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CUSTOMER:Chicony

# 承 认 书

## SPECIFICATION APPROVAL SHEET

品 名 PRODUCT NAME	DCAJ0S10
客户料号/版次 CUSTOMER P/N:/REV.	072-02151LHA01
(供應商)料号/版次 (Vendor)P/N:/REV.	43A15G03000D21T
單重(單位:克): Weight(Unit:g):	0.08g

(供應商)确认 (Vendor) CONFIRMATION	客户确认 CUSTOMER CONFIRMATION
	

审核 CHECKED BY	制作 MADE BY	确认 APPROVED BY	审核 CHECKED BY
Tim	Eva		

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# SPECIFICATION

<b>SPEC NO.</b>	<b>:</b> SP03AE24500-0050
<b>PART NO.</b>	<b>:</b> 43A15G03000D21T
<b>PRODUCT NAME</b>	<b>:</b> DCAJ0S10
<b>DESCRIPTION</b>	<b>:</b> Dielectric Chip Antenna (3.23x1.66x1.23 mm) RoHS Compliant Product

## REVISION STATUS

Prepared By	Checked By	Approved By
翁秀惠	馬得淞	張敦信 吳佳宗

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## CIROCOMM TECHNOLOGY .

**PART NUMBER: 43A15G03000D21T**

### 1. Scope

This specification covers the [dielectric chip antenna](#) for [Bluetooth / WLAN Applications](#).

### 2. Name of the product

This product is named "[Dielectric Chip Antenna](#)".

### 3. Electrical characteristics

#### 3-1 Electrical characteristics of antenna

The antenna has the electrical characteristics given in Table 1 under the *cirocomm* standard installation conditions shown in the figure of Evaluation Board.

**Table 1**

No	Parameter	Specification
1	Working Frequency	2400~2500 MHz
2	Return Loss	-6.5 dB (Max)
3	Peak Gain	2.7 dBi
4	Impedance	50 Ohm
5	Operating Temperature	-40°C ~ +110°C
6	Maximum Power	4 W
7	Resistance to Soldering Heats	10 sec. ( @ 260°C)
8	Polarization	Linear
9	Azimuth	Omni-directional
10	Termination	Cu / Sn (Leadless)

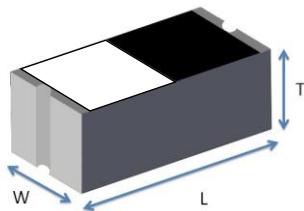
\* Actual performance will depend on customer device environment.



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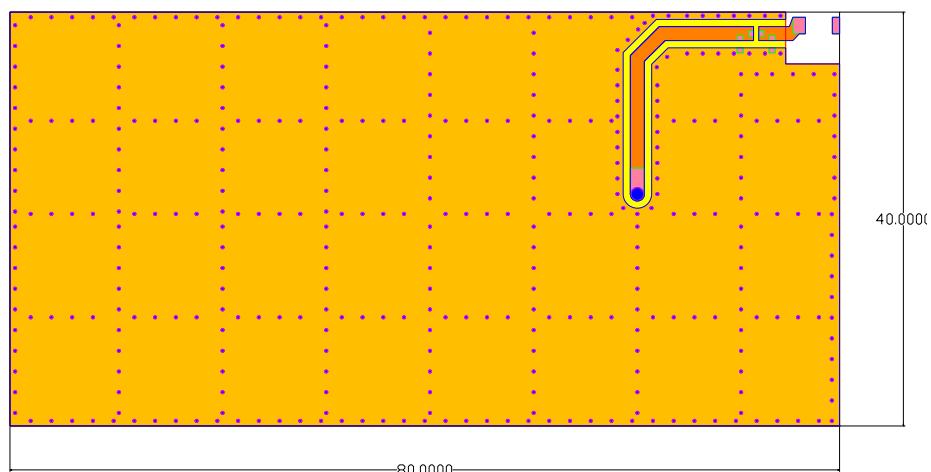
#### 4. Antenna Dimension



