

Antenna Specification Approval Document

CUSTOMER NAME:	/				
Customer Material Code:	BLG-AN-020-868-915MHz				
TYPE NAME:	/				
SPECIFICATON:	Fiberglass antenna-868/915-SMA male and female pin-L=200MM				
一、 Newly Approved ☒ 二、 Material Approved ☐ 三、 SPEC Approved ☐					
Manufacturer/Supplier R&D Acknowledgment			Customer Confirmation		
(APPROVAL BY) :			(APPROVAL BY) :		
(APPROVAL DATE) : 2026-07-25			(APPROVAL DATE) :		
SUPPLIER			CUSTOMER		
RF:	Structures:	Business	TESTED	CHECKED	APPROVED

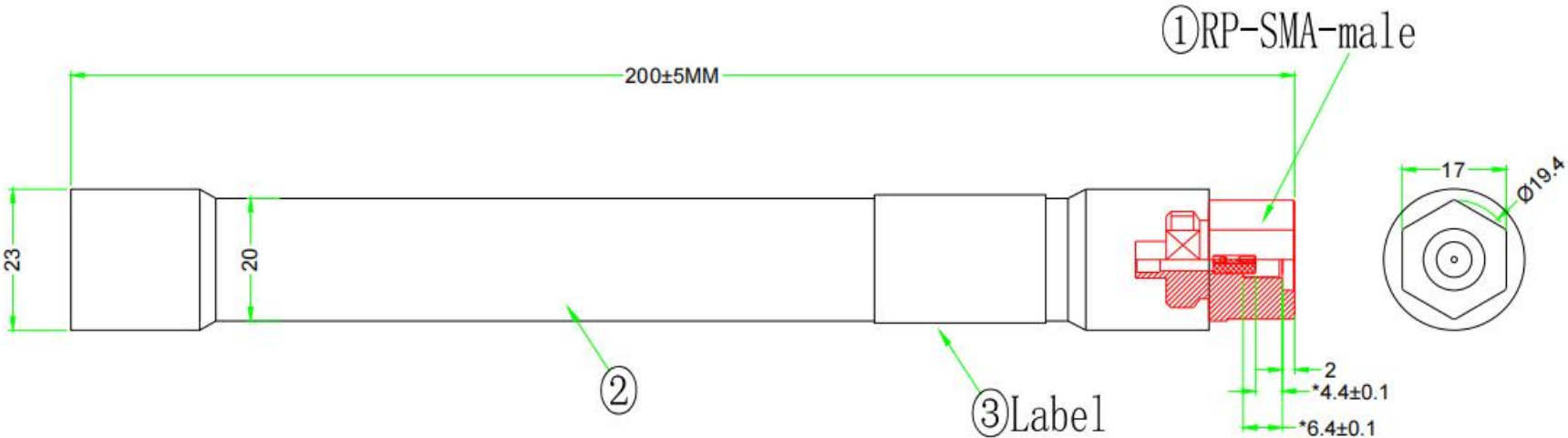
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Modify the record

Versions	Dates	RF	Modify the content
A0	2026-07-25		
A1	2026-09-01		

PARTS DRAWING		ROHS Compliant		REV	PRODUCT NO.	DATE	NAME	DESCRIPTION
				A0	FS-WZ-BLG-120	2026. 07. 25		Initial Issuance

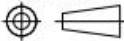


Ask

1. There is no broken skin or damage to the wire sheath.
2. The finished product must be 100% tested for continuity OK.
3. 100% inspection of finished products is required.
4. Adopt environmental protection process. The finished product meets ROHS requirements.

全向玻璃钢天线
频率: 868/915MHz
增益: 3DBi

PET white label

					Frequency Range	868/915MHz	ANGLE PROJECTION  GENERAL TOLERANCE 100~200: ± 3.00 50~100: ± 2.00 25~50: ± 0.20 10~25: ± 0.15 1~10: ± 0.1	PRODUCT NAME				
					Gain	3dBi		Fiberglass antenna-868/915-SMA male and female pin-L=200MM				
					VSWR	Comparing Waveforms		PRODUCT NO.	UNIT	M M	SIZE	1:3
					Polarization	vertical		FS-WZ-BLG-120	PAGE	1 OF 1	FORMT	A4
NO	Code	Name	Description	Q'ty	Impedance	50 Ω	operation temperature: -45℃~85℃ storage temperature: -45℃~85℃					
4				1								
3		Label paper	PET white label	1								
2		Glass rod	gray	1								
1		SMA	Male and female pins, nickel-plated, inner hole gold-plated, 1.004.1297	1								

