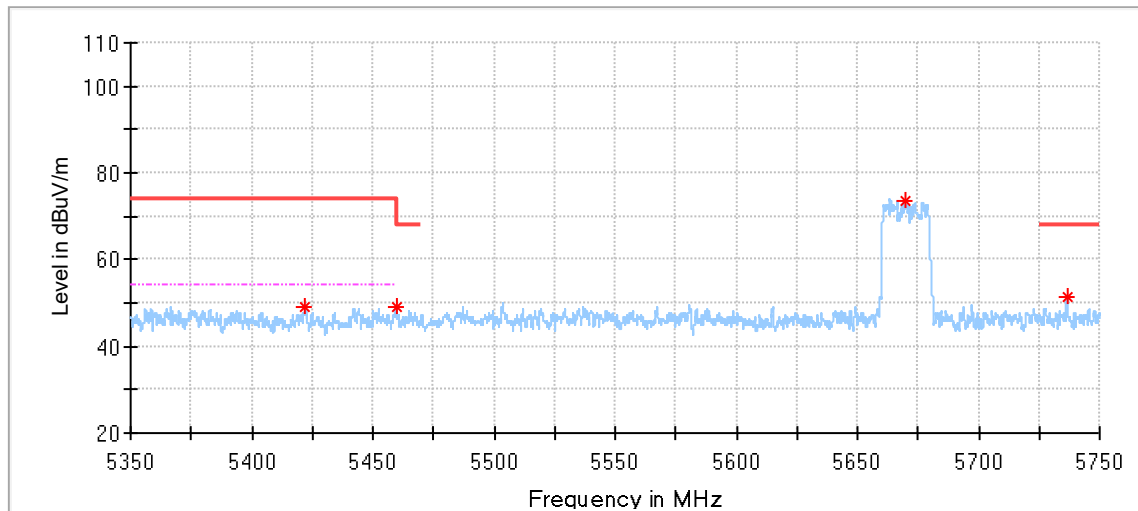
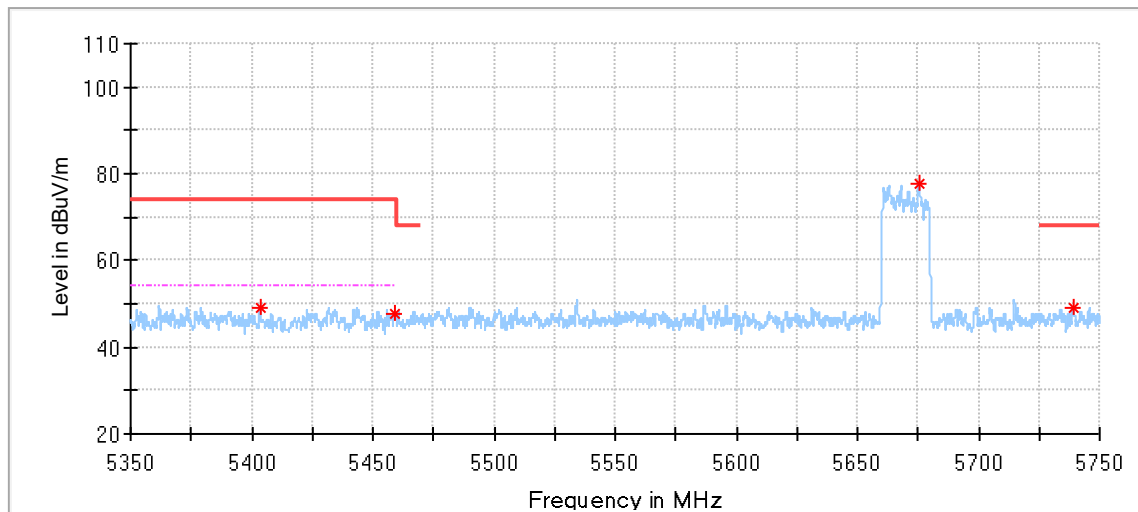
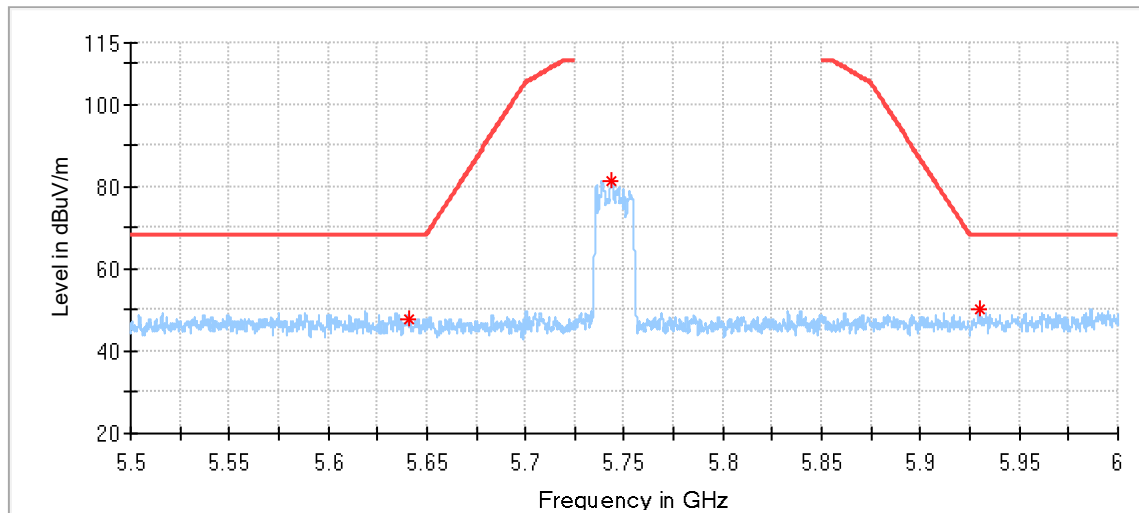


11ax20_5700MHz_242Tone_RU61:**Critical_Freqs**

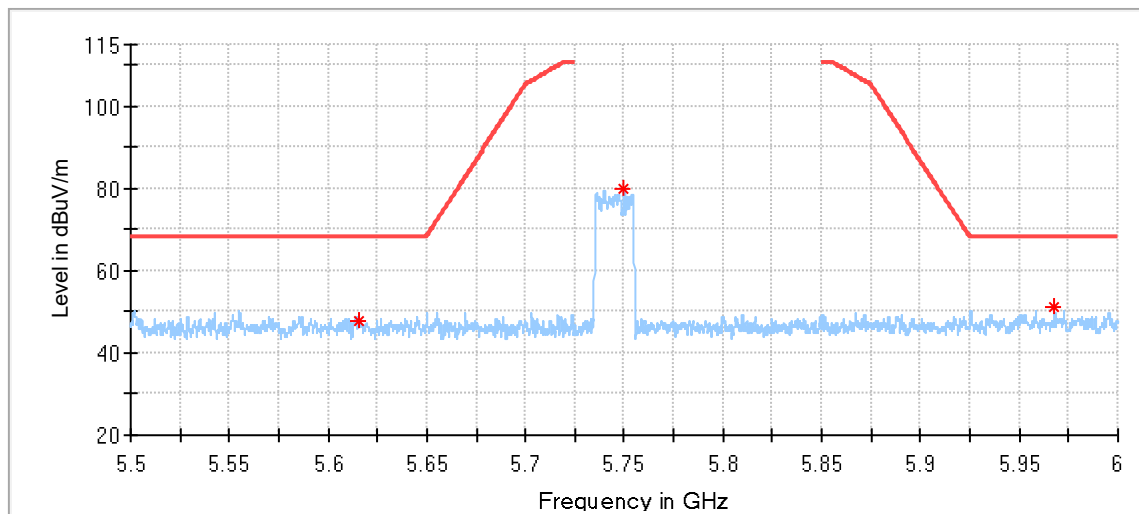
Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
5421.900000	49.28	74.00	24.72	150.0	H	70.0	6.35
5459.633333	48.99	74.00	25.01	150.0	H	150.0	6.32
5669.666667	73.73	---	---	150.0	H	267.0	6.46
5736.533333	51.23	68.20	16.97	150.0	H	329.0	6.57

**Critical_Freqs**

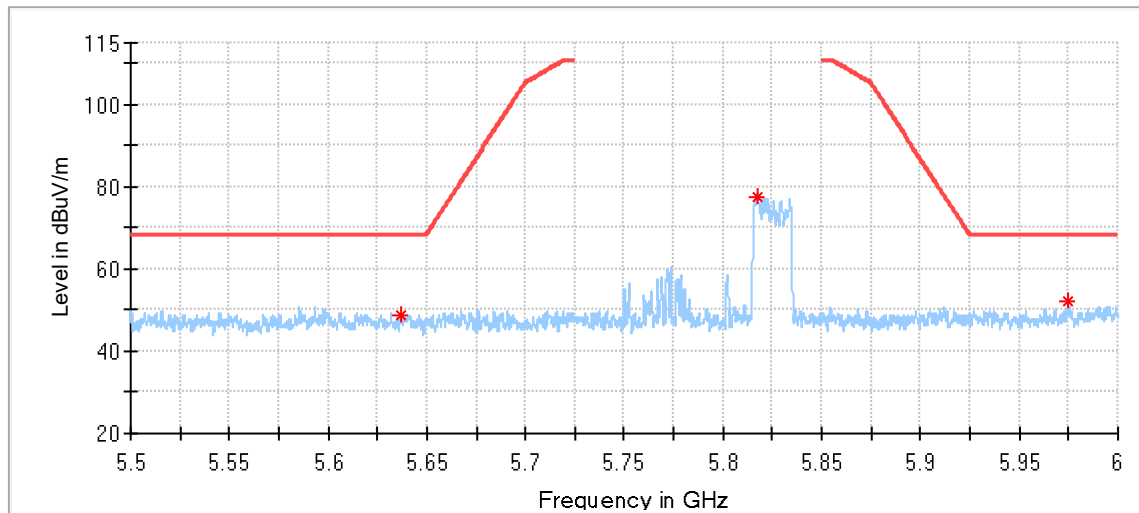
Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
5403.566667	48.96	74.00	25.04	150.0	V	47.0	6.38
5459.000000	47.60	74.00	26.40	150.0	V	352.0	6.32
5675.333333	77.82	---	---	150.0	V	100.0	6.47
5739.000000	49.10	68.20	19.10	150.0	V	6.0	6.57

11ax20_5745MHz_242Tone_RU61:**Critical Freqs**

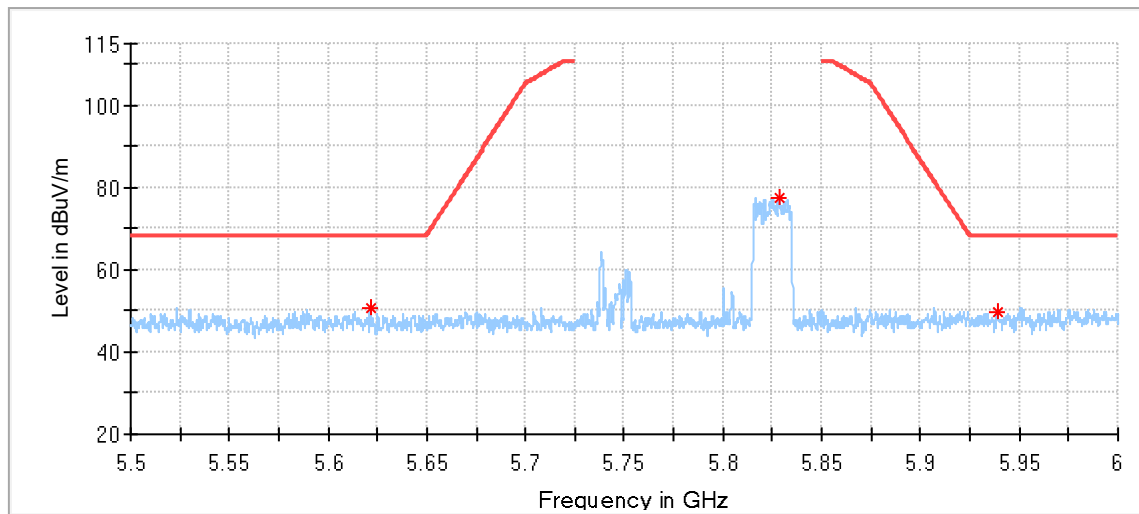
Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
5641.416667	47.93	68.20	20.27	150.0	H	319.0	6.37
5743.250000	81.62	---	---	150.0	H	41.0	6.58
5929.625000	50.17	68.20	18.03	150.0	H	134.0	7.09

**Critical Freqs**

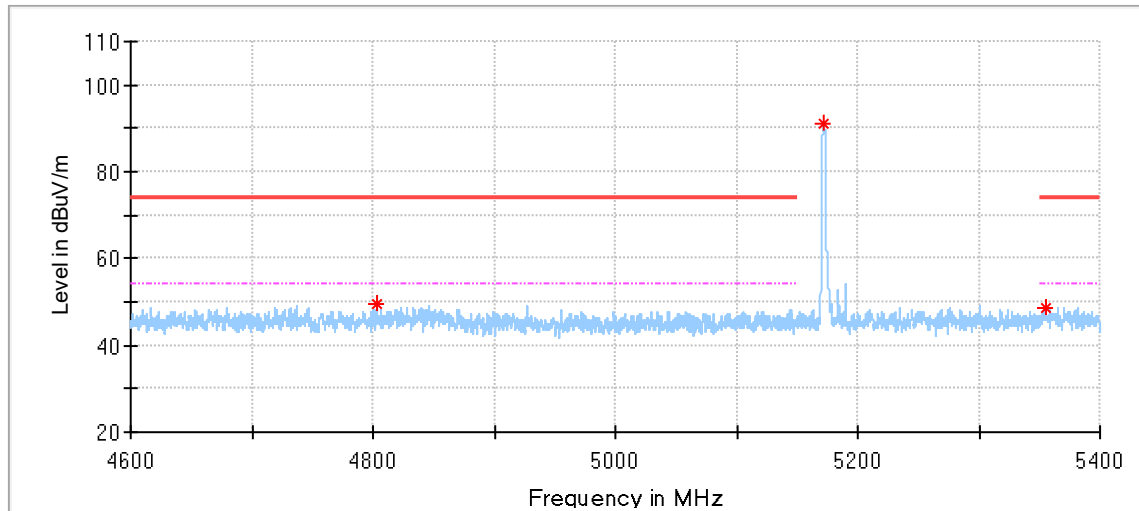
Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
5615.875000	48.01	68.20	20.19	150.0	V	336.0	6.24
5750.000000	80.11	---	---	150.0	V	80.0	6.58
5967.708333	51.10	68.20	17.10	150.0	V	168.0	7.43

