

EMI TEST REPORT

FCC CERTIFICATION

Applicant:

SAMSUNG Electronics Co., Ltd.
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Gyeonggi-do, 16677, Korea

Date of Issue: December 23, 2019

Test Report No. HCT-EM-1911-FI004-R1

Test Site: HCT CO., LTD.

FCC ID**A3LSMT307U**

Rule Part(s) / Standard(s) : 47 CFR PART 15 Subpart B Class B
ANSI C63.4-2014

Product Name : Tablet

Model Name : SM-T307U

Date of Test : November 01, 2019 to November 27, 2019

The device bearing the trade name and model specified above, has been shown to comply with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.4-2014. (See Test Report if any modifications were made for compliance)

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

HCT certifies that no party to application has been denied the FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C 862

Tested By

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REVISION HISTORY

The revision history for this document is shown in table.

Report No.	Issue Date	Information About Changes
HCT-EM-1911-FI004	November 29, 2019	Initial Release
HCT-EM-1911-FI004-R1	December 23, 2019	Deleted the Test Standard (ICES-003 Issue 6)



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1. GENERAL INFORMATION

1.1 Description of EUT

FCC ID	A3LSMT307U
Model Name	SM-T307U
Product Name	Tablet
Frequency Band	WCDMA B2/4/5, LTE B2/4/5/7/12/13/14/25/26/30/41/66/71, Bluetooth, WiFi a/b/g/n/ac, ANT+, GPS
Power Supply	Travel adaptor:EP-TA50JWE: Input: AC 100~240 V, 50~60 Hz, 0.3 A, Output: DC 5.0 V, 1.55 A EP-TA200: Input: AC 100~240 V, 50~60 Hz, 0.5 A, Output: DC 9.0 V, 1.67 A or DC 5.0 V, 2.0 A Battery: Li-ion type, 3.85 V, 4 860 mAh

1.2 Tested System Details

All equipment descriptions used in the tested system (including inserted cards) are:

Device Type	Model Name	Serial Number	Manufacturer
EUT	SM-T307U	-	SAMSUNG
Notebook PC	ProBook6560b	5CB2053MXF	HP
Notebook PC Adaptor	Series PPP009L-E	-	LITE-ON TECHNOLOGY (CHANGZHOU)
Gateway	DIR-806M	-	D-Link
Gateway Adaptor	AMS1-0501200FK	-	D-Link
Serial Mouse	Serial 2 Button mouse	02031069	Radio Shack
RJ45 Cable	-	-	-
Data Cable	EP-DR140AWZ	-	KSD
Travel Adaptor	EP-TA50JWE	-	DONGYANG
Travel Adaptor	EP-TA200	-	DONGYANG
Earphone	EHS64AVFWE	-	ALMUS
Micro SD Card	-	-	SAMSUNG



1.3 Cable Description

Product Name	Port	Power Cord Shielded (Y/N)	I/O Cable Shielded (Y/N)	Length (m)
EUT	USB Type C	Y	Y	(P,D) 1.0
	Earphone	N/A	N	(D) 1.2
Notebook PC	RJ 45	N/A	N	(D) 1.6
	Serial(Mouse)	N/A	Y	(D) 1.8
	DC IN	N	N/A	(P) 1.8
Gateway	DC IN	N	N/A	(P) 1.8

* The marked “(D)” means the data cable and “(P)” means the power cable.

1.4 Noise Suppression Parts on Cable. (I/O Cable)

Product Name	Port	Ferrite Bead (Y/N)	Location	Metal Hood (Y/N)	Location
EUT	USB Type C	N	N/A	Y	Both End
	Earphone	N	N/A	Y	EUT End
Notebook PC	RJ 45	N	N/A	N	N/A
	Serial(Mouse)	N	N/A	Y	Notebook End



1.5 Test Facility

Test site is located at 74, SEOICHEON-RO, 578BEON-GIL, MAJANG-MYEON, ICHEON-SI, GYEONGGI-DO, SOUTH KOREA. Those measurement facilities are constructed in conformance with the requirements of ANSI C63.4-2014. The Normalized site attenuations (30 MHz to 1 GHz) and Site validation (1 GHz to 18 GHz) were performed in accordance with the standard in ANSI C63.4-2014

Measurement Facilities	Registration Number
Radiated Field strength measurement facility 3 m Semi Anechoic chamber	KR0032
Radiated Field strength measurement facility 10 m Semi Anechoic chamber #1	
Radiated Field strength measurement facility 10 m Semi Anechoic chamber #2	

1.6 Calibration of Measuring Instrument

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturers recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

Especially, all antenna for measurement is calibrated in accordance with the requirements of C63.5:2017

1.7 Measurement Uncertainty

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.4-2014.

All measurement uncertainty values are shown with a coverage factor of $k = 2$ to indicate a 95 % level of confidence. The measurement data shown herein meets or exceeds the U_{CISPR} measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance.

Parameter	Expanded Uncertainty (dB)
Conducted Emission (0.15 MHz to 30 MHz)	1.8 dB
Radiated Emissions (30 MHz to 1 GHz)	4.8 dB
Radiated Emissions (1 GHz to 18 GHz)	5.4 dB
Radiated Emissions (18 GHz to 40 GHz)	5.7 dB



2. LIST OF TEST EQUIPMENT

<u>Type</u>	<u>Manufacturer</u>	<u>Model Name</u>	<u>Serial Number</u>	<u>Calibration Cycle</u>	<u>CAL Date</u>
<u>Conducted Emission</u>					
☒ EMI Test Receiver	Rohde & Schwarz	ESCI	100584	1 year	06.18.2019
☒ LISN	Rohde & Schwarz	ENV216	102245	1 year	09.11.2019
☒ LISN	Rohde & Schwarz	ENV216	100073	1 year	04.30.2019
☒ Radio communication analyzer	ANRITSU	MT8820C	6201138643	1 year	08.20.2019
☒ Antenna (for Communication)	Schwarzbeck	USLP9142	VSLP 9142-200	-	-
☒ Software	Rohde & Schwarz	EMC32	-	-	-
<u>Radiated Emission</u>					
-For measurement below 1 GHz					
☒ EMI Test Receiver	Rohde & Schwarz	ESU40	100524	1 year	05.17.2019
☒ Trilog Antenna	Schwarzbeck	VULB 9168	255	2 year	03.26.2019
☒ Antenna master	INNCO Systems	MA4640-XP-ET	-	N/A	-
☒ Antenna master controller	INNCO Systems	CO 3000	CO3000/870/ 35990515/L	N/A	-
☒ Turn Table	INNCO Systems	1060	-	N/A	-
☒ Turn Table controller	INNCO Systems	CO2000	CO2000/095/ 7590304/L	N/A	-
☒ Radio communication analyzer	ANRITSU	MT8820C	6201138643	1 year	08.20.2019
☒ Antenna (for Communication)	Schwarzbeck	USLP9142	VSLP 9142-200	-	-
☒ Software	Rohde & Schwarz	EMC32	-	-	-
-For measurement above 1 GHz					
☒ EMI Test Receiver	Rohde & Schwarz	ESU40	100524	1 year	05.17.2019
☒ Antenna master	INNCO Systems	MA4640-XP-ET	-	N/A	-
☒ Antenna master controller	INNCO Systems	CO3000	CO3000/870/ 35990515/L	N/A	-
☒ Turn Table	INNCO Systems	1060	-	N/A	-
☒ Turn Table controller	INNCO Systems	CO2000	CO2000/095/ 7590304/L	N/A	-
☒ Horn Antenna	Schwarzbeck	BBHA 9120D	01836	1 year	07.19.2019
☒ Low Noise Amplifier	TESTEK	TK-PA18H	170034-L	1 year	03.04.2019
☒ Power Amplifier	TESTEK	TK-PA1840H	170030-L	1 year	12.17.2018
☒ Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170#786	2 year	12.05.2017
☒ Radio communication analyzer	ANRITSU	MT8820C	6201138643	1 year	08.20.2019
☒ Antenna (for Communication)	Schwarzbeck	USLP9142	VSLP 9142-200	-	-
☒ Software	Rohde & Schwarz	EMC32	-	-	-



3. DESCRIPTION OF TEST

3.1 Measurement of Conducted Emission

The test procedure was in accordance with ANSI C63.4-2014, Clause 7.3

- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN).

If the EUT is connected to the PC through USB, the AC power-line adapter of the PC is directly connected to a line impedance stabilization network (LISN).

Other support units were connected to the power mains through another LISN. The two LISNs provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

- b. Both conducted lines are measured in Quasi-Peak and Average mode, including the worst-case data points for each tested configuration.
- c. The frequency range from 150 kHz to 30 MHz was searched.

[Conducted Emission Limits]

Frequency (MHz)	Resolution Bandwidth (kHz)	Quasi-Peak (dB(μV))	Average (dB(μV))
0.15 to 0.5	9	66 to 56*	56 to 46*
0.5 to 5	9	56	46
5 to 30	9	60	50

**Decreases with the logarithm of the frequency.*



3.2 Measurement of Radiated Emission

The test procedure was in accordance with ANSI C63.4-2014, Clause 8.3

- a. The EUT was placed on the top of a turn table 0.8 meters above the ground at a semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 m away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from 1 m to 4 m above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 m to 4 m and the turn table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Quasi-Peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to Peak and Average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.
- g. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response.(1 GHz to 40 GHz)

[Radiated Emission Limits]

Frequency (MHz)	Antenna Distance (m)	Field Strength ($\mu\text{V}/\text{m}$)	Quasi-Peak ($\text{dB}(\mu\text{V})/\text{m}$)
30 to 88	3	100	40.0
88 to 216	3	150	43.5
216 to 960	3	200	46.0
Above 960	3	500	54.0
Frequency (MHz)	Antenna Distance (m)	Peak ($\text{dB}(\mu\text{V})/\text{m}$)	Average ($\text{dB}(\mu\text{V})/\text{m}$)
Above 1 000	3	74	54

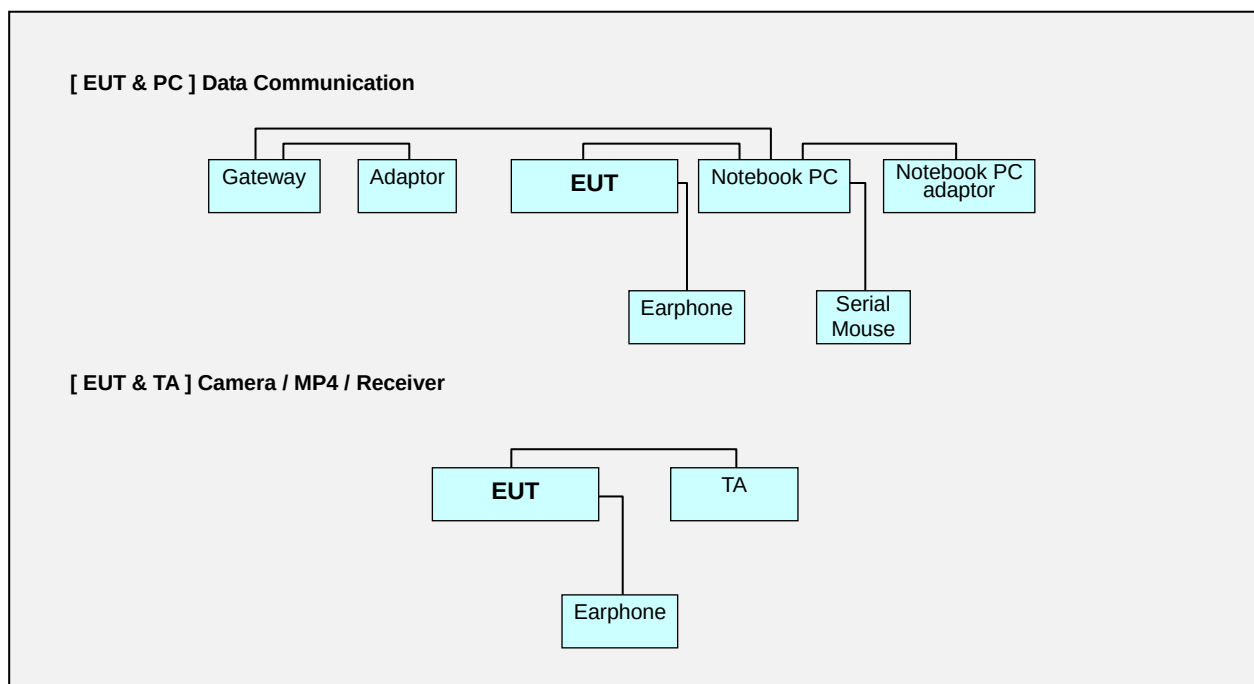


3.2.1 Frequency Range of Radiated Measurements

An unintentional radiator, including a digital device, the spectrum shall be investigated from the lowest radio frequency signal generated or used in the device, without going below the lowest frequency for which a Radiated Emission limit is specified, up to the frequency shown in the following table

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705 to 108	1 000
108 to 500	2 000
500 to 1 000	5 000
Above 1 000	5 th harmonic of the highest frequency or 40 GHz, whichever is lower

3.3 Configuration of Tested System



Non-Conductive Table
Power Line: 120 VAC, 60 Hz



4. PRELIMINARY TEST

During preliminary tests, the following operating mode was investigated.

Data Communication

Rear / Front Camera (Preview / Recording)

MP4 Play

Receiver mode (LTE B5 Low/Middle/High CH Idle)

Receiver mode (LTE B12 Low/Middle/High CH Idle)

Receiver mode (LTE B13 Low/Middle/High CH Idle)

Receiver mode (LTE B14 Low/Middle/High CH Idle)

Receiver mode (LTE B26 Low/Middle/High CH Idle)

Receiver mode (LTE B71 Low/Middle/High CH Idle)

Receiver mode (WCDMA B5Low/Middle/High CH Idle)

4.1 Conducted Emission

It was tested the following operating mode, after connecting all peripheral devices.

Operating Modes:

[EUT & PC] Data Communication mode

[EUT & TA] Receiver mode (LTE B26+B5 High CH Idle) + Front Camera Recording

Receiver mode (LTE B12+B13 Low CH Idle) + Rear Camera Recording

Receiver mode (LTE B14 Low CH Idle) + Front Camera Preview

Receiver mode (LTE B71 High CH Idle) + Rear Camera Preview

MP4 Play mode

NOTE.

1. The worst case of operating mode is reported.

4.2 Radiated Emission

It was tested the following operating mode, after connecting all peripheral devices.

Operating Modes:

[EUT & PC] Data Communication mode

[EUT & TA] Receiver mode (LTE B26+B5 Low CH Idle)

Receiver mode (LTE B26+B5 Middle CH Idle)

Receiver mode (LTE B26+B5 High CH Idle) + Front Camera Recording

Receiver mode (LTE B12+B13 Low CH Idle) + Rear Camera Recording

Receiver mode (LTE B12+B13 Middle CH Idle)

Receiver mode (LTE B12+B13 High CH Idle)

Receiver mode (LTE B14 Low CH Idle) + Front Camera Preview

Receiver mode (LTE B14 Middle CH Idle)

Receiver mode (LTE B14 High CH Idle)

Receiver mode (LTE B71 Low CH Idle)



Receiver mode (LTE B71 Middle CH Idle)

Receiver mode (LTE B71 High CH Idle) + Rear Camera Preview

MP4 Play

NOTE.

1. Three orientations have been investigated and the worst case orientation (x-axis: The display of EUT placed on the table is facing upwards) is reported.
2. The worst case of operating mode is reported.



