

Product Specification

vCustomer Name: Xun MeiProject Name: ZK-A70-2-2.4G/V1.0Product Spec: 2.4G-L-shaped white flat antenna, 123MMWhite flat shell, IPEX-1, RF1.37, The black line L=230MMREV: V1.0Date: 2025.10.29

drawing	check	
Huang Yongjun	Wang Yumei	Jiang Zhenhua

Customer Approve

check	approved	approval

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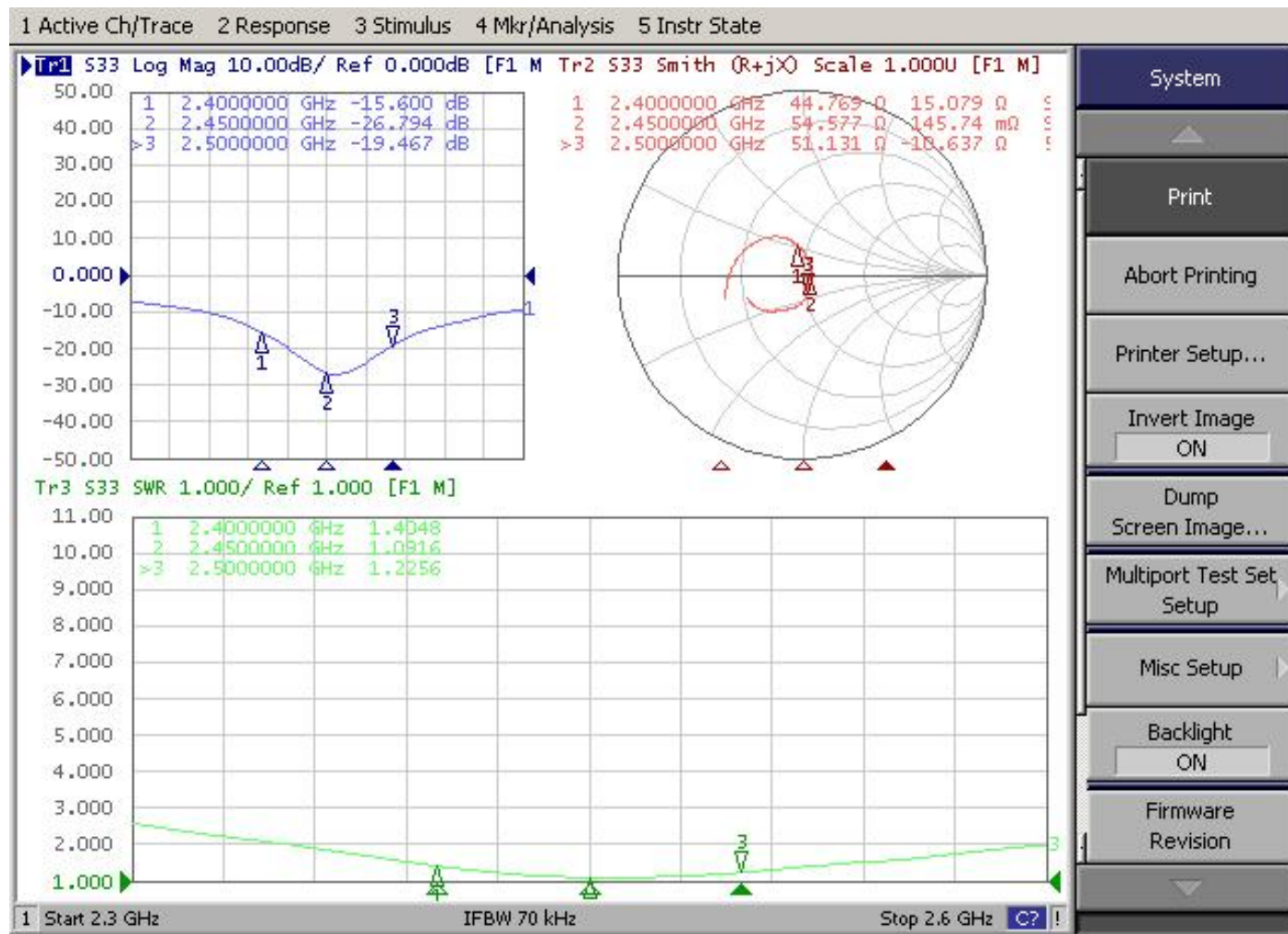
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三、Electrical Performance Index

