




APPROVAL SHEET

PRODUCT	ANTENNA()
MODEL	IALS000B1103LE
Code No	IALS000B1103LE
APPLICATION	W-LAN System
Customer	Samsung Electronics
Customer Model	SMT -W6100

DRAWN BY	CHECKED BY	ISSUED BY
		
2004. 08. 05	2004. 08. 05	2004. 08. 05
the term of validity	years	

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 Tel : 82-31-300-7506, Fax : 82-31-210-6554

	INTENNA ()		W-LAN SYSTEM
		CODE NO.	IALS000B1103LE

REV NO.		PAGE		
0	2004.03.15	1 ~13		
1	2004.03.27	5	6.	SPEC
	2004.03.27	8	9.	SEC

REV.	0										
Page	12										
REV.	0	1	0	0	1	0	0	1	0	0	0
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1.

2.

3.

4.

5.

6.

7.

7-1.

7-2.

8.

8-1. ,

8-2.

8-3.

9.

9-1. Reflow

9-2.

10.

10-1. Packaging

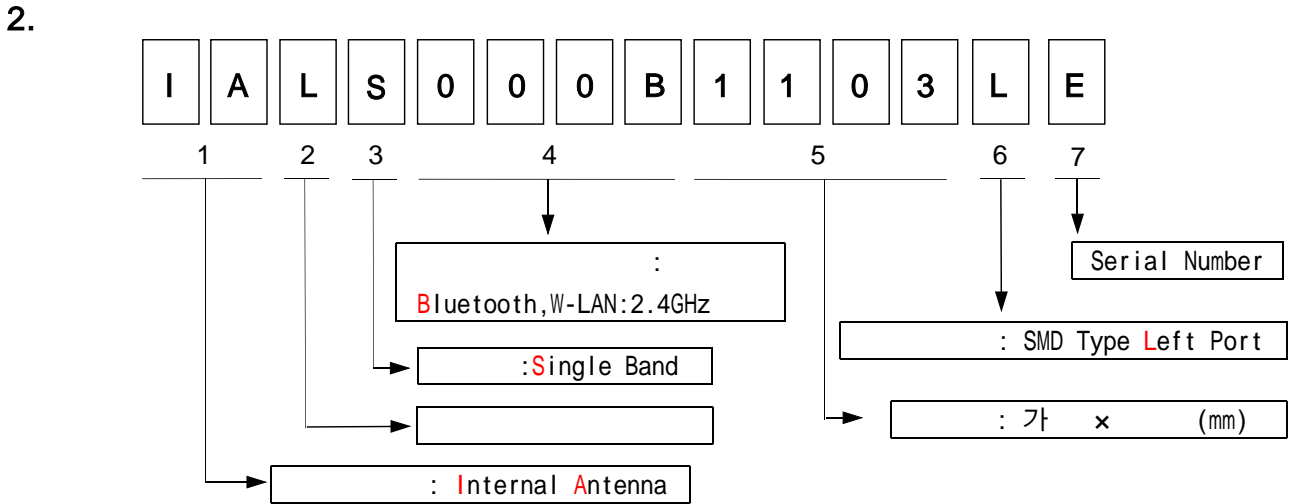
10-2. BOX

11. DATA

12-1. (V.S.W.R.)

12-2. (Gain)

1. INTENNA(Internal Antenna) (Omni-directional)
ISM Band(Bluetooth, W-LAN)



3. (25)

NO.							
		Min.	Typ.	Max.			
1		2400		2484	MHz	V.S.W.R 3:1 Bandwidth(84MHz)	()
2			50			-	
3	GAIN			0.68	dBi	3 6 0 D e g .	
4				3:1		-	

4.

NO.				
1		Tstg	-40 to +85	
2		Top	-30 to +70	

5.

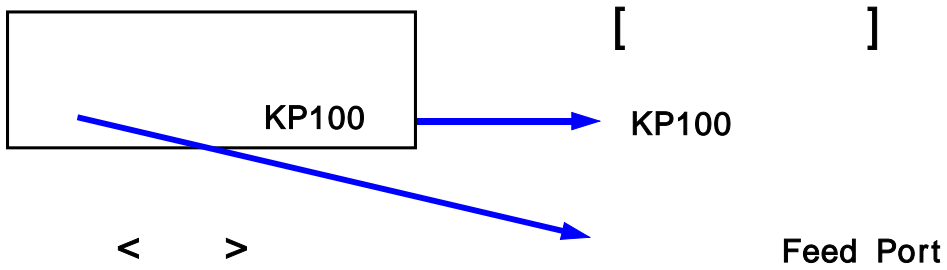
Ceramic Powder(LTCC)	Powder + Glass
Packaging	Tapping (1 REEL: 3000 pcs)

6.

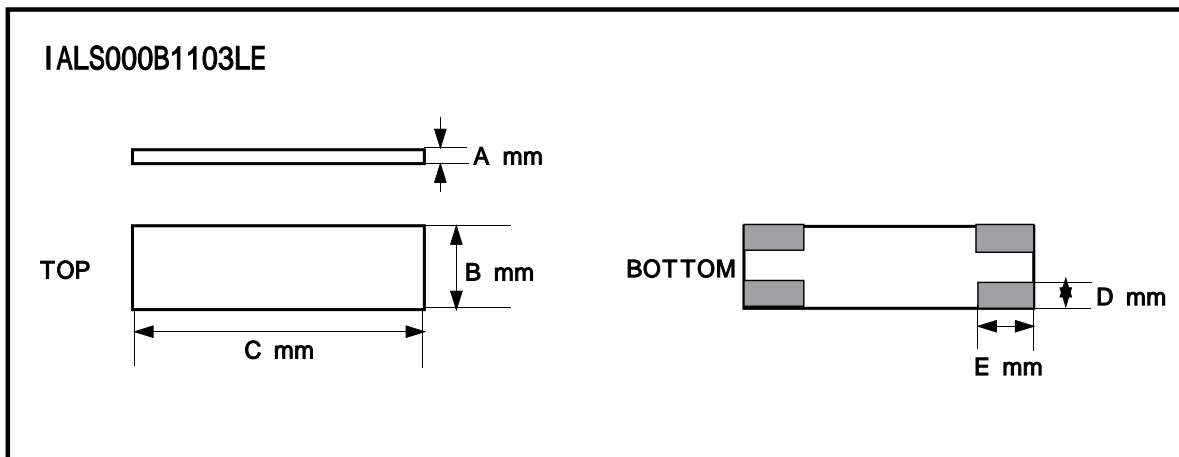
NO				
1	REFLOW	J-STD-020B 2Hr 24Hr	11	PASS
2		-30 /1Hr, 25 /1Hr, 85 /1Hr step	5	PASS
3		85 240 Hr	11	PASS
4		-40 240 Hr	11	PASS
5		70 ±3 , 85%RH 240Hr	11	PASS
6	가	121 , 100%RH, 2kf/cm ² 24Hr	11	PASS
7		-40 /30min 85 /30min 1 cycle 32 cycle	11	PASS
8		: 120cm (12), 152cm (19) jig (110g 150g)	11	PASS
9		20Hz 2000Hz 5G 2 x, y, z 가 가	11	PASS
10		260 ±5 10 ±1sec	11	PASS
11		230 ±5 5 ±0.5sec 가.	11	PASS

7.

