EMC TEST REPORT

Project No.	LBE20160003	**Issue No.**	0
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	January 1, 2016	
EUT	**Type of device**	☒ Class B personal computers and peripherals ☐ All other devices	
	Equipment authorization	☐ Declaration of Conformity ☒ Certification ☐ Verification	
	FCC ID	A3LSMW707	
	Kind of product	Portable Device	
	Model No.	SM-W707N0	
	Variant Model No.	Refer to clause 4.6	
	Manufacturer	SAMSUNG ELECTRONICS CO., LTD. 302, 3 Gongdan 3-ro, Gumi-si Gyengsangbuk-do, 39388, Republic of Korea	
		SAMSUNG ELECTRONICS VIETNAM CO., LTD. 730-722 Yenphong 1-I.P, Yentrung Commune, Yenphong Dist. Bacninh Province Vietnam	
Applied Standards		FCC Part 15, Subpart B, Class B / ANSI C63.4-2009	
Test Period		January 12, 2016 ~ January 20, 2016	
Issue date		January 22, 2016	

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

The test results in this report only apply to the tested sample. This report must not be reproduced, except in full, without written permission from CS & Environment center.

SAMSUNG

CS & Environment Center of Samsung Electronics Co., Ltd.
(Maetan dong) 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-so, 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.

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)	FCC Part 15 Subpart B / ANSI C63.4-2009 (Class B)	Complied
☒	Radiated Disturbance		Complied

3. General Information

3.1 Test facility

The CS & Environment 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 22, 16-1 and 16-2. and Shielded rooms.

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

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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 / DoC
A	Portable Device	SM-W707N0	-	SAMSUNG	A3LSMW707
B	Keyboard	EJ-CW700	-	SAMSUNG	-
C	Battery	EB-BW700ABA	-	SAMSUNG	-
D	Headset	EO-EG900BW	-	SAMSUNG	-
E	Data Cable	EP-DW700CWE	-	SAMSUNG	-
F	Travel Adapter	EP-TA300	R37GB72GPZ1SE3	SAMSUNG	-
G	Bluetooth Mouse	SMB-9100B	TAKS701184B	SAMSUNG	-
H	UHD Monitor	LU32D97K	0VDQH3EG200117M	SAMSUNG	-
I	OTG Dongle	A1632	-	APPLE	-
J	Memory Stick	UV131	-	ADATA	-
K	LAN Dongle	-	-	KANGWON	-

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4.2 EUT operating mode

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

Operating Mode 1	Charging Mode (Internal Memory Read & Write, Rear Camera Recording, H pattern on video, Video play, Audio play, Wi-Fi(2.4G), Bluetooth communication)
Operating Mode 2	Charging Mode (Internal Memory Read & Write, Front Camera Recording, H pattern on video, Video play, Audio play, Wi-Fi(5G), Bluetooth communication, GPS)
Operating Mode 3	DP Mode (Internal Memory Read & Write, Rear Camera Recording, H pattern on video, Video play, Audio play, Wi-Fi(2.4G), Bluetooth communication, DP display)
Operating Mode 4	OTG Mode (External/Internal Memory Read & Write, Rear Camera Recording, H pattern on video, Video play, Audio play, Wi-Fi(2.4G), Bluetooth communication, NFC)
Operating Mode 5	LAN Mode (Internal Memory Read & Write, Rear Camera Recording, H pattern on video, Video play, Audio play, Bluetooth communication, WCDMA FDD5 Idle, LAN)

4.3 Details of Sampling

Customer selected, single unit.

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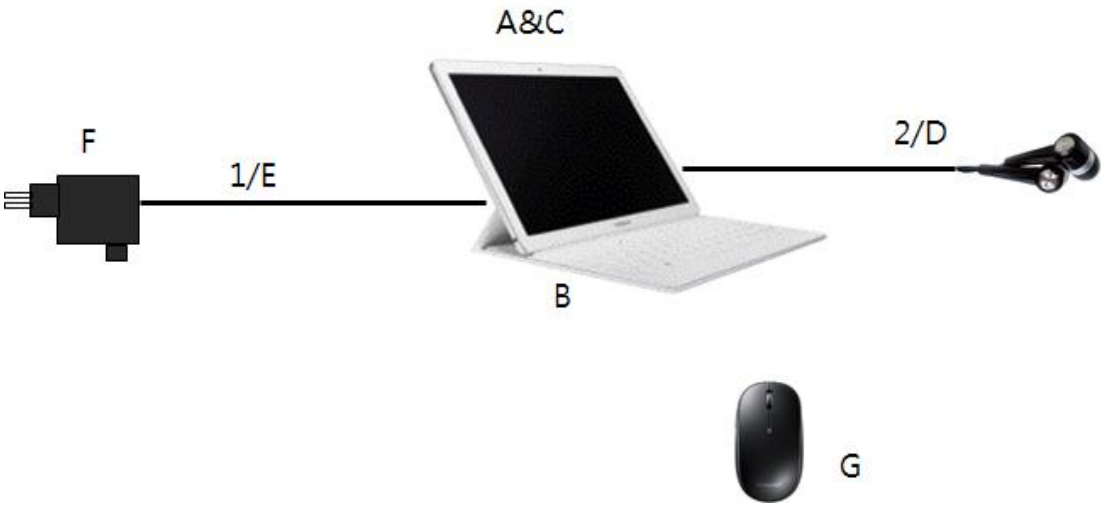
4.4 Used cable description

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	1.2	Yes	From EUT to Travel Adapter
2	Headset	1.2	No	For EUT
3	DP Cable	1.8	Yes	From EUT to UHD Monitor
4	Power	1.8	No	For UHD Monitor
5	LAN	2.5	No	From LAN Dongle to Local Area Network

4.5 Test arrangement

Operating Mode 1 ～ 2



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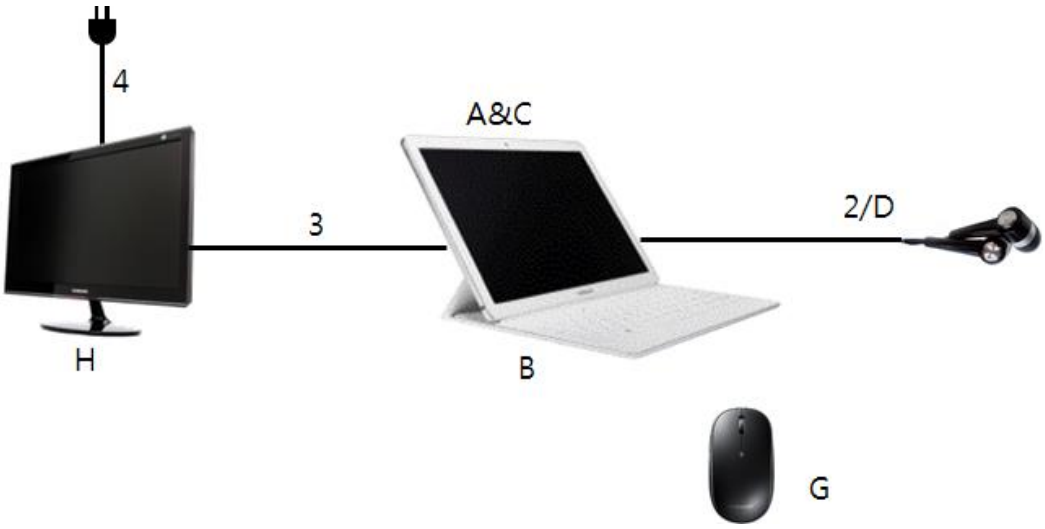
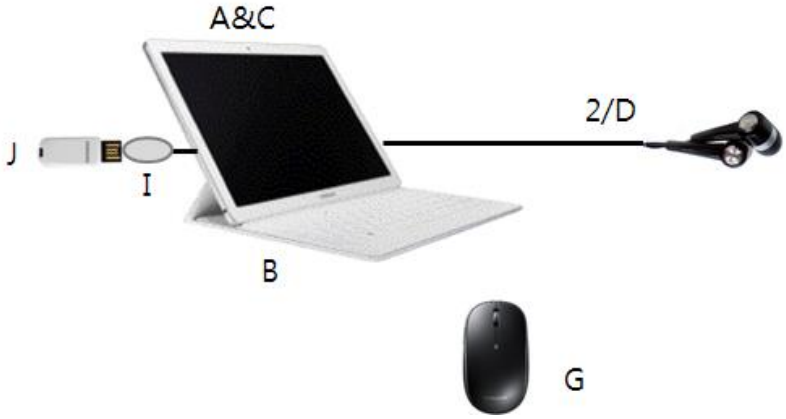
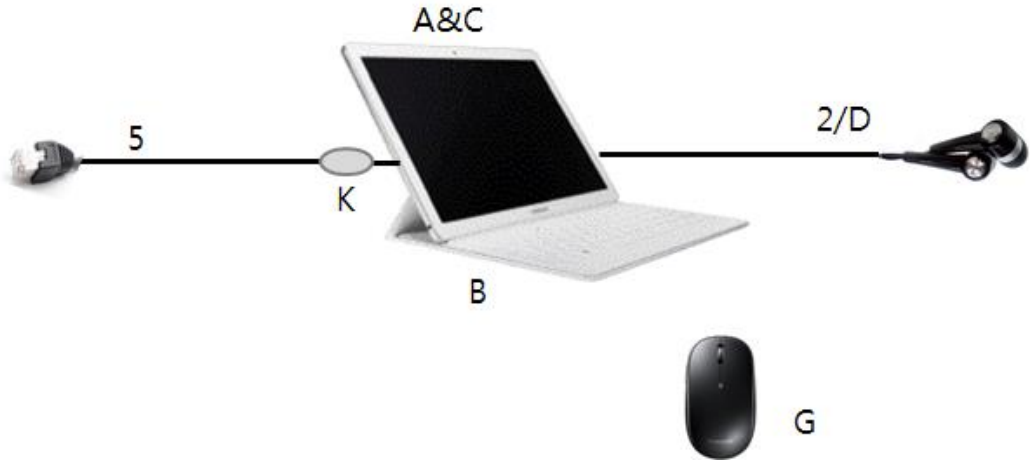
Operating Mode 3



