DATA SHEET

2.45/5GHz Dual Band Antenna with Cable & Connector for IEEE802.11b, 11a, Bluetooth, UNII

Preliminary product specification

Jan 21, 2003

2.45/5GHz Dual Band Antenna with Cable & Connector for IEEE802.11b, 11a, Bluetooth, UNII				4313 338 00252					— ▶	1	Jan 21, 03
									— ▶	2	
									— ▶	3	
BY / 製定者	Randy/ Cliff	SUPER / 原圖編號		TLL.SH / 共頁	1	PAGE/ 頁	1	SH nr.	— ▶	4	
CHECK				DATE / 日期		Jan. 21, 2003			— ▶	5	

Phicomp

2.4/5GHz Dual Band Antenna (Asustek S1N/ M2N Model) FOR WLAN IEEE 802.11b/11a, Bluetooth, UNII (With Cable & mini PCI Connector)

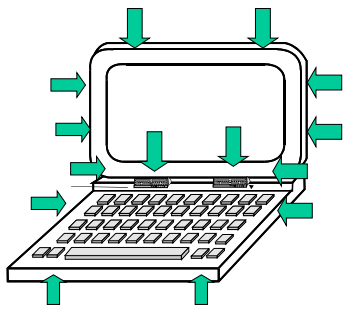
Product Specification (Preliminary)

QUICK REFERENCE DATA

Antenna Dimension	31*5.6*0.4 mm
Coaxial Cable Length	140 mm
MiniPCI Connector	I-Pex or Compatible
Max Gain	Free space 1 dBi max
VSWR	2.5 Max for 2.45GHz Band
	3.0 Max for 5GHz Band
Polarization	Linear
Impedance	50Ω
Operating Temperature	-40~90 ^{O}C
Maximum Power	1W
Antenna Flammability Grade	Antenna Patch UL94V0; Antenna Cable: E56198

APPLICATION

The antenna is used for RF communication by attaching antenna inside notebook's or PC's non-metal parts such as LCD frame, hinge, plastic case, main board, and etc. (possible antenna positions are shown below). The coaxial cable is further arranged inside notebook or PC and then connect to RF board (such as miniPCI card in notebook) by a connector.



