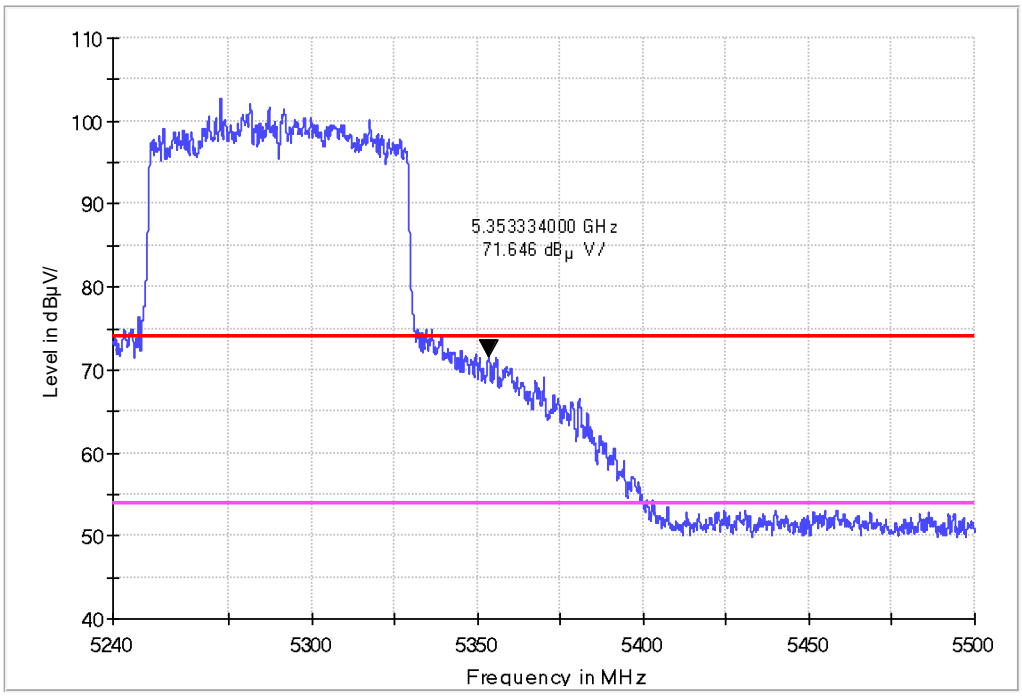
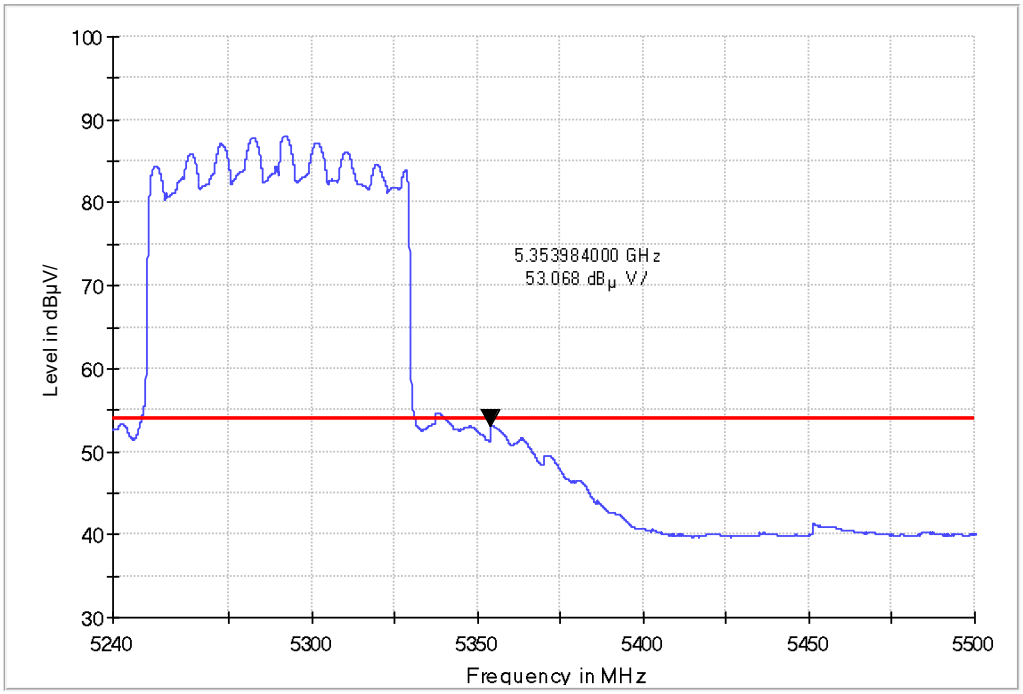
Vertical

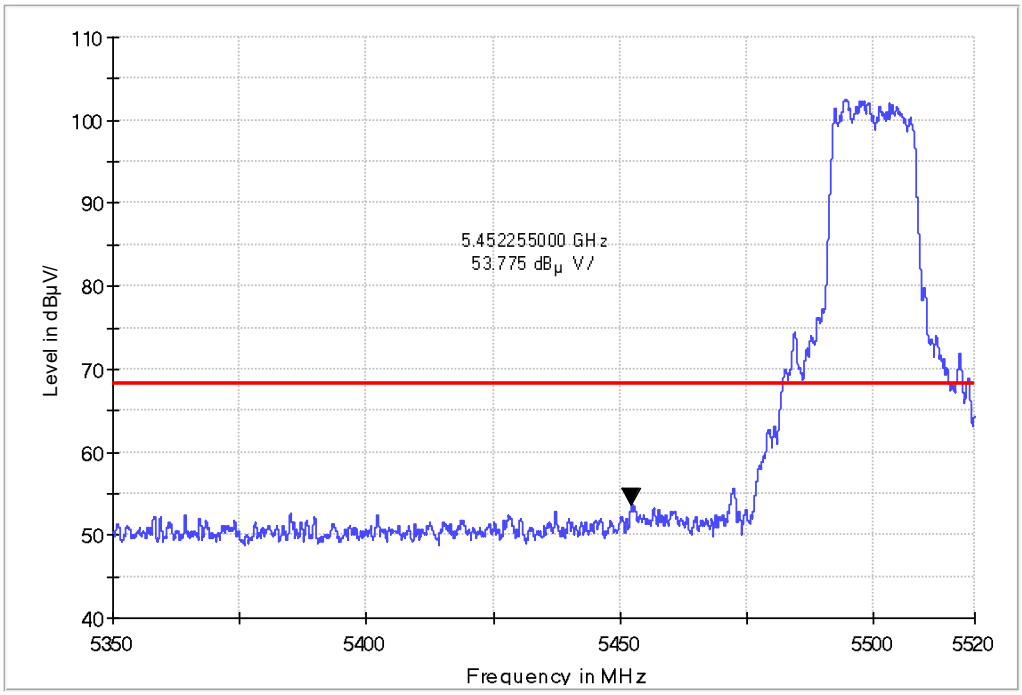

110
100
90
80
70
60
50
40
Level in dBµV/
5.353334000 GHz
71.646 dBµ V/
5240
5300
5350
5400
5450
5500
Frequency in MHz


100
90
80
70
60
50
40
30
Level in dBµV/
5.353984000 GHz
53.068 dBµ V/
5240
5300
5350
5400
5450
5500
Frequency in MHz

