

SPECIFICATION FOR APPROVAL

CUST OMER		
CUS PART NO		
PART NAME		920MHz Rubber rod antenna
TPT PART NO		DD30033
Edition		1.0
Customer signature:		date:
Purchasing Department	Engineering Department	Approval
Toppoint Technology:		date: 2020-07-23
structure	Sale	Approval
Zhang Yu Long	Roshan	Lin Cheng
Finished product drawing (for reference only) 		

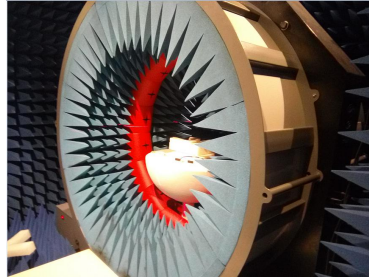
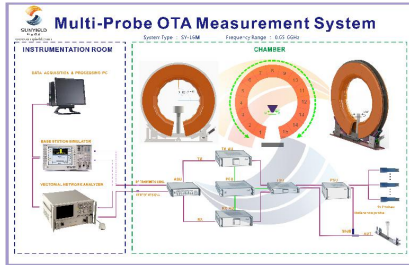
Antenna specifications

1. Product test parameters

ELECTRICAL SPECTFICATIONS		MECHANICAL SPECTFICATIONS	
FrenquencyRange	920MHz	Dimensions	50±2mm
Bandwidth	±10MHz	Connector	SMA angle head
Impedance	50 Ω	Radome Material	ABS
VSWR	≤1.5	Radome Color	black
Gain	3.0 dBi	SMA Plating	(1U"-1.5U")
Power	50W	SMA Hardness	≥HV80
Polarization	vertical	Working Temperature	-45℃-+85℃
Radiation	omnidirectional	Limit Temperature	-45℃-+85℃

Vertex technology Xiangyang Co., Ltd/ Shenzhen summit Technology Co., Ltd
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D3Tung 3floor B Seat
Tel: 0755-26532519
Production address: Song Yu Si Lu Ding Feng tech Industrial Park, Baimiao Economic Development Zone, Yicheng
city, Hubei Province
Tel: 0710-4283888 Fax: 0710-4283138
Website: www.sztpt.com

2. Antenna test environment



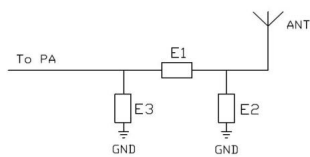
Testing system: SY-16M Antenna measurement system/SY-24M

Testing environment: temperature $22^{\circ}\text{C} \pm 3^{\circ}\text{C}$, humidity $50\% \pm 15\%$

Test equipment : Agilent 5071C network analyzer 、 Agilent 8960 Comprehensive measuring instrument、 CMW500 4G Comprehensive measuring instrument