Electrical performance indicators		Electrical Specifications	
Frequency range		2400-2500MHZ	
Voltage sanding wave ratio	≤ 2.0	VSWR	≤ 2.0
Gain margin	3.81 DBI	GAIN	3.81 DBI
Mode of radiation	in all directions	Radiation	OMNI
Polarization method	Linear polarization	Polarizatin	LINEAR
Input impedance	50 Ω	Input Impedance	50 Ω
Mechanical performance indicators		Mechanical Specifications	
Interface format	IPEX-1	Input connector	IPEX-1
Material of the antenna	PCB	Antenna materia	PCB
Operating temperature	-30℃~+80℃	Working Temperature	-30℃~+80℃
Working humidity	40~85%	Working Humidity	40~85%
Physical installation			

四、Test report

1. Antenna passive standing wave diagram



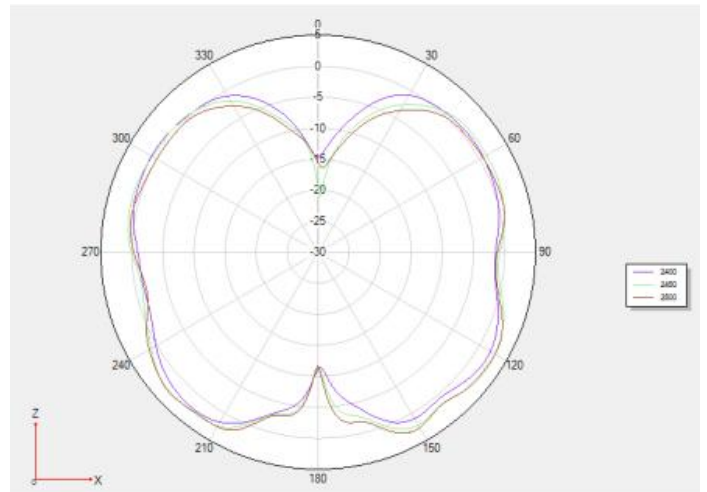
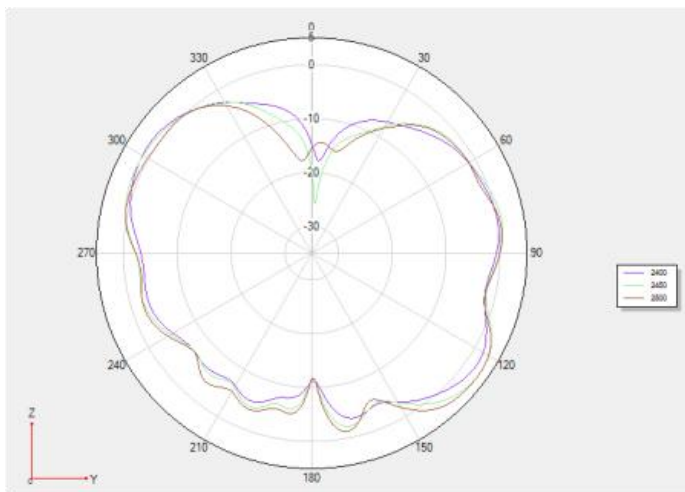
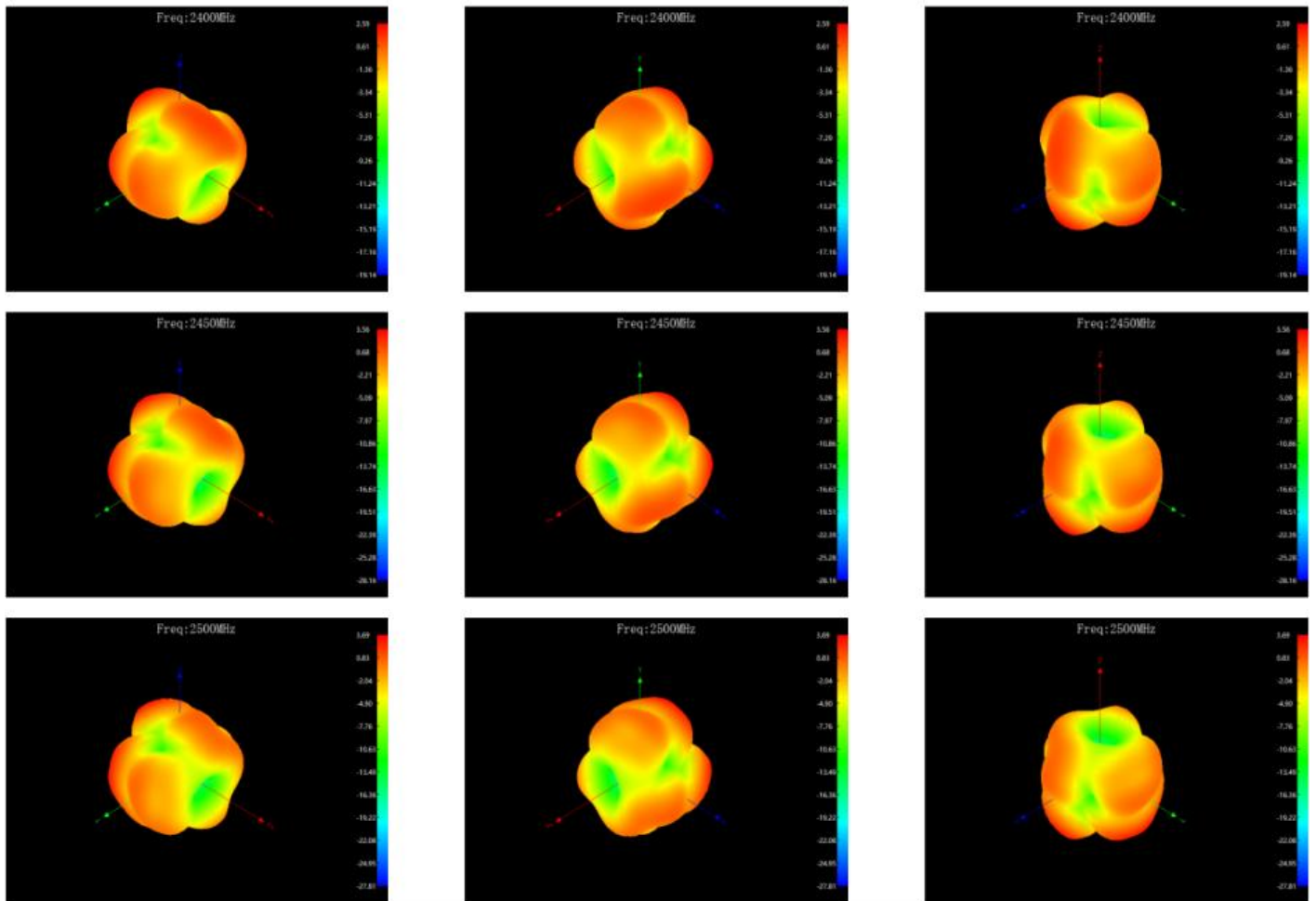
2. Antenna efficiency

