

To :



Approval Sheet

Products	RFID PATCH ANTENNA ELEMENTS		
Customer			
Customer CODE	-		
Supplier	PARTRON		
Supplier CODE	ANPS2450D5ZTB		
	By designed	By checked	By approved
PARTRON	By designed	By checked	By approved
	S. H. HAN	C. S. JANG	J. H. PARK

2013. 11. 05

PARTRON CO.,LTD.

Tel : 82-31-201-7700/ Fax :82-31-201-7800
22-6 Seoku-dong Hwaseong-si
Gyeonggi-do (Seoul Korea)

SPECIFICATION

MODEL: ANPS2450D5ZTB

RFID PATCH ANTENNA

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To :

www.bocon.com.cn 010-51663110



1. Revision

[illegible]



2. Application

This specification covers the RFID patch antenna element used in RFID band system.

3. Part No

A N P S 2450 D 5 Z T B

AN	: Antenna Group	
P	: Antenna type	[P : Patch]
S	: Antenna Mode	[S : Single, D: Dual, L: Linear]
2450	: Center frequency	[Unit : MHz]
D	: Size (W x L)	[B : 20x20, A:18x18, C:25x25, D:35x35,]
5	: Patch Thickness	[4 : 4mm, 3 : 3mm, 2 : 2mm]
Z	: Patch Thickness	[Z : .0mm, A : .1mm, B : .2mm, ... , I : .9mm]
	ex) 4Z : 4.0mm, 4A : 4.1mm, 2C : 2.3mm, 3Z : 3.0mm	
T	: Supervisor Code.	
B	: Serial No.	

4. Lot numbering

P A O

P	: Partron co., Ltd.	
A	: Year	[A:2010, B:2011,]
O	:Month	[1 :JAN 9:SEP, O:OCT, N:NOV, D:DEC]