3. Antenna matching and environment treatment

Matching structure



Match description	MINA ANT
E1	0Ω
E2	NA
E3	NA

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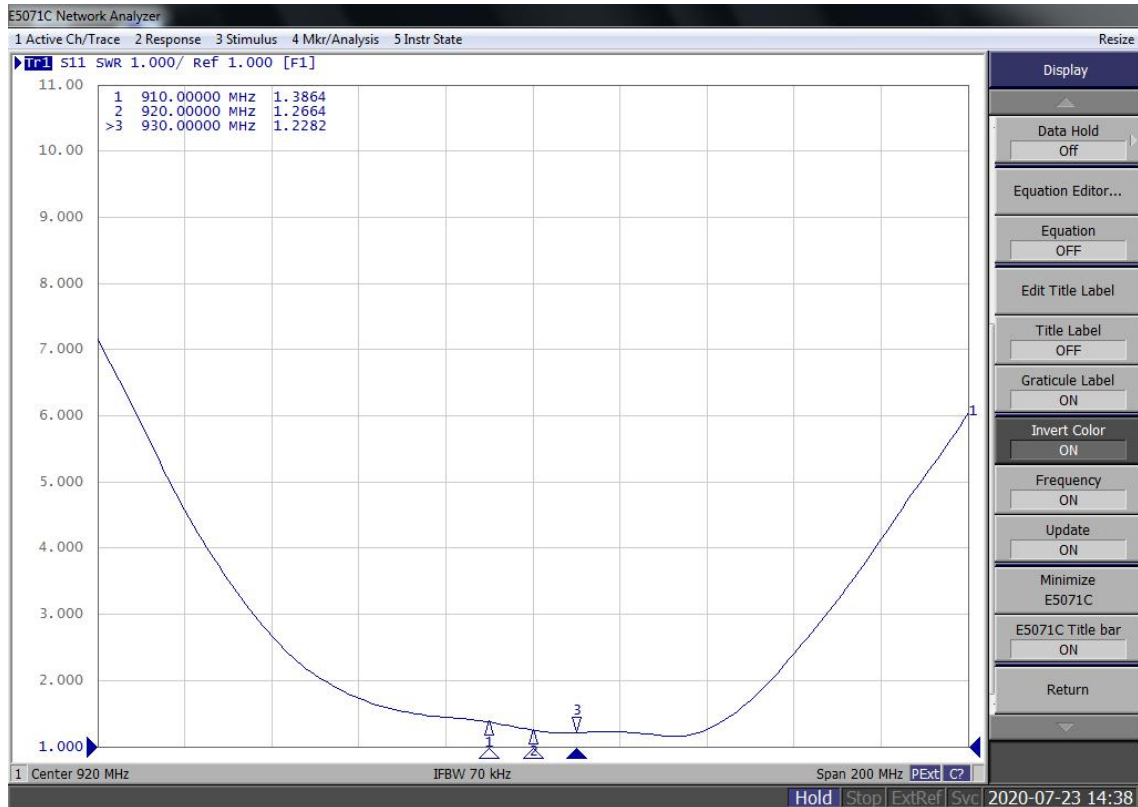
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4. Antenna passive data

Antenna standing wave ratio



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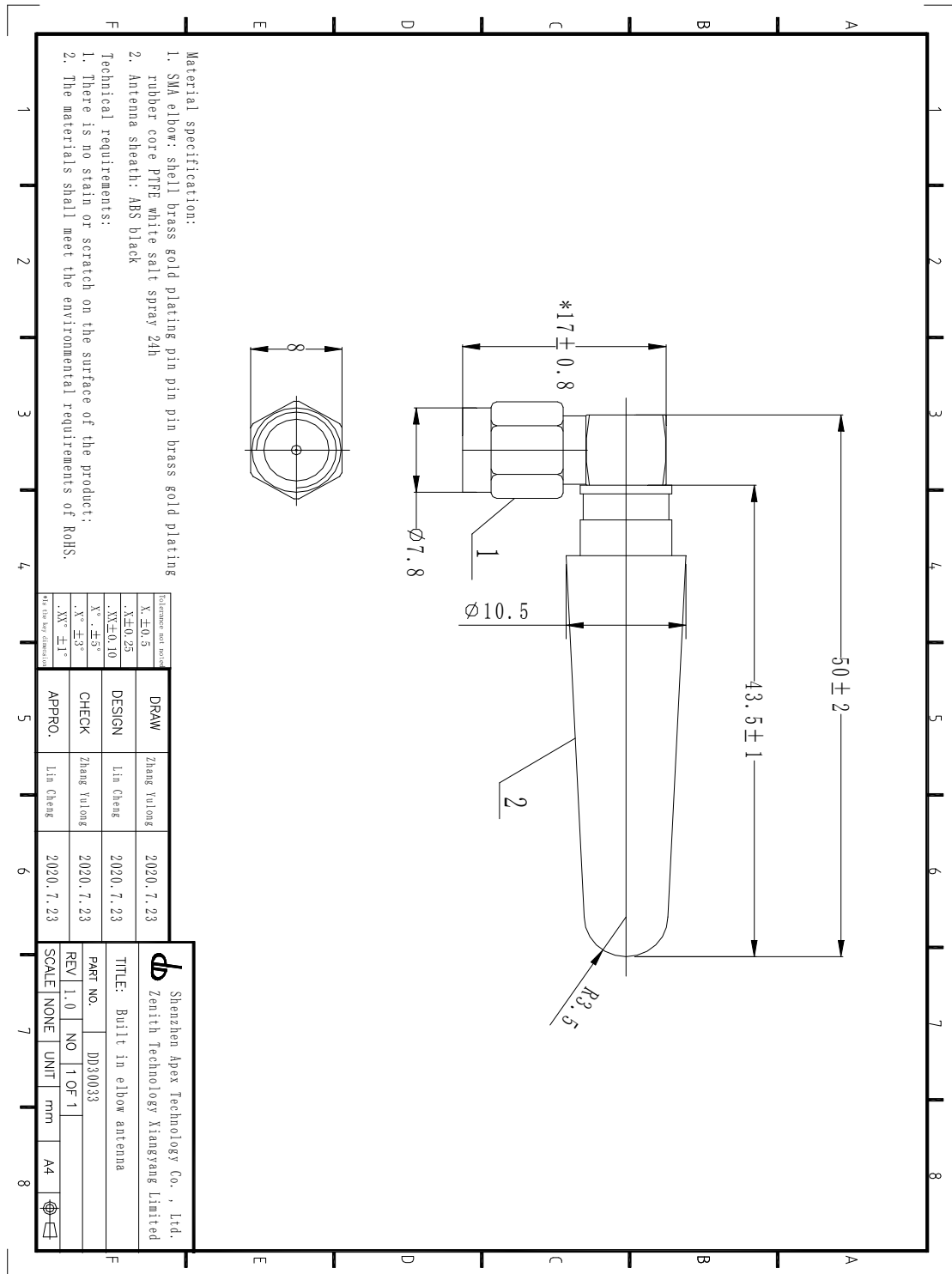
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5.Product structure