Operating Mode 4



Operating Mode 5



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4.6 EUT Description

Item	Specification	Remarks
CPU	Intel SKYLAKE Y CORE M3-6Y30	-
Main Memory	SEC, Samsung LPDDR3, Onboard, 4 GB	-
LCD DISPLAY	AMSA20JW01, 12" AMOLED, 2166X1440	-
Graphic Controller	Intel HD Graphics	-
SSD	Liteon 128GB SSD, M.2 SATA	-
LAN	N/A	-
WLAN/Bluetooth	Qualcomm QCA6174A-5, 802.11b/g/n/a/ac, BT4.1	-
Adapter	SEM, EP-TA300, 25W	-
Battery	Samsung SDI, EB-BW700ABA, Li-ion, 39.5 Wh (5200 mAh)	-
Camera	REAR: 5M CIS AF, Front : 5M CIS FF	-
Input Devices	Keyboard Cover, PS2 touch pad	-
Ports	1xUSB3.0 C-Type port	-

4.6.1 The variant models

- SM-W708N0, SM-W708

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4.7 Clock Frequencies

Kind of Clocks	Frequency [MHz]
CPU	2 200

4.8 Test configuration and condition

The EUT exercise program was tested using the Samsung special test program for Windows. While the EMC testing was being done, the LCD panel was open and a pattern of “H” characters was written to the display on the LCD panel.

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 was exercised, as well as internal and the USB3.0 Memory stick (OTG) by writing and reading a continuous stream of “H” characters.
The music was repetitively played connected to the earphone. The webcam of the EUT was operated continuously.
The EUT’s GPS function was placed in a receiving before the test and then checked at the end of the test to see that the position and speed were correctly displayed.
The EUT’s NFC function was placed in a tag reading before the test and then checked at the end of the test to see that the correct tag reading was maintained.
The EUT’s Wi-Fi and Bluetooth functions connected to the Wi-Fi router and Bluetooth mouse.
The EUT was connected to Local Area Network through the Ethernet port with Unshielded Twisted Pair Ethernet cable.
The EUT was placed in a standby before the test and then checked at the end of the test to see that there was no unintended transmission for idle mode

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

- Test Voltage : AC 120 V, 60 Hz

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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 and UKAS Lab 34.)

4.9.1 Emission

Test type		Measurement uncertainty (C.L. 95 %, *k* = 2)
Conducted disturbance	AC Mains	2.86 dB
Radiated Disturbance (30 MHz ~ 1 GHz)	Horizontal	4.99 dB
	Vertical	4.90 dB
Radiated Disturbance (1 GHz ~ 6 GHz)	Horizontal	4.83 dB
	Vertical	4.84 dB

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5. Results of individual test

5.1 Conducted disturbance

Both conducted lines are measured in Quasi-Peak and 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-010	LISN	ESH3-Z5	R&S	100263	2015-11-06	12
E5I-043	LISN	ENV216	R&S	101630	2015-06-27	12
E5I-018	EMI Test Receiver	ESU8	R&S	100484	2015-06-05	12

5.1.2 Temperature and humidity condition

Test date	2016-1-12	**Test engineer**	Soo-Joon Kim
Climate condition	Ambient temperature	(22.7 ~ 23.0) ℃	Limit (15.0 to 35.0) ℃
	Relative humidity	(41.2 ~ 43.2) % R.H.	Limit (25.0 to 75.0) % R.H.
	Atmospheric pressure	(101.8 ~ 102.7) kPa	Limit (86.0 to 106.0) kPa
Test place	Shield Room (SR14)		

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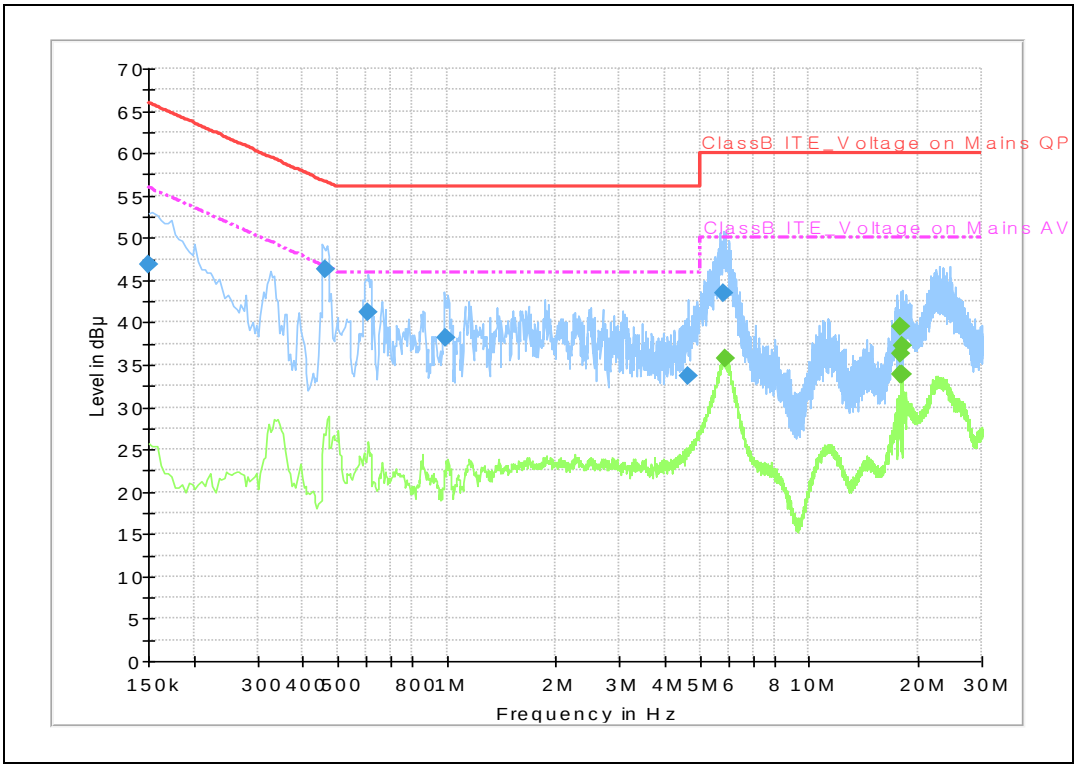
5.1.3 Test results

☐ 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)	QuasiPeak (dBµV)	CISPR Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.150	46.9	---	66.0	19.1	N	10.0
0.463	46.4	---	56.6	10.3	N	10.2
0.606	41.2	---	56.0	14.8	N	10.2
0.995	38.3	---	56.0	17.8	N	10.1
4.658	33.7	---	56.0	22.3	N	9.9
5.817	43.5	---	60.0	16.5	N	9.9
5.851	---	35.8	50.0	14.2	N	9.9
17.806	---	33.8	50.0	16.2	N	10.1
17.873	---	36.3	50.0	13.7	N	10.1
17.954	---	39.6	50.0	10.4	N	10.1
18.021	---	37.2	50.0	12.8	N	10.1
18.102	---	33.8	50.0	16.2	N	10.1

