Radiated Emission

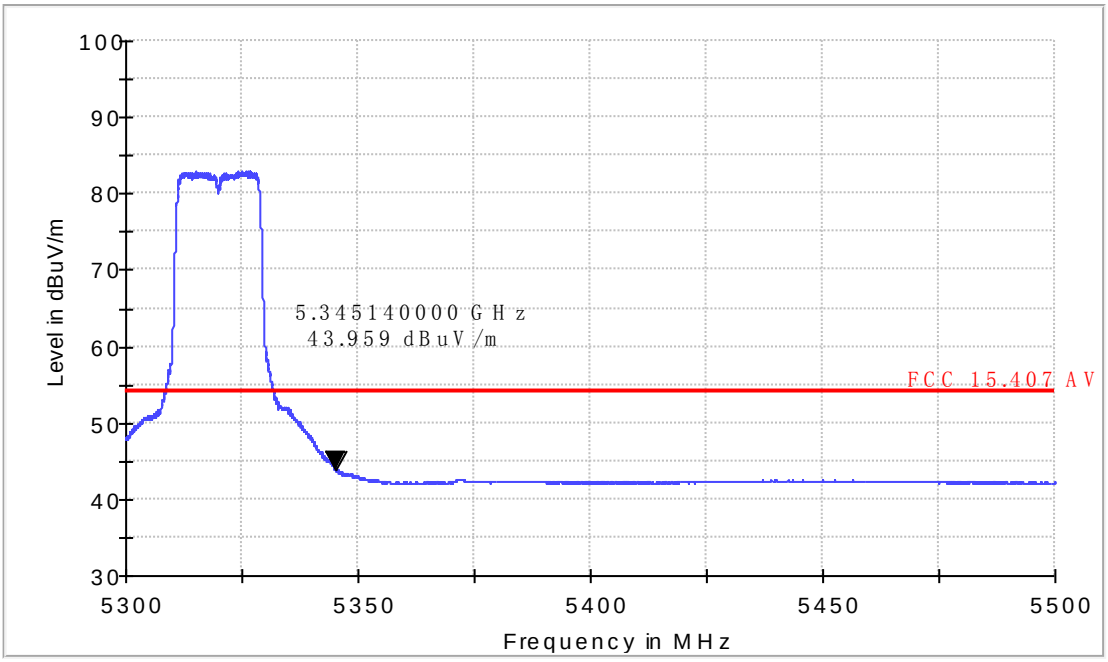
EUT Information

EUT Model Name:	WD100
Operation mode:	11n HT20 CH64
Test Voltage:	
Comment:	

Common Information

Test Site:	SMO 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

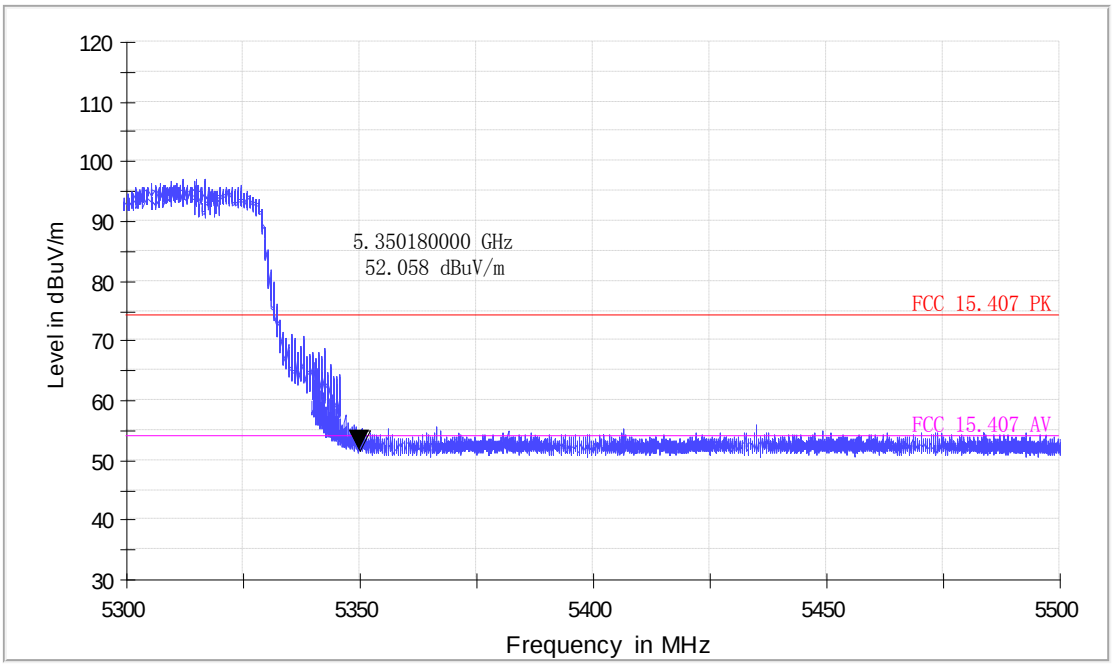
EUT Information

EUT Model Name:	WD100
Operation mode:	11n HT40 CH62
Test Voltage:	
Comment:	

