

興瑞通信股份有限公司

料號申請單

92年6月27日

興瑞: <u>A.n.t.e.n.n.i.a. > .c.h.i.p. > A.C.A.7.6.3.6.A.1.X.X.</u>			
料品名稱:			
興瑞料號: <u>521650346</u>		廠庫代號: <u>03</u>	
(本欄由承辦人填寫)			
	製造廠 #1	製造廠 #2	料品說明
廠商名稱	<u>佳邦科技</u>		2.4GHz 晶片型天線
電話	<u>07-5632528</u>		
地址	<u>新竹市工業東四路188號</u>		
廠商代號	(本欄由採購填寫)	(本欄由採購填寫)	
料品編號	<u>ACA7636A1XX</u>		
料品名稱	<u>"Inpaq" chip Antenna</u>		
	代理商 #1	代理商 #1	申請事由
廠商名稱	<u>朝電科技</u>		①較他廠便宜 VT9元以 ②量測便利
電話	<u>02-22862488</u>		
地址	<u>北縣三重市三和路四段1186F</u>		
廠商代號	<u>D5005</u> (本欄由採購填寫)	(本欄由採購填寫)	
料品編號	<u>ACA7636A1XX</u>		
料品名稱	<u>"Inpaq" chip Antenna</u>		
	代理商 #2	代理商 #2	附件
廠商名稱			<input type="checkbox"/> 廠商資料 <input checked="" type="checkbox"/> 規格文件 <input checked="" type="checkbox"/> 其它 <u>報價單 Grave</u> <u>樣品 X5</u>
電話			
地址			
廠商代號	(本欄由採購填寫)	(本欄由採購填寫)	
料品編號			
料品名稱			
備註	1. 本單適用於料品及成品。一種料一張申請單，請勿併單。申請時須附上承認書。 2. 除非該項料品為獨家生產，無可替代，否則都須提供兩家製造廠。並填上其代理商（至少一家）。若代理商即製造廠，則該欄位只填"同上"。獨家產品須說明理由。 3. 原則上須有製造廠。若只知代理商，則須特別說明原因。		

申請人: guky 申請主管: [Signature] 採購: Grave 承辦人: [Signature] 審核: [Signature]
 030627 7/1/03 2/1/03 7/1/03

第一聯(白): 文件室留存 第二聯(紅): 採購留存 第三聯(黃): 承辦人留存 第四聯(藍):

客戶名稱：興瑞通信
CUSTOMER

Doc No.: 000401001005

Rev.: A3

承認書

APPROVAL SHEET

產品品名/Product Model No. : **ACA7636A1XX**

發行日期/ Issue Date : **2004/07/06**

承認日期/ Approved Date :

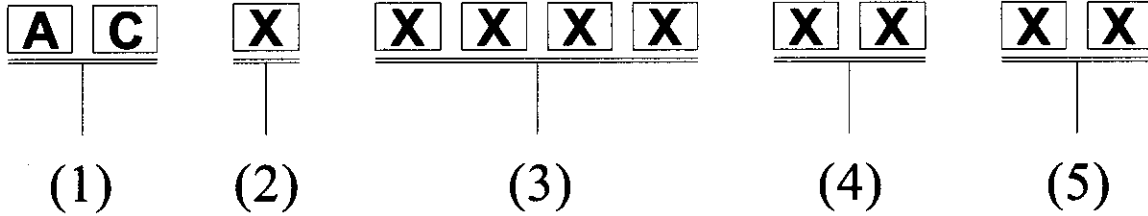
Approved by customer: (signing or stamping here)

 **佳邦科技股份有限公司**
INPAQ TECHNOLOGY Co., Ltd.

- 300 新竹科學園區工業東四路38號1F 苗栗縣竹南鎮大厝里9鄰59-12號
1F. N038. Industry E. Rd., Science-
Based Industrial Park, Hsinchu, No. 59-12, 9 Lin, Ta Tsuo Li,
Taiwan 300 Chu Nan Chen, Miao Li Hsien,
Taiwan, R.O.C.

LAN Chip Type Antenna Module

1. Explanation of part number :



(1)Product series : LAN Antenna Chip

(2)System code : X for antenna center frequency
Exp.: A = 2.45G group

(3)Size code :
Exp.: 7636 = 7.6x3.6 mm

(4)Type code :
Exp.: A1=Type 1

(5)Suffix :

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=± X.XX=±
 ANGLES=± HOLEDIA=±



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SCALE : ----

UNIT : mm

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DRAWN BY : *YUVI*

CHECKED BY : *長發*

DESIGNED BY : *林雪濤*

APPROVED BY : *林雪濤*

TITLE : ACA7636AXXX Specification

DOCUMENT NO.

