

TEST REPORT

EMC Test for SM-X526B

APPLICANT
SAMSUNG Electronics Co., Ltd.

REPORT NO.
HCT-EM-2502-FC003

DATE OF ISSUE
February 12, 2025

Tested by
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TEST REPORT

FCC Certification

REPORT NO.

HCT-EM-2502-FC003

DATE OF ISSUE

February 12, 2025

FCC ID.

A3LSMX528U

Applicant

SAMSUNG Electronics Co., Ltd.

129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do,
16677, Korea

Product Name

Tablet

Model Name

SM-X528U

Date of Test

01.14.2025 ~ 02.04.2025

Location of Test

☒ Permanent Testing Lab ☐ On Site Testing Lab
(Address: See clause 1.2)

Test Standard Used

FCC CFR 47 PART 15 Subpart B Class B
ANSI C63.4-2014

Test Results

Refer to the present document

Manufacturer

SAMSUNG Electronics Co., Ltd.

REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	February 12, 2025	Initial Release

Notice

Content

The results shown in this test report only apply to the sample(s), as received, provided by the applicant, unless otherwise stated.

The test results have only been applied with the test methods required by the standard(s).

The laboratory is not accredited for the test results marked *.

Information provided by the applicant is marked **.

Test results provided by external providers are marked ***.

When confirmation of authenticity of this test report is required, please contact www.hct.co.kr

The test results in this test report are not associated with the ((KS Q) ISO/IEC 17025) accreditation by KOLAS (Korea Laboratory Accreditation Scheme) that are under the ILAC (International Laboratory Accreditation Cooperation) Mutual Recognition Agreement (MRA).

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1. TESTING LABORATORY

1.1 General Information

Organization Name	HCT CO., LTD.
Address	74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea
Telephone	+82 31 645 6300
FAX	+82 31 645 6401

1.2 Location of the Test Site

The test site is located at the following address.;

Address	74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea
Telephone	+82 31 645 6300
FAX	+82 31 645 6401

2. GENERAL INFORMATION

2.1 Description of EUT

FCC ID	A3LSMX528U
Product Name	Tablet
Model Name	SM-X528U
Operating Frequency Band	WCDMA FDD 1/2/4/5/8, LTE FDD 1/2/3/4/5/7/12/13/14/20/25/26/28/29/30/66/71 TDD 38/39/40/41/48, 5G FR1 n2/5/25/29/30/41/48/66/70/71/77/78 BT BDR/EDR/LE, WLAN a/b/g/n/ac/ax, GNSS
Testing Frequency Band	WCDMA B2/B4/B5, LTE B2/B4/B5/B7/B12/B13/B14/B25/B26/B30/B38/B41/B48/B66/B71, 5G NR n2/n5/n25/n30/n41/n48/n66/n70/n71/n77/n78, BT BDR/EDR/LE, GNSS, WLAN a/b/g/n/ac/ax
Manufacturer	SAMSUNG Electronics Co., Ltd.

2.2 Power Source

During the test, the following power supply levels are utilized/provided.;

Power supply: AC 120 V, 60 Hz

2.3 Tested System Details

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

Device Type	Model Name	Serial Number	Manufacturer
Tablet	SM-X528U	-	SAMSUNG Electronics Co., Ltd.
TA ^{a)}	EP-T2510	-	DONGYANG E&P
Data Cable	EP-DN980	-	RFTECH
Earphone	EO-IC100	-	CRESYN
Book Cover Keyboard	EF-DX720	-	SAMSUNG
SPEN	EJ-PX510	-	WACOM

a) Input: 100~240 V, 50~60 Hz, 0.7 A / Output: (PDO)5.0 V, 3.0 A or 9.0 V, 2.77 A (PPS)3.3~11.0 V, 2.25 A

2.4 Cable Description

Product Name	Port	Power Cord Shielded (Y/N)	I/O Cable Shielded (Y/N)	Length (m)
EUT	USB Type C (Data Cable)	Y	N/A	(P) 1.0
	USB Type C (Earphone)	N/A	N	(D) 1.3
	Pogo Pin (Book Cover Keyboard)	N/A	N/A	N/A

“(D)” data cable and “(P)” power cable

2.5 Noise Suppression Parts on Cable (I/O Cable)

Product Name	Port	Ferrite Bead (Y/N)	Location	Metal Hood (Y/N)	Location
EUT	Data Cable (USB Type C)	N	N/A	Y	Both End
	Earphone (USB Type C)	N	N/A	Y	EUT End
	Pogo Pin (Book Cover Keyboard)	N/A	N/A	N/A	N/A

2.6 Test Facility

The 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 and ANSI C63.4a-2017

Our laboratories are accredited and designated in accordance with the provisions of Radio Waves ACT and International Standard ISO/IEC 17025:2017. (National Radio Research Agency, CABID No. KR0032)

2.7 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.

2.8 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	Test Site	Expanded Uncertainty
Conducted Emission	EMI Shield Room	1.5 dB
Radiated Emission	3 m Semi Anechoic Chamber #1	30 MHz to 1 GHz: 5.8 dB
		1 GHz to 18 GHz: 4.9 dB
		18 GHz to 40 GHz: 5.9 dB

3. DESCRIPTION OF TESTING

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)	Class A		Class B	
		Quasi-Peak (dBμV)	Average (dBμV)	Quasi-Peak (dBμV)	Average (dBμV)
0.15 to 0.5	9	79	66	66 to 56*	56 to 46*
0.5 to 5	9	73	60	56	46
5 to 30	9	73	60	60	50

NOTE. 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)	Class A			Class B		
	Antenna Distance (m)	Field Strength (μV/m)	Quasi-Peak (dBμV/m)	Antenna Distance (m)	Field Strength (μV/m)	Quasi-Peak (dBμV/m)
30 to 88	10	90	39.0	3	100	40.0
88 to 216	10	150	43.5	3	150	43.5
216 to 960	10	210	46.4	3	200	46.0
Above 960	10	300	49.5	3	500	54.0
Frequency (MHz)	Antenna Distance (m)	Class A		Class B		
		Peak (dBμV/m)	Average (dBμV/m)	Peak (dBμV/m)	Average (dBμV/m)	
Above 1 000	3	80	60	74	54	

Frequency Range of Radiated Measurements

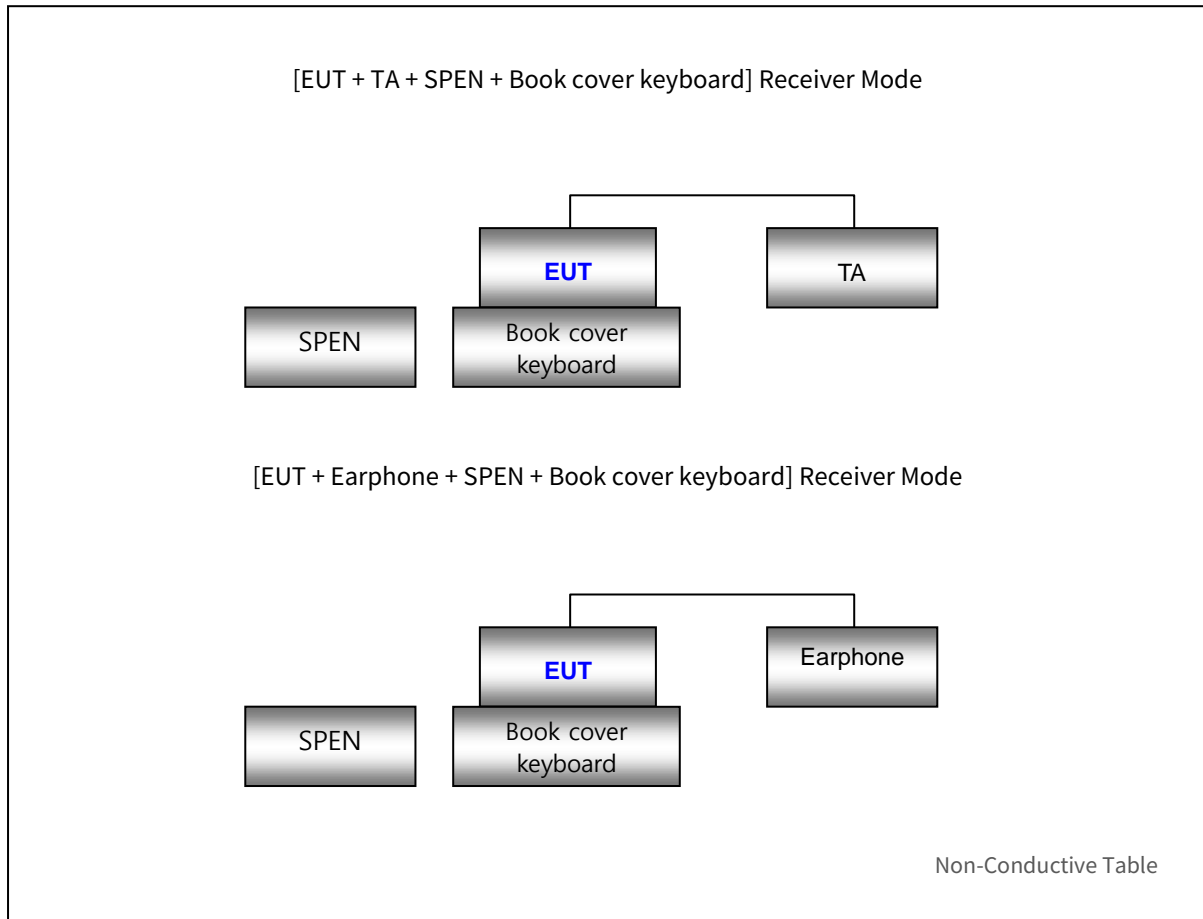
An unintentional radiator, including a digital device, the spectrum shall be investigated from the lowest radio frequency signal generated or used in the device, without going below the lowest frequency for which a Radiated Emission limit is specified, up to the frequency shown in the following table

