APPROVAL SHEET

CUSTOMER NAME	Ruilian Technology	
CUSTOMER P/N	54.07.001.0147	
PART NAME	2.4G/5G Ruilian White Waterproof split Antenna	
P/ N	YJC-60302-W42	
APPROVAL REV.	A0	
DELIVERY DATE	October 22, 2024	
PREPARED BY	Yin Feijie	
CHECKED BY	Fang Wenfeng	
APPROVED BY	Chauhan	
Customer Approved		
Prepared By	Checked By	Approved By

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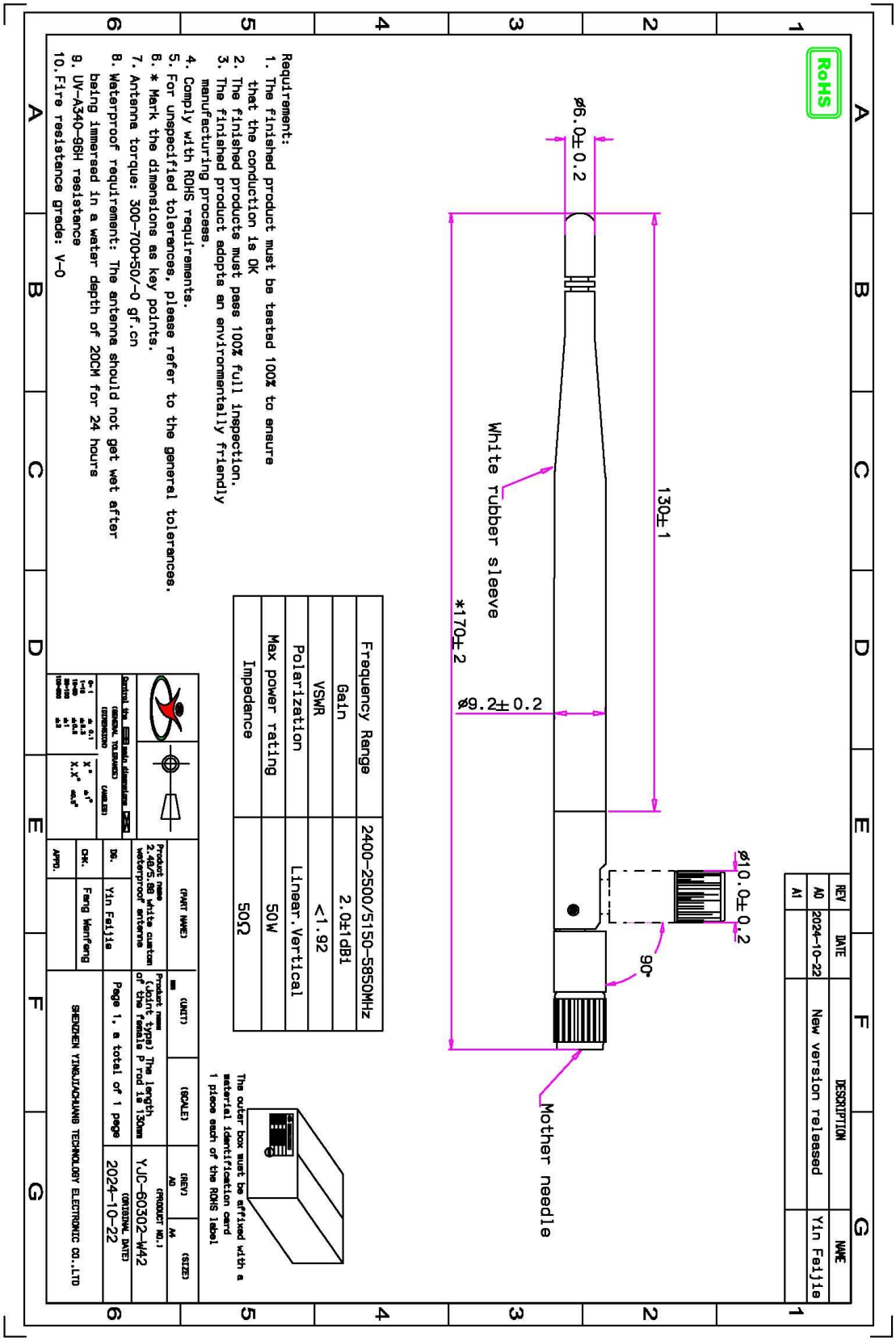
catalogue

