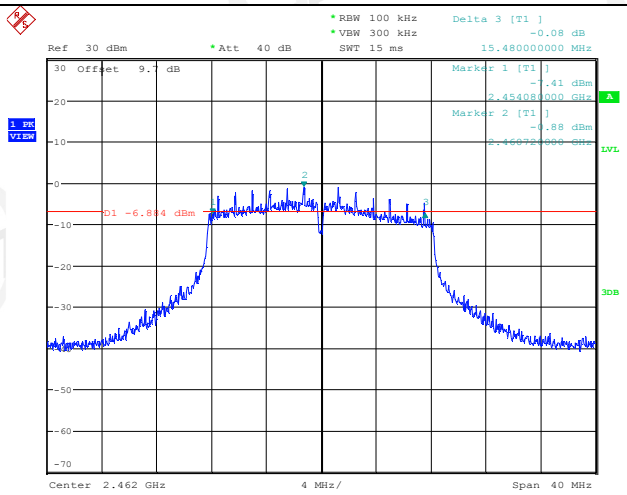
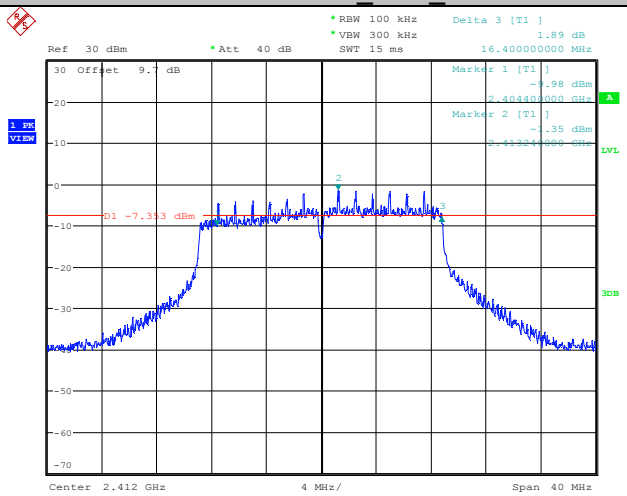
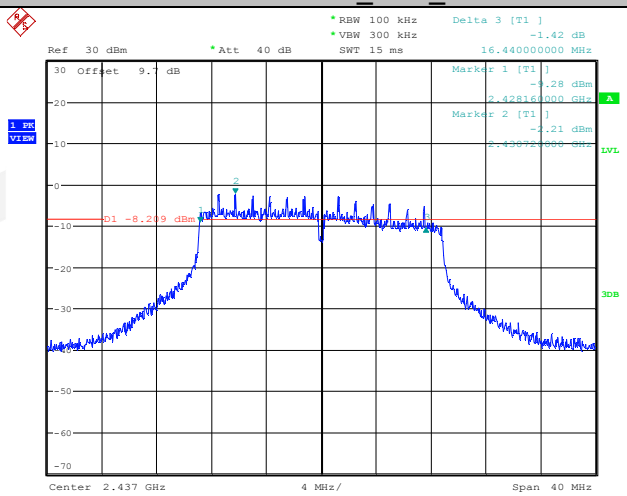


