



东莞市超威电子有限公司

Chaowei Electronics CO.,LTD

规格书

客 户：

品 名：

2.4/5G Antenna

料 号：

CW-2458G50B-SMAMML

客户料号：

送样日期：

2023.07.01

客 户 确 认			供 应 厂 商	
工 程 部	品 保 部	采 购 部	核 准	送 样 人
			赵 2023.07.01 亚 军	梁泳婷

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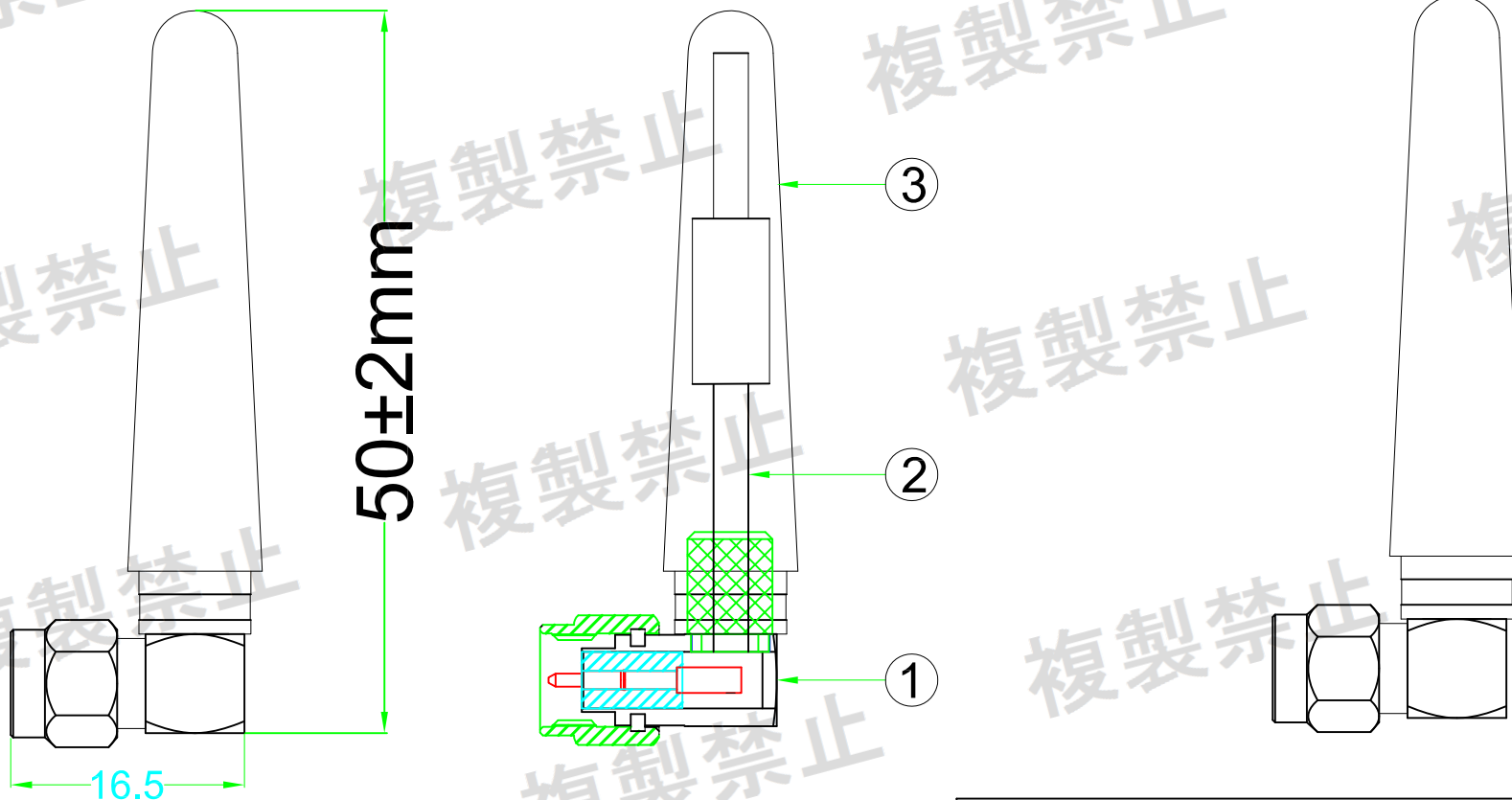
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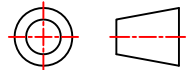
http://chaowei2000.1688.com