Common Information

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

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



Radiated Emission

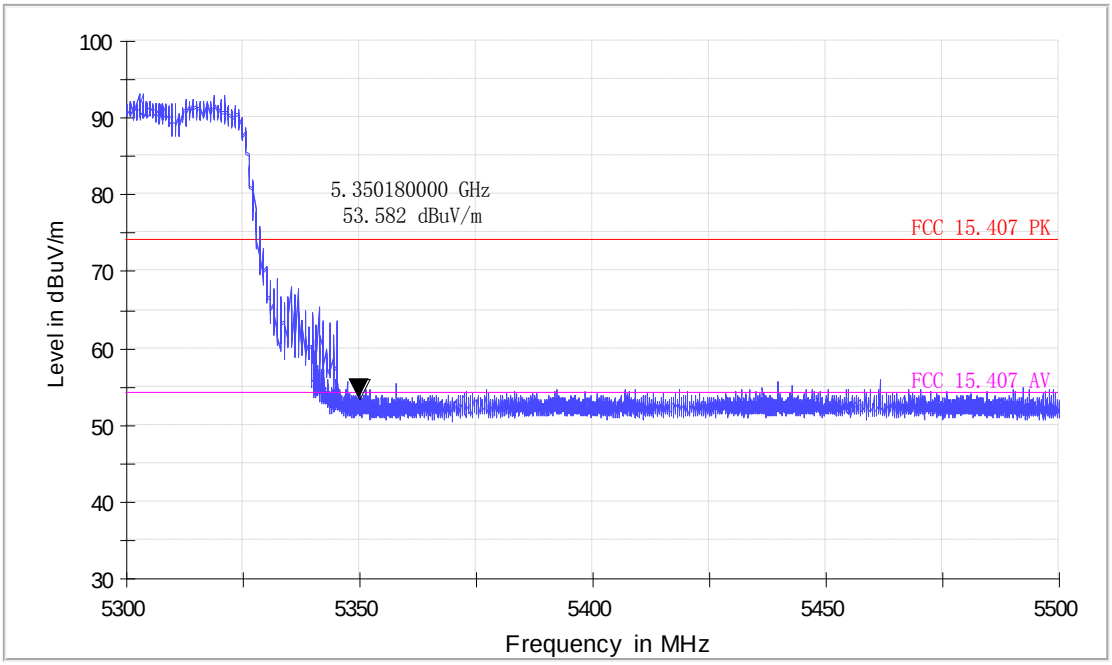
EUT Information

EUT Model Name:	WD100
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

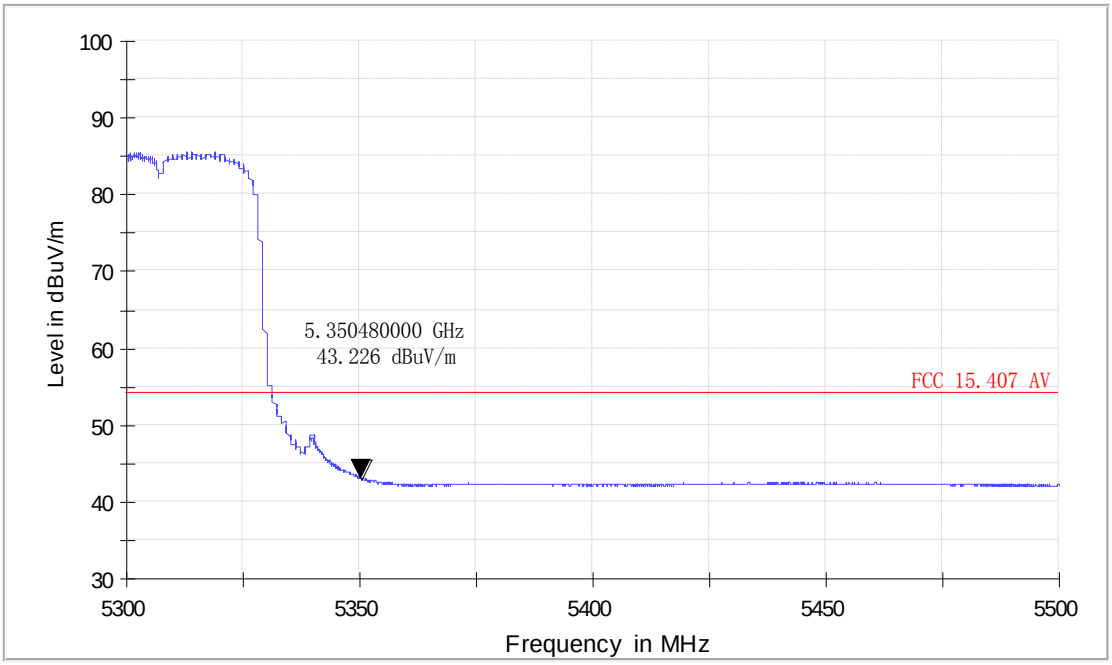
EUT Information

EUT Model Name:	WD100
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

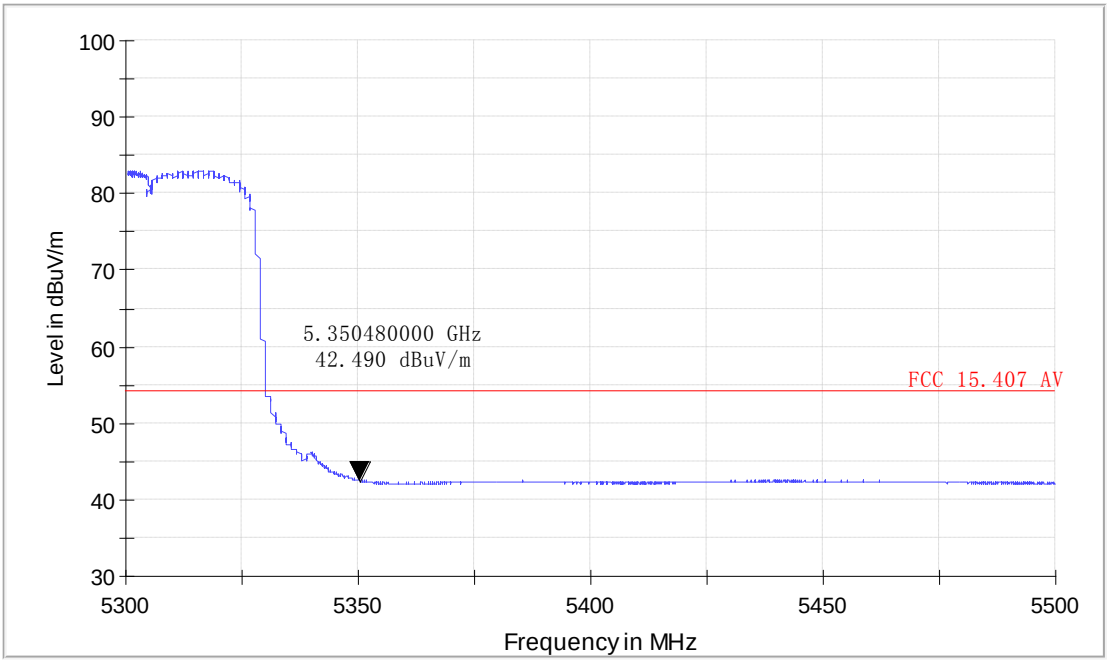
EUT Information

EUT Model Name:	WD100
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

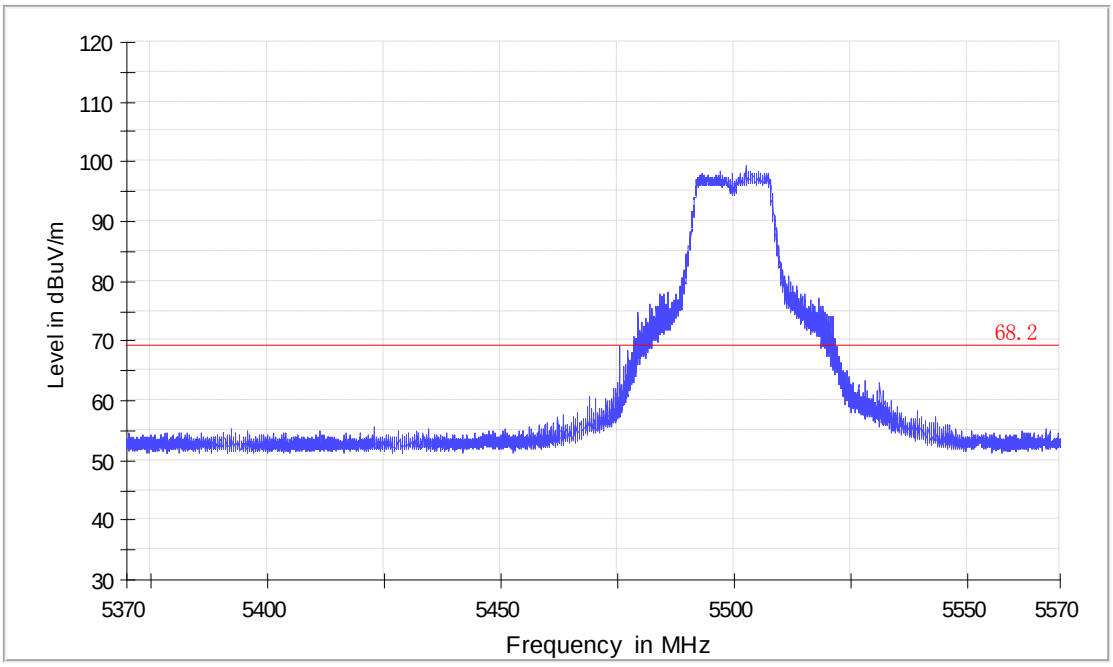
EUT Information

EUT Model Name:	WD100
Operation mode:	11a CH100
Test Voltage:	
Comment:	

Common Information

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

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



Radiated Emission

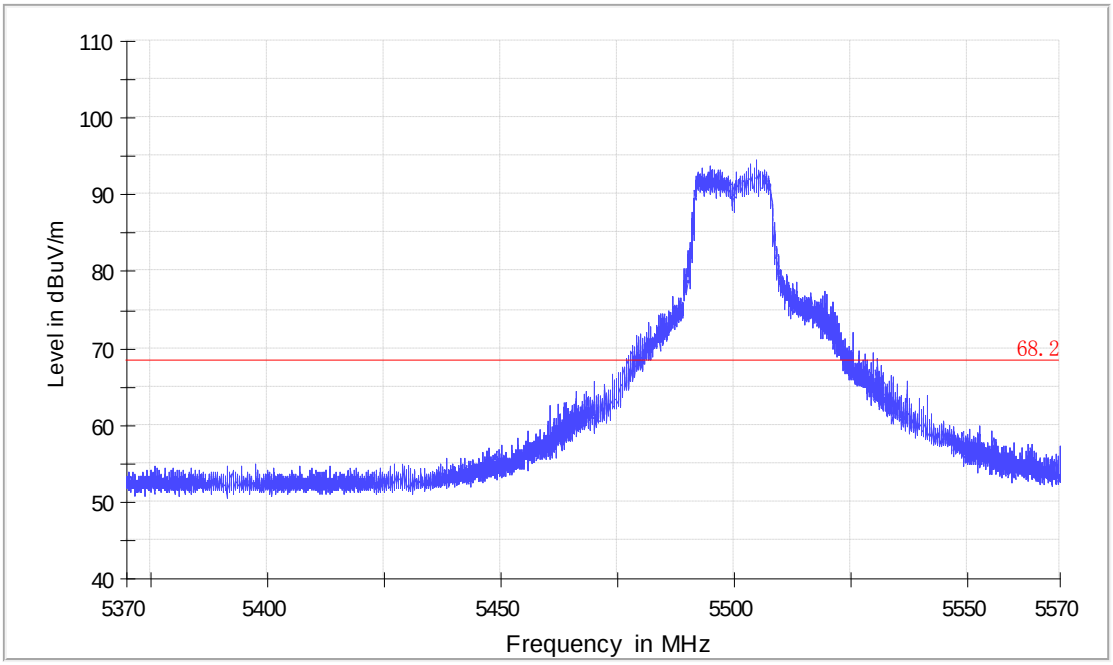
EUT Information

EUT Model Name:	WD100
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

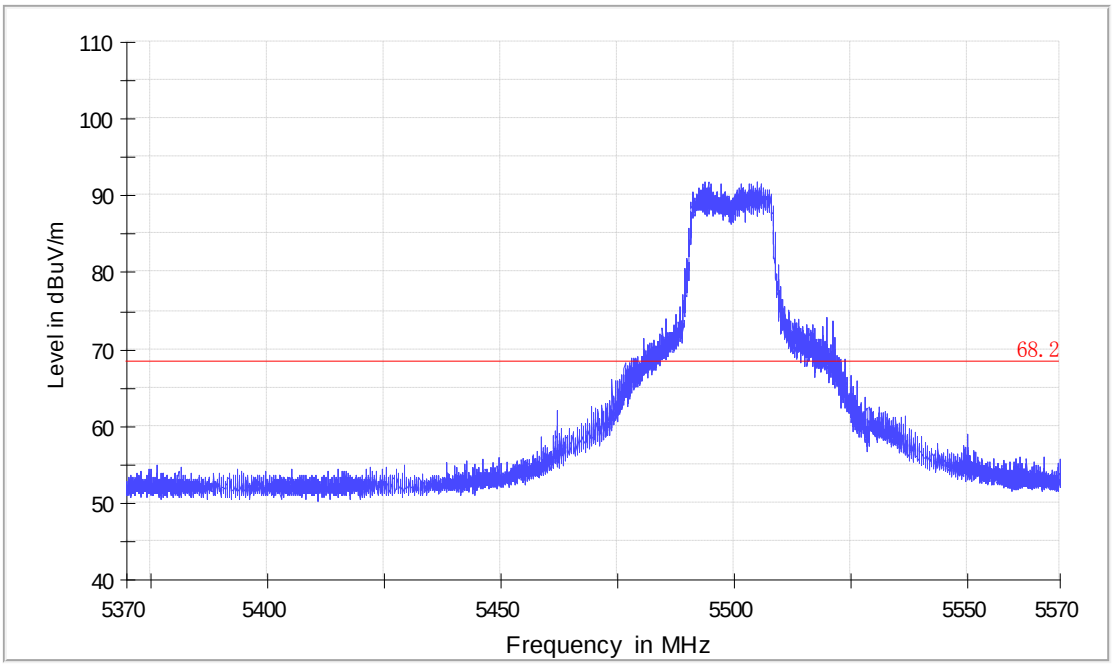
EUT Information

EUT Model Name:	WD100
Operation mode:	11n HT20 CH100
Test Voltage:	
Comment:	

