

Dongguan Zhongchi Electronic Technology Co.,Ltd

Specification Acknowledgement

Customer: Zhejiang Sunseeker Industrial Co., Ltd.

Customer P/N: N/A

ZC P/N: ZCA0861-13B09SM

Description : 861-931MHz Antenna

Zhong Chi Checked By:	Approved By:
	

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1. Specification

Sample Photo	
A. Electrical Characteristics	
Frequency	861-931MHz
V.S.W.R.	<= 2.0
ReTurnLoss(dB)	-10 dB Max
Antenna Gain	1.5±0.5dBi
Polarization	Linear, Vertical
Impedance	50 ohm Nominal
Admitted Power	2 W
Radiation	Omni-directional
B. Material & Mechanical Characteristics	
Material of Plastic	POM / PC
Cable Type	RG178
Connector Type	SMA Male
C. Environmental	
Operation Temperature	- 40 °C ~ + 80 °C
Storage Temperature	- 40 °C ~ + 80 °C

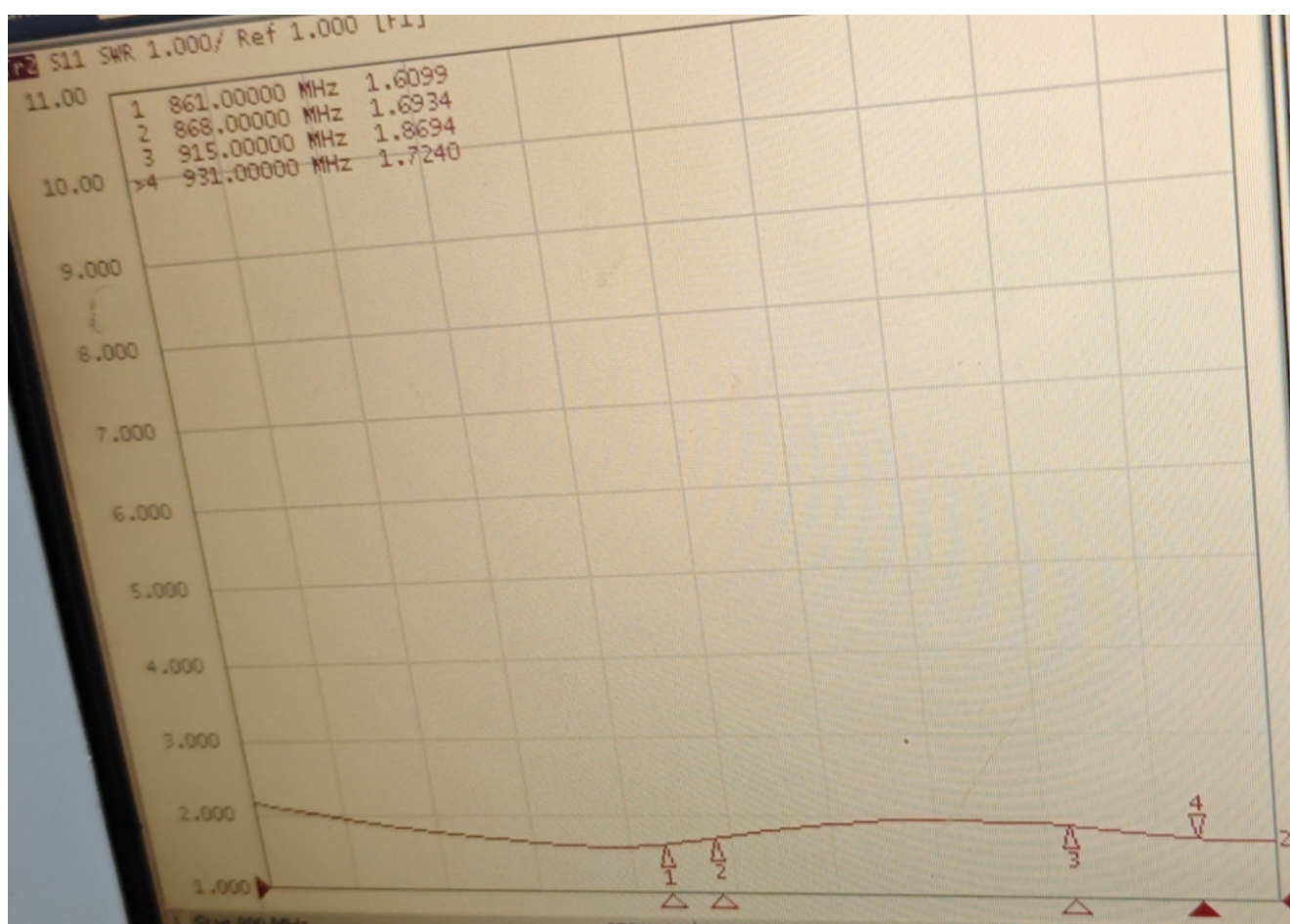
2. Characteristics and Reliability Test

Test Items		Test Condition and Procedure	Requirements
C1	V.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: 24 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: 24 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: 80°C; Time: 48hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
R1	RoHS	With Reference to IEC 62321:2008 with flow chart	Directive RoHS 2015/863(EU)

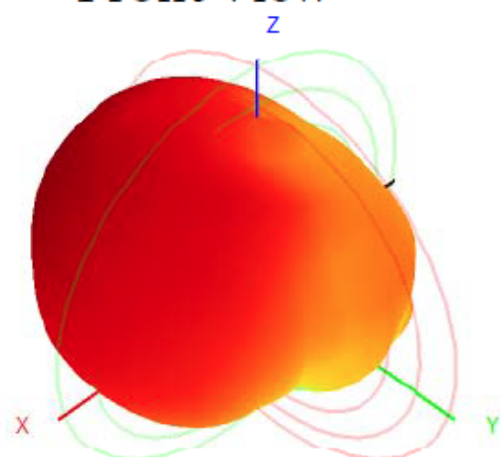
3. Antenna - S Parameter Test Data

861-931MHz

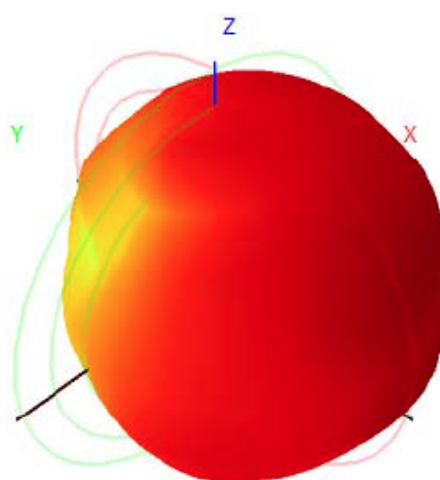
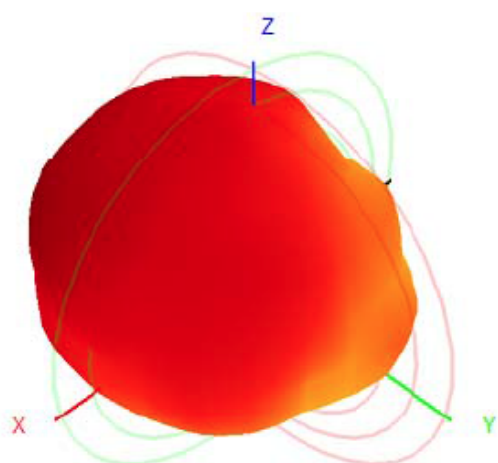
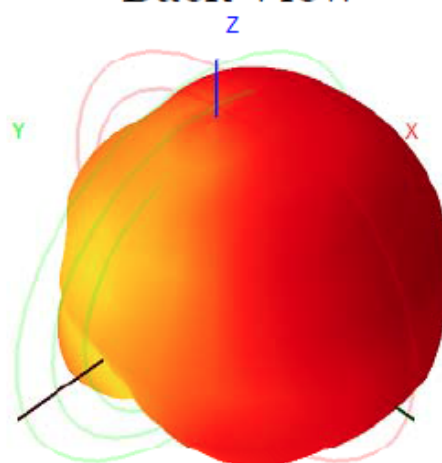


