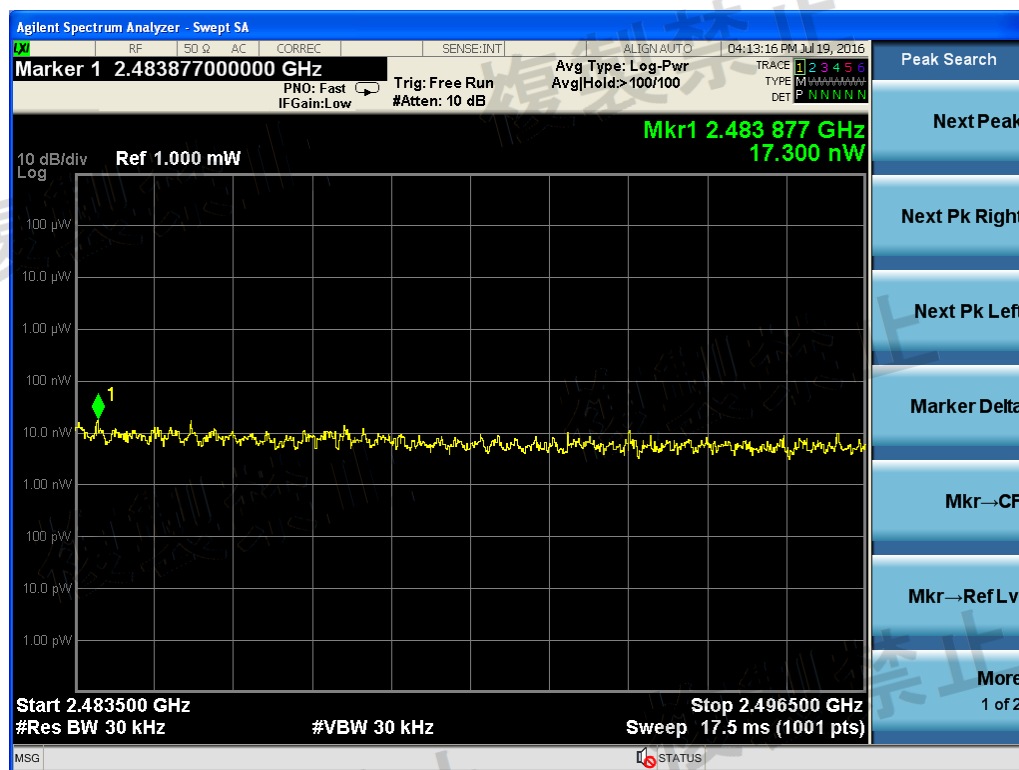
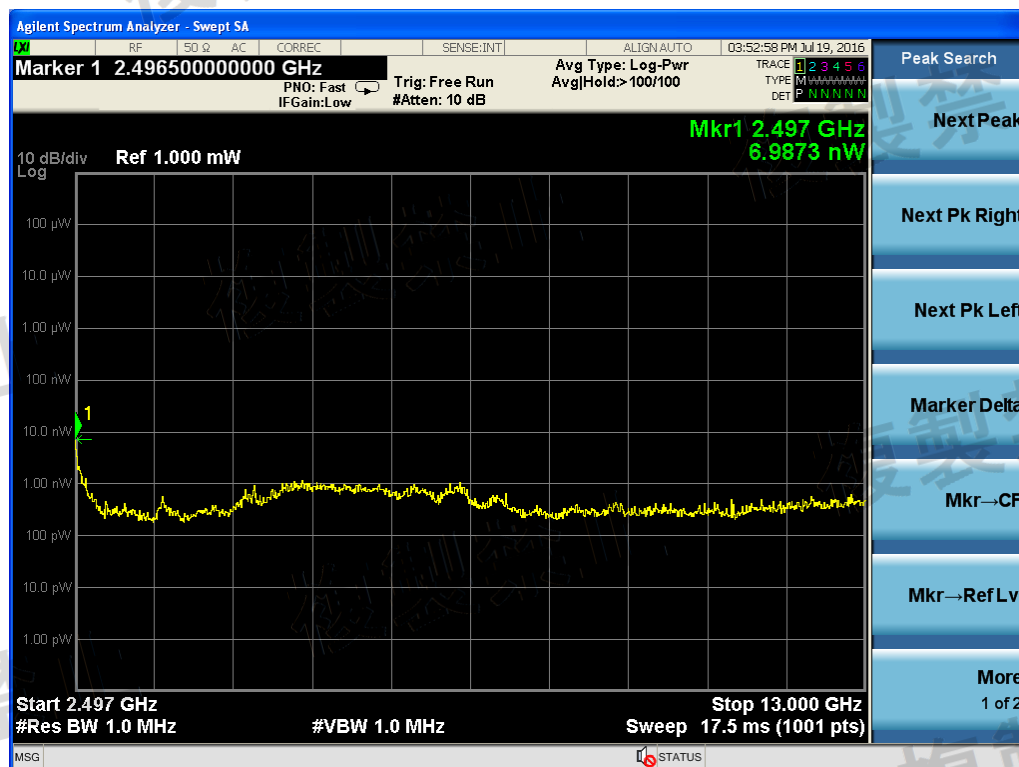




Modulation type: 802.11n HT40 (13.5Mbps), ANT L
Channel: 2442MHz, Frequency Band: 2483.5 ~ 2496.5MHz

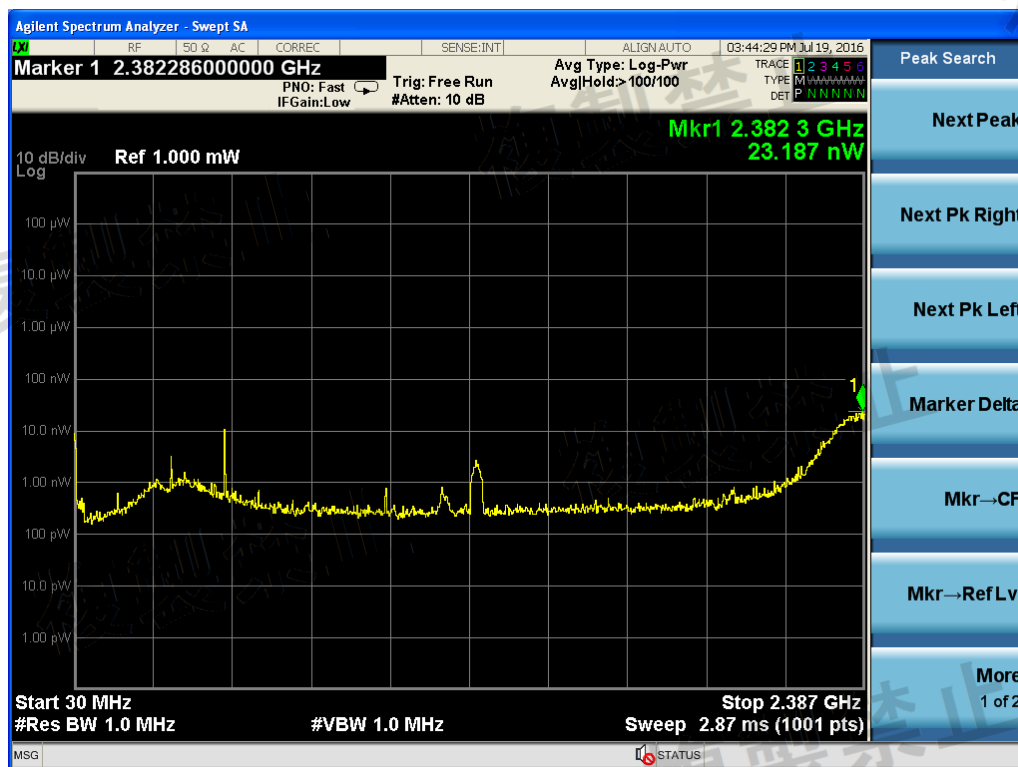


Modulation type: 802.11n HT40 (13.5Mbps), ANT L
Channel: 2442MHz, Frequency Band: >2496.5MHz

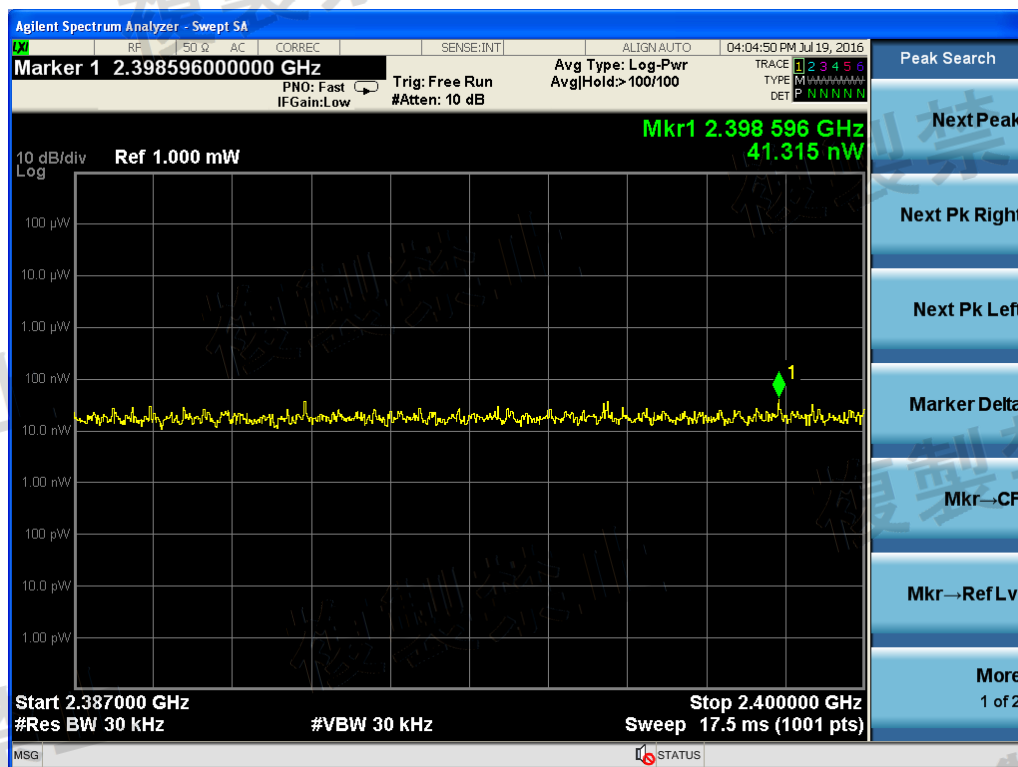




Modulation type: 802.11n HT40 (13.5Mbps), ANT L
Channel: 2462MHz, Frequency Band: < 2387MHz

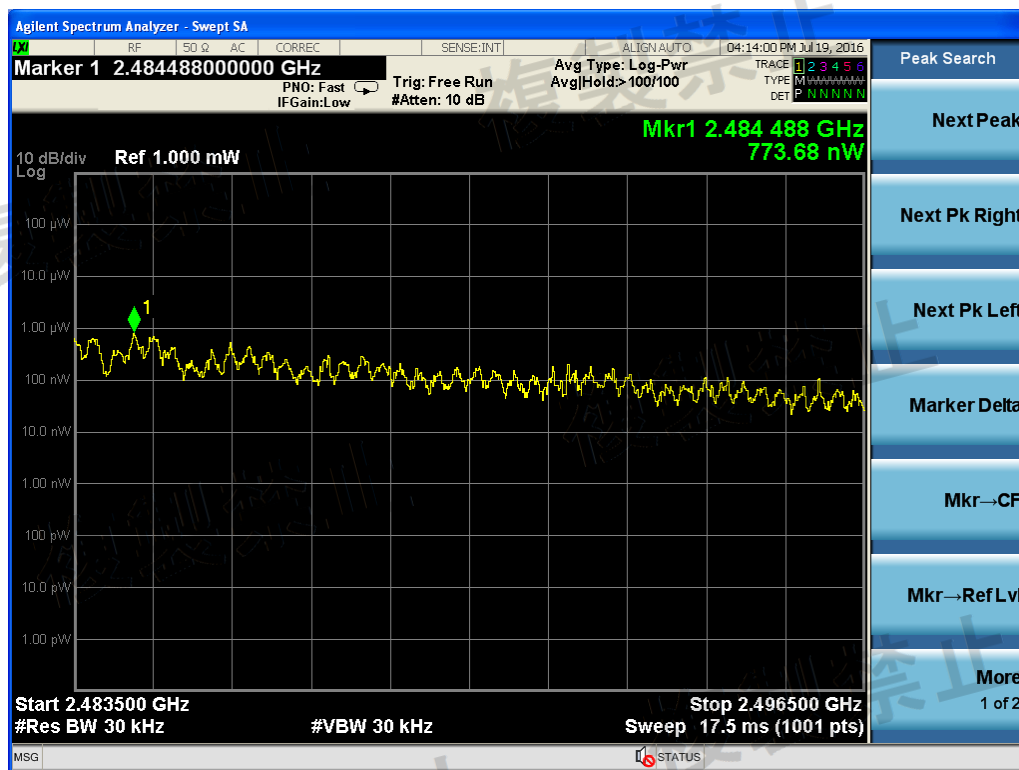


Modulation type: 802.11n HT40 (13.5Mbps), ANT L
Channel: 2462MHz, Frequency Band: 2387 ~ 2400MHz

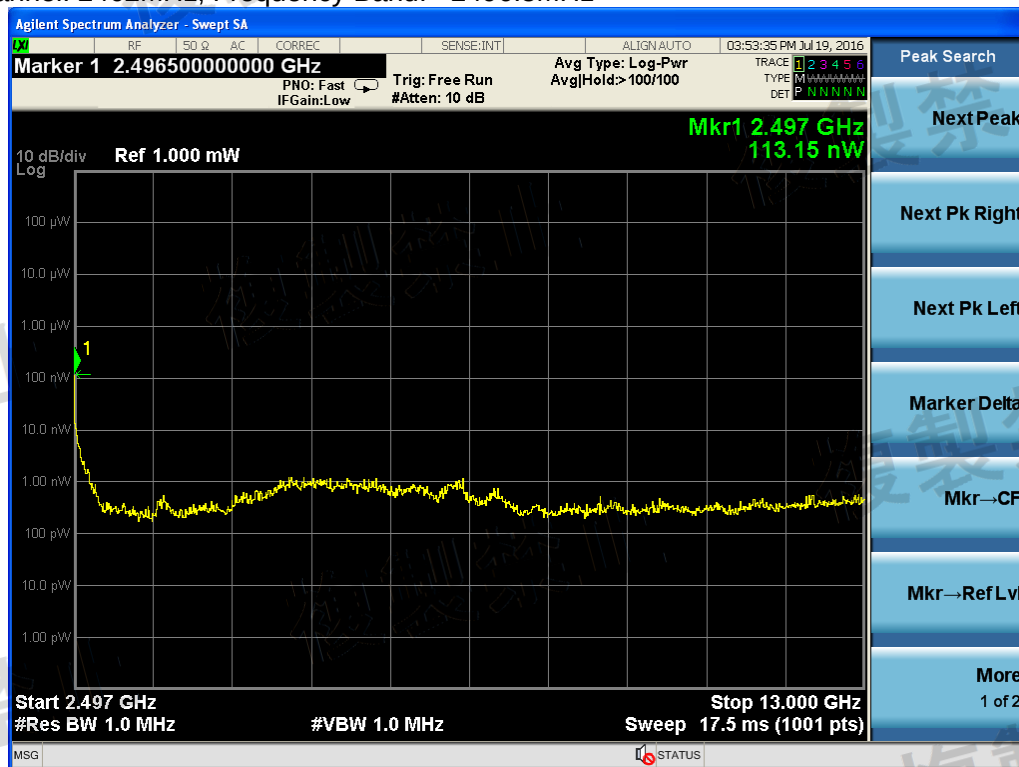




Modulation type: 802.11n HT40 (13.5Mbps), ANT L
Channel: 2462MHz, Frequency Band: 2483.5 ~ 2496.5MHz



Modulation type: 802.11n HT40 (13.5Mbps), ANT L
Channel: 2462MHz, Frequency Band: >2496.5MHz





3.8 Carrier Sensing Function

3.8.1 Test Result and Data

Test date: July 20, 2016

Ambient temperature: 25°C

Atmospheric pressure: 1005 hpa

Relative humidity: 50%

Test Condition s	Operation Frequency (MHz) / Applied Level (mV/meter)					
	CH3 2422MHz		CH7 2442MHz		CH11 2462MHz	
	ANT R	ANT L	ANT R	ANT L	ANT R	ANT L
Modulation type: 802.11n HT40						
Vnom	2.14	2.15	2.13	2.15	2.11	2.13
Vmax	2.14	2.15	2.13	2.14	2.11	2.13
Vmin	2.14	2.15	2.13	2.14	2.11	2.12

Limits: Level <100mV



3.9 Interference Prevention Function

3.9.1 Test Procedures

According TELEC-T401, test item Interference prevention function, measuring procedures.

3.9.2 Test Setup



3.9.3 Test Result and Data

Test date: July 20, 2016

Ambient temperature: 25°C

Atmospheric pressure: 1005 hpa

Relative humidity: 50%

Radio Interference Prevention Function	
ID Code	Result
MAC Address: D0-9B-85-8D-80-24	Pass



4. Receiver Parameters

4.1 Spurious Emissions

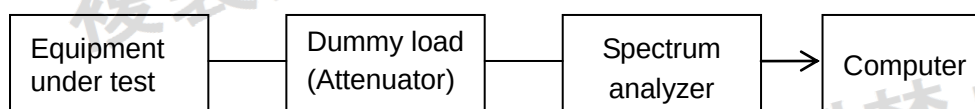
4.1.1 Test Limit

Modulation type	Limit
<1GHz	4nW
1GHz ~ 12.5GHz	20nW

4.1.2 Test Procedures

According to TELECOM-T401 Limit of secondary radiated emissions measuring procedure.