Common Information

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

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



Radiated Emission

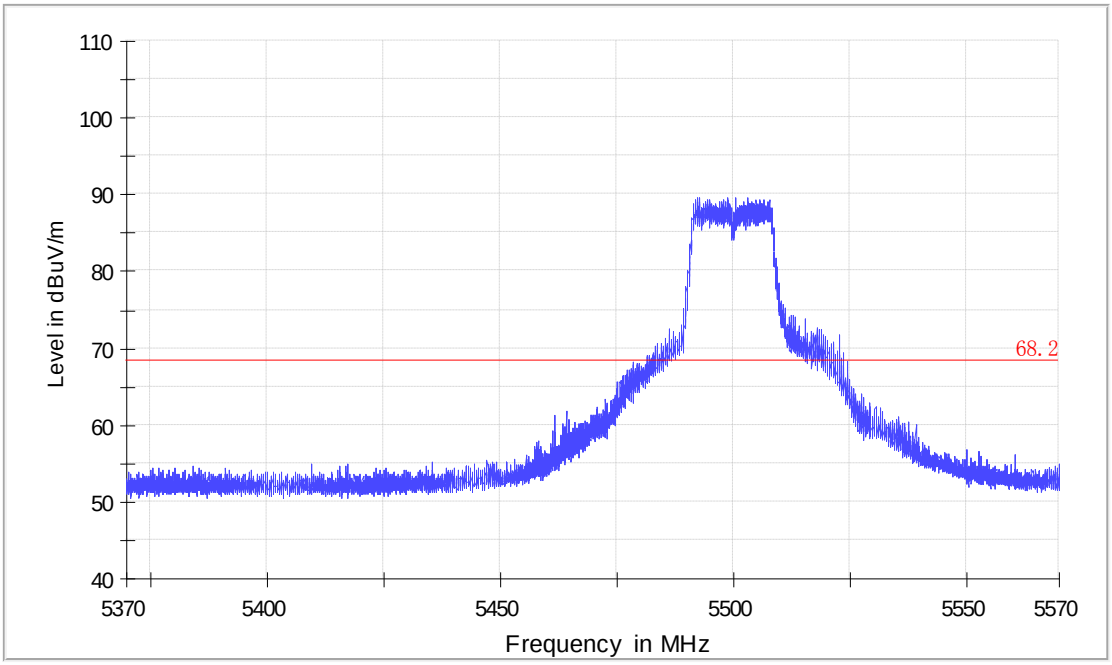
EUT Information

EUT Model Name:	WD100
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

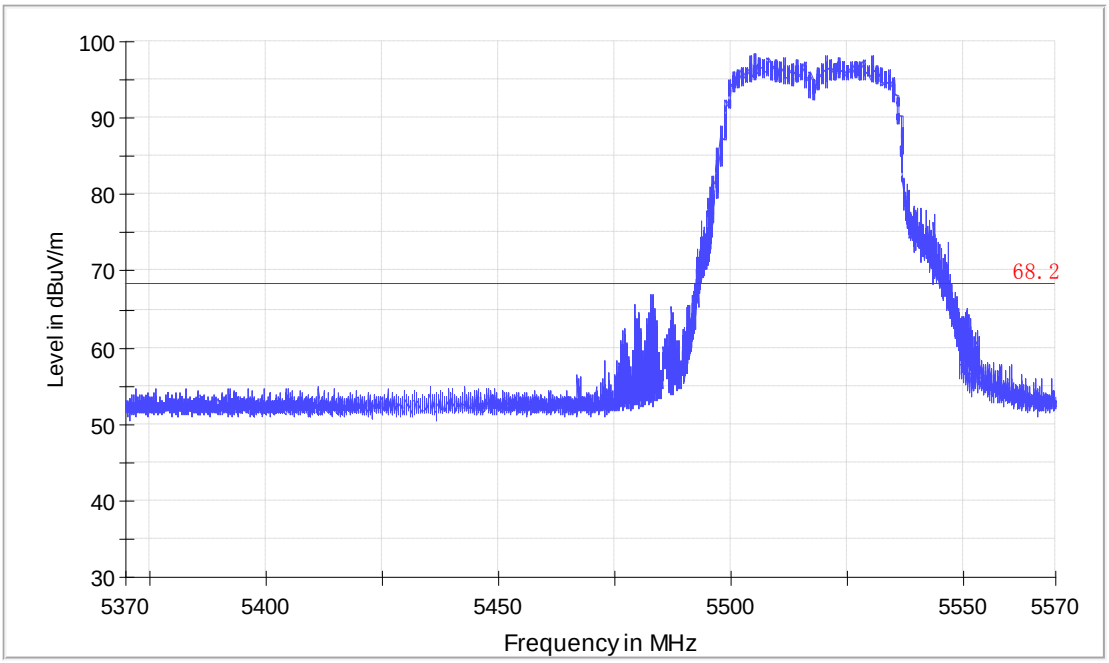
EUT Information

EUT Model Name:	WD100
Operation mode:	11n HT40 CH102
Test Voltage:	
Comment:	

Common Information

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

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



Radiated Emission

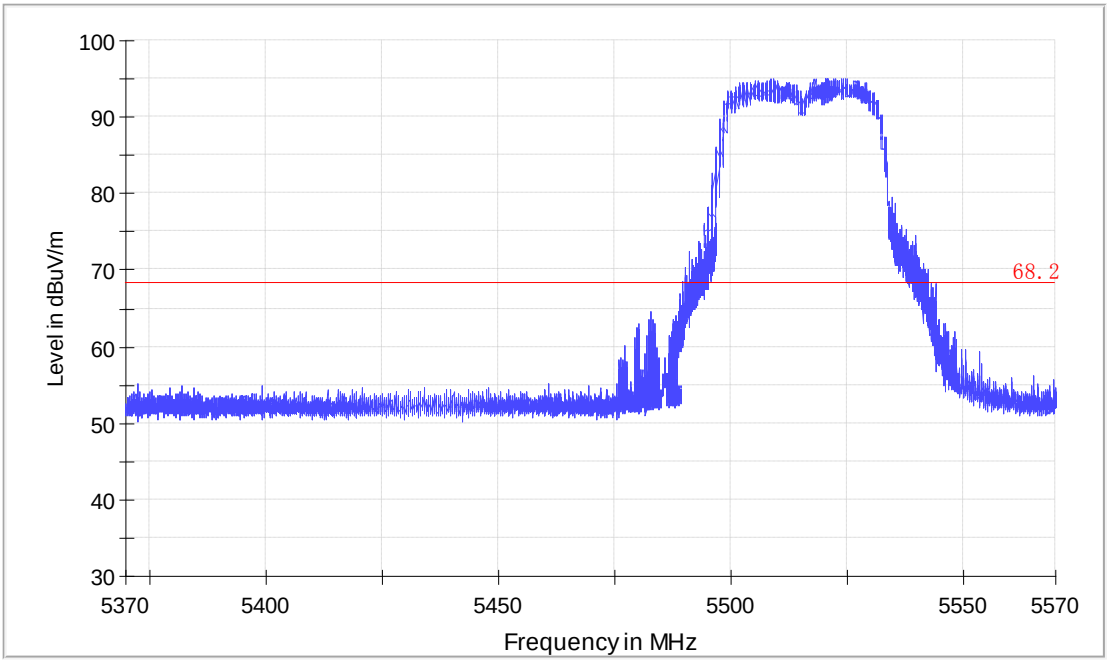
EUT Information

EUT Model Name:	WD100
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

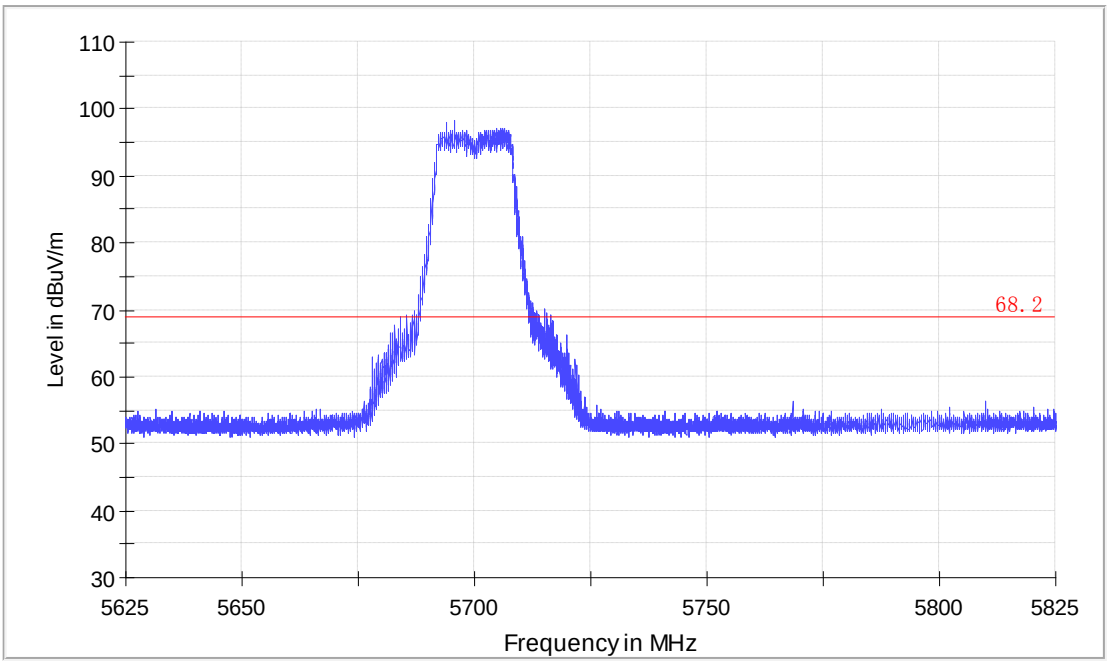
EUT Information

EUT Model Name:	WD100
Operation mode:	11a CH140
Test Voltage:	
Comment:	