5. CONDUCTED AND RADIATED EMISSION TEST SUMMARY

5.1 Conducted Emission

The test results of conducted emission at mains ports provide the following information:

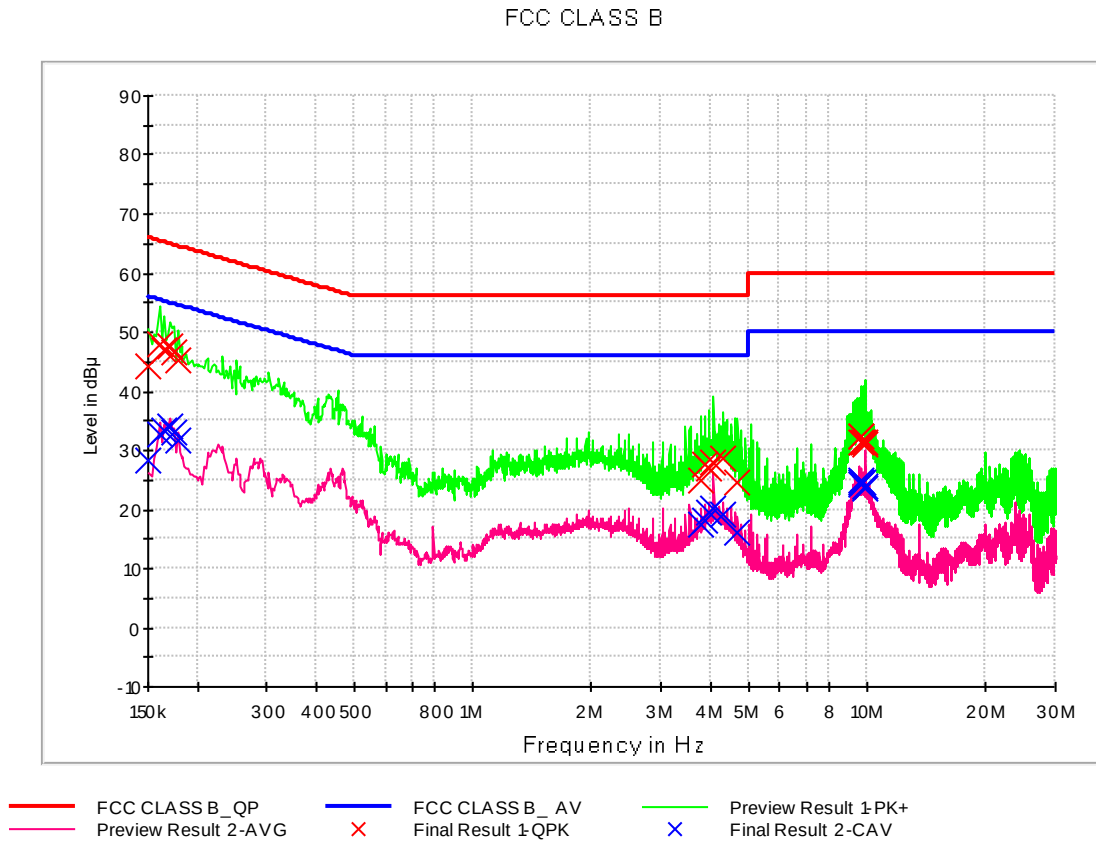
Test Standard Used	FCC PART 15 Subpart B Class B ANSI C63.4-2014
Detector	Quasi-Peak, CISPR-Average
Bandwidth	9 kHz (6 dB)
Worst Case of Travel adaptor	EP-TA50JWE (5 V)
Operating Mode	[EUT&PC] DATA Communication mode [EUT&TA] Receiver mode (LTE B26+B5 High CH Idle) + Front Camera Recording Receiver mode (LTE B12+B13 Low CH Idle) + Rear Camera Recording Receiver mode (LTE B14 Low CH Idle) + Front Camera Preview Receiver mode (LTE B71 High CH Idle) + Rear Camera Preview MP4 Play mode
Kind of Test Site	EMI Shielded Room
Temperature	21.5 / 21.9 °C
Relative Humidity	42.2 / 42.2 %
Test Date	November 01, 2019 / November 26, 2019

- Calculation Formula:

1. Conductor L1 = Hot, Conductor N = Neutral
2. Corr. = LISN Factor + Cable Loss
3. QuasiPeak or CAverage= Receiver Reading + Corr.
4. Margin = Limit – QuasiPeak or CAverage



Figure 1: [EUT&PC] DATA Communication Mode, Line (L1)





QuasiPeak Final Result

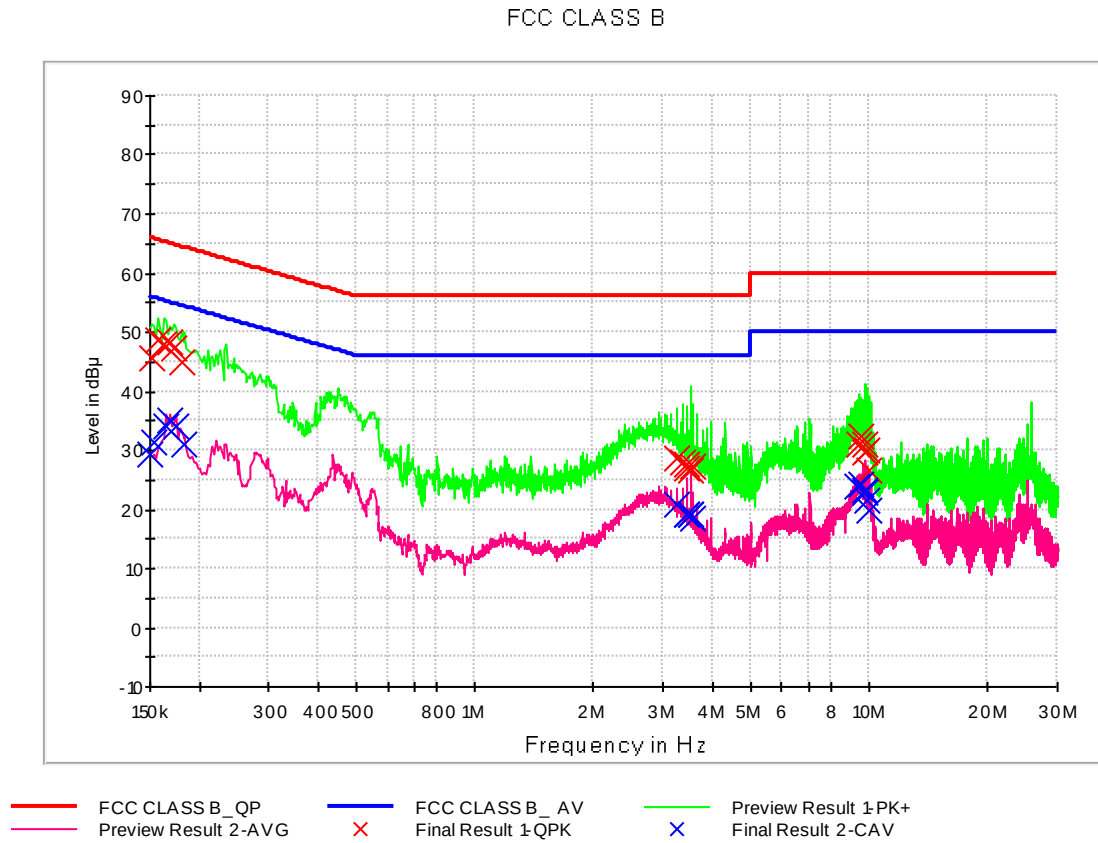
Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	44.2	9.000	L1	9.7	21.8	66.0
0.160000	48.1	9.000	L1	9.7	17.4	65.5
0.164000	46.8	9.000	L1	9.7	18.4	65.3
0.170000	47.6	9.000	L1	9.7	17.4	65.0
0.174000	46.7	9.000	L1	9.7	18.1	64.8
0.178000	45.3	9.000	L1	9.7	19.3	64.6
3.774000	24.8	9.000	L1	9.8	31.2	56.0
3.878000	27.5	9.000	L1	9.8	28.5	56.0
3.982000	27.0	9.000	L1	9.8	29.0	56.0
4.082000	27.8	9.000	L1	9.8	28.2	56.0
4.288000	28.7	9.000	L1	9.8	27.3	56.0
4.698000	24.6	9.000	L1	9.9	31.4	56.0
9.604000	31.5	9.000	L1	10.0	28.5	60.0
9.654000	32.3	9.000	L1	10.0	27.7	60.0
9.664000	32.4	9.000	L1	10.0	27.6	60.0
9.760000	31.5	9.000	L1	10.0	28.5	60.0
9.840000	30.9	9.000	L1	10.0	29.1	60.0
9.862000	31.5	9.000	L1	10.0	28.5	60.0

**CAverage Final Result**

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	28.2	9.000	L1	9.7	27.8	56.0
0.160000	32.8	9.000	L1	9.7	22.7	55.5
0.164000	33.3	9.000	L1	9.7	21.9	55.3
0.170000	34.2	9.000	L1	9.7	20.8	55.0
0.174000	33.1	9.000	L1	9.7	21.7	54.8
0.178000	31.6	9.000	L1	9.7	23.0	54.6
3.774000	17.3	9.000	L1	9.8	28.7	46.0
3.878000	18.1	9.000	L1	9.8	27.9	46.0
3.982000	19.4	9.000	L1	9.8	26.6	46.0
4.080000	20.2	9.000	L1	9.8	25.8	46.0
4.288000	19.0	9.000	L1	9.8	27.0	46.0
4.698000	16.0	9.000	L1	9.9	30.0	46.0
9.604000	24.5	9.000	L1	10.0	25.5	50.0
9.654000	24.9	9.000	L1	10.0	25.1	50.0
9.664000	24.2	9.000	L1	10.0	25.8	50.0
9.758000	24.5	9.000	L1	10.0	25.5	50.0
9.840000	23.8	9.000	L1	10.0	26.2	50.0
9.862000	23.7	9.000	L1	10.0	26.3	50.0



Figure 2: [EUT&PC] DATA Communication Mode, Line (N)





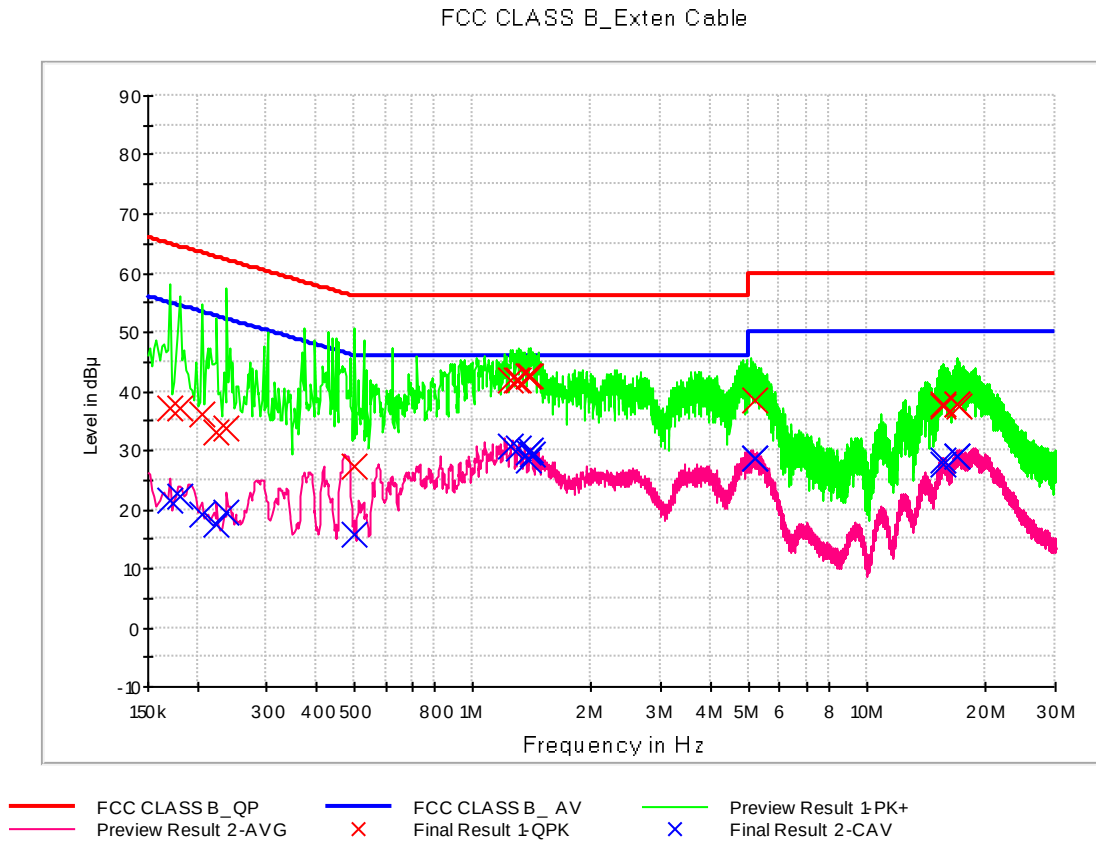
QuasiPeak Final Result

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.152000	45.5	9.000	N	9.7	20.4	65.9
0.158000	48.5	9.000	N	9.7	17.1	65.6
0.162000	47.9	9.000	N	9.7	17.5	65.4
0.168000	48.1	9.000	N	9.7	16.9	65.1
0.172000	47.2	9.000	N	9.7	17.6	64.9
0.180000	44.9	9.000	N	9.7	19.6	64.5
3.252000	28.5	9.000	N	9.8	27.5	56.0
3.356000	27.8	9.000	N	9.8	28.2	56.0
3.450000	27.5	9.000	N	9.8	28.5	56.0
3.454000	27.0	9.000	N	9.8	29.0	56.0
3.540000	26.6	9.000	N	9.8	29.4	56.0
3.562000	27.3	9.000	N	9.8	28.7	56.0
9.456000	31.0	9.000	N	10.0	29.0	60.0
9.560000	32.4	9.000	N	10.0	27.6	60.0
9.744000	30.9	9.000	N	10.0	29.1	60.0
9.766000	29.8	9.000	N	10.0	30.2	60.0
9.870000	30.2	9.000	N	10.0	29.8	60.0
10.048000	26.7	9.000	N	10.0	33.3	60.0



CAverage Final Result

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	29.3	9.000	N	9.7	26.7	56.0
0.154000	31.4	9.000	N	9.7	24.4	55.8
0.164000	34.2	9.000	N	9.7	21.1	55.3
0.168000	35.0	9.000	N	9.7	20.0	55.1
0.174000	33.9	9.000	N	9.7	20.8	54.8
0.184000	31.2	9.000	N	9.7	23.1	54.3
3.252000	20.9	9.000	N	9.8	25.1	46.0
3.450000	19.3	9.000	N	9.8	26.7	46.0
3.454000	19.3	9.000	N	9.8	26.7	46.0
3.536000	19.0	9.000	N	9.8	27.0	46.0
3.542000	19.1	9.000	N	9.8	26.9	46.0
3.562000	18.6	9.000	N	9.8	27.4	46.0
9.354000	23.9	9.000	N	10.0	26.1	50.0
9.560000	24.3	9.000	N	10.0	25.7	50.0
9.744000	22.9	9.000	N	10.0	27.1	50.0
9.766000	23.4	9.000	N	10.0	26.6	50.0
9.870000	21.7	9.000	N	10.0	28.3	50.0
10.048000	19.9	9.000	N	10.0	30.1	50.0

**Figure 3: [EUT&TA] Receiver mode (LTE B26+B5 High CH Idle) + Front Camera Recording, Line (L1)**

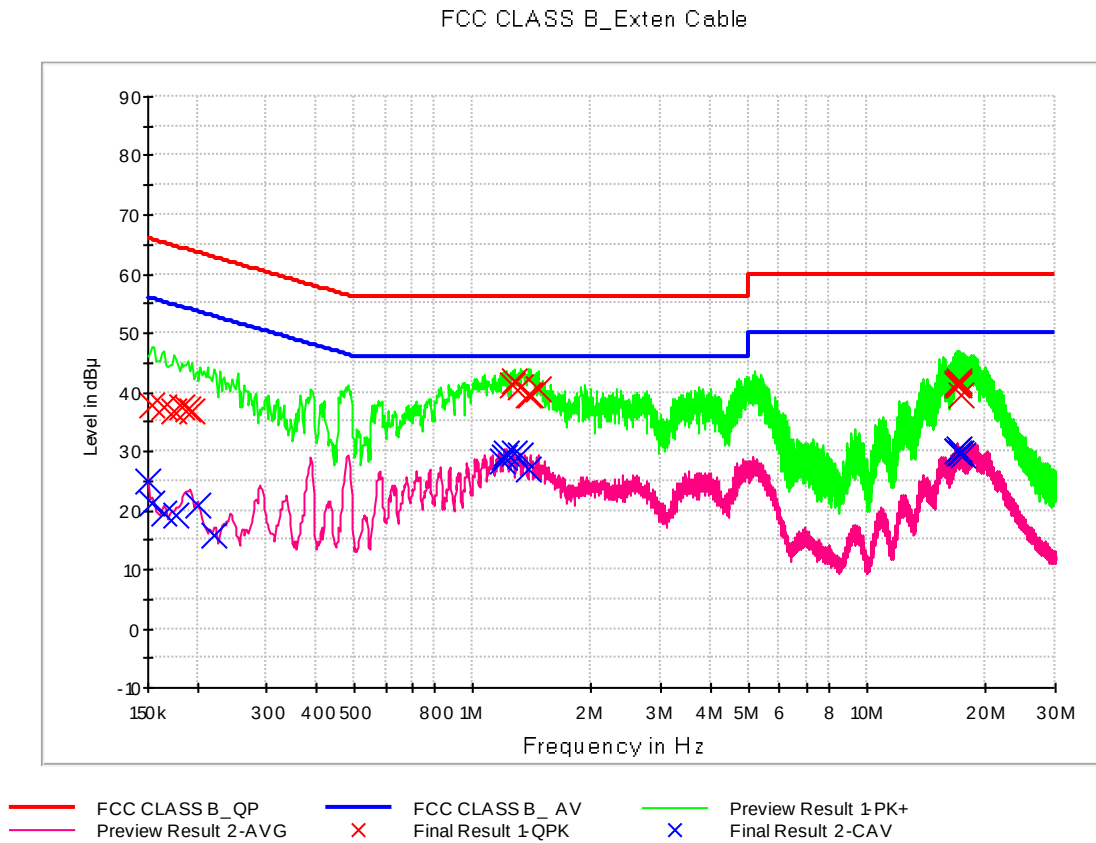


QuasiPeak Final Result

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.170000	37.1	9.000	L1	9.8	27.8	65.0
0.180000	37.0	9.000	L1	9.8	27.5	64.5
0.206000	36.2	9.000	L1	9.8	27.2	63.4
0.224000	33.1	9.000	L1	9.8	29.5	62.7
0.238000	33.8	9.000	L1	9.8	28.4	62.2
0.498000	27.5	9.000	L1	9.8	28.6	56.0
1.248000	41.9	9.000	L1	9.9	14.1	56.0
1.296000	42.0	9.000	L1	9.9	14.0	56.0
1.312000	41.8	9.000	L1	9.9	14.2	56.0
1.384000	42.6	9.000	L1	9.9	13.4	56.0
1.392000	42.5	9.000	L1	9.9	13.5	56.0
1.396000	42.5	9.000	L1	9.9	13.5	56.0
5.178000	38.3	9.000	L1	10.1	21.7	60.0
15.514000	37.8	9.000	L1	10.5	22.2	60.0
15.580000	37.5	9.000	L1	10.5	22.5	60.0
16.848000	37.9	9.000	L1	10.6	22.1	60.0
16.906000	37.8	9.000	L1	10.6	22.2	60.0
17.094000	37.5	9.000	L1	10.6	22.5	60.0

