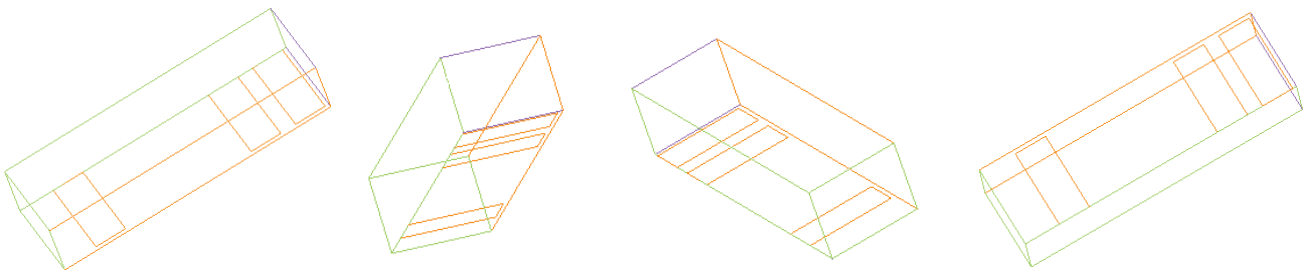
KWANGJIN telecom

2.4GHz Chip Antenna

Product specification

Part No KJB - 0300

Contents



1. Feature

2.4GHz Chip Antenna

2. Application

This antenna is designed used with all 2.4GHz application
ex) Bluetooth, W-Lan, Zigbee ...etc

3. Part No

K J B - 0 3 1 1

Version

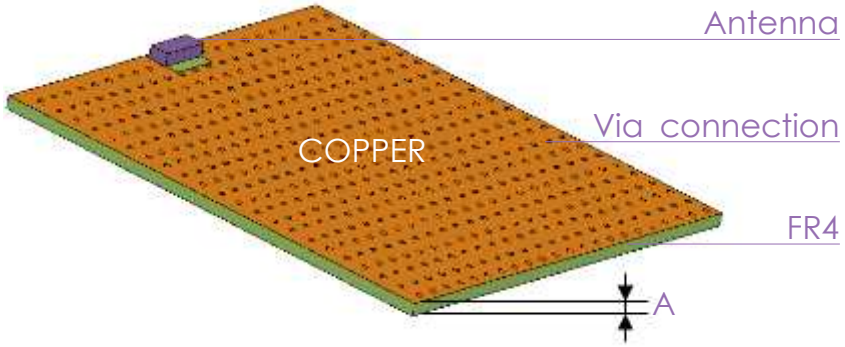
Dimensions type

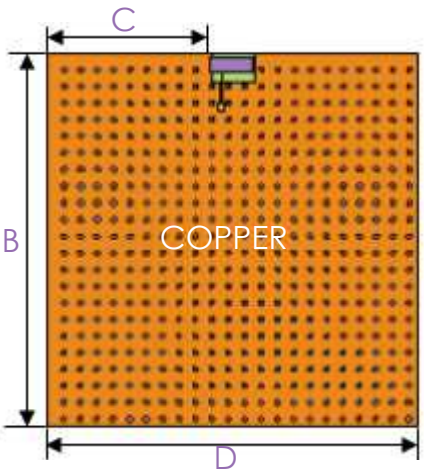
4. General data

Antenna name	2.4GHz Chip Antenna
Part No.	KJB - 0311
Frequency	2.4 - 2.5GHz
Impedance	50 Ω
Antenna type	IFA