7-1.

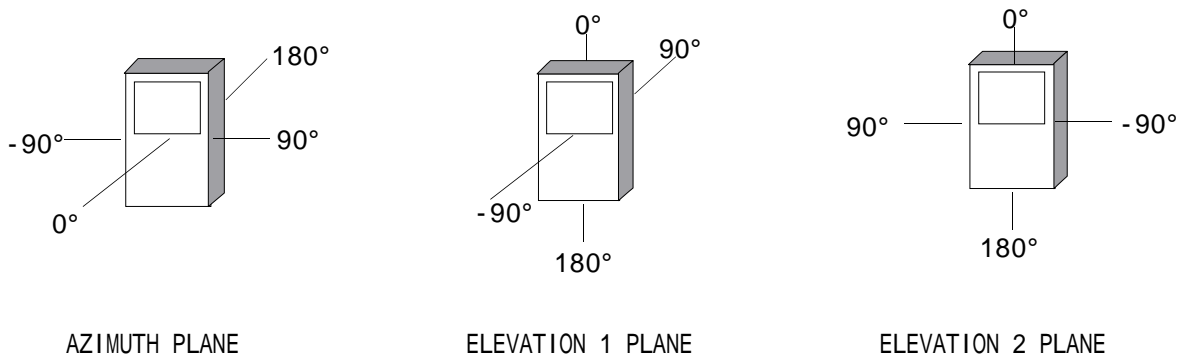


7-2.



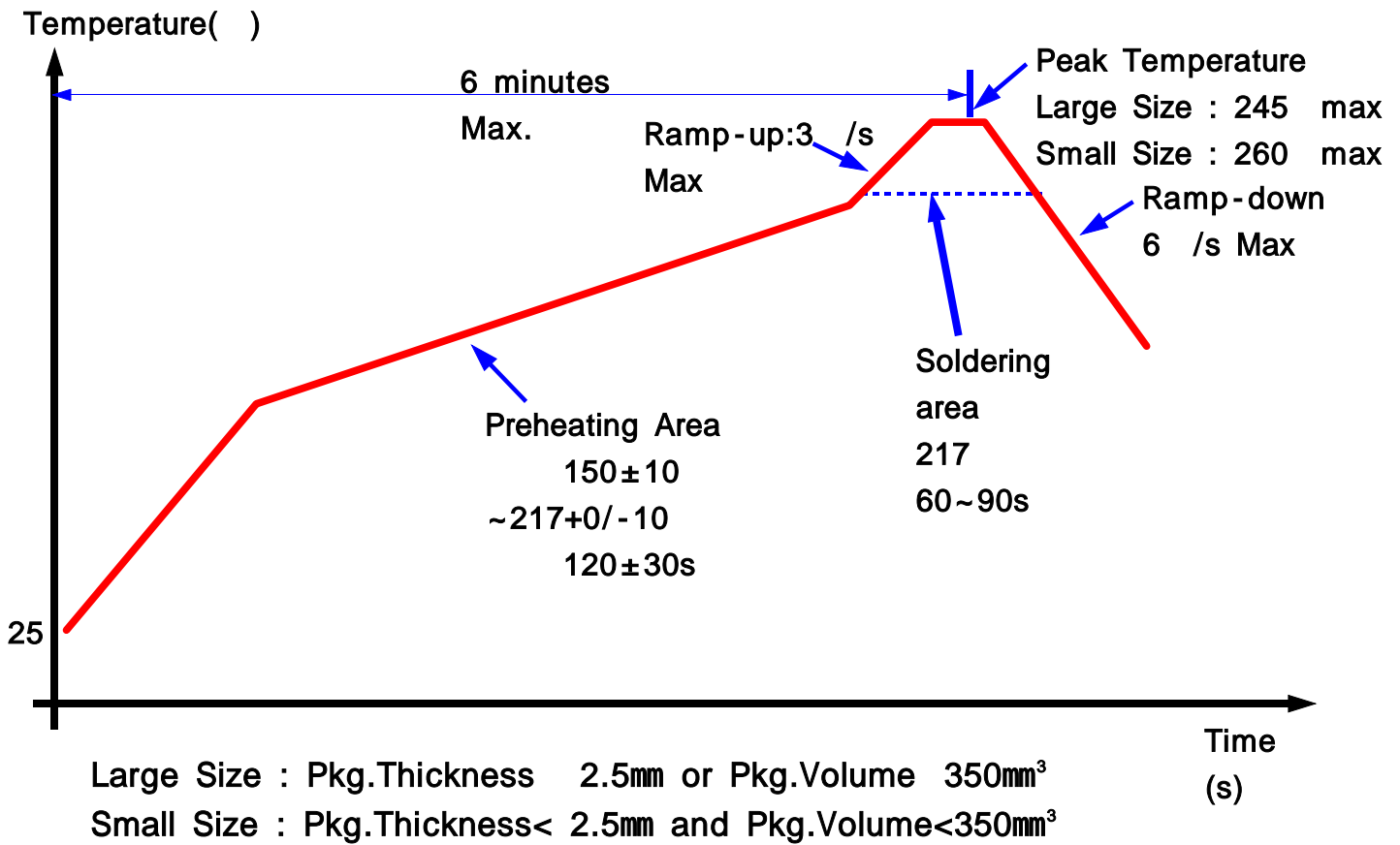
Part No.	WIDTH (C mm)	WIDTH (B mm)	THICKNESS (A mm)	LAND(mm)	
				D	E
IALS000B1103LE	11.0	3.0	1.2	1.2	1.8
		± 0.3		± 0.3	

8-3.



9.

9-1. Reflow : J-STD-020B [Lead(Pb) free]



9-2.

60% RH , 20 ± 15 , 3 .

10-1. Packaging

NO	PART NAME	Q'TY	MATERIAL	FINISH	REMARK
1	COVER TAPE		PET,ANTISTATIC10.05		
2	EMBOSSED CARRIER TAPE		PS,BLACK,CONDUCTIVE0.3		

NOTES

- 1.바짐기울기 : 3Max.
- 2.지시없는 R은 0.4 이하 일 것.
- 3.SPROCKET HOLE의 공차는 50 PITCH에 ±0.3 이내 일 것.

*Packaging Quantity:3000pcs./reel(φ330mm)
 제품 Packing 수량은 3000PCS Empty Pocket 포함한 납품 수량은 3200PCS로 할 것.