4.1.3 Test Setup





4.1.4 Test Result and Data

Test date: July 19, 2016

Ambient temperature: 25°C

Atmospheric pressure: 1005 hpa

Relative humidity: 50%

Modulation type: 802.11b, ANT R						
Test Conditions	Operation Frequency (MHz) / Spurious Emission					
	CH1 2412MHz		CH7 2442MHz		CH13 2472MHz	
	< 1GHz		< 1GHz		< 1GHz	
	MHz	μW	MHz	μW	MHz	μW
Vnom	---	---	---	---	---	---
Vmax	---	---	---	---	---	---
Vmin	---	---	---	---	---	---
	1GHz – 12.5GHz		1GHz – 12.5GHz		1GHz – 12.5GHz	
Vnom	5524.00	0.001	5572.00	0.001	5680.00	0.001
Vmax	5524.00	0.001	5572.00	0.001	5680.00	0.001
Vmin	5332.00	0.001	5572.00	0.001	5700.00	0.001
Modulation type: 802.11b, ANT L						
	< 1GHz		< 1GHz		< 1GHz	
	MHz	μW	MHz	μW	MHz	μW
Vnom	---	---	---	---	---	---
Vmax	---	---	---	---	---	---
Vmin	---	---	---	---	---	---
	1GHz – 12.5GHz		1GHz – 12.5GHz		1GHz – 12.5GHz	
Vnom	5728.00	0.001	5332.00	0.001	5788.00	0.001
Vmax	5728.00	0.001	5332.00	0.001	5728.00	0.001
Vmin	5728.00	0.001	5524.00	0.001	5788.00	0.001

Note: “---” means that no emissions were detected and there for it is a “PASS”



Modulation type: 802.11g, ANT R

Test Conditions	Operation Frequency (MHz) / Spurious Emission					
	CH1 2412MHz		CH7 2442MHz		CH13 2472MHz	
	< 1GHz		< 1GHz		< 1GHz	
	MHz	μW	MHz	μW	MHz	μW
Vnom	---	---	---	---	---	---
Vmax	---	---	---	---	---	---
Vmin	---	---	---	---	---	---
	1GHz – 12.5GHz		1GHz – 12.5GHz		1GHz – 12.5GHz	
Vnom	5596.00	0.001	5704.00	0.001	5632.00	0.001
Vmax	5632.00	0.001	5704.00	0.001	5632.00	0.001
Vmin	5596.00	0.001	5704.00	0.001	5632.00	0.001
Modulation type: 802.11g, ANT L						
	< 1GHz		< 1GHz		< 1GHz	
	MHz	μW	MHz	μW	MHz	μW
Vnom	---	---	---	---	---	---
Vmax	---	---	---	---	---	---
Vmin	---	---	---	---	---	---
	1GHz – 12.5GHz		1GHz – 12.5GHz		1GHz – 12.5GHz	
Vnom	5752.00	0.001	5320.00	0.001	5320.00	0.001
Vmax	5320.00	0.001	5320.00	0.001	5320.00	0.001
Vmin	5752.00	0.001	5320.00	0.001	5320.00	0.001

Note: “---” means that no emissions were detected and there for it is a “PASS”



Modulation type: 802.11n HT20, ANT R

Test Conditions	Operation Frequency (MHz) / Spurious Emission					
	CH1 2412MHz		CH7 2442MHz		CH13 2472MHz	
	< 1GHz		< 1GHz		< 1GHz	
	MHz	μW	MHz	μW	MHz	μW
Vnom	---	---	---	---	---	---
Vmax	---	---	---	---	---	---
Vmin	---	---	---	---	---	---
	1GHz – 12.5GHz		1GHz – 12.5GHz		1GHz – 12.5GHz	
Vnom	6268.00	0.002	6196.00	0.001	5788.00	0.001
Vmax	6268.00	0.002	6600.00	0.001	5788.00	0.001
Vmin	6268.00	0.002	6196.00	0.001	5788.00	0.001

Modulation type: 802.11n HT20, ANT L

Test Conditions	Operation Frequency (MHz) / Spurious Emission					
	CH1 2412MHz		CH7 2442MHz		CH13 2472MHz	
	< 1GHz		< 1GHz		< 1GHz	
	MHz	μW	MHz	μW	MHz	μW
Vnom	---	---	---	---	---	---
Vmax	---	---	---	---	---	---
Vmin	---	---	---	---	---	---
	1GHz – 12.5GHz		1GHz – 12.5GHz		1GHz – 12.5GHz	
Vnom	5752.00	0.001	5752.00	0.001	5788.00	0.001
Vmax	5752.00	0.001	5752.00	0.001	5700.00	0.001
Vmin	5752.00	0.001	5752.00	0.001	5788.00	0.001

Note: “---” means that no emissions were detected and there for it is a “PASS”



Modulation type: 802.11n HT40, ANT R

Test Conditions	Operation Frequency (MHz) / Spurious Emission					
	CH3 2422MHz		CH7 2442MHz		CH11 2462MHz	
	< 1GHz		< 1GHz		< 1GHz	
	MHz	μW	MHz	μW	MHz	μW
Vnom	---	---	---	---	---	---
Vmax	---	---	---	---	---	---
Vmin	---	---	---	---	---	---
	1GHz – 12.5GHz		1GHz – 12.5GHz		1GHz – 12.5GHz	
Vnom	5320.00	0.001	5416.00	0.001	5836.00	0.002
Vmax	5320.00	0.001	5688.00	0.001	5836.00	0.002
Vmin	5320.00	0.001	5416.00	0.001	5836.00	0.002

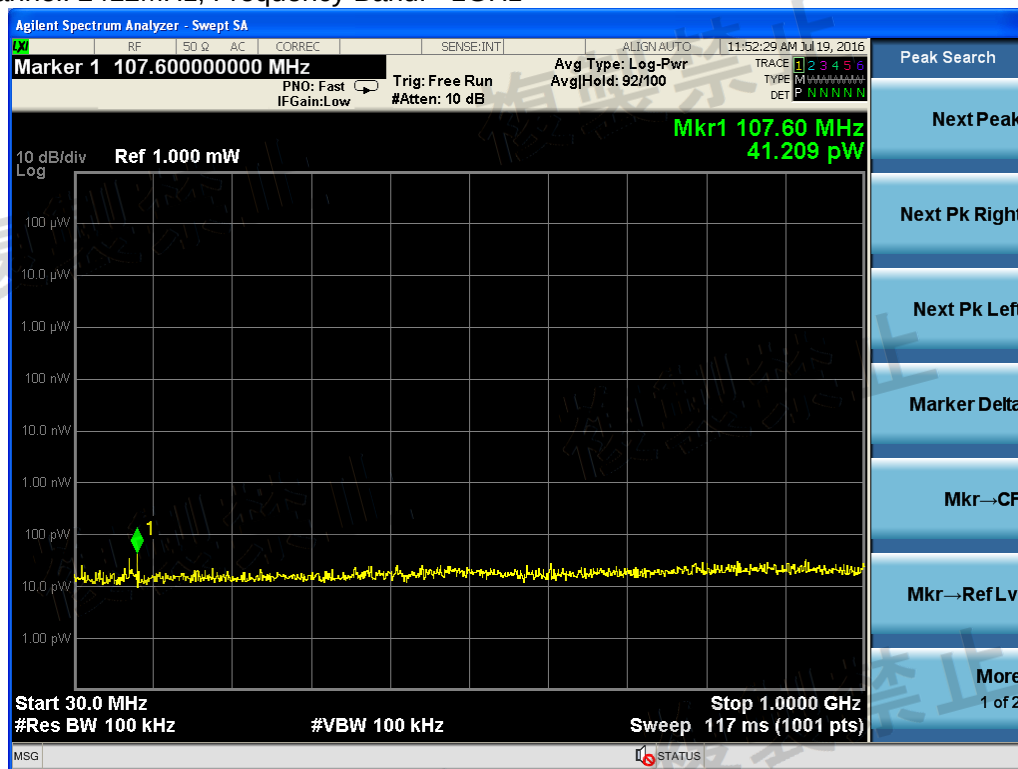
Modulation type: 802.11n HT40, ANT L

Test Conditions	Operation Frequency (MHz) / Spurious Emission					
	CH3 2422MHz		CH7 2442MHz		CH11 2462MHz	
	< 1GHz		< 1GHz		< 1GHz	
	MHz	μW	MHz	μW	MHz	μW
Vnom	---	---	---	---	---	---
Vmax	---	---	---	---	---	---
Vmin	---	---	---	---	---	---
	1GHz – 12.5GHz		1GHz – 12.5GHz		1GHz – 12.5GHz	
Vnom	7108.00	0.001	5800.00	0.001	5392.00	0.001
Vmax	5392.00	0.001	5800.00	0.001	5688.00	0.001
Vmin	7108.00	0.001	5800.00	0.001	5392.00	0.001

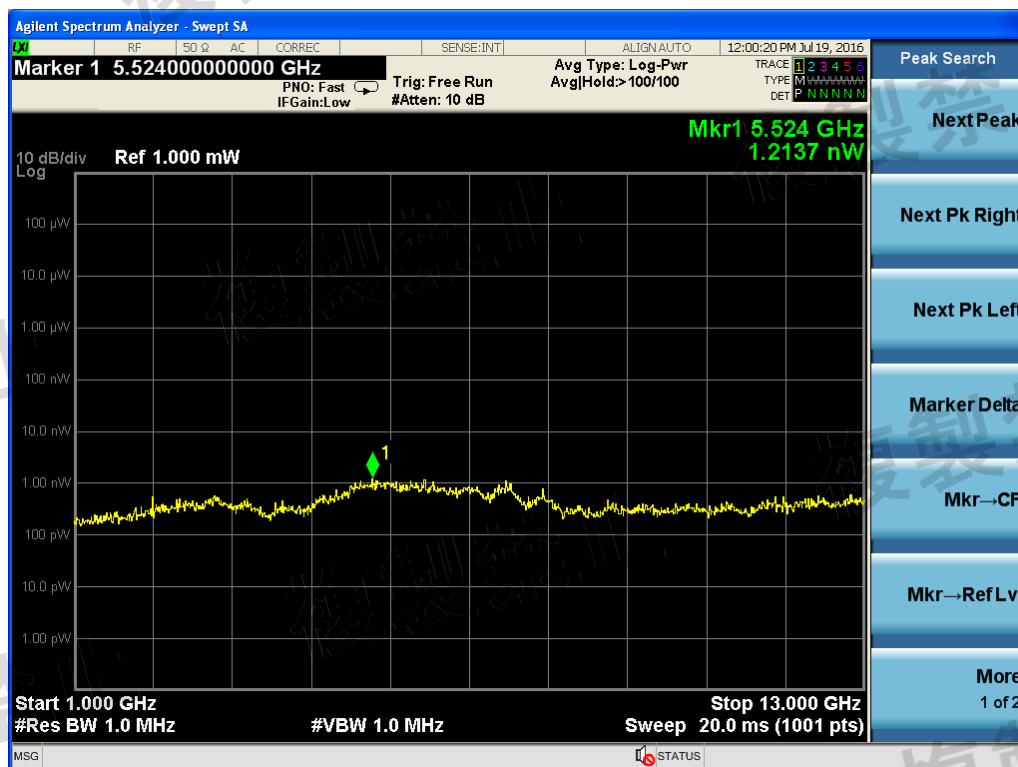
Note: “---” means that no emissions were detected and there for it is a “PASS”