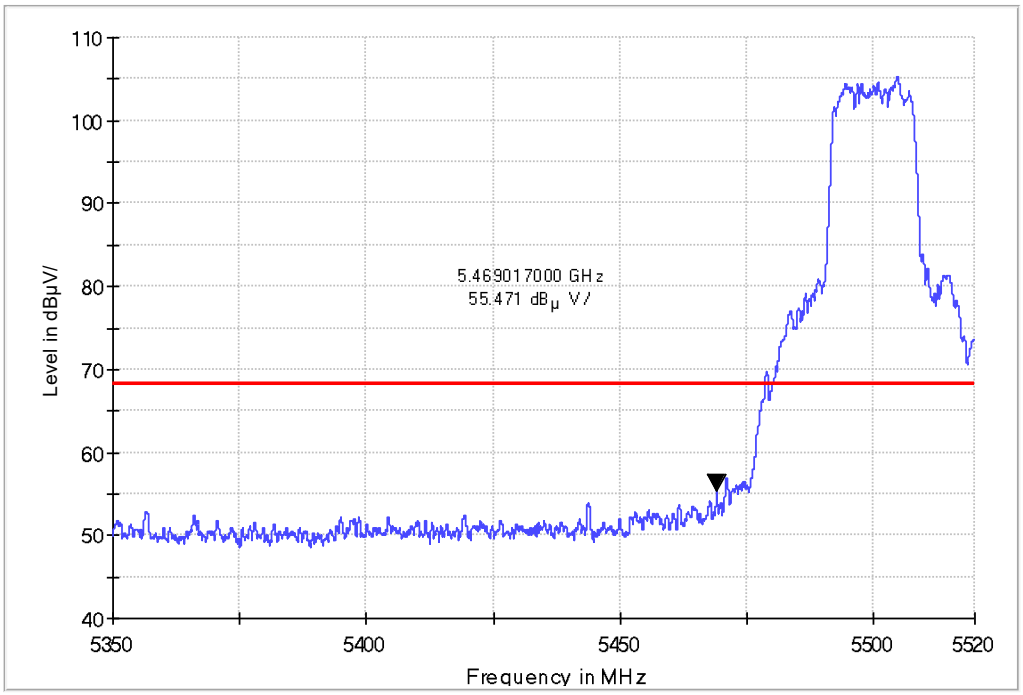
Band edge

11a IN THE 5.6GHz BAND
CH100

Horizontal



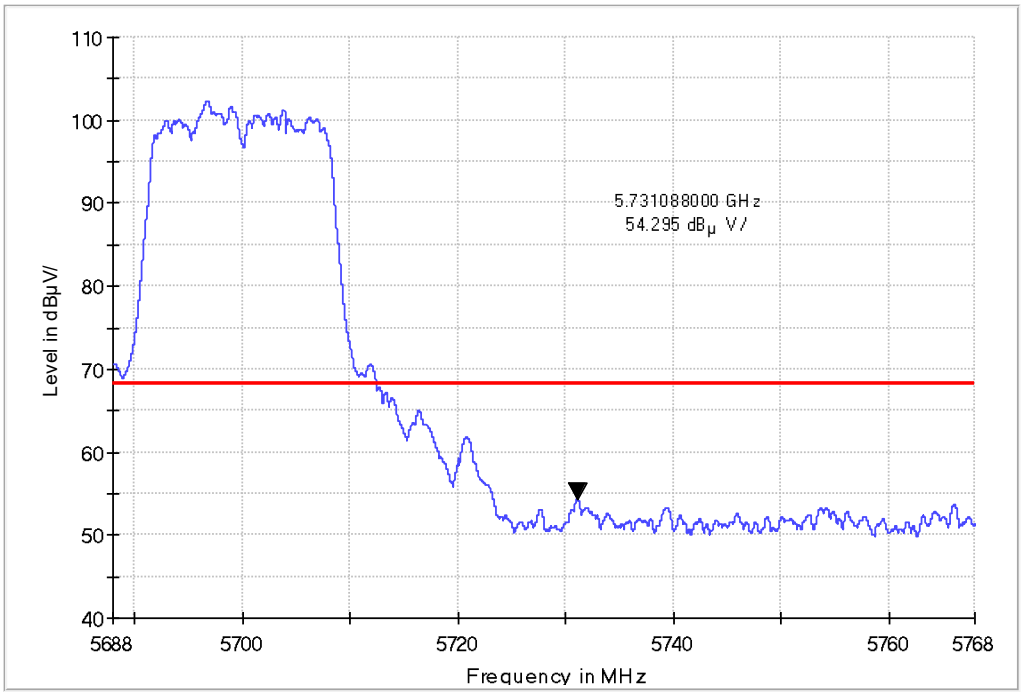
Vertical



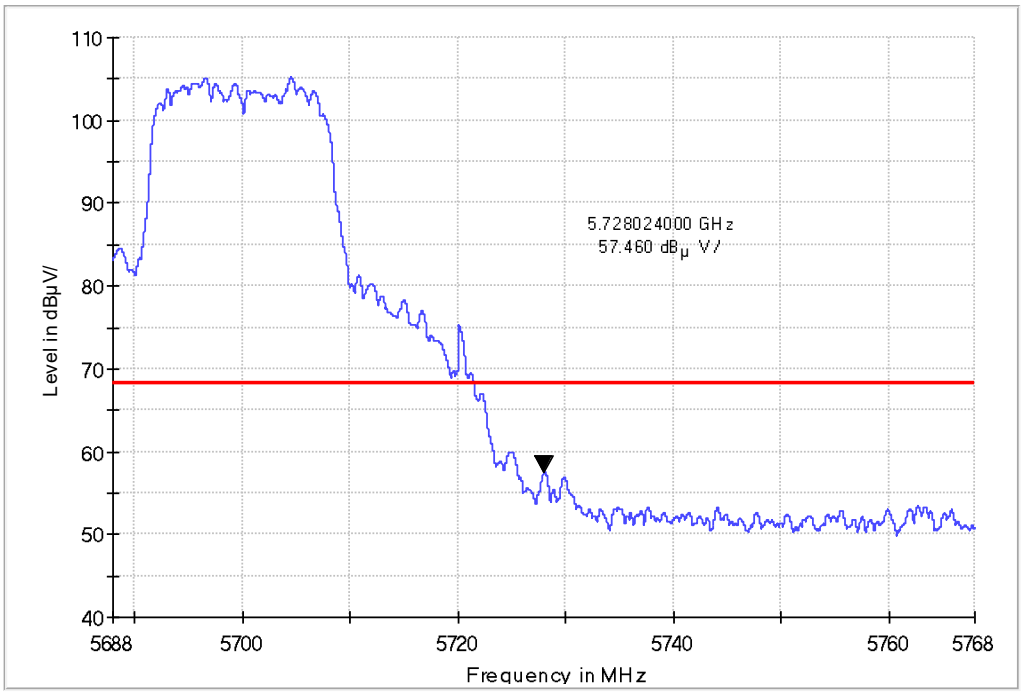
Band edge

11a IN THE 5.6GHz BAND
CH140

Horizontal



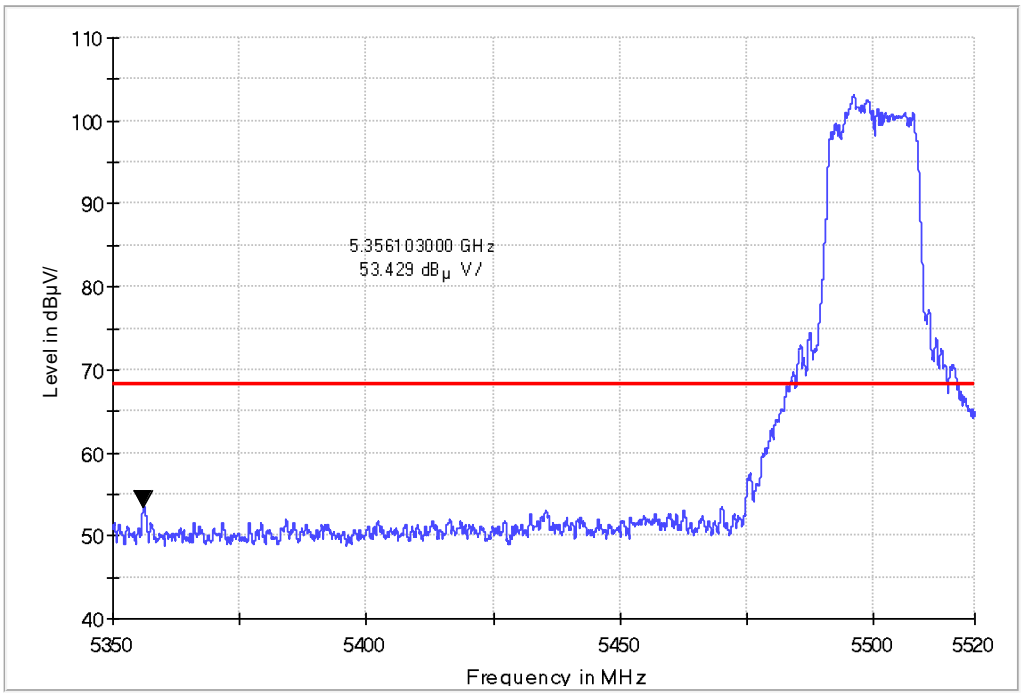
Vertical



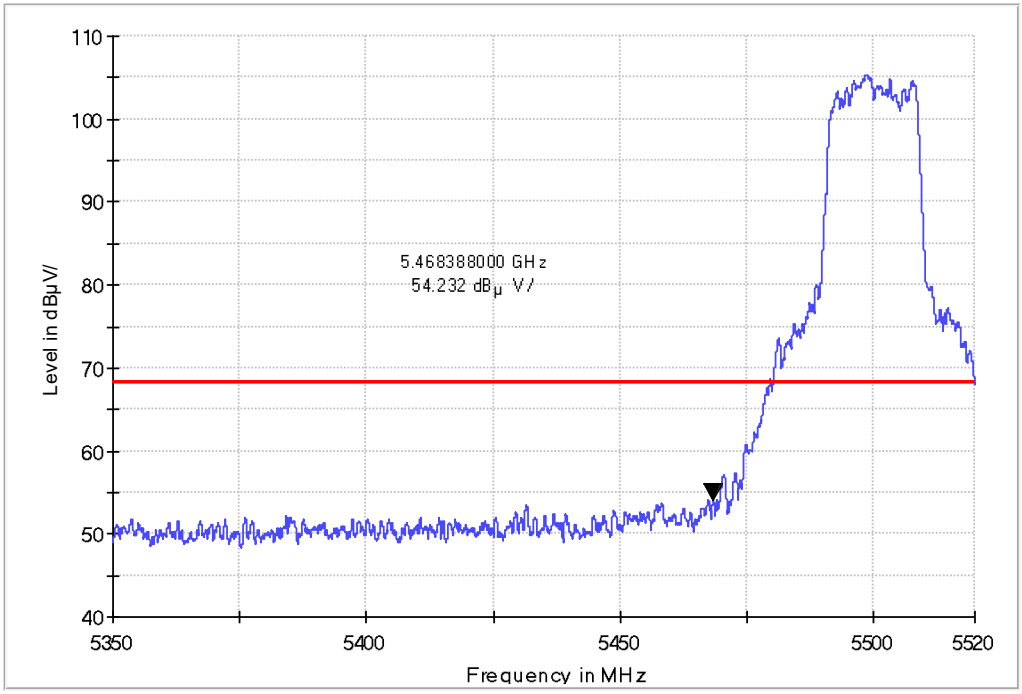
Band edge

11n HT20 IN THE 5.6GHz BAND
CH100

Horizontal



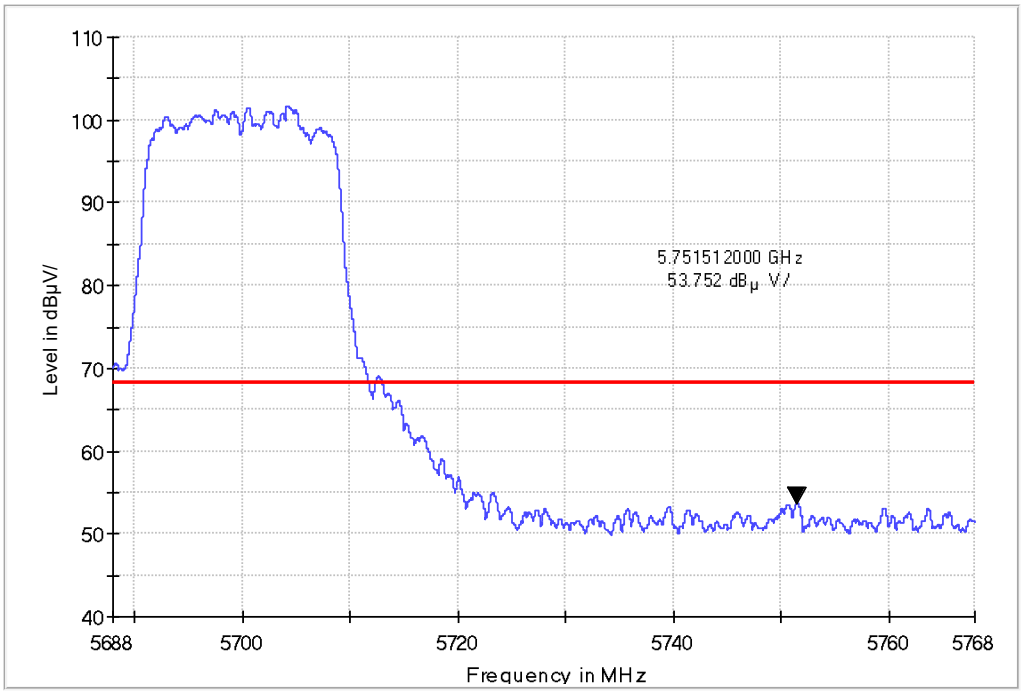
Vertical



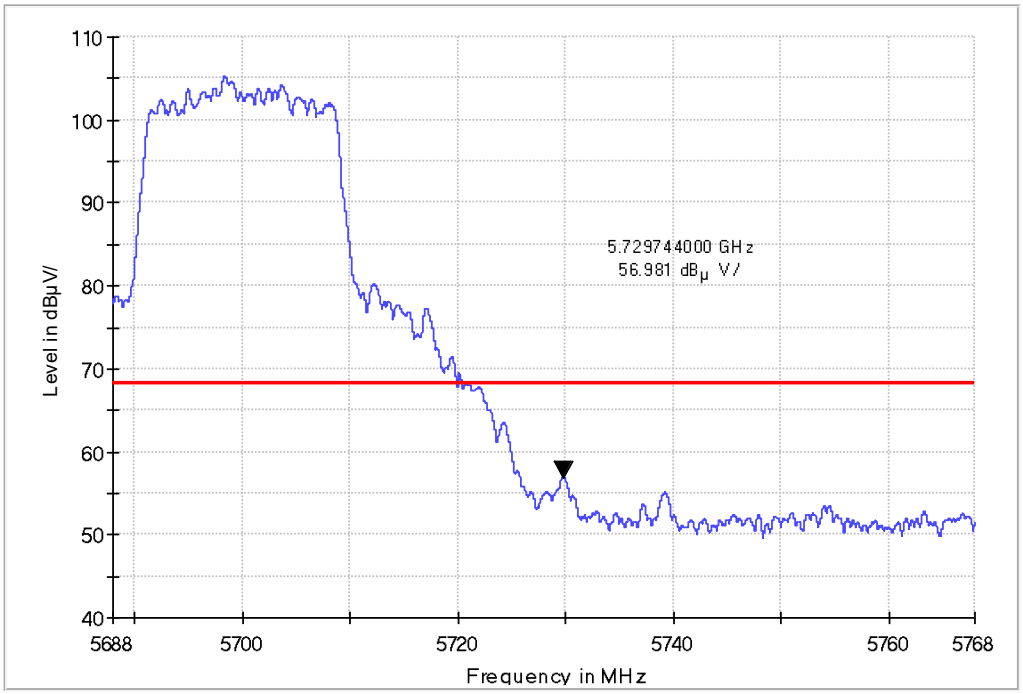
Band edge

11n HT20 IN THE 5.6GHz BAND
CH140

Horizontal



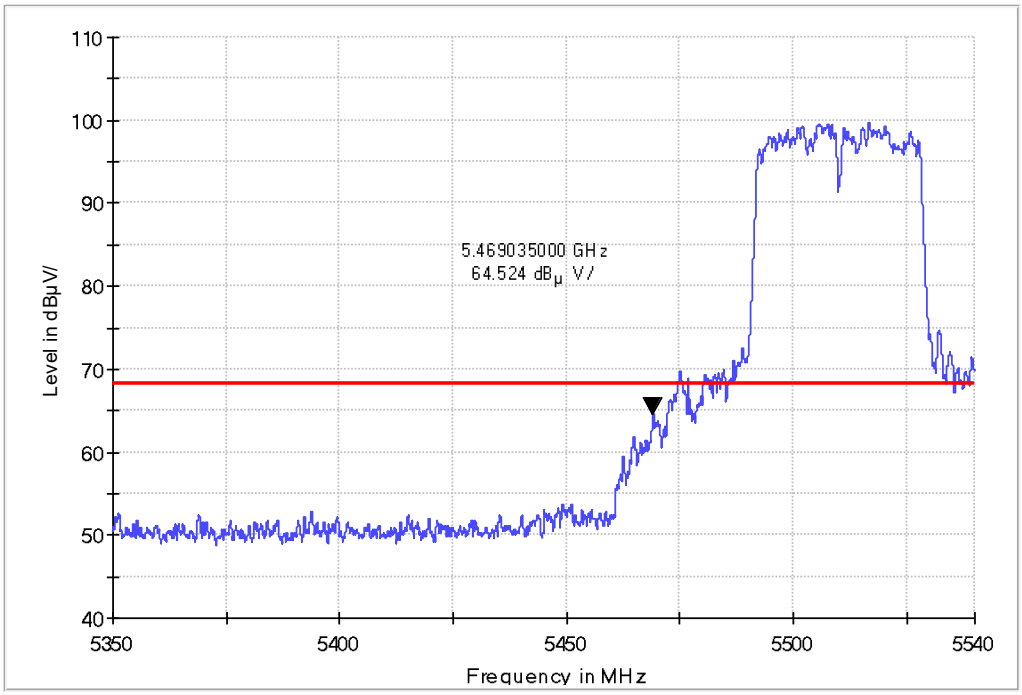
Vertical



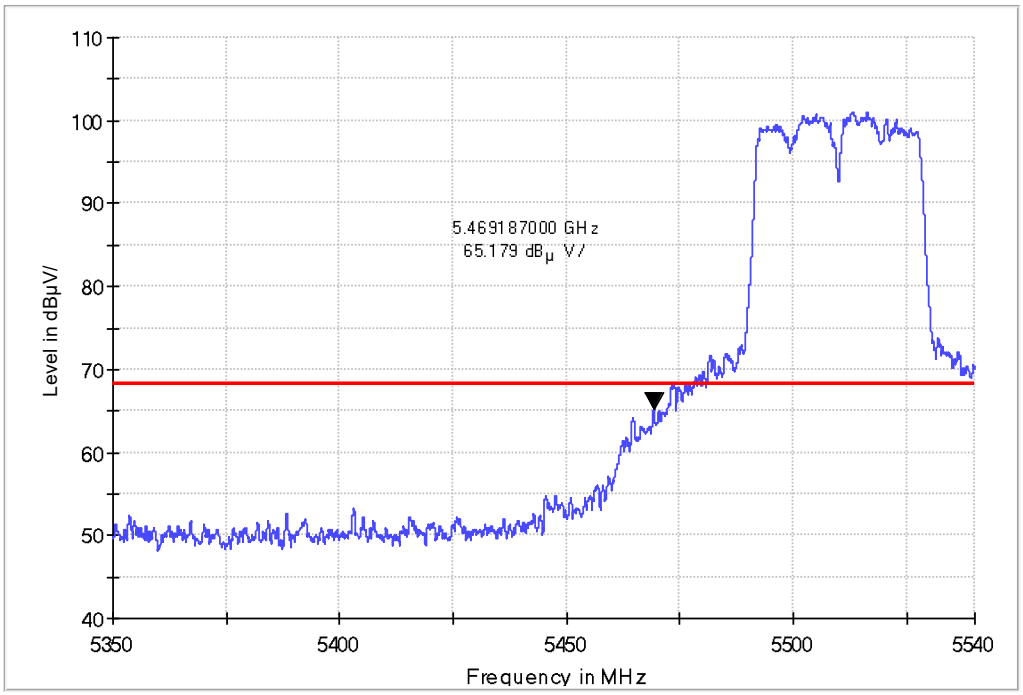
Band edge

11n HT40 IN THE 5.6GHz BAND
CH102

Horizontal



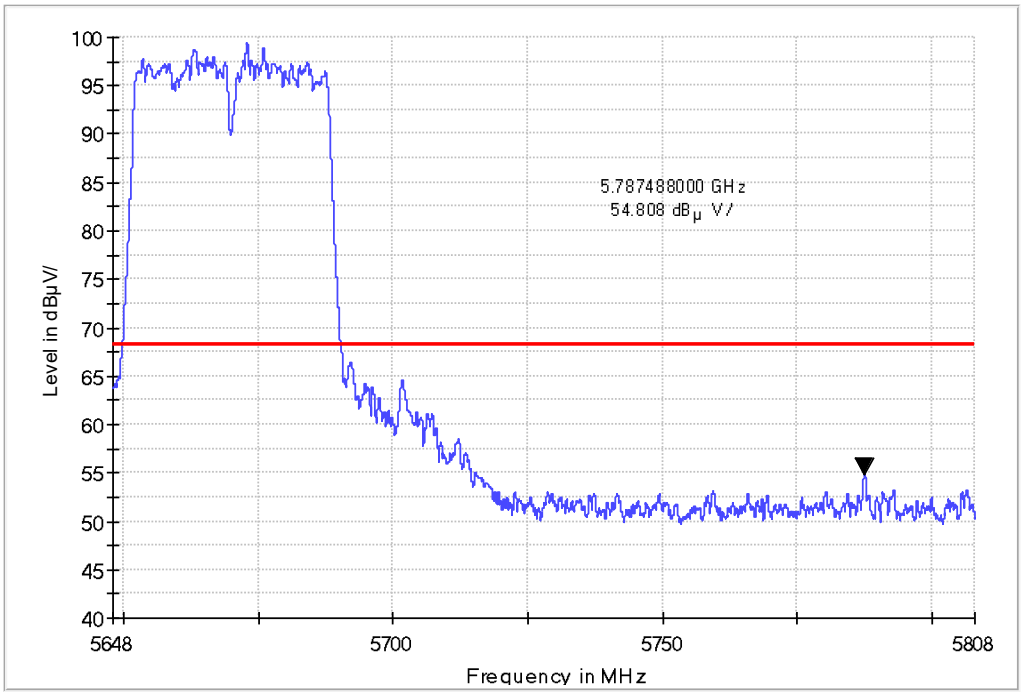
Vertical



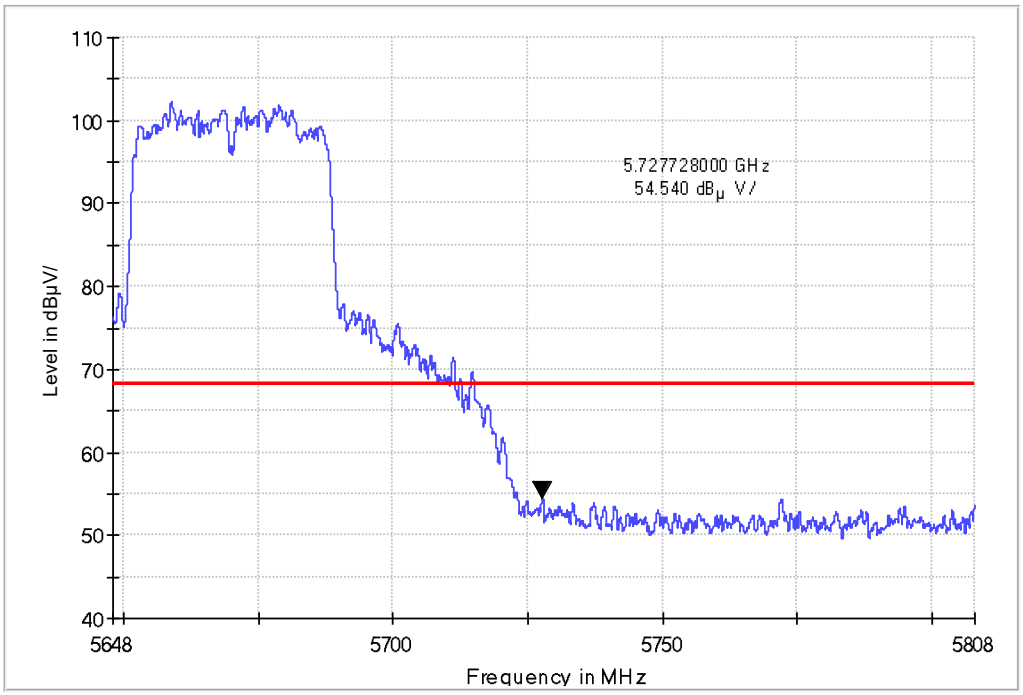
Band edge

11n HT40 IN THE 5.6GHz BAND
CH134

Horizontal



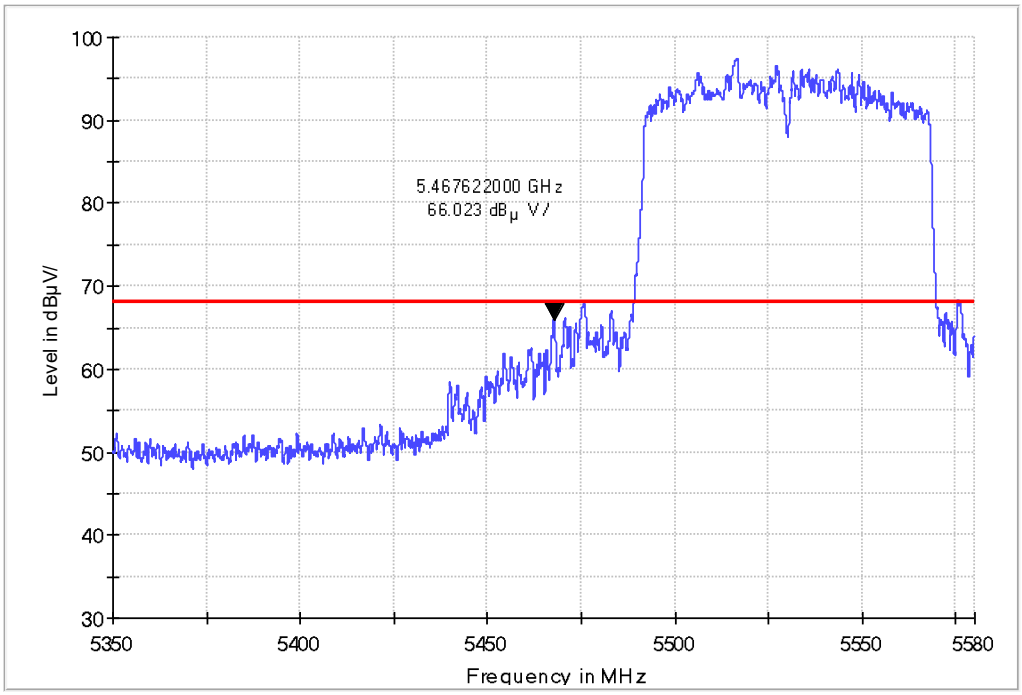
