



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

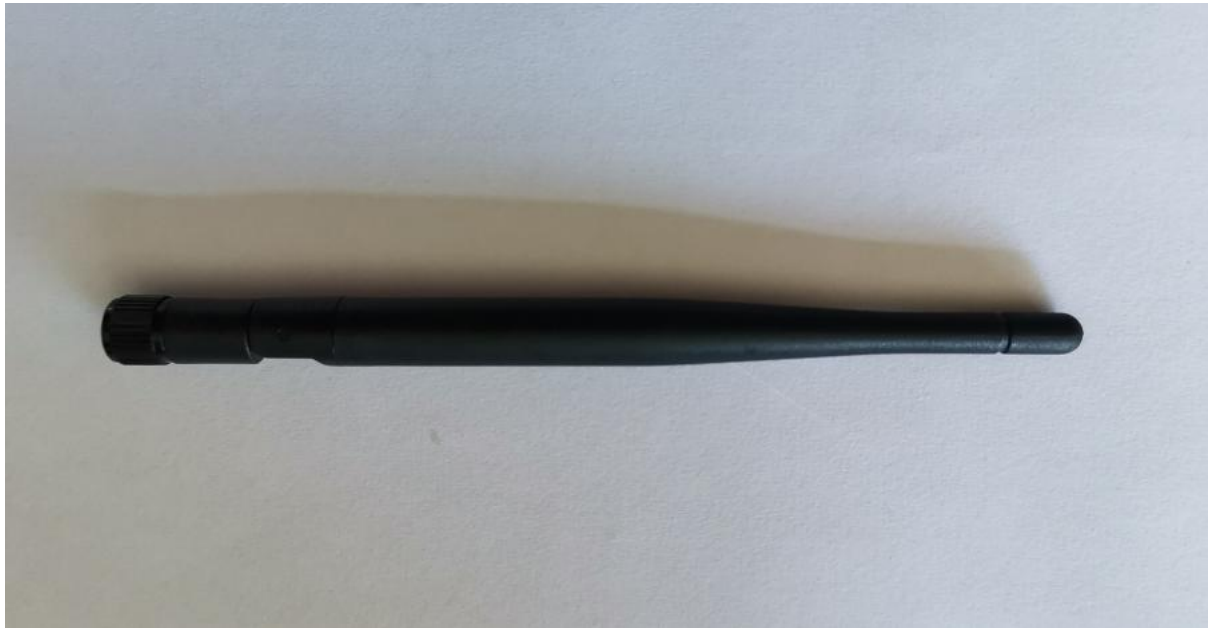
1. Contents

No.	content	Pages
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3	Physical drawing of product	3
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Annex	2D illustration/packaging	Appendices

