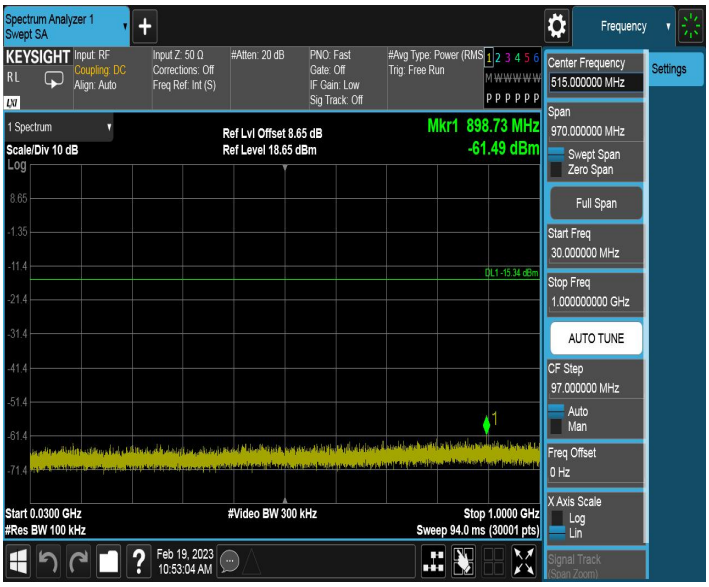
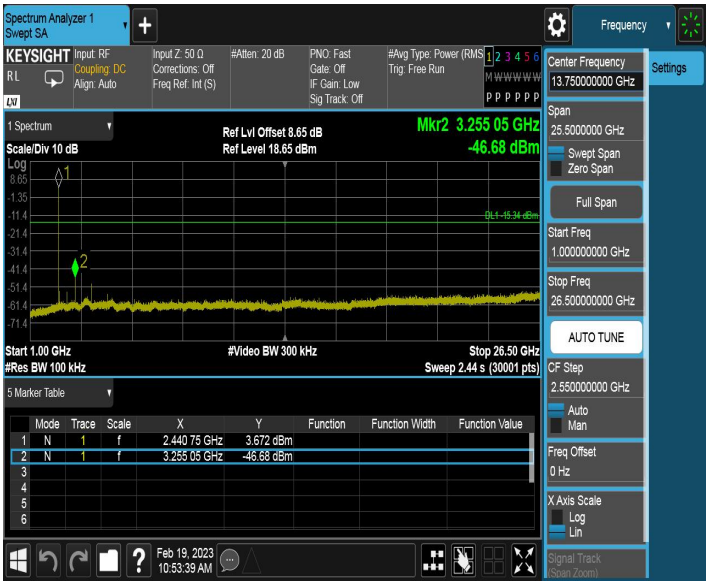
DH5_Ant1_2402_1000~26500

DH5_Ant1_2441_0~Reference

DH5_Ant1_2441_30~1000

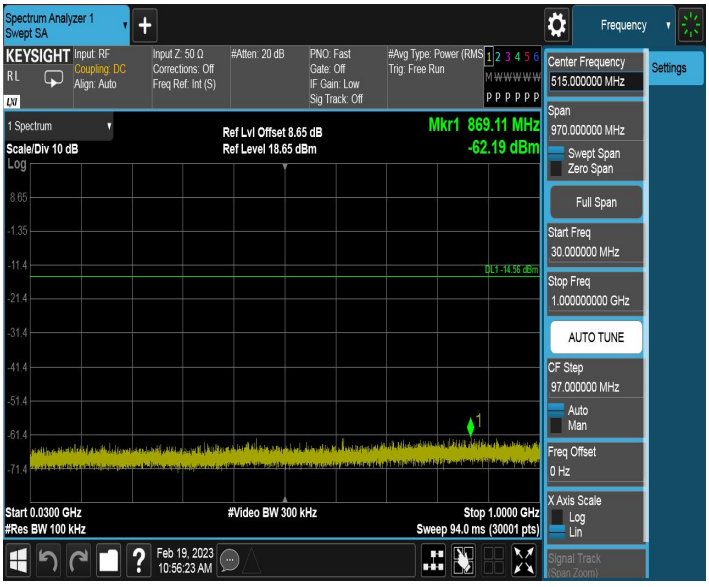


DH5_Ant1_2441_1000~26500



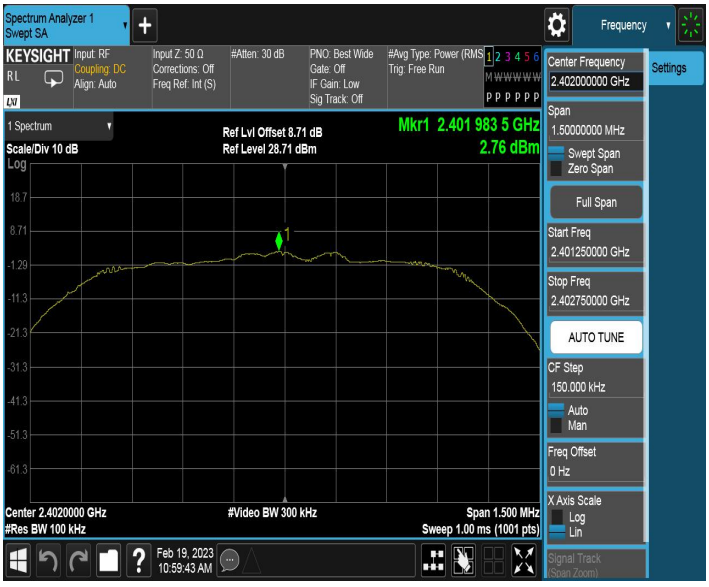
DH5_Ant1_2480_0~Reference

DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500

2DH5_Ant1_2402_0~Reference



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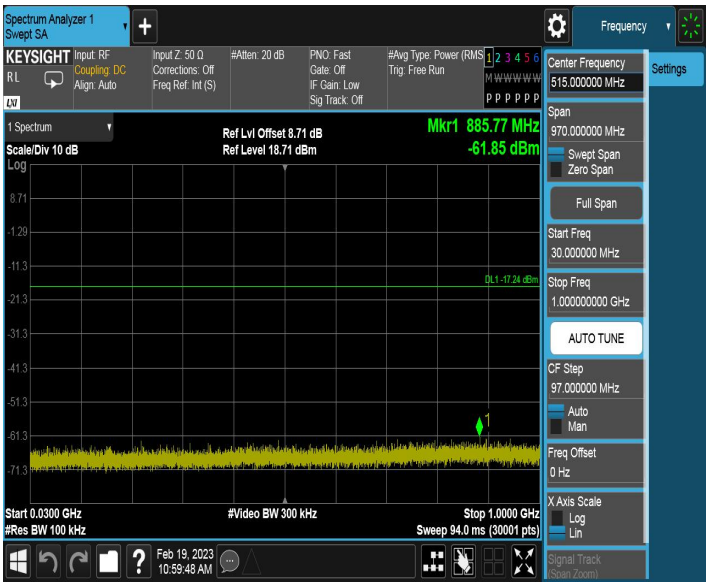

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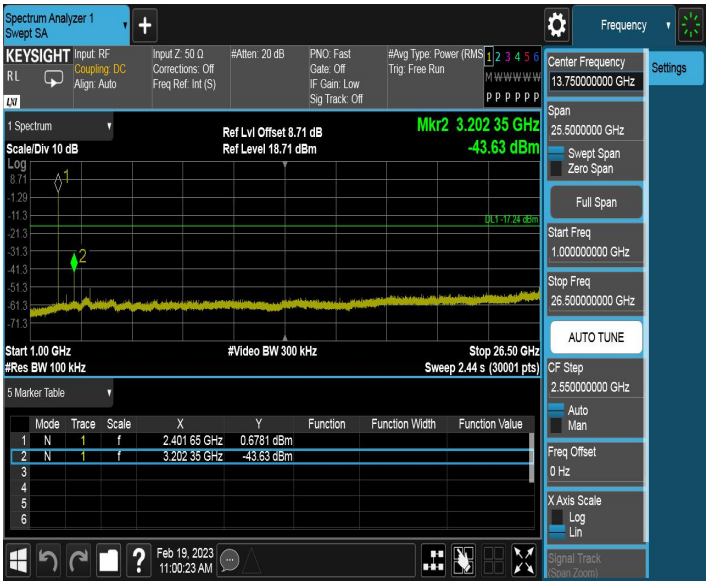

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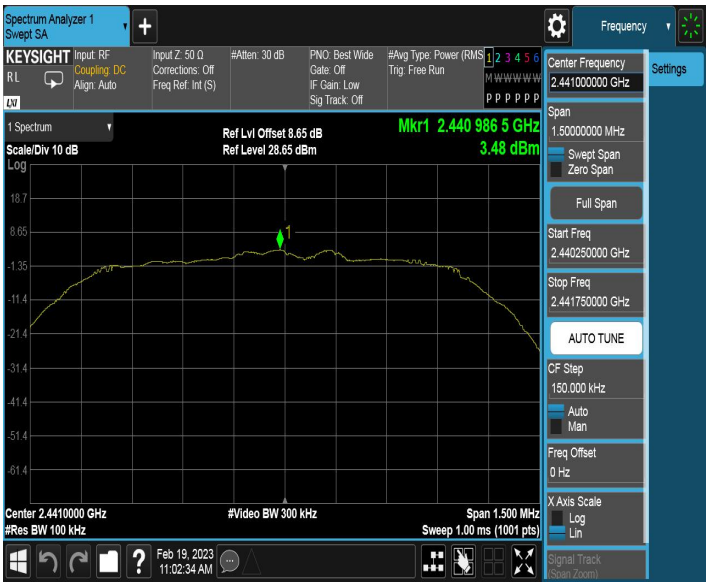

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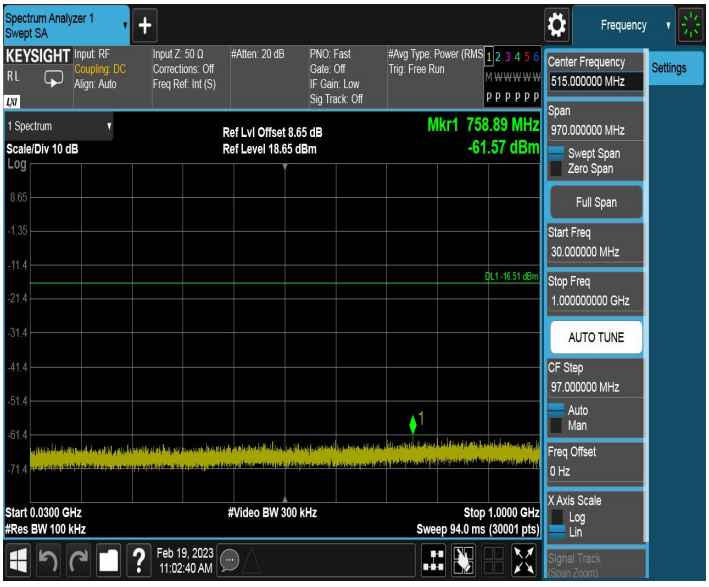
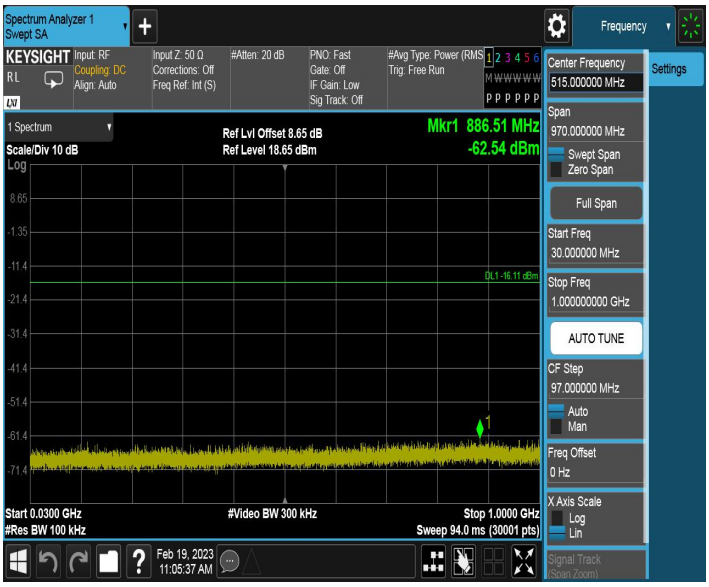


