

PCB antenna specification

1. Product model

PCB antenna

2. Features

- *Stable and reliable in performances
- *Low temperature coefficient of frequency
- *Low profile, compact size
- *RoHS compliance

3.Applications

- *Bluetooth earphone systems
- *Hand-held devices when Bluetooth functions are needed, e.g., Smart phone.

4. Description

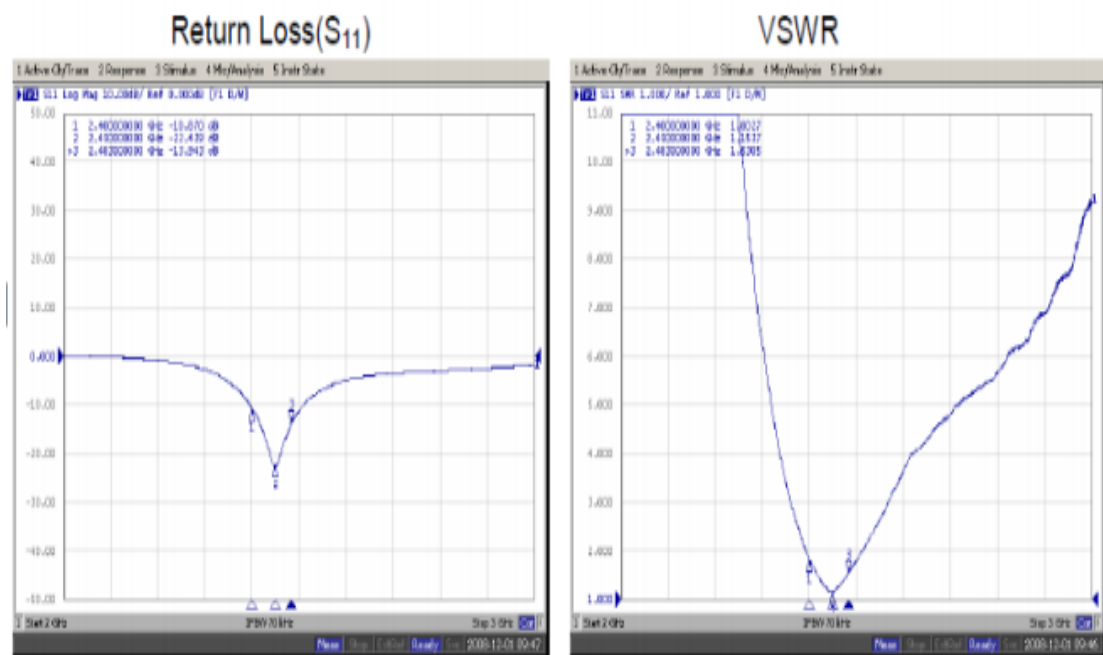
The antenna are specially designed for Bluetooth applications. Based on proprietary design and processes, this antenna has excellent stability and sensitivity to consistently provide high signal reception efficiency

5. Electrical Specifications

5-1

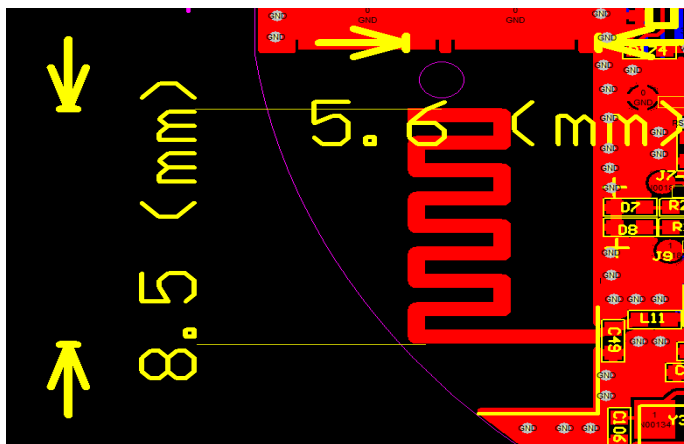
Characteristics		Specifications	Unit
Outline Dimensions		5.6×8.5	mm
Working Frequency		2442	MHz
Bandwidth (under -10dB return loss)		100min	MHz
VSWR		2MAX.	
Impedance		50	Ω
Polarization		Linear Polarization	
Gain**	Peak	0.95 (typical)	dBi
	Efficiency	84 (typical)	%
Temperature Coefficient of Frequency		0±20max (@-40℃~85℃)	ppm/℃
** Working frequency will be offset to another frequency according to the conditions of users ground plane and radome.			
**The data was measured by A Test Lab Techno Corp.(CTIA Authorized Test Lab).			

