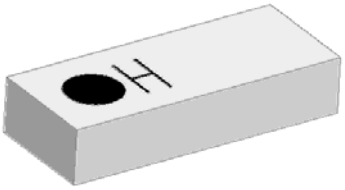
Antenna Model: ANT5020R24001KM1
Manufacturer: Dongguan Hekang Electronics Co., LTD.,
2.4GHz 5020 Chip Antenna: ANT5020R24001KM1

Application:

WLAN, 802.11b/g, Bluetooth, etc…



Features

SMD, high reliability, ultra compact, Omni-directional…

Part number

ANT	5020	R	2400	1K	M1
	(1)	(2)	(3)	(4)	(5)

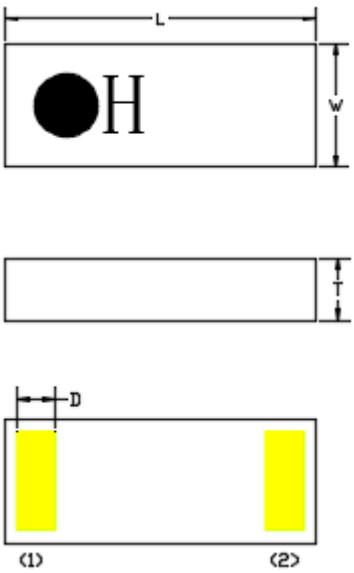
(1) Size Code	5.0x2.0mm
(2) Packing	Tape and reel
(3) Frequency	2400MHz
(4) Packing Number	1K
(5) Code	M1

Electrical Specification

Working Frequency Range	2400~2484 MHz
Peak Gain	0.9 dBi (Typ.)
Impedance	50 Ohm
VSWR	2.5 (Max)
Polarization	Linear
Azimuth Beamwidth	Omni-directional
Operation Temperature(℃)	-40 ~85℃

The specification is defined on HEK EVB.

Dimension and Terminal Configuration



Dimension (mm)	
L	5.0+-0.15
W	2.0+-0.15
T	1.0+-0.10
D	1.0+-0.15

No.	Terminal Name
1	Feeding
2	Soldering

Address: 1st floor, building C, yuanchuang power industrial park, no.24 tangjiao road, changping town, dongguan city, guangdong province, China

