TEST REPORT

KCTL Inc. 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea Tel: 82-31-285-0894 Fax: 82-505-299-8311 www.kctl.co.kr	Report No.: KR21-SEF0010 Page (1) of (30)	KCTL

1. Client

- Name : Samsung Electronics Co., Ltd.
- Address : 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea
- Date of Receipt : 2020-12-03

2. Use of Report : -

3. Name of Product / Model : Mobile phone / SM-G525F/DS

4. Manufacturer / Country of Origin : Samsung Electronics Co., Ltd. / Vietnam

5. Date of Test : 2021-01-22

6. Location of Test : ■ Permanent Testing Lab □ On Site Testing (Address: -)

7. Test method used : ANSI C63.4:2014, Class B

8. FCC ID : A3LSMG525F

9. Test Results : Refer to the test result in the test report

Affirmation	Tested by Name : Junggil Ryu (Signature)	Technical Manager Name : Gunsu Park (Signature)

2021-01-25

KCTL Inc.

REPORT REVISION HISTORY

Date	Revision	Page No
2021-01-25	Originally issued	-

General remarks for test reports

Nothing significant to report.

Contents

1. Applicant information

Applicant: Samsung Electronics Co., Ltd.
Address: 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea

Manufacturer: Samsung Electronics Co., Ltd.
Address: 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea

Factory: Samsung Electronics Vietnam Thai Nguyen Co., Ltd
Address: KCN Yen Binh I, Pho Yen, Thai Nguyen, VNM, Thai Nguyen Thai Nguyen, VNM

2. Laboratory information

Address

KCTL Inc. (Suwon Lab.)

65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea

Telephone Number: 82 31 285 0894

Facsimile Number: 82 505 299 8311

FCC Site Designation No: KR0040

VCCI Registration No.: R-20080, G-20078, C-20059, T-20056

Industry Canada Registration No. : 8035A

KOLAS NO.: KT231

SITE MAP

3. Test system configuration

3.1 Operation environment

	Temperature	Humidity	Pressure
Chamber 10 m (RE)	20.9 °C	18.4 % R.H.	-
Shielded room(CE)	19.6 °C	18.7 % R.H.	-

Test site

These testing items were performed following locations;

Test item	Test site
Conducted Emission	Shielded Room
Radiated Emission	10 m Chamber

3.2 Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC.
The factors contributing to uncertainties are test receiver, cable loss, antenna factor calibration, Antenna directivity, antenna factor variation with height, antenna phase center variation, antenna frequency interpolation, measurement distance variation, site imperfection, mismatch, and system repeatability. Based on CISPR 16-4-2, the measurement uncertainty level with a 95 % confidence level was applied.

Conducted Emission measurement (Confidence level about 95 %, k = 2)		
Shielded Room (CE#1)	9 kHz ~ 150 kHz: 3.7 dB	
	150 kHz ~ 30 MHz: 3.3 dB	
Shielded Room (CE#2)	9 kHz ~ 150 kHz: 3.5 dB	
	150 kHz ~ 30 MHz: 3.1 dB	
Radiated Emission measurement (Confidence level about 95 %, k = 2)		
10 m Chamber (4F)	30 MHz ~ 300 MHz	3 m: 5.4 dB
		10 m: 5.3 dB
	300 MHz ~ 1 000 MHz	3 m: 5.5 dB
		10 m: 5.4 dB
	1 GHz ~ 6 GHz	3 m: 6.4 dB
	6 GHz ~ 18 GHz	3 m: 6.6 dB
	18 GHz ~ 30 GHz	3 m: 6.7 dB
	30 GHz ~ 40 GHz	3 m: 6.2 dB
10 m Chamber (2F)	30 MHz ~ 300 MHz	3 m: 5.0 dB
		10 m: 5.0 dB
	300 MHz ~ 1 000 MHz	3 m: 5.2 dB
		10 m: 5.0 dB
	1 GHz ~ 6 GHz	3 m: 6.4 dB
	6 GHz ~ 18 GHz	3 m: 6.6 dB

3.3 Measurement Program

These test items were performed by software programs;

Test item	Measurement Program		Used
Conducted Emission	EP5/CE_Ver 5.4.0(TOYO)		☒
Radiated Emission	2F	EP5/RE_Ver 4.6.0(TOYO)	☒
	4F	EP5/RE_Ver 5.11.10(TOYO)	

4. Description of EUT

4.1 General information

Declared Hardware Version	REV0.1
Declared Software Version	G525F.001
IMEI No	351921580080747/01
Operating Band(s)	GSM 850/900/1800/1900 WCDMA FDD 1/2/4/5/8 LTE FDD 1/2/3/4/5/7/8/12/17/20/26/28/66 LTE TDD 38/40/41