Common Information

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

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



Radiated Emission

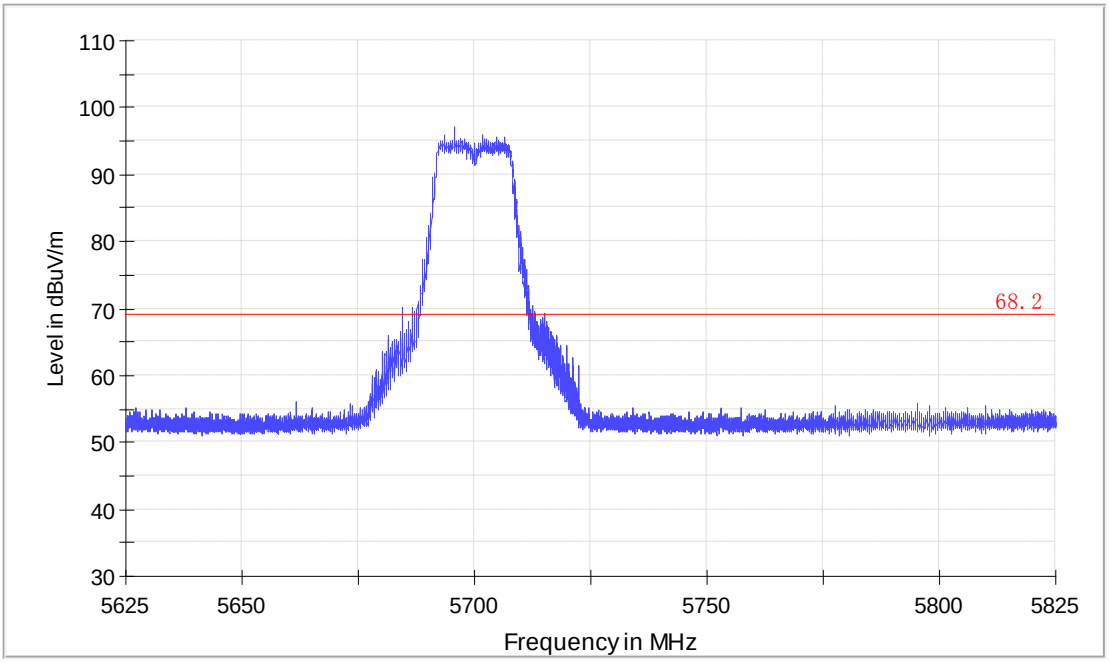
EUT Information

EUT Model Name:	WD100
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

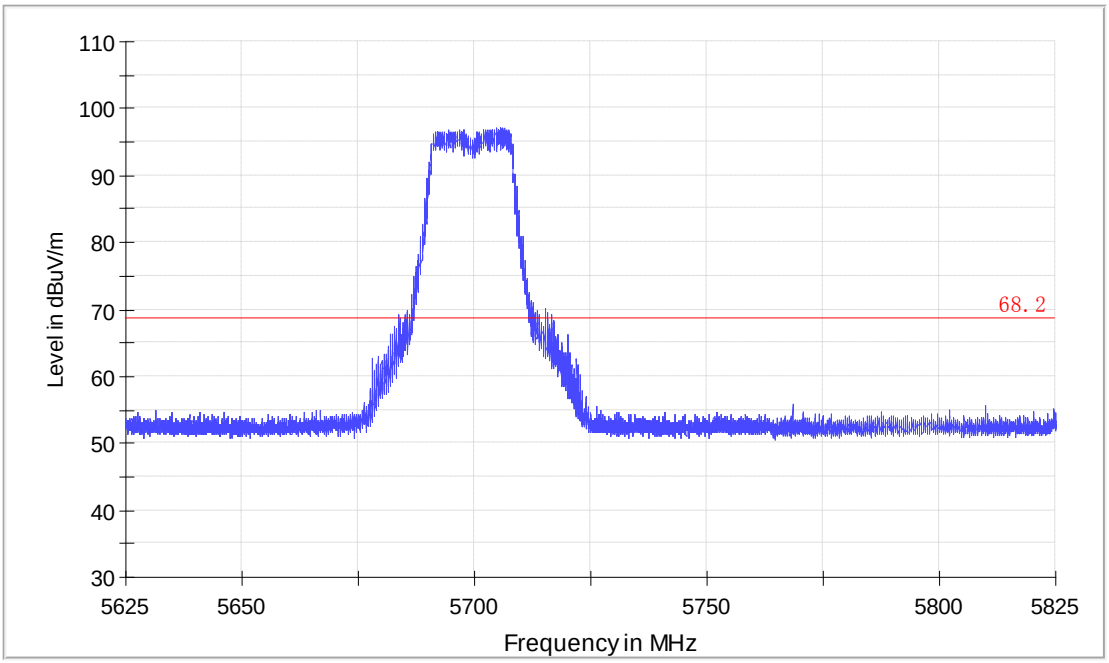
EUT Information

EUT Model Name:	WD100
Operation mode:	11n HT20 CH140
Test Voltage:	
Comment:	

Common Information

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

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



Radiated Emission

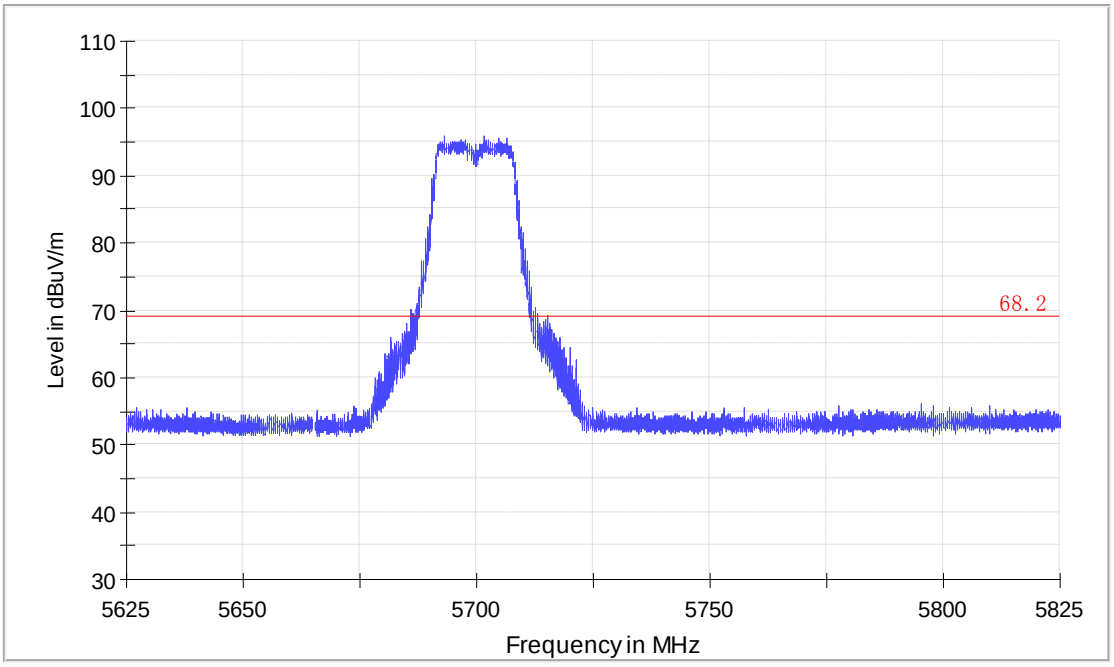
EUT Information

EUT Model Name:	WD100
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

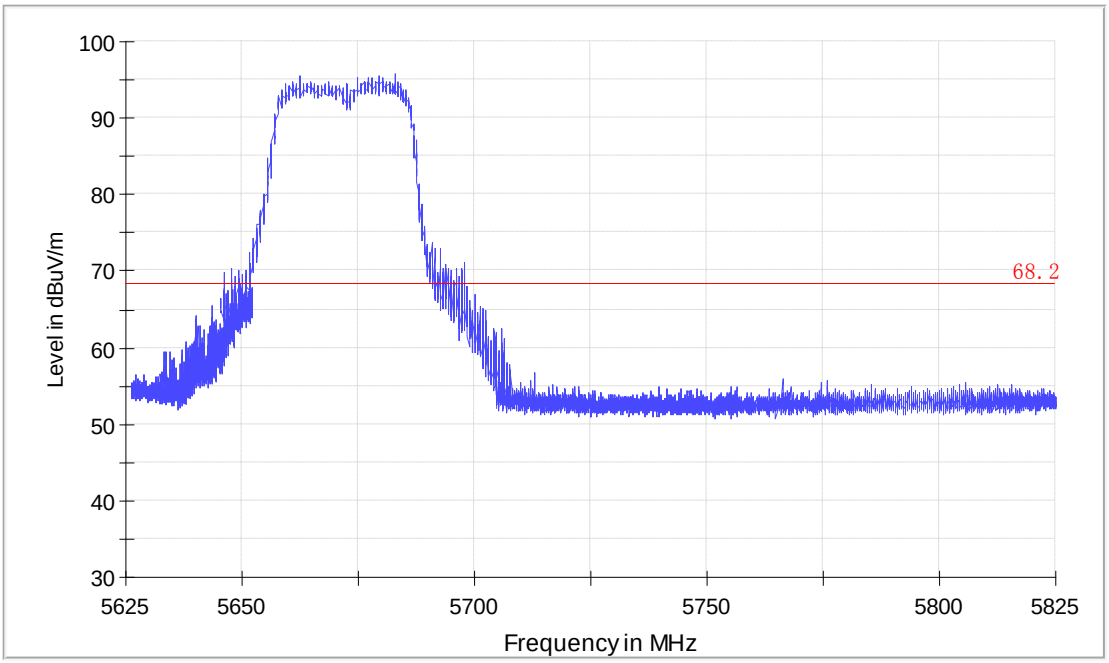
EUT Information

EUT Model Name:	WD100
Operation mode:	11n HT40 CH134
Test Voltage:	
Comment:	