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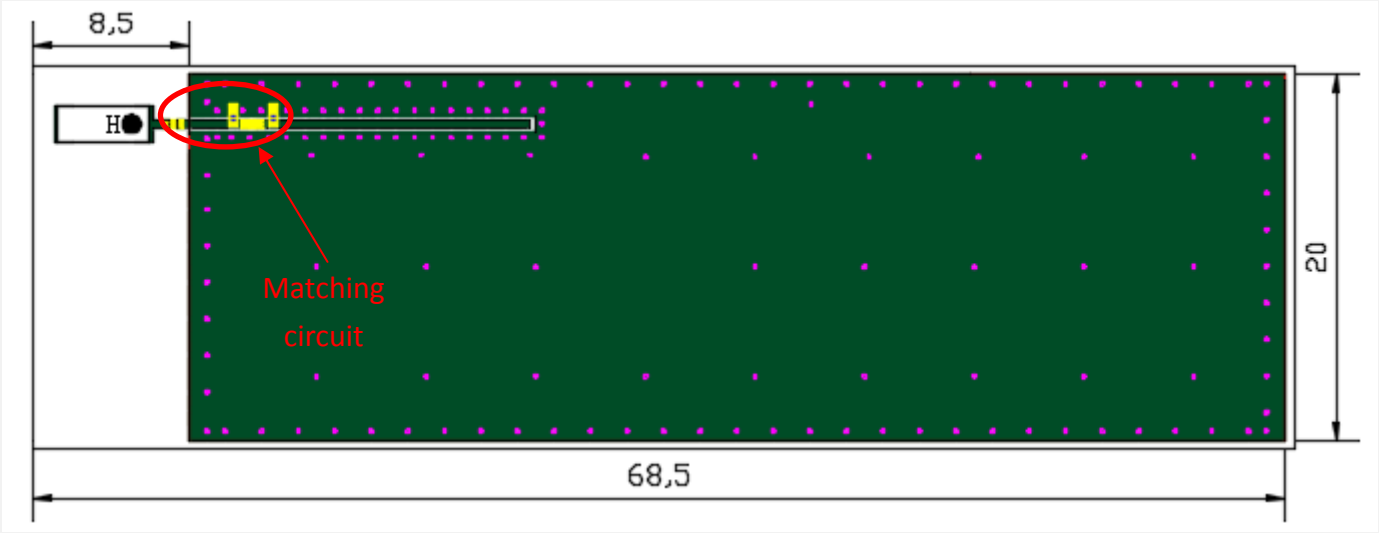
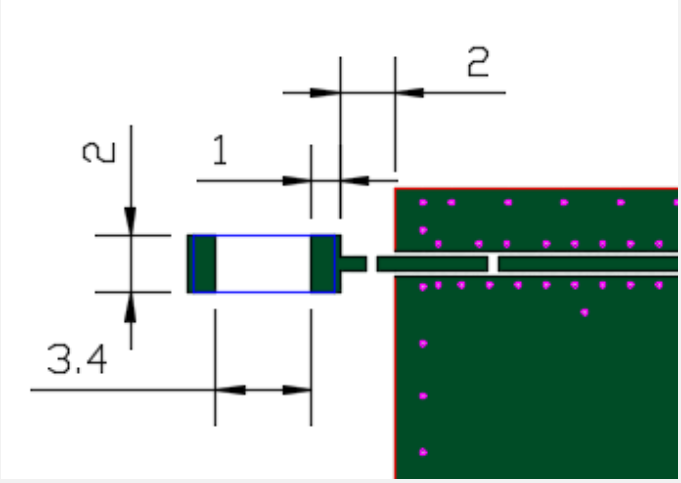
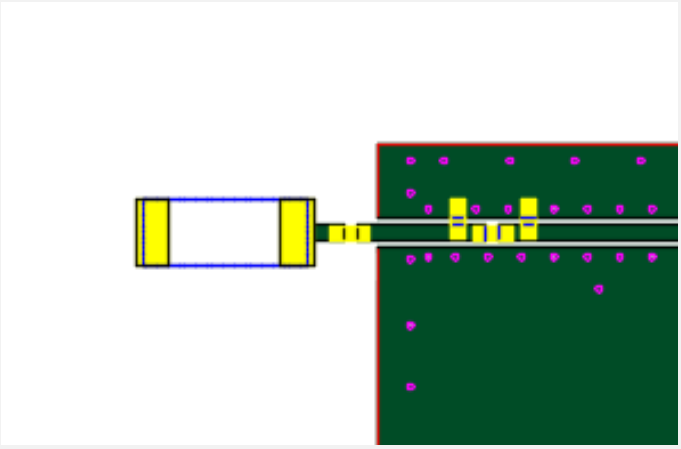
Evaluation Board Reference