Vertical



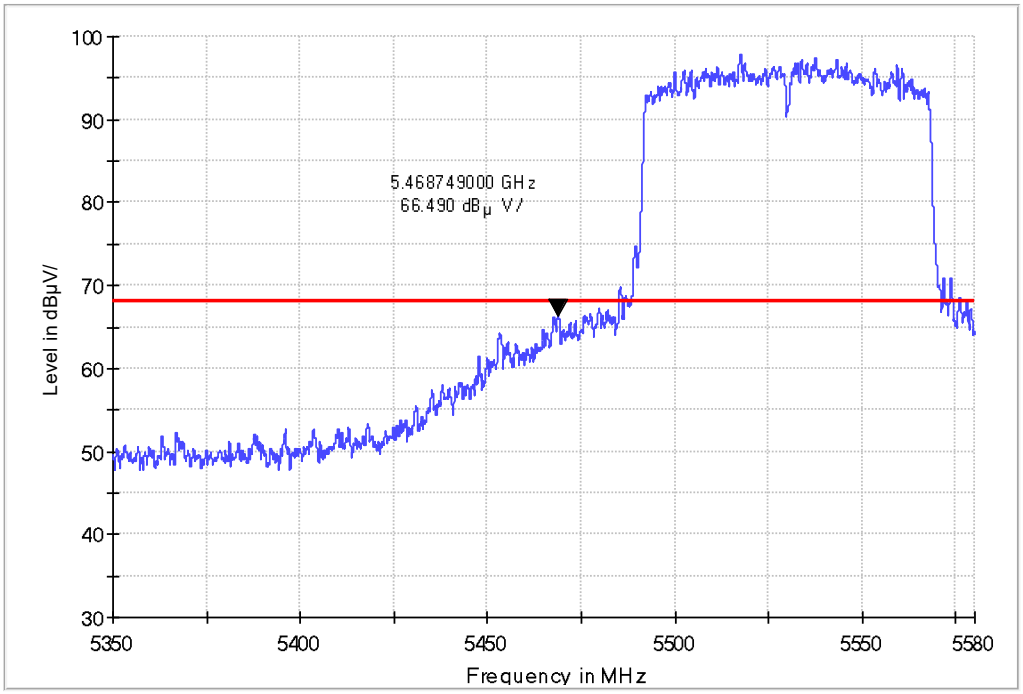
Band edge

11ac VHT80 IN THE 5.6GHz BAND
CH106

Horizontal



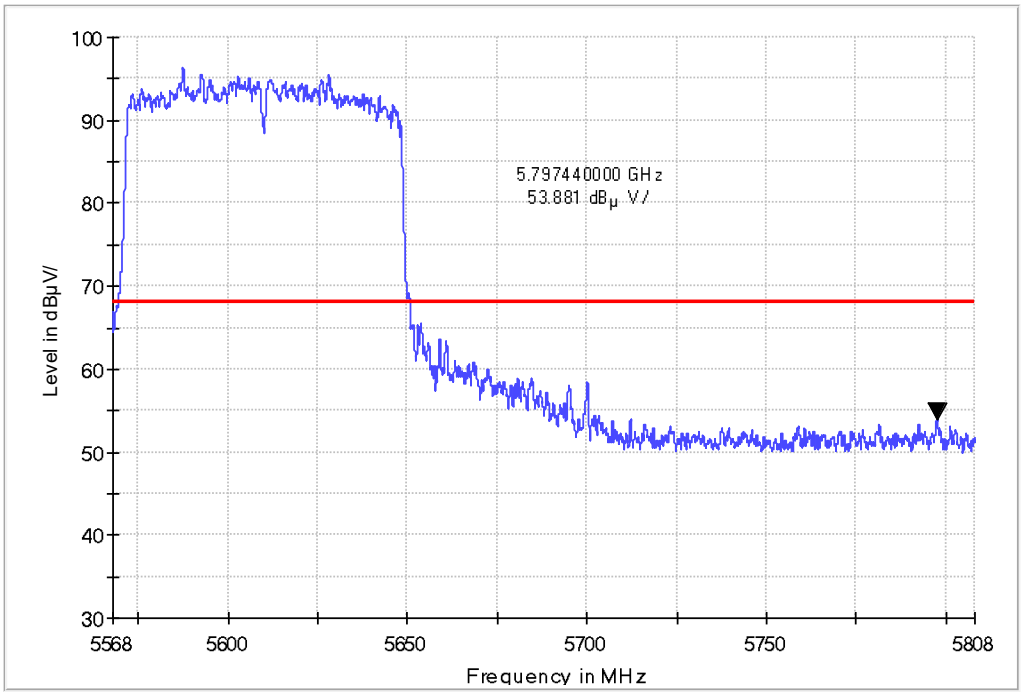
Vertical



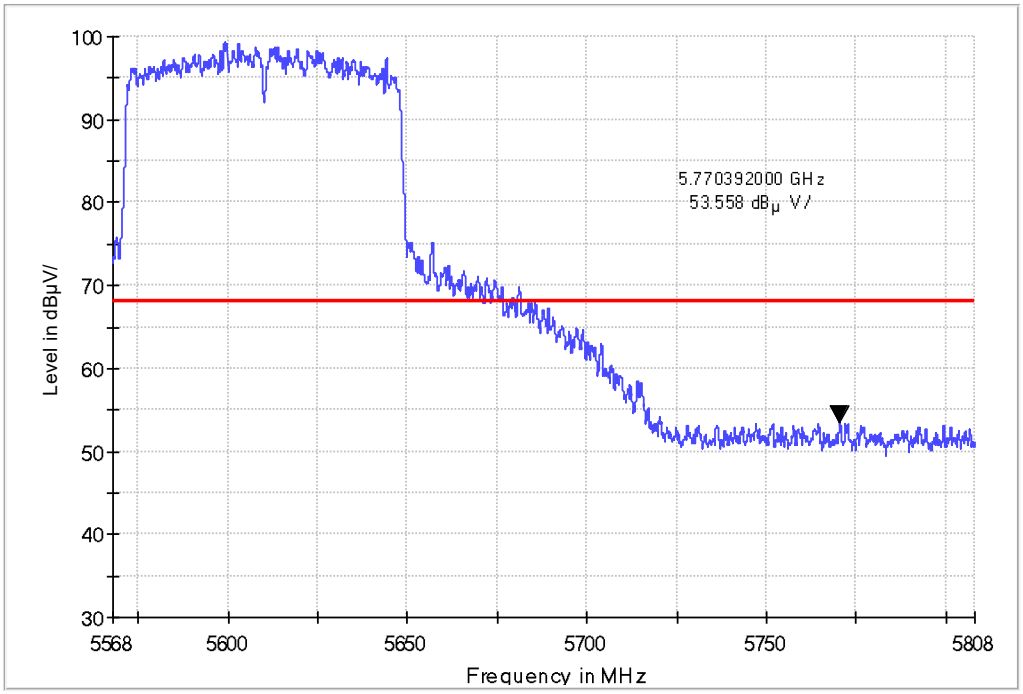
Band edge

11ac VHT80 IN THE 5.6GHz BAND
CH122

Horizontal



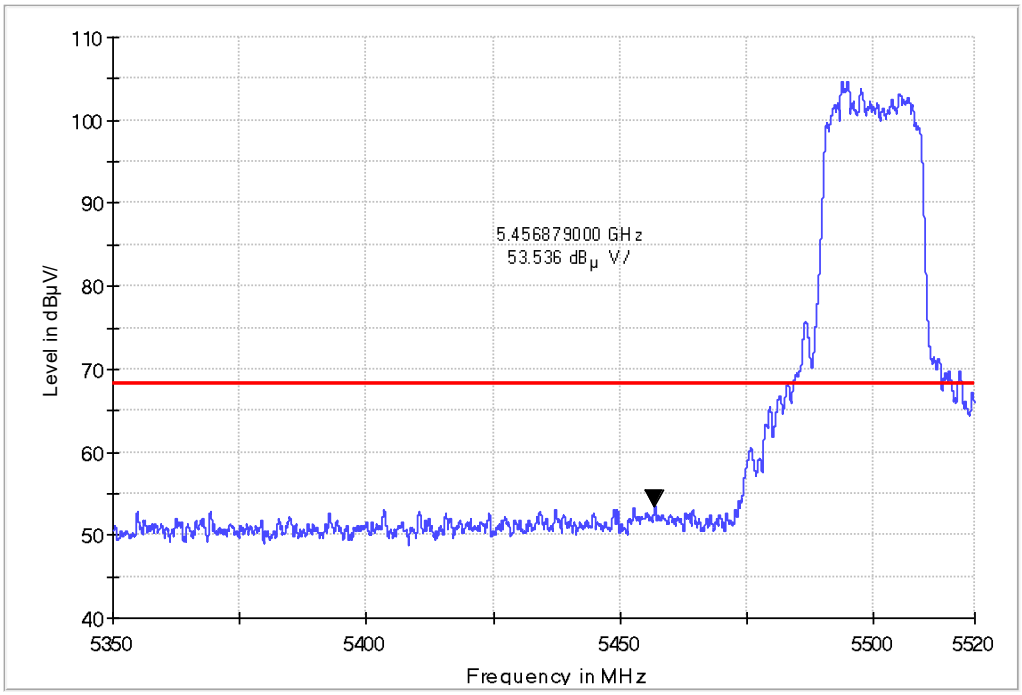
Vertical



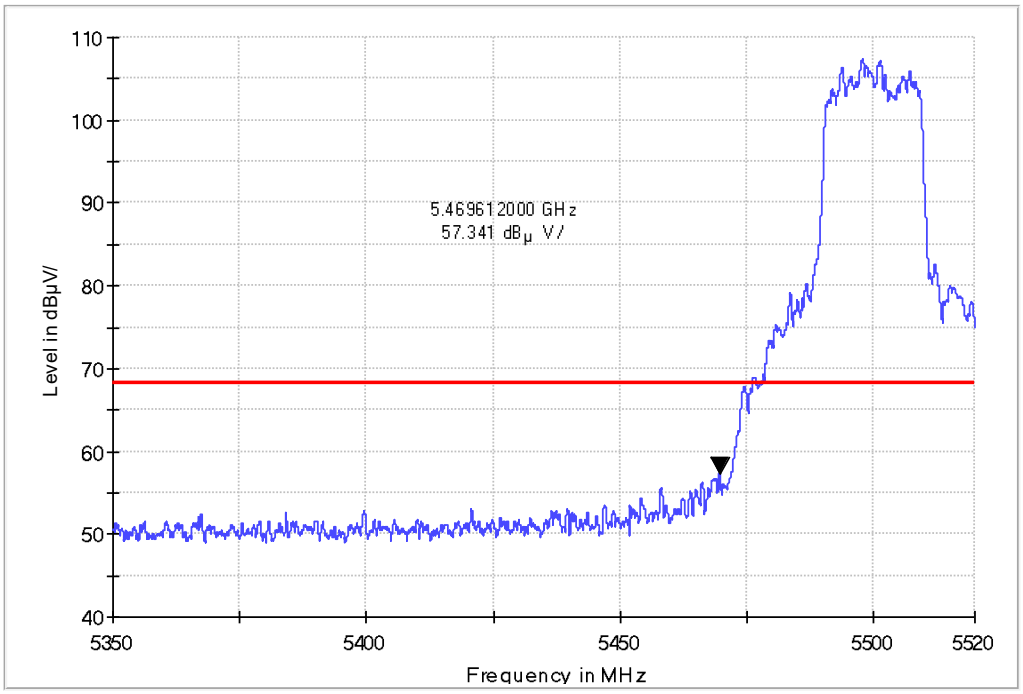
Band edge

802.11ax HEW20 IN THE 5.6GHz BAND
CH100

Horizontal



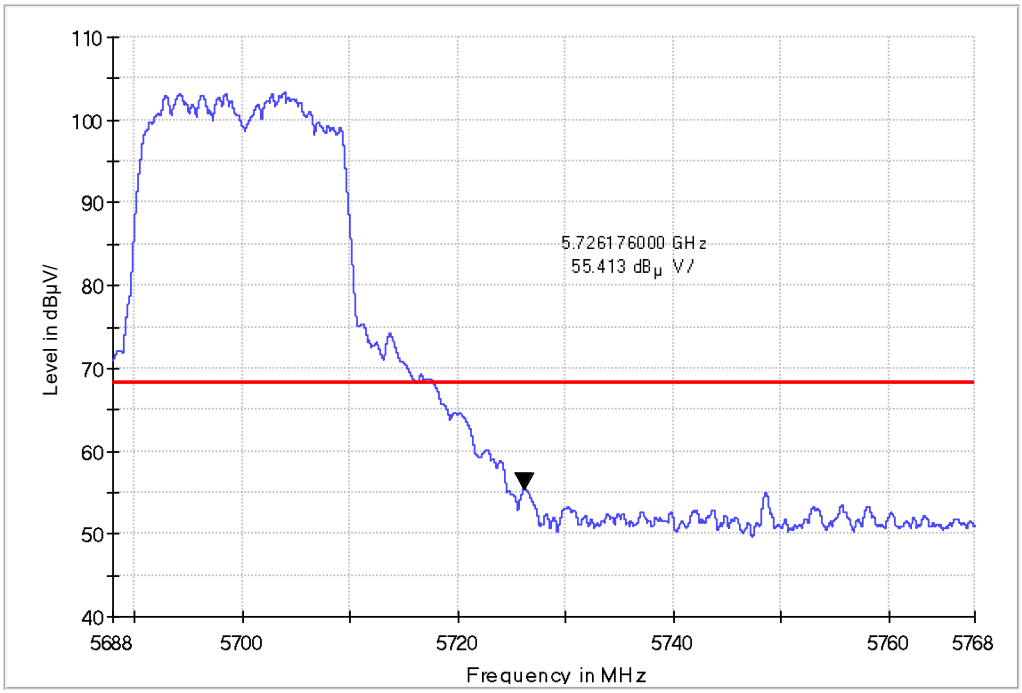
Vertical



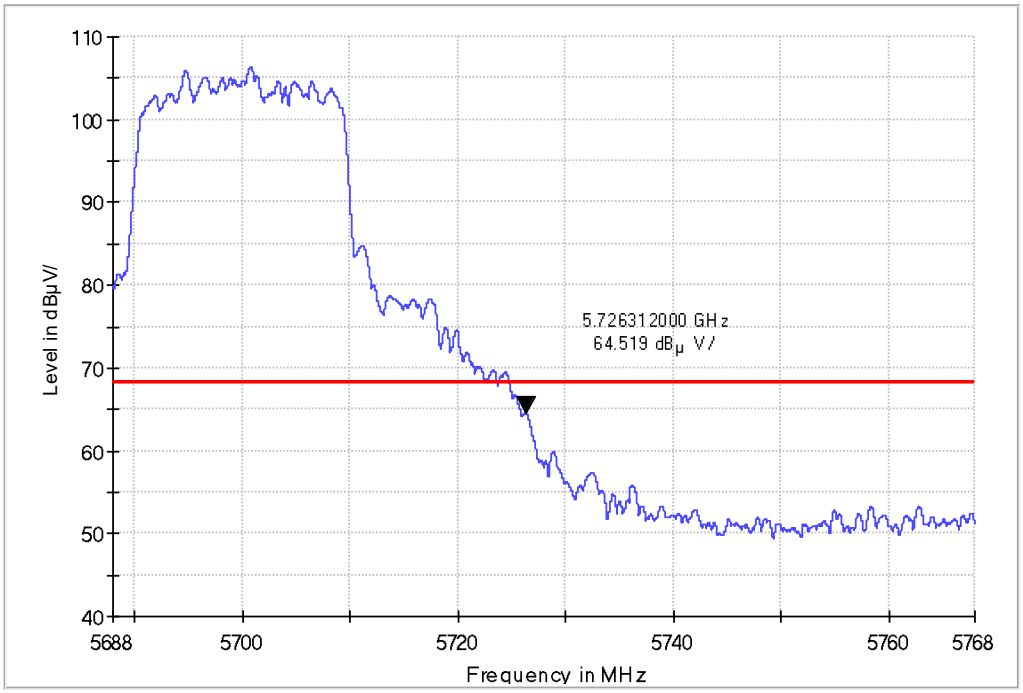
Band edge

802.11ax HEW20 IN THE 5.6GHz BAND
CH140

Horizontal



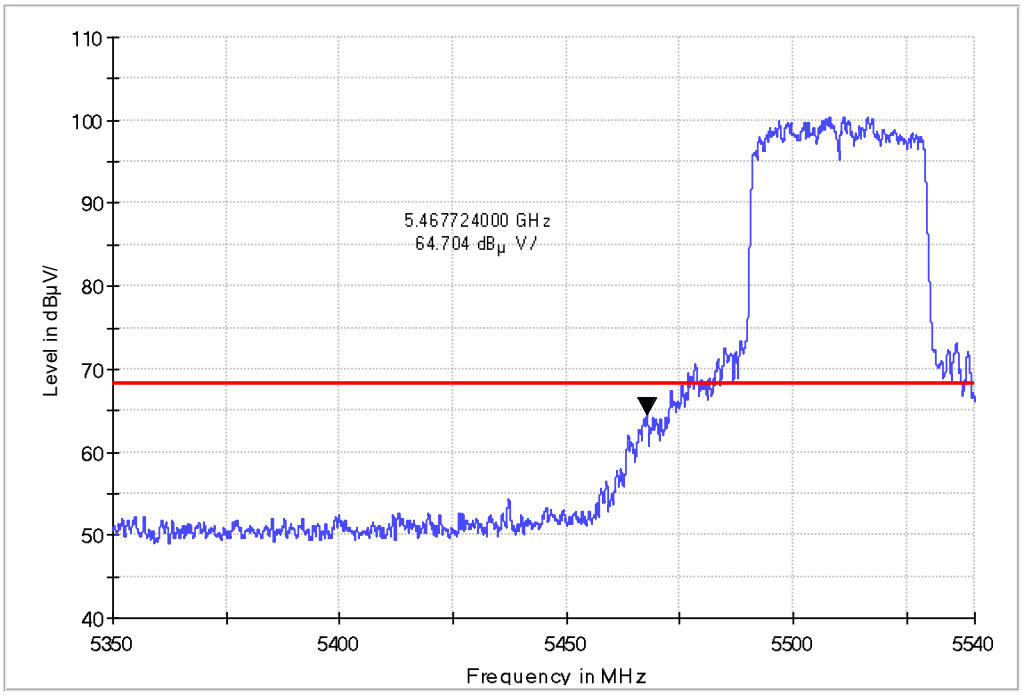
Vertical



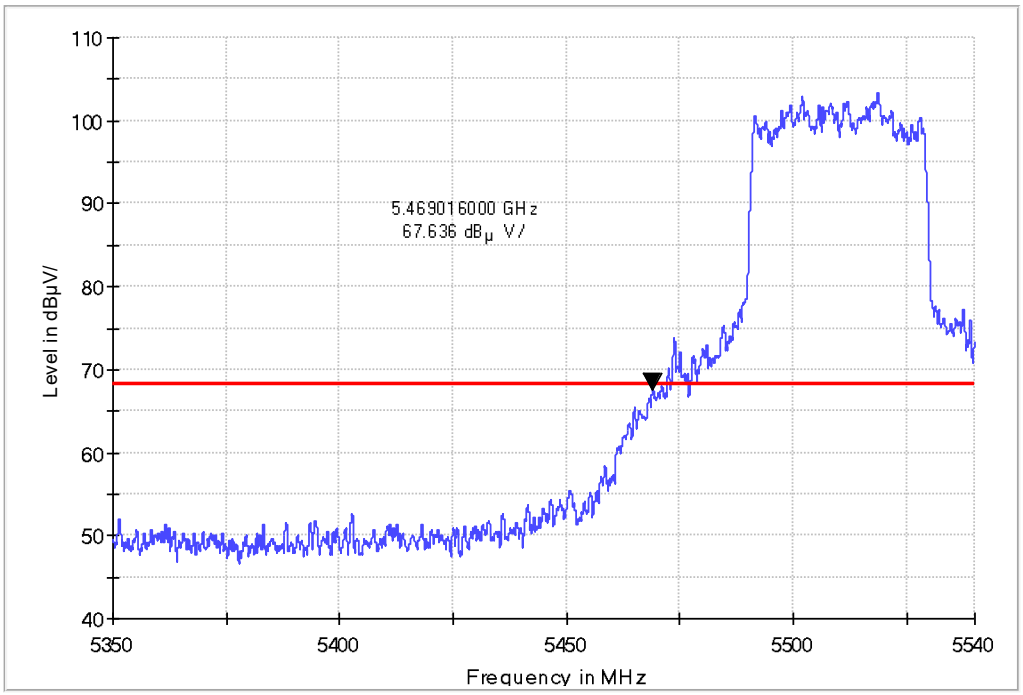
Band edge

802.11ax HEW40 IN THE 5.6GHz BAND
CH102

Horizontal



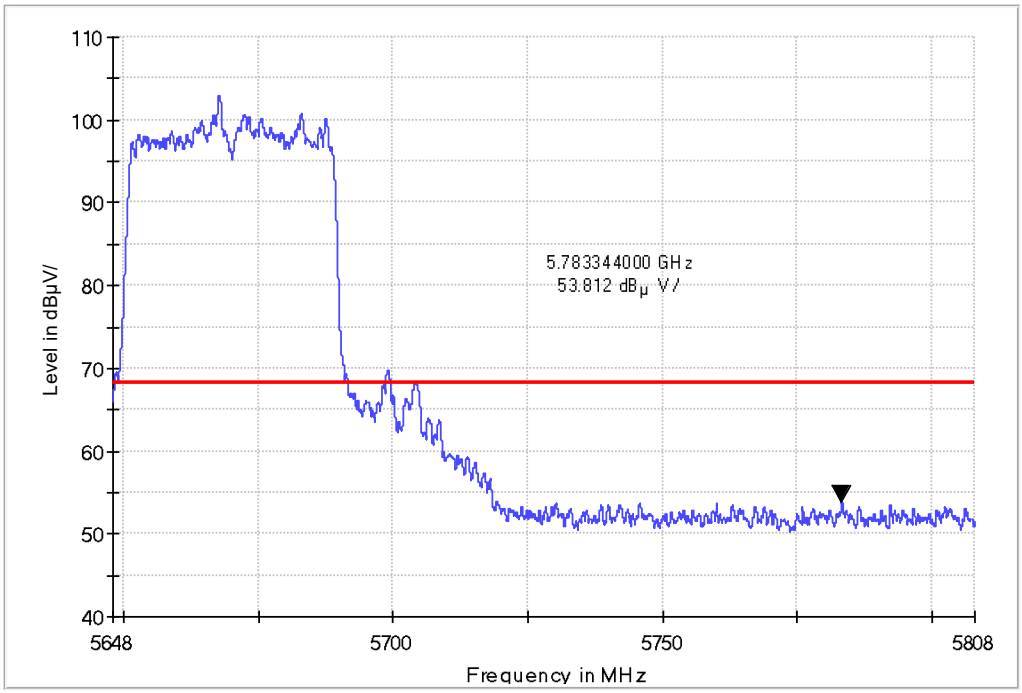
Vertical



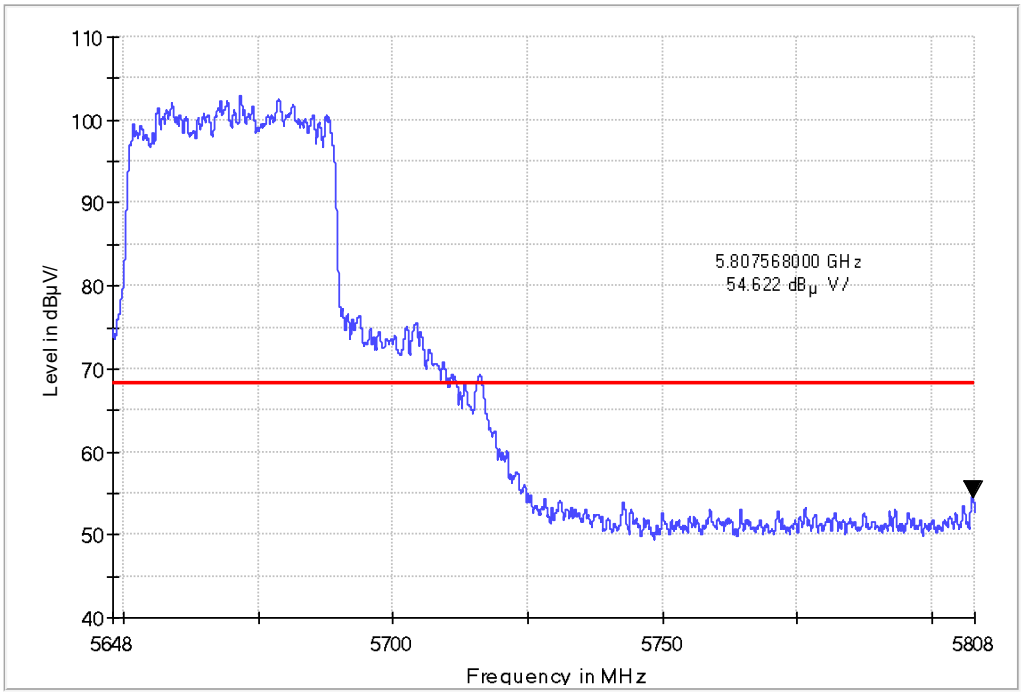
Band edge

