

东莞众驰电子有限公司
Dongguan Zhongchi Electronics Co.Ltd.

承认书

Customer: Dongguan Zhongchi Electronics Co.Ltd.

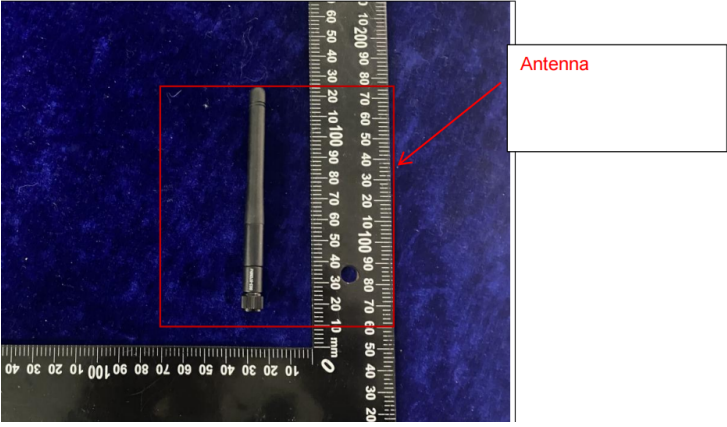
Zhongchi P/N: ZCA0915-0201BSM

Description : 902-928Mhz Antenna

东莞市众驰电子有限公司

Product Number: ZCA0915-0201BSM
Product Name:902-928Mhz Antenna

1. Specification

Sample Photo	
	
A. Electrical Characteristics	
Frequency	902-930 MHz
S.W.R.	≤ 2.0
Antenna Gain	3.0dBi
Polarization	Linear
Impedance	50 Ohm
B. Material & Mechanical Characteristics	
Material of Radiator	CU
Material of Plastic	Body1: TPEE Body2: ABS Body3: ABS
Cable Type	RG-178
Connector Type	SMA Male
Connector Pull Test	≥ 5 Kg
Connector Torque Test	300 ~ 1000 g.cm
C. Environmental	
Operation Temperature	- 40 °C ~ + 65 °C
Storage Temperature	- 40 °C ~ + 80 °C

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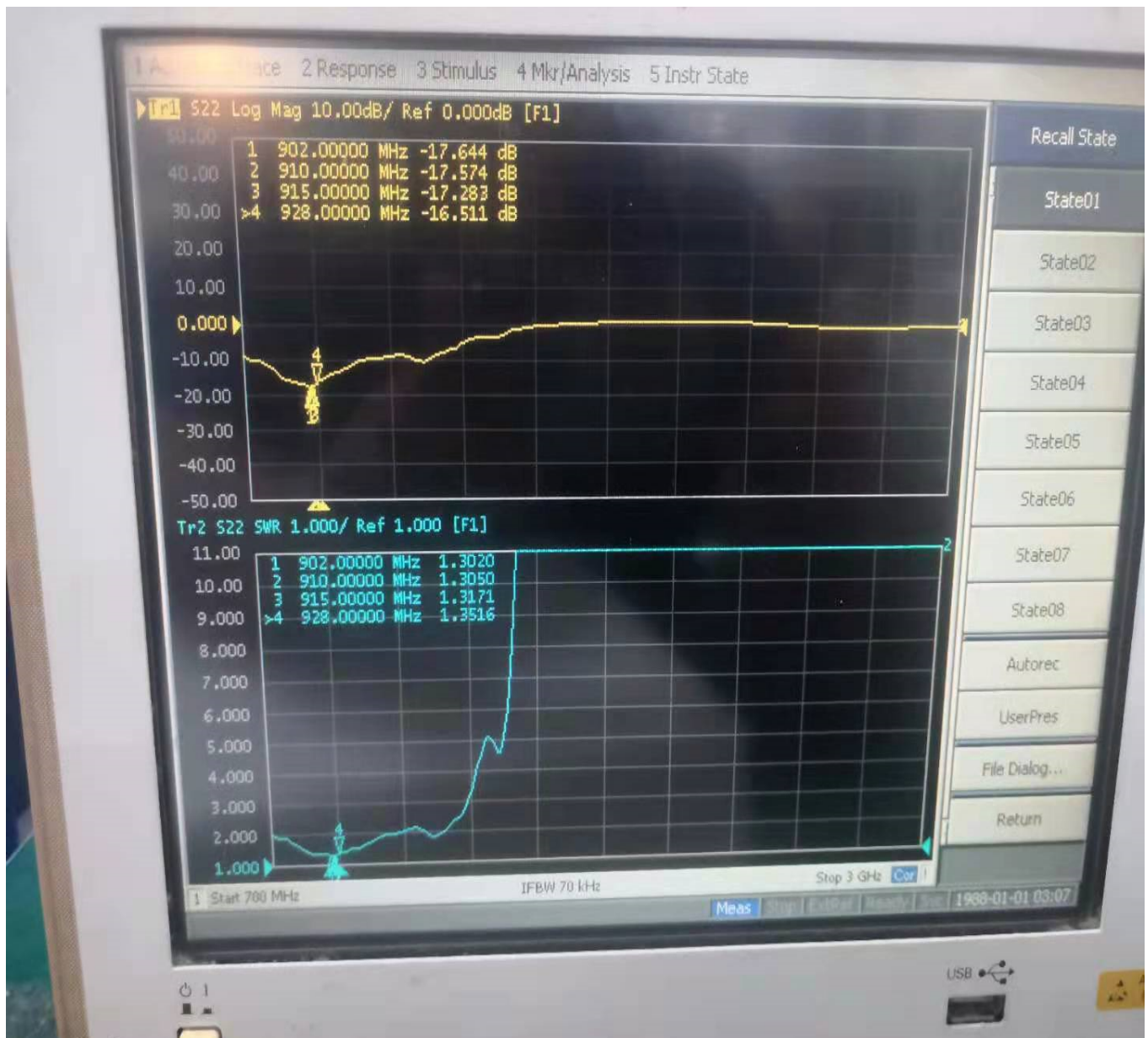
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2. Characteristics and Reliability Test