①

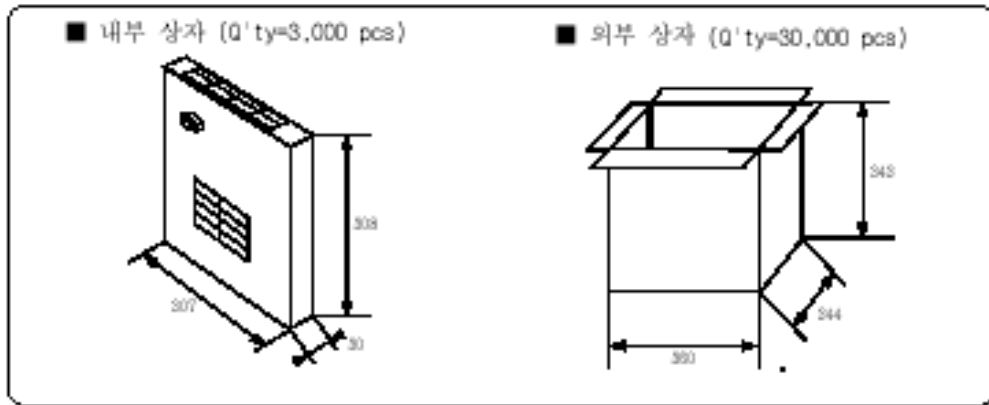
②

Feeding Direction →

Rev.	DATE	WRITTEN BY	CHECKED	APPROVED	REVISION RECORD	REMARK
		DESIGNED			PART NAME	EMBOSSED CARRIER TAPE
		CAD	조성은	이육희	MODEL NAME	FEMLS000B1103RDA
		SCALE	± 0.1	03.12.23	SEMCO P/N	
		TOLERANCE			File name	
					3RD ANGLE PROJECTION	NO.
						Page REV / Page /

10-2. BOX

10-2-1.



10-2.2.

	3000 pcs / INNER BOX
	10 INNER BOX / OUT BOX

10-2.3.

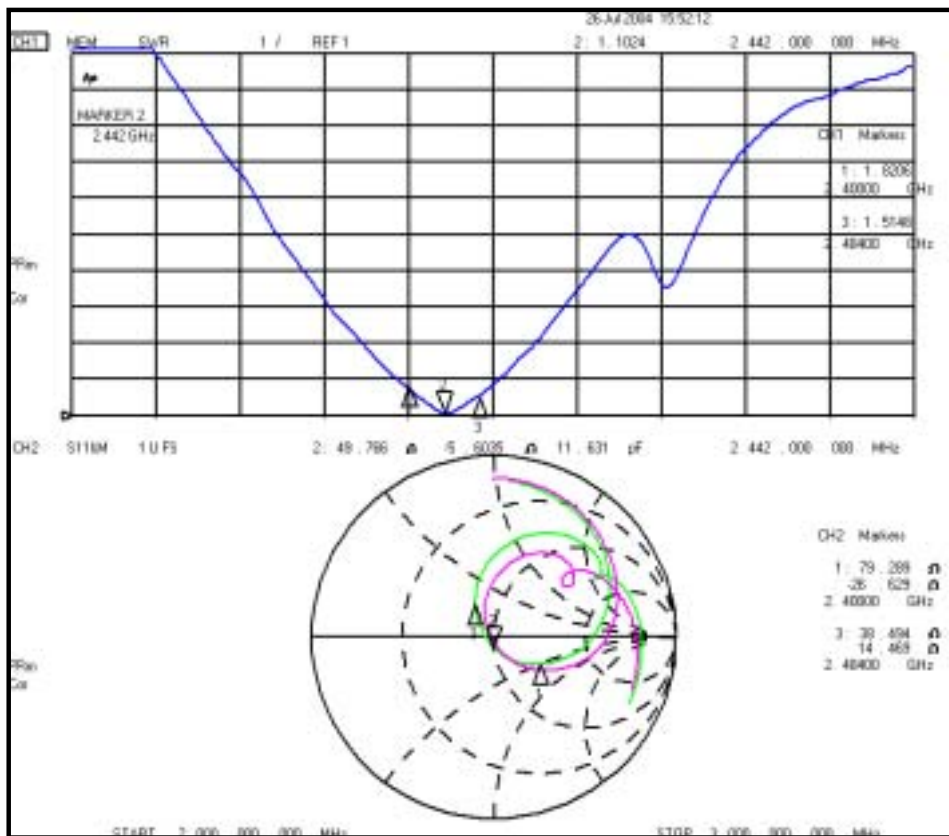
(가)	(가)
- . (SAMSUNG Code)	- . (SAMSUNG Code)
- .	- .
- . (USER가)	- . (USER가)
- .	- .
	- . L/C No.
	- . C/T No.