5. Test condition

5-1 Typical condition

Temperature : 20℃

Humidity : 65 %RH

5-2 Standard condition

Temperature : 5 ~ 35℃

Humidity : 20 ~ 85 %RH

6. Temperature range

6-1 Operating : -40 ~ +90℃



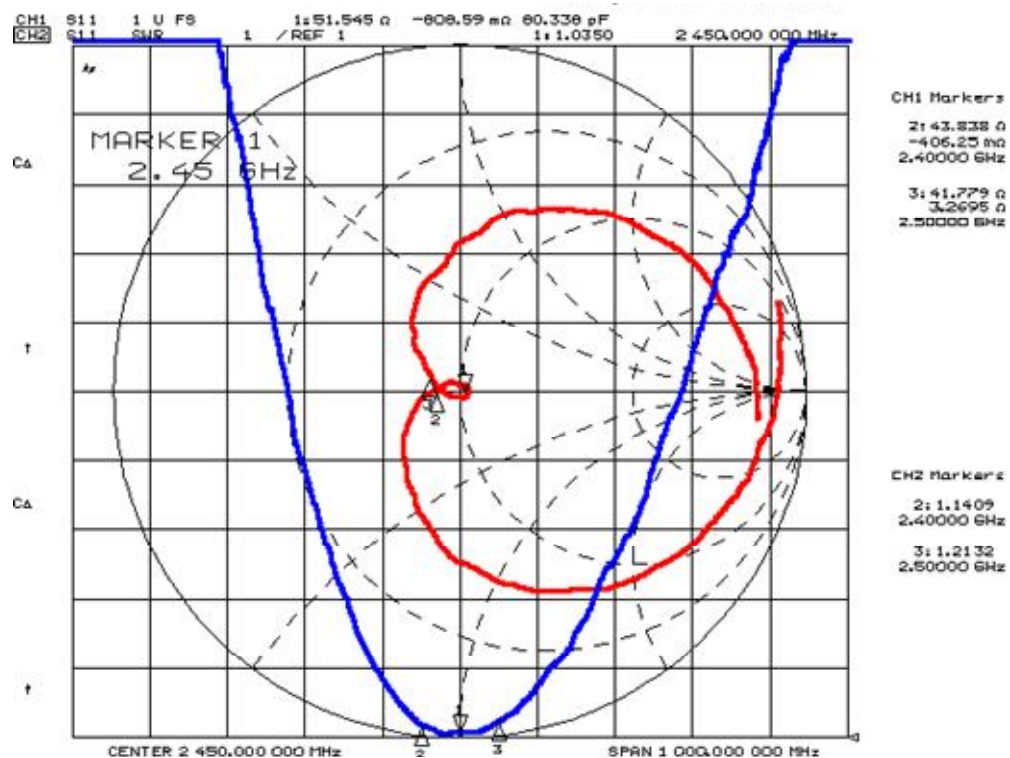
7. Electrical characteristics

Item	Unit	User's Spec	Remarks
Dimension [LxWxT]	mm	34x34x5.0	Tolerance L,W : ± 0.5 / T : ± 0.3
Operating Frequency	MHz	2400 ~2500	@Partron 49x49mm JIG @VSWR<2.0:1
Impedance	Ω	50	-
Polarization	-	RHCP	-
Gain @Zenith	dBic typ.	5.5	@Partron 49x49mm JIG
Freq. temperature coefficient	ppm/ $^{\circ}\text{C}$	20 max.	-40 $^{\circ}\text{C}$ to +90 $^{\circ}\text{C}$

8. Measurement plot graph

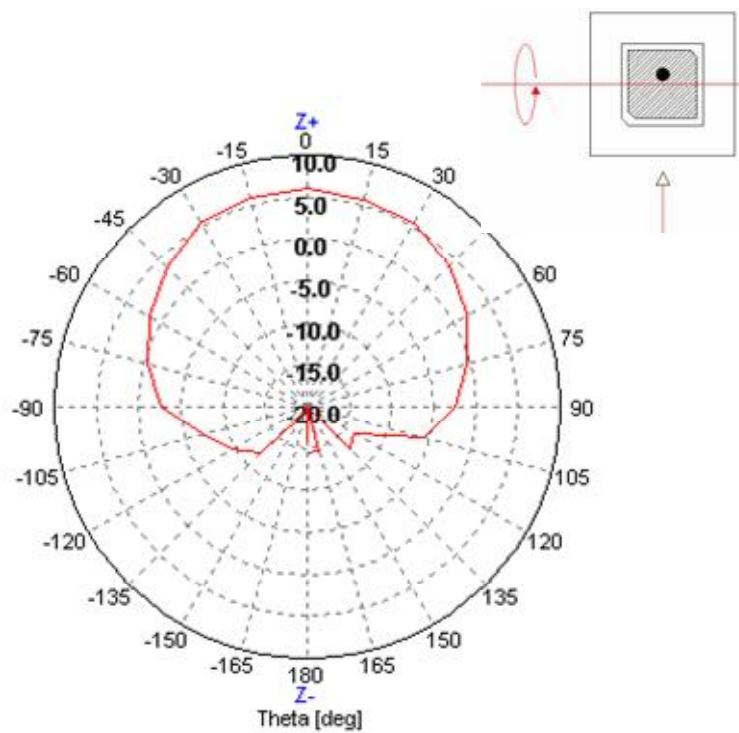
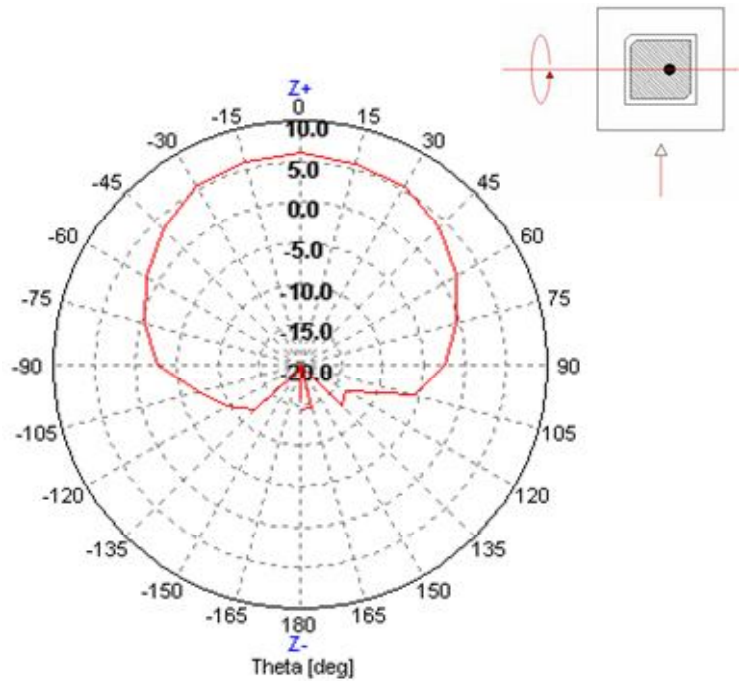
8-1. Smith Chart & V.S.W.R.(Return Loss) plot graph

