

PSA

佳邦科技股份有限公司

INPAQ TECHNOLOGY CO., LTD.

**PSA**

**PASSIVE SYSTEM ALLIANCE**  
**INPAQ TECHNOLOGY CO., LTD.**

# 天彩\_K7

Presented by  
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<b>Version</b>	<b>Date</b>	<b>Description</b>	<b>Author</b>
V01	2022/11/09	New Release	FangTan Jin

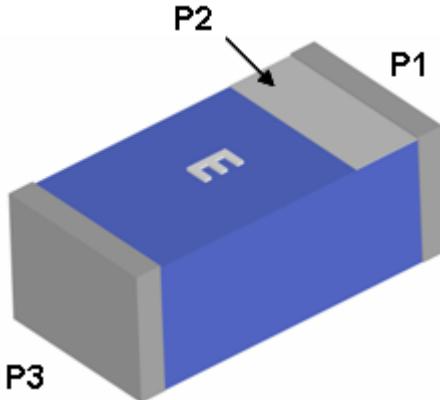
## FEATURES

1. Surface Mounted Devices with a small dimension of 3.2 X 1.6 X1.2 mm<sup>3</sup> meet future miniaturization trend.
2. LTCC process
3. High stability in Temperature / Humidity Change
4. Multilayer ceramic antenna(chip antenna)

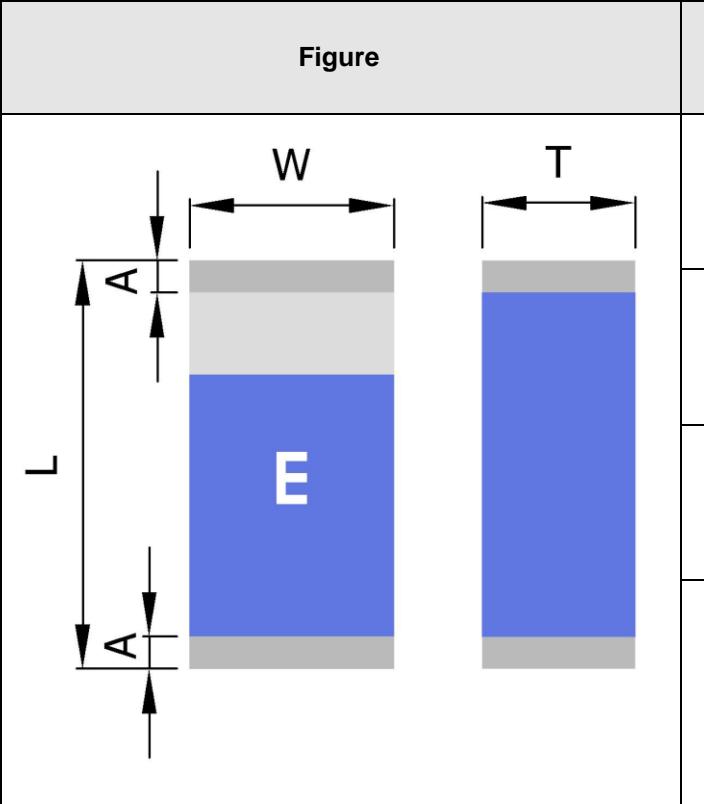
## APPLICATIONS

1. 2.4GHz ISM band RF applications
2. Bluetooth, Wireless, HomeRF

## CONSTRUCTION



PIN	Connection
1	Feeding
2	Identification Mark
3	Soldering terminal

Figure	Symbol	Dimension (mm)
	L	3.20 ± 0.20
	W	1.60 ± 0.10
	T	1.20 ± 0.10
	A	0.25 ± 0.15