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6.Environmental reliability test report

High and low temperature humidity test report

test project	High temperature, low temperature and constant humidity test					
Test sample Board name	DD30033			date of observation	2020. 7. 23	
Experiment / detection equipment	Humidity Chamber network analyzer			Test quantity	5 PCS	
test standard	1. The coating on the metal surface shall be free of defects such as falling off, crack, wrinkling, etc. ; the non-metallic part shall be free of defects such as discoloration, cracking, deformation, degumming, etc. 2.The electrical test meets the design requirements; the VSWR Test is qualified.					
test Name	Test item	Require ment	test method	Actual test data	Result	
					sample	determine
High temperature test	Temperature (℃) Temperature stabilization time of test sample (H) Test duration (H) Recovery time (H)	$+85\pm 3$ 1 2 1	According to Chapter 9 of gb2423. 1-89 Specified method	$+87$ 1. 2 2. 3 1	1	qualified
					2	qualified
					3	qualified
					4	qualified
					5	qualified
Low temperature test	Temperature (℃) Temperature stabilization time of test sample (H) Test duration (H) Recovery time (H)	-45 ± 3 1 2 1	According to Chapter 8 of gb2423. 1-89 Specified method	-46 1. 2 2. 4 1. 1	1	qualified
					2	qualified
					3	qualified
					4	qualified
					5	qualified

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Constant humidity Thermal test	Temperature (°C)	+40±2 90-95 21 1	According to Chapter 5 of gb2423.3-93 Specified method	+42 92 22 1.1	1	qualified
	Temperature stabilization time of test sample (H)				2	qualified
	Test duration (H)				3	qualified
	Test duration (H)				4	qualified
	Recovery time (H)				5	qualified

7.Salt spray test

Salt spray test report			
Test item	Salt spray test		
Name of test sample	DD30033	date of observation	2020.7.23
Device name	Salt spray corrosion test chamber	Test quantity	5 PCS
test method	The test samples were put into the modulated salt solution test chamber and salt spray corrosion chamber for continuous spray test.		
Concentration of salt solution	52g/L	PH value of salt solution: 6.5-7.2	Test cycle: 24h
Actual test data	55g/L	PH value of salt solution: 6.8	Test cycle: 26h
Test standard	The test shall be carried out in accordance with GB / t10125 corrosion		

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	test in artificial atmosphere and salt spray test; the results shall be rated in accordance with GB / t6461-2002 corrosion test of metal and other inorganic coatings on metal substrate and the rating of samples and test pieces.			
test result				
Number	Corrosion resistance grade	Corrosion resistance grade	Assessment result	Remarks
1	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	qualified	
2	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	qualified	
3	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	qualified	
4	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	qualified	
5	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	qualified	