

EMC TEST REPORT

Project No.	LBE20190347	Issue No.	1
Applicant	Name of organization	Samsung Electronics Co., Ltd.	
	Address	(Maetan-dong) 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Republic of Korea	
	Date of application	February 18, 2019	
EUT	Type of device	☒ All other Receivers subject to part15 ☒ Class B Personal Computers and peripherals ☒ Other Class B digital devices and peripherals ☐ FM Broadcast Receiver	
	Equipment authorization	☒ Certification ☐ Supplier's Declaration of Conformity	
	FCC ID	A3LSC04L	
	Kind of product	Mobile Phone	
	Model No.	SC-04L	
	Variant Model No.	Refer to clause 4.6	
	Manufacturer	SAMSUNG ELECTRONICS CO., LTD 94-1, Imsu-dong, Gumi-si, Gyengsangbuk-do, 730-722, Republic of Korea SAMSUNG ELECTRONICS HUIZHOU CO.,LTD. 516229, Chenjiang Town, HuiZhou City, Guangdong Province, China	
Applied Standards		47 CFR Part 15, Subpart B, Class B / ANSI C63.4-2014	
Test Period		February 19, 2019 ~ March 4, 2019	
Issue date		March 27, 2019	

Test result : Complied

The equipment under test has found to be compliant with the applied standards.
(Refer to the attached test result for more detail.)

Tested by : Soo-Joon Kim

S. J. Kim

Reviewed by : Young-Hun Kim

Y. H. Kim

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Global CS Center of Samsung Electronics Co., Ltd.

(Maetan-dong) 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Republic of Korea

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1. Report Information

1.1 Revision history

No.	Revised detailed information
Issue 0	There are no revisions and this version is basic test report.
Issue 1	The variant model SM-G975J was removed as per customer's request.

1.2 RSE test report no.

No.	Remark
1M1901240019-14	The cellular receiver mode refers to the radiated spurious emissions test report.

2. Summary of test results

2.1 Emission

The EUT has been tested according to the following specifications:

Applied	Test type	Applied standard	Result
☒	Conducted Disturbance (Mains port)	47 CFR Part 15 Subpart B / ANSI C63.4-2014 (Class B)	Complied
☒	Radiated Disturbance		Complied

3. General Information

3.1 Test facility

The Global CS Center is located on Samsung Electronics Co., Ltd. at (Maetan-dong) 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Republic of Korea. All testing are performed in Semi-anechoic chambers conforming to the site attenuation characteristics defined by ANSI C63.4, CISPR 32, CISPR 16-1-4 and Shielded rooms. And all antennas are properly calibrated using ANSI C63.5:2017.

The Global CS Center is operated as testing laboratory in accordance with the requirements of ISO/IEC 17025:2005.

4. Test Setup configuration

4.1 Test Peripherals

The cables used for these peripherals are either permanently attached by the peripheral manufacturer or coupled with an assigned cable as defined below.

The following is a listing of the EUT and peripherals utilized during the performance of EMC test:

Mark	Description	Model No.	Serial No.	Manufacturer / Trademark	FCC ID
A	Mobile Phone	SC-04L	-	SAMSUNG	A3LSC04L
B	Battery	EB-BG975ABU	-	SAMSUNG	-
C	Headset	EO-IG955	-	SAMSUNG	-
D	Data Cable	ECB-DU6A	-	SAMSUNG	-
E	Micro SD Card	64GB	-	SAMSUNG	-
F	Laptop Computer	Latitude5580	1CHRYM2	Dell	-
			D3HRYM2	Dell	-
G	Laptop AC Adapter	LA65NM130	5D77	Dell	-
			5DEA	Dell	-
H	Mouse	AA-SM7PCP	BDV8J48P4393	SAMSUNG	-
		SC-1000	1034000281	SAMSUNG	-
I	OTG Gender (C to A)	EE-UG970	-	SAMSUNG	
J	Router	DIR-806A	RF0F1D5000688	D-Link	-
		SC-1000	RF0F1D8011504	D-Link	-
K	Travel Adapter	EP-TA200	R37M15D7FL1SE3	SAMSUNG	-
L	OTG Gender (micro to C)	EE-GG970	-	SAMSUNG	-
M	Monitor	27UD88	605NTHM9B769	LG	-
N	Monitor AC Adaptor	LCAP31	EG3VN629490050658	LG	-
O	DP Data Cable	JCA141	BW1B1607001082	J5create	-
P	USB Memory Stick	64GB	-	Sandisk	-

4.2 EUT operating mode

To achieve compliance applied standard specification, the following mode(s) were made during compliance testing:

4.2.1 Conducted Emission

No.	Operating mode
1	Camera (rear) + Charging (w/ TA) + Cellular receiver (GSM850 Center Frequency)
2	Camera (front) + Charging (w/ TA)
3	Video + Audio playback from internal memory data + Charging (w/ TA)
4	USB Data Communication with PC (from external memory data)

4.2.2 Radiated Emission

No.	Operating mode
1	Camera (rear) + Charging (w/ TA)
2	Camera (front) + USB OTG (w/ USB gender: memory stick)
3	Video + Audio playback from internal memory data+ Display out(Direct DP Cable)
4	USB Data Communication with PC (from external memory data)

4.3 Details of Sampling

Customer selected, single unit.

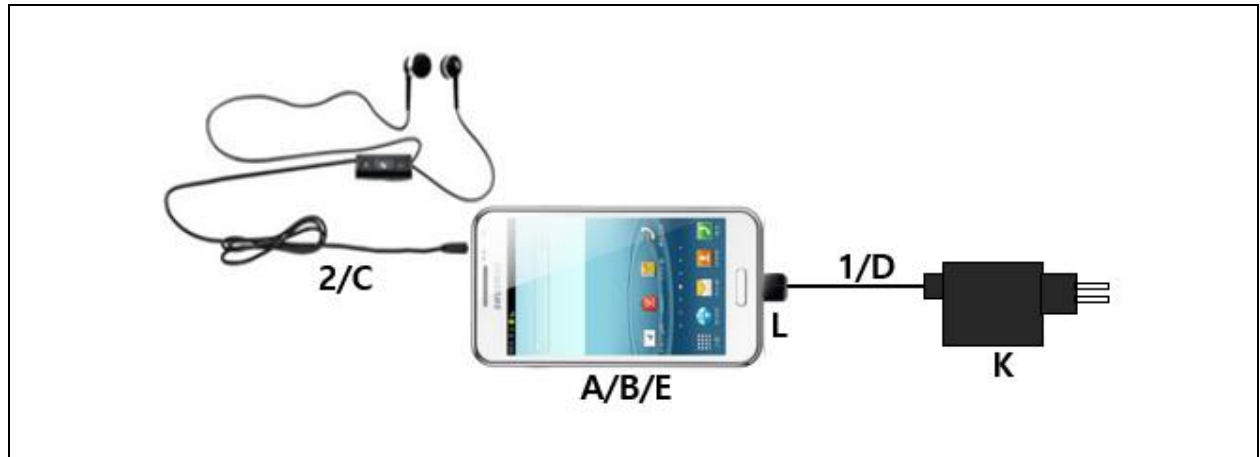
4.4 Used cable description

The EUT is configured, installed, arranged and operated in a manner consistent with typical applications. Interface cables/loads/devices are connected to at least one of each type of interface port of the EUT, and where practical, each cable shall be terminated in a device typical of actual usage. The type(s) of interconnecting cables to be used and the interface port (of the EUT) to which these were connected:

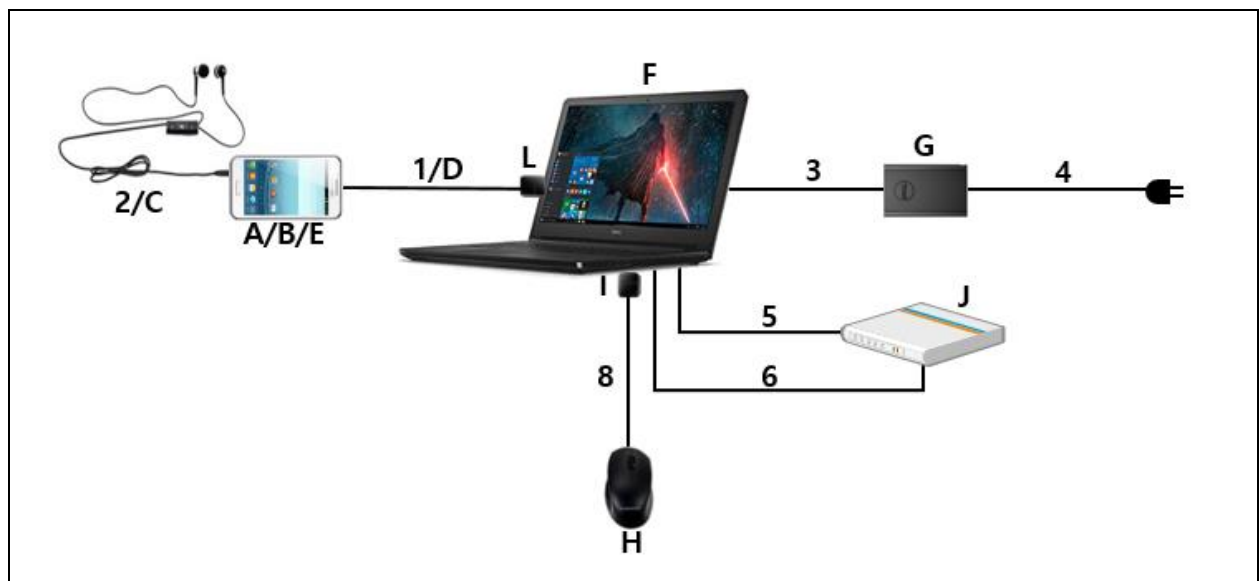
No.	Connected cable	Length [m]	Shielded [Y/N]	Note
1	Data Cable	0.8	Y	From EUT to Laptop Computer
2	Headset	1.6	N	For EUT
3	Power	1.8	N	For Laptop Computer to Laptop AC Adapter
4	Power	1.5	N	For Laptop AC Adapter
5	LAN	1.5	Y	From Laptop Computer to Router
6	USB	0.8	N	From Laptop Computer to Router for DC Power
7	USB	1.2	N	From OTG Gender to Mouse (AA-SM7PCP)
8	USB	1.8	N	From OTG Gender to Mouse (SC-1000)
9	DP Cable	1.1	Yes	From EUT to DP Monitor
10	Power	1.2	No	From Monitor to AC Adapter
11	Power	1.8	No	For Monitor AC Adpater