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

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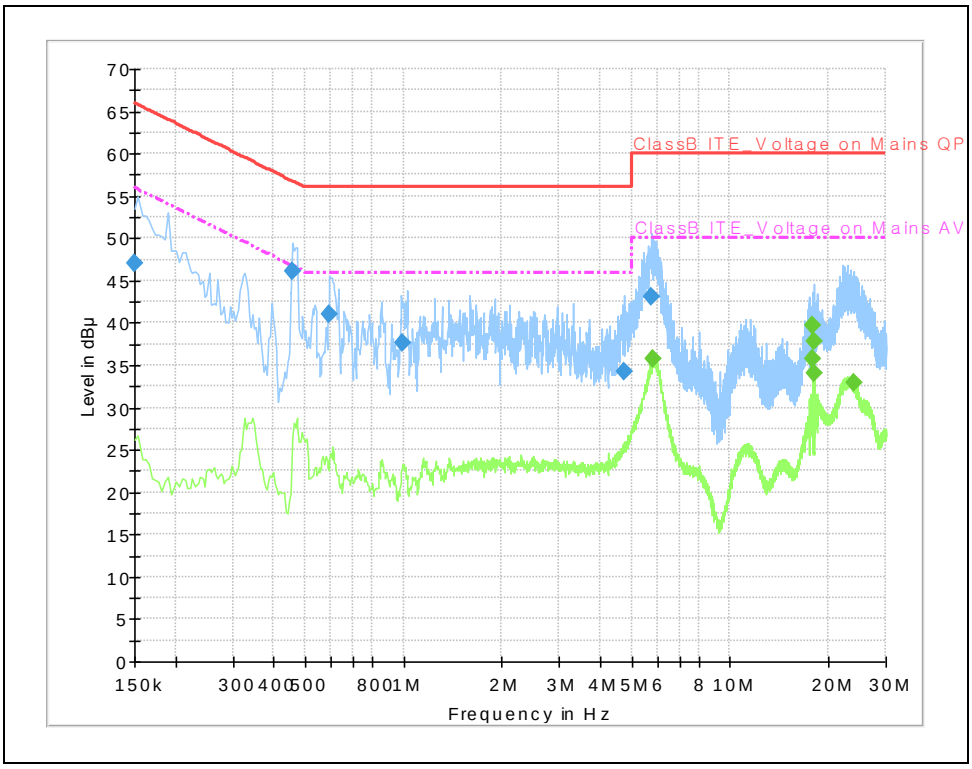
☐ Operating Mode 2: AC Mains



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)	QuasiPeak (dBµV)	CISPR Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.150	47.0	---	66.0	19.0	N	10.0
0.458	46.0	---	56.7	10.7	N	10.2
0.594	41.0	---	56.0	15.0	N	10.2
0.990	37.7	---	56.0	18.3	N	10.1
4.736	34.2	---	56.0	21.8	N	9.9
5.753	43.2	---	60.0	16.8	N	9.9
5.832	---	35.8	50.0	14.2	N	9.9
17.874	---	35.8	50.0	14.2	N	10.1
17.950	---	39.8	50.0	10.2	N	10.1
18.026	---	37.9	50.0	12.1	N	10.1
18.098	---	34.0	50.0	16.0	N	10.1
23.889	---	33.0	50.0	17.0	L1	9.9

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

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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 in accordance with internal maximum operating frequency at a measurement distance of 3 m for the following antenna and turntable arrangements:

Antenna Height [cm]	Antenna Polarisation	Resolution Bandwidth [MHz]	Video Bandwidth [MHz]	Turntable position [degrees]
100 ~ 400	Horizontal, Vertical	1	3	0 ~ 345 (Step size: 15 degrees)

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 [μV/m]	3 m [dB(μV/m)]	10 m [dB(μV/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.

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5.2.1 Test instrumentation

EMC No.	Test Instrument	Model name	Manufacturer	Serial No.	Calibration	
					Date	Interval (Month)
E5I-123	EMI Test Receiver	ESU8	R&S	100475	2015-05-11	12
E5I-020	EMI Test Receiver	ESU40	R&S	100375	2015-06-01	12
E5I-035	Horn Antenna	HF907	R&S	100506	2015-05-07	24
E5I-073	Preamplifier	310N	SONOMA	332016	2015-06-01	12
E5I-074	Preamplifier	310N	SONOMA	332017	2015-06-01	12
E5I-039	Signal Conditioning Unit	SCU-18	R&S	10211	2015-01-22	12
E5I-070	BiLog Antenna	CBL6112D	TESEQ	35383	2015-06-15	24
E5I-121	BiLog Antenna	CBL6112D	TESEQ	36999	2014-06-26	24
E5I-109	Universal Radio Communicator	CMU200	R&S	110431	2015-11-16	12
E5I-100	Notebook Computer	NT-BONEXT-AS2	SAMSUNG	Z9H893GS200016D	-	-
E5I-108	Wi-Fi Router	R7000	NETGEAR	3LN1437W00AA7	-	-

5.2.2 Temperature and humidity condition

Test date	2016-1-13 ~ 2016-1-20	**Test engineer**	Soo-Joon Kim
Climate condition	Ambient temperature	(22.8 ~ 23.7) ℃	Limit (15.0 to 35.0) ℃
	Relative humidity	(41.2 ~ 45.3) % R.H.	Limit (25.0 to 75.0) % R.H.
	Atmospheric pressure	(101.9 ~ 103.0) kPa	Limit (86.0 to 106.0) kPa
Test place	Semi-Anechoic Chamber (SAC8)		

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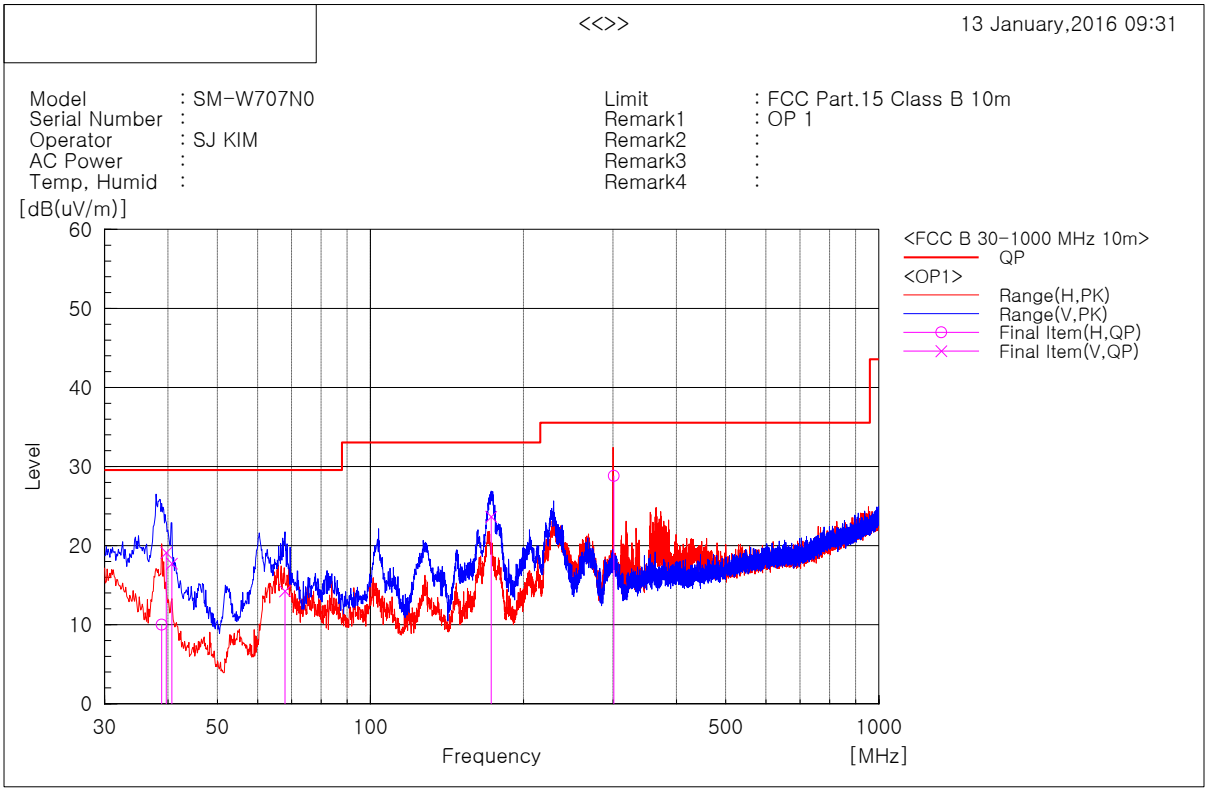
5.2.3 Test results