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	5th harmonic of the highest frequency or 40 GHz, whichever is lower

3.3 Configuration of Tested System

The EUT was configured in the following manner.

At the request of the manufacturer, the configuration of the tests was arranged.



4. OPERATION OF THE EUT

During preliminary tests, the following operating mode was investigated.

Receiver mode(WCDMA B5 Low/Middle/High ch Idle)

Receiver mode(LTE B5_Low/Middle/High ch)

Receiver mode(LTE B12_Low/Middle/High ch)

Receiver mode(LTE B13_Low/Middle/High ch)

Receiver mode(LTE B14_Low/Middle/High ch)

Receiver mode(LTE B26_Low/Middle/High ch)

Receiver mode(LTE B29_Low/Middle/High ch)

Receiver mode(LTE B71_Low/Middle/High ch)

Receiver mode(5G NR n5_Low/Middle/High ch)

Receiver mode(5G NR n29_Low/Middle/High ch)

Receiver mode(5G NR n71_Low/Middle/High ch)

NOTE. The worst case is tested.

4.1 Conducted Emission

Operating Mode: LTE B26 Middle ch Idle

NOTE. The worst case of operating mode is reported.

4.2 Radiated Emission

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

Operating Mode:

Radiated Emission below 1 GHz

[EUT + TA + SPEN + Book cover keyboard]

LTE B5+5G NR n5 Low ch Idle *	LTE B26 Low ch Idle
LTE B5+5G NR n5 Middle ch Idle	LTE B26 Middle ch Idle *
LTE B5+5G NR n5 High ch Idle	LTE B26 High ch Idle
LTE B12+B13 Low ch Idle	LTE B29+5G NR n29 Low ch Idle
LTE B12+B13 Middle ch Idle *	LTE B29+5G NR n29 Middle ch Idle *
LTE B12+B13 High ch Idle	LTE B29+5G NR n29 High ch Idle
LTE B14 Low ch Idle	LTE B71+5G NR n71 Low ch Idle *
LTE B14 Middle ch Idle	LTE B71+5G NR n71 Middle ch Idle
LTE B14 High ch Idle *	LTE B71+5G NR n71 High ch Idle

[EUT + Earphone + SPEN + Book cover keyboard]

LTE B26 Middle ch Idle *

Radiated Emission above 1 GHz

[EUT + TA + SPEN + Book cover keyboard]

LTE B5+5G NR n5 Low ch Idle
LTE B12+B13 Middle ch Idle
LTE B14 High ch Idle
LTE B26 Middle ch Idle *
LTE B29+5G NR n29 Middle ch Idle
LTE B71+5G NR n71 Low ch Idle

[EUT + Earphone + SPEN + Book cover keyboard]

LTE B26 Middle ch Idle *

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. Frequency bands adjacent to each other are tested as one mode.
3. The worst case of operating mode is reported. [*].

5. MEASURING INSTRUMENT

Type	Model Name	Manufacturer	Serial Number	Cal. Cycle	Next Cal. Date (yy.mm.dd)
Conducted emission					
<input checked="" type="checkbox"/> EMI Test Receiver	ESR7	Rohde&Schwarz	101910	1 year	2025.08.27
<input checked="" type="checkbox"/> LISN	ENV216	Rohde&Schwarz	102245	1 year	2025.07.17
<input checked="" type="checkbox"/> Radio communication analyzer	MT8821C	ANRITSU	6262192376	1 year	2025.10.15
<input checked="" type="checkbox"/> Antenna (for Communication)	HyperLOG7060	Aaronia	-	-	-
<input checked="" type="checkbox"/> Software	EMC32	Rohde & Schwarz	-	-	-
Radiated emission below 1 GHz					
<input checked="" type="checkbox"/> EMI Test Receiver	ESU40	Rohde&Schwarz	100524	1 year	2025.05.07
<input checked="" type="checkbox"/> Bilog Antenna	VULB9168	Schwarzbeck	255	2 year	2025.03.10
<input checked="" type="checkbox"/> Antenna master	MA4640-XP-ET	INNCO SYSTEM	-	N/A	-
<input checked="" type="checkbox"/> Antenna master controller	CO3000	INNCO SYSTEM	CO3000/870/35990515/L	N/A	-
<input checked="" type="checkbox"/> Turn Table	1060	INNCO systems	-	N/A	-
<input checked="" type="checkbox"/> Turn Table controller	CO2000	INNCO SYSTEM	CO2000/095/7590304/L	N/A	-
<input checked="" type="checkbox"/> Universal radio communication tester	CMU200	Rohde & Schwarz	107488	1 year	2025.09.24
<input checked="" type="checkbox"/> Wideband Radio Communication Tester	CMW500	Rohde & Schwarz	103246	1 year	2025.09.02
<input checked="" type="checkbox"/> Radio Communication Analyzer	MT8820C	Anritsu	6201181706	1 year	2025.03.29
<input checked="" type="checkbox"/> Radio communication analyzer	MT8821C	ANRITSU	6262192376	1 year	2025.10.15
<input checked="" type="checkbox"/> Radio communication analyzer	MT8000A	ANRITSU	6262208294	1 year	2025.10.14
<input checked="" type="checkbox"/> Antenna (for Communication)	HyperLOG7060	Aaronia	-	-	-
<input checked="" type="checkbox"/> Antenna (for Communication)	HyperLOG7060	Aaronia	-	-	-
<input checked="" type="checkbox"/> Software	EMC32	Rohde & Schwarz	-	-	-

Type	Model Name	Manufacturer	Serial Number	Calibration Cycle	Next Calibration Date	
Radiated emission above 1 GHz						
<input checked="" type="checkbox"/>	EMI test receiver	ESU40	Rohde & Schwarz	100524	1 year	2025.05.07
<input checked="" type="checkbox"/>	Antenna master	MA4640-XP-ET	INNCO SYSTEM	-	N/A	-
<input checked="" type="checkbox"/>	Antenna master controller	CO3000	INNCO SYSTEM	CO3000/870/35990515/L	N/A	-
<input checked="" type="checkbox"/>	Turn Table	1060	INNCO SYSTEM	-	N/A	-
<input checked="" type="checkbox"/>	Turn Table controller	CO2000	INNCO SYSTEM	CO2000/095/7590304/L	N/A	-
<input checked="" type="checkbox"/>	Low Noise Amplifier	TK-PA18H	TESTEK	170034-L	1 year	2025.10.14
<input checked="" type="checkbox"/>	Low Noise Amplifier	TK-PA1840H	TESTEK	170030-L	1 year	2025.02.20
<input checked="" type="checkbox"/>	Horn Antenna	HF907	Rohde & Schwarz	103160	1 year	2025.10.15
<input checked="" type="checkbox"/>	Horn Antenna	BBHA 9170	Schwarzbeck	BBHA9170 #786	1 year	2025.10.30
<input checked="" type="checkbox"/>	Universal radio communication tester	CMU200	Rohde & Schwarz	107488	1 year	2025.09.24
<input checked="" type="checkbox"/>	Wideband Radio Communication Tester	CMW500	Rohde & Schwarz	103246	1 year	2025.09.02
<input checked="" type="checkbox"/>	Radio Communication Analyzer	MT8820C	Anritsu	6201181706	1 year	2025.03.29
<input checked="" type="checkbox"/>	Radio communication analyzer	MT8821C	ANRITSU	6262192376	1 year	2025.10.15
<input checked="" type="checkbox"/>	Radio communication analyzer	MT8000A	ANRITSU	6262208294	1 year	2025.10.14
<input checked="" type="checkbox"/>	Antenna (for Communication)	HyperLOG7060	Aaronia	-	-	-
<input checked="" type="checkbox"/>	Antenna (for Communication)	HyperLOG7060	Aaronia	-	-	-
<input checked="" type="checkbox"/>	Software	EMC32	Rohde & Schwarz	-	-	-