2DH5_Ant1_2441_1000~26500


2DH5_Ant1_2480_0~Reference


2DH5_Ant1_2480_30~1000



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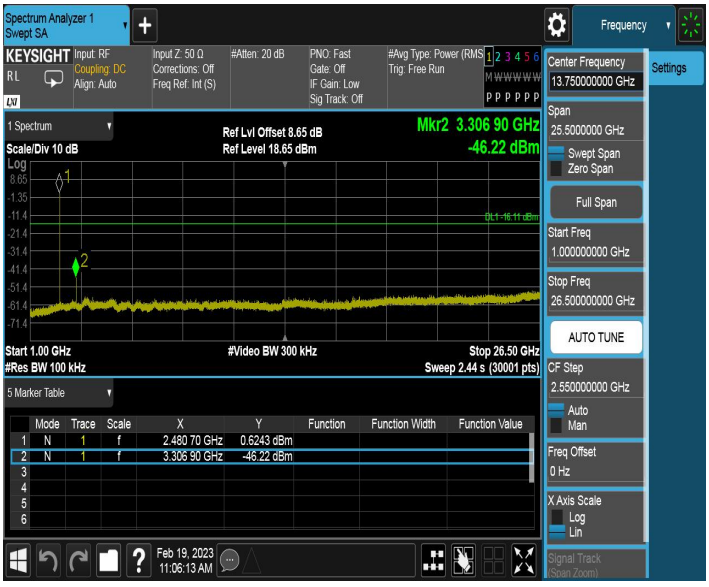
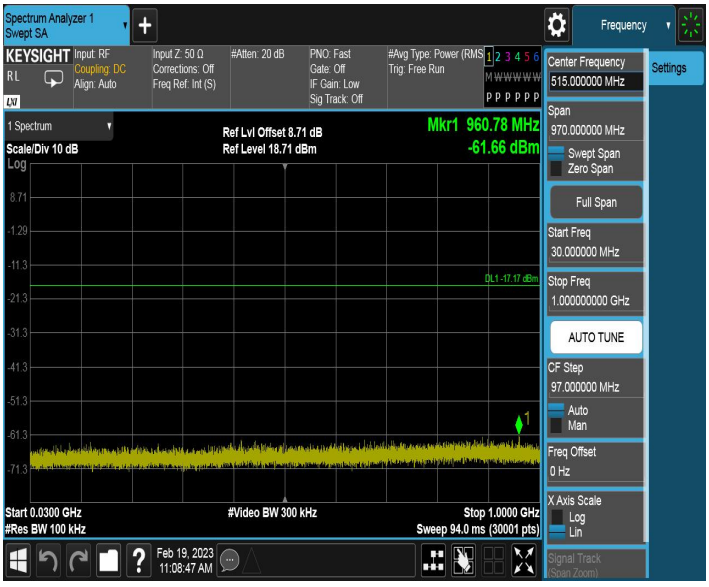
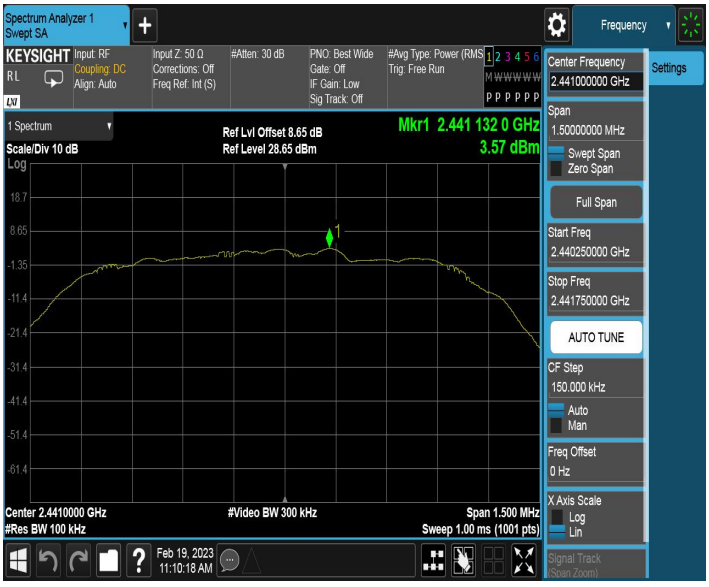


3DH5_Ant1_2402_0~Reference


3DH5_Ant1_2402_30~1000


3DH5_Ant1_2402_1000~26500

3DH5_Ant1_2441_0~Reference



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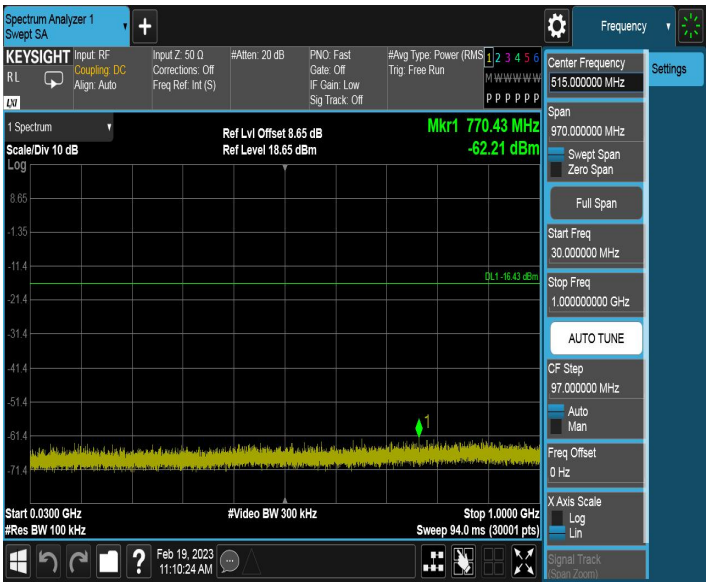
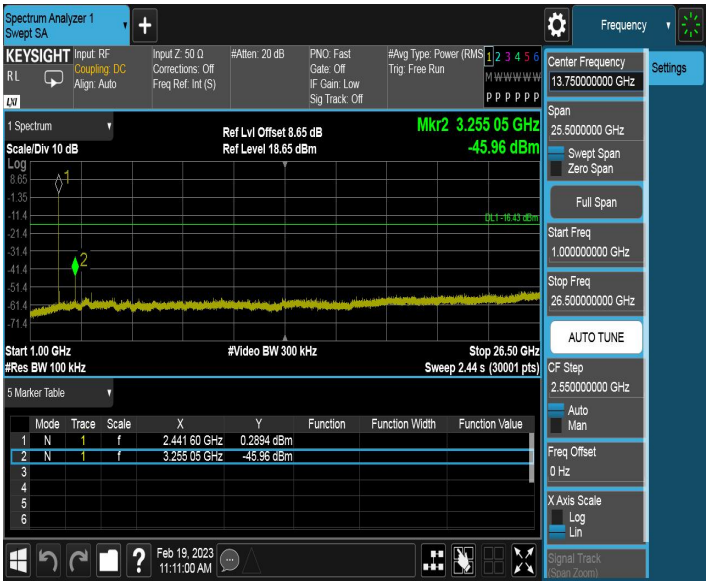
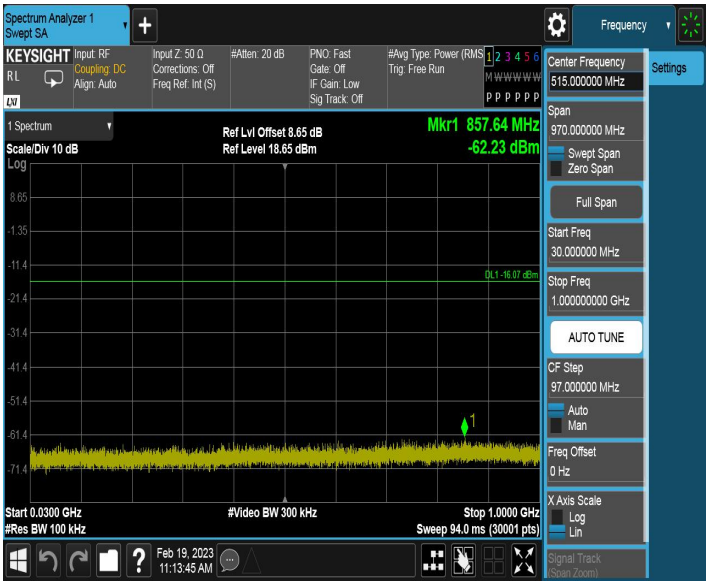
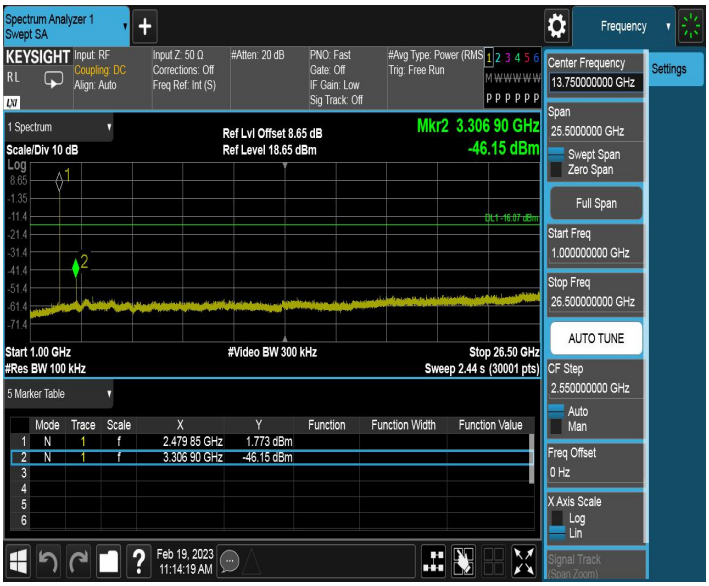

3DH5_Ant1_2441_1000~26500


3DH5_Ant1_2480_0~Reference

3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500



7.9. Radiated Spurious Emission Measurement

7.9.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [uV/m]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

7.9.2. Test Procedure Used

ANSI C63.10 Section 6.3 (General Requirements)

ANSI C63.10 Section 6.4 (Standard test method below 30MHz)

ANSI C63.10 Section 6.5 (Standard test method above 30MHz to 1GHz)

ANSI C63.10 Section 6.6 (Standard test method above 1GHz)

7.9.3. Test Setting

Quasi-Peak Measurements below 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = as specified in Table 1
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple
6. Trace was allowed to stabilize

Table 1 - RBW as a function of frequency

Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000 MHz	1 MHz

Peak Measurements above 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Measurements above 1GHz (Method VB)

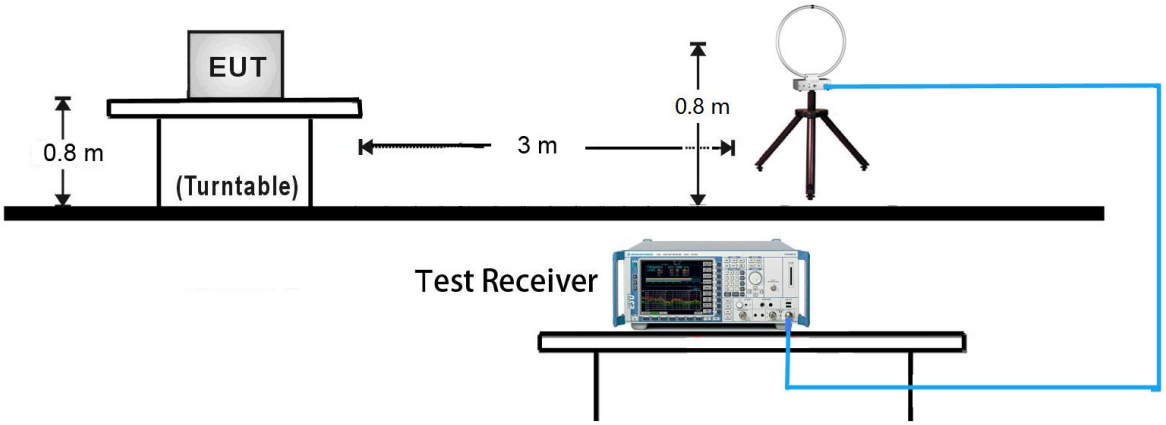
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle ≥ 98%, set VBW = 10 Hz.
   If the EUT duty cycle is < 98%, set VBW ≥ 1/T. T is the minimum transmission duration.
4. Detector = Peak
5. Sweep time = auto