11ax20_5825MHz_242Tone_RU61:**Critical Freqs**

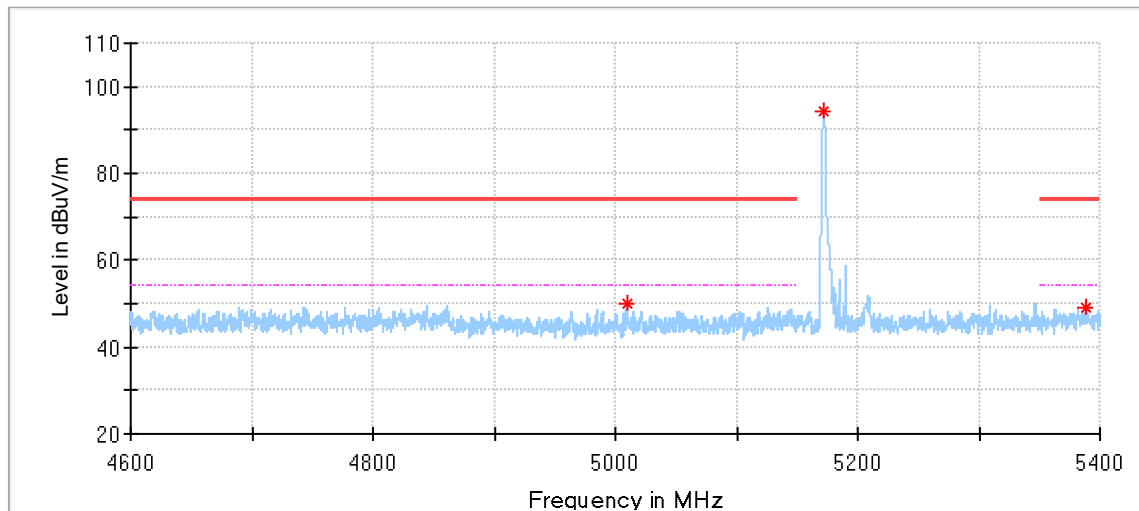
Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
5637.208333	48.58	68.20	19.62	150.0	H	324.0	7.18
5817.416667	77.38	---	---	150.0	H	241.0	7.48
5974.583333	52.16	68.20	16.04	150.0	H	99.0	8.38

**Critical Freqs**

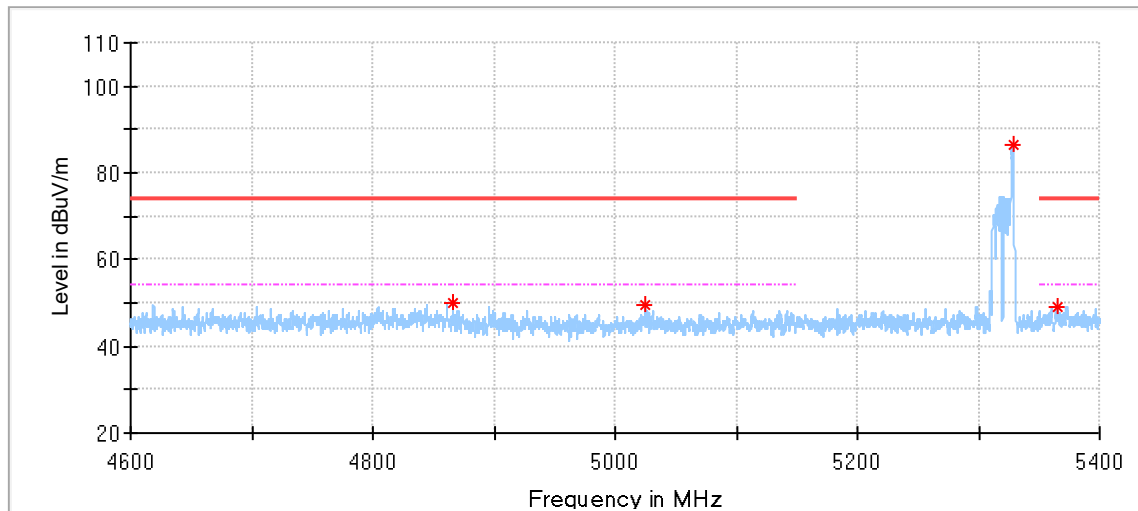
Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
5621.416667	50.78	68.20	17.42	150.0	V	30.0	7.15
5828.375000	77.52	---	---	150.0	V	69.0	7.55
5938.791667	49.64	68.20	18.56	150.0	V	195.0	8.19

11ax40_5190MHz_26Tone_RU0:**Critical_Freqs**

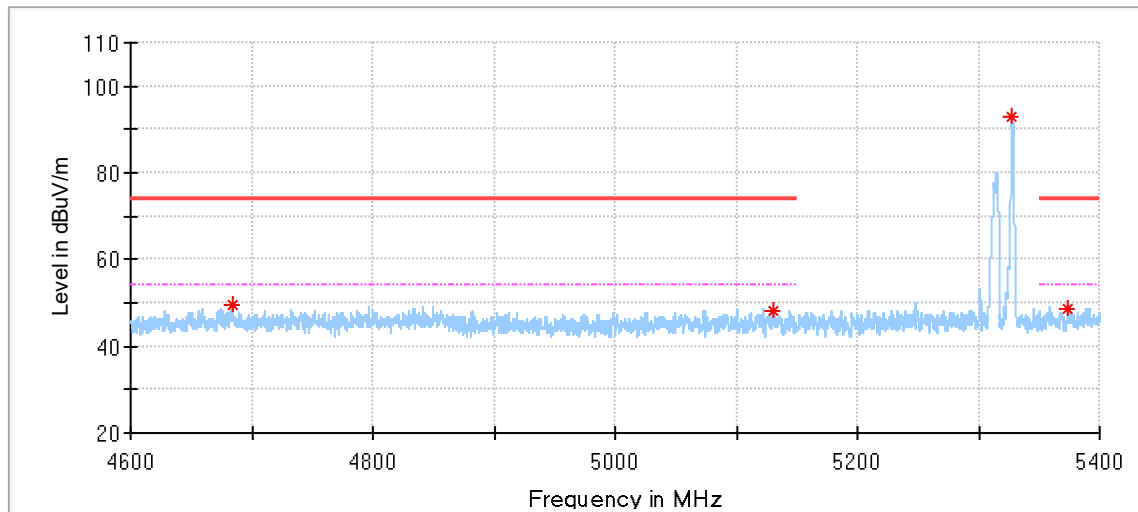
Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4803.266667	49.46	74.00	24.54	150.0	H	59.0	4.87
5171.600000	91.23	---	---	150.0	H	202.0	5.79
5355.000000	48.43	74.00	25.57	150.0	H	323.0	6.20

**Critical_Freqs**

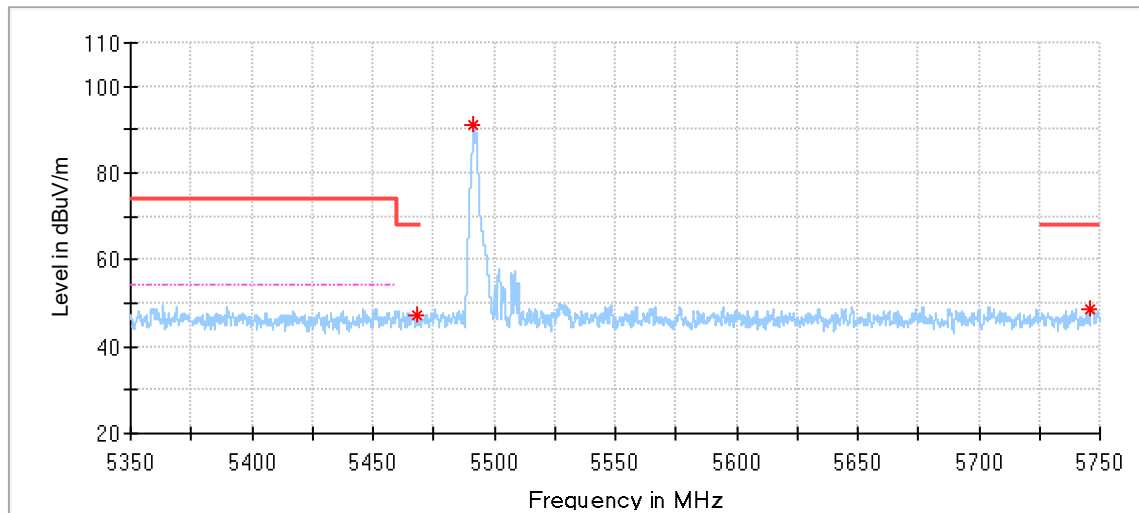
Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
5009.333333	49.85	74.00	24.15	150.0	V	9.0	4.94
5171.666667	94.09	---	---	150.0	V	308.0	5.79
5388.133333	49.17	74.00	24.83	150.0	V	80.0	6.39

11ax40_5310MHz_26Tone_RU17:**Critical_Freqs**

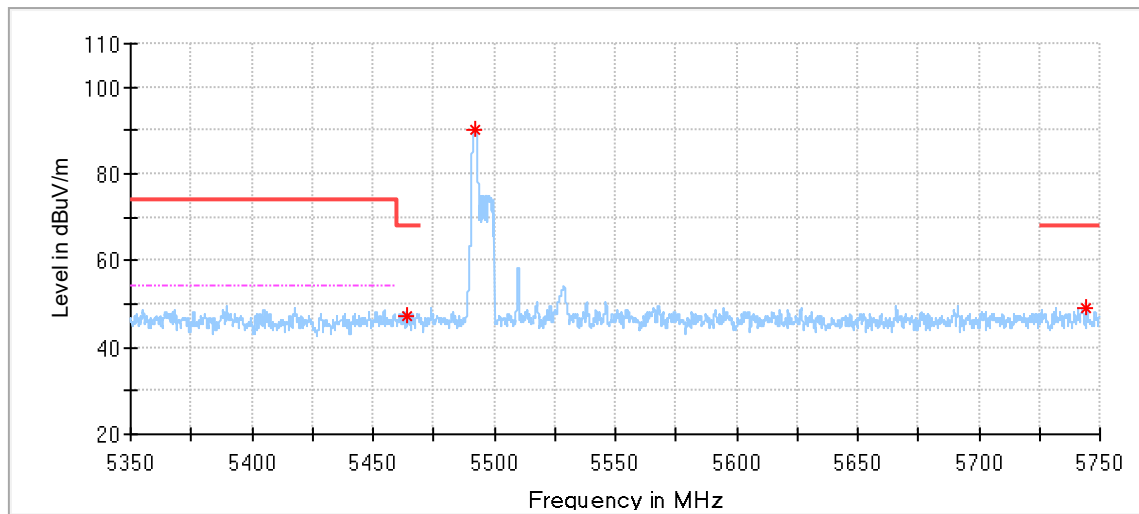
Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4865.800000	49.93	74.00	24.07	150.0	H	359.0	4.91
5024.800000	49.50	74.00	24.50	150.0	H	74.0	5.03
5328.200000	86.29	---	---	150.0	H	285.0	5.98
5364.933333	49.01	74.00	24.99	150.0	H	318.0	6.29

**Critical_Freqs**

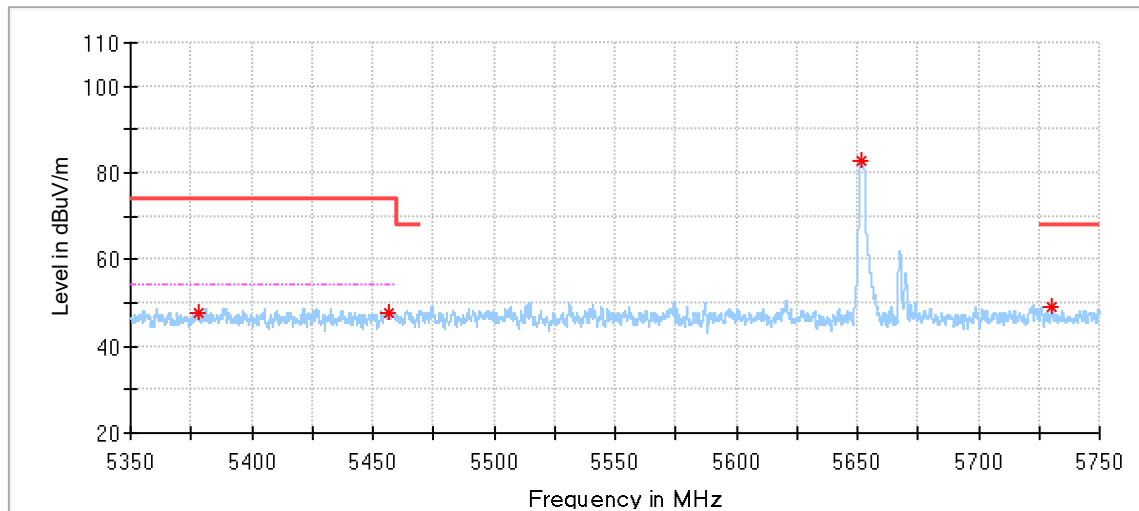
Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4684.200000	49.47	74.00	24.53	150.0	V	261.0	4.55
5129.866667	47.95	74.00	26.05	150.0	V	63.0	5.62
5327.533333	92.77	---	---	150.0	V	313.0	5.98
5374.133333	48.48	74.00	25.52	150.0	V	102.0	6.38

