



SPECIFICATION FOR APPROVAL

CUSTOMER	Ouzhi Tong Technology Co. , Ltd.	
CS P/N		
PART NAME	External screwable antenna, needle 2.4 g & 5.8 g black, length 136MM ROHS 2.0	
FREQUENCY	2.4-2.5GHz&5.15~5.85GHz	
RTANT NO.	K212-10079-A	
DATE	2023.09.20	
Sample signature		
APPROVED BY	CHECKED BY	DRAWED BY
DRAGON	LIU	JOHN
Remark:		
Customer acknowledges signature		
APPROVED BY	CHECKED BY	TESTED BY
Sign: _____		

Dongguan Ante Communications Co. , Ltd.

TEI: 0769-85833836

FAX: 0769-82582573

Http: //www.rtant.com

Address: Building E, Industrial Innovation Park, Shallong road, Shatang industrial zone, Houjie Town, Dongguan City

1. Contents

No.	content	Pages
0	The cover of the confession	1
1	List of items	2
2	Change your resume	2
3	Physical drawing of product	3
4	Specification sheet	3
5	Electrical test report	4-7
6	Sample inspection report	8
Annex	2D illustration/packaging	Appendices

2. Revision history

Revision	Date	Change the content
A0	23. 09. 20	New Edition

3. Product picture

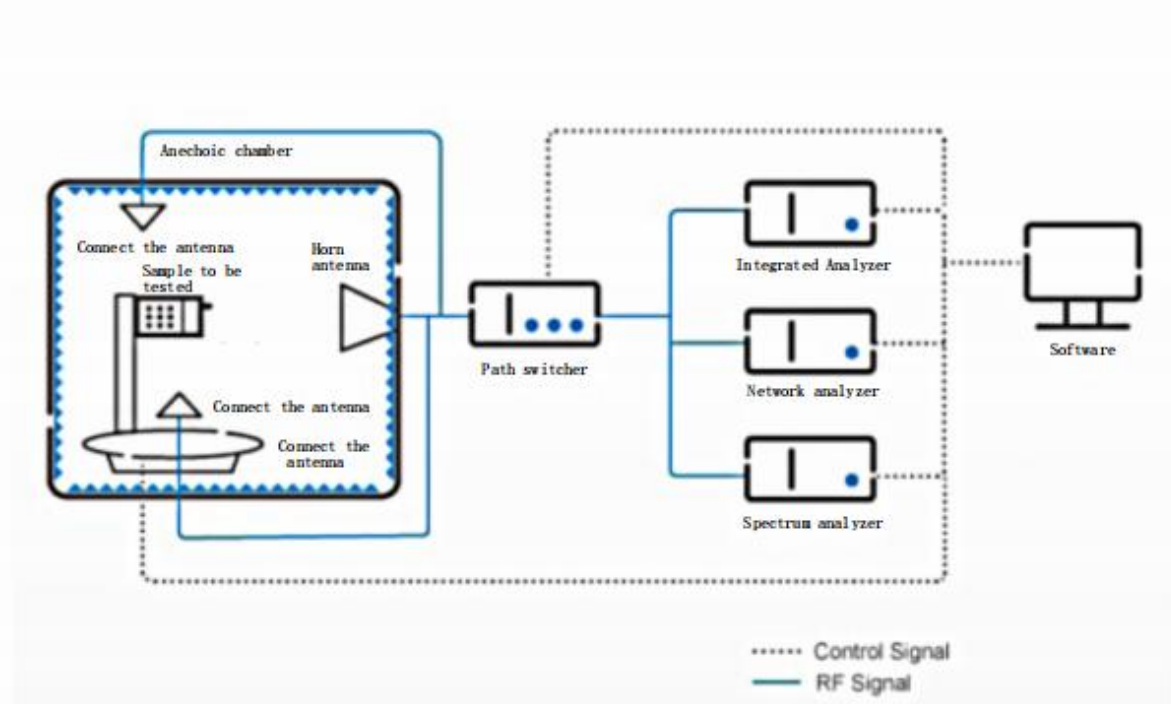


4. Specification

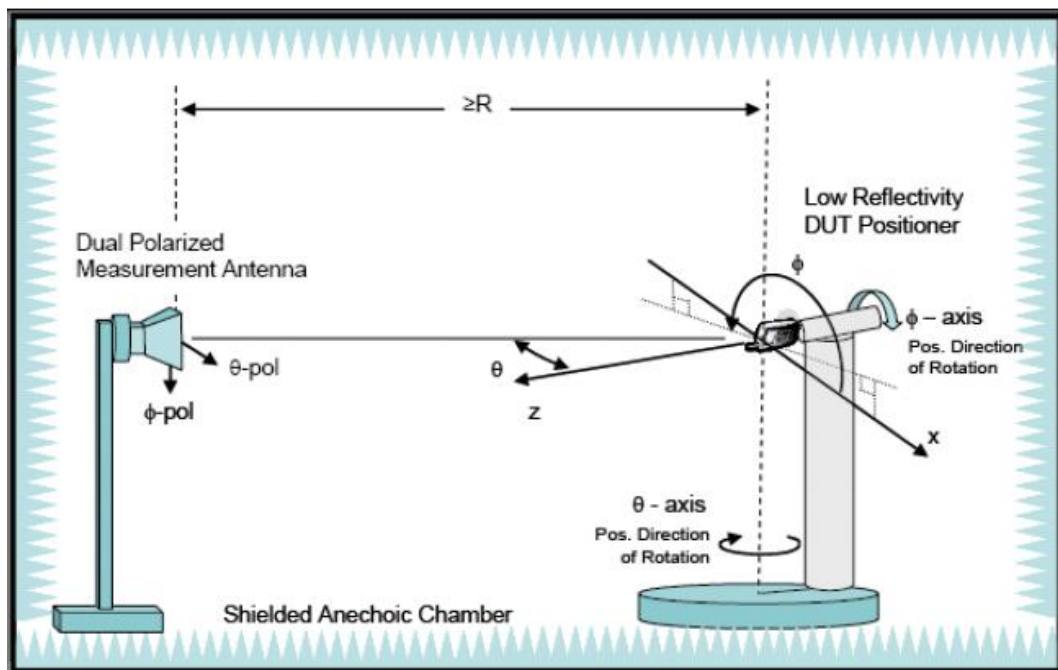
A. Electrical Properties	
Frequency Rang	2.4-2.5GHz&5.15~5.85GHz
Impedance	50 Ω Nominal
VSWR	2.0Max.
Gain(peak)	2.40dBi
Out of roundness	2.4/5GHz: 1.78/2.40dBi (Max.)
Radiation	Omni-Directional
Polarization	Linear Vertical
B. Physical Properties	
Connector Type	SMA
Cable	RG-178
Antenna Radiator	PCB
C. Environmental	
Storage Temp	-10℃~+60℃
Operating Temp	-40℃~+65℃
Storage humidity	95%
Working humidity	5%~95%

