



MSL LEVEL 1

Doc - No

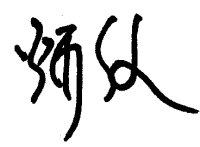
AISABRINAPA

SPECIFICATION

Product name	INTENNA
Specific	AISABRINAPA
Code	AH42-00026A
Model Name	SABRINA(P2)

PARTRON LTD.

NaDong 33 BanWul-Dong HwaSung-Si KyungGI-Do SouthKorea

Frame	Examination	Admission
S.H.LEE		
07/12	07/12	07/12

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1. History

[illegible]

2. Electric Specific

2.1 GAIN (Azimuth)

Channel	BT	
	2400MHz	2485MHz
Avg(dBi)	-6.1	-8.3
Max(dBi)	-2.1	-4.3

2.2 GAIN (Elevation 1)

Channel	BT	
	2400MHz	2485MHz
Avg(dBi)	-5.9	-7.4
Max(dBi)	0.1	1.1

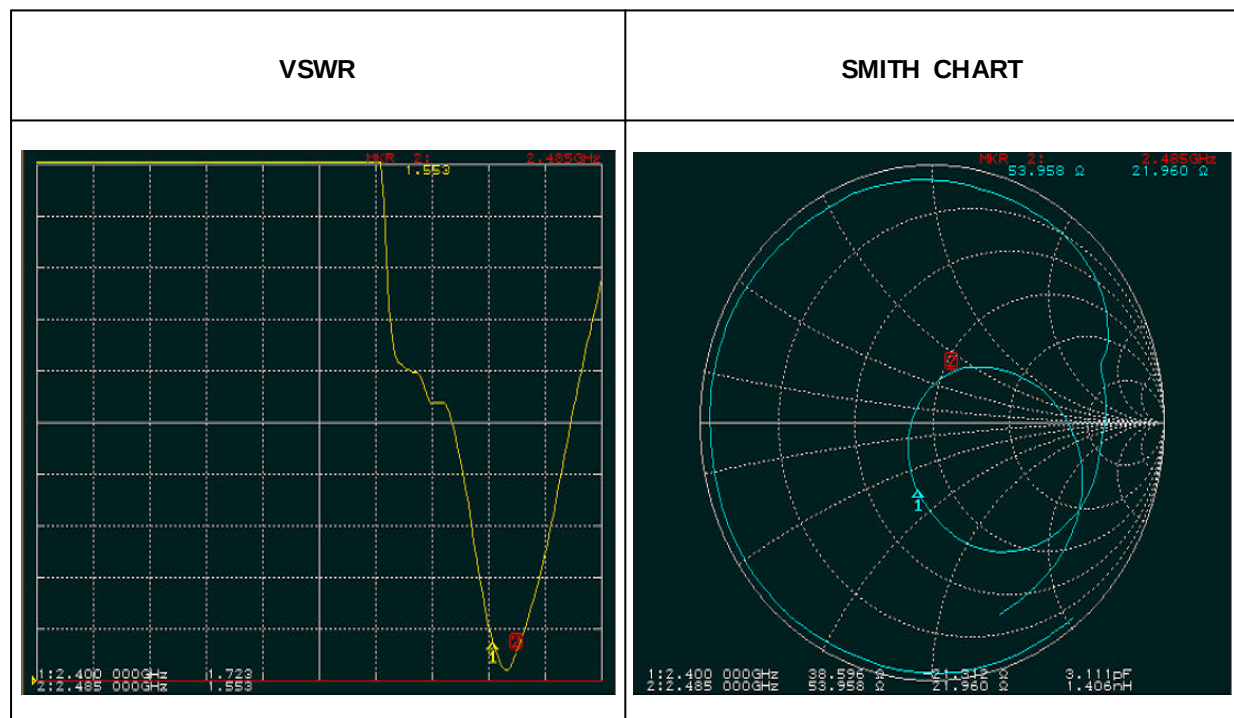
2.3 GAIN (Elevation 2)