4.2 Product description

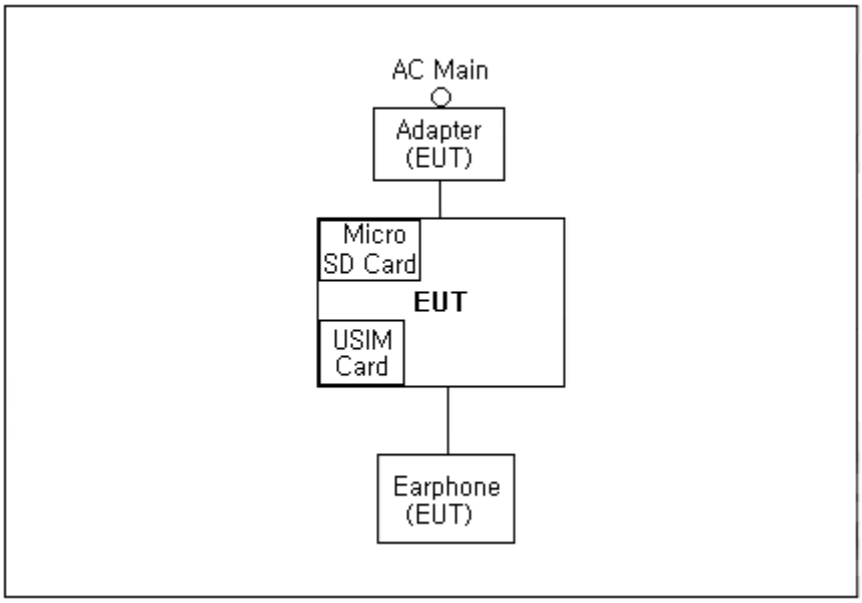
Type of product	Mobile phone
Model name (Basic)	SM-G525F/DS
Model name (Variant)	SM-G525F
Difference	Dual Sim is not supported in SM-G525F
Serial no	-
Testing voltage	120 V, 60 Hz
Input/Output rating	Adapter (EP-TA200) Input: AC 100 V - 240 V, 50-60 Hz, 0.5 A Output: DC 9.0 V, 1.67 A, 15.0 W or DC 5.0 V, 2.0 A, 10.0 W Serial no: R37N9ATKSY2SE3
Internal clock frequency	Above 108 MHz
RF Frequency	Bluetooth(BDR/EDR/BLE)_2 402 MHz ~ 2 480 MHz 2 412 MHz ~ 2 472 MHz (802.11b/g/n_HT20) UNII-1: 5 180 MHz ~ 5 240 MHz (802.11a/n/ac_HT20/VHT20) UNII-1: 5 190 MHz ~ 5 230 MHz (802.11n/ac_HT40/VHT40) UNII-1: 5 210 MHz (802.11ac_VHT80) UNII-2A: 5 260 MHz ~ 5 320 MHz (802.11a/n/ac_HT20/VHT20) UNII-2A: 5 270 MHz ~ 5 310 MHz (802.11n/ac_HT40/VHT40) UNII-2A: 5 290 MHz (802.11ac_VHT80) UNII-2C: 5 500 MHz ~ 5 720 MHz (802.11a/n/ac_HT20/VHT20) UNII-2C: 5 510 MHz ~ 5 710 MHz (802.11n/ac_HT40/VHT40) UNII-2C: 5 530 MHz ~ 5 690 MHz (802.11ac_VHT80) UNII-3: 5 745 MHz ~ 5 825 MHz (802.11a/n/ac_HT20/VHT20) UNII-3: 5 755 MHz ~ 5 795 MHz (802.11n/ac_HT40/VHT40) UNII-3: 5 775 MHz (802.11ac_VHT80) LTE Band 2_1 850.7 MHz ~ 1 909.3 MHz LTE Band 4_1 710.7 MHz ~ 1 754.3 MHz LTE Band 5_824.7 MHz ~ 848.3 MHz LTE Band 12_699.7 MHz ~ 715.3 MHz LTE Band 17_706.5 MHz ~ 713.5 MHz LTE Band 26_824.7 MHz ~ 848.3 MHz, 814.7 MHz ~ 823.3 MHz LTE Band 41_2 498.5 MHz ~ 2 687.5 MHz LTE Band 66_1 710.7 MHz ~ 1 779.3 MHz GSM 850_824.2 MHz ~ 848.8 MHz GSM 1900_1 850.2 MHz ~ 1 909.8 MHz WCDMA 850_826.4 MHz ~ 846.6 MHz WCDMA 1700_1 712.4 MHz ~ 1 752.6 MHz WCDMA 1900_1 852.4 MHz ~ 1 907.6 MHz NFC_13.56 MHz
Note	-

4.3 Auxiliary equipments

Type	Model / Part #	S/N	Manufacturer
Adapter (EUT)	EP-TA200	R37N9ATKSY2SE3	SAMSUNG
Earphone (EUT)	-	-	SAMSUNG
USIM Card	-	-	-
Micro SD Card (64 GB)	Samsung Pro Plus MB-MD64G	-	SAMSUNG

4.4 Test configuration

[Test #1 ~ Test #3]



	Start		End		Cable	
	Name	I/O port	Name	I/O port	Length (m)	Spec.
1	**EUT**	Power	Adapter (EUT)	-	0.9	Shield
2		USIM	USIM Card	-	Direct	-
3		Micro SD	Micro SD Card	-	Direct	-
4		Earphone	Earphone (EUT)	-	1.8	Unshield
5	Adapter (EUT)	Power	AC Main	-	Direct	-

4.5 Operating conditions

The EUT was configured as normal intended use.

Test mode	Normal operating
Test #1	Charging(w/TA) + FM(Low Ch.)
Test #2	Charging(w/TA) + FM(Mid Ch.)
Test #3	Charging(w/TA) + FM(High Ch.)

Note 1 It means this device needs to be tested with 3 orientations (x, y and z) and at least the worst case orientation shall be set for final test.

It was determined that Z orientation was worst-case orientation. Therefore, all final radiated testing was performed with the EUT in Z orientation.

5. Summary of test results

5.1 Summary of EMI emission test results

Applied	Test items	Test method	Result
☒	Conducted Emission	FCC Part 15 Subpart B (Class B) ANSI C63.4:2014	Pass
☒	Radiated Emission	FCC Part 15 Subpart B (Class B) ANSI C63.4:2014	Pass

6. Test results

6.1 Conducted Emissions

Test specification	ANSI C63.4:2014, Class B FCC Part 15 Subpart B		
Testing voltage	120 V, 60 Hz		
Test facility	Shielded room (CE#1)		
Date	2021-01-22		
Temperature (°C)	19.6 °C	Humidity (% R.H.)	18.7 % R.H.
Remarks	Pass		

6.1.1 Limits of conducted emissions measurement

Frequency [MHz]	Class A (dB(μV))		Class B (dB(μV))	
	Quasi-peak	Average	Quasi-peak	Average
0.15 ~ 0.5	79	66	66 ~ 56[1)]	56 ~ 46[1)]
0.5 ~ 5	73	60	56	46
5 ~ 30	73	60	60	50