Modulation type: 802.11b (11Mbps), ANT R
Channel: 2412MHz, Frequency Band: <1GHz

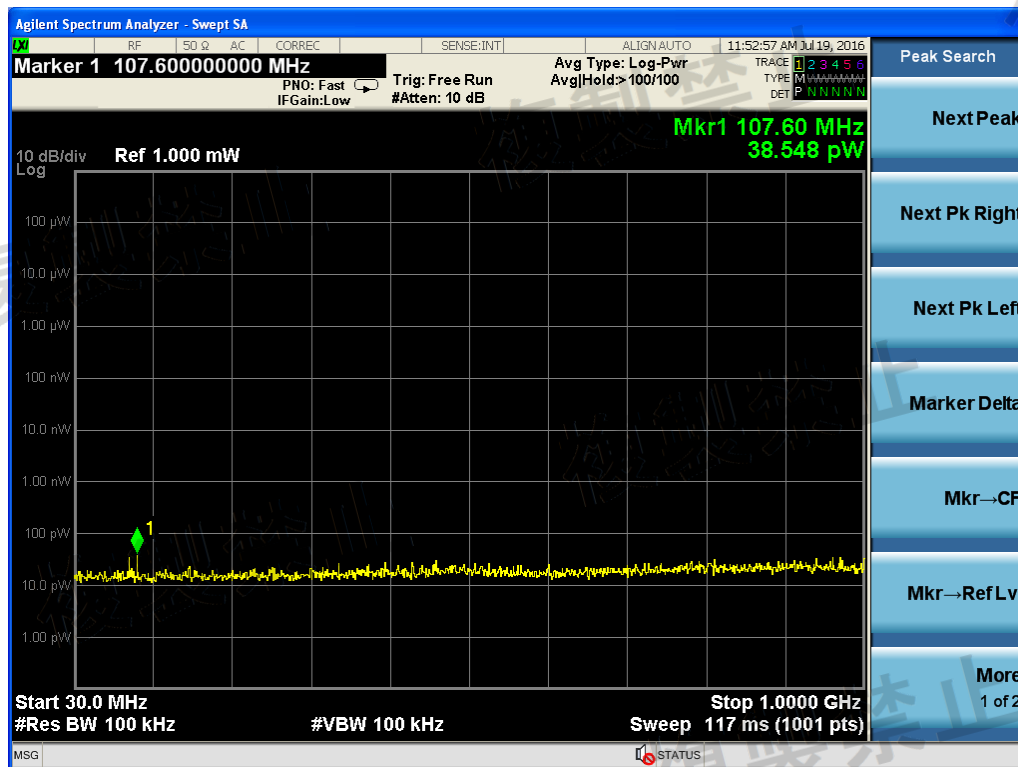


Modulation type: 802.11b (11Mbps), ANT R
Channel: 2412MHz, Frequency Band: >1GHz

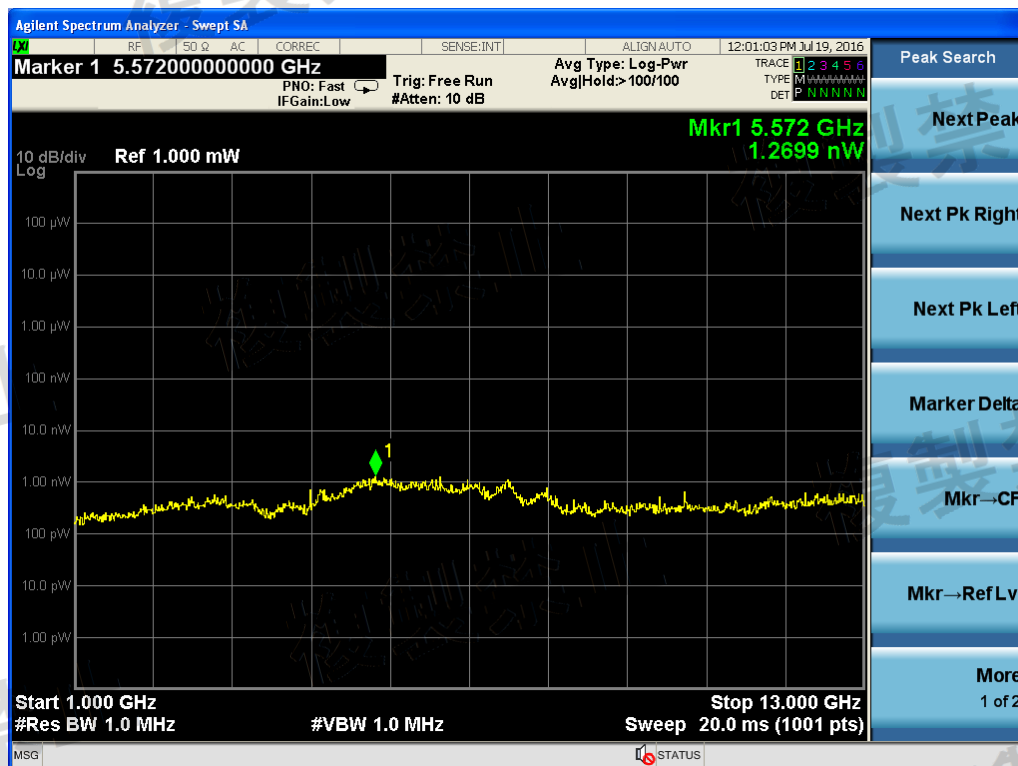




Modulation type: 802.11b (11Mbps), ANT R
Channel: 2442MHz, Frequency Band: <1GHz

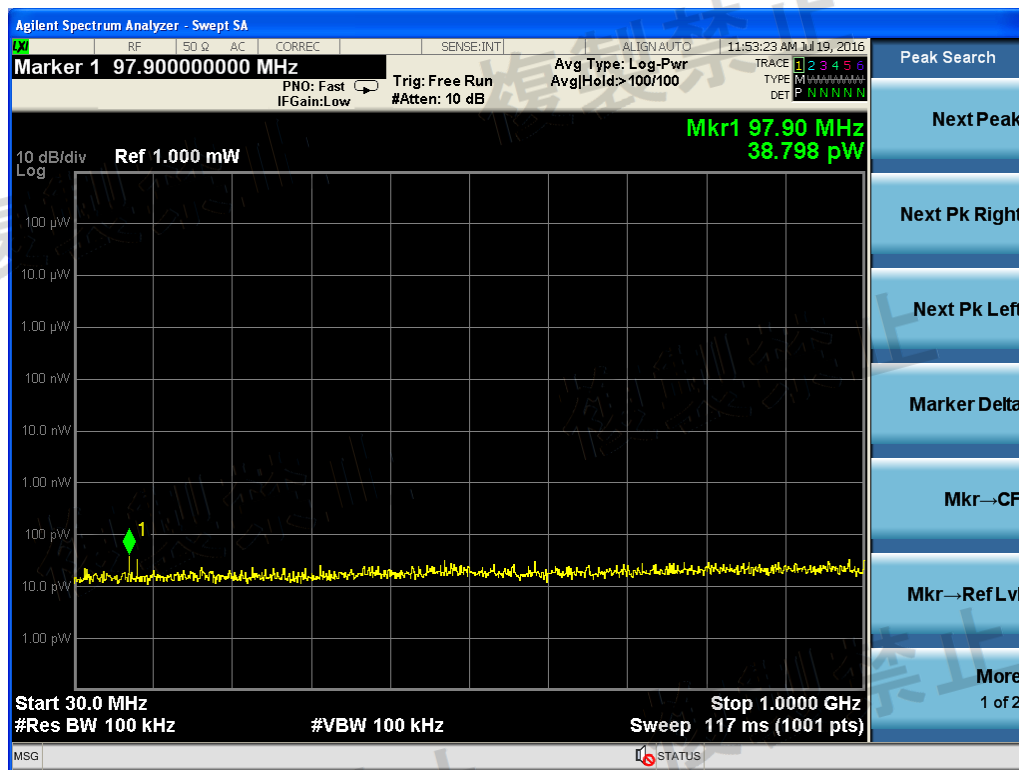


Modulation type: 802.11b (11Mbps), ANT R
Channel: 2442MHz, Frequency Band: >1GHz

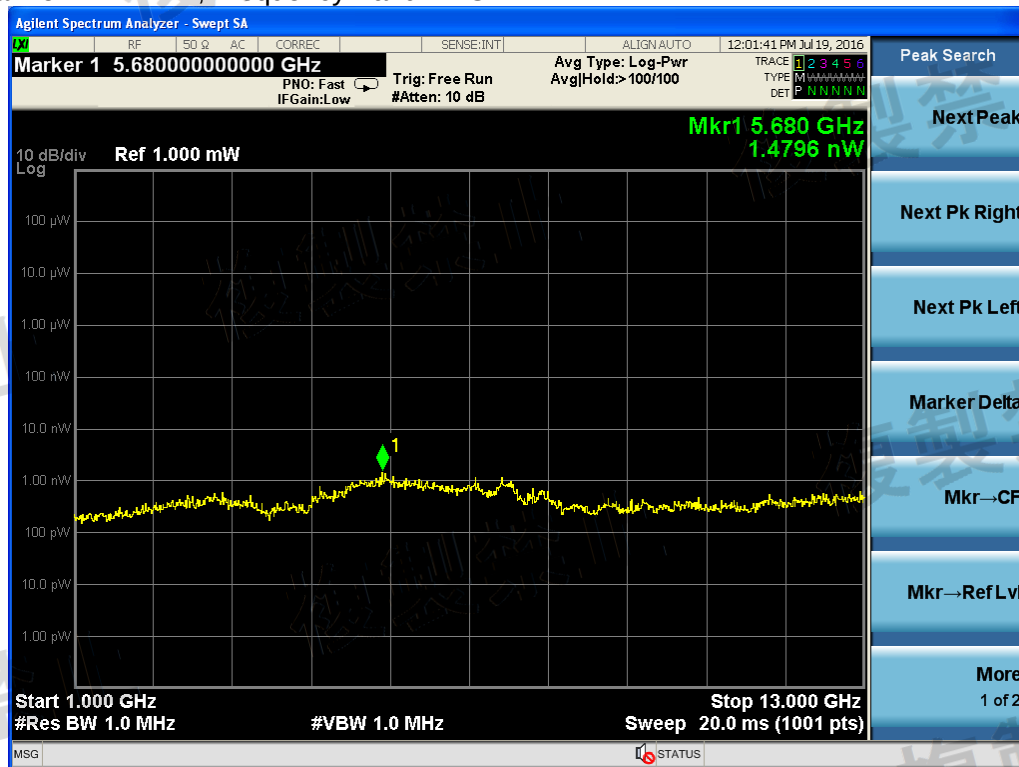




Modulation type: 802.11b (11Mbps), ANT R
Channel: 2472MHz, Frequency Band: <1GHz

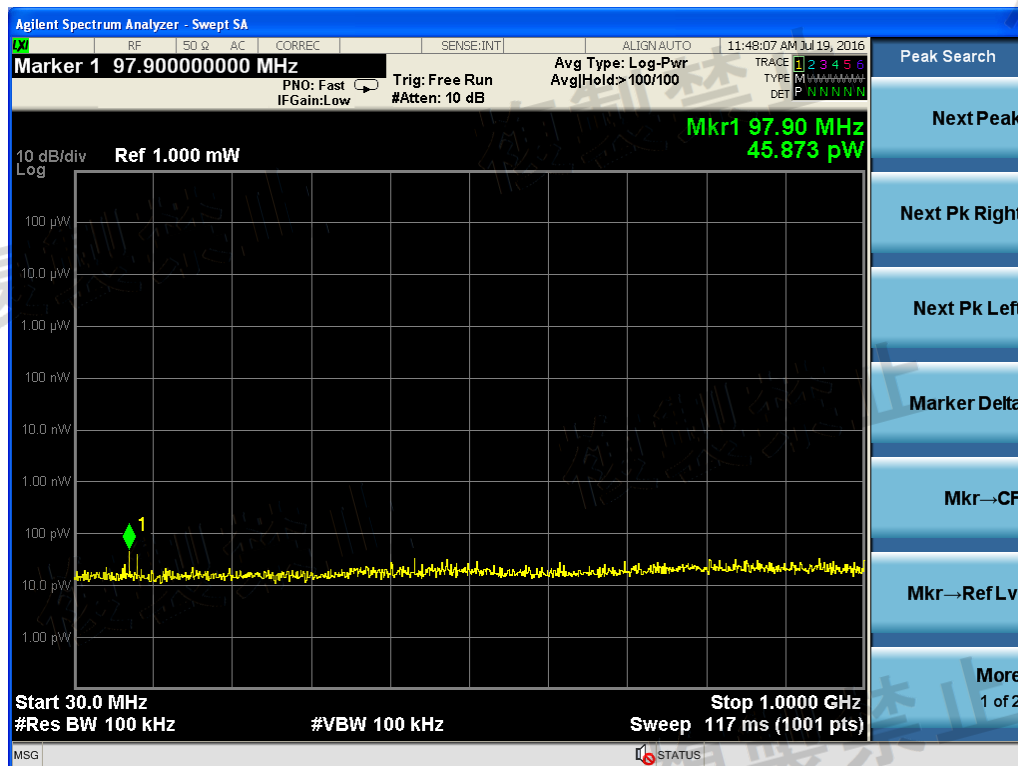


Modulation type: 802.11b (11Mbps), ANT R
Channel: 2472MHz, Frequency Band: >1GHz

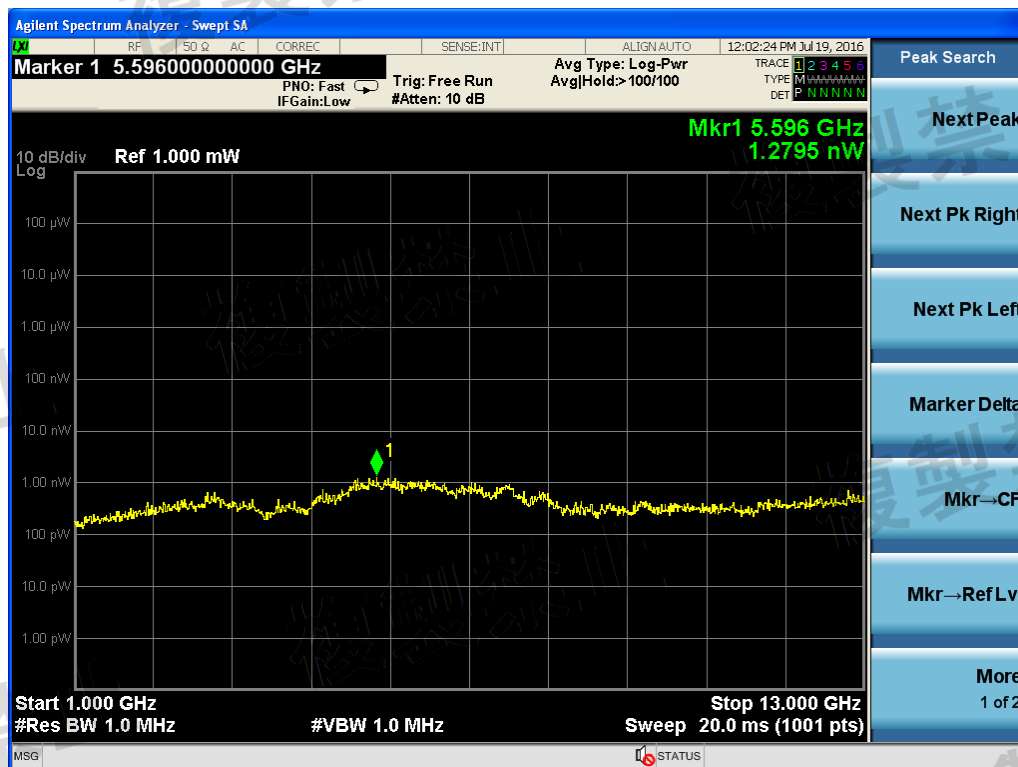




Modulation type: 802.11g (6Mbps), ANT R
Channel: 2412MHz, Frequency Band: <1GHz

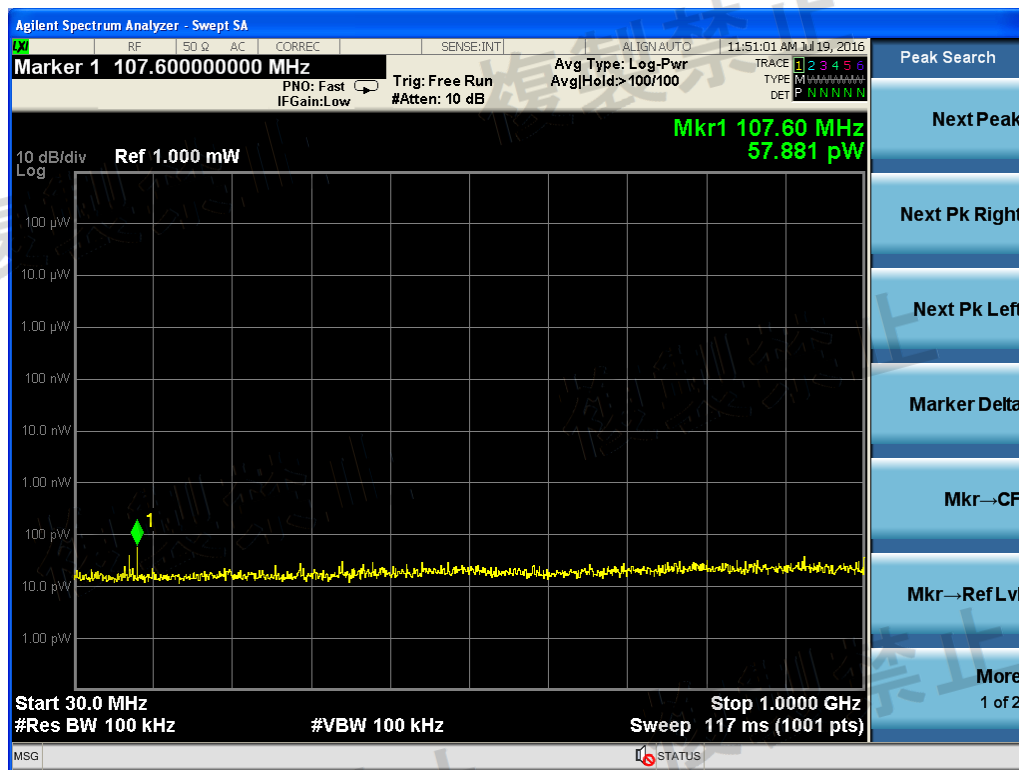


Modulation type: 802.11g (6Mbps), ANT R
Channel: 2412MHz, Frequency Band: >1GHz

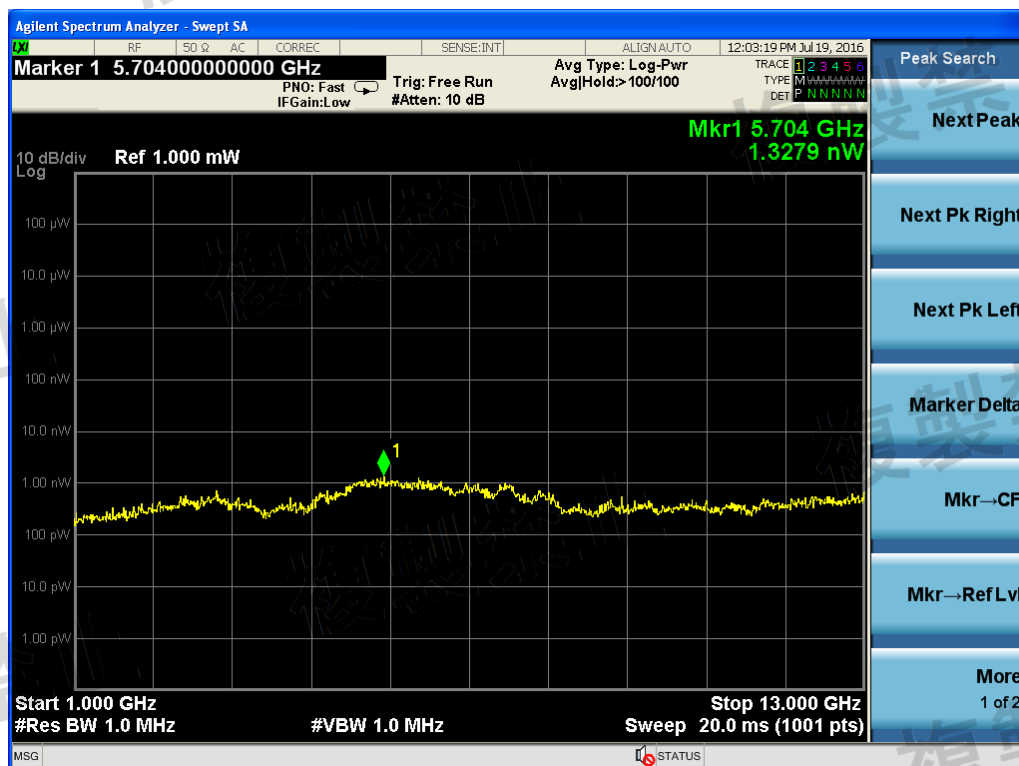




Modulation type: 802.11g (6Mbps), ANT R
Channel: 2442MHz, Frequency Band: <1GHz

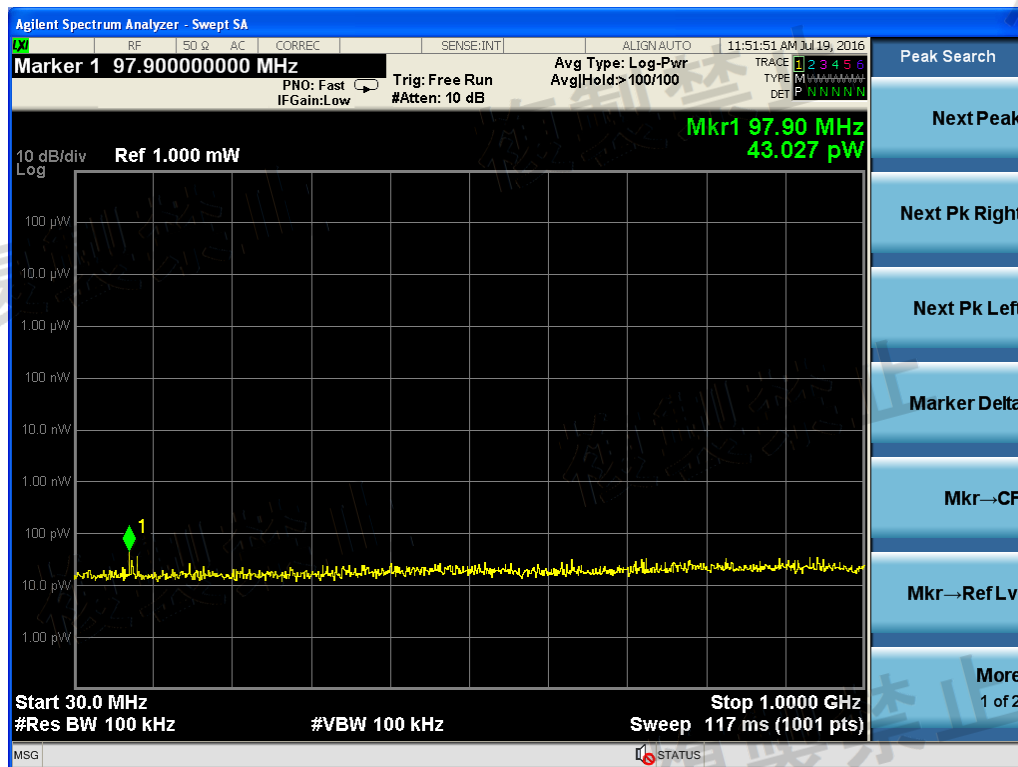


