Supplier Name: Shenzhen Qianmu Communication Technology Co., Ltd

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	

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

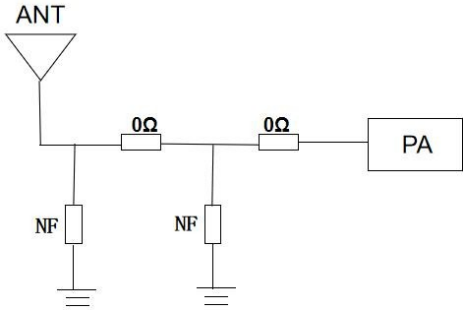
Customer sample confirmation

electron	**structure**	**project**	**purchase**	**quality**	**Auditing**

Reason for rejection or other precautions:

1. Matching circuit - BT antenna

2. Standing wave ratio diagram

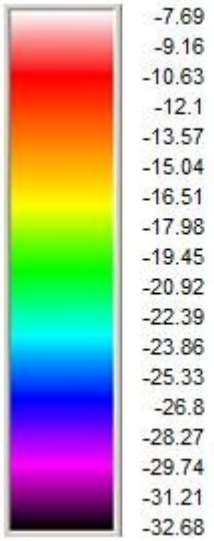


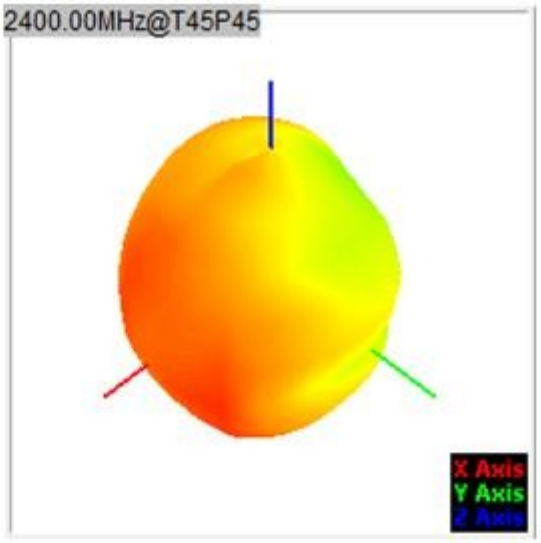
Your company has not made any changes to the original matching circuit

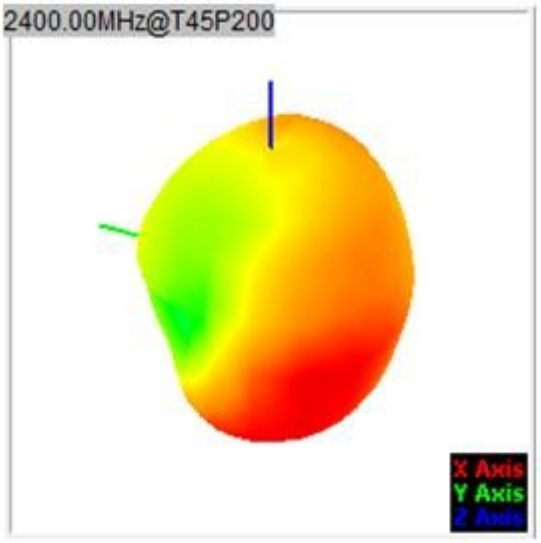
3. Passive efficiency and gain of antennas

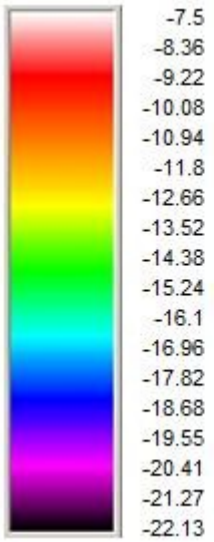
Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Ant. Port Input Pwr. (dBm)	0	0	0	0	0	0	0	0	0	0	0
Tot. Rad. Pwr. (dBm)	-11.65	-11.62	-11.59	-11.56	-11.5	-11.36	-11.24	-11.16	-11.1	-10.93	-10.8
Peak EIRP (dBm)	-7.69	-7.54	-7.45	-7.48	-7.54	-7.5	-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 ±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 ±Pi/6 (dBm)	-14.12	-14.14	-14.14	-14.15	-14.13	-14.05	-14	-13.99	-14	-13.9	-13.84
NHPRP ±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