	Dimension (mm)
L	3.23 ± 0.20
W	1.66 ± 0.20
T	1.23 ± 0.20

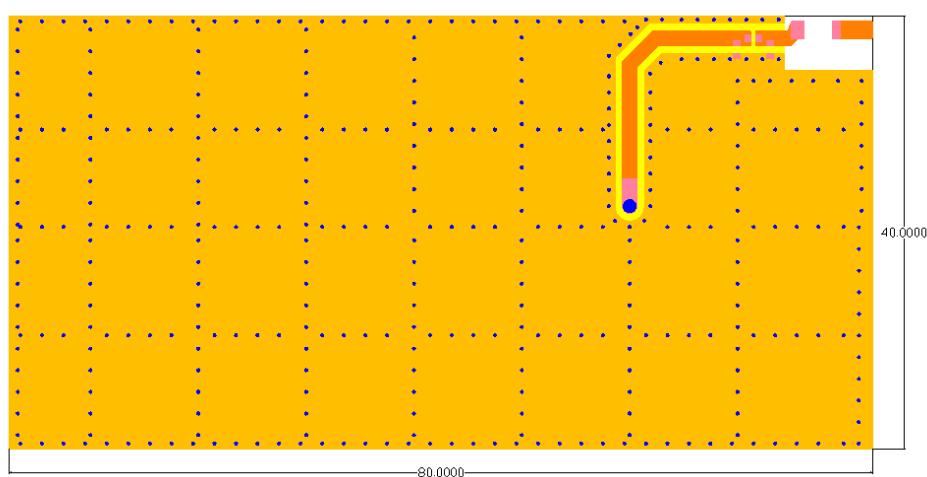
#### 5. Recommended PCB Pattern

##### 5-1. Evaluation Board Dimension



##### 5-2. Evaluation Board Dimension

(若淨空區夠大，建議使用此Layout，效能較佳)



Unit : mm

Feed Line    TOP Copper    VIA



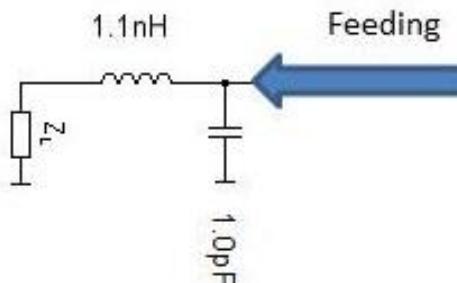
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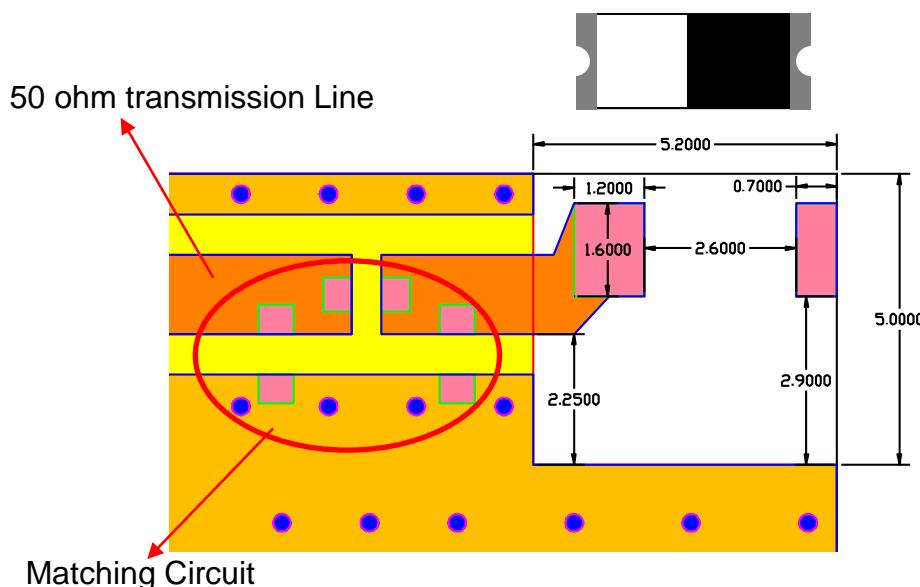
### Suggested Matching Circuit