Modulation type: 802.11g (6Mbps), ANT R
Channel: 2442MHz, Frequency Band: >1GHz

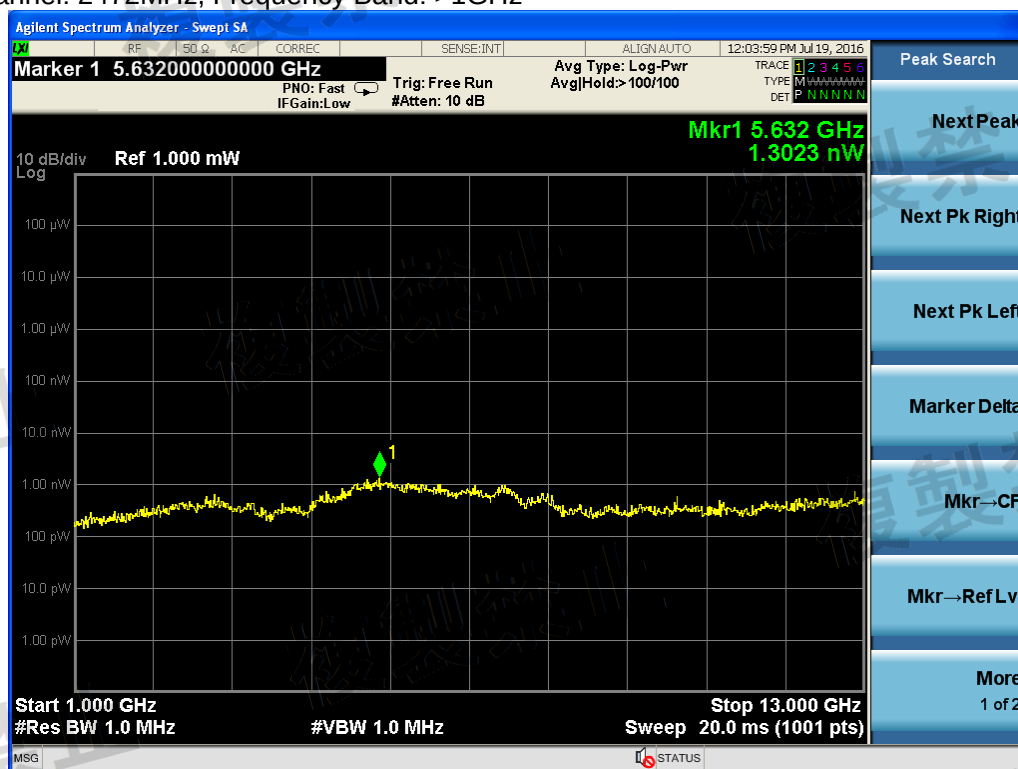




Modulation type: 802.11g (6Mbps), ANT R
Channel: 2472MHz, Frequency Band: <1GHz

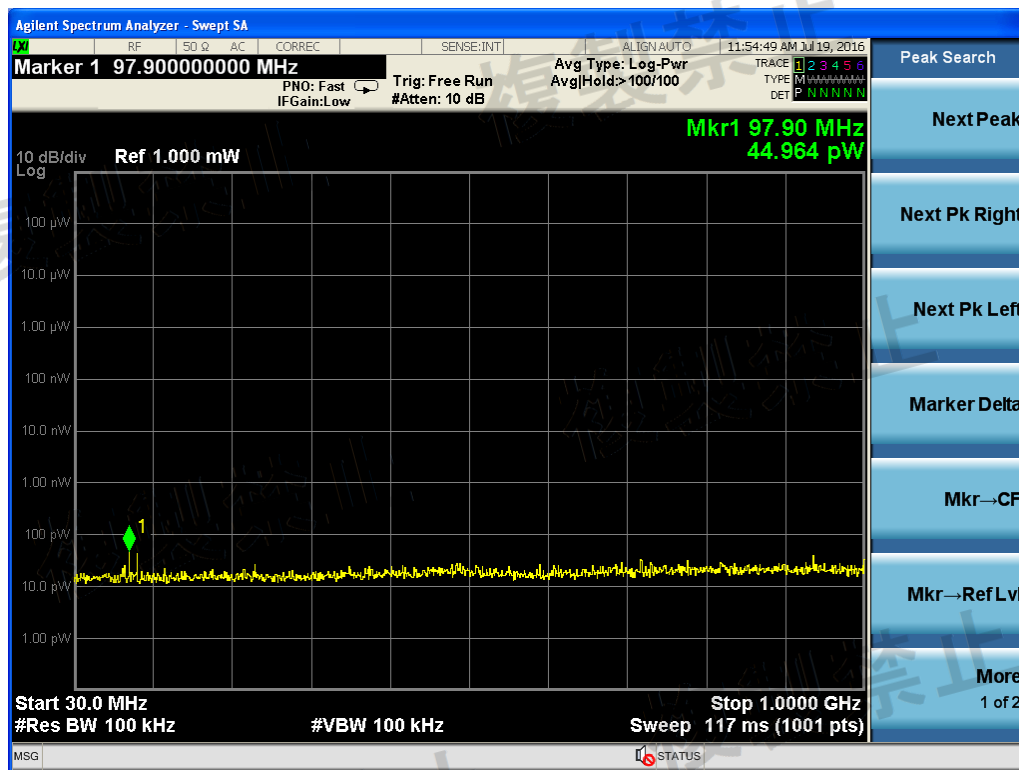


Modulation type: 802.11g (6Mbps), ANT R
Channel: 2472MHz, Frequency Band: >1GHz

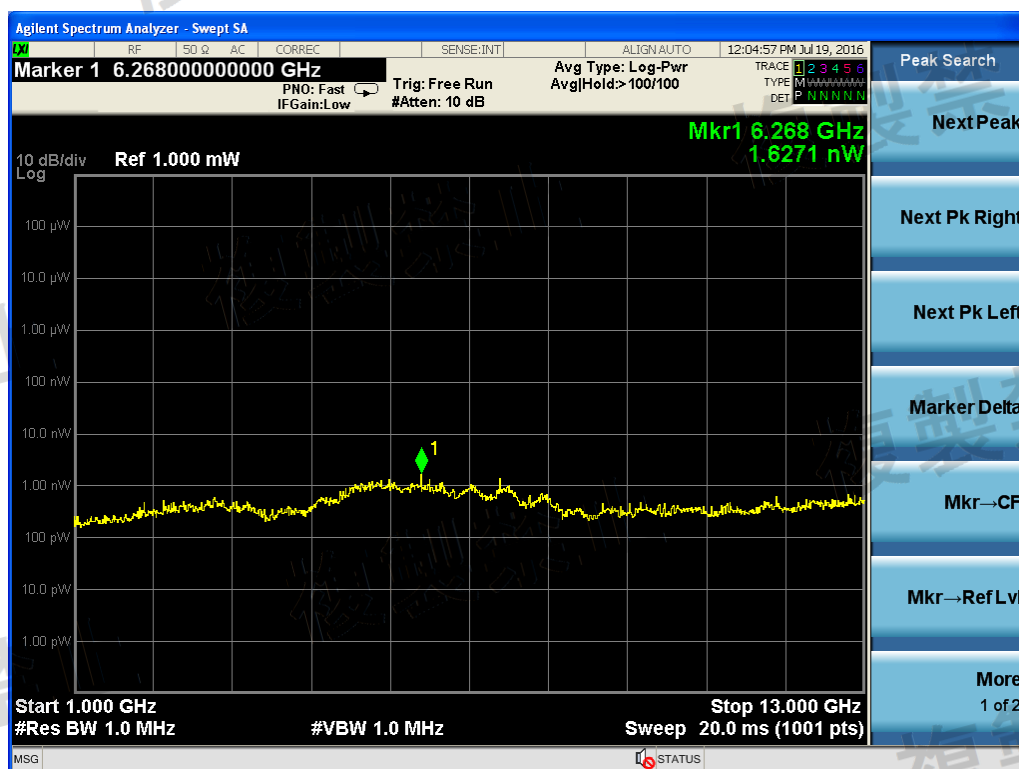




Modulation type: 802.11n HT20 (6.5Mbps), ANT R
Channel: 2412MHz, Frequency Band: <1GHz

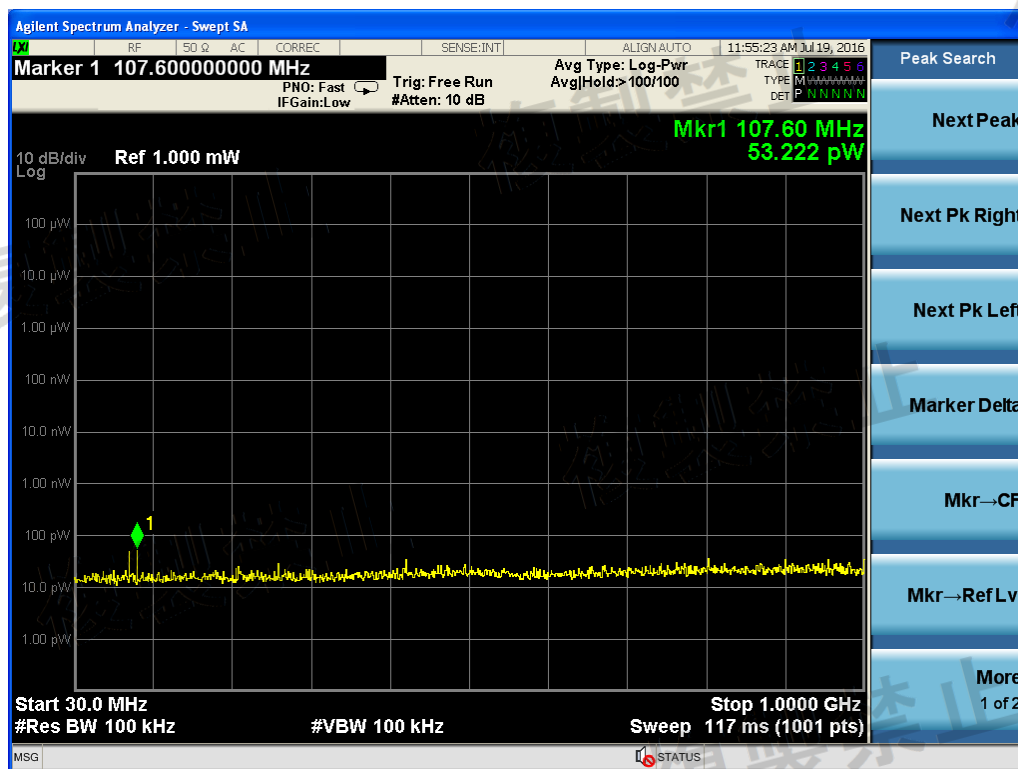


Modulation type: 802.11n HT20 (6.5Mbps), ANT R
Channel: 2412MHz, Frequency Band: >1GHz

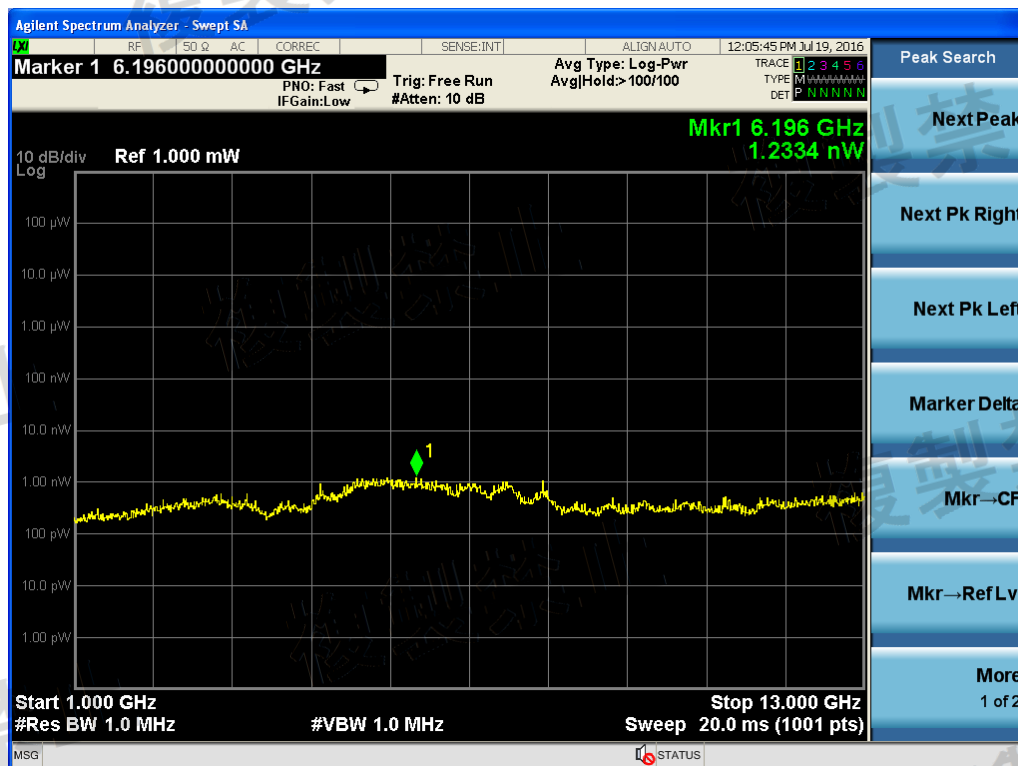




Modulation type: 802.11n HT20 (6.5Mbps), ANT R
Channel: 2442MHz, Frequency Band: <1GHz

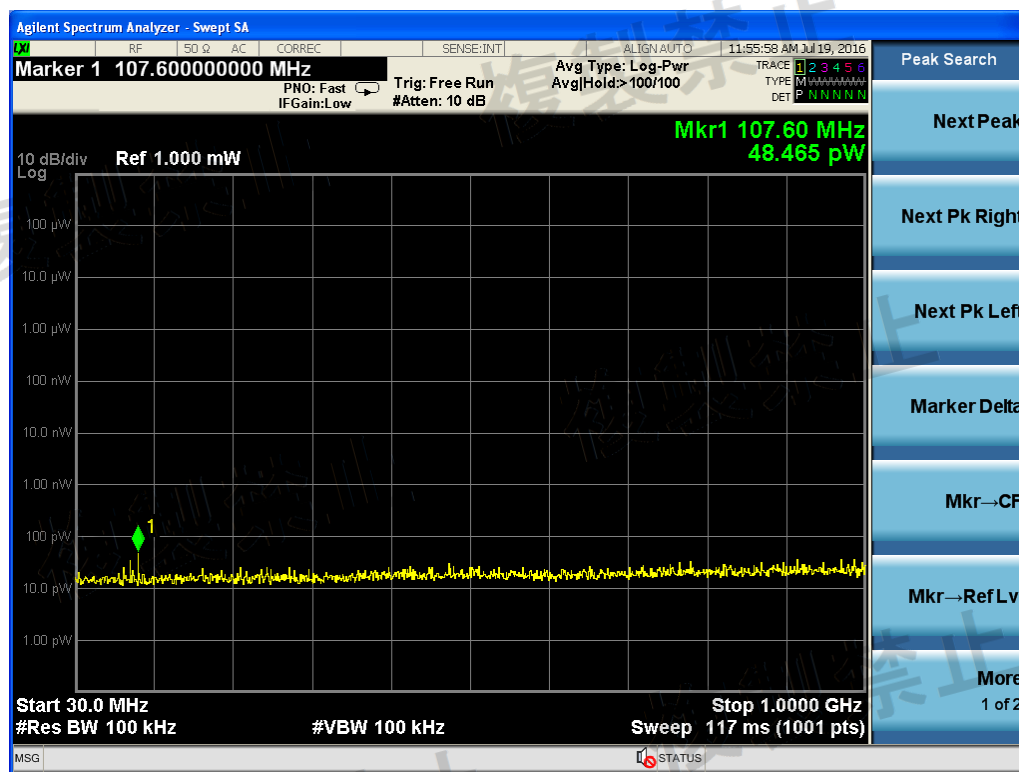


Modulation type: 802.11n HT20 (6.5Mbps), ANT R
Channel: 2442MHz, Frequency Band: >1GHz

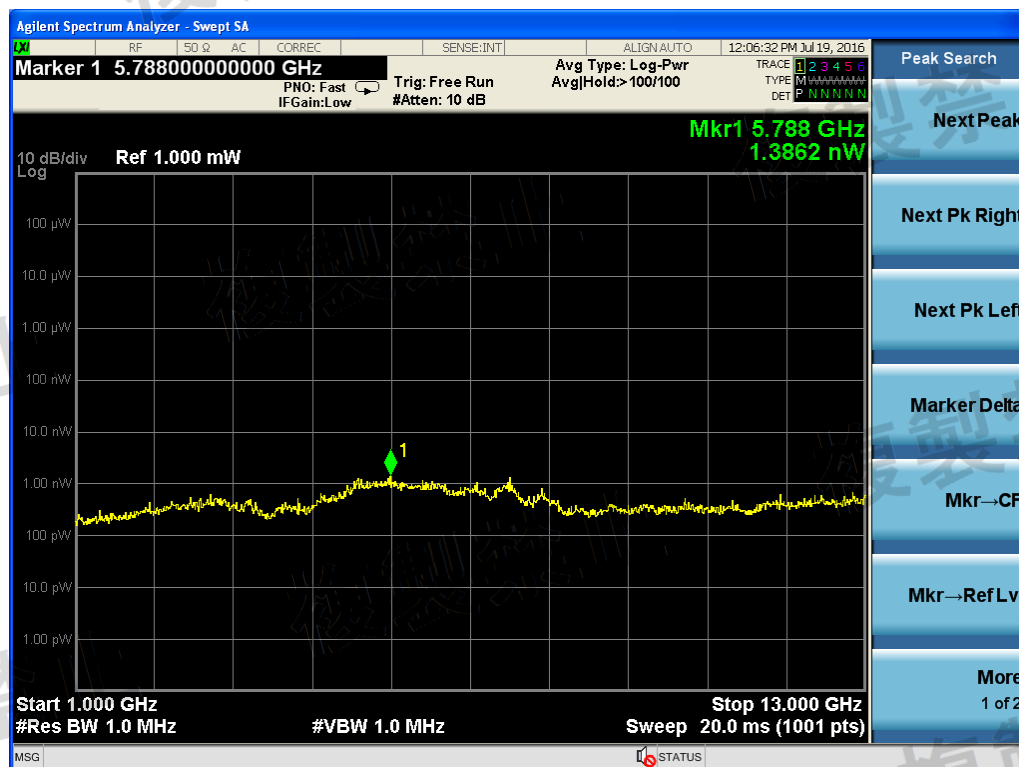




Modulation type: 802.11n HT20 (6.5Mbps), ANT R
Channel: 2472MHz, Frequency Band: <1GHz

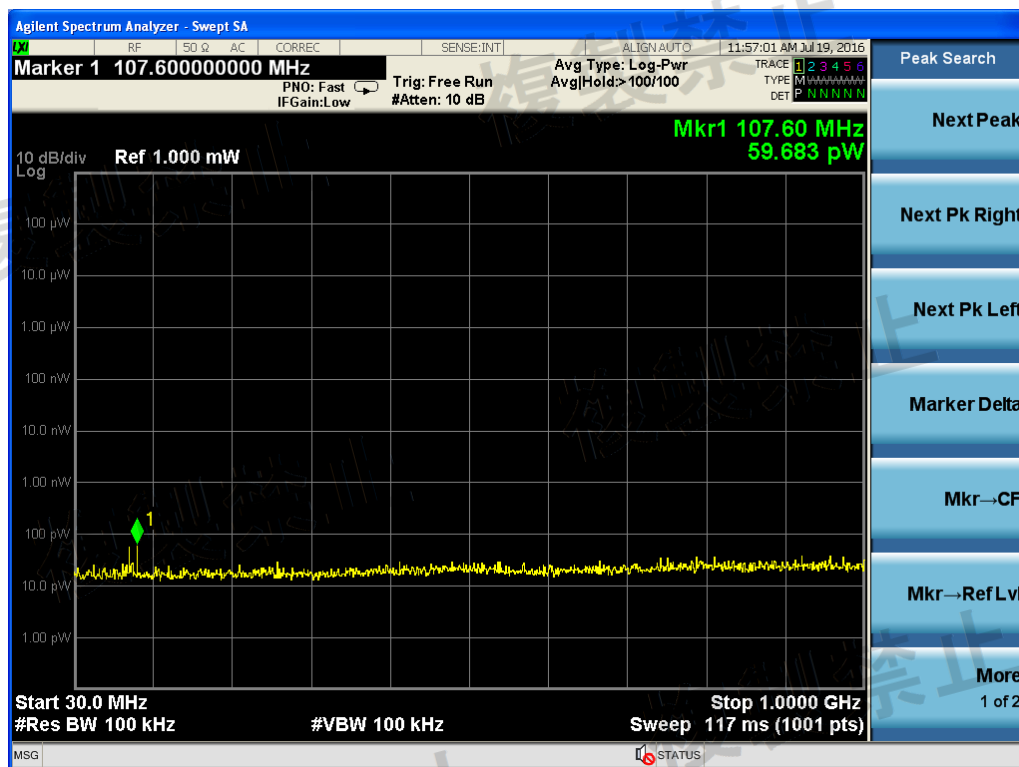


Modulation type: 802.11n HT20 (6.5Mbps), ANT R
Channel: 2472MHz, Frequency Band: >1GHz