# OUTLINE

## 1. Measurement Information

1.1 Experimental Setup

1.2 Antenna Solution Detail

## 2. Antenna Characteristics

2.1 S-Parameter

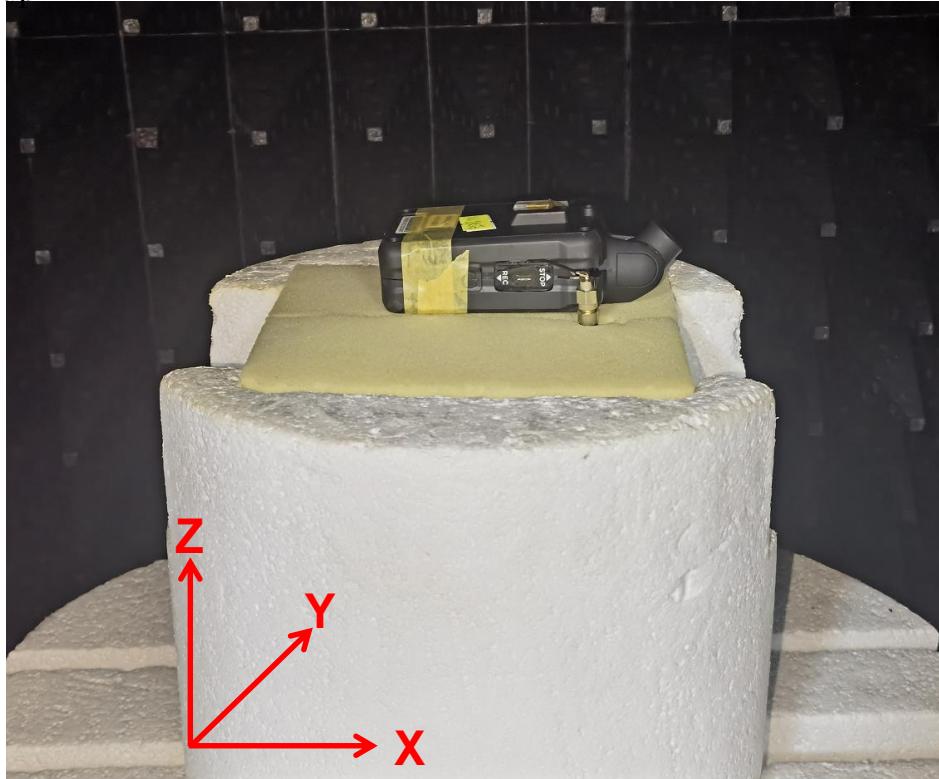
2.2 Antenna Efficiency and Peak Gain

2.3 3D Pattern & 2D Radiation Patterns

2.4 Summary Table

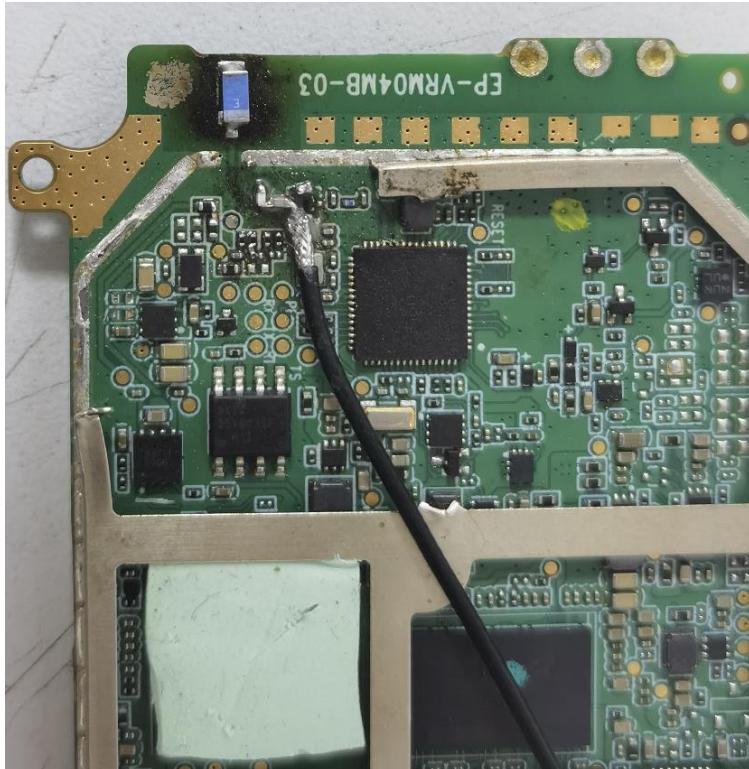