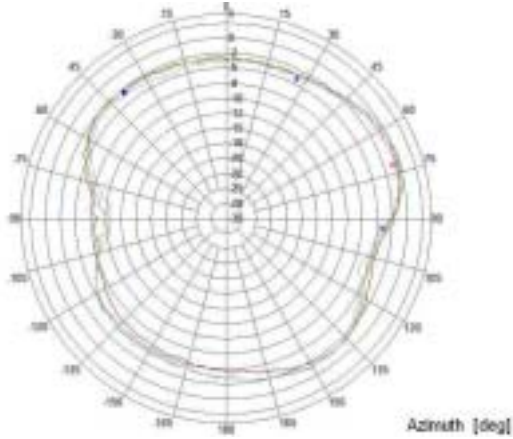
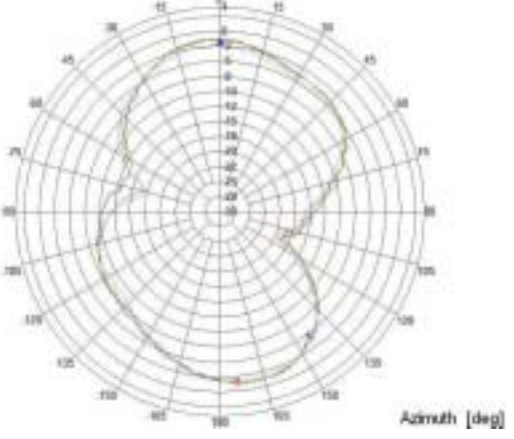
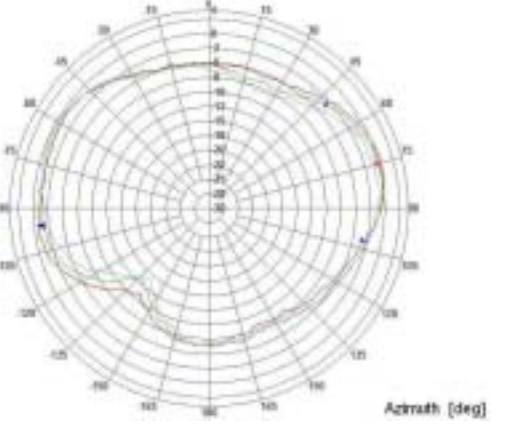
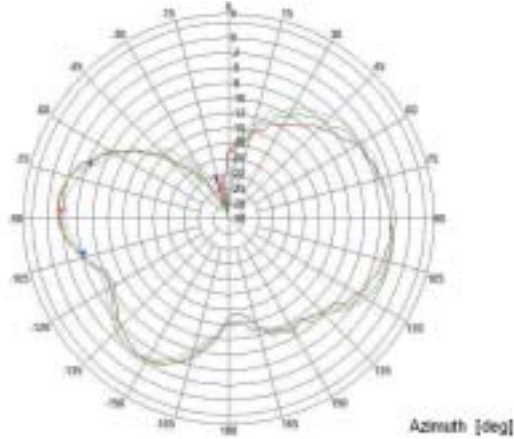
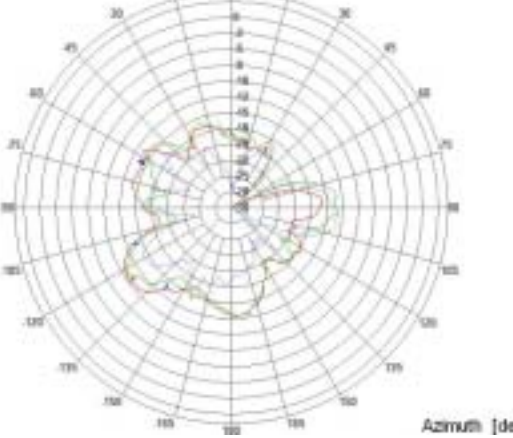
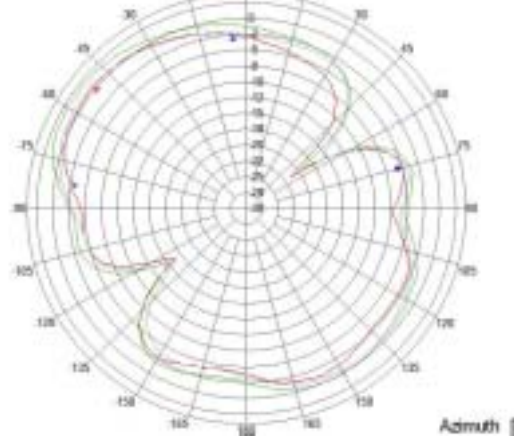
11. DATA

11-1.

(V.S.W.R.): Test Jig

DATA

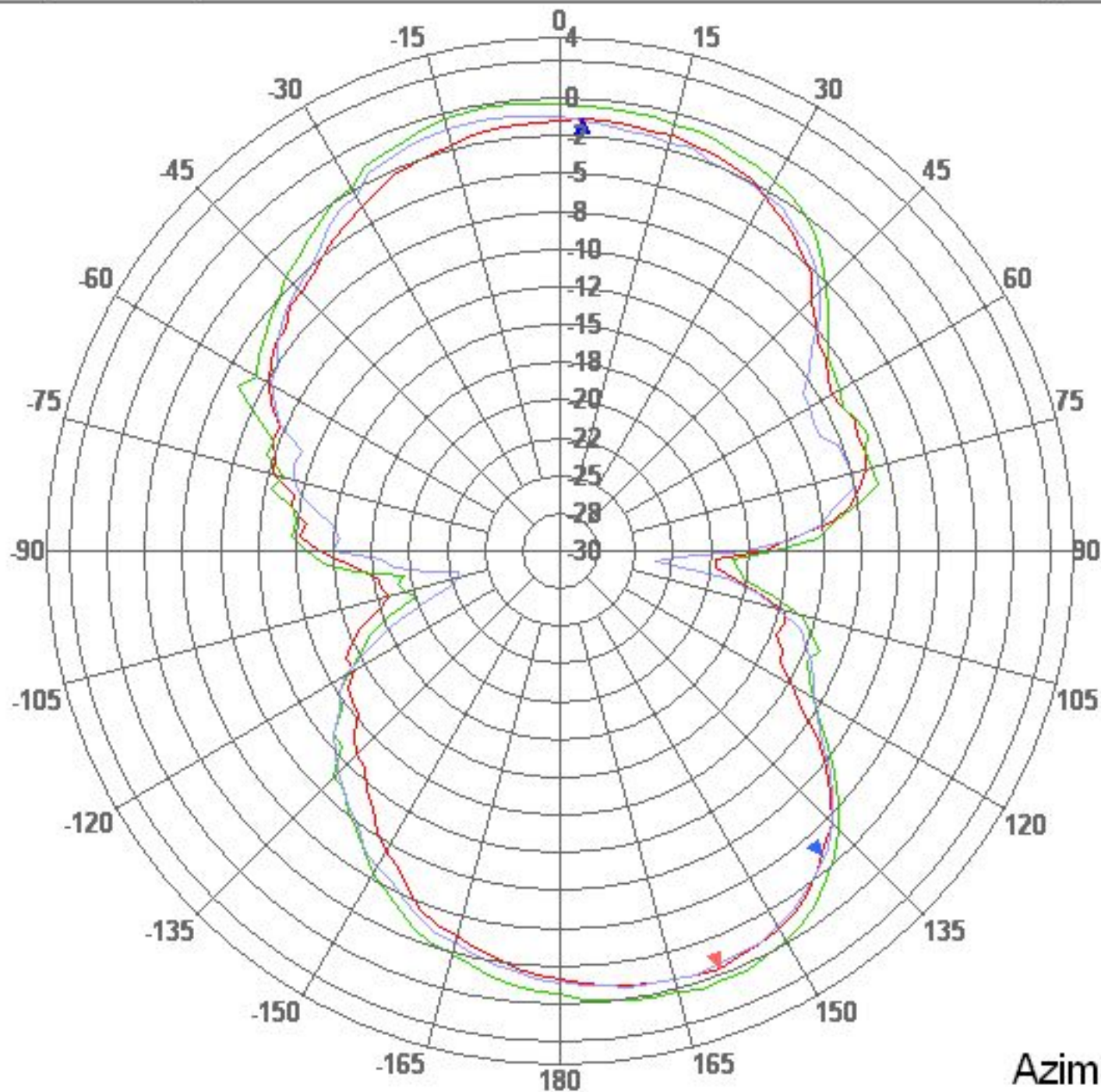


<p style="text-align: center;">AZIMUTH - VERTICAL POLARIZATION</p>	<p style="text-align: center;">AZIMUTH - HORIZONTAL POLARIZATION</p>
 <p>Azimuth [deg]</p>	 <p>Azimuth [deg]</p>
<p style="text-align: center;">ELEVATION 1 - VERTICAL POLARIZATION</p>	<p style="text-align: center;">ELEVATION 1 - HORIZONTAL POLARIZATION</p>
 <p>Azimuth [deg]</p>	 <p>Azimuth [deg]</p>
<p style="text-align: center;">ELEVATION 2 - VERTICAL POLARIZATION</p>	<p style="text-align: center;">ELEVATION 2 - HORIZONTAL POLARIZATION</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Amplitude (dB)</p>  <p>Azimuth [deg]</p>	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Amplitude (dB)</p>  <p>Azimuth [deg]</p>