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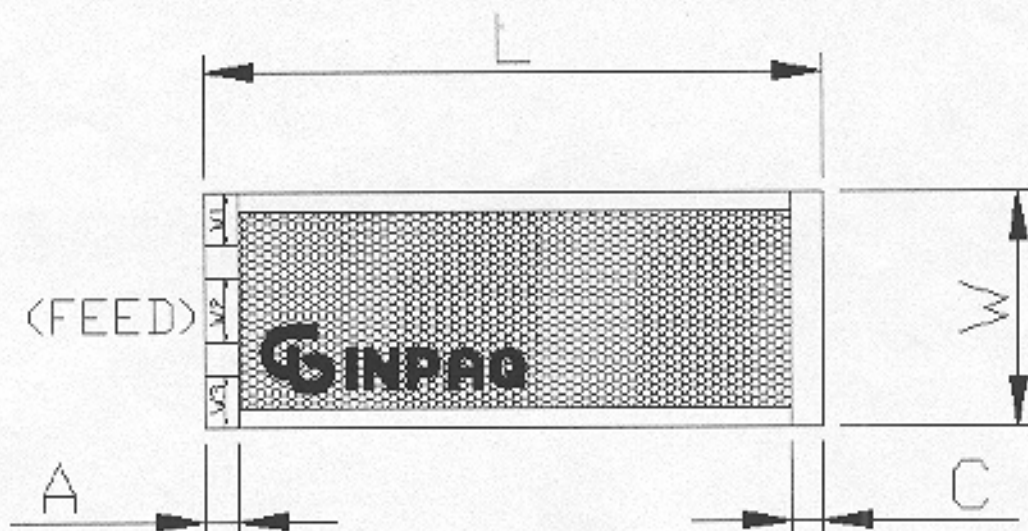
2. Electrical Specification :

Control Level	ITEM	SPECIFICATION
A	Frequency Band	A= 2400MHz~2500MHz
---	VSWR	Less than 2
---	Polarization	Linear
---	Peak Gain	2.5dBi typ.
---	Impedance	50Ω typ.

Matching circuit :

A Pi matching circuit will be required to have better performance

3. Physical Dimension :



Model	Size(mm)	L	W	A	C	W1	W2	W3
ACA7636		7.6± 0.3	3.6± 0.3	0.5 Max.	0.5 Max.	0.8± 0.15	1.0± 0.15	0.8± 0.15

unit : mm

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=± X.XX=

ANGLES=± HOLEDIA=±

SCALE : ----- UNIT : mm

DRAWN BY : YUN CHECKED BY : 李發

DESIGNED BY : 林智鴻 APPROVED BY : 4.6.12

TITLE : ACA7636AXXX Specification



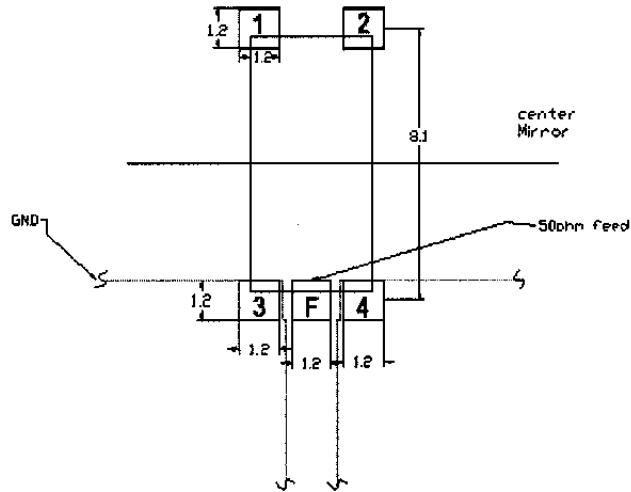
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6. Layout Recommendation:



PAD Definition:

- 1: No connection (floating)
- 2: No connection (floating)
- 3: GND
- 4: GND
- F: 50 ohm feed point

Note:

Adding a 50 ohm transmission line before the feed point will be ok

UNLESS OTHER SPECIFIED TOLERANCES ON :

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 ANGLES=± HOLEDIA=±



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SCALE : -----

UNIT : mm

DRAWN BY : *WY*

CHECKED BY : *林智鴻*

DESIGNED BY : *林智鴻*

APPROVED BY : *林智鴻*

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4. Performance Specifications:

4-1. Standard condition

Unless otherwise specified, ambient atmosphere at performance tests and measuring shall meet the following conditions

Ambient temperature : 25 ± 2 °C

Relative humidity : 45 to 65%

Atmosphere pressure : 0.87×10^5 to 1.07×10^5 Pa

4-2. Test method

Unless otherwise specified, the board, the land pattern, the flux, the solder, and the soldering method in performance tests shall be subjected to this specification