Channel	BT	
	2400MHz	2485MHz
Avg(dBi)	-6.1	-7.0
Max(dBi)	-2.2	-3.5

2.4 VSWR & Polarization

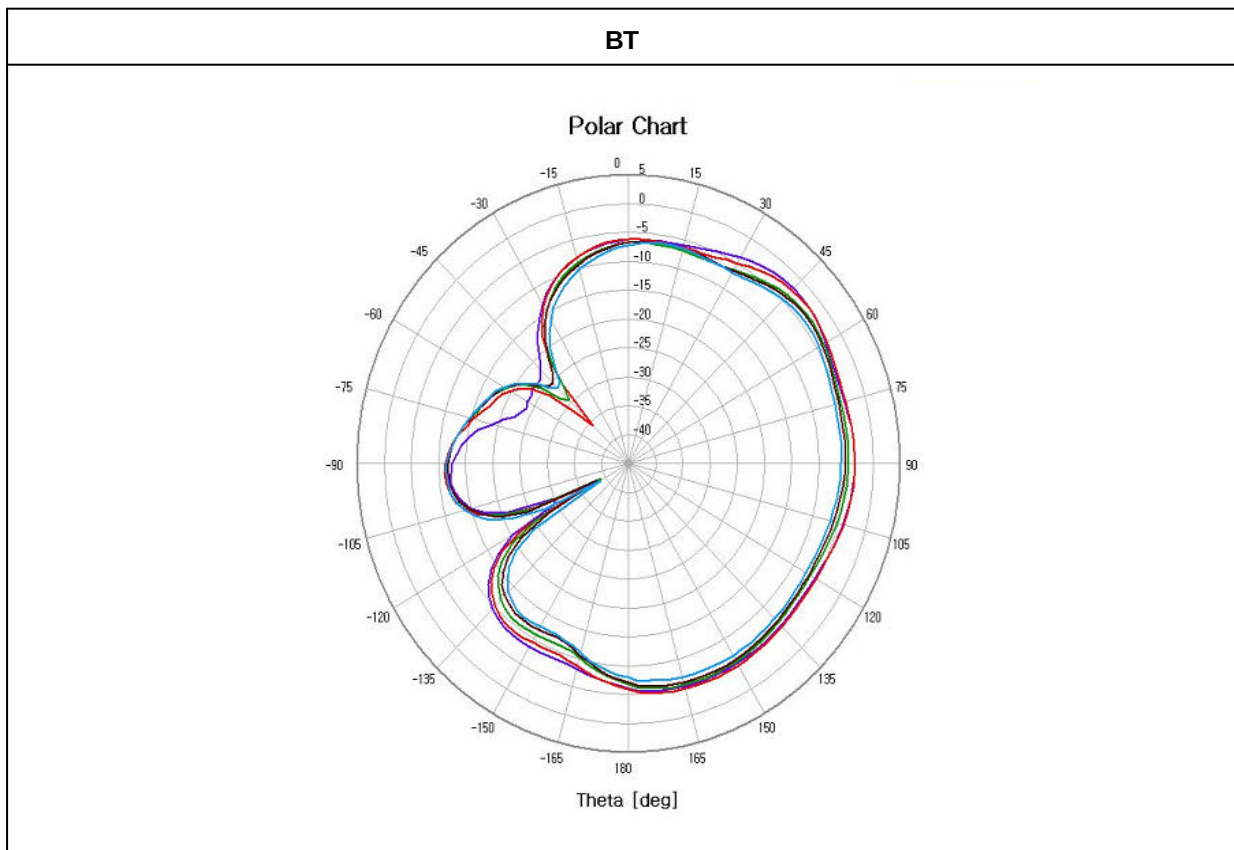
Band	BT			
	2400MHz		2485MHz	
VSWR	TYP	1.7	TYP	1.5
	MAX	2.7	MAX	2.5
Input Impedance	50 ohm			
Polarization	Vertical Polarization			
Radiation pattern	Isotropic			