**CAverage Final Result**

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.170000	21.4	9.000	L1	9.8	33.5	55.0
0.180000	22.1	9.000	L1	9.8	32.4	54.5
0.206000	19.3	9.000	L1	9.8	34.0	53.4
0.224000	17.5	9.000	L1	9.8	35.2	52.7
0.238000	19.5	9.000	L1	9.8	32.7	52.2
0.498000	15.7	9.000	L1	9.8	30.3	46.0
1.248000	30.7	9.000	L1	9.9	15.3	46.0
1.312000	30.2	9.000	L1	9.9	15.8	46.0
1.384000	28.3	9.000	L1	9.9	17.7	46.0
1.392000	29.5	9.000	L1	9.9	16.5	46.0
1.396000	30.1	9.000	L1	9.9	15.9	46.0
1.416000	29.2	9.000	L1	9.9	16.8	46.0
5.178000	28.6	9.000	L1	10.1	21.4	50.0
5.202000	28.6	9.000	L1	10.1	21.4	50.0
15.514000	28.2	9.000	L1	10.5	21.8	50.0
15.580000	27.7	9.000	L1	10.5	22.3	50.0
16.848000	28.9	9.000	L1	10.6	21.1	50.0
16.906000	28.8	9.000	L1	10.6	21.2	50.0

**Figure 4: [EUT&TA] Receiver mode (LTE B26+B5 High CH Idle) + Front Camera Recording, Line (N)**



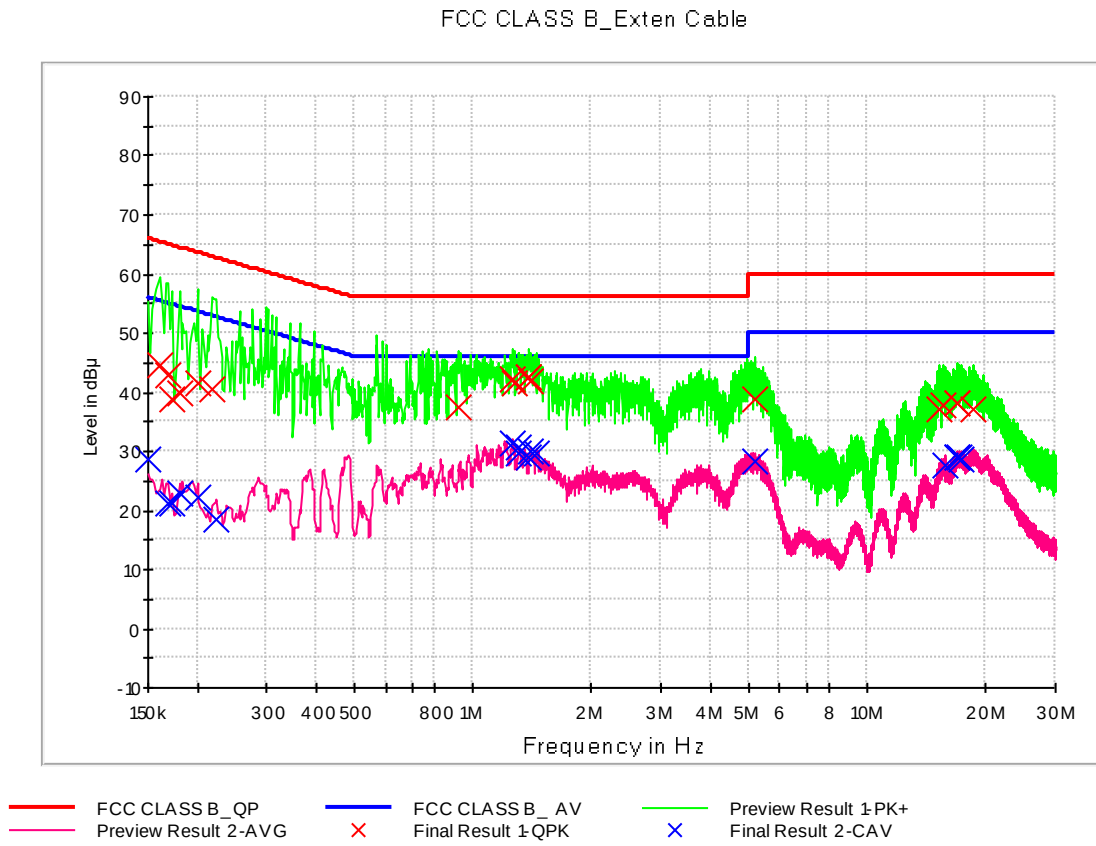
QuasiPeak Final Result

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.154000	37.9	9.000	N	9.8	27.8	65.8
0.164000	37.4	9.000	N	9.8	27.9	65.3
0.174000	36.7	9.000	N	9.8	28.1	64.8
0.182000	37.3	9.000	N	9.8	27.1	64.4
0.190000	37.3	9.000	N	9.8	26.8	64.0
0.194000	36.8	9.000	N	9.8	27.0	63.9
1.258000	41.2	9.000	N	9.9	14.8	56.0
1.270000	41.9	9.000	N	9.9	14.1	56.0
1.316000	40.9	9.000	N	9.9	15.1	56.0
1.380000	39.4	9.000	N	9.9	16.6	56.0
1.394000	39.6	9.000	N	9.9	16.4	56.0
1.466000	40.6	9.000	N	9.9	15.4	56.0
16.842000	41.4	9.000	N	10.7	18.6	60.0
16.948000	41.0	9.000	N	10.7	19.0	60.0
17.082000	41.4	9.000	N	10.7	18.6	60.0
17.094000	41.3	9.000	N	10.7	18.7	60.0
17.144000	42.0	9.000	N	10.7	18.0	60.0
17.394000	39.5	9.000	N	10.7	20.5	60.0



CAverage Final Result

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	24.8	9.000	N	9.8	31.2	56.0
0.154000	21.2	9.000	N	9.8	34.6	55.8
0.164000	19.4	9.000	N	9.8	35.9	55.3
0.176000	19.1	9.000	N	9.8	35.5	54.7
0.200000	20.8	9.000	N	9.8	32.8	53.6
0.220000	15.7	9.000	N	9.8	37.2	52.8
1.192000	28.3	9.000	N	9.9	17.7	46.0
1.196000	29.0	9.000	N	9.9	17.0	46.0
1.220000	29.8	9.000	N	9.9	16.2	46.0
1.268000	29.6	9.000	N	9.9	16.4	46.0
1.316000	29.2	9.000	N	9.9	16.8	46.0
1.382000	26.8	9.000	N	9.9	19.2	46.0
16.846000	29.9	9.000	N	10.7	20.1	50.0
16.902000	29.9	9.000	N	10.7	20.1	50.0
17.096000	29.8	9.000	N	10.7	20.2	50.0
17.140000	30.3	9.000	N	10.7	19.7	50.0
17.336000	29.8	9.000	N	10.7	20.2	50.0
17.584000	29.2	9.000	N	10.7	20.8	50.0

**Figure 5: [EUT&TA] Receiver mode (LTE B12+B13 Low CH Idle) + Rear Camera Recording, Line (L1)**

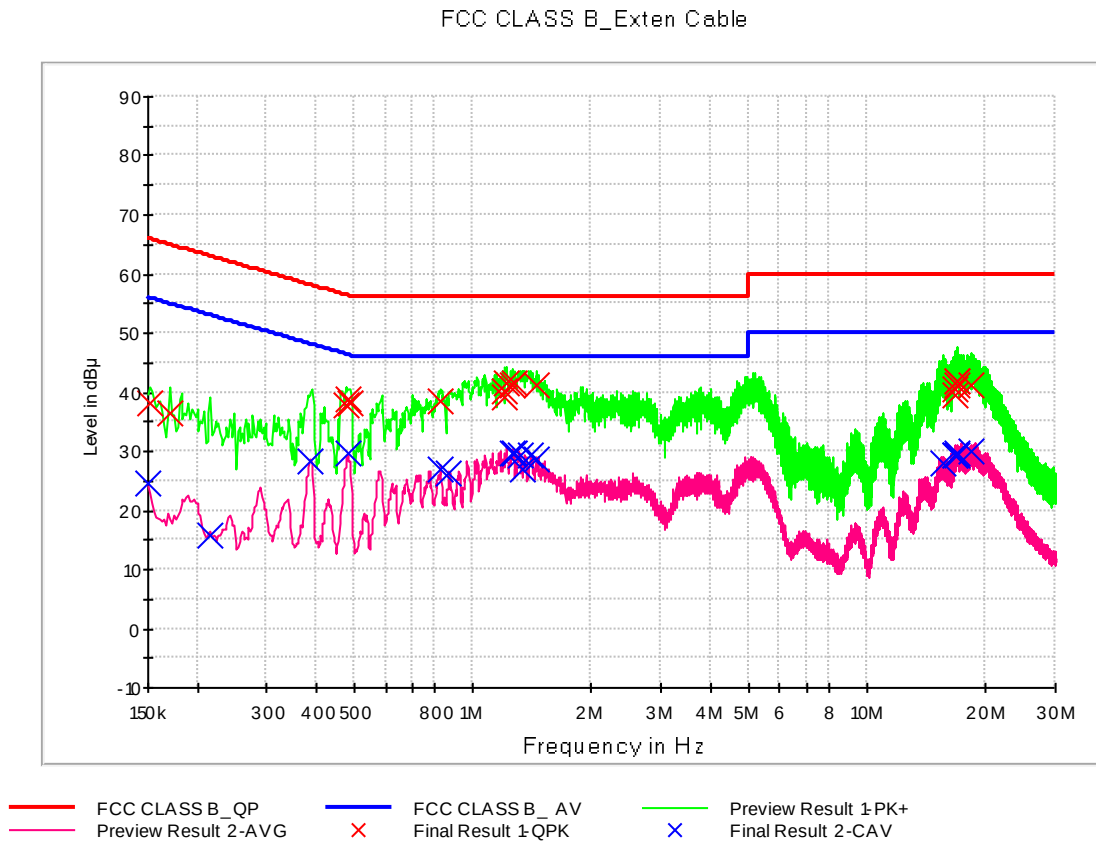


QuasiPeak Final Result

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.160000	44.5	9.000	L1	9.8	21.0	65.5
0.168000	42.9	9.000	L1	9.8	22.1	65.1
0.172000	38.7	9.000	L1	9.8	26.1	64.9
0.180000	40.0	9.000	L1	9.8	24.5	64.5
0.200000	41.5	9.000	L1	9.8	22.1	63.6
0.218000	40.4	9.000	L1	9.8	22.5	62.9
0.918000	37.3	9.000	L1	9.9	18.7	56.0
1.262000	42.2	9.000	L1	9.9	13.8	56.0
1.274000	41.5	9.000	L1	9.9	14.5	56.0
1.386000	42.5	9.000	L1	9.9	13.5	56.0
1.390000	42.4	9.000	L1	9.9	13.6	56.0
1.398000	41.8	9.000	L1	9.9	14.2	56.0
5.190000	38.8	9.000	L1	10.1	21.2	60.0
15.288000	37.1	9.000	L1	10.5	22.9	60.0
15.516000	37.9	9.000	L1	10.5	22.1	60.0
16.896000	38.1	9.000	L1	10.6	21.9	60.0
16.988000	38.2	9.000	L1	10.6	21.8	60.0
18.604000	37.1	9.000	L1	10.6	22.9	60.0

**CAverage Final Result**

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	28.8	9.000	L1	9.8	27.2	56.0
0.168000	21.1	9.000	L1	9.8	34.0	55.1
0.172000	21.3	9.000	L1	9.8	33.6	54.9
0.180000	22.8	9.000	L1	9.8	31.7	54.5
0.200000	22.3	9.000	L1	9.8	31.3	53.6
0.224000	18.4	9.000	L1	9.8	34.3	52.7
1.258000	31.4	9.000	L1	9.9	14.6	46.0
1.300000	29.8	9.000	L1	9.9	16.2	46.0
1.308000	30.8	9.000	L1	9.9	15.2	46.0
1.390000	29.0	9.000	L1	9.9	17.0	46.0
1.398000	30.1	9.000	L1	9.9	15.9	46.0
1.450000	29.5	9.000	L1	9.9	16.5	46.0
5.190000	28.2	9.000	L1	10.1	21.8	50.0
15.692000	27.6	9.000	L1	10.5	22.4	50.0
16.956000	29.1	9.000	L1	10.6	20.9	50.0
16.988000	29.1	9.000	L1	10.6	20.9	50.0
17.200000	28.9	9.000	L1	10.6	21.1	50.0
17.248000	28.7	9.000	L1	10.6	21.3	50.0

**Figure 6: [EUT&TA] Receiver mode (LTE B12+B13 Low CH Idle) + Rear Camera Recording, Line (N)**

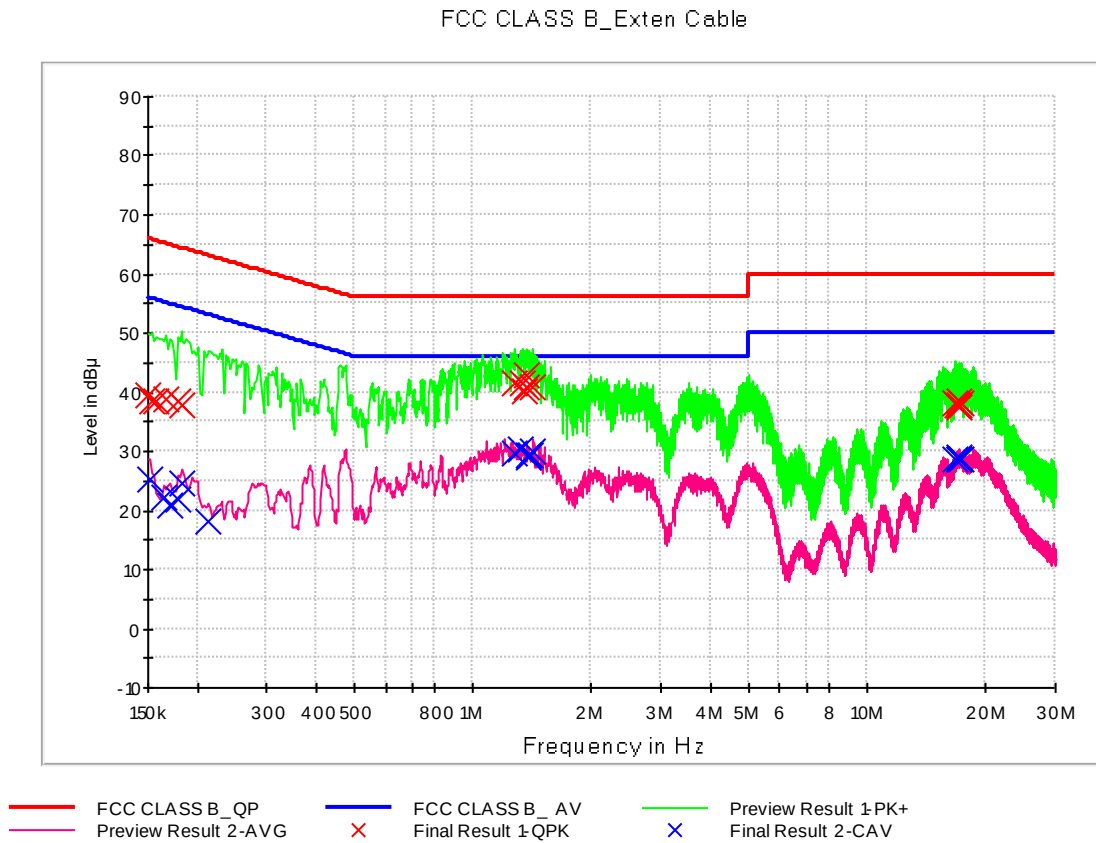


QuasiPeak Final Result

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.152000	38.3	9.000	N	9.8	27.6	65.9
0.170000	36.5	9.000	N	9.8	28.4	65.0
0.478000	37.9	9.000	N	9.8	18.4	56.4
0.484000	38.7	9.000	N	9.8	17.6	56.3
0.490000	38.2	9.000	N	9.8	18.0	56.2
0.832000	38.4	9.000	N	9.8	17.6	56.0
1.206000	39.2	9.000	N	9.9	16.8	56.0
1.210000	40.0	9.000	N	9.9	16.0	56.0
1.220000	41.7	9.000	N	9.9	14.3	56.0
1.258000	41.1	9.000	N	9.9	14.9	56.0
1.268000	41.5	9.000	N	9.9	14.5	56.0
1.450000	41.1	9.000	N	9.9	14.9	56.0
16.660000	40.7	9.000	N	10.6	19.3	60.0
16.666000	39.6	9.000	N	10.6	20.4	60.0
16.846000	41.1	9.000	N	10.7	18.9	60.0
16.898000	42.0	9.000	N	10.7	18.0	60.0
16.906000	41.7	9.000	N	10.7	18.3	60.0
18.322000	41.1	9.000	N	10.7	18.9	60.0

**CAverage Final Result**

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	24.7	9.000	N	9.8	31.3	56.0
0.216000	15.7	9.000	N	9.8	37.2	53.0
0.388000	28.2	9.000	N	9.8	19.9	48.1
0.482000	29.6	9.000	N	9.8	16.7	46.3
0.828000	26.9	9.000	N	9.8	19.1	46.0
0.872000	26.2	9.000	N	9.8	19.8	46.0
1.258000	29.7	9.000	N	9.9	16.3	46.0
1.268000	29.6	9.000	N	9.9	16.4	46.0
1.316000	29.2	9.000	N	9.9	16.8	46.0
1.334000	26.9	9.000	N	9.9	19.1	46.0
1.400000	29.3	9.000	N	9.9	16.7	46.0
1.450000	28.7	9.000	N	9.9	17.3	46.0
15.540000	28.1	9.000	N	10.6	21.9	50.0
16.660000	29.3	9.000	N	10.6	20.7	50.0
16.712000	29.4	9.000	N	10.7	20.6	50.0
16.906000	29.8	9.000	N	10.7	20.2	50.0
16.910000	29.4	9.000	N	10.7	20.6	50.0
18.322000	30.0	9.000	N	10.7	20.0	50.0