Partron Test Jig (49x49mm)



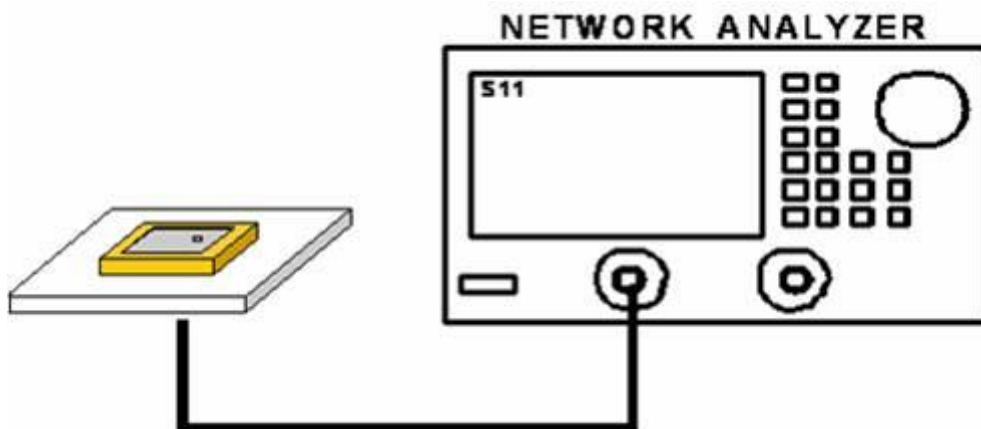
8-2. Radiation pattern

Partron 49x49mm JIG.