6. Trace mode = max hold

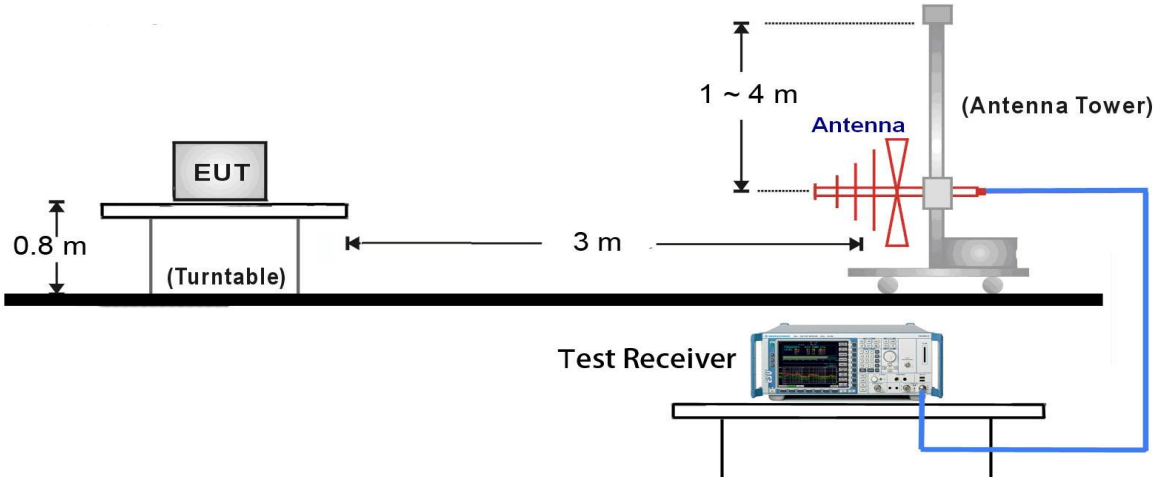
7. Trace was allowed to stabilize

7.9.4. Test Setup

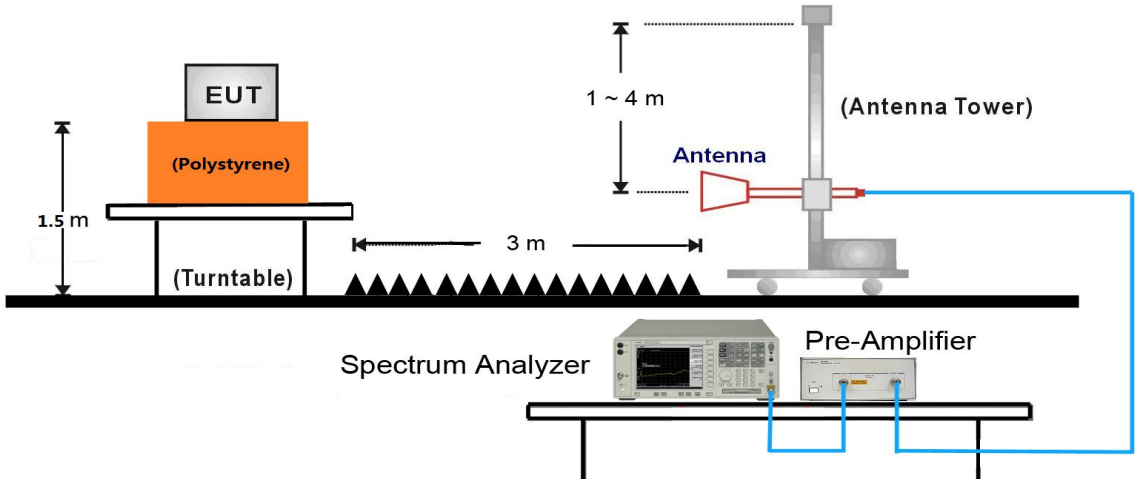
9kHz ~ 30MHz Test Setup:



30MHz ~ 1GHz Test Setup:



1GHz ~ 25GHz Test Setup:



7.9.5. Test Result

Test Mode:	DH5 - Ant 1	Test Date:	2023-02-19
Test Channel:	00	Test Engineer:	Amos Xia
Remark:	Average measurement was not performed if peak level lower than average limit. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Level (dBμV)	Factor (dB)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	3200.0000	51.70	3.81	78.80	27.10	Peak	Horizontal
	4000.0000	48.27	5.14	74.00	25.73	Peak	Horizontal
*	7070.0000	52.39	14.24	78.80	26.41	Peak	Horizontal
	8320.0000	53.92	15.65	74.00	20.08	Peak	Horizontal
*	3200.0000	50.26	3.81	78.80	28.54	Peak	Vertical
	4000.0000	45.40	5.14	74.00	28.60	Peak	Vertical
*	6370.0000	48.64	12.22	78.80	30.16	Peak	Vertical
	8330.0000	53.27	15.72	74.00	20.73	Peak	Vertical
Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (98.80dBμV/m) or 15.209 which is higher.							

Test Mode:	DH5 - Ant 1	Test Date:	2023-02-19
Test Channel:	39	Test Engineer:	Amos Xia
Remark:	Average measurement was not performed if peak level lower than average limit. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Level (dBμV)	Factor (dB)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	3255.0000	47.13	3.85	76.49	29.36	Peak	Horizontal
	4665.0000	44.61	6.90	74.00	29.39	Peak	Horizontal
*	6360.0000	49.74	12.18	76.49	26.75	Peak	Horizontal
	7455.0000	52.77	15.08	74.00	21.23	Peak	Horizontal
*	3250.0000	46.70	3.88	76.49	29.79	Peak	Vertical
	4805.0000	44.43	7.11	74.00	29.57	Peak	Vertical
*	6900.0000	50.75	14.13	76.49	25.74	Peak	Vertical
	7645.0000	52.84	15.17	74.00	21.16	Peak	Vertical
Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (96.49dBμV/m) or 15.209 which is higher.							

Test Mode:	DH5 - Ant 1	Test Date:	2023-02-19
Test Channel:	78	Test Engineer:	Amos Xia
Remark:	Average measurement was not performed if peak level lower than average limit. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Level (dBμV)	Factor (dB)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4665.0000	44.59	6.90	74.00	29.41	Peak	Horizontal
*	6550.0000	48.76	12.58	75.84	27.08	Peak	Horizontal
*	7105.0000	52.01	14.37	75.84	23.83	Peak	Horizontal
	8355.0000	54.17	15.76	74.00	19.83	Peak	Horizontal
	3840.0000	43.56	4.63	74.00	30.44	Peak	Vertical
*	6370.0000	48.42	12.22	75.84	27.42	Peak	Vertical
*	7855.0000	52.47	15.10	75.84	23.37	Peak	Vertical
	8305.0000	53.34	15.54	74.00	20.66	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (95.84dBμV/m) or 15.209 which is higher.

Test Mode:	2DH5 - Ant 1	Test Date:	2023-02-19
Test Channel:	00	Test Engineer:	Amos Xia
Remark:	Average measurement was not performed if peak level lower than average limit. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Level (dBμV)	Factor (dB)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	3200.0000	52.27	3.81	78.94	26.67	Peak	Horizontal
	4000.0000	46.36	5.14	74.00	27.64	Peak	Horizontal
*	6375.0000	48.84	12.24	78.94	30.10	Peak	Horizontal
	7405.0000	52.66	14.90	74.00	21.34	Peak	Horizontal
*	3200.0000	51.01	3.81	78.94	27.93	Peak	Vertical
	4615.0000	44.66	6.87	74.00	29.34	Peak	Vertical
*	6315.0000	49.01	11.97	78.94	29.93	Peak	Vertical
	8335.0000	53.50	15.75	74.00	20.50	Peak	Vertical
Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (98.94dBμV/m) or 15.209 which is higher.							

Test Mode:	2DH5 - Ant 1	Test Date:	2023-02-19
Test Channel:	39	Test Engineer:	Amos Xia
Remark:	Average measurement was not performed if peak level lower than average limit. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Level (dBμV)	Factor (dB)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	3320.0000	41.78	3.67	78.16	36.38	Peak	Horizontal
	4575.0000	45.04	6.98	74.00	28.96	Peak	Horizontal
*	6315.0000	48.77	11.97	78.16	29.39	Peak	Horizontal
	8340.0000	53.96	15.79	74.00	20.04	Peak	Horizontal
*	3255.0000	47.32	3.85	78.16	30.84	Peak	Vertical
	4735.0000	44.27	6.97	74.00	29.73	Peak	Vertical
*	6650.0000	48.74	13.07	78.16	29.42	Peak	Vertical
	7375.0000	53.25	15.00	74.00	20.75	Peak	Vertical
Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (98.16dBμV/m) or 15.209 which is higher.							

Test Mode:	2DH5 - Ant 1	Test Date:	2023-02-19
Test Channel:	78	Test Engineer:	Amos Xia
Remark:	Average measurement was not performed if peak level lower than average limit. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Level (dBμV)	Factor (dB)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4935.0000	45.24	7.30	74.00	28.76	Peak	Horizontal
*	6675.0000	49.09	13.08	77.02	27.93	Peak	Horizontal
*	7865.0000	52.62	15.07	77.02	24.40	Peak	Horizontal
	9070.0000	53.83	16.08	74.00	20.17	Peak	Horizontal
	4840.0000	44.66	7.09	74.00	29.34	Peak	Vertical
*	6885.0000	50.17	14.06	77.02	26.85	Peak	Vertical
*	8010.0000	52.74	15.26	77.02	24.28	Peak	Vertical
	8335.0000	52.98	15.75	74.00	21.02	Peak	Vertical
Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (97.02dBμV/m) or 15.209 which is higher.							

Test Mode:	3DH5 - Ant 1	Test Date:	2023-02-19
Test Channel:	00	Test Engineer:	Amos Xia
Remark:	Average measurement was not performed if peak level lower than average limit. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Level (dBμV)	Factor (dB)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	3200.0000	52.57	3.81	79.22	26.65	Peak	Horizontal
	4000.0000	46.52	5.14	74.00	27.48	Peak	Horizontal
*	6445.0000	48.78	12.16	79.22	30.44	Peak	Horizontal
	8380.0000	52.82	15.31	74.00	21.18	Peak	Horizontal
*	3200.0000	47.70	3.81	79.22	31.52	Peak	Vertical
	4030.0000	44.25	5.17	74.00	29.75	Peak	Vertical
*	7050.0000	51.32	14.16	79.22	27.90	Peak	Vertical
	8365.0000	52.54	15.58	74.00	21.46	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (99.22dBμV/m) or 15.209 which is higher.

Test Mode:	3DH5 - Ant 1	Test Date:	2023-02-19
Test Channel:	39	Test Engineer:	Amos Xia
Remark:	Average measurement was not performed if peak level lower than average limit. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Level (dBμV)	Factor (dB)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	3250.0000	49.16	3.88	78.36	29.20	Peak	Horizontal
	5070.0000	45.27	7.64	74.00	28.73	Peak	Horizontal
*	6635.0000	50.00	13.00	78.36	28.36	Peak	Horizontal
	7580.0000	52.27	14.98	74.00	21.73	Peak	Horizontal
*	3325.0000	41.73	3.68	78.36	36.63	Peak	Vertical
	4200.0000	44.66	5.65	74.00	29.34	Peak	Vertical
*	6360.0000	49.26	12.18	78.36	29.10	Peak	Vertical
	8285.0000	52.18	15.48	74.00	21.82	Peak	Vertical
Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (98.36dBμV/m) or 15.209 which is higher.							

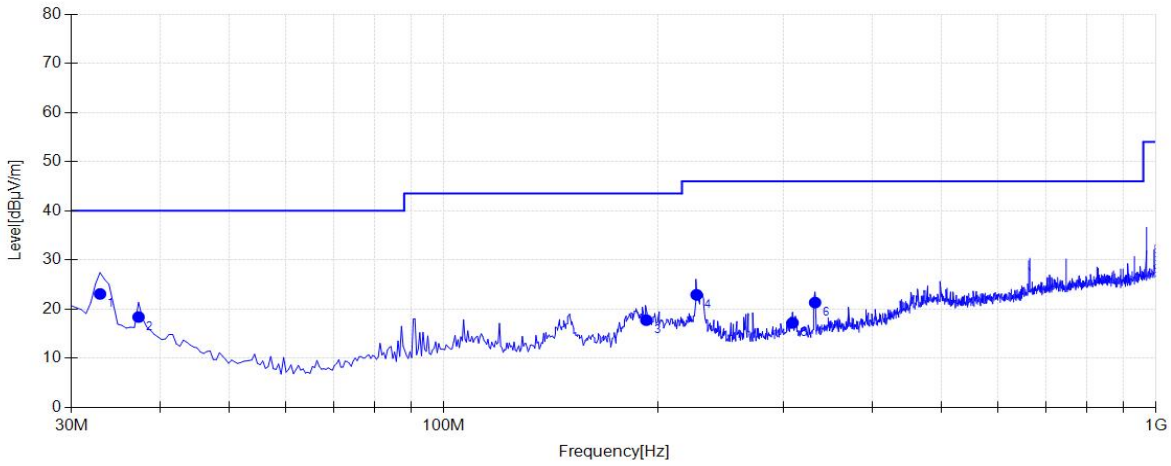
Test Mode:	3DH5 - Ant 1	Test Date:	2023-02-19
Test Channel:	78	Test Engineer:	Amos Xia
Remark:	Average measurement was not performed if peak level lower than average limit. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Level (dBμV)	Factor (dB)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4610.0000	44.60	6.87	74.00	29.40	Peak	Horizontal
*	6300.0000	49.40	11.89	77.02	24.60	Peak	Horizontal
*	7945.0000	52.94	15.59	77.02	21.06	Peak	Horizontal
	8330.0000	52.86	15.72	74.00	21.14	Peak	Horizontal
	4850.0000	44.71	7.09	74.00	29.29	Peak	Vertical
*	6040.0000	48.58	10.91	77.02	25.42	Peak	Vertical
*	8245.0000	52.95	15.39	77.02	21.05	Peak	Vertical
	9145.0000	53.76	16.49	74.00	20.24	Peak	Vertical
Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (97.02dBμV/m) or 15.209 which is higher.							