5. Electrical data

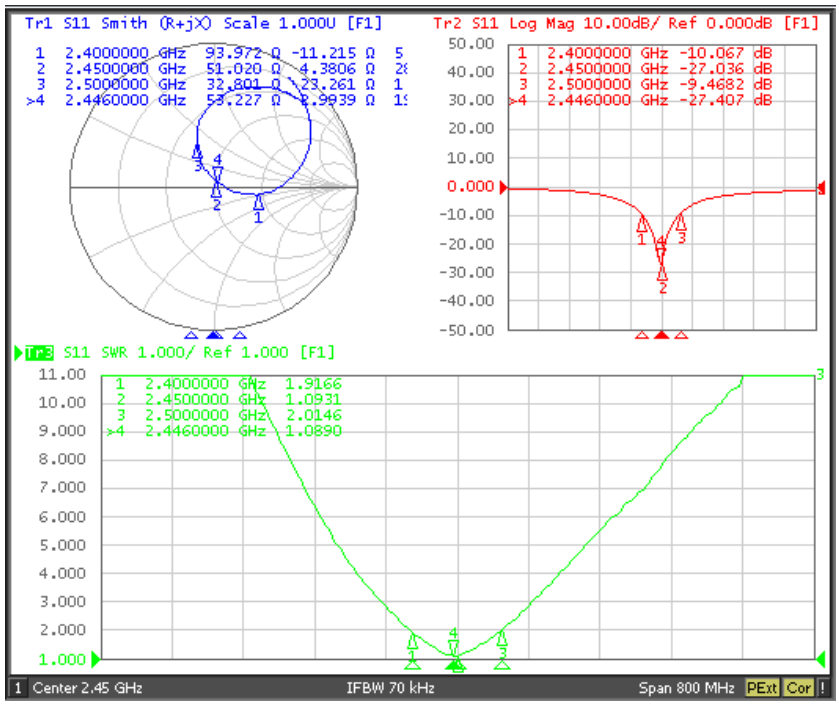
5-1 Test condition





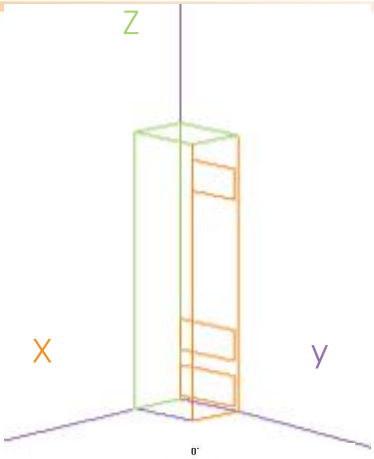
(mm)	A	B	C	D
Value	1	45	19.5	45

5-2 Network analyzer data



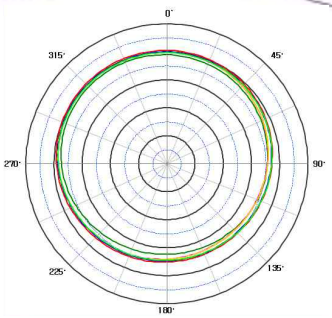
5-3 2D Passive chamber data

- H plan : XY
- E1 plan : XZ
- E2 plan : ZY



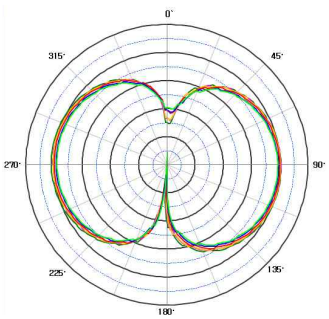
- H plan

Frequency	Max(dBi)	Avg(dBi)	Beam Peak
2400MHz	-0.80	-3.33	330`
2445MHz	0.18	-2.35	334`
2447MHz	0.18	-2.33	336`
2475MHz	0.64	-1.57	338`
2484MHz	0.09	-2.04	338`
2500MHz	-0.17	-2.17	342`



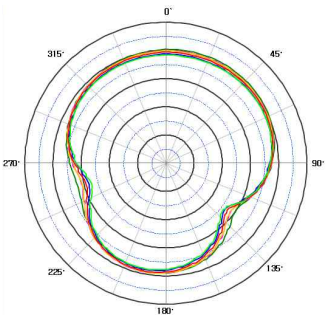
- E1 plan

Frequency	Max(dBi)	Avg(dBi)	Beam Peak
2400MHz	1.02	-2.47	276`
2445MHz	0.48	-2.82	276`
2447MHz	0.42	-2.87	274`
2475MHz	0.09	-3.22	94`
2484MHz	-0.49	-3.84	96`
2500MHz	-0.73	-4.14	94`