- Frequencies below 1 GHz

☐ Operating Mode 1



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	38.851	H	27.8	-17.8	10.0	29.5	19.5	300	81	1
2	39.650	V	35.9	-16.8	19.1	29.5	10.4	100	20	2
3	40.670	V	35.1	-17.4	17.7	29.5	11.8	100	98	2
4	67.951	V	37.9	-23.6	14.3	29.5	15.2	400	84	2
5	172.711	V	43.3	-19.7	23.6	33.0	9.4	100	176	2
6	300.949	H	45.3	-16.5	28.8	35.5	6.7	275	254	1

Note) Receiving antenna polarization : Horizontal, Vertical
Test Distance : 10 m, Antenna Height : 1 to 4 meters
Level (QP) = Reading (QP) + c.f (Antenna Factor + Cable Loss - Amp. Gain)
Margin (QP) = Limit – Level (QP)
QP = Quasi-Peak, c.f = Correction Factor

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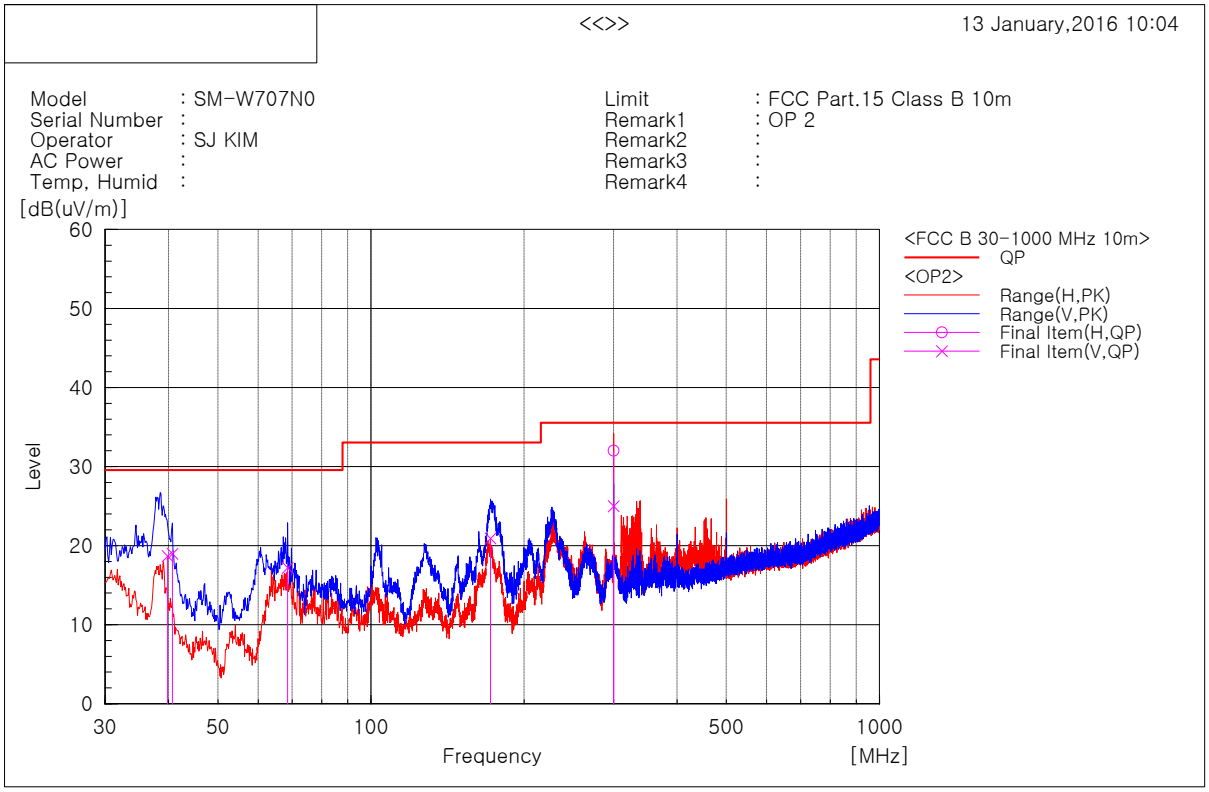
☐ Operating Mode 2



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	39.807	V	35.6	-16.9	18.7	29.5	10.8	100	20	2
2	40.670	V	36.4	-17.4	19.0	29.5	10.5	400	242	2
3	68.558	V	40.8	-23.6	17.2	29.5	12.3	200	236	2
4	171.863	V	40.6	-19.7	20.9	33.0	12.1	100	0	2
5	300.024	V	40.0	-15.0	25.0	35.5	10.5	300	83	2
6	300.024	H	48.5	-16.5	32.0	35.5	3.5	300	312	1

Note) Receiving antenna polarization : Horizontal, Vertical
Test Distance : 10 m, Antenna Height : 1 to 4 meters
Level (QP) = Reading (QP) + c.f (Antenna Factor + Cable Loss - Amp. Gain)
Margin (QP) = Limit – Level (QP)
QP = Quasi-Peak, c.f = Correction Factor

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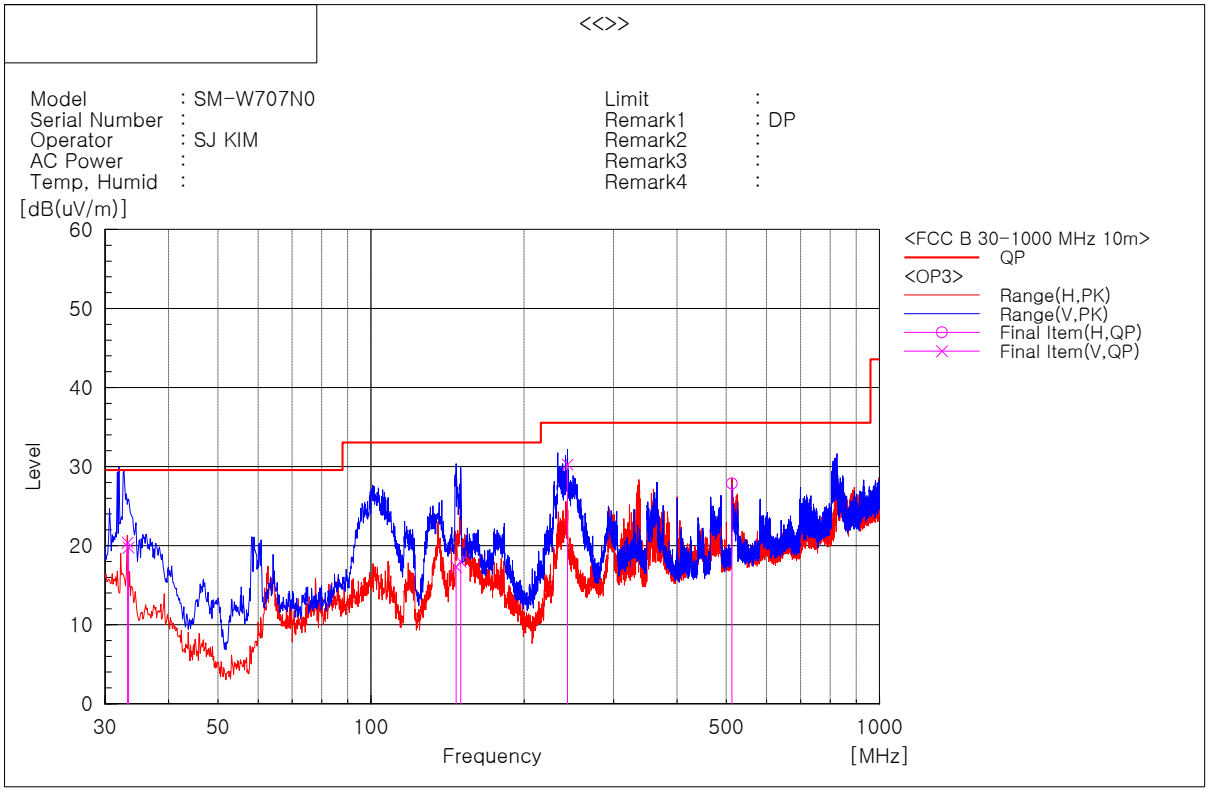
☐ Operating Mode 3