Operator: phc

Date: 2004-02-20 오후 4:

Amplitude (dB)



Side lobes Database Ax.Ratio

Side Lobes		
No.	Ampl	Deg
1L	-0.85	3.10

Ampl. Color: ■ Visible Section:

Amplitude
 Phase

<input type="checkbox"/> Not Inverted	<input type="checkbox"/> Not Aligned
<input type="checkbox"/> No Skirt	<input type="checkbox"/> Not Normalized
<input type="checkbox"/> Not Rotated	<input type="checkbox"/> Phase wrapped
<input type="checkbox"/> Ends Not Connected	<input type="checkbox"/> Log. Display

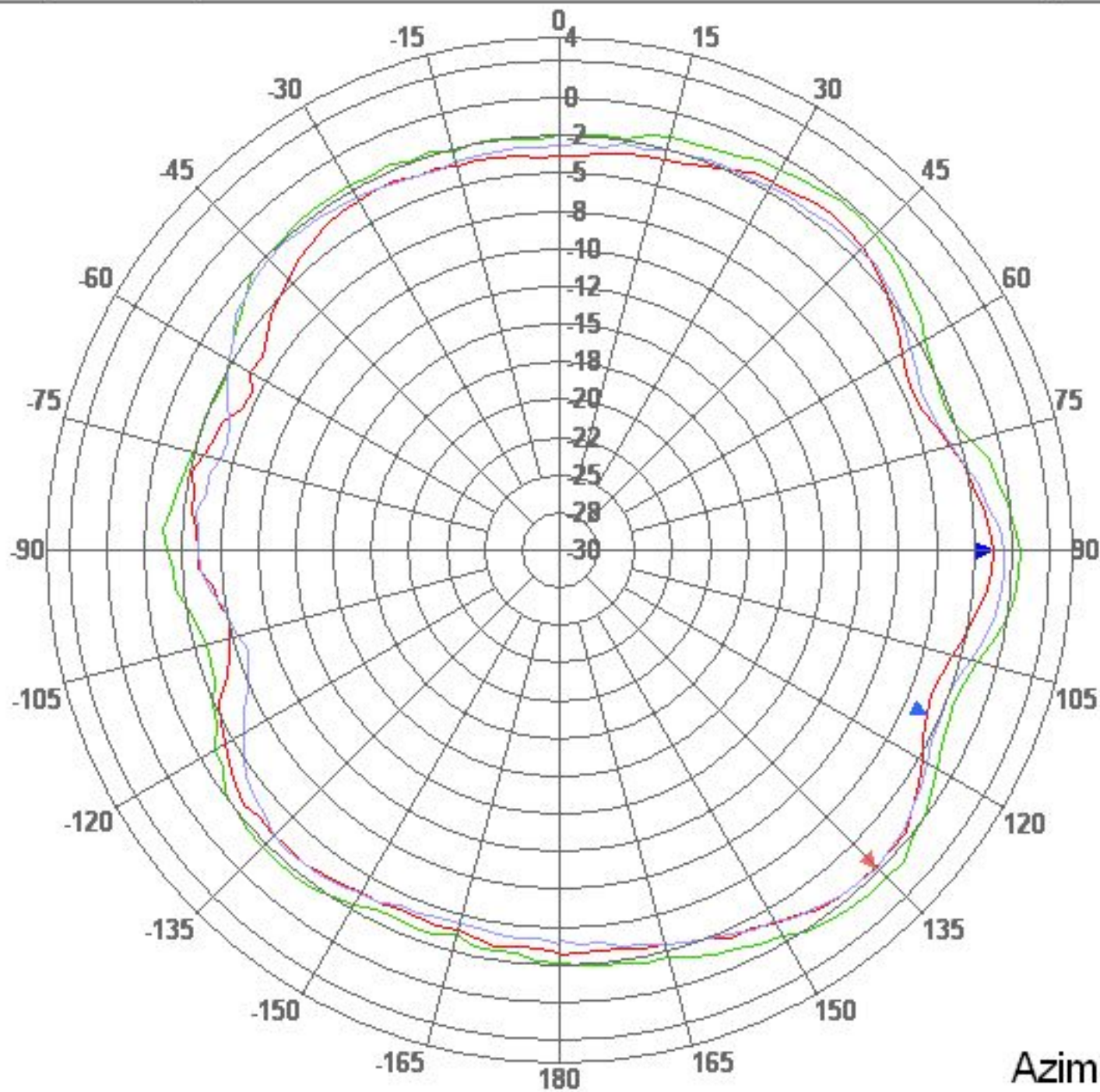
A	P	File Name	Freq. [GHz]	Ch.	Beam	Switch	Beam Peak [dB]			Beam Width [deg]			Null Depth [dB]		Avg dB	Dir dB	Gain dBi
							Value	[deg]	P	Value	At dB	P	Value	[deg]			
		az-h-kp150-CAL.nff	2.400 G	0.00	SAMSUNG		-0.42	159.10	P	Inf	3.00	P			-4.96	0.00	-0.42
		az-h-kp150-CAL.nff	2.442 G	0.00	SAMSUNG		0.49	162.10	P	Inf	3.00	P			-3.83	0.00	0.00
		az-h-kp150-CAL.nff	2.484 G	0.00	SAMSUNG		-0.53	162.10	P	Inf	3.00	P			-4.77	0.00	0.00

Operator: phc

Date

2004-02-20 오후 4:

Amplitude (dB)



Side lobes Database Ax.Ratio

Side Lobes		
No.	Ampl	Deg
1L	-0.95	90.10

Ampl. Color ■ Visible Section

Amplitude
 Phase

Not Inverted Not Aligned
 No Skirt Not Normalized
 Not Rotated Phase wrapped
 Ends Not Connected Log. Display