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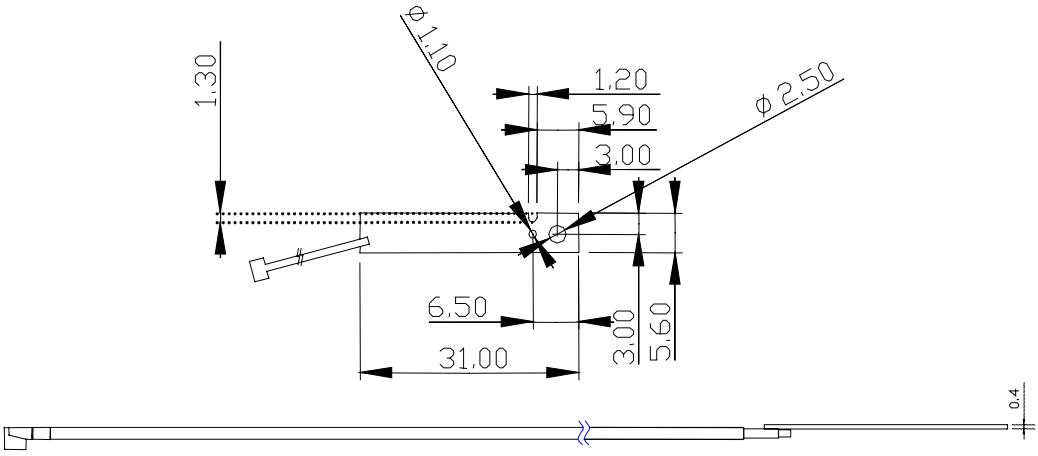
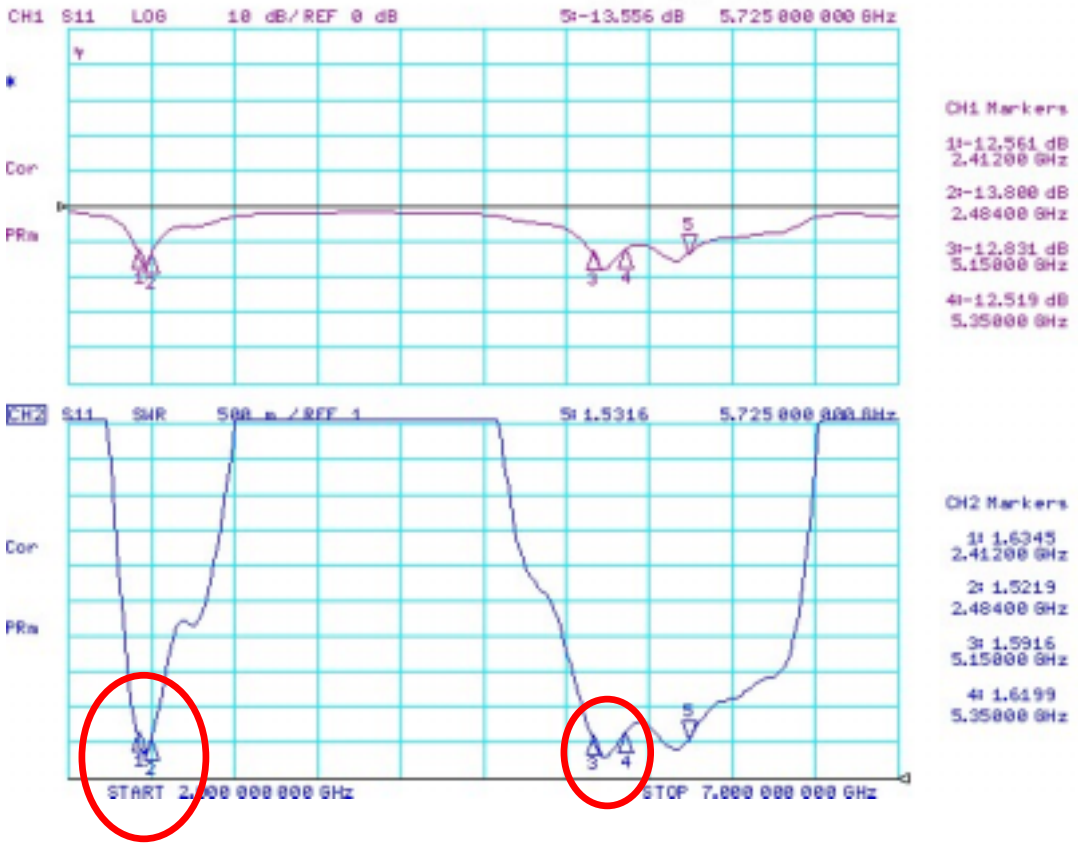
								— ▶	2	
								— ▶	3	
BY / 製定者	**Randy/ Cliff**	**SUPER / 原圖編號**		**TLL.SH / 共頁**	2	**PAGE/ 頁**	2	SH nr. — ▶	4	
CHECK				**DATE / 日期**	Jan. 21, 2003			— ▶	5	

DIMENSIONAL DATA (Note: Connector and cable length, types can be specified)



Typical VSWR & Return Loss S11 (After Installation in Notebook coupling in Notebook)



2.45/5GHz Dual Band Antenna with Cable & Connector for IEEE802.11b, 11a, Bluetooth, UNII				**4313 338 00252**					1	Jan 21, 03
									2	
									3	
BY / 製定者	**Randy/ Cliff**	**SUPER / 原圖編號**		**TLL.SH / 共頁**	3	**PAGE/ 頁**	3	SH nr.	4	
CHECK				**DATE / 日期**	Jan. 21, 2003				5	

RELIABILITY DATA (Reference to IEC Specification)

IEC 384-10/ CECC 32 100 CLAUSE	IEC 60068-2 TEST METHOD	TEST	PROCEDURE	REQUIREMENTS
4.12	4(Na)	Rapid change of temperature	-40 °C (30 minutes) to +90 °C (30 minutes); 5 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 90 °C;	No visible damage 2 hours recovery Central Freq. Change ± 6%

ORDERING INFORMATION: Method I- by 12NC Ordering Code

The antennas may be ordered by using the 12 NC ordering code. These code numbers can be determined by the following rules:

4313 3 38 01 252
F C M S T A

F. Family Code
43 = Antenna
C. Packing Type Code
13 = Bulk (1000 pcs)
M. Materials Code
3 = High Frequency Material
S. Size Code
38 = 31 * 5.6 * 0.4 mm
T. Tolerance
00 = Cable 1
A. Working Frequency
252 = 2.45/ 5.2 GHz

