

SHENZHEN DELLRUN TECH CO.,LTD.

SPECIFICATION FOR APPROVAL

Customer Name: LEXIN

Product Model Name: AT69045-244ST

Antenna Description: 2.4G 1.37 Black cable L=58mm

Antenna Type: Fixrd Antenna

Antenna Trademark: N/A

Date: 2022-5-28 Version:A2

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	YAOJI	
AUDITOR BY:	JUN	
APPROVED BY:	LIANG	
DATE:	2022-5-28	

Manufacturer : SHENZHEN DELLRUN TECH CO.,LTD.

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1. Product Photo:



2. Product features:

- a. Peak Gain 2.4G 3.59 dBi
- b. Efficiency is high
- c. Assembly is simple

3. Main technical specifications:

Main technical specifications	
Frequency Range(MHZ)	2400–2500
Impedance(Ω)	50 ± 10
Gain(dBi)	3. 59
Efficiency(%)	69. 34
ReTurnLoss(dB)	$\leq -9. 5$
VSWR	$\leq 2. 0$
Admitted Power	1W
Polarization	Linear, Vertical
Radiation	Omni-directional
Connector Type	Cable

Physical Properties	
Operating Temp	-20°C~+60°C
Storage Temp	-20°C~+70°C

4. Electrical Specification :

Those specifications were specially defined for test Stream model.

5. VSWR

5.1 Measuring Method

1. A 50Ω coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the VSWR
2. Keeping this jig away from metal at least 20cm

5.2 Measurement frequency points and VSWR value

Frequency (MHz)	2400	2450	2500	aux
Return Loss	-13.666	-27.795	-13.041	< -10
VSWR	1.5234	1.0849	1.5738	< 2



6. Anechoic Chamber

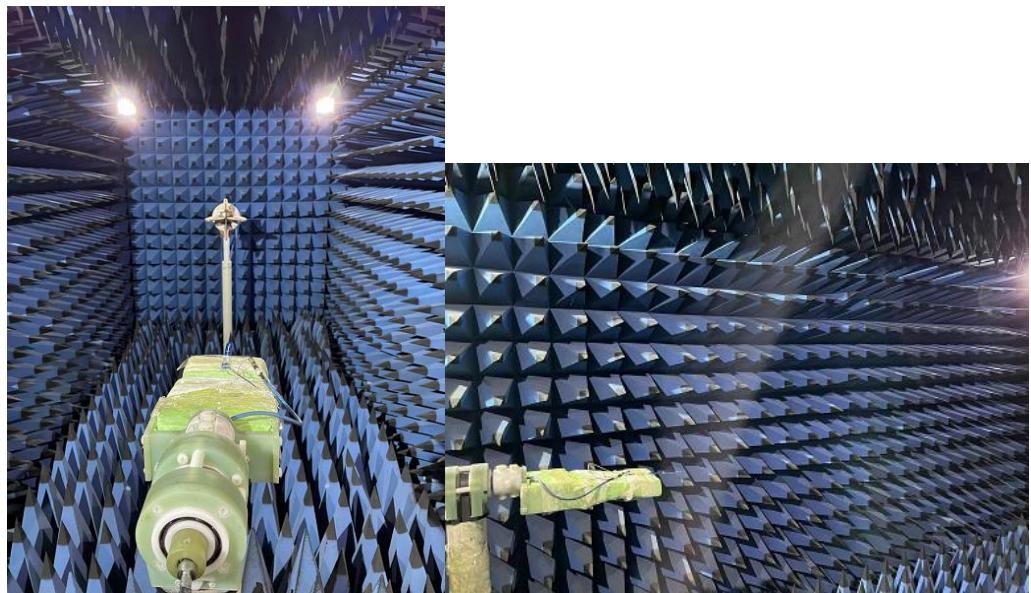
Introduction:

Microwave darkroom and no reflection chamber, absorbing short wave darkroom dark room. Microwave darkroom by electromagnetic shielding room, filtering and isolation, grounding device, the ventilation duct, indoor distribution system, monitoring system, ceiling wave material part. It is based on the wave absorbing material as the lining of the shield room, it can absorb the most of the electromagnetic energy into the six wall is a better simulation of the free space conditions.