[1)] The limit decreases linearly with the logarithm of frequency

6.1.2 Measurement procedure

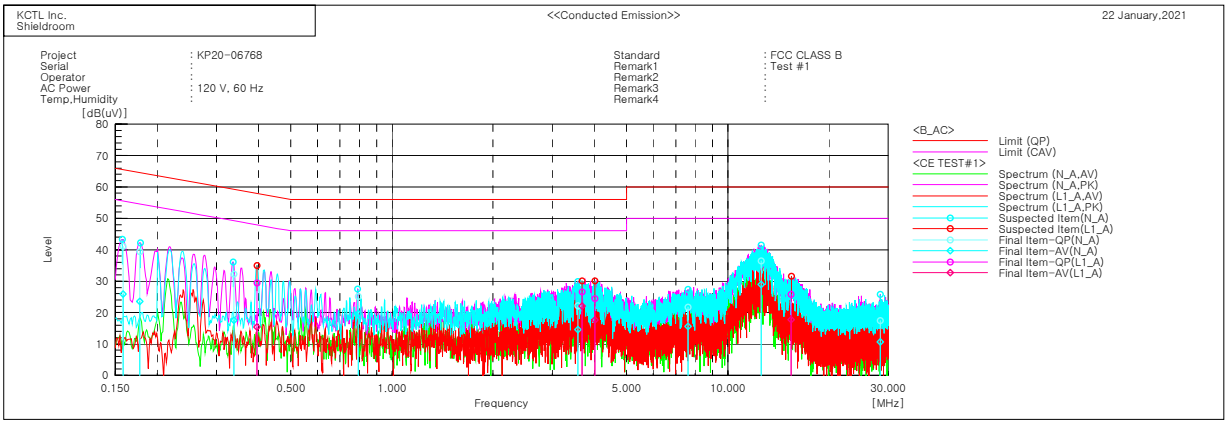
The measurements were performed in a shielded room. EUT was setup as shown in photograph and placed on a non-metallic table height of 0.8 m above the reference ground plane. The rear of table was located 0.4 m to the vertical conducted plane. EUT was power through the LISN, which was bonded to the ground plane. The LISN power was filtered. Each EUT power lead, except ground (safety) lead was individually connected through a LISN to input power source. EUT signal cables that hung closer than 0.4 m to the Horizontal metal ground 0.3 m ~ 0.4 m long. The power cord was bundles in the center. All peripheral equipment was powered from a sub LISN. The LISN and ISN were positioned 0.8 m from the EUT. Peak and Average detection were used in preliminary testing and Quasi-peak and Average detections were used at final measurement.

6.1.3 Used equipments

Equipment	Model no.	Serial no.	Makers	Next Cal. Date	Used
EMI TEST RECEIVER	ESCI	100001	R&S	2021.08.20	☒
TWO-LINE V-NETWORK	ENV216	101358	R&S	2021.09.29	☒
TWO-LINE V-NETWORK	ENV216	101352	R&S	2021.04.06	☐

6.1.4 Conducted emissions measurement result

AC Main



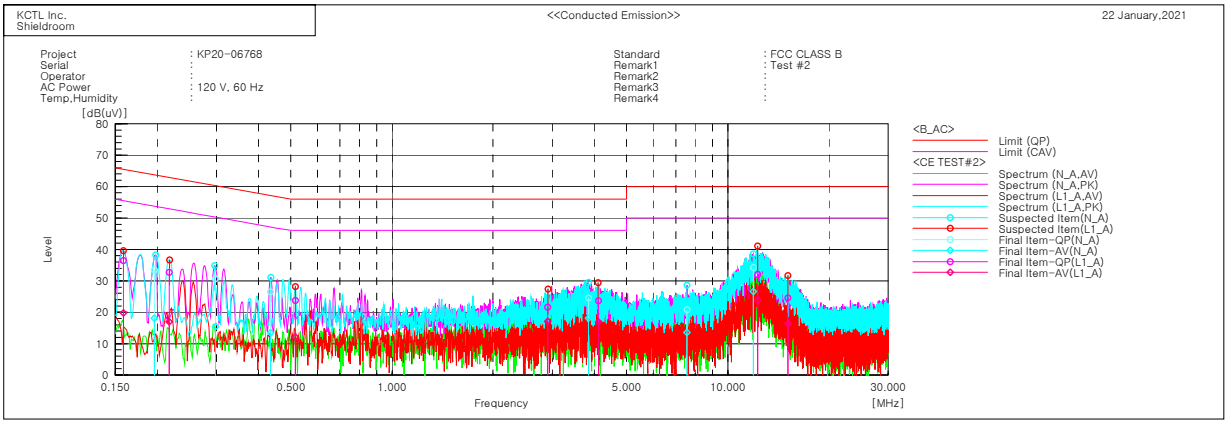
Final Result

--- 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	0.15824	31.0	15.8	10.1	41.1	25.9	65.6	55.6	24.5	29.7
2	0.17761	29.2	13.3	10.2	39.4	23.5	64.6	54.6	25.2	31.1
3	0.33808	22.4	7.6	9.9	32.3	17.5	59.3	49.3	27.0	31.8
4	0.79297	15.2	9.8	9.9	25.1	19.7	56.0	46.0	30.9	26.3
5	3.57825	12.3	4.7	9.9	22.2	14.6	56.0	46.0	33.8	31.4
6	7.61774	11.7	5.5	10.1	21.8	15.6	60.0	50.0	38.2	34.4
7	12.57532	26.2	18.7	10.2	36.4	28.9	60.0	50.0	23.6	21.1
8	28.40924	6.3	-0.5	11.1	17.4	10.6	60.0	50.0	42.6	39.4

--- 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	0.39605	19.4	5.4	10.0	29.4	15.4	57.9	47.9	28.5	32.5
2	3.68431	16.7	12.2	9.9	26.6	22.1	56.0	46.0	29.4	23.9
3	4.0227	14.5	7.7	10.0	24.5	17.7	56.0	46.0	31.5	28.3
4	15.44498	15.3	7.3	10.5	25.8	17.8	60.0	50.0	34.2	32.2