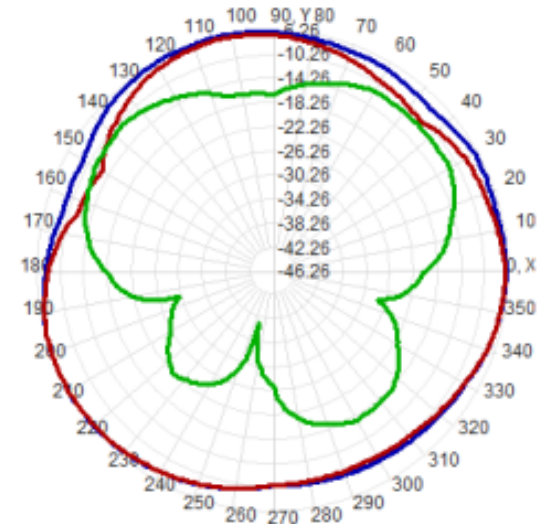
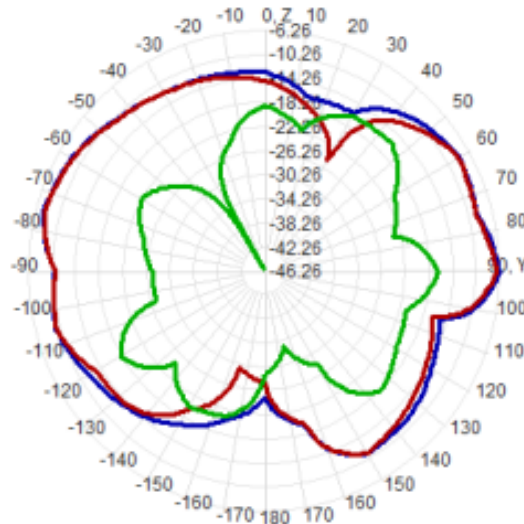
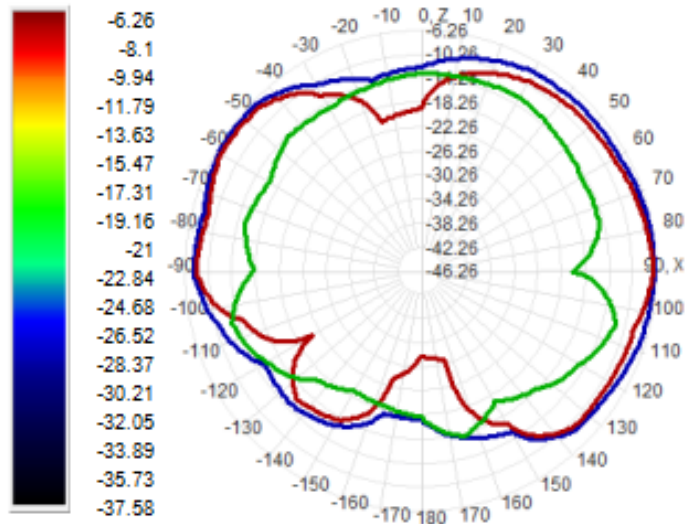
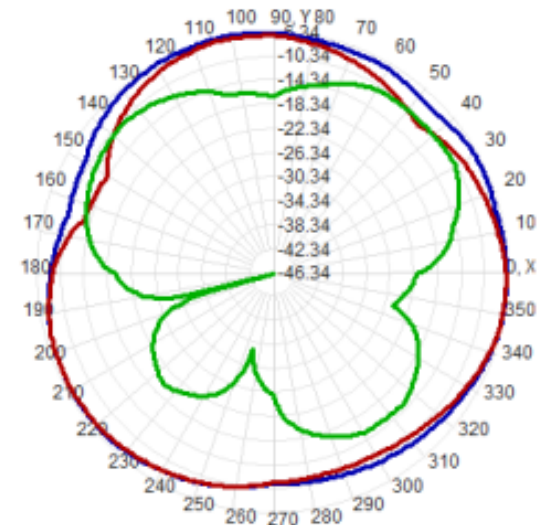
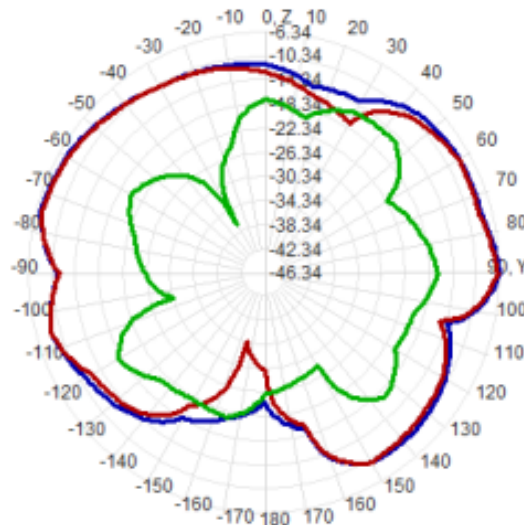
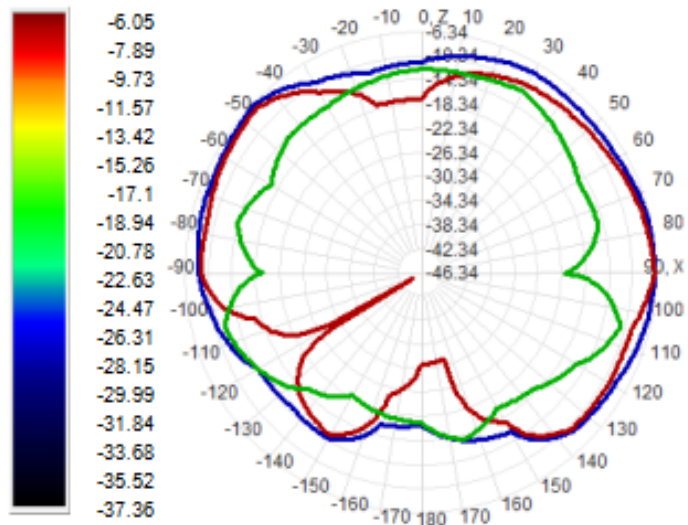
Freq (MHz)	Gain (dBi)	Efficiency (%)	
861	1.889314738	55.86552529	
871	1.071737708	44.34742529	
881	1.224696839	45.14205279	
891	1.980115826	60.41834229	
901	1.742918337	40.23162181	
915	1.481677966	57.81291393	
921	1.625861279	53.33833767	
930	1.504388002	52.55606675	

