

Product Name	Type	Rev.	Hutec	IR
HPWD24-G38U	PCB+CABLE ASS'Y		SUPREMA Inc.	IR


APPROVAL SHEET

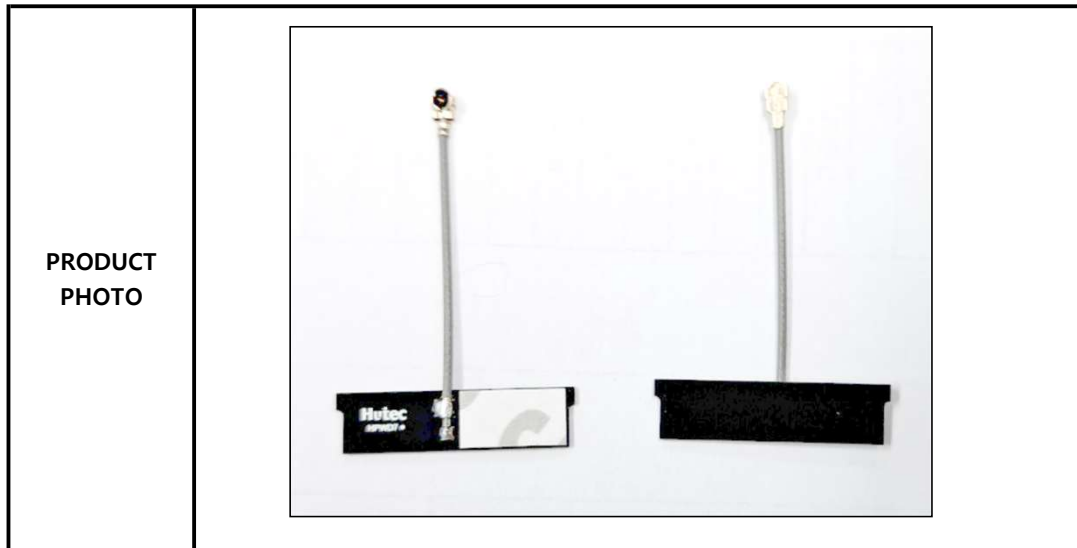
Customer Name : SUPREMA Inc.

Company Name : Hutec

Product Name : HPWD24-G38U

Description ITEM : HPW24A-G38U,1.13, Adhesive 0.1T

SUPREMA	구 분	작성자	검토자	합 의	승 인 자
	소속/성명				
	서 명				
HUTEC	구 분	작성자	검토자	합 의	승 인 자
	소속/성명	기구/유정석	회로/김석민	품질/권순흥	김영상 수석
	서 명	유정석	김석민	권순흥	



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HPWD24-G38U	PCB+CABLE ASS'Y		SUPREMA Inc.	IR

▶ Contents ◀

1. Revision History of Product Specification	
1.1 History List of Approval Sheet -----	3
2. RF Specification	
2.1 Test Condition -----	4
2.1.1 Test Environment (Condition/Method)	
2.2 Electrical Specification -----	5
2.2.1 V.S.W.R -----	5
2.2.2 Radiation Pattern -----	6
3. Mechanical Specification	
3.1 Material Certificate-----	7
3.2 Mechanical Requirement	
3.2.1 Part List -----	8
3.2.2 Ass'y Drawing -----	9

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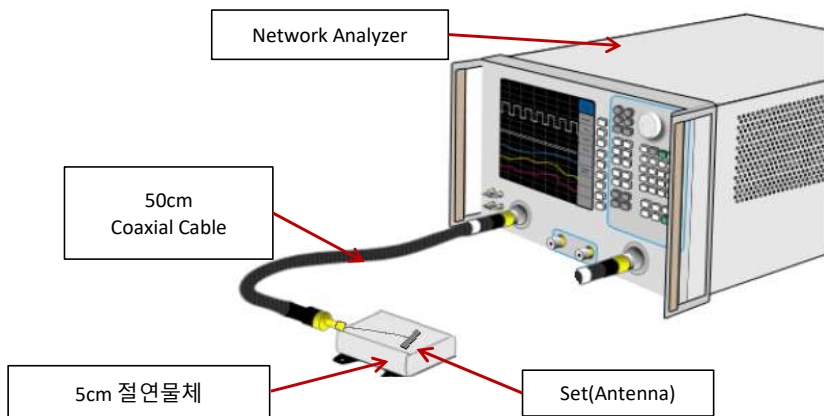
2. RF Specification

