

Product Number: ZC0895-HG0101WNM-W-185

Product Name: HG Antenna

零件承認書

Approval Sheet

Manufacturer:Zhongchi Electronics Co., Ltd.

Address:Building 2, No. 1, Shangjiaopuxin Road, Chang'an Town,
Dongguan City, Guangdong Province

Model:ZC0895-HG0101WNM-W-185

Sample name:860~930MHGAntenna

Product Number: ZC0895-HG0101WNM-W-185
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1. Revision History

Revision	Date	Change Notification	Description
1.0	2021.05.20	初版	首次发文
1.1	2021.07.24	优化结构	优化内部方案，由 PCB 改为铜管
1.2	2022-03-15	更改标签内容	标签内容改成英文

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2. Specification

Sample Photo	
	
A. Electrical Characteristics	
Frequency	860~930 MHz
V.S.W.R.	≤ 2.0 @ 860~930 MHz
Antenna Gain	2.0 +/- 0.5 dBi @ 860~930 MHz
Efficiency(%)	$\geq 79.9\%$ @860~930 MHz
Radiation Pattern	Omni-Directional
Max Input Power	≥ 2 W
Polarization	Linear polarization/Vertical
Impedance	50 Ohm
B. Material & Mechanical Characteristics	
Material of Radiator	CU
Material of Plastic	玻璃钢（白色亮光）
Cable Type	RG-316 / 50 欧姆
Connector Type	N-JW
C. Environmental	
Operation Temperature	- 30 °C ~ + 65 °C
Storage Temperature	- 30 °C ~ + 65 °C
Antenna Color Storage life	< 2 year

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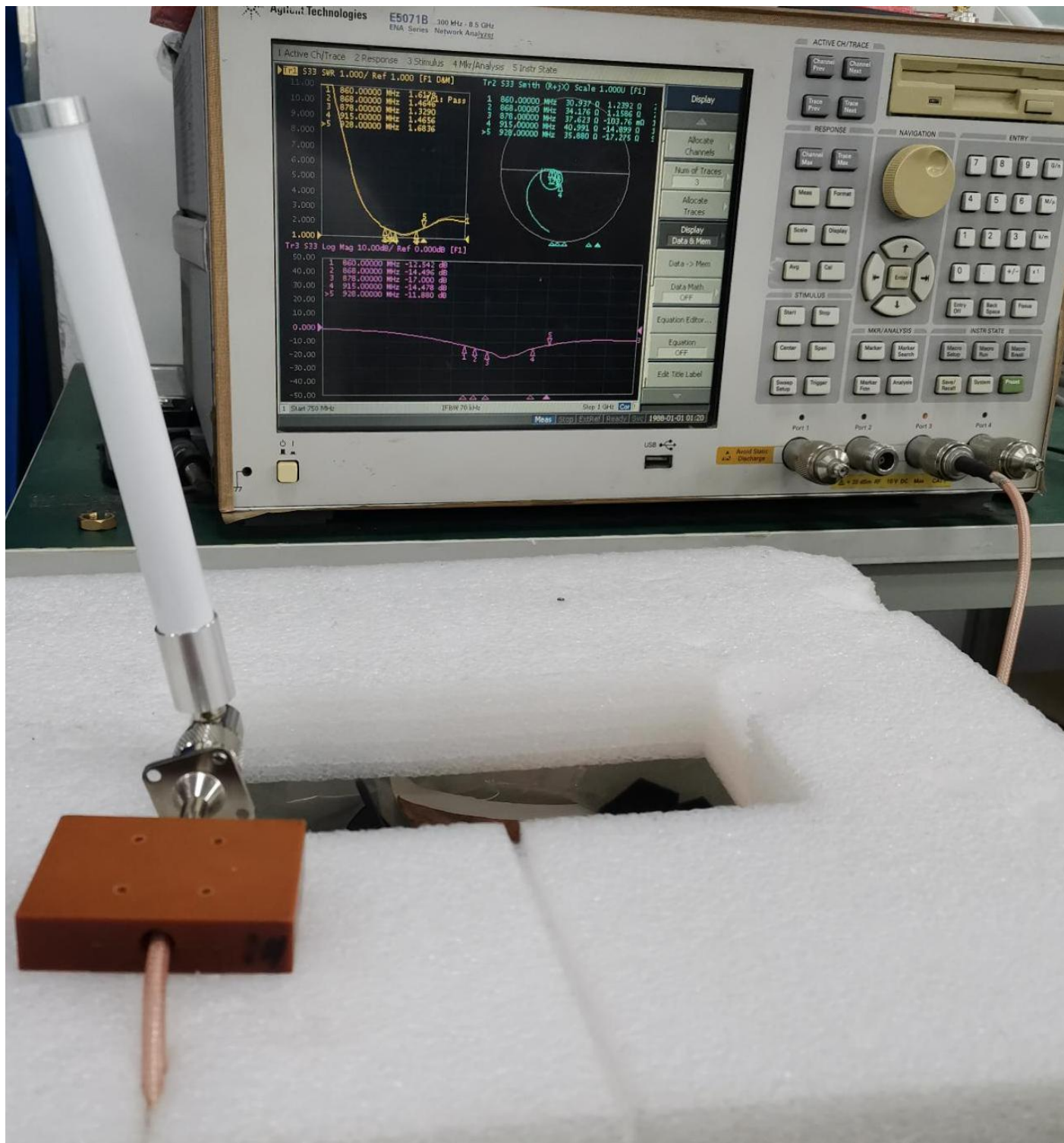
Product Name: HG Antenna

