



APPROVAL SHEET

CUSTOMER NAME		
CUSTOMER P/N		
PART NAME	433MHz black FPC built-in antenna, (For bell 15S models)	
P/ N	YJC-6N030-B09	
APPROVAL REV.	V1. 0	
DELIVERY DATE	2024-03-28	
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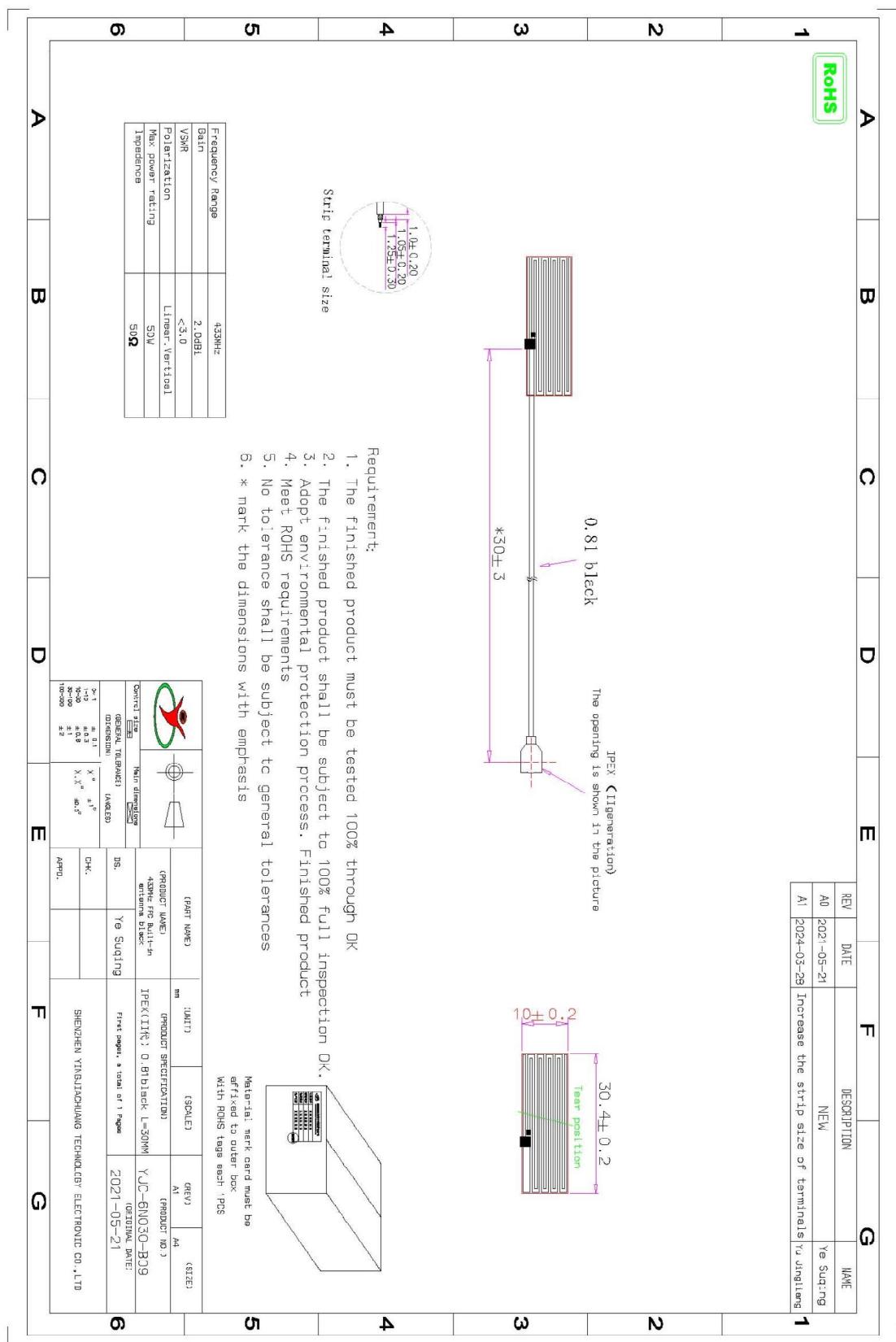


