

BLUETOOTH CHIP ANT SPEC. SHEET

Part No. CAHBT3020-B04

Product Feature This Antenna is applicable to 2.4GHz ISM band.
(WIFI 802.11b/g, Bluetooth 802.15.1, ZigBee 802.15.4)

Specification

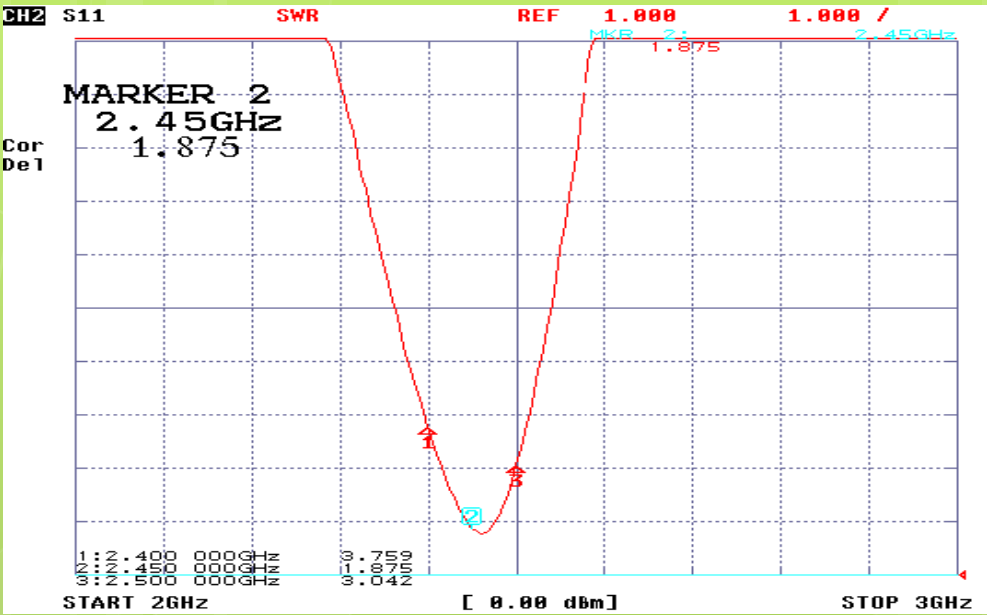
Frequency	2400~2500MHz
VSWR	4.0:1 under
Peak Gain	+1.5dBi over
Impedance	50 ohm
Polarization	Linear

※ Actual performance vary according to customer sample conditions.

Material	FR4 - Epoxy
Size	3.0(L) X 2.0(W) X 1.0(T) [mm]
Dimensional tolerance	3.0(L) $\pm$ 0.1 [mm] 2.0(W) $\pm$ 0.1 [mm] 1.0(T) $\pm$ 0.05 [mm]
Pattern tolerance	$\pm$ 0.02 [mm]

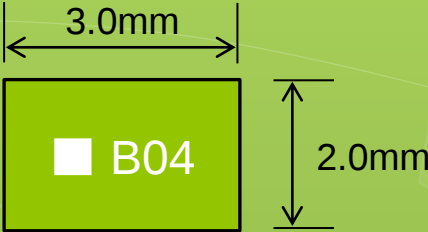
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VSWR

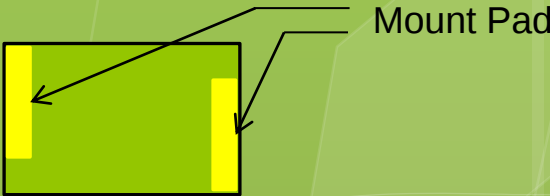


Dimensions

[top]



[Bottom]



[Side]