5-2



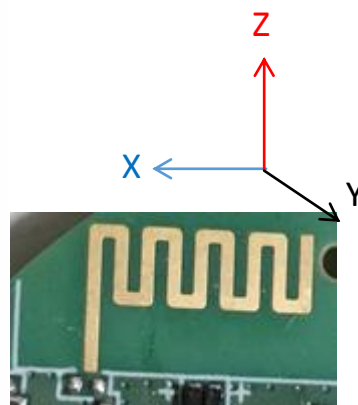
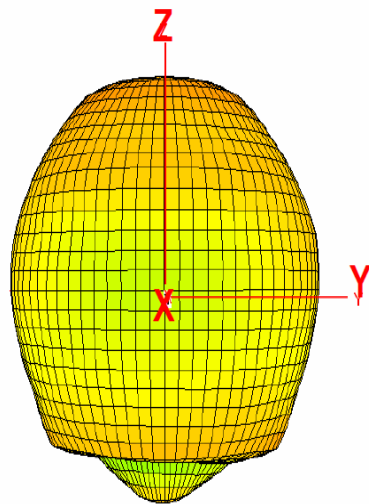
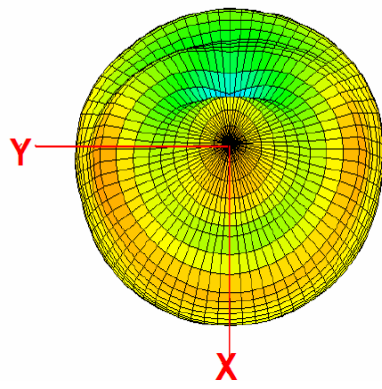
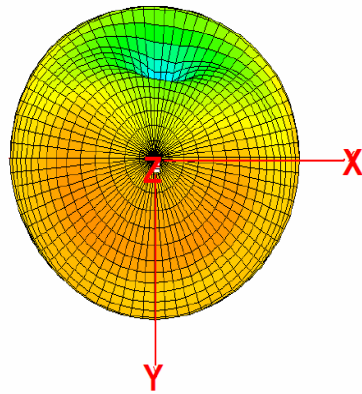
6. Antenna Dimensions(unit:mm)

a. AntennaDimensions



7. Radiation Pattern

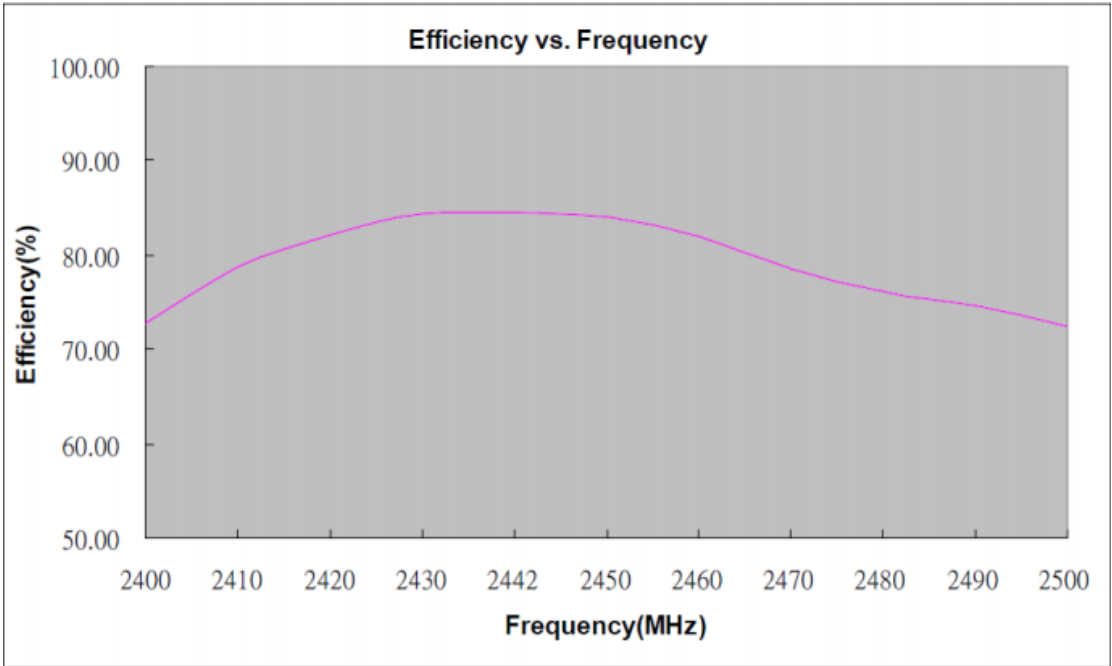
7-1.3D Gain Pattern at (2442MHz)



