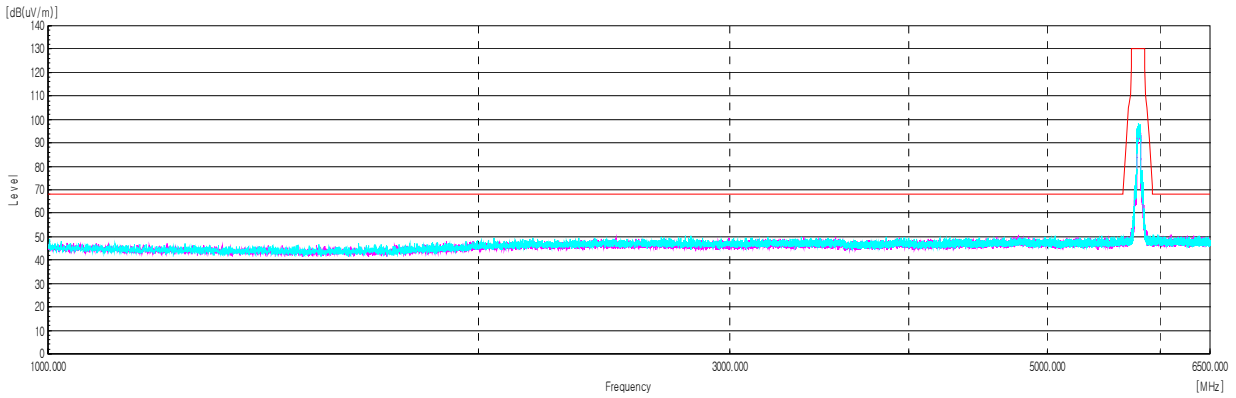
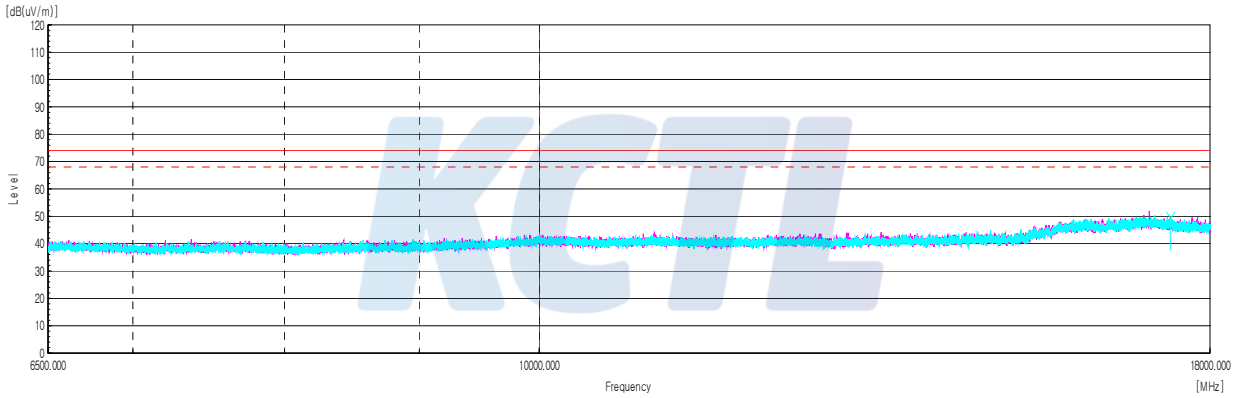
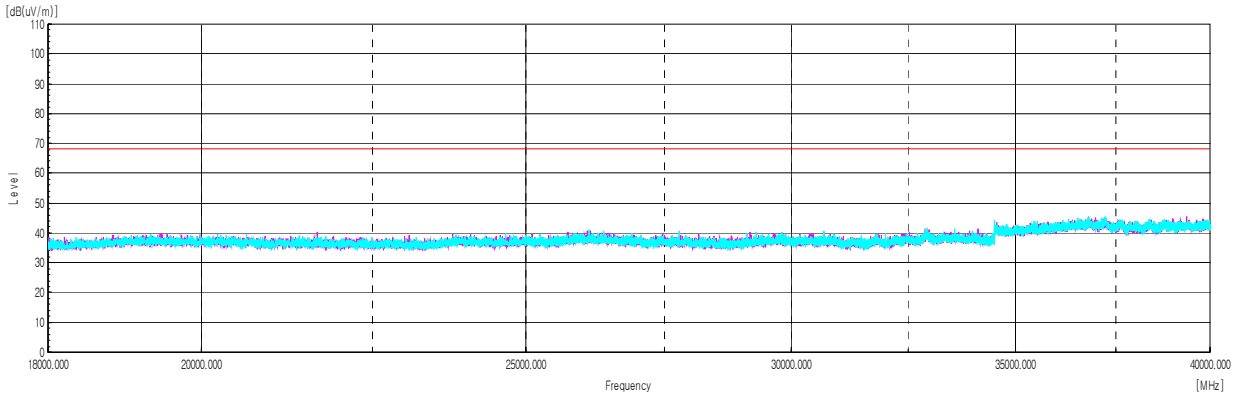
Horizontal/Vertical for 1 ㎓ ~ 6.5 ㎓