PCB Dimension



Antenna Layout Reference





Unit : mm

:Chip Antenna

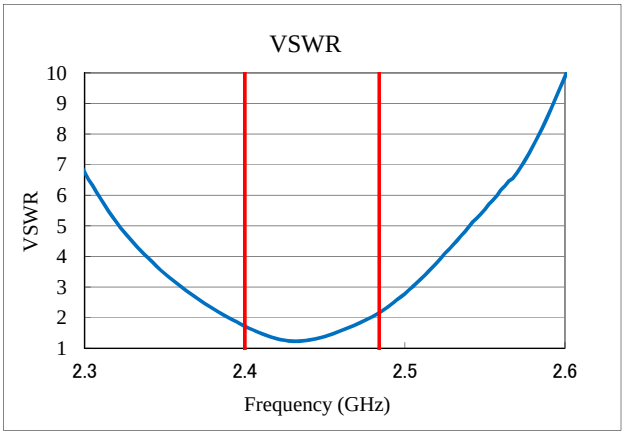
: Land Pattern

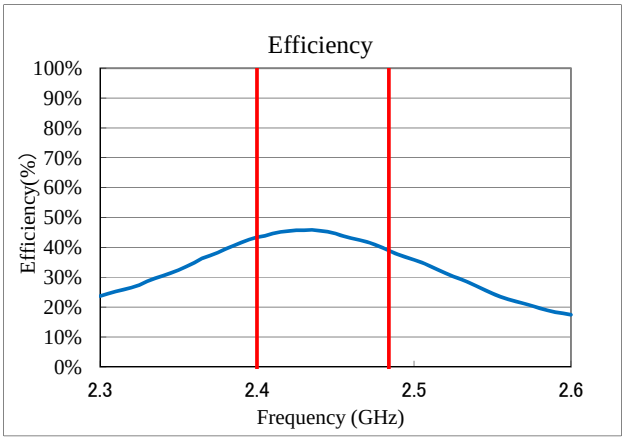
2.4GHz 5020 Chip Antenna: ANT5020R24001KM1

