

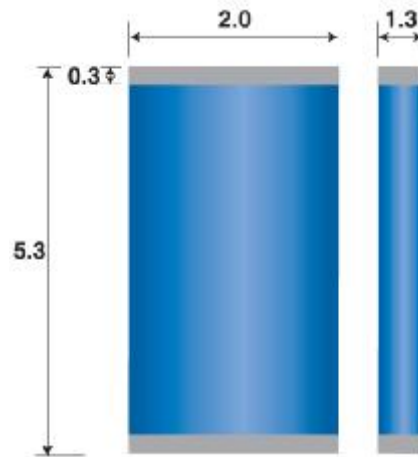
DATA SHEET

March, 2007 Rev.2

R&D	Product name			Part number			Date	
	5320 Ceramic Chip Antenna for WLAN & Bluetooth Application			CAN4311153002xx1K			July,2006	
							March, 2007	
Justin Liu	C.T.Lee	March, 2007		Page 1	sheet 190-1			A4
spec.doc	Yageo Taiwan							

5320 Ceramic Chip Antenna for IEEE802.11 b/g & Bluetooth Application

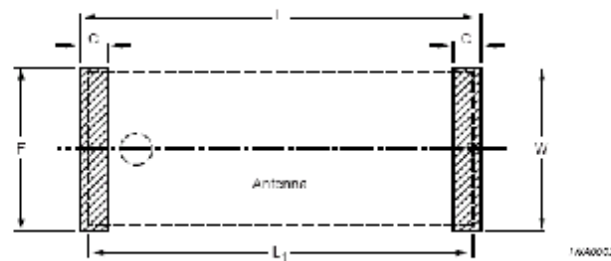
1. Mechanical Data (5.3 x 2.0x 1.3mm³)



Unit: mm

2. Dimension of Footprint

FOOTPRINT DIMENSIONS



l or dimensions see Table 2.

Fig.2. Recommend dimensions of solder

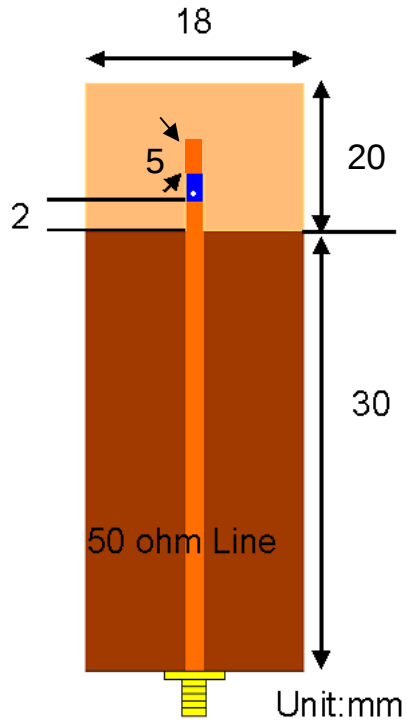
Physical dimensions

Table 2 The dimensions of antenna appearance

SYMBOL	DETAILS	DIMENSIONS (mm)
L		6.6 ±0.2
W	—	2.2 ±0.2
I	feed pad	2.2 ±0.2
C	—	0.5 ±0.25
L1	—	5.3 ±0.5