2.5 VSWR & Smith Chart Graph



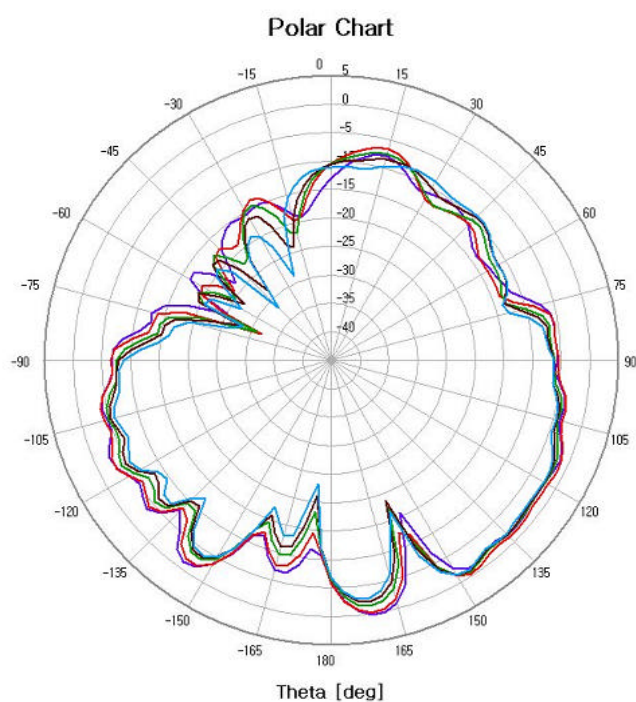
3. Radiation Pattern

3.1 AZIMUTH



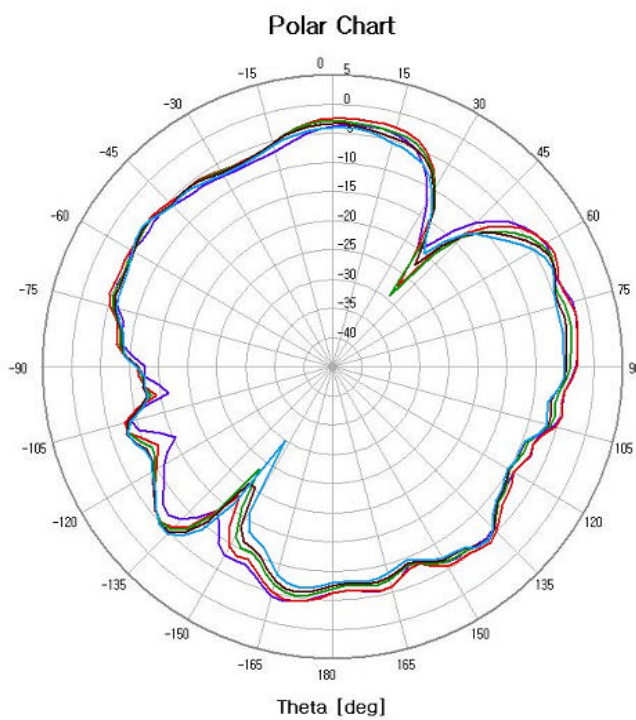
3.2 ELEVATION1

BT



3.3 ELEVATION2

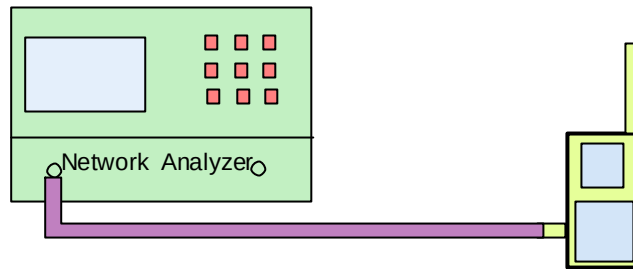
BT



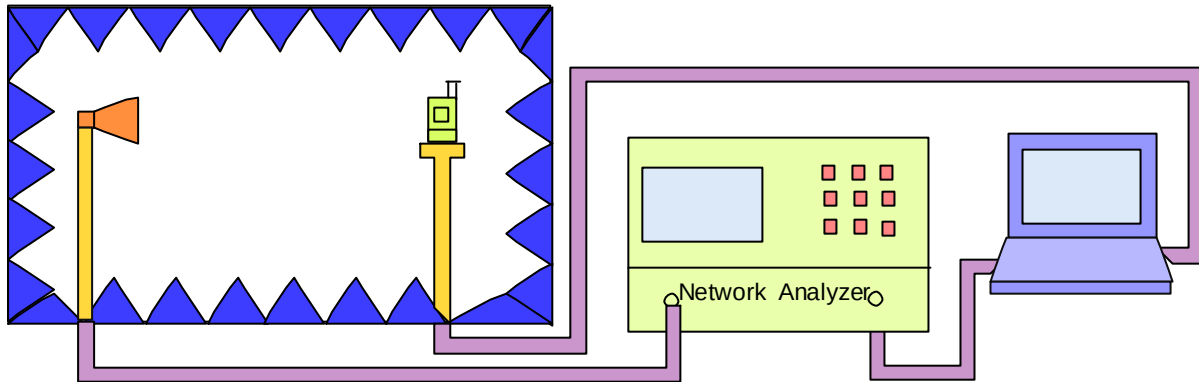
4. Measurement Method

Ant. Measurement is that use Network Analyzer for measuring Frequency and VSWR after Fixed Ant. in Handset. Gain measurement use Partron Chamber.