The Worst Case of Radiated Emission below 1GHz:

EUT:	Caper Cart M3 Android board	Polarity:	Horizontal
Model:	PCBA-CAP-CA03AN-RK39	SN:	N/A
Mode:	Transmit by DH5 at Channel 2480MHz	Voltage:	DC 24V
Environment:	Temp: 22℃; Humi:54%	Engineer:	Amos Xia

Test Graph

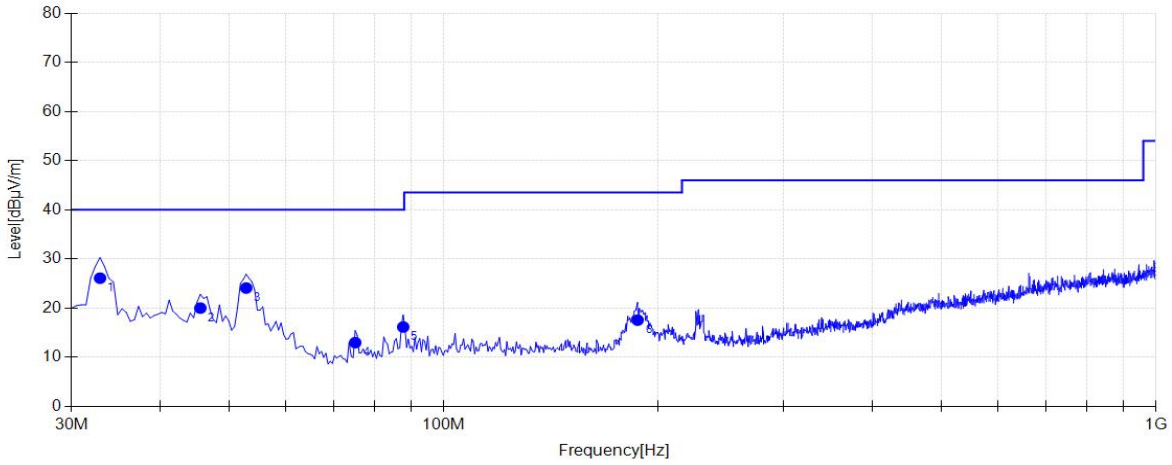


Final Data List								
NO.	Freq. [MHz]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	32.9100	18.24	23.09	40.00	16.91	100	238	Horizontal
2	37.2750	16.02	18.39	40.00	21.61	200	189	Horizontal
3	192.475	10.09	17.76	43.50	25.74	200	79	Horizontal
4	226.425	10.68	22.92	46.00	23.08	200	38	Horizontal
5	308.875	13.96	17.22	46.00	28.78	200	17	Horizontal
6	332.155	14.50	21.33	46.00	24.67	200	51	Horizontal

Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 25GHz), therefore no data appear in the report.

EUT:	Caper Cart M3 Android board	Polarity:	Vertical
Model:	PCBA-CAP-CA03AN-RK39	SN:	N/A
Mode:	Transmit by DH5 at Channel 2480MHz	Voltage:	DC 24V
Environment:	Temp: 22℃; Humi:54%	Engineer:	Amos Xia

Test Graph



Final Data List								
NO.	Freq. [MHz]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	32.9100	18.24	26.10	40.00	13.90	100	124	Vertical
2	45.5200	11.81	20.01	40.00	19.99	100	0	Vertical
3	52.7950	8.76	24.09	40.00	15.91	100	9	Vertical
4	75.1050	9.14	12.99	40.00	27.01	200	68	Vertical
5	87.7150	9.92	16.16	40.00	23.84	100	117	Vertical
6	187.140	10.36	17.56	43.50	25.94	200	117	Vertical

Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 25GHz), therefore no data appear in the report.

7.10. Radiated Restricted Band Edge Measurement

For 15.205 requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a).

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1] 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.25 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	([2])
13.36 - 13.41	--	--	--

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [uV/m]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

For RSS-Gen Section 8.10 requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 8.10 of RSS-Gen, must also comply with the radiated emission limits specified in Section 8.9.

Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.009 - 0.110	240 - 285	9.0 - 9.2
2.1735 - 2.1905	322 - 335.4	9.3 - 9.5
3.020 - 3.026	399.9 - 410	10.6 - 12.7
4.125 - 4.128	608 - 614	13.25 - 13.4
4.17725 - 4.17775	960 - 1427	14.47 - 14.5
4.20725 - 4.20775	1435 - 1626.5	15.35 - 16.2
5.677 - 5.683	1645.5 - 1646.5	17.7 - 21.4
6.215 - 6.218	1660 - 1710	22.01 - 23.12
6.26775 - 6.26825	1718.8 -1722.2	23.6 - 24.0
6.31175 - 6.31225	2200 - 2300	31.2 - 31.8
8.291 - 8.294	2310 -2390	36.43 - 36.5
8.362 - 8.366	2655 - 2900	Above 38.6
8.37625 - 8.38675	3260 - 3267	--
8.41425 - 8.41475	3332 -3339	
12.29 - 12.293	334.5 - 3358	
12.51975 - 12.52025	3500 - 4400	
12.57675 - 12.57725	4500 - 5150	
13.36 -13.41	5350 - 5460	
16.42 - 16.423	7250 - 7750	
16.69475 - 16.69525	8025 - 8500	
16.80425 - 16.80475	--	
25.5 - 25.67		
37.5 - 38.25		
73 - 74.6		
74.8 - 75.2		
108 - 138		
156.52475 - 156.525225		
156.7 - 156.9		

All out of band emissions appearing in a restricted band as specified in Section 8.10 of the RSS-Gen

must not exceed the limits shown in Table per Section 8.9.

RSS-Gen Section 8.9		
Frequency [MHz]	Field Strength [uV/m]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

7.10.1. Test Procedure Used

ANSI C63.10 Section 6.3 (General Requirements)

ANSI C63.10 Section 6.6 (Standard test method above 1GHz)

7.10.2. Test Setting

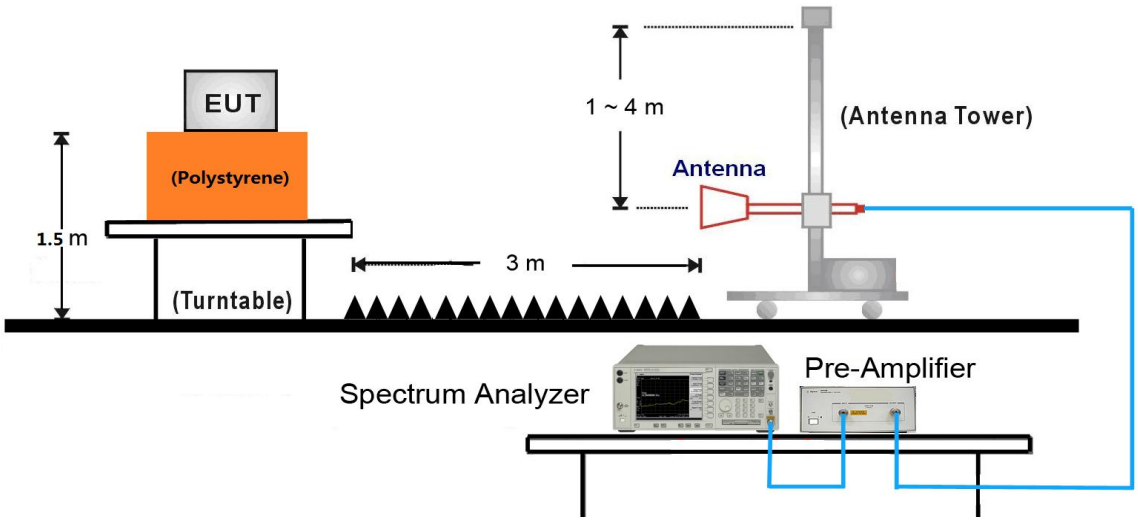
Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Measurements above 1GHz (Method VB)

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle ≥ 98%, set VBW = 10 Hz.
   If the EUT duty cycle is < 98%, set VBW ≥ 1/T. T is the minimum transmission duration.
4. Detector = Peak
5. Sweep time = auto
6. Trace mode = max hold
7. Trace was allowed to stabilize

7.10.3. Test Setup

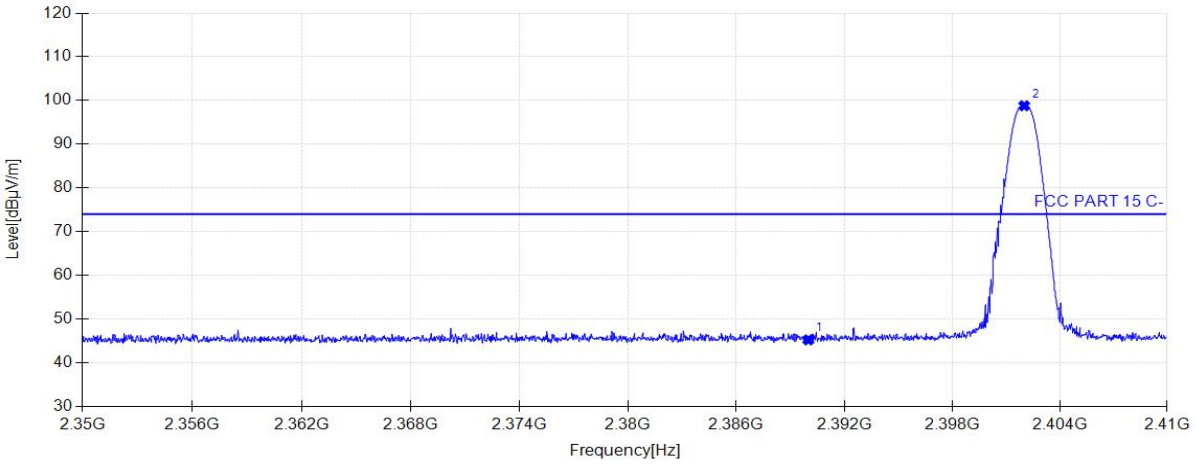


7.10.4. Test Result

Project Information			
EUT:	Caper Cart M3 Android	Model:	PCBA-CAP-CA03AN-RK
SN:	N/A	Voltage:	DC 24V
Environment:	Temp: 22℃; Humi:54%	Engineer:	Amos Xia
Remark:	Transmit by DH5 at Channel 2402MHz		

Start of Test:2023-02-19 17:39:04

Test Graph

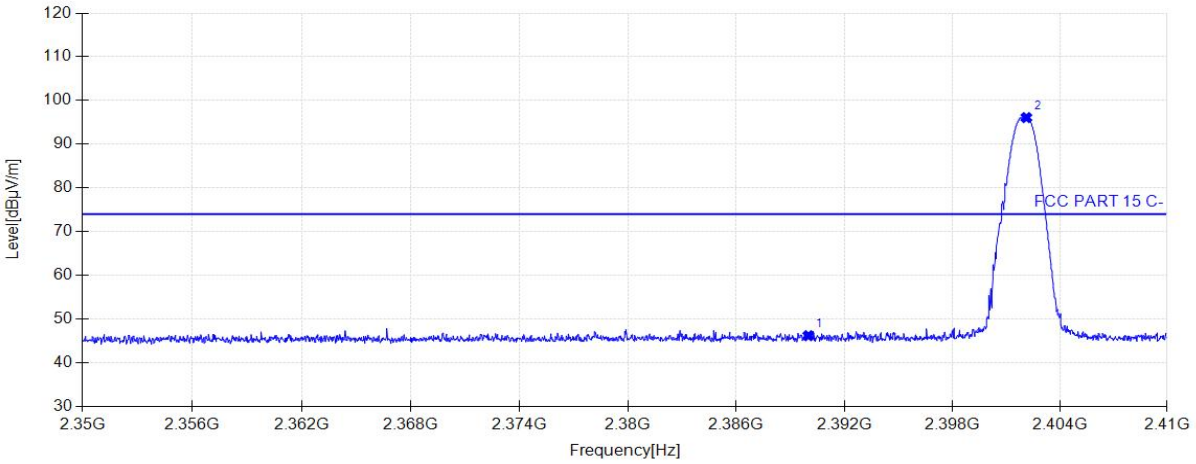


Suspected Data List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2390.00	45.23	32.74	74.00	28.77	160	11	Horizontal
2	2402.02	98.80	32.80	74.00	-24.80	160	82	Horizontal

Project Information			
EUT:	Caper Cart M3 Android	Model:	PCBA-CAP-CA03AN-RK
SN:	N/A	Voltage:	DC 24V
Environment:	Temp: 22℃; Humi:54%	Engineer:	Amos Xia
Remark:	Transmit by DH5 at Channel 2402MHz		

Start of Test:2023-02-19 17:39:56

Test Graph

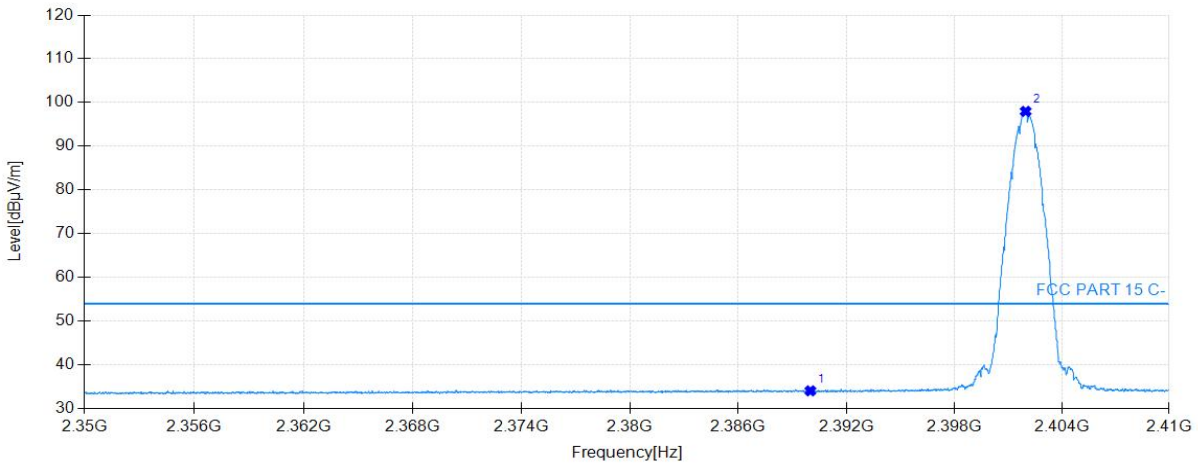


Suspected Data List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2390.00	46.20	32.74	74.00	27.80	160	3	Vertical
2	2402.14	96.10	32.81	74.00	-22.10	160	222	Vertical