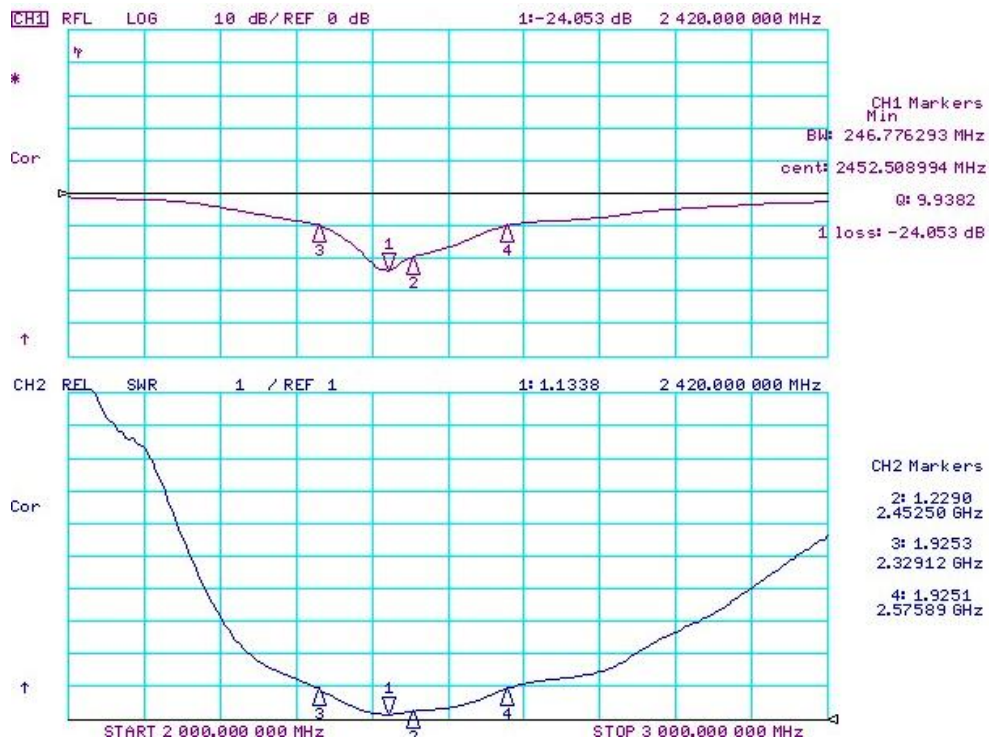
R&D	Print date 07/06/05									
	5320 Ceramic Chip Antenna for WLAN & Bluetooth Application				CAN4311153002xx1K				July,2006	
									March, 2007	
Justin Liu	C.T.Lee	March, 2007		Page 3	sheet 190-3			A4		
spec.doc	Yageo Taiwan									

3. Evaluation Board Dimension and Outlook



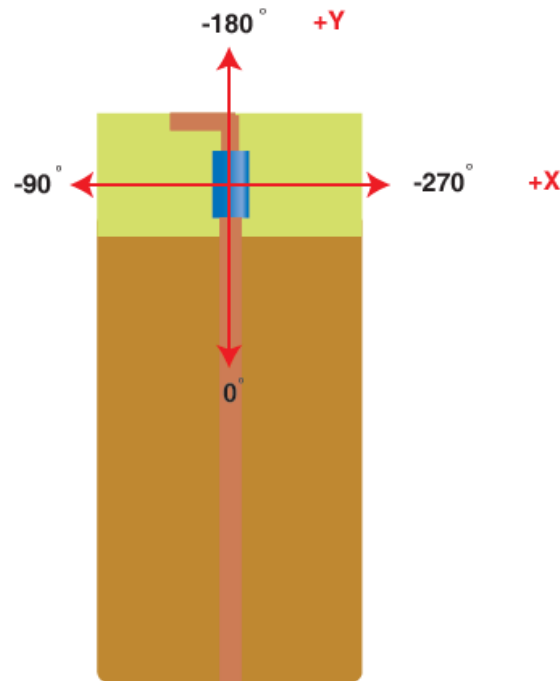
R&D	Print date 07/06/05							
	5320 Ceramic Chip Antenna for WLAN & Bluetooth Application			CAN4311153002xx1K			July,2006	
							March, 2007	
Justin Liu	C.T.Lee	March, 2007		Page 4	sheet 190-4			A4
spec.doc	Yageo Taiwan							