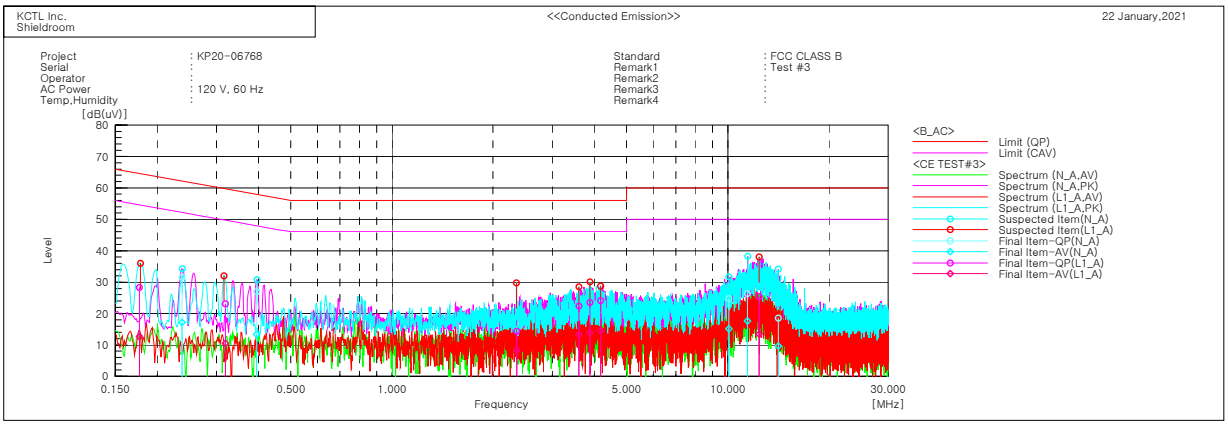
Final Result

--- 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	0.1961	23.4	8.0	10.1	33.5	18.1	63.8	53.8	30.3	35.7
2	0.29844	20.8	5.6	9.8	30.6	15.4	60.3	50.3	29.7	34.9
3	0.43517	16.5	3.5	10.0	26.5	13.5	57.2	47.2	30.7	33.7
4	3.84923	14.7	8.2	9.9	24.6	18.1	56.0	46.0	31.4	27.9
5	7.56107	10.8	3.5	10.1	20.9	13.6	60.0	50.0	39.1	36.4
6	11.90543	24.1	16.4	10.2	34.3	26.6	60.0	50.0	25.7	23.4

--- 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	0.15873	26.4	9.7	10.1	36.5	19.8	65.5	55.5	29.0	35.7
2	0.2174	22.9	7.1	9.9	32.8	17.0	62.9	52.9	30.1	35.9
3	0.51537	13.8	2.1	10.0	23.8	12.1	56.0	46.0	32.2	33.9
4	2.91079	11.7	7.2	9.9	21.6	17.1	56.0	46.0	34.4	28.9
5	4.11745	13.6	6.8	10.0	23.6	16.8	56.0	46.0	32.4	29.2
6	12.26138	21.7	13.6	10.3	32.0	23.9	60.0	50.0	28.0	26.1
7	15.08409	14.1	5.9	10.5	24.6	16.4	60.0	50.0	35.4	33.6



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	0.23702	21.8	7.4	9.8	31.6	17.2	62.2	52.2	30.6	35.0
2	0.39547	17.0	3.3	10.0	27.0	13.3	57.9	47.9	30.9	34.6
3	10.07417	14.6	4.9	10.2	24.8	15.1	60.0	50.0	35.2	34.9
4	11.44391	16.2	7.4	10.2	26.4	17.6	60.0	50.0	33.6	32.4
5	14.1292	8.2	-0.7	10.3	18.5	9.6	60.0	50.0	41.5	40.4

--- 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	0.17709	18.0	2.5	10.2	28.2	12.7	64.6	54.6	36.4	41.9
2	0.31924	13.3	0.7	9.8	23.1	10.5	59.7	49.7	36.6	39.2
3	2.35262	4.4	-1.6	9.9	14.3	8.3	56.0	46.0	41.7	37.7
4	3.60204	12.5	3.3	9.9	22.4	13.2	56.0	46.0	33.6	32.8
5	3.88239	13.7	4.1	9.9	23.6	14.0	56.0	46.0	32.4	32.0
6	4.17869	14.2	4.6	10.0	24.2	14.6	56.0	46.0	31.8	31.4
7	12.38763	15.0	3.1	10.4	25.4	13.5	60.0	50.0	34.6	36.5

6.2 Radiated Emission

Test specification	ANSI C63.4:2014, Class B FCC Part 15 Subpart B		
Testing voltage	120 V, 60 Hz		
Test facility	10 m Chamber (4F)		
Test distance	3 m		
Date	2021-01-22		
Temperature (°C)	20.9 °C	Humidity (% R.H.)	18.4 % R.H.
Remarks	Pass		

6.2.1 Limits of radiated emission measurement

Frequency [MHz]	Class A (dB(μV/m)) @ 10 m	Class B (dB(μV/m)) @ 3 m
30-88	39	40
88-216	43.5	43.5
216-960	46.4	46
Above 960	49.5	54

Note- Alternative standard: CISPR, Pub. 22

6.2.2 Measurement procedure

The test was done at a 10 m chamber with a quasi-peak detector. EUT was placed on a non-metallic table height of 0.8 m above the reference ground plane. Cables were folded back and forth forming a bundle 0.3 m to 0.4 m long and were hanged at a 0.4 m height to the ground plane.

Cables connected to EUT were fixed to cause maximum emission. Test was made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna was varied in height above the conducting ground plane to obtain the maximum signal strength.