Project Information			
EUT:	Caper Cart M3 Android	Model:	PCBA-CAP-CA03AN-RK
SN:	N/A	Voltage:	DC 24V
Environment:	Temp: 22℃; Humi:54%	Engineer:	Amos Xia
Remark:	Transmit by DH5 at Channel 2402MHz		

Start of Test:2023-02-19 17:41:22

Test Graph

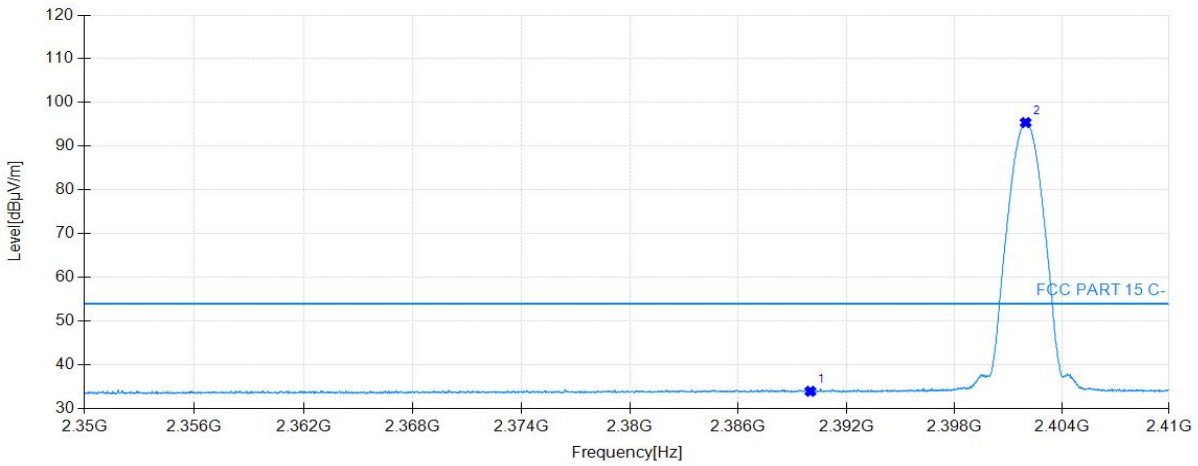


Suspected Data List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2390.00	34.03	32.74	54.00	19.97	160	178	Horizontal
2	2401.99	97.98	32.80	54.00	-43.98	160	81	Horizontal

Project Information			
EUT:	Caper Cart M3 Android	Model:	PCBA-CAP-CA03AN-RK
SN:	N/A	Voltage:	DC 24V
Environment:	Temp: 22℃; Humi:54%	Engineer:	Amos Xia
Remark:	Transmit by DH5 at Channel 2402MHz		

Start of Test:2023-02-19 17:42:15

Test Graph

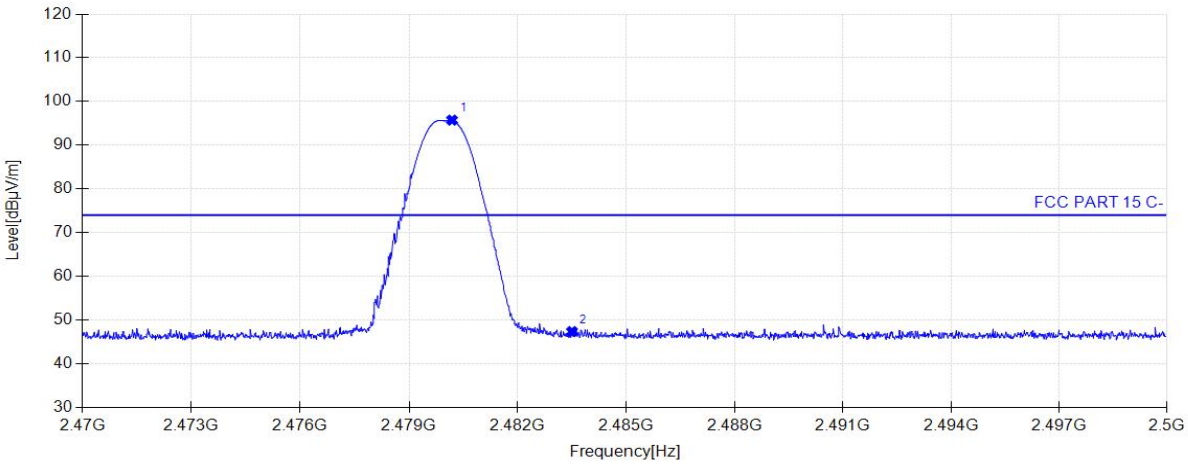


Suspected Data List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2390.00	33.92	32.74	54.00	20.08	160	216	Vertical
2	2401.99	95.41	32.80	54.00	-41.41	160	132	Vertical

Project Information			
EUT:	Caper Cart M3 Android	Model:	PCBA-CAP-CA03AN-RK
SN:	N/A	Voltage:	DC 24V
Environment:	Temp: 22℃; Humi:54%	Engineer:	Amos Xia
Remark:	Transmit by DH5 at Channel 2480MHz		

Start of Test:2023-02-19 17:45:39

Test Graph

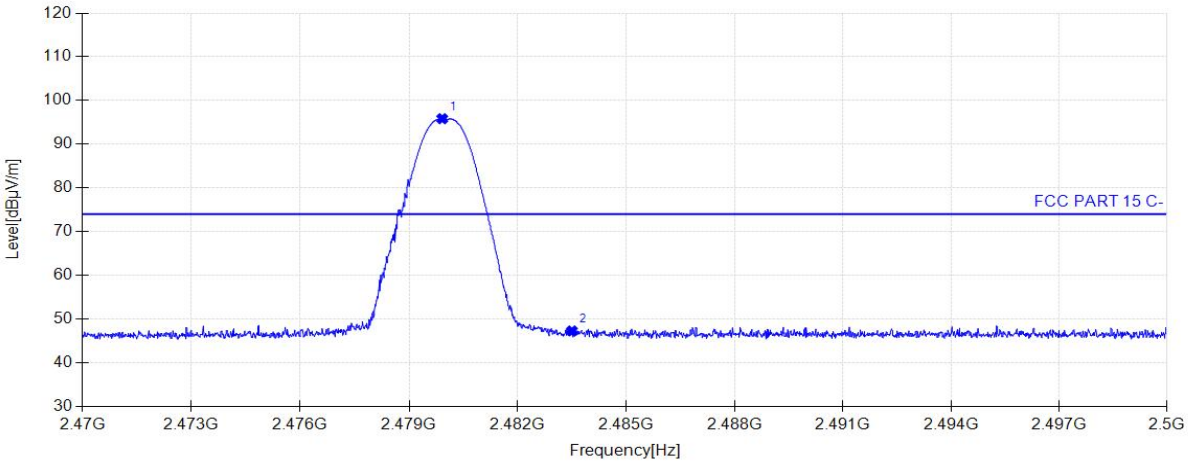


Suspected Data List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2480.18	95.75	33.22	74.00	-21.75	160	81	Horizontal
2	2483.50	47.36	33.23	74.00	26.64	160	26	Horizontal

Project Information			
EUT:	Caper Cart M3 Android	Model:	PCBA-CAP-CA03AN-RK
SN:	N/A	Voltage:	DC 24V
Environment:	Temp: 22℃; Humi:54%	Engineer:	Amos Xia
Remark:	Transmit by DH5 at Channel 2480MHz		

Start of Test:2023-02-19 17:46:32

Test Graph

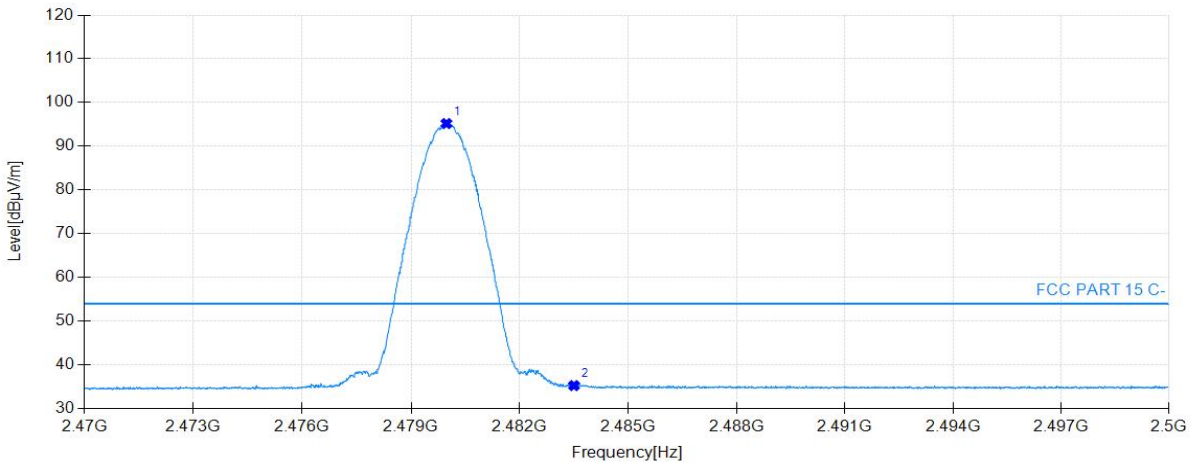


Suspected Data List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2479.91	95.84	33.21	74.00	-21.84	160	44	Vertical
2	2483.50	47.27	33.23	74.00	26.73	160	135	Vertical

Project Information			
EUT:	Caper Cart M3 Android	Model:	PCBA-CAP-CA03AN-RK
SN:	N/A	Voltage:	DC 24V
Environment:	Temp: 22℃; Humi:54%	Engineer:	Amos Xia
Remark:	Transmit by DH5 at Channel 2480MHz		

Start of Test:2023-02-19 17:48:00

Test Graph

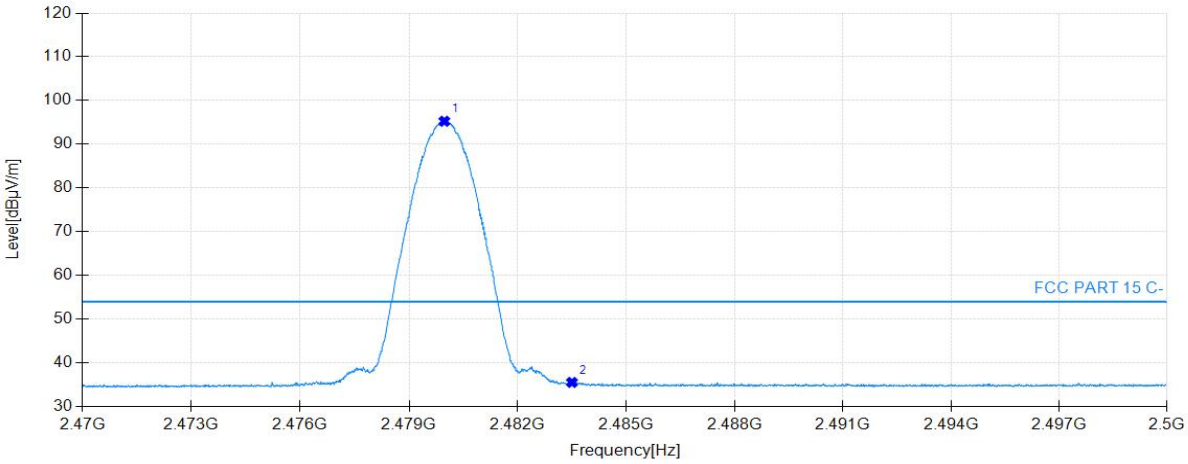


Suspected Data List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2479.97	95.19	33.21	54.00	-41.19	160	82	Horizontal
2	2483.50	35.23	33.23	54.00	18.77	160	89	Horizontal

Project Information			
EUT:	Caper Cart M3 Android	Model:	PCBA-CAP-CA03AN-RK
SN:	N/A	Voltage:	DC 24V
Environment:	Temp: 22℃; Humi:54%	Engineer:	Amos Xia
Remark:	Transmit by DH5 at Channel 2480MHz		