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	33.195	V	33.6	-13.2	20.4	29.5	9.1	220	1	2
2	33.377	V	33.1	-13.3	19.8	29.5	9.7	244	226	2
3	147.006	V	35.7	-18.4	17.3	33.0	15.7	101	4	2
4	150.159	V	36.5	-18.5	18.0	33.0	15.0	300	348	2
5	243.521	V	47.1	-16.8	30.3	35.5	5.2	100	10	2
6	512.575	H	39.4	-11.5	27.9	35.5	7.6	200	140	1

Note) Receiving antenna polarization : Horizontal, Vertical
Test Distance : 10 m, Antenna Height : 1 to 4 meters
Level (QP) = Reading (QP) + c.f (Antenna Factor + Cable Loss - Amp. Gain)
Margin (QP) = Limit – Level (QP)
QP = Quasi-Peak, c.f = Correction Factor

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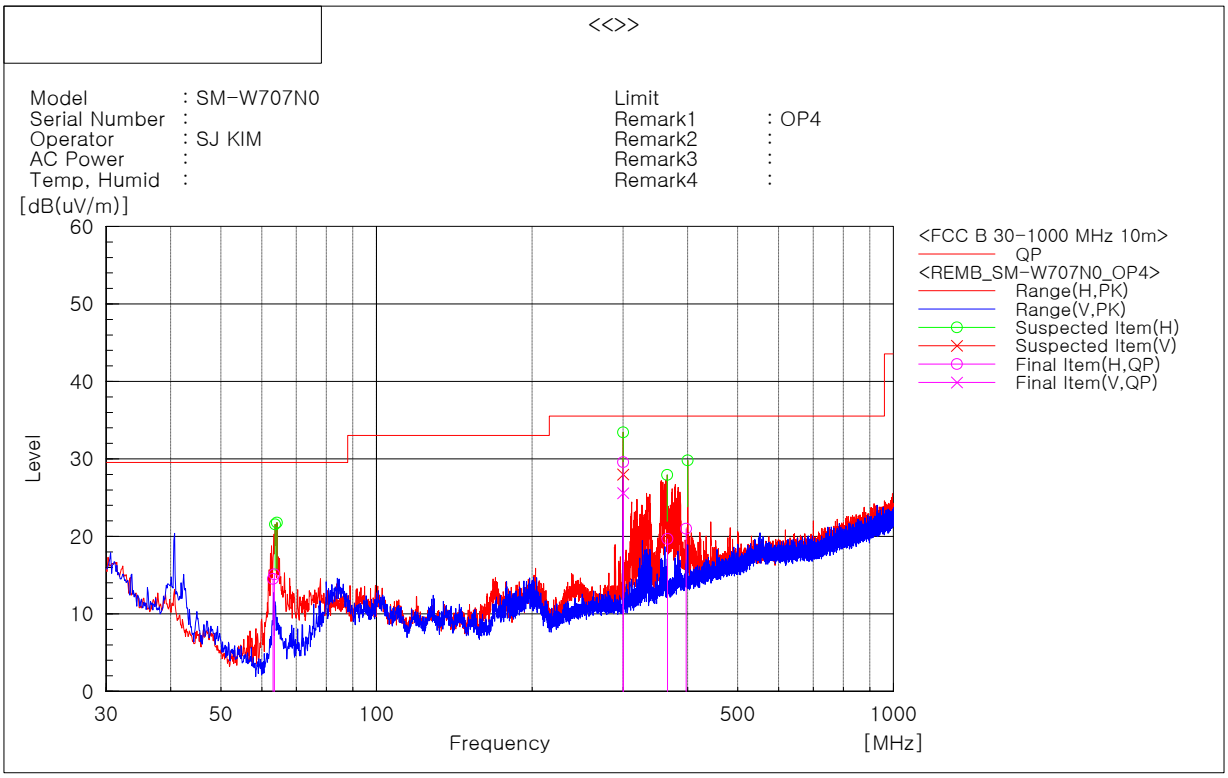
☐ Operating Mode 4



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	63.055	H	39.1	-24.6	14.5	29.5	15.0	342	282	1
2	63.423	H	39.7	-24.6	15.1	29.5	14.4	326	112	1
3	300.024	V	41.6	-16.0	25.6	35.5	9.9	400	42	2
4	300.024	H	46.0	-16.4	29.6	35.5	5.9	100	23	1
5	365.609	H	34.2	-14.5	19.7	35.5	15.8	181	5	1
6	397.003	H	34.7	-13.7	21.0	35.5	14.5	248	357	1

Note) Receiving antenna polarization : Horizontal, Vertical
Test Distance : 10 m, Antenna Height : 1 to 4 meters
Level (QP) = Reading (QP) + c.f (Antenna Factor + Cable Loss - Amp. Gain)
Margin (QP) = Limit – Level (QP)
QP = Quasi-Peak, c.f = Correction Factor

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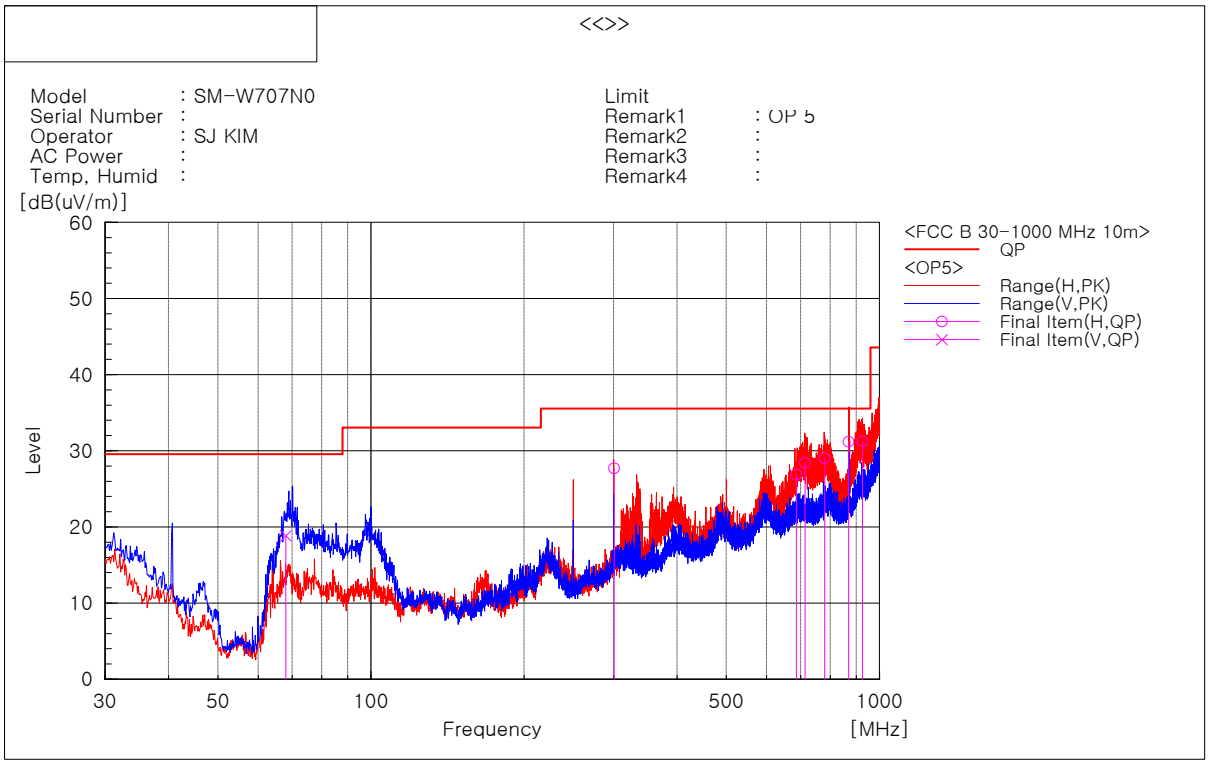
☐ Operating Mode 5



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	68.003	V	42.4	-23.6	18.8	29.5	10.7	180	271	2
2	300.788	H	44.2	-16.5	27.7	35.5	7.8	296	79	1
3	686.752	H	36.7	-9.8	26.9	35.5	8.6	102	48	1
4	713.558	H	37.9	-9.5	28.4	35.5	7.1	102	47	1
5	779.974	H	37.5	-8.5	29.0	35.5	6.5	102	45	1
6	870.103	H	38.3	-7.1	31.2	35.5	4.3	372	337	1
7	925.063	H	37.4	-6.2	31.2	35.5	4.3	104	40	1