2. Revision history

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

3. Product picture

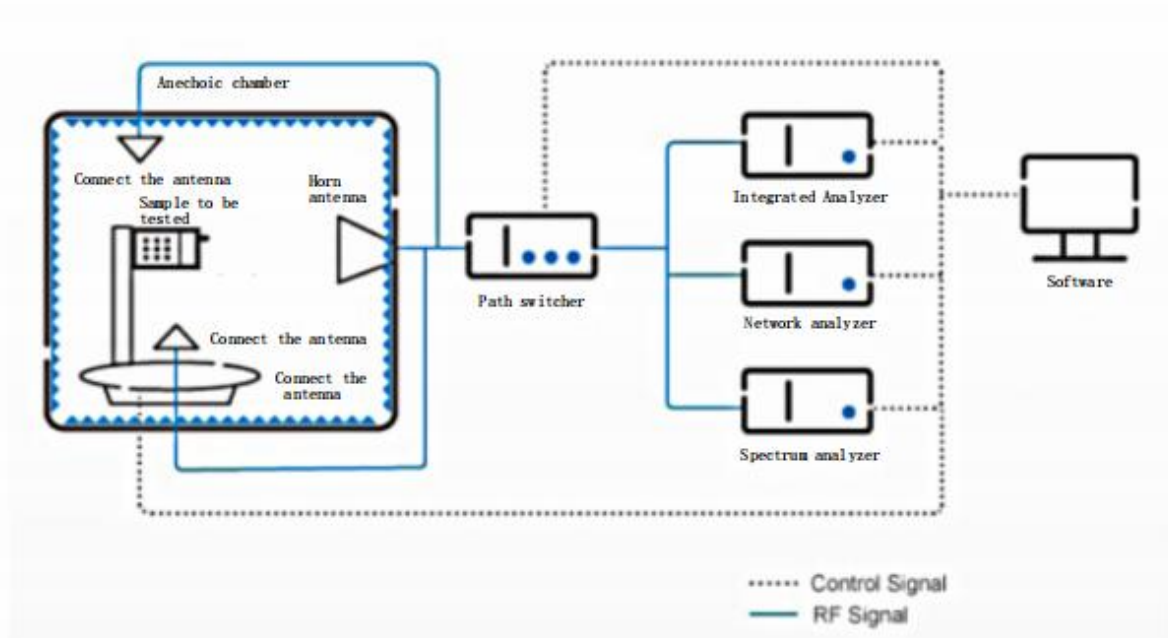


4. Specification

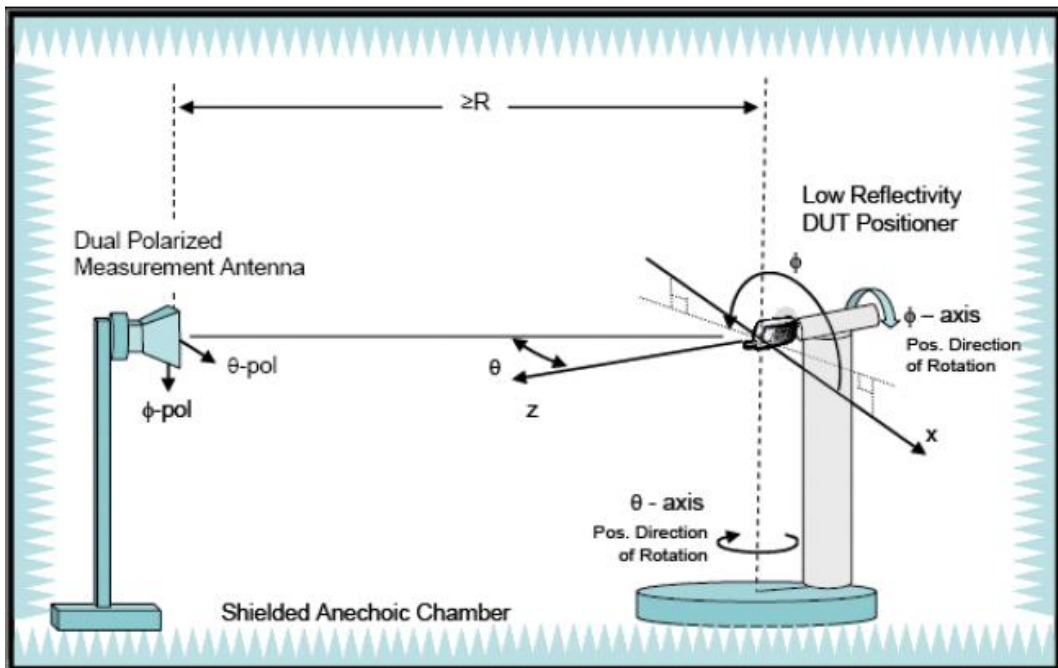
A. Electrical Properties	
Frequency Rang	2.4-2.5GHz&5.15~5.85GHz
Impedance	50 Ω Nominal
VSWR	2.0Max.
Gain(peak)	4.56dBi
Out of roundness	2.4/5GHz: 2.98/4.56dBi (Max.)
Radiation	Omni-Directional
Polarization	Linear Vertical
B. Physical Properties	
Connector Type	SMA
Cable	RG-178
Antenna Radiator	PCB
C. Environmental	
Storage Temp	-10°C~+60°C
Operating Temp	-40°C~+65°C
Storage humidity	95%
Working humidity	5%~95%

