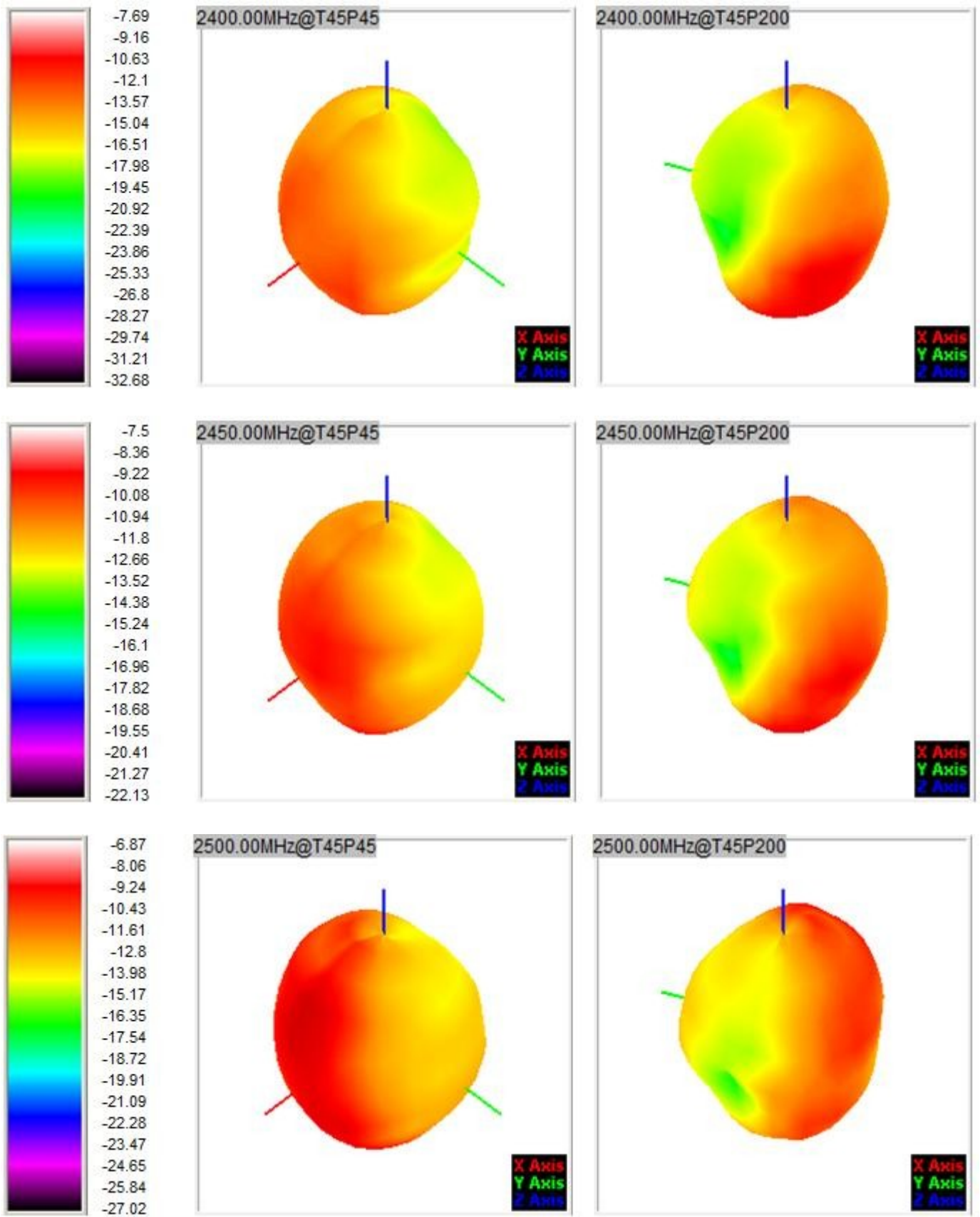
Your company has not made any changes to the original matching circuit



3. Passive efficiency and gain of antennas

Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Ant. Port Input Pwr. (dBm)	0	0	0	0	0	0	0	0	0	0	0
Tot. Rad. Pwr. (dBm)	-11.65	-11.62	-11.59	-11.56	-11.5	-11.36	-11.24	-11.16	-11.1	-10.93	-10.8
Peak EIRP (dBm)	-7.69	-7.54	-7.45	-7.48	-7.54	-7.5	-7.4	-7.48	-7.44	-7.18	-6.87
Directivity (dBi)	3.96	4.08	4.14	4.09	3.96	3.86	3.85	3.69	3.66	3.75	3.93
Efficiency (dB)	-11.65	-11.62	-11.59	-11.56	-11.5	-11.36	-11.24	-11.16	-11.1	-10.93	-10.8
Efficiency (%)	6.8	6.9	6.9	7	7.1	7.3	7.5	7.6	7.8	8.1	8.3
Gain (dBi)	-7.69	-7.54	-7.45	-7.48	-7.54	-7.5	-7.4	-7.48	-7.44	-7.18	-6.87
NHPRP $\pm\pi/4$ (dBm)	-12.79	-12.79	-12.77	-12.76	-12.72	-12.6	-12.52	-12.49	-12.48	-12.36	-12.28
NHPRP $\pm\pi/6$ (dBm)	-14.12	-14.14	-14.14	-14.15	-14.13	-14.05	-14	-13.99	-14	-13.9	-13.84
NHPRP $\pm\pi/8$ (dBm)	-15.16	-15.19	-15.21	-15.25	-15.26	-15.2	-15.17	-15.17	-15.18	-15.08	-15.02
Upper Hem. PRP (dBm)	-14.4	-14.32	-14.26	-14.18	-14.08	-13.93	-13.85	-13.79	-13.72	-13.54	-13.37
Lower Hem. PRP (dBm)	-14.93	-14.96	-14.98	-15.01	-14.99	-14.84	-14.7	-14.6	-14.54	-14.38	-14.29
Upper Hem. PRP (%)	3.63	3.7	3.75	3.82	3.91	4.04	4.12	4.18	4.24	4.42	4.6
Lower Hem. PRP (%)	3.21	3.19	3.18	3.16	3.17	3.28	3.38	3.47	3.52	3.65	3.72

4. Antenna pattern and apple pattern



5. Antenna placement position



6. BT antenna actual measurement

Outdoor call with a straight-line distance of 15 meters

Outdoor call with a distance of 6 meters from the back to the straight line

7. Structural drawings