4. Return Loss

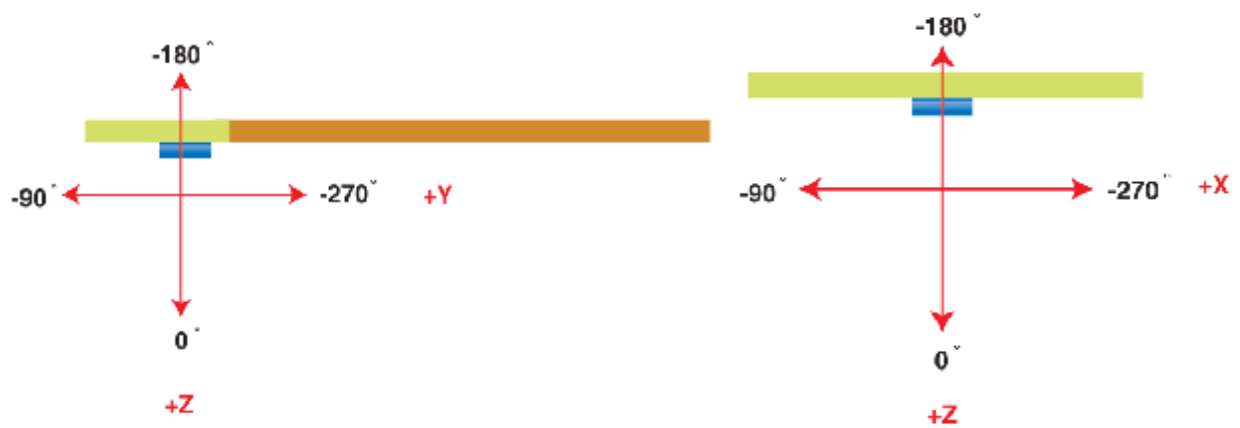


R&D	Print date 07/06/05							
	5320 Ceramic Chip Antenna for WLAN & Bluetooth Application			CAN4311153002xx1K			July,2006	
							March, 2007	
Justin Liu	C.T.Lee	March, 2007		Page 5	sheet 190-5			A4
spec.doc	Yageo Taiwan							