5. Electrical Test Report

OTA System architecture diagram



5.1 Test equipment



5.2 Antenna pasting position



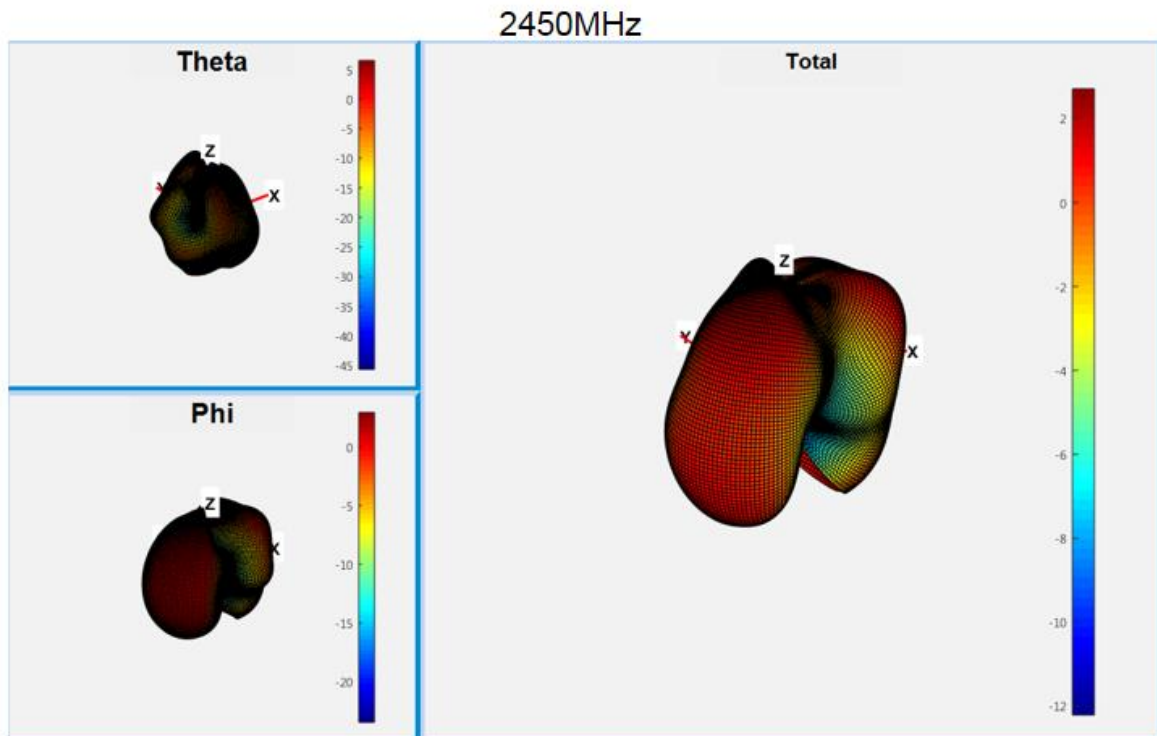
5.3 Network Analyzer



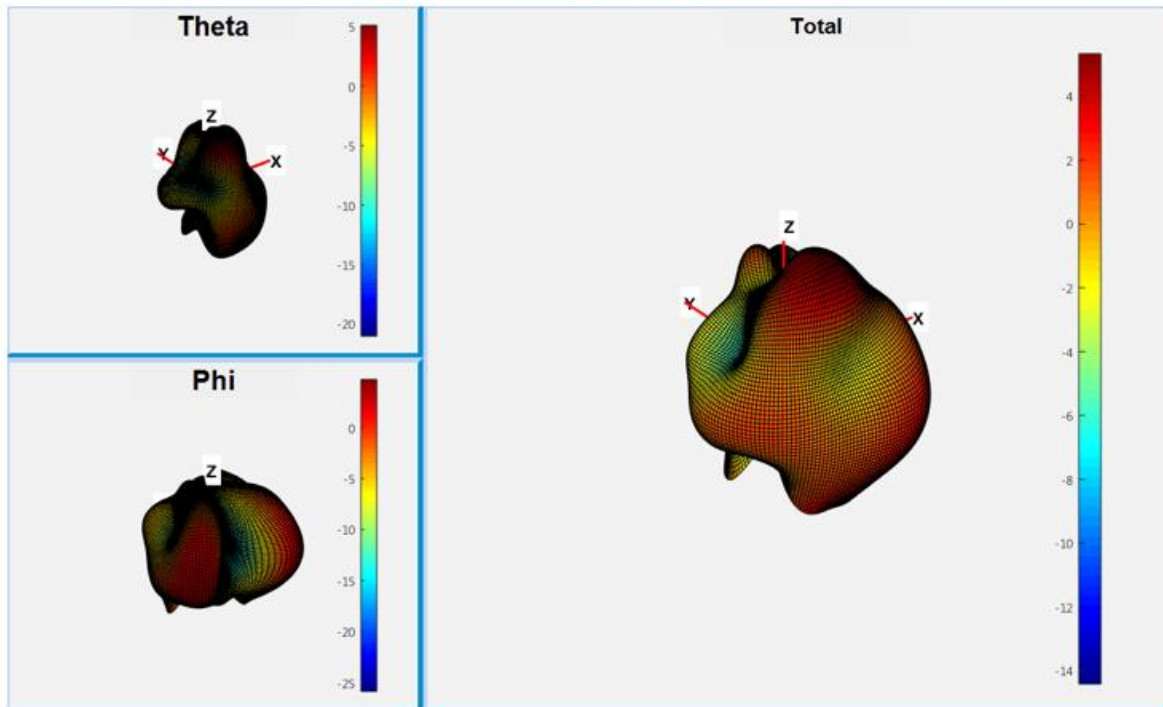
5.4 Darkroom passive test data

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)	2.23	2.19	2.7	2.63	2.52	2.53	2.45	2.77	2.98	3.28	3.35				
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)	3.59	3.01	3.26	3.79	3.92	3.84	4.08	4.56	4.42	3.86	3.56	3.48	3.77	3.85	4.01