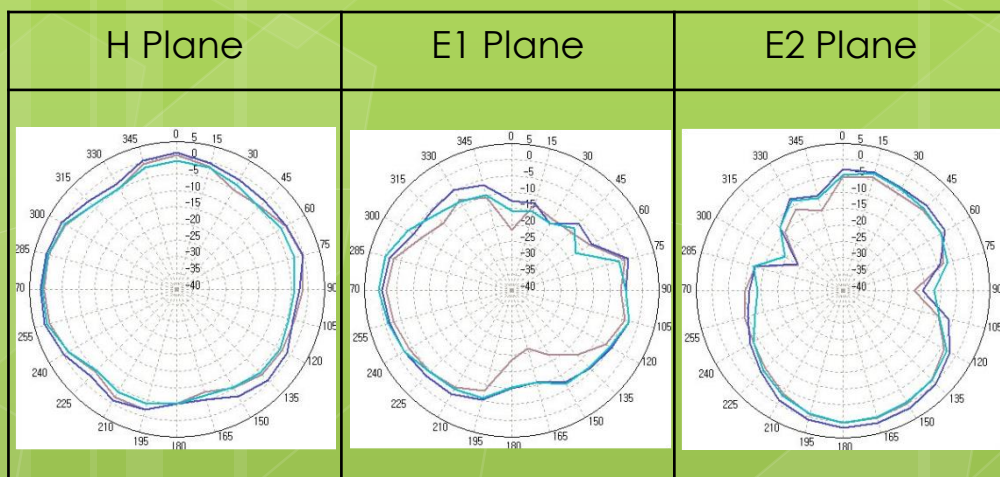


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3D Gain

Frequency	Ave. Gain	Peak Gain
2400 MHz	-3.3 dBi	1.1 dBi
2450 MHz	-3.0 dBi	2.2 dBi
2500 MHz	-3.2 dBi	1.8 dBi

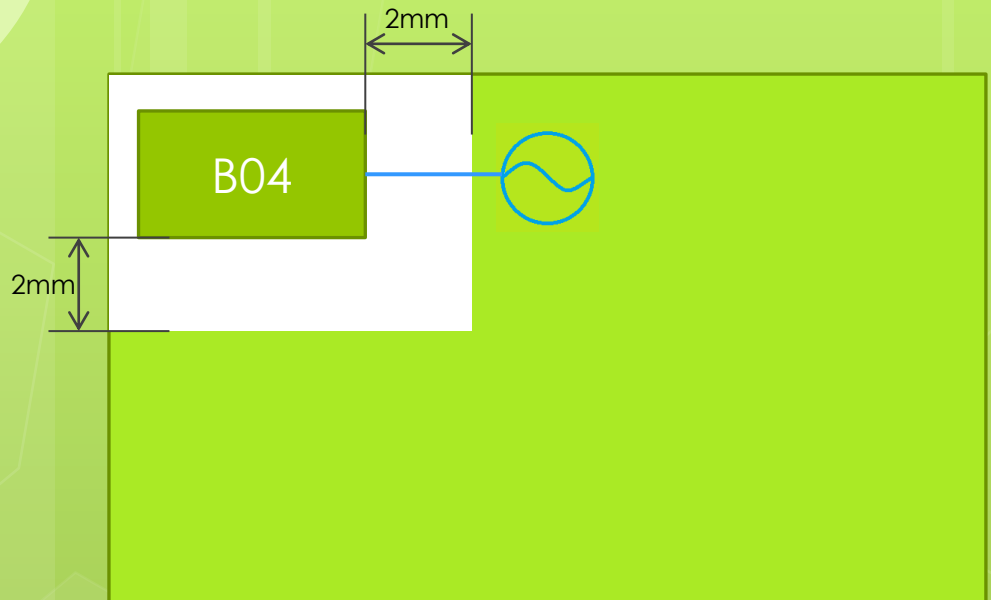
2D Gain



Frequency	H Plane	E1 Plane	E2 Plane
2400MHz	0.69 dBi	-1.33 dBi	0.53 dBi
2450MHz	1.21dBi	-0.53 dBi	1.01 dBi
2500MHz	1.24dBi	-0.13 dBi	0.89dBi

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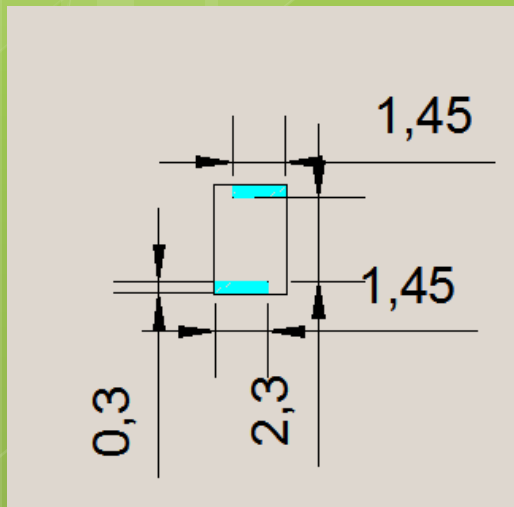
Recommend 실장조건