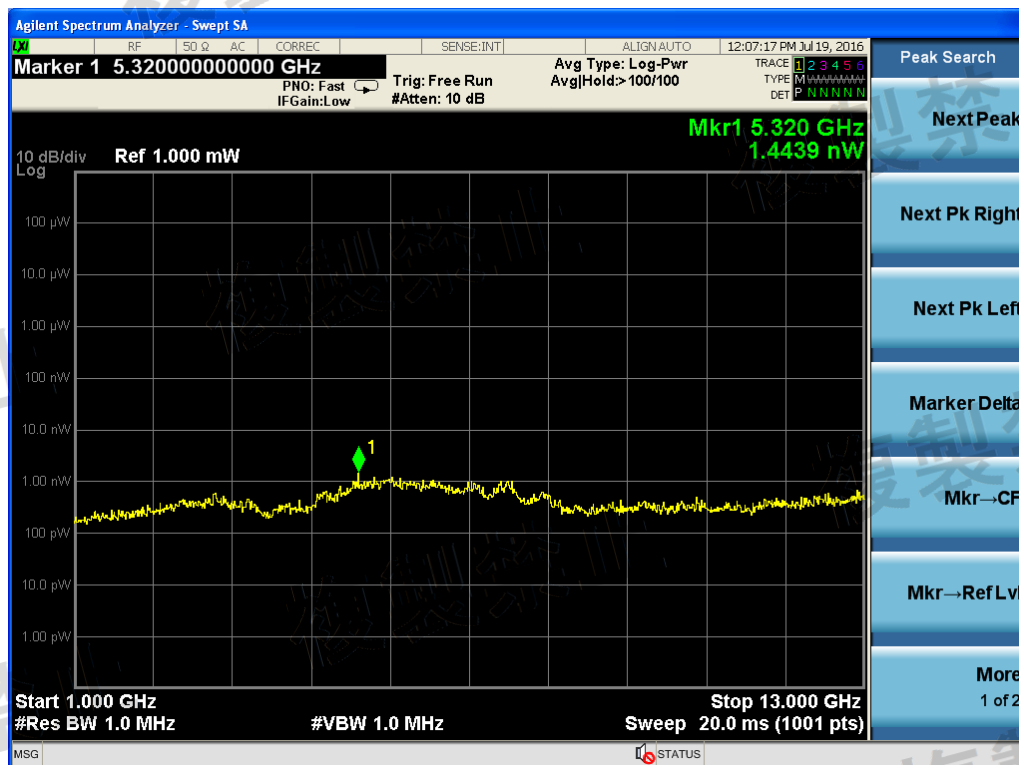




Modulation type: 802.11n HT40 (13.5Mbps), ANT R
Channel: 2422MHz, Frequency Band: <1GHz

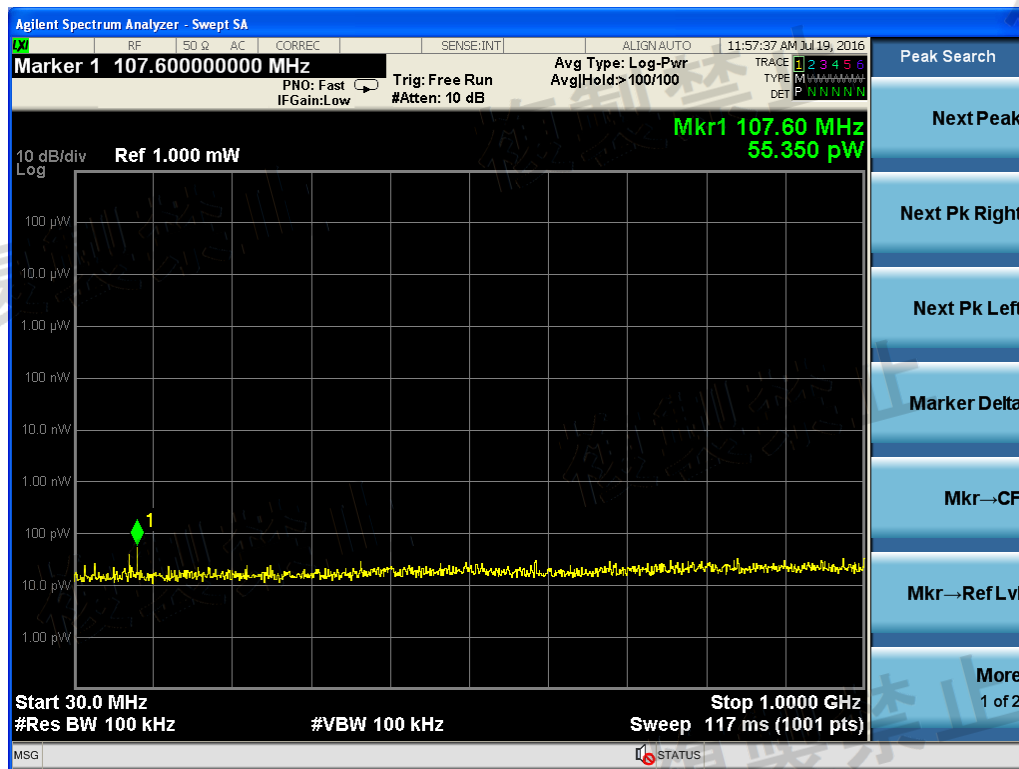


Modulation type: 802.11n HT40 (13.5Mbps), ANT R
Channel: 2422MHz, Frequency Band: >1GHz

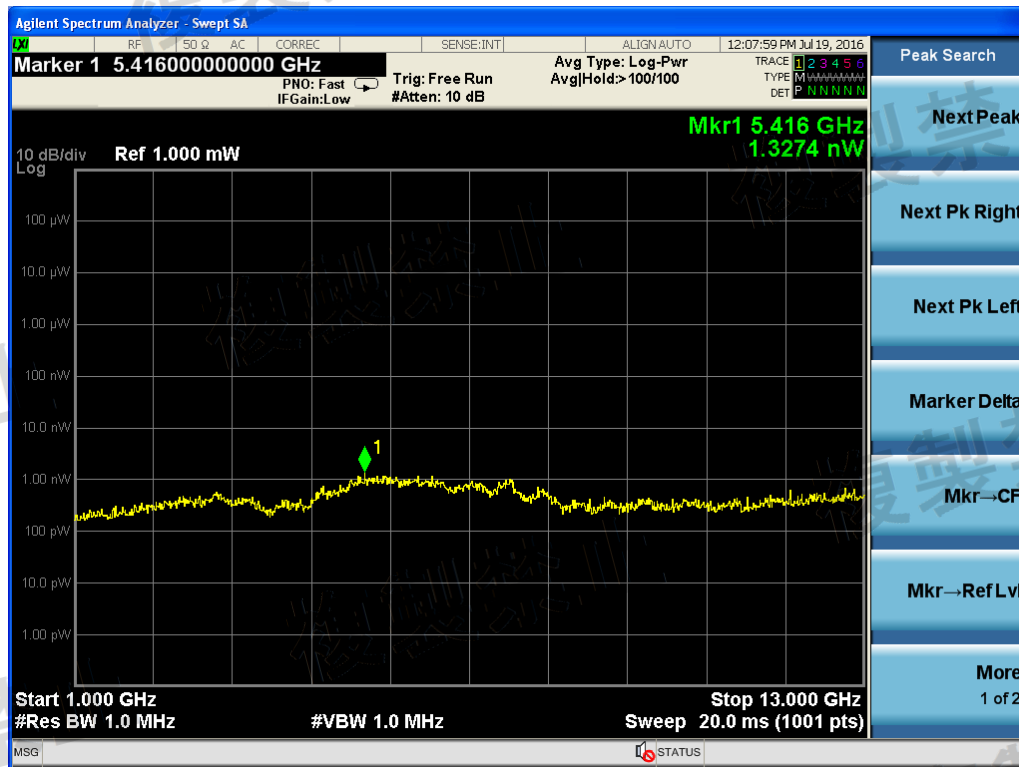




Modulation type: 802.11n HT40 (13.5Mbps), ANT R
Channel: 2442MHz, Frequency Band: <1GHz

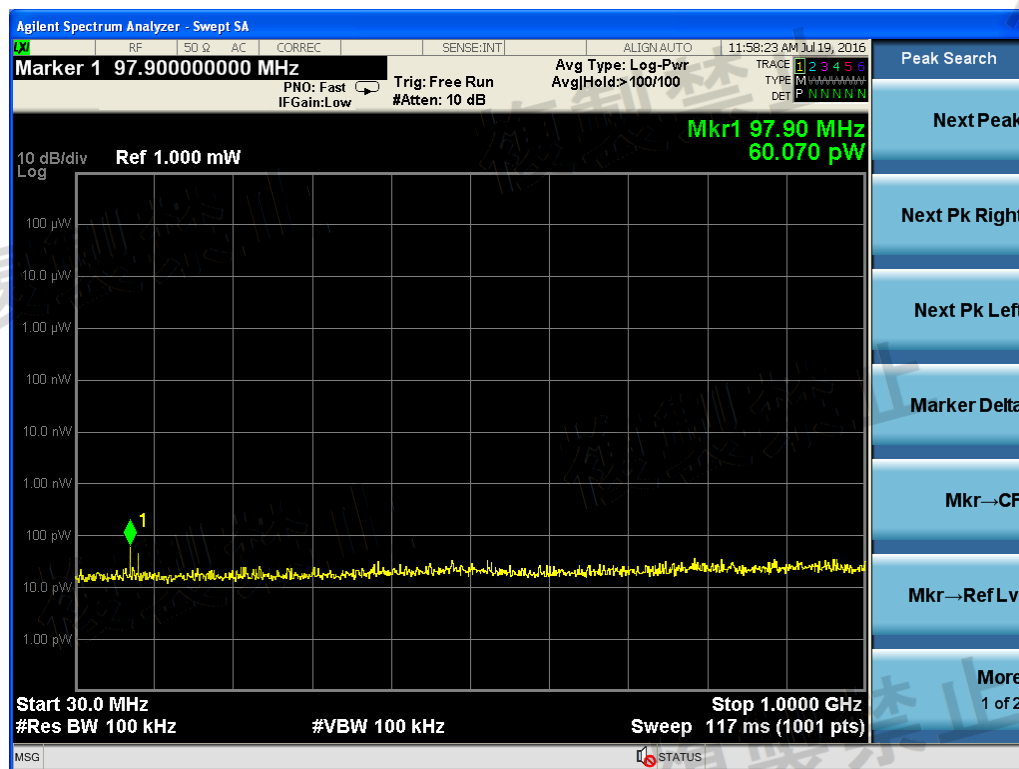


Modulation type: 802.11n HT40 (13.5Mbps), ANT R
Channel: 2442MHz, Frequency Band: >1GHz

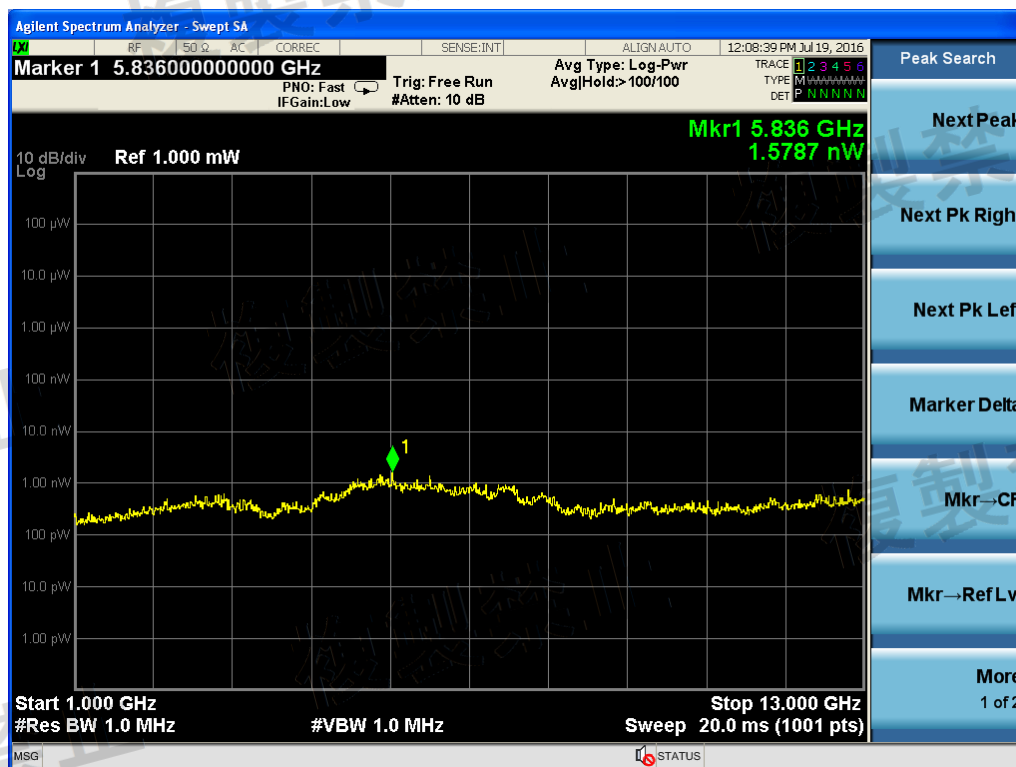




Modulation type: 802.11n HT40 (13.5Mbps), ANT R
Channel: 2462MHz, Frequency Band: <1GHz

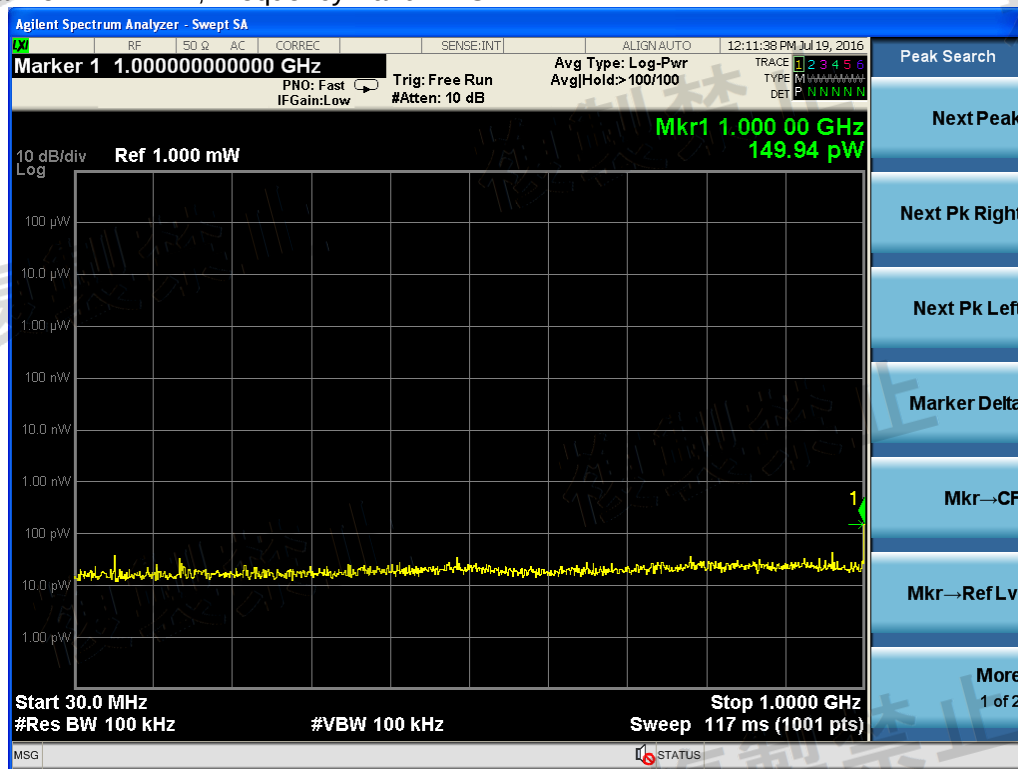


Modulation type: 802.11n HT40 (13.5Mbps), ANT R
Channel: 2462MHz, Frequency Band: >1GHz

