

SHANGHAI JIESHENGKANG COMMUNICATION ENGINEERING CO., LTD

SPECIFICATION FOR APPROVAL

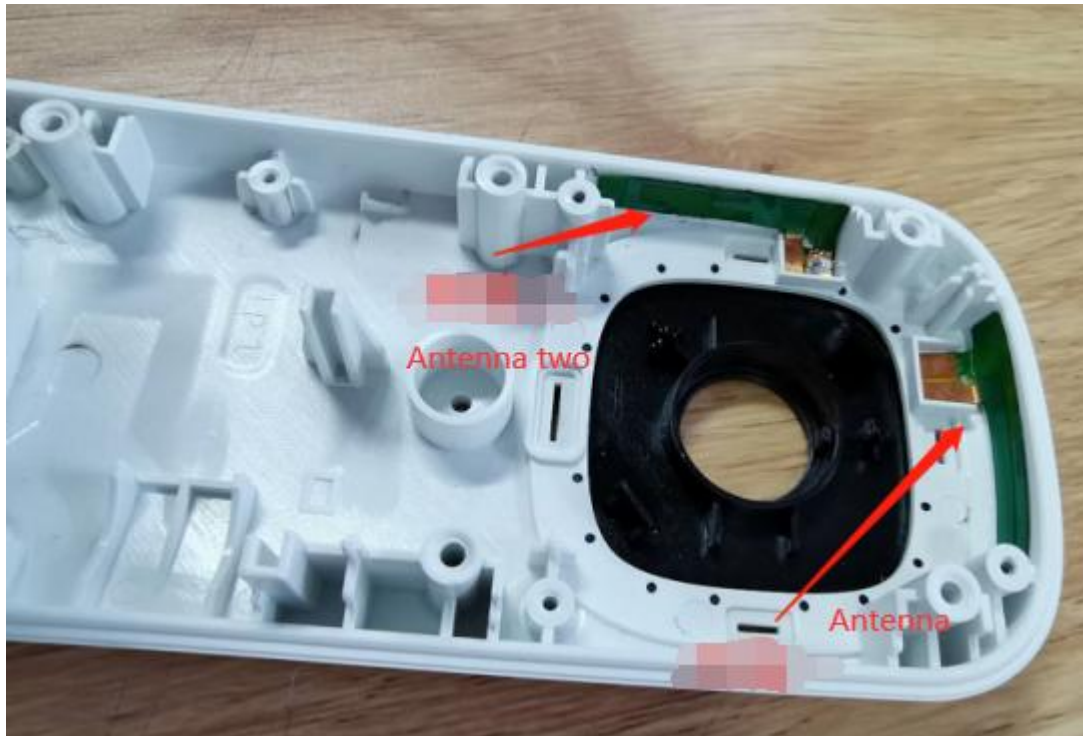
2020/12/14

(1) Sample antenna description

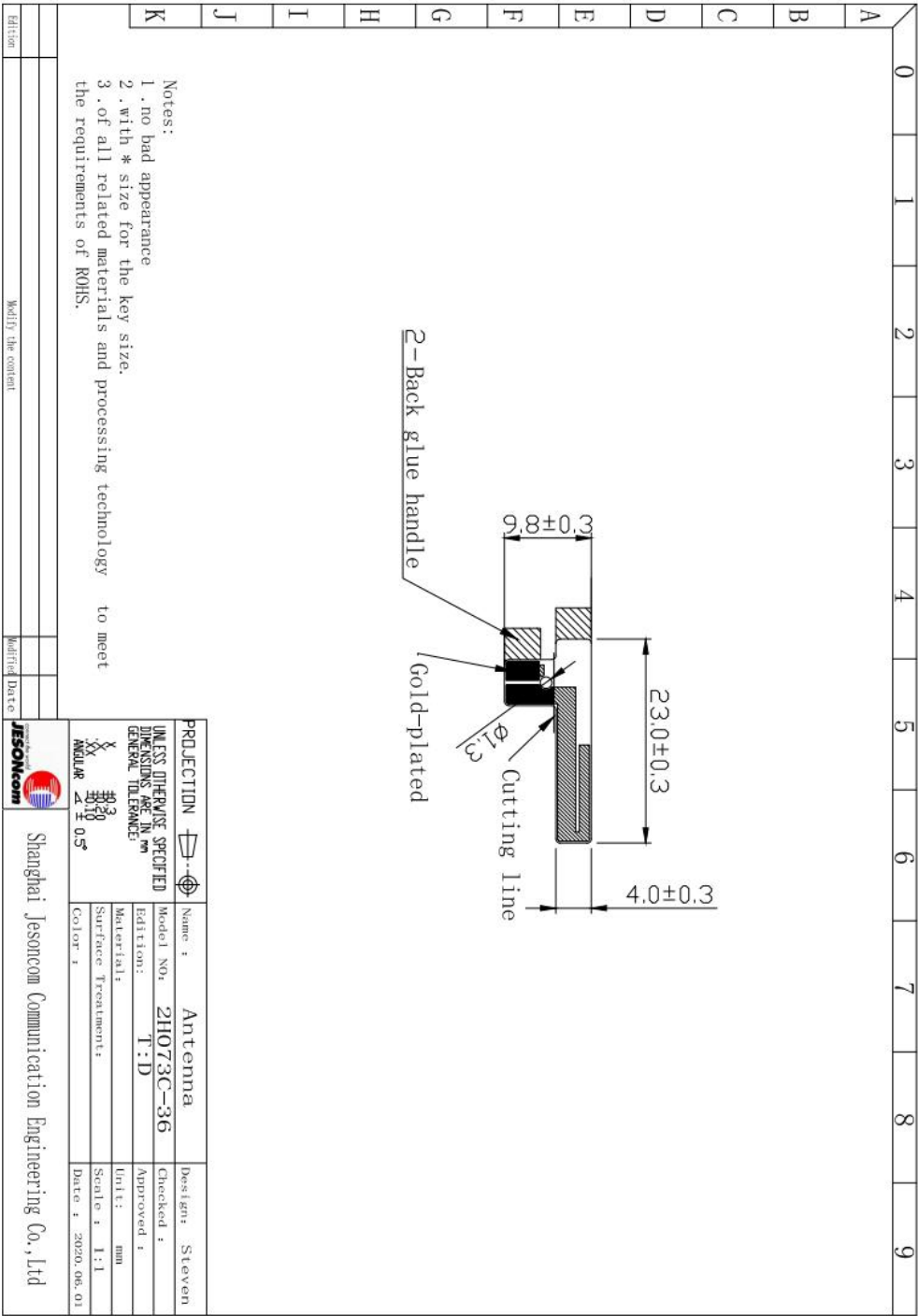
Sample antenna description	
Manufacturer's Internal ID	Ex: 2H073C-36
category	EX: WIFI
Band	EX: 2400-2500M 5000-5850M
morphology	Ex: PCB Built-in antenna
polarization	EX: Line polarization
Vswr	EX: $\leq 1.5@2400-2500M$ $\leq 3.8@5000-5850M$
Efficiency	EX: $\geq 42\%@2400-2500M$ $\geq 25\%@5000-5850M$
Gain	EX: 0.17-1.68dBi@2400-2500M 0.51-2.99dBi @5150-5850M
Radiation pattern	EX: Please find attached
connector type	Ex: /
Connector properties	Ex: /
Active/qualifiedive	Ex:
Color and material	Ex: Green /PI
Ant size	Ex: 23*9.8 (mm)
Cable type and size	Ex: /
Cable loss	Ex: /
Work temperature	Ex: -40~85℃
Storage temperature	Ex: 22~55℃
Power capacity	Ex: /
waterproofing grade	Ex: /
Salt spray grade	Ex: 24H
High and low temperature	Please find attached
Vibration、fall	Ex: /
Suction test	EX:无
Characteristic impedance	EX: 50 Ω
Contact impedance	EX: 0 Ω
Medium pressure	EX:500V
radiation direction	EX:Vertical and horizontal