**Figure 7: [EUT&TA] Receiver mode (LTE B14 Low CH Idle) + Front Camera Preview, Line (L1)**

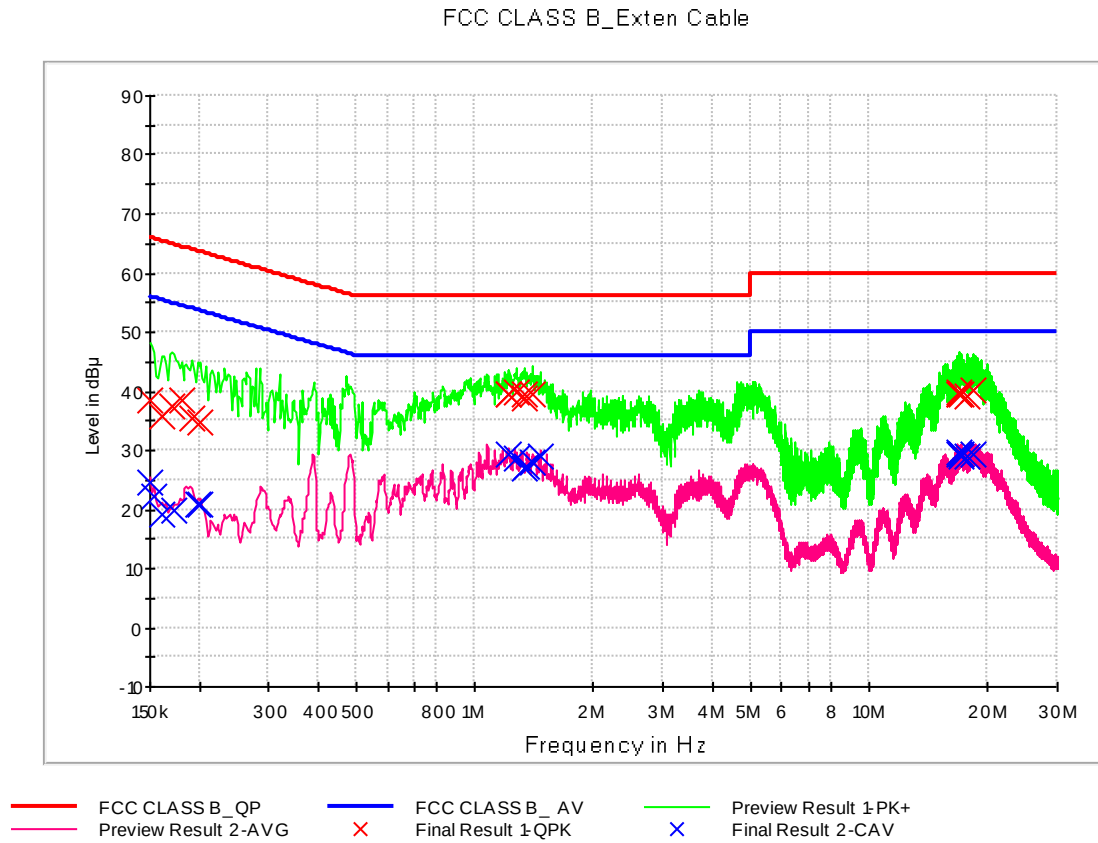


QuasiPeak Final Result

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	39.6	9.000	L1	9.8	26.4	66.0
0.154000	38.3	9.000	L1	9.8	27.5	65.8
0.158000	38.6	9.000	L1	9.8	26.9	65.6
0.166000	38.8	9.000	L1	9.8	26.4	65.2
0.178000	38.4	9.000	L1	9.8	26.2	64.6
0.182000	37.9	9.000	L1	9.8	26.5	64.4
1.274000	41.6	9.000	L1	9.9	14.4	56.0
1.334000	41.5	9.000	L1	9.9	14.5	56.0
1.352000	40.2	9.000	L1	9.9	15.8	56.0
1.372000	40.7	9.000	L1	9.9	15.3	56.0
1.376000	42.9	9.000	L1	9.9	13.1	56.0
1.420000	40.7	9.000	L1	9.9	15.3	56.0
16.728000	38.1	9.000	L1	10.6	21.9	60.0
16.962000	37.8	9.000	L1	10.6	22.2	60.0
17.080000	37.8	9.000	L1	10.6	22.2	60.0
17.094000	38.6	9.000	L1	10.6	21.4	60.0
17.196000	37.5	9.000	L1	10.6	22.5	60.0
17.226000	38.1	9.000	L1	10.6	21.9	60.0

**CAverage Final Result**

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.152000	25.2	9.000	L1	9.8	30.7	55.9
0.164000	22.2	9.000	L1	9.8	33.1	55.3
0.170000	20.7	9.000	L1	9.8	34.3	55.0
0.178000	21.9	9.000	L1	9.8	32.7	54.6
0.184000	24.7	9.000	L1	9.8	29.6	54.3
0.214000	18.0	9.000	L1	9.8	35.1	53.0
1.274000	29.7	9.000	L1	9.9	16.3	46.0
1.314000	30.3	9.000	L1	9.9	15.7	46.0
1.388000	29.0	9.000	L1	9.9	17.0	46.0
1.392000	29.3	9.000	L1	9.9	16.7	46.0
1.400000	29.2	9.000	L1	9.9	16.8	46.0
1.420000	30.1	9.000	L1	9.9	15.9	46.0
16.728000	28.6	9.000	L1	10.6	21.4	50.0
17.080000	28.8	9.000	L1	10.6	21.2	50.0
17.094000	28.7	9.000	L1	10.6	21.3	50.0
17.184000	29.0	9.000	L1	10.6	21.0	50.0
17.196000	28.7	9.000	L1	10.6	21.3	50.0
17.280000	28.6	9.000	L1	10.6	21.4	50.0

**Figure 8: [EUT&TA] Receiver mode (LTE B14 Low CH Idle) + Front Camera Preview, Line (N)**

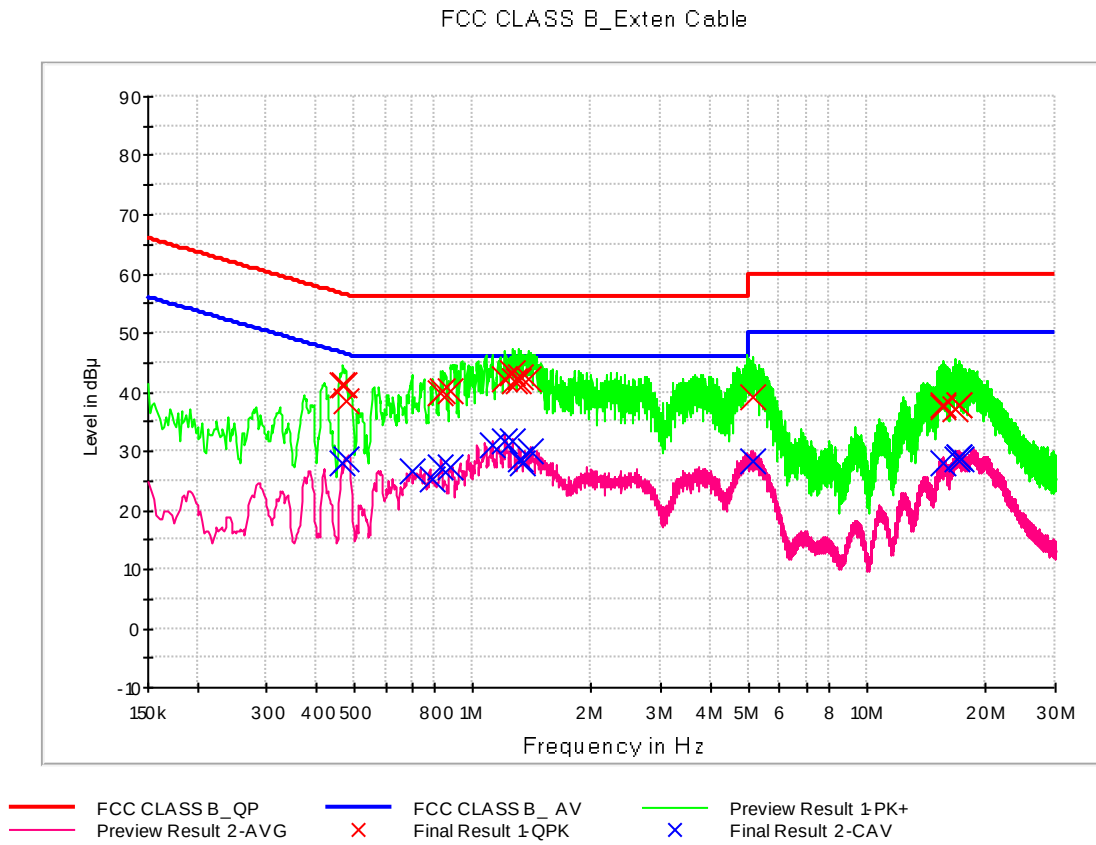


QuasiPeak Final Result

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	38.3	9.000	N	9.8	27.7	66.0
0.160000	35.8	9.000	N	9.8	29.7	65.5
0.170000	37.4	9.000	N	9.8	27.5	65.0
0.180000	38.4	9.000	N	9.8	26.1	64.5
0.192000	35.5	9.000	N	9.8	28.5	63.9
0.202000	34.9	9.000	N	9.8	28.6	63.5
1.220000	39.6	9.000	N	9.9	16.4	56.0
1.224000	39.4	9.000	N	9.9	16.6	56.0
1.274000	39.8	9.000	N	9.9	16.2	56.0
1.330000	39.6	9.000	N	9.9	16.4	56.0
1.342000	38.9	9.000	N	9.9	17.1	56.0
1.398000	39.4	9.000	N	9.9	16.6	56.0
16.928000	39.4	9.000	N	10.7	20.6	60.0
16.934000	39.6	9.000	N	10.7	20.4	60.0
16.938000	39.7	9.000	N	10.7	20.3	60.0
17.124000	39.4	9.000	N	10.7	20.6	60.0
17.730000	39.2	9.000	N	10.7	20.8	60.0
18.300000	40.1	9.000	N	10.7	19.9	60.0

**CAverage Final Result**

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	24.5	9.000	N	9.8	31.5	56.0
0.154000	22.3	9.000	N	9.8	33.5	55.8
0.160000	19.2	9.000	N	9.8	36.3	55.5
0.172000	20.0	9.000	N	9.8	34.9	54.9
0.198000	20.9	9.000	N	9.8	32.8	53.7
0.202000	20.8	9.000	N	9.8	32.8	53.5
1.220000	29.2	9.000	N	9.9	16.8	46.0
1.274000	28.6	9.000	N	9.9	17.4	46.0
1.340000	27.1	9.000	N	9.9	18.9	46.0
1.346000	27.4	9.000	N	9.9	18.6	46.0
1.396000	28.1	9.000	N	9.9	17.9	46.0
1.466000	29.0	9.000	N	9.9	17.0	46.0
16.928000	29.3	9.000	N	10.7	20.7	50.0
16.938000	29.6	9.000	N	10.7	20.4	50.0
17.120000	29.2	9.000	N	10.7	20.8	50.0
17.124000	29.1	9.000	N	10.7	20.9	50.0
17.730000	28.9	9.000	N	10.7	21.1	50.0
18.296000	29.4	9.000	N	10.7	20.6	50.0

**Figure 9: [EUT&TA] Receiver mode (LTE B71 High CH Idle) + Rear Camera Preview, Line (L1)**



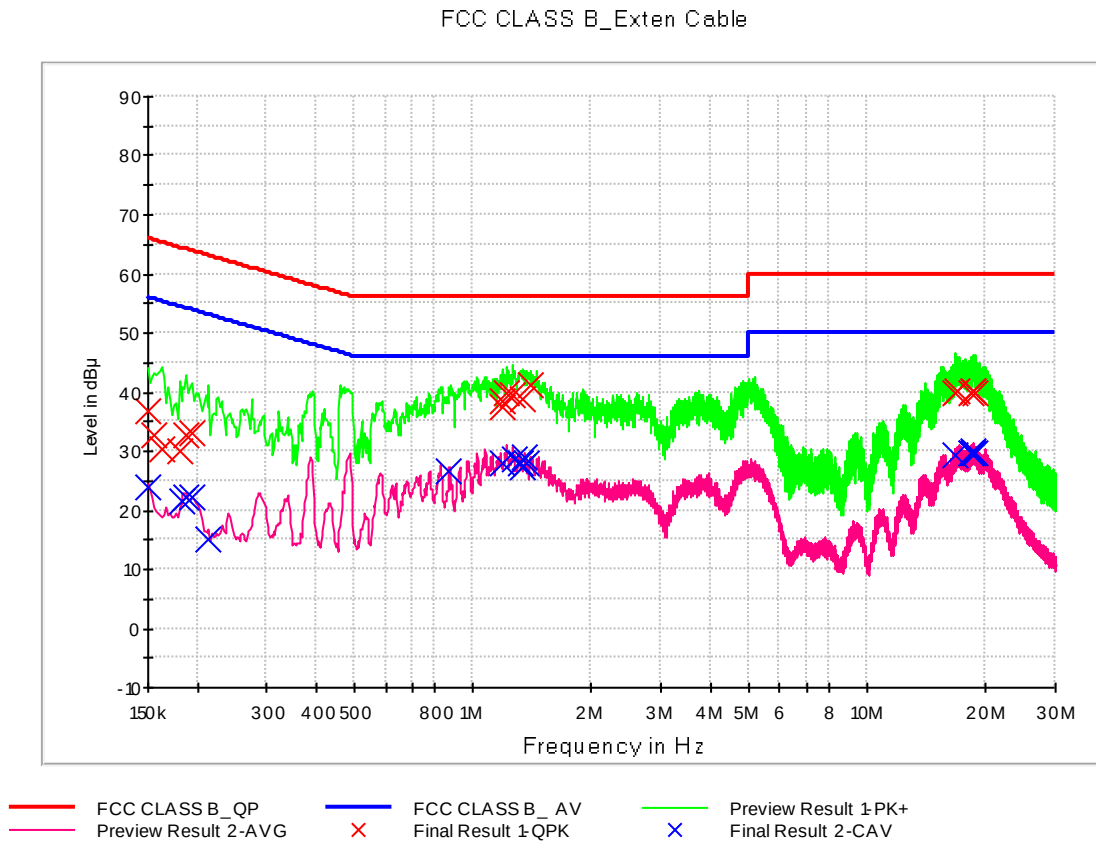
QuasiPeak Final Result

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.468000	41.1	9.000	L1	9.8	15.5	56.5
0.474000	41.1	9.000	L1	9.8	15.4	56.4
0.478000	38.3	9.000	L1	9.8	18.0	56.4
0.832000	39.7	9.000	L1	9.9	16.3	56.0
0.836000	40.2	9.000	L1	9.9	15.8	56.0
0.876000	40.0	9.000	L1	9.9	16.0	56.0
1.206000	42.2	9.000	L1	9.9	13.8	56.0
1.258000	43.3	9.000	L1	9.9	12.7	56.0
1.276000	41.9	9.000	L1	9.9	14.1	56.0
1.304000	41.8	9.000	L1	9.9	14.2	56.0
1.326000	42.4	9.000	L1	9.9	13.6	56.0
1.384000	42.3	9.000	L1	9.9	13.7	56.0
5.140000	39.1	9.000	L1	10.1	20.9	60.0
15.608000	37.7	9.000	L1	10.5	22.3	60.0
15.648000	37.5	9.000	L1	10.5	22.5	60.0
16.696000	37.1	9.000	L1	10.6	22.9	60.0
17.048000	37.9	9.000	L1	10.6	22.1	60.0
17.072000	37.9	9.000	L1	10.6	22.1	60.0



CAverage Final Result

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.466000	27.8	9.000	L1	9.8	18.8	46.6
0.478000	28.8	9.000	L1	9.8	17.6	46.4
0.700000	26.5	9.000	L1	9.8	19.5	46.0
0.792000	25.3	9.000	L1	9.8	20.7	46.0
0.832000	27.4	9.000	L1	9.9	18.6	46.0
0.876000	27.2	9.000	L1	9.9	18.8	46.0
1.124000	30.9	9.000	L1	9.9	15.1	46.0
1.208000	31.6	9.000	L1	9.9	14.4	46.0
1.258000	31.6	9.000	L1	9.9	14.4	46.0
1.324000	28.7	9.000	L1	9.9	17.3	46.0
1.336000	28.0	9.000	L1	9.9	18.0	46.0
1.398000	29.9	9.000	L1	9.9	16.1	46.0
5.136000	28.4	9.000	L1	10.1	21.6	50.0
15.608000	27.9	9.000	L1	10.5	22.1	50.0
16.824000	28.7	9.000	L1	10.6	21.3	50.0
17.048000	29.1	9.000	L1	10.6	20.9	50.0
17.072000	28.9	9.000	L1	10.6	21.1	50.0
17.246000	28.6	9.000	L1	10.6	21.4	50.0