5.5 2D、3DRaditation Pattern



5450MHz



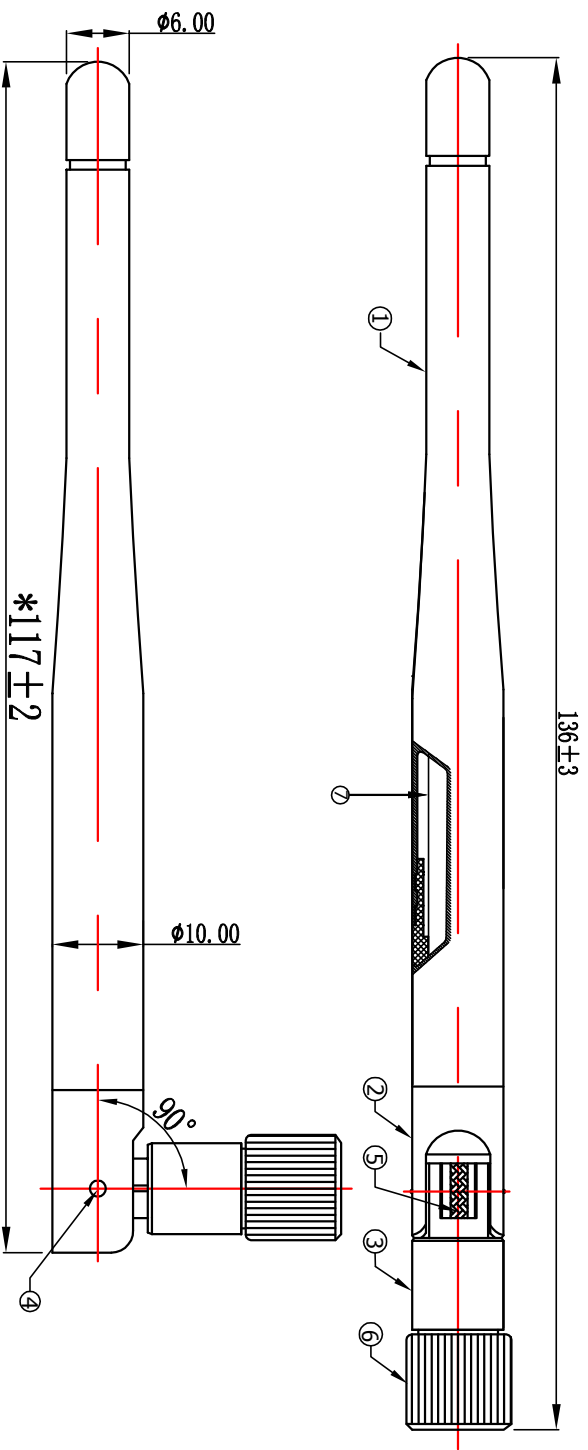


9. Sample inspection report

Date: 2023.09.20

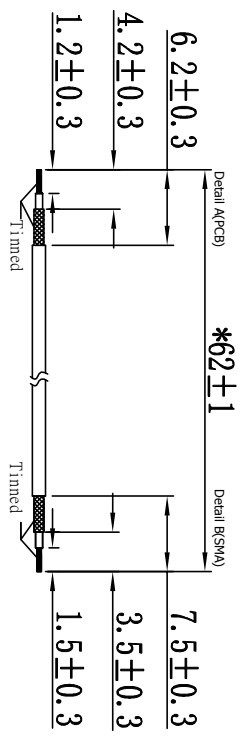
Total quantity		5PCS	Qualified quantity		5PCS				
inspection item	Inspection standards and instructions	inspection result					judge		
		No.1	No.2	No.3	No.4	No.5			
Appearance	Plastic cement	No dirt, no damage, no scratch	pass	pass	pass	pass	pass	<input checked="" type="checkbox"/> OK <input type="checkbox"/>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

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



No.	Part Number	Name	Material	Describe	Q'ty
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	Tinned 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