4.5 Test arrangement

4.5.1 Conducted Emission

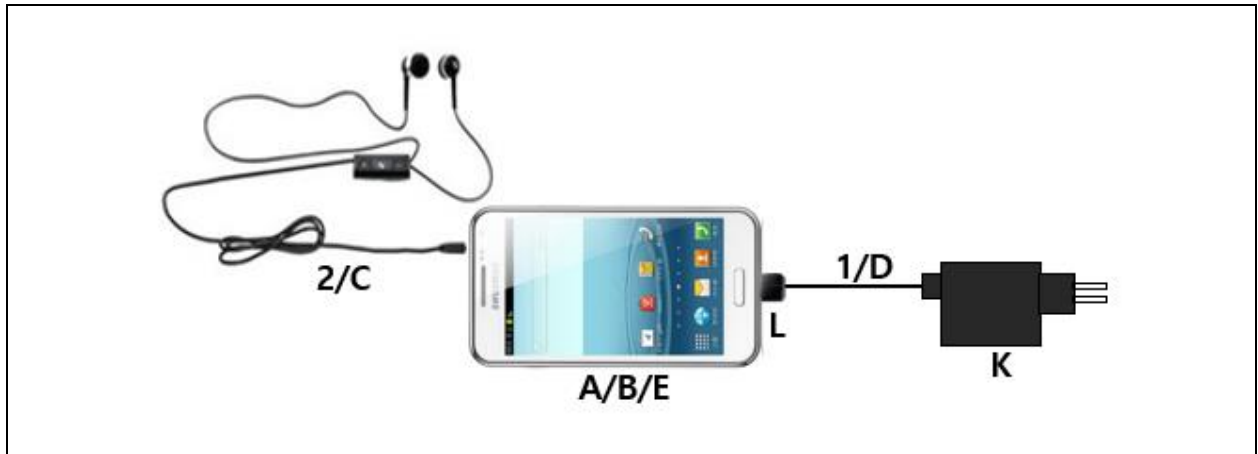


[Mode 1 - 3]

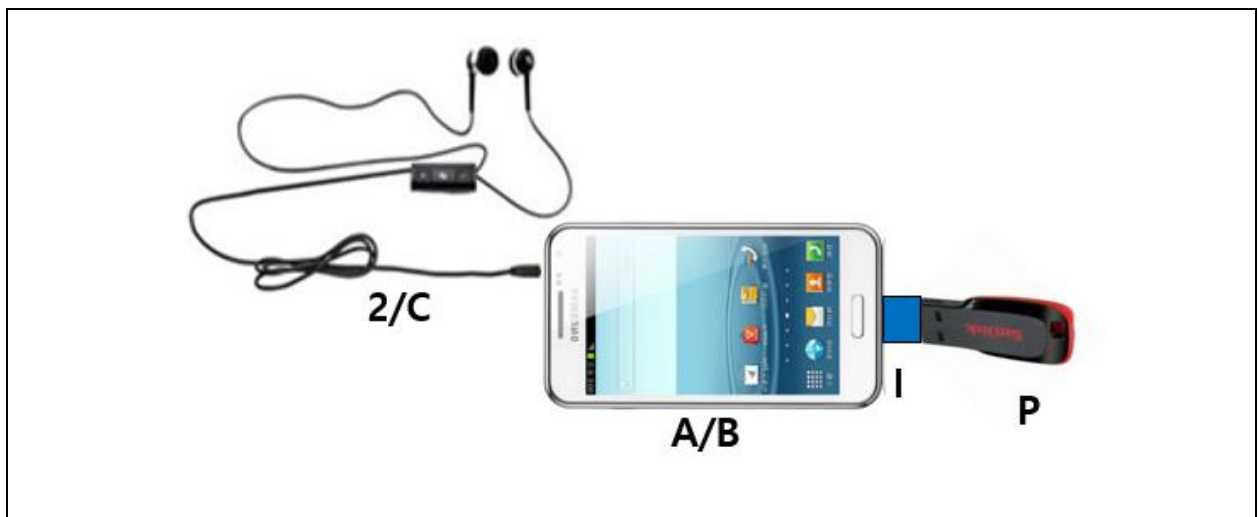


[Mode 4]

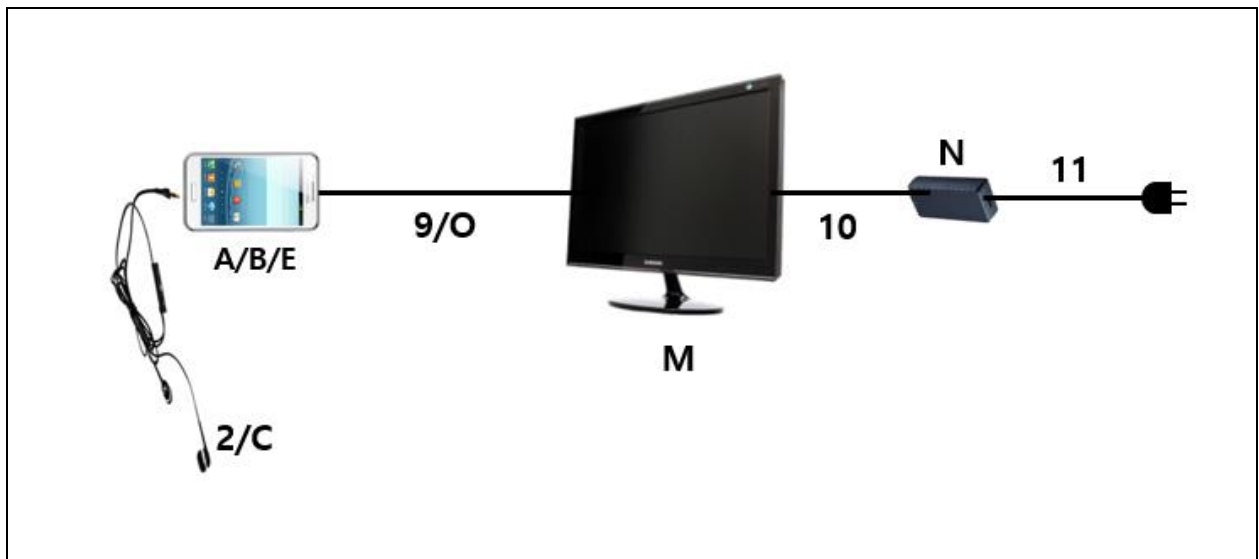
4.5.2 Radiated Emission



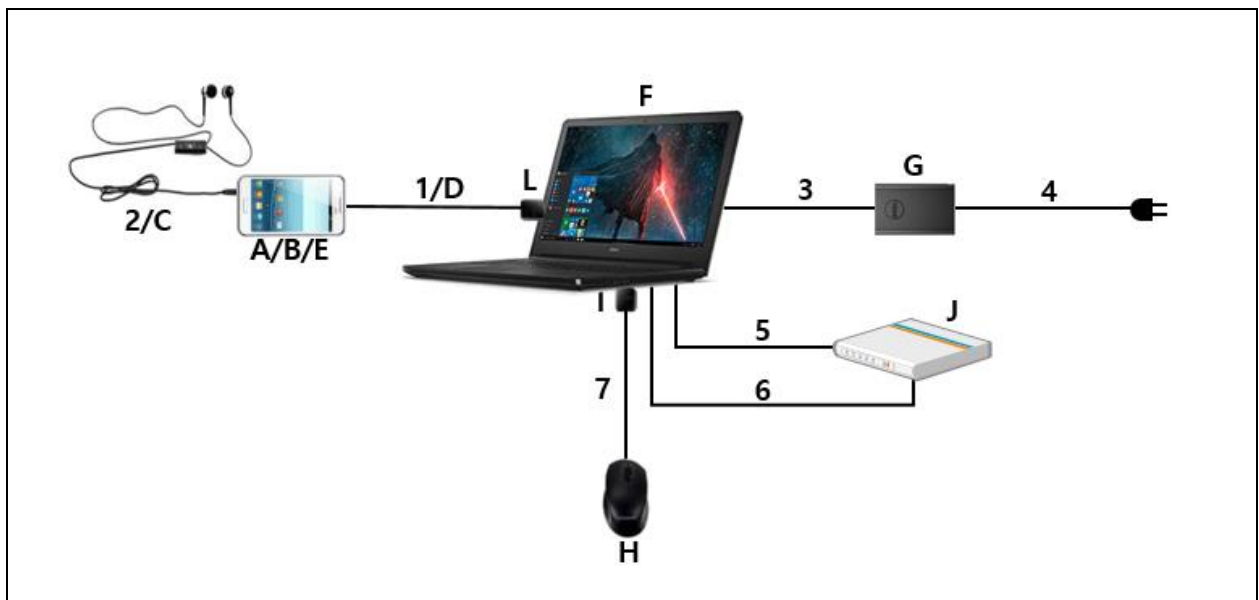
[Mode 1]



[Mode 2]



[Mode 3]



[Mode 4]

4.6 EUT Description

The EUT is a bar type mobile phone which can operate on GSM850/900/1800/1900, WCDMA FDD1/5/6/19, LTE FDD1/3/4/5/7/12/13/19/20/21/28, LTE TDD38/39/40/41/42, TD-SCDMA B39 bands and incorporates a Camera, Bluetooth, ANT+, Wi-Fi, GNSS, NFC, Wireless Charging, MST, OTG, DP and MP3/MP4 player.