**Figure 10: [EUT&TA] Receiver mode (LTE B71 High CH Idle) + Rear Camera Preview, Line (N)**



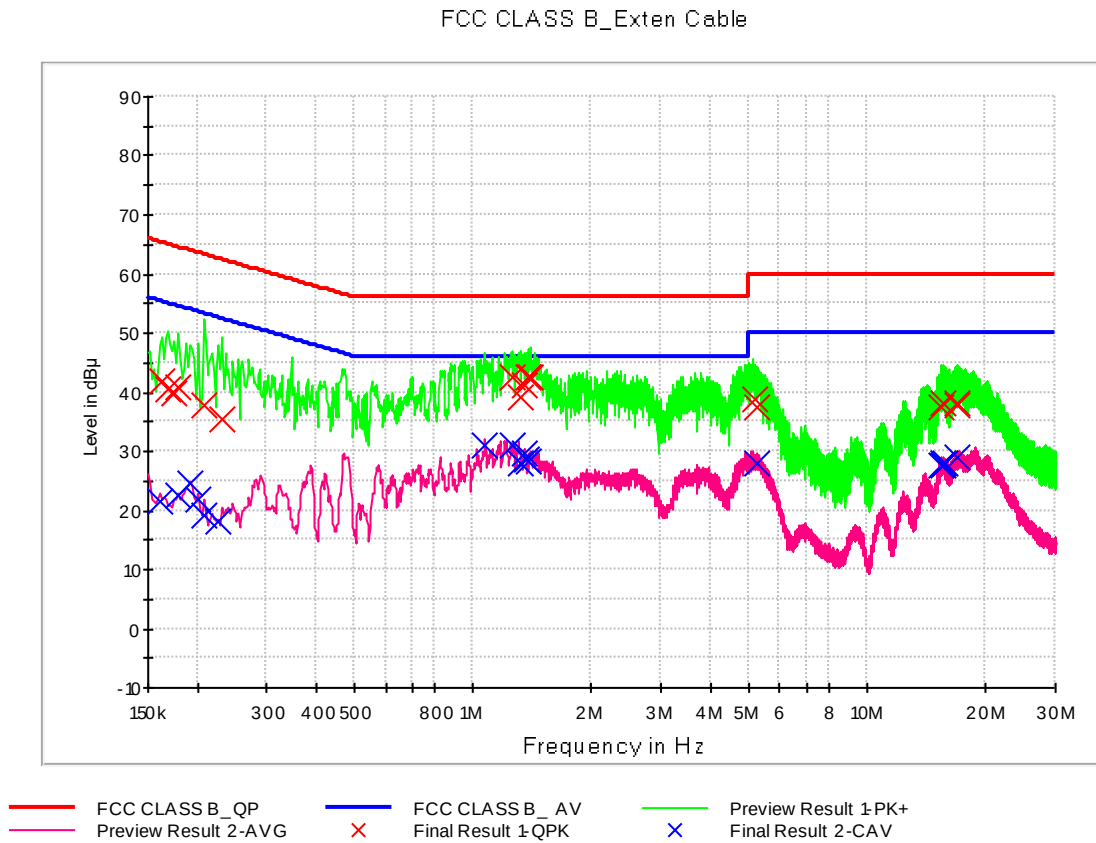
QuasiPeak Final Result

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	36.9	9.000	N	9.8	29.1	66.0
0.156000	32.7	9.000	N	9.8	33.0	65.7
0.162000	30.4	9.000	N	9.8	34.9	65.4
0.180000	29.8	9.000	N	9.8	34.7	64.5
0.188000	32.7	9.000	N	9.8	31.5	64.1
0.194000	33.1	9.000	N	9.8	30.7	63.9
1.188000	37.5	9.000	N	9.9	18.5	56.0
1.194000	38.4	9.000	N	9.9	17.6	56.0
1.222000	40.0	9.000	N	9.9	16.0	56.0
1.256000	39.6	9.000	N	9.9	16.4	56.0
1.344000	38.8	9.000	N	9.9	17.2	56.0
1.404000	41.1	9.000	N	9.9	14.9	56.0
16.728000	39.8	9.000	N	10.7	20.2	60.0
17.004000	40.2	9.000	N	10.7	19.8	60.0
18.428000	40.0	9.000	N	10.7	20.0	60.0
18.498000	40.1	9.000	N	10.7	19.9	60.0
18.660000	40.1	9.000	N	10.7	19.9	60.0
18.866000	39.9	9.000	N	10.8	20.1	60.0



CAverage Final Result

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	23.9	9.000	N	9.8	32.1	56.0
0.184000	21.7	9.000	N	9.8	32.6	54.3
0.188000	22.1	9.000	N	9.8	32.0	54.1
0.194000	22.2	9.000	N	9.8	31.7	53.9
0.214000	15.1	9.000	N	9.8	37.9	53.0
0.872000	26.5	9.000	N	9.8	19.5	46.0
1.188000	27.9	9.000	N	9.9	18.1	46.0
1.272000	28.7	9.000	N	9.9	17.3	46.0
1.324000	27.9	9.000	N	9.9	18.1	46.0
1.344000	27.2	9.000	N	9.9	18.8	46.0
1.354000	29.1	9.000	N	9.9	16.9	46.0
1.366000	28.1	9.000	N	9.9	17.9	46.0
16.728000	29.3	9.000	N	10.7	20.7	50.0
18.324000	29.8	9.000	N	10.7	20.2	50.0
18.428000	29.7	9.000	N	10.7	20.3	50.0
18.504000	30.0	9.000	N	10.7	20.0	50.0
18.532000	29.8	9.000	N	10.7	20.2	50.0
18.866000	29.6	9.000	N	10.8	20.4	50.0

**Figure 11: [EUT&TA] MP4 Play Mode, Line (L1)**



QuasiPeak Final Result

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.162000	42.0	9.000	L1	9.8	23.4	65.4
0.168000	40.4	9.000	L1	9.8	24.6	65.1
0.174000	39.9	9.000	L1	9.8	24.9	64.8
0.178000	40.7	9.000	L1	9.8	23.8	64.6
0.208000	37.7	9.000	L1	9.8	25.6	63.3
0.230000	35.5	9.000	L1	9.8	26.9	62.4
1.254000	42.5	9.000	L1	9.9	13.5	56.0
1.324000	39.2	9.000	L1	9.9	16.8	56.0
1.354000	41.3	9.000	L1	9.9	14.7	56.0
1.382000	42.5	9.000	L1	9.9	13.5	56.0
1.388000	42.6	9.000	L1	9.9	13.4	56.0
1.394000	42.6	9.000	L1	9.9	13.4	56.0
5.172000	38.9	9.000	L1	10.1	21.1	60.0
5.282000	37.5	9.000	L1	10.1	22.5	60.0
15.454000	37.6	9.000	L1	10.5	22.4	60.0
15.644000	38.1	9.000	L1	10.5	21.9	60.0
16.870000	37.9	9.000	L1	10.6	22.1	60.0
16.998000	38.2	9.000	L1	10.6	21.8	60.0

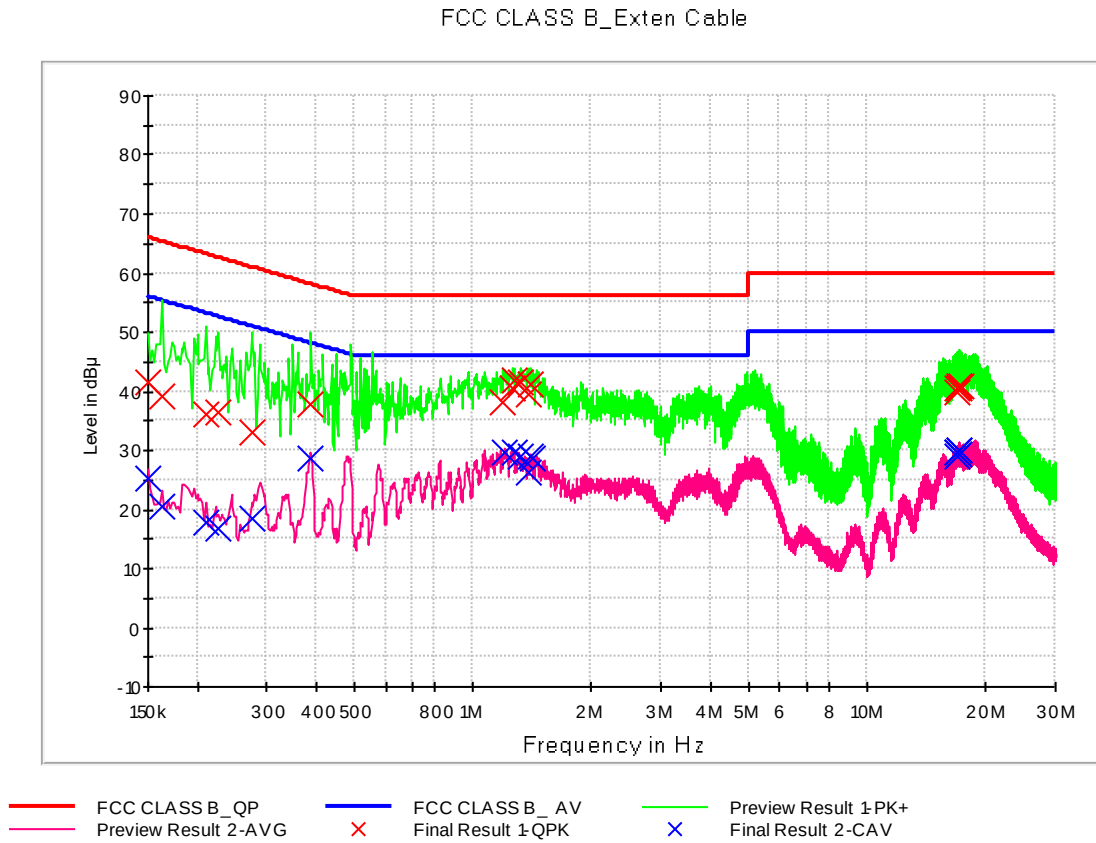


CAverage Final Result

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.160000	21.7	9.000	L1	9.8	33.8	55.5
0.178000	22.4	9.000	L1	9.8	32.1	54.6
0.192000	24.5	9.000	L1	9.8	29.5	53.9
0.202000	21.7	9.000	L1	9.8	31.8	53.5
0.208000	19.3	9.000	L1	9.8	34.0	53.3
0.226000	18.1	9.000	L1	9.8	34.5	52.6
1.074000	31.1	9.000	L1	9.9	14.9	46.0
1.254000	31.1	9.000	L1	9.9	14.9	46.0
1.324000	27.9	9.000	L1	9.9	18.1	46.0
1.354000	29.5	9.000	L1	9.9	16.5	46.0
1.366000	28.8	9.000	L1	9.9	17.2	46.0
1.384000	28.4	9.000	L1	9.9	17.6	46.0
5.282000	27.9	9.000	L1	10.1	22.1	50.0
15.454000	27.7	9.000	L1	10.5	22.3	50.0
15.602000	27.8	9.000	L1	10.5	22.2	50.0
15.644000	27.8	9.000	L1	10.5	22.2	50.0
15.712000	28.0	9.000	L1	10.5	22.0	50.0
16.912000	28.8	9.000	L1	10.6	21.2	50.0



Figure 12: [EUT&TA] MP4 Play Mode, Line (N)





QuasiPeak Final Result, Line (N)

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	41.4	9.000	N	9.8	24.6	66.0
0.162000	39.3	9.000	N	9.8	26.1	65.4
0.210000	36.1	9.000	N	9.8	27.1	63.2
0.226000	36.3	9.000	N	9.8	26.3	62.6
0.274000	33.0	9.000	N	9.8	28.0	61.0
0.388000	37.9	9.000	N	9.8	20.2	58.1
1.194000	38.2	9.000	N	9.9	17.8	56.0
1.256000	40.5	9.000	N	9.9	15.5	56.0
1.270000	41.8	9.000	N	9.9	14.2	56.0
1.318000	41.5	9.000	N	9.9	14.5	56.0
1.378000	39.5	9.000	N	9.9	16.5	56.0
1.400000	41.2	9.000	N	9.9	14.8	56.0
16.828000	39.8	9.000	N	10.7	20.2	60.0
16.880000	40.5	9.000	N	10.7	19.5	60.0
17.076000	40.8	9.000	N	10.7	19.2	60.0
17.082000	40.7	9.000	N	10.7	19.3	60.0
17.146000	40.4	9.000	N	10.7	19.6	60.0
17.324000	40.7	9.000	N	10.7	19.3	60.0

**CAverage Final Result, Line (N)**

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	25.4	9.000	N	9.8	30.6	56.0
0.162000	20.5	9.000	N	9.8	34.8	55.4
0.210000	17.7	9.000	N	9.8	35.5	53.2
0.226000	16.6	9.000	N	9.8	36.0	52.6
0.274000	18.4	9.000	N	9.8	32.6	51.0
0.388000	28.5	9.000	N	9.8	19.6	48.1
1.210000	29.5	9.000	N	9.9	16.5	46.0
1.268000	29.7	9.000	N	9.9	16.3	46.0
1.318000	28.8	9.000	N	9.9	17.2	46.0
1.378000	26.1	9.000	N	9.9	19.9	46.0
1.402000	29.0	9.000	N	9.9	17.0	46.0
1.414000	28.6	9.000	N	9.9	17.4	46.0
16.828000	29.1	9.000	N	10.7	20.9	50.0
16.880000	29.5	9.000	N	10.7	20.5	50.0
16.886000	29.7	9.000	N	10.7	20.3	50.0
17.076000	29.9	9.000	N	10.7	20.1	50.0
17.082000	30.1	9.000	N	10.7	19.9	50.0
17.146000	29.4	9.000	N	10.7	20.6	50.0



5.2 Radiated Emission Below 1 GHz

The test results of radiated emission provide the following information:

Test Standard Used	FCC PART 15 Subpart B Class B ANSI C63.4-2014
Frequency Range	30 MHz to 1 000 MHz
Detector	Quasi-Peak
Bandwidth	120 kHz (6 dB)
Operating Mode	[EUT&PC] DATA Communication mode [EUT&TA] Receiver mode (LTE B26+B5 High CH Idle) + Front Camera Recording Receiver mode (LTE B12+B13 Low CH Idle) + Rear Camera Recording Receiver mode (LTE B14 Low CH Idle) + Front Camera Preview Receiver mode (LTE B71 High CH Idle) + Rear Camera Preview MP4 Play mode
Worst Case of Travel adaptor	EP-TA50JWE (5 V)
Kind of Test Site	3 m semi anechoic chamber
Temperature	21.3 – 23.5 °C
Relative Humidity	40.8 – 43.8 %
Test Date	November 06, 2019 to November 27, 2019

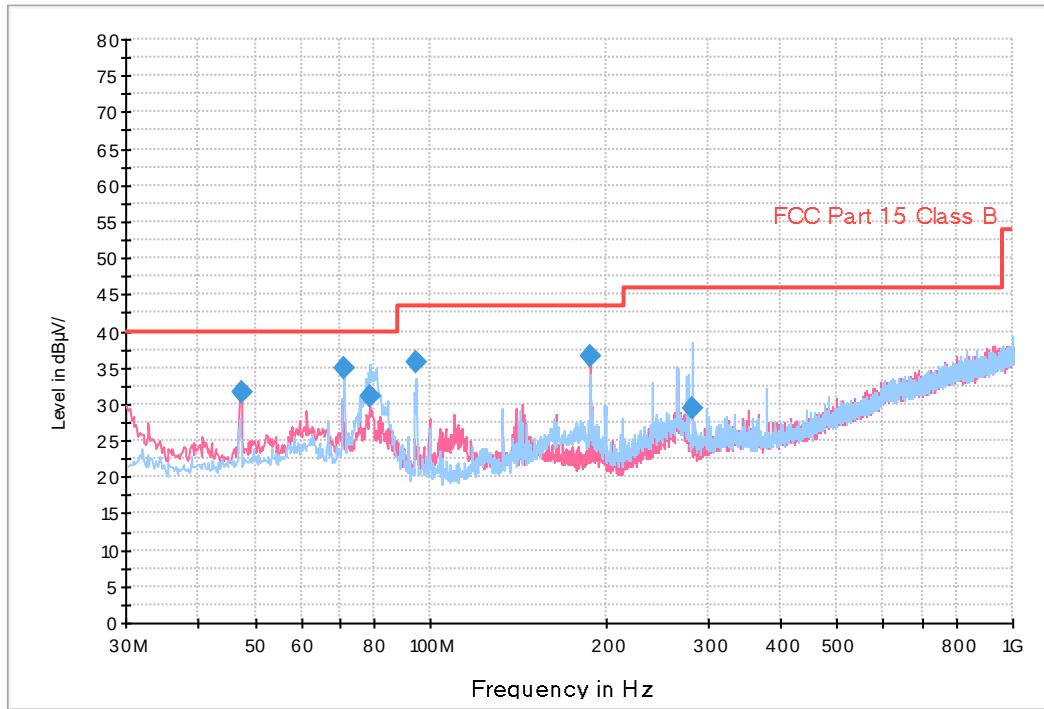
- Calculation Formula:

1. POL. H = Horizontal, POL. V = Vertical
2. QuasiPeak = Reading (Receiver Reading) + Corr.
3. Corr. (Correction Factor) = Antenna Factor + Cable Loss
4. Margin = Limit - QuasiPeak