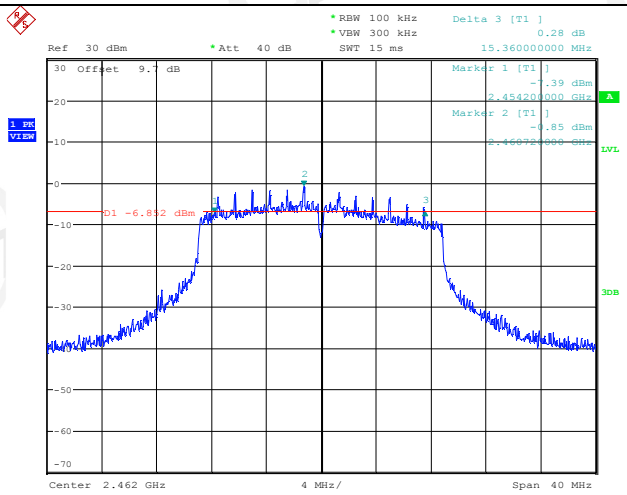
11N20SISO_Ant1_2412



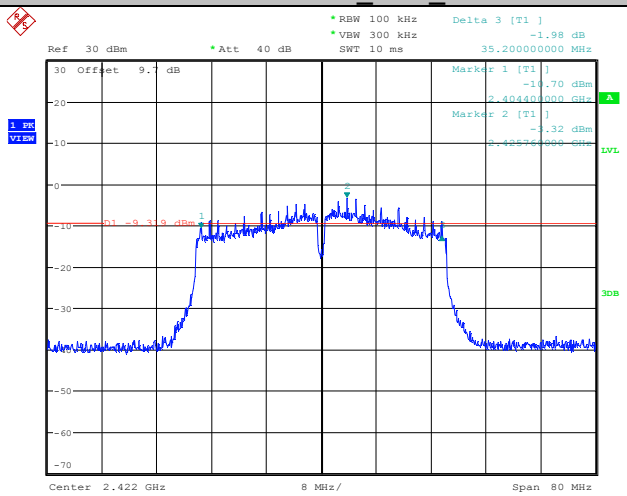
11N20SISO_Ant1_2437



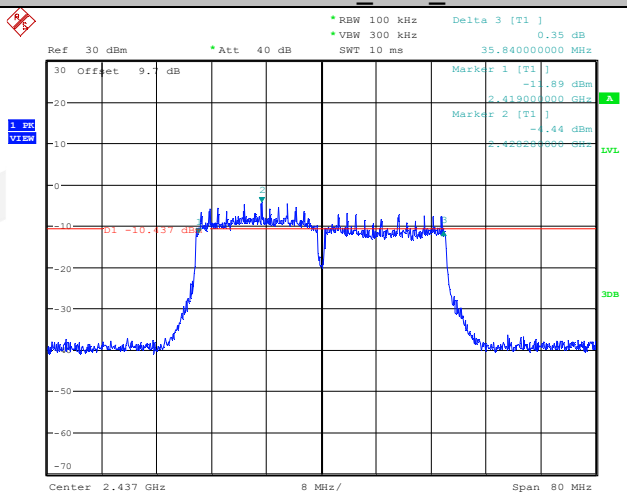
11N20SISO_Ant1_2462



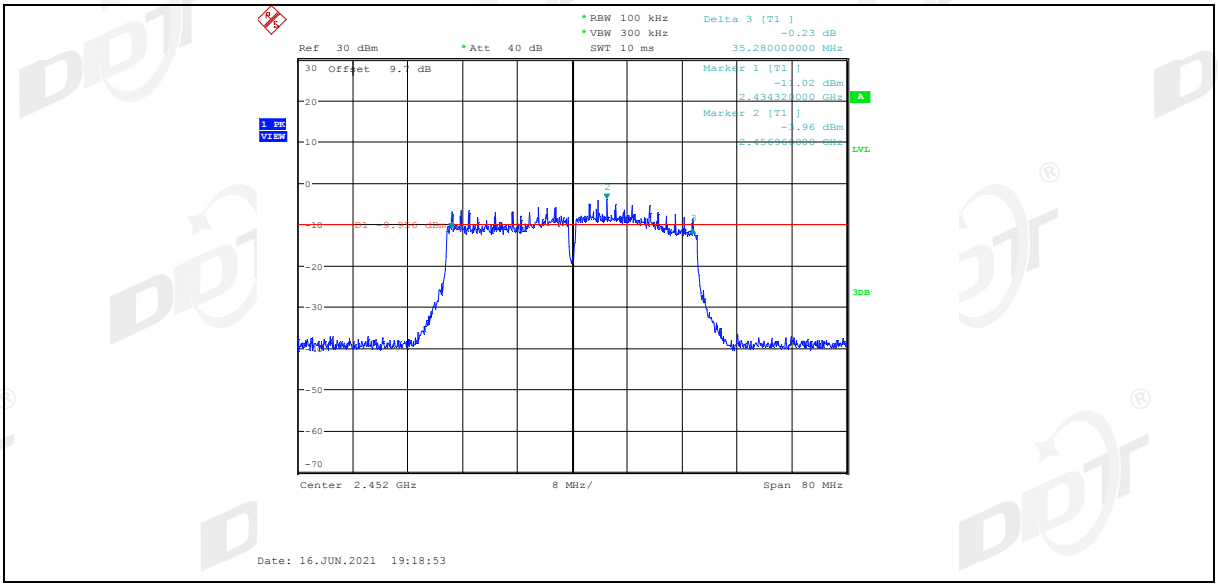
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437

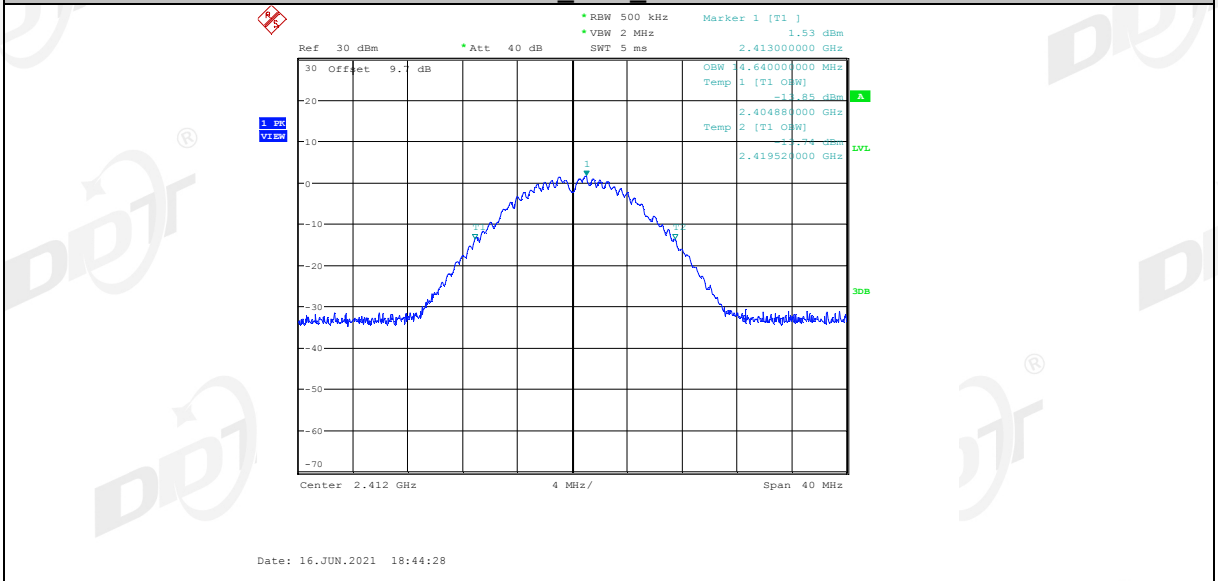


11N40SISO_Ant1_2452

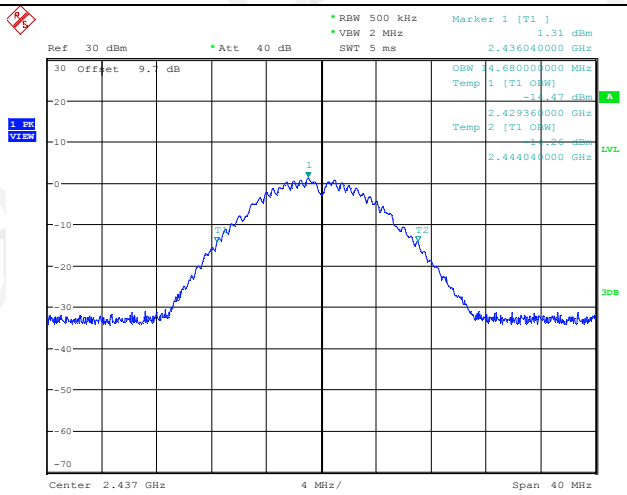


99% Bandwidth:

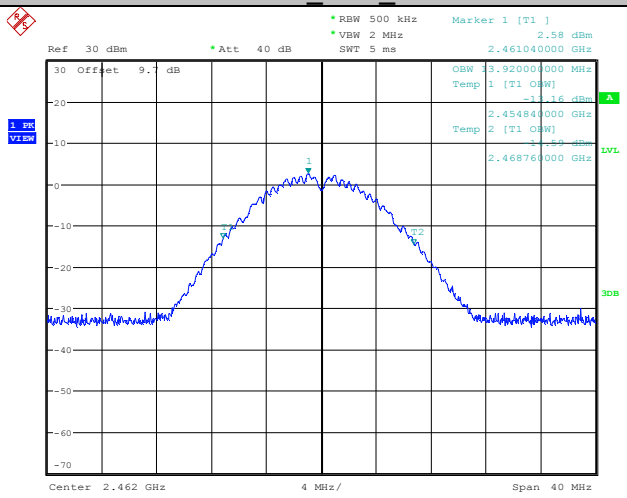
11B_Ant1_2412



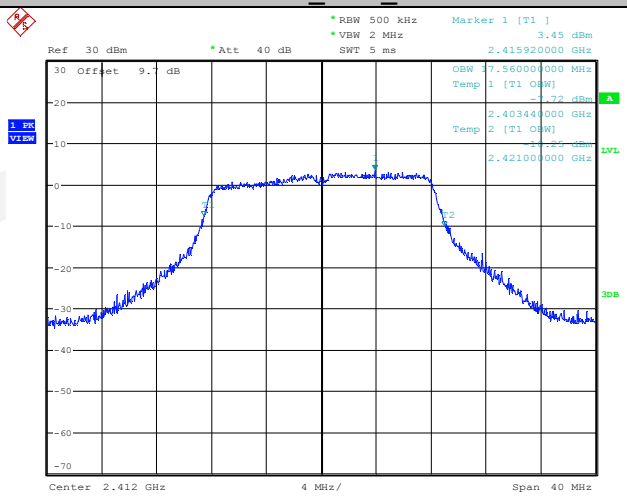
11B_Ant1_2437



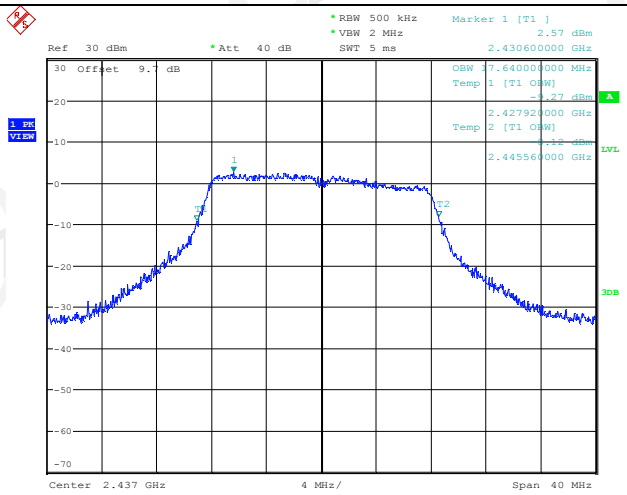
11B_Ant1_2462



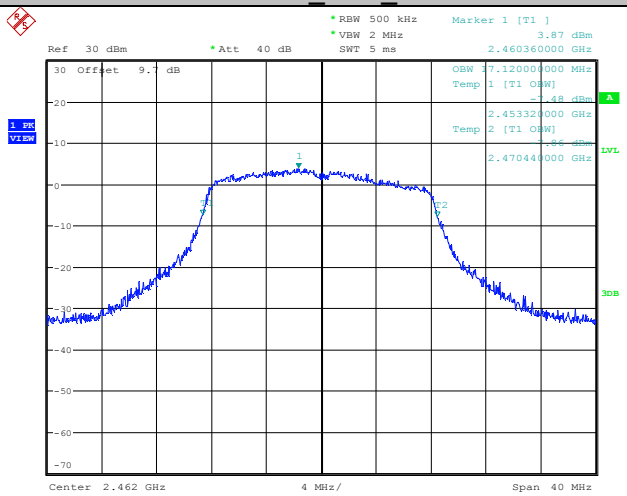
11G_Ant1_2412



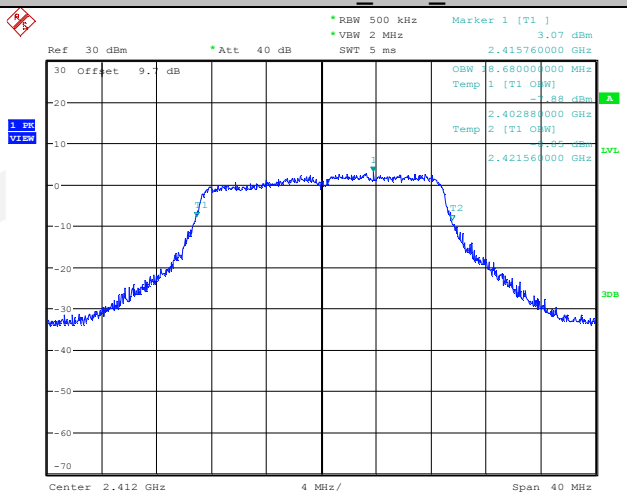
11G_Ant1_2437



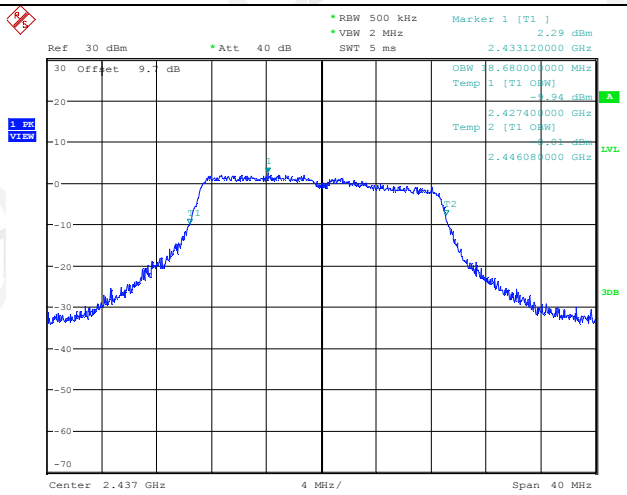
11G_Ant1_2462



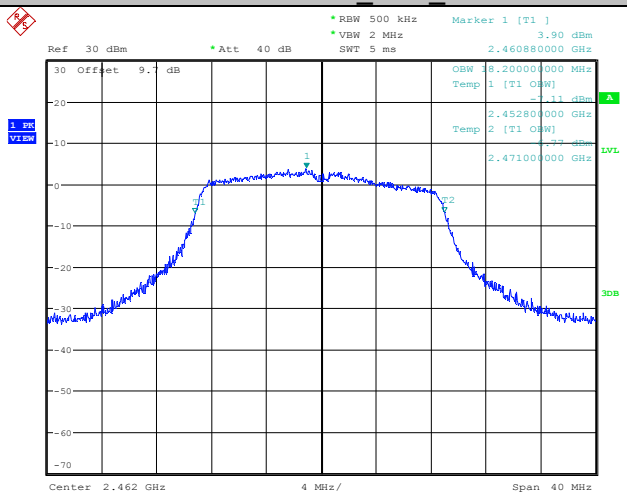
11N20SISO_Ant1_2412



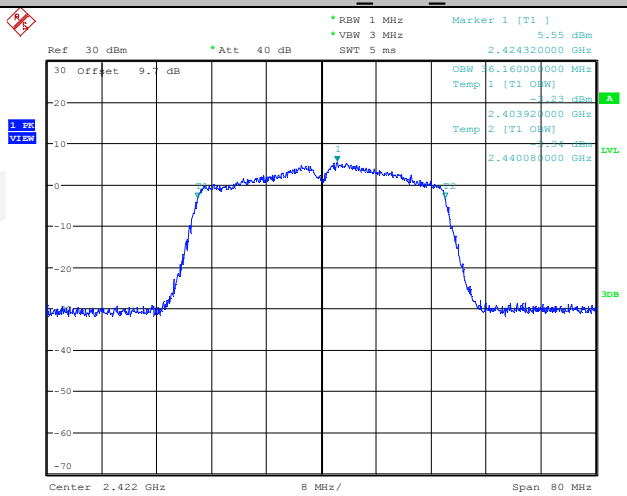
11N20SISO_Ant1_2437