802.11ax HEW40 IN THE 5.6GHz BAND
CH134

Horizontal



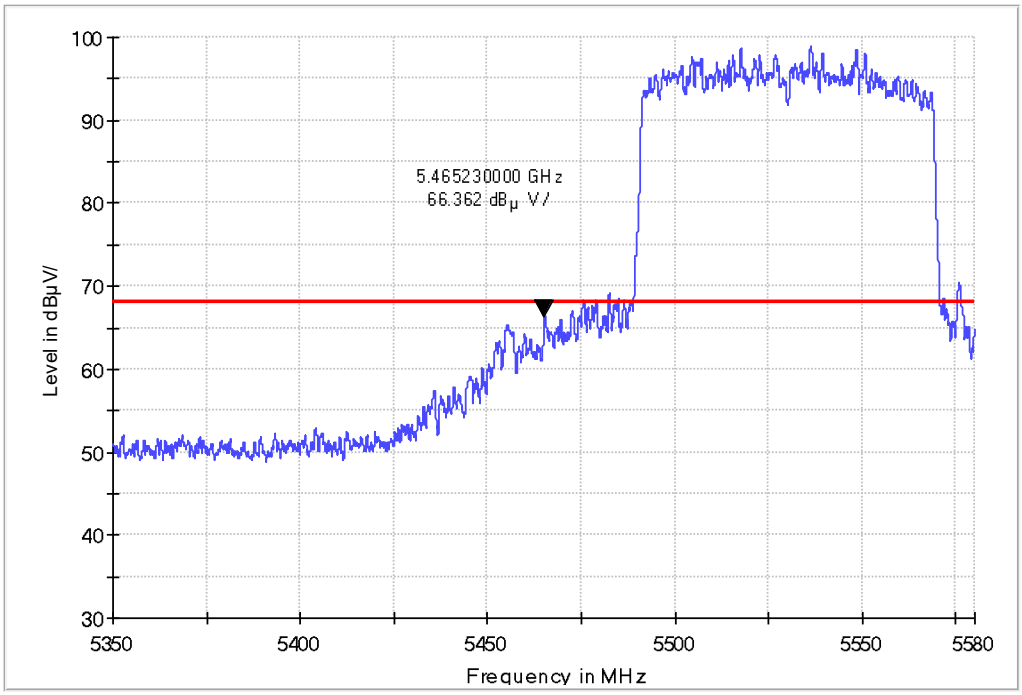
Vertical



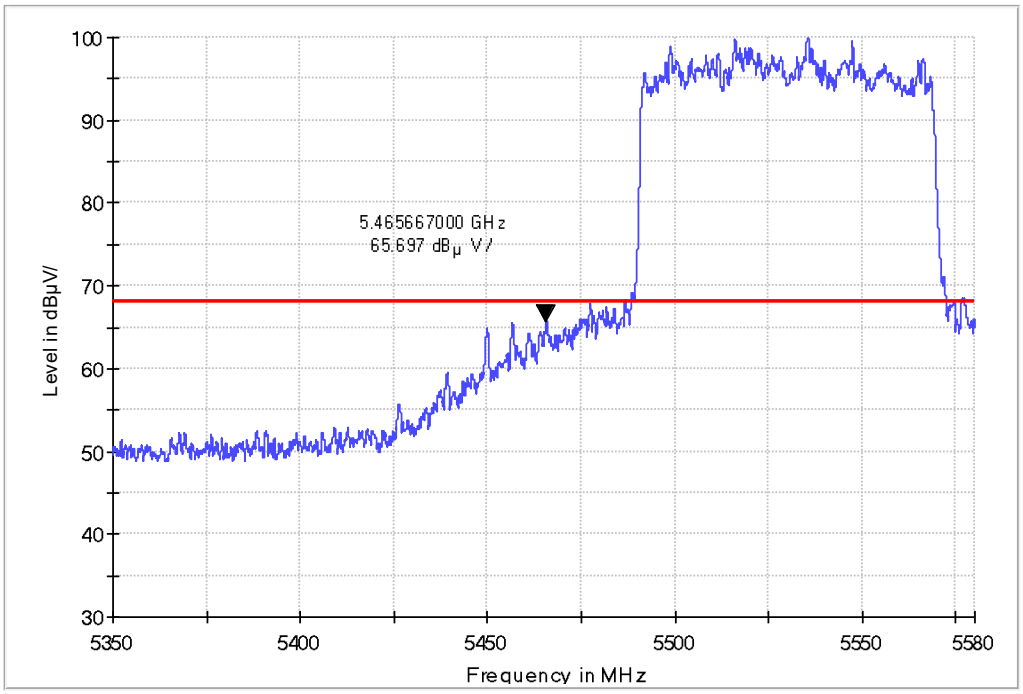
Band edge

802.11ax HEW80 IN THE 5.6GHz BAND
CH106

Horizontal



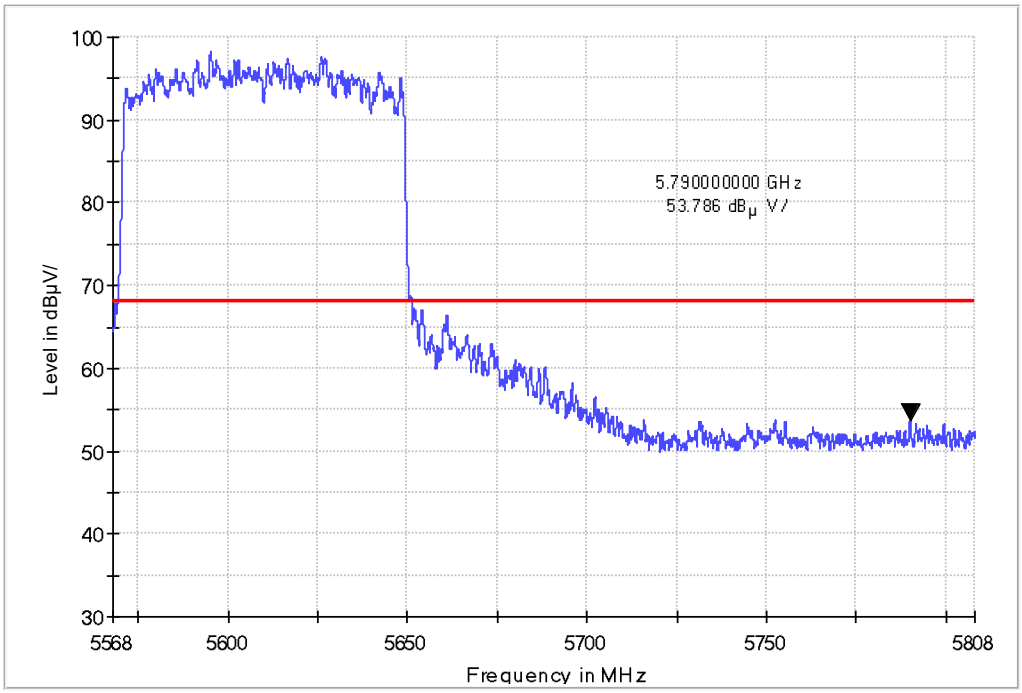
Vertical



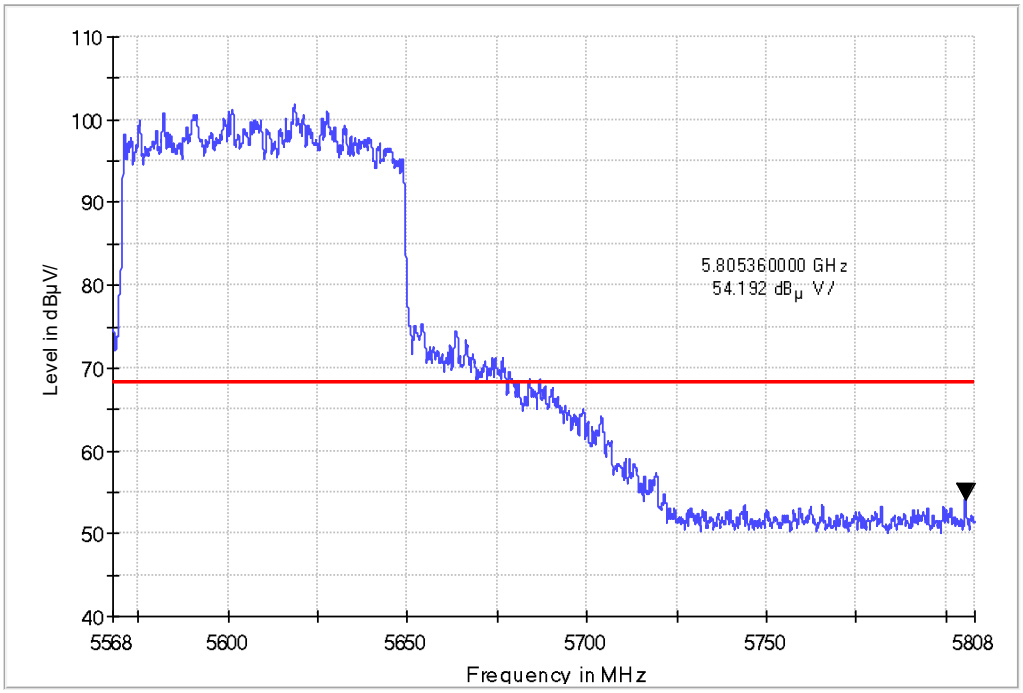
Band edge

802.11ax HEW80 IN THE 5.6GHz BAND
CH122

Horizontal



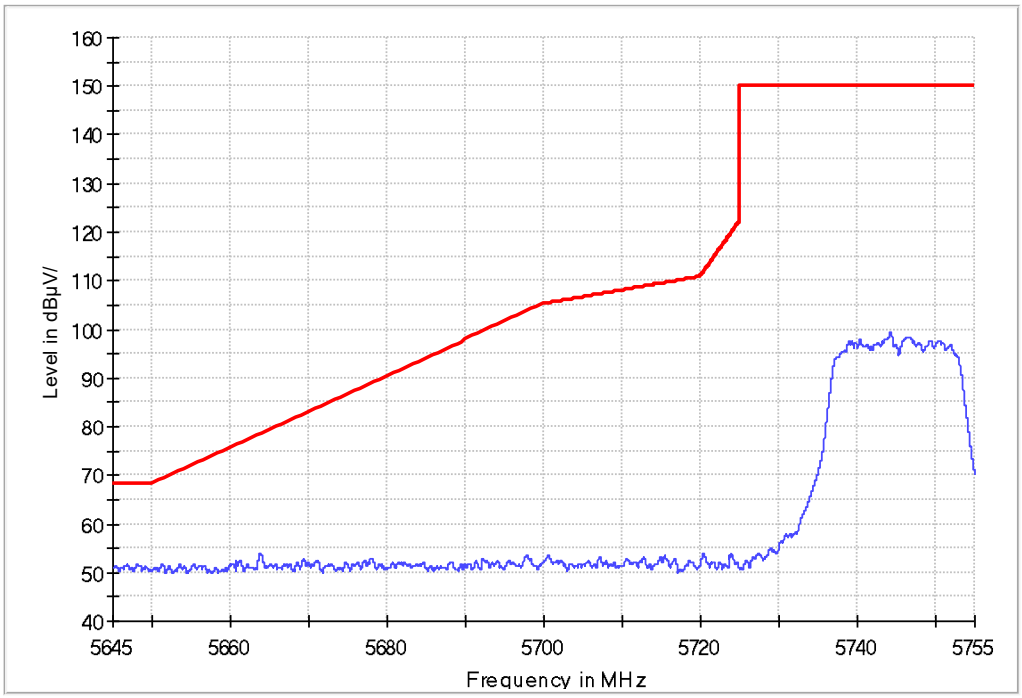
Vertical



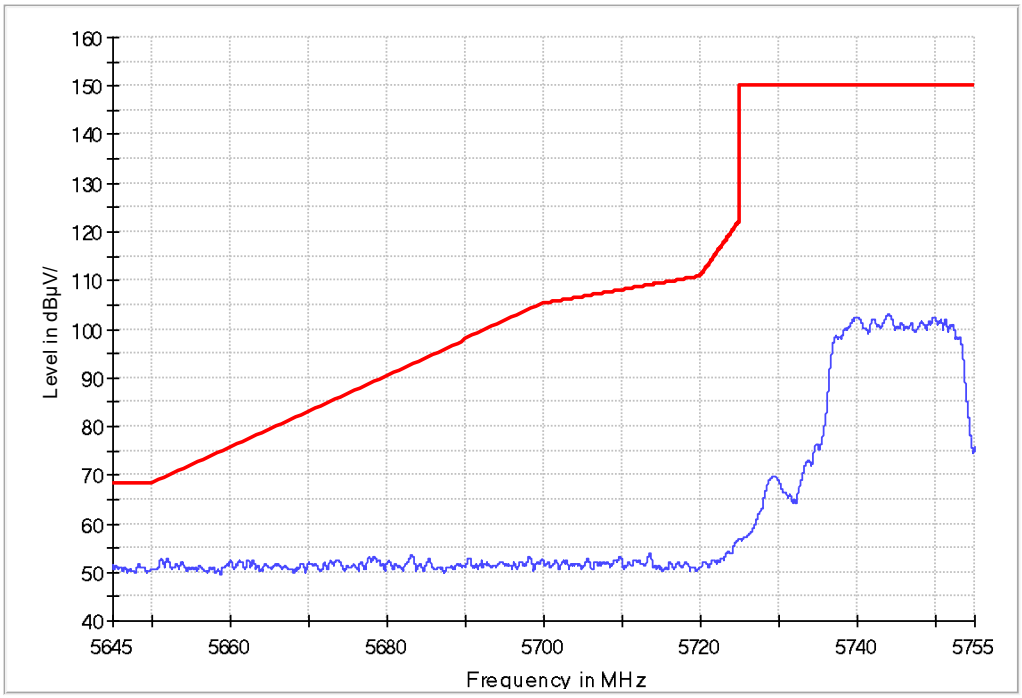
Band edge

11a IN THE 5.8GHz BAND
CH149

Horizontal



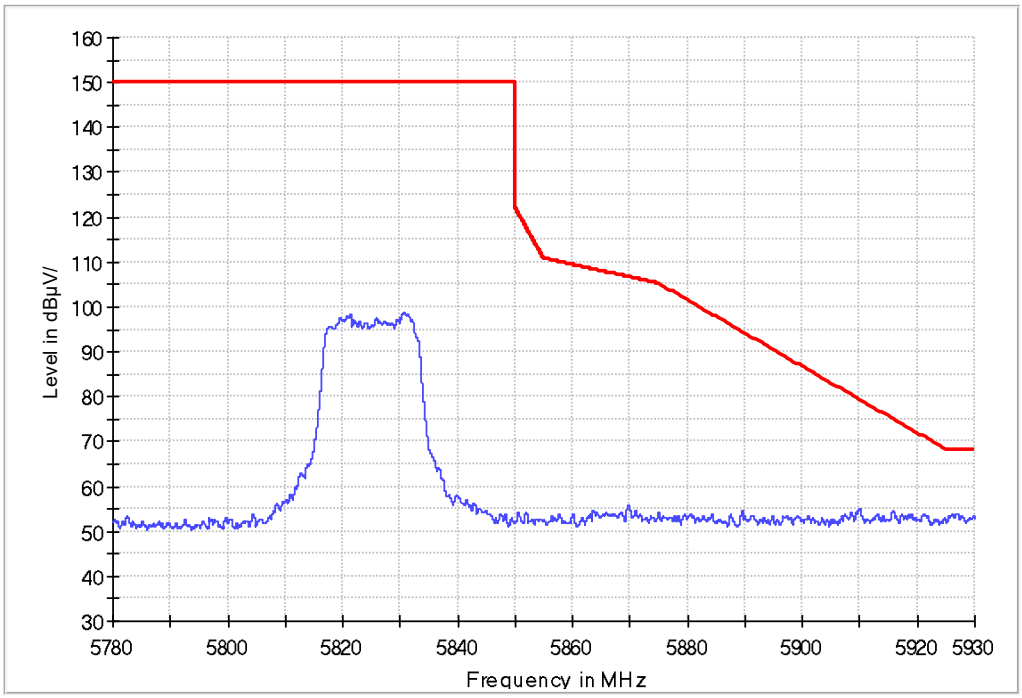
Vertical



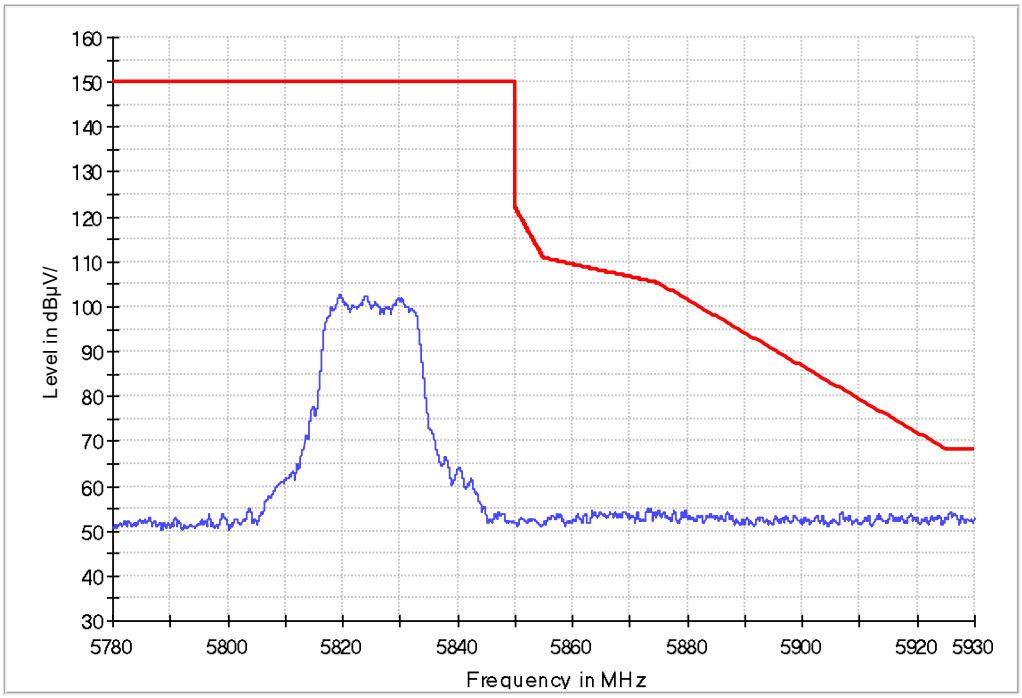
Band edge

11a IN THE 5.8GHz BAND
CH165

Horizontal



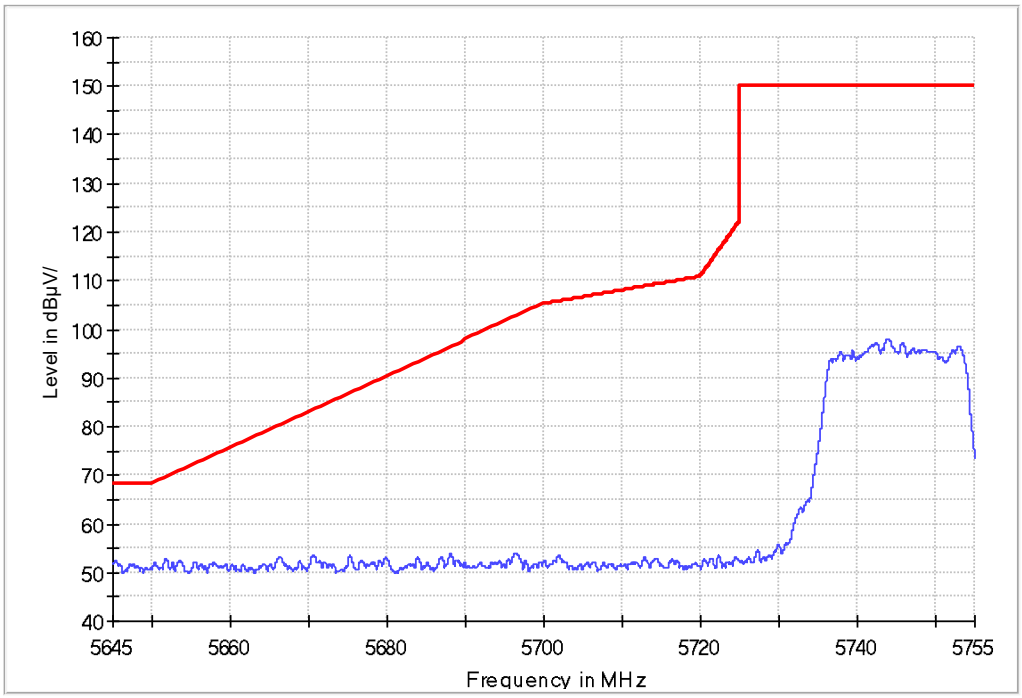
Vertical



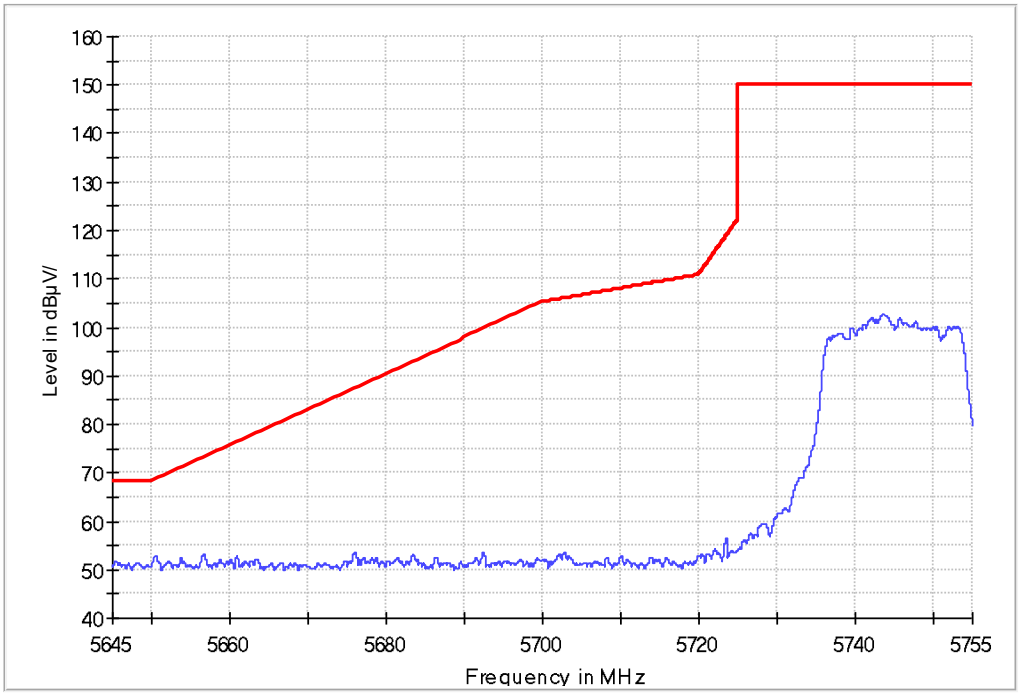
Band edge

11n HT20 IN THE 5.8GHz BAND
CH149

Horizontal



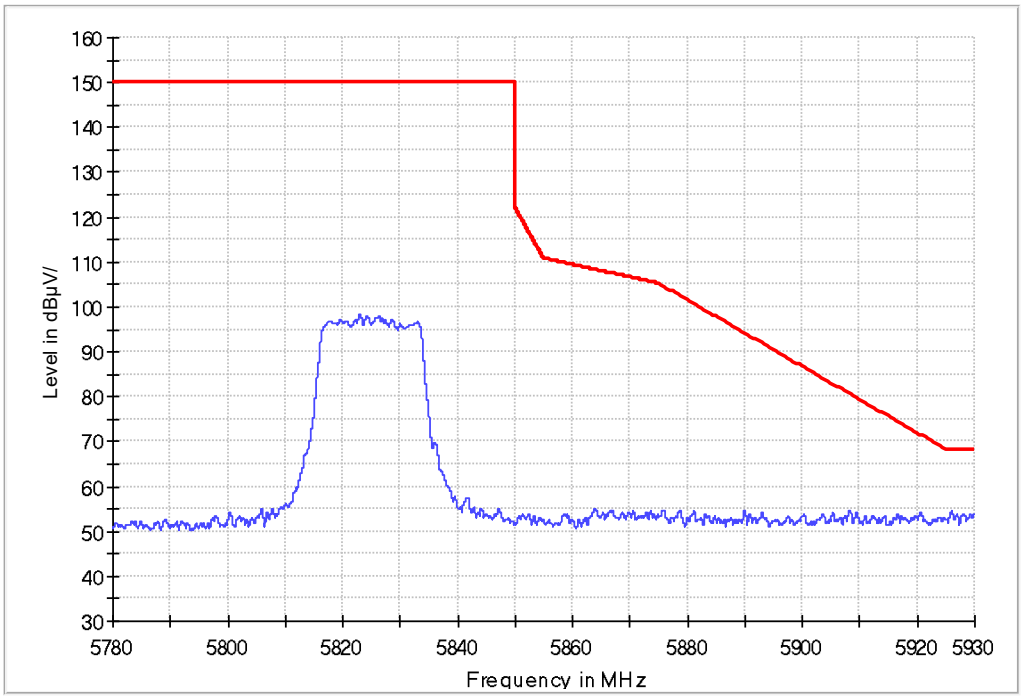
Vertical