Resume：

Version	Change content and reasons for the change	Date	Issue
A0	First edition release	October 22, 2024	

Antenna floor plan：



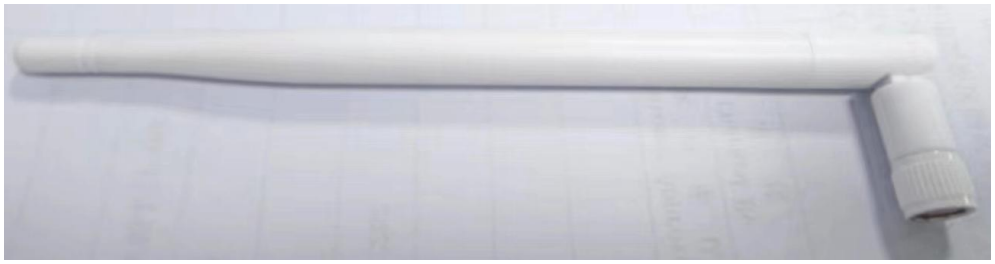
resume：

Electrical technical parameter			
Electrical Specifications		Mechanical Specifications	
Frequency Range	2400-2500/5150-5850MHz	Antenna Color	White
VSWR	＜1.92	Input connector	SMA
Input Impedance	50 Ω	Working Temperature	-20℃~+70℃
Direction	All	Working Humidity	20%~80%
Gain	2.0±1dBi		

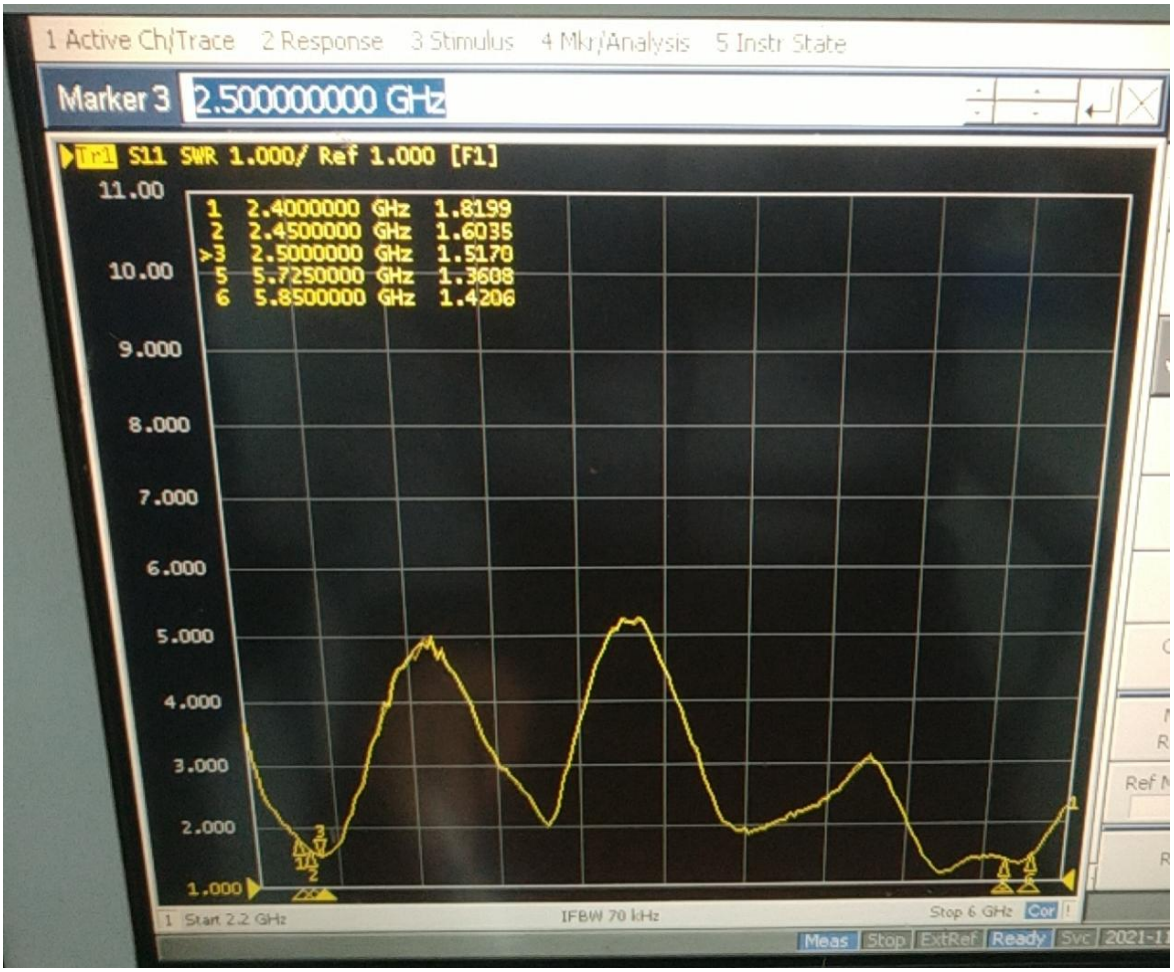
Environmental performance test:

Project	Test condition	Standard
Storage Conditions	In the absence of specified test temperature, humidity, air pressure is as follows:: 1. Temperature is - 30 ℃ ~ + 80 ℃ 2. Relative humidity of 45% to 45% 3. Air pressure is 86 kpa to 106 kpa	Electrical and mechanical performace is normal
High and low temperature test	Between 70 ℃ and -20 ℃ for 5 loops, then 1-2 h under normal conditions, check the appearance quality.	Size should meet the requirements and meet the performance of mechinery and electric.
Constant damp and hot resistance test	95 + / - 3% relative humidity, temperature test: 40 ℃. Lasts 2 h after, try to take out the determination of electrical properties, within 5 min after try 1-2 h under article normal thing, check the appearance quality	Size should meet the requirements and meet the performance of mechinery and electric.
vibration test	10-55 hz, vibration frequency range of displacement amplitude: 0.35 MM, acceleration amplitude: 50.0 M/S, sweep cycles: 30 times	Electrical and mechanical performace is normal
Fall down test	1 m high altitude in accordance with the perpendicular axis free drop 3 times	Electrical and mechanical performace is normal

Antenna diagram：



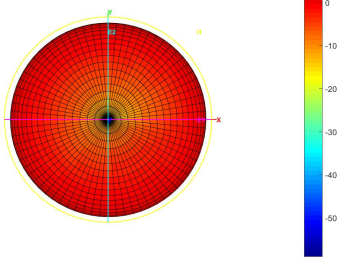
Antenna performance test diagram：



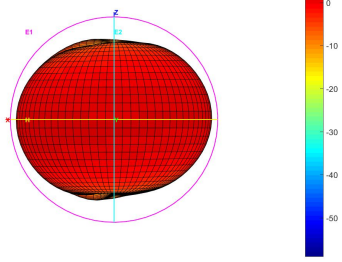
2D and 3D test data (2.4G):

Frequency	Efficiency (%)	Gain.(dBi)
2400MHz	84.92	2.21
2410MHz	86.70	2.30
2420MHz	87.70	2.49
2430MHz	89.54	2.59
2440MHz	87.90	2.60
2450MHz	87.30	2.68
2460MHz	87.70	2.77
2470MHz	87.10	2.89
2480MHz	84.92	2.83
2490MHz	86.50	2.81
2500MHz	84.14	2.64

Total_3D_H_2.4GHz



Total_3D_E1_2.4GHz



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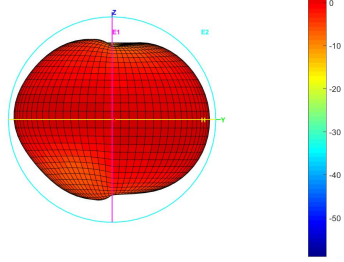