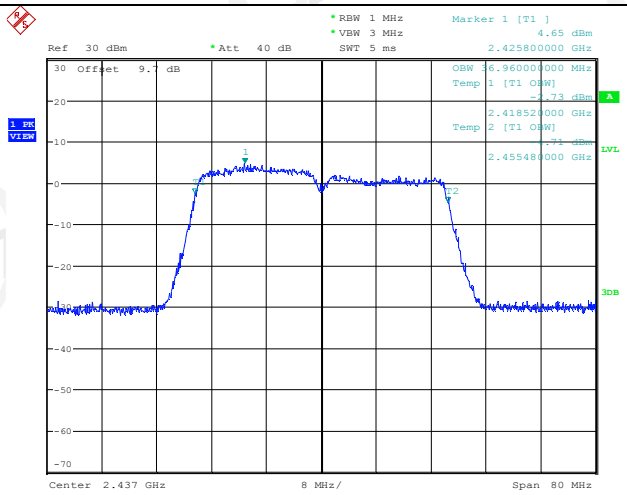
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422

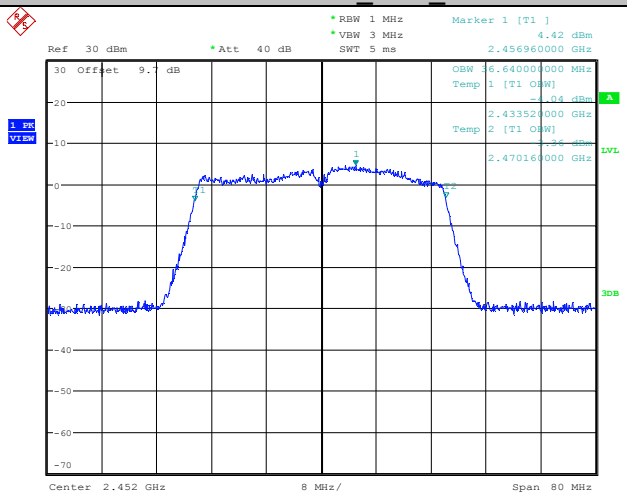


11N40SISO_Ant1_2437



Date: 16.JUN.2021 19:16:59

11N40SISO_Ant1_2452



Date: 16.JUN.2021 19:19:08

5. Conducted Peak Output Power

5.1. Block diagram of test setup

Same as section 4.1

5.2. Limits

For systems using digital modulation in the 902 - 928 MHz, 2400 - 2483.5 MHz, and 5725 - 5850 MHz bands: 1 Watt. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