3. Characteristics and Reliability Test

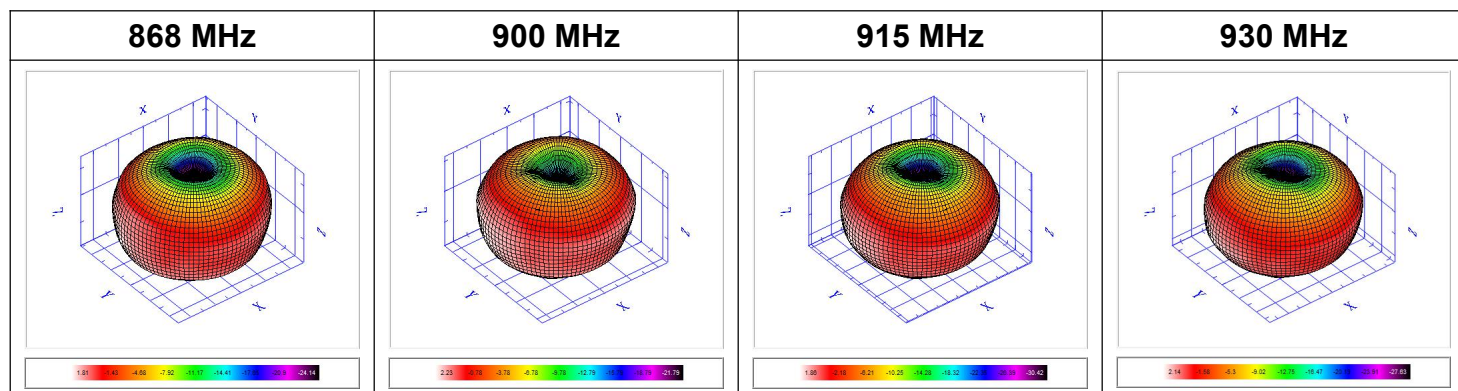
Test Items		Test Condition and Procedure	Requirements
C1	V.S.W.R.	Set DUT on Network Analyzer; make individual calibration to test	Directive DUT specification
C2	Antenna Gain	Set DUT on Antenna Chamber; make individual calibration to test	Directive DUT specification
E1	Salt Spray	GB / T 2423 . 17- 93 Temp: 35°C; RH: >= 95%; NaCl solution: >= 5%; Time: 72 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E2	Humidity	GB / T 2423 . 4 - 93 Temp: 80°C / 12 H; -40°C / 12H RH: >= 90%; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E3	Thermal Shock	GB / T 2423 . 22 - 87 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.)	GB /T 2423 . 2 - 89 Temp: 80°C; Time: 24 hours	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 2011/65/EU
R2	PFOS	With Reference to USA EPA 3540C:1996 by LC/MS	Directive RoHS 2006/122/EC
R3	PFOA	With Reference to USA EPA 3540C:1996 by LC/MS	Directive RoHS 2006/122/EC

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4. Antenna - S Parameter Test Data