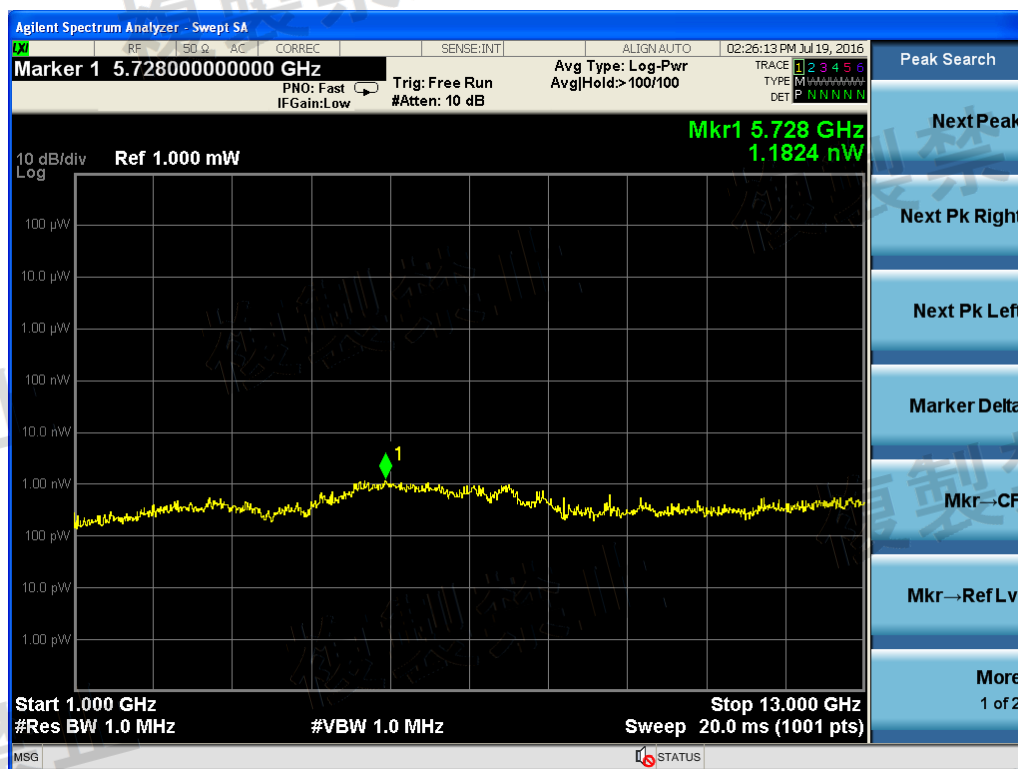




Modulation type: 802.11b (11Mbps), ANT L
Channel: 2412MHz, Frequency Band: <1GHz

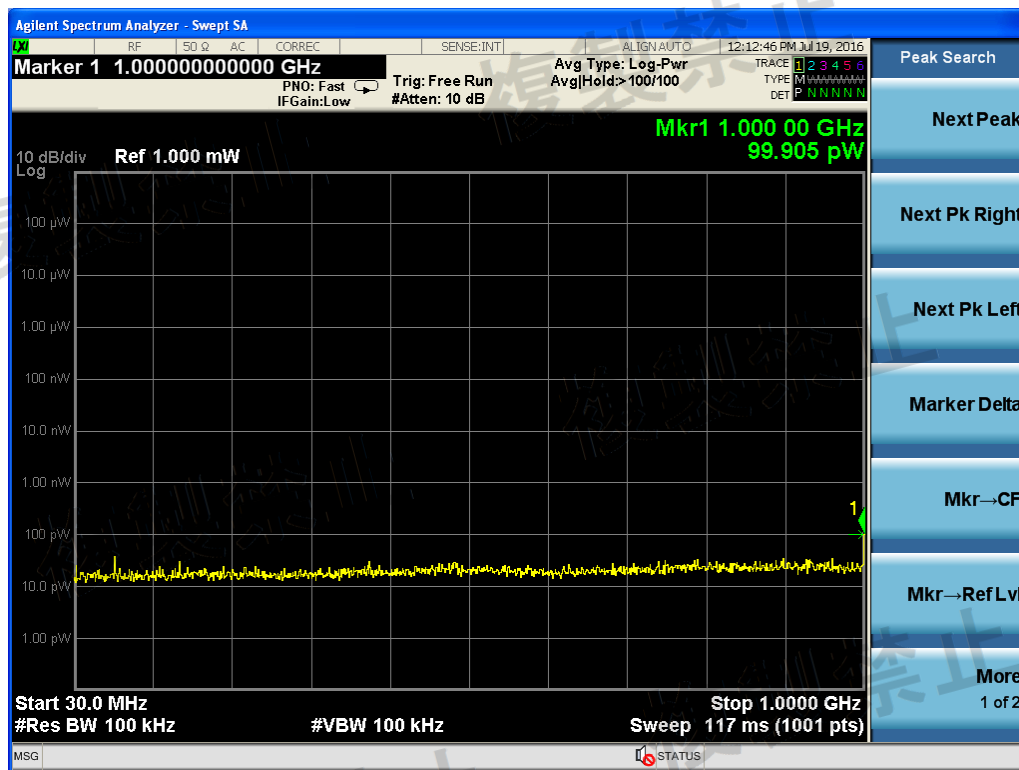


Modulation type: 802.11b (11Mbps), ANT L
Channel: 2412MHz, Frequency Band: >1GHz

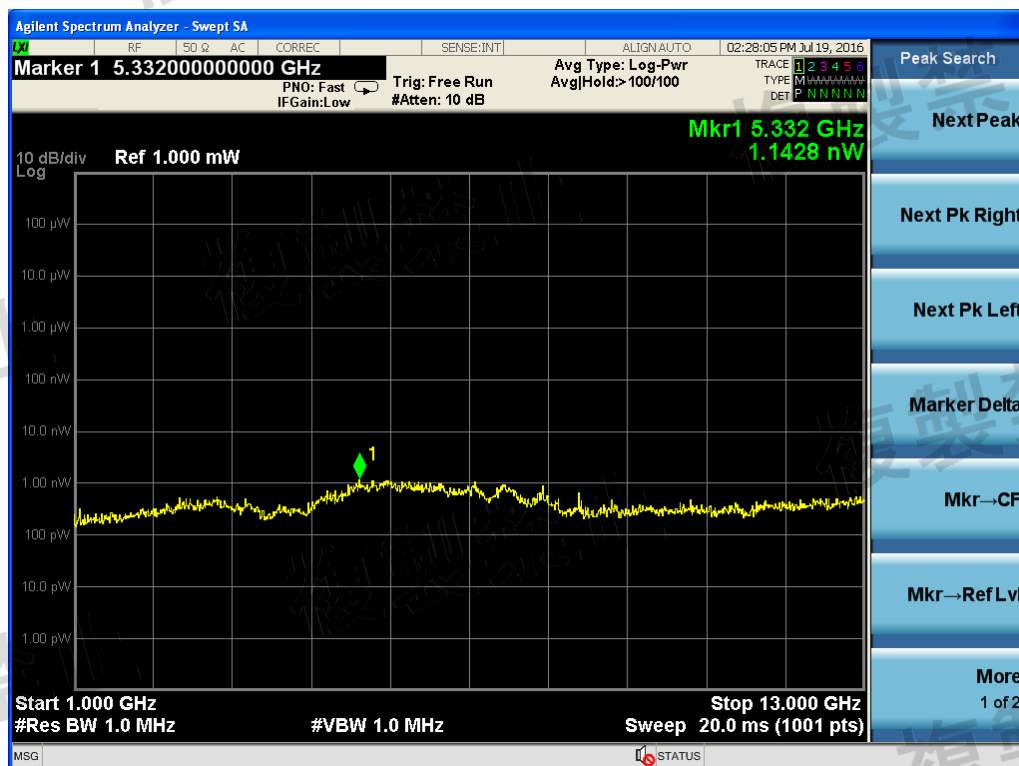




Modulation type: 802.11b (11Mbps), ANT L
Channel: 2442MHz, Frequency Band: <1GHz

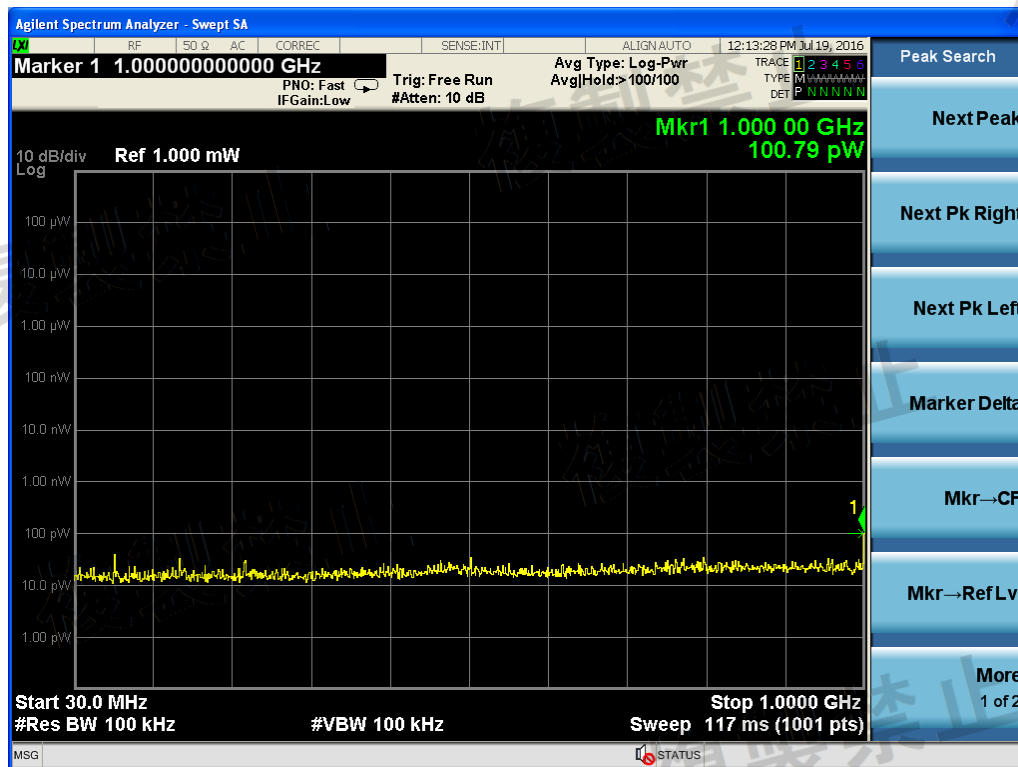


Modulation type: 802.11b (11Mbps), ANT L
Channel: 2442MHz, Frequency Band: >1GHz

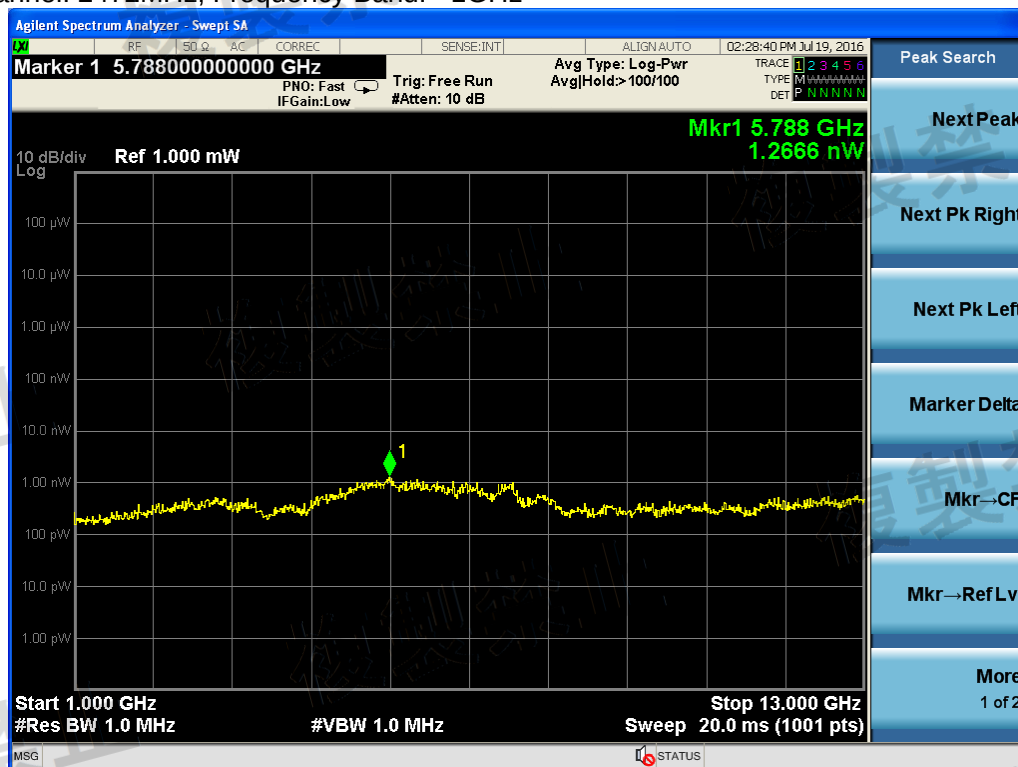




Modulation type: 802.11b (11Mbps), ANT L
Channel: 2472MHz, Frequency Band: <1GHz

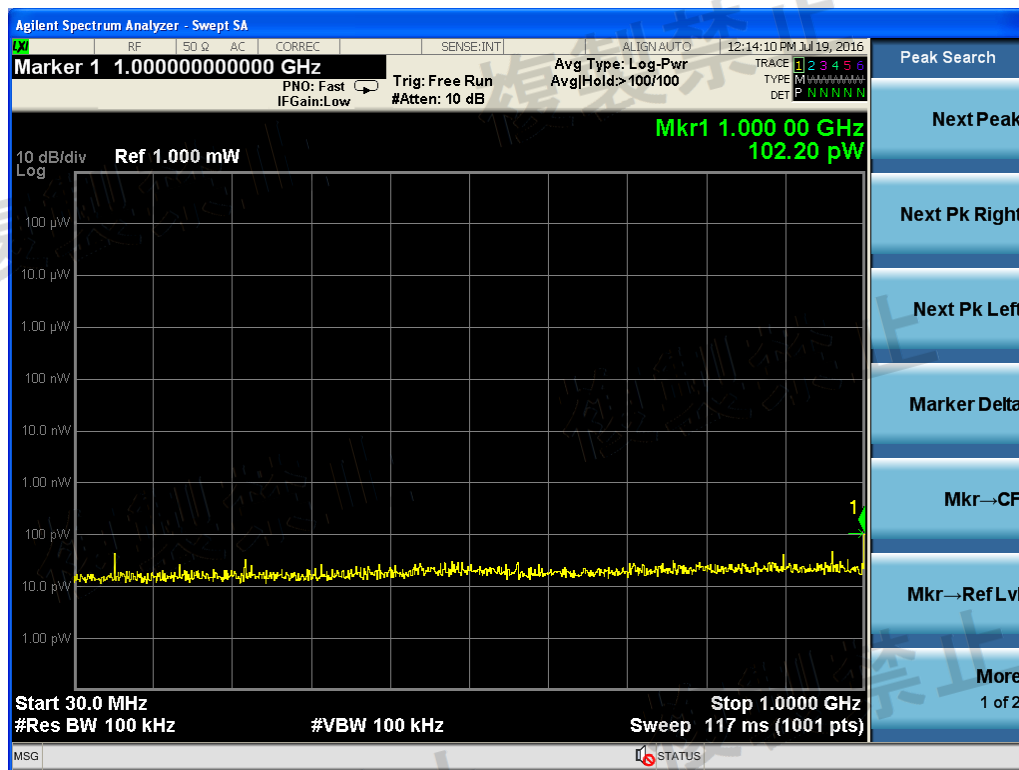


Modulation type: 802.11b (11Mbps), ANT L
Channel: 2472MHz, Frequency Band: >1GHz

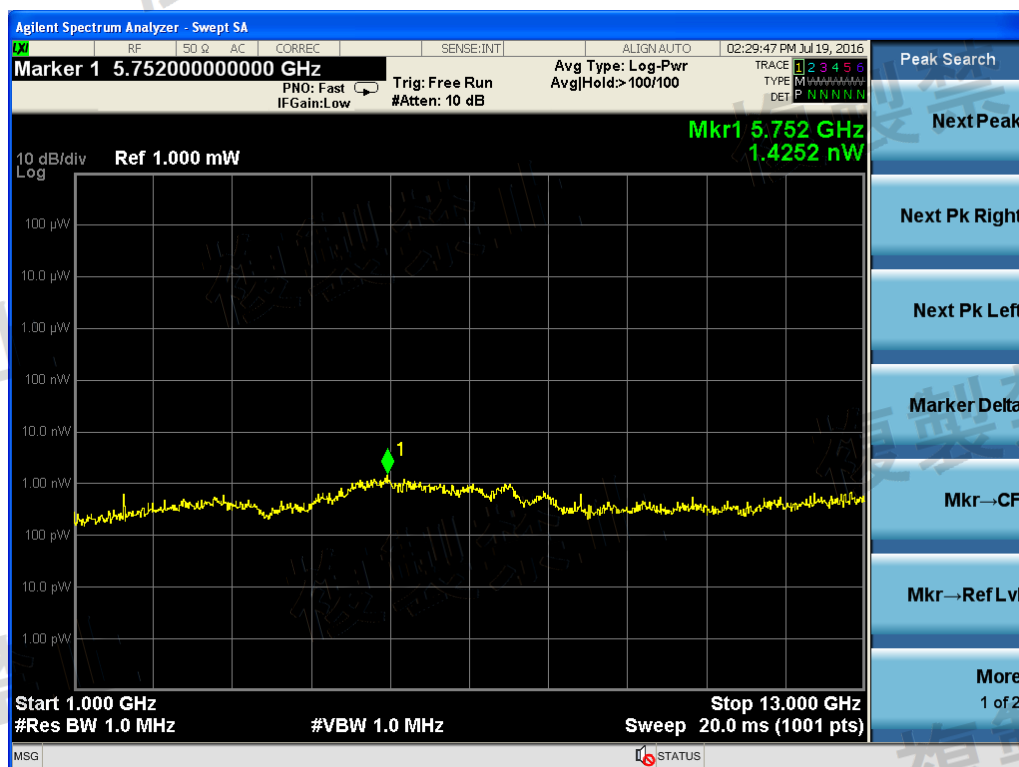




Modulation type: 802.11g (6Mbps), ANT L
Channel: 2412MHz, Frequency Band: <1GHz

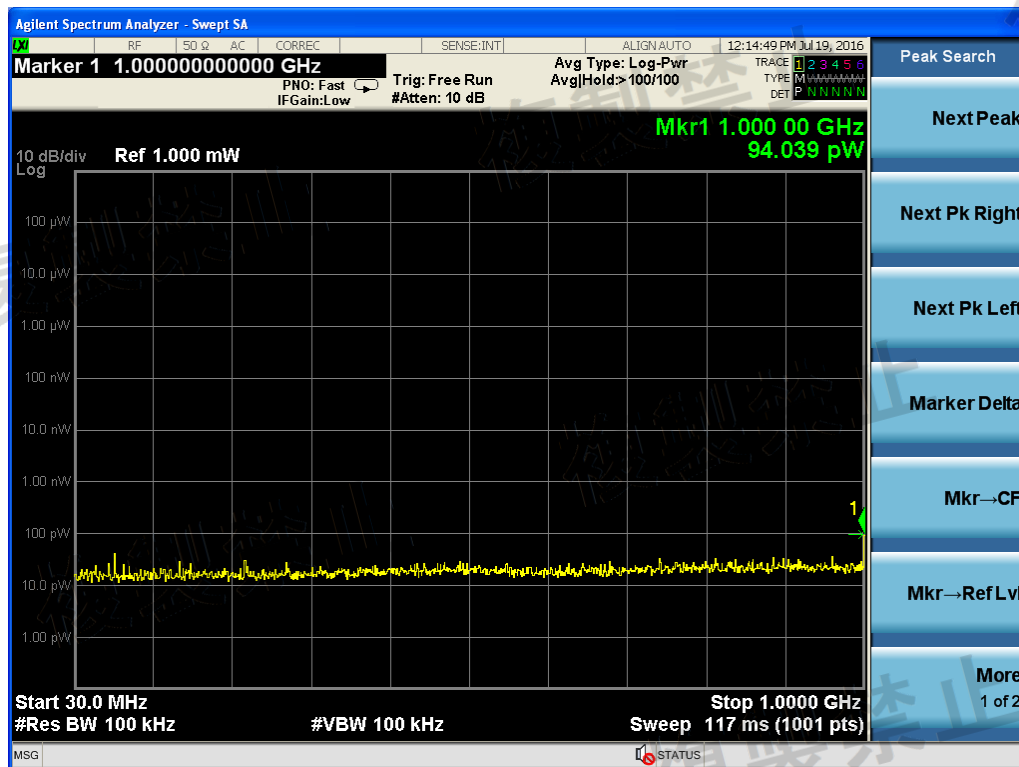


Modulation type: 802.11g (6Mbps), ANT L