5. Electrical Test Report

OTA System architecture diagram



5.1 Test equipment



5.2 Antenna pasting position



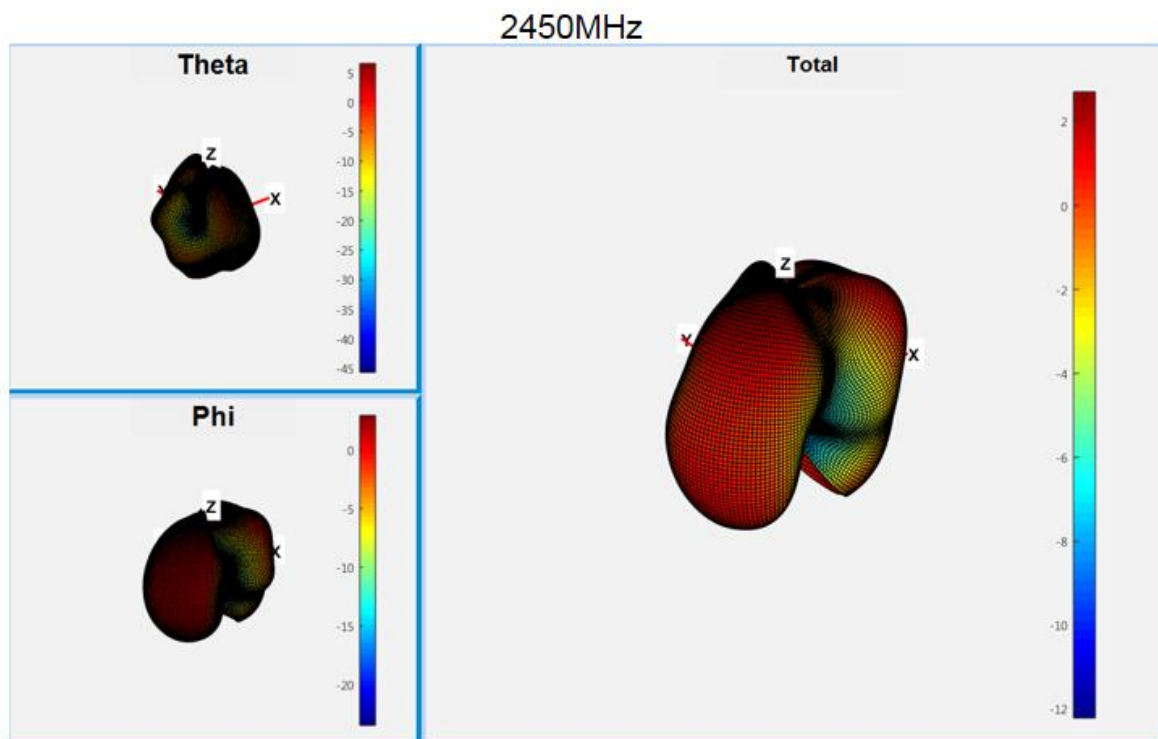
5.3 Network Analyzer



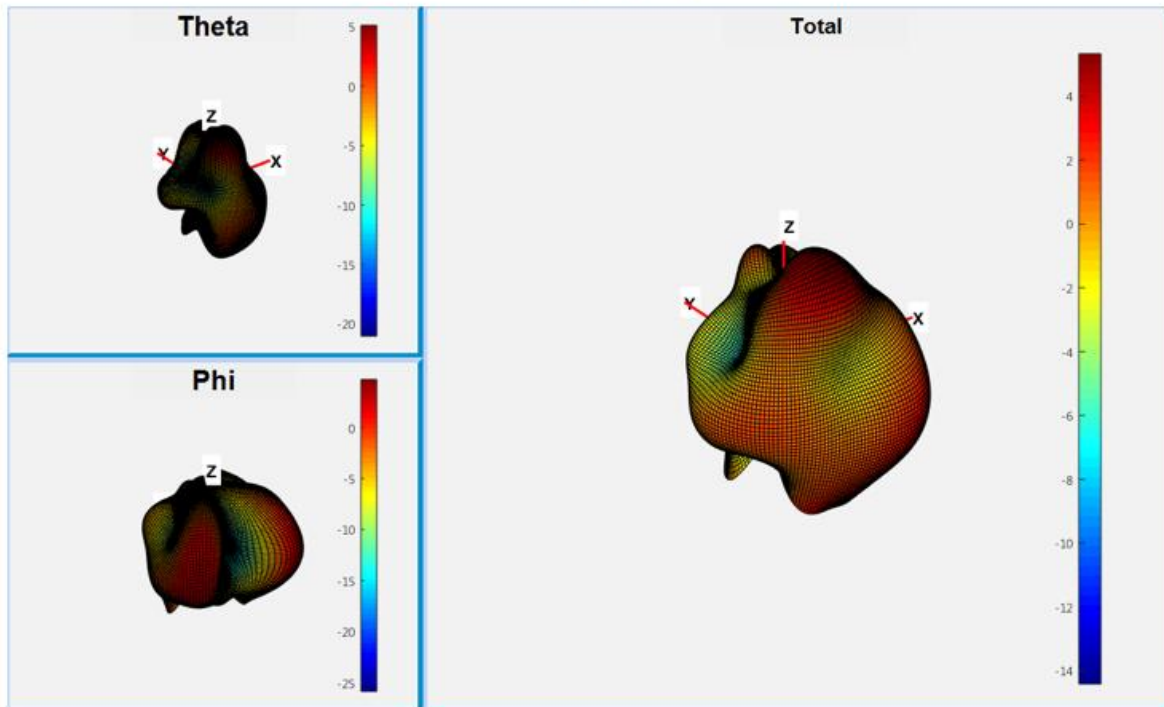
5.4 Darkroom passive test data

Frequency	2.4GHz	2.41GHz	2.42GHz	2.43GHz	2.44GHz	2.45GHz	2.46GHz	2.47GHz	2.48GHz	2.49GHz	2.5GHz					
Efficiency (%)	65.11	67.5	73.11	71.2	68.51	70.99	70.78	75.94	77.72	81.62	81.86					
Gain (dBi)	1.23	1.19	1.5	1.43	1.52	1.53	1.45	1.57	1.78	2.28	2.15					
Frequency	5.15GHz	5.20GHz	5.25GHz	5.30GHz	5.35GHz	5.40GHz	5.45GHz	5.50GHz	5.55GHz	5.60GHz	5.65GHz	5.70GHz	5.75GHz	5.80GHz	5.85GHz	
Efficiency (%)	61.45	58.55	65.51	71.66	66.74	62.78	72.6	69.07	67.62	69.98	64.64	67.62	69.25	71.85	72.99	
Gain (dBi)	2.19	2.01	2.16	2.39	2.4	2.37	2.08	2.16	2.22	1.86	1.56	2.36	1.89	2	2.2	