version	T:A
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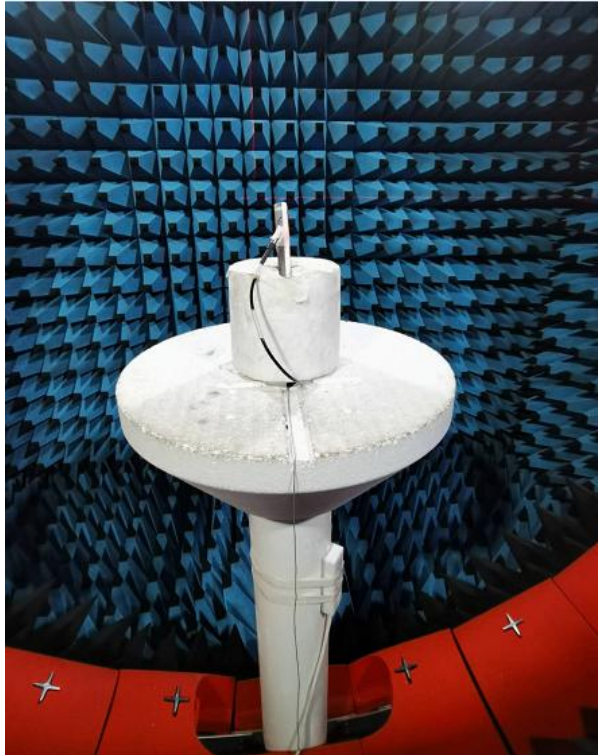
(2) Sample pictures



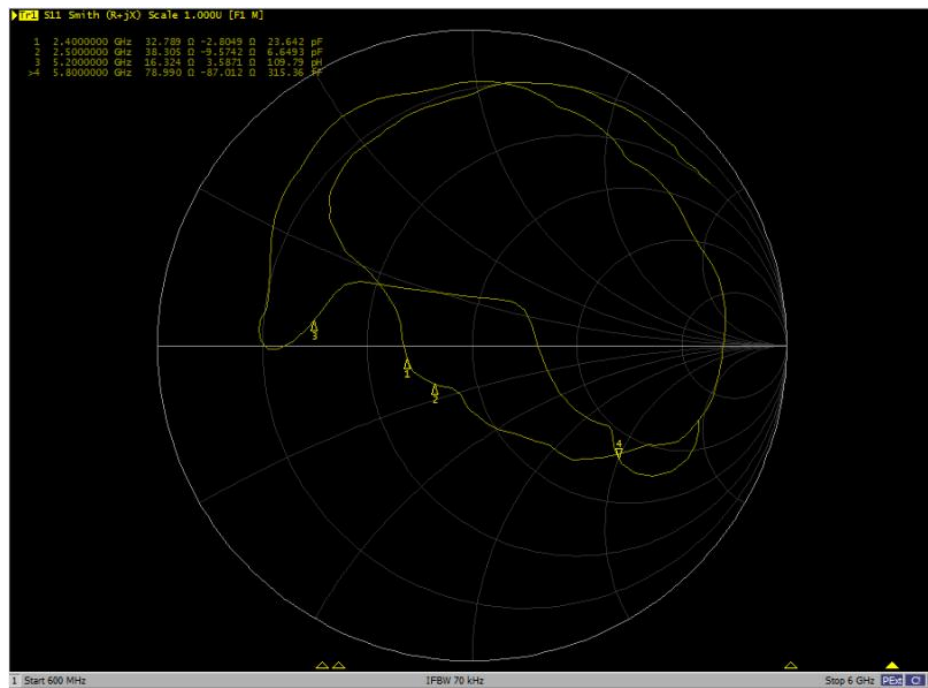
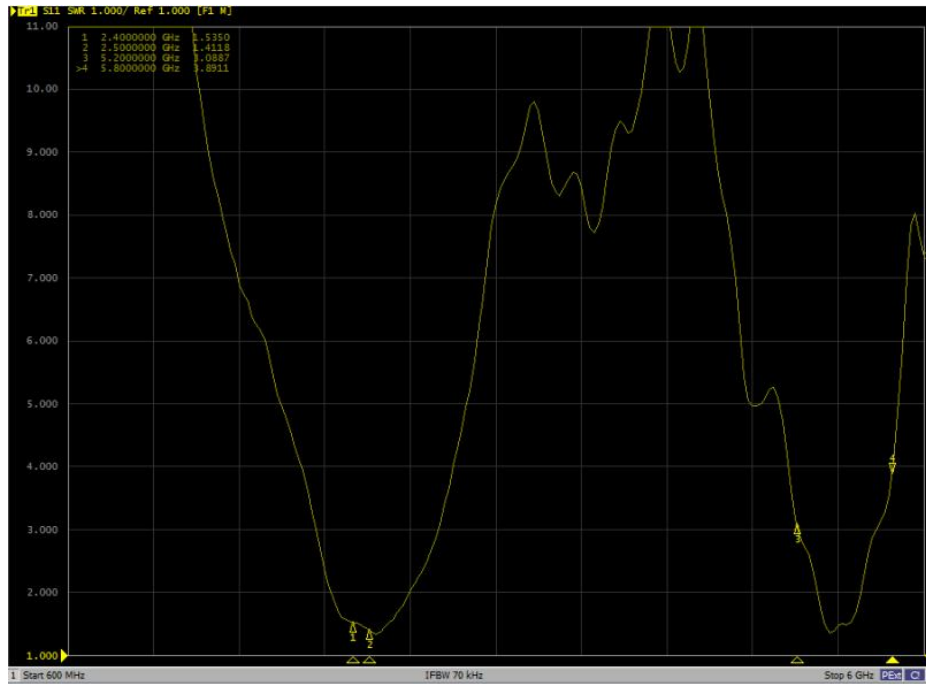
Product drawings