11ax40_5510MHz_26Tone_RU0:**Critical Freqs**

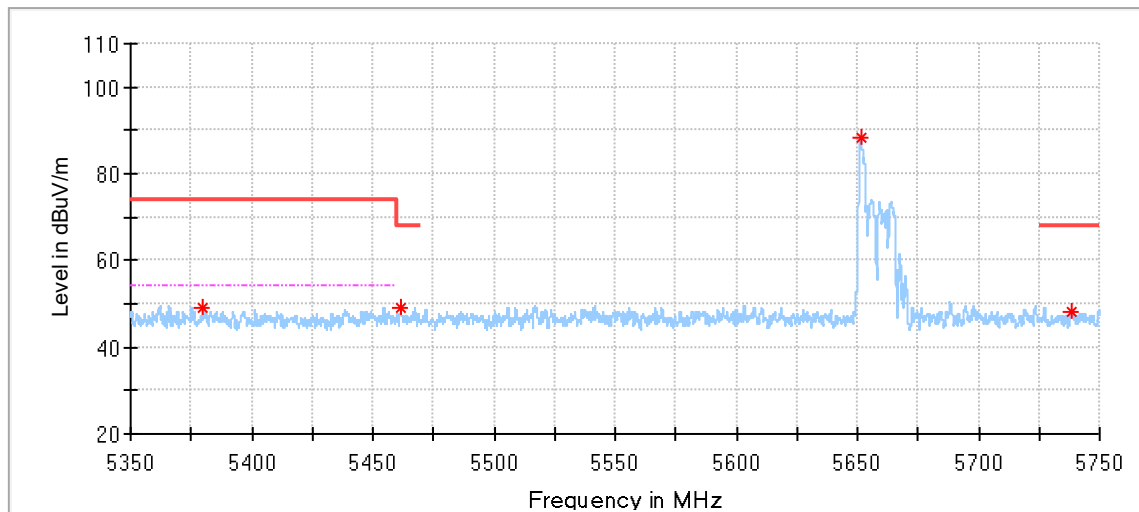
Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
5468.500000	47.41	68.20	20.79	150.0	H	63.0	6.31
5491.633333	91.23	---	---	150.0	H	49.0	6.46
5746.266667	48.84	68.20	19.36	150.0	H	76.0	6.58

**Critical Freqs**

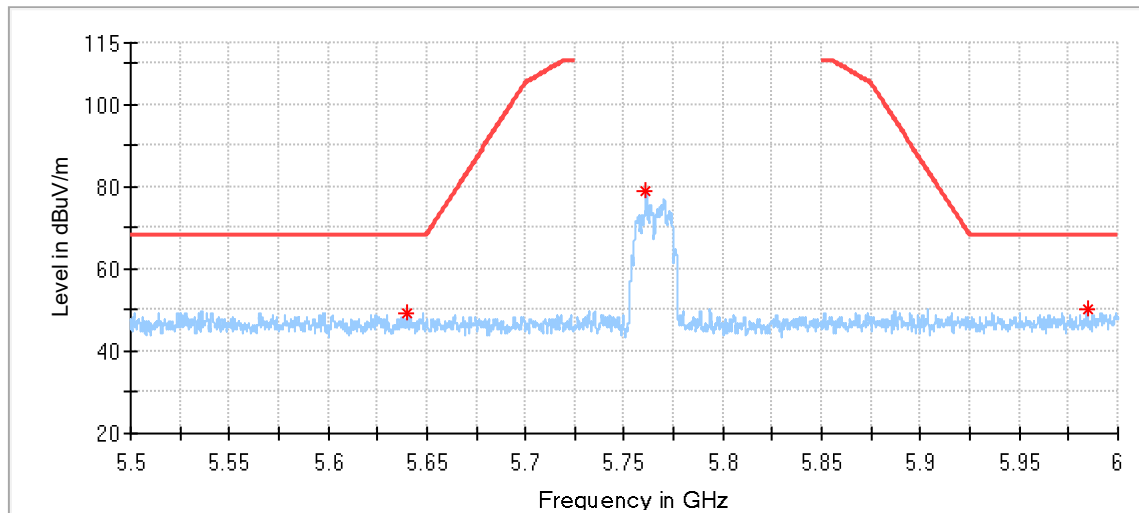
Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
5464.000000	47.39	68.20	20.81	150.0	V	249.0	6.31
5491.933333	89.96	---	---	150.0	V	77.0	6.47
5744.566667	49.18	68.20	19.02	150.0	V	326.0	6.58

11ax40_5670MHz_26Tone_RU17:**Critical_Freqs**

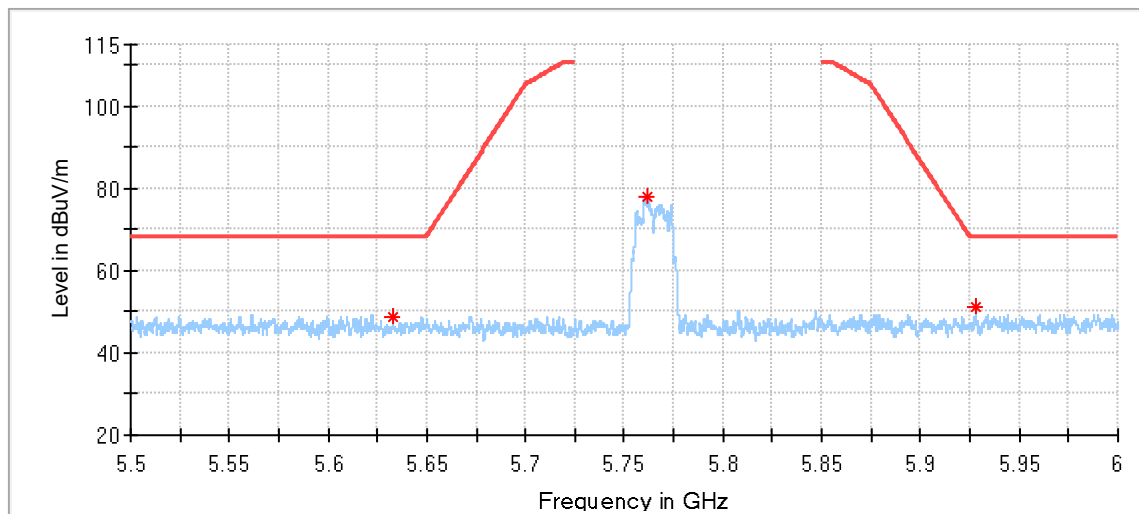
Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
5378.433333	47.72	74.00	26.28	150.0	H	254.0	6.38
5456.366667	47.63	74.00	26.37	150.0	H	33.0	6.32
5651.933333	82.96	---	---	150.0	H	289.0	6.42
5730.333333	48.99	68.20	19.21	150.0	H	244.0	6.56

**Critical_Freqs**

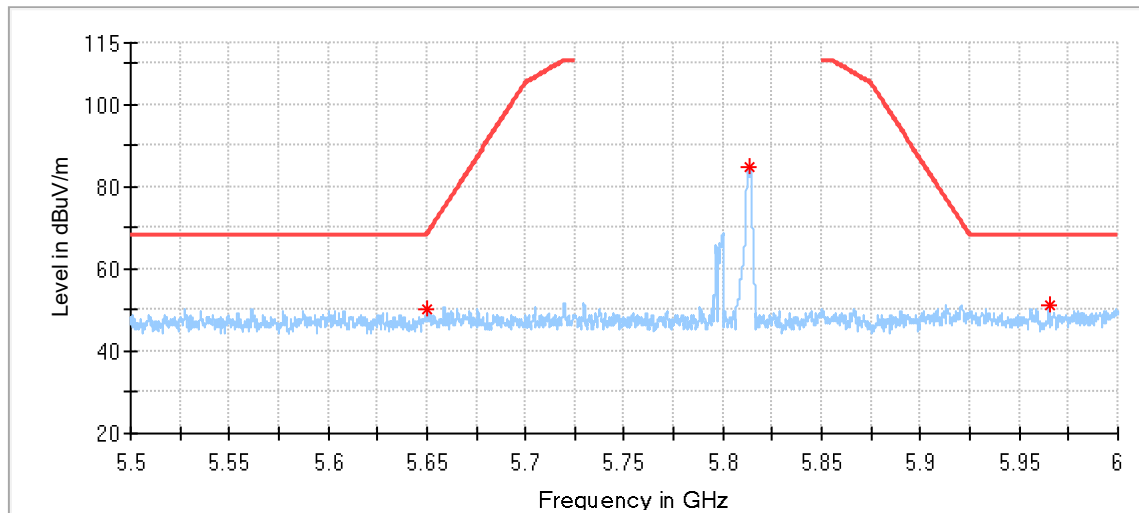
Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
5380.100000	48.97	74.00	25.03	150.0	V	44.0	6.38
5461.566667	49.18	68.20	19.02	150.0	V	145.0	6.32
5651.366667	88.20	---	---	150.0	V	316.0	6.42
5738.100000	48.26	68.20	19.94	150.0	V	220.0	6.57

11ax40_5755MHz_26Tone_RU0:**Critical Freqs**

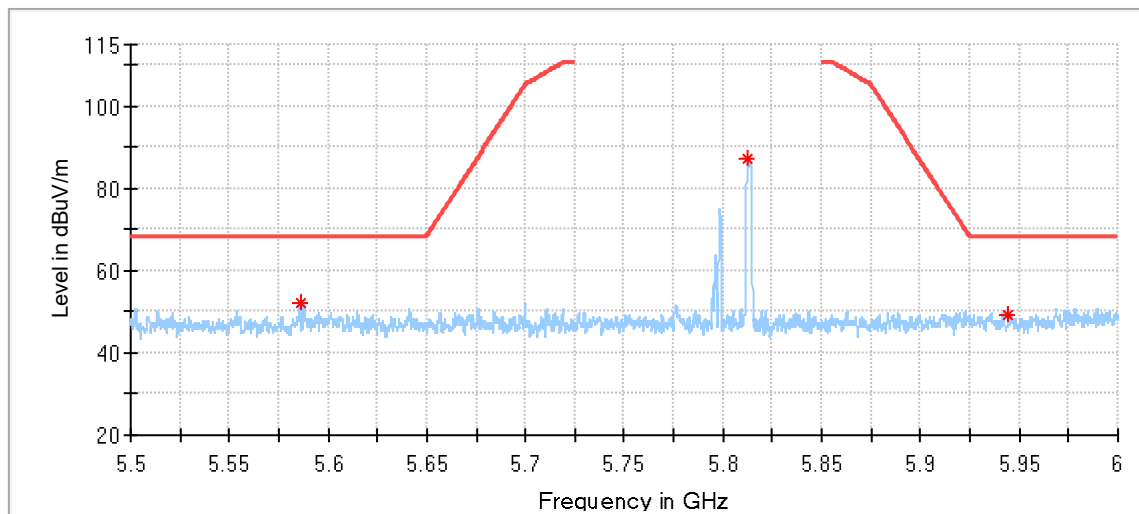
Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
5640.375000	49.15	68.20	19.05	150.0	H	352.0	6.37
5761.083333	79.02	---	---	150.0	H	293.0	6.59
5984.458333	50.21	68.20	17.99	150.0	H	224.0	7.63

**Critical Freqs**

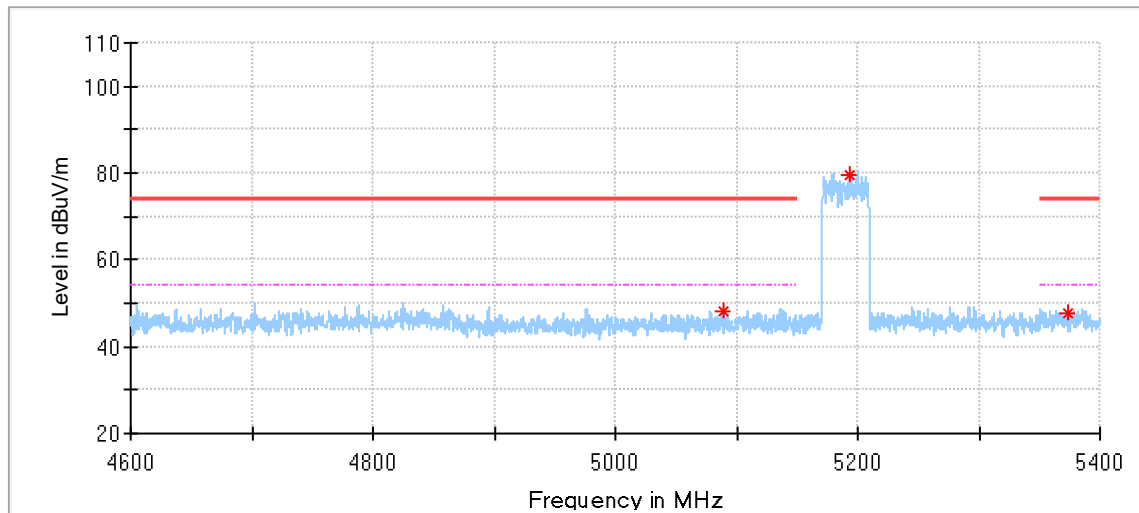
Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
5632.916667	48.82	68.20	19.38	150.0	V	289.0	6.33
5762.000000	77.93	---	---	150.0	V	0.0	6.59
5927.916667	51.07	68.20	17.13	150.0	V	245.0	7.09

11ax40_5795MHz_26Tone_RU17:**Critical Freqs**

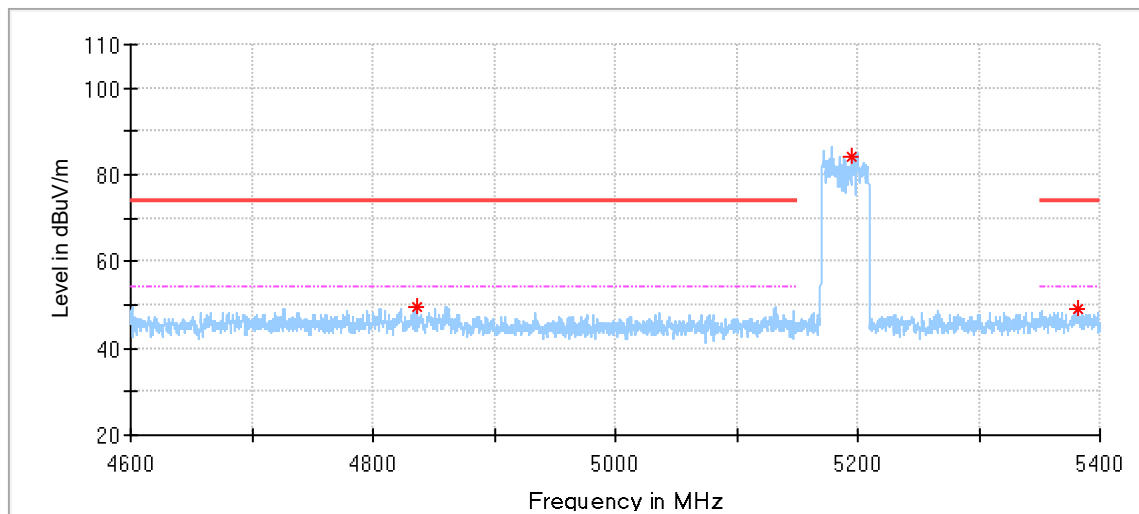
Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
5649.958333	50.26	68.20	17.94	150.0	H	136.0	7.20
5813.666667	84.88	---	---	150.0	H	247.0	7.46
5965.125000	51.06	68.20	17.14	150.0	H	104.0	8.32