4.6.1 The variant models

- None

4.7 EUT Frequencies

The highest frequencies (Generated and used)	Frequency [MHz]
Wi-Fi	5 825

4.8 Test configuration and condition

The system was configured for testing in a typical fashion that a customer would normally use. Cables were attached to each of the available I/O Ports. Where applicable, peripherals were attached to the I/O cables. All the external I/O ports are exercised, as well as internal and the external SD card, by writing and reading arbitrary data or charging with TA.

The EUT was investigated in three orientations and the worst case orientation is reported.

RX mode(850MHz) radiated testing was performed with the GSM850 RX Test mode at center frequency. All licensed communication (850MHz) RX mode, GSM/WCDMA/LTE, test results are not significantly different.

The video and music were repetitively played connected to the earphone.

The video and music were played on monitor through Display Out function using direct DP Cable or DP converter.

The camera of the EUT was operated continuously.

The EUT was connected to USB Memory stick using USB OTG gender.

Power source for the EUT operating was supplied by CVCF made by the Pacific Corp.

- Test Voltage : AC 120 V, 60 Hz

4.9 Measurement uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus: (According to CISPR 16-4-2 and UKAS M3003)

4.9.1 Emission

Test type		Measurement uncertainty (C.L. 95 %, k = 2)
Conducted disturbance	AC Mains	3.52 dB
Radiated Disturbance (Below 1 GHz)	Horizontal	4.99 dB
	Vertical	4.90 dB
Radiated Disturbance (Above 1 GHz)	Horizontal	5.33 dB
	Vertical	5.32 dB

5. Results of individual test

5.1 Conducted disturbance

The EUT was connected to the Desk-Top Computer which was powered from one LISN for the measurements. The support equipment power cables were connected to a second LISN.

Both conducted lines are measured in Quasi-Peak and CISPR-Average mode, including the worst-case data points for each tested configuration. The EUT measured in accordance with the methods described in standards.

Limits for conducted disturbance at the mains ports of Class B ITE

Frequency range Limits [MHz]	Resolution Bandwidth [kHz]	Limits [dB(μV)]	
		Quasi-peak	Average
0,15 to 0,50	9	66 to 56	56 to 46
0,50 to 5	9	56	46
5 to 30	9	60	50

NOTE 1 The lower limit shall apply at the transition frequency.
NOTE 2 The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

5.1.1 Test instrumentation

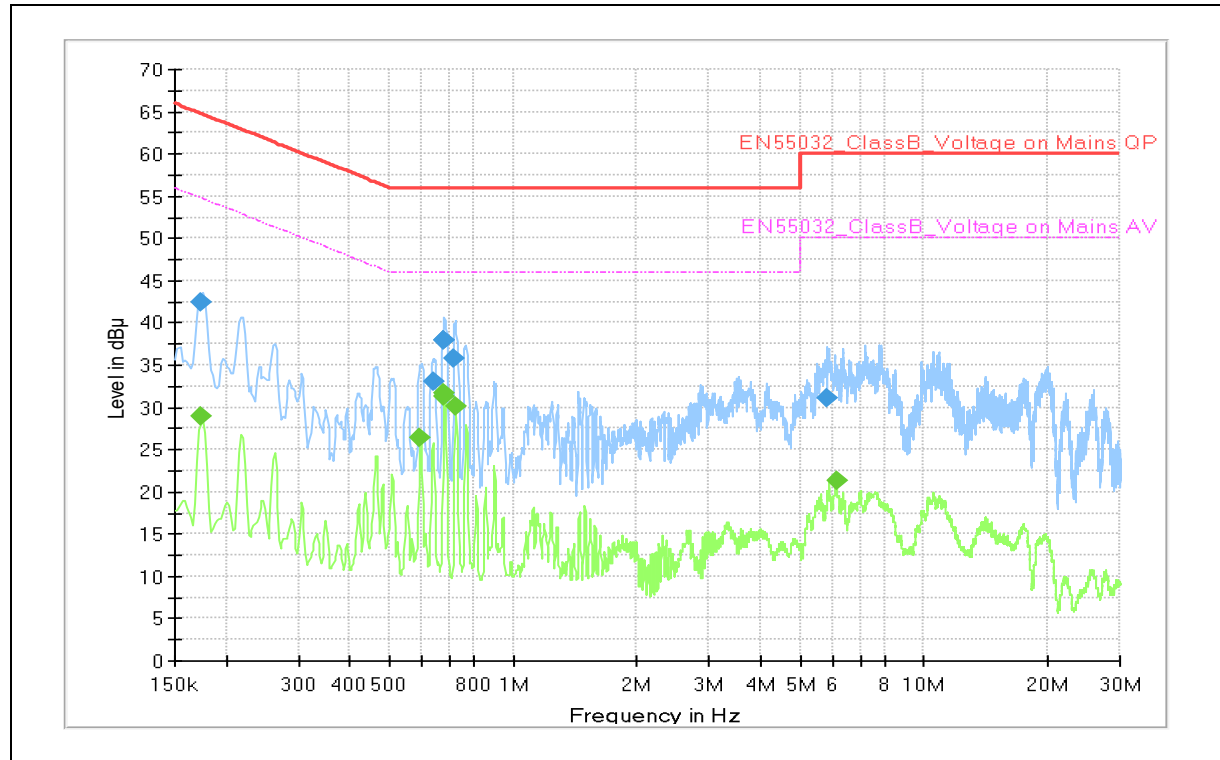
EMC No.	Test Instrument	Model name	Manufacturer	Serial No.	Calibration	
					Date	Interval (Month)
E5I-123	EMI Test Receiver	ESU8	R&S	100475	2018-05-13	12
E5I-127	LISN	ENV216	R&S	102061	2018-07-23	12
-	Test software	EMC32	R&S	Ver 9.26.01	-	-

5.1.2 Temperature and humidity condition

Test date	2019-02-28 ~ 2019-03-04	Test engineer	Soo-Joon Kim
Climate condition	Ambient temperature	(22.9 ~ 23.2) °C	Limit (15.0 to 35.0) °C
	Relative humidity	(39.7 ~ 40.8) % R.H.	Limit (25.0 to 75.0) % R.H.
	Atmospheric pressure	(101.4 ~ 102.0) kPa	Limit (86.0 to 106.0) kPa
Test place	Shield Room (SR8)		

5.1.3 Test results

☐ Operating Mode 1: AC Mains



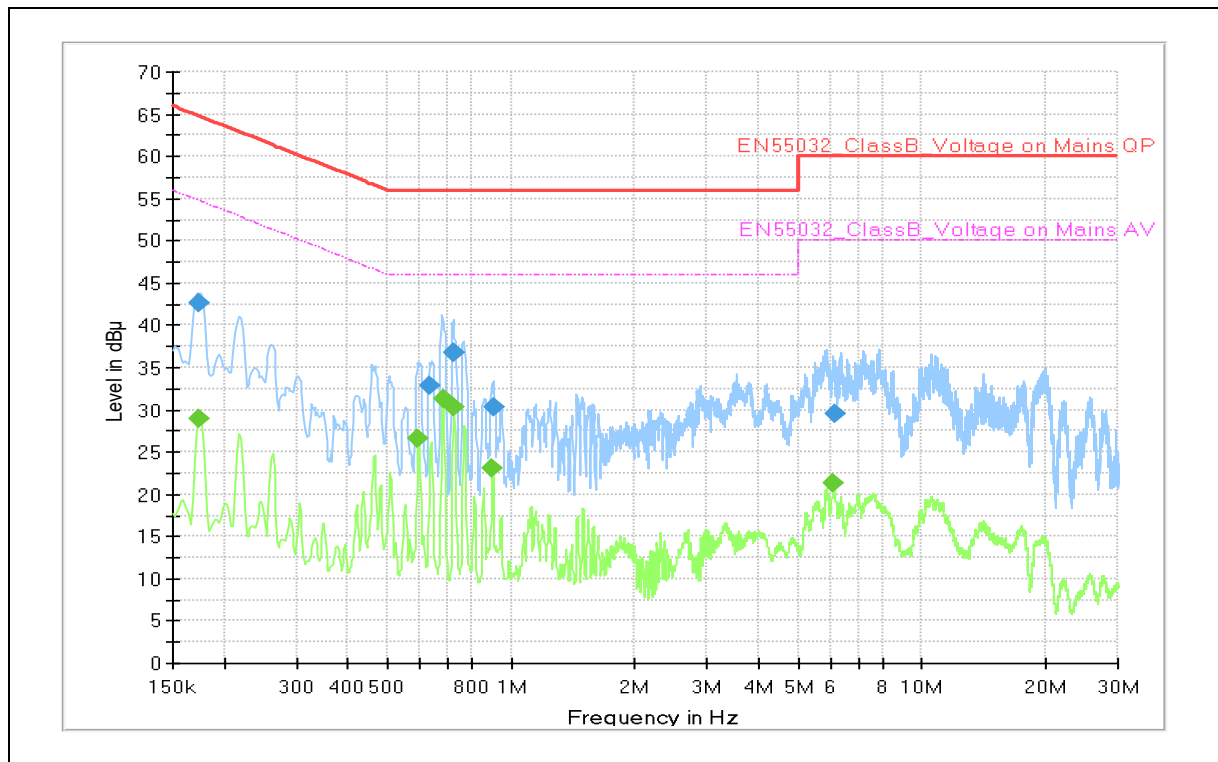
Note 1) Two graphs measured for both Live(L1) and Neutral(N) of the LISN are combined into one graph.