(3) Antenna test environment diagram



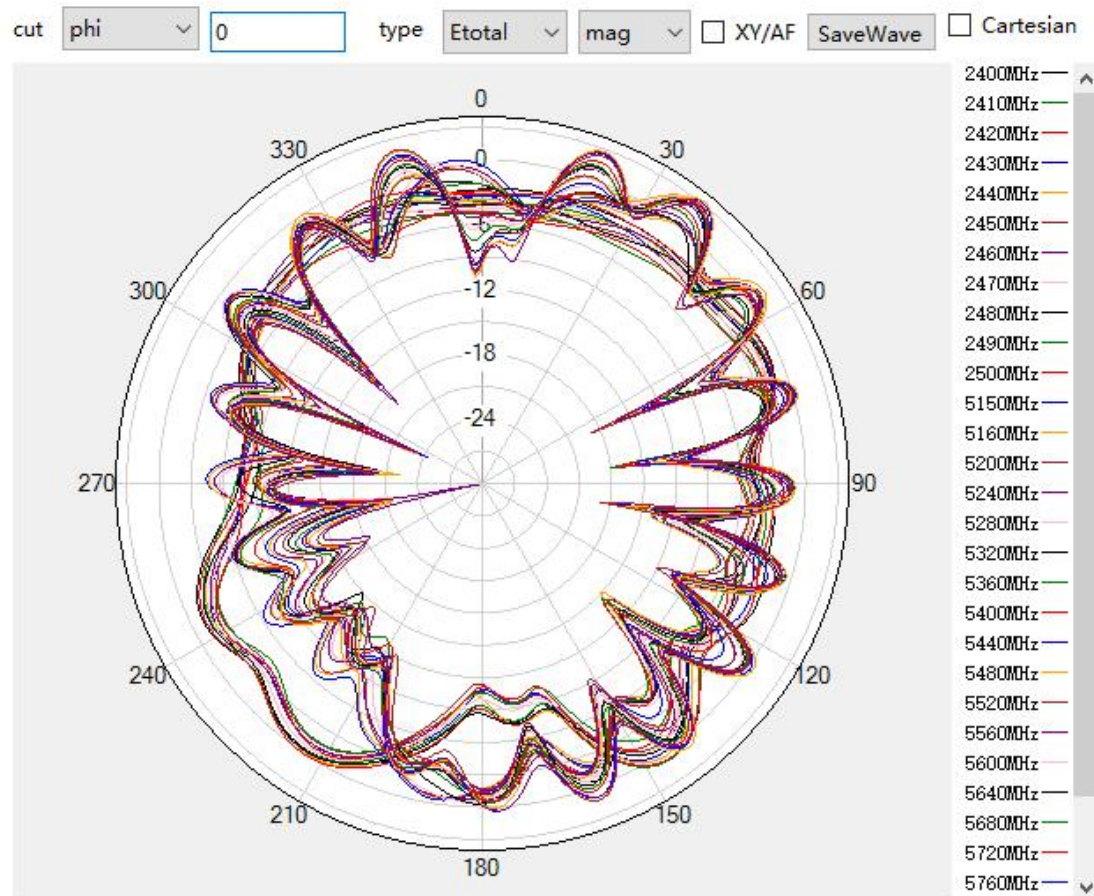