5.5 2D、3DRaditation Pattern



5450MHz





RTANT

Product Number: K212-10079-A

Product Name: External screwable antenna

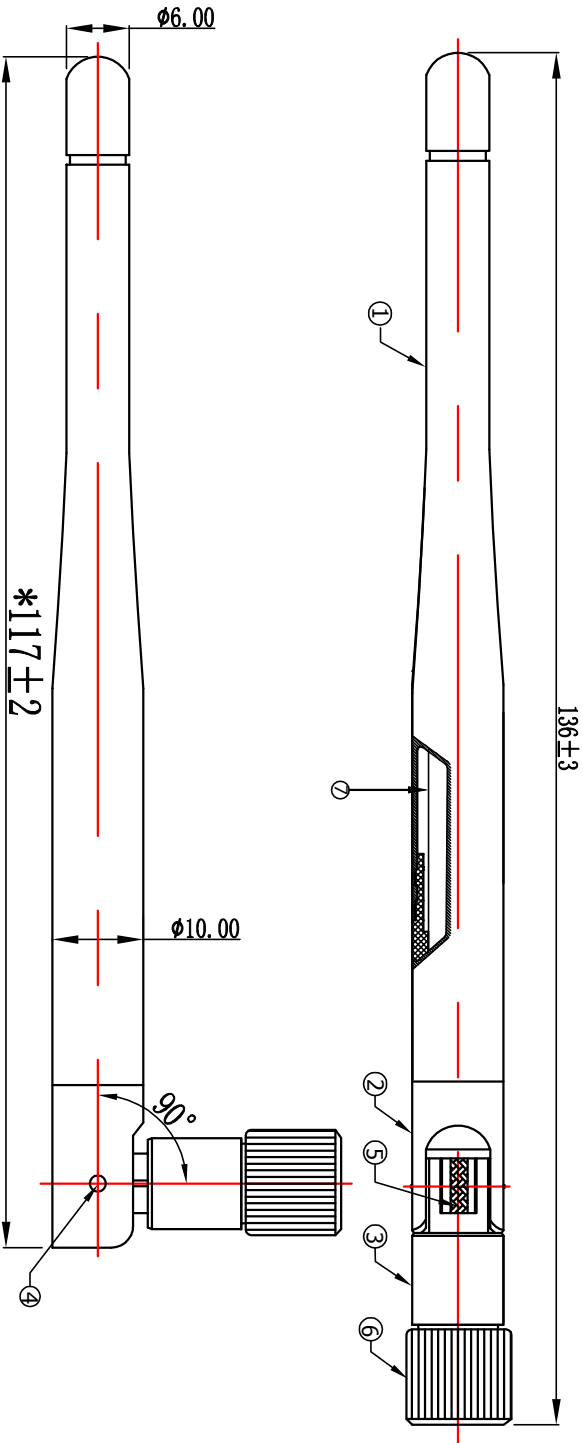
Version: A0

9. Sample inspection report

Date: 2023.09.20

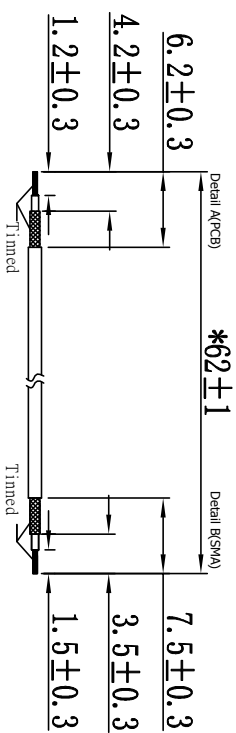
Total quantity		5PCS	Qualified quantity		5PCS				
inspection item		Inspection standards and instructions	inspection result					judge	
			No.1	No.2	No.3	No.4	No.5		
Appearance	Plastic cement	No dirt, no damage, no scratch	pass	pass	pass	pass	pass	pass	■OK □NG
	SMA	No color difference, no dirt, no damage, no scratch	pass	pass	pass	pass	pass	pass	■OK □NG
	IPEX	Contrast no dirt, no damage, no scratch							□OK □NG
	Tin solder	Plump and smooth							□OK □NG
	Other								□OK □NG
Main dimensions	1	136±3mm	136	136	136	136	136	136	■OK □NG
Electrical and functional testing	Frequency Rang	2.4~2.5GHz 5.15~5.85GHz							