Channel: 2412MHz, Frequency Band: >1GHz





Modulation type: 802.11g (6Mbps), ANT L
Channel: 2442MHz, Frequency Band: <1GHz

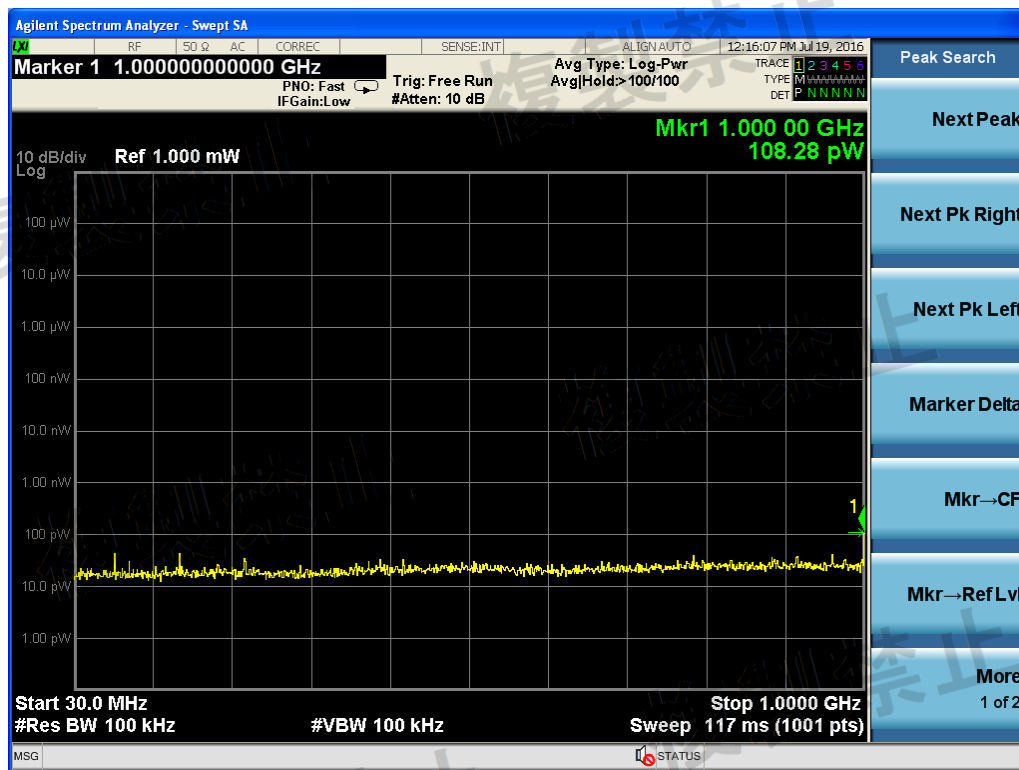


Modulation type: 802.11g (6Mbps), ANT L
Channel: 2442MHz, Frequency Band: >1GHz





Modulation type: 802.11g (6Mbps), ANT L
Channel: 2472MHz, Frequency Band: <1GHz

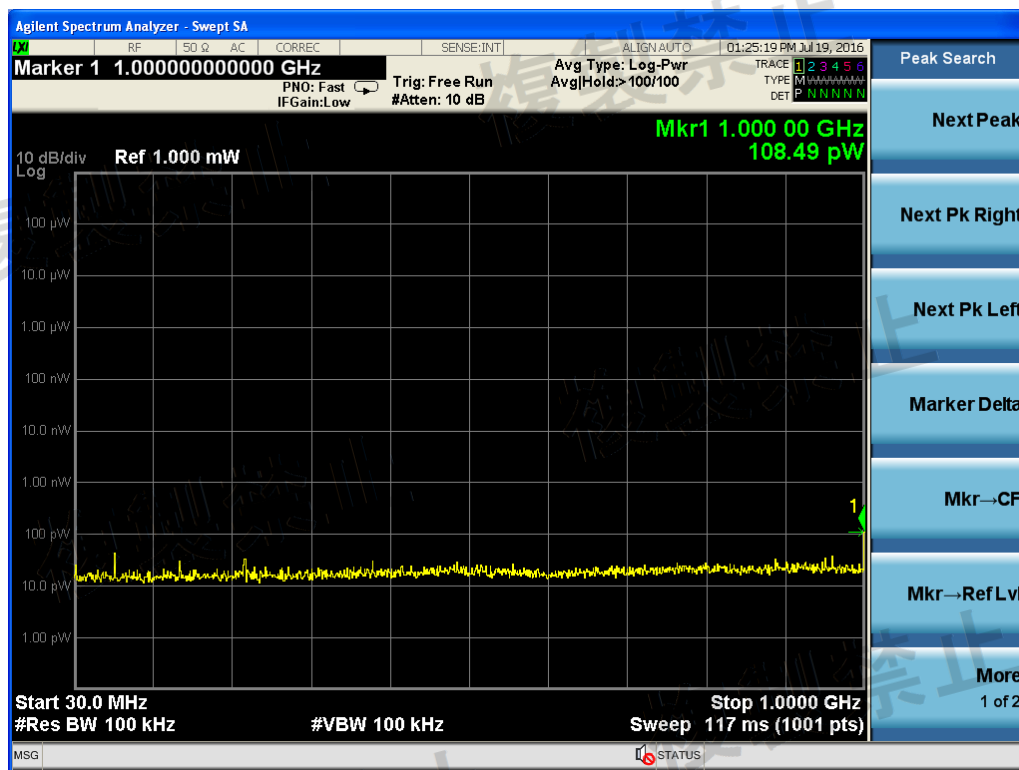


Modulation type: 802.11g (6Mbps), ANT L
Channel: 2472MHz, Frequency Band: >1GHz

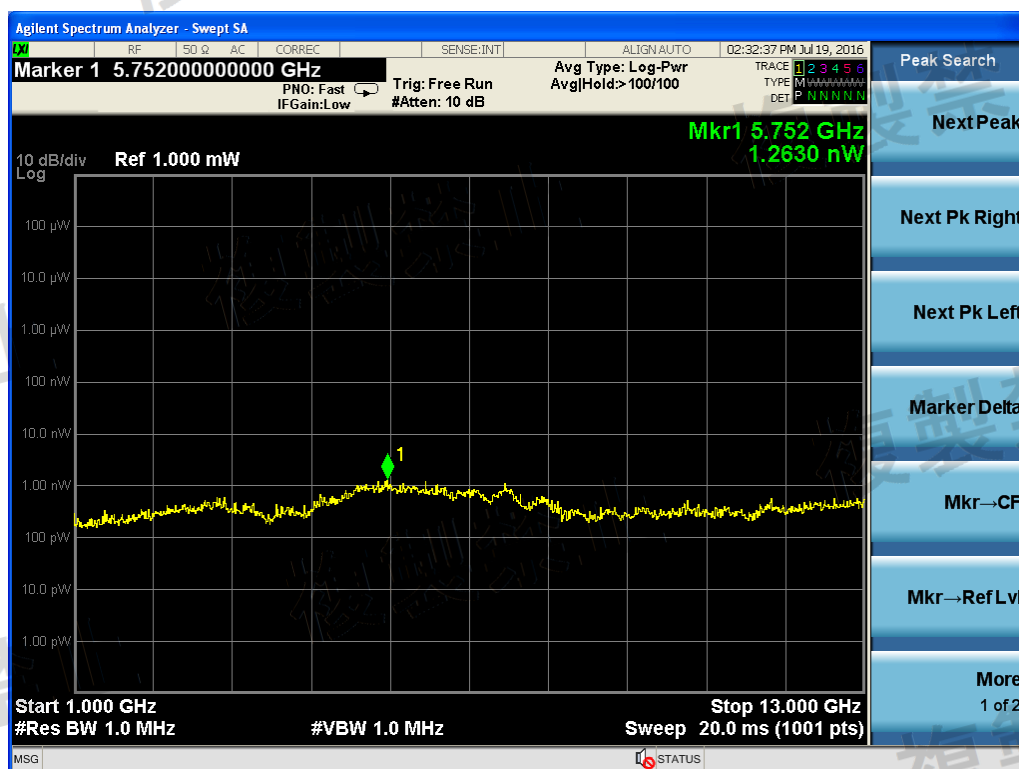




Modulation type: 802.11n HT20 (6.5Mbps), ANT L
Channel: 2412MHz, Frequency Band: <1GHz

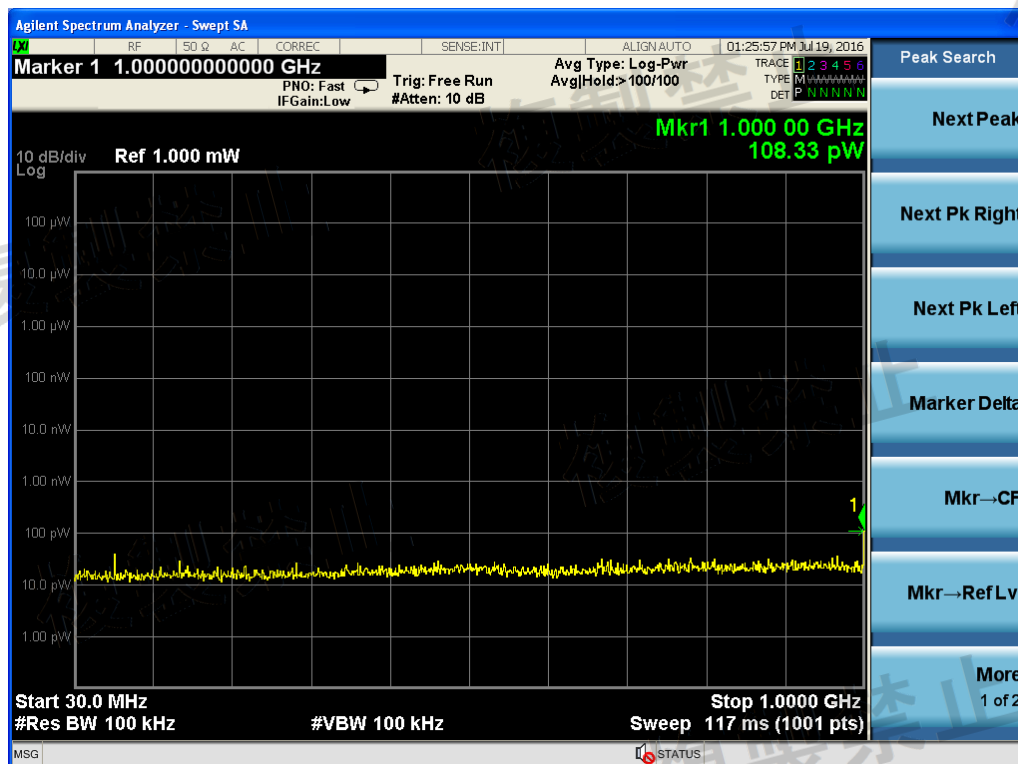


Modulation type: 802.11n HT20 (6.5Mbps), ANT L
Channel: 2412MHz, Frequency Band: >1GHz

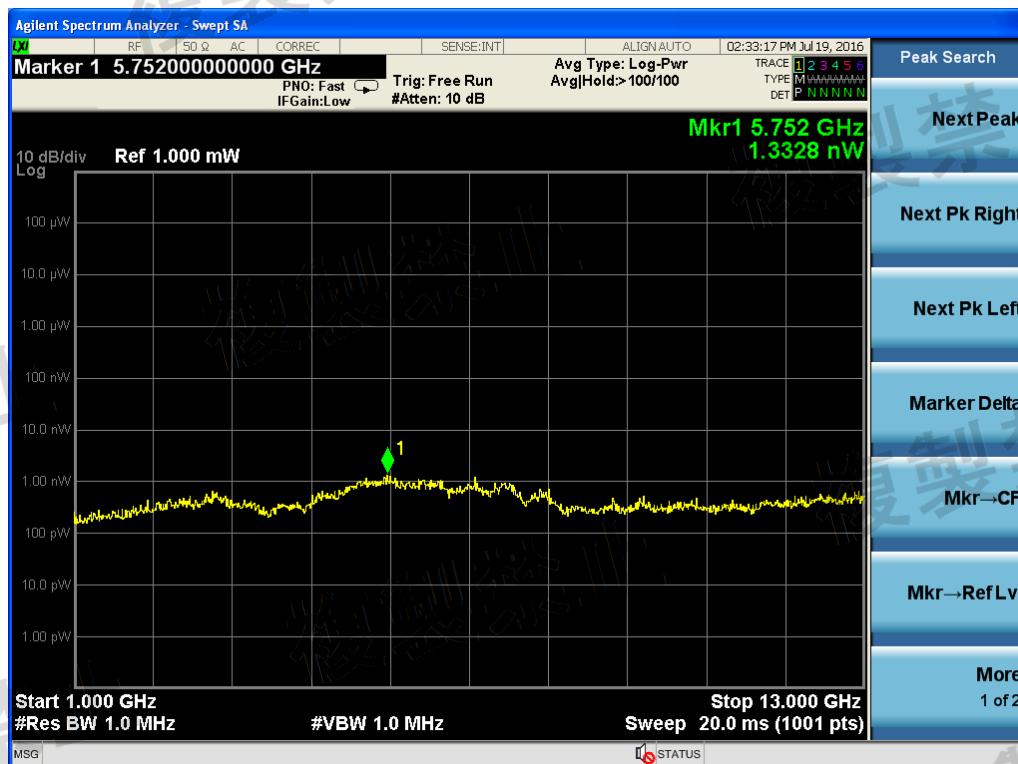




Modulation type: 802.11n HT20 (6.5Mbps), ANT L
Channel: 2442MHz, Frequency Band: <1GHz

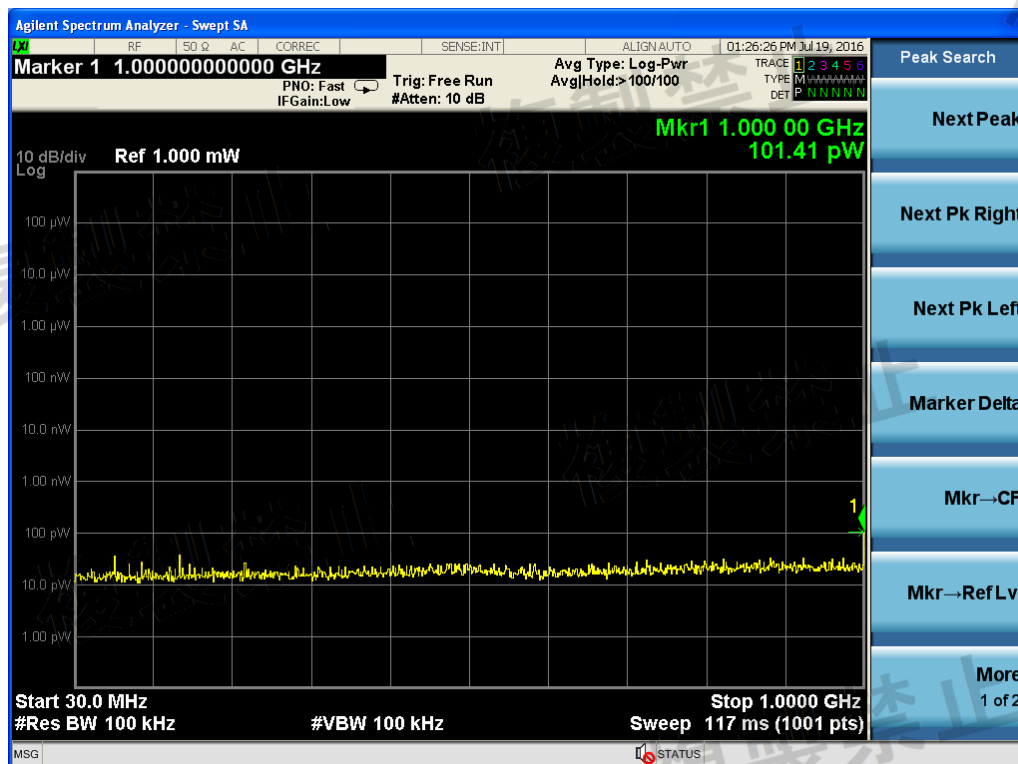


Modulation type: 802.11n HT20 (6.5Mbps), ANT L
Channel: 2442MHz, Frequency Band: >1GHz