Common Information

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

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



Radiated Emission

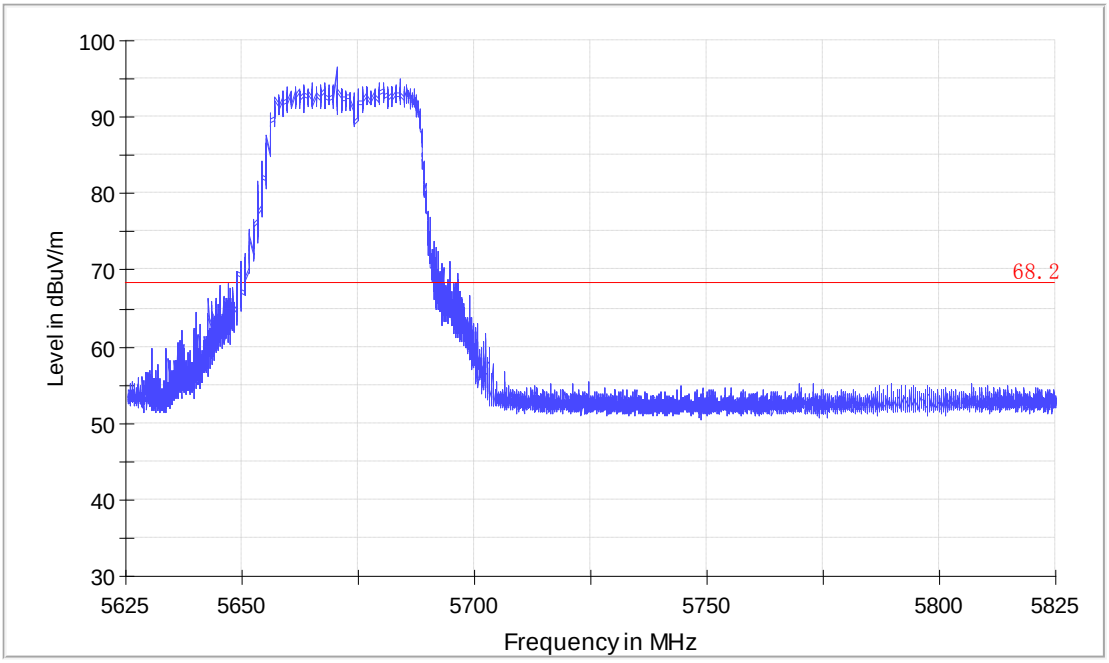
EUT Information

EUT Model Name:	WD100
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

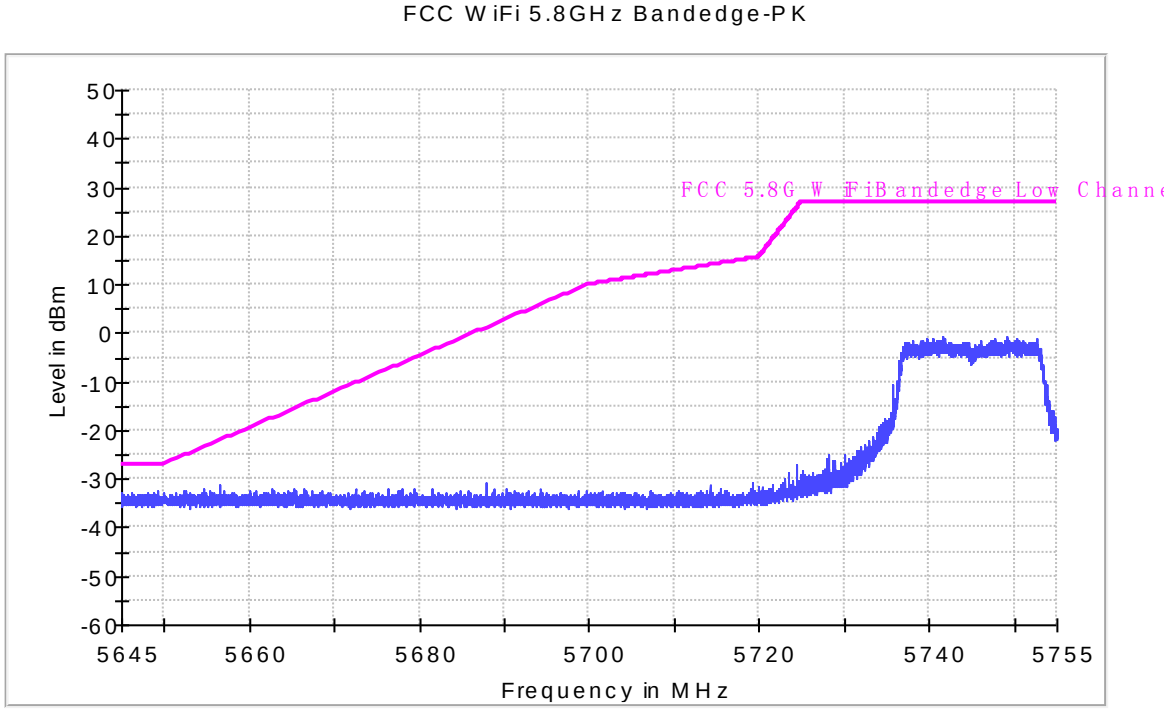
Radiated Emission

EUT Information

EUT Model Name:	WD100
Operation mode:	11a CH149
Test Voltage:	
Comment:	

Common Information

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



Radiated Emission

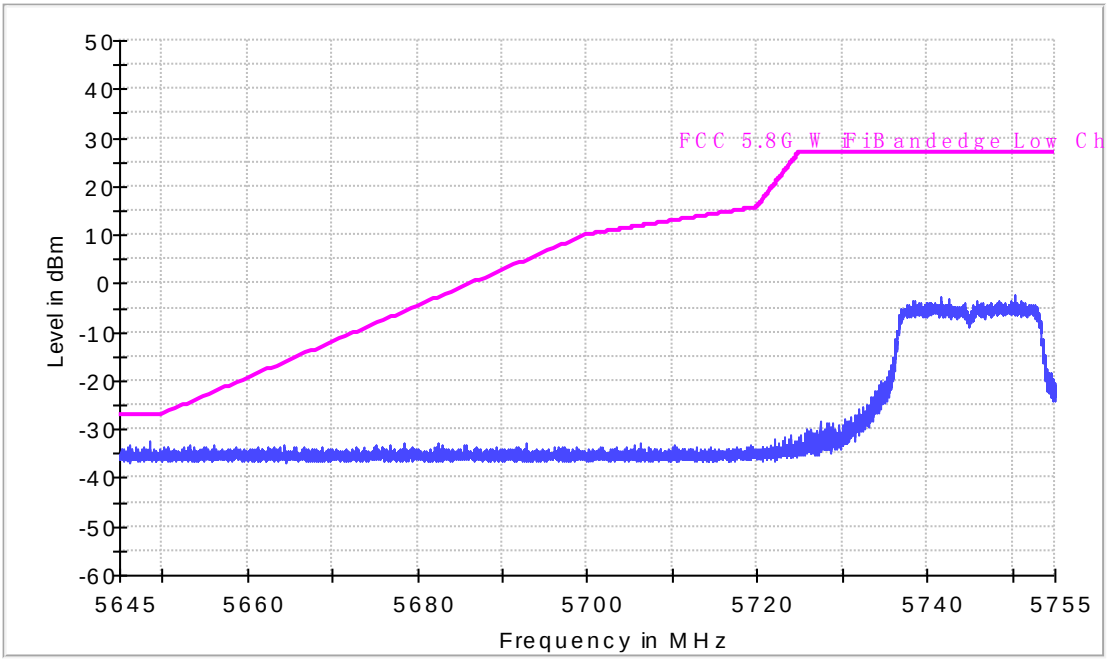
EUT Information

EUT Model Name:	WD100
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

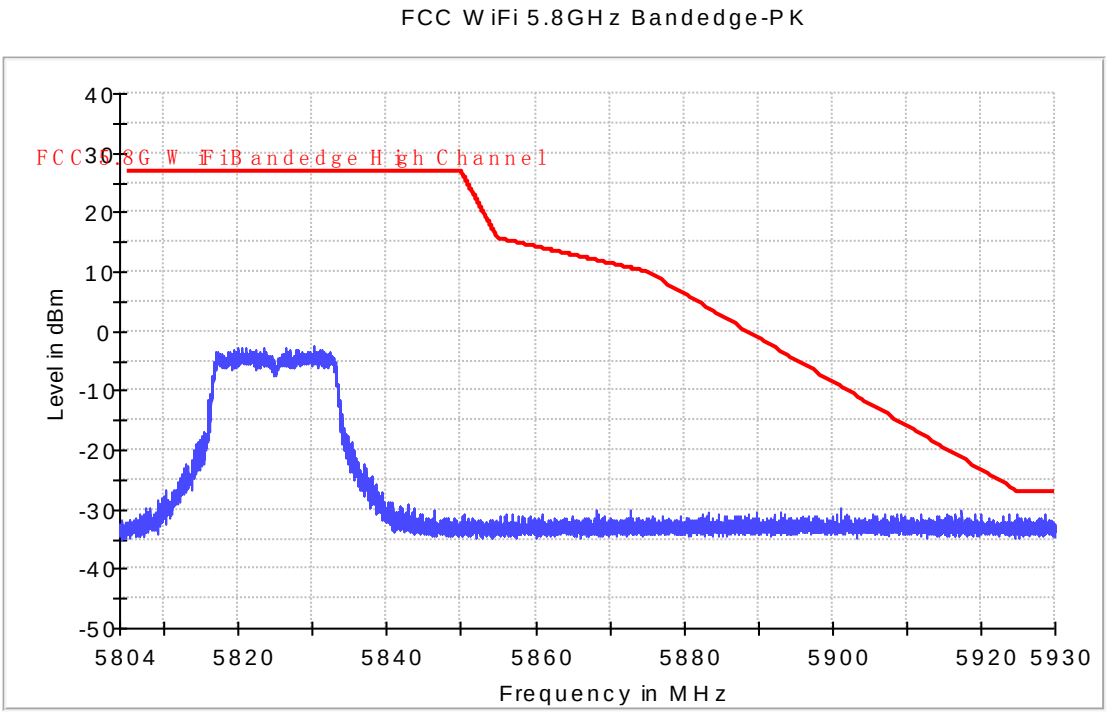
Radiated Emission

EUT Information

EUT Model Name:	WD100
Operation mode:	11a CH165
Test Voltage:	
Comment:	