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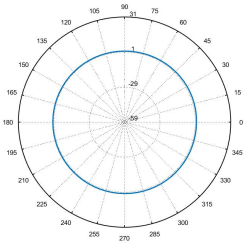

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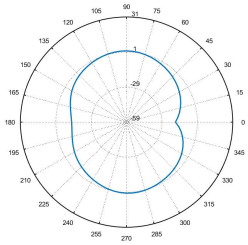

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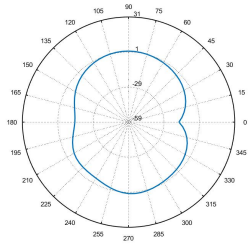
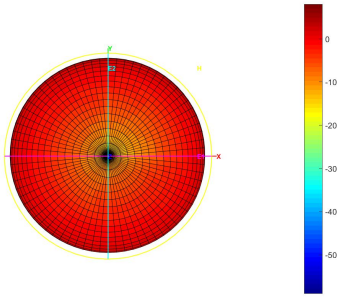


Total_3D_H_2.45GHz



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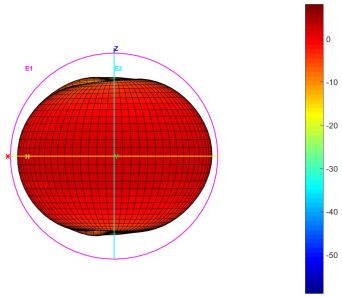

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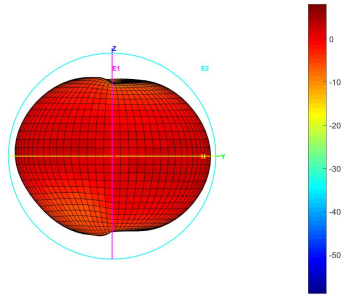

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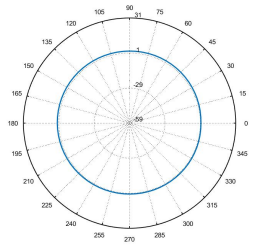

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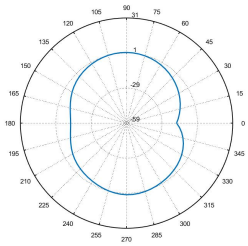

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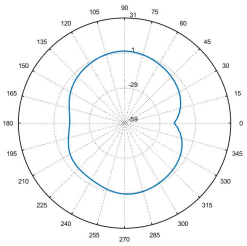
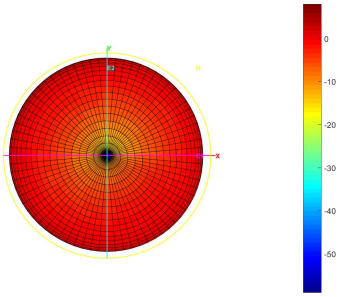


Total_3D_H_2.5GHz



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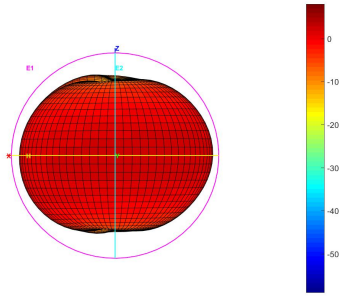

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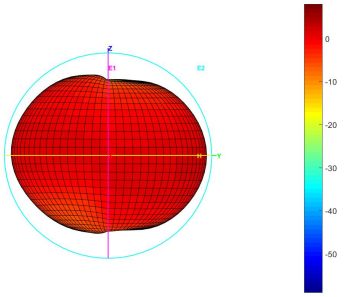

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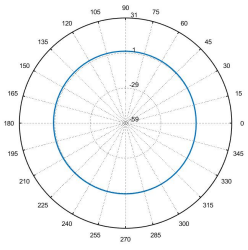

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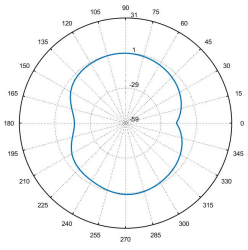