5.3. Test procedure

Connect each EUT's antenna output to power sensor by RF cable and attenuator

Measure the PK output power of each antenna port by power sensor

5.4. Test result

Test Mode	Antenna	Channel	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	8.57	<=30	Pass
		2437	8.61	<=30	Pass
		2462	8.65	<=30	Pass
11G	Ant1	2412	8.12	<=30	Pass
		2437	8.10	<=30	Pass
		2462	8.19	<=30	Pass
11N20SISO	Ant1	2412	8.05	<=30	Pass
		2437	7.98	<=30	Pass
		2462	7.90	<=30	Pass
11N40SISO	Ant1	2422	8.47	<=30	Pass
		2437	8.37	<=30	Pass
		2452	8.55	<=30	Pass

6. Power Spectral Density

6.1. Block diagram of test setup

Same as section 4.1

6.2. Limits

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

6.3. Test procedure

(1) Connect EUT's antenna output to spectrum analyzer by RF cable.

(2) Set the spectrum analyzer as follows:

Center frequency	DTS Channel center frequency
RBW:	3 kHz ≤ RBW ≤ 100 kHz
VBW:	≥ 3RBW
Span	1.5 times the DTS bandwidth
Detector Mode:	Peak
Sweep time:	auto
Trace mode	Max hold

(3) Allow the trace to stabilize, use the peak marker function to determine the maximum amplitude level within the RBW.

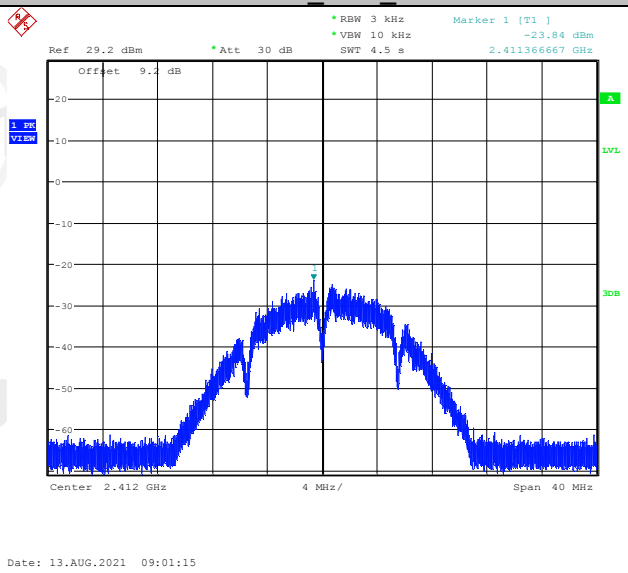
(4) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

6.4. Test result

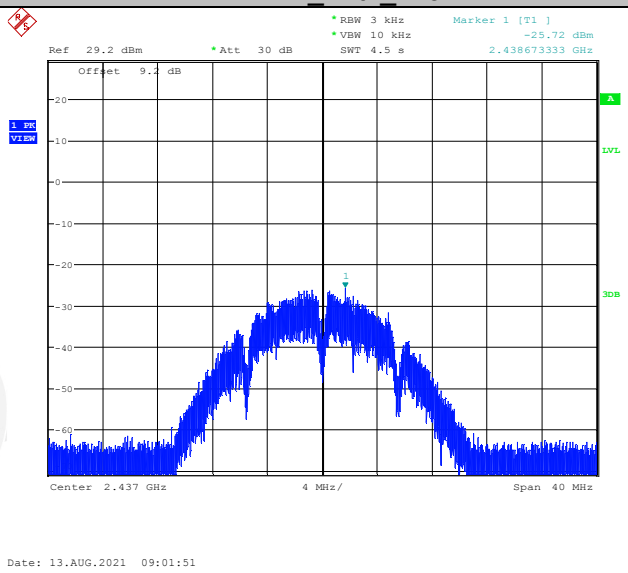
Test Mode	Antenna	Channel [MHz]	Result [dBm/ 3 kHz]	Limit [dBm/ 3 kHz]	Verdict
11B	ANT1	2412	-23.84	8	Pass
11B	ANT1	2437	-25.72	8	Pass
11B	ANT1	2462	-24.81	8	Pass
11G	ANT1	2412	-27.99	8	Pass
11G	ANT1	2437	-27.28	8	Pass
11G	ANT1	2462	-26.69	8	Pass
11N20SISO	ANT1	2412	-27.29	8	Pass
11N20SISO	ANT1	2437	-28.18	8	Pass
11N20SISO	ANT1	2462	-27.29	8	Pass
11N40SISO	ANT1	2422	-30.14	8	Pass
11N40SISO	ANT1	2437	-30.81	8	Pass
11N40SISO	ANT1	2452	-28.35	8	Pass