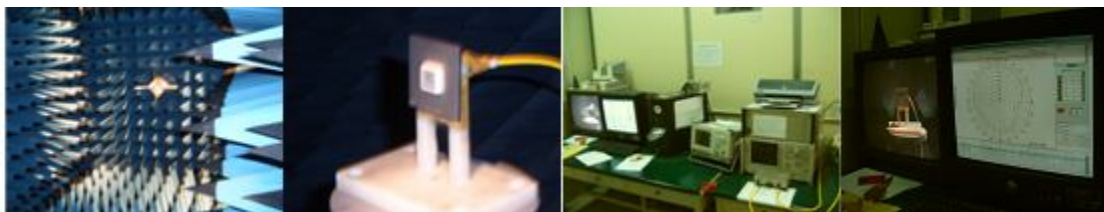
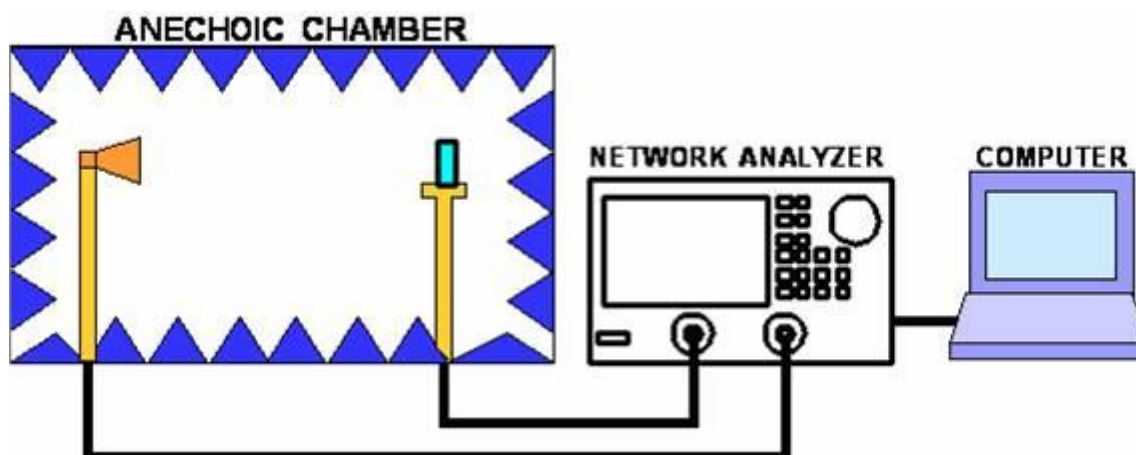


9. Measurement condition

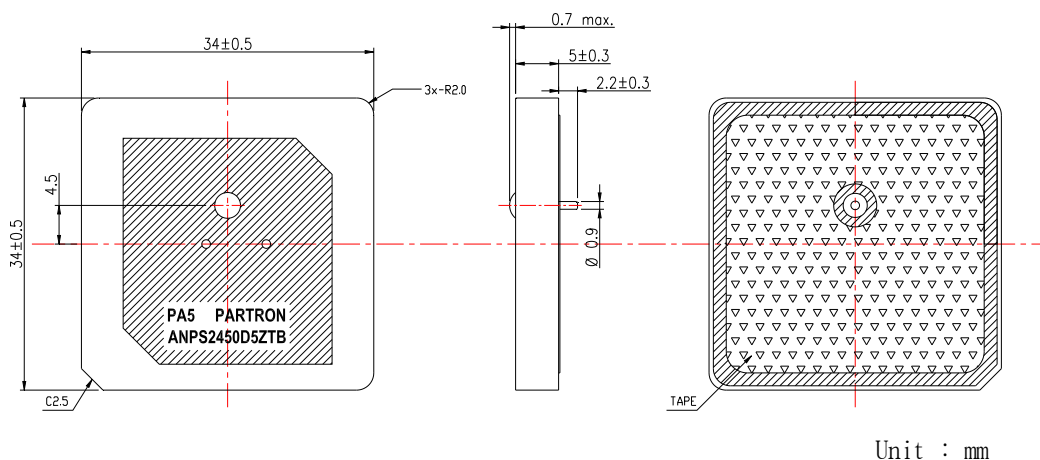
9-1. Smith Chart & V.S.W.R.(Return Loss) measurement



9-2. Gain measurement



10. Mechanical drawing



11. Reliability Specification

11-1. Environment Test

Item	Test Condition	Limit
High Temperature Resistance	+90℃ ± 3℃, 120hr	*After the test, specimen would be kept at 25℃ ± 5℃ for 1 hours *specimen shall meet the electrical specification
Low Temperature Resistance	-40℃ ± 3℃, 120hr	
Humidity Resistance	+60℃ ± 3℃, RH90~95%, 120hr ± 2hr	

11-2. Thermal Shock Test , Reflow Test

Item	Test Condition	Limit
Thermal Shock	-40℃ ± 3℃ (1Hr) ↔ +90℃ ± 3℃ (1Hr), 15 cycle	SAME as 11-1

11-3. Mechanical Test

Item	Test Condition	Limit
Random Vibration	Frequency 10~500Hz , 4×9.8m/s ² (G), Sweep time 15min , X.Y.Z each 5times	*After the test, specimen shall meet the electrical specification

12. Soldering condition

Manual soldering (by soldering iron)

Soldering Temperature : $340^{\circ}\text{C} \pm 5^{\circ}\text{C}$, 5sec max.