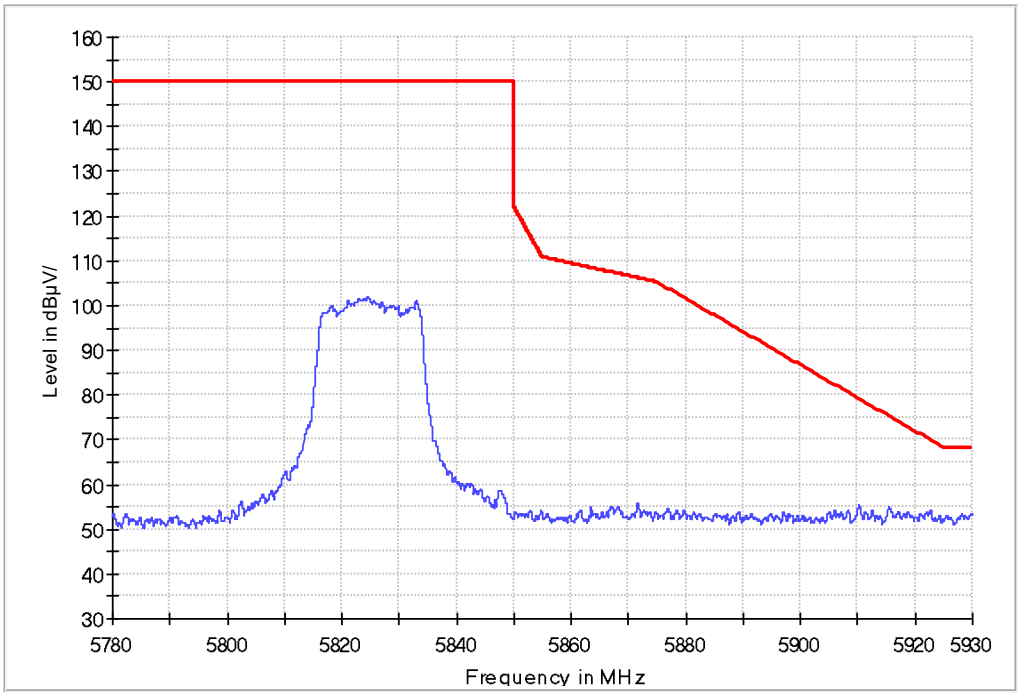
Band edge

11n HT20 IN THE 5.8GHz BAND
CH165

Horizontal



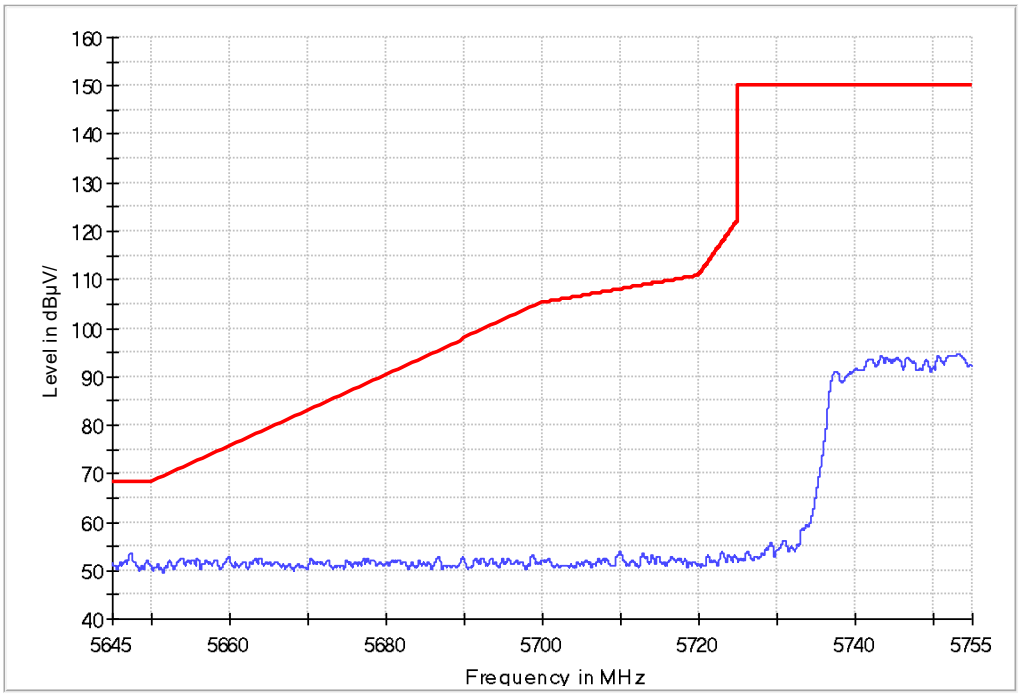
Vertical



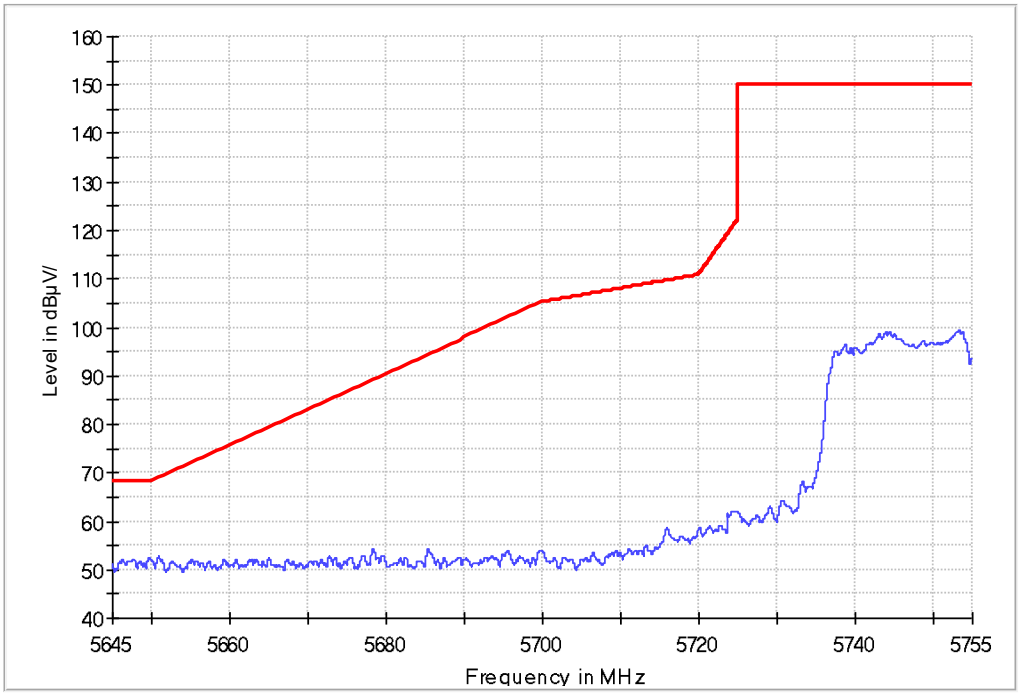
Band edge

11n HT40 IN THE 5.8GHz BAND
CH151

Horizontal



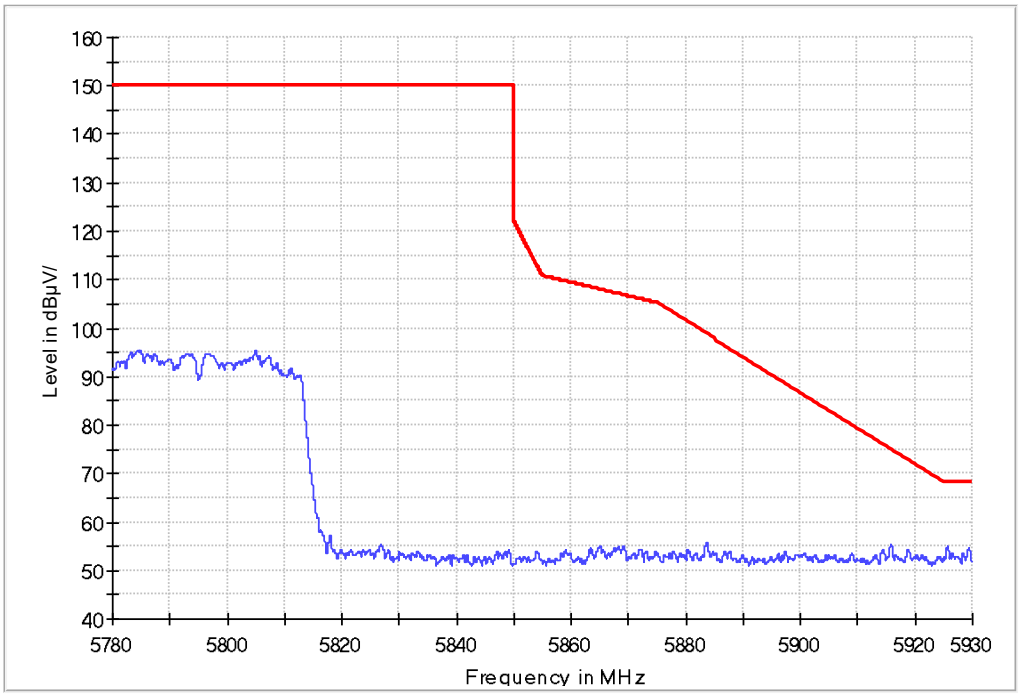
Vertical



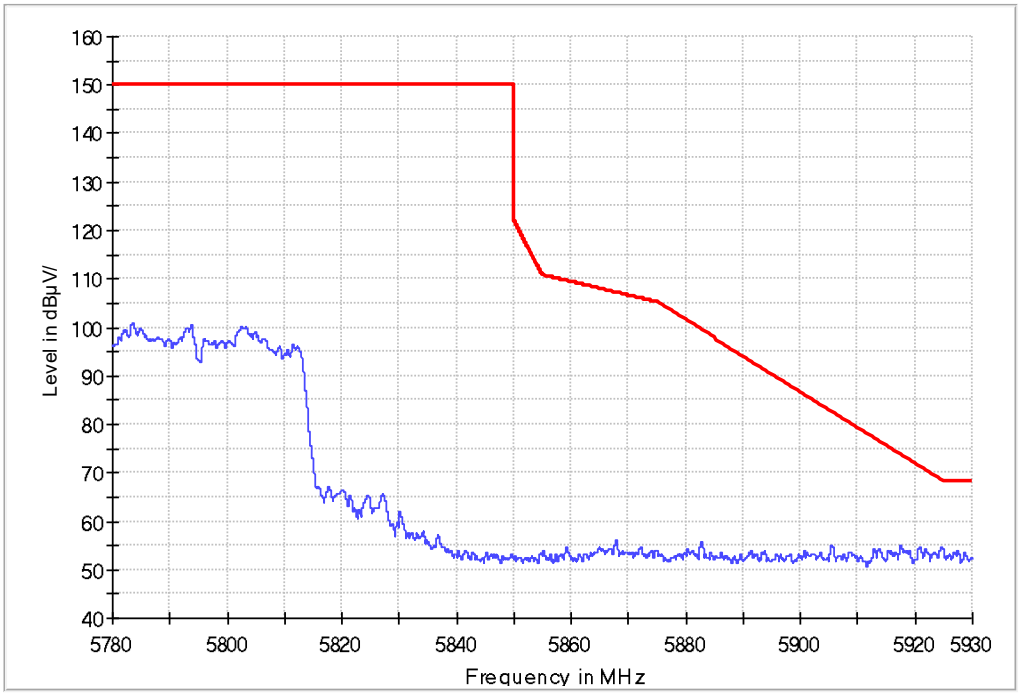
Band edge

11n HT40 IN THE 5.8GHz BAND
CH159

Horizontal



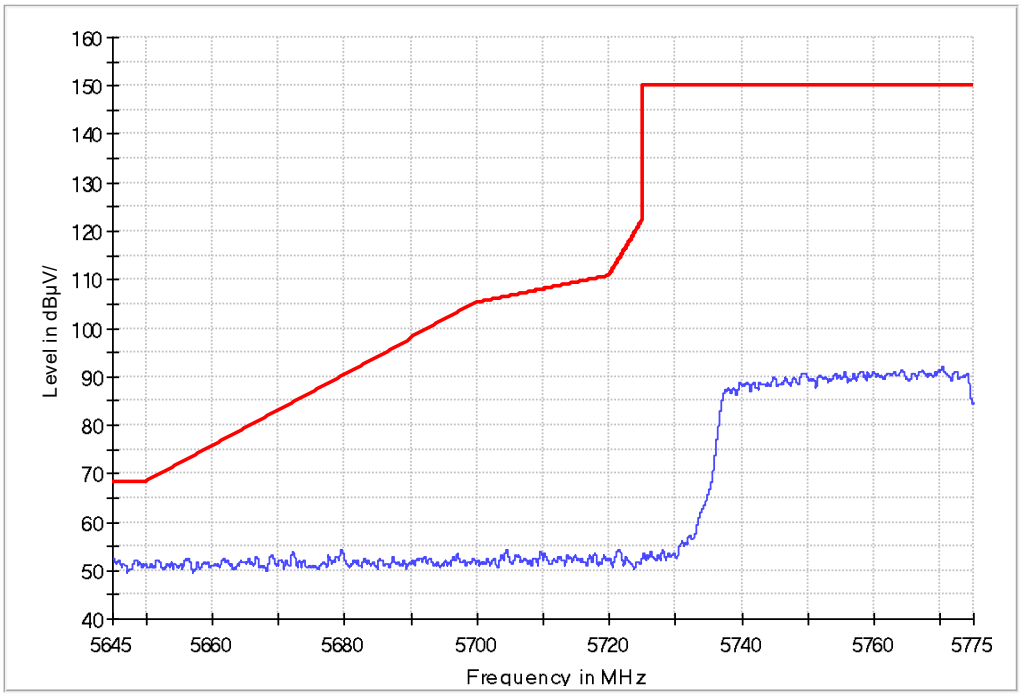
Vertical



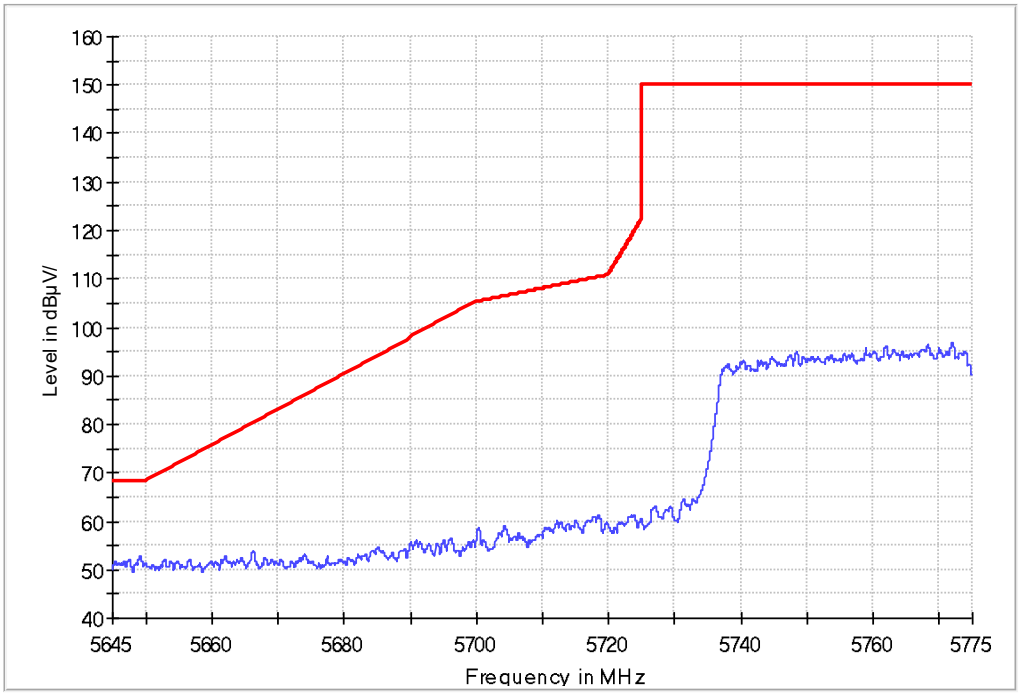
Band edge

11ac VHT80 IN THE 5.8GHz BAND
CH155

Horizontal



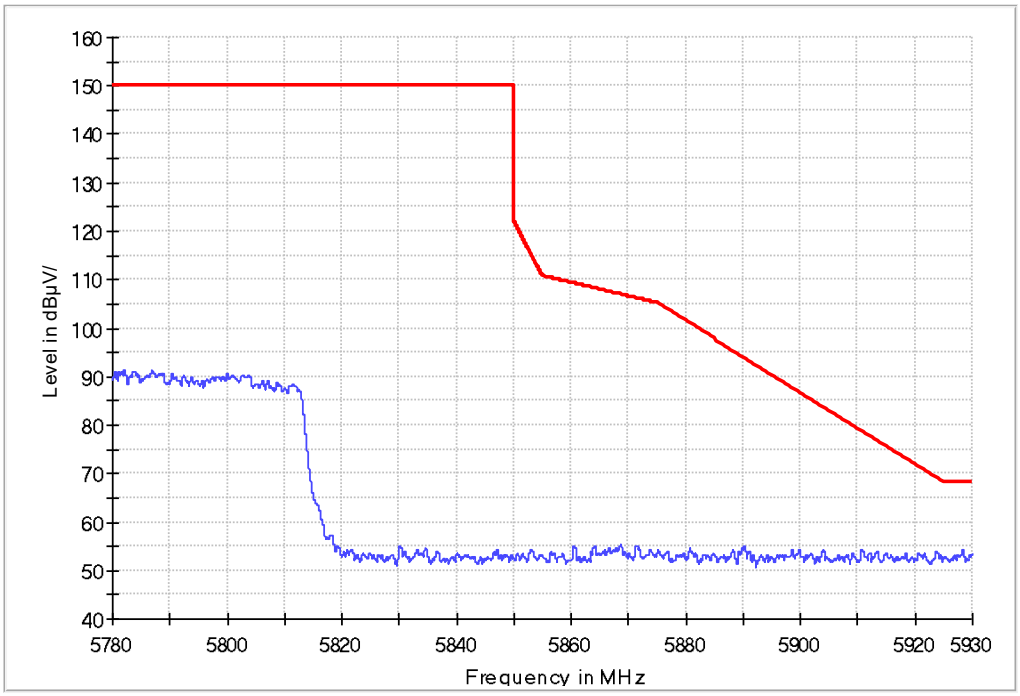
Vertical



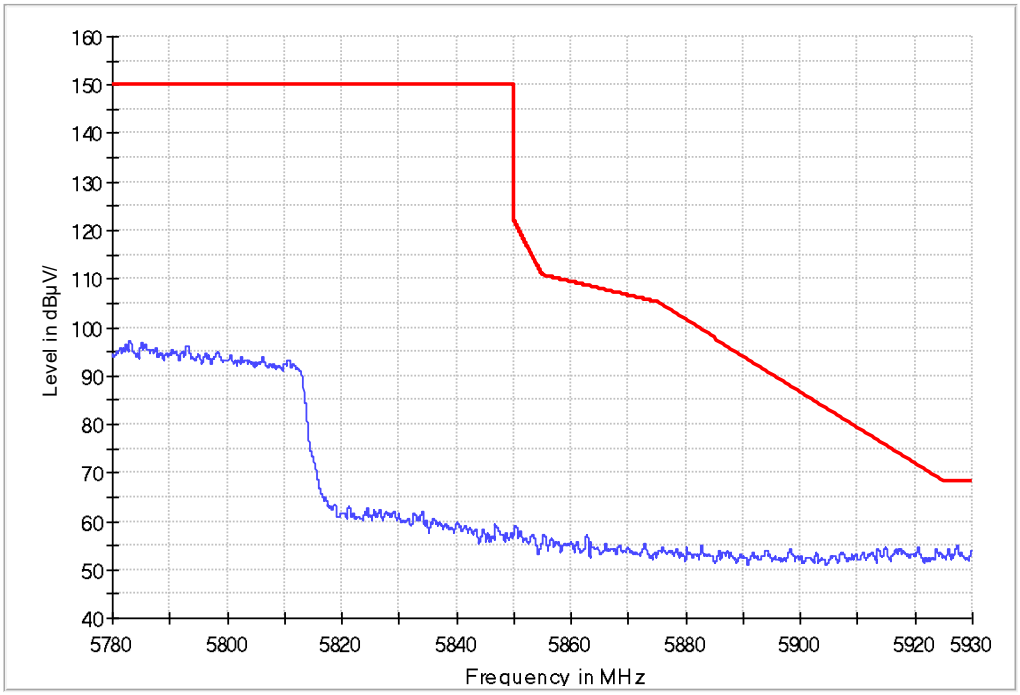
Band edge

11ac VHT80 IN THE 5.8GHz BAND
CH155

Horizontal



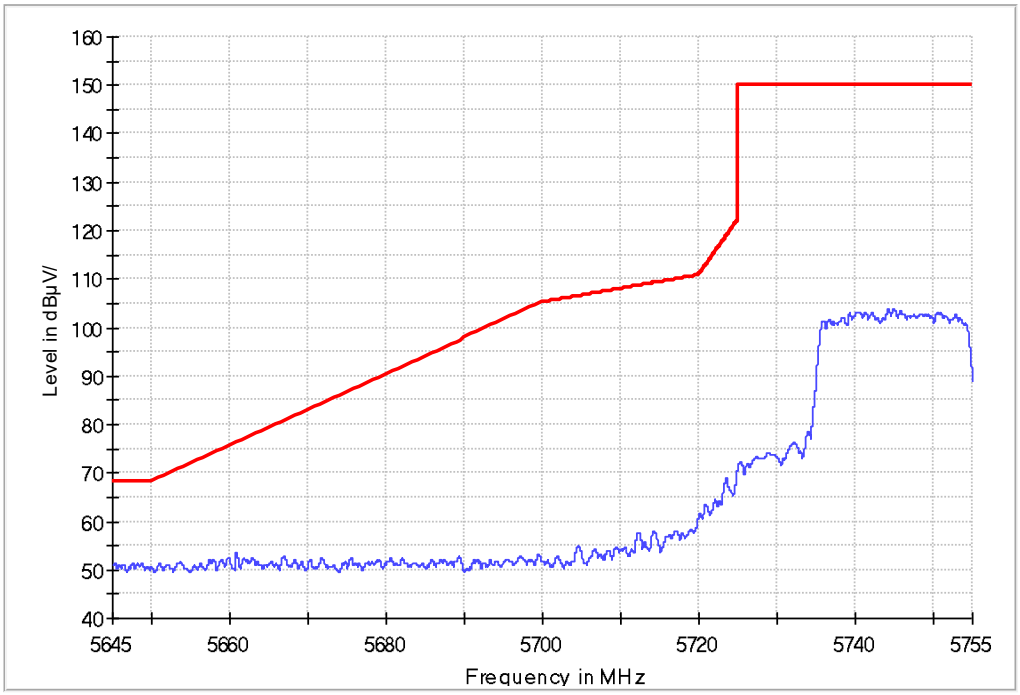
Vertical



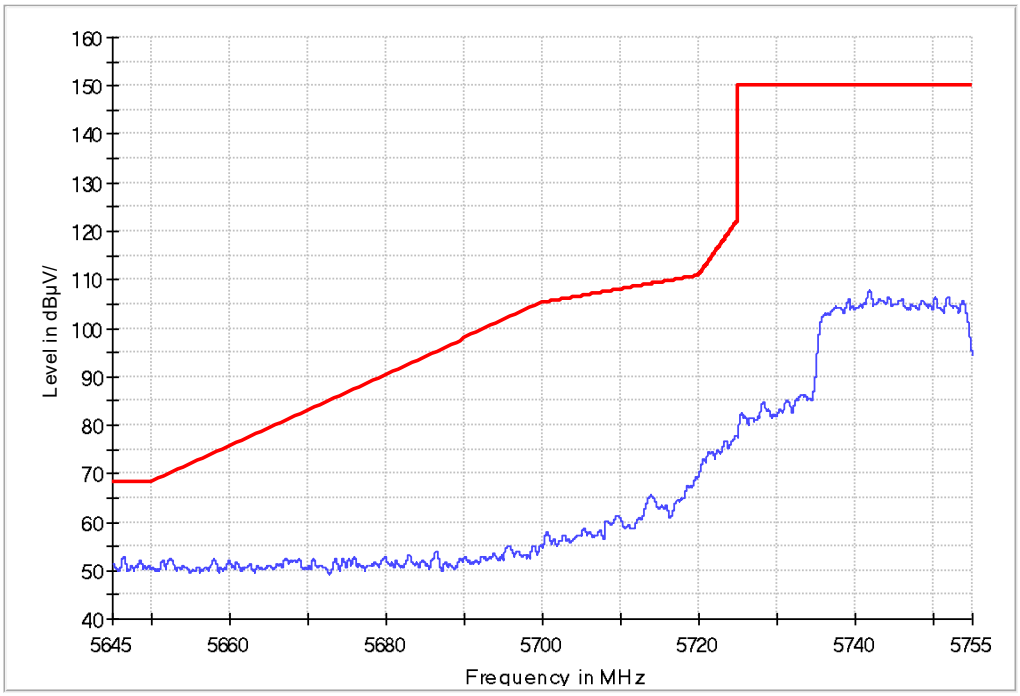
Band edge

802.11ax HEW20 IN THE 5.8GHz BAND
CH149

Horizontal



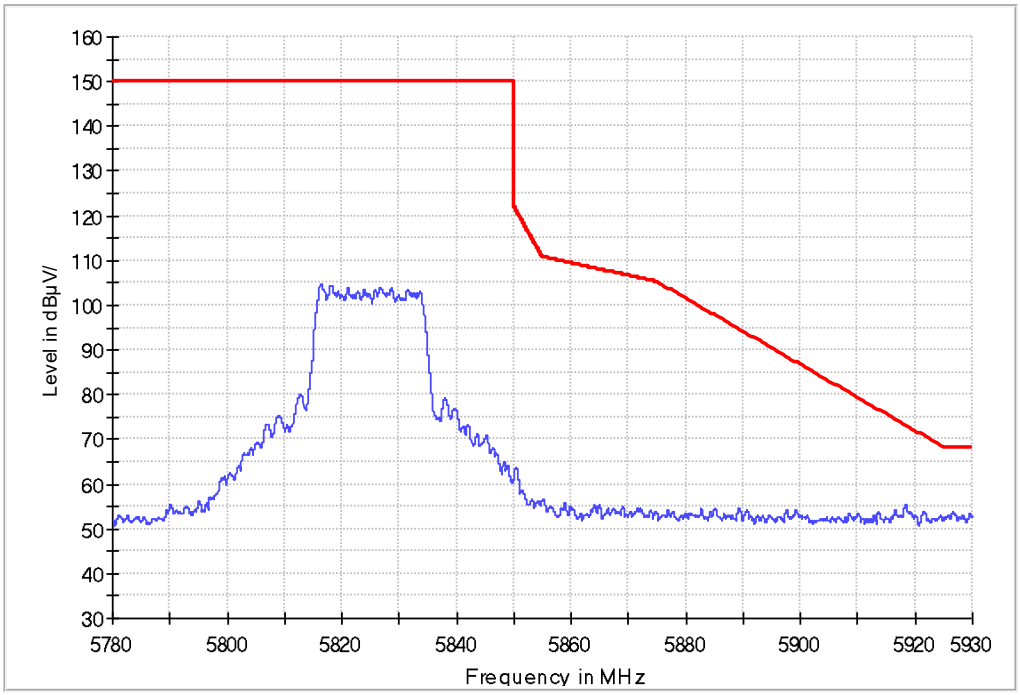