6.2.3 Used equipments

Equipment	Model no.	Serial no.	Makers	Next Cal. Date	Used
EMI TEST RECEIVER	ESR7	101078	R&S	2021.08.20	☒
Bilog Antenna	CBL 6112D	37876	TESEQ	2022.12.08	☒
AMPLIFIER	310N	293004	SONOMA	2021.08.20	☒
ATTENUATOR	8491B	MY39270292	AGILENT	-	☒
Antenna Mast	MA4640-XP-ET	-	Innco Systems	-	☒
Turn Table	TT 3.0-3t	-	MATURO	-	☒
DOUBLE RIDGED HORN ANTENNA	3117	00161083	ETS-LINDGREN	2021.09.23	☒
Horn Antenna	3116C	00218560	ETS-LINDGREN	2021.03.26	☒
Amplifier	JS44-18004000-33-8P	2055879	L-3 Narda-MITEQ	2021.03.26	☒
PREAMPLIFIER	87405C	MY47010666	AGILENT	2021.12.29	☒
Broadband Preamplifier	BBV9718	9718-233	SCHWARZBECK	2021.08.20	☒
PXA Signal Analyzer	N9040B	US55230151	KEYSIGHT	2021.07.29	☒

6.2.4 Sample calculation

The field strength is calculated adding the antenna Factor, cable loss and, Antenna pad adding, subtracting the amplifier gain from the measured reading.

The sample calculation is as follow:

Result = M.R + C.F(A.F + C.L + 6 dB Att – A.G)

M.R = Meter Reading

C.F = Correction Factor

A.F = Antenna Factor

C.L = Cable Loss

A.G = Amplifier Gain

6 dB Att = 6 dB Attenuator

If M.R is 30 dB, A.F 12 dB, C.L 5 dB, 6 dB, A.G 35 dB

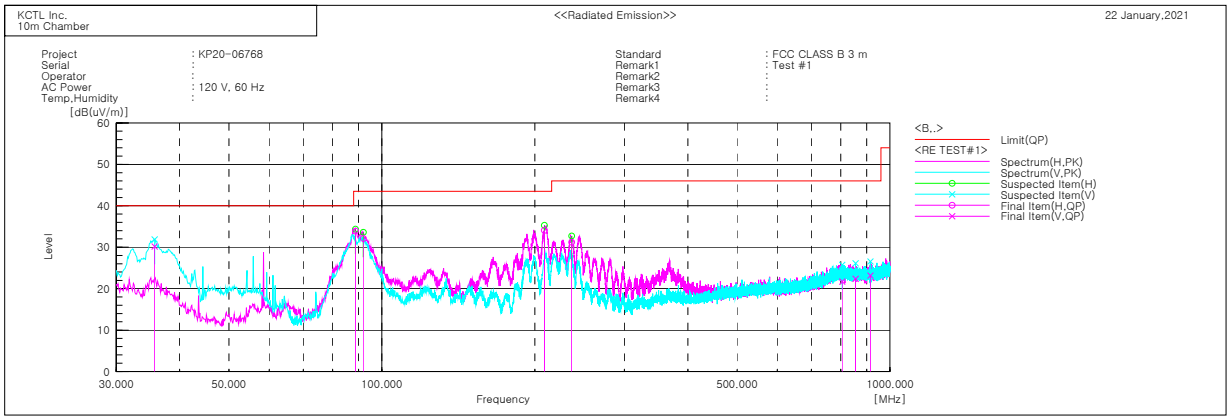
The result is 30 + 12 + 5 + 6 – 35 = 18 dB (μN/m)

Bilog Antenna and ATTENUATOR (6 dB) were calibrated together.

AV = CAV : Abbreviation of CISPR Average

6.2.5 Radiated emission measurement result

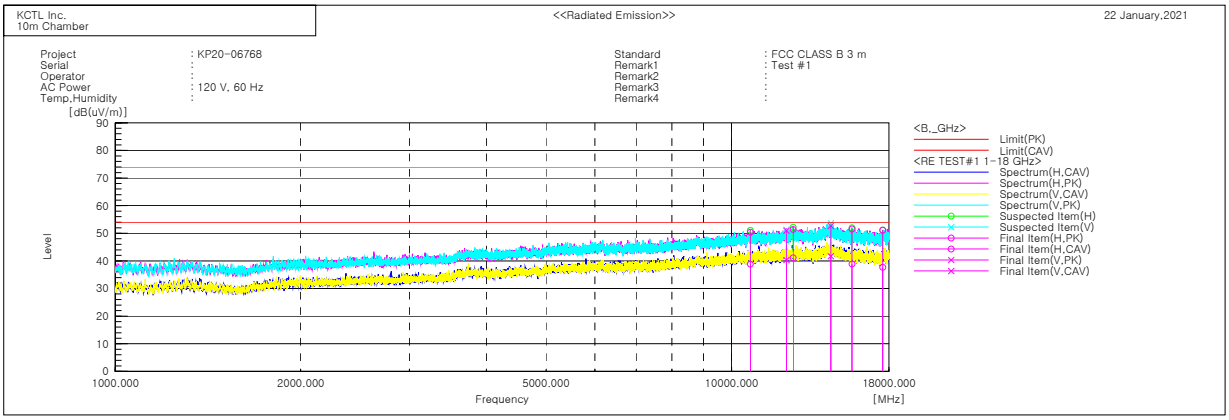
30 MHz ~ 1 GHz



Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
1	35.699	V	38.0	-7.8	30.2	40.0	9.8	100.0	78.0
2	88.685	H	47.1	-13.2	33.9	43.5	9.6	386.0	224.0
3	91.959	H	44.6	-12.5	32.1	43.5	11.4	338.0	84.0
4	208.965	H	44.8	-10.7	34.1	43.5	9.4	120.0	34.0
5	236.368	H	39.3	-8.1	31.2	46.0	14.8	268.0	223.0
6	805.151	V	16.6	5.1	21.7	46.0	24.3	118.0	213.0
7	855.470	V	17.1	5.3	22.4	46.0	23.6	307.0	334.0
8	914.883	V	17.6	5.6	23.2	46.0	22.8	110.0	55.0