**Critical Freqs**

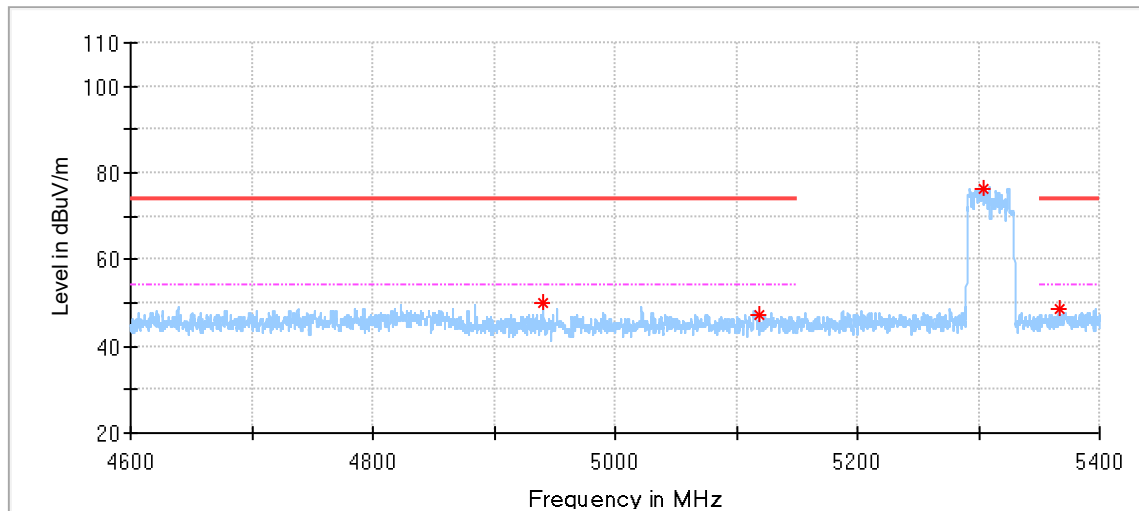
Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
5585.750000	52.32	68.20	15.88	150.0	V	85.0	7.14
5812.791667	87.02	---	---	150.0	V	286.0	7.46
5944.458333	49.16	68.20	19.04	150.0	V	341.0	8.21

11ax40_5190MHz_484Tone_R65:**Critical Freqs**

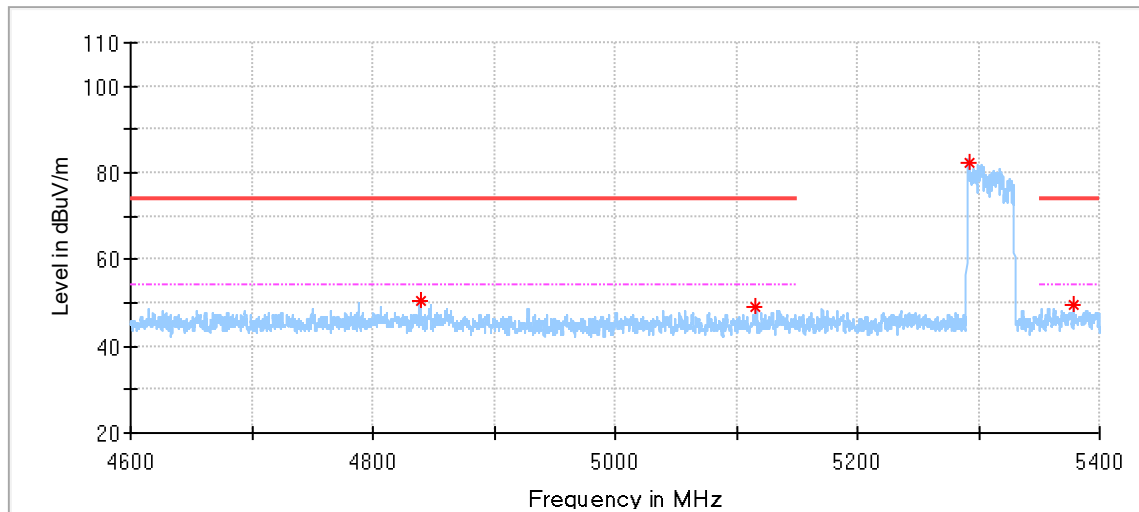
Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
5089.000000	48.21	74.00	25.79	150.0	H	204.0	5.46
5193.733333	79.43	---	---	150.0	H	323.0	5.66
5374.133333	47.61	74.00	26.39	150.0	H	198.0	6.38

**Critical Freqs**

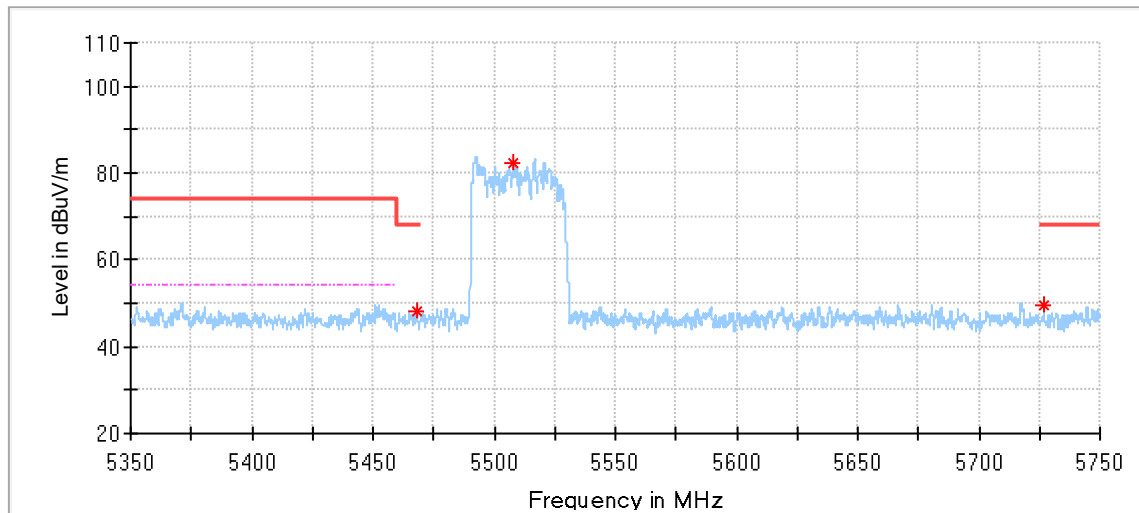
Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4835.800000	49.72	74.00	24.28	150.0	V	103.0	4.92
5195.200000	84.25	---	---	150.0	V	293.0	5.65
5381.066667	48.96	74.00	25.04	150.0	V	337.0	6.38

11ax40_5310MHz_484Tone_R65:**Critical_Freqs**

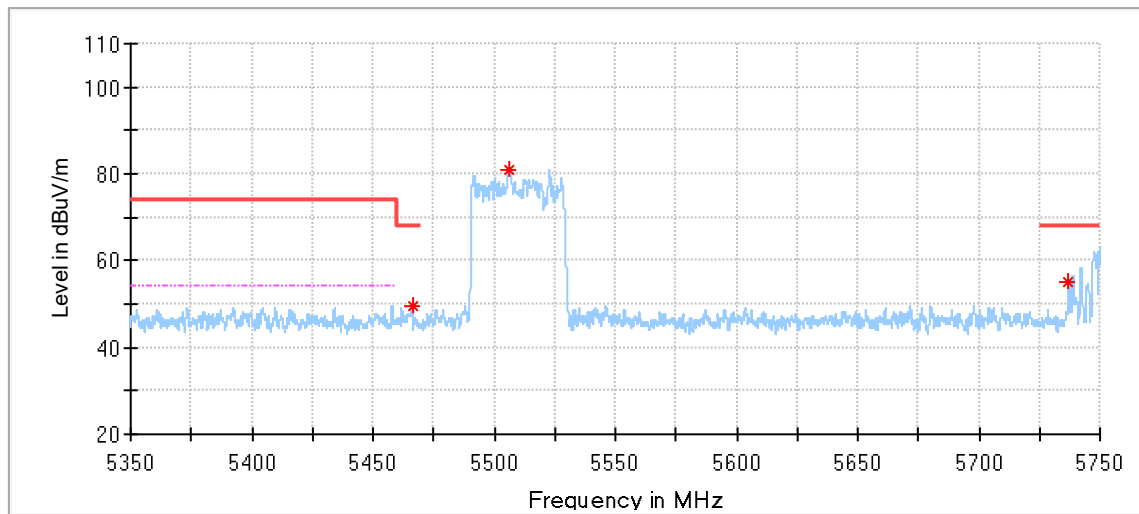
Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4940.800000	49.84	74.00	24.16	150.0	H	93.0	5.06
5119.200000	47.40	74.00	26.60	150.0	H	99.0	5.56
5303.333333	76.45	---	---	150.0	H	258.0	5.94
5366.333333	48.69	74.00	25.31	150.0	H	313.0	6.31

**Critical_Freqs**

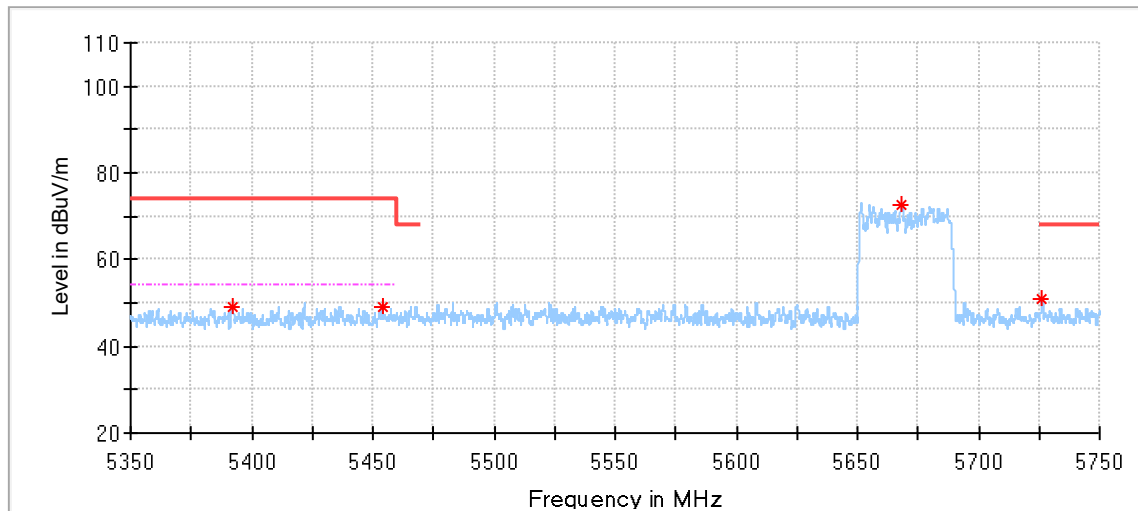
Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4838.933333	50.35	74.00	23.65	150.0	V	100.0	4.92
5116.400000	49.01	74.00	24.99	150.0	V	67.0	5.54
5291.866667	82.28	---	---	150.0	V	304.0	5.93
5378.400000	49.34	74.00	24.66	150.0	V	210.0	6.38

11ax40_5510MHz_484Tone_R65:**Critical_Freqs**

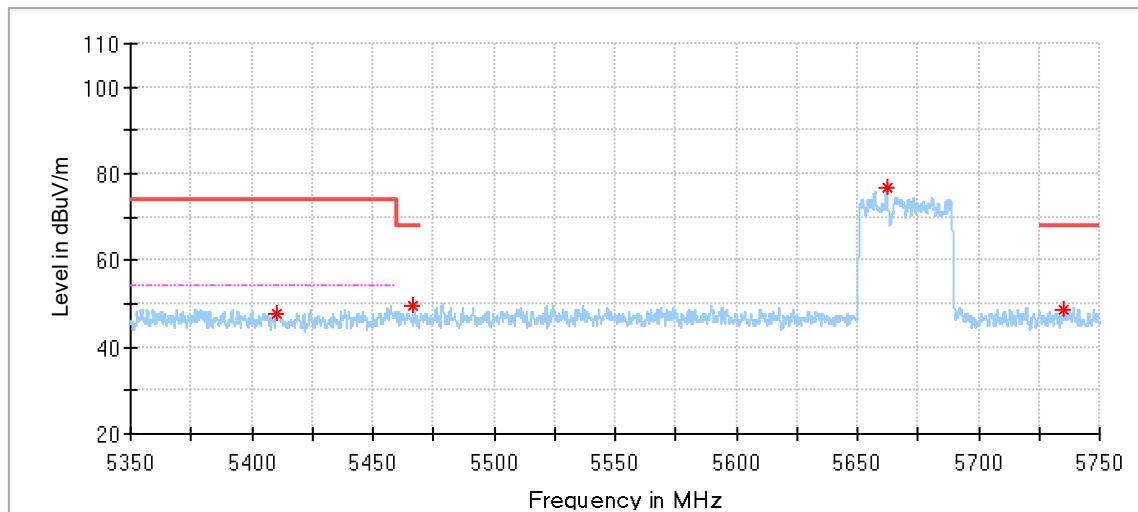
Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
5467.900000	48.24	68.20	19.96	150.0	H	304.0	6.31
5507.933333	82.08	---	---	150.0	H	357.0	6.72
5726.800000	49.44	68.20	18.76	150.0	H	346.0	6.56

**Critical_Freqs**

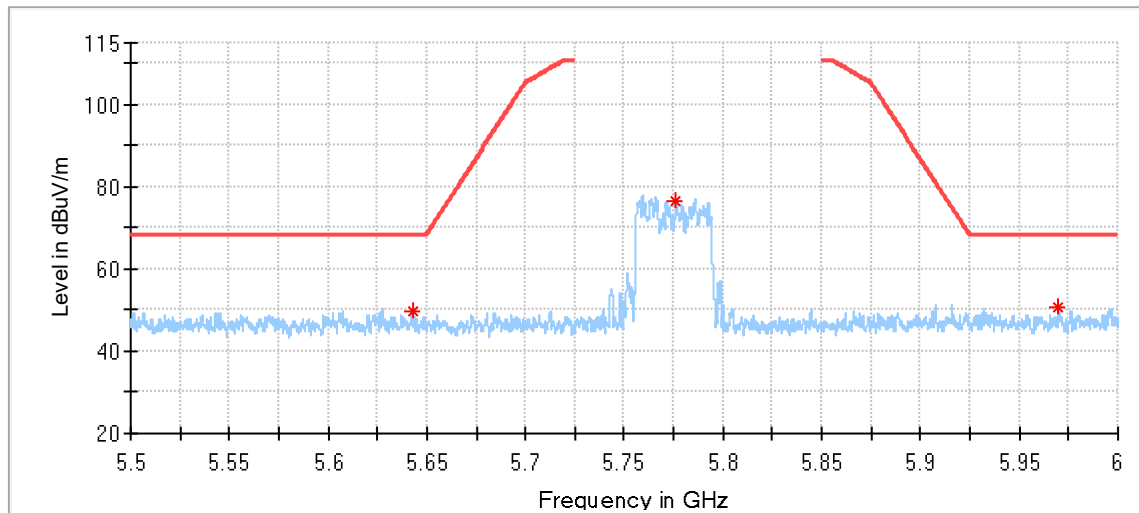
Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
5466.200000	49.76	68.20	18.44	150.0	V	314.0	6.31
5506.100000	80.91	---	---	150.0	V	39.0	6.70
5737.000000	55.03	68.20	13.17	150.0	V	128.0	6.57