Figure 13: [EUT&PC] DATA Communication Mode

FCC PART 15 CLASS B

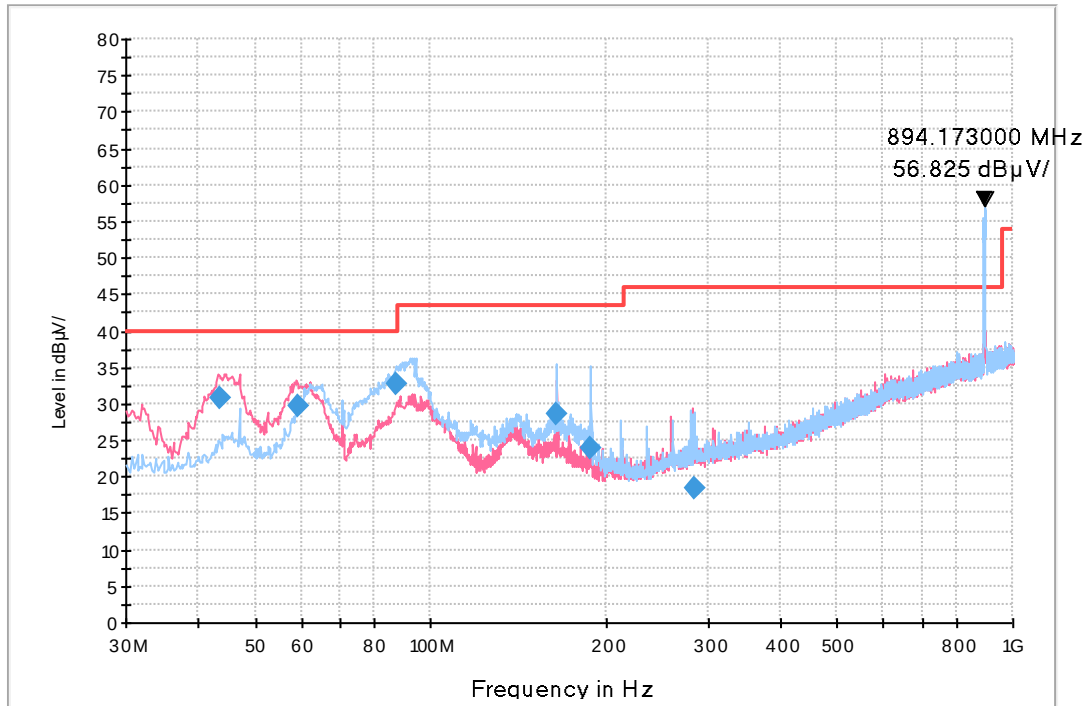


Frequency (MHz)	Quasi Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
47.375600	31.7	225.0	V	24.0	19.6	8.3	40.0
70.826600	35.0	274.9	H	120.0	17.9	5.0	40.0
79.048000	31.2	174.9	H	113.0	16.0	8.8	40.0
94.178600	35.7	199.8	H	333.0	14.6	7.8	43.5
188.357600	36.7	174.8	V	332.0	17.7	6.8	43.5
282.796400	29.4	100.0	H	51.0	19.9	16.6	46.0



Figure 14: [EUT&TA] Receiver Mode (LTE B26+B5 High CH Idle) + Front Camera Recording

FCC PART 15 CLASS B



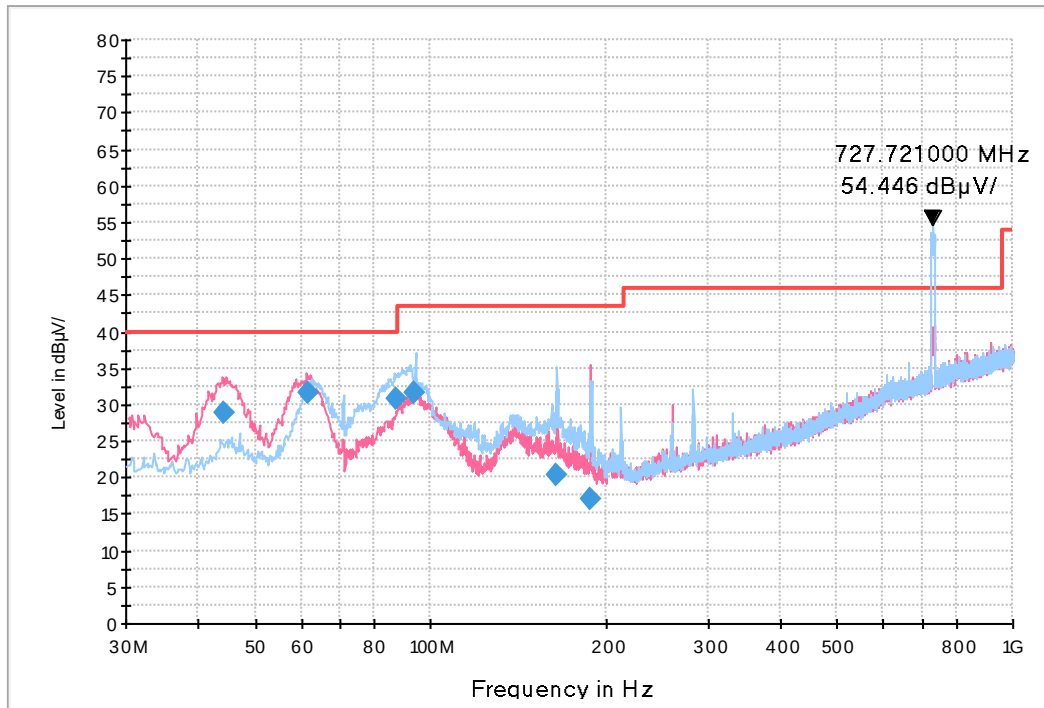
NOTE. 1. Carrier Frequency: RX 894.173 MHz
 2. These are signals for fundamental frequency from the base station

Frequency (MHz)	Quasi Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
43.606600	30.8	100.0	V	1.0	19.3	9.2	40.0
59.204600	29.7	100.0	V	1.0	19.4	10.3	40.0
87.454000	32.7	400.0	H	59.0	14.6	7.3	40.0
164.634000	28.6	299.7	H	14.0	19.6	14.9	43.5
187.889400	23.9	174.7	H	26.0	17.7	19.6	43.5
283.133200	18.3	225.0	V	320.0	19.9	27.7	46.0



Figure 15: [EUT&TA] Receiver Mode (LTE B12+B13 Low CH Idle) + Rear Camera Recording

FCC PART 15 CLASS B



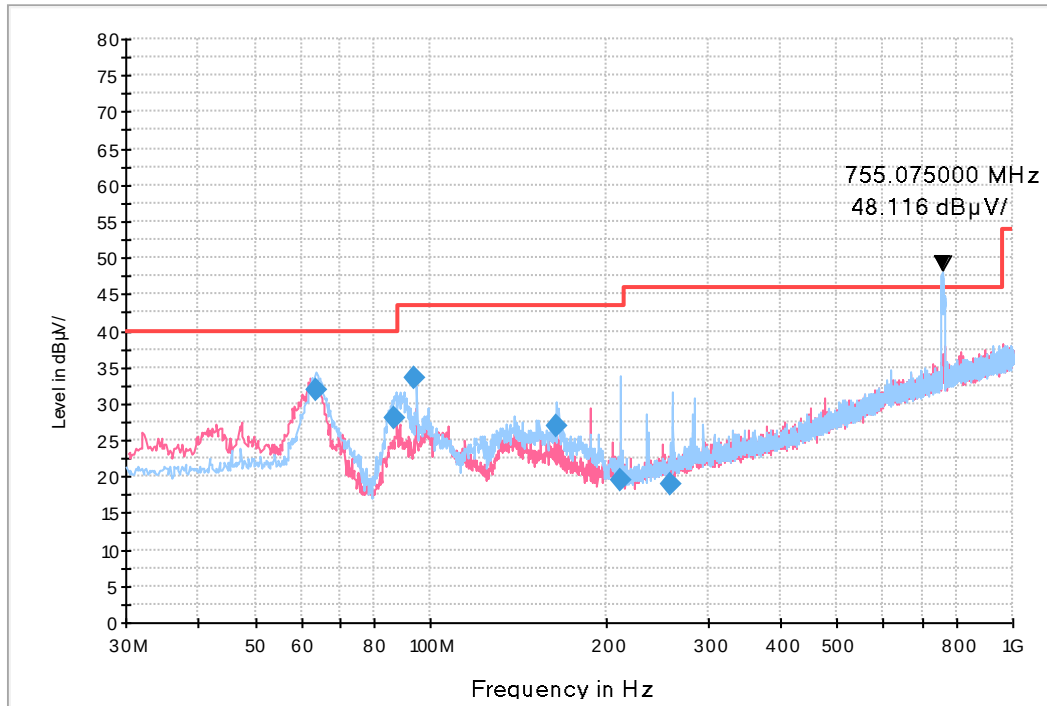
- NOTE. 1. Carrier Frequency: RX 727.721 MHz
2. These are signals for fundamental frequency from the base station

Frequency (MHz)	Quasi Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
44.200600	28.8	100.0	V	16.0	19.3	11.2	40.0
61.602400	31.7	100.0	V	1.0	19.2	8.3	40.0
87.196000	30.9	374.7	H	59.0	14.7	9.1	40.0
93.728800	31.7	225.0	H	52.0	14.6	11.8	43.5
164.692800	20.3	100.0	H	183.0	19.5	23.2	43.5
188.068800	17.0	100.0	V	0.0	17.7	26.5	43.5



Figure 16: [EUT&TA] Receiver Mode (LTE B14 Low CH Idle) + Front Camera Preview

FCC PART 15 CLASS B



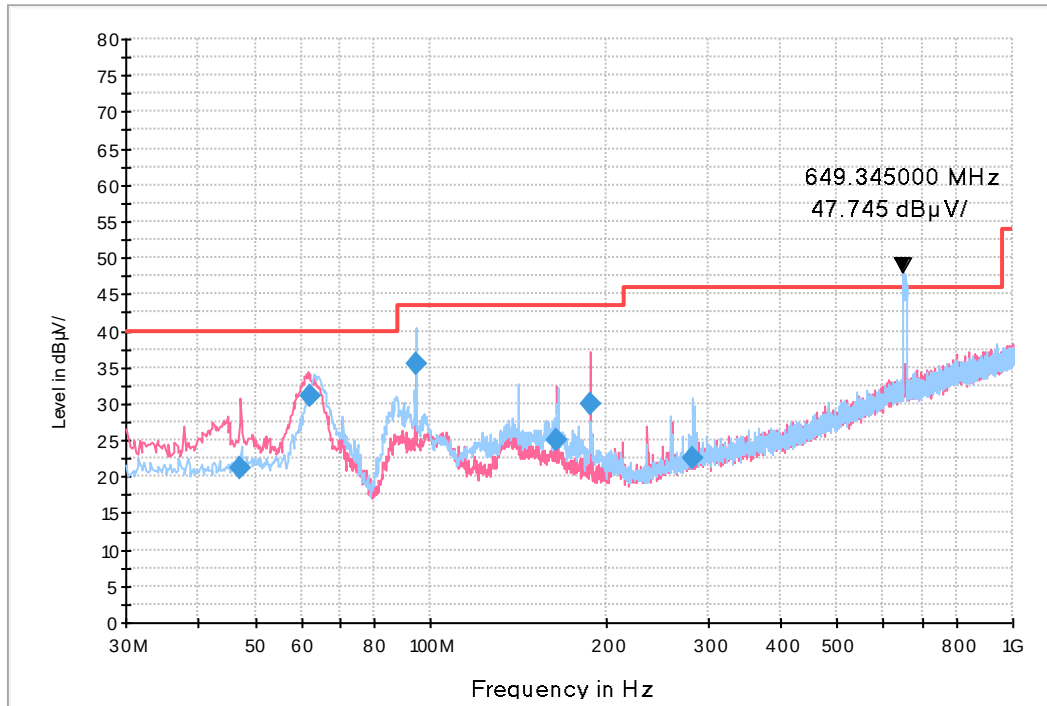
NOTE. 1. Carrier Frequency: RX 755.075 MHz
 2. These are signals for fundamental frequency from the base station

Frequency (MHz)	Quasi Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
63.736200	31.9	225.3	H	77.0	18.9	8.1	40.0
86.905200	28.2	225.0	H	60.0	14.7	11.8	40.0
94.109400	33.6	174.8	H	45.0	14.6	9.9	43.5
164.844400	26.8	174.9	H	25.0	19.5	16.7	43.5
211.591200	19.4	100.0	H	17.0	17.2	24.1	43.5
259.137800	18.9	174.8	H	274.0	19.1	27.1	46.0



Figure 17: [EUT&TA] Receiver Mode (LTE B71 High CH Idle) + Rear Camera Preview

FCC PART 15 CLASS B



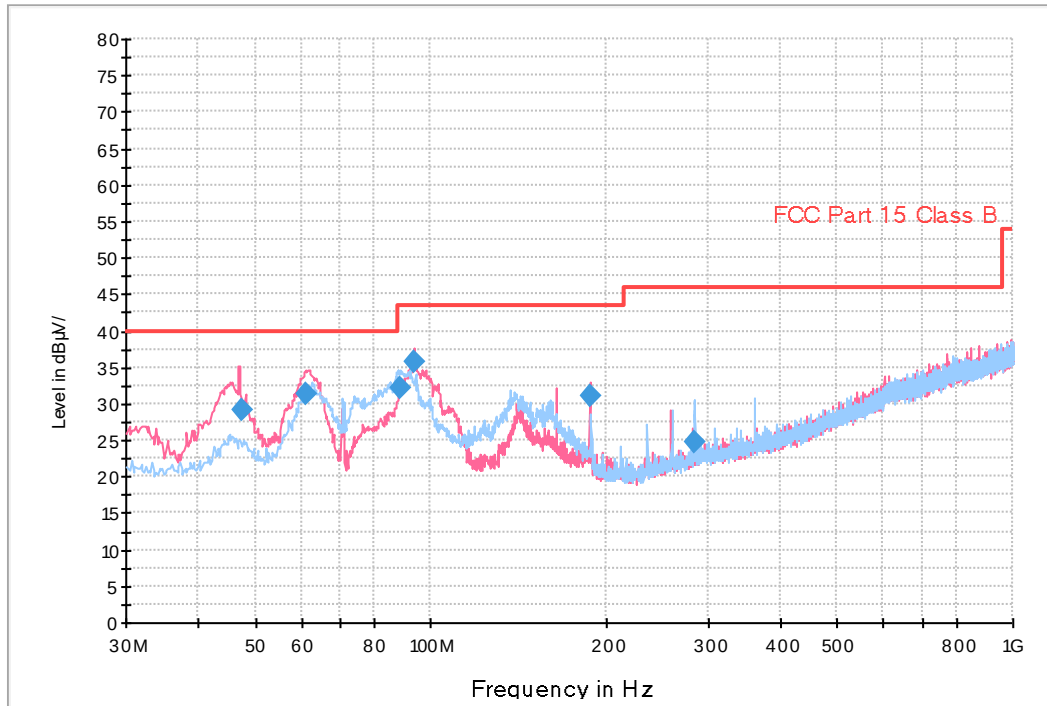
NOTE. 1. Carrier Frequency: RX 649.345 MHz
 2. These are signals for fundamental frequency from the base station

Frequency (MHz)	Quasi Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
47.280000	21.0	100.0	V	207.0	19.6	19.0	40.0
61.899200	31.0	100.0	V	345.0	19.1	9.0	40.0
94.268200	35.6	225.1	H	53.0	14.7	7.9	43.5
165.135000	24.9	174.7	V	68.0	19.5	18.6	43.5
188.391400	30.0	100.0	V	251.0	17.7	13.5	43.5
282.099400	22.4	100.0	H	7.0	19.9	23.6	46.0



Figure 18: [EUT&TA] MP4 Play Mode

FCC PART 15 CLASS B



Frequency (MHz)	Quasi Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
47.347000	29.2	191.8	V	353.0	19.6	10.8	40.0
61.001800	31.4	100.0	V	60.0	19.3	8.6	40.0
88.798600	32.2	206.9	H	1.0	14.4	11.3	43.5
94.134400	35.7	100.0	V	343.0	14.6	7.8	43.5
188.468000	31.1	100.0	V	195.0	17.6	12.4	43.5
284.968400	24.8	125.1	H	341.0	20.0	21.2	46.0



5.3 Radiated Emission Above 1 GHz

The test results of radiated emission provide the following information:

Test Standard Used	FCC PART 15 Subpart B Class B ANSI C63.4-2014
Detector	Peak mode: Peak (RBW: 1 MHz, VBW: 3 MHz) CISPR-Average mode: Peak (RBW: 1 MHz, VBW: 10 Hz)
Highest Frequency	5 825 MHz
Tested Frequency Range	1 GHz to 30 GHz
Worst Case of Operating Mode	[EUT&PC] DATA Communication mode [EUT&TA] Receiver mode (LTE B26+B5 High CH Idle) + Front Camera Recording Receiver mode (LTE B12+B13 Low CH Idle) + Rear Camera Recording Receiver mode (LTE B14 Low CH Idle) + Front Camera Preview Receiver mode (LTE B71 High CH Idle) + Rear Camera Preview MP4 Play mode
Worst Case of TA	EP-TA50JWE (5 V)
Kind of Test Site	3 m semi anechoic chamber
Temperature	21.3 – 23.5 °C
Relative Humidity	40.8 – 43.8 %
Test Date	November 07, 2019 to November 27, 2019

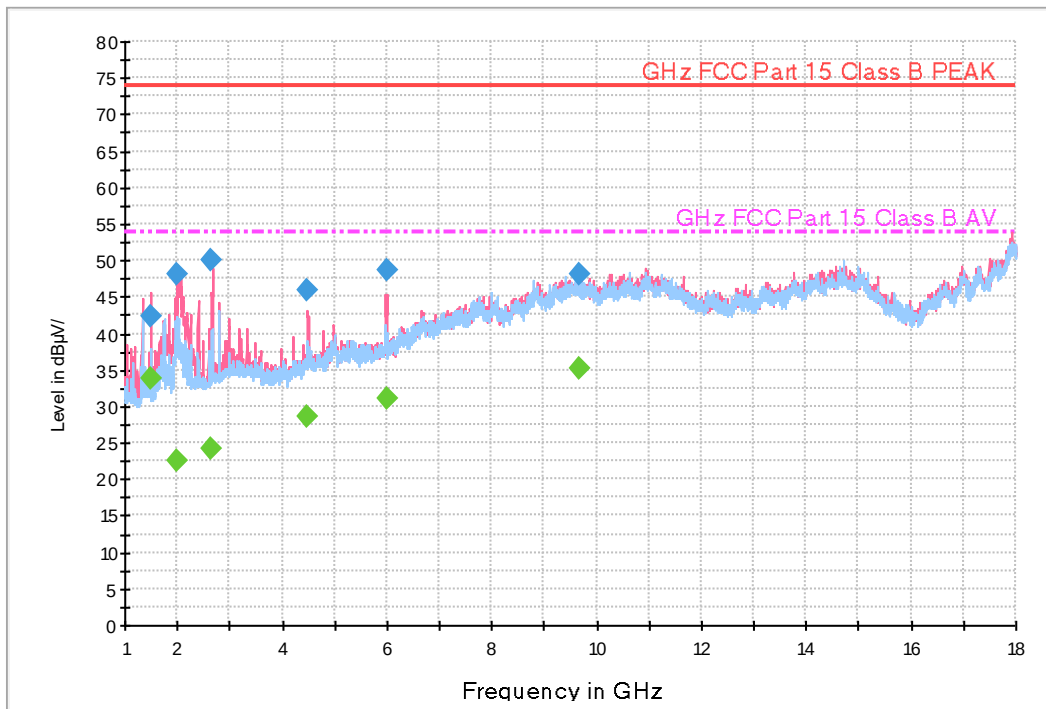
- Calculation Formula:

1. POL. H = Horizontal, POL. V = Vertical
2. Peak or CAverage = Reading (Receiver Reading) + Corr.
3. Corr. (Correction Factor) = Antenna Factor+ Cable Loss –Amplifier Gain
4. Margin = Limit - Peak or CAverage

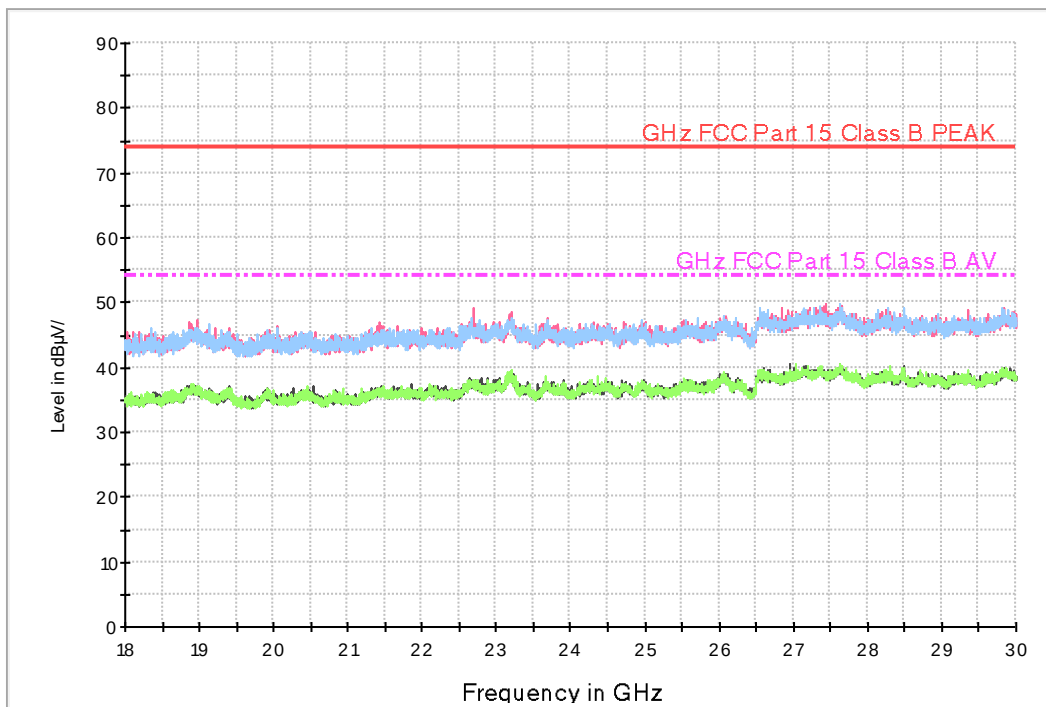


Figure 19: [EUT&PC] DATA Communication Mode

Tilting of GHz FCC PART 15 CLASS B



Tilting of GHz FCC PART 15 CLASS B_18~40GHz



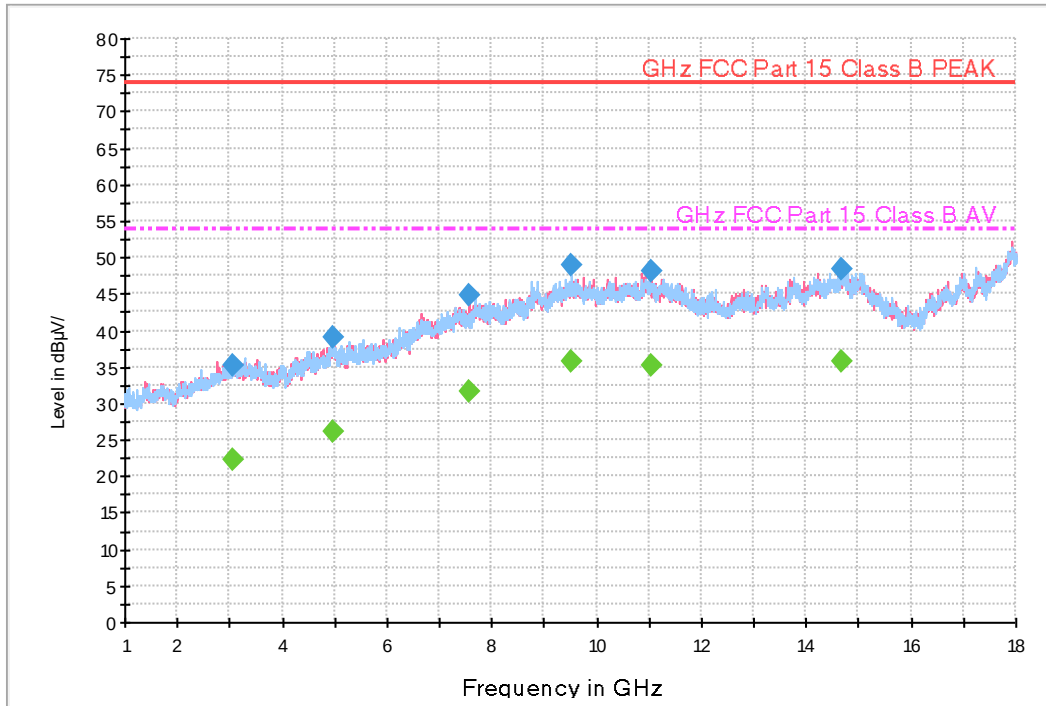


Frequency (MHz)	Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1498.570000	42.2	322.6	V	0.0	-25.6	31.8	74.0
1997.535000	48.2	100.0	V	44.0	-25.2	25.8	74.0
2658.945000	50.0	150.0	V	12.0	-22.7	24.0	74.0
4481.600000	45.9	150.0	V	3.0	-17.5	28.1	74.0
5997.960000	48.8	307.4	V	110.0	-14.7	25.2	74.0
9661.570000	48.2	137.5	V	328.0	-5.1	25.8	74.0

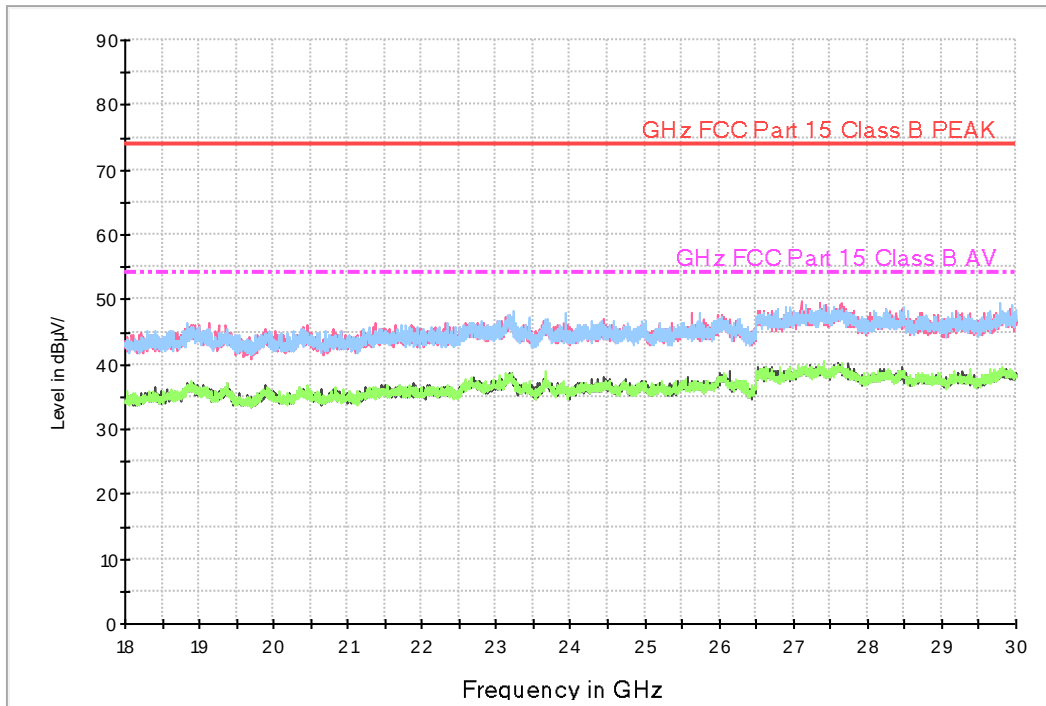
Frequency (MHz)	CAverage (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1498.570000	33.8	322.6	V	0.0	-25.6	20.2	54.0
1997.535000	22.5	100.0	V	44.0	-25.2	31.6	54.0
2658.945000	24.1	150.0	V	12.0	-22.7	29.9	54.0
4481.600000	28.5	150.0	V	3.0	-17.5	25.5	54.0
5997.960000	31.2	307.4	V	110.0	-14.7	22.8	54.0
9661.570000	35.3	137.5	V	328.0	-5.1	18.7	54.0

**Figure 20: [EUT&TA] Receiver Mode (LTE B26+B5 High CH Idle) + Front Camera Recording**

Tilting of GHz FCC PART 15 CLASS B



Tilting of GHz FCC PART 15 CLASS B_18~40GHz



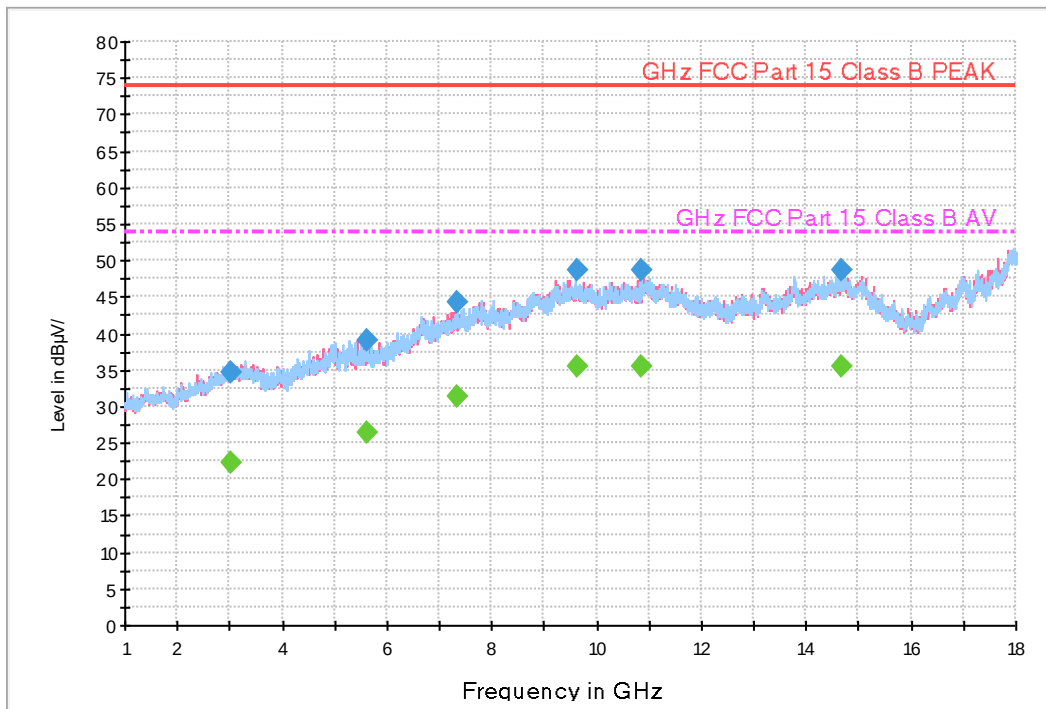


Frequency (MHz)	Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
3051.050000	35.1	350.0	V	0.0	-21.0	38.9	74.0
4979.780000	39.1	149.6	V	140.0	-15.8	34.9	74.0
7581.165000	44.7	334.6	V	13.0	-9.2	29.3	74.0
9530.725000	49.1	149.8	H	140.0	-5.1	24.9	74.0
11038.770000	48.2	338.5	V	207.0	-2.4	25.8	74.0
14681.180000	48.4	350.0	H	78.0	1.0	25.6	74.0

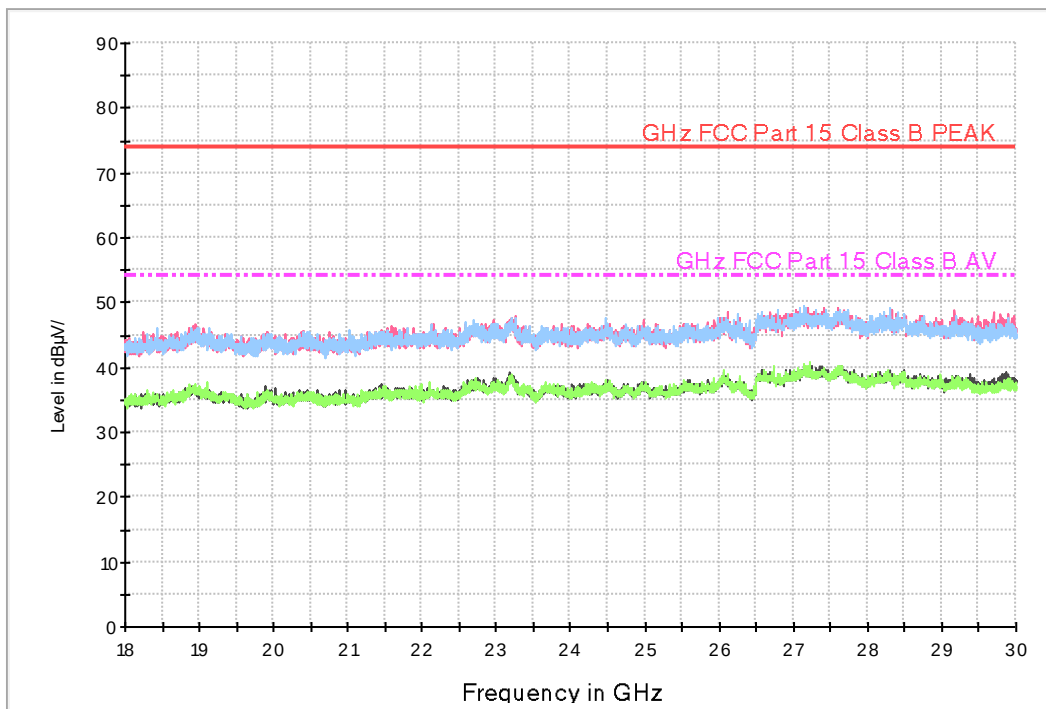
Frequency (MHz)	CAverage (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
3051.050000	22.3	350.0	V	0.0	-21.0	31.7	54.0
4979.780000	26.1	149.6	V	140.0	-15.8	27.9	54.0
7581.165000	31.7	334.6	V	13.0	-9.2	22.3	54.0
9530.725000	35.8	149.8	H	140.0	-5.1	18.2	54.0
11038.770000	35.3	338.5	V	207.0	-2.4	18.7	54.0
14681.180000	35.6	350.0	H	78.0	1.0	18.4	54.0

**Figure 21: [EUT&TA] Receiver Mode (LTE B12+B13 Low CH Idle) + Rear Camera Recording**

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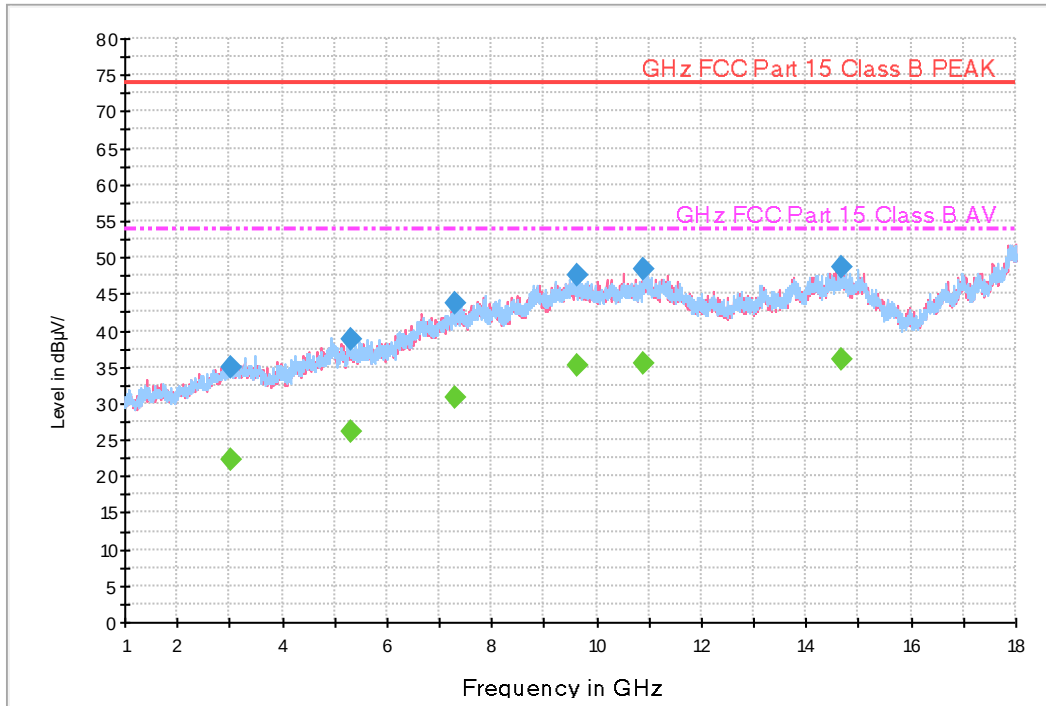
Frequency (MHz)	Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
3037.730000	34.7	100.0	H	322.0	-21.0	39.3	74.0
5623.935000	39.0	306.4	V	242.0	-15.1	35.0	74.0
7341.520000	44.2	188.6	H	270.0	-9.7	29.8	74.0
9615.315000	48.7	111.6	H	124.0	-5.1	25.3	74.0
10847.395000	48.5	248.9	H	231.0	-2.7	25.5	74.0
14690.325000	48.7	150.0	V	70.0	1.0	25.3	74.0