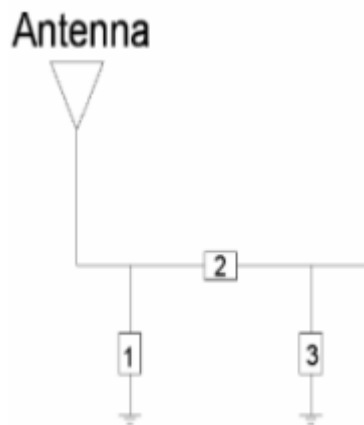
7-2. Efficiency Table

Frequency(MHz)	2400	2410	2420	2430	2442	2450	2460	2470	2480	2490	2500
Efficiency (dB)	-1.38	-1.04	-0.85	-0.74	-0.73	-0.76	-0.86	-1.05	-1.18	-1.27	-1.40
Efficiency (%)	72.83	78.71	82.27	84.39	84.53	84.04	82.00	78.60	76.14	74.64	72.50
Gain (dBi)	0.55	0.6	0.71	0.82	0.95	0.95	0.8	0.69	0.65	0.63	0.59

7-3.Efficiency vs.Frequency

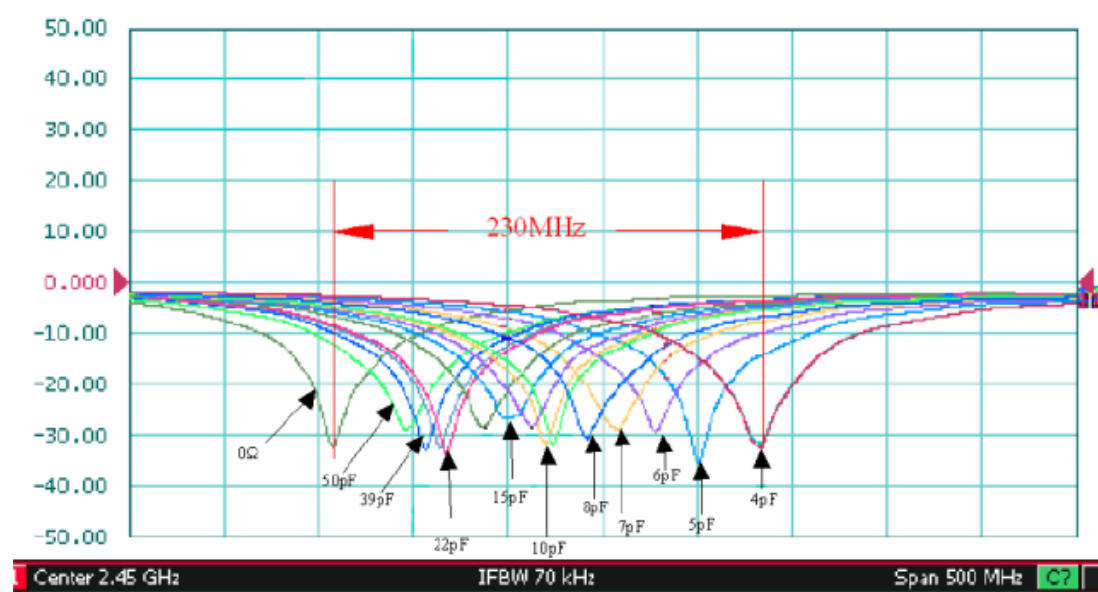


8. Matching circuit:



System Matching Circuit Component		
Location	Description	Vendor
1	N/A	-
2	2.2uH	(0402)
3	0.7PF	0402

9. Fine tuning element vs. Center frequency



10.Storage Conditions:

- 1) Temperature:-25 to 85
- (2) Relative Humidity:20% to 70%

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