- E2 plan

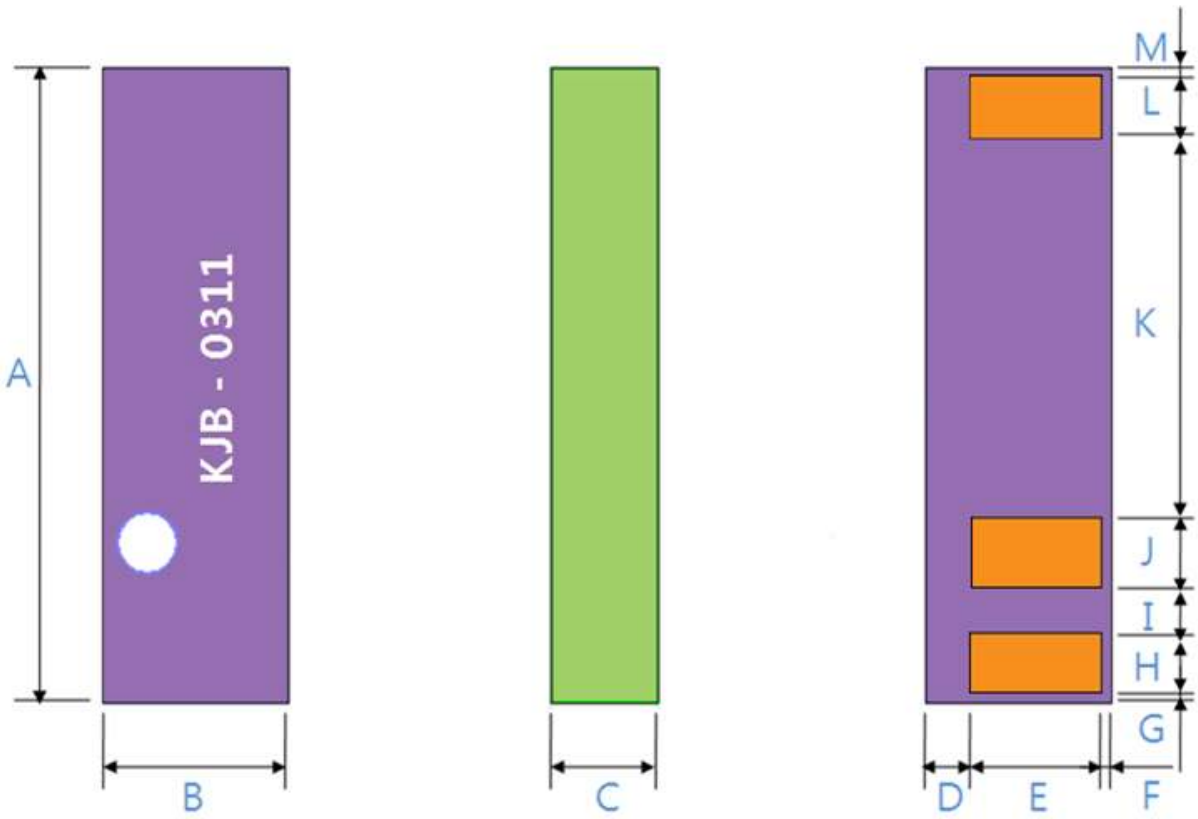
Frequency	Max(dBi)	Avg(dBi)	Beam Peak
2400MHz	0.81	-1.86	36`
2445MHz	0.27	-2.14	42`
2447MHz	0.21	-2.19	40`
2475MHz	-0.27	-2.57	48`
2484MHz	-0.84	-3.16	48`
2500MHz	-0.98	-3.38	54`