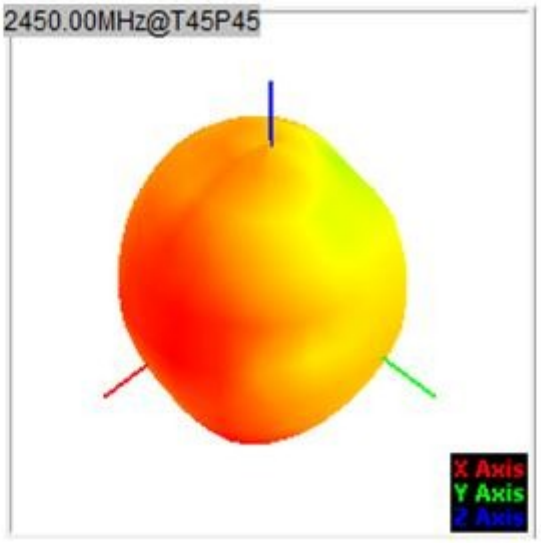
4. Antenna pattern and apple pattern

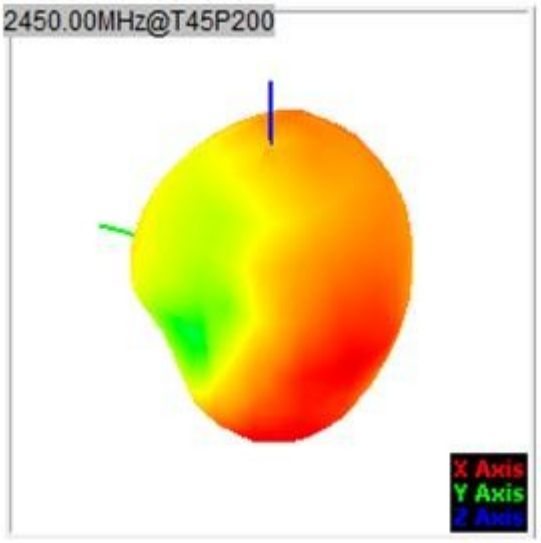


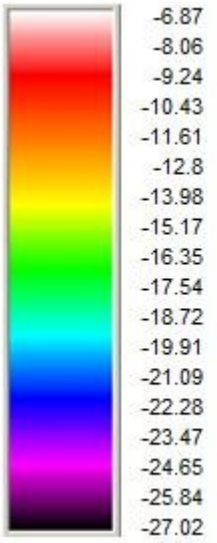


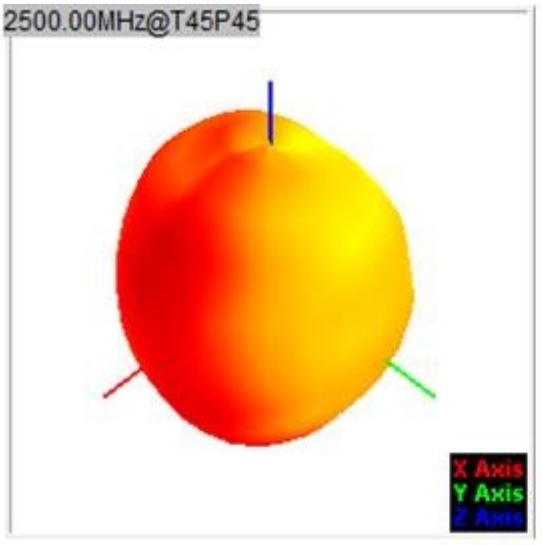


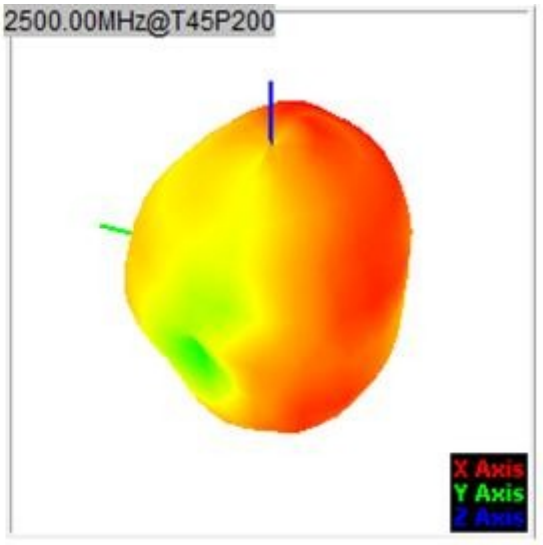




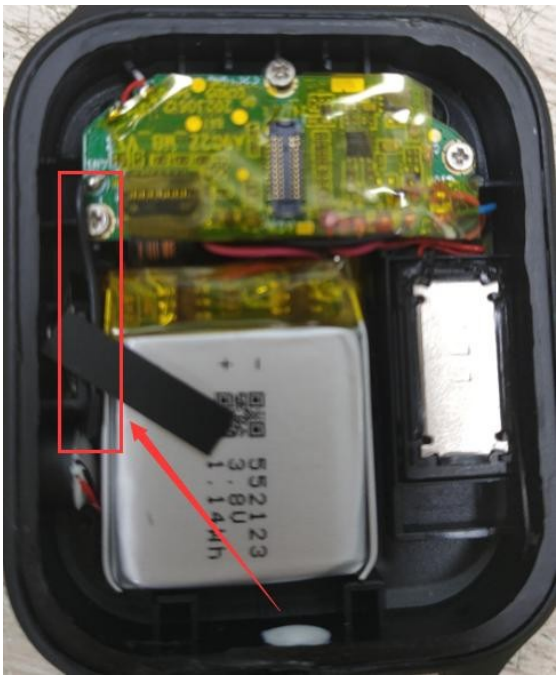








5. Antenna placement position



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