



ANTENNA APPROVAL SHEET

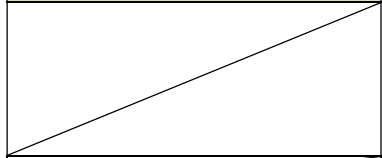
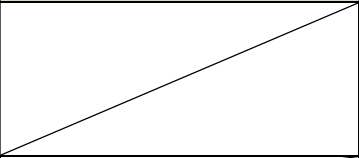
Customer	Model	Customer Code	Date	Document Revision
BLUEBIRD	VF550 WLAN	352010018	19' 12. 13	Rev 1.0

APPROVAL SHEET

VF550 WLAN WiFi Only ANTENNA

CUSTOMER	BLUEBIRD
MODEL	VF550 WLAN
ANTENNA TYPE	WiFi Only ANTENNA
ANTENNA MAKER	WINiZEN
DOCUMENT REVISION	Rev 1.0
CUSTOMER CODE	352010018
PART NAME	ASSY BRACKET ANT /NON_SAM_WLAN,BCD30

	Name	Date	Sign
RF Engineer	J.S. Choi	19' 12. 13	
ME Engineer	S.M. Cha	19' 12. 13	

Development Team Manager	Q.A Team Manager	Operation Manager	Customer
			
		19' 12. 13	

Head Office

301, 304 Summit Bldg., 97 Yeonseong-ro, Shiheung-shi, Gyeonggi-do 14977, Korea

Suwon R&D Center

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	TOP	BOTTOM
PRODUCT PHOTO		

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PRODUCT SPECIFICATION

BLUEBIRD VF550 WLAN

WiFi Only ANTENNA (LDS TYPE)



- Written by

	Name	Date	Sign
RF Engineer	J.S. Choi	19' 12. 13	
ME Engineer	SM. Cha	19' 12. 13	

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2. 제품 도면

CODE : 352010018
MODEL : VF550 WiFi Only

NO	THE NAME OF AN ARTICLE	DWG-NO	MATERIAL	Q'TY	REMARK
1	CARRIER	-	PC+GF30% BLACK [LGF1300S 9626 (BK)], LUCKY ENPLA	1 EA	
2	PATTERN	-	LDS [Cu 10 ~ 15um, Ni 1 ~ 5um]	1 EA	

Hazardous substance standard document		Initialize		Description of Revision		S.M.CHA	
Material	Quantity	No.	UNIT	General Tolerance	Designed	Checked	Approved
Heavy	50 under		mm	0 ~ 4			
Medi	50 under		mm	4 ~ 16	S.M.CHA		
Light	50 under		mm	16 ~ 64			
Very Light	50 under		mm	64 ~ 250			

NOTES

- 제품 외관은 스크래치 등 유해한 결함이 없어야 함.
- 부품의 재질 및 색상은 설계 사양에 준함.
- 양산 전 반드시 용의 물품 확인 후 양산 함.
- 본 제품의 외관 결함은 표준 견본에 준함.
- * "무" 지수는 중요관리(CITF) 항목으로 적용 함.
- * "X" 지수는 중요사항은 반드시 설계자의 확인 함.

Client / Model: BLUEBIRD _ VF550 WiFi Only
Name of Title: VF550_WiFi Only
Drawing No.:

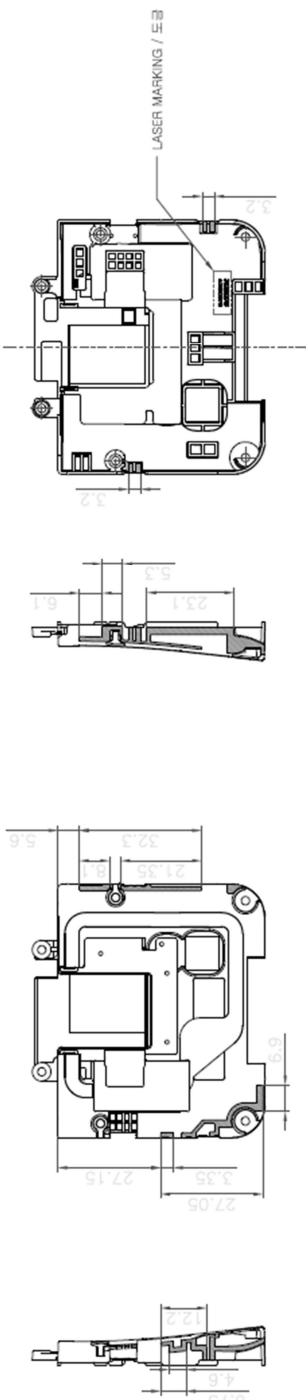
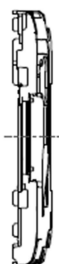
[A4]