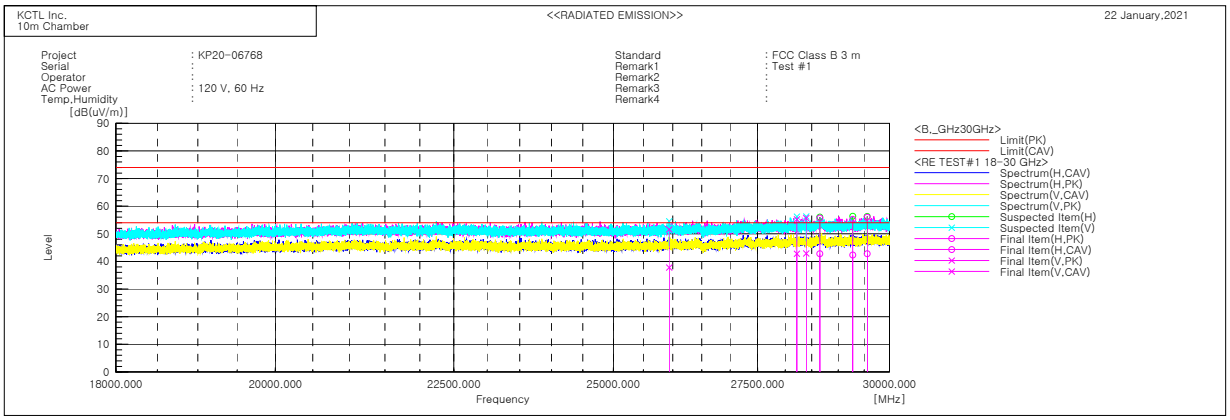
1 GHz ~ 18 GHz



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result CAV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]
1	10720.760	H	40.2	28.6	10.2	50.4	38.8	74.0	54.0	23.6	15.2	144.0	216.0
2	12268.790	V	38.0	27.4	12.9	50.9	40.3	74.0	54.0	23.1	13.7	309.0	94.0
3	12585.200	H	38.9	28.6	12.5	51.4	41.1	74.0	54.0	22.6	12.9	277.0	19.0
4	14486.470	V	39.6	28.6	13.1	52.7	41.7	74.0	54.0	21.3	12.3	167.0	194.0
5	15682.200	H	38.9	26.3	12.6	51.5	38.9	74.0	54.0	22.5	15.1	106.0	299.0
6	17591.030	H	38.6	25.2	12.5	51.1	37.7	74.0	54.0	22.9	16.3	100.0	294.0

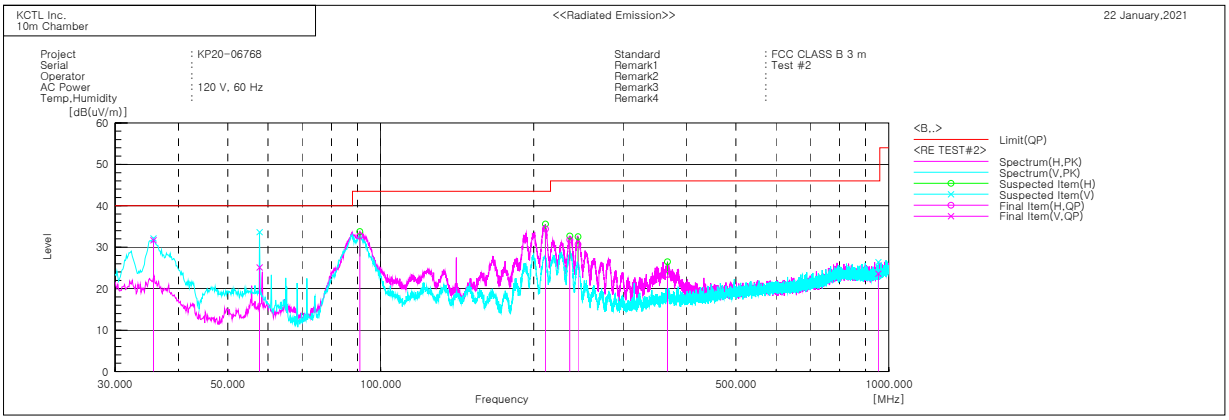
18 GHz ~ 30 GHz



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result CAV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]
1	25937.770	V	45.9	32.1	5.7	51.6	37.8	74.0	54.0	22.4	16.2	110.0	8.0
2	28217.240	V	48.6	36.2	6.6	55.2	42.8	74.0	54.0	18.8	11.2	194.0	264.0
3	28391.910	V	48.6	35.8	7.1	55.7	42.9	74.0	54.0	18.3	11.1	307.0	3.0
4	28652.590	H	48.6	35.7	7.1	55.7	42.8	74.0	54.0	18.3	11.2	300.0	294.0
5	29279.960	H	48.6	35.7	6.6	55.2	42.3	74.0	54.0	18.8	11.7	344.0	222.0
6	29561.310	H	48.9	35.7	7.1	56.0	42.8	74.0	54.0	18.0	11.2	270.0	264.0

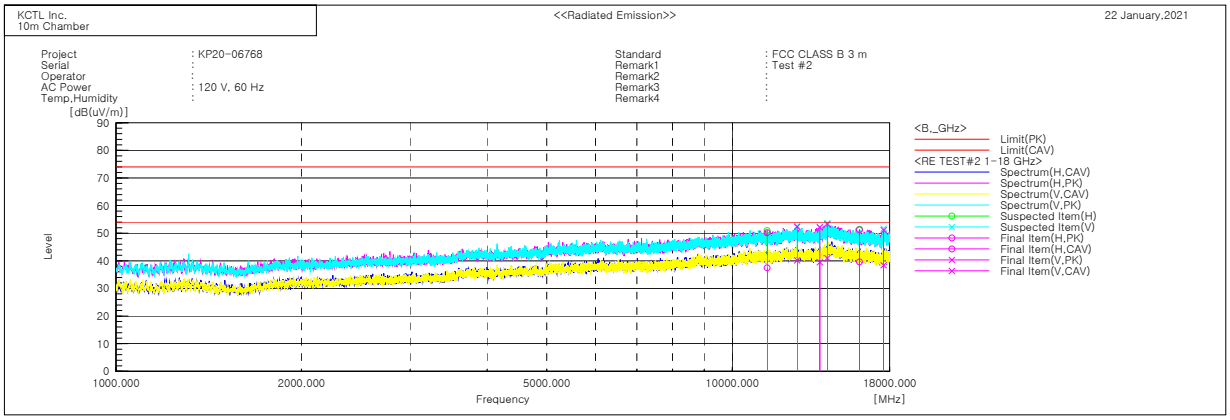
30 MHz ~ 1 GHz



Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
1	35.699	V	39.5	-7.8	31.7	40.0	8.3	277.0	46.0
2	57.766	V	41.6	-16.5	25.1	40.0	14.9	301.0	166.0
3	90.989	H	45.4	-12.7	32.7	43.5	10.8	377.0	79.0
4	210.905	H	45.0	-10.6	34.4	43.5	9.1	102.0	46.0
5	235.640	H	39.9	-8.1	31.8	46.0	14.2	330.0	267.0
6	244.613	H	38.2	-7.5	30.7	46.0	15.3	188.0	209.0
7	366.711	H	27.6	-4.2	23.4	46.0	22.6	190.0	349.0
8	954.046	V	17.2	6.4	23.6	46.0	22.4	227.0	41.0