The main working principle of microwave anechoic chamber is according to the electromagnetic wave in the medium from the low magnetic guide magnetic direction of propagation rules, absorbing materials to guide the electromagnetic wave using high permeability, through resonance, a substantial absorption of electromagnetic wave radiation energy, by coupling the electromagnetic energy into heat energy.

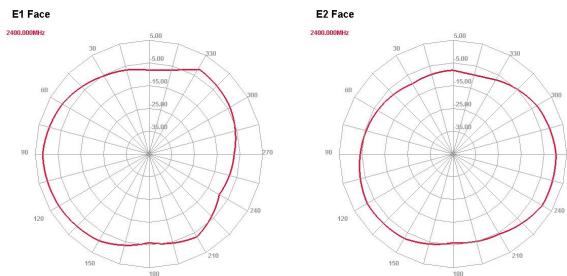
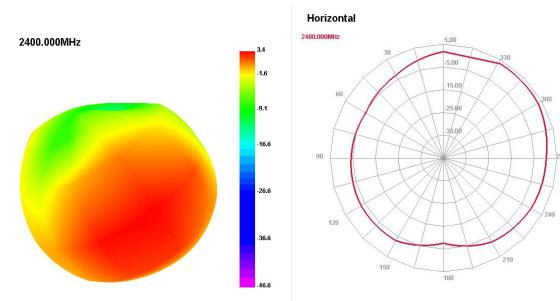
Main performance :

Frequency range:400MHz ~ 6GHz ceiling reflected wave loss materials: 400MHz ~ 6GHz is equal to or more than 15dB (microwave absorbing material by composite wave absorbing materials, namely tapered containing carbon sponge suction wave material paste in ferrite)

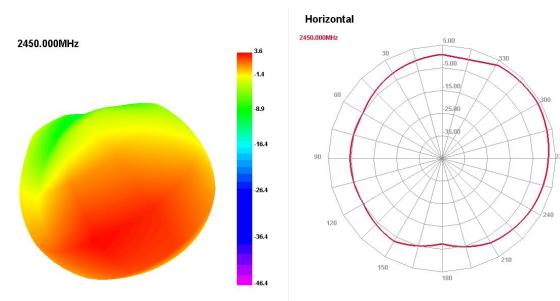


7. 2D、3DRaditation Pattern

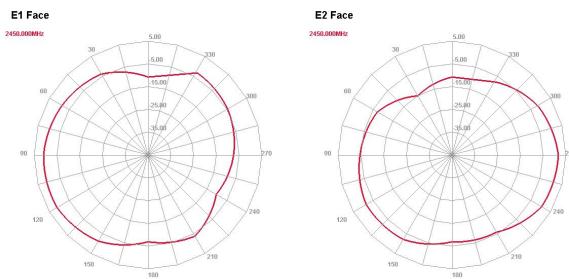
2. 4G



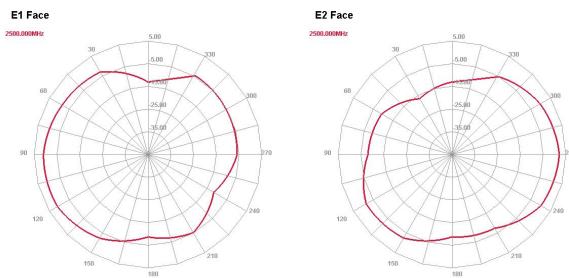
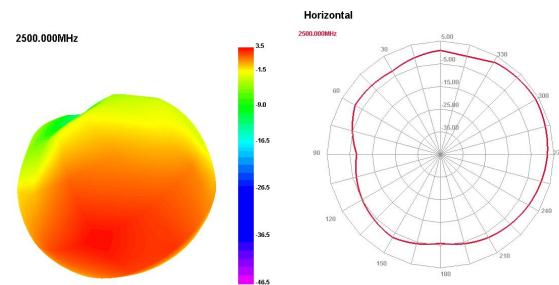
2. 45G