RoHS

SIGN	DATE	DESCRIPTION	APPROVER
△			
△			
△			



东莞市超威电子有限公司

产品名称	2.4/5.8G Antenna			
产品料号	CW-22458G50-SMAMML			
缩放比例	NONE	单位	毫米	
核准人	审核人	制图人	尺寸公差	REV.
赵亚军	冯大想	汪明	x. ±1.0 x.x ±0.5 x.xx ±0.1 x ±1	A

3	CW-AN44B	Plastic shell	TPEE	Black	1
2	CW-ZZ2458G	ANT-2458G	Brass	Natural color	1
1	CW-SMAMM-L	SMA Male	Brass	Gold plating	1
No.	Part Number	Description	Material	Finished	O'ty

Index:

1. Reliability Testing
2. Specification
3. S Parameter Test Data
4. Antenna Radiation Pattern

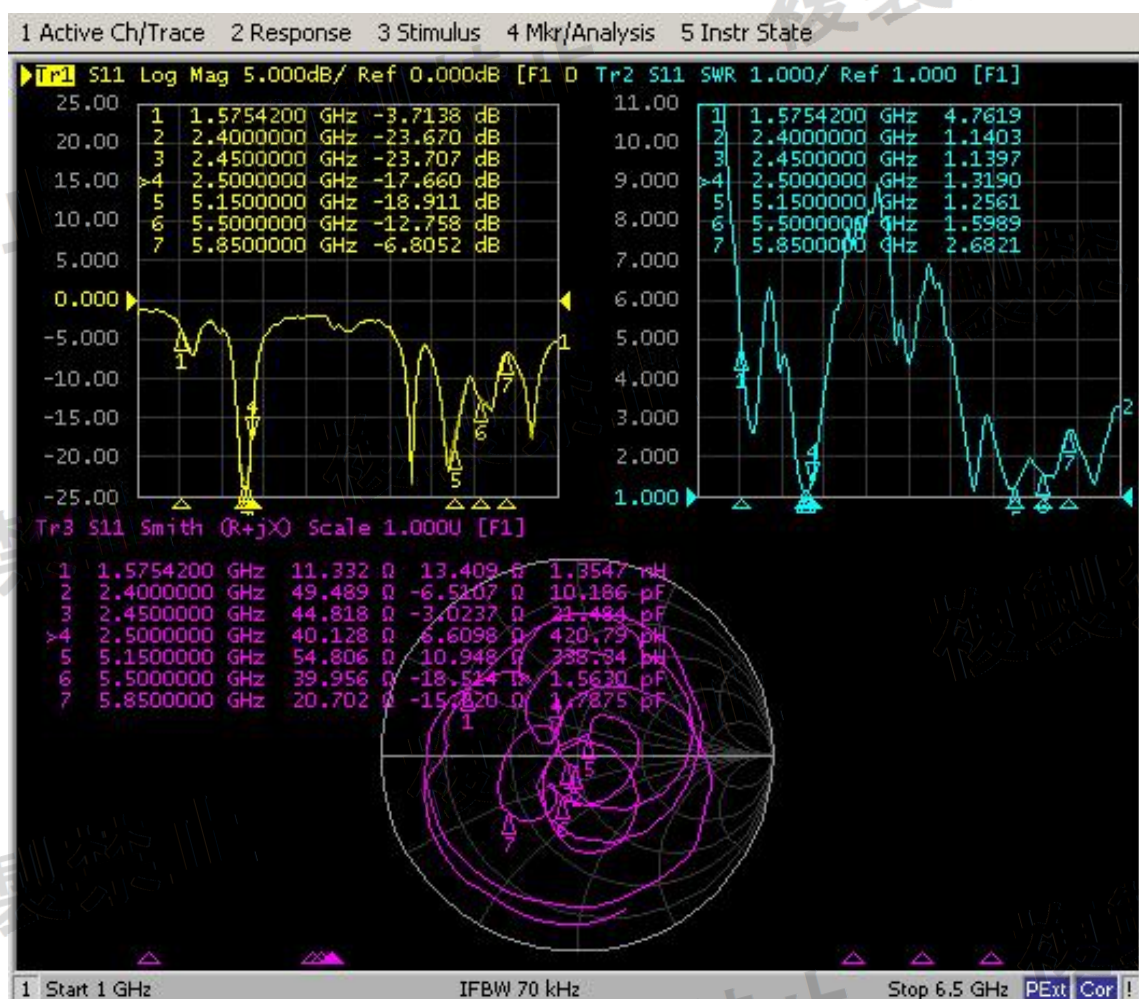
1. Reliability Testing

Test Item	Procedure	Requirement
1. Visual inspection and Dimension Check	Applicable methods using x5 magnification	follow specification
2. Rapid Changing of Temperature	-40°C (30minutes) to 80°C (30minutes); 24 cycles	After 2 hours recovery: 1. no visible damage 2. bandwidth tolerance < $\pm 5\%$
3. Damp Heat	24 hours at 60°C; 90 ~ 95% RH	After 2 hours recovery: 1. no visible damage 2. bandwidth tolerance < $\pm 5\%$
4. Endurance	24 hours at 80°C	After 2 hours recovery: 1. no visible damage 2. bandwidth tolerance < $\pm 5\%$
5. Connector Pull Strength Test	≥ 1.0 Kg	Hold 2~3S: 1. no visible damage 2. bandwidth tolerance < $\pm 5\%$

2. Specification

A. Electrical Characteristics	
Center Frequency	2400-2500MHz/5150-5250MHz
Wavelength	1/4-wave
S.W.R	≤2.0
Impedance	50 Ohm
Peak Gain	2.4G: 2.1dBi, 5G: -0.02dBi
Polarization	Vertical
Horizontal Beamwidth	360°
B. Material	
Material of Plastic	TPEE
Connector Type	SMA Male
C. Environmental	
Storage Temperature	- 40 °C ~ + 85 °C
Operation Temperature	- 40 °C ~ + 85 °C