Start of Test:2023-02-19 17:48:52

Test Graph

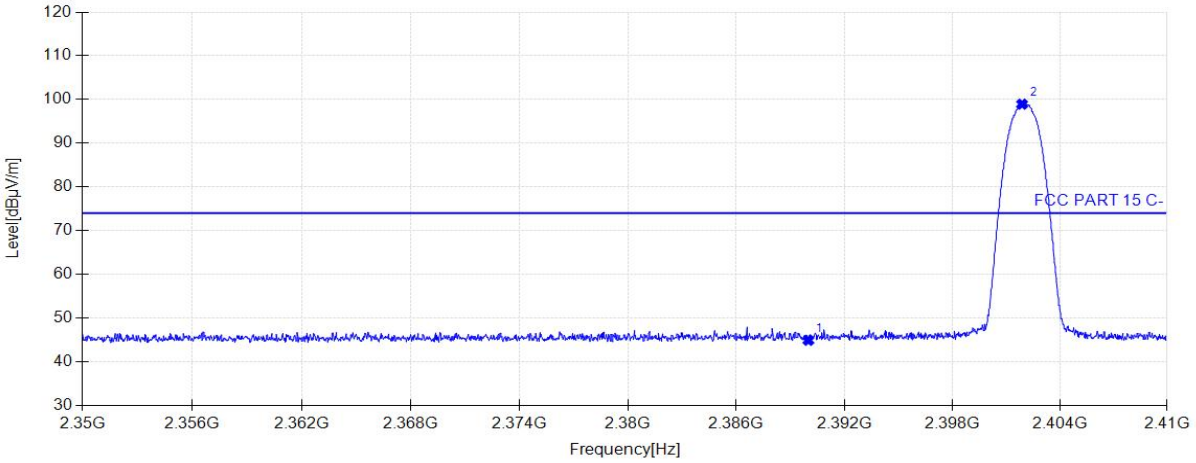


Suspected Data List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2479.97	95.26	33.21	54.00	-41.26	160	49	Vertical
2	2483.50	35.50	33.23	54.00	18.50	160	167	Vertical

Project Information			
EUT:	Caper Cart M3 Android	Model:	PCBA-CAP-CA03AN-RK
SN:	N/A	Voltage:	DC 24V
Environment:	Temp: 22℃; Humi:54%	Engineer:	Amos Xia
Remark:	Transmit by 2DH5 at Channel 2402MHz		

Start of Test:2023-02-19 17:51:57

Test Graph

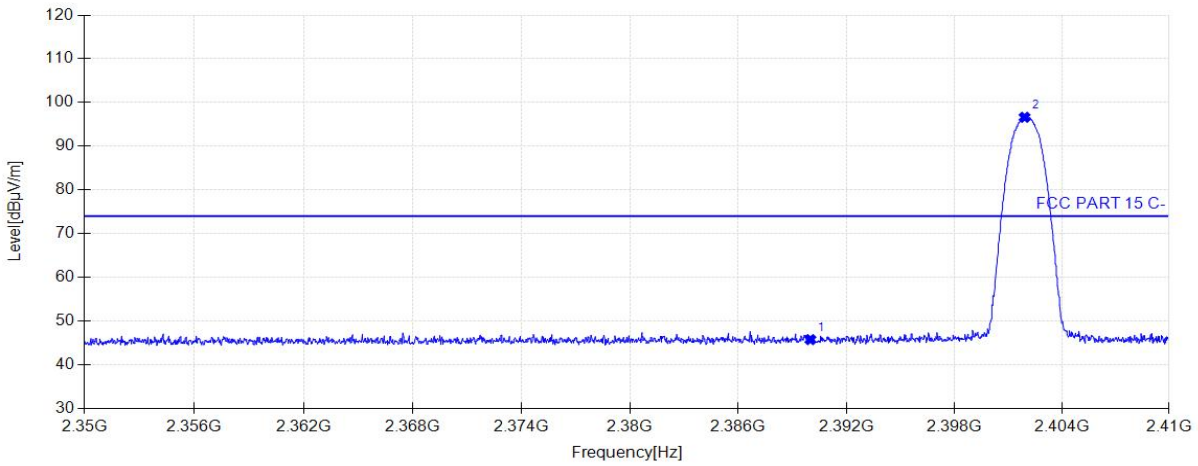


Suspected Data List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2390.00	44.90	32.74	74.00	29.10	160	122	Horizontal
2	2401.90	98.94	32.80	74.00	-24.94	160	81	Horizontal

Project Information			
EUT:	Caper Cart M3 Android	Model:	PCBA-CAP-CA03AN-RK
SN:	N/A	Voltage:	DC 24V
Environment:	Temp: 22℃; Humi:54%	Engineer:	Amos Xia
Remark:	Transmit by 2DH5 at Channel 2402MHz		

Start of Test:2023-02-19 17:52:49

Test Graph

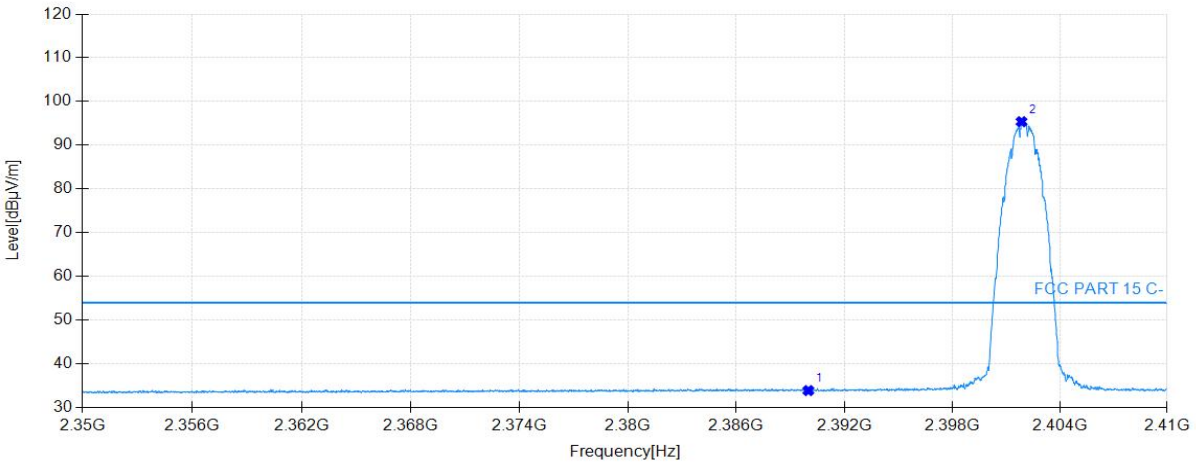


Suspected Data List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2390.00	45.75	32.74	74.00	28.25	160	126	Vertical
2	2401.93	96.62	32.80	74.00	-22.62	160	126	Vertical

Project Information			
EUT:	Caper Cart M3 Android	Model:	PCBA-CAP-CA03AN-RK
SN:	N/A	Voltage:	DC 24V
Environment:	Temp: 22℃; Humi:54%	Engineer:	Amos Xia
Remark:	Transmit by 2DH5 at Channel 2402MHz		

Start of Test:2023-02-19 17:53:59

Test Graph

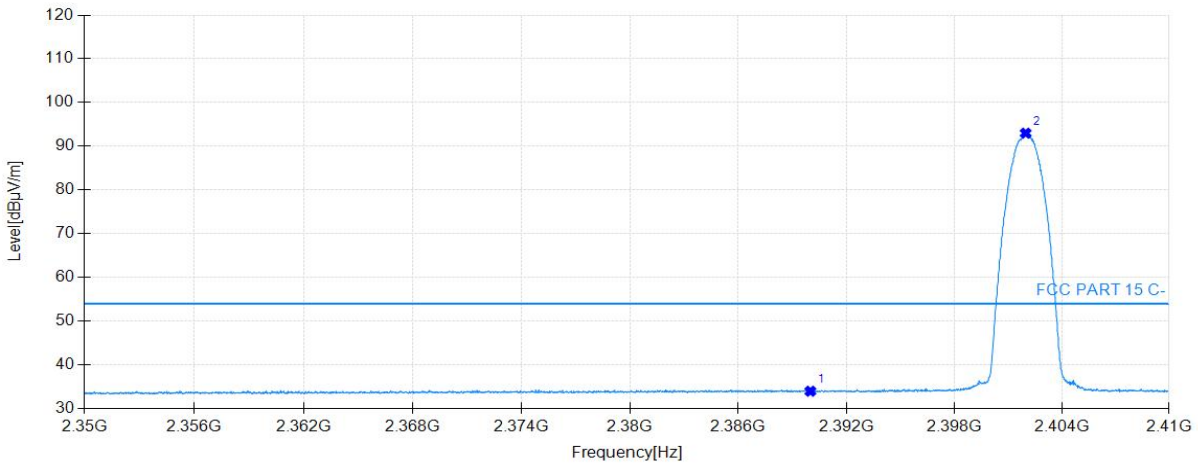


Suspected Data List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2390.00	33.86	32.74	54.00	20.14	160	0	Horizontal
2	2401.87	95.39	32.80	54.00	-41.39	160	87	Horizontal

Project Information			
EUT:	Caper Cart M3 Android	Model:	PCBA-CAP-CA03AN-RK
SN:	N/A	Voltage:	DC 24V
Environment:	Temp: 22℃; Humi:54%	Engineer:	Amos Xia
Remark:	Transmit by 2DH5 at Channel 2402MHz		

Start of Test:2023-02-19 17:54:51

Test Graph

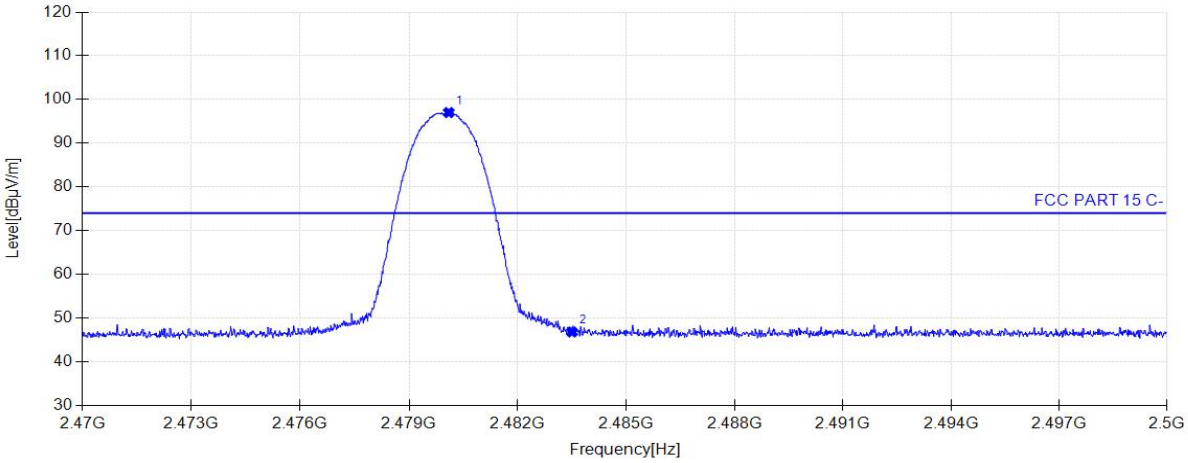


Suspected Data List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2390.00	33.95	32.74	54.00	20.05	160	264	Vertical
2	2401.99	92.99	32.80	54.00	-38.99	160	132	Vertical

Project Information			
EUT:	Caper Cart M3 Android	Model:	PCBA-CAP-CA03AN-RK
SN:	N/A	Voltage:	DC 24V
Environment:	Temp: 22℃; Humi:54%	Engineer:	Amos Xia
Remark:	Transmit by 2DH5 at Channel 2480MHz		

Start of Test:2023-02-19 17:57:27

Test Graph

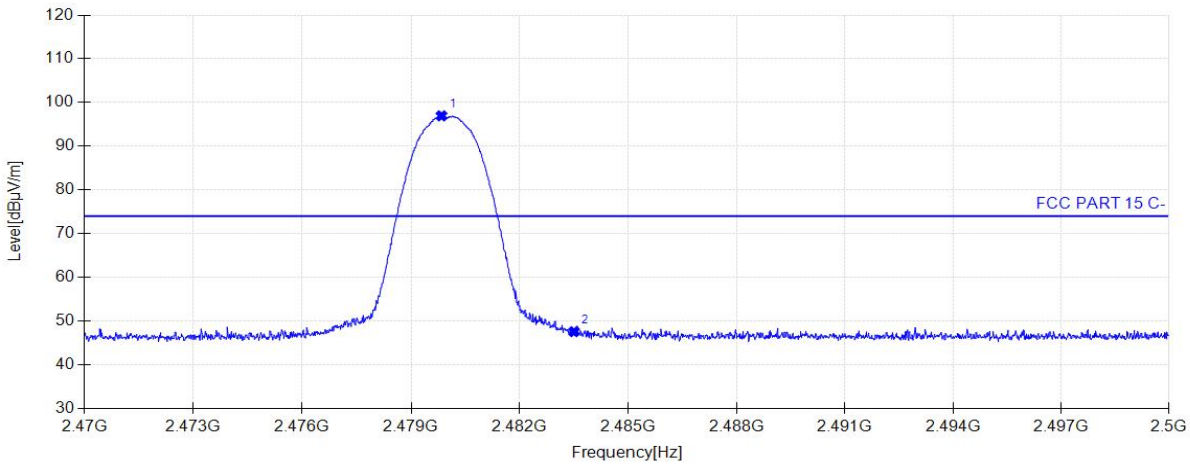


Suspected Data List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2480.09	97.02	33.22	74.00	-23.02	160	82	Horizontal
2	2483.50	46.81	33.23	74.00	27.19	160	227	Horizontal

Project Information			
EUT:	Caper Cart M3 Android	Model:	PCBA-CAP-CA03AN-RK
SN:	N/A	Voltage:	DC 24V
Environment:	Temp: 22℃; Humi:54%	Engineer:	Amos Xia
Remark:	Transmit by 2DH5 at Channel 2480MHz		