QP / CAV final measurement results table:

Frequency (MHz)	QP (dBμV)	CAV (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)
0.174	---	28.9	54.8	25.9	L1	9.9
0.174	42.5	---	64.8	22.3	L1	9.9
0.595	---	26.5	46.0	19.5	N	10.1
0.639	33.0	---	56.0	23.0	L1	10.2
0.679	37.9	---	56.0	18.1	L1	10.2
0.680	---	31.3	46.0	14.7	L1	10.2
0.680	37.9	---	56.0	18.1	L1	10.2
0.681	---	31.7	46.0	14.3	L1	10.2
0.719	35.9	---	56.0	20.1	L1	10.1
0.724	---	30.2	46.0	15.8	L1	10.1
5.799	31.2	---	60.0	28.8	L1	10.0
6.109	---	21.3	50.0	28.7	L1	10.0

Note 2) Level (QP and/or CAV) = Meter Reading (QP and/or CAV) + Corr. (LISN Insertion Loss + Cable Loss)
 Margin (QP and/or CAV) = Limit – Level (QP and/or CAV)
 QP = Quasi-Peak, CAV = CISPR-Average, Corr. = Correction Factor

□ Operating Mode 2: AC Mains



Note 1) Two graphs measured for both Live(L1) and Neutral(N) of the LISN are combined into one graph.

QP / CAV final measurement results table:

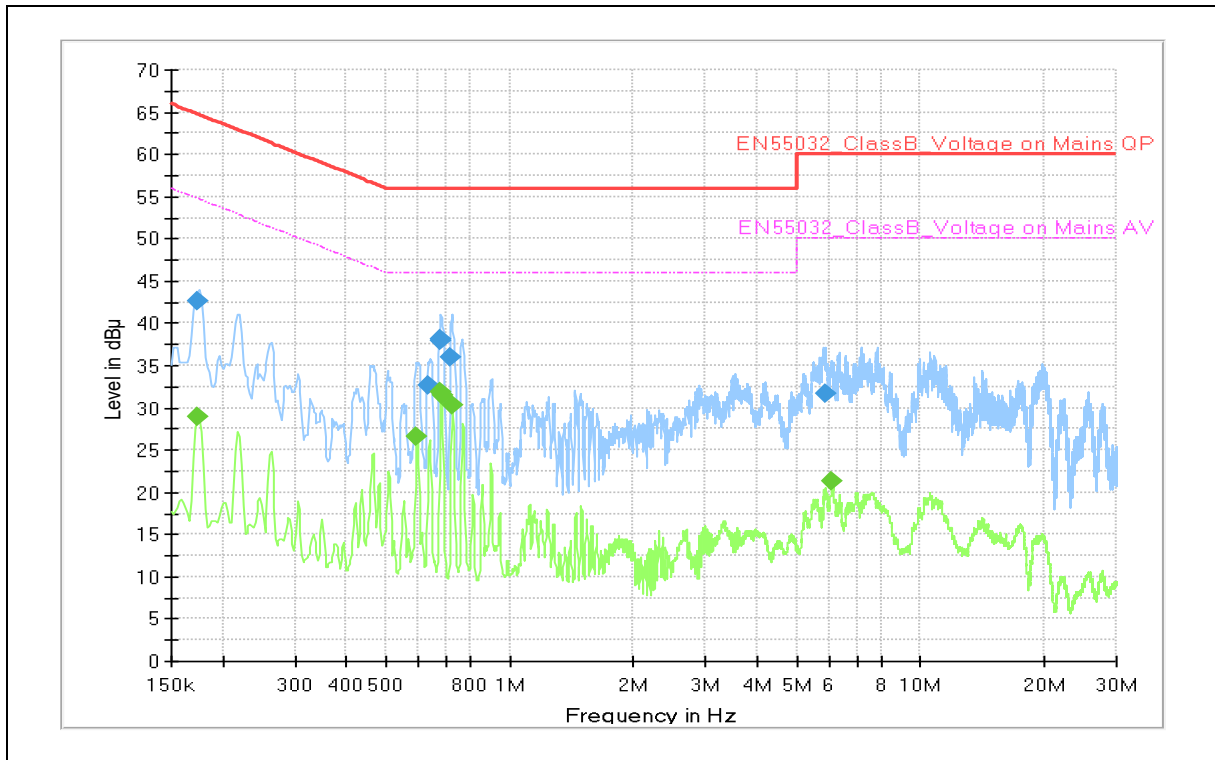
Frequency (MHz)	QP (dBμV)	CAV (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)
0.174	---	28.9	54.8	25.9	L1	9.9
0.174	42.6	---	64.8	22.2	L1	9.9
0.595	---	26.7	46.0	19.3	L1	10.2
0.636	32.8	---	56.0	23.2	L1	10.2
0.684	---	31.4	46.0	14.6	L1	10.2
0.723	36.8	---	56.0	19.2	L1	10.1
0.724	---	30.3	46.0	15.7	L1	10.1
0.724	36.7	---	56.0	19.3	L1	10.1
0.898	---	23.1	46.0	22.9	L1	10.0
0.903	30.4	---	56.0	25.6	L1	10.0
6.099	---	21.3	50.0	28.7	L1	10.0
6.108	29.6	---	60.0	30.4	L1	10.0

Note 2) Level (QP and/or CAV) = Meter Reading (QP and/or CAV) + Corr. (LISN Insertion Loss + Cable Loss)

Margin (QP and/or CAV) = Limit – Level (QP and/or CAV)

QP = Quasi-Peak, CAV = CISPR-Average, Corr. = Correction Factor

□ Operating Mode 3: AC Mains



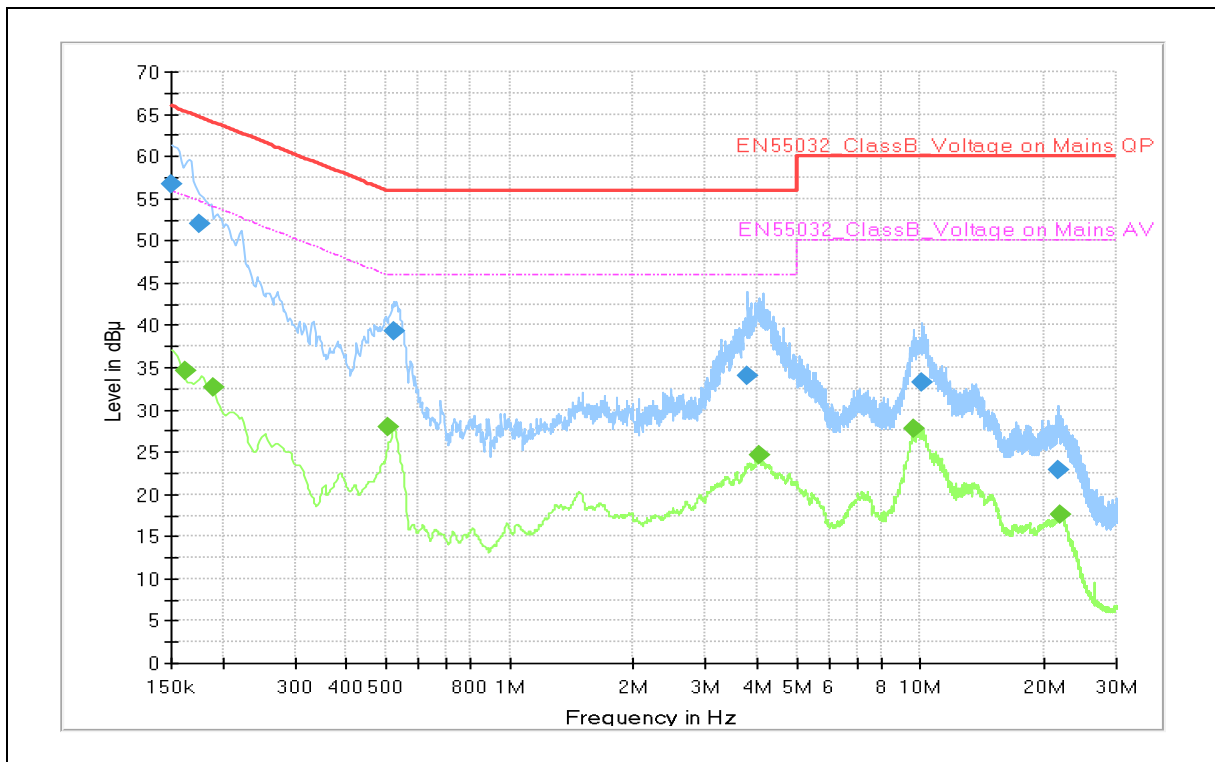
Note 1) Two graphs measured for both Live(L1) and Neutral(N) of the LISN are combined into one graph.

QP / CAV final measurement results table:

Frequency (MHz)	QP (dB μ V)	CAV (dB μ V)	Limit (dB μ V)	Margin (dB)	Line	Corr. (dB)
0.174	---	28.9	54.8	25.9	N	9.9
0.174	42.6	---	64.8	22.2	L1	9.9
0.595	---	26.7	46.0	19.3	N	10.1
0.635	32.6	---	56.0	23.4	L1	10.2
0.680	38.2	---	56.0	17.8	L1	10.2
0.681	---	31.8	46.0	14.2	L1	10.2
0.681	37.9	---	56.0	18.1	L1	10.2
0.684	---	31.4	46.0	14.6	L1	10.2
0.719	36.0	---	56.0	20.0	L1	10.1
0.724	---	30.4	46.0	15.6	L1	10.1
5.841	31.7	---	60.0	28.3	L1	10.0
6.106	---	21.3	50.0	28.7	L1	10.0

Note 2) Level (QP and/or CAV) = Meter Reading (QP and/or CAV) + Corr. (LISN Insertion Loss + Cable Loss)
 Margin (QP and/or CAV) = Limit – Level (QP and/or CAV)
 QP = Quasi-Peak, CAV = CISPR-Average, Corr. = Correction Factor

☐ Operating Mode 4: AC Mains



Note 1) Two graphs measured for both Live(L1) and Neutral(N) of the LISN are combined into one graph.