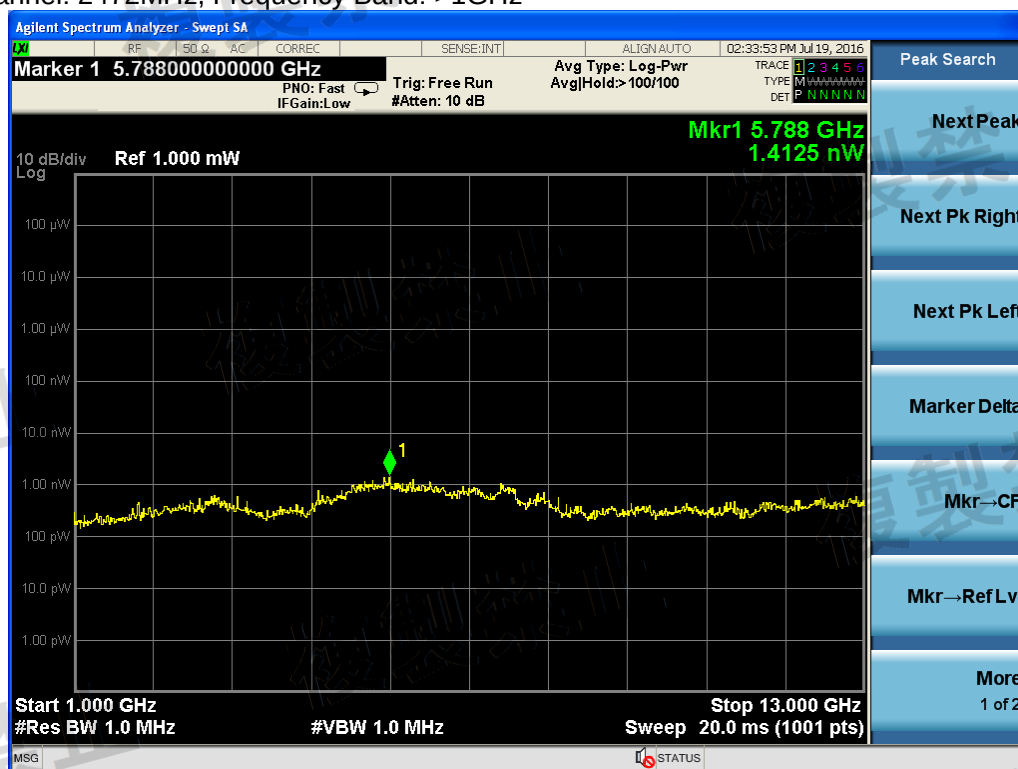




Modulation type: 802.11n HT20 (6.5Mbps), ANT L
Channel: 2472MHz, Frequency Band: <1GHz

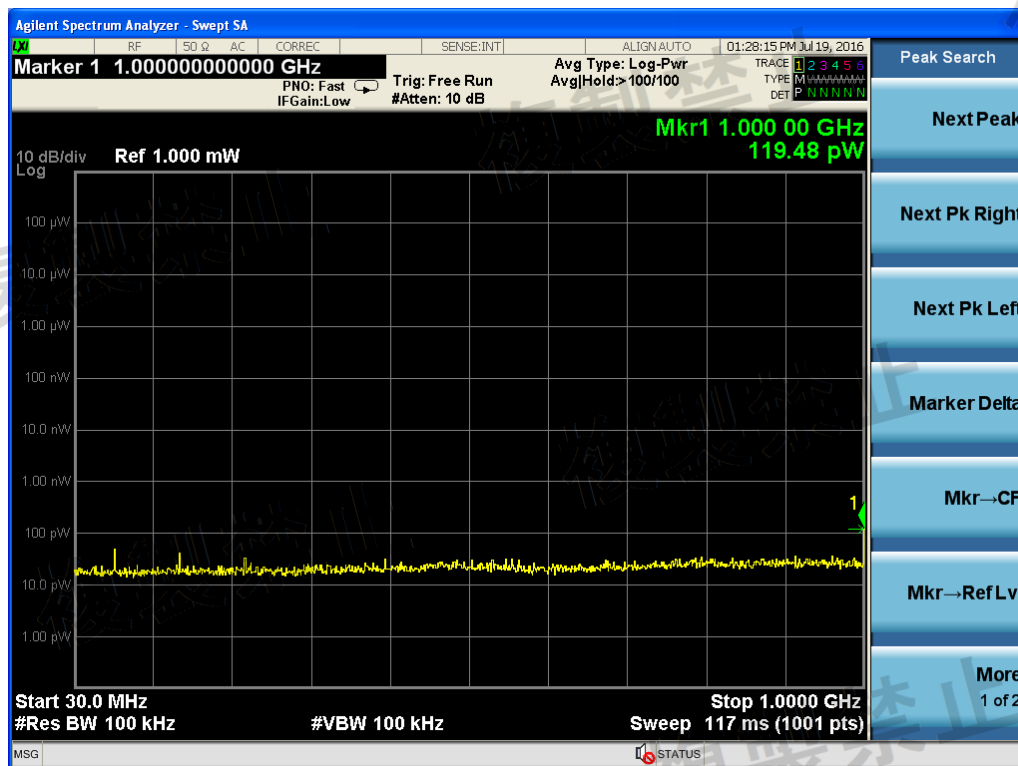


Modulation type: 802.11n HT20 (6.5Mbps), ANT L
Channel: 2472MHz, Frequency Band: >1GHz

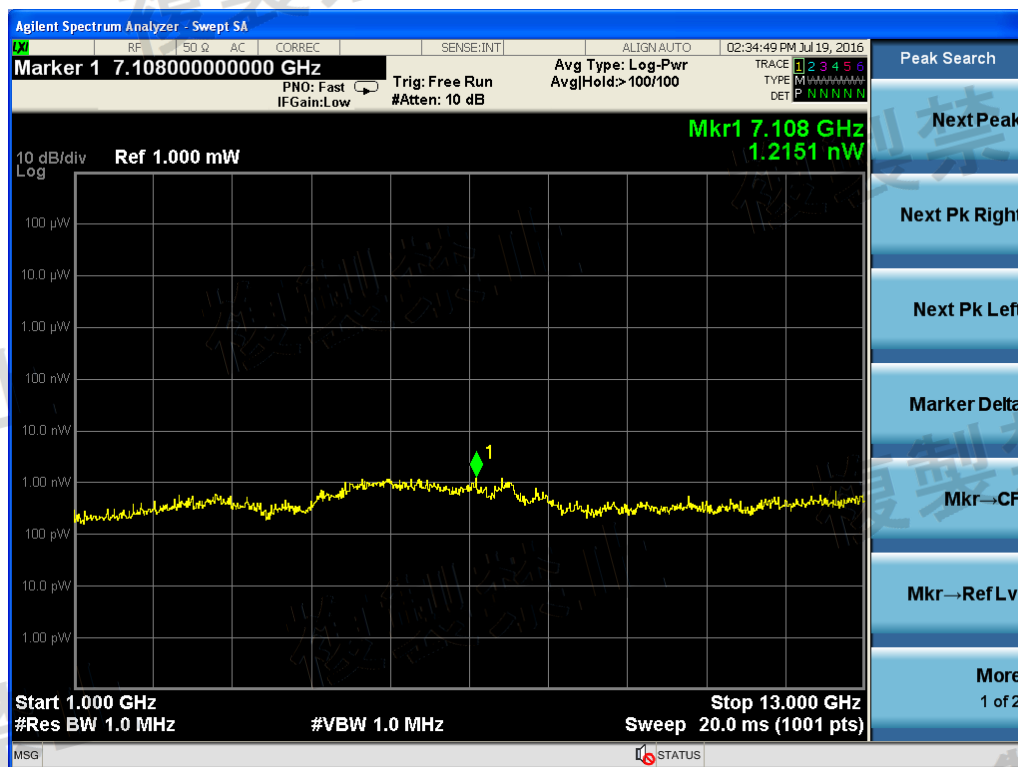




Modulation type: 802.11n HT40 (13.5Mbps), ANT L
Channel: 2422MHz, Frequency Band: <1GHz

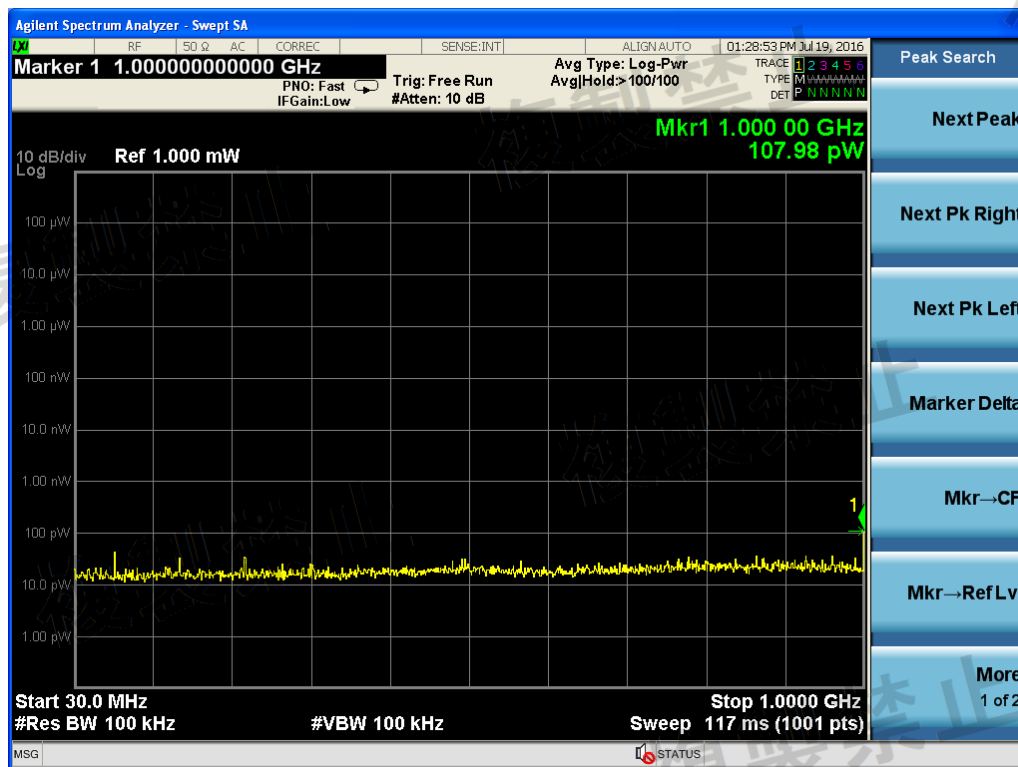


Modulation type: 802.11n HT40 (13.5Mbps), ANT L
Channel: 2422MHz, Frequency Band: >1GHz

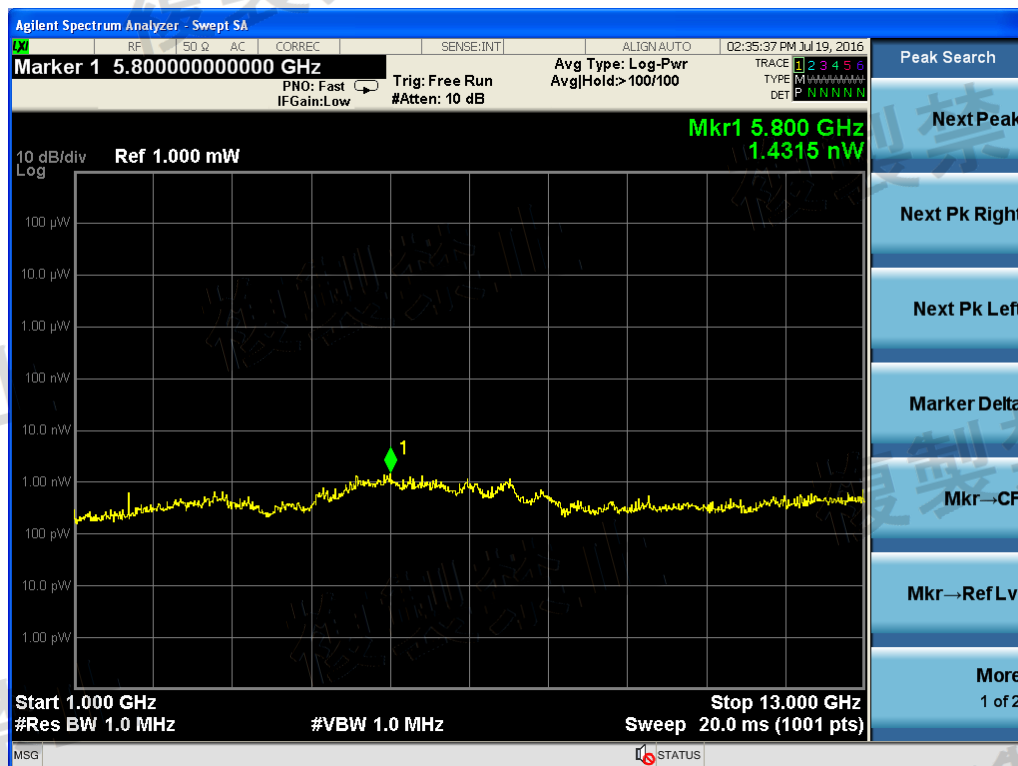




Modulation type: 802.11n HT40 (13.5Mbps), ANT L
Channel: 2442MHz, Frequency Band: <1GHz

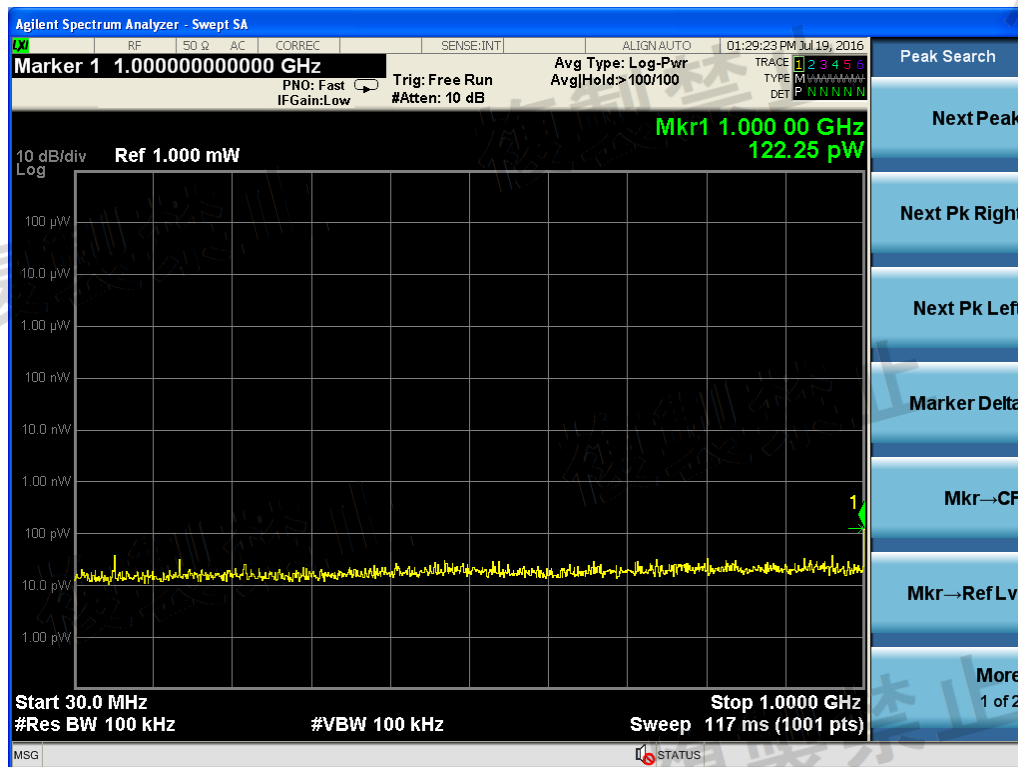


Modulation type: 802.11n HT40 (13.5Mbps), ANT L
Channel: 2442MHz, Frequency Band: >1GHz

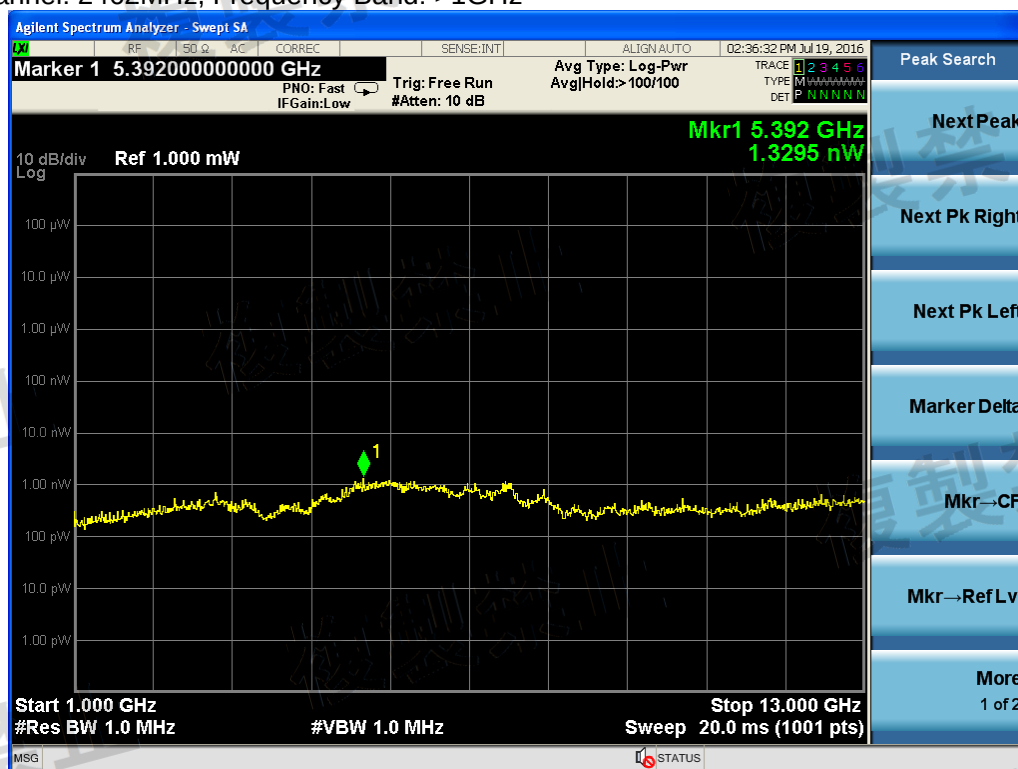




Modulation type: 802.11n HT40 (13.5Mbps), ANT L
Channel: 2462MHz, Frequency Band: <1GHz



Modulation type: 802.11n HT40 (13.5Mbps), ANT L
Channel: 2462MHz, Frequency Band: >1GHz





5. Angular Width of Principal Radiation

5.1 Test Result

Antenna Model	WL_II_2di_2450_1300	WL_EI_2400_80_2000	WL_EISS_2400_5d_1500	WL_II_5di_2450_1300
Antenna Type & Gain	PCB Antenna, 2.9 dBi	Dipole Antenna, 2.66 dBi	Dipole Antenna, 4.52 dBi	PCB Antenna, 4.29 dBi
Cable Loss (dB)	0	0	0	0
EIRP (dBm/MHz)	9.96	9.72	11.58	11.35
Half Power Beam Angles (deg)	360	360	360	360
Limit of E.I.R.P (dBm/MHz)	12.14	12.14	12.14	12.14
Result	Pass	Pass	Pass	Pass