Test Items		Test Condition and Procedure	Requirements
C1	S.W.R.	Set DUT on Network Analyzer; make individual calibration to test	Directive DUT specification
C2	Antenna Gain	Set DUT on Antenna Chamber; make individual calibration to test	Directive DUT specification
M1	Vibration	MIL-STD-202G, 201A Amplitude: 0.03 inch (0.76mm); Freq: 10 to 55 Hz 3 directions; 2 hours for each direction	1. No Visual Damage 2. Frequency Tol.<= 5%
M2	Random Drop	Height: 1.5 Meter; 3 directions; 1 time for each direction	1. No parts separated 2. Frequency Tol.<= 5%
M3	Solderability	MIL-STD-202G, 210F, cond. A Solder iron: 350±10°C; Duration: 5 seconds	1. Mounted on PCB 2. No Visual Damage
M4	Terminal-Pull Test	MIL-STD-202G, 211A, cond. A Holding with individual specification; force applied to axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M5	Terminal-Torque Test	MIL-STD-202G, 211A, cond. E Holding with individual specification; applied clockwise and counterclockwise to the axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M6	Dimension	Inspection of dimension, color, material, package, surface process	Directive DUT specification
E1	Salt Spray	MIL-STD-202G, 101E, cond. B Temp: 35°C; RH: >= 95%; NaCl solution: >= 5%; Time: 48 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E2	Humidity	MIL-STD-202G, 103B, cond. B Temp: 40°C; RH: >= 95%; Time: 48 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E3	Thermal Shock	1 Cycle: - 40°C (30 minutes) to + 80°C (30 minutes) Cycles: 24	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E4	Life (High Temp.)	MIL-STD-202G, 108A, cond. A Temp: 85°C; Time: 96 hours	After 2 Hours Recovery 1. No Visual Damage

3. Antenna - S Parameter Test Data



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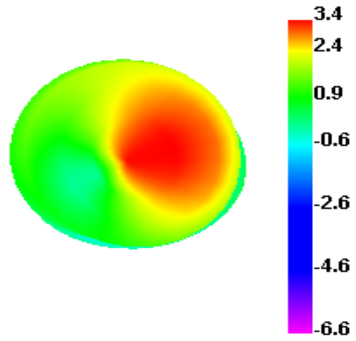
4. Antenna - Radiation Pattern Test Data