QP / CAV final measurement results table:

Frequency (MHz)	QP (dBμV)	CAV (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)
0.150	56.6	---	66.0	9.4	L1	9.9
0.162	---	34.5	55.4	20.9	N	9.9
0.175	52.0	---	64.7	12.7	L1	9.9
0.190	---	32.6	54.0	21.6	L1	10.0
0.508	---	28.1	46.0	17.9	L1	10.2
0.525	39.3	---	56.0	16.7	L1	10.2
3.803	33.9	---	56.0	22.1	L1	10.0
4.030	---	24.6	46.0	21.4	L1	10.0
9.654	---	27.9	50.0	22.1	L1	10.1
10.109	33.3	---	60.0	26.7	L1	10.1
21.718	22.9	---	60.0	37.1	N	10.7
21.877	---	17.5	50.0	32.5	N	10.7

Note 2) Level (QP and/or CAV) = Meter Reading (QP and/or CAV) + Corr. (LISN Insertion Loss + Cable Loss)

Margin (QP and/or CAV) = Limit – Level (QP and/or CAV)

QP = Quasi-Peak, CAV = CISPR-Average, Corr. = Correction Factor

5.2 Radiated disturbance

The following data lists the significant emission frequencies, measured levels, correction factors (for antenna and cables), orientation of table, polarization and height of antenna, the corrected reading, the limit, and the amount of margin.

Peak measurements were made over the changeable frequency range 30 MHz to 1 GHz at a measurement distance of 10 m for the following antenna and turntable arrangements:

Antenna Height [cm]	Antenna Polarisation	Resolution Bandwidth [kHz]	Video Bandwidth [kHz]	Turntable position [degrees]
100 ~ 400	Horizontal, Vertical	120	300	Continuous

Measurements within 6 dB of the limit were then maximized by adjusting turntable position. Final measurements were made using quasi-peak detector.

Peak/CISPR-Average measurements were made over the changeable frequency range 1 GHz to 40 GHz or 5th harmonics of the highest frequency generated or used in the device or on which the device operate or tunes at a measurement distance of 3 m for the following antenna and turntable arrangements. The measurements above 1 GHz were performed with the bore-sighting antenna aimed at the EUT.

Antenna Height [cm]	Antenna Polarisation	Resolution Bandwidth [MHz]	Video Bandwidth [MHz]	Turntable position
100 ~ 400	Horizontal, Vertical	1	3	Continuous

Measurements within 6 dB of the limit were then maximized by adjusting turntable position. Final measurements were made using peak and CISPR-average detectors.

Limits for radiated disturbance of Class B ITE at a measuring distance of 3 m and 10 m

Frequency range Limits [MHz]	Field Strength		
	3 m [$\mu\text{V/m}$]	3 m [dB($\mu\text{V/m}$)]	10 m [dB($\mu\text{V/m}$)]
30 to 88	100	40.0	29.5
88 to 216	150	43.5	33.0
216 to 960	200	46.0	35.5
Above 960	500	54.0	43.5

Results checked manually; and points close to the limit line were re-measured.

5.2.1 Test instrumentation

EMC No.	Test Instrument	Model name	Manufacturer	Serial No.	Calibration	
					Date	Interval (Month)
E5I-016	EMI Test Receiver	ESU8	R&S	100482	2018-06-08	12
E5I-021	EMI Test Receiver	ESU40	R&S	100376	2019-01-30	12
E5I-149	Horn Antenna	HF907	R&S	102525	2018-06-15	24
E5I-039	Signal Conditioning Unit	SCU-18	R&S	10211	2019-01-23	12
E5I-037	WideBand Horn Antenna	WBH 18-40K	R&S	11201	2019-01-31	24
E5I-042	Signal Conditioning Unit	SCU-40A	R&S	10004	2018-09-05	12
E5I-120	BiLog Antenna	CBL6112D	TESEQ	36997	2018-04-23	24
E5I-072	BiLog Antenna	CBL6112D	TESEQ	36009	2018-04-23	24
E5I-075	Preamplifier	310N	SONOMA	332018	2018-05-25	12
E5I-076	Preamplifier	310N	SONOMA	332019	2018-05-25	12
-	Test software	EP7RE	TOYO	Ver 5.8.2	-	-
-	Test software	EMC32	R&S	Ver 9.25.00	-	-

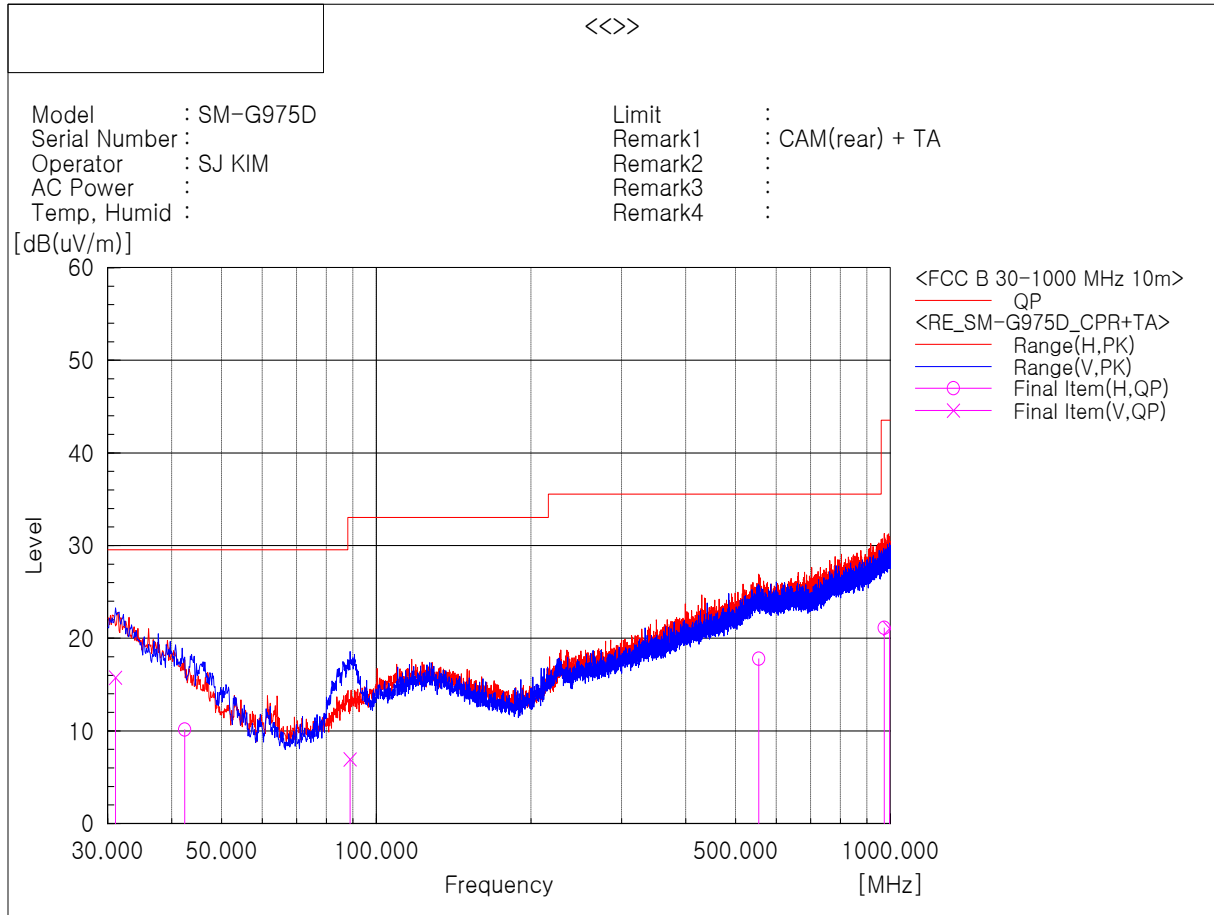
5.2.2 Temperature and humidity condition

Test date	2019-02-19 / 2019-02-26	Test engineer	Soo-Joon Kim
Climate condition	Ambient temperature	(22.6 ~ 23.0) °C	Limit (15.0 to 35.0) °C
	Relative humidity	(47.3 ~ 49.1) % R.H.	Limit (25.0 to 75.0) % R.H.
	Atmospheric pressure	(101.4 ~ 102.2) kPa	Limit (86.0 to 106.0) kPa
Test place	Semi-Anechoic Chamber (SAC4)		

5.2.3 Test results

☐ Operating Mode 1

- Frequencies below 1 GHz



Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(μV)]	c.f [dB(1/m)]	Result QP [dB(μV/m)]	Limit QP [dB(μV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]	System
1	31.091	V	23.6	-7.8	15.8	29.5	13.7	100	42	2
2	42.368	H	22.7	-12.6	10.1	29.5	19.4	200	241	1
3	88.928	V	23.1	-16.2	6.9	33.0	26.1	300	25	2
4	554.649	H	22.0	-4.2	17.8	35.5	17.7	100	125	1
5	972.961	H	20.7	0.4	21.1	43.5	22.4	100	291	1
6	997.090	V	19.2	1.9	21.1	43.5	22.4	400	130	2