# 1. Measurement Information

## 1.1 Experimental Setup

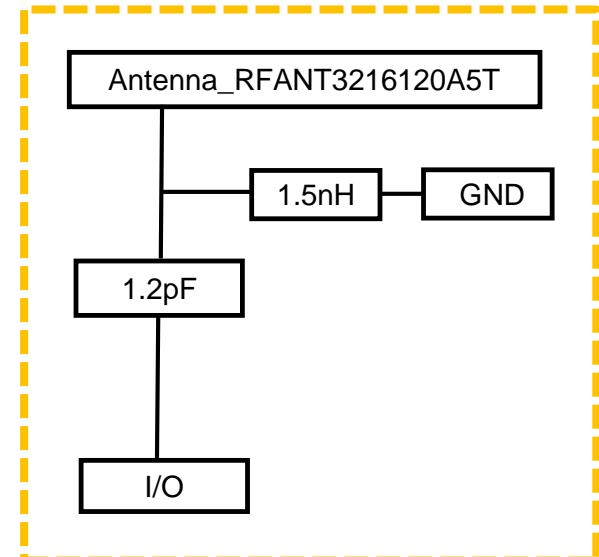


# 1. Measurement Information

## 1.2 Antenna Solution Detail

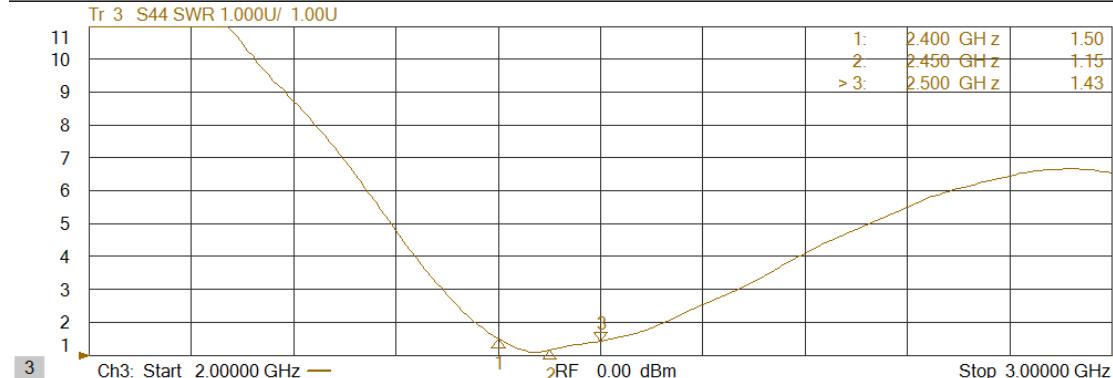
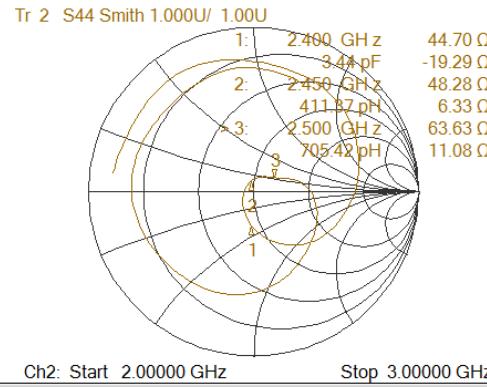
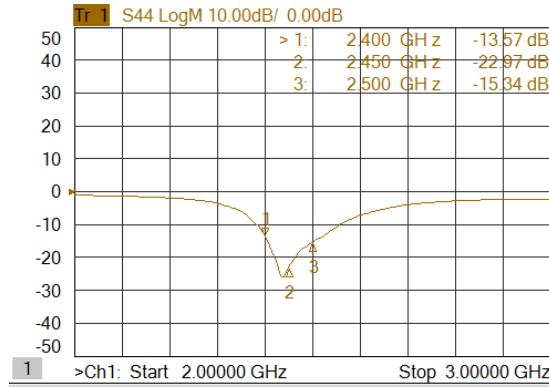