(4) S11



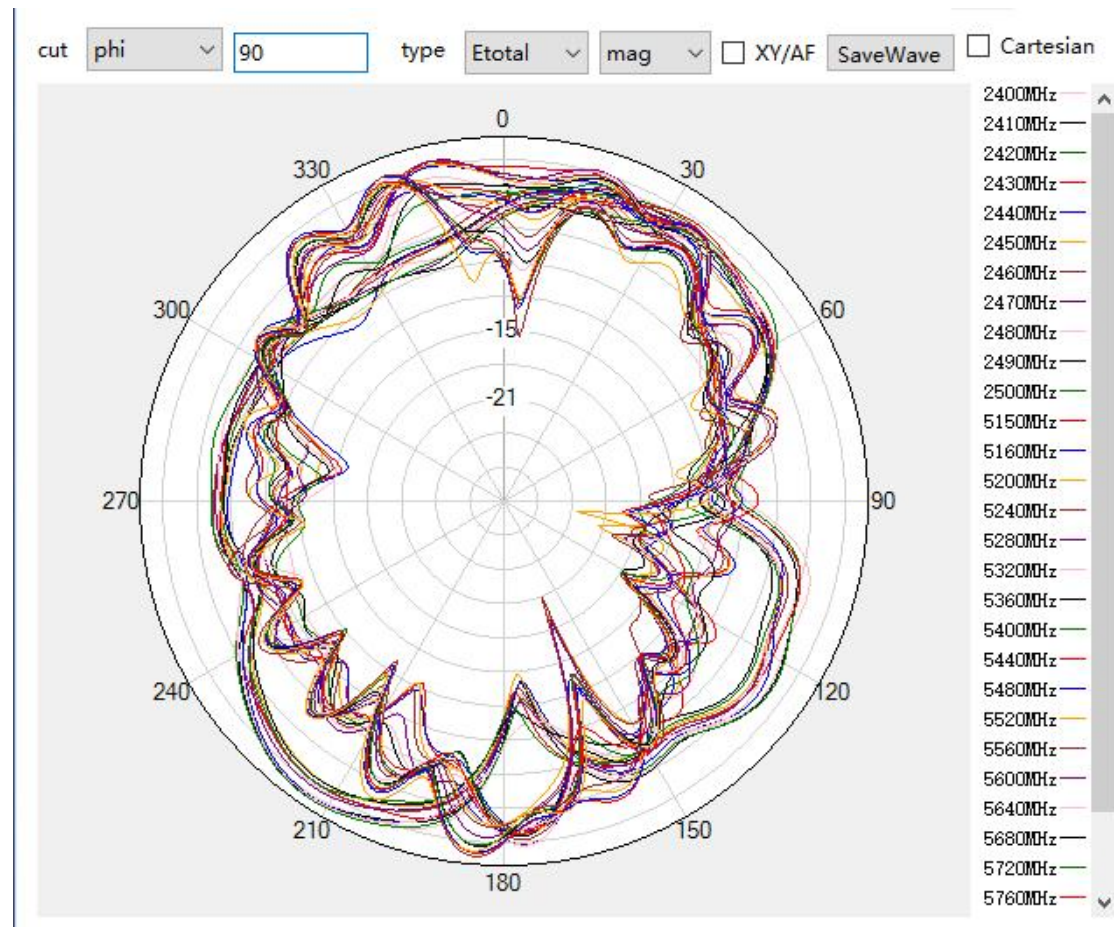
(5) Radiation pattern

E&H:

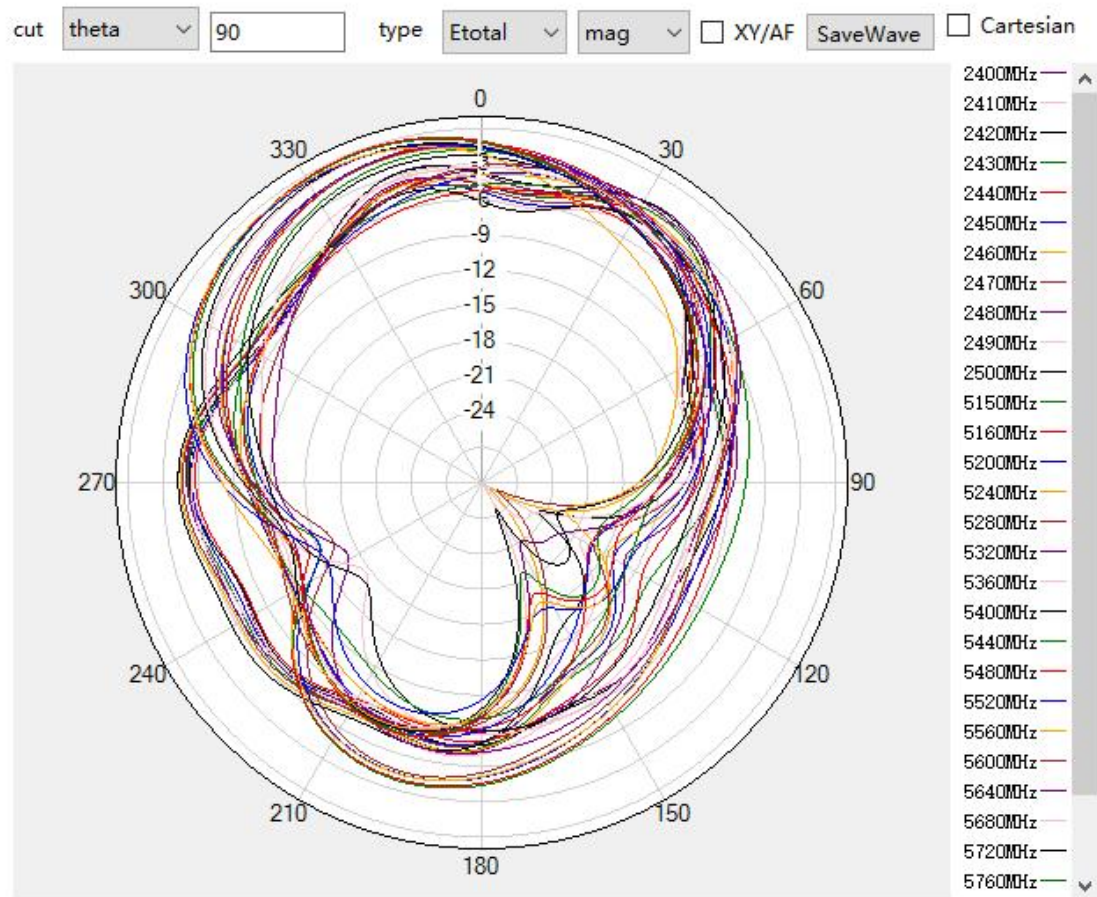
E1



E2



H



3D direction Image:

nothing

(6) Efficiency&Gain

Gain&Efficiency		
frequency	gain	efficiency
(MHz)	(dB)	
2400	1.68	49.91%
2420	1.58	49.64%
2440	1.18	42.56%
2450	1.19	42.26%
2480	1.27	45.76%
2500	0.17	44.07%
5150	0.51	32.74%
5200	1.06	35.62%
5240	1.31	36.89%
5320	1.64	37.53%
5400	1.92	39.28%
5480	2.99	41.71%
5560	2.58	37.26%
5640	2.18	36.02%
5720	1.91	32.03%
5800	1.31	28.84%
5850	0.71	25.36%

(7) Salt spray test report:

Salt spray test report

NO.: 20200605002

The product name	Built-in antenna			Production batches	2020.6.5		
product ID	2H073C-36			Number of tests	3PCS		
Inspection date	2020.6.5			Test date	2020.6.5		
Test project	Required standards	Actual value	determination	Test project	Required standards	Actual value	determination
Type of salt spray test	NSSneutral	NSSneutral	qualified	test time	24H	24H	qualified
PH value of brine	6.5-7.2	7.1	qualified	Salt spray box temperature	35℃	35℃	qualified
Spray way	Continuous spray	Continuous spray	qualified	Salt fog settlement	1-2ml	1.7	qualified
Salt water composition	5%NaCL	5%NaCL	qualified	Compressed air pressure	1±0.1Kg/cm ²	1.0kg/cm ²	qualified
Saturation temperature	47℃	47℃	qualified	Specimen placement Angle	90°	90°	qualified
Test observation time	Results the record						
8H	No corrosion mottling was observed						
16H	No corrosion mottling was observed						
24H	No corrosion mottling was observed						
determination							
Determination according to the national standard 5944-86 rating method to determine, grade 9 or above for qualified							
Determine the results	☒ qualified ☐ unqualified						
Test	Tian Fen			Review	Sun Yueyong		
note: The commonly used salt spray test methods include NSSneutral salt spray test, AASS salt spray test, CASS Cupric acetic acid accelerated test							

(8) High and low temperature test report:

test content

Test project	Test conditions	Standard of determination	Number of test	determination
1. High temperature test	placed at $85^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for 4h,	normal temperature placed after 2h, all sizes meet the normal requirements, and the appearance of no deformation, warping, degumming and other abnormal phenomena, the performance is normal.	3PCS	qualified
2. low temperature test	placed at $40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for 4h,	normal temperature placed after 2h, all sizes meet the normal requirements, and the appearance of no deformation, warping, degumming and other abnormal phenomena, the performance is normal.	3PCS	qualified
3. Temperature cycling test	Put it in an environment of $85^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for 30 minutes, take it out and put it in room temperature for 5 minutes; It was placed at $-40 \pm 2^{\circ}\text{C}$ for 30 minutes, then removed and placed at room temperature for 5 minutes.	After such 5 cycles, the dimensions meet the normal requirements, and the appearance of no deformation, warping, degumming and other abnormal phenomena, the performance is normal.。	3PCS	qualified
4. Heat resistance heat	Meet the temperature $40^{\circ}\text{C} \pm 2^{\circ}\text{C}$, humidity $93 \pm 2\%\text{RH}$ environment placed XXH;	normal temperature placed after 4h, all sizes meet the normal requirements, and the appearance of no deformation, warping, degumming and other abnormal phenomena, the performance is normal.	3PCS	qualified
final conclusion	☒ qualified ☐ unqualified ☐			