Horizontal/Vertical for 6.5 ㎓ ~ 18 ㎓



Horizontal/Vertical for 18 ㎓ ~ 40 ㎓

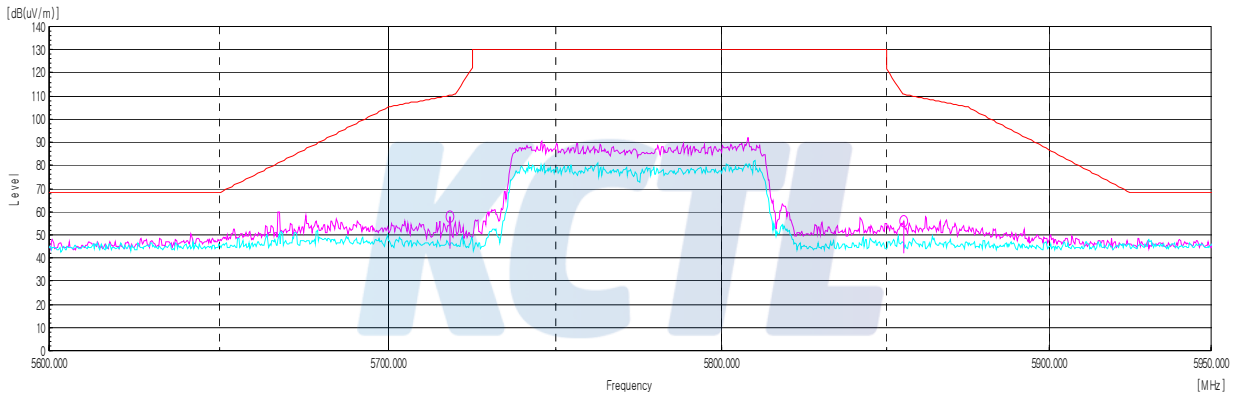


802.11ac VHT80_UNII-3

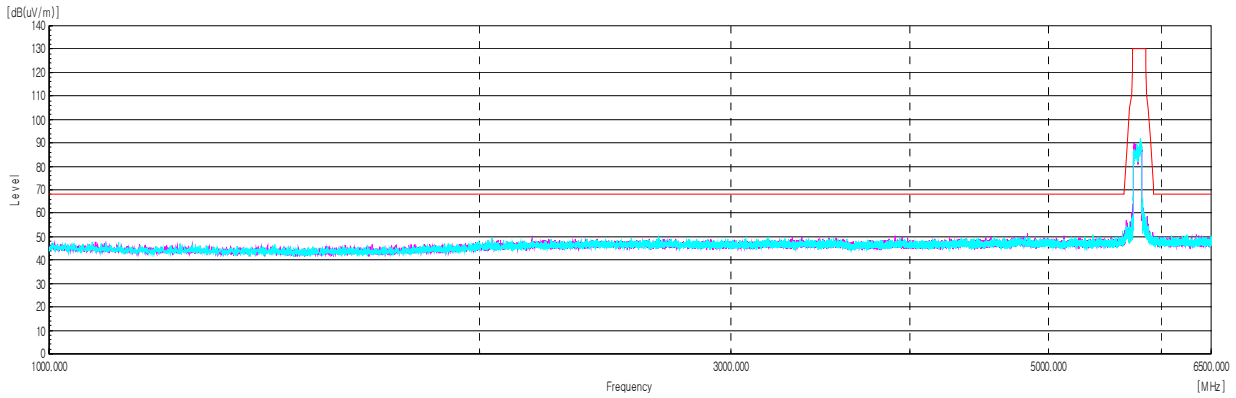
Lowest Channel (5 775 ㎒)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(㎒)	(V/H)	(dB(㎶))	(dB)	(dB)	(dB)	(dB(㎶/m))	(dB(㎶/m))	(dB)
Peak data								
5 718.35	H	46.37	35.02	-23.49	-	57.90	110.30	52.40
5 855.24	H	44.04	35.16	-23.40	-	55.80	110.70	54.90
17 366.82	V	46.79	41.80	-39.19	-	49.40	68.20	18.80
Average Data								
No spurious emissions were detected within 20 ㏈ of the limit.								