6. EMISSION TEST SUMMARY

6.1 Conducted Emission

6.1.1 Operating Condition

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

Date of Test (yy.mm.dd)	2025.02.04		
Temperature	min. 18.4 °C	Relative Humidity	min. 21.9 %
	max. 21.8 °C		max. 25.0 %
Test Site	EMI Shield Room		
Test Standard Used	FCC CFR 47 PART 15 Subpart B Class B ANSI C63.4-2014		
Frequency Range	0.15 MHz to 30 MHz		
Detector	Quasi-Peak, CISPR-Average		
Bandwidth	9 kHz (6 dB)		
Operating Mode	LTE B26 Middle ch Idle		

A conducted emission is calculated by the following equation.;

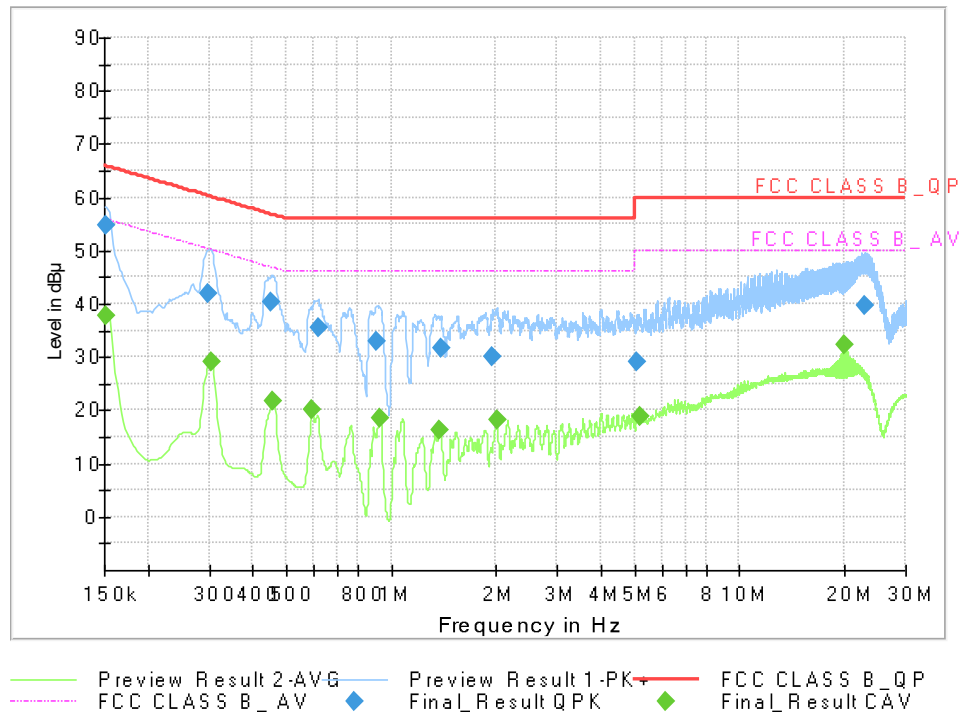
Calculation Formula: $A = B + C$ Where
A: QuasiPeak or CAverage in dBμV
B: Receiver reading in dBμV
C: Corr. in dB (LISN Factor + Cable Loss)
Margin in dB = Limit - QuasiPeak or CAverage
L1 = Live, N = Neutral

The measurements from both Live (L1) and Neutral (N) of the LISN are combined into a single graph.

6.1.2 Measurement Data

LTE B26 Middle ch Idle Mode

Full Spectrum



Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.1523	54.80	65.88	11.08	9.000	N	9.6
0.2963	41.98	60.35	18.37	9.000	N	9.6
0.4538	40.22	56.81	16.59	9.000	L1	9.7
0.6170	35.64	56.00	20.36	9.000	L1	9.7
0.9050	32.95	56.00	23.05	9.000	L1	9.7
1.3865	31.57	56.00	24.43	9.000	L1	9.7
1.9603	30.11	56.00	25.89	9.000	L1	9.7
5.0990	28.96	60.00	31.04	9.000	L1	9.9
22.8335	39.69	60.00	20.31	9.000	N	10.6

Frequency (MHz)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.1523	37.76	55.88	18.12	9.000	N	9.6
0.3030	29.04	50.16	21.12	9.000	N	9.6
0.4583	21.83	46.72	24.89	9.000	L1	9.7
0.5945	19.99	46.00	26.01	9.000	L1	9.7
0.9275	18.62	46.00	27.38	9.000	L1	9.7
1.3708	16.23	46.00	29.77	9.000	L1	9.7
2.0053	18.34	46.00	27.66	9.000	L1	9.7
5.1710	18.80	50.00	31.20	9.000	L1	9.9
19.9310	32.45	50.00	17.55	9.000	L1	10.4

6.2 Radiated Emission Below 1 GHz

6.2.1 Operating Condition

The test results of radiated emission provide the following information:

Date of Test (yy.mm.dd)	2025.01.14 ~ 2025.02.04						
Temperature	min.	17.1	°C	Relative Humidity	min.	21.5	%
	max.	23.2	°C		max.	27.8	%
Test Site	3 m Semi Anechoic Chamber #1						
Used Test Standard	FCC CFR 47 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)						
Measurement distance	3 m						
Antenna Height	1 m to 4 m						
Operating Mode	[EUT+TA]	LTE B5+5G NR n5 Low ch Idle LTE B12+B13 Middle ch Idle LTE B14 High ch Idle LTE B26 Middle ch Idle LTE B29+5G NR n29 Middle ch Idle LTE B71+5G NR n71 Low ch Idle					
	[EUT+Earphone]	LTE B26 Middle ch Idle					

A field strength is calculated by the following equation.;

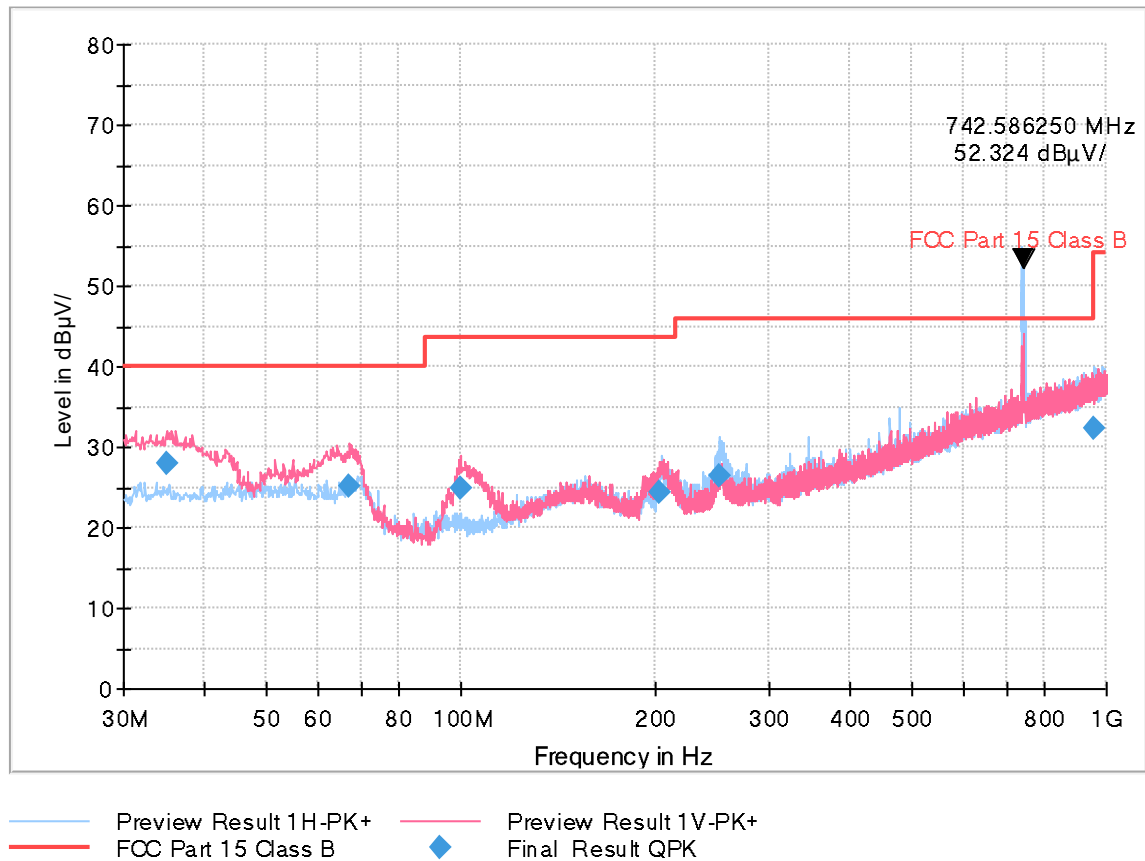
Calculation Formula: $A = B + C$ Where
A: Quasi Peak in dBμV/m (Field strength)
B: Receiver reading in dBμV
C: Corr. in dB (Cable loss + Antenna factor)
Margin in dB = Limit - QuasiPeak

