

# Radiated Emission

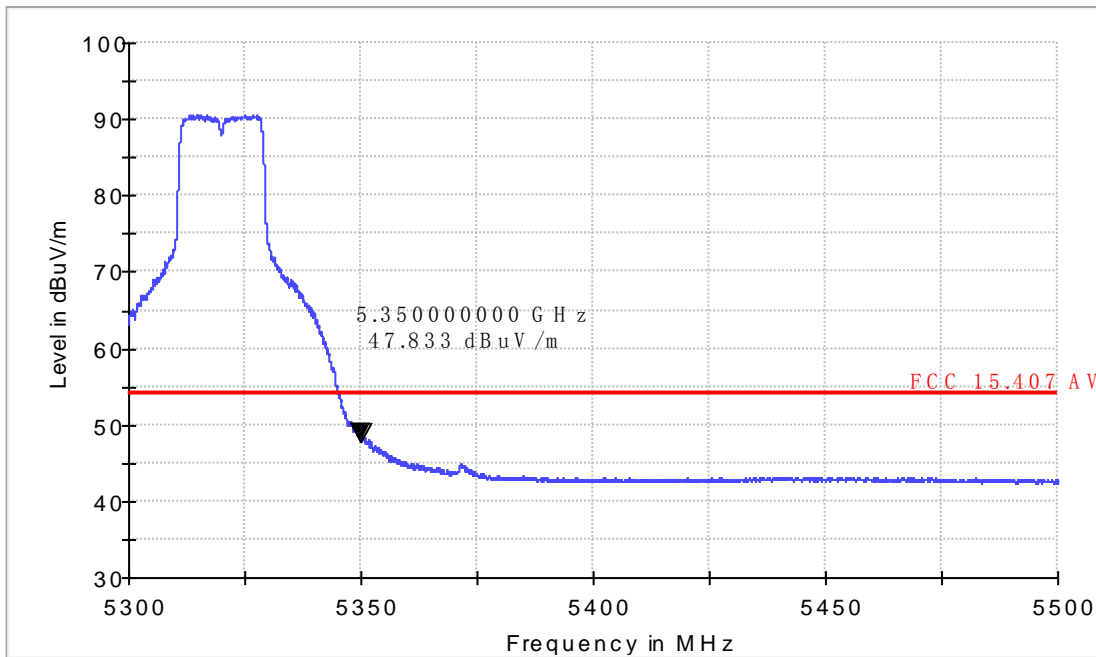
## EUT Information

EUT Model Name: U2  
Operation mode: 11n HT20 CH64  
Test Voltage:  
Comment:

## Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:  
Antenna Polarization: Vertical  
Operator Name:  
Comment:

FCC Electric Field Strength 1-18GHz operate on 5GHz Bandedge-AV



Band edge

11n HT40 IN THE 5.3GHz BAND

CH62

## Radiated Emission

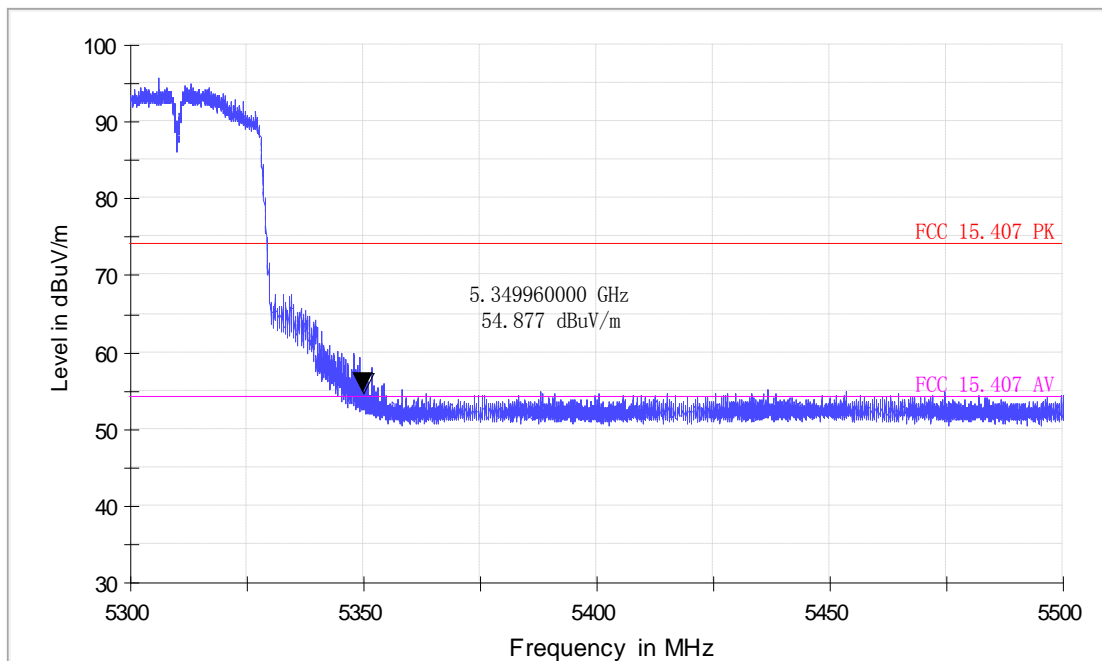
### EUT Information

EUT Model Name: U2  
Operation mode: 11n HT40 CH62  
Test Voltage:   
Comment:

### Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:   
Antenna Polarization: Horizontal  
Operator Name:   
Comment:

FCC Electric Field Strength 1-18GHz operate on 5GHz Bandedge-PK



# Radiated Emission

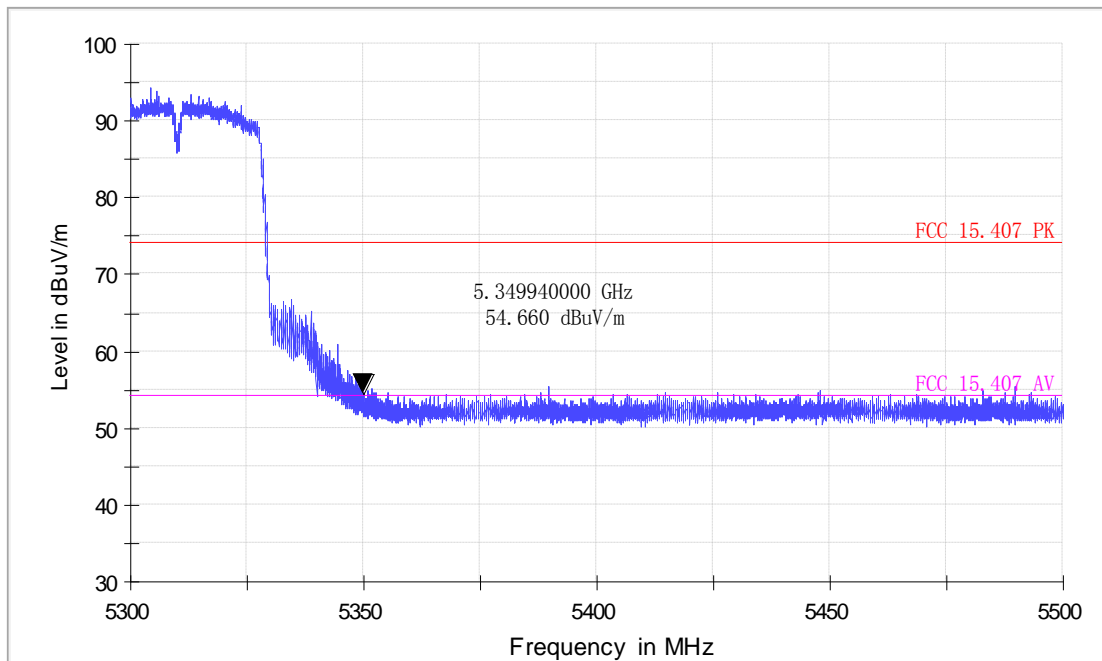
## EUT Information

EUT Model Name: U2  
Operation mode: 11n HT40 CH62  
Test Voltage:  
Comment:

## Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:  
Antenna Polarization: Vertical  
Operator Name:  
Comment:

FCC Electric Field Strength 1-18GHz operate on 5GHz Bandedge-PK



# Radiated Emission

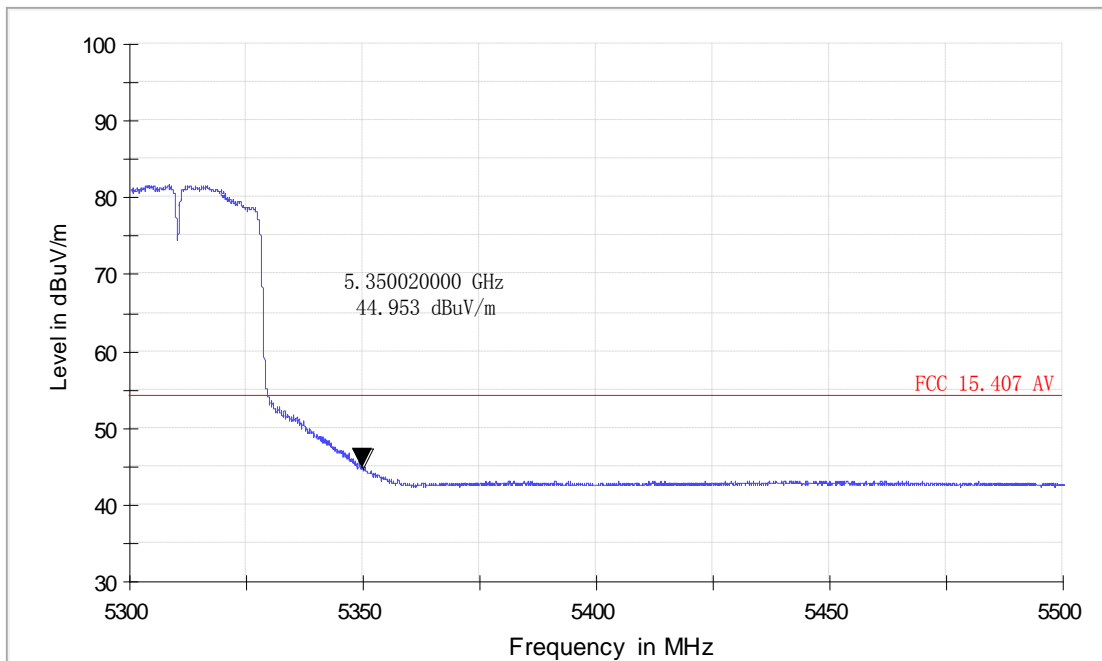
## EUT Information

EUT Model Name: U2  
Operation mode: 11n HT40 CH62  
Test Voltage:  
Comment:

## Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:  
Antenna Polarization: Horizontal  
Operator Name:  
Comment:

FCC Electric Field Strength 1-18GHz operate on 5GHz Bandedge-AV



# Radiated Emission

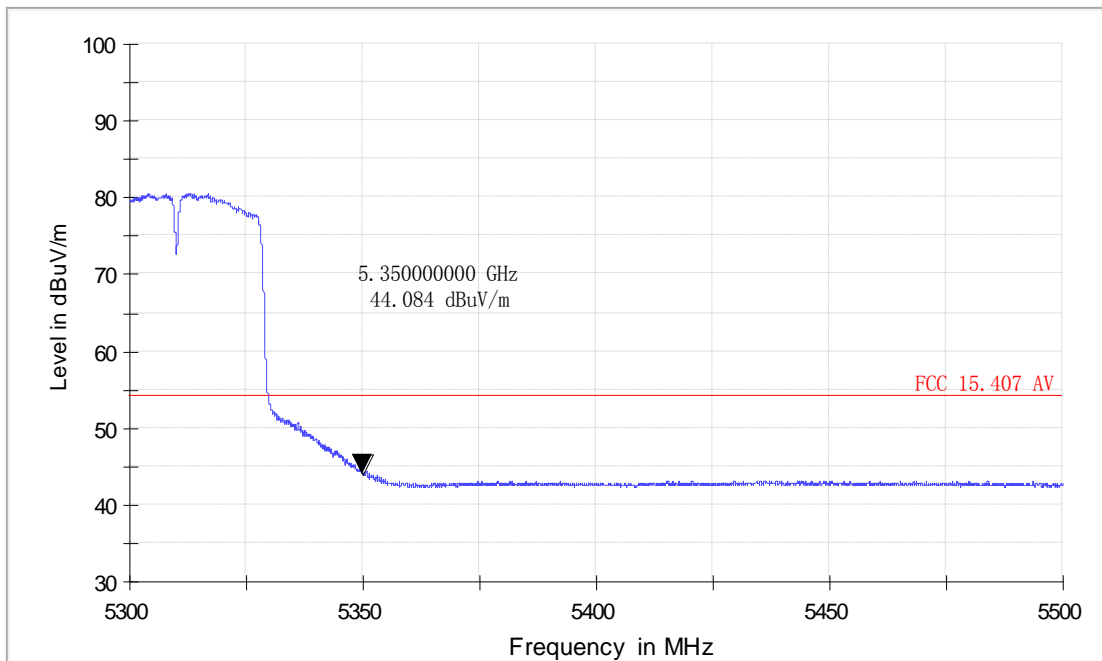
## EUT Information

EUT Model Name: U2  
Operation mode: 11n HT40 CH62  
Test Voltage:  
Comment:

## Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:  
Antenna Polarization: Vertical  
Operator Name:  
Comment:

FCC Electric Field Strength 1-18GHz operate on 5GHz Bandedge-AV



Band edge

11a IN THE 5.6GHz BAND

CH100

# Radiated Emission

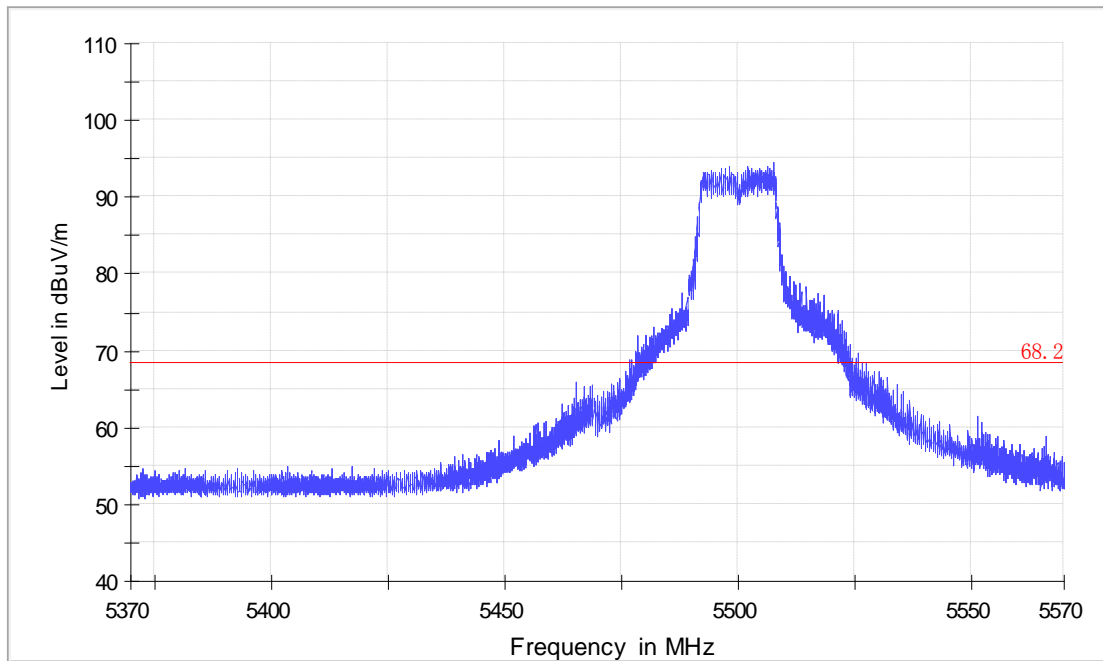
## EUT Information

EUT Model Name: U2  
Operation mode: 11a CH100  
Test Voltage:  
Comment:

## Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:  
Antenna Polarization: Horizontal  
Operator Name:  
Comment:

FCC Electric Field Strength 1-18GHz operate on 5GHz Bandedge-PK



# Radiated Emission

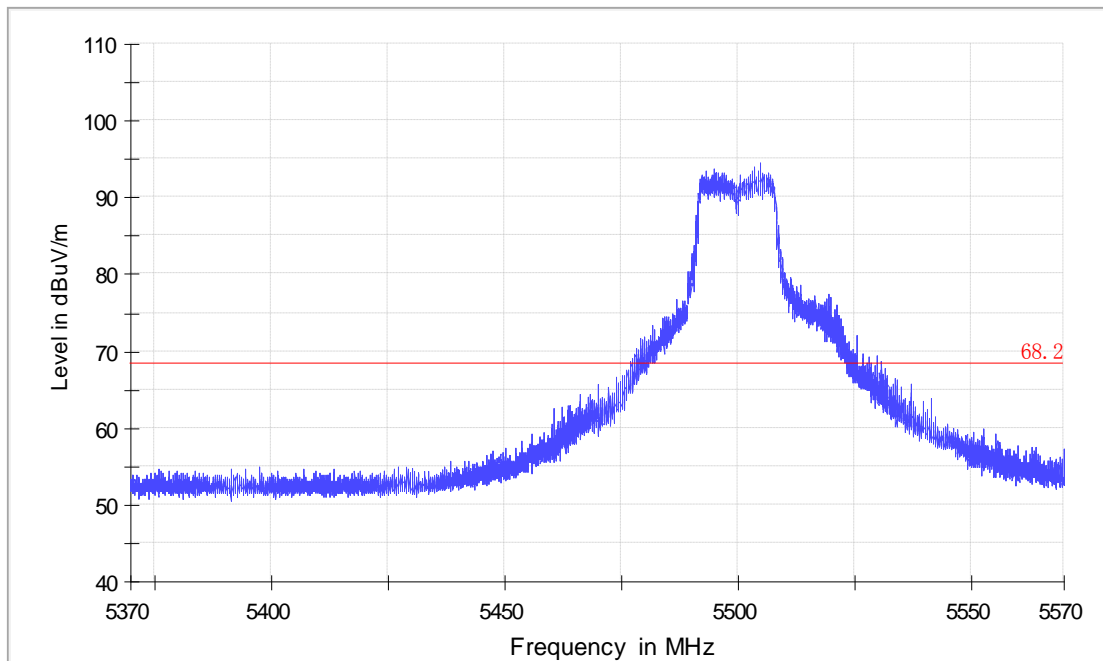
## EUT Information

EUT Model Name: U2  
Operation mode: 11a CH100  
Test Voltage:  
Comment:

## Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:  
Antenna Polarization: Vertical  
Operator Name:  
Comment:

FCC Electric Field Strength 1-18GHz operate on 5GHz Bandedge-PK



Band edge

11n HT20 IN THE 5.6GHz BAND

CH100

## Radiated Emission

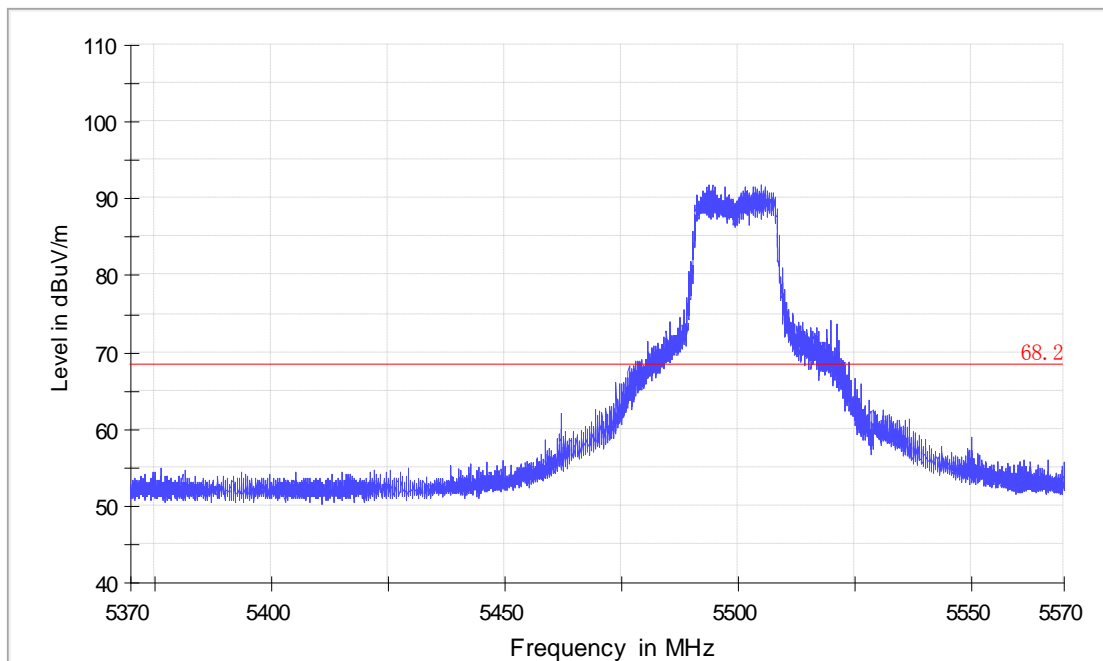
### EUT Information

EUT Model Name: U2  
Operation mode: 11n HT20 CH100  
Test Voltage:   
Comment:

### Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:  
Antenna Polarization: Horizontal  
Operator Name:  
Comment:

FCC Electric Field Strength 1-18GHz operate on 5GHz Bandedge-PK





# Radiated Emission

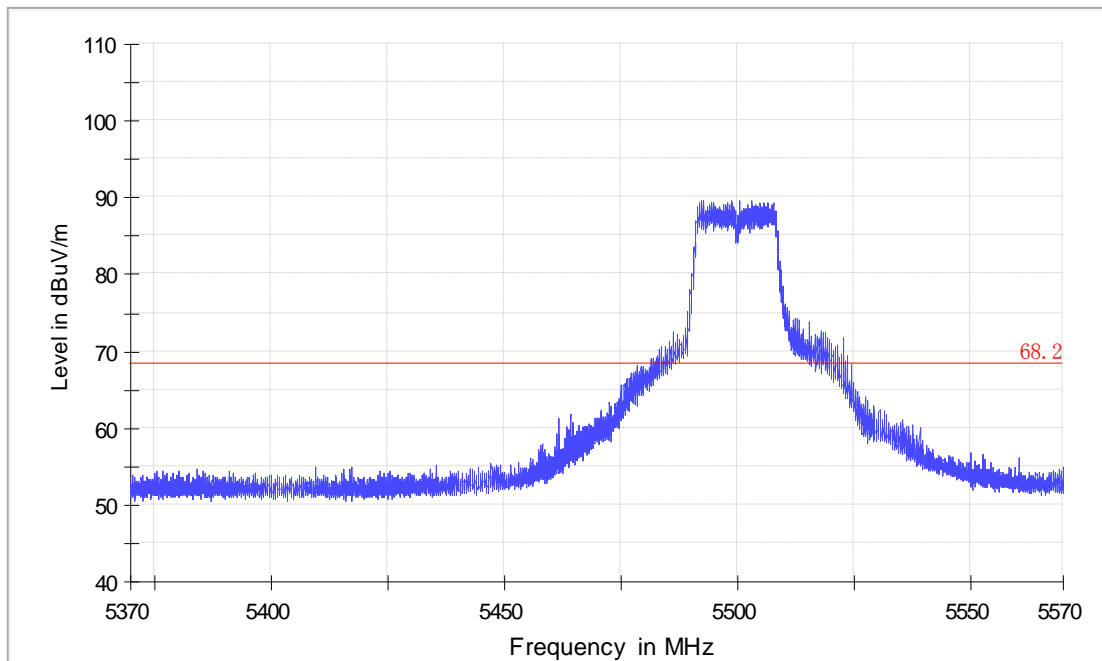
## EUT Information

EUT Model Name: U2  
Operation mode: 11n HT20 CH100  
Test Voltage:  
Comment:

## Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:  
Antenna Polarization: Vertical  
Operator Name:  
Comment:

FCC Electric Field Strength 1-18GHz operate on 5GHz Bandedge-PK



Band edge

11n HT40 IN THE 5.6GHz BAND

CH102

## Radiated Emission

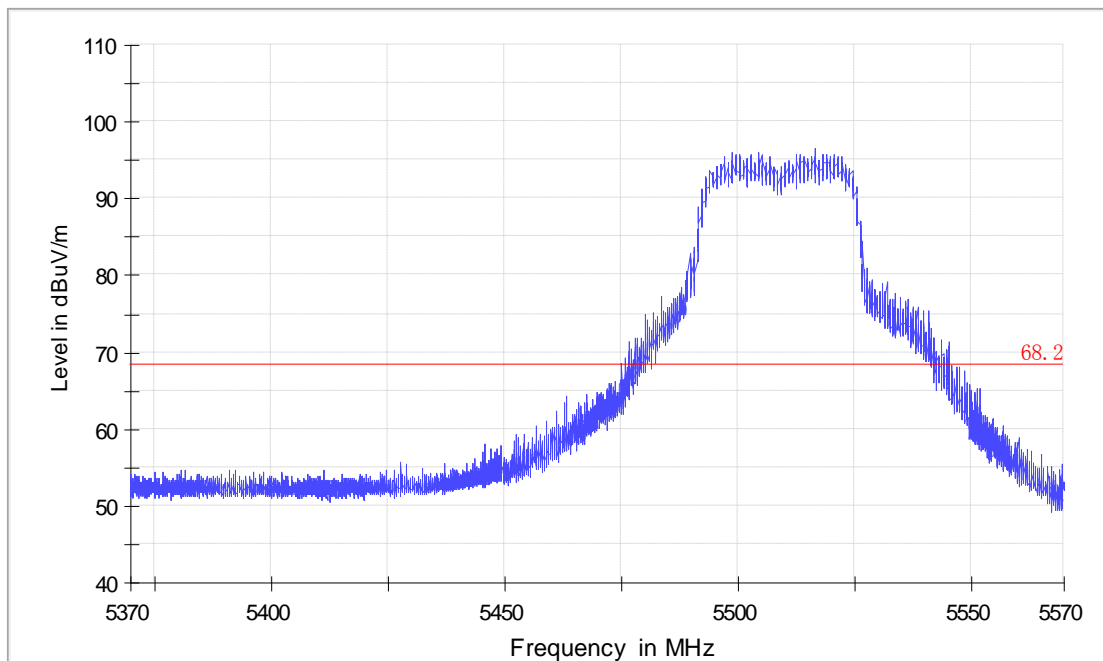
### EUT Information

EUT Model Name: U2  
Operation mode: 11n HT40 CH102  
Test Voltage:   
Comment:

### Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:   
Antenna Polarization: Horizontal  
Operator Name:   
Comment:

FCC Electric Field Strength 1-18GHz operate on 5GHz Bandedge-PK



# Radiated Emission

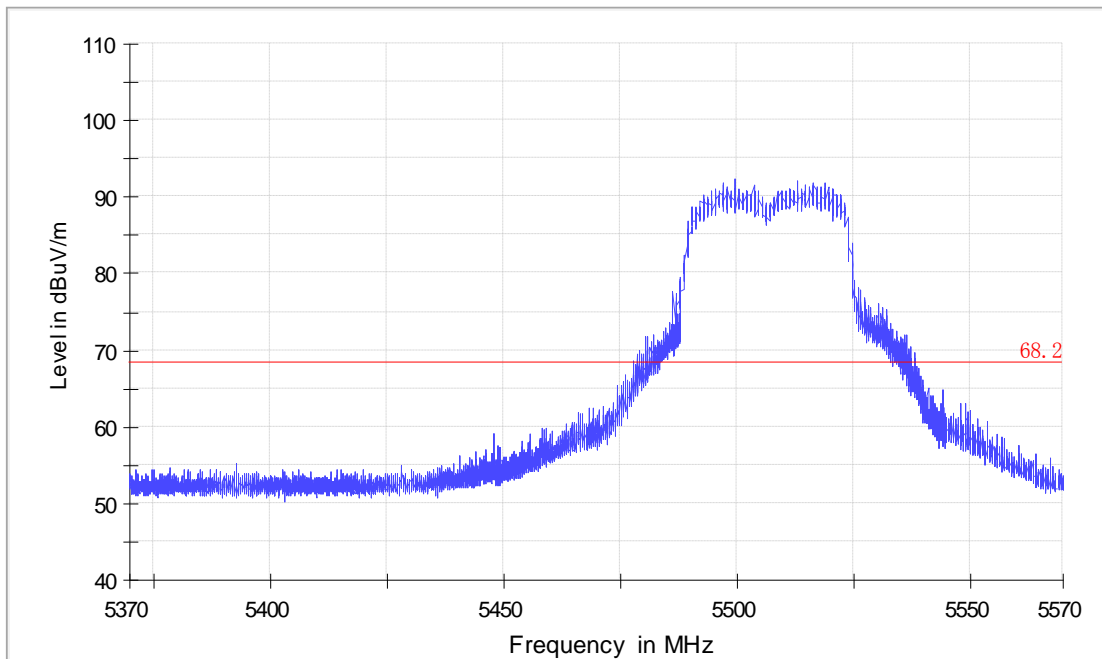
## EUT Information

EUT Model Name: U2  
Operation mode: 11n HT40 CH102  
Test Voltage:  
Comment:

## Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:  
Antenna Polarization: Vertical  
Operator Name:  
Comment:

FCC Electric Field Strength 1-18GHz operate on 5GHz Bandedge-PK



11a IN THE 5.6GHz BAND

CH140

# Radiated Emission

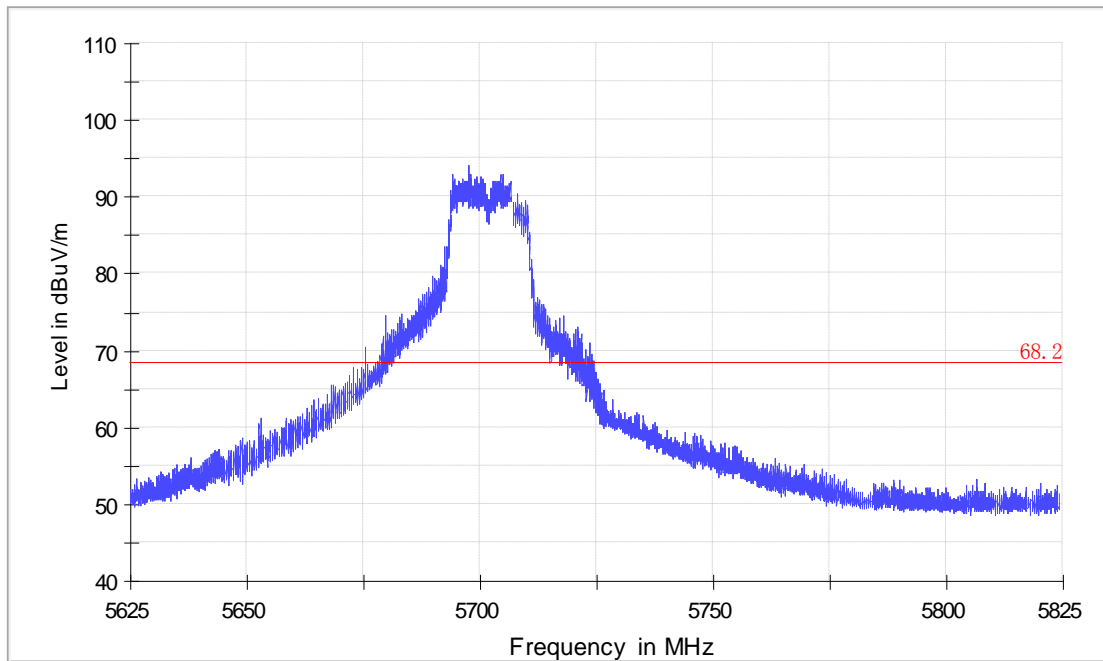
## EUT Information

EUT Model Name: U2  
Operation mode: 11a CH140  
Test Voltage:  
Comment:

## Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:  
Antenna Polarization: Horizontal  
Operator Name:  
Comment:

FCC Electric Field Strength 1-18GHz operate on 5GHz Bandedge-PK



# Radiated Emission

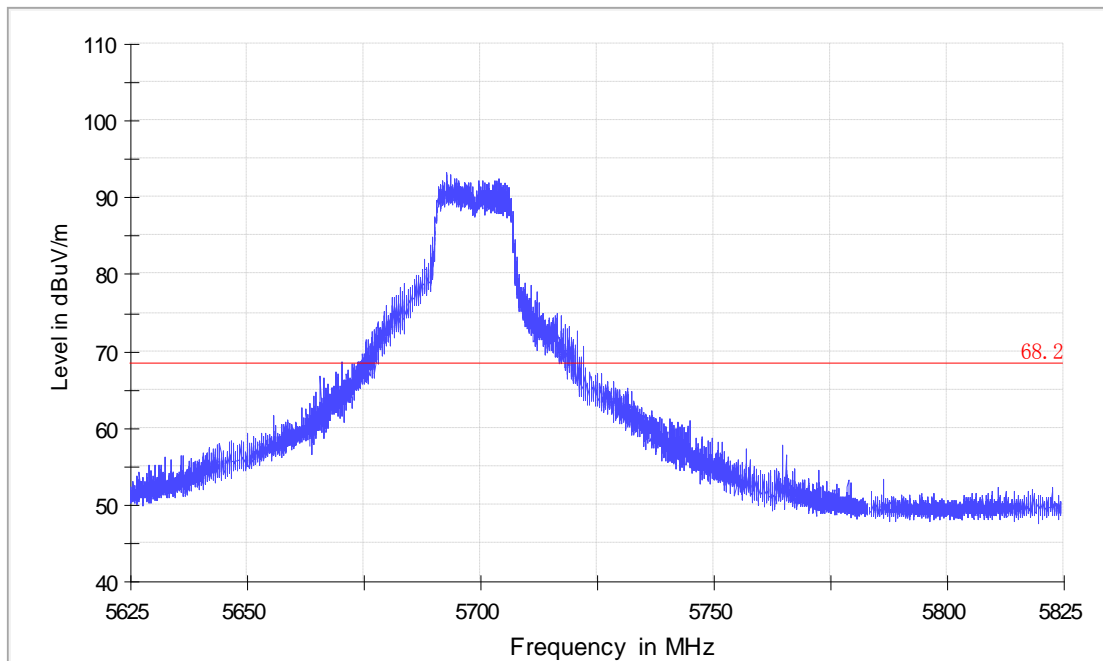
## EUT Information

EUT Model Name: U2  
Operation mode: 11a CH140  
Test Voltage:  
Comment:

## Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:  
Antenna Polarization: Vertical  
Operator Name:  
Comment:

FCC Electric Field Strength 1-18GHz operate on 5GHz Bandedge-PK



Band edge

11n HT20 IN THE 5.6GHz BAND

CH140

## Radiated Emission

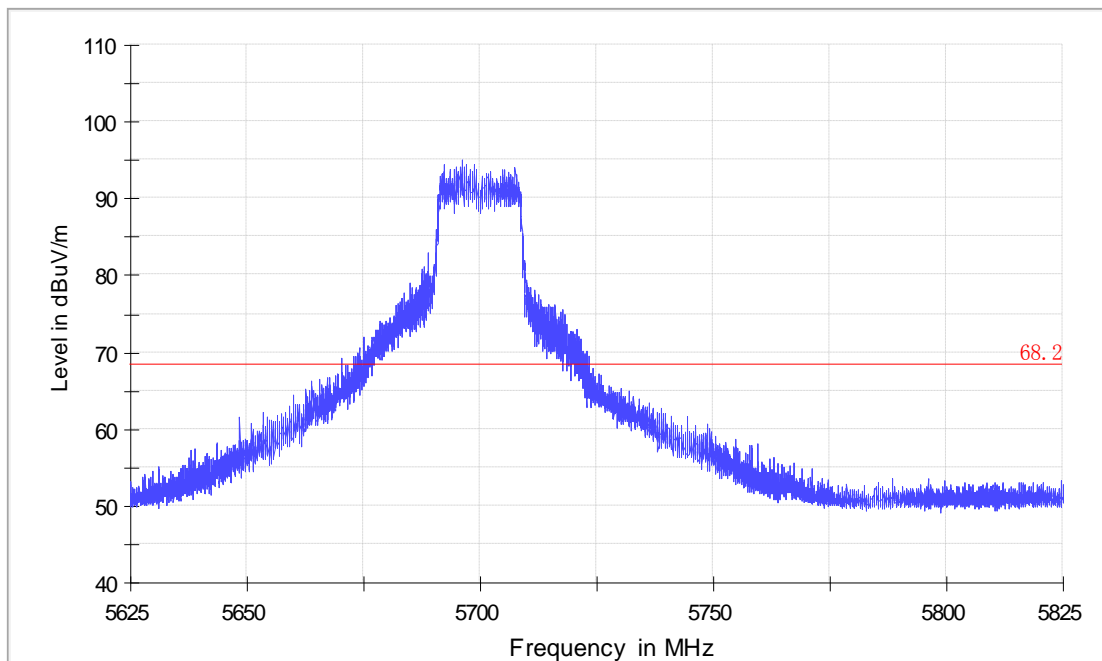
### EUT Information

EUT Model Name: U2  
Operation mode: 11n HT20 CH140  
Test Voltage:   
Comment:

### Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:   
Antenna Polarization: Horizontal  
Operator Name:   
Comment:

FCC Electric Field Strength 1-18GHz operate on 5GHz Bandedge-PK



# Radiated Emission

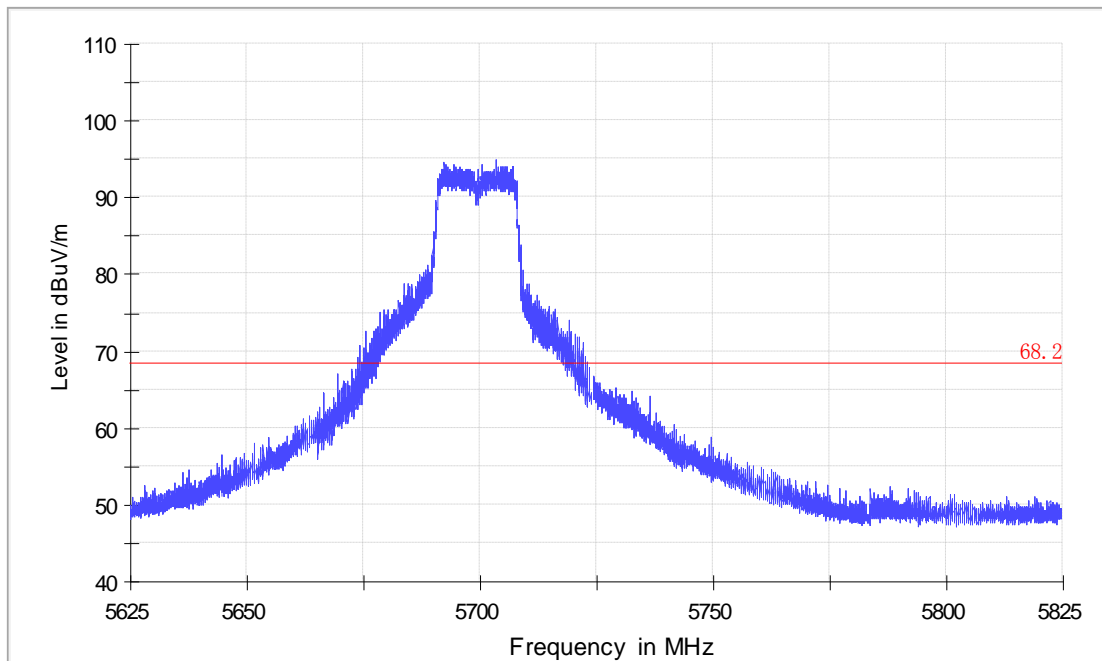
## EUT Information

EUT Model Name: U2  
Operation mode: 11n HT20 CH140  
Test Voltage:  
Comment:

## Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:  
Antenna Polarization: Vertical  
Operator Name:  
Comment:

FCC Electric Field Strength 1-18GHz operate on 5GHz Bandedge-PK



Band edge

11n HT40 IN THE 5.6GHz BAND

CH134

## Radiated Emission

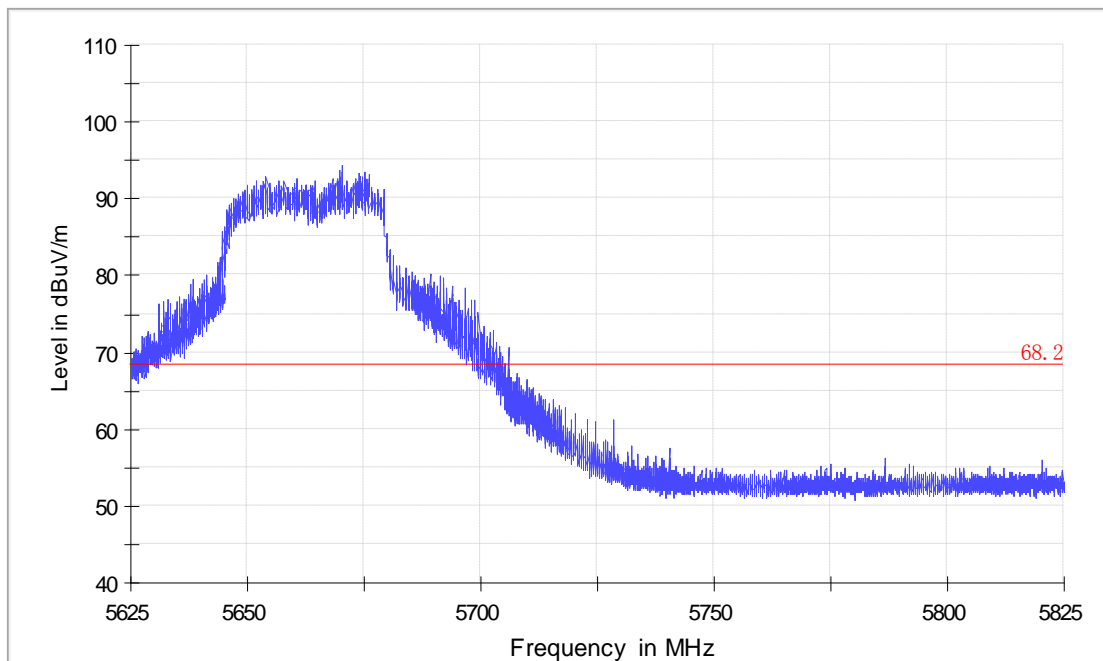
### EUT Information

EUT Model Name: U2  
Operation mode: 11n HT40 CH134  
Test Voltage:   
Comment:

### Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:   
Antenna Polarization: Horizontal  
Operator Name:   
Comment:

FCC Electric Field Strength 1-18GHz operate on 5GHz Bandedge-PK





# Radiated Emission

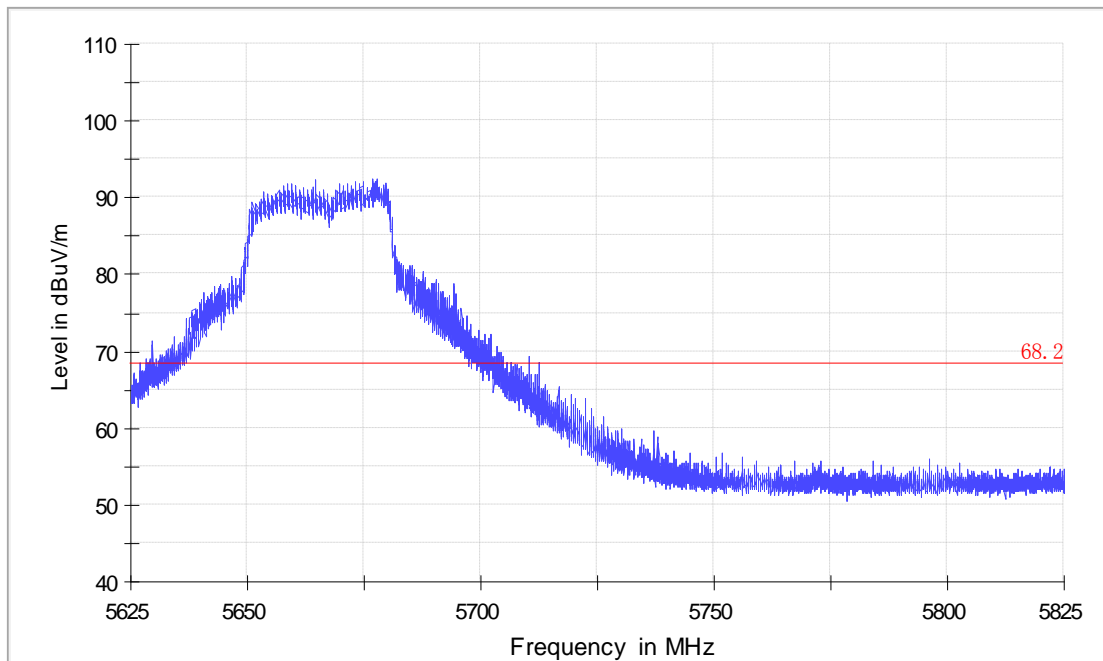
## EUT Information

EUT Model Name: U2  
Operation mode: 11n HT40 CH134  
Test Voltage:  
Comment:

## Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:  
Antenna Polarization: Vertical  
Operator Name:  
Comment:

FCC Electric Field Strength 1-18GHz operate on 5GHz Bandedge-PK



Band edge

11a IN THE 5.8GHz BAND

CH149

## Radiated Emission

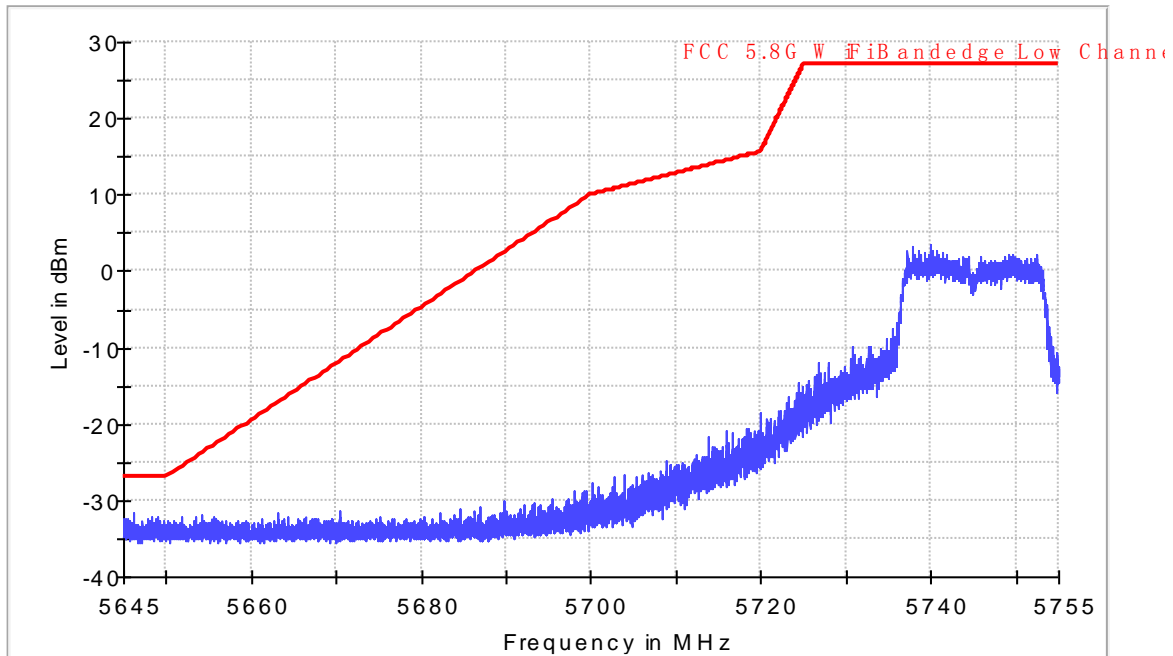
### EUT Information

EUT Model Name: U2  
Operation mode: 11a CH149  
Test Voltage:  
Comment:

### Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:  
Antenna Polarization: Horizontal  
Operator Name:  
Comment:

FCC WiFi 5.8GHz Bandedge-PK



# Radiated Emission

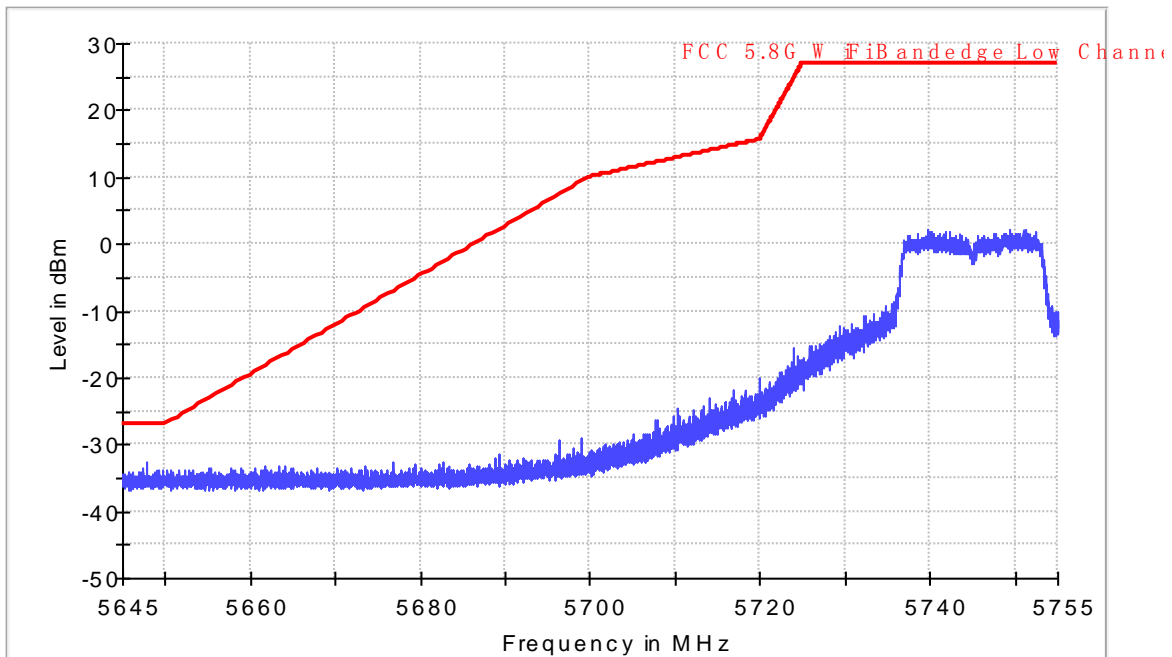
## EUT Information

EUT Model Name: U2  
Operation mode: 11a CH149  
Test Voltage:  
Comment:

## Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:  
Antenna Polarization: Vertical  
Operator Name:  
Comment:

FCC WiFi 5.8GHz Bandedge-PK



Band edge

11a IN THE 5.8GHz BAND

CH165

# Radiated Emission

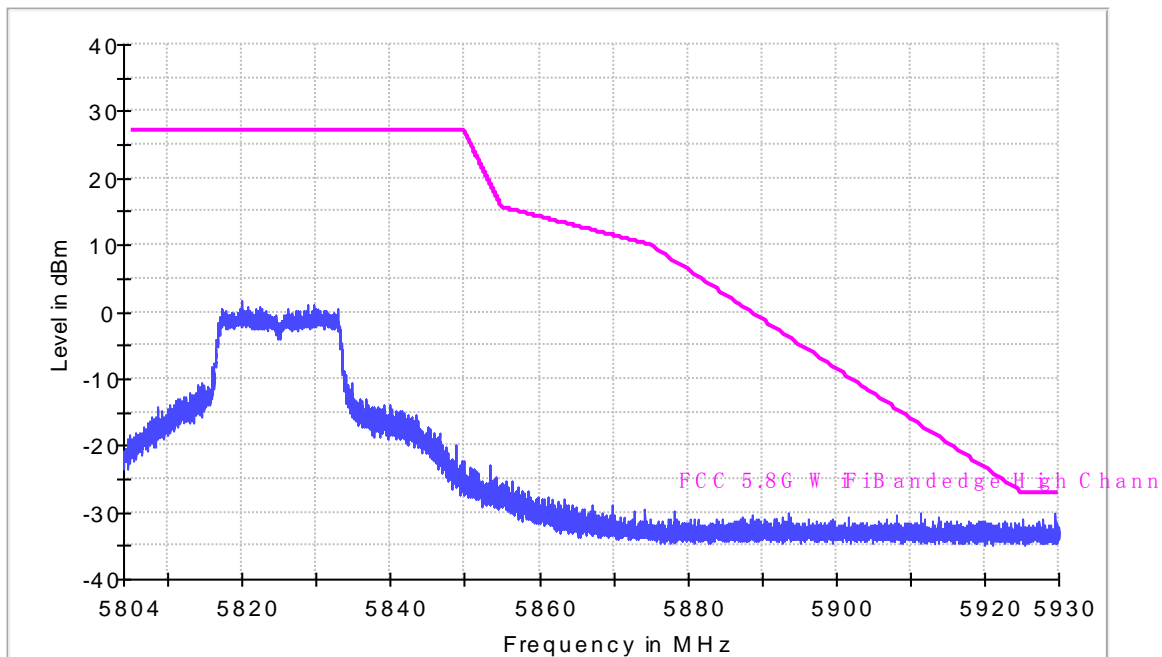
## EUT Information

EUT Model Name: U2  
Operation mode: 11a CH165  
Test Voltage:   
Comment:

## Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:   
Antenna Polarization: Horizontal  
Operator Name:   
Comment:

FCC WiFi 5.8GHz Bandedge-PK



# Radiated Emission

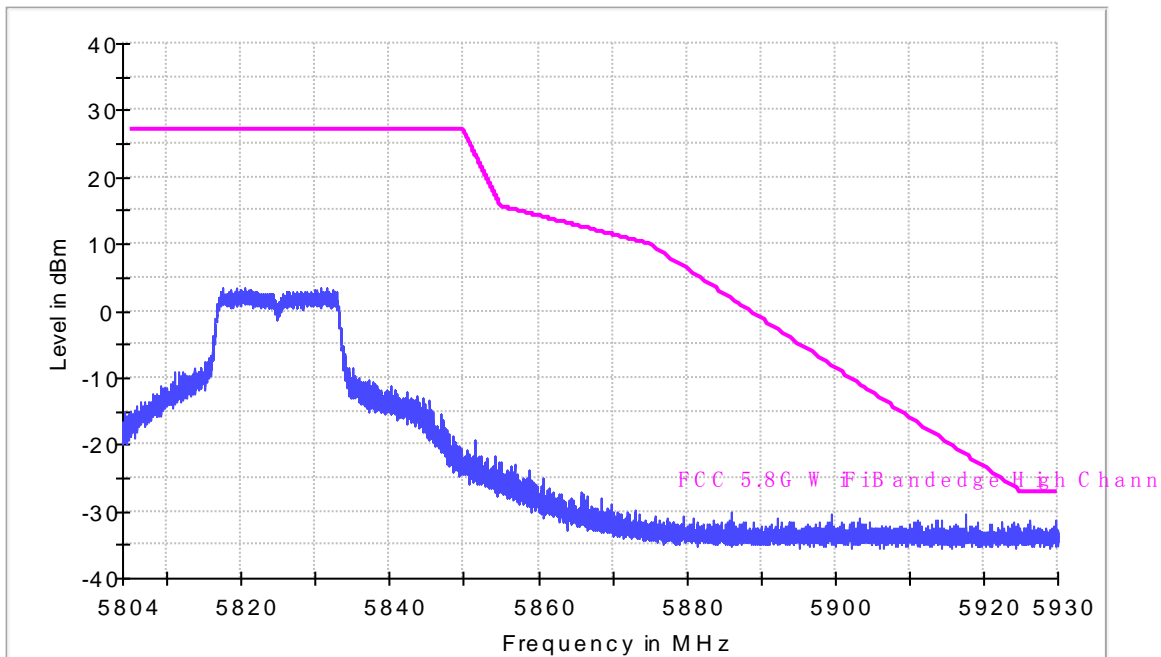
## EUT Information

EUT Model Name: U2  
Operation mode: 11a CH165  
Test Voltage:  
Comment:

## Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:  
Antenna Polarization: Vertical  
Operator Name:  
Comment:

FCC WiFi 5.8GHz Bandedge-PK



Band edge

11n HT20 IN THE 5.8GHz BAND

CH149

## Radiated Emission

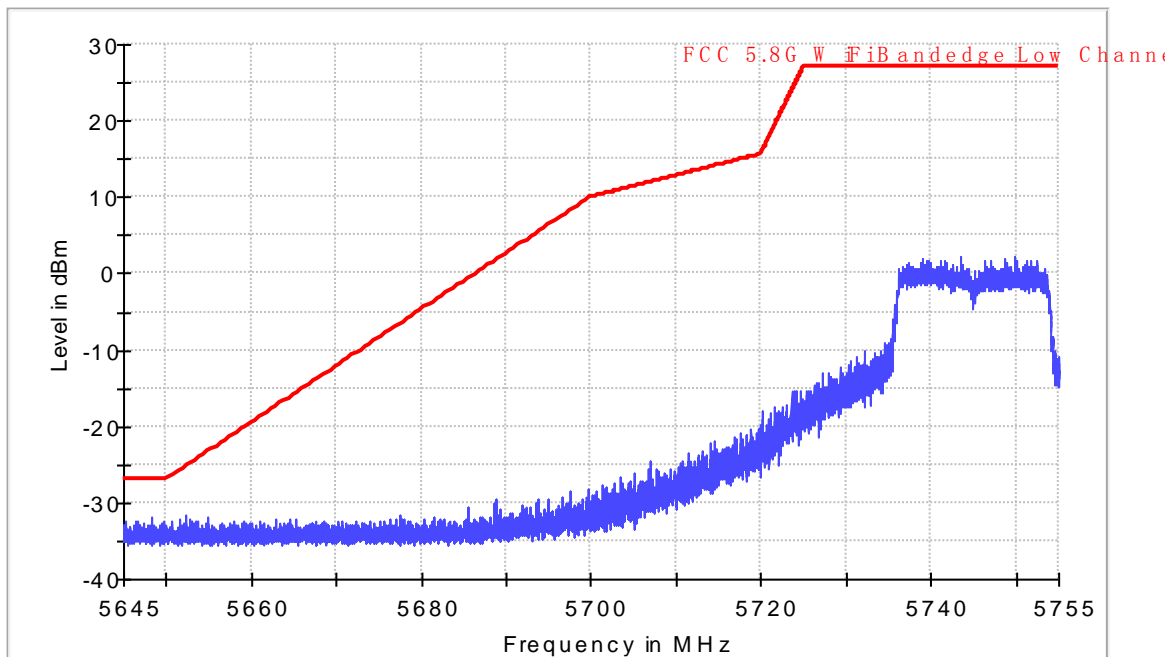
### EUT Information

EUT Model Name: U2  
Operation mode: 11n HT20 CH149  
Test Voltage:  
Comment:

### Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:  
Antenna Polarization: Horizontal  
Operator Name:  
Comment:

FCC WiFi 5.8GHz Bandedge-PK



# Radiated Emission

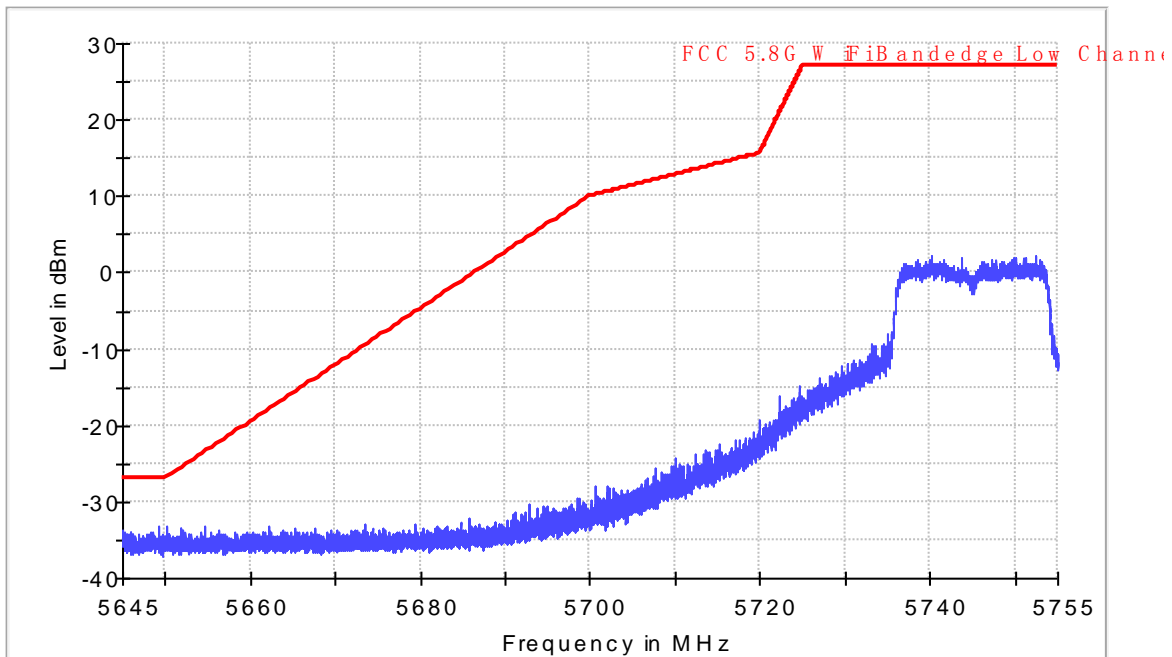
## EUT Information

EUT Model Name: U2  
Operation mode: 11n HT20 CH149  
Test Voltage:  
Comment:

## Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:  
Antenna Polarization: Vertical  
Operator Name:  
Comment:

FCC WiFi 5.8GHz Bandedge-PK



Band edge

11n HT20 IN THE 5.8GHz BAND

CH165

## Radiated Emission

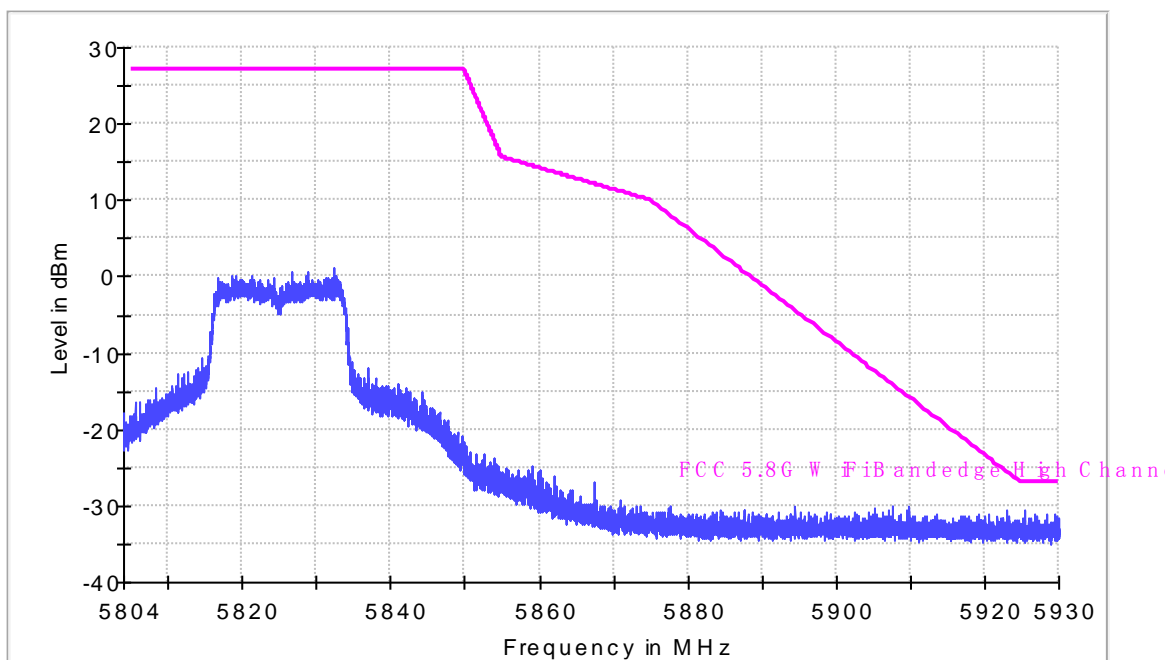
### EUT Information

EUT Model Name: U2  
Operation mode: 11n20 CH165  
Test Voltage:   
Comment:

### Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:   
Antenna Polarization: Horizontal  
Operator Name:   
Comment:

FCC WiFi 5.8GHz Bandedge-PK





# Radiated Emission

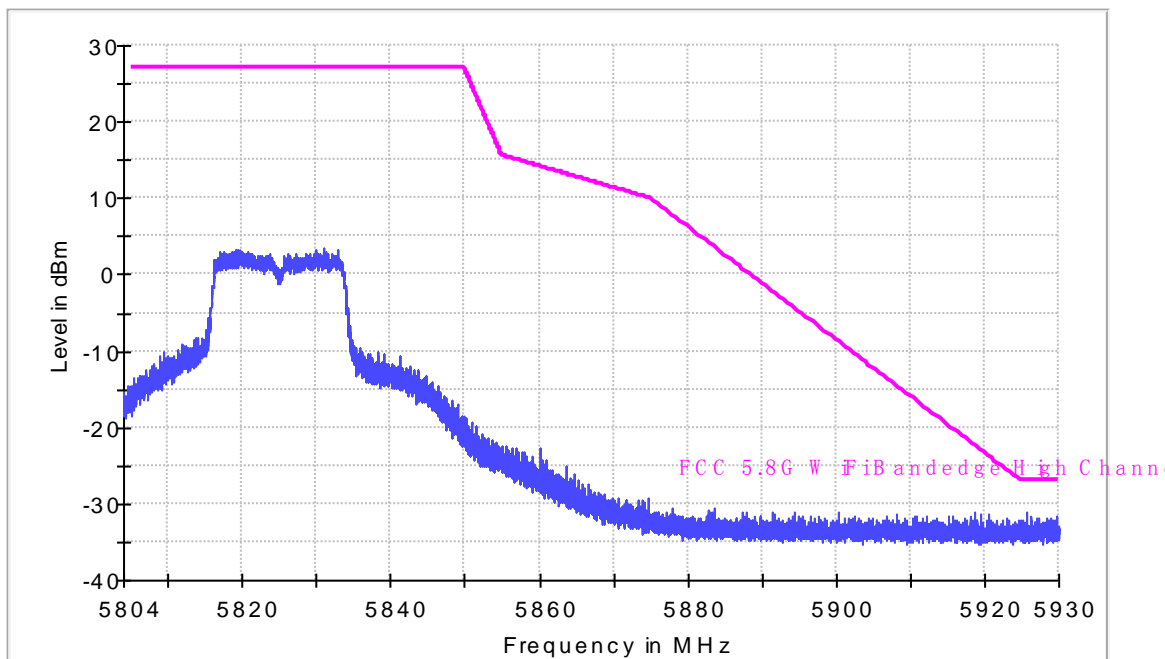
## EUT Information

EUT Model Name: U2  
Operation mode: 11n20 CH165  
Test Voltage:  
Comment:

## Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:  
Antenna Polarization: Vertical  
Operator Name:  
Comment:

FCC WiFi 5.8GHz Bandedge-PK



Band edge

11n HT40 IN THE 5.8GHz BAND

CH151

## Radiated Emission

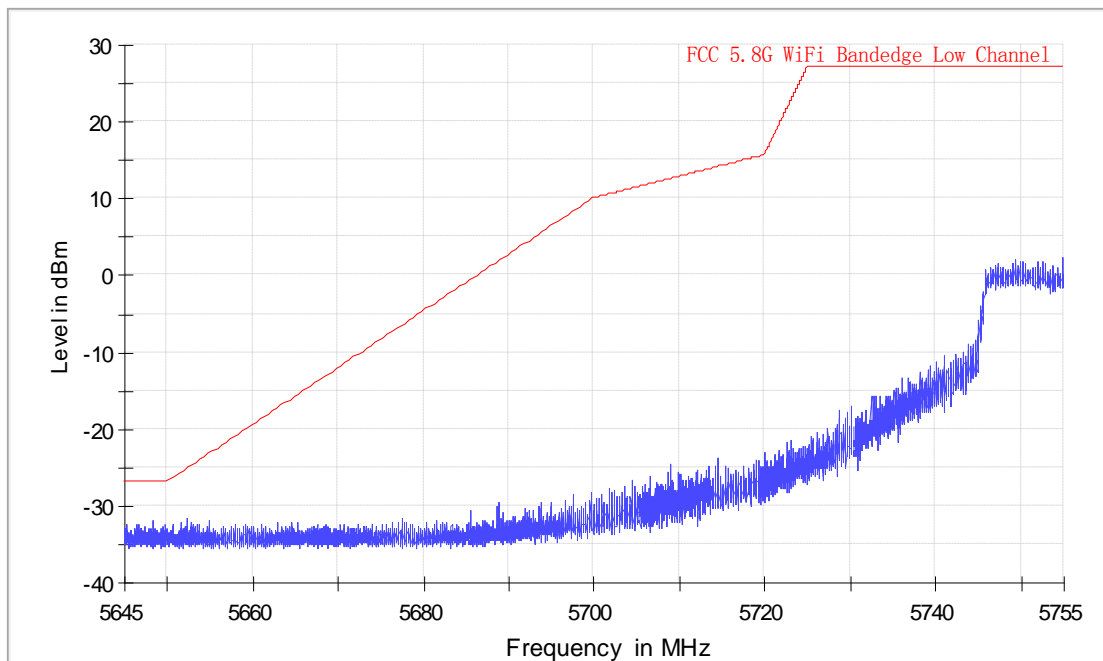
### EUT Information

EUT Model Name: U2  
Operation mode: 11n HT40 CH151  
Test Voltage:   
Comment:

### Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:   
Antenna Polarization: Horizontal  
Operator Name:   
Comment:

FCC WiFi 5.8GHz Bandedge-PK



# Radiated Emission

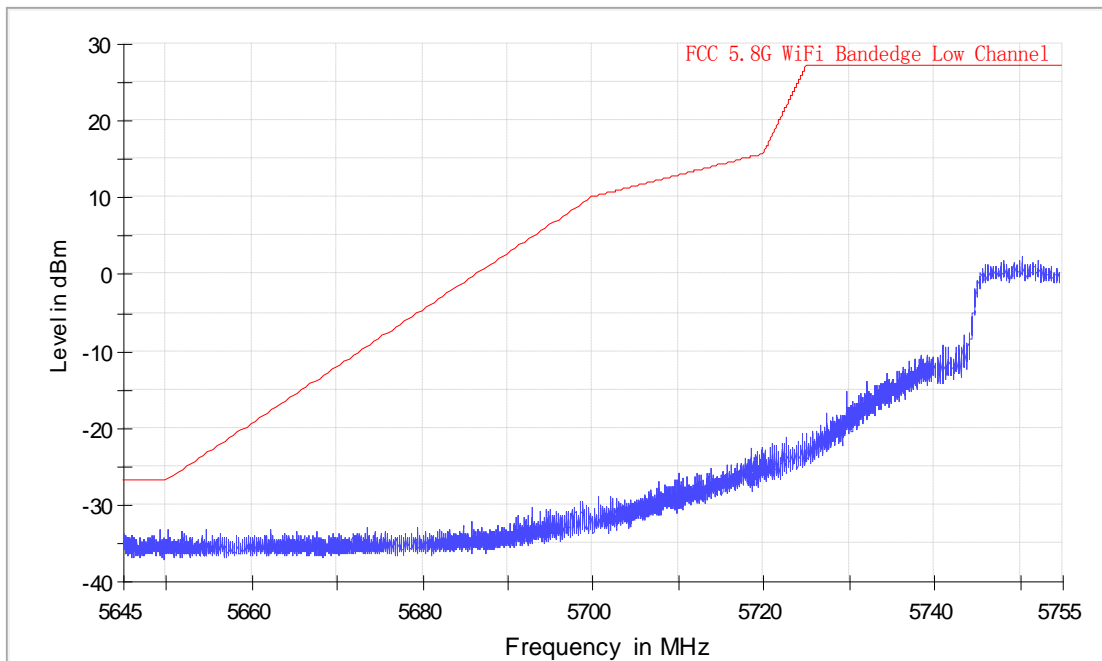
## EUT Information

EUT Model Name: U2  
Operation mode: 11n HT40 CH151  
Test Voltage:  
Comment:

## Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:  
Antenna Polarization: Vertical  
Operator Name:  
Comment:

FCC WiFi 5.8GHz Bandedge-PK



Band edge

11n HT40 IN THE 5.8GHz BAND

CH159

## Radiated Emission

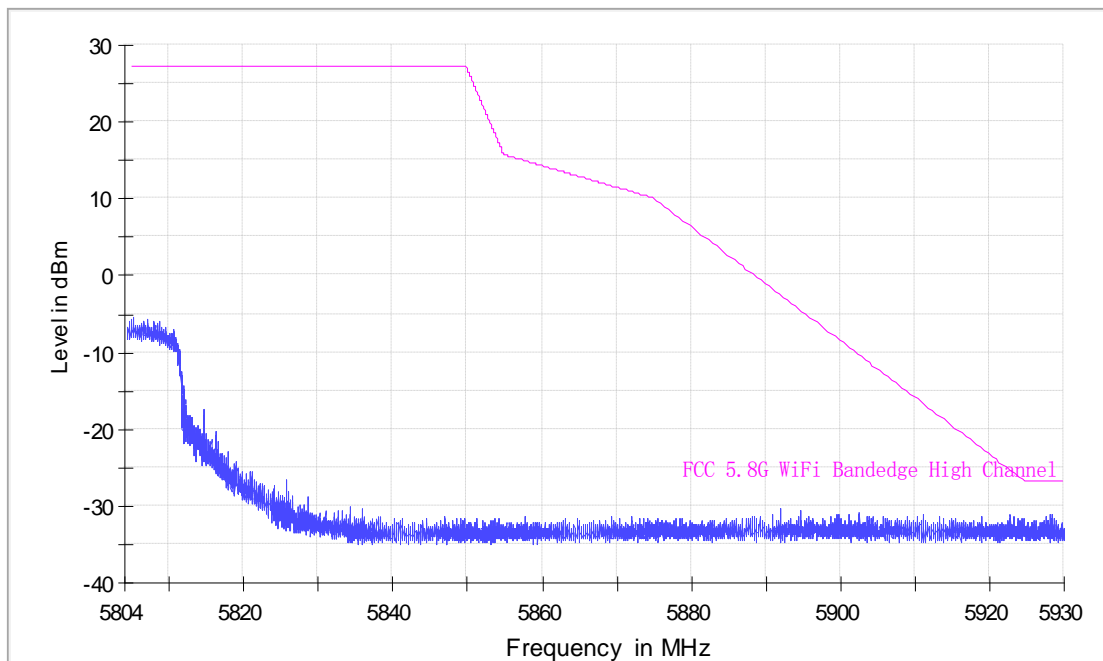
### EUT Information

EUT Model Name: U2  
Operation mode: 11n40 CH159  
Test Voltage:   
Comment:

### Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:   
Antenna Polarization: Horizontal  
Operator Name:   
Comment:

FCC WiFi 5.8GHz Bandedge-PK



# Radiated Emission

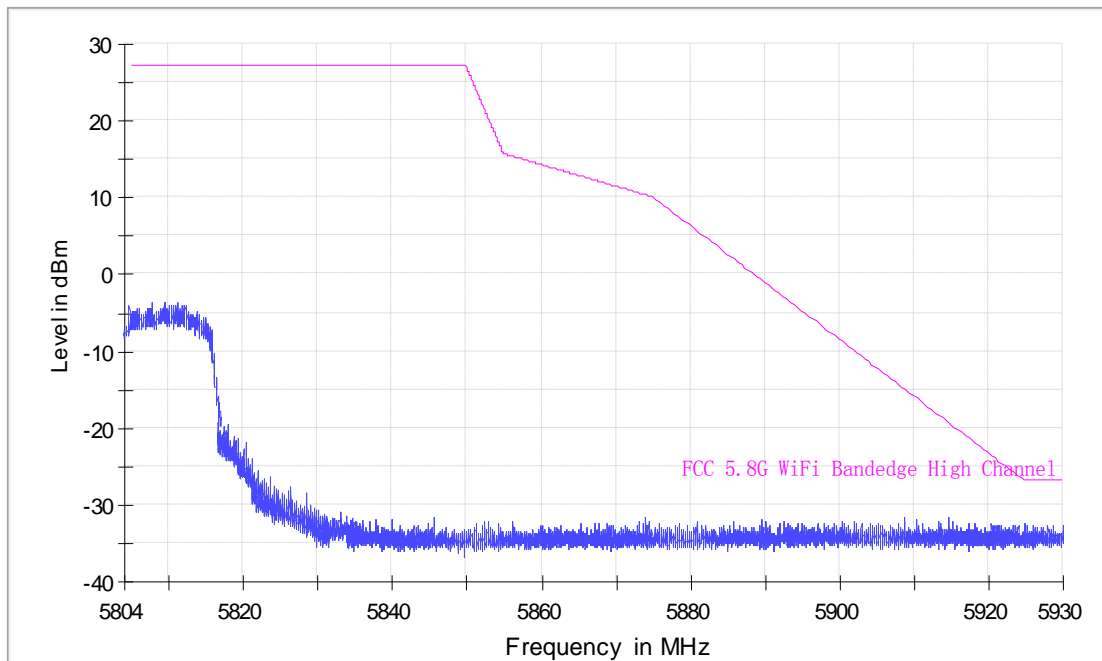
## EUT Information

EUT Model Name: U2  
Operation mode: 11n40 CH159  
Test Voltage:  
Comment:

## Common Information

Test Site: SMQ EMC Lab.  
Environment Conditions:  
Antenna Polarization: Vertical  
Operator Name:  
Comment:

FCC WiFi 5.8GHz Bandedge-PK



# CONDUCTED EMISSION TEST FOR AC POWER PORT MEASUREMENT

## Test Standard and Limit

Test Standard

FCC Part 15 15.207

Test Limit

Table 19 Conducted Disturbance Test Limit

Frequency	Maximum RF Line Voltage (dB $\mu$ V)	
	Quasi-peak Level	Average Level
150kHz~500kHz	66 ~ 56 *	56 ~ 46 *
500kHz~5MHz	56	46
5MHz~30MHz	60	50

\* Decreasing linearly with logarithm of the frequency

\* The lower limit shall apply at the transition frequency.

## Test Procedure

The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI test receiver (R&S Test Receiver ESCS30) is used to test the emissions form both sides of AC line. According to the requirements of ANSI C63.10-2013. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and average detector mode.

The bandwidth of EMI test receiver is set at 9kHz.

## Test Arrangement

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application. The detailed information refers to test picture.

## Test Data

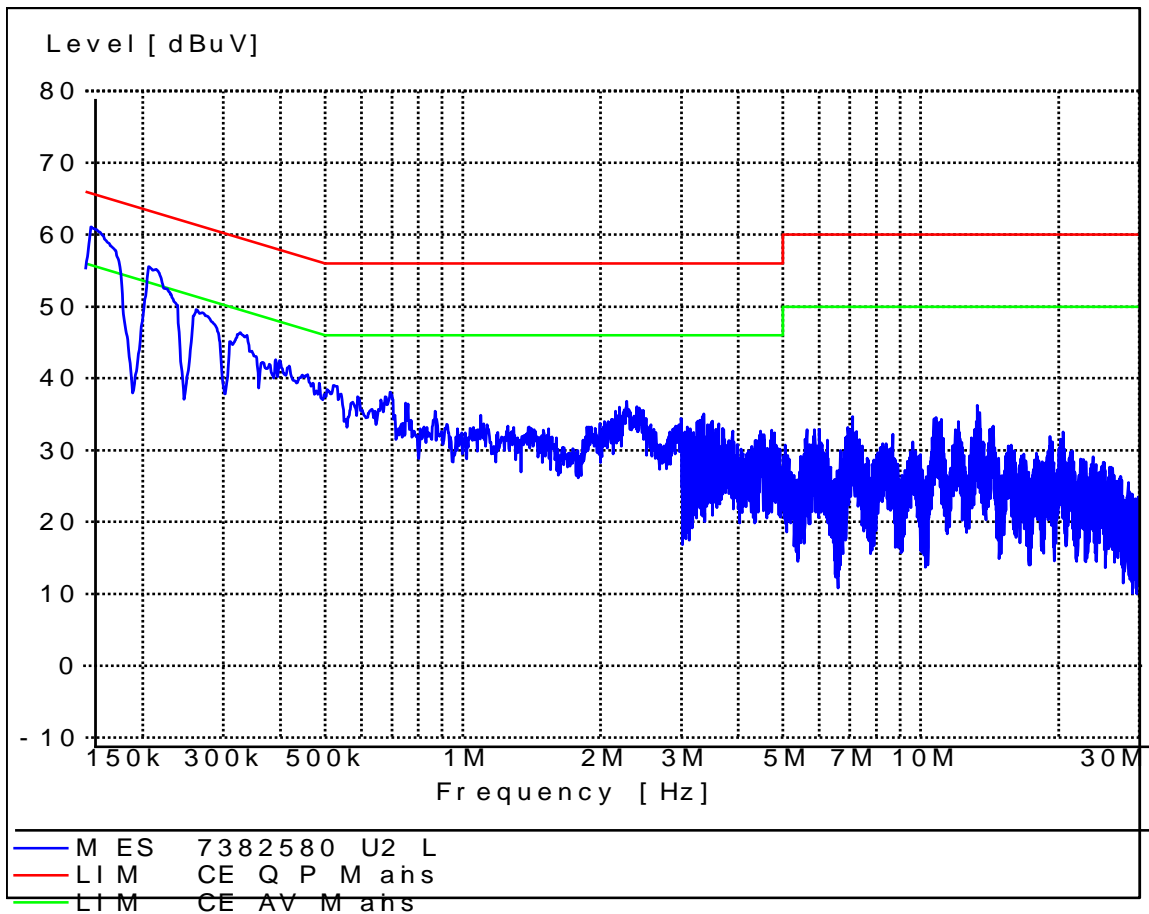
The emissions don't show in below are too low against the limits. Refer to the test curves.

Table 20 Conducted Disturbance Test Data

Model No.: U2								
Test mode: Charging and Transmitting								
	Frequency (MHz)	Correction Factor (dB)	Quasi-Peak			Average		
			Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V)	Limits (dB $\mu$ V)	Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V)	Limits (dB $\mu$ V)
Line	0.158	9.7	48.9	58.6	65.6	33.8	43.5	55.6
	0.206	9.7	38.5	48.2	63.4	21.3	31.0	53.4
	0.266	9.7	35.1	44.8	61.2	21.4	31.1	51.2
	0.326	9.7	30.6	40.3	59.6	19.8	29.5	49.6
	0.694	9.8	22.1	31.9	56	13.5	23.3	46
	2.278	9.9	20.6	30.5	56	11.6	21.5	46
Neutral	0.158	9.7	52.2	61.9	65.6	37.6	47.3	55.6
	0.210	9.7	44.7	54.4	63.2	30.1	39.8	53.2
	0.262	9.7	37.9	47.6	61.4	22.8	32.5	51.4
	0.314	9.7	32.8	42.5	59.9	20.7	30.4	49.9
	0.694	9.8	26.3	36.1	56	17.1	26.9	46
	2.506	9.9	23.8	33.7	56	16.5	26.4	46

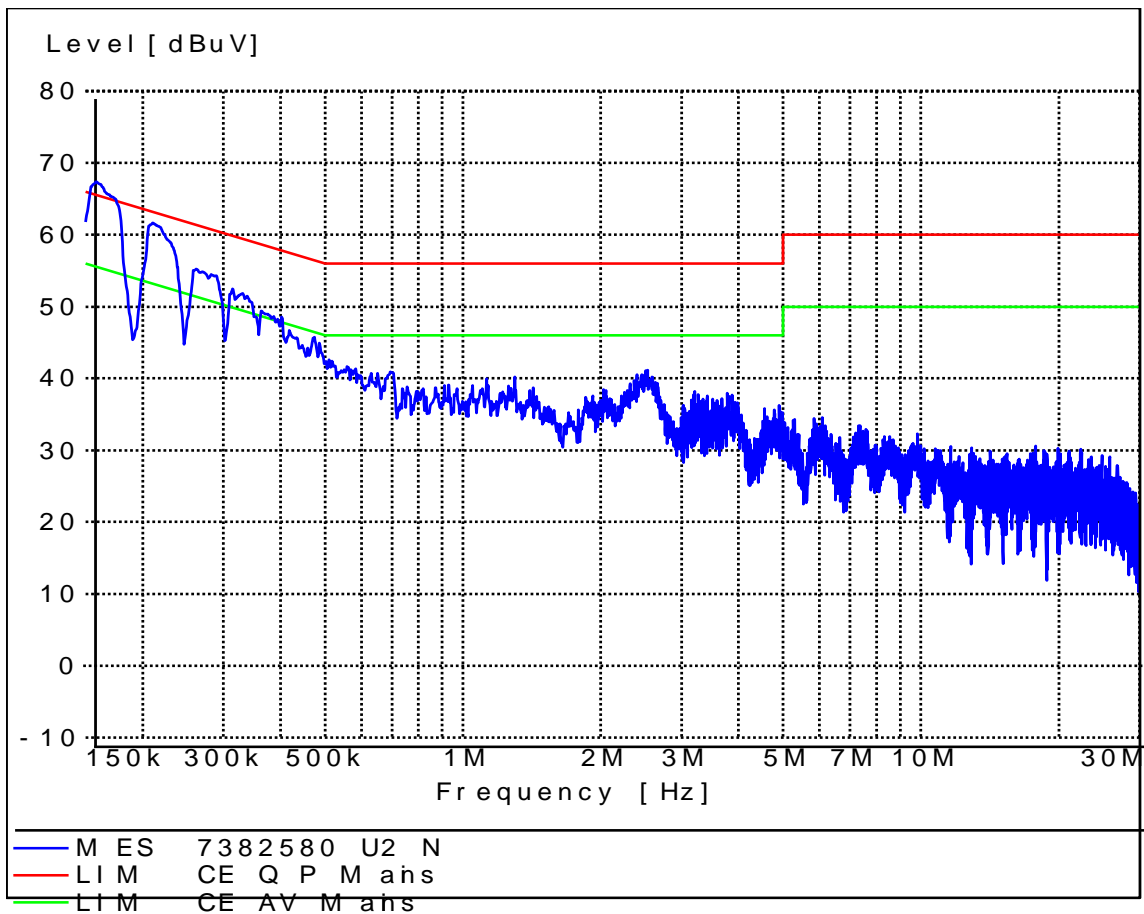
- REMARKS: 1. Emission level(dBuV)=Read Value(dBuV) + Correction Factor(dB)  
 2. Correction Factor(dB) =LISN Factor (dB) + Cable Factor (dB)+Limiter Factor(dB)  
 3. The other emission levels were very low against the limit.

EUT: U2  
Manufacturer:  
Operating Condition: Charging and Transmitting  
Test Site:  
Operator:  
Test Specification: L  
Comment: AC 120V/60Hz





EUT: U2  
Manufacturer:  
Operating Condition: Charging and Transmitting  
Test Site:  
Operator:  
Test Specification: N  
Comment: AC 120V/60Hz



## FREQUENCY STABILITY

### LIMITS OF Frequency Stability

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

### TEST PROCEDURE

The EUT was placed inside of an environmental chamber as the temperature in chamber was varied between  $-30^{\circ}\text{C}$  and  $+50^{\circ}\text{C}$ . The temperature was incremented by  $10^{\circ}$  intervals and the unit was allowed to stabilize at each temperature before each measurement. The center frequency of the transmitting channel was evaluated at each temperature and the frequency deviation from the channel's center frequency was recorded. Data for the worst case channel is shown below.