重要資訊：

匹配元件建議使用精準度高的電感±0.1~0.3nH、電容±0.1pF

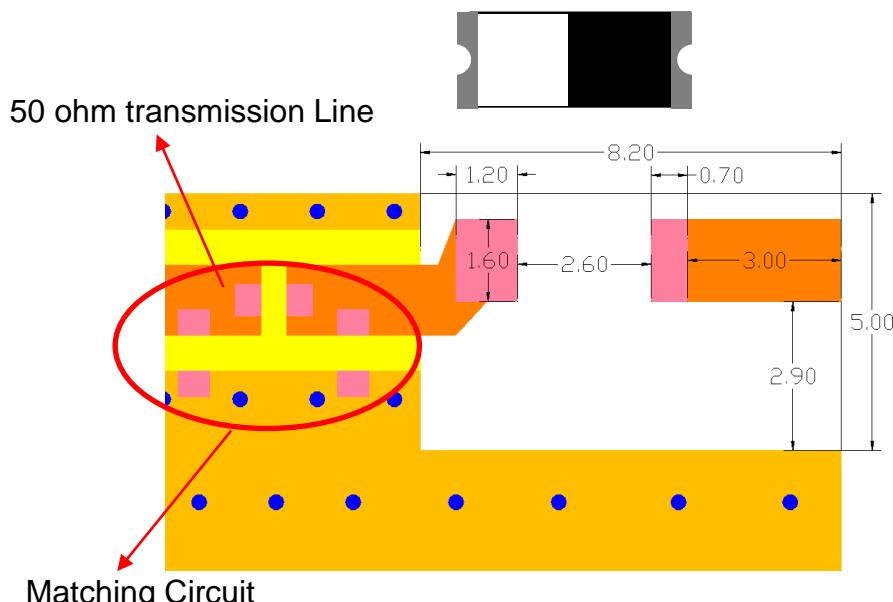


### 5-3 Layout Dimensions in Clearance area(Size=5.2\*5.0mm)



### 5-4. Layout Dimensions in Clearance area(Size=8.2\*5.0mm)

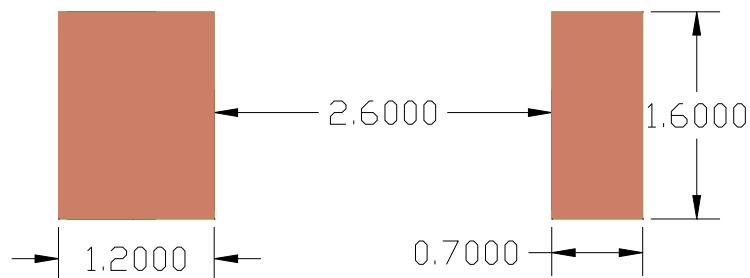
(若淨空區夠大，建議使用此Layout，效能較佳)