The measurements' polarities are H and V, where H stands for horizontal and V stands for vertical.

6.2.2 Measurement Data

[[EUT+TA] LTE B26 Middle Ch idle Mode]

Full Spectrum

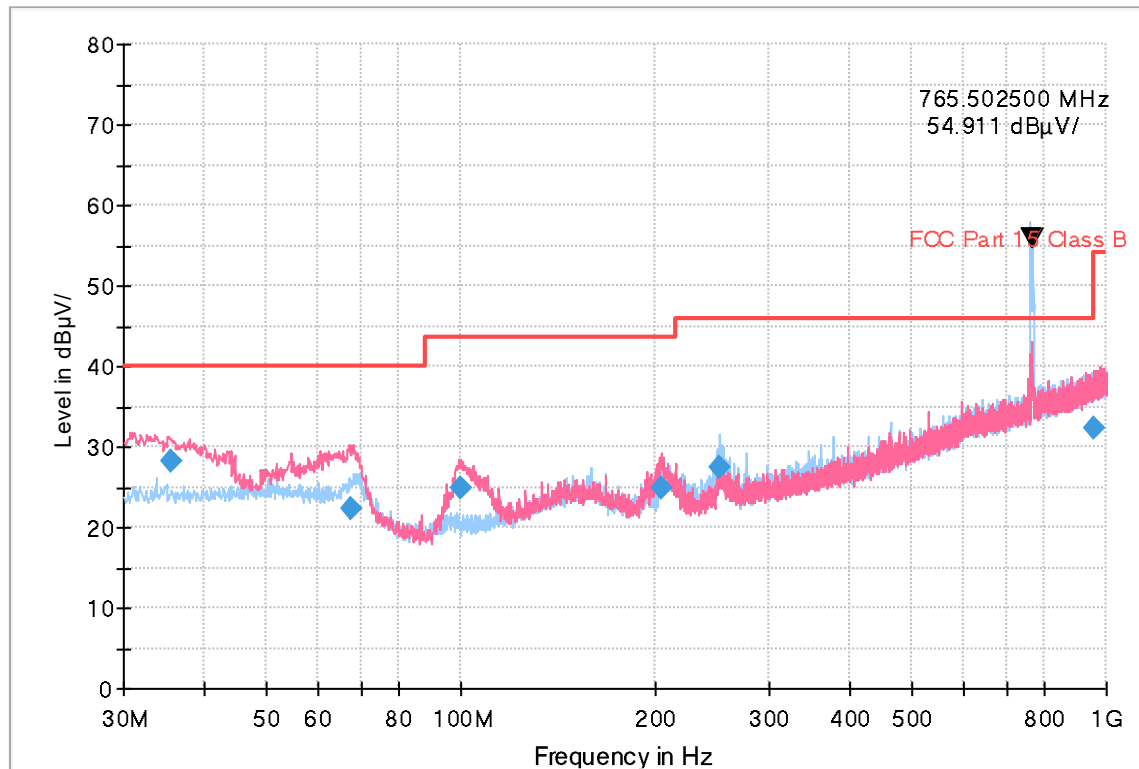


Carrier Frequency: Rx 742.5862 MHz. These are signals for fundamental frequency from the base station

Frequency	QuasiPeak	Height	Pol.	Azimuth	Corr.	Margin	Limit
[MHz]	[dBμV/m]	[cm]	[H/V]	[deg]	[dB]	[dB]	[dBμV/m]
34.9443	27.92	100.0	V	133.0	19.1	12.08	40.00
67.1986	25.09	107.8	V	299.0	18.8	14.91	40.00
99.6415	24.80	100.0	V	311.0	15.3	18.70	43.50
202.4067	24.48	100.0	V	149.0	17.2	19.02	43.50
251.8505	26.50	105.6	H	198.0	19.1	19.50	46.00
953.9426	32.37	183.0	H	15.0	32.2	13.63	46.00

[[EUT+TA] LTE B14 High Ch idle Mode]

Full Spectrum



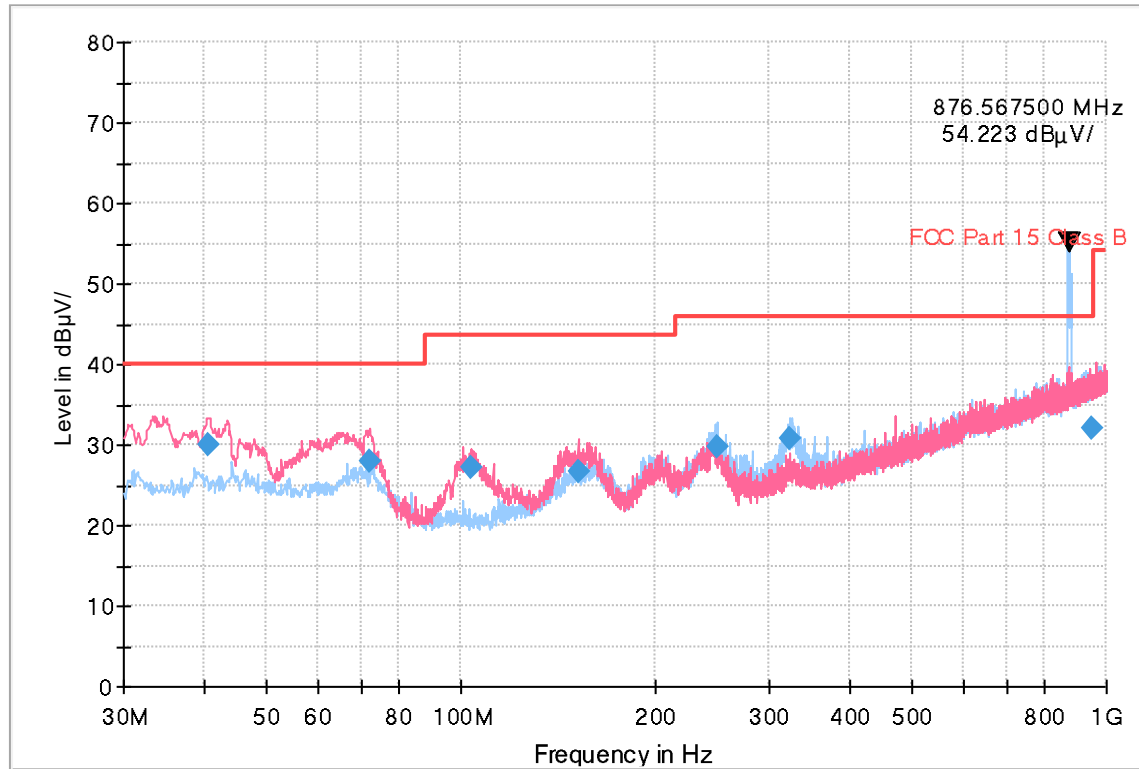
Preview Result 1H-PK+ Preview Result 1V-PK+
FOC Part 15 Class B Final Result QPK

Carrier Frequency: Rx 765.5025 MHz. These are signals for fundamental frequency from the base station