Passive Test For 915												
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Directivity (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
902	57.86	-2.38	3.53	1.38	31.026	26.831	3.53	-15.32	5.91	30	42.85	42.78
903	58.58	-2.32	3.6	1.45	31.251	27.33	3.6	-15.66	5.92	30	42.85	42.78
904	59.31	-2.27	3.67	1.52	31.475	27.836	3.67	-16.05	5.94	30	42.85	42.78
905	60.04	-2.22	3.73	1.58	31.695	28.34	3.73	-16.6	5.95	30	42.85	42.78
906	59.1	-2.28	3.66	1.51	31.062	28.035	3.66	-17.25	5.94	30	42.73	42.67
907	58.12	-2.36	3.58	1.43	30.427	27.692	3.58	-17.94	5.94	30	42.61	42.55
908	57.09	-2.43	3.5	1.35	29.781	27.312	3.5	-18.55	5.93	30	42.48	42.44
909	56.02	-2.52	3.42	1.27	29.126	26.896	3.42	-19	5.93	30	42.36	42.32
910	54.93	-2.6	3.33	1.18	28.476	26.456	3.33	-19.42	5.93	30	42.24	42.21
911	55.32	-2.57	3.35	1.2	28.586	26.737	3.35	-19.6	5.92	30	42.24	42.21
912	55.68	-2.54	3.36	1.21	28.684	26.999	3.36	-19.76	5.91	30	42.24	42.21
913	56.06	-2.51	3.37	1.22	28.797	27.259	3.37	-19.75	5.89	30	42.24	42.21
914	56.44	-2.48	3.38	1.23	28.927	27.516	3.38	-20.02	5.86	45	42.24	42.21
915	56.85	-2.45	3.38	1.23	29.072	27.776	3.38	-20.09	5.83	45	42.24	42.21
916	56.75	-2.46	3.35	1.2	28.987	27.759	3.35	-20.14	5.81	45	42.2	42.18
917	56.64	-2.47	3.32	1.17	28.911	27.73	3.32	-20.06	5.79	45	42.15	42.14
918	56.52	-2.48	3.28	1.13	28.846	27.669	3.28	-19.95	5.76	45	42.11	42.11
919	56.33	-2.49	3.25	1.1	28.769	27.564	3.25	-19.7	5.74	45	42.06	42.07
920	56.07	-2.51	3.21	1.06	28.671	27.395	3.21	-19.36	5.72	45	42.02	42.04
921	56.18	-2.5	3.19	1.04	28.771	27.411	3.19	-18.94	5.69	45	42.02	42.04
922	56.14	-2.51	3.16	1.01	28.813	27.33	3.16	-18.5	5.67	45	42.02	42.04
923	55.95	-2.52	3.13	0.98	28.79	27.157	3.13	-18.06	5.65	45	42.02	42.04
924	55.64	-2.55	3.09	0.94	28.731	26.907	3.09	-17.78	5.64	45	42.02	42.04
925	55.23	-2.58	3.04	0.89	28.634	26.601	3.04	-17.56	5.62	45	42.02	42.04
926	54.76	-2.62	3	0.85	28.528	26.231	3	-17.3	5.62	45	42.01	42.04
927	54.34	-2.65	2.96	0.81	28.452	25.884	2.96	-17.02	5.61	45	42	42.04
928	54.02	-2.67	2.92	0.77	28.44	25.582	2.92	-16.73	5.6	45	42	42.04
929	53.89	-2.69	2.91	0.76	28.529	25.356	2.91	-16.41	5.59	45	41.99	42.04
930	53.93	-2.68	2.9	0.75	28.705	25.226	2.9	-16.07	5.58	45	41.98	42.04