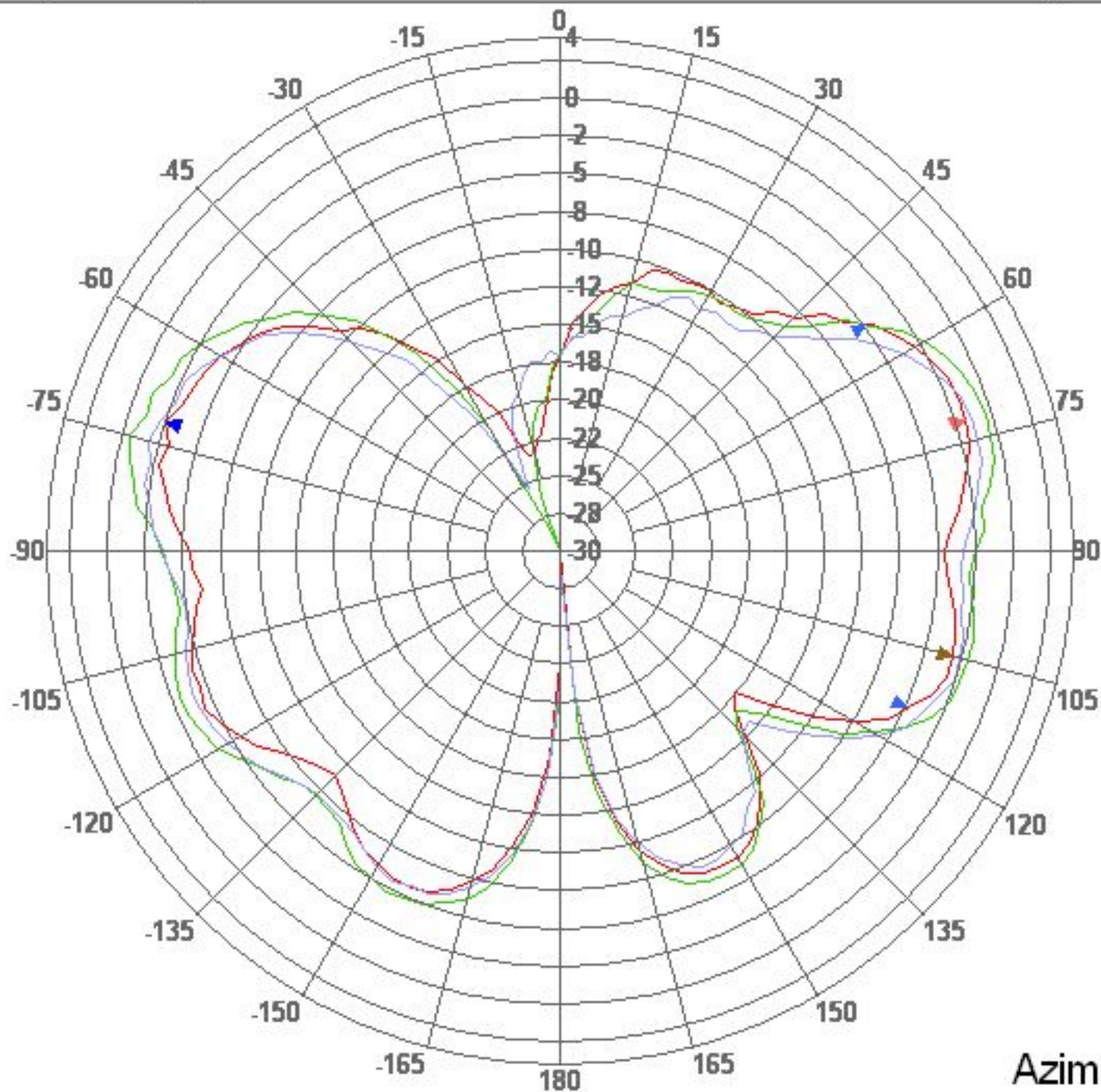
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							Value	[deg]	P	Value	At dB	P	Value	[deg]			
		az-v-kp150-CAL.nff	2.400 G	0.00	SAMSUNG		-0.31	135.10	P	Inf	3.00	P			-3.19	0.00	-0.31
		az-v-kp150-CAL.nff	2.442 G	0.00	SAMSUNG		0.74	132.10	P	97.83	3.00	P			-1.96	0.00	0.00
		az-v-kp150-CAL.nff	2.484 G	0.00	SAMSUNG		-0.23	135.10	P	93.82	3.00	P			-3.02	0.00	0.00

Operator: phc

Date

2004-02-20 오후 4:

Amplitude (dB)



Azimuth [deg]

Side lobes Database Ax. Ratio

Side Lobes

No.	Ampl	Deg
1L	-0.82	-71.90
1R	-1.31	105.10

Ampl. Color



Visible Section



Amplitude

Phase

Not Inverted

Not Aligned

No Skirt

Not Normalized

Not Rotated

Phase wrapped

Ends Not Connected

Log. Display

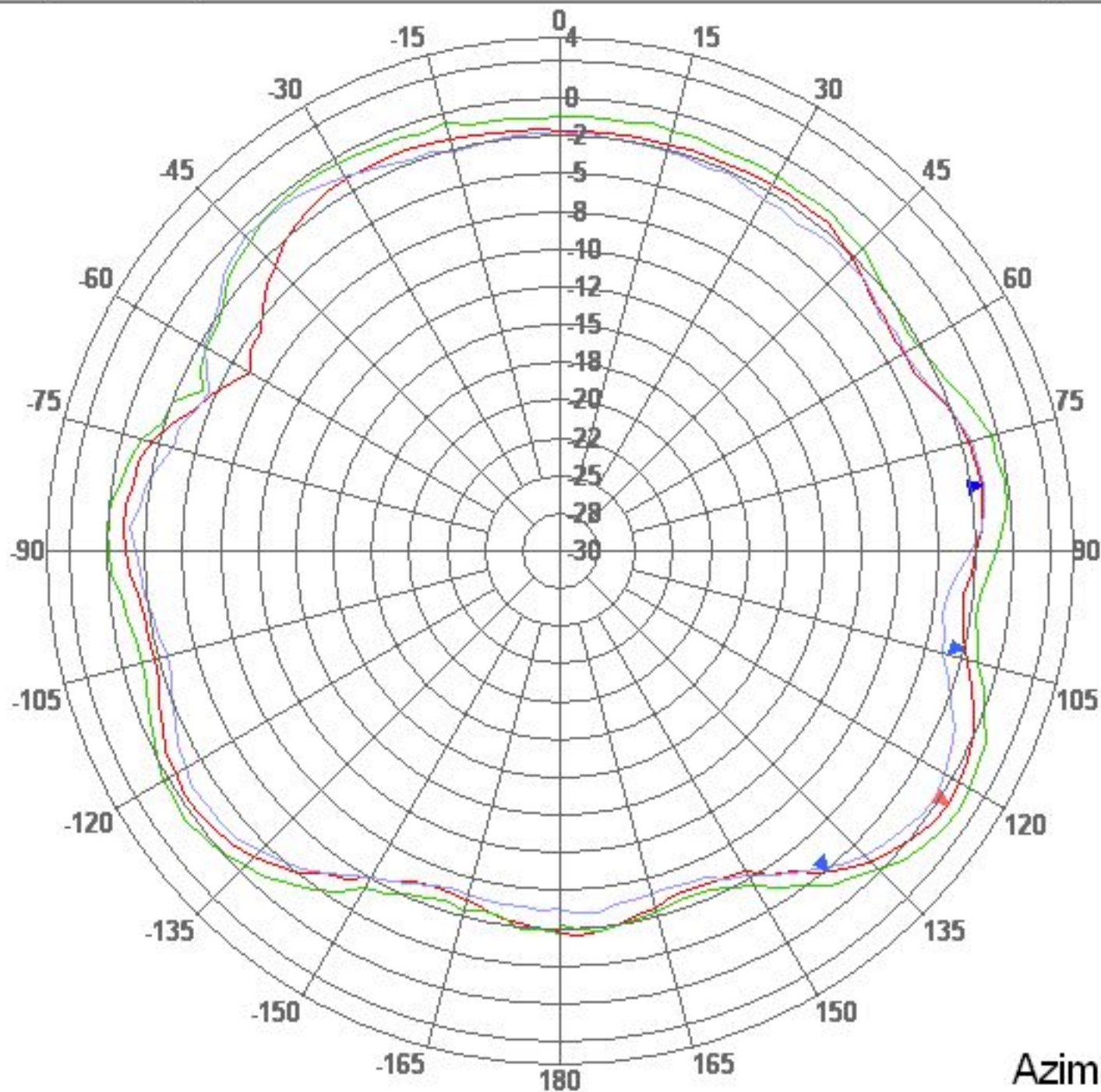
A	P	File Name	Freq. [GHz]	Ch.	Beam	Switch	Beam Peak [dB]			Beam Width [deg]			Null Depth [dB]		Avg dB	Dir dB	Gain dBi
							Value	[deg]	P	Value	At dB	P	Value	[deg]			
		e1-h-kp150-CAL.nff	2.400 G	0.00	SAMSUNG		-1.73	72.10	P	60.82	3.00	P			-6.46	0.00	-1.73
		e1-h-kp150-CAL.nff	2.442 G	0.00	SAMSUNG		-0.29	72.10	P	57.80	3.00	P			-5.21	0.00	0.00
		e1-h-kp150-CAL.nff	2.484 G	0.00	SAMSUNG		-1.33	72.10	P	58.21	3.00	P			-6.08	0.00	0.00