- Recommend 실장 사양

1. PCB의 장축과 Antenna의 장축은 서로 평행한 방향으로 PCB의 가장 자리에 위치할 것.
2. Antenna와 GND간의 Clearance는 2mm 이상일 것(x축, y축).
3. 2번 항목에서 제시된 영역과 안테나 하단부에는 GND를 제거할 것.

Mount Size

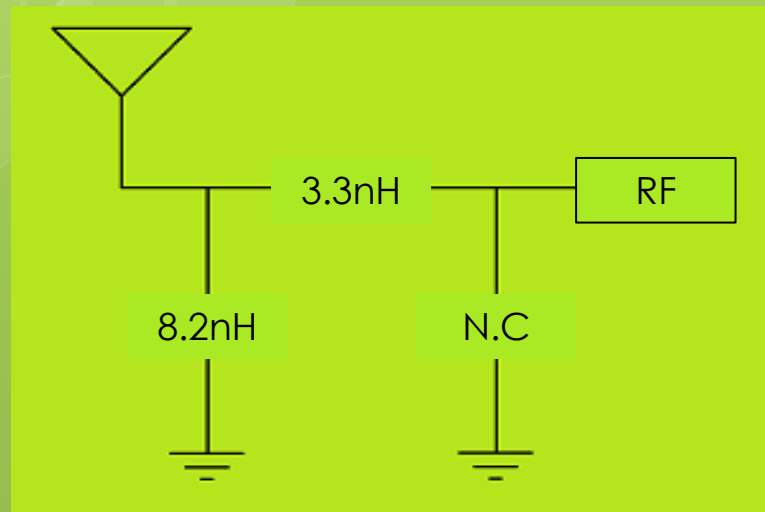
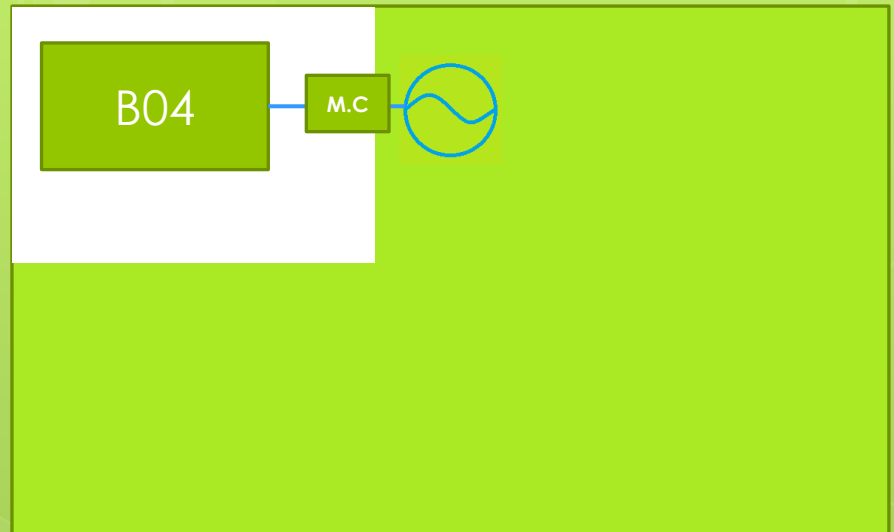


- Mount Size

1. Mount Pad는 외곽에서부터 0.05mm 간격을 가질 것.
2. Pad size는 위 도면과 같이 1.45 x 0.3mm의 크기로 위 아래가 동일.

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Recommend Matching Circuit



- Recommend Matching Circuit

1. B04 안테나는 3단 π 형 Matching Circuit을 권장함.
2. 권장 기본 매칭으로 위 회로도의 설계값을 권장하나 GND 크기나 안테나 실장 위치에 따라 임피던스가 달라지므로 최적화된 값과는 차이가 있을 수 있음.