5. The Definition of X-Y-Z Plane and Angle



XY Plane



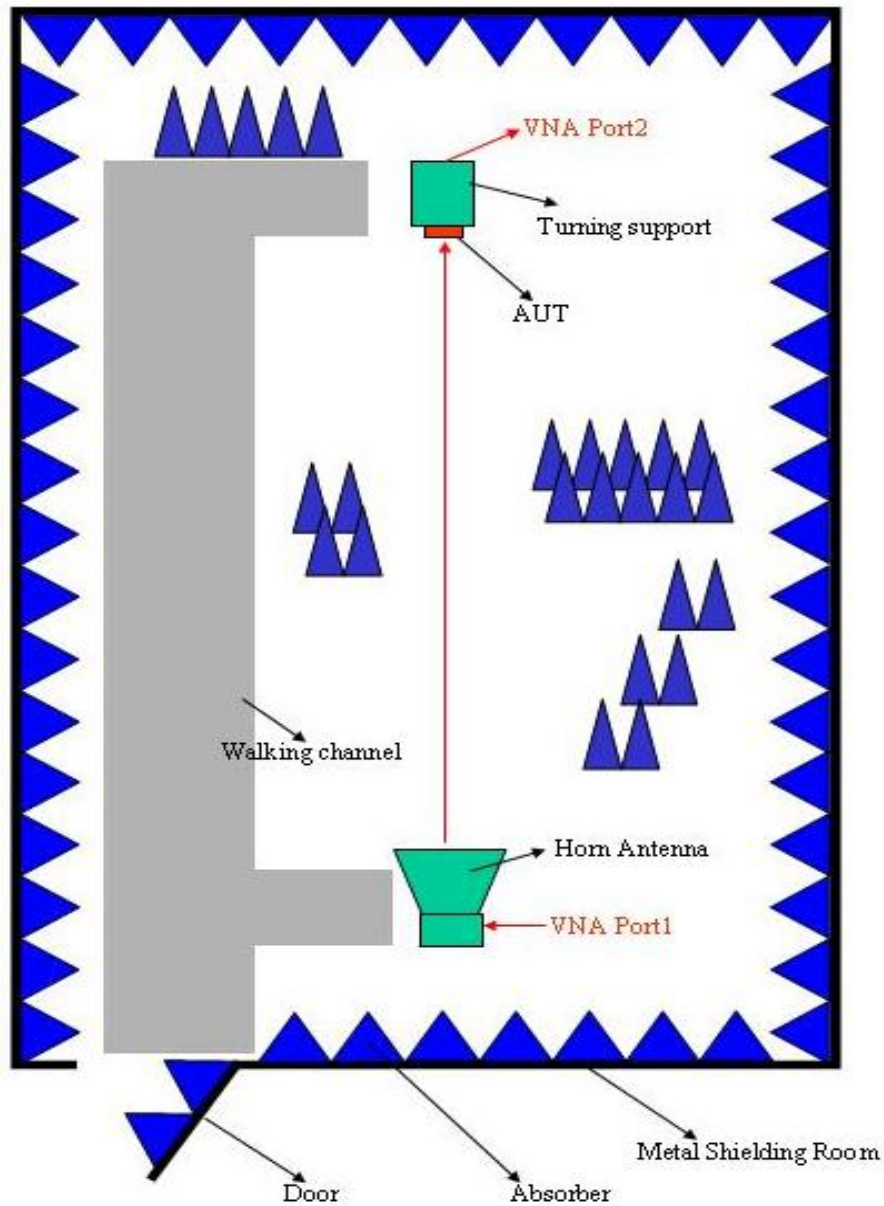
YZ Plane

XZ Plane

R&D	Print date 07/06/05									
	5320 Ceramic Chip Antenna for WLAN & Bluetooth Application				CAN4311153002xx1K				July,2006	
									March, 2007	
Justin Liu	C.T.Lee	March, 2007		Page 6	sheet 190-6			A4		
spec.doc	Yageo Taiwan									

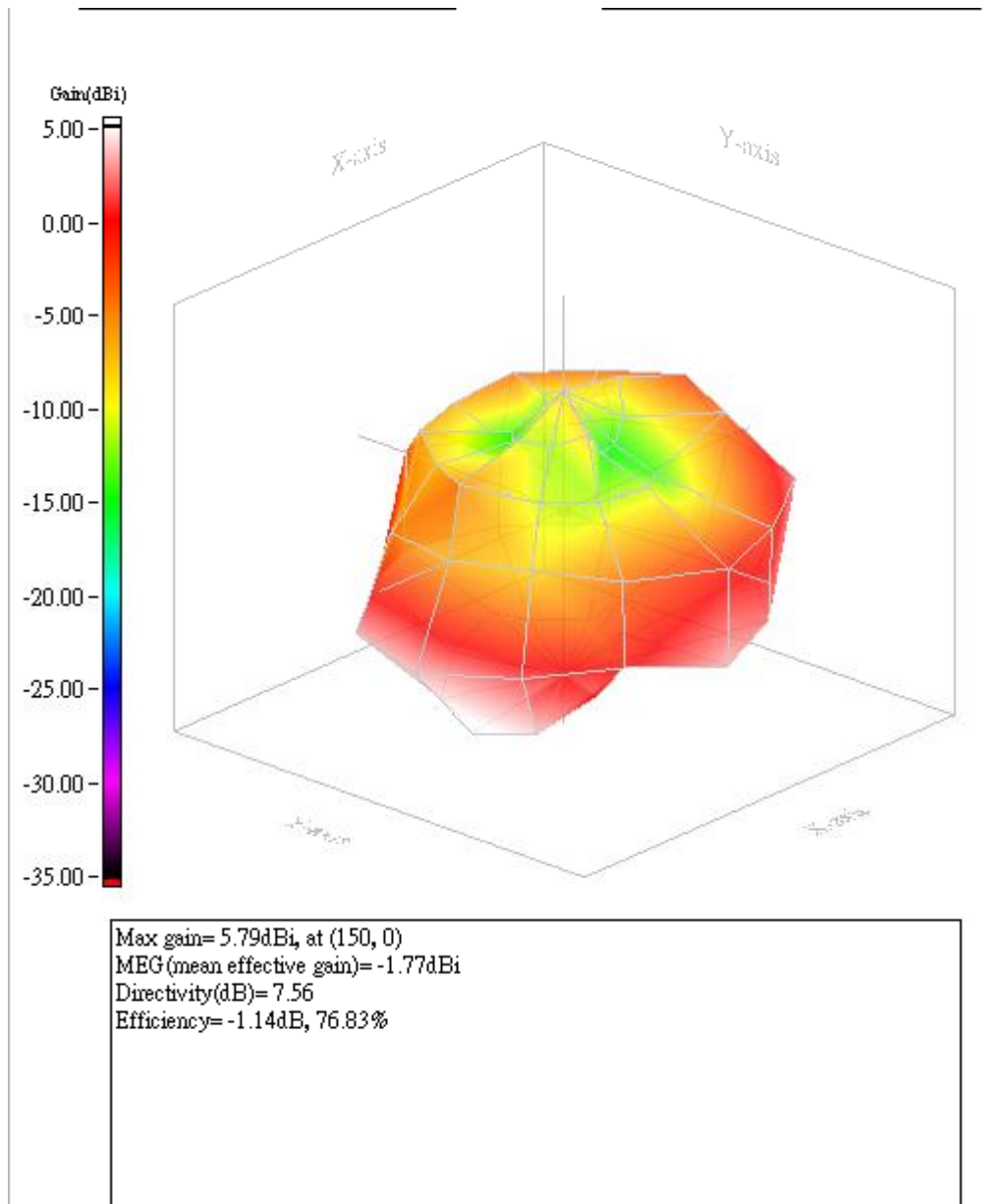
6. The Environment of Antenna Radiation Pattern