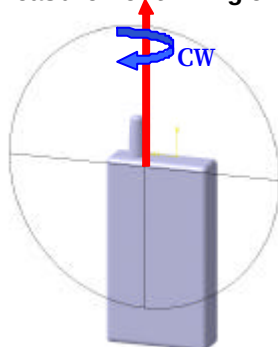
4.1 Frequency, VSWR Measurement



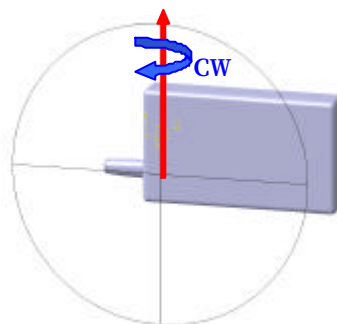
4.2 Gain Measurement



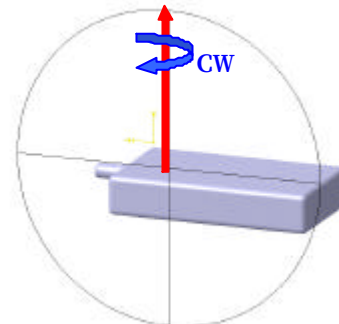
4.3 Measurement Angle



Azimuth Plane



Elevation 1 Plane

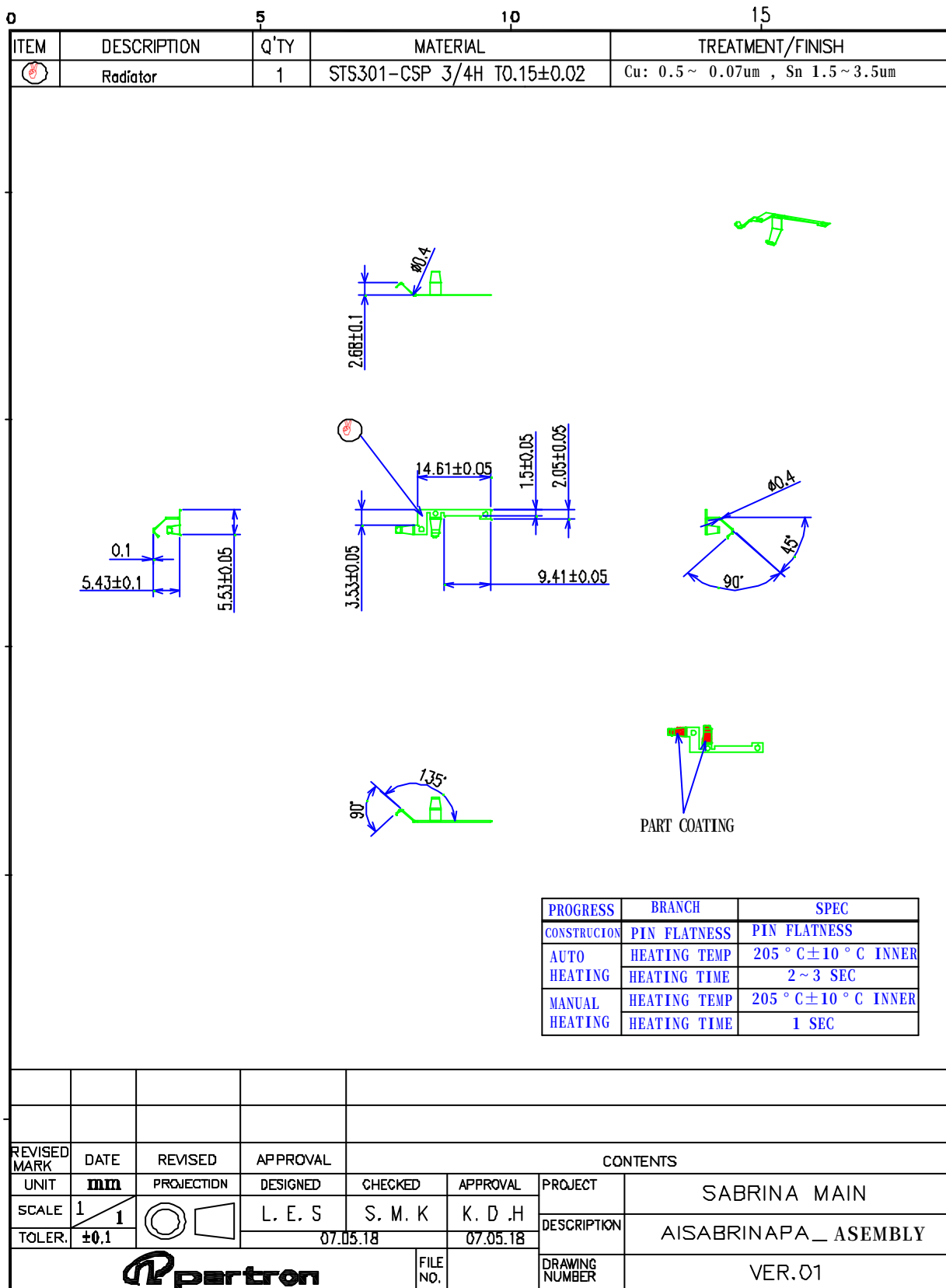


Elevation 2 Plane

- Co-Polarization, Cross-Polarization Meaning
- Co-Polarization (Co-Pol) : When Radiated Vertical and Horizontal Polarization in Source Ant.
Co-Polarization is Higher Polarization that is Ave. Gain Value
- Cross-Polarization (Cross-Pol) :When Radiated Vertical and Horizontal Polarization in Source Ant. Co-Polarization is Lower Polarization that is Ave. Gain Value

5. Structure Specific

5.1 Length



5.2 PART NO

<u>A</u>	<u>I</u>	<u>SABRINAP</u>	<u>A</u>
①	②	③	④

- ① Antenna
 ② Antenna Type : I - Internal Antenna, C - Chip Antenna
 ③ Model Name
 ④ Add Name
 ⑤ Serial Number

5.3. LOT NO.

<u>A</u>	<u>A</u>	<u>7</u>	<u>A</u>	<u>d</u>
①	②	③	④	⑤

- ① A : Korea , B : China
 ② A : A-Line , B : B -Line
 ③ Year ; 5 - 2005, 6 - 2006
 ④ Month ; A - JAN, B - NOV
 ⑤ Day ; 1-1Day , 2-2Day A-10Day , B-11Day.....