Product Features Specification Table

一、Basic characteristics of the product:

DESCRIPTION	VALUE
Frequency Range	868/915MHz
Impedance	50 Ω
VSWR	≤ 2.0
MaxGain	1.19dBi
Radiation	Omni-directional
Polarization	vertical
Connector model	RP-SMA-male
Operating temperature	-45°C~+85°C
Storage temperature	-45°C~+85°C

二、Product size:

Dimensions (mm)	$\Phi 20*200\text{mm}$	Fixing method	/
Shell color	Gray	Connector Model	RP-SMA-male
cable	/		

Test data and graphs

1. Summary :

This report to account for the measurement setup and result of the Antenna. The measurement setup includes s-parameter, The measured data for Antenna are presented and analysis.

2. S-Parameter Measurement S :

A. Reflection coefficient :

(a) Instrument: Network Analyzer

(b) Setup:

(1) Calibrate the Network Analyzer by one port calibration using O.S.L. calibration kits.

(2) Connect the antenna under test to the Network Analyzer.

(3) Measure the S11(reflection coefficient) shown in Fig. 1.

(4) Generally, the S11 is less than -10dB to ensure the 90% VSWR 2.0:1 power into antenna and only less than 10% power back to system.

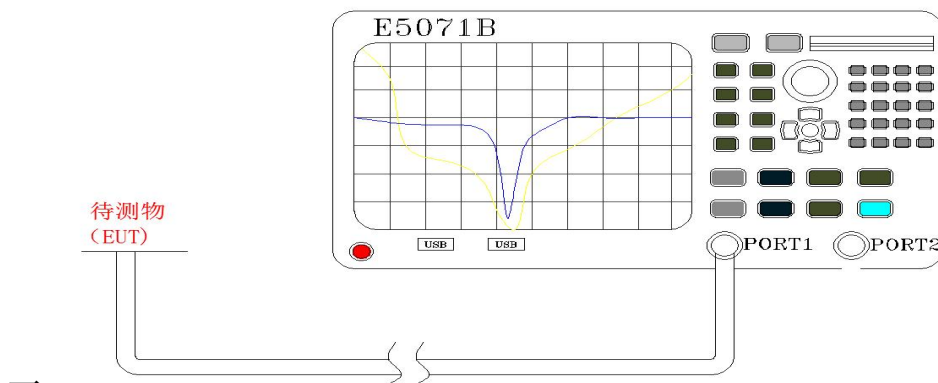


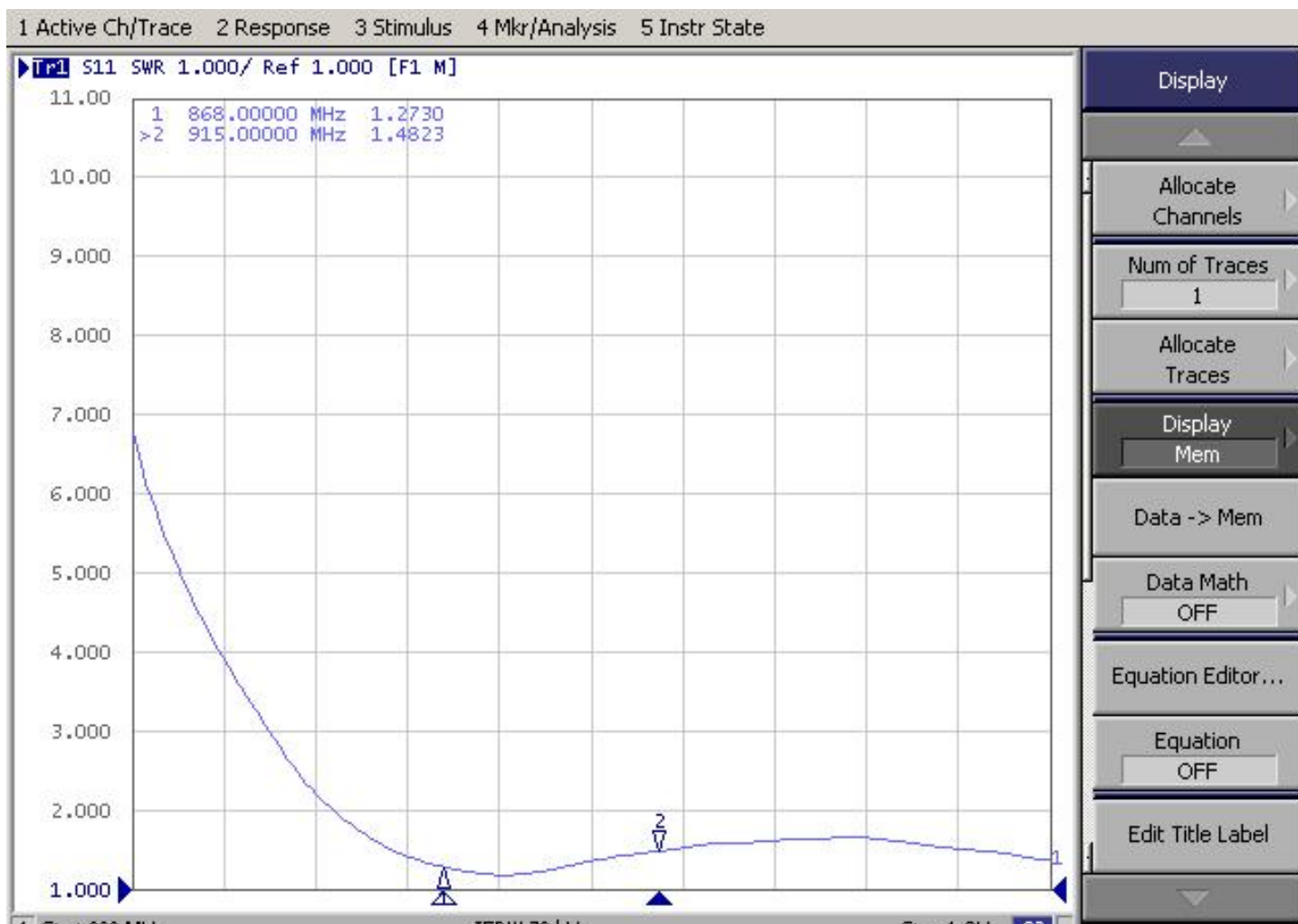
Fig.1 Antenna measured in Network Analyzer

3. S-Parameter Measurement Result S:

S-Parameter test data:

Frequency MHz	868	915
V.S.W.R	1.27	1.48
Gain	0.98dBi	1.19dBi
Efficiency	64.45%	58.28%