5-4 3D Passive chamber data

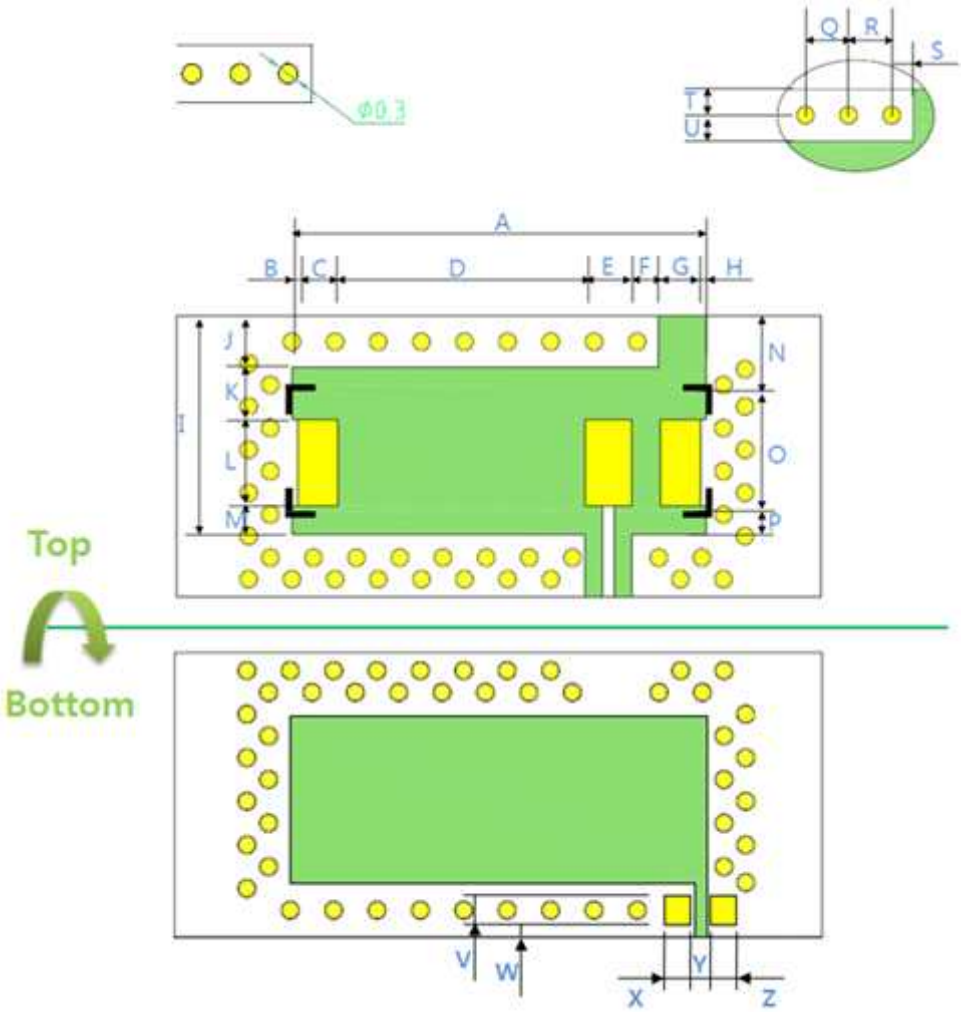
Frequency	Eff. (%)	Ave.Gain (dBi)	PeakGain (dBi)	Directivity (dBi)
2400 MHz	61.0	-2.1	0.6	2.78
2445 MHz	68.1	-1.7	1.5	3.19
2447 MHz	83.1	-0.8	2.5	3.29
2475 MHz	72.4	-1.4	2.1	3.51
2484 MHz	60.8	-2.2	1.0	3.14
2500 MHz	52.1	-2.8	-0.3	2.52

6. Antenna Dimensions



(mm)	A	B	C	D	E	F	G	H	I	J	K	L	M
	Length	Width	Height										
Value	7.2	2.1	1.2	0.5	1.5	0.1	0.1	0.7	0.5	0.8	4.3	0.7	0.1