11ax40_5670MHz_484Tone_R65:**Critical_Freqs**

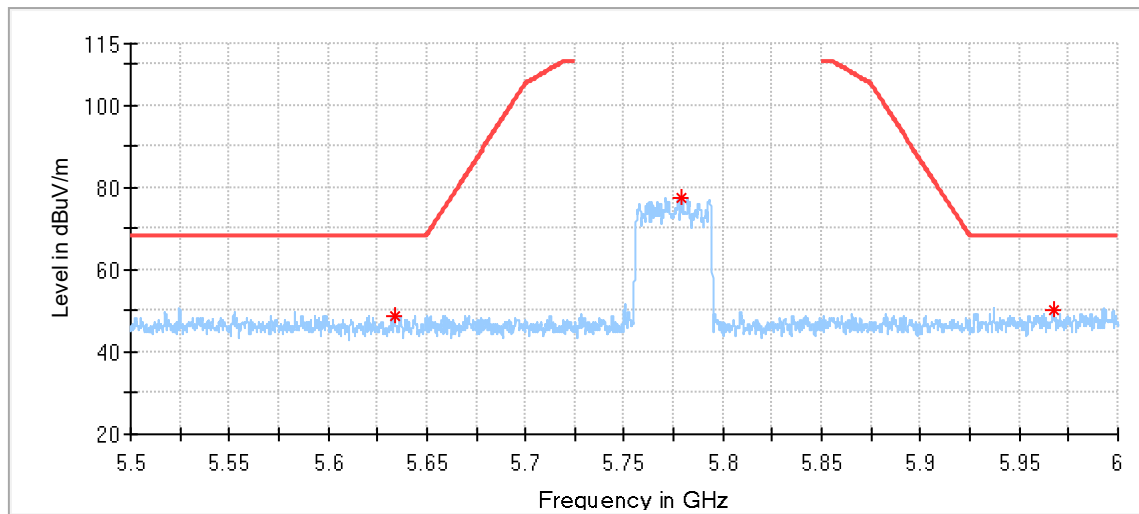
Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
5391.933333	49.13	74.00	24.87	150.0	H	271.0	6.39
5453.900000	48.98	74.00	25.02	150.0	H	0.0	6.32
5668.133333	72.63	---	---	150.0	H	274.0	6.46
5726.233333	50.79	68.20	17.41	150.0	H	111.0	6.56

**Critical_Freqs**

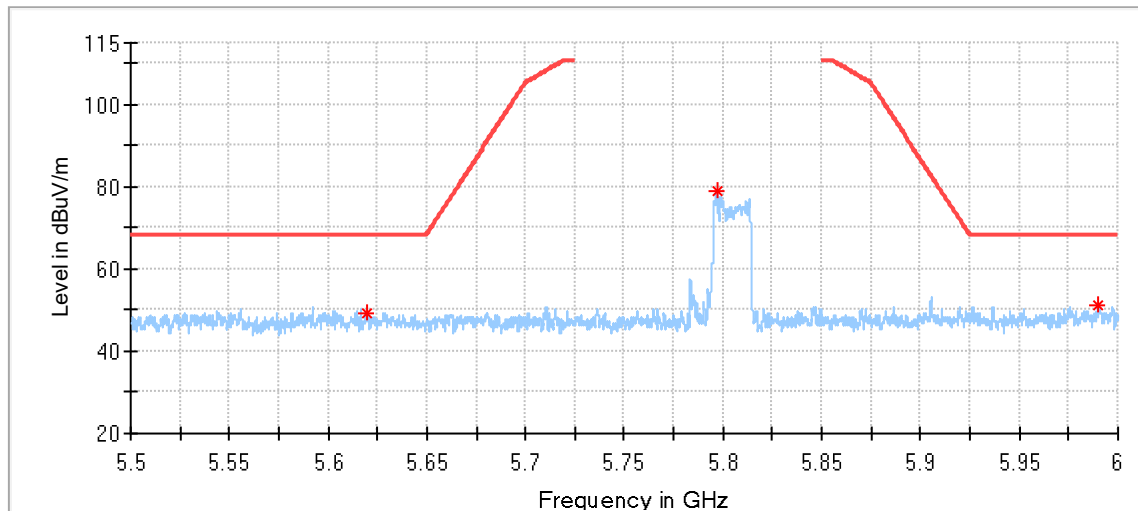
Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
5410.566667	47.62	74.00	26.38	150.0	V	353.0	6.37
5466.633333	49.42	68.20	18.78	150.0	V	84.0	6.31
5662.100000	76.73	---	---	150.0	V	306.0	6.44
5735.400000	48.78	68.20	19.42	150.0	V	127.0	6.57

11ax40_5755MHz_484Tone_R65:**Critical Freqs**

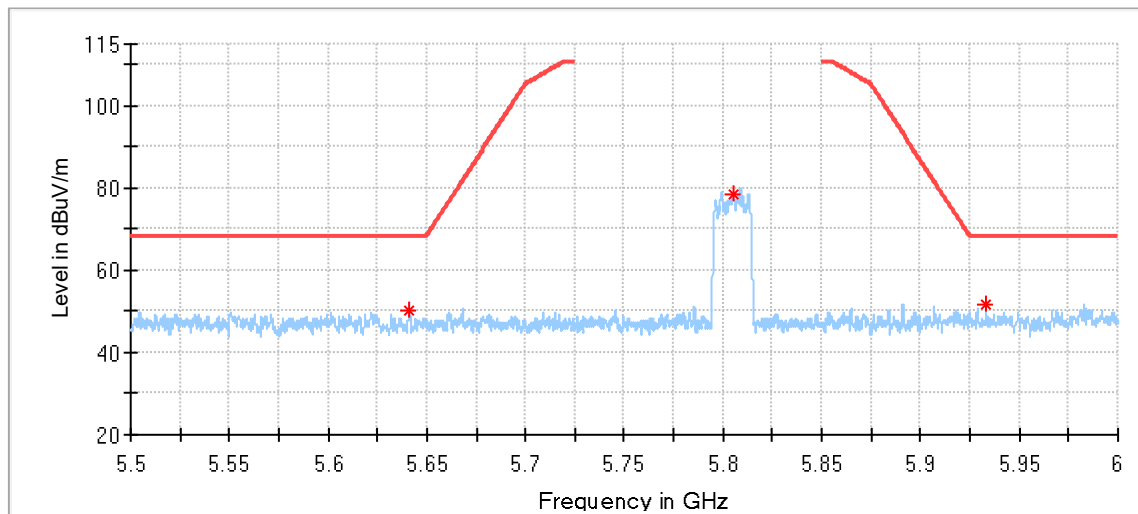
Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
5642.666667	49.95	68.20	18.25	150.0	H	356.0	6.38
5776.125000	76.71	---	---	150.0	H	24.0	6.57
5969.791667	50.51	68.20	17.69	150.0	H	61.0	7.46

**Critical Freqs**

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
5633.750000	48.98	68.20	19.22	150.0	V	25.0	6.33
5779.000000	77.71	---	---	150.0	V	247.0	6.57
5967.750000	50.04	68.20	18.16	150.0	V	341.0	7.43

11ax40_5795MHz_484Tone_R65:**Critical Freqs**

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
5619.958333	49.27	68.20	18.93	150.0	H	25.0	7.15
5797.000000	78.82	---	---	150.0	H	237.0	7.41
5990.041667	51.06	68.20	17.14	150.0	H	209.0	8.48

**Critical Freqs**

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
5641.125000	50.22	68.20	17.98	150.0	V	230.0	7.18
5805.416667	78.64	---	---	150.0	V	279.0	7.43
5933.333333	51.68	68.20	16.52	150.0	V	30.0	8.16

Remark:

- (1) Data of measurement within frequency range 9kHz-30MHz are the noise floor or attenuated more than 20dB below the permissible limits or the field strength is too small to be measured, so test data does not present in this report.
- (2) Level= Reading Level + Correction Factor
- (3) Above 1GHz: Corrector factor = Antenna Factor + Cable Loss- Amplifier Gain
Below 1GHz: Corrector factor = Antenna Factor + Cable Loss
(The Reading Level is recorded by software which is not shown in the sheet)

- (4) According to C63.10, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement, so AV emission value did not show in below table if the peak value complies with average limit.

8.7 Frequencies Stability

Test Method

1. The EUT was placed on 0.8m height table, the RF output of EUT was connected to the test receiver by RF cable. The path loss was compensated to the results for each measurement. The EUT was placed inside the environmental test chamber.
2. Set center frequency of the channel under test.
3. Test the OBW and record the frequency of the left and right frequency point.
4. Repeat the test at temperature specified by manufacture as below by not more than 10 °C step by normal voltage.
5. Repeat the test at 85% and 115% of the nominal supply voltage as below under normal temperature (+15 °C to +25 °C).

Limit:

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 users manual.

Test Results (All conditions and all modes were performed, only list Worst-Case in the report)

Remark: NV is normal Voltage: 5.0Vdc, HV is High Voltage: 5.75Vdc, LV is Low Voltage: 4.25Vdc, NT is normal Temperature: +25°C.

User manual temperature is -10°C to +45°C, normal Temperature is +25°C.

Ant1								
Mode	TX Type	Frequency (MHz)	Temperature (°C)	Voltage (VDC)	FL (MHz)	FR (MHz)	Limit (MHz)	Verdict
802.11ac (VHT20)	SISO	5180	25	4.25	5170.56	5198.51	5150 to 5250	Pass
				5.00	5170.55	5198.50	5150 to 5250	Pass
				5.75	5170.55	5198.51	5150 to 5250	Pass
			-10	5.00	5170.56	5198.50	5150 to 5250	Pass
			0	5.00	5170.56	5198.50	5150 to 5250	Pass
			10	5.00	5170.55	5198.51	5150 to 5250	Pass
			30	5.00	5170.56	5198.50	5150 to 5250	Pass
			45	5.00	5170.54	5198.50	5150 to 5250	Pass
		5200	25	4.25	5190.44	5209.59	5150 to 5250	Pass
				5.00	5190.47	5209.52	5150 to 5250	Pass
				5.75	5190.44	5209.59	5150 to 5250	Pass
			-10	5.00	5190.47	5209.59	5150 to 5250	Pass
			0	5.00	5190.46	5209.55	5150 to 5250	Pass
			10	5.00	5190.47	5209.55	5150 to 5250	Pass
			30	5.00	5190.47	5209.57	5150 to 5250	Pass
			45	5.00	5190.48	5209.59	5150 to 5250	Pass
		5240	25	4.25	5230.54	5249.47	5150 to 5250	Pass
				5.00	5230.54	5249.46	5150 to 5250	Pass
				5.75	5230.56	5249.47	5150 to 5250	Pass
			-10	5.00	5230.54	5249.45	5150 to 5250	Pass
			0	5.00	5230.53	5249.47	5150 to 5250	Pass
			10	5.00	5230.54	5249.45	5150 to 5250	Pass
			30	5.00	5230.51	5249.45	5150 to 5250	Pass
			45	5.00	5230.54	5249.44	5150 to 5250	Pass
		5260	25	4.25	5250.61	5269.42	5250 to 5350	Pass
				5.00	5250.61	5269.42	5250 to 5350	Pass
				5.75	5250.60	5269.41	5250 to 5350	Pass
			-10	5.00	5250.61	5269.42	5250 to 5350	Pass
			0	5.00	5250.60	5269.42	5250 to 5350	Pass
			10	5.00	5250.62	5269.41	5250 to 5350	Pass
			30	5.00	5250.61	5269.40	5250 to 5350	Pass
			45	5.00	5250.60	5269.42	5250 to 5350	Pass
		5300	25	4.25	5290.50	5309.53	5250 to 5350	Pass
				5.00	5290.50	5309.53	5250 to 5350	Pass
				5.75	5290.50	5309.53	5250 to 5350	Pass
			-10	5.00	5290.50	5309.52	5250 to 5350	Pass
			0	5.00	5290.51	5309.2	5250 to 5350	Pass
			10	5.00	5290.50	5309.53	5250 to 5350	Pass
			30	5.00	5290.54	5309.51	5250 to 5350	Pass
			45	5.00	5290.50	5309.53	5250 to 5350	Pass
		5320	25	4.25	5310.59	5329.40	5250 to 5350	Pass
				5.00	5310.59	5329.40	5250 to 5350	Pass
				5.75	5310.59	5329.40	5250 to 5350	Pass
			-10	5.00	5310.58	5329.41	5250 to 5350	Pass
			0	5.00	5310.59	5329.40	5250 to 5350	Pass
			10	5.00	5310.56	5329.43	5250 to 5350	Pass
			30	5.00	5310.55	5329.41	5250 to 5350	Pass
			45	5.00	5310.59	5329.40	5250 to 5350	Pass
		5500	25	4.25	5490.61	5509.38	5470 to 5725	Pass
				5.00	5490.60	5509.39	5470 to 5725	Pass
				5.75	5490.61	5509.37	5470 to 5725	Pass
			-10	5.00	5490.62	5509.39	5470 to 5725	Pass
			0	5.00	5490.61	5509.35	5470 to 5725	Pass
			10	5.00	5490.60	5509.39	5470 to 5725	Pass
			30	5.00	5490.61	5509.39	5470 to 5725	Pass
			45	5.00	5490.61	5509.39	5470 to 5725	Pass
		5580	25	4.25	5570.58	5589.36	5470 to 5725	Pass
				5.00	5570.58	5589.38	5470 to 5725	Pass
				5.75	5570.55	5589.35	5470 to 5725	Pass
			-10	5.00	5570.58	5589.38	5470 to 5725	Pass
			0	5.00	5570.57	5589.34	5470 to 5725	Pass