Frequency	QuasiPeak	Height	Pol.	Azimuth	Corr.	Margin	Limit
[MHz]	[dBμV/m]	[cm]	[H/V]	[deg]	[dB]	[dB]	[dBμV/m]
35.4470	28.17	100.0	V	171.0	19.2	11.83	40.00
67.6905	22.38	100.0	V	261.0	18.7	17.62	40.00
99.6260	24.89	100.0	V	302.0	15.3	18.61	43.50
204.7197	24.80	100.0	V	135.0	17.3	18.70	43.50
252.1380	27.38	125.1	H	38.0	19.2	18.62	46.00
955.1314	32.32	274.4	V	317.0	32.2	13.68	46.00

[[EUT+TA] LTE B26 Middle Ch idle Mode]

Full Spectrum



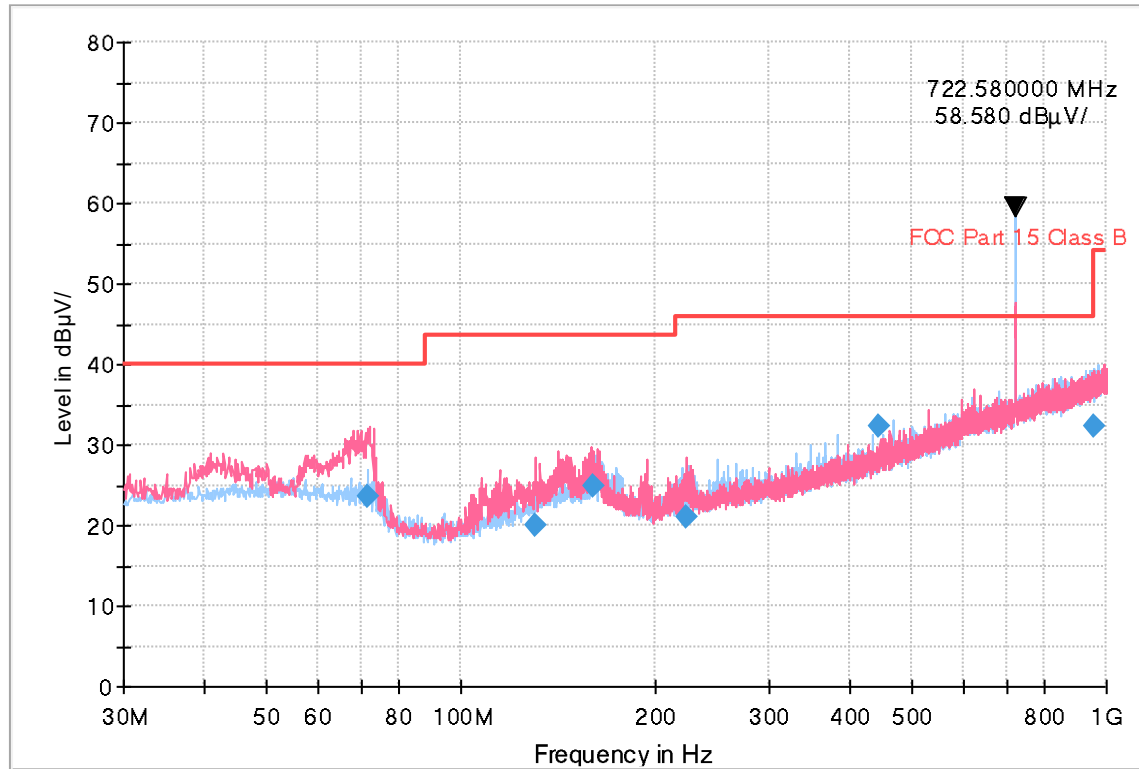
— Preview Result 1H-PK+ — Preview Result 1V-PK+
— FOC Part 15 Class B ◆ Final Result QPK

Carrier Frequency: Rx 876.5675 MHz. These are signals for fundamental frequency from the base station

Frequency	QuasiPeak	Height	Pol.	Azimuth	Corr.	Margin	Limit
[MHz]	[dB μ V/m]	[cm]	[H/V]	[deg]	[dB]	[dB]	[dB μ V/m]
40.7116	29.90	105.3	V	107.0	19.6	10.10	40.00
72.1798	28.00	100.0	V	242.0	17.8	12.00	40.00
103.4712	27.15	100.0	V	139.0	15.7	16.35	43.50
151.6957	26.65	100.0	V	120.0	19.7	16.85	43.50
248.9977	29.79	106.2	H	188.0	19.1	16.21	46.00
322.8309	30.79	100.0	H	52.0	21.1	15.21	46.00
950.5072	32.11	125.3	H	0.0	32.1	13.89	46.00

[[EUT+TA] LTE B29+5G NR n29 Middle Ch idle Mode]

Full Spectrum



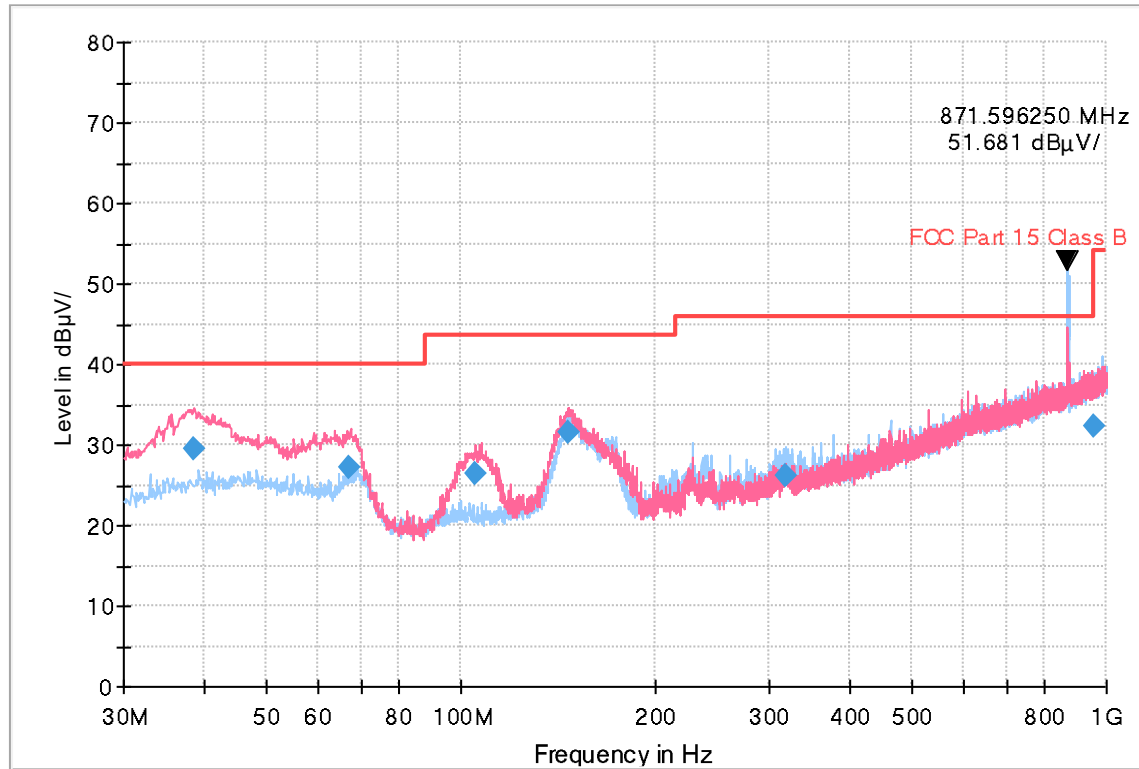
— Preview Result 1H-PK+ — Preview Result 1V-PK+
— FOC Part 15 Class B ◆ Final Result QPK

Carrier Frequency: Rx 722.5800 MHz. These are signals for fundamental frequency from the base station

Frequency	QuasiPeak	Height	Pol.	Azimuth	Corr.	Margin	Limit
[MHz]	[dBμV/m]	[cm]	[H/V]	[deg]	[dB]	[dB]	[dBμV/m]
71.4448	23.68	100.0	V	0.0	18.0	16.32	40.00
130.6085	19.88	100.0	V	181.0	18.5	23.62	43.50
159.9007	24.85	100.0	V	159.0	19.9	18.65	43.50
223.0632	21.14	106.6	V	95.0	18.0	24.86	46.00
443.9377	32.42	100.0	H	175.0	24.1	13.58	46.00
958.9329	32.36	198.7	H	328.0	32.2	13.64	46.00

[[EUT+TA] LTE B5+5G NR n5 Low Ch idle Mode]