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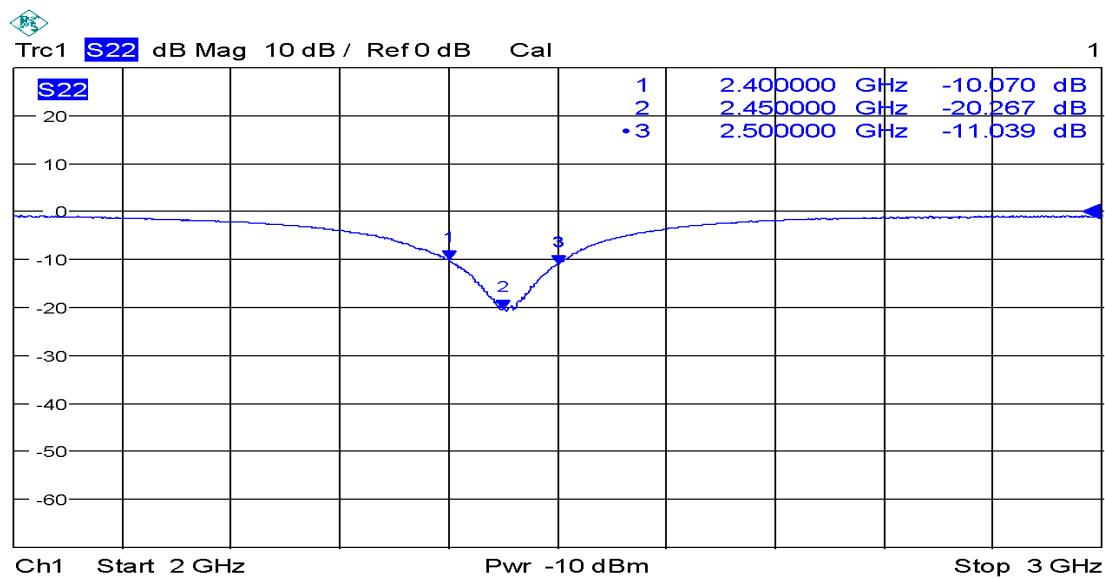
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**FootPrint (Unit : mm)**