6.5. Original test data

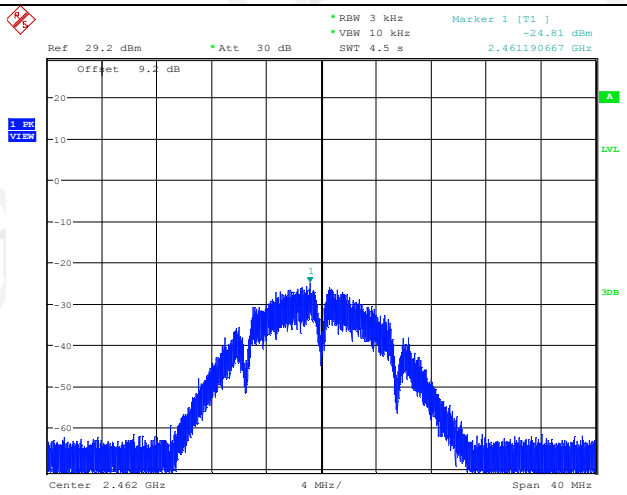
11B_Ant1_2412



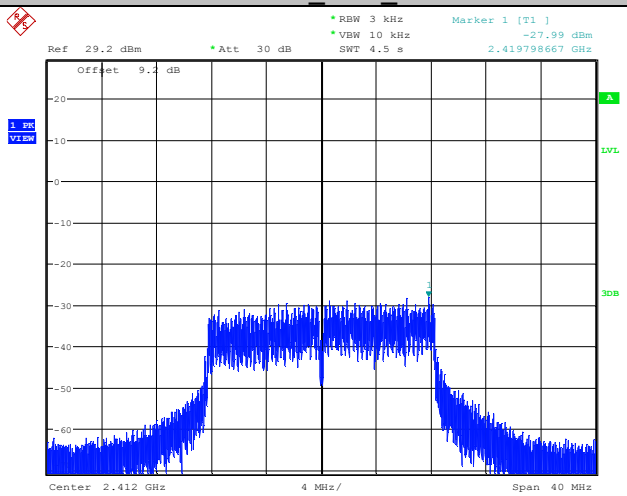
11B_Ant1_2437



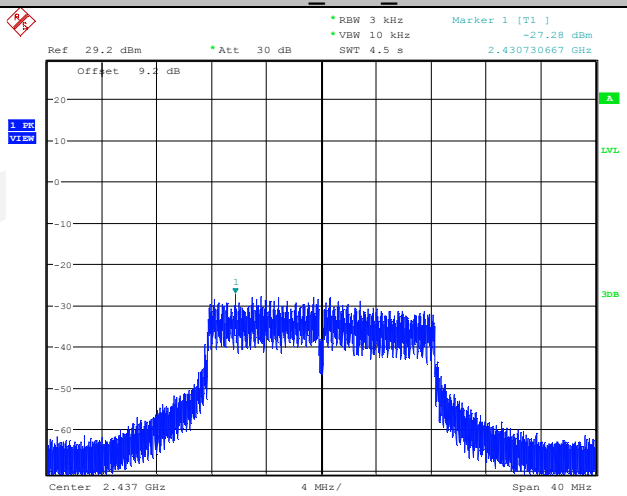
11B_Ant1_2462



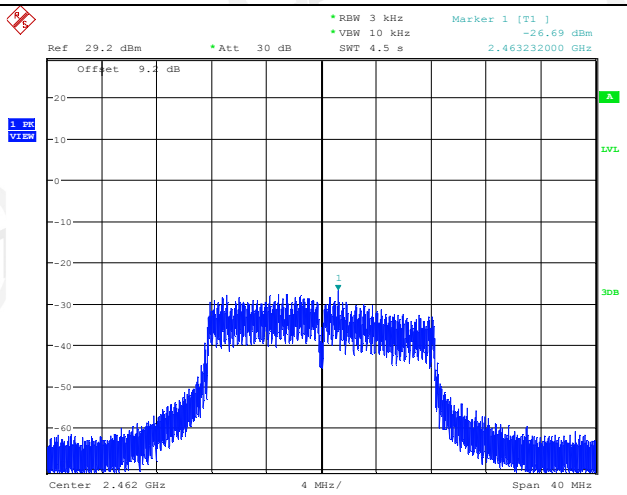
11G_Ant1_2412



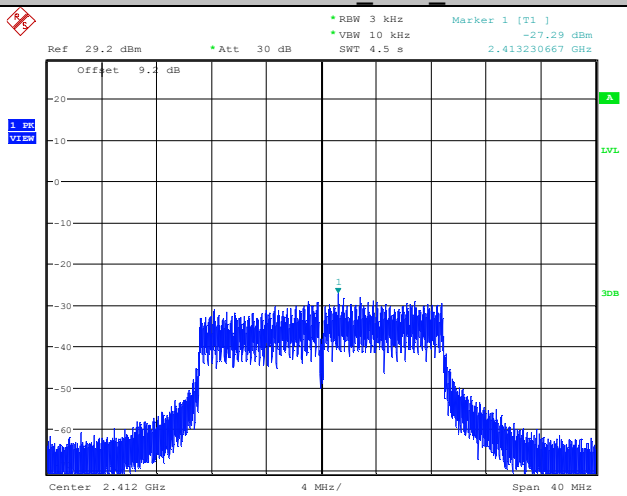
11G_Ant1_2437



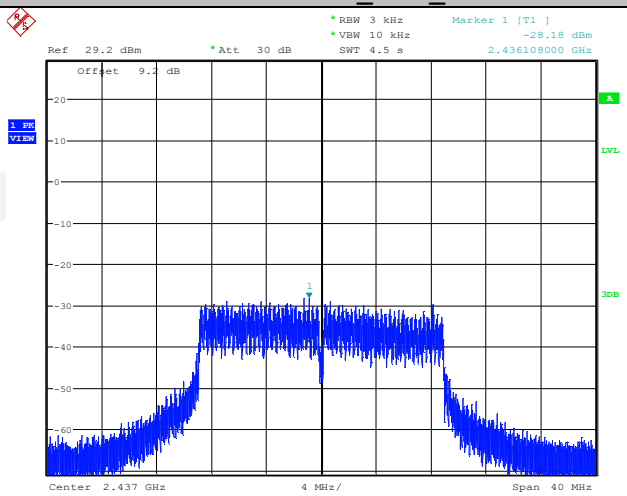
11G_Ant1_2462



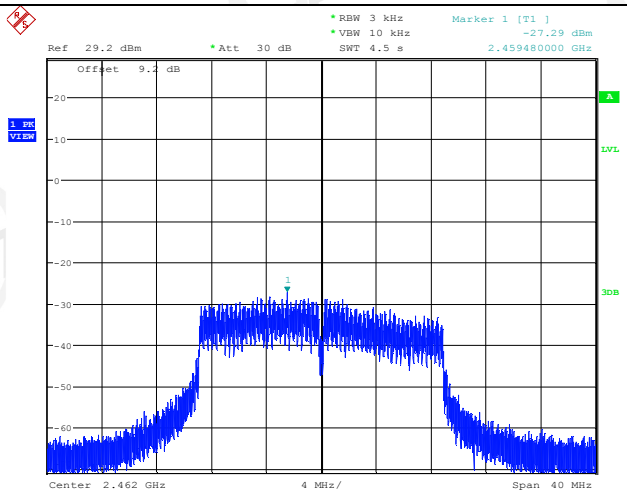
11N20SISO_Ant1_2412



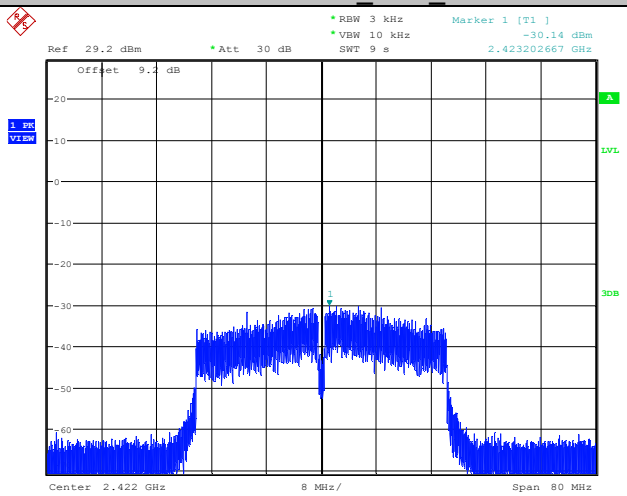
11N20SISO_Ant1_2437



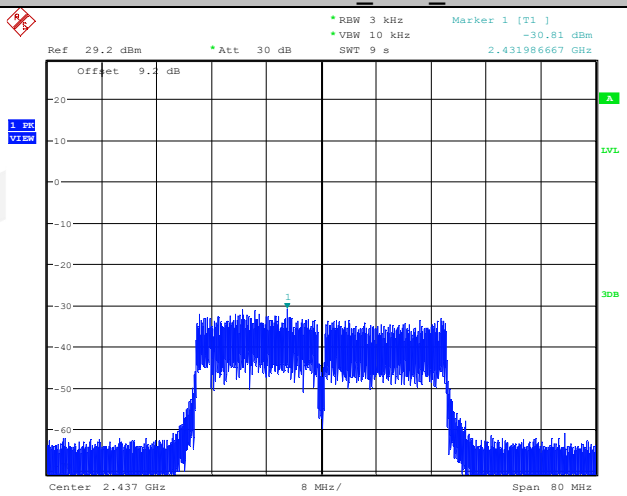
11N20SISO_Ant1_2462