Full Spectrum



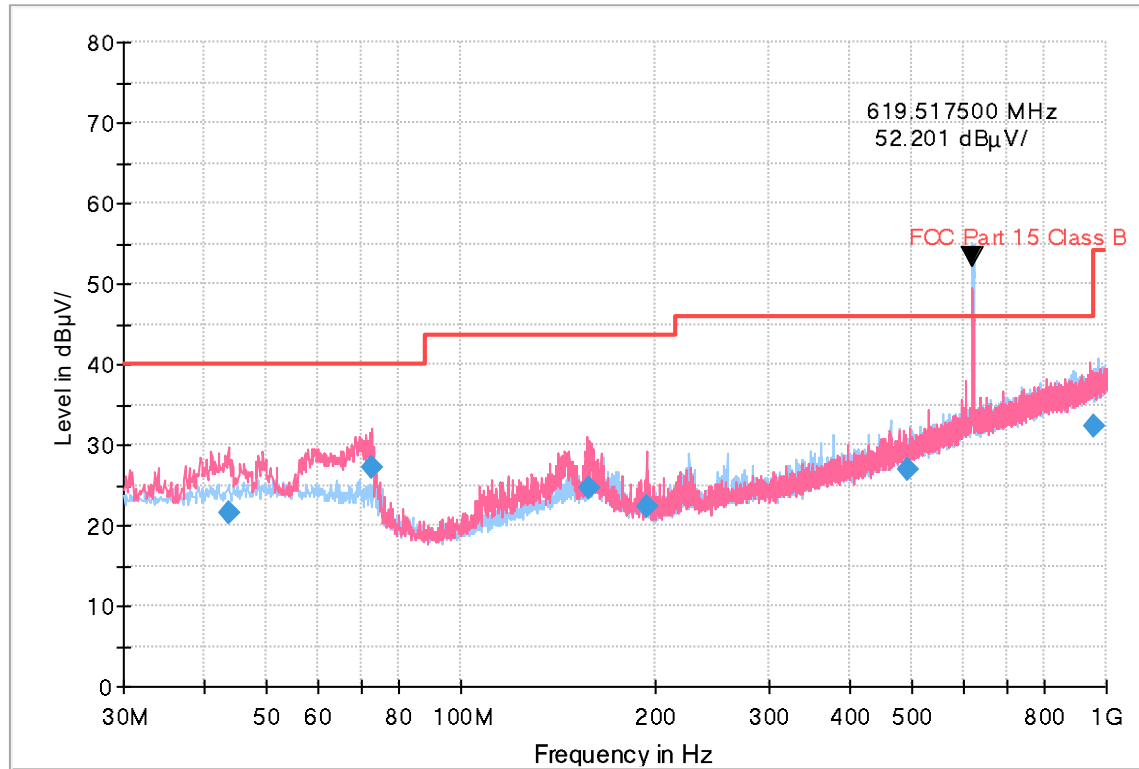
Preview Result 1H-PK+ Preview Result 1V-PK+
FOC Part 15 Class B Final Result QPK

Carrier Frequency: Rx 871.5962 MHz. These are signals for fundamental frequency from the base station

Frequency	QuasiPeak	Height	Pol.	Azimuth	Corr.	Margin	Limit
[MHz]	[dBμV/m]	[cm]	[H/V]	[deg]	[dB]	[dB]	[dBμV/m]
38.4821	29.57	100.0	V	18.0	19.4	10.43	40.00
67.2441	27.23	100.0	V	250.0	18.8	12.77	40.00
105.2584	26.29	100.0	V	152.0	15.9	17.21	43.50
146.2428	31.61	100.0	V	126.0	19.6	11.89	43.50
318.4963	26.10	100.0	H	49.0	21.0	19.90	46.00
955.3711	32.28	400.0	H	292.0	32.2	13.72	46.00

[[EUT+TA] LTE B71+5G NR n71 Low Ch idle Mode]

Full Spectrum



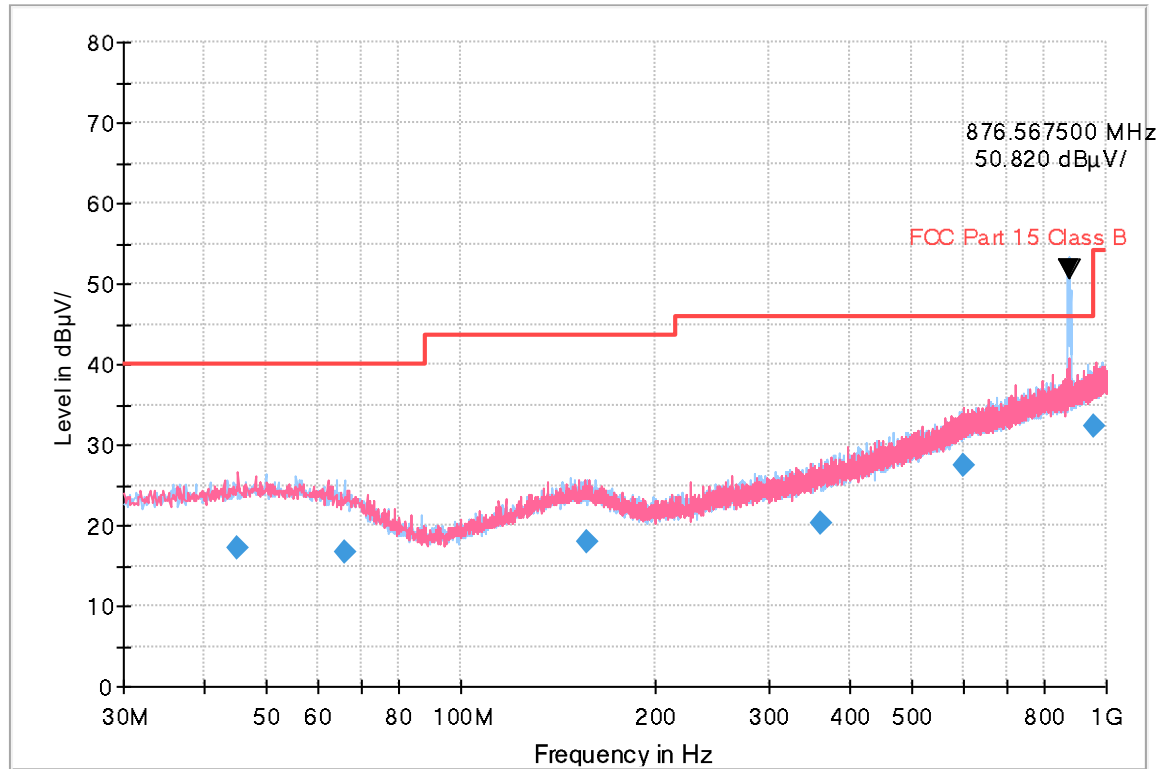
— Preview Result 1H-PK+ — Preview Result 1V-PK+
— FOC Part 15 Class B ◆ Final Result QPK

Carrier Frequency: Rx 619.5175 MHz. These are signals for fundamental frequency from the base station

Frequency	QuasiPeak	Height	Pol.	Azimuth	Corr.	Margin	Limit
[MHz]	[dBμV/m]	[cm]	[H/V]	[deg]	[dB]	[dB]	[dBμV/m]
43.5838	21.43	100.0	V	337.0	19.9	18.57	40.00
72.7559	27.10	100.0	V	251.0	17.6	12.90	40.00
157.8717	24.52	100.0	V	154.0	19.9	18.98	43.50
193.5583	22.23	100.0	V	189.0	17.5	21.27	43.50
492.3413	26.99	105.9	V	328.0	25.2	19.01	46.00
953.2928	32.39	105.3	H	296.0	32.2	13.61	46.00

[[EUT+Earphone] LTE B26 Middle Ch idle Mode]

Full Spectrum



Preview Result 1H-PK+ Preview Result 1V-PK+
FOC Part 15 Class B Final Result QPK

Carrier Frequency: Rx 876.5675 MHz. These are signals for fundamental frequency from the base station

Frequency	QuasiPeak	Height	Pol.	Azimuth	Corr.	Margin	Limit
[MHz]	[dBμV/m]	[cm]	[H/V]	[deg]	[dB]	[dB]	[dBμV/m]
45.1580	17.24	383.5	V	167.0	20.0	22.76	40.00
65.8779	16.57	374.4	H	325.0	18.9	23.43	40.00
156.4366	18.06	325.1	H	280.0	19.8	25.44	43.50
361.5302	20.36	375.0	V	264.0	22.1	25.64	46.00
602.2662	27.56	182.5	V	44.0	27.5	18.44	46.00
954.4567	32.24	274.5	H	71.0	32.2	13.76	46.00