Note) Receiving antenna polarization : Horizontal, Vertical
Test Distance : 10 m, Antenna Height : 1 to 4 meters
Level (QP) = Reading (QP) + c.f (Antenna Factor + Cable Loss - Amp. Gain)
Margin (QP) = Limit – Level (QP)
QP = Quasi-Peak, c.f = Correction Factor

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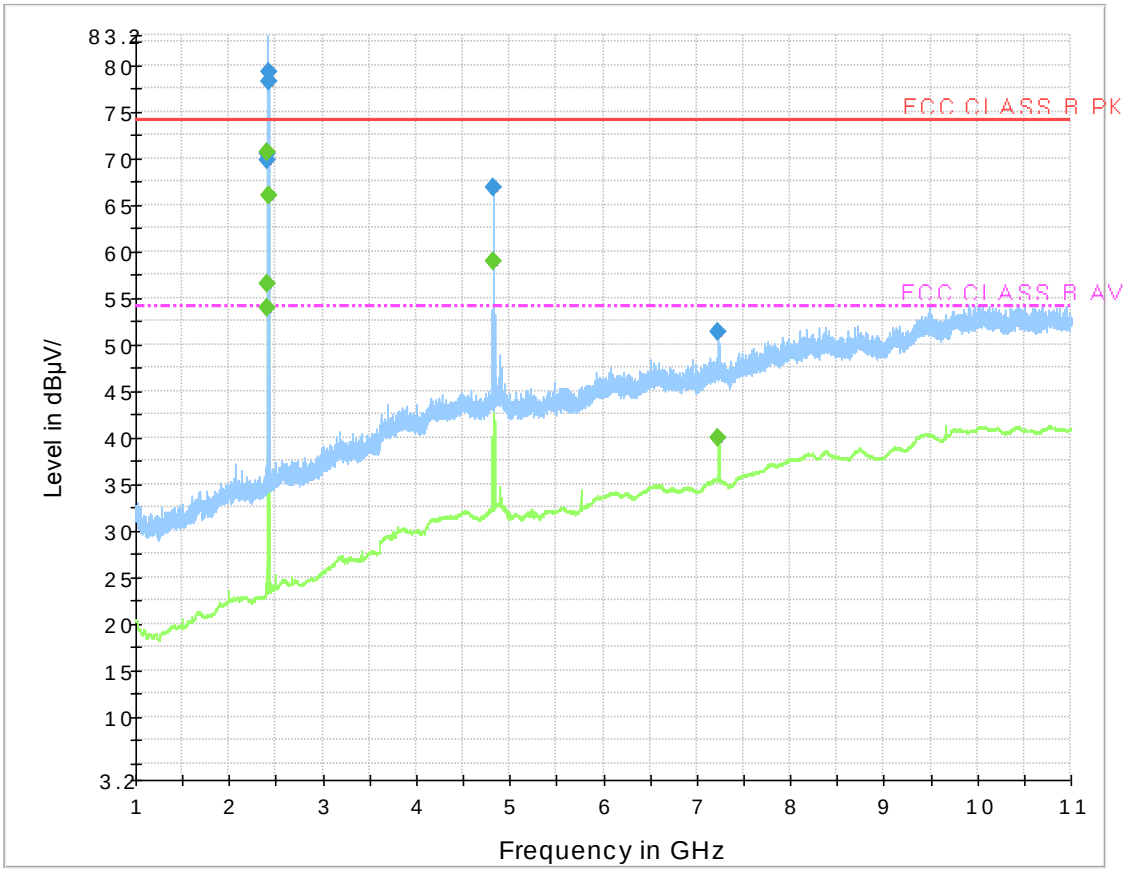
- Frequencies above 1 GHz

☐ Operating Mode 1



* Remark: Radiated emissions (Tx / Rx frequency and Harmonics) from the transceiver shall be ignored.

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Form No.: SRA-TRF-46/3

PK /CAV final measurement results table:

Frequency (MHz)	MaxPeak (dBµV/m)	CAV (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
2 404.000	---	53.8	54.0	0.2	100.0	H	15.0	-0.9
2 404.500	70.4	---	74.0	3.6	100.0	H	30.0	-0.9
2 408.000	---	70.6	54.0	-16.6	100.0	V	0.0	-0.9
2 408.500	84.7	---	74.0	-10.7	100.0	V	90.0	-0.9
2 410.500	69.8	---	74.0	4.2	100.0	H	180.0	-0.9
2 410.500	---	56.5	54.0	-2.5	100.0	H	345.0	-0.9
2 417.500	79.3	---	74.0	-5.3	100.0	V	75.0	-0.8
2 417.500	---	66.0	54.0	-12.0	100.0	V	135.0	-0.8
2 418.500	78.1	---	74.0	-4.1	100.0	H	270.0	-0.7
4 824.500	66.9	---	74.0	7.1	100.0	H	330.0	11.1
4 824.500	---	58.9	54.0	-4.9	100.0	H	305.0	11.1
7 231.000	51.3	---	74.0	22.8	100.0	H	0.0	16.6
7 231.000	---	40.0	54.0	14.0	100.0	H	0.0	16.6

Note) 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

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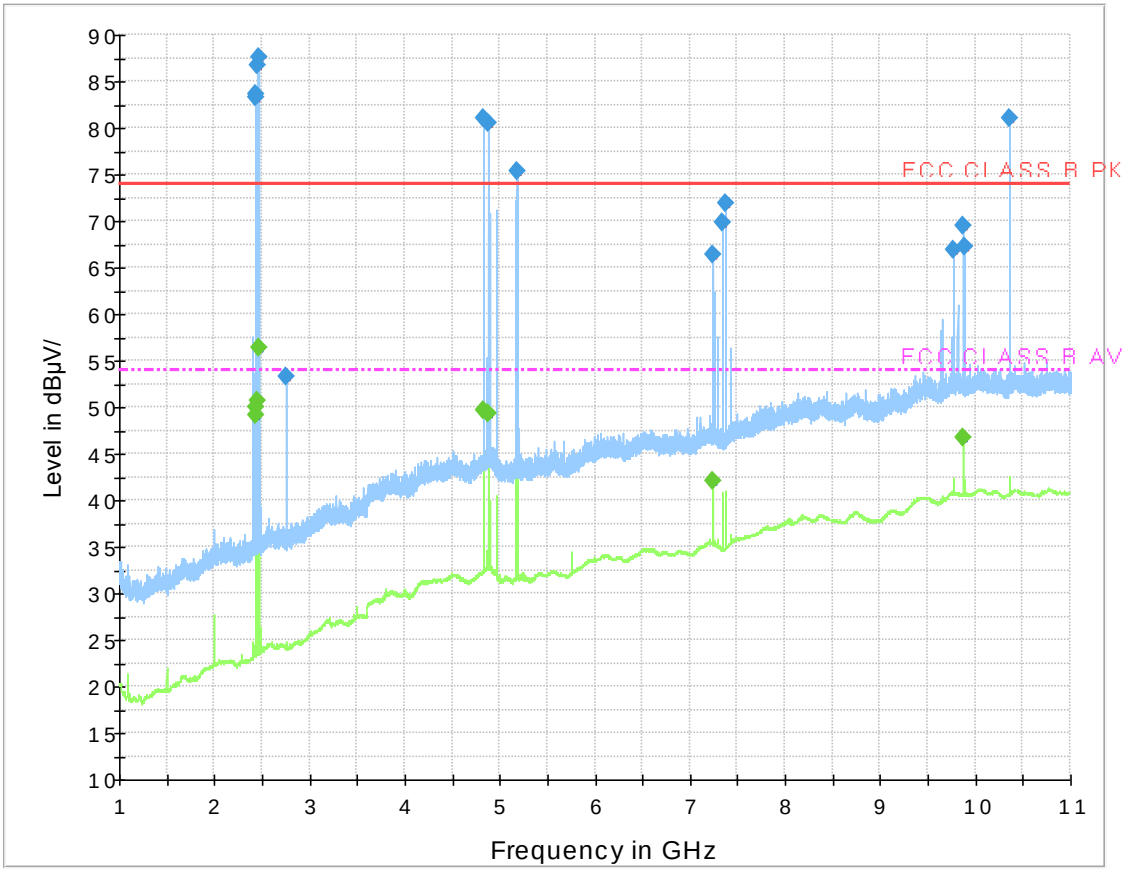
☐ Operating Mode 2



* Remark: Radiated emissions (Tx / Rx frequency and Harmonics) from the transceiver shall be ignored.