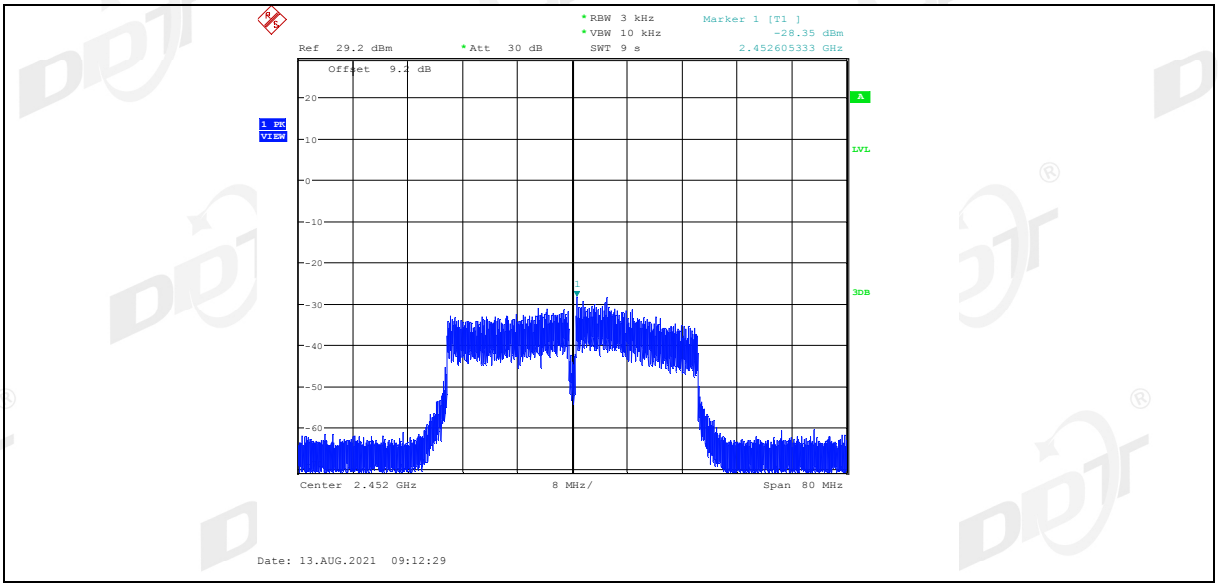
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452


RBW 3 kHz
VBW 10 kHz
SWT 9 s
Marker 1 [T1]
-28.35 dBm
2.452605333 GHz
Ref 29.2 dBm
Att 30 dB
Offset 9.2 dB
1 PK
VIEW
A
LVL
3DB
Center 2.452 GHz
8 MHz/
Span 80 MHz
Date: 13.AUG.2021 09:12:29

7. Band Edge and Spurious Emissions (Conducted)

7.1. Block diagram of test setup

Same as section 4.1

7.2. Limits

In any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

7.3. Test procedure

(1) Connect EUT's antenna output to spectrum analyzer by RF cable.