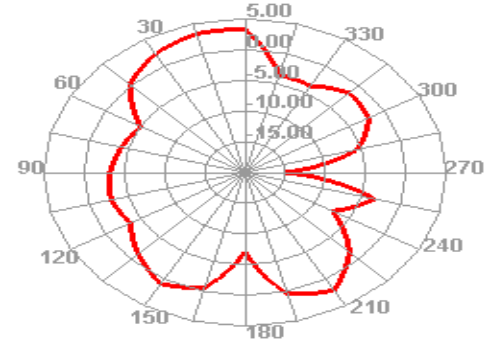
5. Mechanical Drawing

See attached files

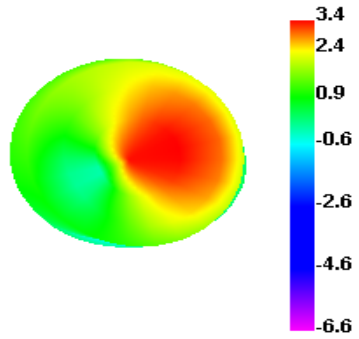
912.000MHz



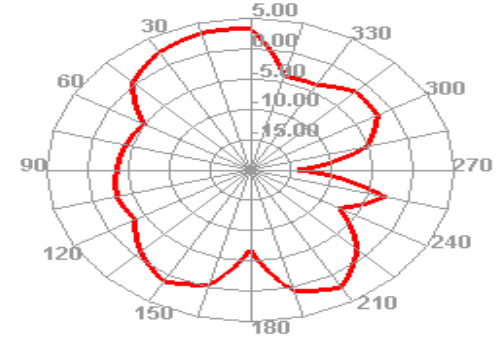
912.000MHz E1



915.000MHz



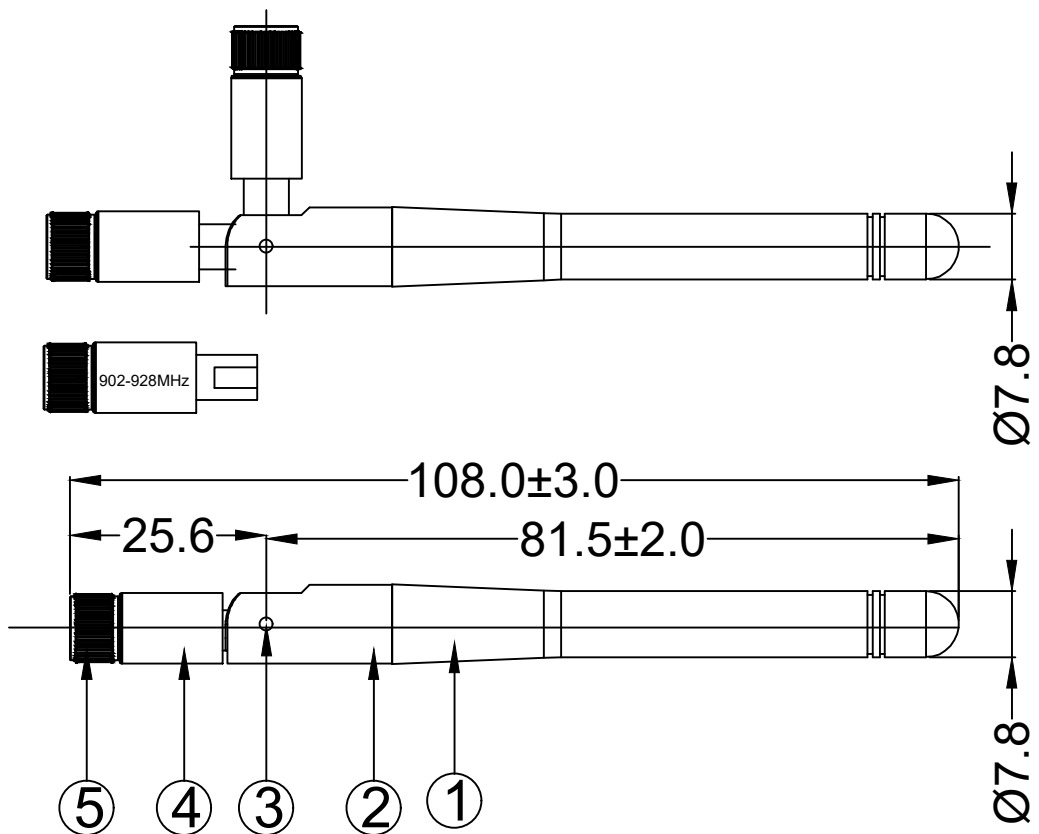
915.000MHz E1




RoHS
Compatible

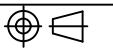
CUSTOMER	
PART NO	

REV.	DESCRIPTION	DATE
△	Initial release	2023-12-02



5	SMA Reverse Female	Au Plated	1
4	Bottom Base	POM Black	1
3	Rivet	POM Black	1
2	Bottom Base	POM Black	2
1	Antenna Cap	TPE,Color:Black	1
NO	PART NAME	DESCRIPTION	Q.TY


 Dongguan Zhongchi Electronic Technology Co., Ltd. Tel:0769-81238620 Fax:0769-81238620

PART NAME: 902-928MHz Antenna			
PART NO.: ZCA0915-0201BSM		DATE: 2023-12-02	
APPROVED BY	CHECKED BY	DESIGNED BY	 Tolerance X.X ±0.50 X.XX±0.15 X° ±3°
		Huang Wang Chun	
		UNITS: mm SCALE: 1/1 REVISION: A	