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PK /CAV final measurement results table:

Frequency (MHz)	MaxPeak (dBµV/m)	CAV (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
2 433.500	83.6	---	74.0	-9.6	100.0	V	180.0	-0.7
2 433.500	---	50.0	54.0	4.0	100.0	V	165.0	-0.7
2 438.500	---	49.1	54.0	4.9	100.0	V	195.0	-0.7
2 438.500	83.3	---	74.0	-9.3	100.0	V	210.0	-0.7
2 447.000	86.8	---	74.0	-12.8	100.0	H	240.0	-0.5
2 447.000	---	50.8	54.0	3.2	100.0	H	150.0	-0.5
2 473.000	87.6	---	74.0	-13.6	100.0	V	300.0	-0.2
2 473.000	---	56.4	54.0	-2.4	100.0	V	0.0	-0.2
2 749.000	53.2	---	74.0	20.8	100.0	H	45.0	1.0
4 832.000	---	49.7	54.0	4.3	100.0	H	90.0	11.3
4 832.000	81.1	---	74.0	-7.1	100.0	H	270.0	11.3
4 886.000	---	49.3	54.0	4.8	100.0	H	180.0	11.6
4 886.000	80.5	---	74.0	-6.5	100.0	H	180.0	11.6
5 184.000	75.4	---	74.0	-1.4	100.0	V	0.0	11.1
7 240.000	66.3	---	74.0	7.7	100.0	H	180.0	16.6
7 240.000	---	42.1	54.0	11.9	100.0	H	195.0	16.6
7 341.000	69.9	---	74.0	4.1	100.0	H	225.0	16.0
7 368.500	71.8	---	74.0	2.2	100.0	H	180.0	16.2
9 767.000	66.8	---	74.0	7.2	100.0	H	180.0	22.3
9 864.500	---	46.7	54.0	7.3	100.0	H	0.0	22.1
9 864.500	69.4	---	74.0	4.6	100.0	H	15.0	22.1
9 887.500	67.2	---	74.0	6.8	100.0	H	75.0	22.1
10355.500	81.0	---	74.0	-7.0	100.0	H	105.0	22.4

Note) 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

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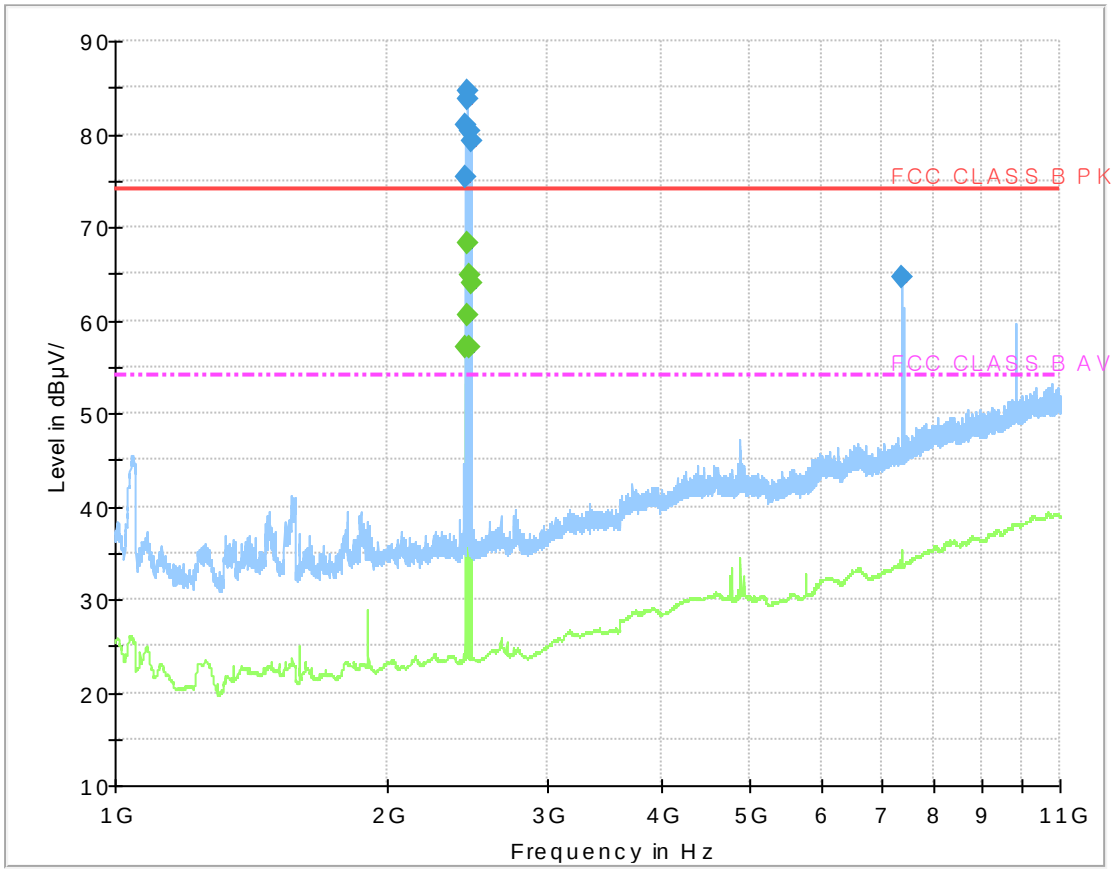
☐ Operating Mode 3



* Remark: Radiated emissions (Tx / Rx frequency and Harmonics) from the transceiver shall be ignored.

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Form No.: SRA-TRF-46/3

PK /CAV final measurement results table:

Frequency (MHz)	MaxPeak (dBµV/m)	CAV (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
2 430.500	75.3	---	74.0	-1.3	100.0	V	15.0	-1.8
2 432.000	---	57.1	54.0	-3.1	100.0	V	0.0	-1.8
2 432.000	80.9	---	74.0	-6.9	100.0	V	345.0	-1.8
2 439.500	---	60.6	54.0	-6.6	100.0	V	345.0	-1.8
2 439.500	84.6	---	74.0	-10.6	100.0	V	0.0	-1.8
2 441.000	---	68.2	54.0	-14.2	100.0	V	30.0	-1.8
2 441.000	83.9	---	74.0	-9.9	100.0	V	45.0	-1.8
2 456.000	---	57.1	54.0	-3.1	100.0	H	270.0	-1.7
2 461.000	80.3	---	74.0	-6.3	100.0	H	330.0	-1.7
2 461.000	---	64.8	54.0	-10.8	100.0	H	315.0	-1.7
2 466.000	---	63.9	54.0	-9.9	100.0	H	345.0	-1.7
2 466.000	79.3	---	74.0	-5.3	100.0	H	0.0	-1.7
7 378.500	64.5	---	74.0	9.5	100.0	H	180.0	14.2