Front View



Back View

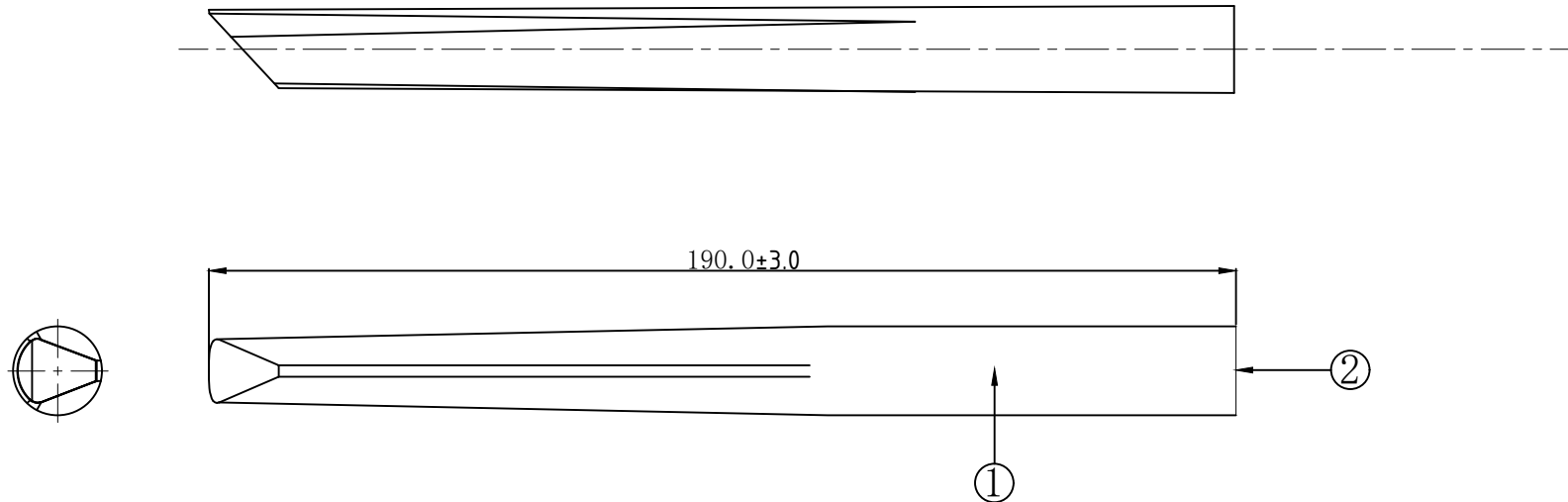




RoHS
Compatible

CUSTOMER	
PART NO	

REV.	DESCRIPTION	DATE
	Initial release	2024-07-15



 Dongguan Zhongchi Electronic Technology Co.,Ltd					Tel:0769-81238620 Fax:0769-81238620	
PART NAME: 861-931MHz Antenna						
PART NO. : ZCA0861-13B09SM				DATE: 2024-07-15		
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		

2	SMA Male	Au Plated	1
1	Antenna Cap	TPE,Color:Black	1
NO	PART NAME	DESCRIPTION	Q. TY