Anechoic Chamber Dimension=10(m) × 6(m) × 6(m)



R&D	Print date 07/06/05							
	5320 Ceramic Chip Antenna for WLAN & Bluetooth Application			CAN4311153002xx1K			July,2006	
							March, 2007	
Justin Liu	C.T.Lee	March, 2007		Page 7	sheet 190-7			A4
spec.doc	Yageo Taiwan							

7. 3D Radiation Pattern



R&D	Print date 07/06/05							
	5320 Ceramic Chip Antenna for WLAN & Bluetooth Application			CAN4311153002xx1K			July,2006	
							March, 2007	
Justin Liu	C.T.Lee	March, 2007		Page 8	sheet 190-8			A4
spec.doc	Yageo Taiwan							

IEC 384-10/ CECC 32 100 CLAUSE	IEC 60068-2 TEST METHOD	TEST	PROCEDURE	REQUIREMENTS
4.4		Mounting	The antenna can be mounted on printed-circuit boards or ceramic substrates by applying wave soldering, reflow soldering (including vapour phase soldering) or conductive adhesive	No visible damage
4.5		Visual inspection and dimension check	Any applicable method using $\times 10$ magnification	In accordance with specification (chip off 4mm)
4.6.1		Antenna	Central Frequency at 20 °C	Standard test board in page 4
4.8		Adhesion	A force of 3 N applied for 10 s to the line joining the terminations and in a plane parallel to the substrate	No visible damage
4.9		Bond strength of plating on end face	Mounted in accordance with CECC 32 100, paragraph 4.4	No visible damage
			Conditions: bending 0.5 mm at a rate of 1mm/s, radius jig. 340 mm, 2mm warp on FR4 board of 90 mm length	No visible damage
4.10	20(Tb)	Resistance to soldering heat	260 $\pm$ 5 °C for 10 $\pm$ 0.5 s in a static solder bath	The terminations shall be well tinned after recovery and Central Freq. Change $\pm$ 6%

R&D	Print date 07/06/05									
	5320 Ceramic Chip Antenna for WLAN & Bluetooth Application				CAN4311153002xx1K				July,2006	
									March, 2007	
Justin Liu	C.T.Lee	March, 2007		Page 9	sheet 190-9			A4		
spec.doc	Yageo Taiwan									

IEC 384-10/ CECC 32 100 CLAUSE	IEC 60068-2 TEST METHOD	TEST	PROCEDURE	REQUIREMENTS
		Resistance to leaching	260 ± 5 °C for 30 ± 1 s in a static solder bath	Using visual enlargement of ´ 10, dissolution of the termination shall not exceed 10%
4.11	20(Ta)	Solderability	Zero hour test, and test after storage (20 to 24 months) in original atmosphere; un-mounted chips completely immersed for 2 ± 0.5 s in 235 ± 5°C.	The termination must be well tinned, at least 75% is well tinned at termination
4.12	4(Na)	Rapid change of temperature	-25 °C (30 minutes) to +85 °C (30 minutes); 100 cycles	No visible damage Central Freq. Change ± 6%
4.14	3(Ca)	Damp heat	500 ± 12 hours at 60 °C; 90 to 95 % RH	No visible damage 2 hours recovery Central Freq. Change ± 6%
4.15		Endurance	500 ± 12 hours at 85 °C;	No visible damage 2 hours recovery Central Freq. Change ± 6%