*Matching values*



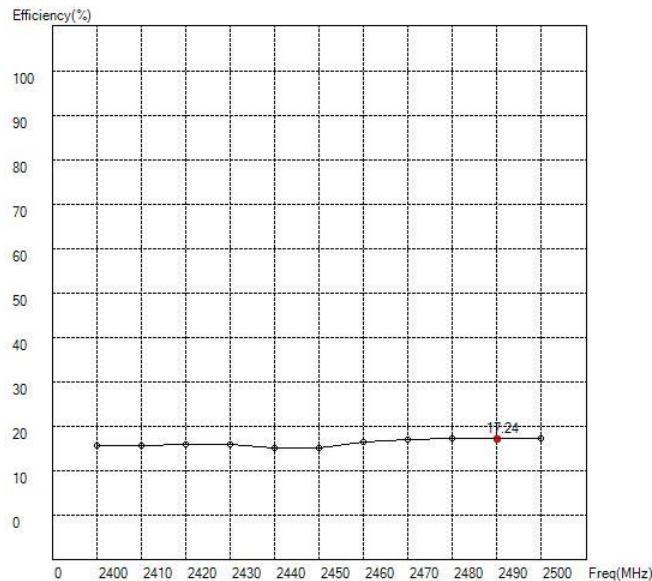
## 2. Antenna Characteristics

### 2.1 S-Parameter

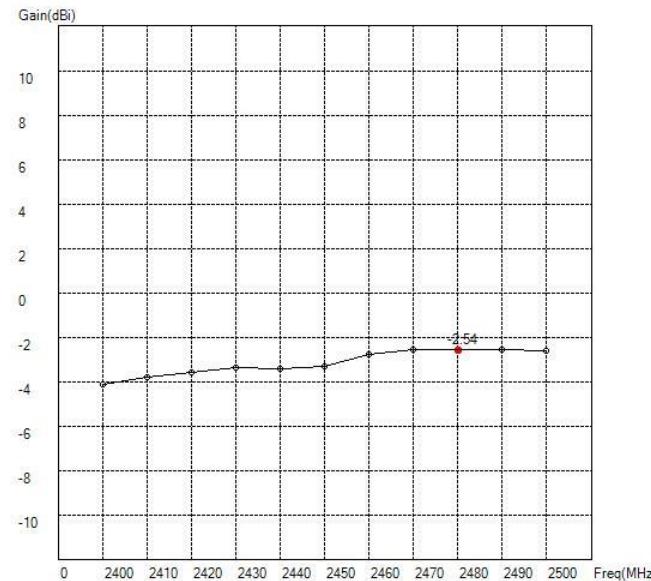


## 2. Antenna Characteristics

### 2.2 Antenna Efficiency and Peak Gain



Maximum Efficiency at 2490MHz : 17.24 %

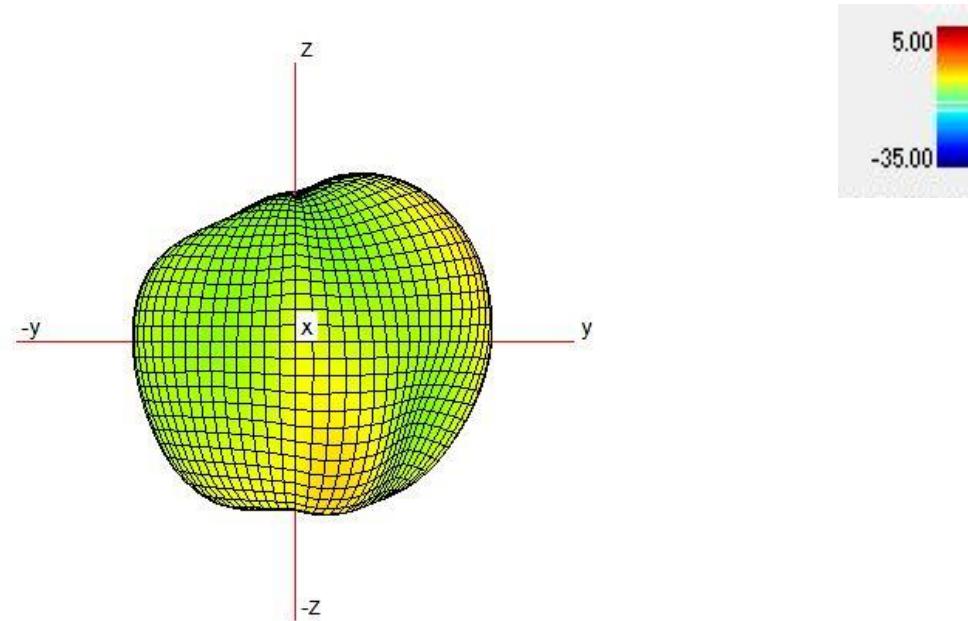


Maximum Peak Gain at 2480 MHz : -2.54 dBi

## 2. Antenna Characteristics

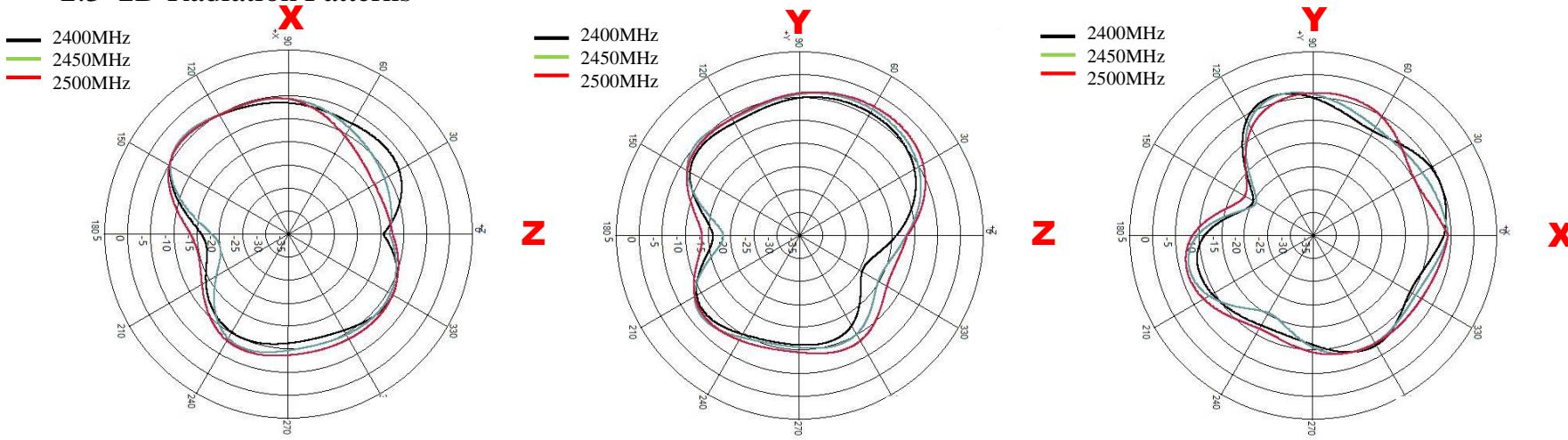
### 2.3 3D Pattern

**2450 MHz**



## 2. Antenna Characteristics

### 2.3 2D Radiation Patterns



	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]
2400	-5.11	-8.48	-4.18	-8.27	-5.03	-8.21
2450	-4.96	-8.49	-3.27	-7.29	-4.25	-8.13
2500	-5.04	-8.37	-2.60	-6.71	-3.98	-7.59

## 2. Antenna Characteristics

### 2.4 Summary Table

ANT			
Frequency (MHz)	2400	2450	2500
Efficiency (%)	15.55	15.21	17.19
Peak gain (dBi)	-4.12	-3.27	-2.60

# Thank you

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