3. S.W.R. Testing Result



4. Antenna Radiation Pattern

5. Testing Equipment Specification:

Antenna Anechoic Chamber Dimension: 7x3 x3 m

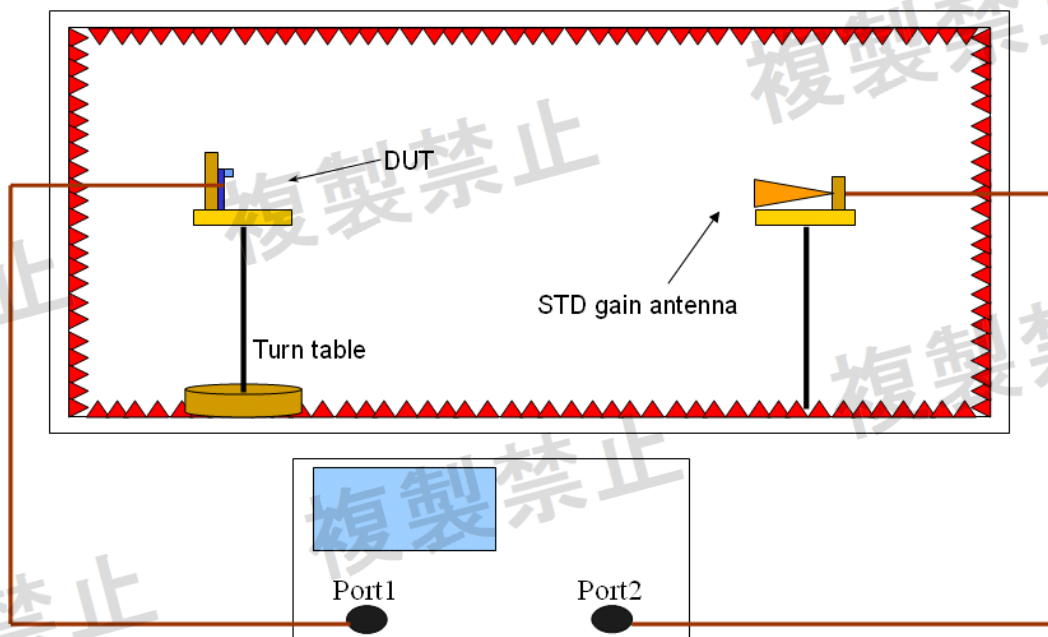
Quiet Zone: 600mm @1 GHz

Isolation: >100dB @ 1 MHz ~ 10 GHz

Testing Equipment: Agilent E5071C

Received Antenna: 0.4 ~ 6.0 GHz for Gain Calibration