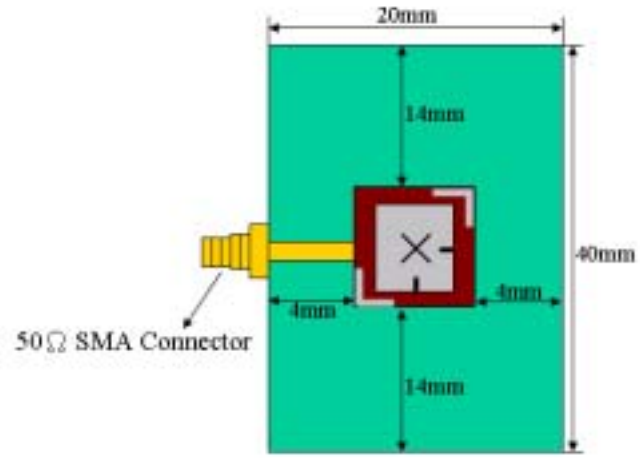
Example: 12NC 4313 338 00252
Product description: Antenna (43) by bulk 1000 pcs (13) of High Frequency Material (3), Size 31*5.6*0.4 mm (38); Cable 1 (00)
Working Frequency (252) = 2.45/ 5.2G Hz

ORDERING INFORMATION: Method II- by Clear Text Code

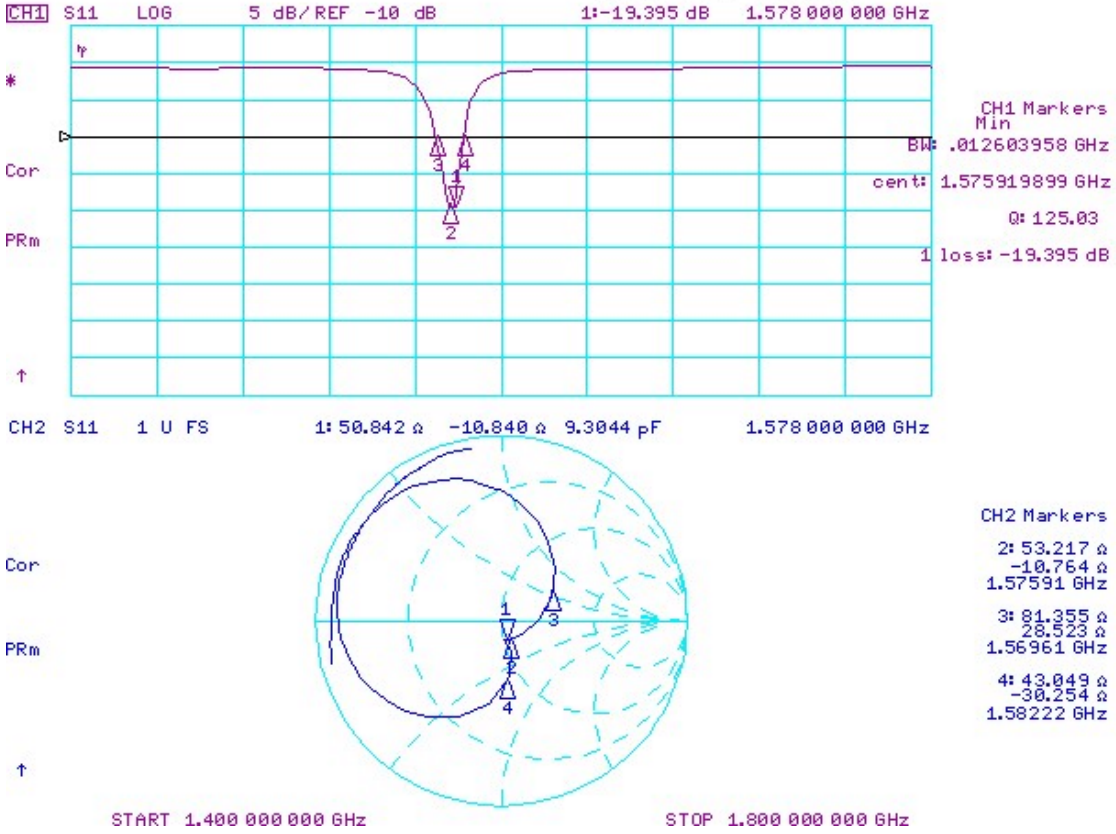
The antennas may be ordered by using the 16-digit clear text ordering code. These code numbers can be determined by the following rules:

AN2520000431061B (Clear Text Code Example)						
AN	2520	00	04	3106	1	B
Product	Central Freq.	Cable	Material	Size	Quantities	Packing
AN= Antenna	2520=2.45/ 5.2 GHz	00: Single cable	04=K4	3106=31*5.6*0.4 mm	1 = 1K	B = Bulk

1. Evaluation Board Dimension



2. The Measurement Data of S11



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									2	
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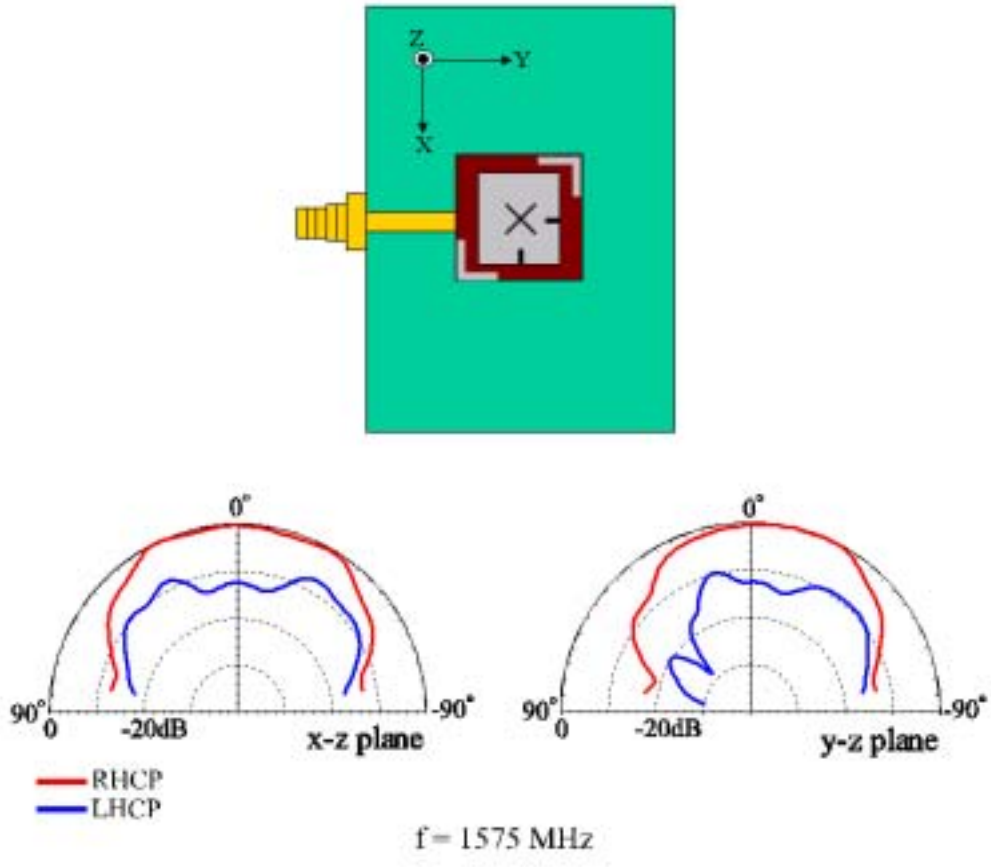
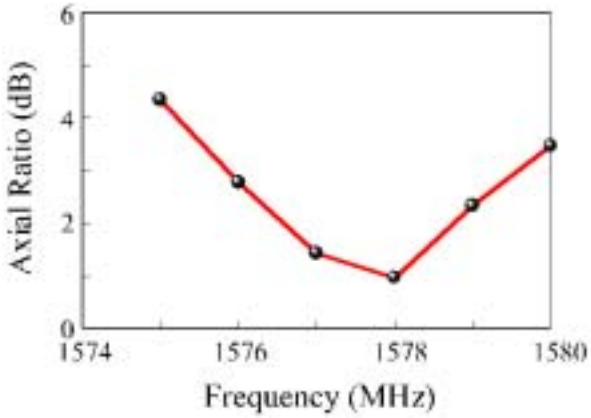
CHECK				**DATE / 日期**	Jan. 21, 2003				5	