	VSWR	<2.0	pass	pass	pass	pass	pass	pass	■OK □NG
Mechanical properties	Cable and IPEX pull	> 1.5kg							□OK □NG
Notes									
Final Judgment		☒ Qualified ☐ Disqualified ☐ Conditions							

SIGN	DATE	DESCRIPTION	APPROVER
A0	23.09.20	A new edition was released	JWX



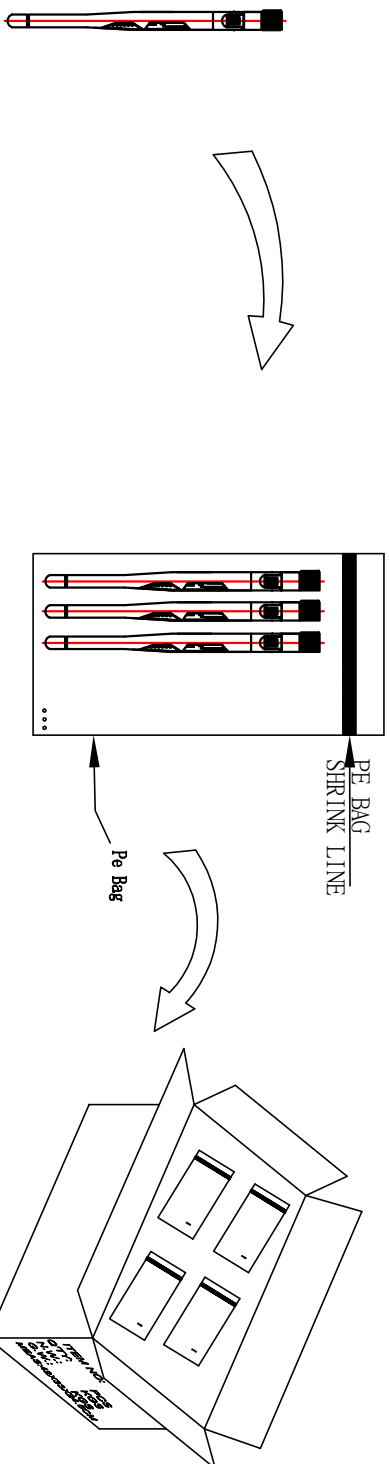
9	Q40-010059-A	Foam	EVA	Black	1
8	---	Screw rod	CU	---	1
7	---	PCB	FR-4	Green	1
6	---	Mother Needle	SMA	Black plastic case	1
5	W10-010003-A	RG-178	Timed wire	Brown	1
4	Q30-170019-A	Rivets	POM	BLACK Rivets	2
3	Q30-030068-A	To the ground	PC/PBT	BLACK CD-10	1
2	Q30-020057-A	Be solid	PC/PBT	BLACK CD-418	1
1	Q30-010009-A	Rod sleeve	TPE	BLACK CD-417	1
No.	Part Number	Name	Material	Describe	Qty

NOTE:
1. With "*" as the key control size;
2. Electrical testing:
Frequency Rang: 2.4~2.5GHz
5. 15~5.85GHz
Impedance: 50Ω
VSWR: 2.0MAX
3. Working Environment: -10℃~+85℃;
4. Environmental requirements: RoHS 2.0.