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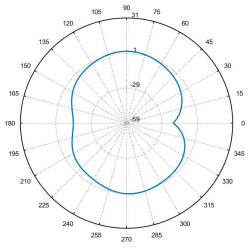
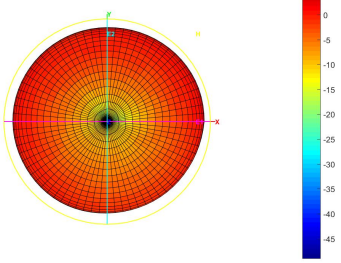


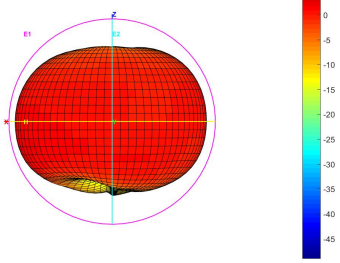
2D and 3D test data (5.8G):

Frequency	Efficiency (%)	Gain.(dBi)
5150MHz	66.53	1.44
5250MHz	78.16	2.02
5350MHz	74.64	2.32
5450MHz	81.10	2.55
5550MHz	73.62	2.06
5650MHz	73.96	1.98
5750MHz	71.12	2.19
5850MHz	62.52	1.47

Total_3D_H_5.15GHz



Total_3D_E1_5.15GHz



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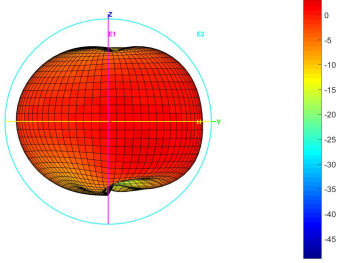

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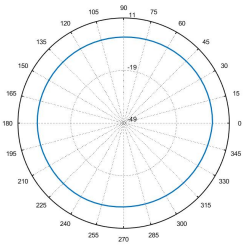
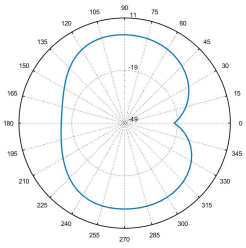


Total_Polar_E1_5.15GHz



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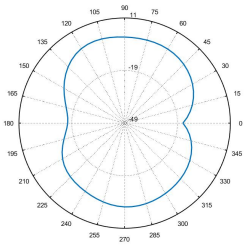

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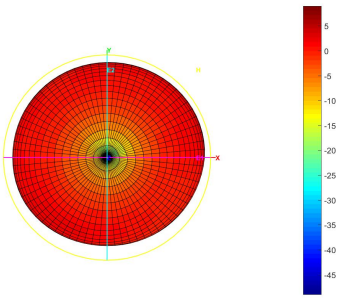

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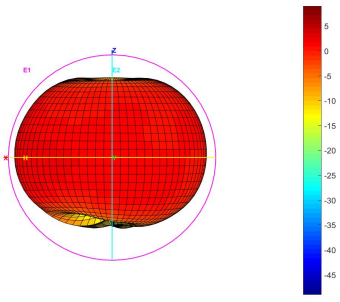

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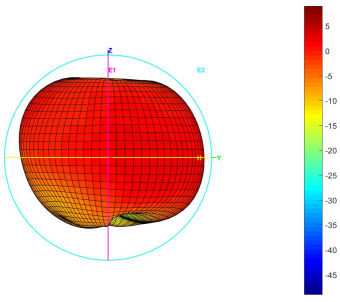

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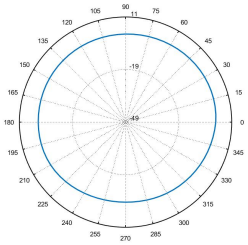

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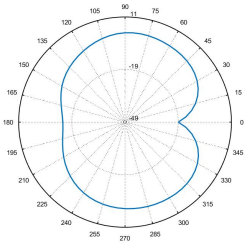