Common Information

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



Radiated Emission

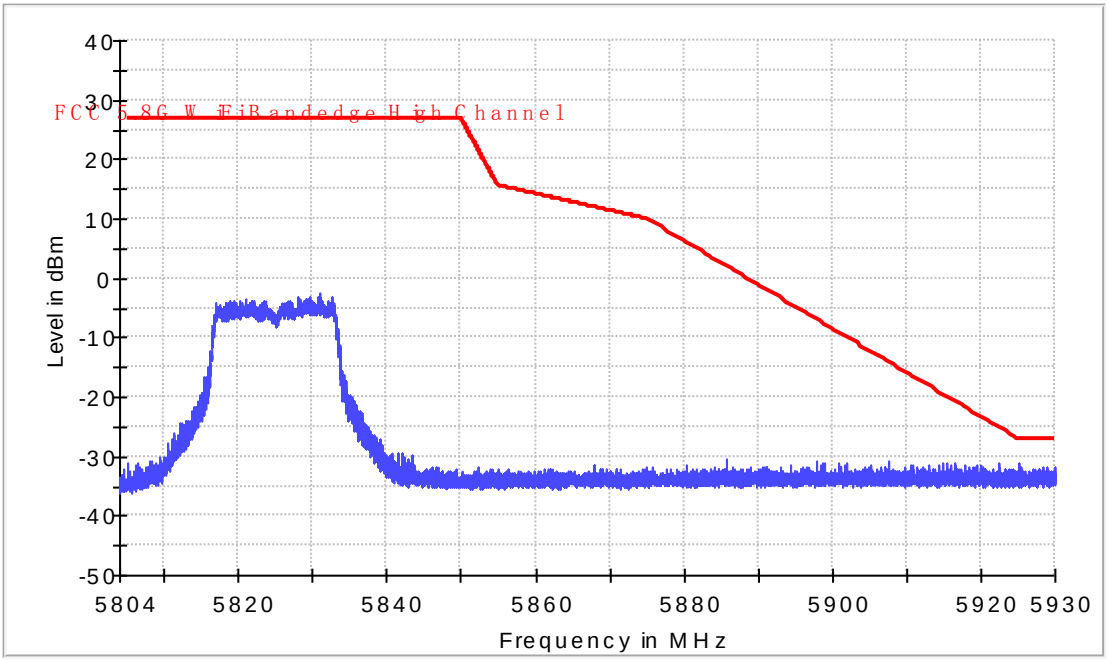
EUT Information

EUT Model Name:	WD100
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

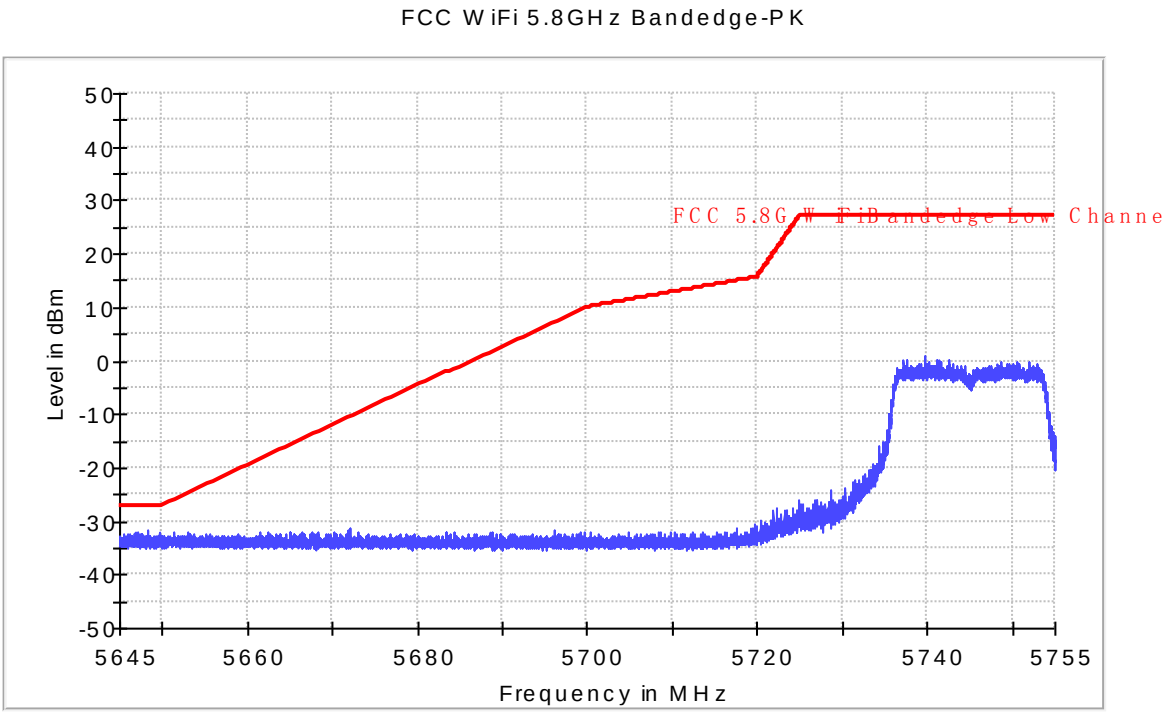
Radiated Emission

EUT Information

EUT Model Name:	WD100
Operation mode:	11n HT20 CH149
Test Voltage:	
Comment:	

Common Information

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



Radiated Emission

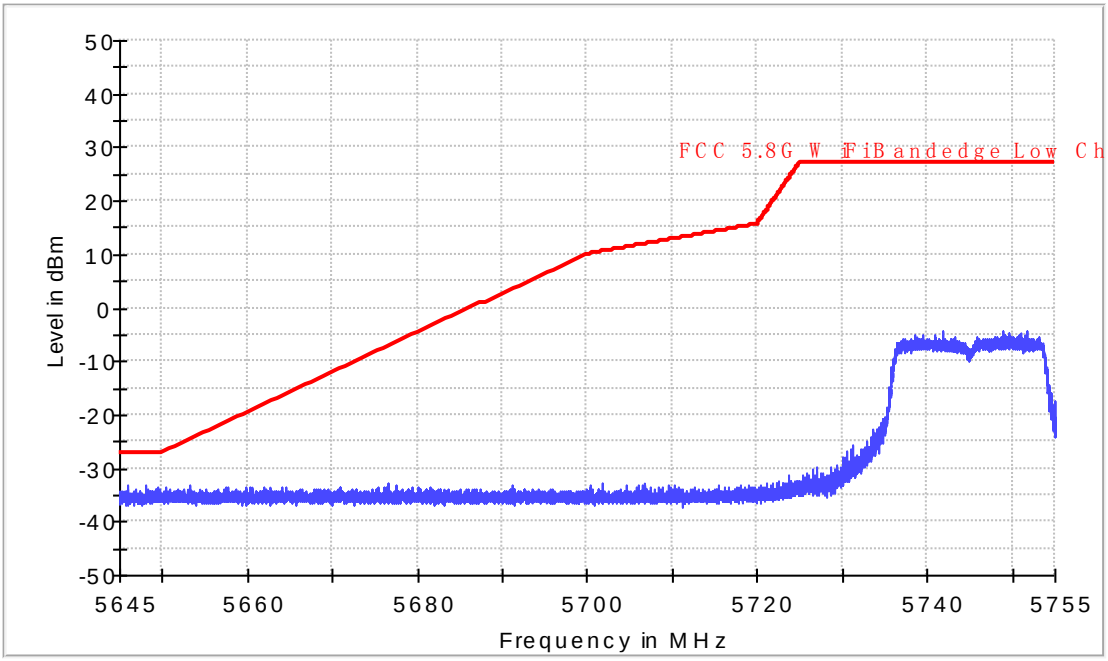
EUT Information

EUT Model Name:	WD100
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

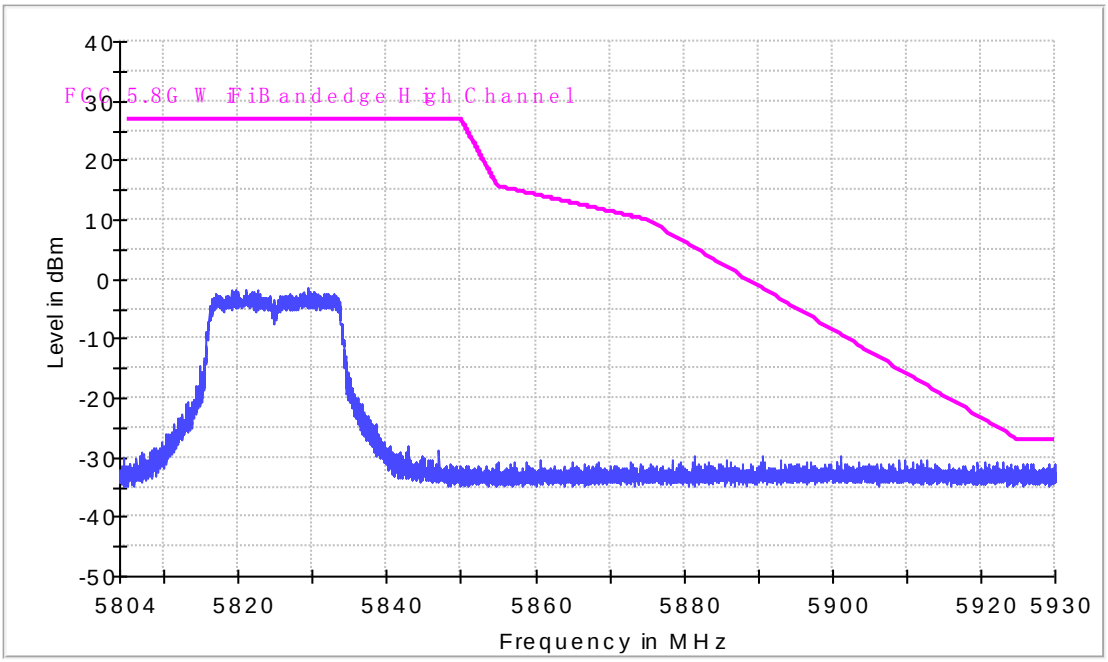
EUT Information

EUT Model Name:	WD100
Operation mode:	11n20 CH165
Test Voltage:	
Comment:	