Frequency/Mhz	MaxGain/dBi	Efficiency / %
2400	2.59	62.95
2405	2.73	63.53
2410	2.95	65.92
2415	3.02	67.14
2420	2.99	67.45
2425	3.09	69.18
2430	3.16	70.15
2435	3.3	71.78
2440	3.45	73.62
2445	3.44	73.96
2450	3.56	75.16
2455	3.59	74.3
2460	3.62	75.68
2465	3.81	77.98
2470	3.71	75.51
2475	3.64	74.3
2480	3.63	74.82
2485	3.65	74.13
2490	3.75	74.47
2495	3.78	74.13
2500	3.69	72.44

3. Antenna active source data

Measurement	Standard	Band	Channel	Total
TRP	WIFI (AP)	WIFI_B (11M)	1	19.23
TRP	WIFI (AP)	WIFI_B (11M)	6	18.79
TRP	WIFI (AP)	WIFI_B (11M)	11	18.46
TIS(EIRP)	WIFI (AP)	WIFI_B (11M)	1	-89.78
TIS(EIRP)	WIFI (AP)	WIFI_B (11M)	6	-88.47
TIS(EIRP)	WIFI (AP)	WIFI_B (11M)	11	-90.12

4. Antenna direction diagram



五、Testing Equipment and Principle

1. testing facility:

Network Analyzers :