2.1 Test Condition

2.1.1 Test Environment (Condition/Method)

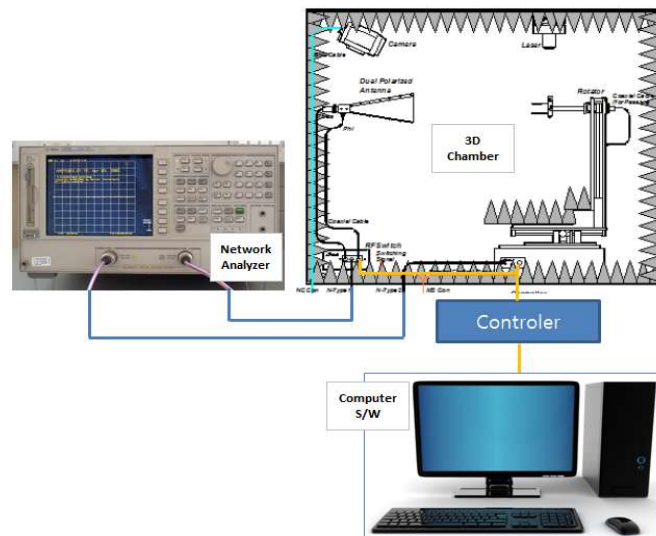
① Voltage Standing Wave Ratio(VSWR)

- Step 1. Set the frequency range after connect 50cm cable to Network analyzer.
- Step 2. Connect Calibration Kit to Network analyzer and calibrate.
- Step 3. Fix the cable and keep separation distance over 30cm for reducing effect by Network analyzer.
- Step 4. Fix insulator over 5cm on the bottom of measuring antenna.
- Step 5. Measure VSWR with setting marker of desired frequency.



② Radiation Pattern & Gain

- Step 1. Calibrate the Chamber system using Horn antenna, and set up the software to control the Chamber system at the same time.
- Step 2. Keep the measuring antenna to holder.
- Step 3. Measure Gain & efficiency.

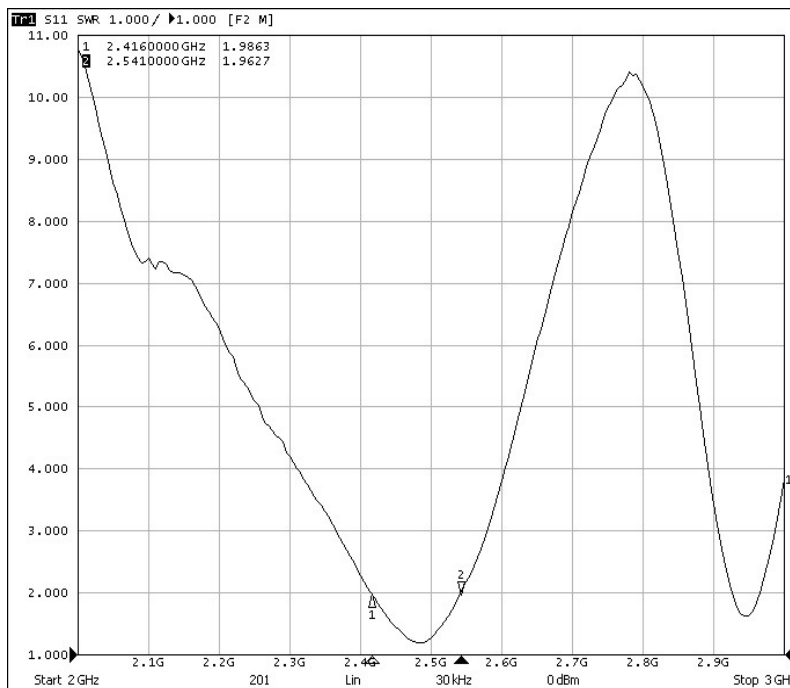


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2.2 Electrical Specification