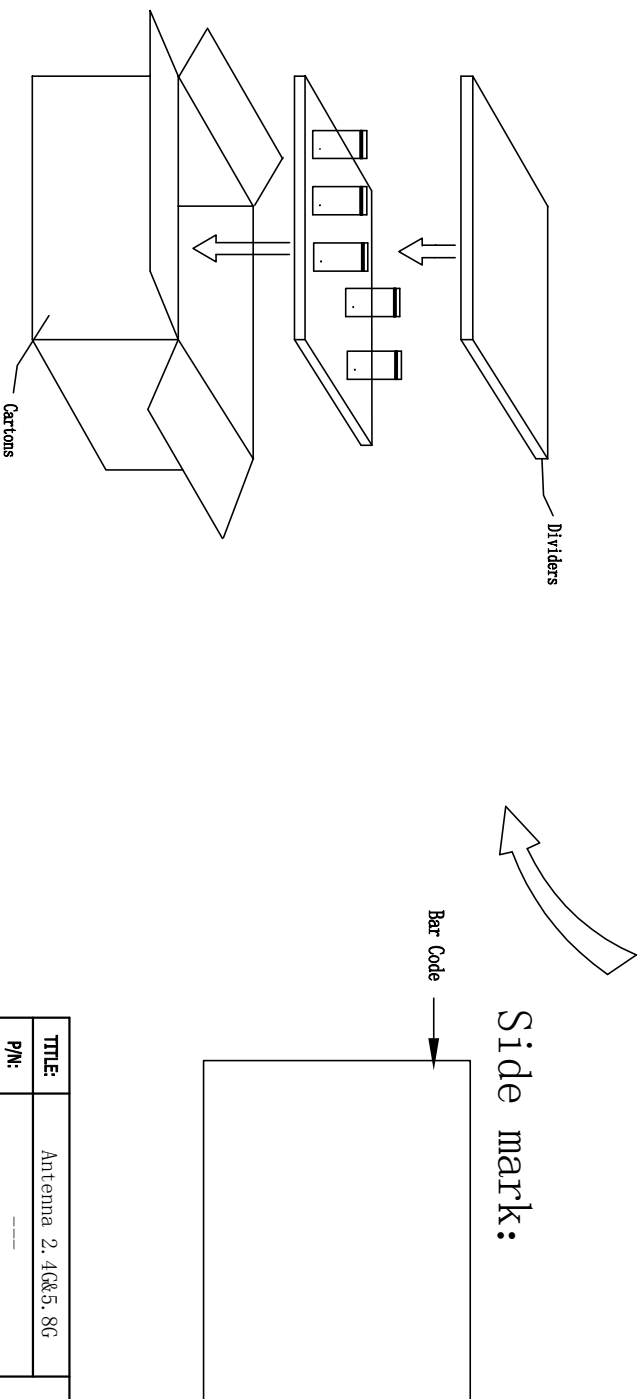


TITLE: Antenna 2.4G&5.8G		RTANT COMMUNICATIONS CO.,LTD	
P/N: ---		Http://www.rtant.com	
CUSTOMER: 02T		Tel: 0759-8583386	
DRAW NO.: K212-10079-A		E-mail: csg@rtant.com	
DIMENSIONS TOLERANCES UNLESS OTHERWISE NOTED		APPROVED	
TOLERANCE		CHECKED	
JXX: ±0.1		JXX: ±5	
-XX: ±0.5		-XX: ±1.0	
X: ±3.0		X: ±3.0	
SHEET: 1/1		SCALE: NONE	
UNIT: mm		REV: A0	
DRAWN		JWX	

SIGN	DATE	DESCRIPTION	APPROVER
A0	23.09.20	A new edition was released	JWX



Side mark:



TITLE:		Antenna 2, 4CK5, 8G																	
P/N:																			
CUSTOMER:		OZT																	
DRAW NO.:		K212-10079-A																	
DIMENSIONS TOLERANCES UNLESS OTHERWISE NOTED																			
TOLERANCE		<table border="1"> <tr> <td>XXX</td> <td>±0.1</td> <td>XX</td> <td>±.5</td> </tr> <tr> <td>XX</td> <td>±0.5</td> <td></td> <td></td> </tr> <tr> <td>X</td> <td>±1.0</td> <td></td> <td></td> </tr> <tr> <td>X</td> <td>±3.0</td> <td></td> <td></td> </tr> </table>		XXX	±0.1	XX	±.5	XX	±0.5			X	±1.0			X	±3.0		
XXX	±0.1	XX	±.5																
XX	±0.5																		
X	±1.0																		
X	±3.0																		
SHEET: 4/1		SCALE: NONE																	
UNIT: mm		REV: 0																	
APPROVED		CHECKED																	
DRAWN		JYX																	