Electrical Characteristics

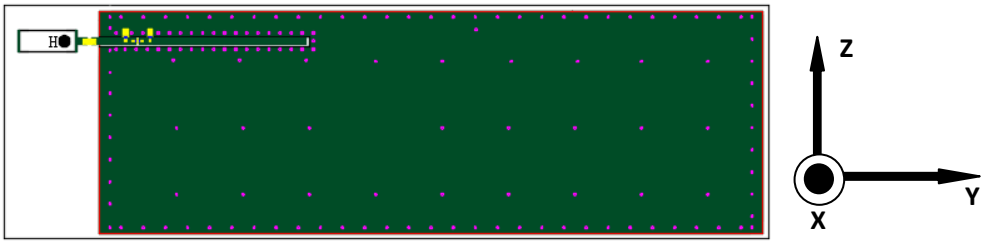
Return Loss & Radiation

VSWR&Efficiency



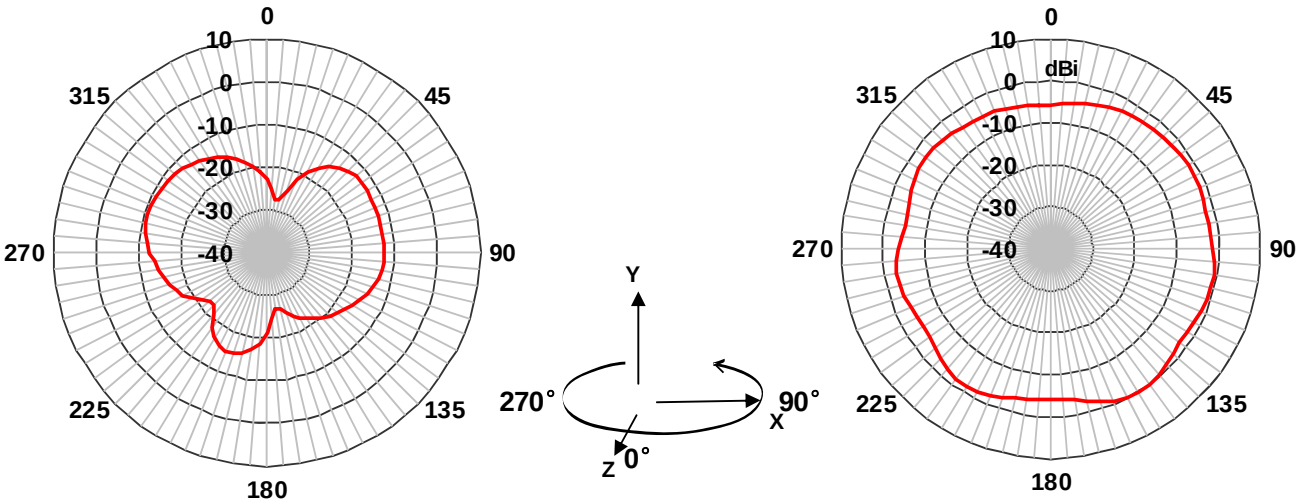


Radiation Pattern



Frequency=2440MHz

ZX-Plane



Horizontal Polarization

Vertical Polarization

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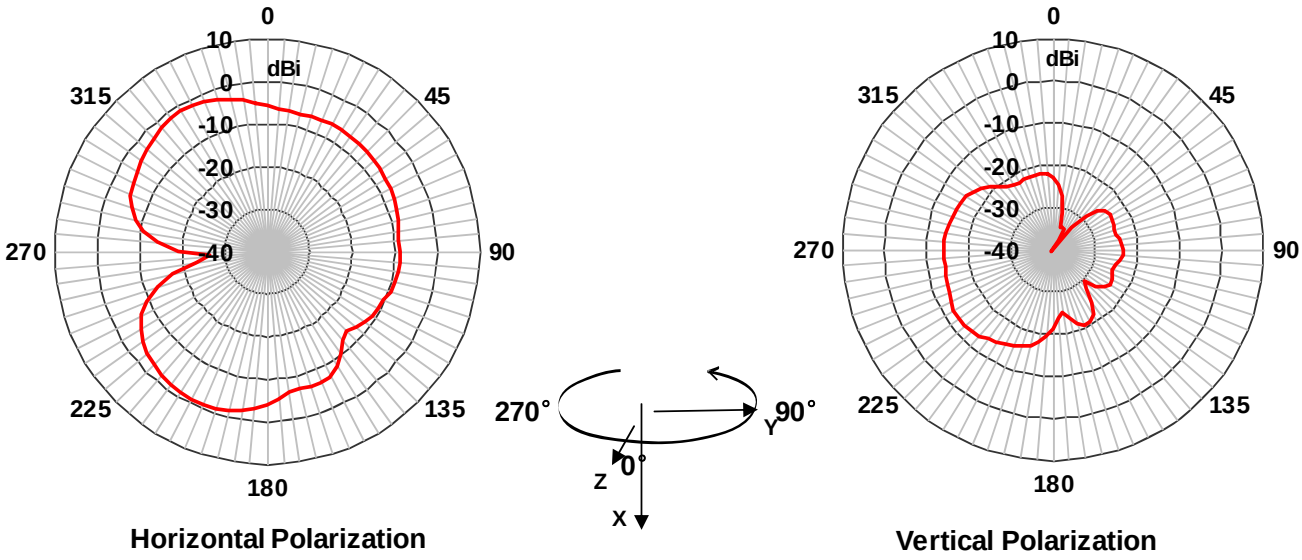
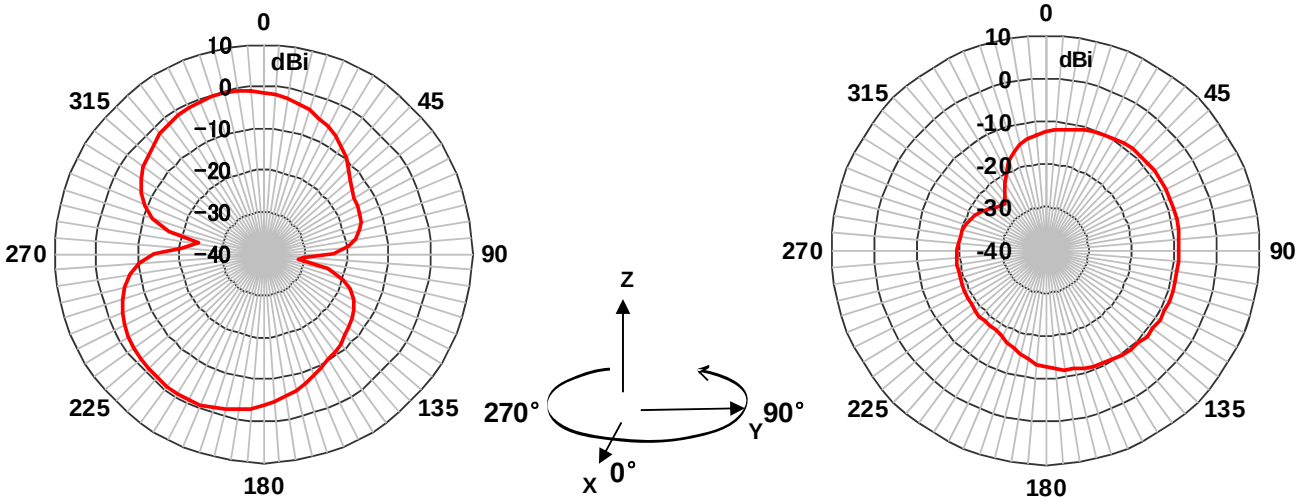
ZY-Plane