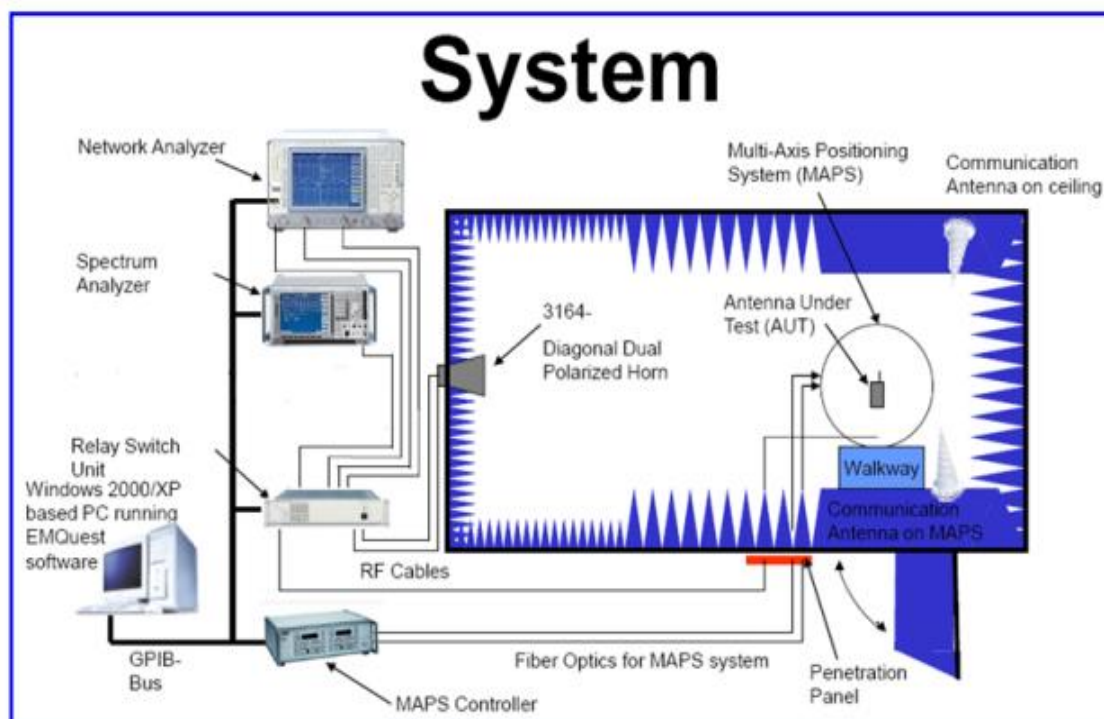
Agilent 8753D 5071B

Communications Test Set:

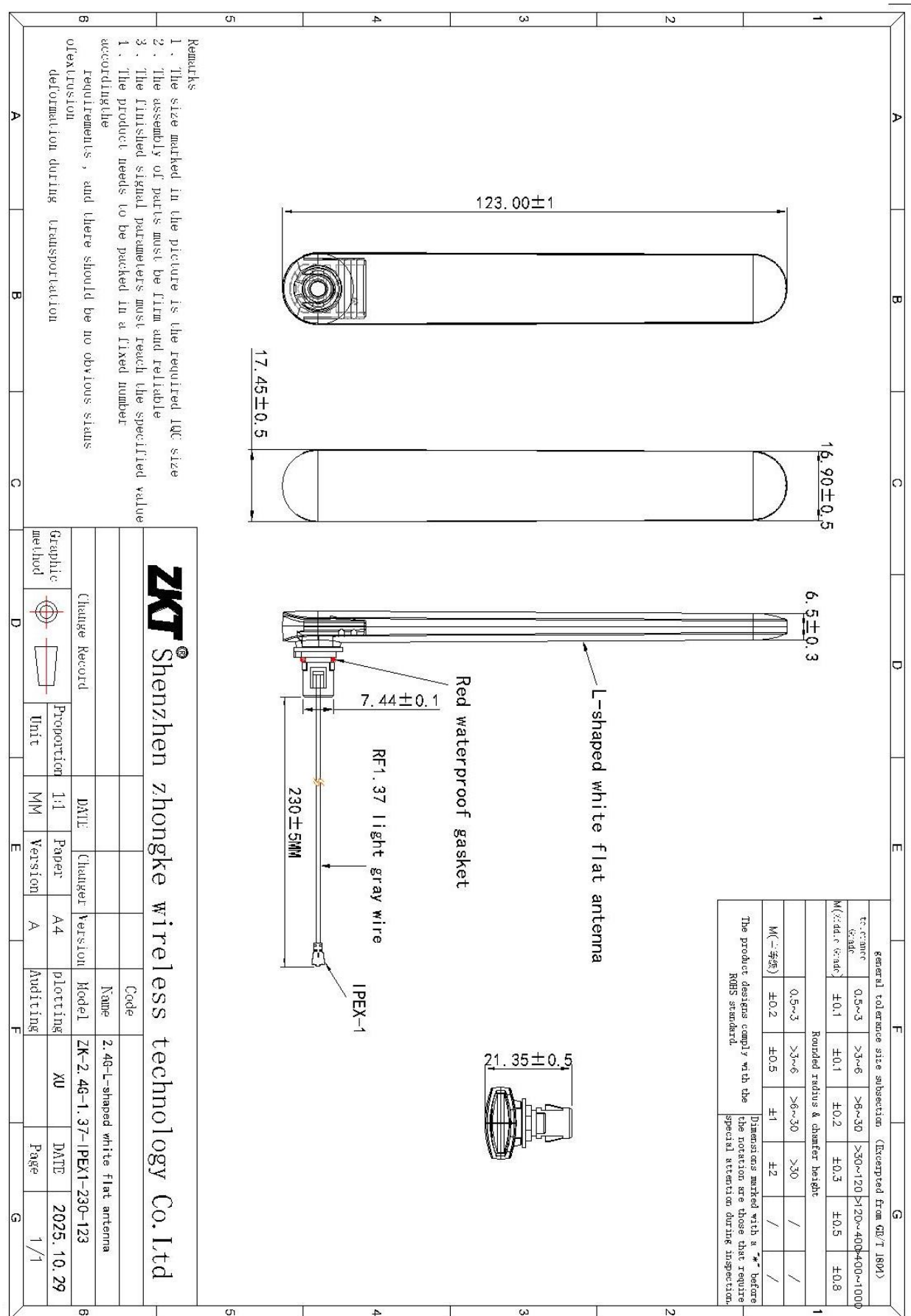
Agilent E5515C

3D Chamber Test System:

2. Principle of testing:



六、Product Drawing



七、Reliability test report

test item; test project		test method	ask	bear fruit
C1	V. S. W. R.	Design netalyzer parameters for testing	Directive DUT specification	pass
M1	antenna gain	Design the parameters of the antenna dark chamber for testing	Directive DUT specification	pass
M2	Vibration	GB / T2423. 48-2008 Amplitude: 0.03 inch (1.5mm); Freq: 20 to 80to 20 Hz3 directions; 2 hours for each direction	1. No Visual Damage 2. Frequency Tol. $\leq 5\%$	pass
M6	Random Drop	GB / T2423. 8-1995 Single: Height: 1.0 Meter; 3 directions; 1 time for each direction	1. No parts separated、fracture 2. Frequency Tol. $\leq 5\%$	pass
E3	Dimension	Inspection of dimension, color, material, package, surface process.	Directive DUT specification	pass
E4	Temperature and Humidity Chamber	GB / T 2423. 3-2006 Temp: 80°C / 12 H; -40°C / 12H RH: $\geq 90\%$; Time: 24H Temp: 80°C	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol. $\leq 5\%$	pass
E5	Thermal Shock	GB / T 2423. 22 - 2008 - 40°C (30 minutes) to + 80°C(30 minutes); Cycles:24-40°C	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol. $\leq 5\%$ 频率偏移 $\leq 5\%$	pass
R1	Aging test	GB /T 2423. 2-2008 Temp: 80°C; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol. $\leq 5\%$	pass
M1	RoHS	With Reference to IEC 62321:2008 with flow chart	Directive RoHS 2015/863/EU	pass

八、Product packaging specifications

Product name / specification:

1、labeling requirement

Purchase order number	*****
material code	*****
Product name specification	*****
Quantity	*****
remarks	*****

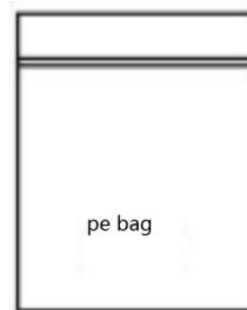
Purchase order number	*****
material code	*****
Product name specification	*****
Quantity	*****
remarks	*****

2、The packing requirements

job description :

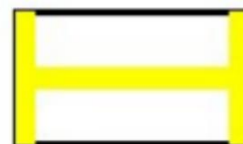
1). inner packing:

Product 50 PCS in a small bag



2). external packing:

Determine the quantity / box according to the actual quantity



carton

3、matters need attention:

- Whether to add a partition board, pearl cotton;
- Attachment of labels, such as ROHS;