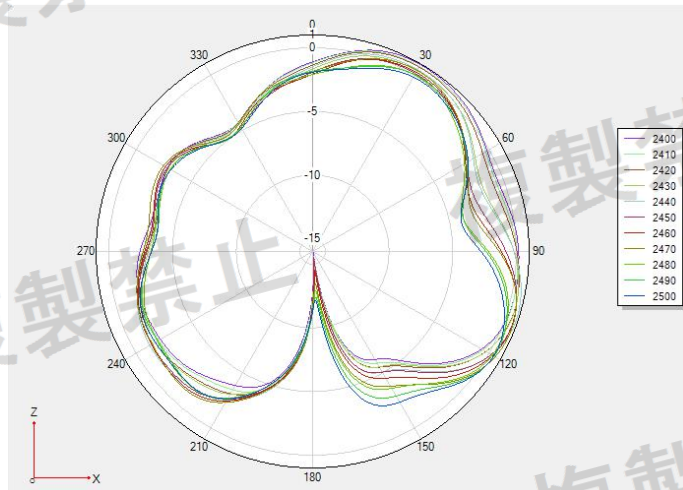
Double Ridged Horn Antenna



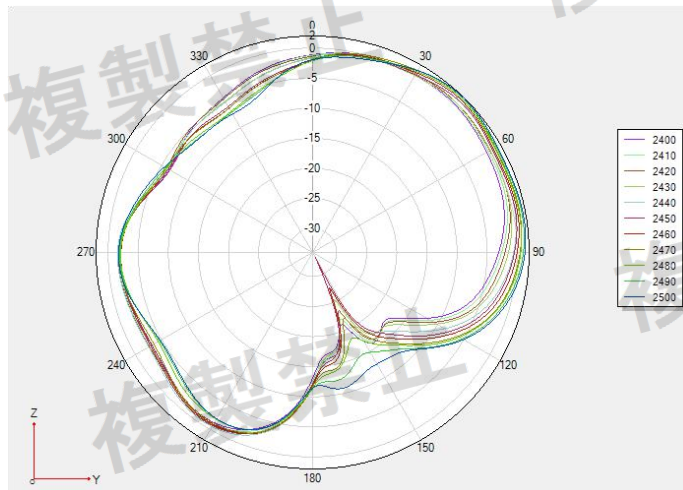
6. Gain table of Antenna:

Passive 2D field pattern (2400MHz-2500MHz)

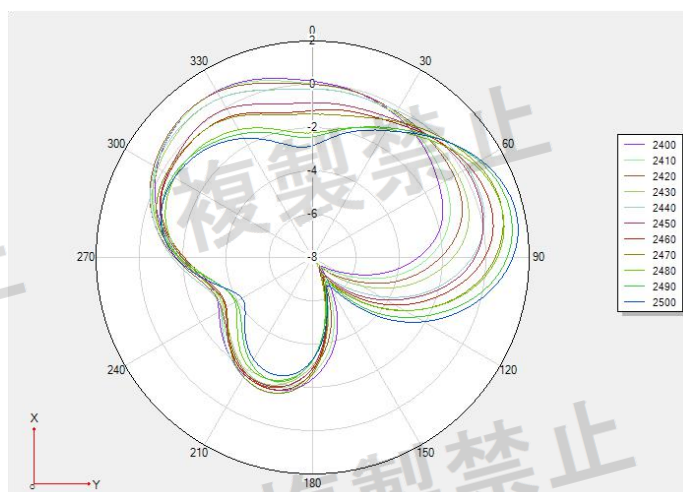
Frequency (MHz)	Efficiency (%)	Peak Gain / dB
2400	55.46	1.96
2450	62.09	1.6
2500	62.37	2.1