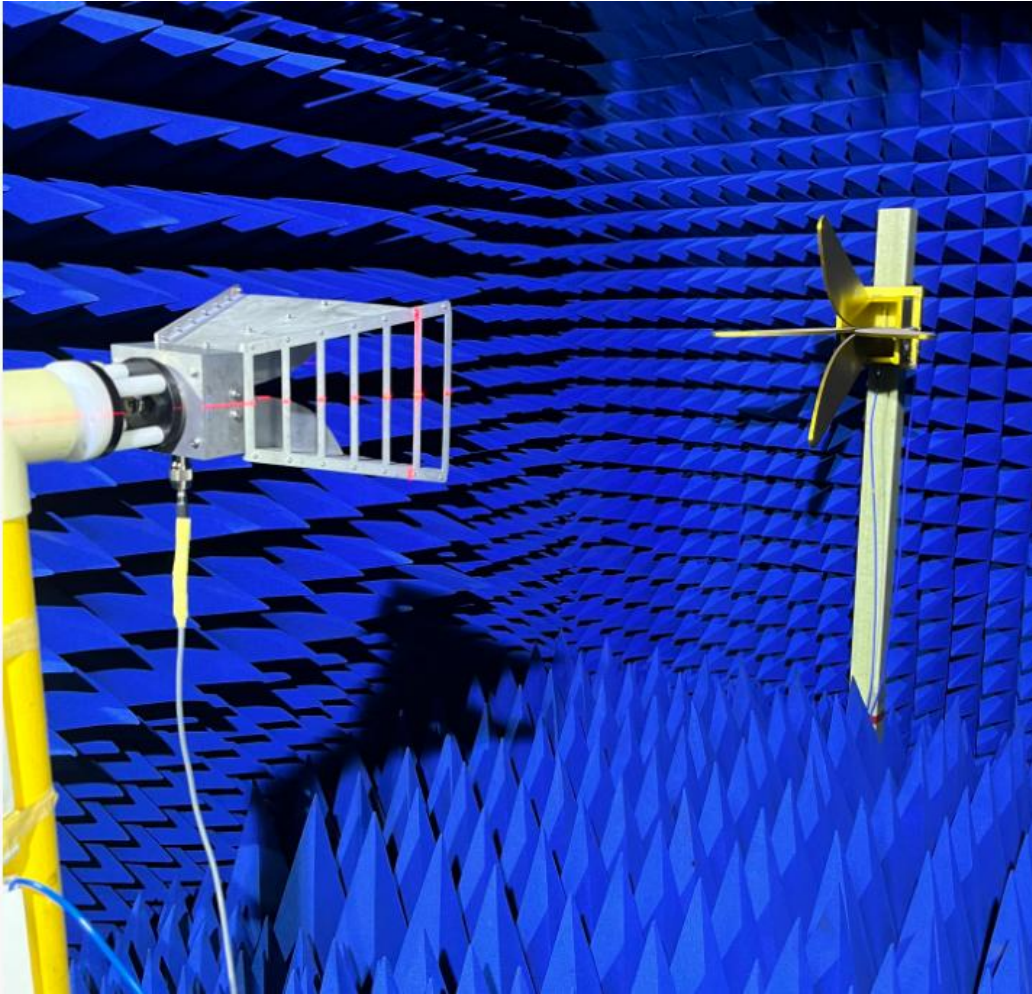
S-Parameter test image:



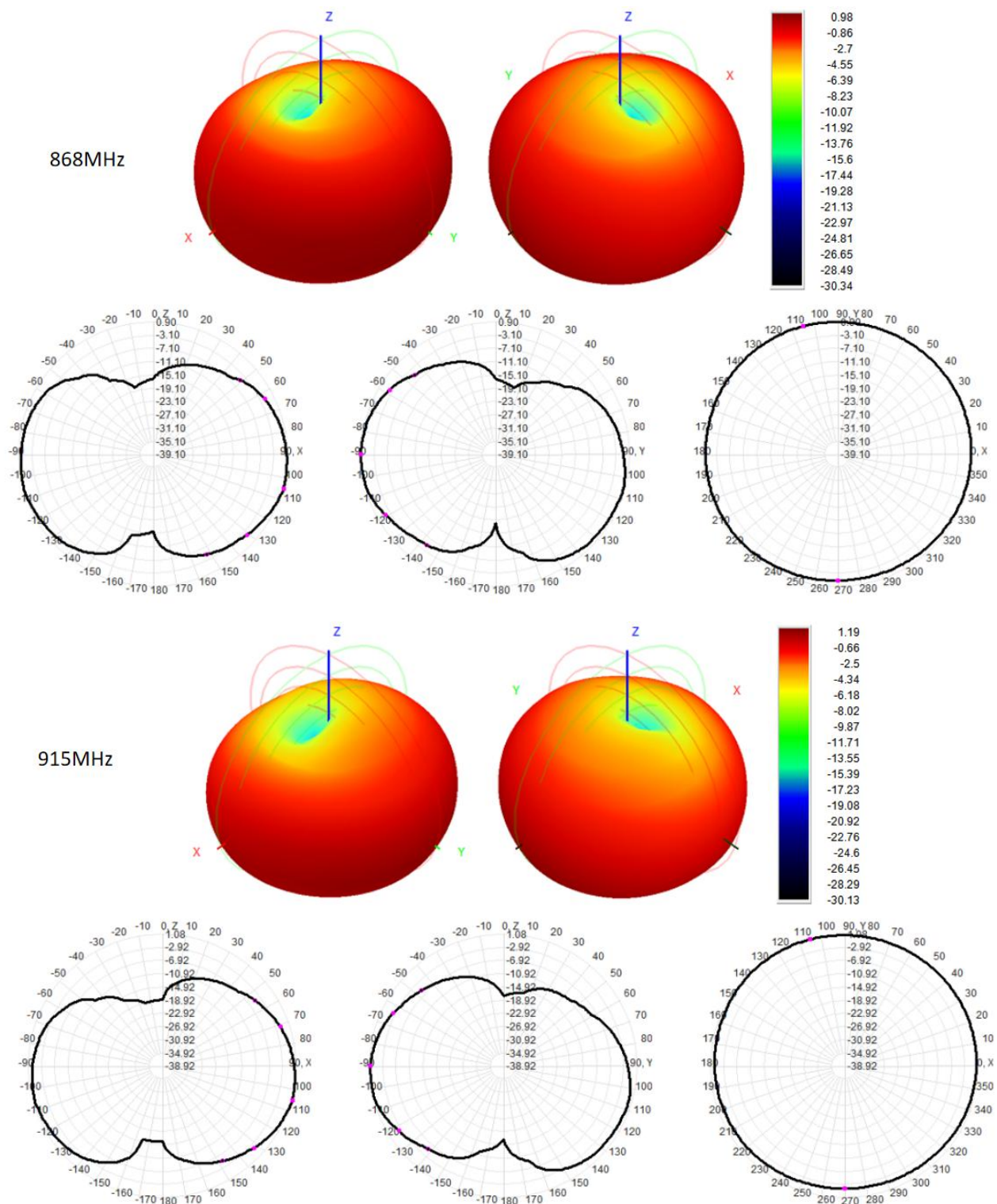
Actual product image:



Darkroom test environment:



2D\3D:



Environmental test requirements

Preface	Test items	Test methods and conditions	Test equipment	Test results
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1	Temperature and humidity test	Reference E1A 364-31 Method Three, Test Condition A The purpose of this test process is to conduct detailed standard tests. The products used are affected by high humidity and heat. Influence the performance of the material for evaluation.	K.SON INS THS-A4L-150	Qualified
		Requirements: Temperature: 85°C Humidity: 90~95% (R.H) Time : 72 hours		
2	Low temperature test	Refer to Test Specification The measured sample should be traveled in a temperature-balanced environment, and its temperature setting Set at -45 ° C	K.SON INS THS-A4L-150	Qualified
		Requirements : Time : 24 hours		
3	High temperature test	Refer to Test Specification: The measured sample should be placed in a constant temperature environment, and the gas temperature should be set at 70°C.	K.SON INS THS-A4L-150	Qualified
		Requirements : Time : 24 hours		

Environmental test requirements

Preface	Test items	Test methods and conditions	Test equipment	Test results
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4	Hot and cold	Refer to Test Specification: The measured sample should be placed in a fixed environment, and the temperature should be set at -45~85°C.	K.SON INS THS-A4L-150	Qualified
	tests	Requirements : More than 8 hours.(30 minutes/time, 12 cycles)		
5	Salt spray test	Refer to Test Specification: The tested sample should be placed in a fixed environment: NaCL Concentration: 40-60g/1Kg PH value: 6.5-7.2 Test time: 24 hours 1.Gold-plated products are not allowed to peel with rust spots. 2.Other nickel-plated, tinned and galvanized products shall not have more than two rust points on the same shaft or surface.	Salt spray tester	Qualified

Mechanical test requirements

Preface	Test items	Test methods and conditions	Test equipment	Test results
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1	Vibration test	Test condition A The purpose of this test process is to evaluate the products used in the detailed standard test methods, which are moved or moved to affect the performance of the material.	Vibration tester	Qualified
		Requirements : Vibration range: 10-55HZ Displacement amplitude value: 0.35mm Acceleration amplitude: 50.0M/S Number of frequency sweeping cycles: 30Times		
2	DROP TESTS	Refer to Test Specification: The measured sample should be placed at a certain height, and its height should be set to 1 meter, and it should fall freely 3 times in the direction of 6 surfaces.	Drop test fixtures	Qualified
		Requirements : The mechanical characteristics of the product are normal after the drop test.		

Mechanical test requirements

3	Tula test	Refer to Test Specification: Fix the object under test through the fixture, and after applying a certain force in the opposite	Tile tester	Qualified
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		direction, the product assembly shall not fall off.		
		Requirements: 1. The product assembly cannot fall off. 2. Minimum tensile force: 1.2KG		

Note: performs the above mechanical and environmental parameter tests before R&D and trial delivery.