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2	PATTERN	-	LDS [Cu 10 ~ 15um, Ni 1 ~ 5um]	1 EA	

CODE : 352010018

MODEL : VF550 WiFi Only



Hazardous substances standard document			A standard of judgement
Value	Use of hazardous substances	Material	organic/inorganic
Cd	XPF	50 under	80 under
Pb	XPF	100 under	70 under
Po	XPF	200 under	800 under
Hg	XPF	800 under	700 under
Cr-6	XPF	700 under	700 under
T-B	PF	800 under (No plating)	700 under
Cl	XPF	800 under	-

NOTES

1. 제출서류의 원본과 사본을 제출한다.
2. 부속 2에 기재된 신청서 양식을 작성한다.
3. 양식 3에 기재된 신청서 양식을 작성한다.
4. 부속 3에 기재된 신청서 양식을 작성한다.
5. ★ 부속 4에 기재된 신청서 양식을 작성한다.
6. 기타 필요한 서류를 제출한다.

	Initialize			19.12.12	S.M.C/A		
No.	Description of Revision		Check	Approved	Client / Model		BLUEBIRD_ VF550 WiFi Only
	General Tolerance		Checked	Approved	Name of Title		VF550_ WiFi Only
	mm						
	0 ~ 4 4 ~ 16 16 ~ 64 64 ~ 250	± 0.05 ± 0.10 ± 0.15 ± 0.25					
Scale	1/1	19.12.12			Drawing No.		

[A4]

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3. PART – LIST

PART - LIST				
VF550 WLAN WiFi Only		Bluebird		Revision
2019. 12. 13				Rev 1.0
No.				
1	CARRIER	LGF1300S 9626 (BK) J-3	PC + GF30% BLACK	LUCKY ENPLA
2	LDS	Lazer Process	-	PTC
3	PLATING	Cu Plating Ni - Plating	Electroless Cu Plating (10 μ m ~ 15 μ m) Electroless Ni Plating (1 μ m ~ 5 μ m)	PTC
4	CUSHION FPCB SAMTOMAIN	PORON + DOUBLE TAPE	-	-
5	CUSHION FPCB BARCODE	PORON + DOUBLE TAPE	-	-
6	CUSHION FPCB CAMERA	PORON + DOUBLE TAPE	-	-
7	CUSHION FPCB SENSOR	PORON + DOUBLE TAPE	-	-
8	CUSHION FPCB MAINTOSUB	PORON + DOUBLE TAPE	-	-
9	CUSHION FPCB BATTERY	PORON + DOUBLE TAPE	-	-
10	CUSHION FPCB LCD	PORON + DOUBLE TAPE	-	-
11	CUSHION BACKUP BATTERY DUMMY	PORON + DOUBLE TAPE	-	-
12	CUSHION ANT NFC NONE SAM	PORON + DOUBLE TAPE	-	-
13	CUSHION ANT UFL TOP	PORON + DOUBLE TAPE	-	-
14	CUSHION ANT MODEM	PORON + DOUBLE TAPE	-	-
15				
16	ASSEMBLY	LDS	-	WINIZEN

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4. SPEC

4-1. Frequency Band & Passive Spec

4-1-1.

WiFi Spec.

Mode	SET - Antenna			
Frequency	2400 MHz	2500 MHz	5150 MHz	5850 MHz
VSWR Spec	2.2 : 1 under	3.1 : 1 under	3.0 : 1under	2.8 : 1under
3D Gain Spec	Peak -1.0dBi over	Peak -1.5dBi over	Peak -0.8dBi over	Peak -0.1dBi over

4-1-2.