Start of Test:2023-02-19 17:58:19

Test Graph

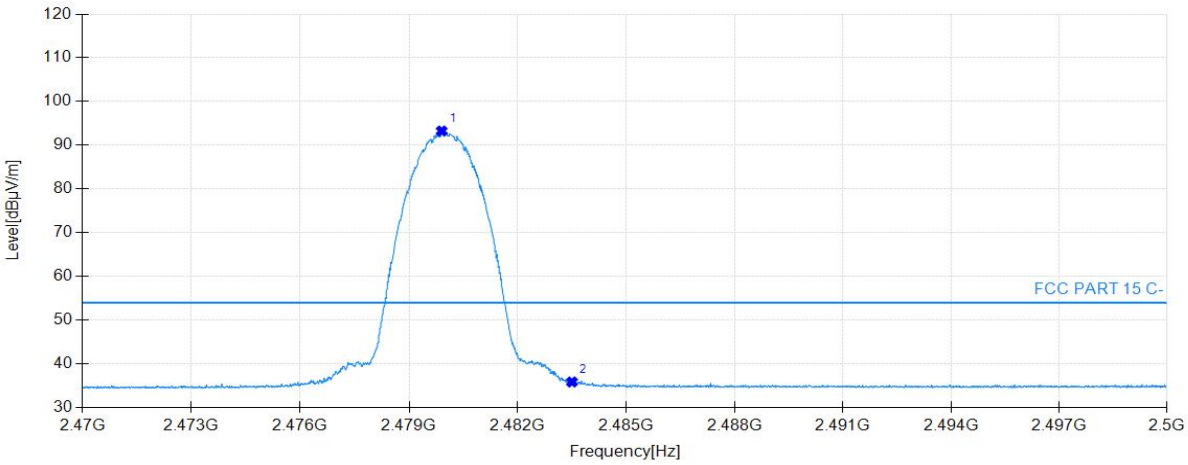


Suspected Data List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2479.84	96.95	33.21	74.00	-22.95	160	44	Vertical
2	2483.50	47.57	33.23	74.00	26.43	160	126	Vertical

Project Information			
EUT:	Caper Cart M3 Android	Model:	PCBA-CAP-CA03AN-RK
SN:	N/A	Voltage:	DC 24V
Environment:	Temp: 22℃; Humi:54%	Engineer:	Amos Xia
Remark:	Transmit by 2DH5 at Channel 2480MHz		

Start of Test:2023-02-19 17:59:49

Test Graph

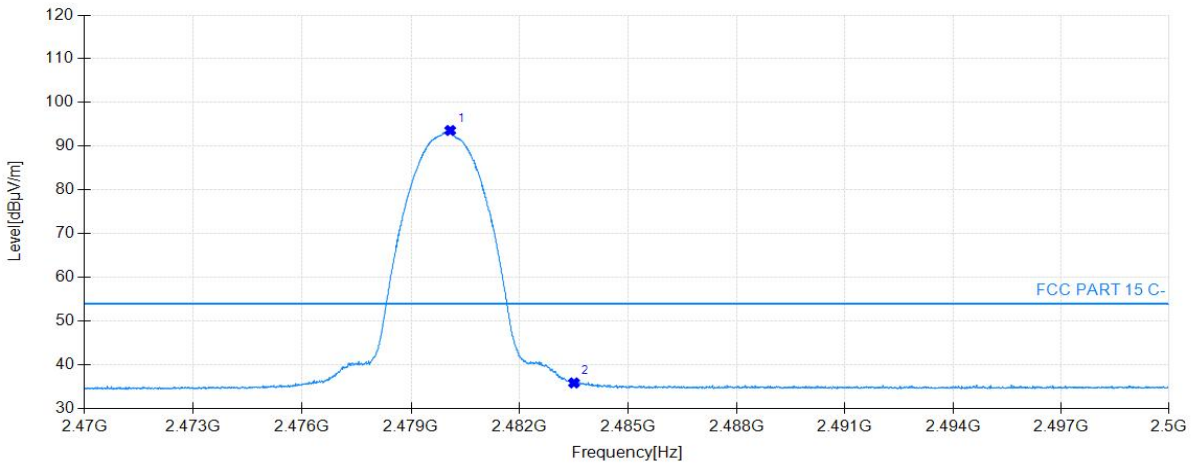


Suspected Data List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2479.90	93.25	33.21	54.00	-39.25	160	86	Horizontal
2	2483.50	35.83	33.23	54.00	18.17	160	79	Horizontal

Project Information			
EUT:	Caper Cart M3 Android	Model:	PCBA-CAP-CA03AN-RK
SN:	N/A	Voltage:	DC 24V
Environment:	Temp: 22℃; Humi:54%	Engineer:	Amos Xia
Remark:	Transmit by 2DH5 at Channel 2480MHz		

Start of Test:2023-02-19 18:00:41

Test Graph

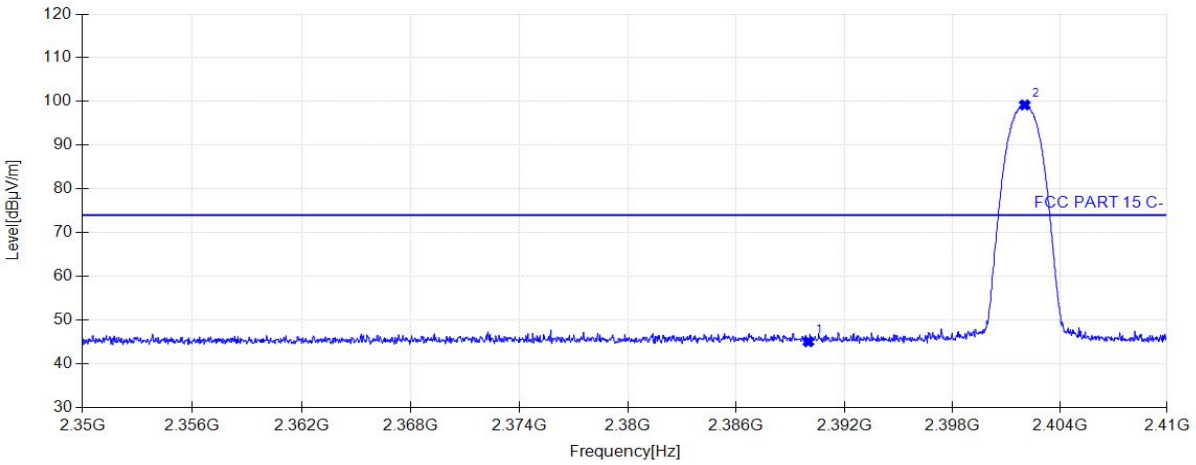


Suspected Data List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2480.08	93.61	33.22	54.00	-39.61	160	45	Vertical
2	2483.50	35.84	33.23	54.00	18.16	160	120	Vertical

Project Information			
EUT:	Caper Cart M3 Android	Model:	PCBA-CAP-CA03AN-RK
SN:	N/A	Voltage:	DC 24V
Environment:	Temp: 22℃; Humi:54%	Engineer:	Amos Xia
Remark:	Transmit by 3DH5 at Channel 2402MHz		

Start of Test:2023-02-19 18:03:46

Test Graph

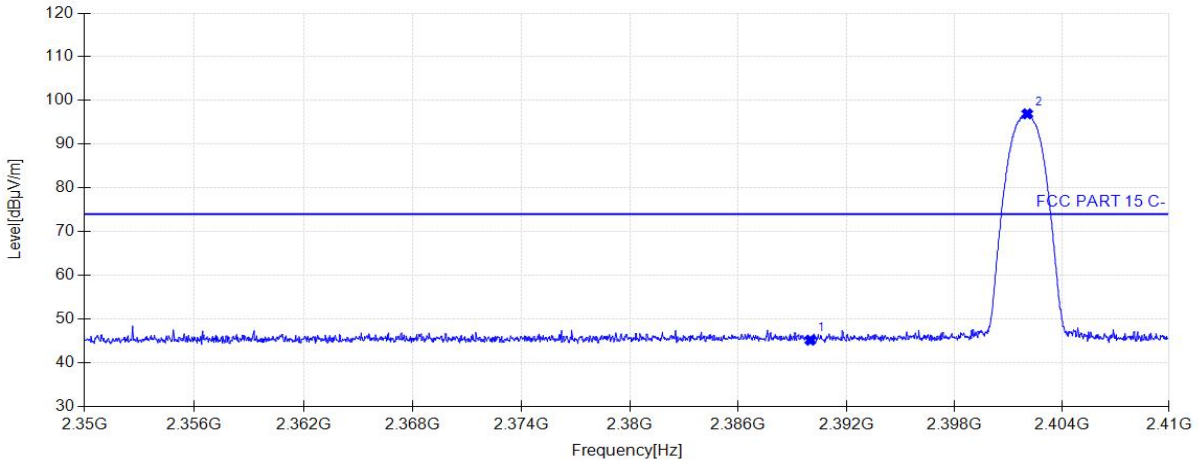


Suspected Data List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2390.00	45.04	32.74	74.00	28.96	160	357	Horizontal
2	2402.05	99.22	32.80	74.00	-25.22	160	82	Horizontal

Project Information			
EUT:	Caper Cart M3 Android	Model:	PCBA-CAP-CA03AN-RK
SN:	N/A	Voltage:	DC 24V
Environment:	Temp: 22℃; Humi:54%	Engineer:	Amos Xia
Remark:	Transmit by 3DH5 at Channel 2402MHz		

Start of Test:2023-02-19 18:04:39

Test Graph

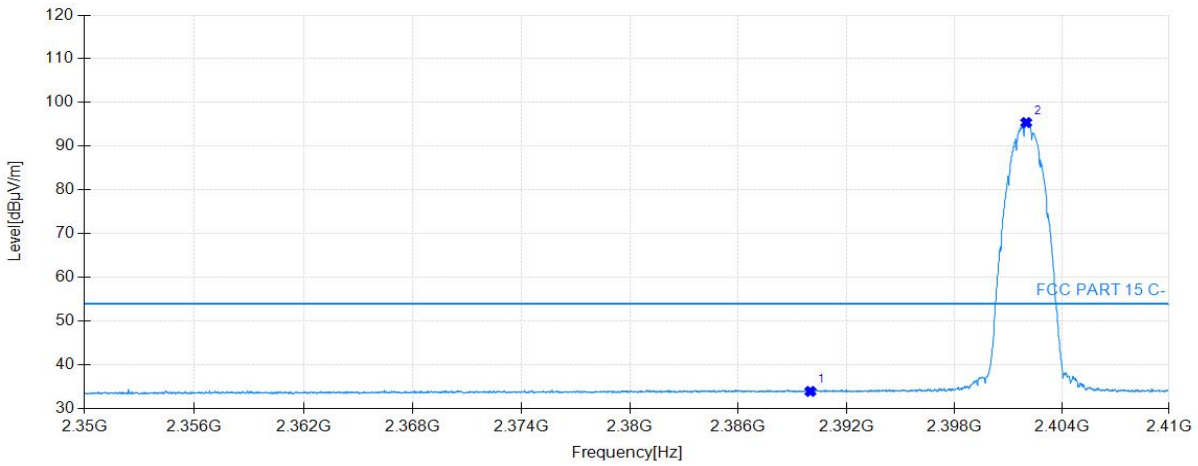


Suspected Data List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2390.00	45.17	32.74	74.00	28.83	160	175	Vertical
2	2402.08	96.95	32.80	74.00	-22.95	160	126	Vertical

Project Information			
EUT:	Caper Cart M3 Android	Model:	PCBA-CAP-CA03AN-RK
SN:	N/A	Voltage:	DC 24V
Environment:	Temp: 22℃; Humi:54%	Engineer:	Amos Xia
Remark:	Transmit by 3DH5 at Channel 2402MHz		

Start of Test:2023-02-19 18:06:08

Test Graph

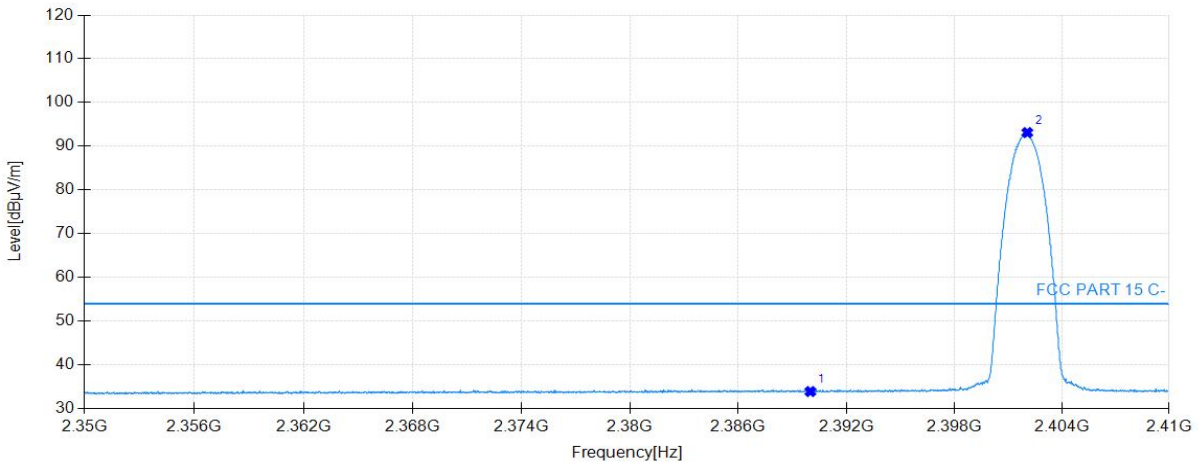


Suspected Data List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2390.00	33.90	32.74	54.00	20.10	160	20	Horizontal
2	2402.02	95.41	32.80	54.00	-41.41	160	82	Horizontal