Band	WIFI 2.4GHz
Frequency	2400MHz ~ 2500MHz
VSWR	≤ 3.0
Peak Gain	0.63 dBi
Directivity	Omni-directional
Polarization	Linear
Feed Impedance	50 Ohms
Power Handing	2Watt

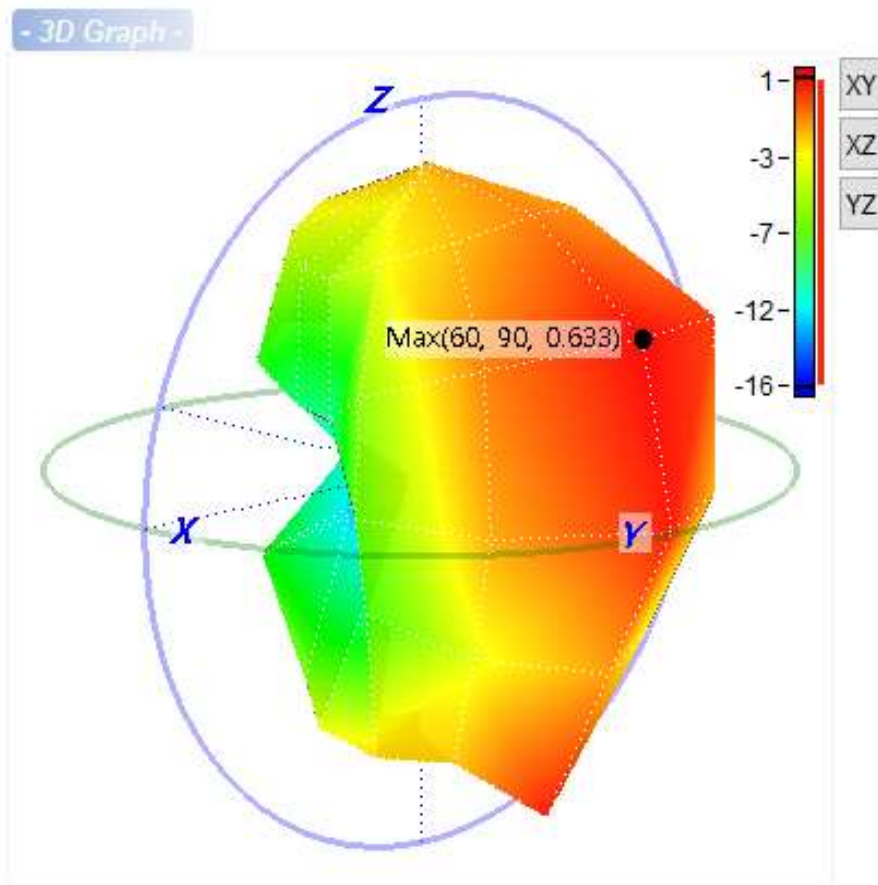
2.2.1 VSWR



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2.2.2 3D Gain & Radiation Pattern

Frequency [MHz]	Peak Value		Minimum Value		Avg. Gain [dBi]	Efficiency [%]
	Value[dBi]	Degree	Value[dBi]	Degree		
2400	0.633	60 / 90	-15.549	90 / 300	-4.661	34.190
2430	-0.767	60 / 90	-17.433	90 / 330	-6.236	23.789
2460	-3.185	60 / 90	-18.883	90 / 0	-8.557	13.942
2480	-4.705	60 / 90	-21.872	90 / 180	-10.095	9.784



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3. Mechanical Specification

3.1 Material Certificate

Product Name		HPWD24-G38U		
Ant Type		PCB+CABLE ASS'Y		
No	Part Name	Raw Material (Plating Spec.)	Raw Material Company	Remark
1	PCB	KB-6160	KINGBOARD	
2	IR INK	H-8100 8BKH	SHENZHEN RONGDA PHOTOSENSITIVE SCIENCE	
3	CABLE	FEP, COPPER	JiangYin KaiBo	
4	MHF1	Brass ETC.	BGS	
5	ADHESIVE	3M 9888T	3M	

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3.2.2 Ass'y Drawing