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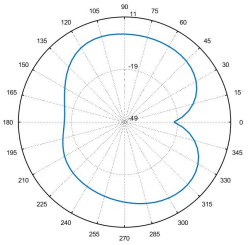
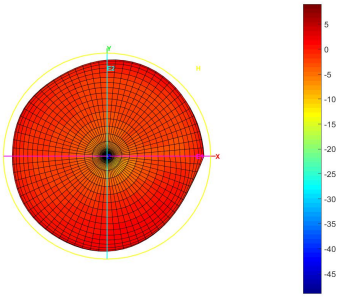
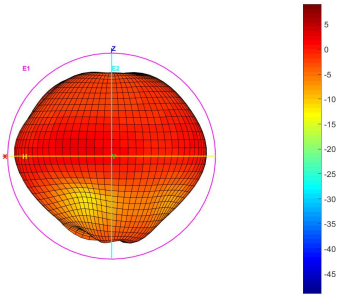


Total_3D_H_5.85GHz



Total_3D_E1_5.85GHz



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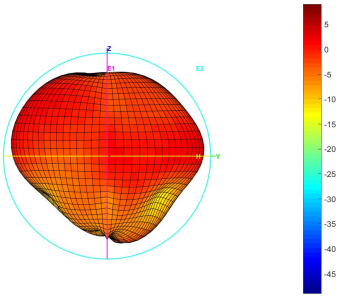

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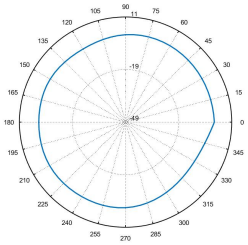

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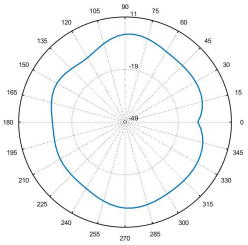

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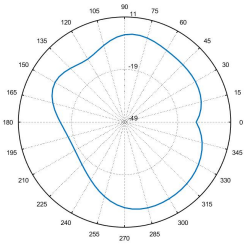

Material RoHS conformity declaration form

This is to certify that the delivery to your company's components, raw materials, auxiliary materials used and the additives in the production engineering are accord with RoHS environmental requirements of the restrictions on the use of hazardous substances directive (RoHS directive 2011/65 / EU)

About components used raw materials, packaging materials, auxiliary materials and additives used in the production process such as composition of the report is as follows:

Component /Part Name	Material Composition	ICP report #	Test Org.	Test Date	Content of harmful substances (ppm)						PASS?
					Cd	Pb	Hg	Cr $^{6+}$	PBB	PBDE	PASS
Rod sleeve + fireproof	TPE	A2240237691171001	CTI	24/10/17	ND	ND	ND	ND	ND	ND	PASS
	PC	SZXPC25000043101	SGS	25/01/10	ND	ND	ND	ND	ND	ND	PASS
	PC +PBT	A2250006875128001	CTI	25/02/25	ND	ND	ND	ND	ND	ND	PASS
	POM	EKR24B01872M01	SGS	24/12/03	ND	ND	ND	ND	ND	ND	PASS
Copper tube	Brass strip	NGBEC24002403406	SGS	24/05/14	ND	11	ND	ND	ND	ND	PASS
Tin wire	Tin wire	SZXPC25000282511	SGS	25/02/27	ND	71	ND	ND	ND	ND	PASS
Wire rod	RG178 coaxial cable	SZXEC24002490602	SGS	24/08/08	ND	ND	ND	ND	ND	ND	PASS
Heat shrink tubing	Heat shrink tubing	CANEC24010420806	SGS	24/05/24	ND	ND	ND	ND	ND	ND	PASS

Silicone plug	Silicone rubber	CANPC24018716802	SGS	24/08/29	ND	ND	ND	ND	ND	ND	PASS
SMA	Rubber core	TAOEC24005791401	SGS	24/08/26	ND	ND	ND	ND	ND	ND	PASS
	Brass	CANEC25000093414	SGS	25/01/09	10	26483	ND	ND	ND	ND	PASS
	Gold coating	SZXPC25001098202	SGS	25/04/10	ND	92	ND	ND	ND	ND	PASS
	Nickel coating	SZXPC25001098206-1	SGS	25/04/10	ND	91	ND	ND	ND	ND	PASS