Phi 0 2D 图



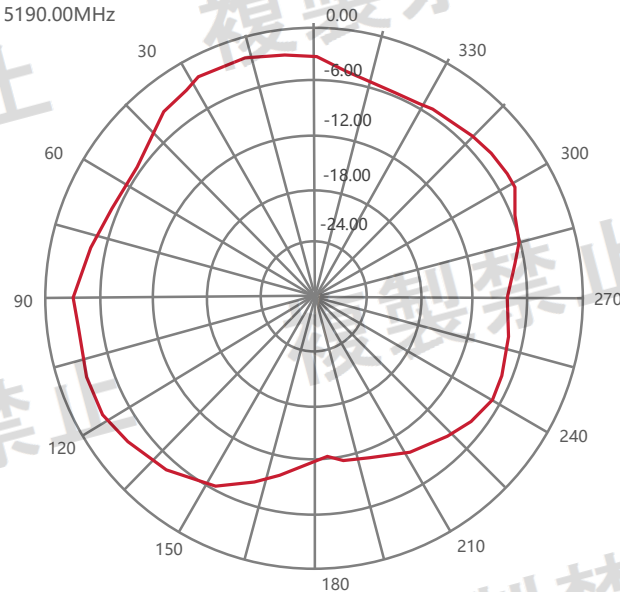
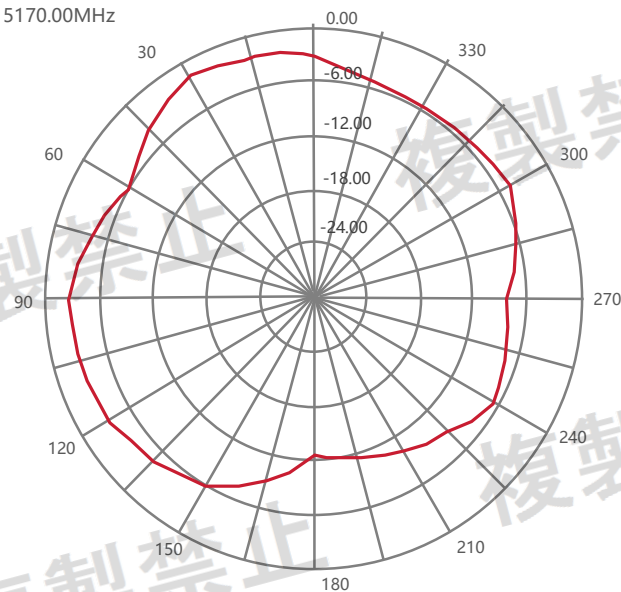
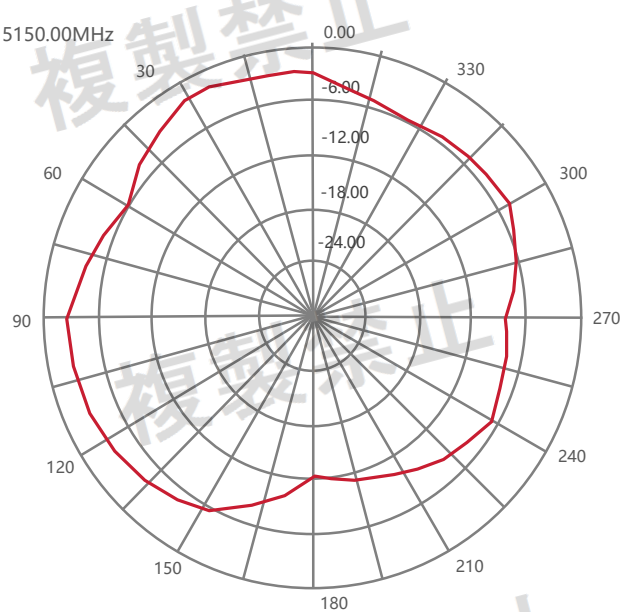
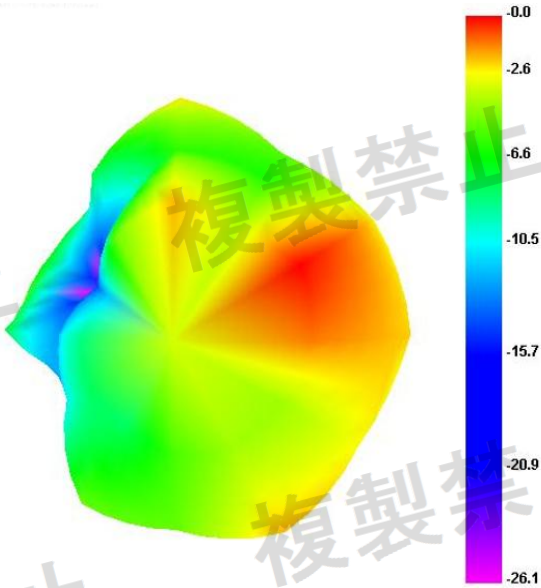
Phi 90 2D 图