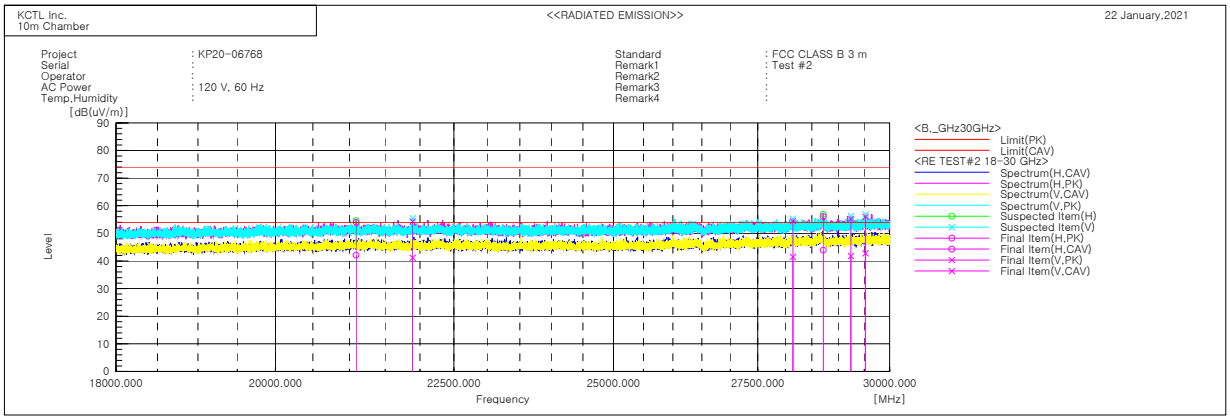
1 GHz ~ 18 GHz



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result CAV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]
1	11386.630	H	38.6	25.9	11.6	50.2	37.5	74.0	54.0	23.8	16.5	109.0	271.0
2	12739.150	V	39.6	27.5	12.7	52.3	40.2	74.0	54.0	21.7	13.8	363.0	202.0
3	13864.050	V	39.4	26.8	12.7	52.1	39.5	74.0	54.0	21.9	14.5	277.0	341.0
4	14257.900	V	40.1	27.8	13.2	53.3	41.0	74.0	54.0	20.7	13.0	244.0	61.0
5	16078.890	H	38.5	26.9	12.7	51.2	39.6	74.0	54.0	22.8	14.4	117.0	61.0
6	17593.860	V	38.6	25.9	12.5	51.1	38.4	74.0	54.0	22.9	15.6	200.0	34.0

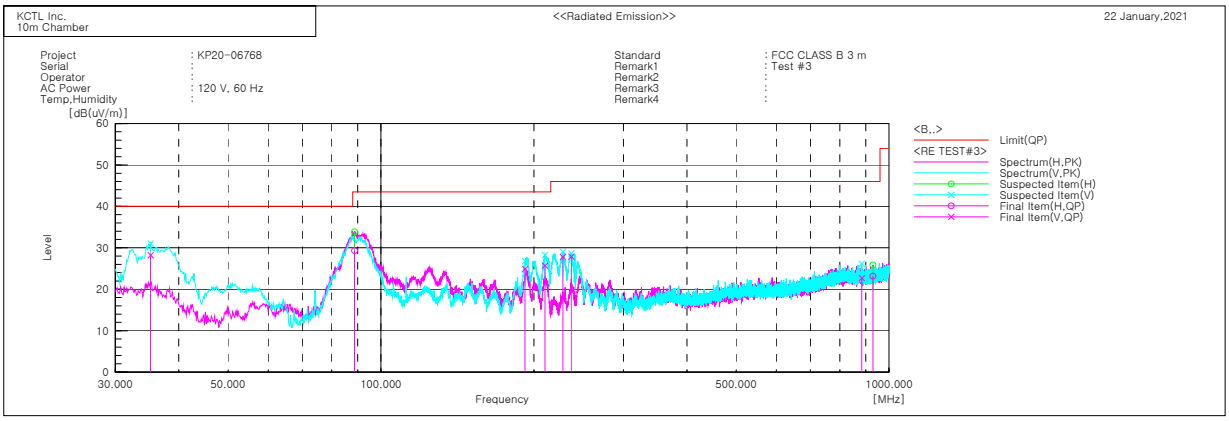
18 GHz ~ 30 GHz



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result CAV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]
1	21092.170	H	50.6	38.7	3.4	54.0	42.1	74.0	54.0	20.0	11.9	227.0	164.0
2	21894.880	V	50.6	37.5	3.7	54.3	41.2	74.0	54.0	19.7	12.8	100.0	64.0
3	28144.560	V	47.8	34.8	6.7	54.5	41.5	74.0	54.0	19.5	12.5	109.0	3.0
4	28713.260	H	48.9	36.7	7.2	56.1	43.9	74.0	54.0	17.9	10.1	207.0	149.0
5	29240.630	V	48.6	35.1	6.7	55.3	41.8	74.0	54.0	18.7	12.2	300.0	316.0
6	29525.310	V	48.9	35.7	7.1	56.0	42.8	74.0	54.0	18.0	11.2	200.0	71.0