R&D	Print date 07/06/05									
	5320 Ceramic Chip Antenna for WLAN & Bluetooth Application				CAN4311153002xx1K			July,2006		
								March, 2007		
Justin Liu	C.T.Lee		March, 2007		Page 10	sheet 190- 10			A4	
spec.doc	Yageo Taiwan									

The antennas may be ordered by using the Yageo ordering code. These code numbers can be determined by the following rules:

CAN 43 11 1 53 00 2xx 1K
A P M S B T Q

CAN 43 = Yageo Part No. for Antenna

11 = 180 mm/ 7" reel, blister taping

1 = High Frequency Material

53= 5.3 * 2.0*1.3mm

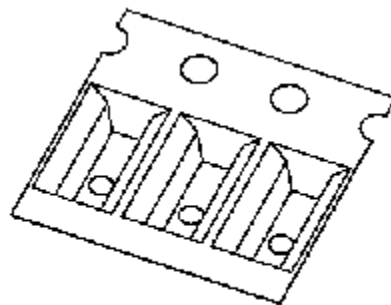
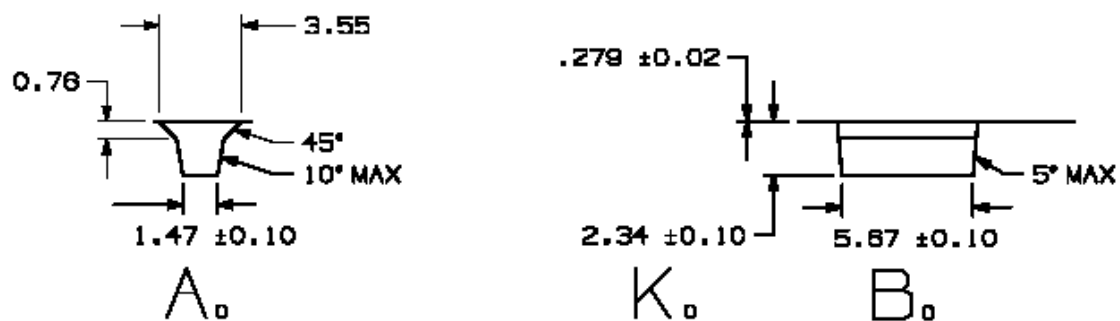
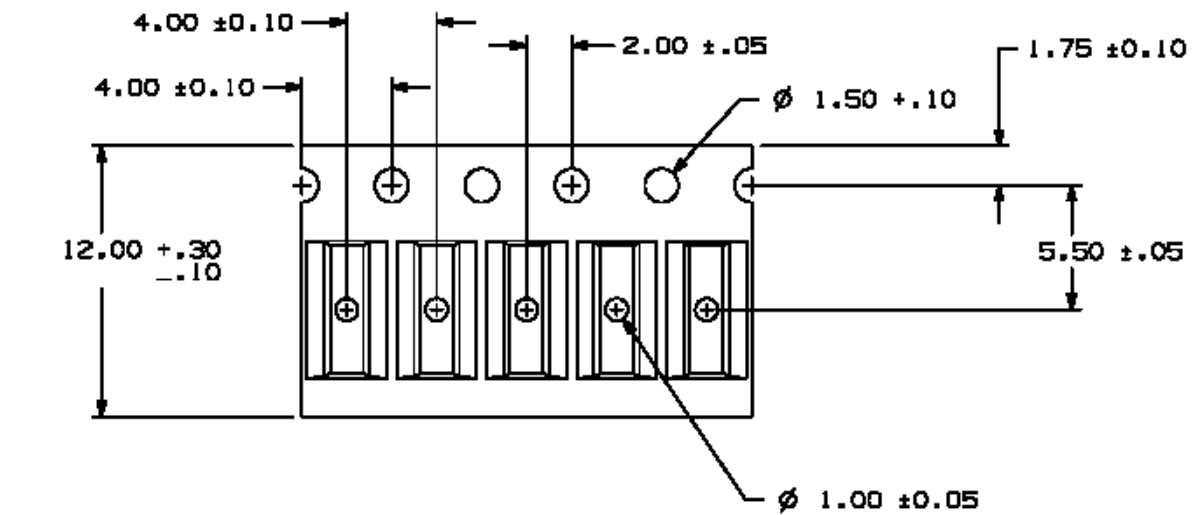
00 = Bluetooth Application