Operator: phc

Date

2004-02-20 오후 4:

Amplitude (dB)



Side lobes Database Ax.Ratio

Side Lobes		
No.	Ampl	Deg
1L	-2.34	81.10

Ampl. Color ■ Visible Section

Amplitude
 Phase

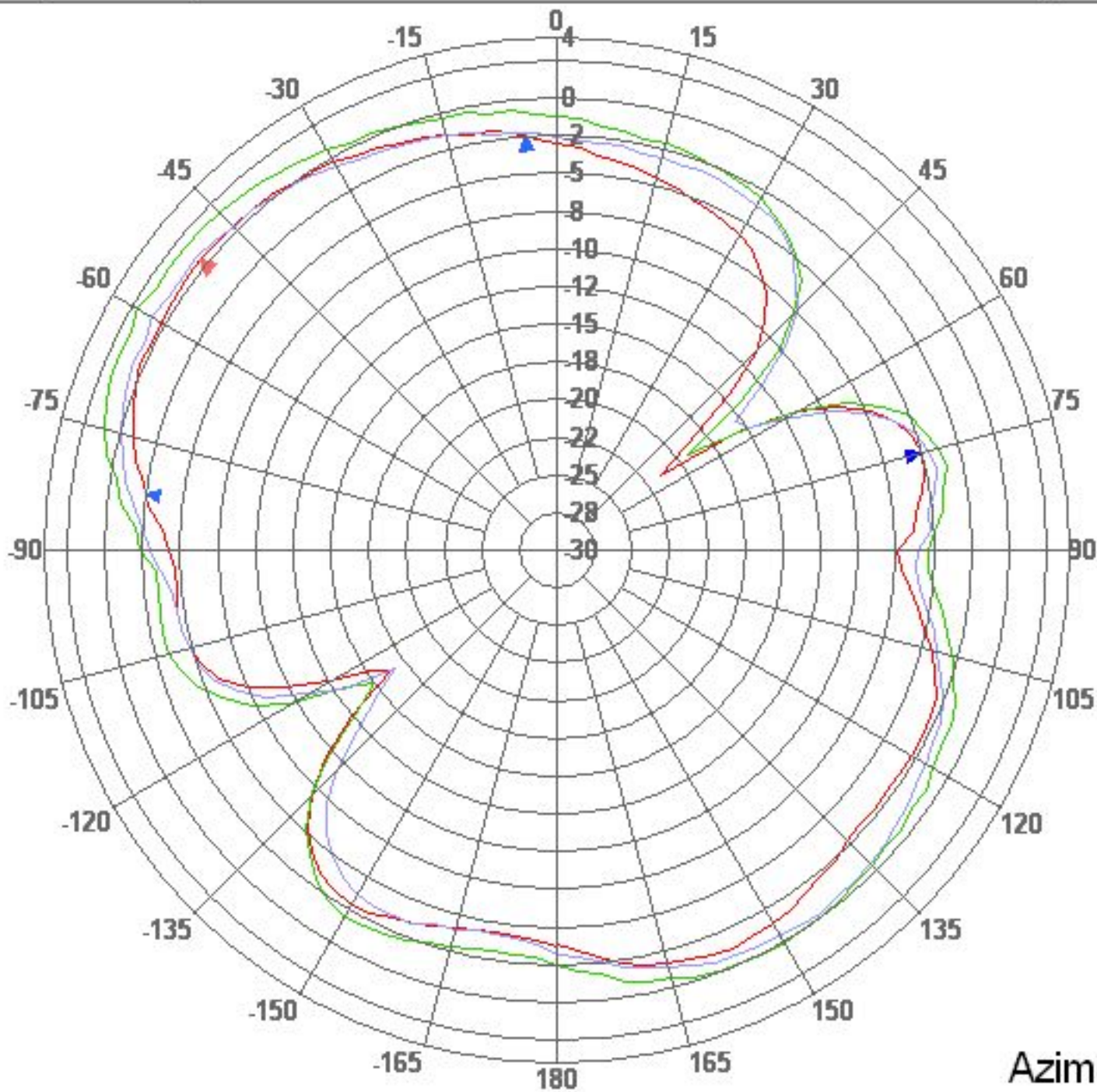
Not Inverted Not Aligned
 No Skirt Not Normalized
 Not Rotated Phase wrapped
 Ends Not Connected Log. Display