Vertical



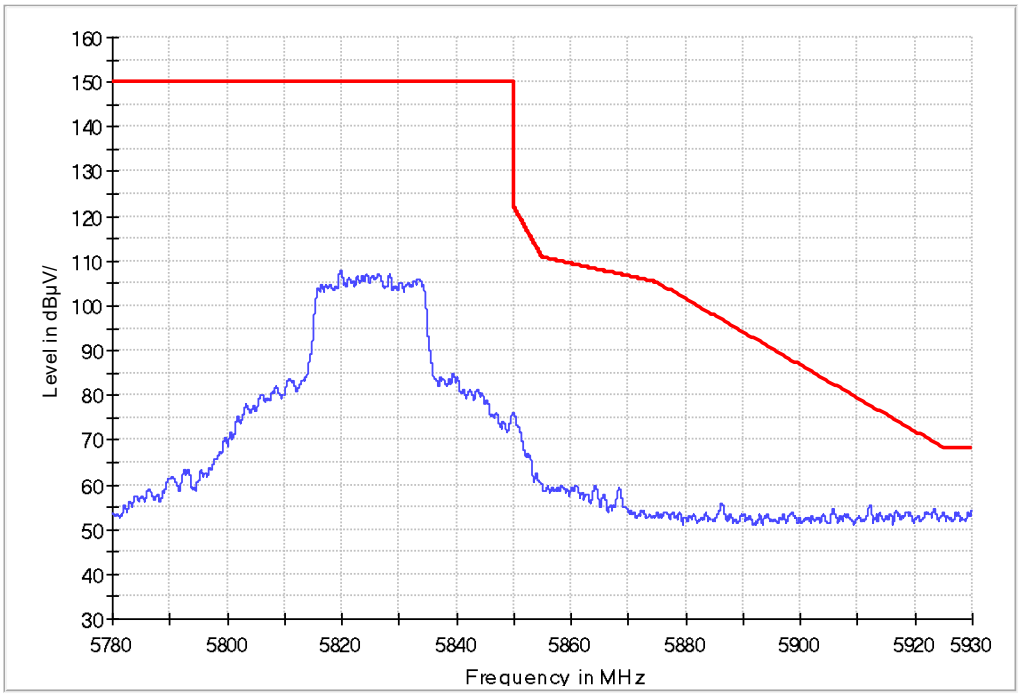
Band edge

802.11ax HEW20 IN THE 5.8GHz BAND
CH165

Horizontal



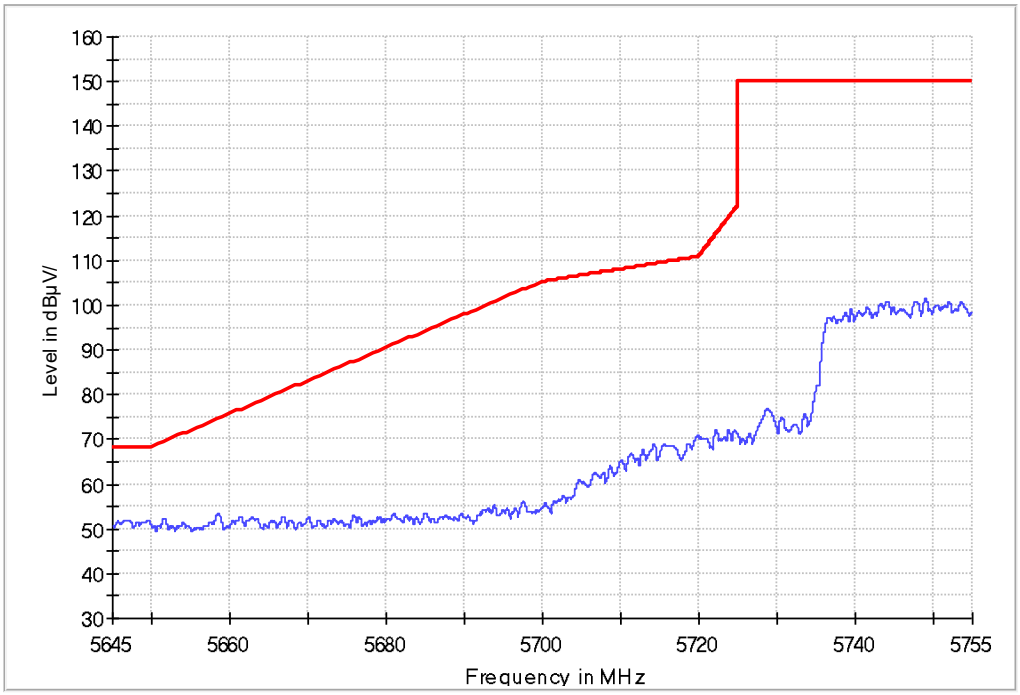
Vertical



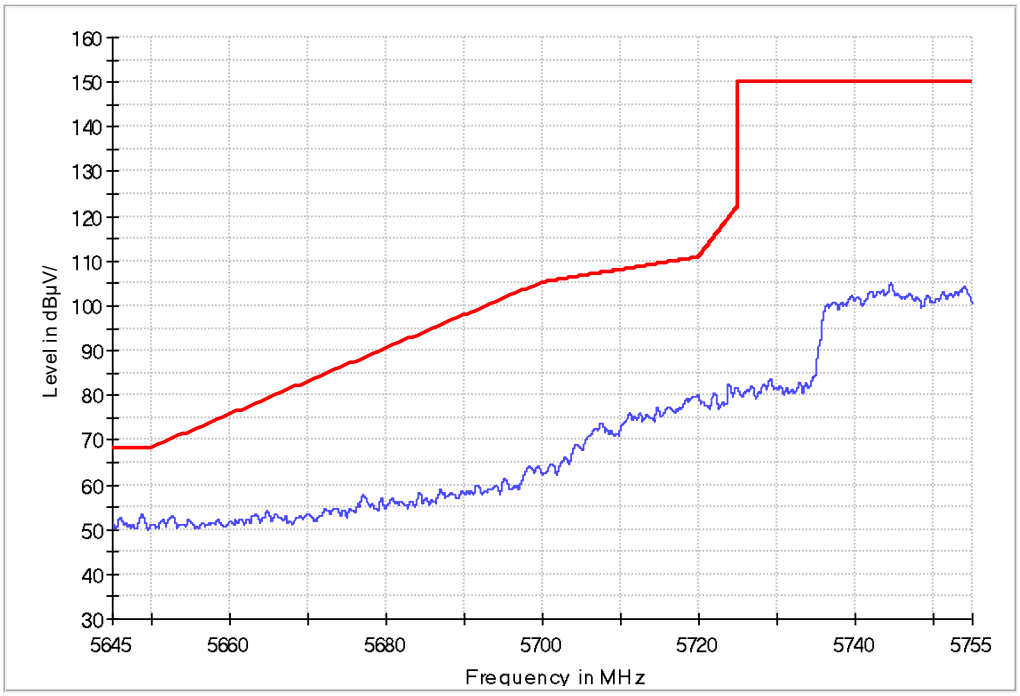
Band edge

802.11ax HEW40 IN THE 5.8GHz BAND
CH151

Horizontal



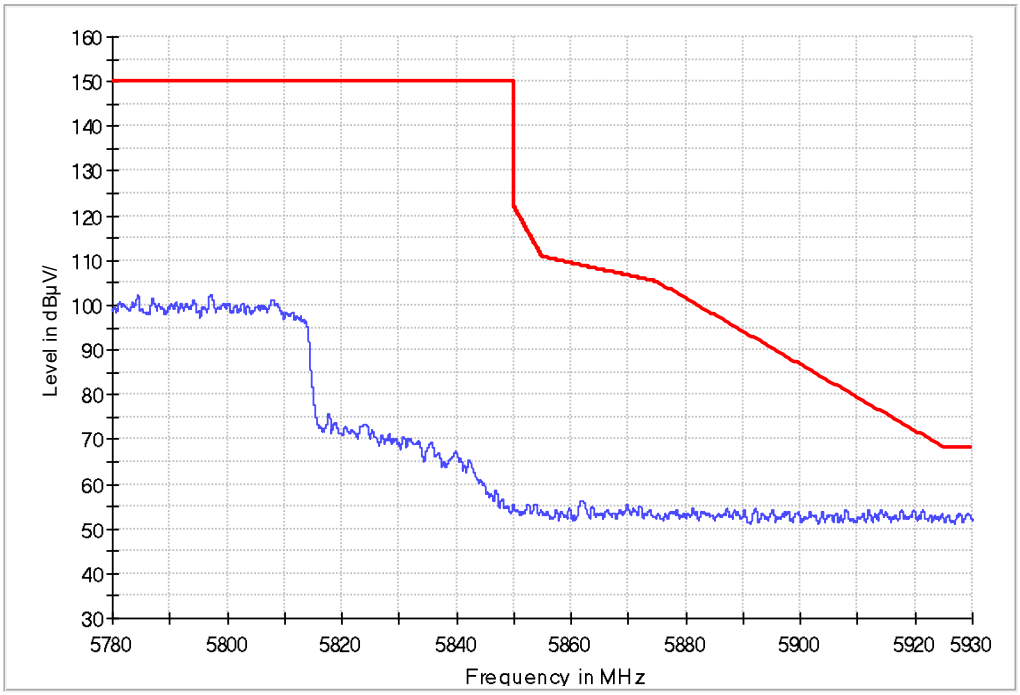
Vertical



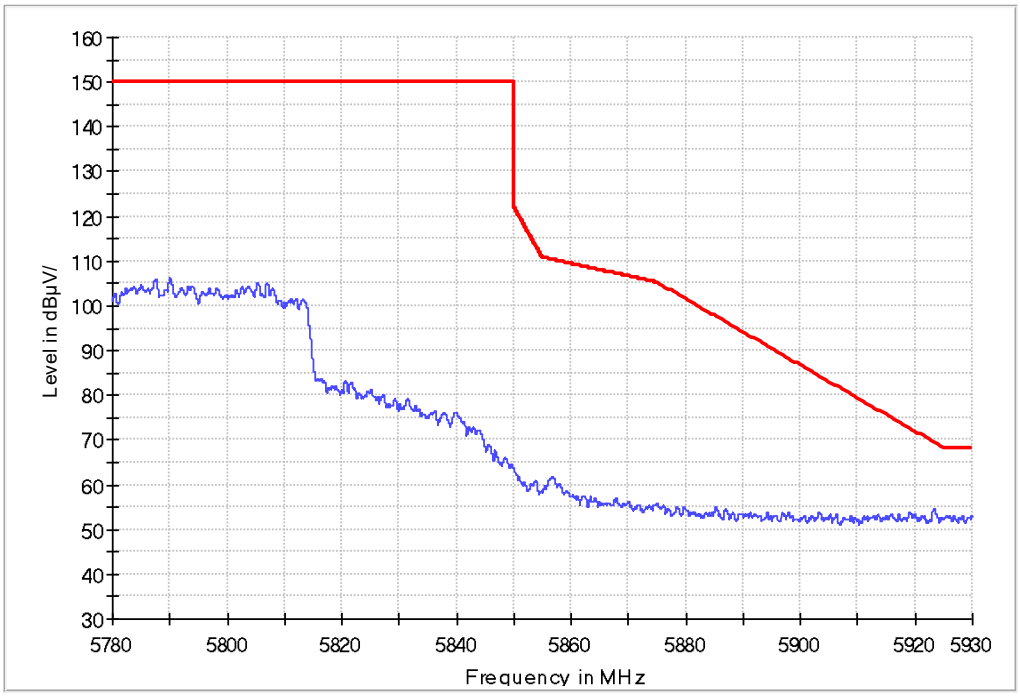
Band edge

802.11ax HEW40 IN THE 5.8GHz BAND
CH159

Horizontal



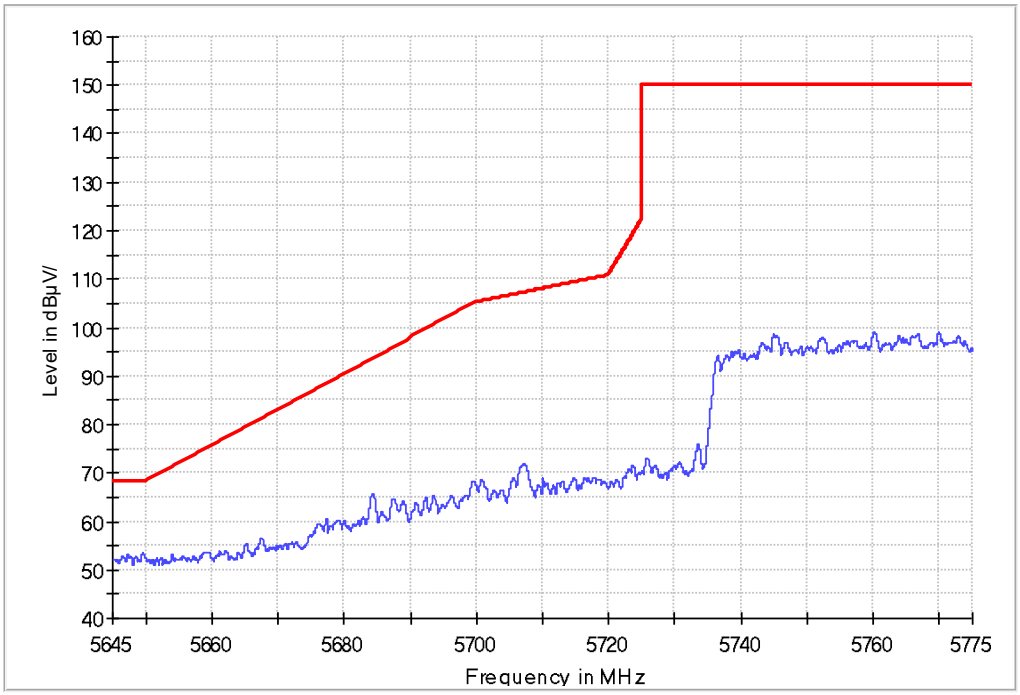
Vertical



Band edge

802.11ax HEW80 IN THE 5.8GHz BAND
CH155

Horizontal



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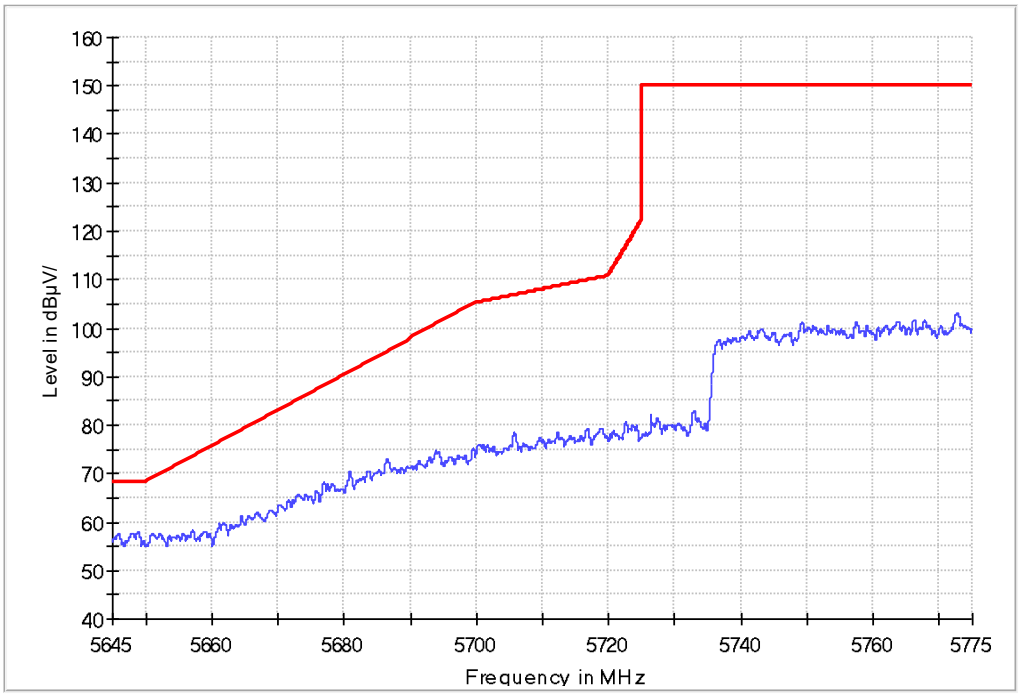
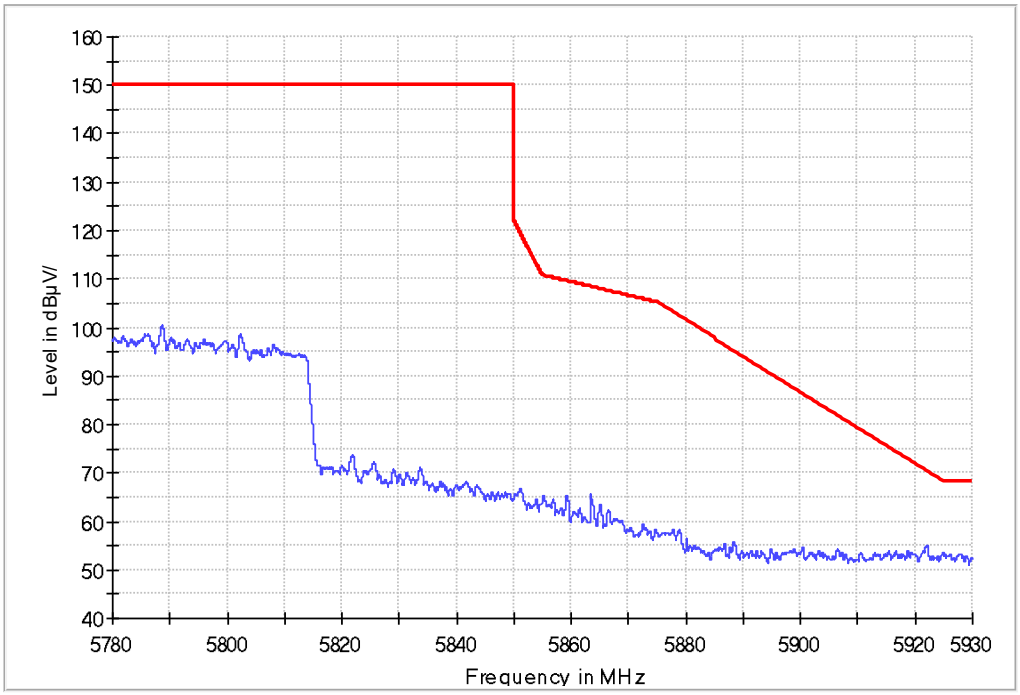


Band edge

802.11ax HEW80 IN THE 5.8GHz BAND
CH155

Horizontal



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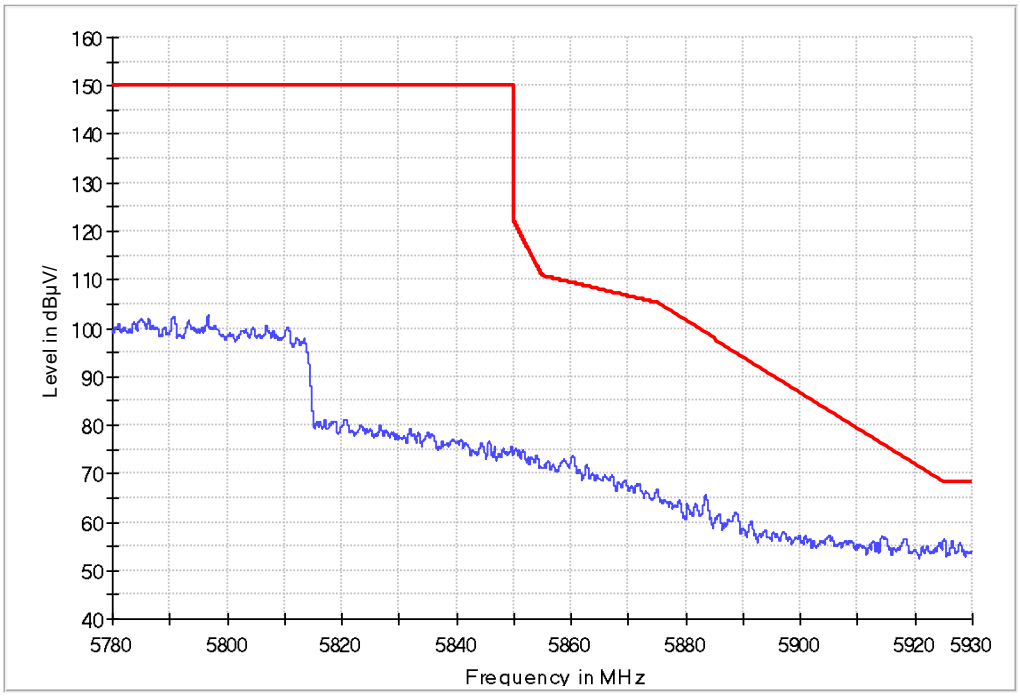