6.3 Radiated Emission Above 1 GHz

6.3.1 Operating Condition

The test results of radiated emission provide the following information:

Date of Test (yy.mm.dd)	2025.02.04						
Temperature	min.	20.3	°C	Relative Humidity	min.	22.9	%
	max.	23.2	°C		max.	25.3	%
Test Site	3 m Semi Anechoic Chamber #1						
Used Test Standard	FCC CFR 47 PART 15 Subpart B Class B ANSI C63.4-2014						
Detector	Peak, CISPR-Average						
Bandwidth	1 MHz						
Highest Frequency	5 885 MHz						
Tested Frequency Range	1 GHz to 40 GHz						
Measurement distance	3 m						
Antenna Height	1 m to 4 m						
Operating Mode	[EUT+TA] LTE B26 Middle ch Idle [EUT+Earphone] LTE B26 Middle ch Idle						

A field strength is calculated by the following equation.;

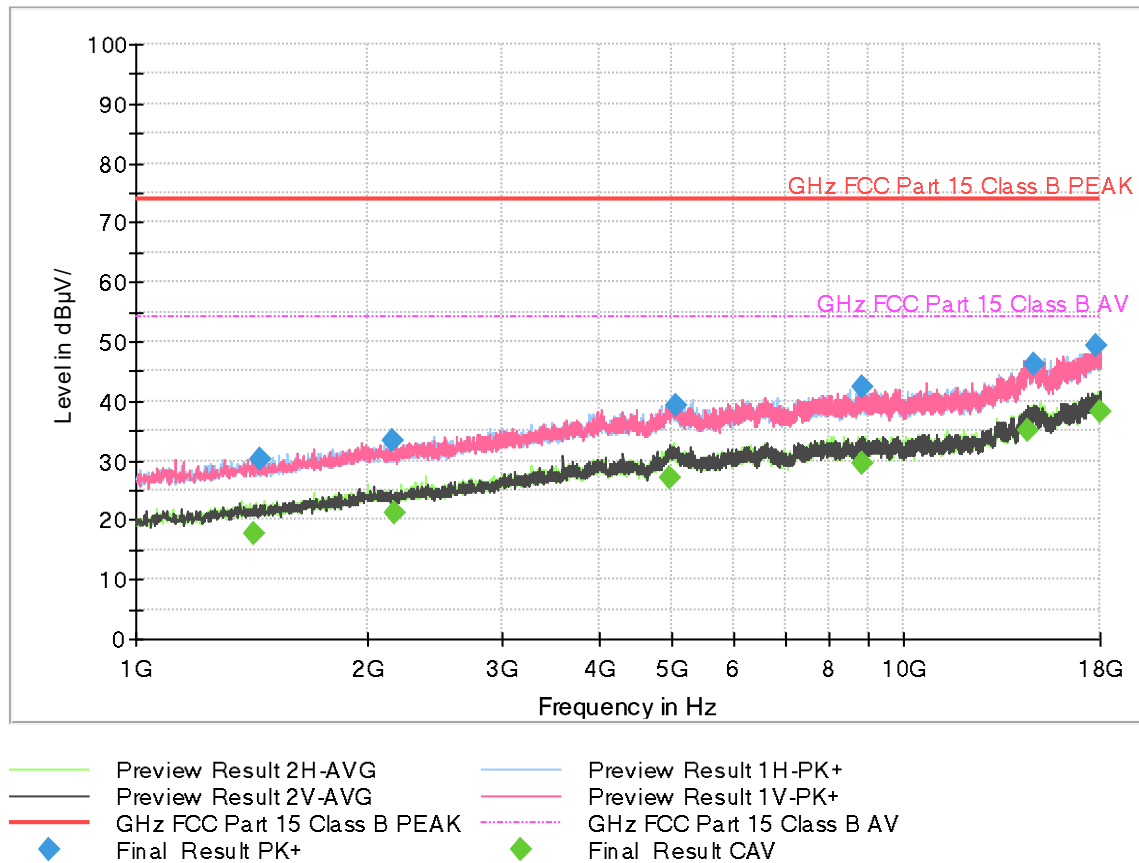
Calculation Formula: $A = B + C$ Where
A: Peak or CAverage in dBμV/m (Field strength)
B: Receiver reading in dBμV
C: Corr. in dB (Cable loss + Antenna factor – Amplifier Gain)
Margin in dB = Limit - Peak or CAverage

The measurements' polarities are H and V, where H stands for horizontal and V stands for vertical.

6.3.2 Measurement Data

[1 GHz - 18 GHz [EUT+Earphone] LTE B26 Middle Ch idle Mode]

Full Spectrum



[Peak]

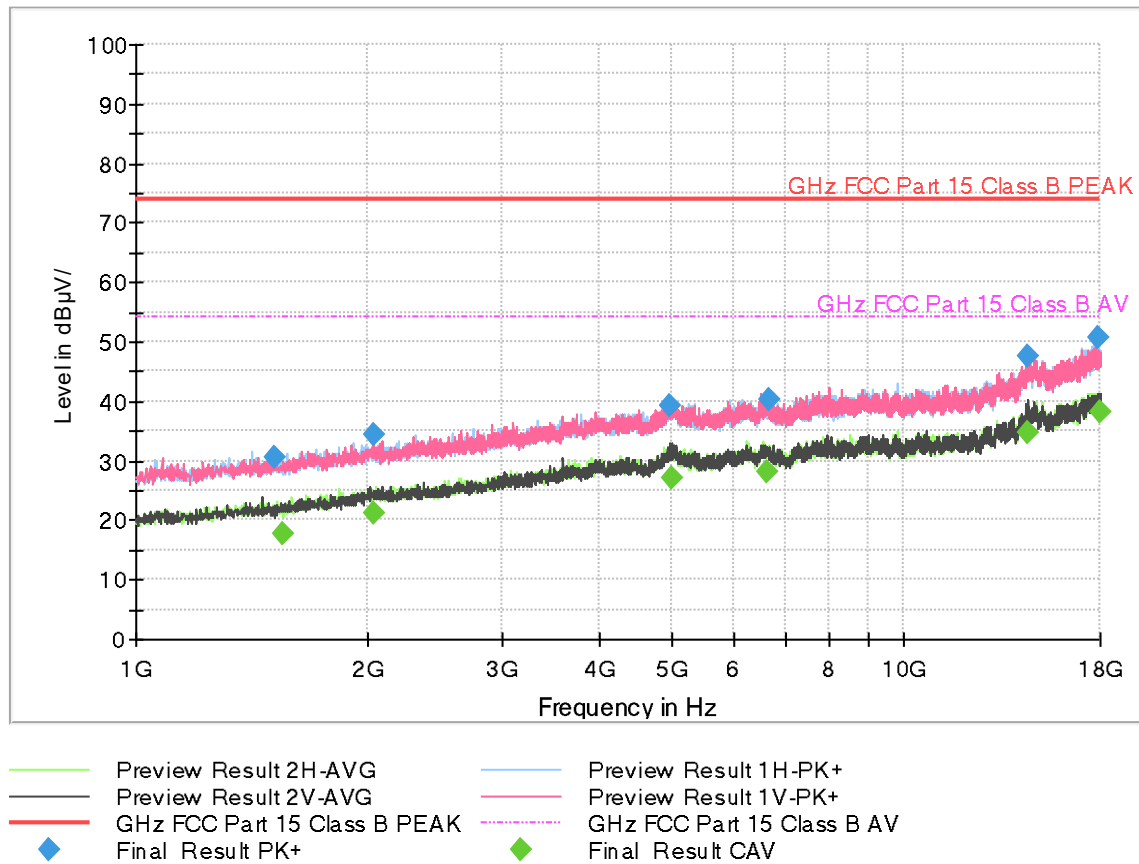
Frequency	Peak	Height	Pol.	Azimuth	Corr.	Margin	Limit
[MHz]	[dBμV/m]	[cm]	[H/V]	[deg]	[dB]	[dB]	[dBμV/m]
1453.0300	30.20	125.0	V	335.0	-29.0	43.80	74.00
2157.1950	33.48	112.5	V	341.0	-25.0	40.52	74.00
5060.0150	39.24	125.2	V	40.0	-14.5	34.76	74.00
8805.5650	42.22	102.4	V	102.0	-9.2	31.78	74.00
14719.0850	46.19	102.2	H	235.0	0.2	27.81	74.00
17795.5350	49.41	180.9	H	144.0	5.5	24.59	74.00