A	P	File Name	Freq. [GHz]	Ch.	Beam	Switch	Beam Peak [dB]			Beam Width [deg]			Null Depth [dB]		Avg dB	Dir dB	Gain dBi
							Value	[deg]	P	Value	At dB	P	Value	[deg]			
		e1-v-kp150-CAL.nff	2.400 G	0.00	SAMSUNG		0.68	123.10	P	36.28	3.00	P		-2.43	0.00	0.68	
		e1-v-kp150-CAL.nff	2.442 G	0.00	SAMSUNG		1.55	123.10	P	36.70	3.00	P		-1.44	0.00	0.00	
		e1-v-kp150-CAL.nff	2.484 G	0.00	SAMSUNG		-0.28	126.10	P	35.50	3.00	P		-2.77	0.00	0.00	

Operator: phc

Date: 2004-02-20 오후 4:

Amplitude (dB)



Azimuth [deg]

Side lobes Database Ax.Ratio

Side Lobes		
No.	Ampl	Deg
1R	-5.53	75.10

Ampl. Color: ■ Visible Section:

Amplitude
 Phase

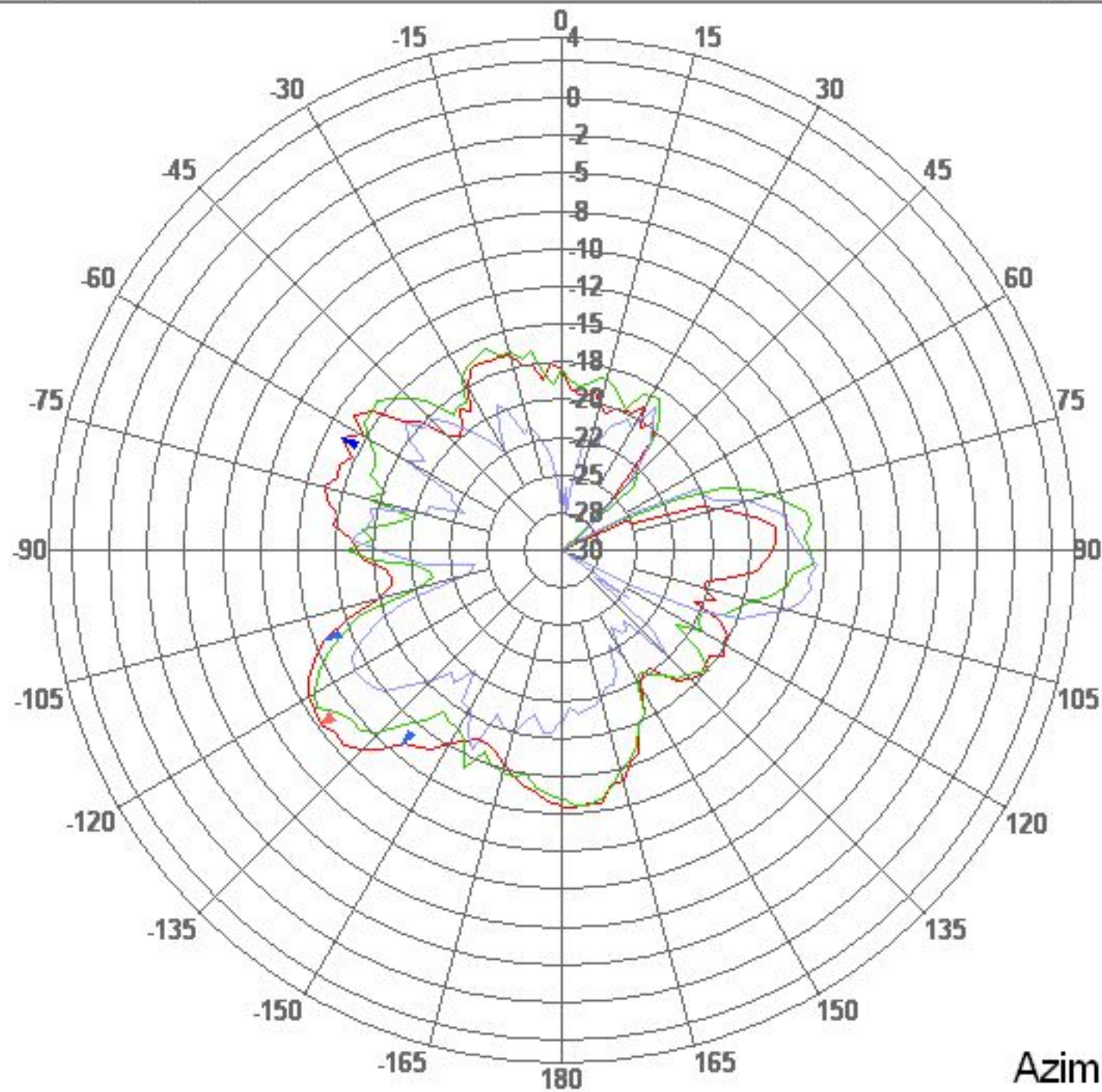
Not Inverted Not Aligned
 No Skirt Not Normalized
 Not Rotated Phase wrapped
 Ends Not Connected Log. Display

A	P	File Name	Freq. [GHz]	Ch.	Beam	Switch	Beam Peak [dB]			Beam Width [deg]			Null Depth [dB]		Avg dB	Dir dB	Gain dBi
							Value	[deg]	P	Value	At dB	P	Value	[deg]			
		e2-h-kp150-CAL.nff	2.400 G	0.00	SAMSUNG		0.55	-50.90	P	77.87	3.00	P			-3.18	0.00	0.55
		e2-h-kp150-CAL.nff	2.442 G	0.00	SAMSUNG		2.07	-59.90	P	80.50	3.00	P			-1.68	0.00	0.00
		e2-h-kp150-CAL.nff	2.484 G	0.00	SAMSUNG		0.97	-59.90	P	76.05	3.00	P			-2.63	0.00	0.00

Operator: phc

Date: 2004-02-20 오후 4:

Amplitude (dB)



Azimuth [deg]

Side lobes Database Ax. Ratio

Side Lobes		
No.	Ampl	Deg
1R	-3.39	-62.90

Ampl. Color: ■ Visible Section:

Amplitude
 Phase

Not Inverted Not Aligned
 No Skirt Not Normalized
 Not Rotated Phase wrapped
 Ends Not Connected Log. Display

A	P	File Name	Freq. [GHz]	Ch.	Beam	Switch	Beam Peak [dB]			Beam Width [deg]			Null Depth [dB]		Avg dB	Dir dB	Gain dBi
							Value	[deg]	P	Value	At dB	P	Value	[deg]			
		e2-v-kp150-CAL.nff	2.400 G	0.00	SAMSUNG		-10.27	-125.90	P	29.66	3.00	P		-15.93	0.00	-10.27	
		e2-v-kp150-CAL.nff	2.442 G	0.00	SAMSUNG		-10.69	-122.90	P	24.23	3.00	P		-16.08	0.00	0.00	
		e2-v-kp150-CAL.nff	2.484 G	0.00	SAMSUNG		-13.06	93.10	P	29.33	3.00	P		-18.66	0.00	0.00	