### TEST DATA

Voltage vs. Frequency Stability							
Test Mode	Test Channel	Temp.	Volt.	Deviation [MHz]	Deviation [ppm]	Limit [ppm]	Verdict
11A	5180	TN	VH	5179.94	-11.58301	20	PASS
11A	5180	TN	VN	5179.94	-11.58301	20	PASS
11A	5180	TN	VL	5179.93	-14.47876	20	PASS
11A	5200	TN	VL	5199.91	-17.30769	20	PASS
11A	5200	TN	VH	5199.94	-11.53846	20	PASS
11A	5200	TN	VN	5199.91	-17.30769	20	PASS
11A	5240	TN	VL	5239.94	-11.45038	20	PASS
11A	5240	TN	VN	5239.91	-17.17557	20	PASS
11A	5240	TN	VH	5239.93	-14.31298	20	PASS
11A	5260	TN	VL	5259.97	-5.70342	20	PASS
11A	5260	TN	VN	5259.94	-11.40684	20	PASS
11A	5260	TN	VH	5259.90	-19.96198	20	PASS
11A	5280	TN	VN	5279.93	-14.20455	20	PASS
11A	5280	TN	VL	5279.93	-14.20455	20	PASS
11A	5280	TN	VH	5279.94	-11.36364	20	PASS
11A	5320	TN	VL	5319.93	-14.09774	20	PASS
11A	5320	TN	VN	5319.91	-16.91729	20	PASS
11A	5320	TN	VH	5319.93	-14.09774	20	PASS
11A	5500	TN	VL	5499.93	-13.63636	20	PASS
11A	5500	TN	VN	5499.93	-13.63636	20	PASS

11A	5500	TN	VH	5499.91	-16.36364	20	PASS
11A	5580	TN	VL	5579.91	-16.12903	20	PASS
11A	5580	TN	VH	5579.94	-10.75269	20	PASS
11A	5580	TN	VN	5579.93	-13.44086	20	PASS
11A	5700	TN	VH	5699.91	-15.78947	20	PASS
11A	5700	TN	VN	5699.93	-13.63636	20	PASS
11A	5700	TN	VL	5699.94	-10.75269	20	PASS
11A	5745	TN	VH	5744.93	-13.05483	20	PASS
11A	5745	TN	VN	5744.94	-10.44386	20	PASS
11A	5745	TN	VL	5744.94	-10.44386	20	PASS
11A	5785	TN	VH	5784.93	-12.96456	20	PASS
11A	5785	TN	VL	5784.91	-15.55748	20	PASS
11A	5785	TN	VN	5784.93	-12.96456	20	PASS
11A	5825	TN	VH	5824.93	-12.87554	20	PASS
11A	5825	TN	VN	5824.91	-15.45064	20	PASS
11A	5825	TN	VL	5824.91	-15.45064	20	PASS
11N20SISO	5180	TN	VH	5179.96	-8.68726	20	PASS
11N20SISO	5180	TN	VL	5179.94	-20.27027	20	PASS
11N20SISO	5180	TN	VN	5179.91	-17.37452	20	PASS
11N40SISO	5190	TN	VL	5189.94	-11.56069	20	PASS
11N40SISO	5190	TN	VN	5189.91	-17.34104	20	PASS
11N40SISO	5190	TN	VH	5189.91	-17.34104	20	PASS
11N20SISO	5200	TN	VL	5199.91	-17.30769	20	PASS
11N20SISO	5200	TN	VN	5199.93	-14.42308	20	PASS
11N20SISO	5200	TN	VH	5199.91	-17.30769	20	PASS
11N40SISO	5230	TN	VL	5229.91	-17.20841	20	PASS
11N40SISO	5230	TN	VN	5229.94	-11.47228	20	PASS
11N40SISO	5230	TN	VH	5229.94	-11.47228	20	PASS
11N20SISO	5240	TN	VH	5239.91	-17.17557	20	PASS
11N20SISO	5240	TN	VN	5239.93	-14.31298	20	PASS
11N20SISO	5240	TN	VL	5239.94	-11.45038	20	PASS
11N20SISO	5260	TN	VH	5259.94	-11.40684	20	PASS
11N20SISO	5260	TN	VN	5259.94	-11.40684	20	PASS
11N20SISO	5260	TN	VL	5259.94	-11.40684	20	PASS
11N40SISO	5270	TN	VL	5269.94	-11.38520	20	PASS
11N40SISO	5270	TN	VH	5269.94	-11.38520	20	PASS
11N40SISO	5270	TN	VN	5269.94	-11.38520	20	PASS
11N20SISO	5280	TN	VH	5279.96	-8.52273	20	PASS
11N20SISO	5280	TN	VL	5279.94	-11.36364	20	PASS
11N20SISO	5280	TN	VN	5279.91	-17.04546	20	PASS

11N40SISO	5310	TN	VH	5309.94	-11.29944	20	PASS
11N40SISO	5310	TN	VL	5309.94	-11.29944	20	PASS
11N40SISO	5310	TN	VN	5309.94	-11.29944	20	PASS
11N20SISO	5320	TN	VN	5319.94	-11.27820	20	PASS
11N20SISO	5320	TN	VL	5319.93	-14.09774	20	PASS
11N20SISO	5320	TN	VH	5319.91	-16.91729	20	PASS
11N20SISO	5500	TN	VH	5499.93	-13.63636	20	PASS
11N20SISO	5500	TN	VL	5499.91	-16.36364	20	PASS
11N20SISO	5500	TN	VN	5499.91	-16.36364	20	PASS
11N40SISO	5510	TN	VH	5509.91	-16.33394	20	PASS
11N40SISO	5510	TN	VN	5509.94	-10.88929	20	PASS
11N40SISO	5510	TN	VL	5509.94	-10.88929	20	PASS
11N40SISO	5550	TN	VL	5549.94	-10.81081	20	PASS
11N40SISO	5550	TN	VH	5549.91	-16.21622	20	PASS
11N40SISO	5550	TN	VN	5549.94	-10.81081	20	PASS
11N20SISO	5580	TN	VL	5579.96	-8.06452	20	PASS
11N20SISO	5580	TN	VN	5579.93	-13.44086	20	PASS
11N20SISO	5580	TN	VH	5579.96	-8.06452	20	PASS
11N40SISO	5670	TN	VL	5669.94	-10.58201	20	PASS
11N40SISO	5670	TN	VH	5669.94	-10.58201	20	PASS
11N40SISO	5670	TN	VN	5669.94	-10.58201	20	PASS
11N20SISO	5700	TN	VN	5699.91	-15.78947	20	PASS
11N20SISO	5700	TN	VL	5699.94	-10.52632	20	PASS
11N20SISO	5700	TN	VH	5699.93	-13.15790	20	PASS
11N20SISO	5745	TN	VN	5744.91	-15.66580	20	PASS
11N20SISO	5745	TN	VH	5744.93	-13.05483	20	PASS
11N20SISO	5745	TN	VL	5744.93	-13.05483	20	PASS
11N40SISO	5755	TN	VH	5754.91	-15.63858	20	PASS
11N40SISO	5755	TN	VN	5754.94	-10.42572	20	PASS
11N40SISO	5755	TN	VL	5754.91	-15.63858	20	PASS
11N20SISO	5785	TN	VN	5784.96	-7.77874	20	PASS
11N20SISO	5785	TN	VH	5784.93	-12.96456	20	PASS
11N20SISO	5785	TN	VL	5784.91	-15.55748	20	PASS
11N40SISO	5795	TN	VL	5794.94	-10.35375	20	PASS
11N40SISO	5795	TN	VH	5794.97	-5.17688	20	PASS
11N40SISO	5795	TN	VN	5794.97	-5.17688	20	PASS
11N20SISO	5825	TN	VH	5824.91	-15.45064	20	PASS
11N20SISO	5825	TN	VL	5824.94	-10.30043	20	PASS
11N20SISO	5825	TN	VN	5824.93	-12.87554	20	PASS

Temperature vs. Frequency Stability							
est Mode	Test Channel	Volt.	Temp.	Deviation [MHz]	Deviation [ppm]	Limit [ppm]	Verdict
11A	5180	VN	-20	5179.93	-14.47876	20	PASS
11A	5180	VN	-10	5179.94	-11.58301	20	PASS
11A	5180	VN	0	5179.96	-8.68726	20	PASS
11A	5180	VN	10	5179.93	-14.47876	20	PASS
11A	5180	VN	20	5179.93	-14.47876	20	PASS
11A	5180	VN	30	5179.91	-17.37452	20	PASS
11A	5180	VN	40	5179.96	-8.68726	20	PASS
11A	5180	VN	50	5179.91	-17.37452	20	PASS
11A	5180	VN	-30	5179.93	-14.47876	20	PASS
11A	5200	VN	20	5199.94	-11.53846	20	PASS
11A	5200	VN	50	5199.93	-14.42308	20	PASS
11A	5200	VN	30	5199.93	-14.42308	20	PASS
11A	5200	VN	10	5199.93	-14.42308	20	PASS
11A	5200	VN	-30	5199.93	-14.42308	20	PASS
11A	5200	VN	-10	5199.91	-17.30769	20	PASS
11A	5200	VN	-20	5199.93	-14.42308	20	PASS
11A	5200	VN	40	5199.93	-14.42308	20	PASS
11A	5200	VN	0	5199.93	-14.42308	20	PASS
11A	5240	VN	0	5199.93	-14.31298	20	PASS
11A	5240	VN	50	5239.90	-14.31298	20	PASS
11A	5240	VN	40	5239.93	-14.31298	20	PASS
11A	5240	VN	30	5239.96	-8.58779	20	PASS
11A	5240	VN	10	5239.93	-14.31298	20	PASS
11A	5240	VN	-10	5239.91	-17.17557	20	PASS
11A	5240	VN	-20	5239.94	-11.45038	20	PASS
11A	5240	VN	-30	5239.91	-17.17557	20	PASS
11A	5240	VN	20	5239.94	-11.45038	20	PASS
11A	5260	VN	30	5259.94	-11.40684	20	PASS
11A	5260	VN	0	5259.94	-11.40684	20	PASS
11A	5260	VN	50	5259.91	-17.11027	20	PASS
11A	5260	VN	40	5259.93	-14.25856	20	PASS
11A	5260	VN	-30	5259.91	-17.11027	20	PASS
11A	5260	VN	20	5259.91	-17.11027	20	PASS
11A	5260	VN	-10	5259.94	-11.40684	20	PASS
11A	5260	VN	-20	5259.96	-8.55513	20	PASS
11A	5260	VN	10	5259.93	-14.25856	20	PASS
11A	5280	VN	0	5279.94	-11.36364	20	PASS

11A	5280	VN	50	5279.93	-14.20455	20	PASS
11A	5280	VN	40	5279.96	-8.52273	20	PASS
11A	5280	VN	30	5279.94	-11.36364	20	PASS
11A	5280	VN	10	5279.93	-14.20455	20	PASS
11A	5280	VN	-10	5279.94	-11.36364	20	PASS
11A	5280	VN	-20	5279.94	-11.36364	20	PASS
11A	5280	VN	-30	5279.93	-14.20455	20	PASS
11A	5280	VN	20	5279.93	-14.20455	20	PASS
11A	5320	VN	20	5319.93	-14.09774	20	PASS
11A	5320	VN	-30	5319.91	-16.91729	20	PASS
11A	5320	VN	40	5319.93	-14.09774	20	PASS
11A	5320	VN	50	5319.93	-14.09774	20	PASS
11A	5320	VN	30	5319.94	-11.27820	20	PASS
11A	5320	VN	10	5319.93	-14.09774	20	PASS
11A	5320	VN	0	5319.90	-19.73684	20	PASS
11A	5320	VN	-20	5319.93	-14.09774	20	PASS
11A	5320	VN	-10	5319.91	-16.91729	20	PASS
11A	5500	VN	10	5499.93	-13.63636	20	PASS
11A	5500	VN	-30	5499.93	-13.63636	20	PASS
11A	5500	VN	50	5499.93	-13.63636	20	PASS
11A	5500	VN	40	5499.93	-13.63636	20	PASS
11A	5500	VN	20	5499.94	-10.90909	20	PASS
11A	5500	VN	0	5499.93	-13.63636	20	PASS
11A	5500	VN	-10	5499.91	-16.36364	20	PASS
11A	5500	VN	-20	5499.94	-10.90909	20	PASS
11A	5500	VN	30	5499.93	-13.63636	20	PASS
11A	5580	VN	40	5579.94	-10.75269	20	PASS
11A	5580	VN	50	5579.91	-16.12903	20	PASS
11A	5580	VN	-30	5579.94	-10.75269	20	PASS
11A	5580	VN	-20	5579.94	-10.75269	20	PASS
11A	5580	VN	-10	5579.94	-10.75269	20	PASS
11A	5580	VN	0	5579.91	-16.12903	20	PASS
11A	5580	VN	10	5579.91	-16.12903	20	PASS
11A	5580	VN	20	5579.94	-10.75269	20	PASS
11A	5580	VN	30	5579.90	-18.81720	20	PASS
11A	5700	VN	50	5699.93	-13.15790	20	PASS
11A	5700	VN	-20	5699.91	-15.78947	20	PASS
11A	5700	VN	-10	5699.93	-13.15790	20	PASS
11A	5700	VN	0	5699.91	-15.78947	20	PASS
11A	5700	VN	10	5699.93	-13.15790	20	PASS

11A	5700	VN	20	5699.91	-15.78947	20	PASS
11A	5700	VN	30	5699.93	-13.15790	20	PASS
11A	5700	VN	-30	5699.91	-15.78947	20	PASS
11A	5700	VN	40	5699.96	-7.89474	20	PASS
11A	5745	VN	40	5744.94	-10.44386	20	PASS
11A	5745	VN	50	5744.93	-13.05483	20	PASS
11A	5745	VN	-20	5744.94	-10.44386	20	PASS
11A	5745	VN	-10	5744.96	-7.83290	20	PASS
11A	5745	VN	0	5744.94	-10.44386	20	PASS
11A	5745	VN	10	5744.96	-7.83290	20	PASS
11A	5745	VN	20	5744.94	-10.44386	20	PASS
11A	5745	VN	30	5744.93	-13.05483	20	PASS
11A	5745	VN	-30	5744.93	-13.05483	20	PASS
11A	5785	VN	50	5784.91	-15.55748	20	PASS
11A	5785	VN	40	5784.93	-12.96456	20	PASS
11A	5785	VN	30	5784.94	-10.37165	20	PASS
11A	5785	VN	20	5784.94	-10.37165	20	PASS
11A	5785	VN	10	5784.91	-15.55748	20	PASS
11A	5785	VN	0	5784.91	-15.55748	20	PASS
11A	5785	VN	-30	5784.93	-12.96456	20	PASS
11A	5785	VN	-10	5784.91	-15.55748	20	PASS
11A	5785	VN	-20	5784.94	-10.37165	20	PASS
11A	5825	VN	-20	5824.91	-15.45064	20	PASS
11A	5825	VN	-10	5824.96	-7.72532	20	PASS
11A	5825	VN	0	5824.93	-12.87554	20	PASS
11A	5825	VN	10	5824.94	-10.30043	20	PASS
11A	5825	VN	20	5824.91	-15.45064	20	PASS
11A	5825	VN	30	5824.93	-12.87554	20	PASS
11A	5825	VN	-30	5824.93	-12.87554	20	PASS
11A	5825	VN	40	5824.90	-18.02575	20	PASS
11A	5825	VN	50	5824.94	-10.30043	20	PASS
11N20SISO	5180	VN	-10	5179.96	-8.68726	20	PASS
11N20SISO	5180	VN	0	5179.93	-14.47876	20	PASS
11N20SISO	5180	VN	10	5179.94	-11.58301	20	PASS
11N20SISO	5180	VN	20	5179.91	-17.37452	20	PASS
11N20SISO	5180	VN	30	5179.93	-14.47876	20	PASS
11N20SISO	5180	VN	40	5179.91	-17.37452	20	PASS
11N20SISO	5180	VN	50	5179.94	-11.58301	20	PASS
11N20SISO	5180	VN	-30	5179.96	-8.68726	20	PASS
11N20SISO	5180	VN	-20	5179.93	-14.47876	20	PASS