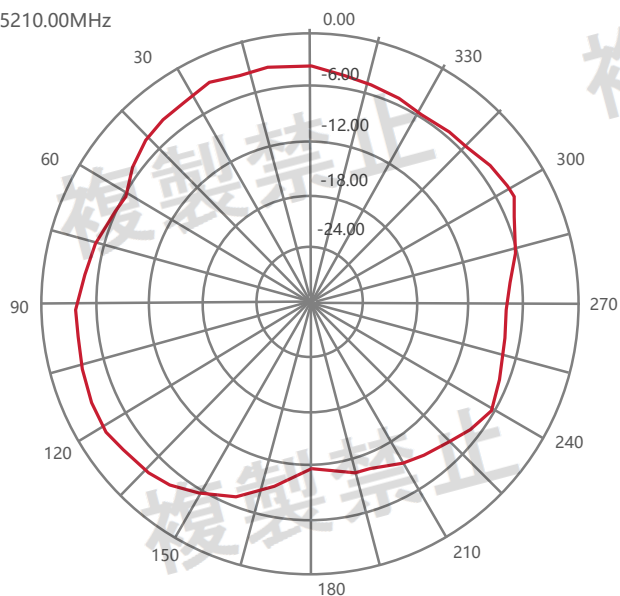
Theta 90 2D 图

7: 5G WIFI antenna test data

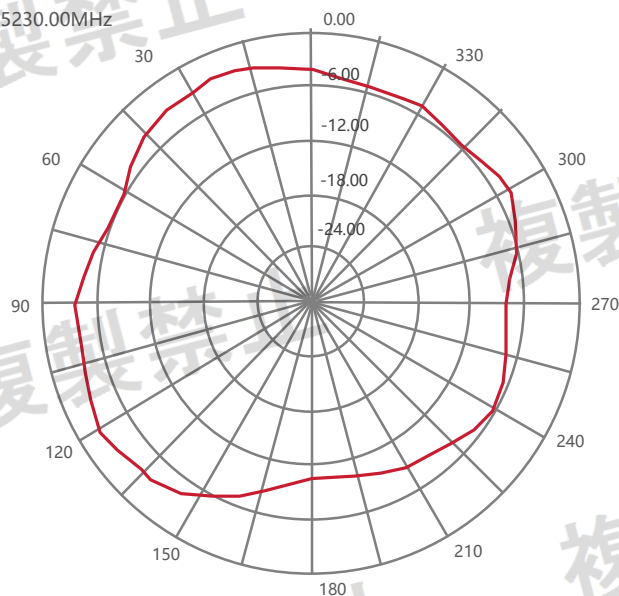
Passive Test For WIFI5.8										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHIS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
5150	24.99	-6.02	-0.02	-2.17	15.542	9.448	-0.02	-26.14	56.04	56.11
5160	22.09	-6.56	-0.7	-2.85	13.7	8.394	-0.7	-26.71	55.94	55.86
5170	22.65	-6.45	-0.72	-2.87	14.179	8.473	-0.72	-27.14	55.74	55.67
5180	21.36	-6.7	-1.11	-3.26	13.379	7.984	-1.11	-28.08	56.03	55.65
5190	19.12	-7.19	-1.79	-3.94	11.903	7.215	-1.79	-30.57	55.68	55.83
5200	17.92	-7.47	-2.08	-4.23	11.328	6.592	-2.08	-28.39	55.87	55.81
5210	15.11	-8.21	-2.86	-5.01	9.585	5.526	-2.86	-26.54	55.94	55.96
5220	15.36	-8.14	-2.77	-4.92	9.783	5.573	-2.77	-26.28	55.86	55.79
5230	13.09	-8.83	-3.21	-5.36	8.498	4.596	-3.21	-26.38	55.99	55.84
5240	15.12	-8.21	-2.21	-4.36	9.802	5.315	-2.21	-24.38	56.05	55.72
5250	16.99	-7.7	-1.45	-3.6	10.833	6.159	-1.45	-25.37	55.81	55.6



5210.00MHz



5230.00MHz



5250.00MHz