13. Guaranty

Products having trouble or failure under normal use within one year of delivery shall be repaired or exchanged at no charge.

14. Packing

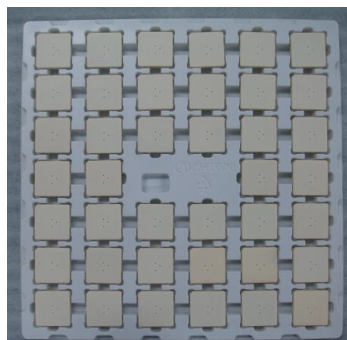
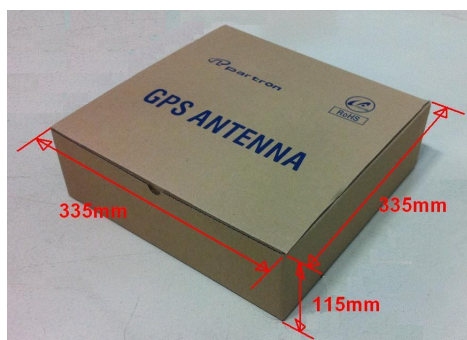
14-1. Packing tray

a. package quantity : 40pcs / tray

14-2. Packing box

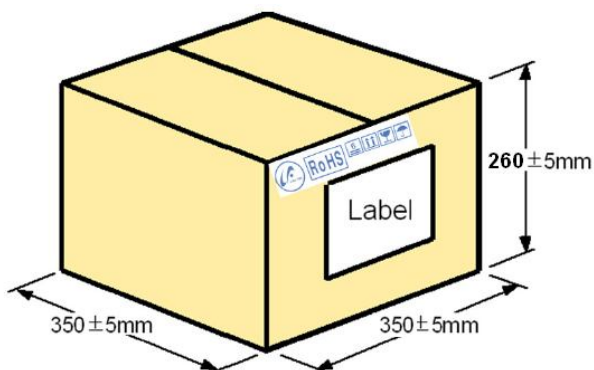
a. inner box

; put 5 tray which contains 200 patch antennas into inner box



b. out box

; put 2 inner boxes(400 pcs) which contains every 5 tray into out box





15. Inspection Sheet

P A R T I C I P A N T	Plan	Judging	Decision													
				Inspection Sheet						출리테크			Plan	Judging	Decision	
Name		Partron		Partname		RFID ANTENNA		Test Lot					Out Lot			
Model Name		ANPS2450D5ZTB		CODE NO							LOT- No.					
Test Date	Partron		2010. 10. 18		Tester	Partron					Decision	Partron				
			2010. .													
Test Item	Test Method					Test Condition					Set Lot			Lot		
	Partron										Partron				Partron	
Out View	KS A ISO 2859-1 G-II					0.65(c=0)					n=				Pn=0	
Size	Check Test					c=0					n= 20				Pn=0	
Electric	KS A ISO 2859-1 S-3					0.65(c=0)					n=				Pn=0	
Item	Electric Specific							size								
Spec	V.S.W.R (2.0MAX) 2400MHz		V.S.W.R (2.0MAX) 2450MHz		V.S.W.R (2.0MAX) 2500MHz				L 34±0.5mm		W 34±0.5mm		T 5.7mm max			
section	Partron		Partron		Partron				Partron		Partron		Partron			
x																
σ																
Cpk																
DECISION																

The technical drawing shows two views of the RFID antenna. The top view is a square with rounded corners, labeled with dimensions L=34±0.5 and W=34±0.5. It features a central circular hole and a label that reads "PA5 PARTRON ANPS2450D5ZTB". The side view shows the thickness of the antenna, labeled T=5.7.