11N40SISO	5190	VN	-30	5189.91	-17.34104	20	PASS
11N40SISO	5190	VN	-20	5189.91	-17.34104	20	PASS
11N40SISO	5190	VN	-10	5189.91	-17.34104	20	PASS
11N40SISO	5190	VN	0	5189.94	-11.56069	20	PASS
11N40SISO	5190	VN	10	5189.94	-11.56069	20	PASS
11N40SISO	5190	VN	20	5189.94	-11.56069	20	PASS
11N40SISO	5190	VN	30	5189.91	-17.34104	20	PASS
11N40SISO	5190	VN	50	5189.94	-11.56069	20	PASS
11N40SISO	5190	VN	40	5189.94	-11.56069	20	PASS
11N20SISO	5200	VN	-30	5199.94	-11.53846	20	PASS
11N20SISO	5200	VN	0	5199.93	-14.42308	20	PASS
11N20SISO	5200	VN	50	5199.91	-17.30769	20	PASS
11N20SISO	5200	VN	10	5199.91	-17.30769	20	PASS
11N20SISO	5200	VN	20	5199.91	-17.30769	20	PASS
11N20SISO	5200	VN	30	5199.93	-14.42308	20	PASS
11N20SISO	5200	VN	40	5199.91	-17.30769	20	PASS
11N20SISO	5200	VN	-20	5199.96	-8.65385	20	PASS
11N20SISO	5200	VN	-10	5199.93	-14.42308	20	PASS
11N40SISO	5230	VN	50	5229.94	-11.47228	20	PASS
11N40SISO	5230	VN	-30	5229.94	-11.47228	20	PASS
11N40SISO	5230	VN	0	5229.94	-11.47228	20	PASS
11N40SISO	5230	VN	10	5229.94	-11.47228	20	PASS
11N40SISO	5230	VN	20	5229.91	-17.20841	20	PASS
11N40SISO	5230	VN	40	5229.94	-11.47228	20	PASS
11N40SISO	5230	VN	-10	5229.94	-11.47228	20	PASS
11N40SISO	5230	VN	-20	5229.91	-17.20841	20	PASS
11N40SISO	5230	VN	30	5229.94	-11.47228	20	PASS
11N20SISO	5240	VN	40	5239.94	-11.45038	20	PASS
11N20SISO	5240	VN	30	5239.94	-11.45038	20	PASS
11N20SISO	5240	VN	20	5239.94	-11.45038	20	PASS
11N20SISO	5240	VN	10	5239.94	-11.45038	20	PASS
11N20SISO	5240	VN	0	5239.93	-14.31298	20	PASS
11N20SISO	5240	VN	50	5239.94	-11.45038	20	PASS
11N20SISO	5240	VN	-10	5239.93	-14.31298	20	PASS
11N20SISO	5240	VN	-20	5239.96	-8.58779	20	PASS
11N20SISO	5240	VN	-30	5239.94	-11.45038	20	PASS
11N20SISO	5260	VN	0	5259.94	-11.40684	20	PASS
11N20SISO	5260	VN	-30	5259.93	-14.25856	20	PASS
11N20SISO	5260	VN	-20	5259.91	-17.11027	20	PASS
11N20SISO	5260	VN	-10	5259.94	-11.40684	20	PASS



11N20SISO	5260	VN	10	5259.94	-11.40684	20	PASS
11N20SISO	5260	VN	20	5259.93	-14.25856	20	PASS
11N20SISO	5260	VN	30	5259.94	-11.40684	20	PASS
11N20SISO	5260	VN	50	5259.94	-11.40684	20	PASS
11N20SISO	5260	VN	40	5259.93	-14.25856	20	PASS
11N40SISO	5270	VN	30	5269.94	-11.38520	20	PASS
11N40SISO	5270	VN	50	5269.94	-11.38520	20	PASS
11N40SISO	5270	VN	-30	5269.94	-11.38520	20	PASS
11N40SISO	5270	VN	40	5269.97	-5.69260	20	PASS
11N40SISO	5270	VN	20	5269.94	-11.38520	20	PASS
11N40SISO	5270	VN	10	5269.97	-5.69260	20	PASS
11N40SISO	5270	VN	0	5269.94	-11.38520	20	PASS
11N40SISO	5270	VN	-10	5269.94	-11.38520	20	PASS
11N40SISO	5270	VN	-20	5269.97	-5.69260	20	PASS
11N20SISO	5280	VN	20	5279.96	-8.52273	20	PASS
11N20SISO	5280	VN	50	5279.91	-17.04546	20	PASS
11N20SISO	5280	VN	-30	5279.93	-14.20455	20	PASS
11N20SISO	5280	VN	40	5279.93	-14.20455	20	PASS
11N20SISO	5280	VN	30	5279.94	-11.36364	20	PASS
11N20SISO	5280	VN	0	5279.94	-11.36364	20	PASS
11N20SISO	5280	VN	10	5279.91	-17.04546	20	PASS
11N20SISO	5280	VN	-10	5279.93	-14.20455	20	PASS
11N20SISO	5280	VN	-20	5279.97	-5.68182	20	PASS
11N40SISO	5310	VN	50	5309.94	-11.29944	20	PASS
11N40SISO	5310	VN	40	5309.94	-11.29944	20	PASS
11N40SISO	5310	VN	-10	5309.94	-11.29944	20	PASS
11N40SISO	5310	VN	0	5309.94	-11.29944	20	PASS
11N40SISO	5310	VN	10	5309.94	-11.29944	20	PASS
11N40SISO	5310	VN	20	5309.91	-16.94915	20	PASS
11N40SISO	5310	VN	-30	5309.94	-11.29944	20	PASS
11N40SISO	5310	VN	-20	5309.94	-11.29944	20	PASS
11N40SISO	5310	VN	30	5309.91	-16.94915	20	PASS
11N20SISO	5320	VN	30	5319.93	-14.09774	20	PASS
11N20SISO	5320	VN	20	5319.93	-14.09774	20	PASS
11N20SISO	5320	VN	10	5319.94	-11.27820	20	PASS
11N20SISO	5320	VN	0	5319.94	-11.27820	20	PASS
11N20SISO	5320	VN	-20	5319.91	-16.91729	20	PASS
11N20SISO	5320	VN	-10	5319.94	-11.27820	20	PASS
11N20SISO	5320	VN	50	5319.94	-11.27820	20	PASS
11N20SISO	5320	VN	40	5319.94	-11.27820	20	PASS

11N20SISO	5320	VN	-30	5319.94	-11.27820	20	PASS
11N20SISO	5500	VN	40	5499.91	-16.36364	20	PASS
11N20SISO	5500	VN	30	5499.93	-13.63636	20	PASS
11N20SISO	5500	VN	20	5499.93	-13.63636	20	PASS
11N20SISO	5500	VN	10	5499.93	-13.63636	20	PASS
11N20SISO	5500	VN	0	5499.94	-10.90909	20	PASS
11N20SISO	5500	VN	-10	5499.93	-13.63636	20	PASS
11N20SISO	5500	VN	-20	5499.91	-16.36364	20	PASS
11N20SISO	5500	VN	-30	5499.93	-13.63636	20	PASS
11N20SISO	5500	VN	50	5499.93	-13.63636	20	PASS
11N40SISO	5510	VN	10	5509.91	-16.33394	20	PASS
11N40SISO	5510	VN	-30	5509.97	-5.44465	20	PASS
11N40SISO	5510	VN	50	5509.94	-10.88929	20	PASS
11N40SISO	5510	VN	40	5509.94	-10.88929	20	PASS
11N40SISO	5510	VN	20	5509.91	-16.33394	20	PASS
11N40SISO	5510	VN	0	5509.94	-10.88929	20	PASS
11N40SISO	5510	VN	-10	5509.94	-10.88929	20	PASS
11N40SISO	5510	VN	-20	5509.94	-10.88929	20	PASS
11N40SISO	5510	VN	30	5509.94	-10.88929	20	PASS
11N40SISO	5550	VN	-10	5549.91	-16.21622	20	PASS
11N40SISO	5550	VN	-30	5549.94	-10.81081	20	PASS
11N40SISO	5550	VN	50	5549.94	-10.81081	20	PASS
11N40SISO	5550	VN	-20	5549.91	-16.21622	20	PASS
11N40SISO	5550	VN	10	5549.91	-16.21622	20	PASS
11N40SISO	5550	VN	20	5549.94	-10.81081	20	PASS
11N40SISO	5550	VN	40	5549.94	-10.81081	20	PASS
11N40SISO	5550	VN	30	5549.91	-16.21622	20	PASS
11N40SISO	5550	VN	0	5549.94	-10.81081	20	PASS
11N20SISO	5580	VN	0	5579.91	-16.12903	20	PASS
11N20SISO	5580	VN	-30	5579.93	-13.44086	20	PASS
11N20SISO	5580	VN	-10	5579.94	-10.75269	20	PASS
11N20SISO	5580	VN	10	5579.93	-13.44086	20	PASS
11N20SISO	5580	VN	20	5579.91	-16.12903	20	PASS
11N20SISO	5580	VN	30	5579.93	-13.44086	20	PASS
11N20SISO	5580	VN	40	5579.94	-10.75269	20	PASS
11N20SISO	5580	VN	50	5579.93	-13.44086	20	PASS
11N20SISO	5580	VN	-20	5579.93	-13.44086	20	PASS
11N40SISO	5670	VN	50	5669.91	-15.87302	20	PASS
11N40SISO	5670	VN	-30	5669.94	-10.58201	20	PASS
11N40SISO	5670	VN	40	5669.94	-10.58201	20	PASS

11N40SISO	5670	VN	30	5669.97	-5.29101	20	PASS
11N40SISO	5670	VN	20	5669.94	-10.58201	20	PASS
11N40SISO	5670	VN	10	5669.94	-10.58201	20	PASS
11N40SISO	5670	VN	0	5669.94	-10.58201	20	PASS
11N40SISO	5670	VN	-10	5669.94	-10.58201	20	PASS
11N40SISO	5670	VN	-20	5669.97	-5.29101	20	PASS
11N20SISO	5700	VN	10	5699.93	-13.15790	20	PASS
11N20SISO	5700	VN	50	5700.00	0.00000	20	PASS
11N20SISO	5700	VN	40	5699.91	-15.78947	20	PASS
11N20SISO	5700	VN	20	5699.93	-13.15790	20	PASS
11N20SISO	5700	VN	0	5699.93	-13.15790	20	PASS
11N20SISO	5700	VN	-10	5699.90	-18.42105	20	PASS
11N20SISO	5700	VN	-20	5699.94	-10.52632	20	PASS
11N20SISO	5700	VN	-30	5699.93	-13.15790	20	PASS
11N20SISO	5700	VN	30	5699.93	-13.15790	20	PASS
11N20SISO	5745	VN	10	5744.94	-10.44386	20	PASS
11N20SISO	5745	VN	50	5744.94	-10.44386	20	PASS
11N20SISO	5745	VN	-30	5744.91	-15.66580	20	PASS
11N20SISO	5745	VN	-20	5744.93	-13.05483	20	PASS
11N20SISO	5745	VN	-10	5744.93	-13.05483	20	PASS
11N20SISO	5745	VN	0	5744.93	-13.05483	20	PASS
11N20SISO	5745	VN	30	5744.93	-13.05483	20	PASS
11N20SISO	5745	VN	40	5744.93	-13.05483	20	PASS
11N20SISO	5745	VN	20	5744.93	-13.05483	20	PASS
11N40SISO	5755	VN	30	5754.94	-10.42572	20	PASS
11N40SISO	5755	VN	-30	5754.94	-10.42572	20	PASS
11N40SISO	5755	VN	20	5754.97	-5.21286	20	PASS
11N40SISO	5755	VN	10	5754.94	-10.42572	20	PASS
11N40SISO	5755	VN	0	5754.94	-10.42572	20	PASS
11N40SISO	5755	VN	-10	5754.94	-10.42572	20	PASS
11N40SISO	5755	VN	-20	5754.94	-10.42572	20	PASS
11N40SISO	5755	VN	50	5754.94	-10.42572	20	PASS
11N40SISO	5755	VN	40	5754.94	-10.42572	20	PASS
11N20SISO	5785	VN	10	5784.93	-12.96456	20	PASS
11N20SISO	5785	VN	40	5784.91	-15.55748	20	PASS
11N20SISO	5785	VN	-30	5784.91	-15.55748	20	PASS
11N20SISO	5785	VN	-20	5784.91	-15.55748	20	PASS
11N20SISO	5785	VN	-10	5784.91	-15.55748	20	PASS
11N20SISO	5785	VN	0	5784.93	-12.96456	20	PASS
11N20SISO	5785	VN	50	5784.94	-10.37165	20	PASS

11N20SISO	5785	VN	30	5784.93	-12.96456	20	PASS
11N20SISO	5785	VN	20	5784.94	-10.37165	20	PASS
11N40SISO	5795	VN	-30	5794.94	-10.35375	20	PASS
11N40SISO	5795	VN	30	5794.94	-10.35375	20	PASS
11N40SISO	5795	VN	20	5794.94	-10.35375	20	PASS
11N40SISO	5795	VN	10	5794.94	-10.35375	20	PASS
11N40SISO	5795	VN	0	5794.94	-10.35375	20	PASS
11N40SISO	5795	VN	-10	5794.94	-10.35375	20	PASS
11N40SISO	5795	VN	-20	5794.94	-10.35375	20	PASS
11N40SISO	5795	VN	50	5794.91	-15.53063	20	PASS
11N40SISO	5795	VN	40	5794.91	-15.53063	20	PASS
11N20SISO	5825	VN	50	5824.97	-5.15022	20	PASS
11N20SISO	5825	VN	40	5824.97	-5.15022	20	PASS
11N20SISO	5825	VN	30	5824.91	-15.45064	20	PASS
11N20SISO	5825	VN	20	5824.91	-15.45064	20	PASS
11N20SISO	5825	VN	10	5824.93	-12.87554	20	PASS
11N20SISO	5825	VN	0	5824.93	-12.87554	20	PASS
11N20SISO	5825	VN	-10	5824.93	-12.87554	20	PASS
11N20SISO	5825	VN	-30	5824.94	-10.30043	20	PASS
11N20SISO	5825	VN	-20	5824.90	-18.02575	20	PASS

### **3. ANTENNA REQUIREMENTS**

#### **3.1.Applicable requirements**

If directional gain of transmitting antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi. For the fixed point-to-point operation, the power shall be reduced by one dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the FCC rule.

#### **3.2.Antenna Connector**

Antenna Connector is on the PCB within enclosure and not accessible to user.

#### **3.3.Antenna Gain**

The antenna gain of EUT is less than 6 dBi.