6. Attention**6.1. Temperature Condition**

	Range	unit
Use Temp	-40 +85	°C
Keeping Temp	-40 +85	°C

6.2 MSL LEVEL (JEDEC J-STD-020C)

	Floor Life		Soak Requirements	
	Time	Conditions	Time	Conditions
1	Unlimited	= < 30°C/85%RH	168+5/-0	= < 85°C/85%RH

7. Test Condition

7.1 Enviroment Condition

Item	Condition	Ect.
High Temp Keep	+85°C±3°C , 120hr±2hr	After Test,Testing after keeping 1hour in (25°C±5°C) Temp.
Low Temp Keep	-40°C±3°C , 120hr±2hr	
Humidity Test	+60°C±3°C , RH90~95% ,120hr±2hr	Must Pass Table1 Spec.

7.2 Temp Impact

Item	Condition	Ect
Temp Impact	-40°C±3°C/30min ↔ +85°C±3°C/30min cycle : 32 cycles	Must Pass Table1 Spec.

7.3 Mechanical Test

Item	Condition	Ect
Vibration Test	Freq. 50~500Hz -Acceleration 10 ×9.8m/s ² (G) Sweep time 15min , X.Y.Z each 5times	1.Must Pass Table1 Spec. 2.Don't damage external
Drop Test	12th' Drop at High 120cm 19th' Drop at High 15cm Bottom(Iron Plate), Jig(Tepron), Weight(110~150g),	1.Must Pass Table1 Spec. 2..Don't damage external
Salty Test	Temp : 35°C Salty: 5% Time: 72 hour	1.External Testing after Clear to distilled Water inner 2 hour 2. Don't have Erosion and Peeling in Surface

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8. First Test Result

P A R T R O N	PLAN	JUDJING	Decision	Inspection sheet(1/2)								s e c	PLAN	JUDJING	Decision
name		Partron		Part Name	Intenna								Out Lot		
model name		SABRINA		C O D E N O	AH42-00026A				L O T - N O						
TEST DATE	Partron	2007 . . .		Tester	Partron					Decision	Partron	PASS		Meterial	
	SamSung	2007 . . .			amSung						SamSung				
Test item	Test method			Test condition	Set Lot				Lot						
	Partron		SamSung		Partron		SamSung	Partron		SamSung					
Out view	KSA 3109 G-II			0.25 (c=0)		n=				Pn=0					
Size	Check test			c=0		n= 5				Pn=0					
Electric	KSA 3109 G-II			0.25 (c=0)		n=				Pn=0					
TENSION	Check test			c=0		n=15				Pn=0					
Item	Out View		Structure		size (mm)								Coating		
Spec	Uncoating		RADIATOR condition		①5.43 ±0.1		②5.53 ±0.05		③9.41 ±0.05		④14.61 ±0.05		Au coating 0.07 μm over		
구 분	Partron	SamSung	Partron	SamSung	Partron	SamSung	Partron	SamSung	Partron	SamSung	Partron	SamSung	Partron	SamSung	
1	PASS		PASS		5.43		5.54		9.41		14.6				
2	PASS		PASS		5.43		5.53		9.42		14.61				
3	PASS		PASS		5.50		5.51		9.43		14.62				
4	PASS		PASS		5.43		5.53		9.42		14.6				
5	PASS		PASS		5.41		5.52		9.41		14.6				
6	PASS		PASS		5.48		5.53		9.40		14.62				
7	PASS		PASS		5.43		5.52		9.42		14.63				
8	PASS		PASS		5.42		5.51		9.43		14.6				
9	PASS		PASS		5.47		5.53		9.41		14.61				
10	PASS		PASS		5.40		5.54		9.41		14.62				
11	PASS		PASS		5.42		5.55		9.42		14.61				
12	PASS		PASS		5.42		5.53		9.40		14.6				
13	PASS		PASS		5.43		5.54		9.42		14.59				
14	PASS		PASS		5.43		5.53		9.40		14.61				
15	PASS		PASS		5.43		5.51		9.42		14.63				
16	PASS		PASS		5.42		5.53		9.40		14.64				
17	PASS		PASS		5.44		5.52		9.41		14.61				
18	PASS		PASS		5.40		5.53		9.40		14.62				
19	PASS		PASS		5.44		5.51		9.43		14.61				
20	PASS		PASS		5.44		5.53		9.41		14.6				
X					5.43		5.53		9.41		14.61				
σ					0.02		0.01		0.01		0.01				
Cpk					1.30		1.39		1.49		1.27				
Decision	PASS		PASS		PASS		PASS		PASS				PASS		
ETC															
This Test satisfacted our company out test sepc															
															
president Kim Jong Gu															

Inspection sheet(2/2)