3. The Measurement Data of Radiation Pattern



4. Axial Ratio



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									2	
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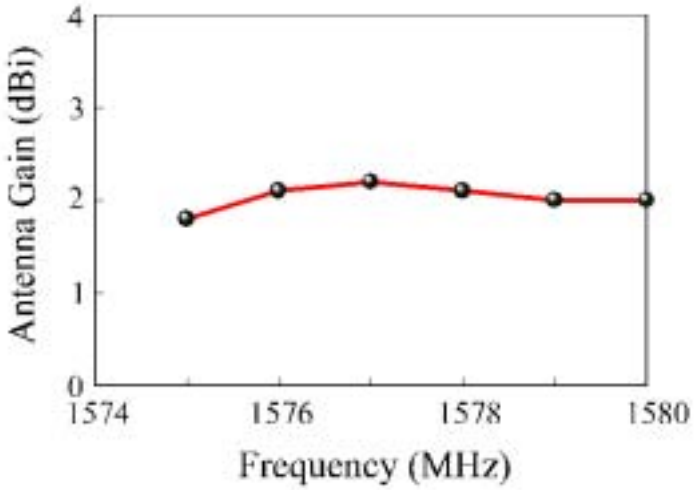
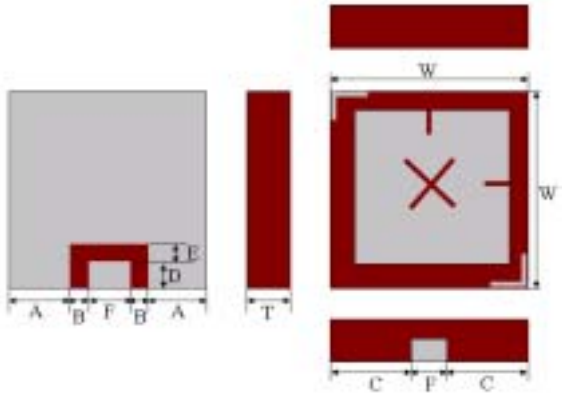
BY / 製定者	Randy/ Cliff	SUPER / 原圖編號		TLL.SH / 共頁	7	PAGE/ 頁	7	SH nr.	4	
CHECK				DATE / 日期	Jan. 21, 2003				5	

5. Antenna Gain



6. Bulk Antenna Dimension

Figure		
		
Dimension (mm)		**Port**
W	12	
T	4	
F	2	Antenna Feed
A	4	
B	1	
C	5	
D	1	
E	1	

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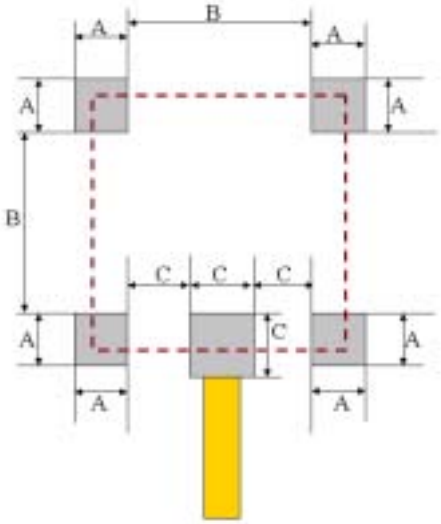
BY / 製定者	Randy/ Cliff	**SUPER / 原圖編號**		**TLL.SH / 共頁**	8	**PAGE/ 頁**	8	SH nr.	4	
CHECK				**DATE / 日期**		Jan. 21, 2003			5	

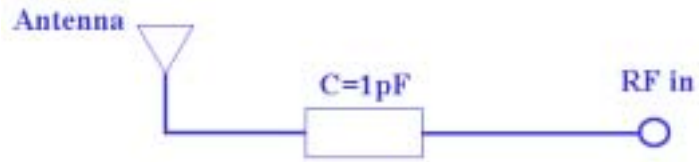
7. Solder Land Pattern Dimension

Figure


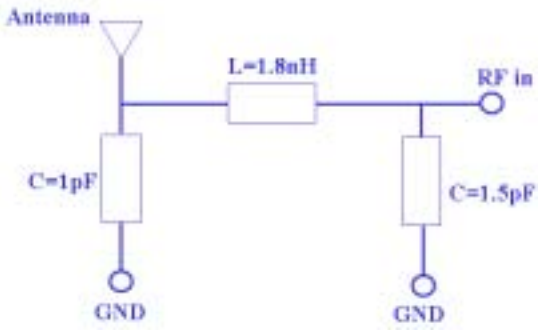
Dimension (mm)		Remark
A	2.5	PCB Ground Pad
B	9	
C	3	Antenna Feed Pad

8. Application and Matching Network Recommended

A. Series Model



B. Pi Model



9. Ordering Information:

Method I:

The CP mode GPS antennas may be ordered by using the 12 NC ordering code.
These code numbers can be determined by the following rules:

4313 2 22 06 158
F C M S T A

F. Family Code
43 = Antenna
M. Materials Code
2 = High Frequency Material
S. Size Code
22 = 12 * 12 * 4 mm, SMD
T. Tolerance
06 = SMD Type for 6M Hz Impedance Bandwidth
A. Working Frequency
158 = 1.58 GHz

C. Packing Type Code
13 = bulk packaging, 1000pcs

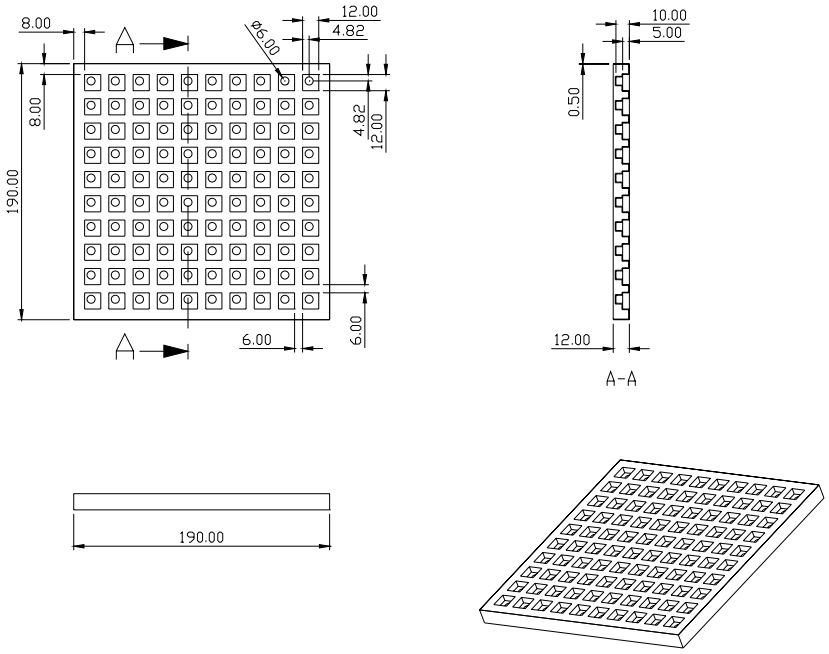
Example: 12NC 4313 222 06158
Product description: Antenna (43) by 1000pcs bulk (13) of High Frequency Material (2), Size 12*12*4 mm SMD (22);
Tolerance (06) of SMD Type 6M Hz Impedance Bandwidth (VSWR<2)
Working Frequency (158) = 1.58G Hz

Method II:

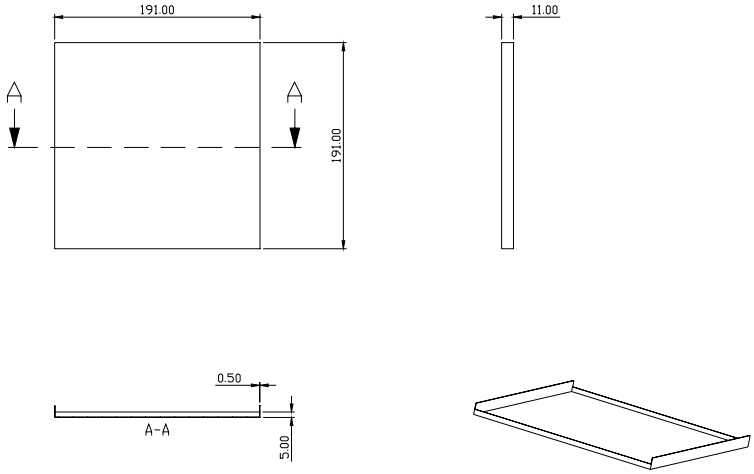
The antennas may be ordered by using the 16-digit clear text ordering code.
These code numbers can be determined by the following rules:

AN1580069012041B (Clear Text Code Example)						
AN	1580	06	90	1204	1	B
Product	Central Freq.	Bandwidth	Material	Size	Quantities	Packing
AN= Antenna	1580=1.58G Hz	06= 6MHz	90=K90	1204=12*12*4 mm SMD Type	1 = 1K	B = Bulk

10. Packing



Bottom Tray



Top Tray

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									2	
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CHECK				**DATE / 日期**		Jan. 21, 2003			5	

Revision Control:

Revision	Date	Content	Remark
1	Nov. 30, 2002	New Issued	
2	Jan. 2, 2003	Add Packing Tray	