Note1) Receiving antenna polarization : Horizontal, Vertical

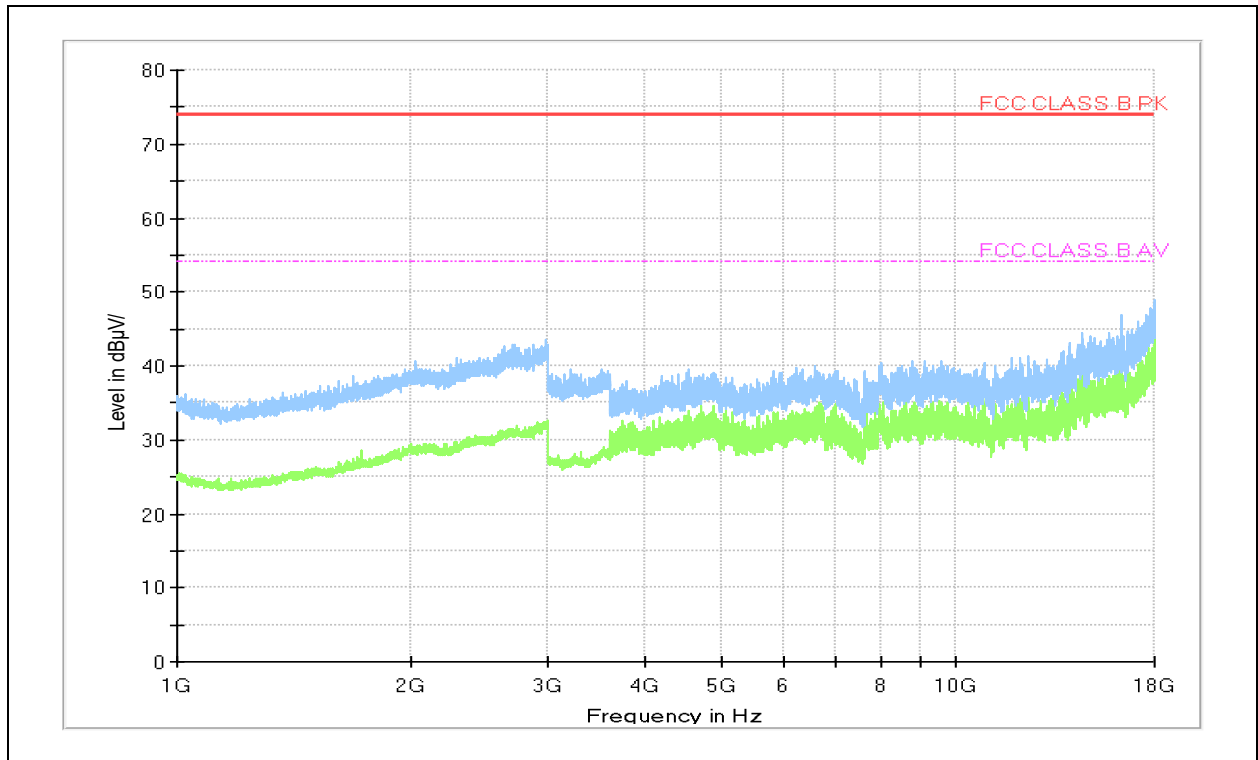
Test Distance : 10 m, Antenna Height : 1 to 4 meters

Result (QP) = Reading (QP) + c.f (Antenna Factor + Cable Loss - Amp. Gain)

Margin (QP) = Limit - Level (QP)

QP = Quasi-Peak, c.f = Correction Factor

- Frequencies above 1 GHz



Note 1) We have also tested from 18 GHz to 30 GHz and found no emissions

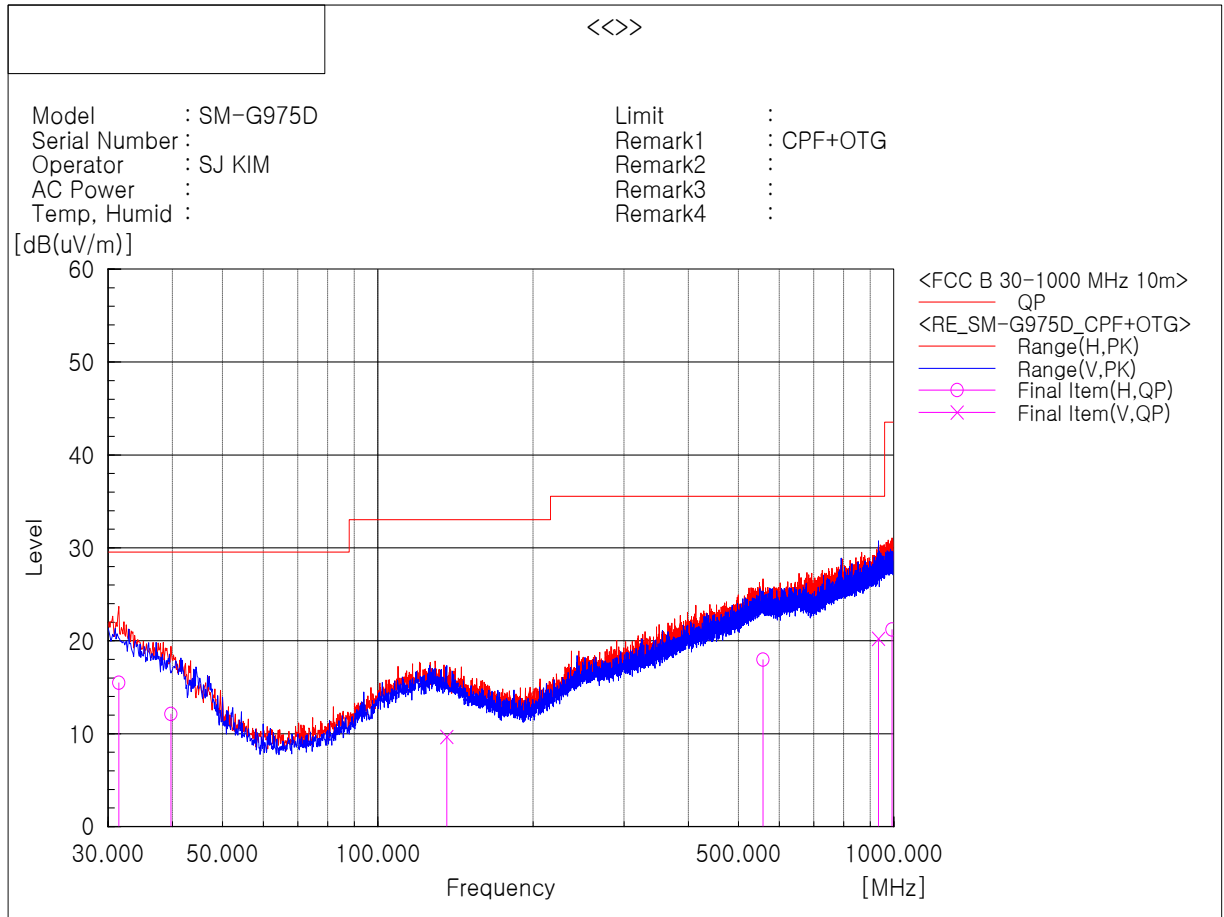
Note 2) Receiving antenna polarization : Horizontal, Vertical

Test Distance : 3 m, Antenna Height : 1 to 4 meters

Level (PK and/or CAV) = Reading (PK and/or CAV) + Corr. (Antenna Factor + Cable Loss - Amp. Gain)

Margin (PK and/or CAV) = Limit – Level (PK and/or CAV)

PK = Peak, CAV = CISPR-Average, Corr. = Correction Factor

☐ Operating Mode 2**- Frequencies below 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]	System
1	31.455	H	23.3	-7.8	15.5	29.5	14.0	200	109	1
2	39.700	H	23.3	-11.2	12.1	29.5	17.4	100	37	1
3	135.973	V	22.0	-12.3	9.7	33.0	23.3	100	14	2
4	557.559	H	22.2	-4.2	18.0	35.5	17.5	200	5	1
5	933.434	V	19.7	0.5	20.2	35.5	15.3	100	265	2
6	992.361	H	20.3	0.9	21.2	43.5	22.3	300	93	1

Note1) Receiving antenna polarization : Horizontal, Vertical

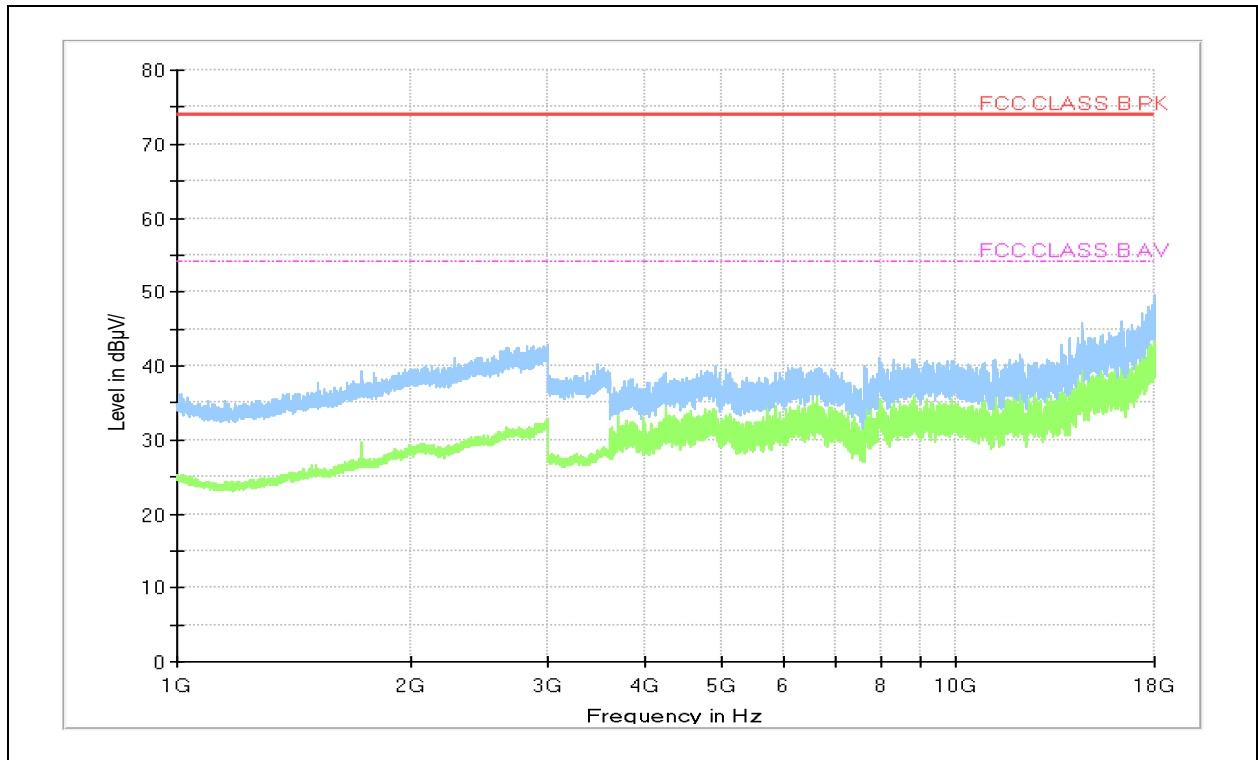
Test Distance : 10 m, Antenna Height : 1 to 4 meters