Item

Electric specific test on JIG Board

Spec

2400MHz MAX2.0

2485MHz MAX2.0

section

Partron

SamSung

Partron

SamSung

Partron

SamSung

Partron

SamSung

1

1.80

1.40

2

1.60

1.30

3

1.40

1.40

4

1.60

1.40

5

1.70

1.70

6

1.70

1.30

7

1.60

1.30

8

1.50

1.20

9

1.50

1.20

10

1.60

1.40

11

1.60

1.20

12

1.60

1.30

13

1.40

1.30

14

1.50

1.30

15

1.50

1.20

16

1.50

1.00

17

1.50

1.30

18

1.30

1.30

19

1.40

1.20

20

1.50

1.20

X

1.54

1.30

 σ

0.12

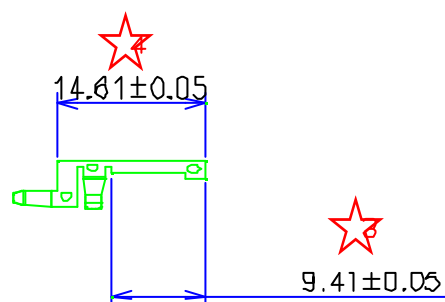
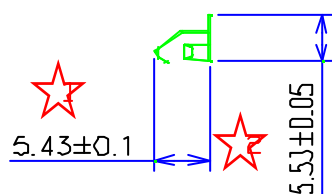
0.14