Project Information			
EUT:	Caper Cart M3 Android	Model:	PCBA-CAP-CA03AN-RK
SN:	N/A	Voltage:	DC 24V
Environment:	Temp: 22℃; Humi:54%	Engineer:	Amos Xia
Remark:	Transmit by 3DH5 at Channel 2402MHz		

Start of Test:2023-02-19 18:07:01

Test Graph

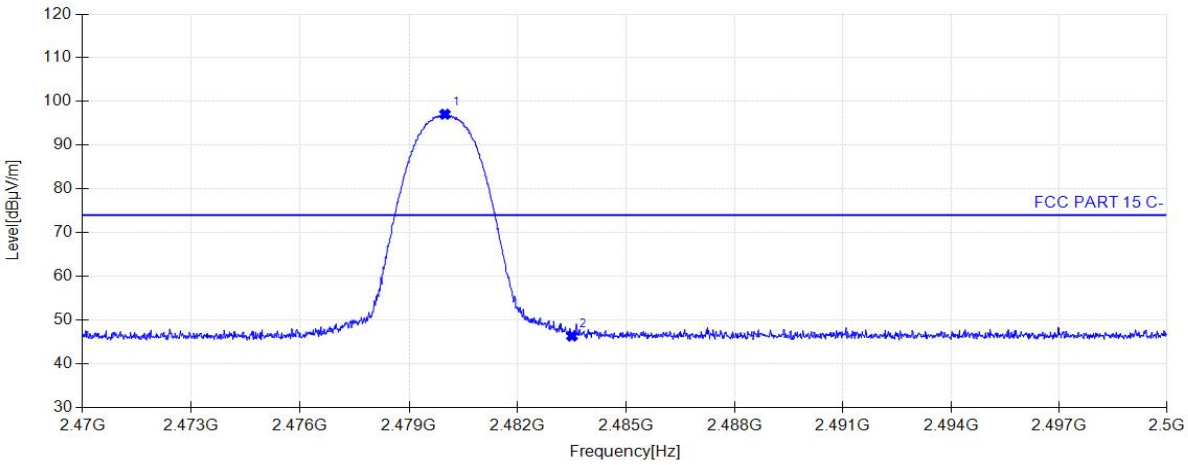


Suspected Data List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2390.00	33.87	32.74	54.00	20.13	160	15	Vertical
2	2402.08	93.13	32.80	54.00	-39.13	160	133	Vertical

Project Information			
EUT:	Caper Cart M3 Android	Model:	PCBA-CAP-CA03AN-RK
SN:	N/A	Voltage:	DC 24V
Environment:	Temp: 22℃; Humi:54%	Engineer:	Amos Xia
Remark:	Transmit by 3DH5 at Channel 2480MHz		

Start of Test:2023-02-19 18:09:36

Test Graph

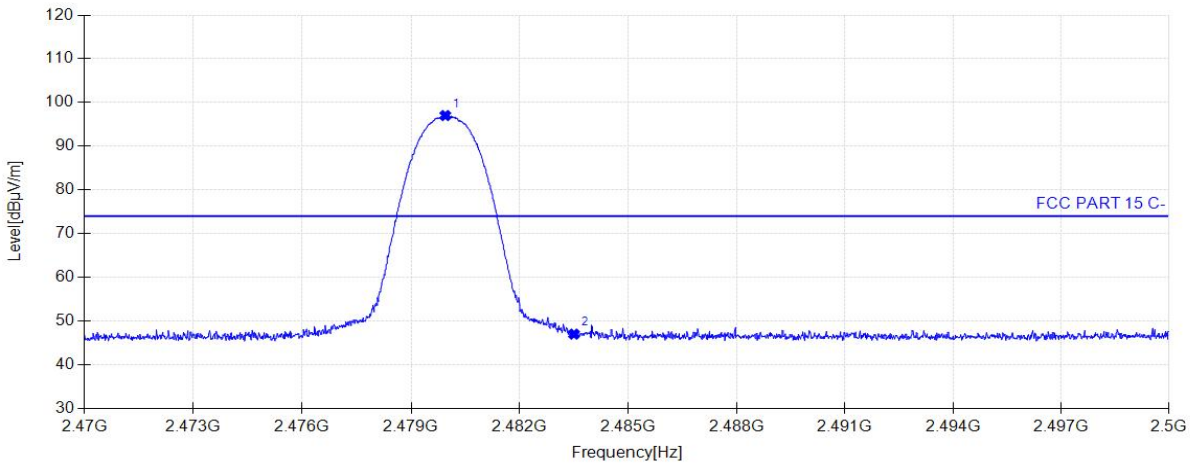


Suspected Data List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2479.99	97.09	33.21	74.00	-23.09	160	81	Horizontal
2	2483.50	46.34	33.23	74.00	27.66	160	109	Horizontal

Project Information			
EUT:	Caper Cart M3 Android	Model:	PCBA-CAP-CA03AN-RK
SN:	N/A	Voltage:	DC 24V
Environment:	Temp: 22℃; Humi:54%	Engineer:	Amos Xia
Remark:	Transmit by 3DH5 at Channel 2480MHz		

Start of Test:2023-02-19 18:10:28

Test Graph

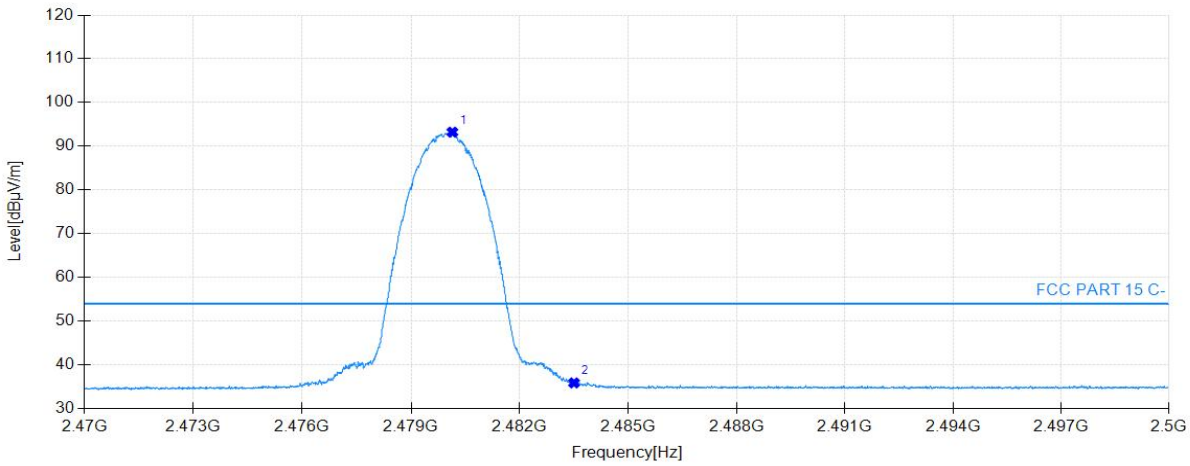


Suspected Data List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2479.94	97.02	33.21	74.00	-23.02	160	44	Vertical
2	2483.50	47.00	33.23	74.00	27.00	160	65	Vertical

Project Information			
EUT:	Caper Cart M3 Android	Model:	PCBA-CAP-CA03AN-RK
SN:	N/A	Voltage:	DC 24V
Environment:	Temp: 22℃; Humi:54%	Engineer:	Amos Xia
Remark:	Transmit by 3DH5 at Channel 2480MHz		

Start of Test:2023-02-19 18:11:55

Test Graph

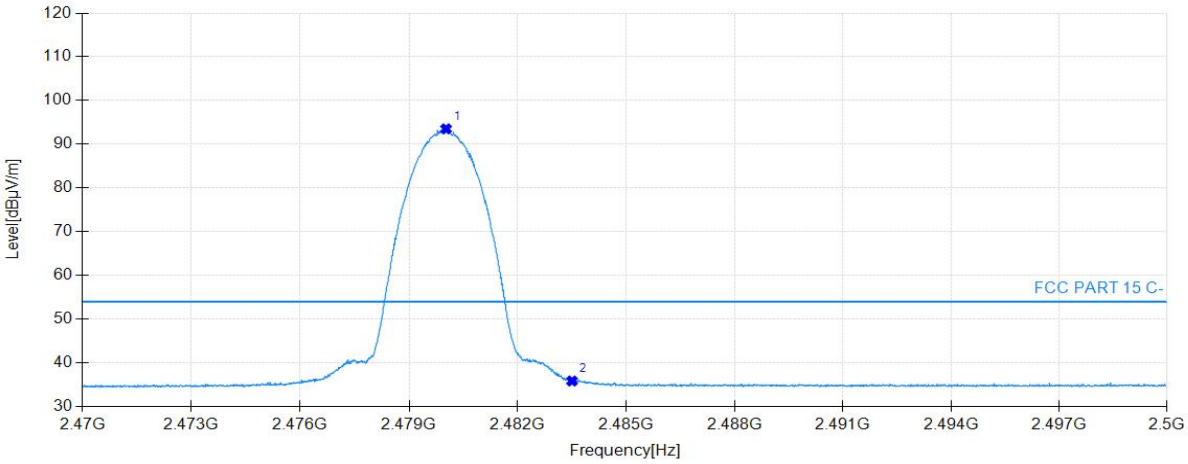


Suspected Data List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2480.14	93.23	33.22	54.00	-39.23	160	82	Horizontal
2	2483.50	35.85	33.23	54.00	18.15	160	219	Horizontal

Project Information			
EUT:	Caper Cart M3 Android	Model:	PCBA-CAP-CA03AN-RK
SN:	N/A	Voltage:	DC 24V
Environment:	Temp: 22℃; Humi:54%	Engineer:	Amos Xia
Remark:	Transmit by 3DH5 at Channel 2480MHz		

Start of Test:2023-02-19 18:12:47

Test Graph



Suspected Data List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2480.02	93.52	33.21	54.00	-39.52	160	174	Vertical
2	2483.50	35.82	33.23	54.00	18.18	160	154	Vertical

7.11. AC Conducted Emissions Measurement

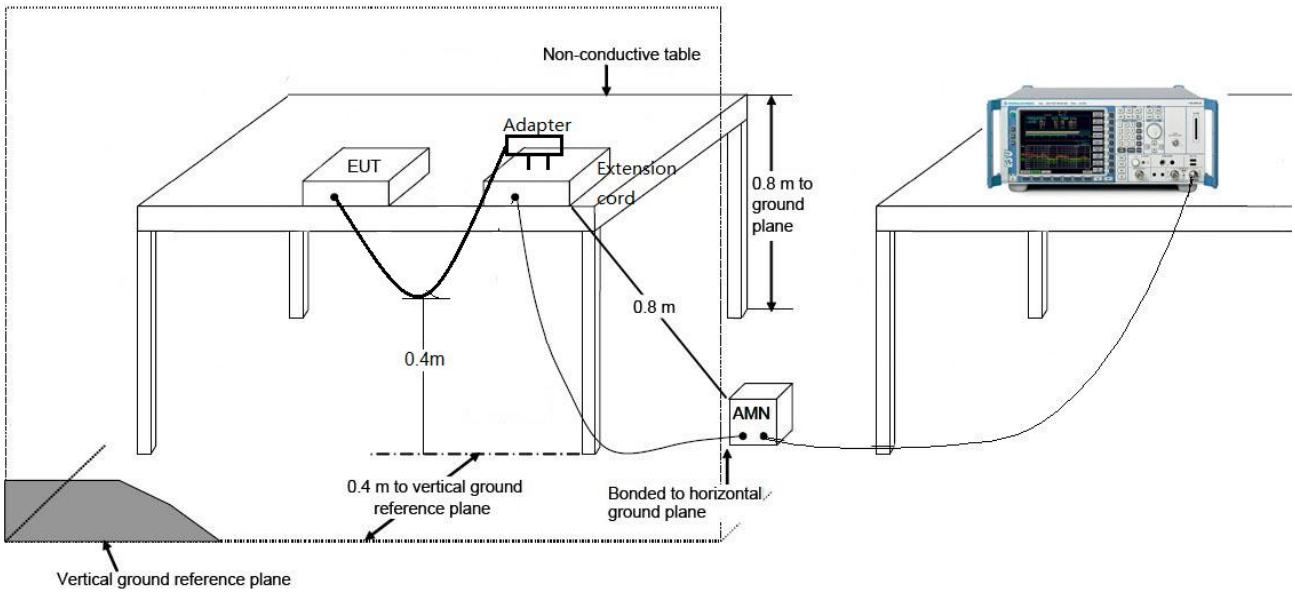
7.11.1. Test Limit

FCC Part 15 Subpart C Paragraph 15.207 Limits		
Frequency (MHz)	QP (dBμV)	Average (dBμV)
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Note 1: The lower limit shall apply at the transition frequencies.

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

7.11.2. Test Setup



7.11.3. Test Result

DC power supply, Not applicable.

8. CONCLUSION

The data collected relate only the item(s) tested and show that the **Caper Cart M3 Android board** is in compliance with Part 15C of the FCC and IC Rules.

The End