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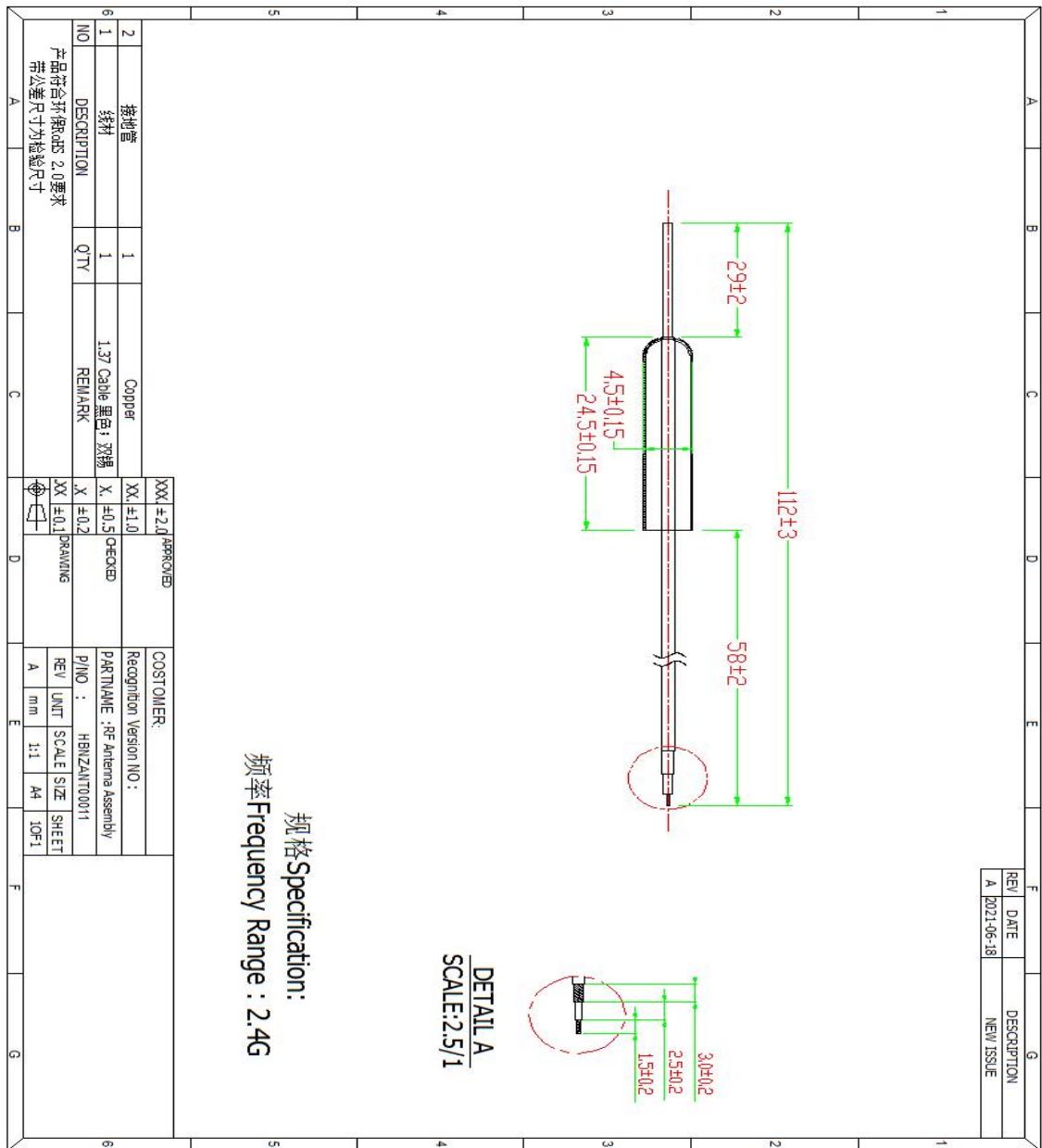
2.5G



Gain/ Efficiency

Freq (MHz)	Effi (%)	Gain (dBi)
2400	67.82	3.41
2410	68.34	2.74
2420	66.5	3.18
2430	68.64	3.12
2440	67.17	3.42
2450	67.74	3.59
2460	69.34	3.13
2470	66.83	3.35
2480	67.62	3.25
2490	67.93	3.28
2500	68.32	3.52

8. Antenna Dimensions



9. ROHS:

Antenna HBNZANT00011 meets RoHS2.0 requirements.

*****END*****