Cpk

1.29

1.73

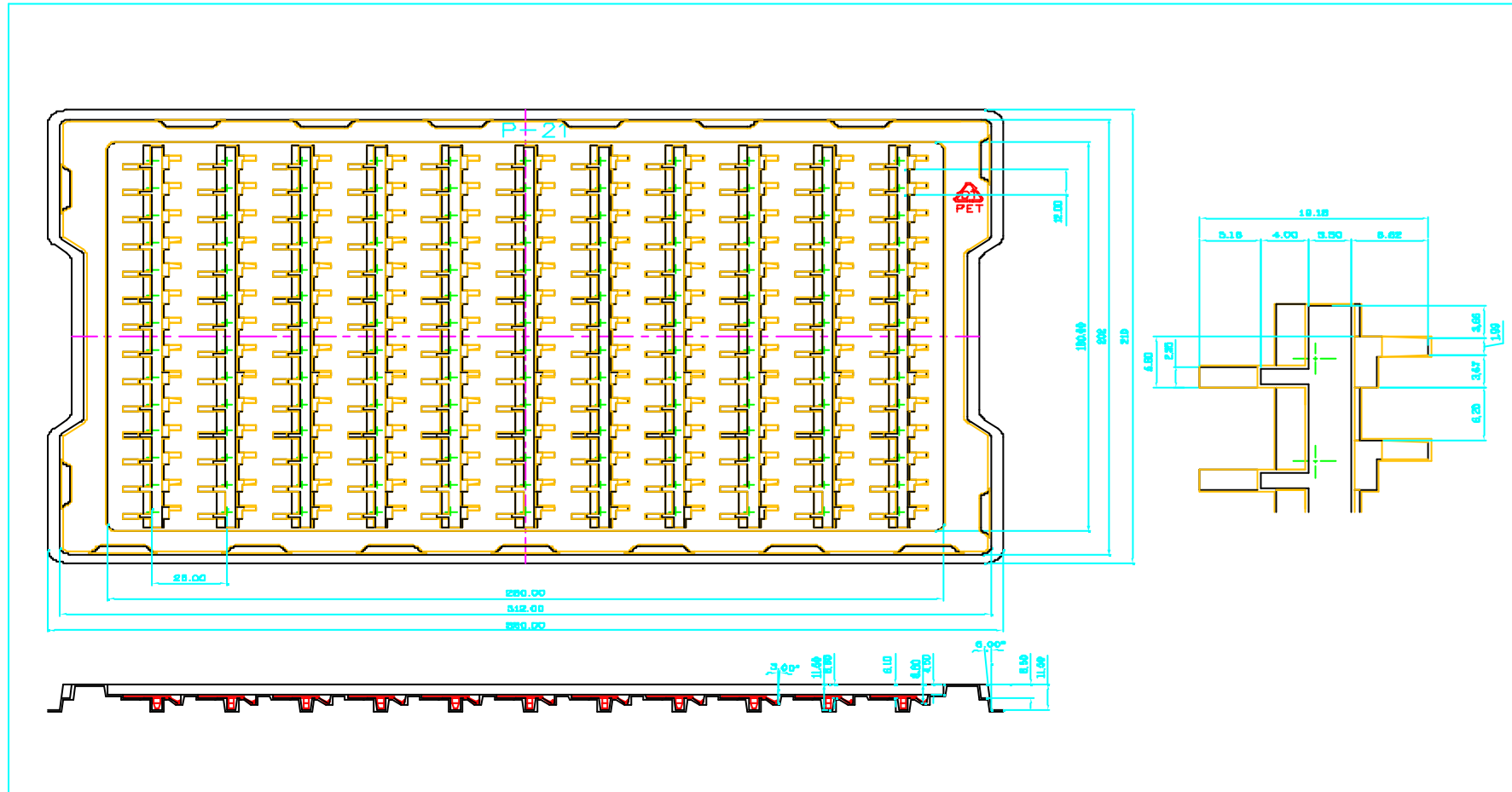
Decision



9. 포장 규격

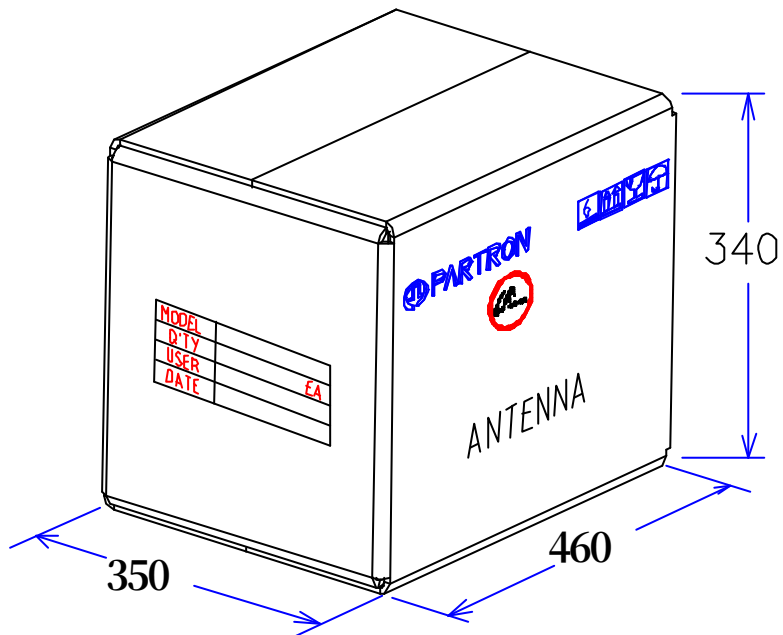
9.1 Packing Quantity ; 154EA/TRAY

9.2 Tray Size Spec



9.3 BOX

- Material : Corrugated Cardboard
- Packing Quantity : 1400 UP EA/BOX



9.4 Part Discernment Level

Part Discernment Level	
MODEL NAME	SABRINA
CODE NO.	AISABRINAPA
PRODUCTION DATE	
PACKING DATE	
QUANTITY	
SUPPLY DATE	
	

10. Progress Management

Resource s	FLOW CHART	Flow Name	Item Management					Product Spec Management					
			Equipment	Managem ent	Condition	Period	Record	Test Item	Test Method	Test Limite	Period	Record	Take
RADIATOR		Income Test CTQ						External Coating CTQ	Microscope Eye view 업체성적서	Packing Guide Paper Reference Au:0.07μmover	Each LOT Each LOT	Result Paper	반품 반품
RADIATOR		Spec Test CTQ	Network Anechoic Room	Standard Sample	± 0.3 inner	Each LOT	Test Sheet	VSWR CTQ	Network Analyzer Test Program	Packing Guide Paper Reference	All	LOT CARD	Discard
Tray A'ssy Packing		Packing						Packing Condition	Eye View	Packing Guide Paper Reference	All	LOT CARD	Rework
A'SSY		Out Test	Network Analyzer	Standard SPL	± 0.3 Inner	Each LOT	-	Out view vswr	Microscope Network Analyzer	Packing Guide Paper Reference	Each LOT	Result	Review

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11.Noxiousness Material Data

Environment Management Material List

11.1 Company Infomation

Name	PARTRON LTD.	Part Name	Intenna	Decision		
Company Code	BMSS	Part code	AISGHE236PA	Plan	Judging	Decisio n
Person	Lee kwang kuy	Date	2007.05.14		/	
Tel	031-201-7740	E-Mail	lkg@partron.co.kr			
Addres	33 banwulri teaanub hwasungsi kyungkido South korea			07/07/12		