200 = type 0
210 = type 1
220 = type 2
230 = type 3
240 = type 4
245 = normal type
250 = type 5

1K = 1000 pcs for taping per reel

R&D	Print date 07/06/05							
	5320 Ceramic Chip Antenna for WLAN & Bluetooth Application			CAN4311153002xx1K			July,2006	
							March, 2007	
Justin Liu	C.T.Lee	March, 2007		Page 11	sheet 190- 11			A4
spec.doc	Yageo Taiwan							

Taping Blister Tape



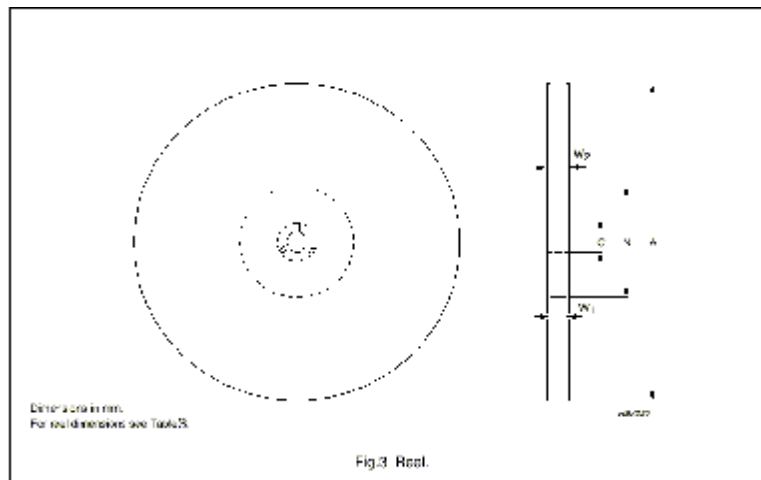
THE DIMENSIONS SHOWN ON THIS PROPOSED
DRAWING ARE FOR ILLUSTRATIVE PURPOSE.
DIMENSIONS FROM ACTUAL CARRIER MAY
VARY SLIGHTLY.

R&D	Print date 07/06/05							
	5320 Ceramic Chip Antenna for WLAN & Bluetooth Application			CAN4311153002xx1K			July,2006	
							March, 2007	
Justin Liu	C.T.Lee	March, 2007		Page 12	sheet 190- 12			A4
spec.doc	Yageo Taiwan							

DIMENSION:

Serial no	Checking note	Index	Spec(mm)
1	Sprocket hole	Do	1.50±0.10
2	Pocket hole	D1	1.0±0.05
3	Distance sprocket hole/sprocket hole	Po	4.0±0.10
4	Distance pocket/pocket	P1	4.0±0.10
5	Distance sprocket hole/pocket	P2	2.0±0.05
6	Tape width	W	12.0±0.30
7	Distance sprocket hole/outside	E	1.75±0.10
8	Distance sprocket hole/pocket	F	5.50±0.05
9	Pocket length	Ao	1.47±0.10
10	Pocket length	Bo	5.57±0.10
11	Pocket depth	Ko	2.34±0.10
12	Thickness of tape	T	0.279±0.02
13	10x sprocket hole pitch	10Po	40.0±0.20

7"(180mm) Reel Specifications



TAPE WEITH (mm)	A (mm)	N (mm)	C (mm)	W ₁ (mm)	W ₂ MAX. (mm)
12	180	60±1	13 ^{+0.50} / _{-0.20}	12.4 ^{+2.0} / _{-0.0}	18.4

R&D	Print date 07/06/05							
	5320 Ceramic Chip Antenna for WLAN & Bluetooth Application				CAN4311153002xx1K			July,2006
								March, 2007
Justin Liu	C.T.Lee	March, 2007		Page 13	sheet 190- 13			A4
spec.doc	Yageo Taiwan							

Revision Control:

Revision	Date	Content	Remark
1	2006, July	Modify the description for part nr.	
2	2007, March	Modify the part nr.	

R&D	Print date 07/06/05							
	5320 Ceramic Chip Antenna for WLAN & Bluetooth Application				CAN4311153002xx1K			July,2006
								March, 2007
Justin Liu	C.T.Lee	March, 2007		Page 14	sheet 190- 14			A4
spec.doc	Yageo Taiwan							