Result (QP) = Reading (QP) + c.f (Antenna Factor + Cable Loss - Amp. Gain)

Margin (QP) = Limit - Level (QP)

QP = Quasi-Peak, c.f = Correction Factor

- Frequencies above 1 GHz



Note 1) We have also tested from 18 GHz to 30 GHz and found no emissions

Note 2) Receiving antenna polarization : Horizontal, Vertical

Test Distance : 3 m, Antenna Height : 1 to 4 meters

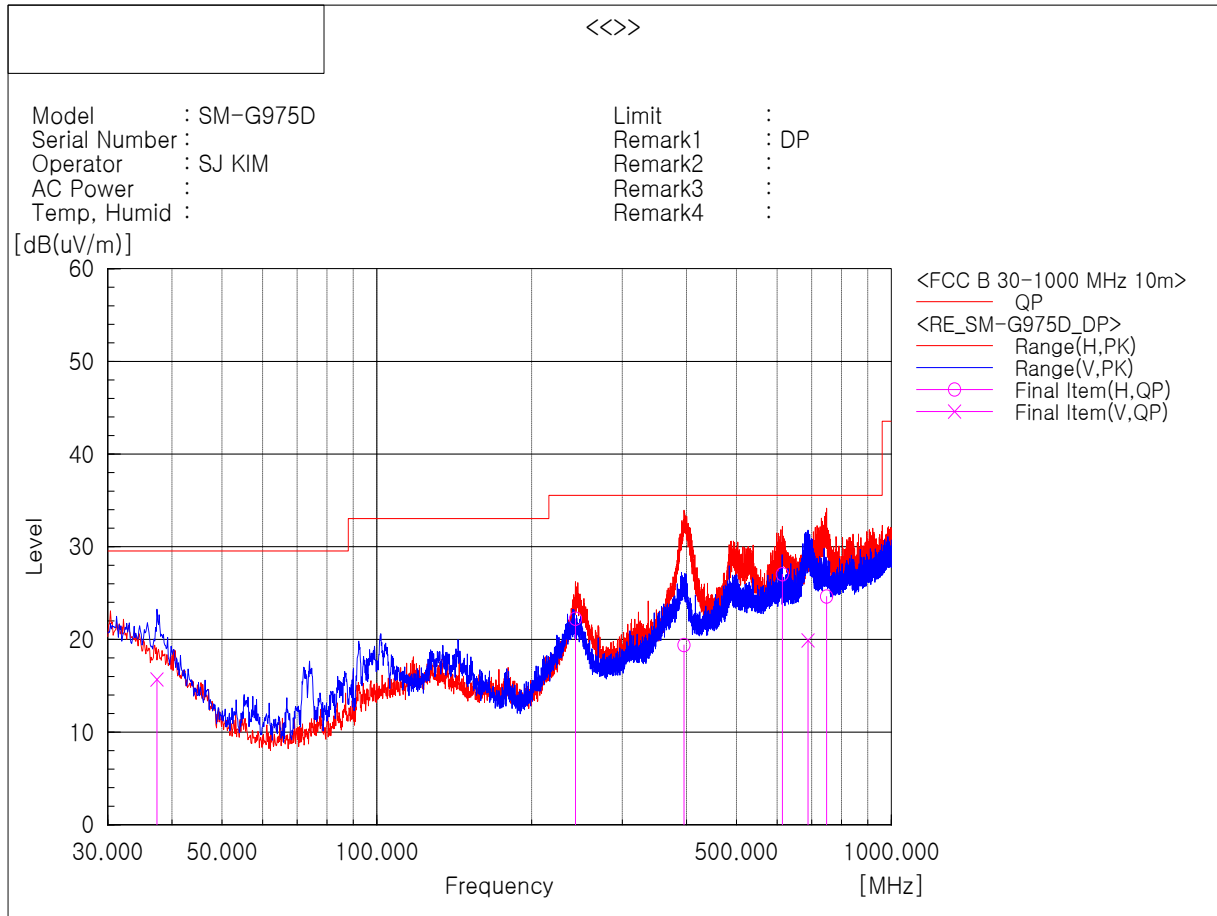
Level (PK and/or CAV) = Reading (PK and/or CAV) + Corr. (Antenna Factor + Cable Loss - Amp. Gain)

Margin (PK and/or CAV) = Limit – Level (PK and/or CAV)

PK = Peak, CAV = CISPR-Average, Corr. = Correction Factor

☐ Operating Mode 3

- Frequencies below 1 GHz



Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(μV)]	c.f [dB(1/m)]	Result QP [dB(μV/m)]	Limit QP [dB(μV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]	System
1	37.396	V	24.9	-9.2	15.7	29.5	13.8	105	360	2
2	243.279	H	34.1	-11.9	22.2	35.5	13.3	397	181	1
3	395.448	H	27.1	-7.7	19.4	35.5	16.1	282	360	1
4	614.061	H	30.9	-3.9	27.0	35.5	8.5	124	254	1
5	688.751	V	23.2	-3.3	19.9	35.5	15.6	100	360	2
6	748.528	H	27.0	-2.4	24.6	35.5	10.9	376	360	1

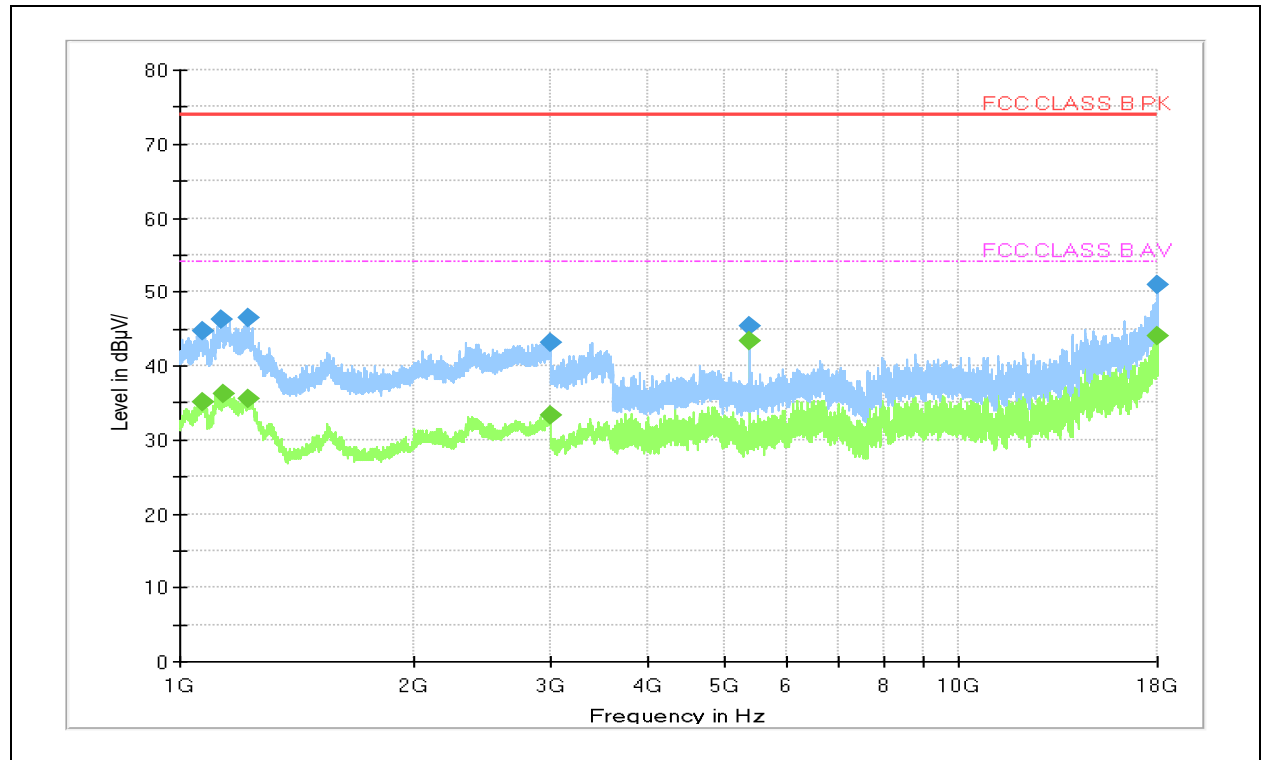
Note1) Receiving antenna polarization : Horizontal, Vertical

Test Distance : 10 m, Antenna Height : 1 to 4 meters

Result (QP) = Reading (QP) + c.f (Antenna Factor + Cable Loss - Amp. Gain)

Margin (QP) = Limit - Level (QP)

QP = Quasi-Peak, c.f = Correction Factor

- Frequencies above 1 GHz

Frequency (MHz)	PK (dBμV/m)	CAV (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1 067.600	44.7	---	74.0	29.3	100.0	H	246.0	6.5
1 068.000	---	35.2	54.0	18.8	100.0	H	250.0	6.5
1 133.600	46.2	---	74.0	27.8	100.0	V	44.0	6.4
1 134.000	---	36.3	54.0	17.7	100.0	V	48.0	6.4
1 223.600	46.5	---	74.0	27.5	100.0	H	71.0	7.0
1 227.600	---	35.5	54.0	18.5	100.0	H	67.0	7.1
2 998.400	---	33.2	54.0	20.8	100.0	H	155.0	16.8
3 000.000	43.1	---	74.0	30.9	100.0	H	180.0	16.8
5 400.000	---	43.3	54.0	10.7	100.0	H	129.0	6.5
5 400.000	45.3	---	74.0	28.7	100.0	H	129.0	6.5
17 997.500	---	44.0	54.0	10.0	100.0	V	167.0	35.3
17 997.500	50.9	---	74.0	23.1	100.0	V	167.0	35.3

