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Maker Code	STWDFP01S
DATE	2026. 07. 06
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Model	Type	Rev.	Startellabs	IR
SG2000	FPCB+Cable		Franklin Technology	IR

APPROVAL SHEET

Customer : Franklin Technology

Company : Startellabs

Item : WiFi Antenna

Model : SG2000

Customer P/N :

Maker Code : STWDFP01S



Department	Design	Check	Approval
Franklin Technology			
STARTELLABS		<i>Daniel</i>	<i>Mr</i>

STARTELLABS CO.,LTD

#604, #605, Daeryung Techno Town 18th,

19 Gasan Digital 1-ro, Geumcheon-gu, Seoul, South Korea(Zip:08594)

TEL:02)6498-6961

FAX:02)6499-6961

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1. Revision History of Product Specification

1.1 History List of Approval Sheet

[illegible]

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2. Circuit Specification

2.1 Test Setting

2.1.1 Test Environment (Condition+A338/Method)

① VSWR

Step 1. Connect ANT port with cable included adaptor to port1 of Network analyzer

Step 2. Point out markers on network analyzer display at target frequencies.

Step 3. Inspect VSWR



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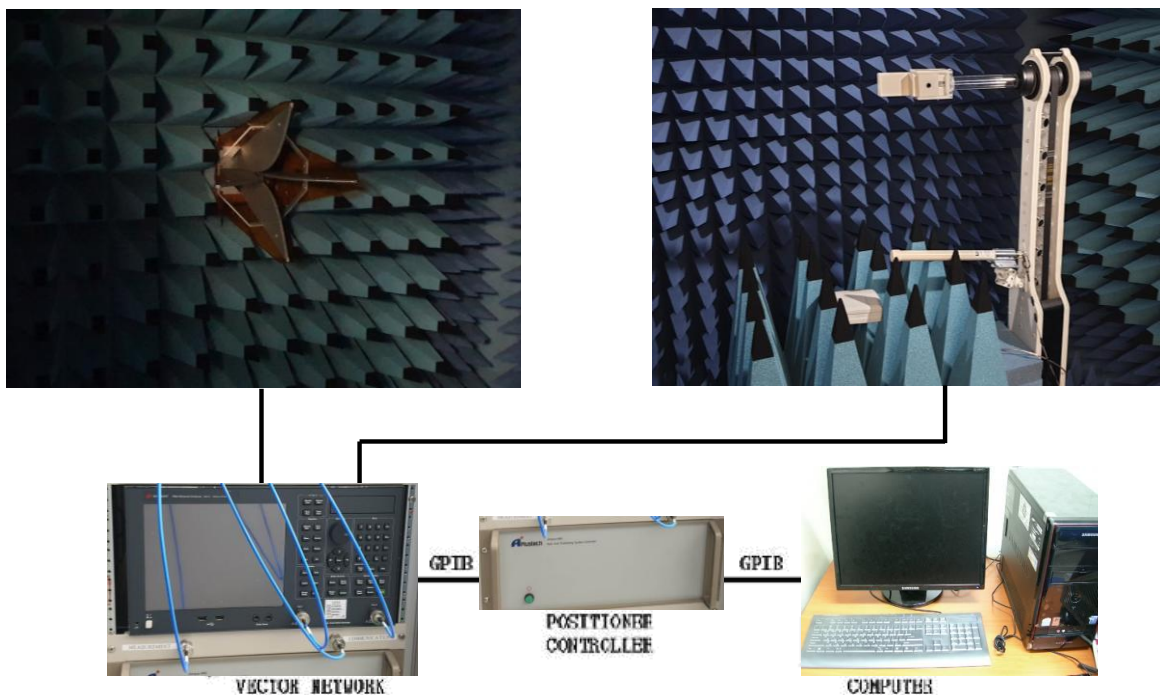
② Radiation Pattern and Gain

Step 1. Calibrate chamber system for gain measurement using horn antenna.

At the same time set up software program for chamber system control.

Step 2. Change over from a horn antenna to measuring antenna on target positioner

Step 3. Start a software program for chamber system control & measuring.