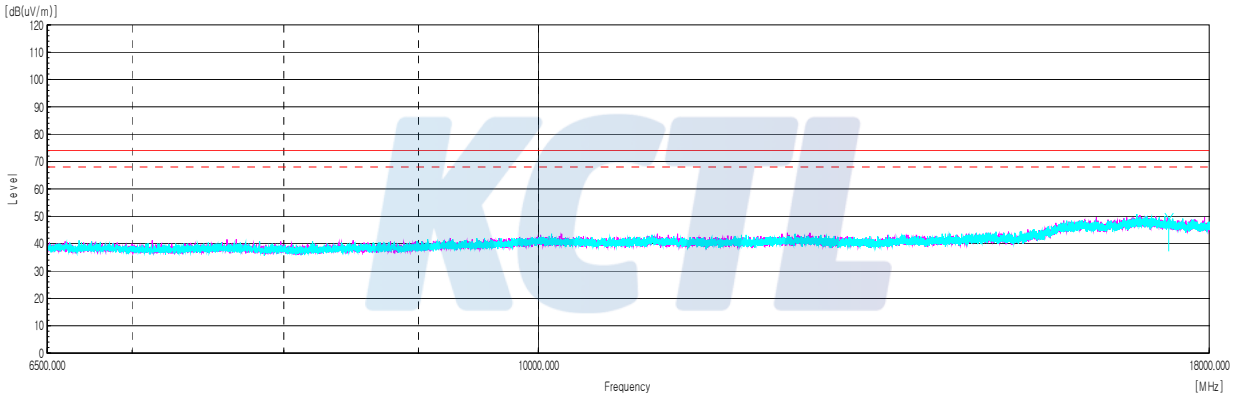
Horizontal/Vertical for Band-edge



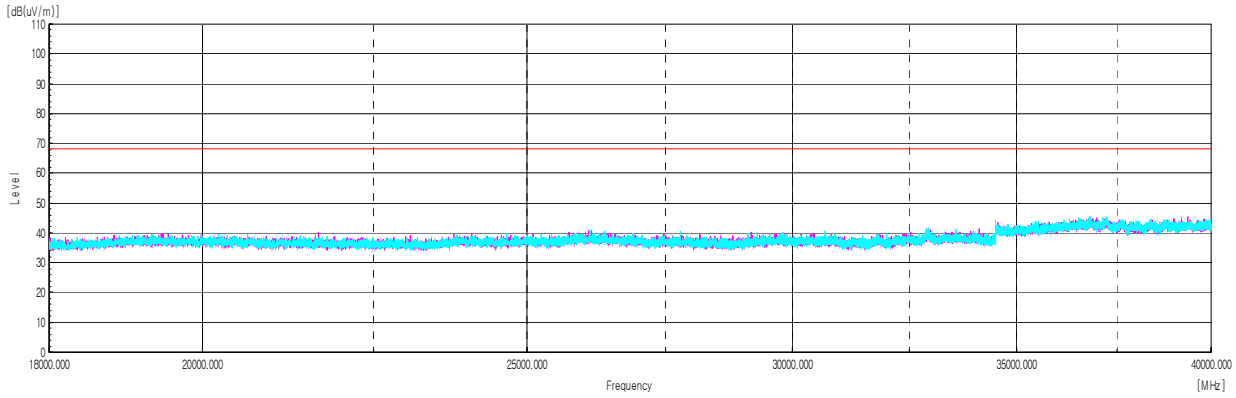
Horizontal/Vertical for 1 ㎓ ~ 6.5 ㎓



Horizontal/Vertical for 6.5 ㎓ ~ 18 ㎓

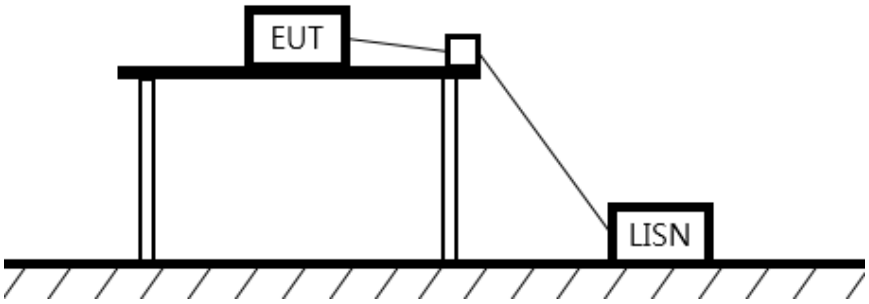


Horizontal/Vertical for 18 ㎓ ~ 40 ㎓



7.7. AC Conducted emission

Test setup



Limit

§15.407

According to 15.207(a), for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 ㎑ to 30 ㎒, shall not exceed the limits in the following table, as measured using a 50uH/50 ohm line impedance stabilization network (LISN). Compliance with the provision of this paragraph shall on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower applies at the boundary between the frequencies ranges.

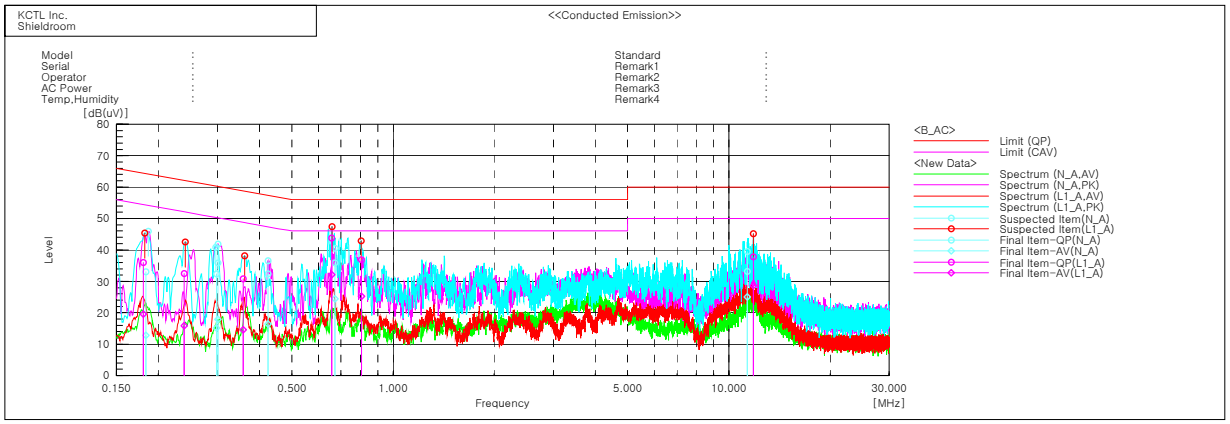
Frequency of Emission (㎒)	Conducted limit (dB㎶/m)	
	Quasi-peak	Average
0.15 – 0.50	66 - 56*	56 - 46*
0.50 – 5.00	56	46
5.00 – 30.0	60	50

Measurement procedure

1. The EUT was placed on a wooden table of size, 1 m by 1.5 m, raised 80 ㎝ in which is located 40 ㎝ away from the vertical wall and 1.5m away from the side wall of the shielded room.
2. Each current-carrying conductor of the EUT power cord was individually connected through a 50Ω/50μH LISN, which is an input transducer to a spectrum analyzer or an EMI/Field Intensity ㅡ Meter, to the input power source.
3. Exploratory measurements were made to identify the frequency of the emission that had the highest amplitude relative to the limit by operating the EUT in a range of typical modes of operation, cable position, and with a typical system equipment configuration and arrangement. Based on the exploratory tests of the EUT, the one EUT cable configuration and arrangement and mode of operation that had produced the emission with the highest amplitude relative to the limit was selected for the final measurement.
4. The final test on all current-carrying conductors of all of the power cords to the equipment that comprises the EUT (but not the cords associated with other non-EUT equipment is the system) was then performed over the frequency range of 0.15 ㎒ to 30 ㎒.
5. The measurements were made with the detector set to peak amplitude within a bandwidth of 10 ㎑ or to quasi-peak and average within a bandwidth of 9 ㎑. The EUT was in transmitting mode during the measurements.