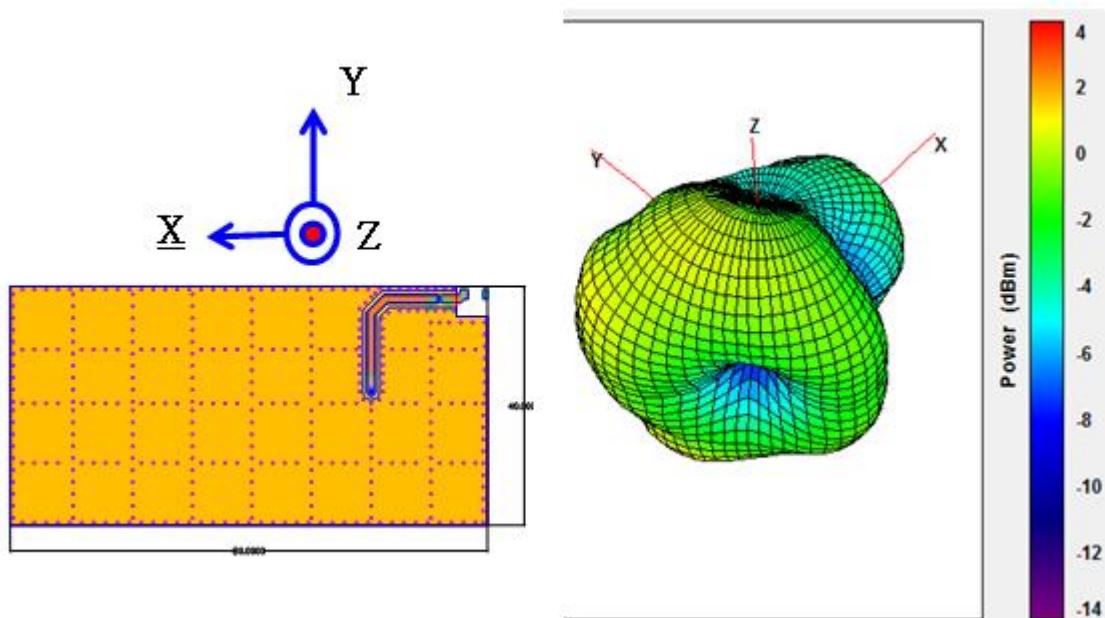
## 6. Measurement Results

### Return Loss



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### Radiation Pattern

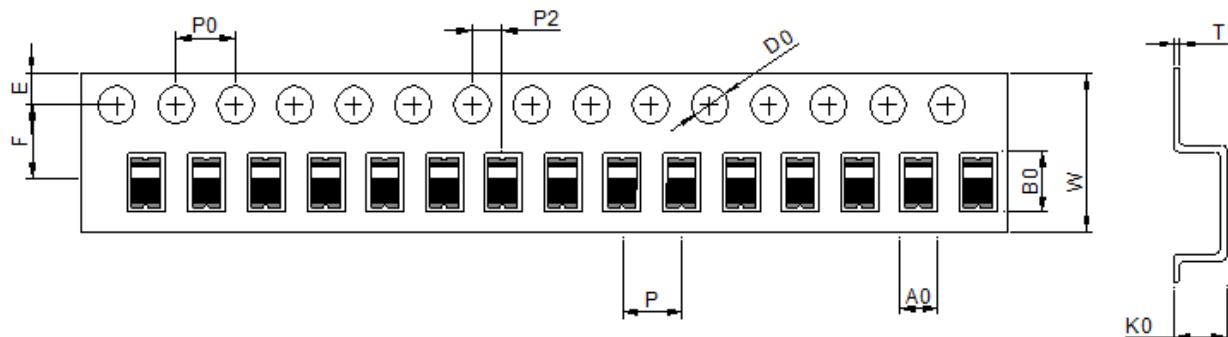


	Efficiency	Peak Gain
2400MHz	55.21 %	1.45 dBi
2450MHz	66.45 %	2.71 dBi
2500MHz	57.53 %	1.98 dBi

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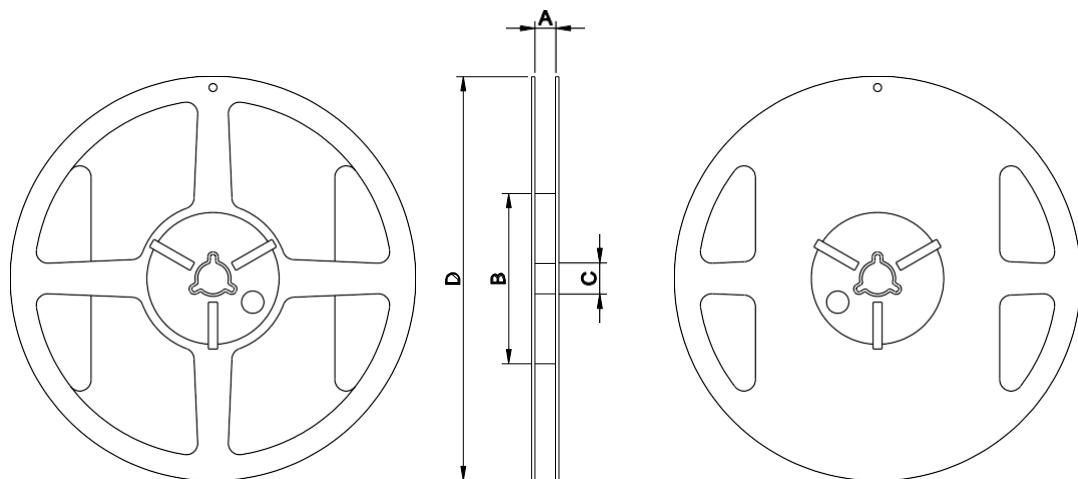
## 7. Packaging Information

### Tape Specification:



W	Ao	Bo	Ko	P	F	E	D	D1	Po	P2	t
8.0 ±0.30	1.80 ±0.05	3.51 ±0.10	1.59 ±0.10	4.00 ±0.05	3.50 ±0.05	1.75 ±0.10	1.50 ±0.10	0.00 ±0.10	4.00 ±0.10	2.00 ±0.05	0.25 ±0.05

### Reel Specification: (7", $\Phi 180$ mm)



7''x 8 mm

Tape Width(mm)	A(mm)	B(mm)	C(mm)	D(mm)	Chip/Reel(pcs)
8	9.0±0.5	60±2	13.5±0.5	178±2	3000