[CAverage]

Frequency	CAverage	Height	Pol.	Azimuth	Corr.	Margin	Limit
[MHz]	[dBμV/m]	[cm]	[H/V]	[deg]	[dB]	[dB]	[dBμV/m]
1426.0250	17.57	174.4	H	331.0	-29.1	36.43	54.00
2172.2650	21.07	100.0	H	93.0	-24.9	32.93	54.00
4939.2150	27.20	224.9	H	221.0	-14.8	26.80	54.00
8835.4400	29.35	125.0	H	201.0	-9.3	24.65	54.00
14520.2700	34.96	125.2	H	206.0	0.0	19.04	54.00
17988.6450	38.28	100.0	V	20.0	6.5	15.72	54.00

[1 GHz - 18 GHz [EUT+TA] LTE B26 Middle Ch idle Mode]

Full Spectrum



[Peak]

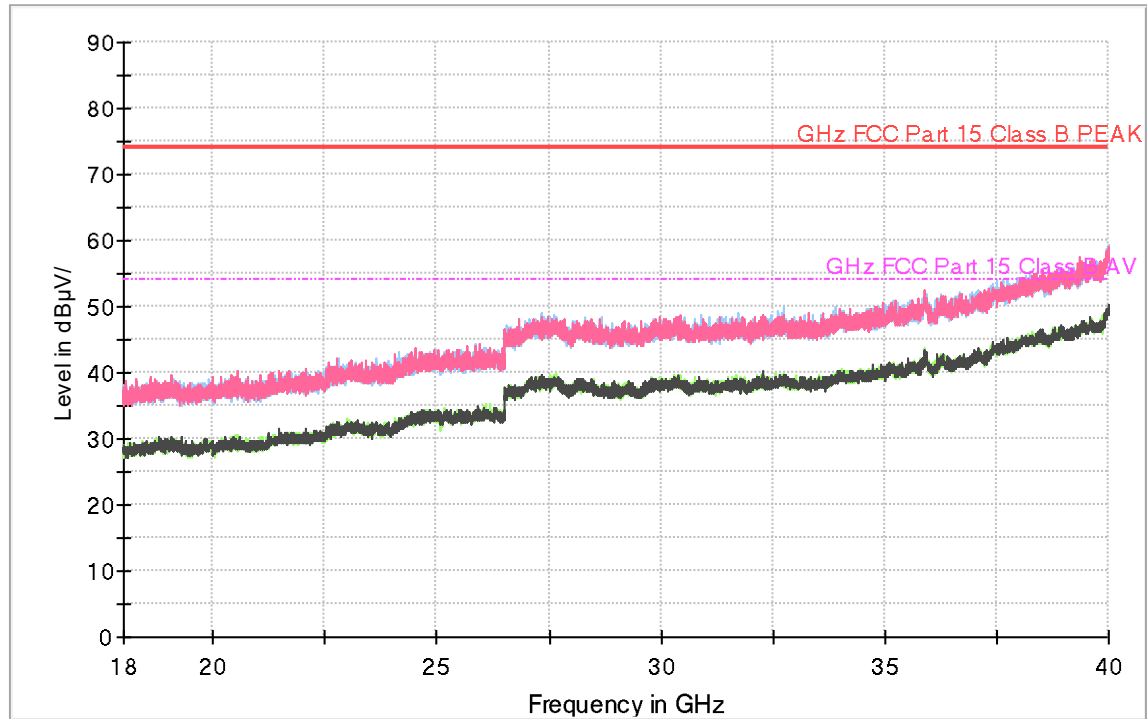
Frequency	Peak	Height	Pol.	Azimuth	Corr.	Margin	Limit
[MHz]	[dBμV/m]	[cm]	[H/V]	[deg]	[dB]	[dB]	[dBμV/m]
1515.7700	30.50	209.2	H	318.0	-28.6	43.50	74.00
2036.2200	34.21	125.2	V	324.0	-25.4	39.79	74.00
4952.2100	39.39	125.2	H	183.0	-14.7	34.61	74.00
6680.8400	40.16	202.6	V	0.0	-11.5	33.84	74.00
14502.2500	47.52	224.8	V	347.0	0.0	26.48	74.00
17929.1200	50.66	125.2	H	296.0	6.2	23.34	74.00

[CAverage]

Frequency	CAverage	Height	Pol.	Azimuth	Corr.	Margin	Limit
[MHz]	[dBμV/m]	[cm]	[H/V]	[deg]	[dB]	[dB]	[dBμV/m]
1556.7250	17.70	177.7	H	29.0	-28.3	36.30	54.00
2035.8200	21.27	174.2	V	199.0	-25.4	32.73	54.00
4977.3350	27.18	117.1	V	25.0	-14.7	26.82	54.00
6640.8600	28.06	177.7	H	25.0	-11.6	25.94	54.00
14531.3000	34.86	100.0	V	73.0	0.0	19.14	54.00
17993.4207	38.27	183.8	H	312.0	6.5	15.73	54.00

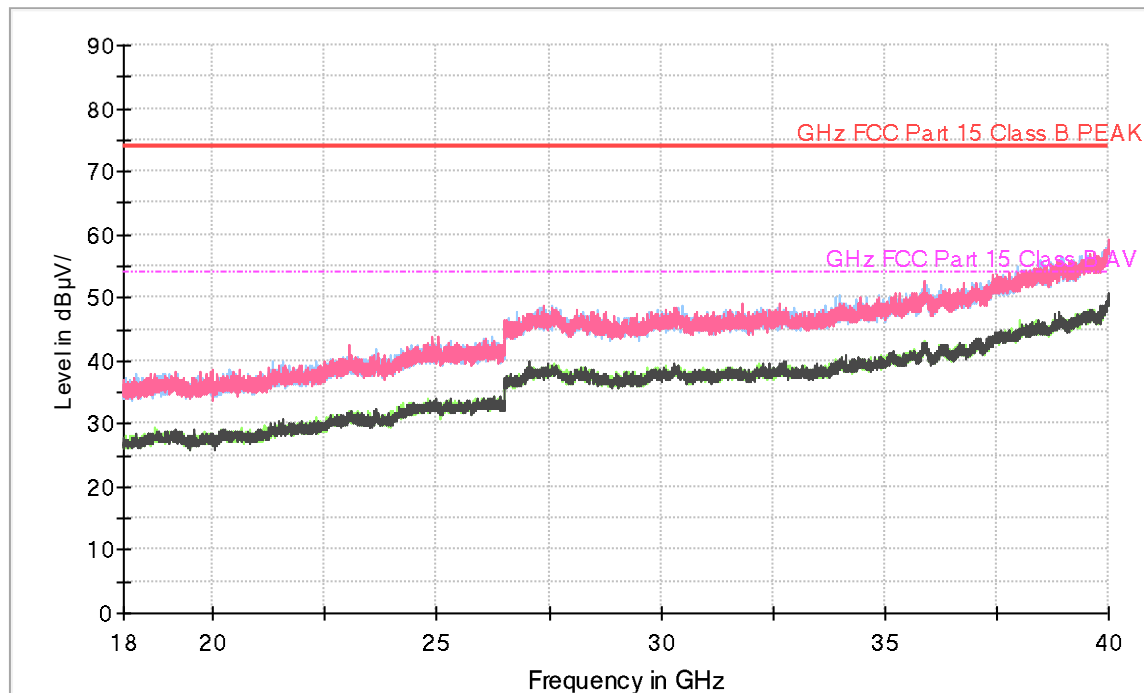
[18 GHz - 40 GHz [EUT+Earphone] LTE B26 Middle Ch idle Mode]

Full Spectrum



[18 GHz - 40 GHz [EUT+TA] LTE B26 Middle Ch idle Mode]

Full Spectrum



- | | |
|------------------------------|----------------------------|
| Preview Result 2H-AVG | Preview Result 1H-PK+ |
| Preview Result 2V-AVG | Preview Result 1V-PK+ |
| * Critical Freqs AVG | * Critical Freqs PK+ |
| GHZ FCC Part 15 Class B PEAK | GHZ FCC Part 15 Class B AV |
| ◆ Final Result PK+ | ◆ Final Result CAV |

APPENDIX A. TEST SETUP PHOTO

Please refer to Appendix. A and test setup photo file no. as follows;

File No.	Date of Issue	Description
HCT-EM-2502-FC003-P	February 12, 2025	Initial Release

End of report