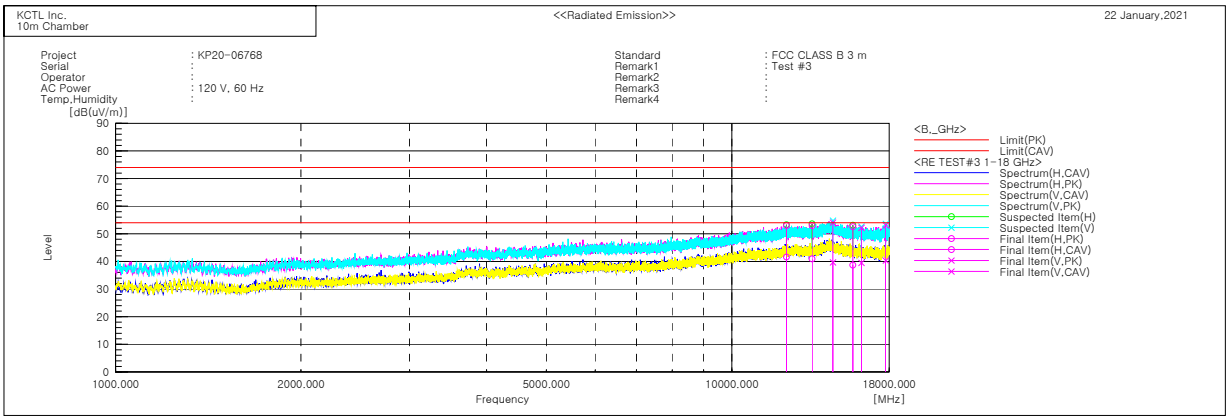
30 MHz ~ 1 GHz



Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
1	35.214	V	35.7	-7.5	28.2	40.0	11.8	160.0	43.0
2	88.685	H	42.5	-13.2	29.3	43.5	14.2	307.0	75.0
3	192.111	V	36.1	-11.2	24.9	43.5	18.6	227.0	61.0
4	210.299	V	36.3	-10.6	25.7	43.5	17.8	110.0	261.0
5	228.123	V	36.7	-8.9	27.8	46.0	18.2	207.0	291.0
6	236.853	V	35.9	-8.0	27.9	46.0	18.1	190.0	166.0
7	884.085	V	17.3	5.4	22.7	46.0	23.3	227.0	294.0
8	929.796	H	17.3	5.9	23.2	46.0	22.8	370.0	94.0

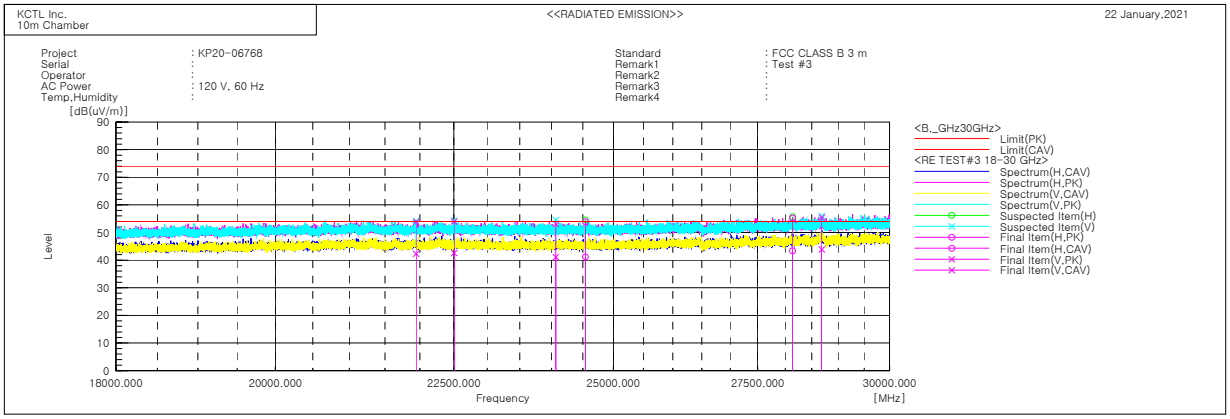
1 GHz ~ 18 GHz



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Result CAV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [deg]
1	12260.290	H	40.0	28.6	13.0	53.0	41.6	74.0	54.0	21.0	12.4	227.0	216.0
2	13492.860	H	40.6	28.5	12.4	53.0	40.9	74.0	54.0	21.0	13.1	100.0	94.0
3	14579.980	V	41.2	26.8	12.9	54.1	39.7	74.0	54.0	19.9	14.3	300.0	169.0
4	15712.430	H	40.5	26.6	12.1	52.6	38.7	74.0	54.0	21.4	15.3	288.0	261.0
5	16227.180	V	41.2	28.5	11.0	52.2	39.5	74.0	54.0	21.8	14.5	106.0	184.0
6	17761.980	V	40.2	27.4	12.9	53.1	40.3	74.0	54.0	20.9	13.7	110.0	182.0

18 GHz ~ 30 GHz



Final Result

No.	Frequency	(P)	Reading PK	Reading CAV	c.f	Result PK	Result CAV	Limit PK	Limit AV	Margin PK	Margin CAV	Height	Angle
	[MHz]		[dB(uV)]	[dB(uV)]	[dB(1/m)]	[dB(uV/m)]	[dB(uV/m)]	[dB(uV/m)]	[dB(uV/m)]	[dB]	[dB]	[cm]	[deg]
1	21946.220	V	50.2	38.6	3.7	53.9	42.3	74.0	54.0	20.1	11.7	107.0	94.0
2	22503.580	V	49.6	38.2	4.4	54.0	42.6	74.0	54.0	20.0	11.4	110.0	49.0
3	24065.670	V	48.6	36.5	4.6	53.2	41.1	74.0	54.0	20.8	12.9	307.0	64.0
4	24541.030	H	49.2	36.5	4.7	53.9	41.2	74.0	54.0	20.1	12.8	300.0	301.0
5	28139.900	H	48.5	36.7	6.7	55.2	43.4	74.0	54.0	18.8	10.6	244.0	294.0
6	28685.930	V	48.2	36.7	7.2	55.4	43.9	74.0	54.0	18.6	10.1	344.0	311.0