Common Information

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

FCC WiFi 5.8GHz Bandedge-PK



Radiated Emission

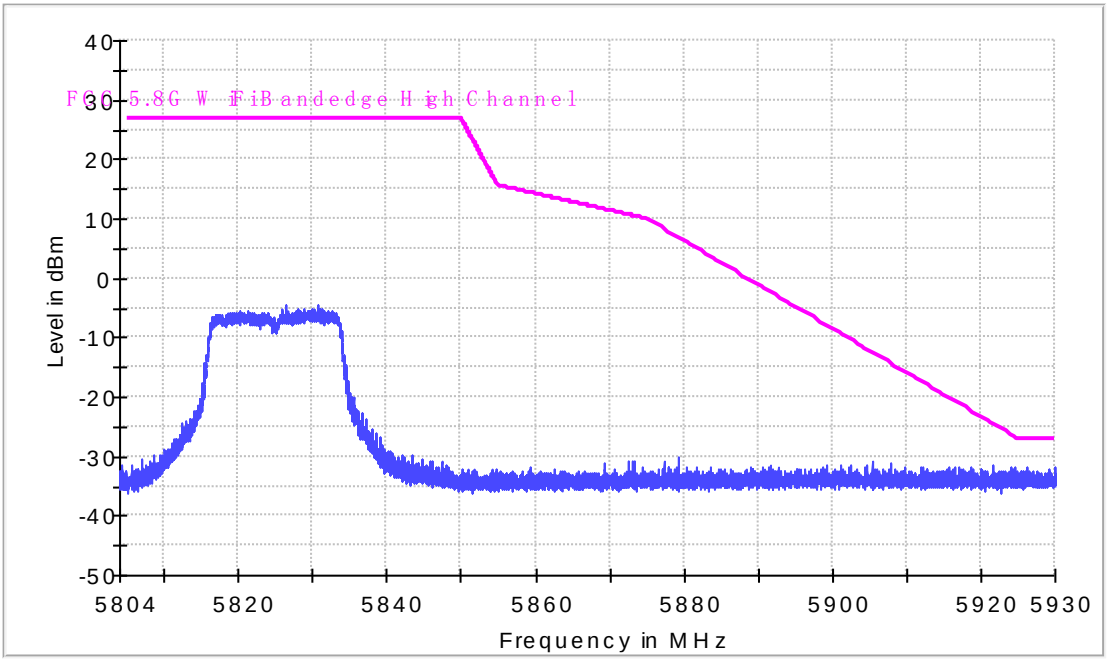
EUT Information

EUT Model Name:	WD100
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

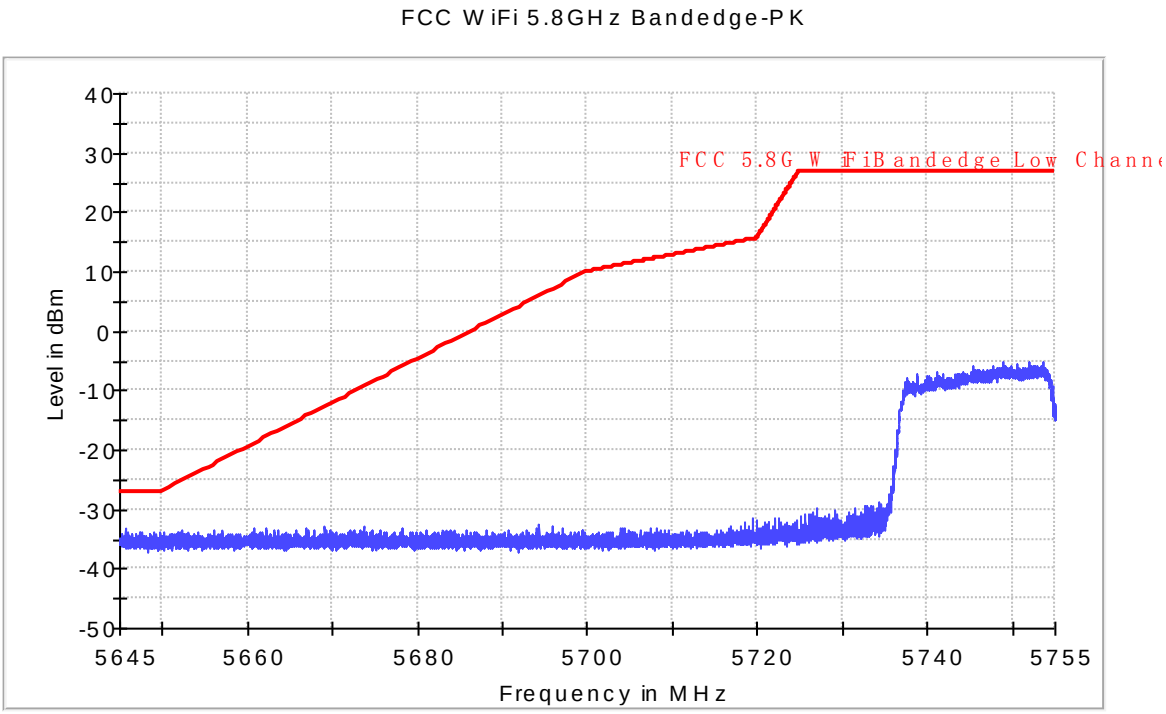
Radiated Emission

EUT Information

EUT Model Name:	WD100
Operation mode:	11n HT40 CH151
Test Voltage:	
Comment:	

Common Information

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



Radiated Emission

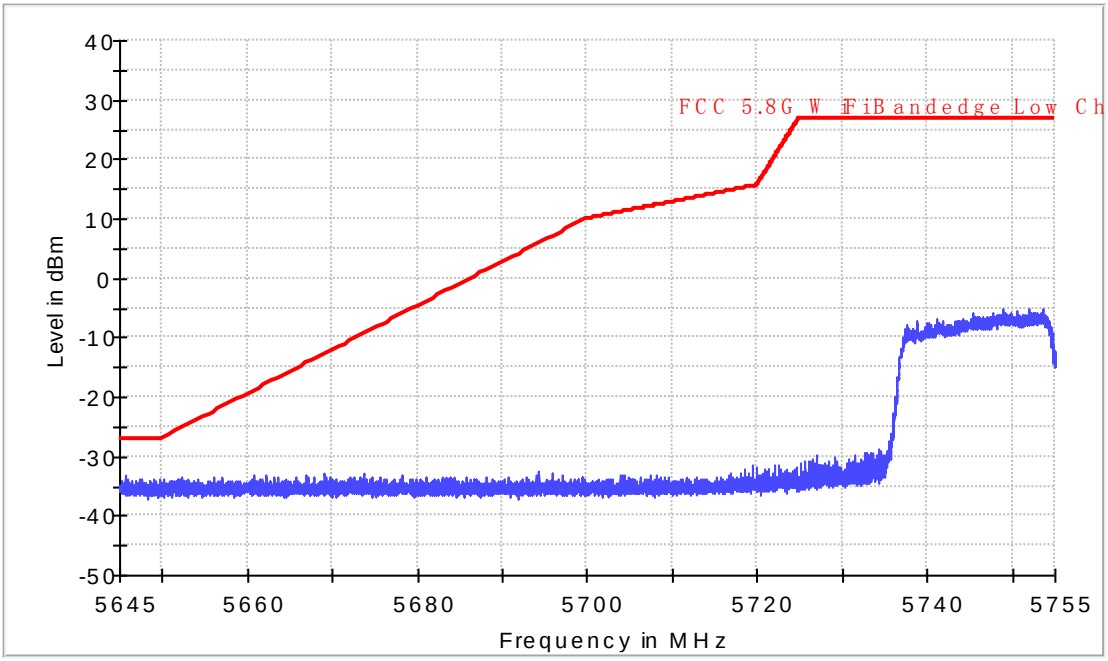
EUT Information

EUT Model Name:	WD100
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

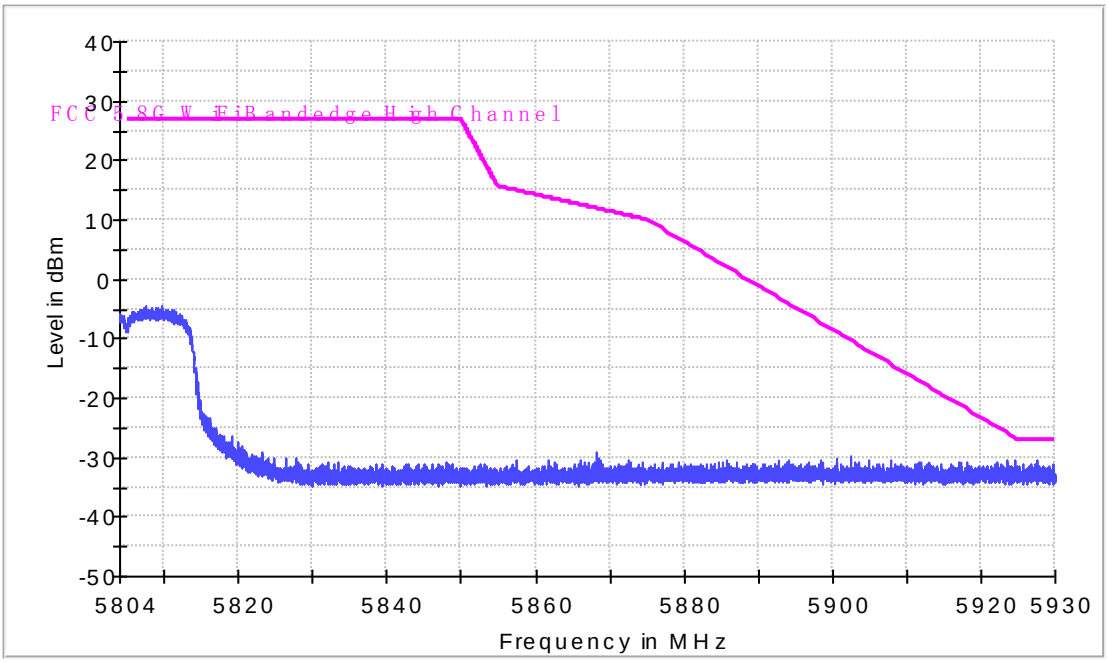
EUT Information

EUT Model Name:	WD100
Operation mode:	11n40 CH159
Test Voltage:	
Comment:	

Common Information

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

FCC WiFi 5.8GHz Bandedge-PK



Radiated Emission

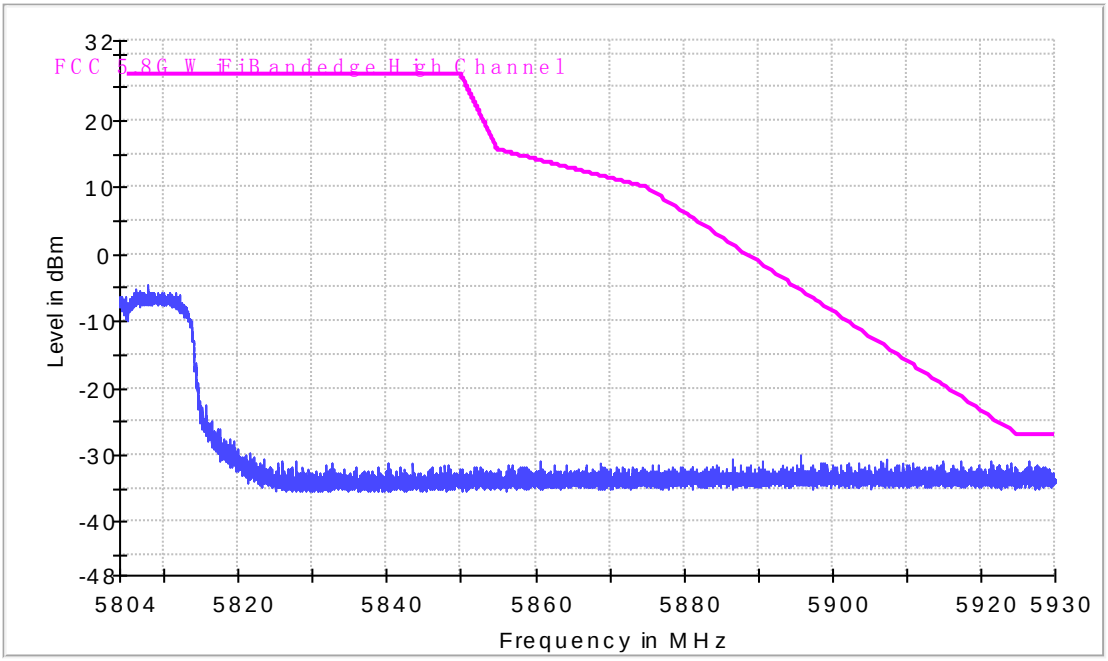
EUT Information

EUT Model Name:	WD100
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



11. CONDUCTED EMISSION TEST FOR AC POWER PORT MEASUREMENT

11.1. Test Standard and Limit

Test Standard
FCC Part 15 15.207
Test Limit

Table 19 Conducted Disturbance Test Limit

Frequency	Maximum RF Line Voltage (dBμV)	
	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.