802.11ac (VHT40)	SISO		10	5.00	5570.58	5589.38	5470 to 5725	Pass
			30	5.00	5570.59	5589.35	5470 to 5725	Pass
			45	5.00	5570.58	5589.38	5470 to 5725	Pass
		5700	25	4.25	5690.53	5709.37	5470 to 5725	Pass
				5.00	5690.53	5709.37	5470 to 5725	Pass
				5.75	5690.50	5709.36	5470 to 5725	Pass
			-10	5.00	5690.53	5709.36	5470 to 5725	Pass
			0	5.00	5690.51	5709.35	5470 to 5725	Pass
			10	5.00	5690.53	5709.37	5470 to 5725	Pass
			30	5.00	5690.51	5709.35	5470 to 5725	Pass
			45	5.00	5690.53	5709.37	5470 to 5725	Pass
		5745	25	4.25	5735.55	5754.52	5725 to 5850	Pass
				5.00	5735.54	5754.52	5725 to 5850	Pass
				5.75	5735.54	5754.51	5725 to 5850	Pass
			-10	5.00	5735.55	5754.52	5725 to 5850	Pass
			0	5.00	5735.54	5754.51	5725 to 5850	Pass
			10	5.00	5735.55	5754.51	5725 to 5850	Pass
			30	5.00	5735.55	5754.51	5725 to 5850	Pass
			45	5.00	5735.54	5754.52	5725 to 5850	Pass
		5785	25	4.25	5775.49	5794.51	5725 to 5850	Pass
				5.00	5775.48	5794.50	5725 to 5850	Pass
				5.75	5775.49	5794.50	5725 to 5850	Pass
			-10	5.00	5775.47	5794.51	5725 to 5850	Pass
			0	5.00	5775.47	5794.50	5725 to 5850	Pass
			10	5.00	5775.49	5794.51	5725 to 5850	Pass
			30	5.00	5775.49	5794.51	5725 to 5850	Pass
			45	5.00	5775.46	5794.50	5725 to 5850	Pass
		5825	25	4.25	5815.49	5834.45	5725 to 5850	Pass
				5.00	5815.49	5834.44	5725 to 5850	Pass
				5.75	5815.45	5834.45	5725 to 5850	Pass
			-10	5.00	5815.49	5834.41	5725 to 5850	Pass
			0	5.00	5815.45	5834.45	5725 to 5850	Pass
			10	5.00	5815.45	5834.43	5725 to 5850	Pass
			30	5.00	5815.45	5834.45	5725 to 5850	Pass
			45	5.00	5815.49	5834.43	5725 to 5850	Pass
		5190	25	4.25	5171.33	5208.68	5150 to 5250	Pass
				5.00	5171.33	5208.67	5150 to 5250	Pass
				5.75	5171.33	5208.68	5150 to 5250	Pass
			-10	5.00	5171.32	5208.67	5150 to 5250	Pass
			0	5.00	5171.30	5208.61	5150 to 5250	Pass
			10	5.00	5171.33	5208.68	5150 to 5250	Pass
			30	5.00	5171.30	5208.68	5150 to 5250	Pass
			45	5.00	5171.33	5208.66	5150 to 5250	Pass
		5230	25	4.25	5211.24	5248.72	5150 to 5250	Pass
				5.00	5211.29	5248.71	5150 to 5250	Pass
				5.75	5211.29	5248.72	5150 to 5250	Pass
			-10	5.00	5211.25	5248.71	5150 to 5250	Pass
			0	5.00	5211.29	5248.72	5150 to 5250	Pass
			10	5.00	5211.28	5248.72	5150 to 5250	Pass
			30	5.00	5211.25	5248.70	5150 to 5250	Pass
			45	5.00	5211.29	5248.70	5150 to 5250	Pass
		5270	25	4.25	5251.39	5288.61	5250 to 5350	Pass
				5.00	5251.35	5288.63	5250 to 5350	Pass
				5.75	5251.39	5288.61	5250 to 5350	Pass
			-10	5.00	5251.36	5288.62	5250 to 5350	Pass
			0	5.00	5251.39	5288.61	5250 to 5350	Pass
			10	5.00	5251.37	5288.60	5250 to 5350	Pass
			30	5.00	5251.39	5288.61	5250 to 5350	Pass
			45	5.00	5251.39	5288.61	5250 to 5350	Pass
		5310	25	4.25	5291.48	5328.71	5250 to 5350	Pass
				5.00	5291.48	5328.71	5250 to 5350	Pass
				5.75	5291.49	5328.70	5250 to 5350	Pass
			-10	5.00	5291.49	5328.71	5250 to 5350	Pass
			0	5.00	5291.48	5328.72	5250 to 5350	Pass

			10	5.00	5291.49	5328.71	5250 to 5350	Pass
			30	5.00	5291.48	5328.72	5250 to 5350	Pass
			45	5.00	5291.49	5328.71	5250 to 5350	Pass
		5510	25	4.25	5491.32	5528.64	5470 to 5725	Pass
				5.00	5491.33	5528.61	5470 to 5725	Pass
				5.75	5491.33	5528.64	5470 to 5725	Pass
			-10	5.00	5491.32	5528.62	5470 to 5725	Pass
			0	5.00	5491.31	5528.6	5470 to 5725	Pass
			10	5.00	5491.33	5528.64	5470 to 5725	Pass
			30	5.00	5491.31	5528.61	5470 to 5725	Pass
			45	5.00	5491.33	5528.64	5470 to 5725	Pass
		5550	25	4.25	5531.44	5568.66	5470 to 5725	Pass
				5.00	5531.43	5568.66	5470 to 5725	Pass
				5.75	5531.44	5568.65	5470 to 5725	Pass
			-10	5.00	5531.40	5568.66	5470 to 5725	Pass
			0	5.00	5531.44	5568.64	5470 to 5725	Pass
			10	5.00	5531.41	5568.66	5470 to 5725	Pass
			30	5.00	5531.44	5568.66	5470 to 5725	Pass
			45	5.00	5531.40	5568.65	5470 to 5725	Pass
		5670	25	4.25	5651.45	5688.68	5470 to 5725	Pass
				5.00	5651.45	5688.68	5470 to 5725	Pass
				5.75	5651.41	5688.63	5470 to 5725	Pass
			-10	5.00	5651.45	5688.63	5470 to 5725	Pass
			0	5.00	5651.43	5688.68	5470 to 5725	Pass
			10	5.00	5651.45	5688.65	5470 to 5725	Pass
			30	5.00	5651.44	5688.68	5470 to 5725	Pass
			45	5.00	5651.45	5688.67	5470 to 5725	Pass
		5755	25	4.25	5736.32	5773.76	5725 to 5850	Pass
				5.00	5736.31	5773.75	5725 to 5850	Pass
				5.75	5736.32	5773.76	5725 to 5850	Pass
			-10	5.00	5736.31	5773.74	5725 to 5850	Pass
			0	5.00	5736.31	5773.75	5725 to 5850	Pass
			10	5.00	5736.31	5773.75	5725 to 5850	Pass
			30	5.00	5736.32	5773.76	5725 to 5850	Pass
			45	5.00	5736.33	5773.76	5725 to 5850	Pass
		5795	25	4.25	5776.32	5813.75	5725 to 5850	Pass
				5.00	5776.31	5813.75	5725 to 5850	Pass
				5.75	5776.32	5813.74	5725 to 5850	Pass
			-10	5.00	5776.30	5813.75	5725 to 5850	Pass
			0	5.00	5776.30	5813.74	5725 to 5850	Pass
			10	5.00	5776.32	5813.74	5725 to 5850	Pass
			30	5.00	5776.30	5813.75	5725 to 5850	Pass
			45	5.00	5776.30	5813.73	5725 to 5850	Pass

8.8 Dynamic Frequency Selection (DFS)

Mode of Operation:

Parameters of EUT	
Frequency	5250-5350MHz 5470-5600MHz 5650-5725MHz
Operational Mode	☐ Master ☒ Client without Radar Detection ☐ Client with Radar Detection
Modulation	OFDM
Channel Bandwidth	20MHz, 40MHz

Working Modes and required Test Items

The manufacturer shall whether the EUT is capable of operating as a master and a client. If the EUT is capable of operating in more than one operating mode then each operating mode shall be tested separately.

Table 1: Applicability of DFS Requirements Prior to Use of a Channel

Requirement	Operational Mode		
	Master	Client Without Radar Detection	Client With Radar Detection
<i>Non-Occupancy Period</i>	Yes	Not required	Yes
<i>DFS Detection Threshold</i>	Yes	Not required	Yes
<i>Channel Availability Check Time</i>	Yes	Not required	Not required
<i>U-NII Detection Bandwidth</i>	Yes	Not required	Yes

Table 2: Applicability of DFS requirements during normal operation

Requirement	Operational Mode	
	Master Device or Client with Radar Detection	Client Without Radar Detection
<i>DFS Detection Threshold</i>	Yes	Not required
<i>Channel Closing Transmission Time</i>	Yes	Yes
<i>Channel Move Time</i>	Yes	Yes
<i>U-NII Detection Bandwidth</i>	Yes	Not required

Additional requirements for devices with multiple bandwidth modes	Master Device or Client with Radar Detection	Client Without Radar Detection
<i>U-NII Detection Bandwidth and Statistical Performance Check</i>	All BW modes must be tested	Not required
<i>Channel Move Time and Channel Closing Transmission Time</i>	Test using widest BW mode available	Test using the widest BW mode available for the link
<i>All other tests</i>	Any single BW mode	Not required
Note: Frequencies selected for statistical performance check (Section 7.8.4) should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.		

Requirement:

Per KDB 905462 D02 v02 the following are the requirements for client Devices:

- a) A Client Device will not transmit before having received appropriate control signals from a Master Device.
- b) A Client Device will stop all its transmissions whenever instructed by a Master Device to which it is associated and will meet the Channel Move Time and Channel Closing Transmission Time requirements. The Client Device will not resume any transmissions until it has again received control signals from a Master Device.
- c) If a Client Device is performing In-Service Monitoring and detects a Radar Waveform above the DFS Detection Threshold, it will inform the Master Device. This is equivalent to the Master Device detecting the Radar Waveform and d) through f) of section 5.1.1 apply.
- d) Irrespective of Client Device or Master Device detection the Channel Move Time and Channel Closing Transmission Time requirements remain the same.
- e) The client test frequency must be monitored to ensure no transmission of any type has occurred for 30 minutes. Note: If the client moves with the master, the device is considered compliant if nothing appears in the client non-occupancy period test. For devices that shut down (rather than moving channels), no beacons should appear.

Table 3: DFS Response Requirement Values

Parameter	Value
<i>Non-occupancy period</i>	Minimum 30 minutes
<i>Channel Availability Check Time</i>	60 seconds
<i>Channel Move Time</i>	10 seconds See Note 1.
<i>Channel Closing Transmission Time</i>	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
<i>U-NII Detection Bandwidth</i>	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.
Note 1: <i>Channel Move Time</i> and the <i>Channel Closing Transmission Time</i> should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst. Note 2: The <i>Channel Closing Transmission Time</i> is comprised of 200 milliseconds starting at the beginning of the <i>Channel Move Time</i> plus any additional intermittent control signals required to facilitate a <i>Channel</i> move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions. Note 3: During the <i>U-NII Detection Bandwidth</i> detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.	

DFS Detection Thresholds Values

Table 4 below provides the DFS Detection Thresholds for Master Devices as well as Client Devices incorporating In-Service Monitoring.

Table 4: DFS Detection Thresholds for Master Devices and Client Devices with Radar Detection

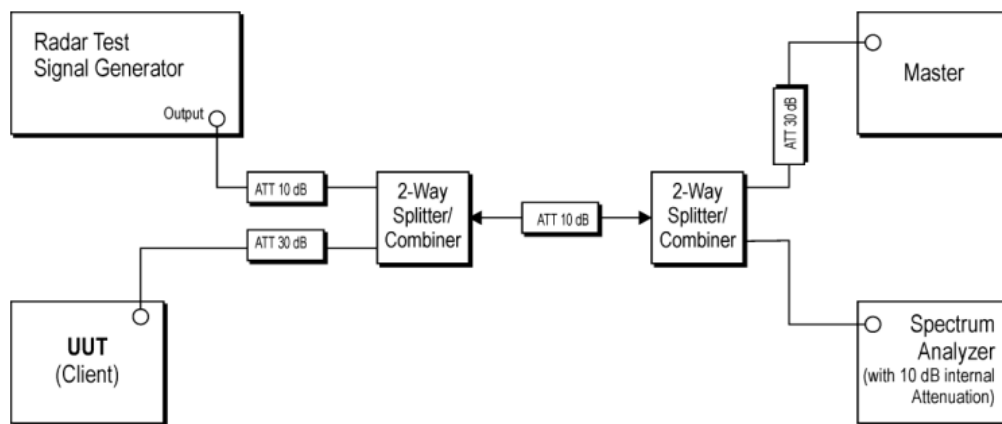
Maximum Transmit Power	Value (See Notes 1, 2, and 3)
EIRP $\geq$ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna. Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response. Note 3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.	

Test Procedure

The FCC KDB 905462 D02 v02 describes a radiated test setup and a conducted test setup. A conducted test setup was used for this testing. Figure 1 shows the typical test setup. One channel selected between 5260 and 5350 MHz is chosen for the testing.

Figure 1. Test Setup for DFS

Setup for client with injection at the master.



Channel Closing Transmission Time, Channel Move Time and Non-Occupancy Period.

Block Diagram of test setup test procedure.

- (1) The Radar Pulse generator is setup to provide a pulse at frequency that the master and client are operating. A type 0 radar pulse is used for the testing.
- (2) The vector signal generator is adjusted to provide the radar burst (18 pulses) at the level of approximately -62dBm at the antenna of the master device.
- (3) A trigger is provided from the pulse generator to the DFS monitoring system in order to capture the traffic and the occurrence of the radar pulse.
- (4) The Client Device (EUT) is set up per the diagram in Figure 1 and communications between the Master device and the Client is established.
- (5) Iperf software is used to properly load the test channel.
- (6) The real time spectrum analyzer is set to record a 16sec window to any transmissions occurring up to and after 10sec.