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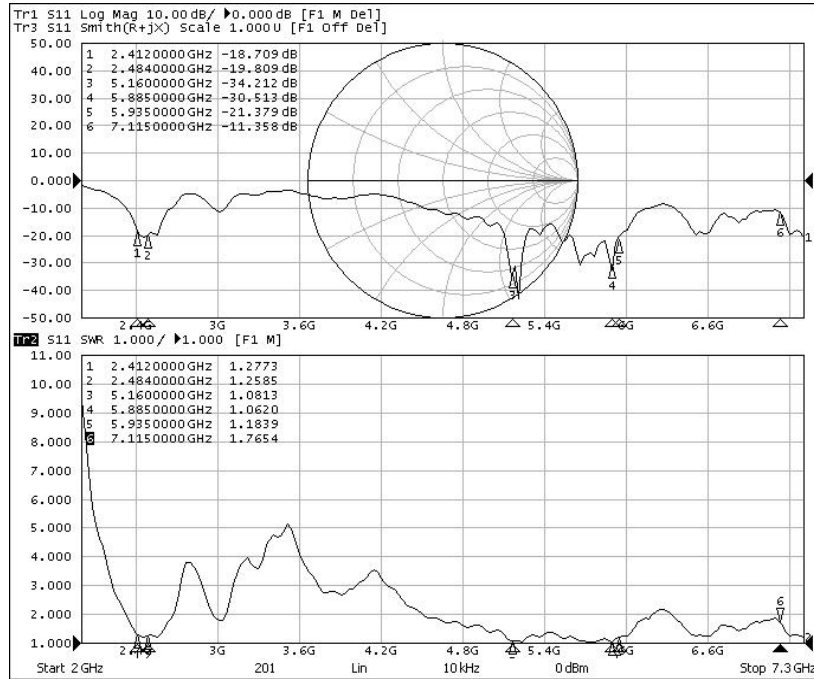
2.2 Electrical Specification

WiFi Antenna			
Frequency[MHz]	2.4G (2412~2484)	5G (5150~5885)	6G (5935~7125)
VSWR	≤ 2.4	≤ 2.0	≤ 2.7
Peak Gain[dBi]	+0.2	+1.7	+4.1
Avg Gain[dBi]	-6.9	-3.6	-3.2
Directivity	Omni-directional		
Polarization	Linear		
Feed Impedance	50 Ohms		
Power Handling	2Watt		
Matching Value			

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2.2.1 Electrical Spec. of Set (With VSWR)

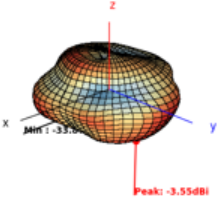
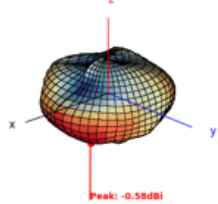
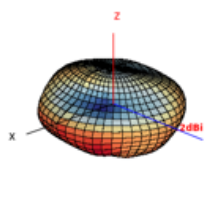
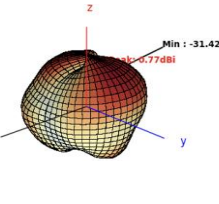
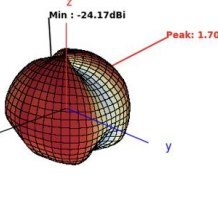
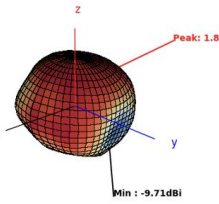
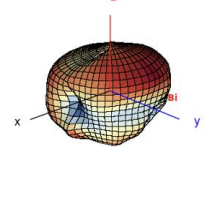
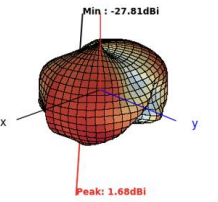
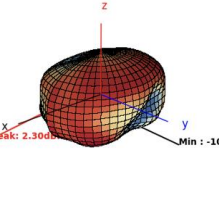


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2.2.2 Passive Gain & 3D Pattern

Frequency[MHz]	Peak Gain[dBi]	Efficiency[dBi]	Efficiency[%]
2412	-0.89	-5.99	25.2
2432	-0.38	-5.53	28.0
2452	-0.22	-5.73	26.7
2484	0.21	-5.61	27.5
5150	1.62	-2.24	59.7
5160	1.66	-2.10	61.6
5260	1.60	-2.41	57.4
5320	1.28	-2.65	54.3
5470	1.07	-2.82	52.2
5700	1.43	-2.46	56.7
5745	1.83	-1.89	64.7
5835	1.72	-2.12	61.3
5850	1.75	-1.82	65.7
5885	1.77	-1.66	68.2
5935	1.63	-1.89	64.7
5945	1.68	-1.81	65.9
6375	2.23	-1.73	67.2
6425	1.82	-2.04	62.5
6525	2.07	-1.89	64.7
6635	2.30	-1.00	79.4
6855	4.15	-0.96	80.2
7115	3.02	-2.20	60.2
7125	3.00	-2.19	60.3

3D Radiation Pattern			
Band[MHz]	Theta Pol	Phi Pol	Total
2.4G (2412~2484)			
5G (5150~5885)			
6G (5935~7125)			

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3. Mechanical Specification

3.1 Material Certificate

Product Name		SG2000		
Ant Type		FPCB+Cable		
No	Part Name	Raw Material	FINISH/COLOR	REMARKS
1	Radiator	FPCB	COVERLAY/BLACK	-
2	Cable Ass'y	U.FL Connector Cable	Ø 0.81 * 70/ BLACK	-
3	Adhesive Tape	3M 9448A	T=0.14mm	-

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3.2 Assy Drawing

