

Modification History

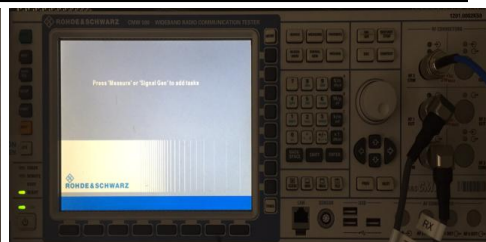
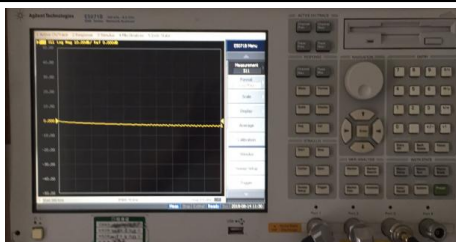
Version	Content Revision	Issued by	Date
A	Original version	Eddy	2024-5-30

1. Electrical Specification

Characteristics	Specifications	Unit
Outline Dimensions	4.5x18.5	mm
Frequency	433	MHz
Impedance	50	Ω
VSWR	< 2	
Polarization	Linear Polarization	
Gain	-4 REF	dBi
Efficiency	>10	%
Connector Type	/	
Operating temperature	-20℃~+85℃	
Storage Temp	-20℃~+50℃	

2. Test Items and Equipment

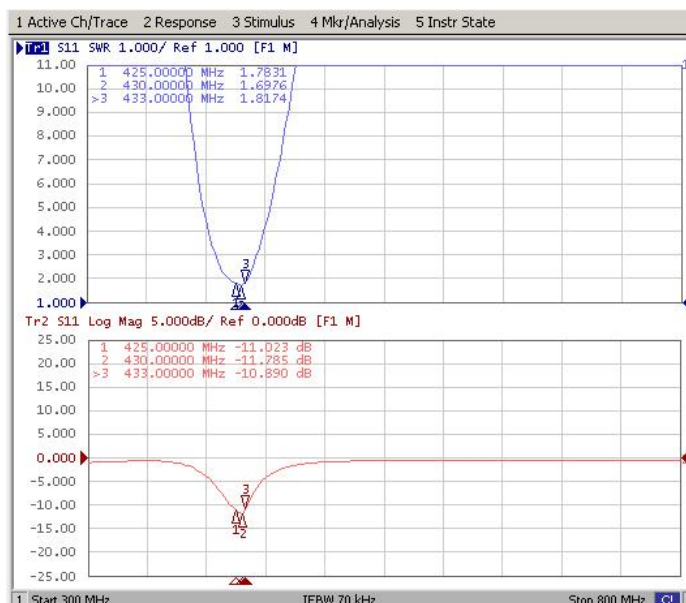
	Test items	Test equipment
S Parameter	1.Return Loss 2.VSWR	Network analyzer (Agilent E5071B)
The whole machine of Passive parameters	1.Frequency 2.Gain 3.Radiation Pattern	1.3D microwave darkroom (5m*5m*5m) 2.Network analyzer (Agilent E5071B)
The whole machine of Active parameters	1.TRP 2.TIS	1.3D microwave darkroom (5m*5m*5m) 2.Comprehensive test instrument (CMW500)



3. S Parameter

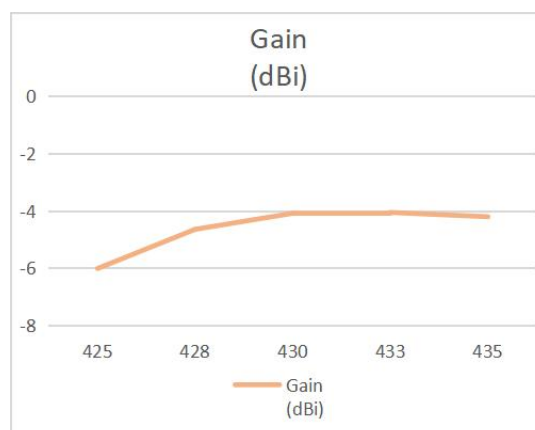
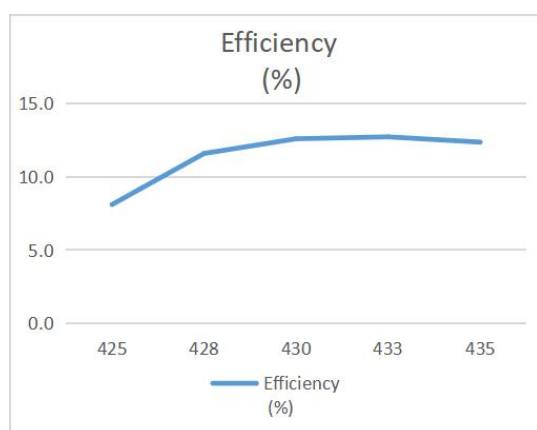
Frequency (MHz)	Return Loss (dB)	VSWR
425	-11.02	1.78
430	-11.78	1.69
433	-10.89	1.81

* Voltage Standing Wave Ratio(VSWR)
Return Loss(RL)
 $RL = 20 * \log_{10}[(VSWR + 1) / (VSWR - 1)]$



4. Efficiency and Gain

Frequency (MHz)	425	428	430	433	435
Efficiency (%)	8.10	11.58	12.58	12.71	12.35
Gain (dBi)	-6.01	-4.64	-4.08	-4.05	-4.20

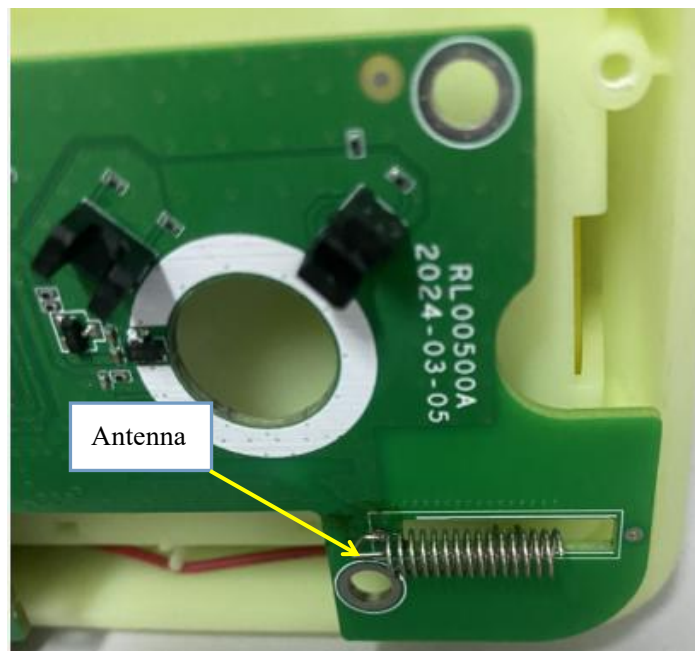


H-XY

E1-XZ

E2-YZ

6. Antenna installation diagram



7. Mechanical Specification