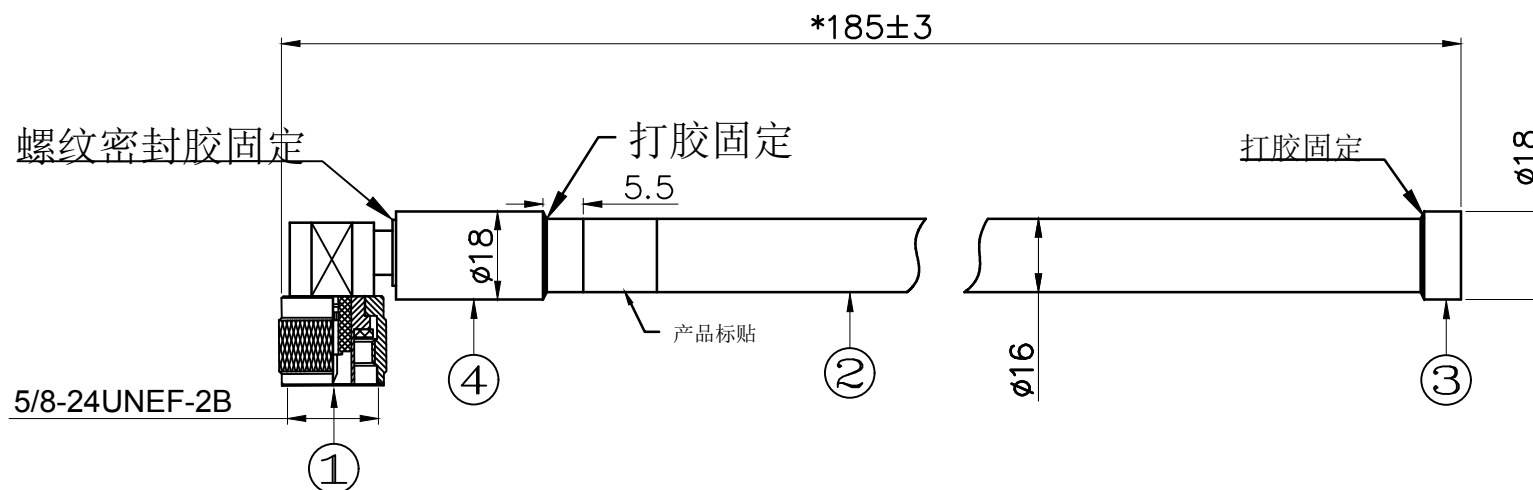
5. Antenna - Radiation Pattern Test Data



Frequency	868	875	882	900	908	915	922	930
TRP (dBm)	-1.07	-1.15	-1.59	-0.97	-1.49	-1.46	-1.29	-1.38
Peak EIRP (dBm)	1.81	1.77	1.3	2.23	1.6	1.86	2.12	2.14
NHPRP +/- 45 (degree)	-1.3	-1.38	-1.82	-1.21	-1.73	-1.72	-1.56	-1.66
NHPRP +/- 30 (degree)	-1.89	-1.96	-2.4	-1.8	-2.34	-2.34	-2.18	-2.28
E-Theta Peak Gain (dBi)	-14.85	-14.5	-14.01	-13.26	-14.11	-14.03	-13.61	-12.73
E-Phi Peak Gain (dBi)	1.8	1.75	1.29	2.21	1.59	1.84	2.09	2.12
E-Total Peak Gain (dBi)	1.81	1.77	1.3	2.23	1.6	1.86	2.12	2.14
Directivity (dBi)	2.88	2.92	2.89	3.2	3.08	3.31	3.41	3.53
Efficiency (%)	78.23	76.79	69.34	79.99	71.03	71.49	74.29	72.71

RoHS

SIGN	DATE	DESCRIPTION	APPROVER
△	2021/07/24	优化产品结构，由PCB改为铜管结构。	ZLB
△			
△			



Note:

1. Mark * is important dimension; "CpK "Identify for process control($CpK \geq 1.33$).
2. Tolerance: Unmarked tolerance refer to the standard tolerance please.

标贴内容

LORA Fiberglass Antenna
Model: ZC0895-HG0101WNN-W-185
Frequency: 860-930MHz
Gain: 1.5 dBi

东莞市众驰电子有限公司

TITLE: 860~930MHz Antenna

PART NO.: DS0895-HG0101WNN-W-185 CUSTOMER P/N: /

APP BY	CHK BY	RF BY	DES BY		Tolerance
			ZLB 2021/07/24	UNITS: mm SCALE: 1/1 REVISION: B	X.X ±0.5 X.XX ±0.2 X° ±1

No.	Part Number	Description	Material	Finish	Q'ty
5	LABEL-860-930	产品标贴	亚银	消银色 40*20*0.05mm	1
4	HG01-03	连接套筒	铝合金	银色 Ø18*25mm	1
3	R-HG01-02	Ø16管天线帽	铝合金	银色 Ø18*6mm	1
2	HG01-16150	Ø16玻璃纤维管	玻璃纤维	白色亮光 L=Ø16*150*2mm	1
1	R-00N-JW	N-JW连接器	黄铜	Nickel Plated	1