11.2. 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.

11.3. 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.

11.4. 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.: WD100

Test mode: Charging and Transmitting

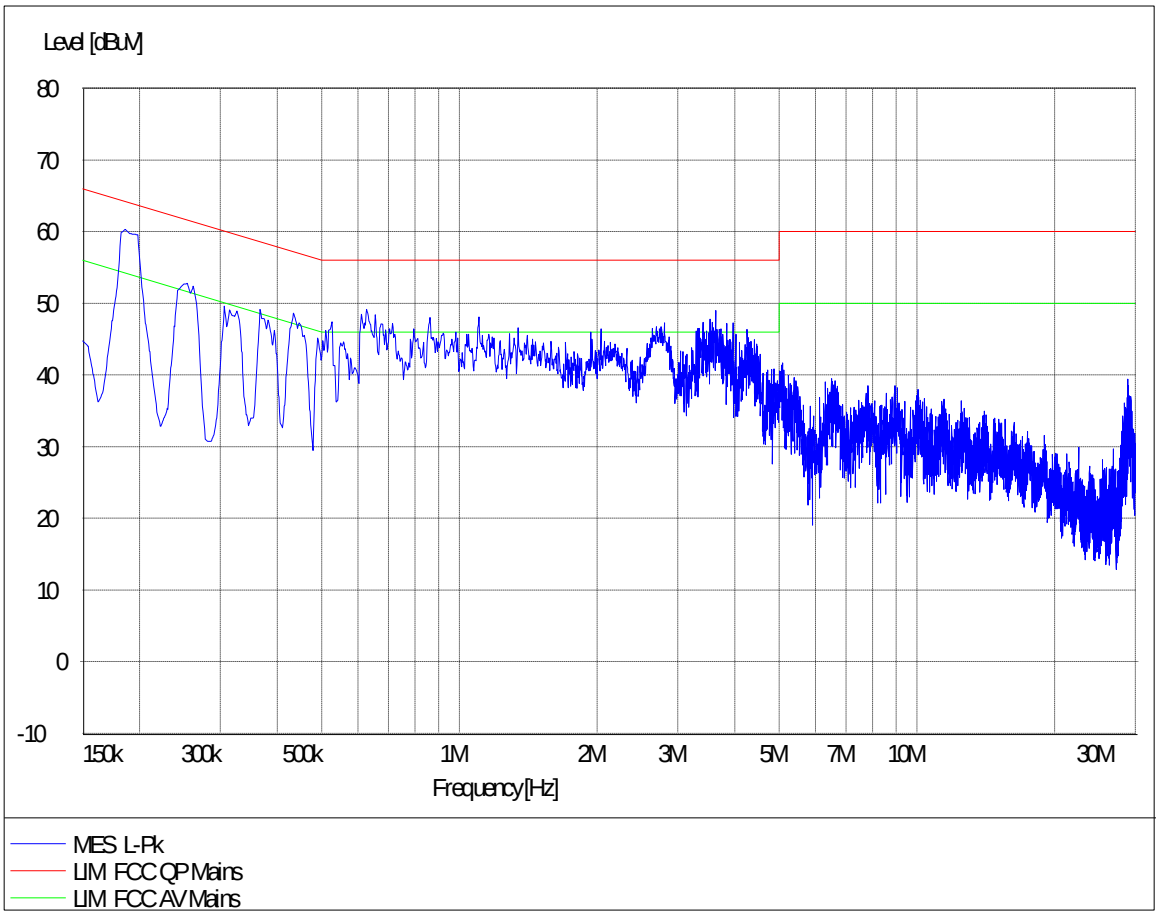
	Frequency (MHz)	Correction Factor (dB)	Quasi-Peak			Average		
			Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)
Line	0.150	9.7	34.5	44.2	66	21.5	31.2	56
	0.186	9.7	36.2	45.9	64.2	21.9	31.6	54.2
	0.206	9.7	35.0	44.7	63.4	23.8	33.5	53.4
	0.238	9.7	27.2	36.9	62.2	12.0	21.7	52.2
	0.398	9.7	21.5	31.2	57.9	9.9	19.6	47.9
	1.666	9.8	27.4	37.2	56	7.9	17.7	46
Neutral	0.150	9.7	35.4	45.1	66	21.2	30.9	56
	0.190	9.7	37.3	47.0	64.0	25.6	35.3	54.0
	0.210	9.7	35.4	45.1	63.2	22.4	32.1	53.2
	0.250	9.7	27.4	37.1	61.8	15.5	25.2	51.8
	0.318	9.7	25.6	35.3	59.8	14.1	23.8	49.8
	1.622	9.8	26.4	36.2	56	16.9	26.7	46

REMARKS: 1. Emission level(dBuV)=Read Value(dBuV) + Correction Factor(dB)

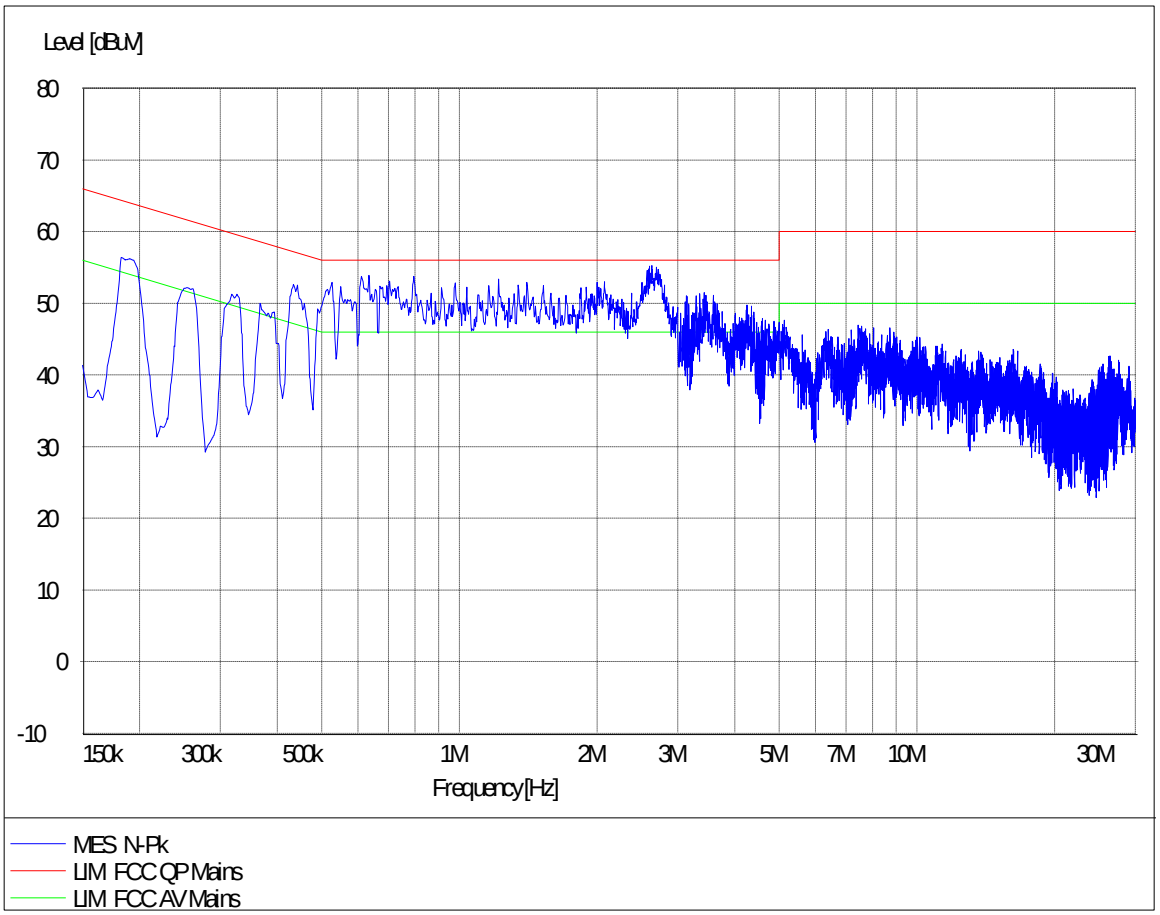
2. Correction Factor(dB) =LISN Factor (dB) + Cable Factor (dB)+Limiter Factor(dB)

3. The other emission levels were very low against the limit.

EUT: WD100
Manufacturer:
Operating Condition: Charging and Transmitting
Test Site:
Operator:
Test Specification: L
Comment: AC 120V/60Hz



EUT: WD100
Manufacturer:
Operating Condition: Charging and Transmitting
Test Site:
Operator:
Test Specification: N
Comment: AC 120V/60Hz



12. ANTENNA REQUIREMENTS

12.1. 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.

12.2. Antenna Connector

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

12.3. Antenna Gain

The antenna gain of EUT is less than 6 dBi.

END OF REPORT