Resumer:

Version	Change contents and reasons	Date	Issue
V0	NEW	May 21, 2021	
V1.0	Increase the strip size of terminals	Mar 28, 2024	



The antenna's floor plan:





Antenna technical parameters and environmental testing:

Electrical parameters of electrical apparatus			
Electrical Specifications		Mechanical Specifications	
Frequency Range	433MHz	Cable Color	black
VSWR	<3.0	Input connector	IPEX (II)
Input Impedance	50 Ω	Cable length	30mm
Direction	All	Working Temperature	-20°C~+70°C
Gain	0.44dBi	Working Humidity	20%~80%

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 - 20 °C ~ + 70 °C 2. Relative humidity of 45% to 45% 3. Air pressure is 86 kpa to 106 kpa	Electrical and mechanical properties is normal
high and low temperature test	Between 70 °C and -20 °C for 5 loops, then 1-2 h under normal conditions, check the appearance quality.	Size should meet the requirements and should satisfy the content with the electrical and mechanical properties
Constant damp and hot resistance test	95 + / - 3% relative humidity, temperature test: 40 °C. 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 should satisfy the content with the electrical and mechanical properties
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 properties is normal
fall down test	1 m high altitude in accordance with the perpendicular axis free drop 3 times	Electrical and mechanical properties is normal



Physical picture of antenna and attach location picture:



Antenna performance test chart:

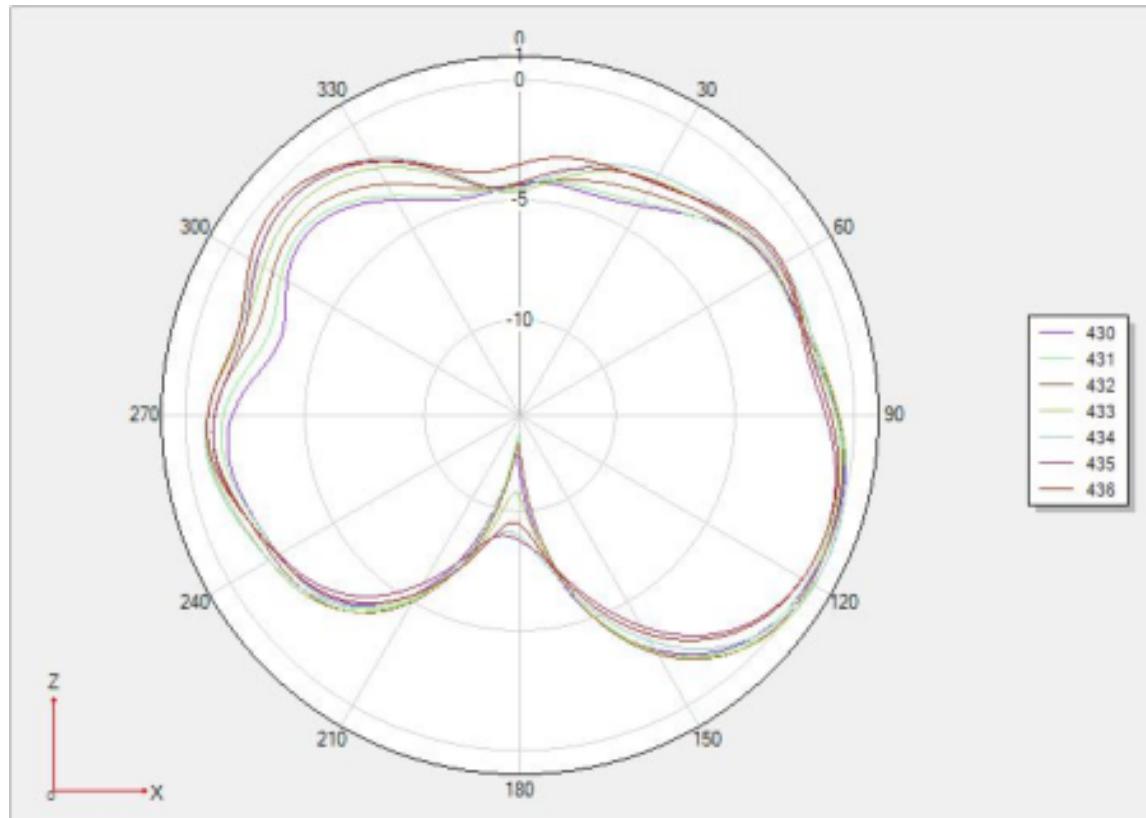




2D,3D Antenna pattern testing:

Frequency (MHz)	Efficiency (%)	Gain. (dBi)
430MHz	40.76	-0.06
431MHz	41.70	0.08
432MHz	44.04	0.44
433MHz	45.40	0.67
434MHz	43.04	0.43
435MHz	38.05	-0.30
436MHz	33.66	-1.14

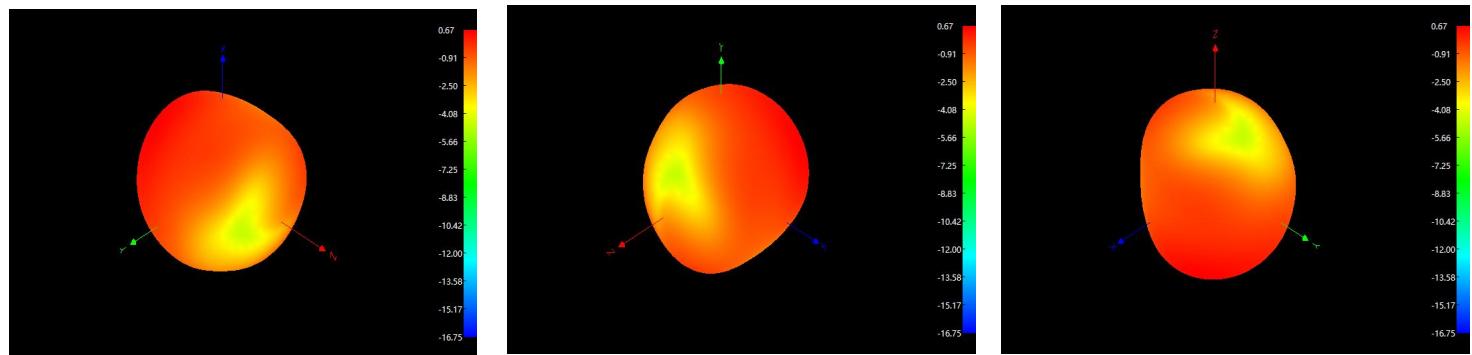
(Phi 0 2D graph)





3D Test Fig

(3D 433MHz)





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	
wire rod	Teflon coaxial cable	CANEC24002746203	SGS	24/02/22	ND	ND	ND	ND	ND	ND	PASS
Eco-friendly tin wire	Eco-friendly tin wire	SHAEC23006357502	SGS	23/05/23	ND	43	ND	ND	ND	ND	PASS
terminal	phosphor bronze	CANEC24000977302	SGS	24/01/22	ND	6	ND	ND	ND	ND	PASS
	gold plate	A2230400553101001E	CTI	23/08/12	ND	ND	ND	ND	ND	ND	PASS
	rubber core	ETR23705931	SGS	23/08/04	ND	ND	ND	ND	ND	ND	PASS
FPC	printing ink	ETR23701480	SGS	23/07/13	ND	ND	ND	ND	ND	ND	PASS
	3M9471LE	SHAEC23021627701	SGS	23/12/27	ND	ND	ND	ND	ND	ND	PASS
	Copper foil substrate	A2230250776101001E	CTI	23/06/02	ND	ND	ND	ND	ND	ND	PASS