Horizontal Polarization

Vertical Polarization

XY-Plane



Horizontal Polarization

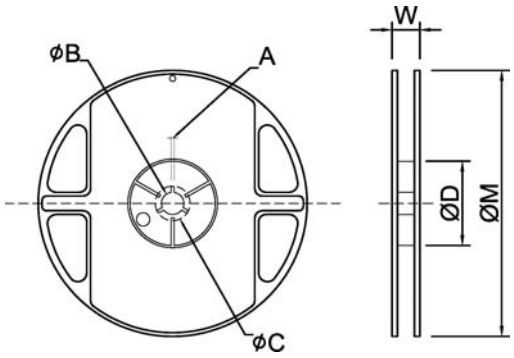
Vertical Polarization

2.4GHz 5020 Chip Antenna: ANT5020R24001KM1

Taping Specifications

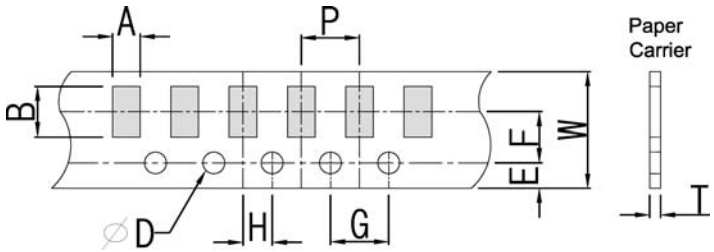
Reel and Taping Specification

Reel Specification



TYPE	SIZE		A	φB	φC	φD	W	φM
5020	7”	1K/Reel	2.0±0.5	13.0±1.0	21±1.0	60±1.0	16.5±2.0	178±2.0

Taping Specification



Packaging	Type	A	B	W	E	F	G	H	T	φD	P
Paper Type	5020	2.30±0.20	5.30±0.20	12.0±0.20	1.75±0.10	5.5±0.05	4.0±0.10	2.0±0.05	0.30±0.10	$1.50^{+0.10}_{-0}$	10±0.1

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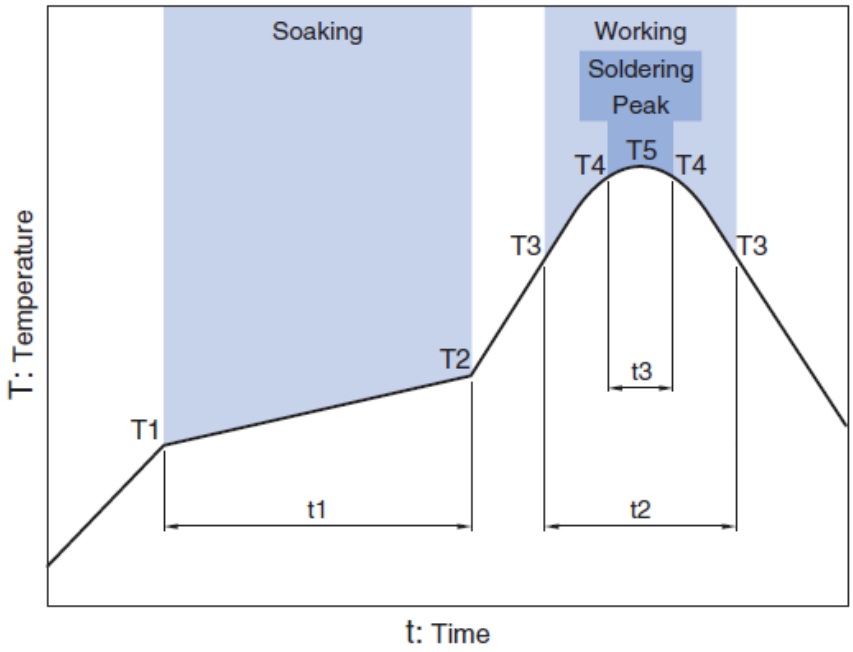
Recommended Reflow Profile

Pb free solder



Soaking			Working		Soldering		Peak
Temp.		Time	Temp.	Time	Temp.	Time	Temp.
T1	T2	t1	T3	t2	T4	t3	T5
150°C	180°C	60 to 120sec	230°C	more than 30sec	247 to 253°C	within 10sec	260°C Max.