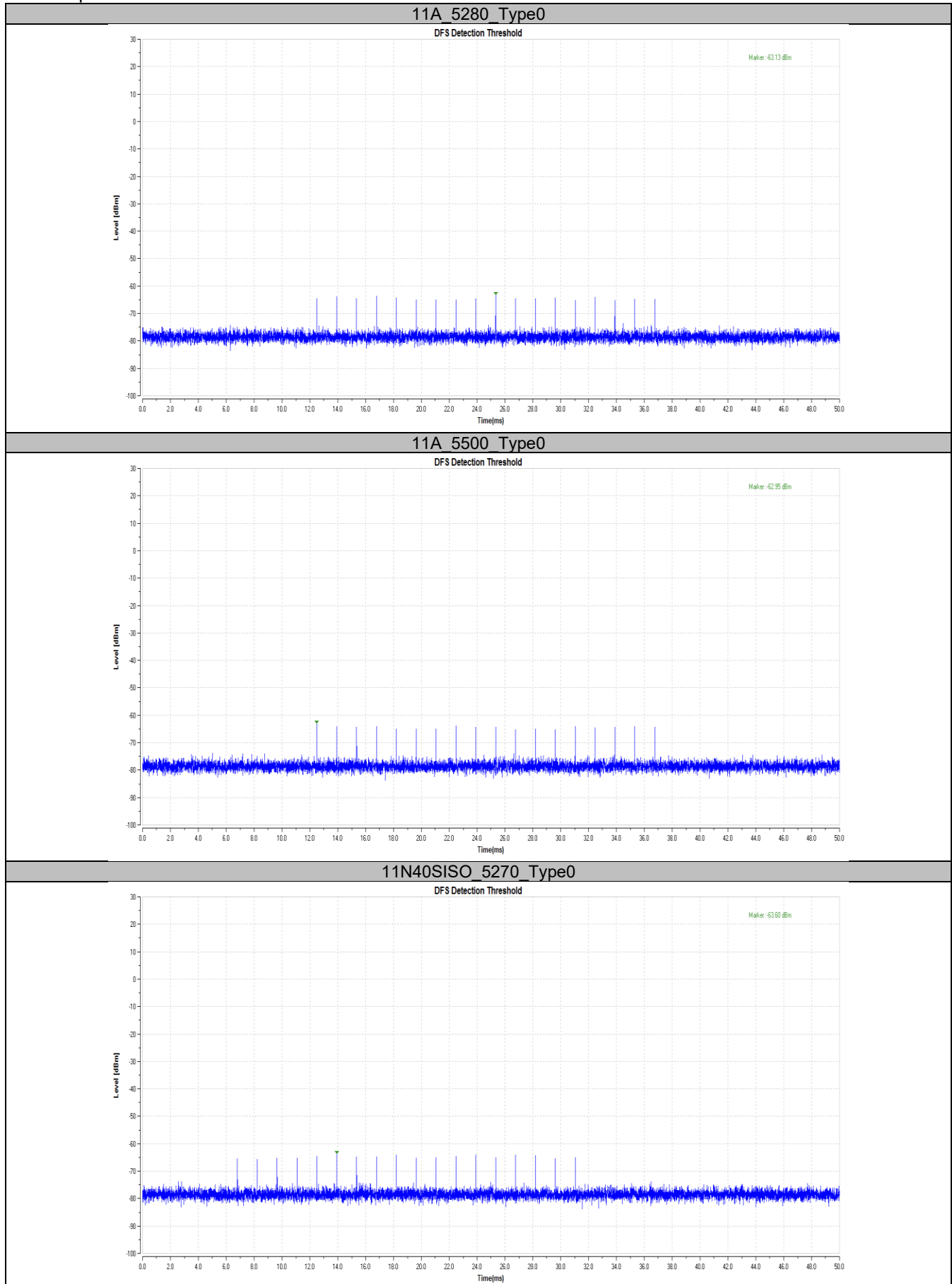
- (7) The system is again setup and the monitoring time is shortened in order to capture the Channel Closing Transmission Time. This time is measured to ensure that the Client ceases transmission within 200ms and the aggregate of emissions occurring after 200ms up to 10 sec do not exceed 60ms.
(Note: the channel may be different since the Master and Client have changed channels due to the detection of the initial radar pulse.)
- (8) After the initial radar burst the channel is monitored for 30 minutes to ensure no transmissions or beacons occur. A second monitoring setup is used to verify that the Master and Client have both moved to different channels.

Test Result

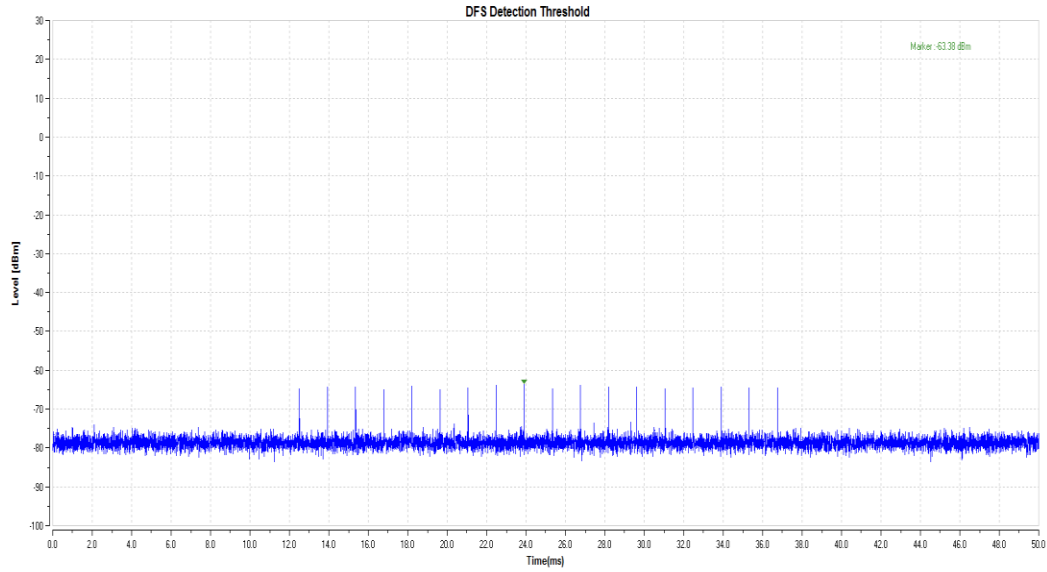
Clause	Test Parameter	Remarks	Pass/Fail
15.407	DFS Detection Threshold	Not Applicable	N/A
15.407	Channel Availability Check time	Not Applicable	N/A
15.407	Channel Move time	Applicable	Pass
15.407	Channel Closing Transmission time	Applicable	Pass
15.407	Non-occupancy Period	Not Applicable	N/A
15.407	Uniform Spreading	Not Applicable	N/A
15.407	UNII Detection Bandwidth	Not Applicable	N/A

Test Mode	Channel	CCT[ms]	Limit[s]	CMT[ms]	Limit[ms]	Verdict
11A	5280	205.16	60	428.71	10000	PASS
	5500	208.17	60	448.06	10000	PASS
11N40SISO	5270	208.17	60	457.95	10000	PASS
	5510	208.6	60	506.54	10000	PASS

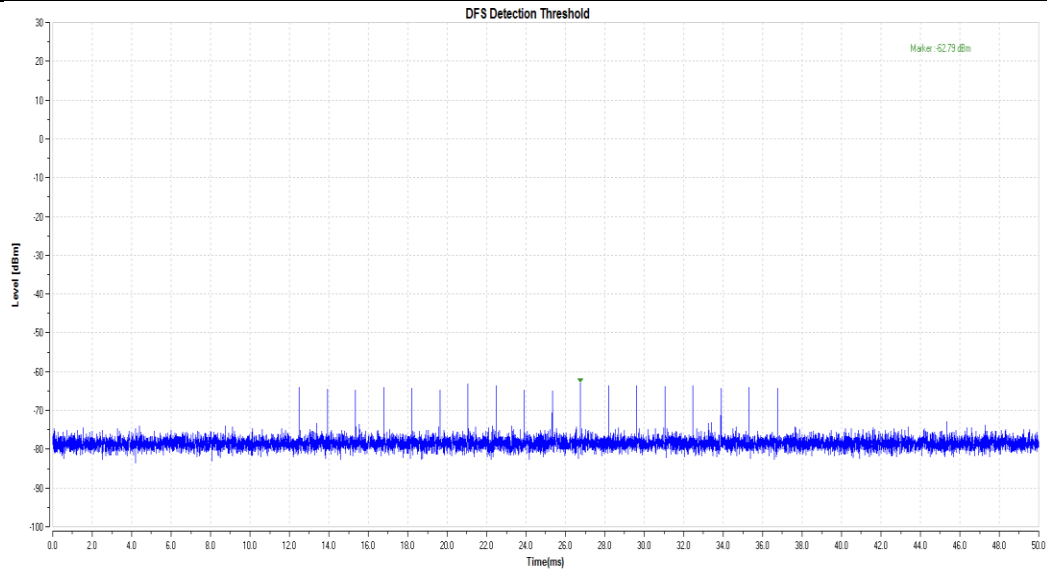
Test Graphs:



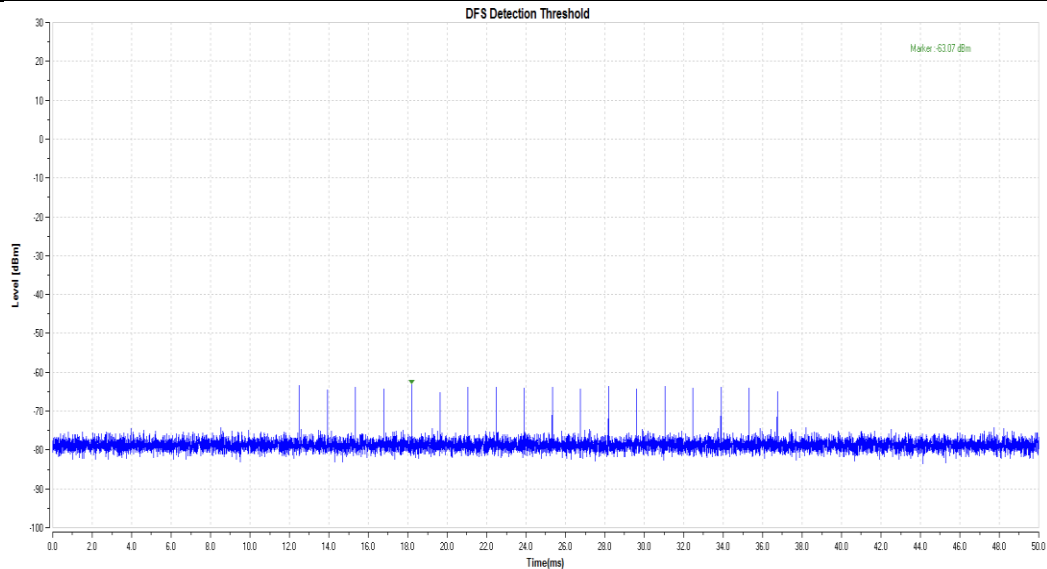
11N40SISO_5510_Type0



11AC80SISO_5290_Type0

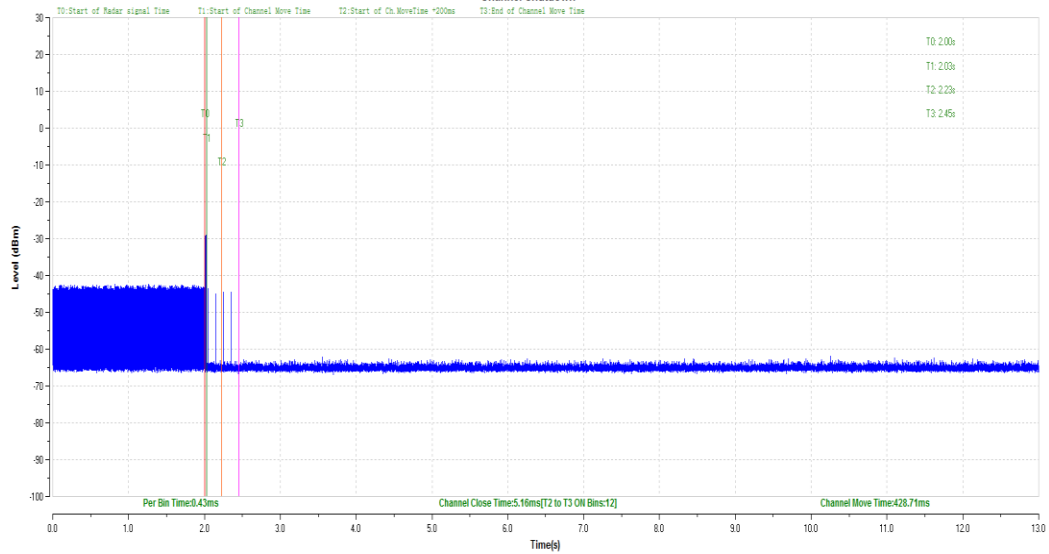


11AC80SISO_5530_Type0



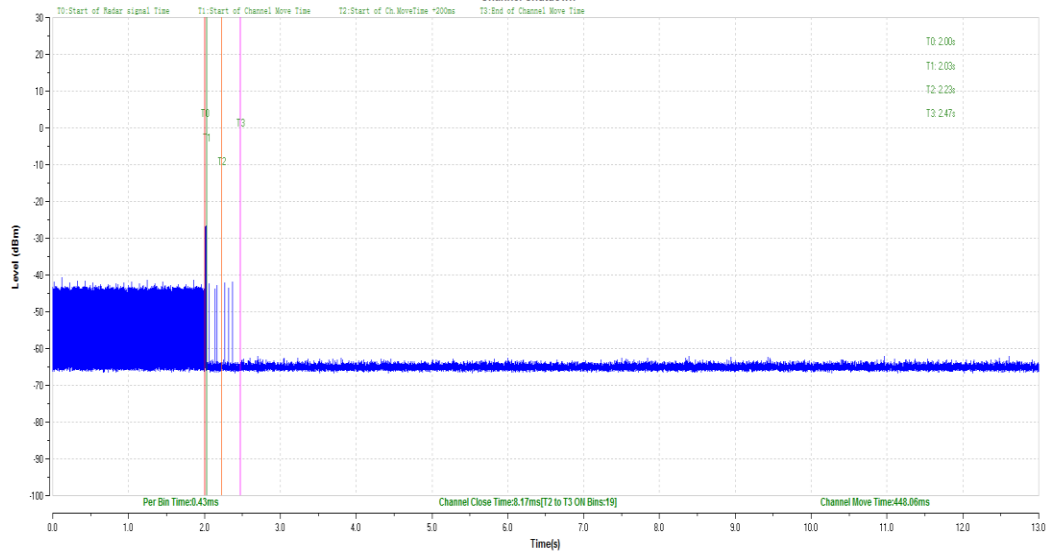
11A_5280

Channel Shutdown



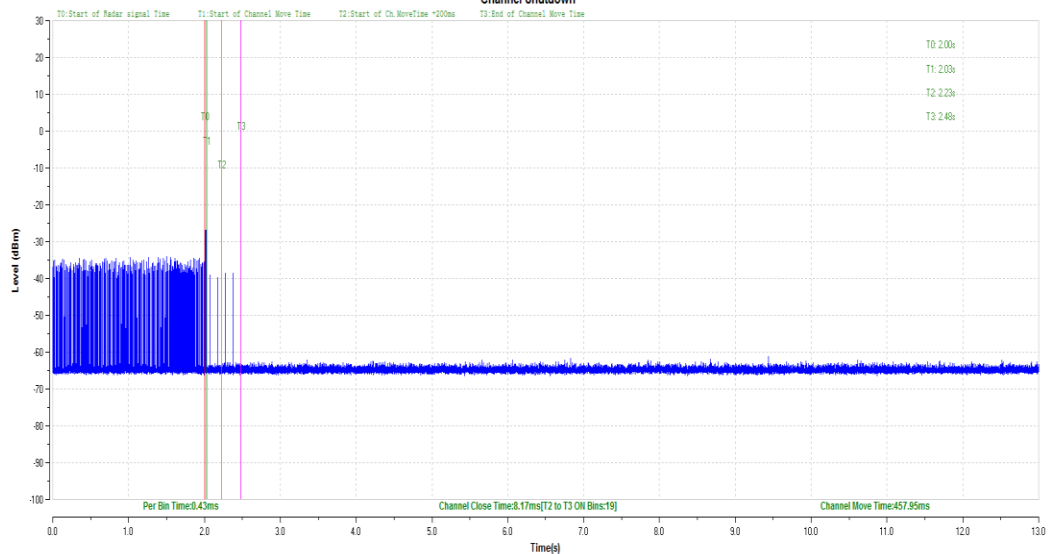
11A_5500

Channel Shutdown

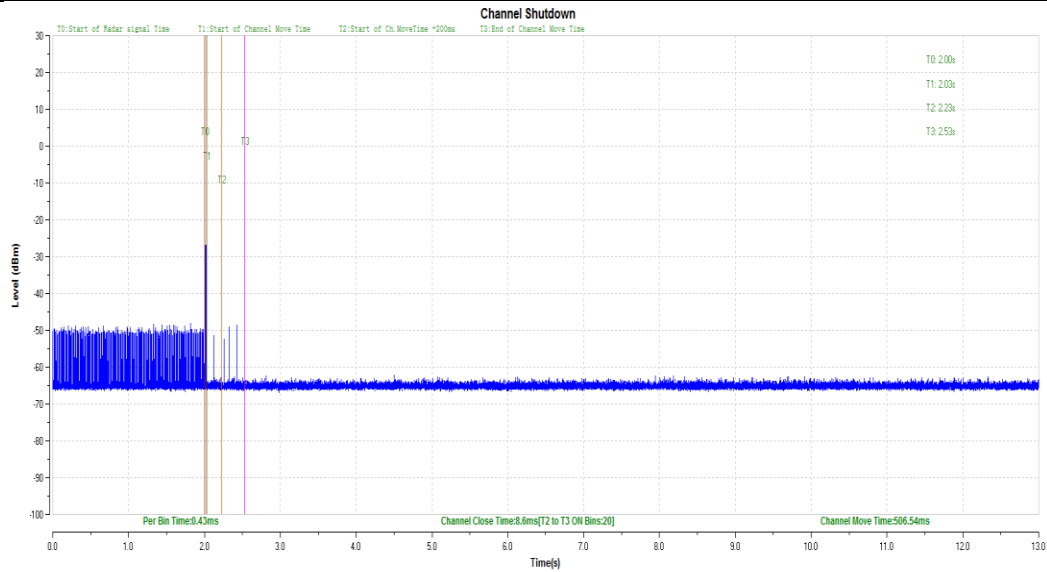


11N40SISO_5270

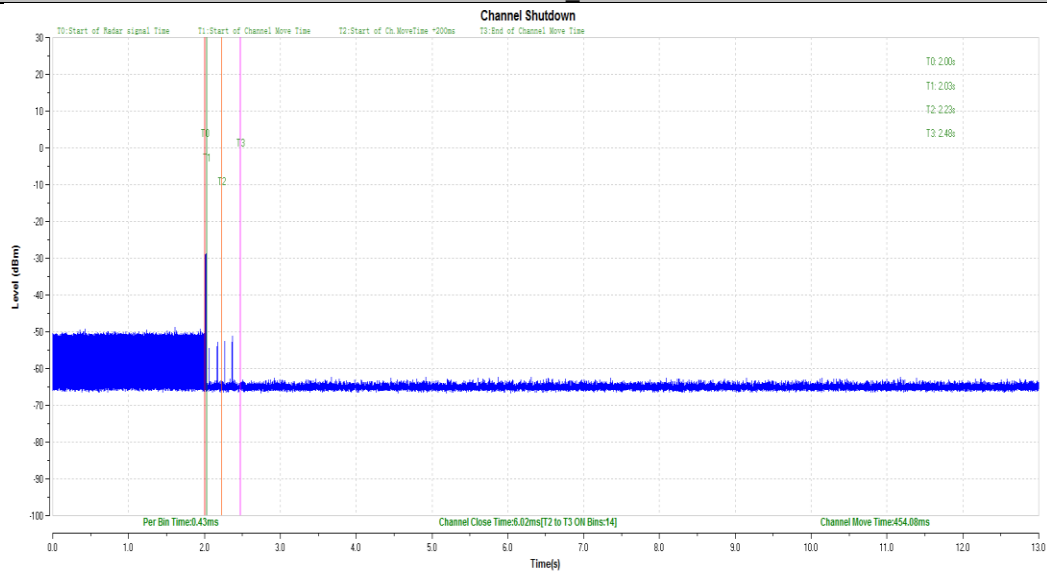
Channel Shutdown



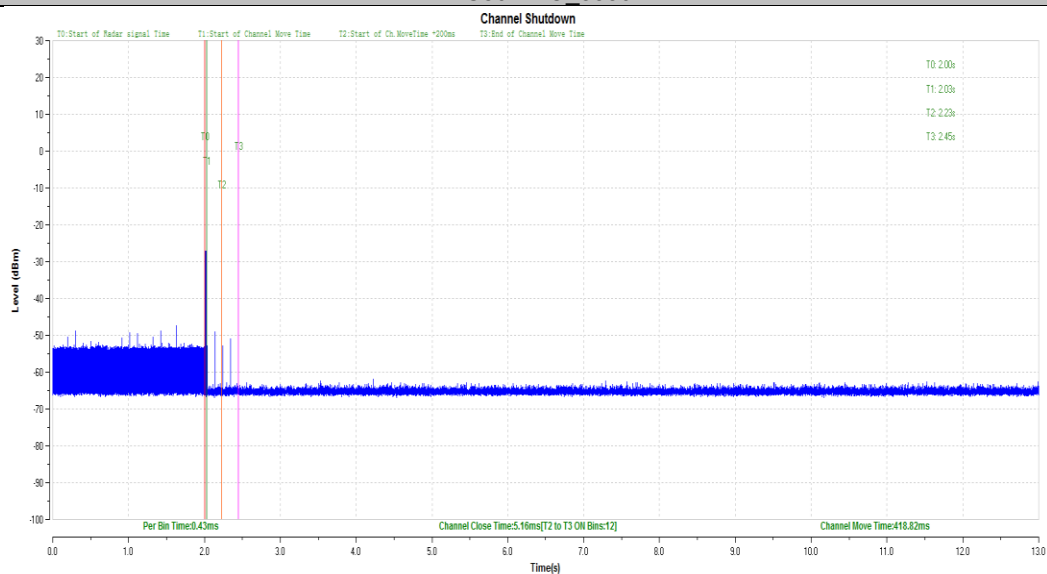
11N40SISO_5510



11AC80SISO_5290



11AC80SISO_5530



9. Test Equipment List

Conducted Emission Test (AMN)(CSR #1)

Description	Manufacturer	Model no.	Equipment ID	Serial no.	cal interval (year)	cal. due date
EMI Test Receiver	Rohde & Schwarz	ESR 3	68-4-74-19-002	102590	1	2026-4-26
LISN	Rohde & Schwarz	ENV216	68-4-87-19-001	102472	1	2026-4-25
Attenuator	Shanghai Huaxiang	TS2-26-3	68-4-81-16-003	080928189	1	2026-4-19
Cable	OUQIAO	RG142	68-4-90-19-004-A20	----	----	----
Test software	Rohde & Schwarz	EMC32	68-4-90-14-003-A10	Version9.15.00	N/A	N/A
Shielding Room	TDK	CSR #1	68-4-90-19-004	----	3	2025-10-15

Radiated Emission Test (9kHz-30MHz) (SAC-3 #1)

DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT ID	SERIAL NO.	CAL INTERVAL (YEAR)	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 7	68-4-74-19-001	102176	1	2026-4-25
Loop Antenna	Rohde & Schwarz	HFH2-Z2	68-4-80-14-006	100398	1	2025-7-24
Cable	HUBER-SUHNER	RG214	68-4-90-14-001-A21	----	----	----
3m Semi-anechoic chamber	TDK	SAC-3 #1	68-4-90-14-001	----	3	2026-10-25
Test software	Rohde & Schwarz	EMC32	68-4-90-14-001-A10	Version10.35.02	N/A	N/A

Radiated Emission Test (30MHz-1GHz) (SAC-3 #2)

DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT ID	SERIAL NO.	CAL INTERVAL (YEAR)	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 26	68-4-74-14-002	101269	1	2026-4-25
Trilog Super Broadband Test Antenna	Schwarzbeck	VULB 9162	68-4-80-19-003	284	1	2026-2-11
Attenuator	Mini-circuits	UNAT-6+	68-4-81-21-002	15542	1	2026-4-19
Cable	OUQIAO	18DLB5-NMNM-7000	68-4-90-19-006-A22	----	----	----
3m Semi-anechoic chamber	TDK	SAC-3 #2	68-4-90-19-006	----	3	2026-10-25
Test software	Rohde & Schwarz	EMC32	68-4-90-19-006-A01	Version10.35.02	N/A	N/A

Radiated Emission Test (1GHz-18GHz) (SAC-3 #2)

DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT ID	SERIAL NO.	CAL INTERVAL (YEAR)	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 26	68-4-74-14-002	101269	1	2026-4-25
Wave Guide Antenna	ETS	3117	68-4-80-19-001	00218954	1	2026-3-10
Pre-amplifier	Rohde & Schwarz	SCU 18F	68-4-29-19-003	100747	1	2026-4-19
Cable	OUQIAO	18DLB5-NMNM-7000	68-4-90-19-006-A22	----	----	----
3m Semi-anechoic chamber	TDK	SAC-3 #2	68-4-90-19-006	----	3	2026-10-25
Test software	Rohde & Schwarz	EMC32	68-4-90-19-006-A01	Version10.35.02	N/A	N/A

Radiated Emission Test (18GHz-40GHz) (SAC-3 #2)

DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT ID	SERIAL NO.	CAL INTERVAL (YEAR)	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 26	68-4-74-14-002	101269	1	2026-4-25
Sideband Horn Antenna	Q-PAR	QWH-SL-18-40-K-SG	68-4-80-14-008	12827	1	2025-7-02
Pre-amplifier	Rohde & Schwarz	SCU 40A	68-4-29-14-002	100432	1	2025-7-17
Cable	JUNFLON	MWX241	68-4-90-19-006-A21	----	----	----
3m Semi-anechoic chamber	TDK	SAC-3 #2	68-4-90-19-006	----	3	2026-10-25
Test software	Rohde & Schwarz	EMC32	68-4-90-19-006-A01	Version10.35.02	N/A	N/A

RF Test System(FCC Part15 E/RSS-247)

Description	Manufacturer	Model no.	Equipment ID	Serial no.	cal interval (year)	cal. due date
Vector Signal Generator	Rohde & Schwarz	SMBV100A	68-4-48-18-001	262825	1	2026-4-18
Signal Analyzer	Rohde & Schwarz	FSV40	68-4-74-14-004	101030	1	2026-4-18
RF Switch Module	Rohde & Schwarz	OSP120/OSP-B157W	68-4-93-14-003	101226/100929	1	2026-4-18
10dB Attenuator	R&S	DNF	68-4-81-14-004	DNF-001	1	2026-4-19
10dB Attenuator	R&S	DNF	68-4-81-14-005	DNF-002	1	2026-4-19
RF Meas. and Switch Matrix Unit	TST PASS	TSCB3023R2	68-4-93-23-001	2811685c	1	2026-4-18
Cable	JUNFLON	J12J103539	68-4-90-19-003-A20	----	----	----
Cable	JUNFLON	J12J103539	68-4-90-19-003-A21	----	----	----
Cable	JUNFLON	J12J103539	68-4-90-19-003-A22	----	----	----
Test software	TST PASS	TST PASS	68-4-93-23-001-A03	Version 2.0	N/A	N/A
Test software	Tonscend	JS1120-3	68-4-74-14-006-A13	Version 2.6.77.0518	N/A	N/A
Shielding Room	TDK	TS8997	68-4-90-19-003	----	3	2025-10-15

10. System Measurement Uncertainty

For a 95% confidence level, the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 were:

System Measurement Uncertainty	
Test Items	Extended Uncertainty
Uncertainty for Conducted Emission in shielding room (68-4-90-19-004) 150kHz-30MHz	3.26dB
Uncertainty for Radiated Emission in 3m chamber (68-4-90-14-001) 9kHz-30MHz	4.69dB
Uncertainty for Radiated Emission in new 2# 3m chamber (68-4-90-19-006) 30MHz-1000MHz	Horizontal: 4.79dB; Vertical: 5.86dB;
Uncertainty for Radiated Emission in new 2# 3m chamber (68-4-90-19-006) 1000MHz-18000MHz	Horizontal: 5.37dB; Vertical: 5.37dB;
Uncertainty for Radiated Emission in new 3m chamber (68-4-90-19-006) 18GHz-40GHz	Horizontal: 5.29dB; Vertical: 5.29dB;
Uncertainty for RF Conducted Measurement power	1.12dB
Uncertainty Evaluation for PSD measurement	1.05dB

Measurement Uncertainty Decision Rule

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115: 2023, clause 4.3.3 and 4.3.4.

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