Test results

Worst case: Worst case: 802.11a / UNII-3 Highest frequency



Final Result

--- N_A Phase ---

No.	Frequency [MHz]	Reading QP [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB]	Result QP [dB(uV)]	Result CAV [dB(uV)]	Limit QP [dB(uV)]	Limit AV [dB(uV)]	Margin QP [dB]	Margin CAV [dB]
1	0.18348	22.7	2.5	10.3	33.0	12.8	64.3	54.3	31.3	41.5
2	0.30084	25.9	7.8	10.0	35.9	17.8	60.2	50.2	24.3	32.4
3	0.29818	22.3	5.2	10.0	32.3	15.2	60.3	50.3	28.0	35.1
4	0.42419	22.1	6.2	10.2	32.3	16.4	57.4	47.4	25.1	31.0
5	0.67173	25.7	14.2	10.2	35.9	24.4	56.0	46.0	20.1	21.6
6	11.35037	22.5	14.3	10.7	33.2	25.0	60.0	50.0	26.8	25.0

--- L1_A Phase ---

No.	Frequency [MHz]	Reading QP [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB]	Result QP [dB(uV)]	Result CAV [dB(uV)]	Limit QP [dB(uV)]	Limit AV [dB(uV)]	Margin QP [dB]	Margin CAV [dB]
1	0.18041	25.7	9.3	10.3	36.0	19.6	64.5	54.5	28.5	34.9
2	0.23863	22.6	6.0	9.9	32.5	15.9	62.1	52.1	29.6	36.2
3	0.35821	20.7	4.5	10.1	30.8	14.6	58.8	48.8	28.0	34.2
4	0.65644	33.6	21.9	10.2	43.8	32.1	56.0	46.0	12.2	13.9
5	0.80479	26.6	15.0	10.2	36.8	25.2	56.0	46.0	19.2	20.8
6	11.84258	27.0	17.9	10.8	37.8	28.7	60.0	50.0	22.2	21.3

8. Measurement equipment

Equipment Name	Manufacturer	Model No.	Serial No.	Next Cal. Date
Spectrum Analyzer	R&S	FSV30	100810	21.07.29*
Attenuator	Weinschel ENGINEERING	56-10	51395	21.01.22
Signal Generator	R&S	SMB100A	176206	21.01.21
Vector Signal Generator	R&S	SMBV100A	257566	21.07.13
Power Sensor	R&S	NRP-Z81	1137.9009.02-106225-JM	21.05.25
Attenuator	R&S	DNF Dämpfungsglied 10 dB in N-50 Ohm	31210	21.05.11
DC Power Supply	AGILENT	E3632A	MY40001543	21.05.11
Spectrum Analyzer	R&S	FSV40	100988	21.01.10
Spectrum Analyzer	AGILENT	N9040B	MY57010132	21.07.29*
EMI TEST RECEIVER	R&S	ESCI7	100732	20.08.22
Bi-Log Antenna	TESEQ	CBL 6112D	37876	22.04.24
Amplifier	SONOMA INSTRUMENT	310N	284608	20.08.22
ATTENUATOR	Agilent	8491B	MY39270292	21.04.03
Directional Bridge	AGILENT	86205A	MY31400127	21.01.21
Horn antenna	ETS.lindgren	3117	161225	21.05.12
Horn antenna	ETS.lindgren	3116	00086632	21.02.17
Attenuator	API Inmet	40AH2W-10	12	21.05.12
Broadband PreAmplifier	SCHWARZBECK	BBV9718	216	21.07.28*
Amplifier	L-3 Narda-MITEQ	JS44-18004000-33-8P	2000997	21.07.29*
Amplifier	L-3 Narda-MITEQ	AMF-7D-01001800-22-10P	2031196	21.02.12
LOOP Antenna	R&S	HFH2-Z2	100355	20.08.24
Antenna Mast	Innco Systems	MA4640-XP-ET	-	-
Turn Table	maturo GmbH	TT 3.0 3T	-	-
Antenna Mast	Innco Systems	MA4000-EP	303	-
Turn Table	Innco Systems	DT2000	79	-
Highpass Filter	WT	WT-A1698-HS	WT160411001	21.05.11
TWO-LINE V - NETWORK	R&S	ENV216	101358	20.10.02
EMI TEST RECEIVER	R&S	ESCI	100001	20.08.22

*The equipment was used before finished calibration.

End of test report