11. CONDUCTED EMISSION TEST FOR AC POWER PORT MEASUREMENT

11.1. Test Standard and Limit

Test Standard
FCC Part 15 15.207
Test Limit

Table 11 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 from 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 9 kHz.

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

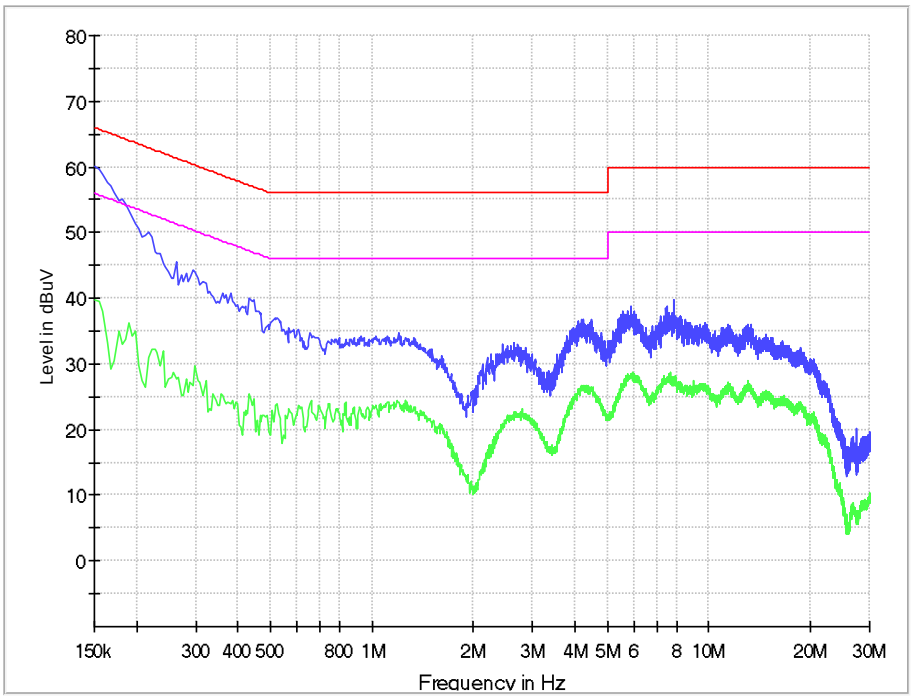
The emissions don’t show in below are too low against the limits. Refer to the test curves.

Table 12 Conducted Disturbance Test Data

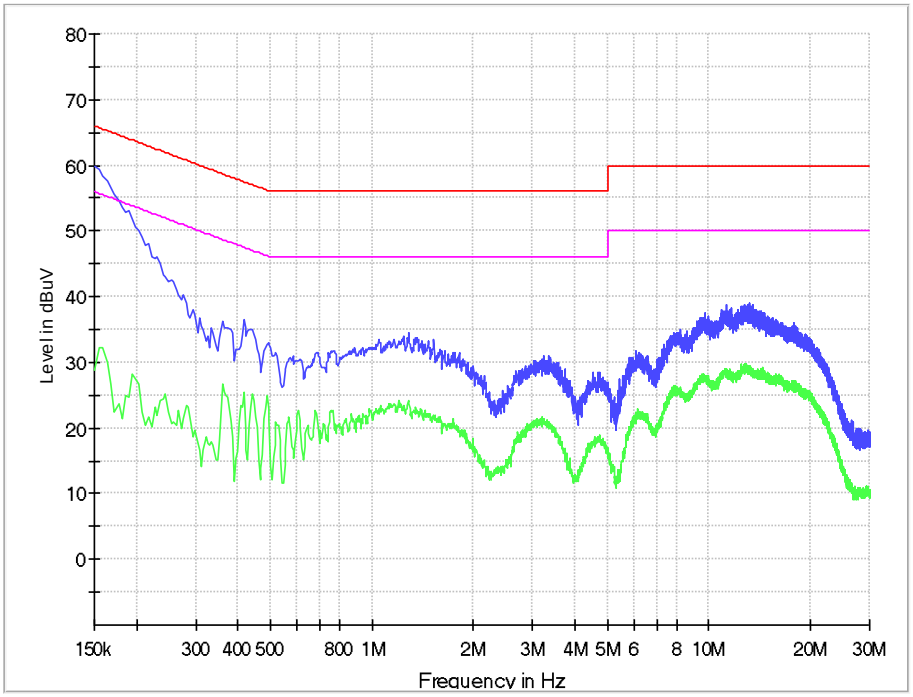
Test mode: Charging and Transmitting								
	Frequency (MHz)	Correction Factor (dB)	Quasi-Peak			Average		
			Reading (dBμV)	Emission Level (dBμV)	Limit (dBμV)	Reading (dBμV)	Emission Level (dBμV)	Limit (dBμV)
Line	0.150	9.7	47.5	57.2	66	30.4	40.1	56
	0.179	9.7	41.6	51.3	64.5	25.7	35.4	54.5
	0.217	9.7	39.2	48.9	62.9	22.4	32.1	52.9
	4.200	9.9	25.8	35.7	56	16.6	26.5	46
	5.986	10.0	26.4	36.4	60	18.7	28.7	50
	7.885	10.0	27.3	37.3	60	18.2	28.2	50
Neutral	0.150	9.7	47.6	57.3	66	21.7	31.4	56
	0.177	9.7	42.0	51.7	64.6	16.1	25.8	54.6
	0.231	9.7	34.6	44.3	62.4	17.2	26.9	52.4
	0.361	9.7	26.2	35.9	58.7	16.7	26.4	48.7
	1.288	9.8	24.7	34.5	56	14.4	24.2	46
	13.492	9.9	25.6	35.5	60	19.4	29.3	50

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.

Line



Neutral



12. ANTENNA REQUIREMENTS

15.203 requirements:
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. 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 provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.
15.247(b) (4) requirements:
The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

12.1. Antenna Connector

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

12.2. Antenna Gain

The antenna gain of EUT is less than 6 dBi.

----------End of Report----------