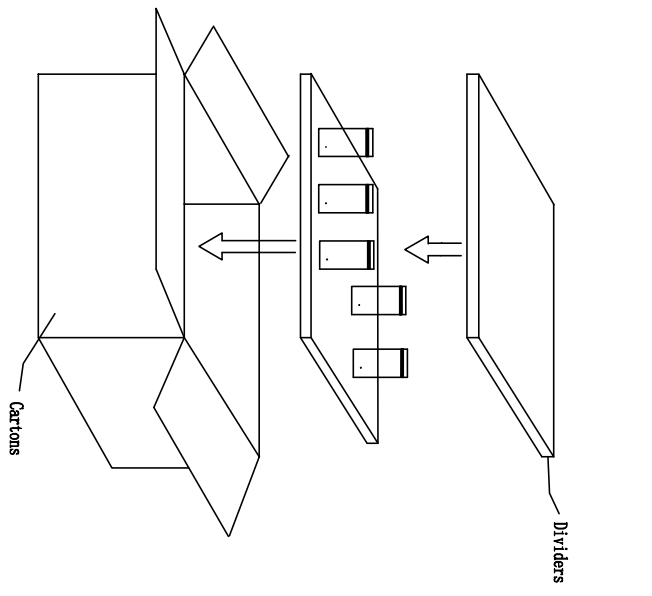
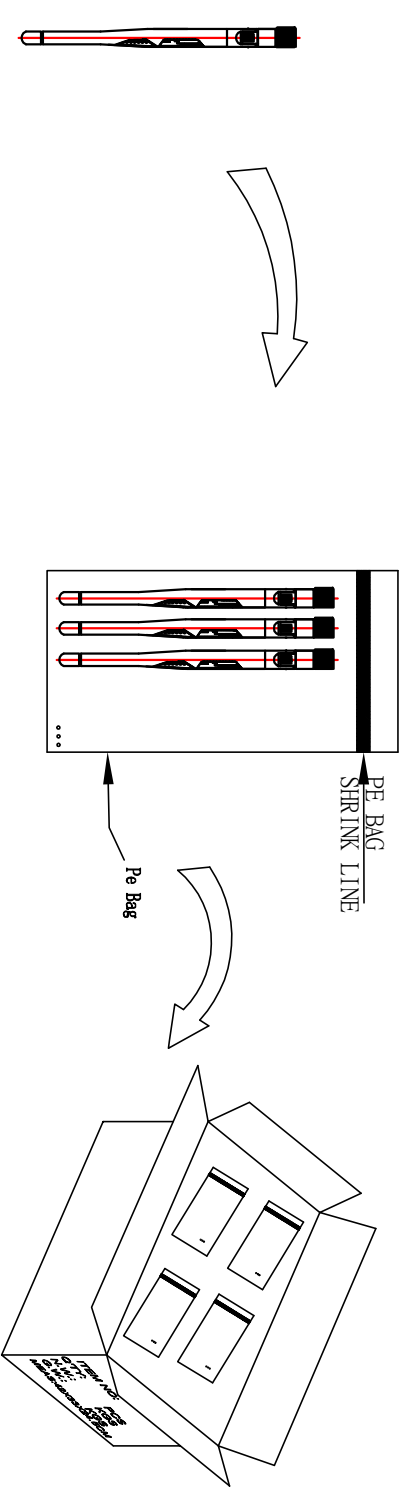
NOTE:
 1. With "*" as the key control size;
 2. Electrical testing:
 Frequency Rang: 2.4~2.5GHz
 5.15~5.85GHz
 Impedance: 50Ω
 VSWR: 2.0MAX
 3. Working Environment: -10°C~+85°C;
 4. Environmental requirements: RoHS 2.0;



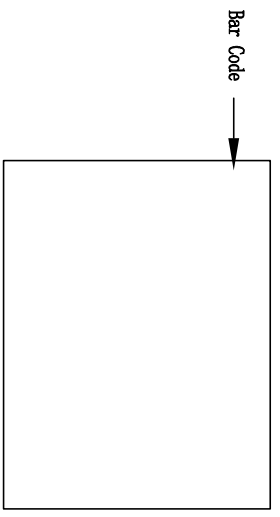
TITLE: Antenna 2.4GHz, 8G		DRAW NO.: K212-10079-A	
P/N: ---		CUSTOMER: 02T	
DIMENSIONS TOLERANCES UNLESS OTHERWISE NOTED			
TOLERANCE		TOLERANCE	
XXX	±0.1	XX	±0.5
XX	±0.5	X	±1.0
X	±3.0		
SHEET: 1/1		SCALE: NONE	
UNIT: mm		REV: 0	
APPROVED		CHECKED	
DRAWN		JWX	



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



Side mark:



TITLE:	Antenna 2.4GHz. 8G			RTANT COMMUNICATIONS CO.,LTD	
P/N:	---	http://www.rtant.com		Tel: 0769-8583386	
CUSTOMER:	OZT	E-mail:rtan@rtant.com		Fax: 0769-8262773	
DRAW NO.:	K212-10079-A			APPROVED	
DIMENSIONS TOLERANCES UNLESS OTHERWISE NOTED		SHEET: 1/1	SCALE: NONE	CHECKED	
TOLERANCE		XXX: ±0.1	XX: ±0.5	DRAWN	JWX
		XX: ±0.5	X: ±1.0		
		X: ±3.0			

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1

A B C D E F G