Frequency (MHz)	CAverage (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
3037.730000	22.2	100.0	H	322.0	-21.0	31.8	54.0
5623.935000	26.4	306.4	V	242.0	-15.1	27.6	54.0
7341.520000	31.3	188.6	H	270.0	-9.7	22.7	54.0
9615.315000	35.4	111.6	H	124.0	-5.1	18.6	54.0
10847.395000	35.4	248.9	H	231.0	-2.7	18.6	54.0
14690.325000	35.6	150.0	V	70.0	1.0	18.4	54.0

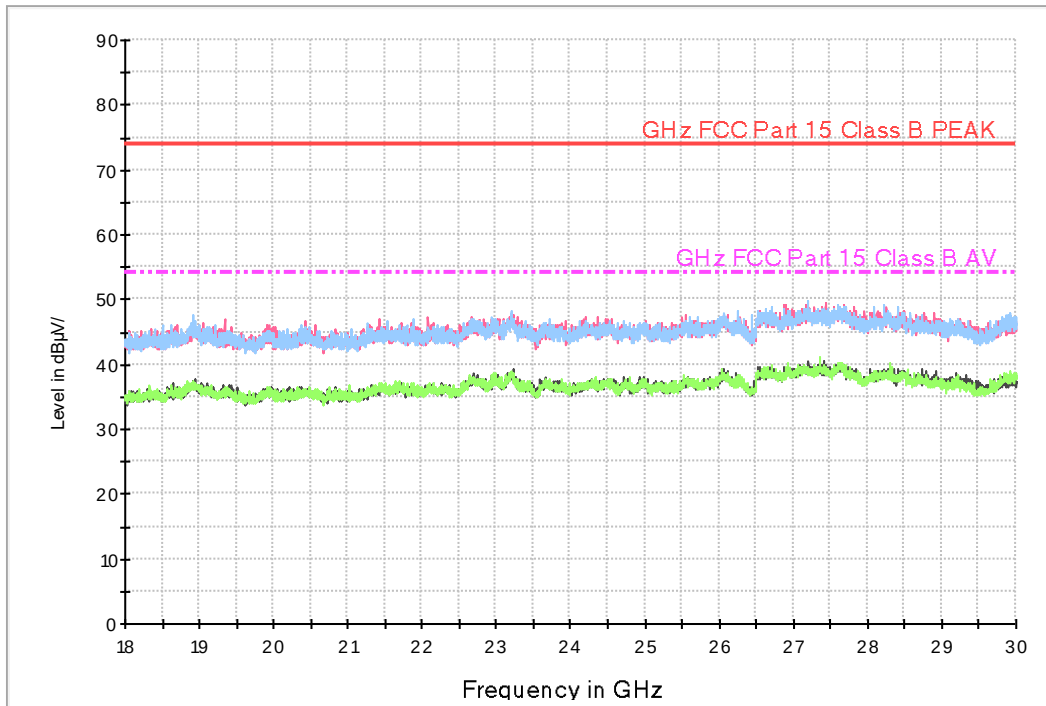


Figure 22: [EUT&TA] Receiver Mode (LTE B14 Low CH Idle) + Front Camera Preview

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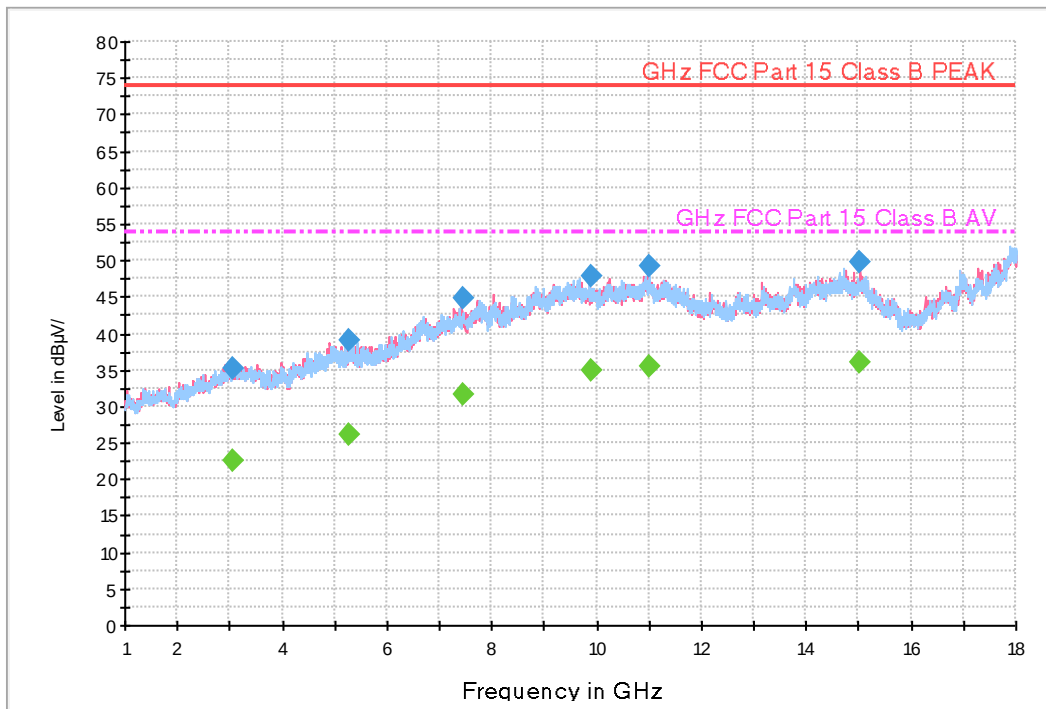


Frequency (MHz)	Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
3022.020000	34.8	150.0	V	179.0	-21.0	39.2	74.0
5302.065000	38.8	221.6	V	37.0	-15.4	35.2	74.0
7285.290000	43.8	110.5	V	193.0	-9.9	30.2	74.0
9635.975000	47.7	322.7	H	58.0	-5.1	26.3	74.0
10901.185000	48.5	299.6	V	0.0	-2.6	25.5	74.0
14681.570000	48.7	149.9	H	156.0	1.0	25.3	74.0

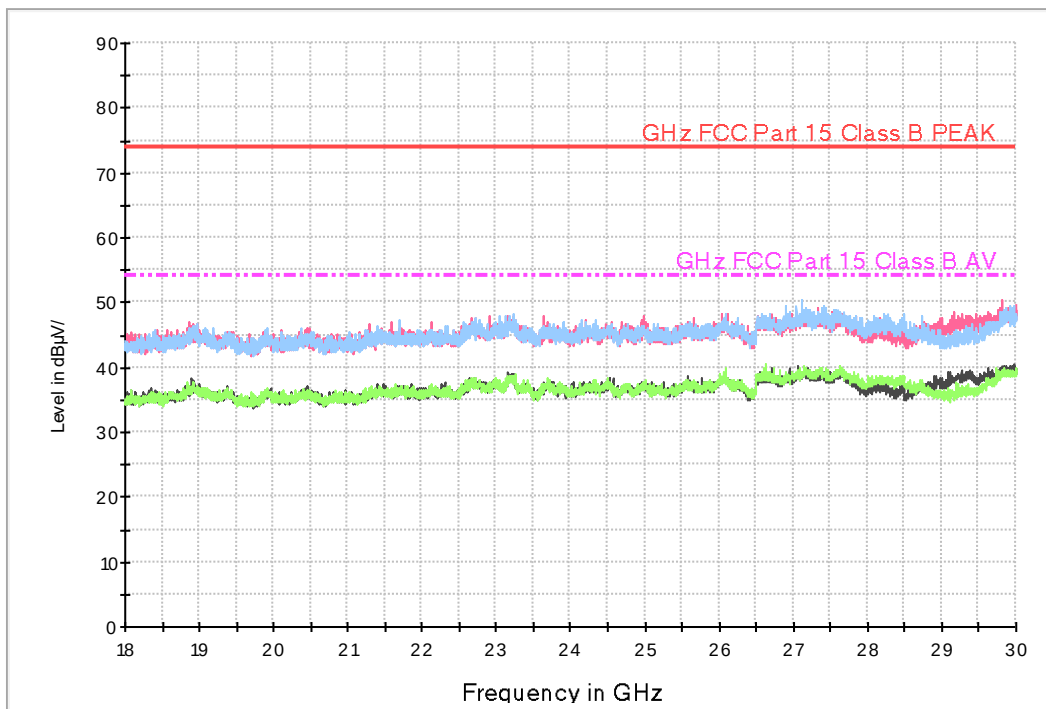
Frequency (MHz)	CAverage (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
3022.020000	22.2	150.0	V	179.0	-21.0	31.8	54.0
5302.065000	26.1	221.6	V	37.0	-15.4	27.9	54.0
7285.290000	30.7	110.5	V	193.0	-9.9	23.3	54.0
9635.975000	35.2	322.7	H	58.0	-5.1	18.8	54.0
10901.185000	35.5	299.6	V	0.0	-2.6	18.5	54.0
14681.570000	35.9	149.9	H	156.0	1.0	18.1	54.0

**Figure 23: [EUT&TA] Receiver Mode (LTE B71 High CH Idle) + Rear Camera Preview**

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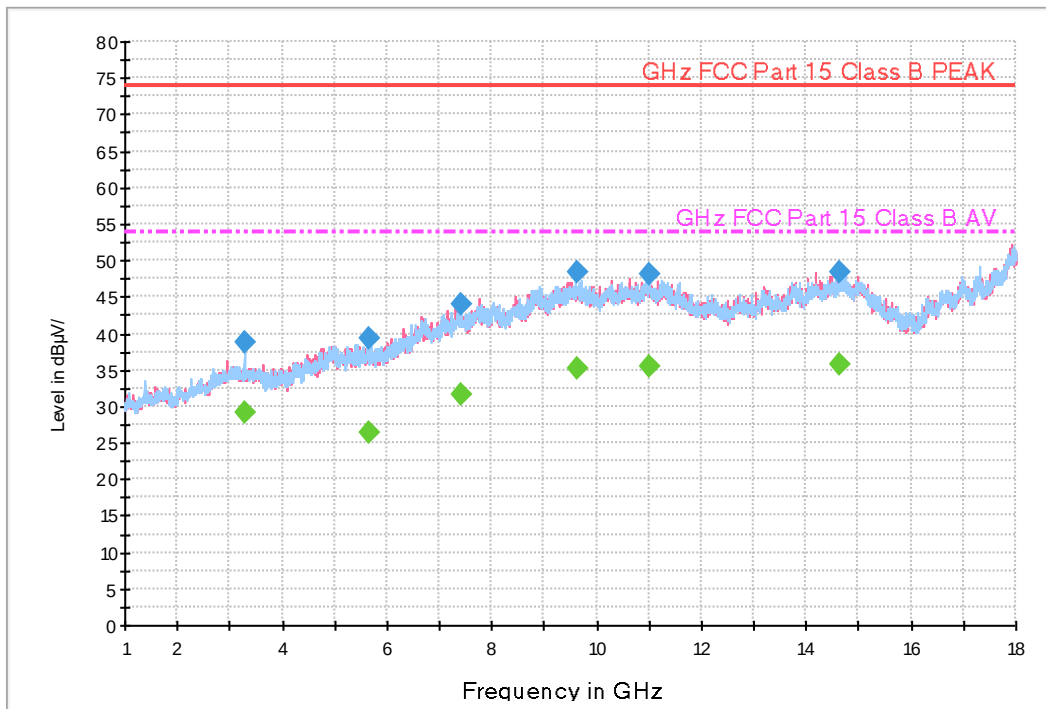
Frequency (MHz)	Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
3064.075000	35.2	100.0	V	88.0	-20.9	38.8	74.0
5294.975000	39.0	248.6	V	38.0	-15.4	35.0	74.0
7439.530000	44.9	198.6	V	201.0	-9.4	29.1	74.0
9893.430000	47.9	291.5	H	317.0	-5.1	26.1	74.0
11002.360000	49.2	244.5	V	180.0	-2.4	24.8	74.0
15014.280000	49.7	249.9	V	105.0	1.3	24.3	74.0

Frequency (MHz)	CAverage (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
3064.075000	22.5	100.0	V	88.0	-20.9	31.5	54.0
5294.975000	26.2	248.6	V	38.0	-15.4	27.8	54.0
7439.530000	31.7	198.6	V	201.0	-9.4	22.3	54.0
9893.430000	35.0	291.5	H	317.0	-5.1	19.0	54.0
11002.360000	35.6	244.5	V	180.0	-2.4	18.4	54.0
15014.280000	36.0	249.9	V	105.0	1.3	18.0	54.0

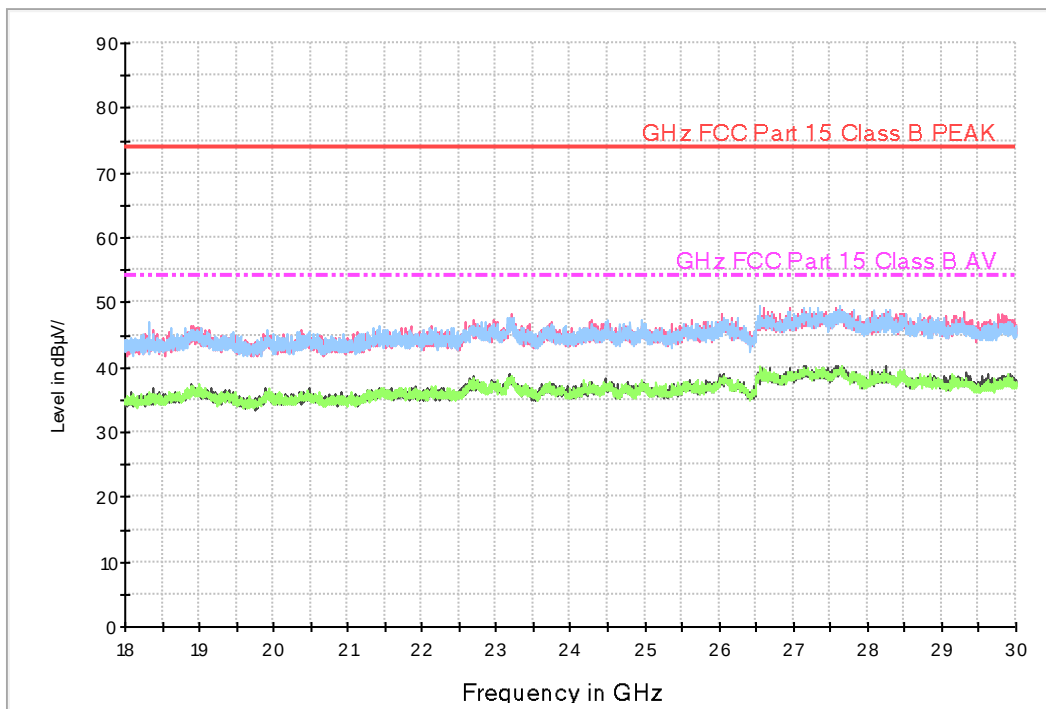


Figure 24: [EUT&TA] MP4 Play Mode

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Frequency (MHz)	Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
3276.070000	38.7	100.0	H	74.0	-20.8	35.3	74.0
5653.790000	39.4	349.8	H	54.0	-15.0	34.6	74.0
7433.755000	44.1	149.6	H	28.0	-9.4	29.9	74.0
9633.660000	48.5	150.0	H	50.0	-5.1	25.5	74.0
10999.300000	48.2	249.7	H	296.0	-2.4	25.8	74.0
14650.775000	48.3	176.4	V	297.0	0.9	25.7	74.0

Frequency (MHz)	CAverage (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
3276.070000	29.1	100.0	H	74.0	-20.8	24.9	54.0
5653.790000	26.4	349.8	H	54.0	-15.0	27.6	54.0
7433.755000	31.6	149.6	H	28.0	-9.4	22.4	54.0
9633.660000	35.3	150.0	H	50.0	-5.1	18.7	54.0
10999.300000	35.5	249.7	H	296.0	-2.4	18.5	54.0
14650.775000	35.7	176.4	V	297.0	0.9	18.3	54.0



6. CONCLUSION

The data collected shows that the **EUT Type: Tablet, Model Name: SM-T307U** complies with §15.107 and §15.109 of the FCC rules.



7. APPENDIX A. TEST SETUP PHOTO

Please refer to EMI Test Setup Photo and test setup photo file no. as follows;

Rev. No.	Issue Date	File No.
0	November 29, 2019	HCT-EM-1911-FI004-P
1	December 23, 2019	HCT-EM-1911-FI004-R1-P

End of report