11.2 환경관리물질 목록표

Part	Regulation Material	Contain		Presentation Paper					
		yes	no	Analysis Data	Component	Reporm Plan	Un use certifica te		
Class I	Cadmium and It's compound		0	0	0		0		
	lead and It's compound		0	0					
	Mercury and It's compound		0	0					
	6'st Chrome and It's compound		0	0					
	Polybrominated biphenyls (PBBs)		0						
	Polybrominated diphenylethers (PBDEs)		0						
Class II	Polychlorinated biphenyls (PCBs)		0						
	Polychlorinated Terphenyls (PCTs)								
	Polychlorinated naphthalences (PCNs)								
	Ozone depleting substances (CFCs,HCFCs, Halons)		0						
	Asbestos and It's compound		0						
	Formaldehyde		0						
	Short-chain chlorinated paraffins (Alkane 10~13 Carbon chain)		0						
	Azo compound		0						
	Nickel and It's compound		0						
	TBT		0						
	Arsenic and It's compound		0						
Class III	Phthalate		0						
	PVC		0						
	Beryllium and It's compound		0						
	Ect. sodium Flame Retardants (0ther chlorinated flame retardants)		0						
	(ex, TBBP-A) (0ther brominated flame retardants)		0						

11.3 유해물질 DATA

NO	Name	Matter	After Progress Matter	Analysis Item		Measurement Unit	Measurement Value	Test Method	Date	Measure Company
1	Radiator	Fe,Mn	Au coating	heavy metal	Cd	mg/kg	ND	USEPA 3050B	2007.01.15 (AU Coating ;2007.01.10)	SGS /SGS
					Pb		ND	USEPA 3052		
					Hg		ND	USEPA 3052		
					Cr+6		ND	USEPA 3050A		
				Flame Retardants	PBB		ND			
					PBDE		ND			

11.4 Noxiousness Material Result Paper

1) Radiator



한국자원분석센터
Korea Resource Analysis Center

177 Yongso-ro, Yongsong-gu, Gwangju 506-701, Korea

Tel. 061-279-6000 Fax. 061-279-6100

www.ficci.kr

접수번호 : 2017-01-00002

제 목 : 조 직 조

시 료 명

시 료 명

[표 1] 분석비용 : mg/g

성 분	단 위	분석방법	분석비용
철(Fe)	공통분석	ICP-AES	1.0mg/g
망(Mn)	공통분석	ICP-AES	
주석(Sn)	공통분석	ICP-AES	
크롬(Cr)	공통분석	ICP-AES	0.7mg/g

주 : 동량 분석비용은 100% (소량분석 비용은 50%)에 따라 50%~100%로 수정가능함



전자문서 서비스

[illegible]

FITI시형연구원

전자문서 서비스

2)AU Coating

		Date : January 10, 2007	
Test Report No. F44959LJF-C754P43746114		Page 1 of 2	
To : BAWA RETAIL 833-1, Gomsongang Chongju Chungcheong PROVINCE Korea			
The following merchandise was submitted and identified to the client as:			
Product Name :	As 1		
SGS File No. :	45487-2007-4		
Received Date :	January 04, 2007		
Test Performing Date :	January 05, 2007		
Test Performed :	SGS Testing Korea tested the sample(s) selected to ascertain the following results:		
Test Results :	For further details, please refer to following page(s)		
Report(s) :	1. LG ELECTRONICS, SAMSUNG ELECTRONICS, HANJUNG		
File No Bawa Jeong July 05 Jeong Jeong Testing Period SGS Testing Korea Co. Ltd  Jeong Jeong / Chemical Lab Mgr			



Test Report No. F4805545-CT8AY82-6004 **Date** : January 18, 2007 **Page** 2 of 2

Sample No. : 674827-00314-001

Sample Description : AL-1

How We Found It : N/A

Test Results				
Test Name	Unit	Test Method	MDL	Results
Cadmium (Cd)	mg/g	US EPA 9200.1000, US EPA 62 081.1000, EPA	0.0	0.0
Lead (Pb)	mg/g	US EPA 9200.1000, US EPA 62 081.1000, EPA	0.0	0.0
Mercury (Hg)	mg/g	US EPA 9200.1000, US EPA 1631.0000, EPA	0.0	0.0
Hexachlorobenzene (HCB)	mg/g	US EPA 9200.1000, US EPA 1631.0000, EPA	0.0	0.0

Picture of Sample as Received



18 Jan 07

NOTES:

- (1) (E/C) = Not detected (<MDL)
- (2) ppm = mg/g
- (3) MDL = Method Detection Limit
- (4) = No regulation
- (5) ** = Qualitative analysis (N/A)
- (6) Negative = Undetectable / Positive = Detectable