WiFi JIG Spec.

Mode	JIG - Antenna			
Frequency	842 MHz	942 MHz	1993 MHz	2081 MHz
VSWR Spec	6.5 : 1	6.5 : 1	4.5 : 1	4.5 : 1

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4-2

DIMENSION	67.20 X 54.78 X 10.0 mm
ANTENNA – BASE	LUCKY ENPLA / LGF1300S 9626 (BK) J-3
ANTENNA – PATTERN	LDS
WEIGHT	8.05g
OPERATING TEMP	20 ± 5 °C
OPERATING HUMIDITY	55 ± 15 %

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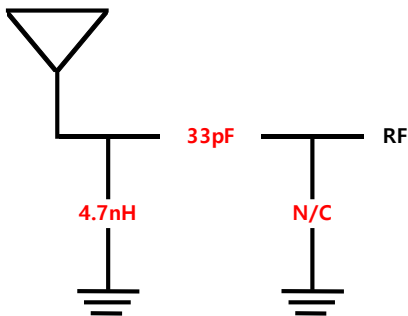
5-3. Normal Spec.

INPEDANCE	50 ohm
RADIATION PATTERN	Omni – Directional
POLARIZATION	Linear
POWER HANDLING	2W
MATCHING CIRCUIT	schematic

Matching Circuit

- WiFi

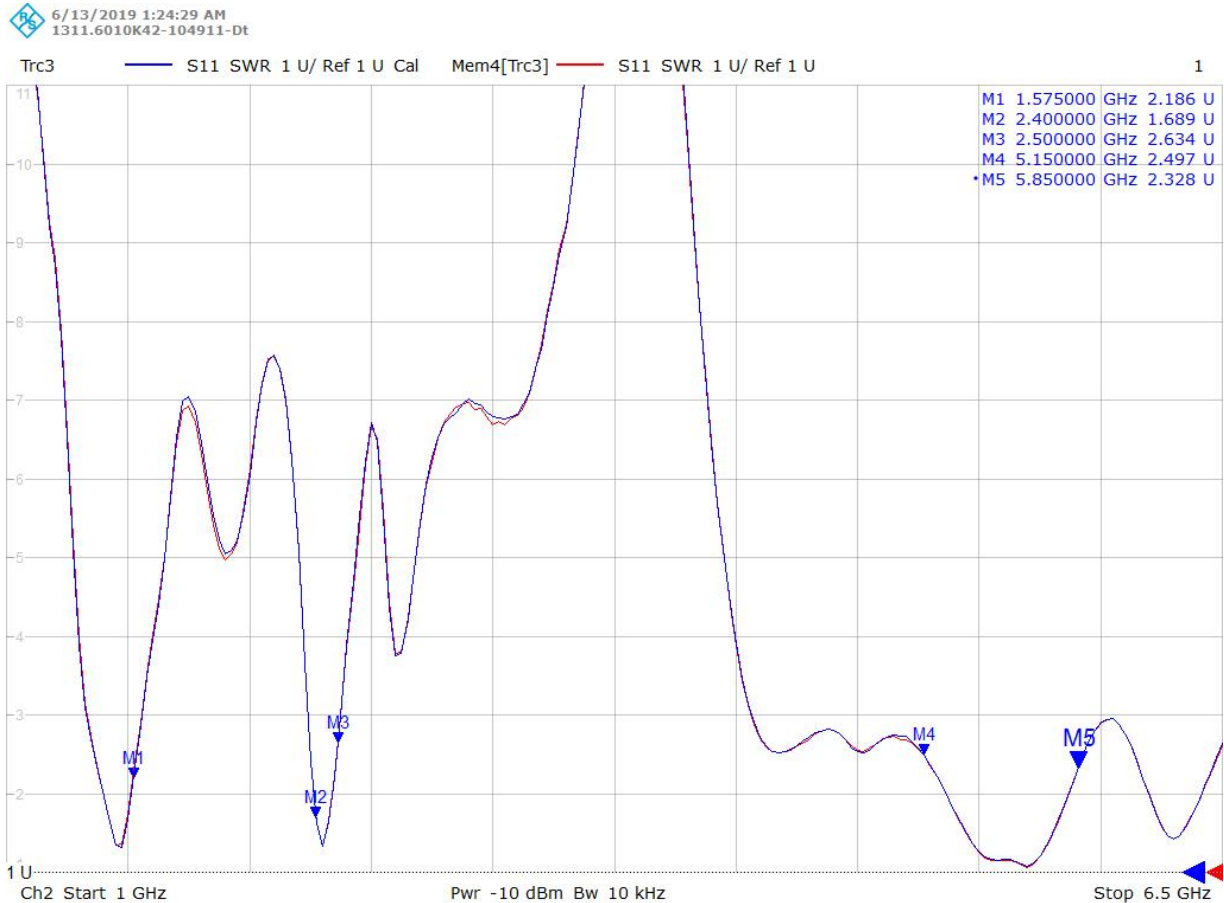
Signal Pad



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6-1. VSWR – WiFi Set

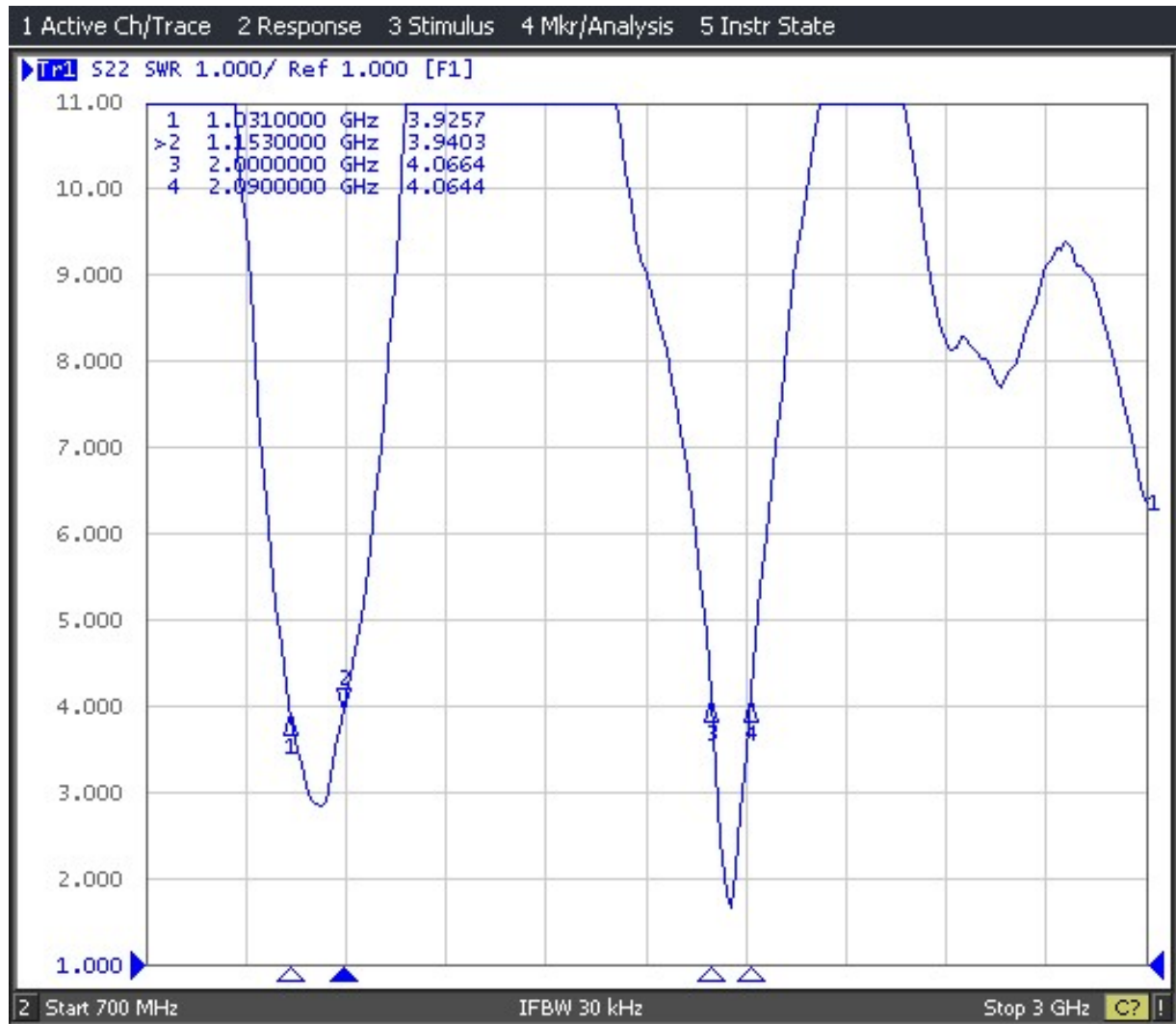
- WiFi



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6-2. VSWR – JIG (Antenna)

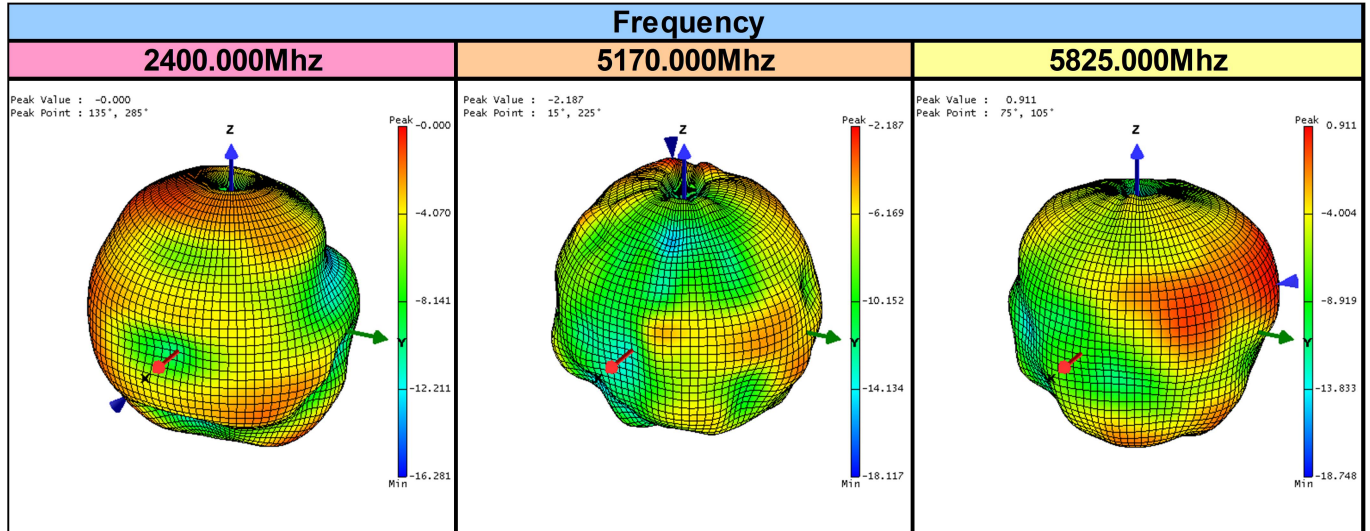
- WiFi



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7. 3D GAIN DATA

- WiFi



Test Results

Frequency	Peak Value		Minimum Value		Avg. Gain	Efficiency
[MHz]	Value[dBi]	Degree	Value[dBi]	Degree	[dBi]	[%]
2400	0	135 / 285	-16.281	090 / 180	-4.438	35.83%
2450	0.68	135 / 285	-21.89	090 / 165	-3.695	42.51%
2500	-0.419	060 / 285	-18.307	090 / 165	-4.559	34.84%
5170	0.241	030 / 255	-16.685	150 / 030	-4.989	31.56%
5280	0.337	030 / 255	-17.232	165 / 165	-4.532	35.06%
5500	2.762	030 / 255	-18.57	165 / 345	-3.124	48.49%
5640	3.648	060 / 120	-18.872	075 / 210	-3.113	48.61%
5825	0.911	075 / 105	-18.748	150 / 315	-5.136	30.50%