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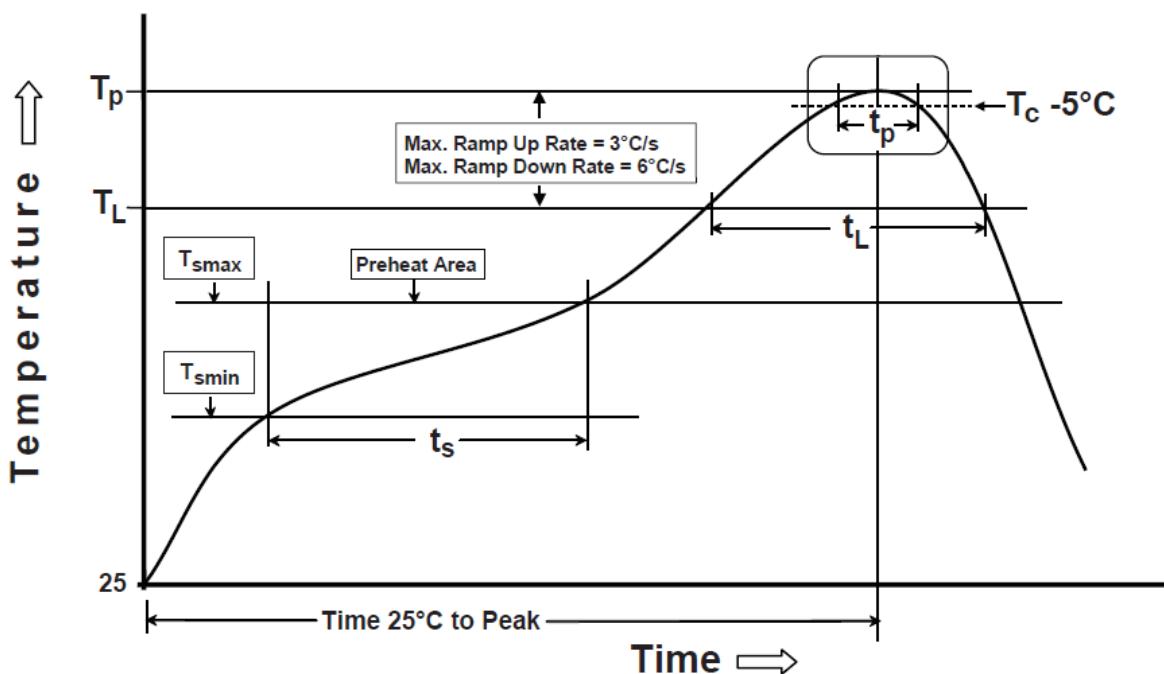
## 8. Recommended Reflow Temperature Profile

Cirocomm products can be assembled following Pb-free assembly. According to the Standard **IPC/JEDEC J-STD-020C**, the temperature profile suggested is as follow:

Phase	Profile features	Pb-Free Assembly (SnAgCu)
PREHEAT	-Temperature Min(Tsmin) -Temperature Max(Tsmax) -Time(ts) form (Tsmin to Tsmax)	150°C 200°C 60-120 seconds
RAMP-UP	Avg. Ramp-up Rate (Tsmax to TP)	3°C/second(max)
REFLOW	-Temperature(TL) -Total Time above TL (t L)	217°C 30-100 seconds
PEAK	-Temperature(TP) -Time(tp)	260°C 10 second
RAMP-DOWN	Rate	6°C / second max.
Time from 25°C to Peak Temperature		8 minutes max.
Composition of solder paste		96.5Sn/3Ag/0.5Cu
Solder Paste Model		SHENMAO PF606-P26

Note : All the temperature measure point is on top surface of the component, if temperature over recommend, it will make component surface peeling or damage.

The graphic shows temperature profile for component assembly process in reflow ovens



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### **Soldering With Iron:**

Soldering condition : Soldering iron temperature  $270\pm10$  °C.

Apply preheating at 120°C for 2-3 minutes. Finish soldering for each terminal within 3 seconds, if soldering iron over temperature  $270\pm10$  °C or 3 seconds, it will make component surface peeling or damage.  
Soldering iron can not leakage of electricity.