4-3. Environmental Performance

Characteristic		Specifications	Test Methods															
4-3-1	Temperature Cycling	$VSWR \leq 2$ And no evidence of mechanical damage	Specimens shall be tested for 5 cycles continuously in accordance with the following duty cycle <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-40 ± 2 °C</td> <td>30±3 minutes</td> </tr> <tr> <td>2</td> <td>$+25 \pm 2$ °C</td> <td>2 ~3 minutes</td> </tr> <tr> <td>3</td> <td>$+85 \pm 2$ °C</td> <td>30±3 minutes</td> </tr> <tr> <td>4</td> <td>$+25 \pm 2$ °C</td> <td>2 ~3 minutes</td> </tr> </tbody> </table>	Step	Temperature	Time	1	-40 ± 2 °C	30±3 minutes	2	$+25 \pm 2$ °C	2 ~3 minutes	3	$+85 \pm 2$ °C	30±3 minutes	4	$+25 \pm 2$ °C	2 ~3 minutes
Step	Temperature	Time																
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UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=± X.XX=

ANGLES=± HOLEDIA=±

SCALE : ----- UNIT : mm

DRAWN BY : Yvri CHECKED BY : [Signature]

DESIGNED BY : [Signature] APPROVED BY : [Signature]

TITLE : ACA7636AXXX Specification



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5. Machinery Performance:

Characteristic		Specifications	Test Methods
5-1	Vibration	$VSWR \leq 2$	Specimens shall be subjected to a single vibration having an amplitude of 0.8mm (1.6mm double amplitude) for 2 hours in each three mutually perpendicular directions for a total of 6 hours. The vibration frequency shall be varied uniformly 10 to 55 Hz and return to 10 Hz shall be traversed in 1 minute.
5-2	Bending	$VSWR \leq 2$	Specimens shall be soldered to testing board. The substrate shall be supported at two points 45 mm from its center with mounting surface, and the middle part of substrate shall be pressed by means of the pressing rod at rate of 1.0 mm per second until the deflection becomes 3 mm and then the pressure shall be maintained for 30 seconds. <u>Testing Board</u> : shall be Glass-Fabric Based Epoxy Resin with 100 mm in length and 40 mm in width and 1.6 mm in thickness. <u>Pressing rod</u> : shall be a metal rod with 20 mm in thickness and 55 mm in width having a cylindrical end with radius R of 340 mm.
5-3	Terminal Solderability	95% coverage in min	Specimens shall be tested per MIL-STD-202F method 208. Test temperature of solder : $230 \pm 5^\circ\text{C}$ Dwell time in solder : 5 ± 0.5 seconds

UNLESS OTHER SPECIFIED TOLERANCES ON :

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SCALE : ----

UNIT : mm

DRAWN BY : YUYI

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DESIGNED BY : [Signature]

APPROVED BY : [Signature]

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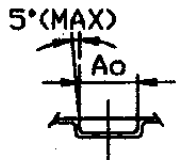
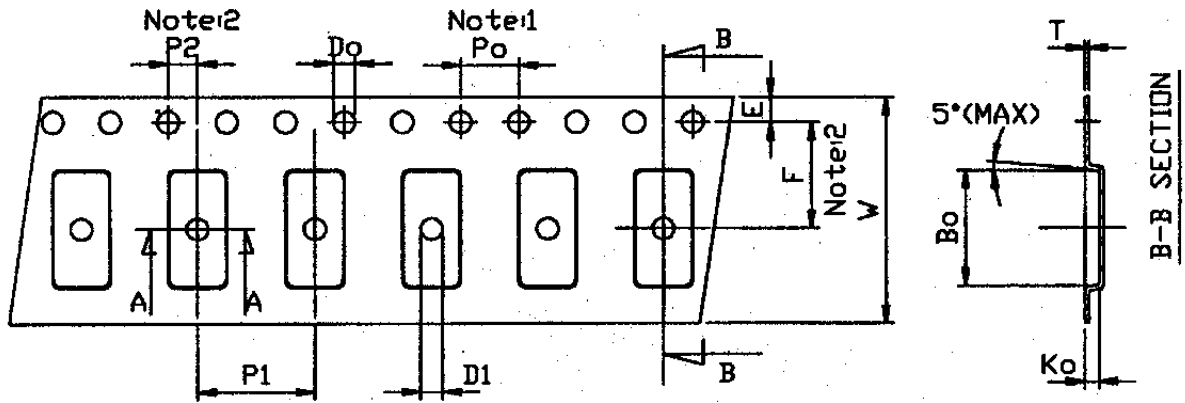
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7. Taping Package and Label Marking:

7-1. Carrier tape dimensions



A-A SECTION

$A_o = \underline{4.0 \pm 0.10} \text{ mm}$

$B_o = \underline{8.20 \pm 0.10} \text{ mm}$

$K_o = \underline{1.02 \pm 0.10} \text{ mm}$

Unit: mm

Symbol	Spec.
K1	-
Po	4.0±0.10
P1	8.0±0.10
P2	2.0±0.10
Do	1.50 ^{+0.1} / _{+0.}
D1	1.50(MIN)
E	1.75±0.10
F	7.50±0.10
10Po	40.0±0.10
W	16.0±0.20
T	0.30±0.10

Notice:

1. 10 Sprocket hole pitch cumulative tolerance is ±0.1mm
2. Pocket position relative to sprocket hole measured as true position of pocket not pocket hole.
3. Ao & Bo measured on a plane 0.3mm above the bottom of the pocket to top surface of the carrier.
4. Ko measured from a plane on the inside bottom of the pocket to the top surface of the carrier.
5. Carrier camber shall be not than 1mm per 100mm through a length of 250mm.

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=± X.XX=±
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SCALE : -----

UNIT : mm

DRAWN BY : Yun

CHECKED BY : [Signature]

DESIGNED BY : [Signature]

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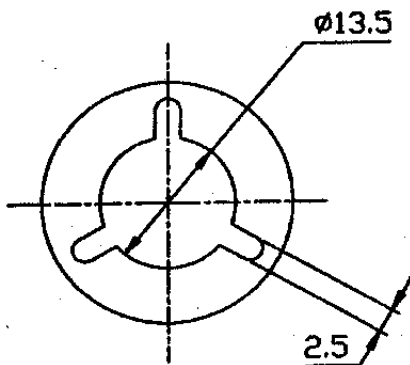
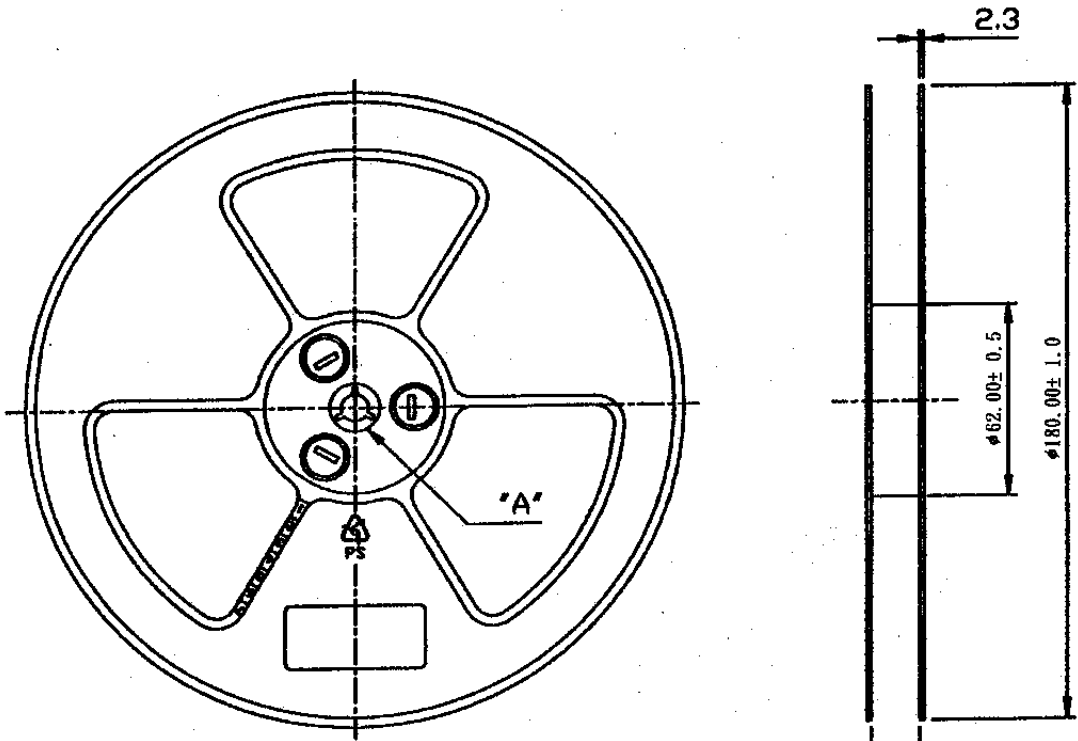
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7-2. Taping reel dimensions



DETAIL 'A'
SCALE 5:1

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=± X.XX=±
 ANGLES=± HOLEDIA=±

SCALE : ----- UNIT : mm

DRAWN BY : *Yun* CHECKED BY : *岳霖*

DESIGNED BY : *林智鴻* APPROVED BY : *hwbw*



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