Note 1) We have also tested from 18 GHz to 30 GHz and found no emissions

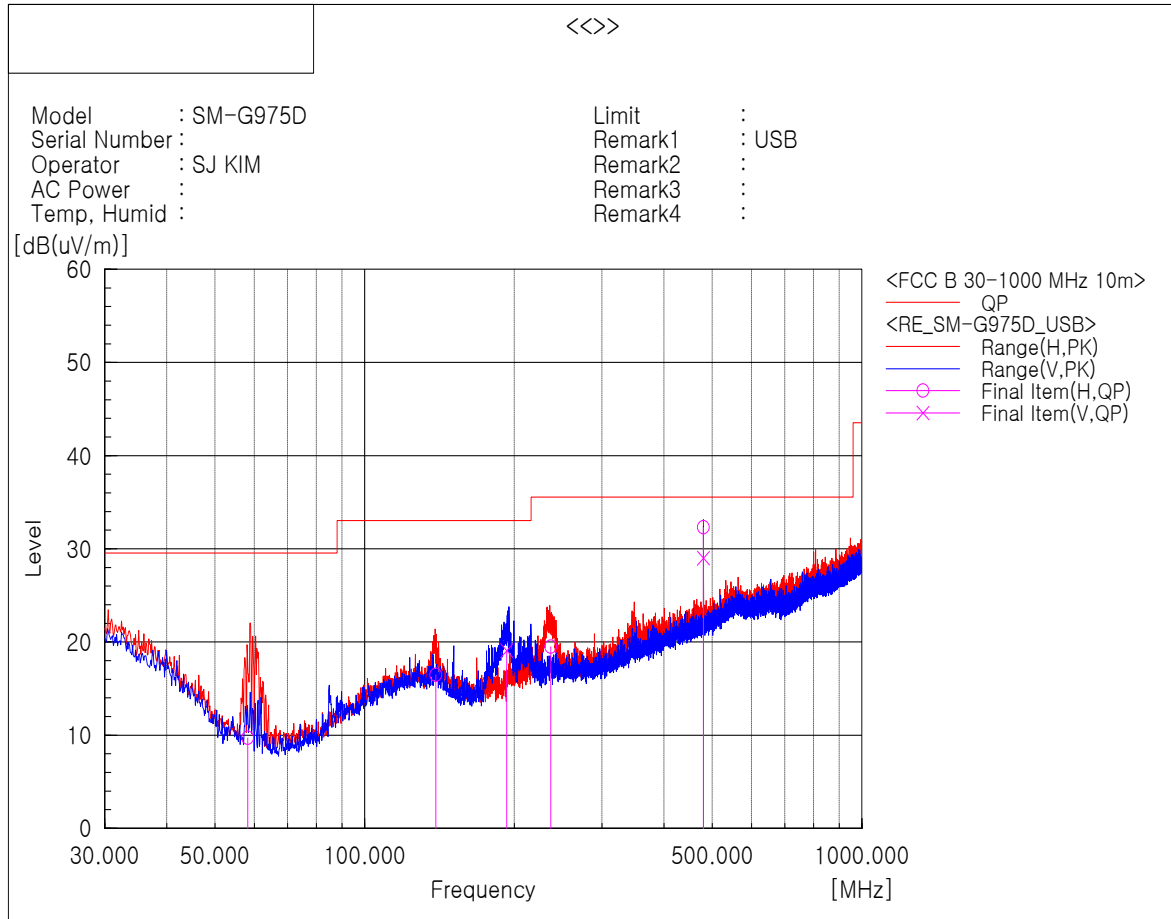
Note 2) Receiving antenna polarization : Horizontal, Vertical

Test Distance : 3 m, Antenna Height : 1 to 4 meters

Level (PK and/or CAV) = Reading (PK and/or CAV) + Corr. (Antenna Factor + Cable Loss - Amp. Gain)

Margin (PK and/or CAV) = Limit – Level (PK and/or CAV)

PK = Peak, CAV = CISPR-Average, Corr. = Correction Factor

☐ Operating Mode 4**- Frequencies below 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]	System
1	58.168	H	28.8	-19.1	9.7	29.5	19.8	396	0	1
2	138.955	H	29.6	-13.1	16.5	33.0	16.5	400	10	1
3	193.034	V	34.0	-14.9	19.1	33.0	13.9	100	0	2
4	236.741	H	31.8	-12.3	19.5	35.5	16.0	397	347	1
5	479.976	H	38.5	-6.2	32.3	35.5	3.2	170	0	1
6	479.988	V	34.3	-5.3	29.0	35.5	6.5	100	0	2

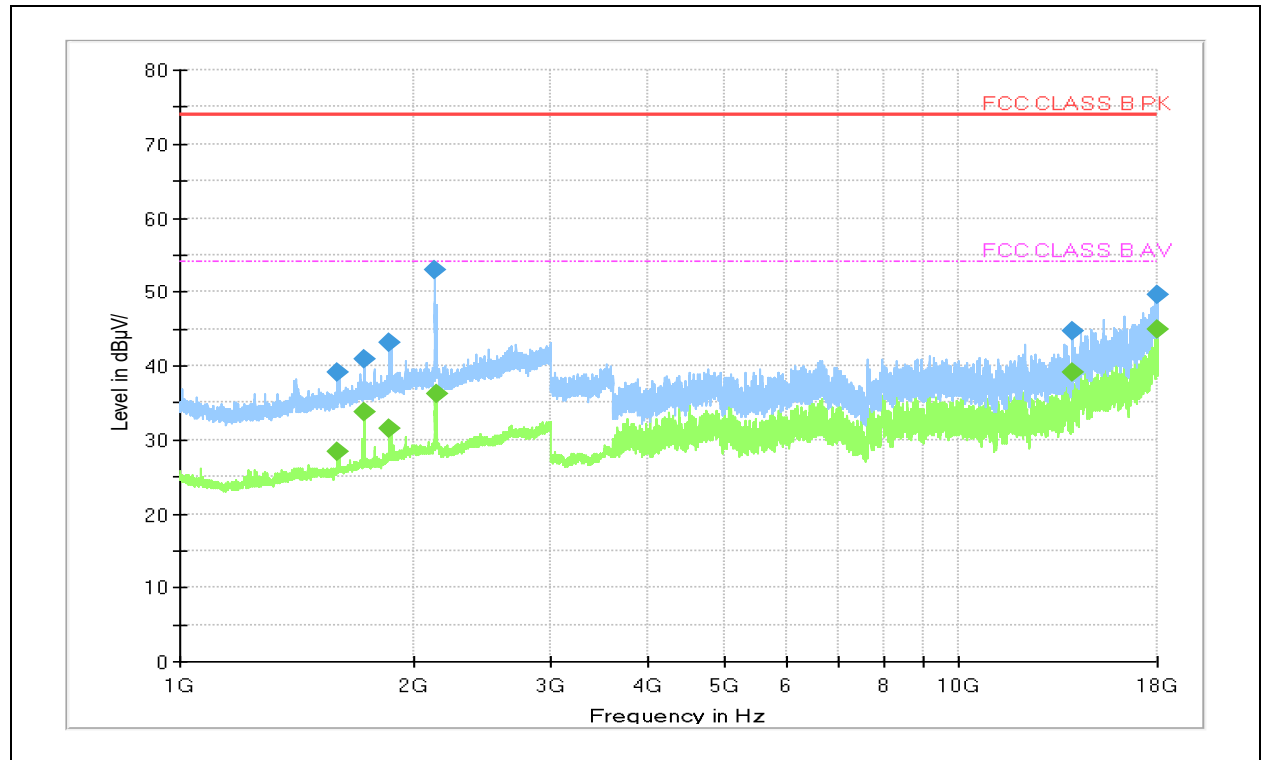
Note1) Receiving antenna polarization : Horizontal, Vertical

Test Distance : 10 m, Antenna Height : 1 to 4 meters

Result (QP) = Reading (QP) + c.f (Antenna Factor + Cable Loss - Amp. Gain)

Margin (QP) = Limit - Level (QP)

QP = Quasi-Peak, c.f = Correction Factor

- Frequencies above 1 GHz

Frequency (MHz)	PK (dBμV/m)	CAV (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1 593.200	---	28.4	54.0	25.6	100.0	V	90.0	9.8
1 597.200	39.2	---	74.0	34.8	100.0	V	155.0	9.8
1 722.400	---	33.8	54.0	20.2	100.0	H	304.0	10.8
1 722.800	40.9	---	74.0	33.1	100.0	H	304.0	10.8
1 860.400	---	31.5	54.0	22.5	100.0	V	129.0	11.7
1 860.400	43.2	---	74.0	30.8	100.0	V	129.0	11.7
2 127.200	53.0	---	74.0	21.0	100.0	V	0.0	12.9
2 130.400	---	36.2	54.0	17.8	100.0	V	0.0	12.9
14 002.000	44.6	---	74.0	29.4	100.0	H	319.0	24.9
14 025.500	---	39.2	54.0	14.8	100.0	H	240.0	24.8
17 996.500	49.6	---	74.0	24.4	100.0	V	0.0	35.3
17 999.500	---	44.8	54.0	9.2	100.0	V	0.0	35.3

Note 1) We have also tested from 18 GHz to 30 GHz and found no emissions

Note 2) Receiving antenna polarization : Horizontal, Vertical

Test Distance : 3 m, Antenna Height : 1 to 4 meters

Level (PK and/or CAV) = Reading (PK and/or CAV) + Corr. (Antenna Factor + Cable Loss - Amp. Gain)

Margin (PK and/or CAV) = Limit – Level (PK and/or CAV)

PK = Peak, CAV = CISPR-Average, Corr. = Correction Factor