Unless specified tolerances are 0.1



Soldering Pad
Transparent area
Copper area
Via connection

7.Feeding Method

(mm)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
		GND			Feed	GND																				
Value	7.2	0.1	0.7	4.3	0.8	0.5	0.7	0.1	3.8	0.9	0.9	1.5	0.5	1.3	2.1	0.4	0.75	0.75	0.8	0.45	0.45	0.5	0.2	0.45	0.35	0.45

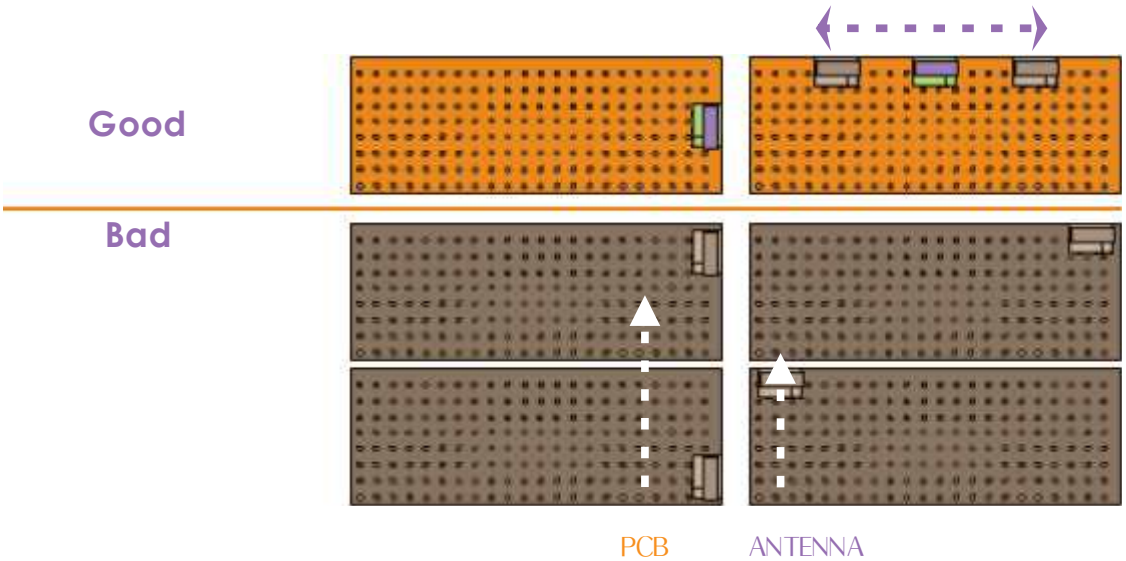
Unless specified tolerances are 0.1

※ Tip 1

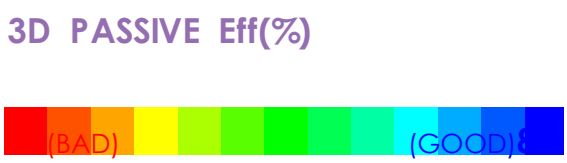
Through Via Hole : Spurious effect was suppressed by connected the GROUND of a layer board
Many via of around Antenna was lead to good effect

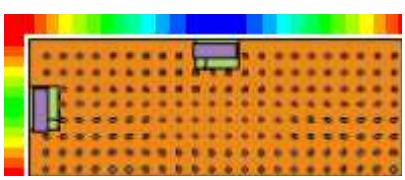
※ Tip 2

1. Antenna position : There is no Antenna side ground, that is a primary cause low efficiency



2. Antenna position 3D Passive Efficiency





KWANGJIN elecom

KwangJin Co.,Ltd

657-4, Prince-building, Sagok-dong
Gumi-City, Gyeongbuk, Korea

TEL : +82-54-465-9600
FAX : +82-54-465-6149

http://www.KwangJintel.com