Note) 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

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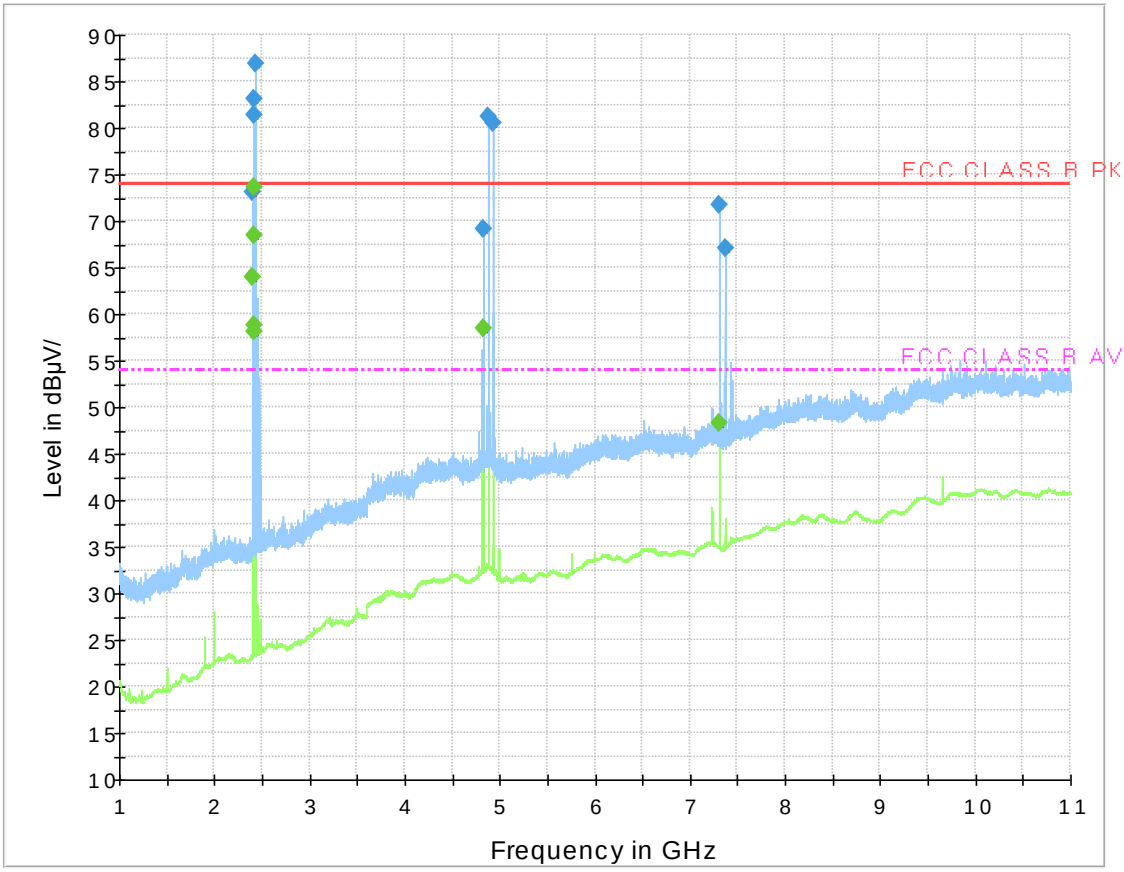
☐ Operating Mode 4



* Remark: Radiated emissions (Tx / Rx frequency and Harmonics) from the transceiver shall be ignored.

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PK /CAV final measurement results table:

Frequency (MHz)	MaxPeak (dBµV/m)	CAV (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
2 405.000	---	63.9	54.0	-9.9	100.0	V	345.0	-0.9
2 405.000	73.1	---	74.0	0.9	100.0	V	330.0	-0.9
2 410.500	---	58.1	54.0	-4.1	100.0	V	180.0	-0.9
2 415.000	---	58.8	54.0	-4.8	100.0	V	195.0	-0.8
2 416.500	83.1	---	74.0	-9.1	100.0	V	0.0	-0.8
2 416.500	---	73.7	54.0	-19.7	100.0	V	15.0	-0.8
2 417.500	---	68.5	54.0	-14.5	100.0	H	30.0	-0.8
2 417.500	81.4	---	74.0	-7.4	100.0	H	285.0	-0.8
2 440.000	87.0	---	74.0	-13.0	100.0	H	180.0	-0.6
4 824.500	---	58.5	54.0	-4.5	100.0	H	0.0	11.1
4 832.500	69.2	---	74.0	4.8	100.0	V	195.0	11.3
4 874.000	81.3	---	74.0	-7.3	100.0	H	165.0	11.6
4 932.000	80.6	---	74.0	-6.6	100.0	H	150.0	11.5
7 308.000	---	48.2	54.0	5.8	100.0	H	210.0	16.2
7 308.000	71.7	---	74.0	2.3	100.0	H	180.0	16.2
7 366.000	67.2	---	74.0	6.9	100.0	H	180.0	16.2

Note) 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

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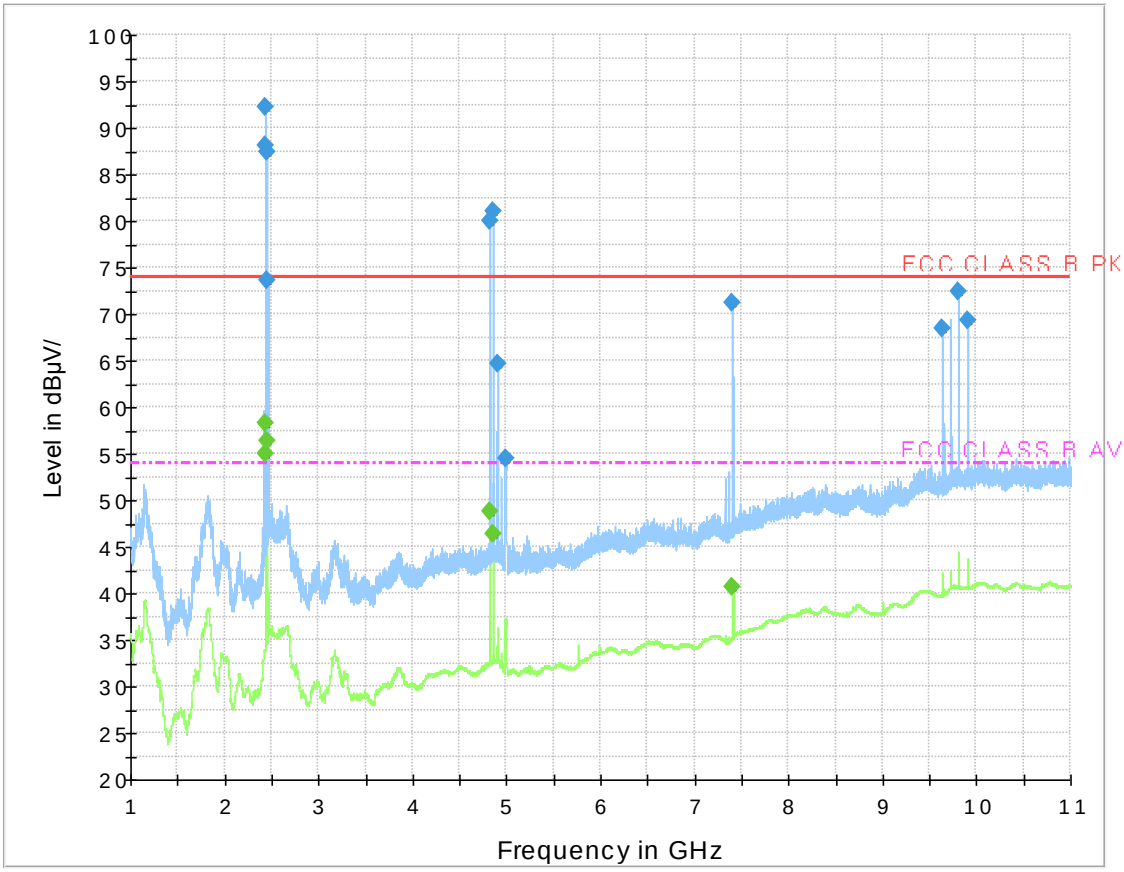
☐ Operating Mode 5



* Remark: Radiated emissions (Tx / Rx frequency and Harmonics) from the transceiver shall be ignored.

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PK /CAV final measurement results table:

Frequency (MHz)	MaxPeak (dBµV/m)	CAV (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
2 428.500	88.1	---	74.0	-14.1	100.0	V	195.0	-0.7
2 428.500	---	55.0	54.0	-1.0	100.0	V	165.0	-0.7
2 440.500	92.3	---	74.0	-18.3	100.0	H	0.0	-0.6
2 440.500	---	58.3	54.0	-4.3	100.0	H	15.0	-0.6
2 442.000	73.7	---	74.0	0.3	100.0	V	345.0	-0.6
2 448.000	---	56.5	54.0	-2.5	100.0	V	300.0	-0.5
2 448.000	87.5	---	74.0	-13.5	100.0	V	180.0	-0.5
4 816.000	80.1	---	74.0	-6.1	100.0	H	150.0	11.0
4 816.000	---	48.8	54.0	5.2	100.0	H	180.0	11.0
4 859.500	81.1	---	74.0	-7.1	100.0	H	45.0	11.6
4 859.500	---	46.4	54.0	7.6	100.0	H	90.0	11.6
4 913.000	64.6	---	74.0	9.4	100.0	H	0.0	11.6
4 987.500	54.6	---	74.0	19.5	100.0	V	180.0	10.9
7 400.500	71.2	---	74.0	2.8	100.0	H	330.0	16.6
7 400.500	---	40.7	54.0	13.3	100.0	H	345.0	16.6
9 633.000	68.5	---	74.0	5.5	100.0	H	195.0	21.5
9 808.000	72.5	---	74.0	1.5	100.0	H	180.0	22.3
9 912.500	69.3	---	74.0	4.7	100.0	H	180.0	22.1

Note) 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

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