(2) Establish a reference level by using the following procedure:

Center frequency	DTS Channel center frequency
RBW:	100 kHz
VBW:	300 kHz
Span	1.5 times the DTS bandwidth
Detector Mode:	Peak
Sweep time:	auto
Trace mode	Max hold

(3) Allow the trace to stabilize, use the peak marker function to determine the maximum peak power level to establish the reference level.

(4) Set the spectrum analyzer as follows:

RBW:	100 kHz
VBW:	300 kHz
Span	Encompass frequency range to be measured
Number of measurement points	≥span/RBW
Detector Mode:	Peak
Sweep time:	auto
Trace mode	Max hold

(5) Allow the trace to stabilize, use the peak marker function to determine the maximum amplitude of all unwanted emissions outside of the authorized frequency band

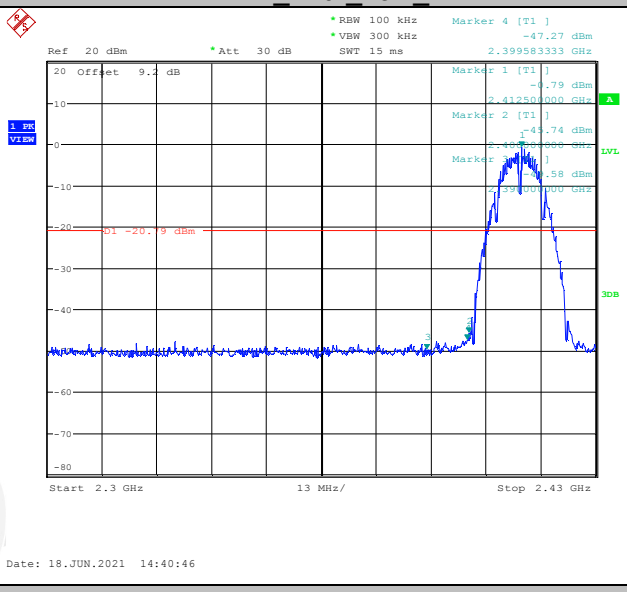
7.4. Test result

EUT Set Mode	CH or Frequency	Ant1 Result (dBm)	EUT Set Mode	CH or Frequency	Ant1 Result (dBm)
11b	CH1	Pass	11n HT 20	CH1	Pass
	CH6	Pass		CH6	Pass
	CH11	Pass		CH11	Pass
11g	CH1	Pass	11n HT 40	CH3	Pass
	CH6	Pass		CH6	Pass
	CH11	Pass		CH9	Pass

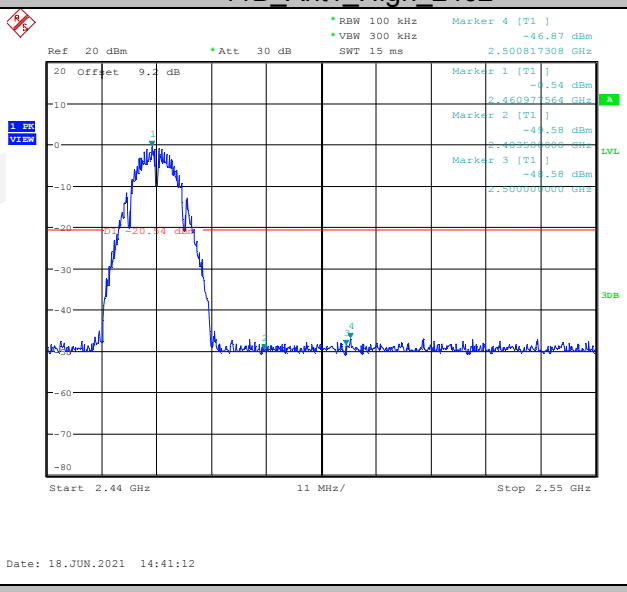
7.5. Original test data

Band Edge:

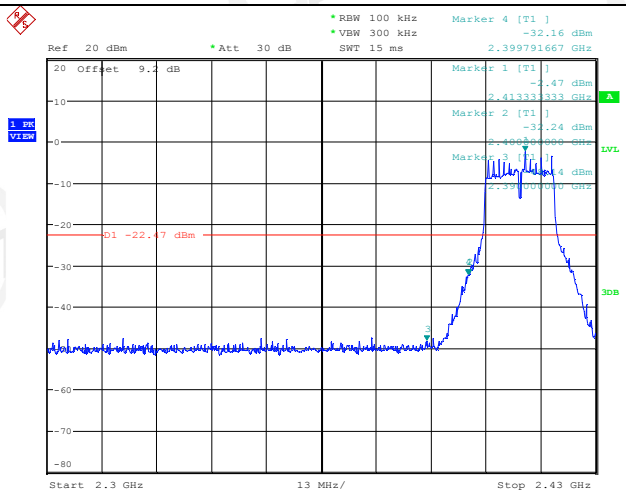
11B_Ant1_Low_2412



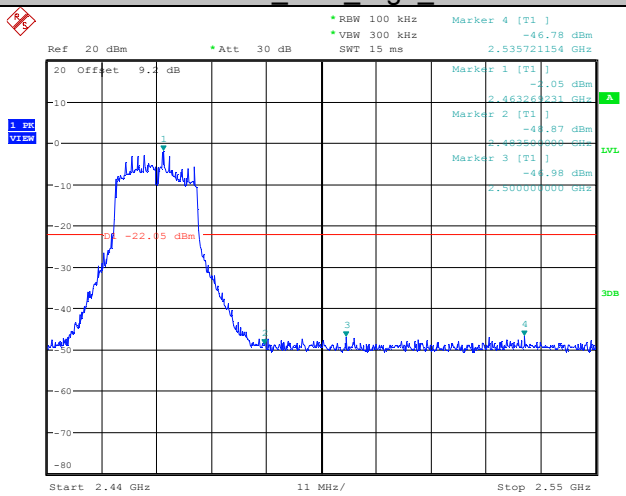
11B_Ant1_High_2462



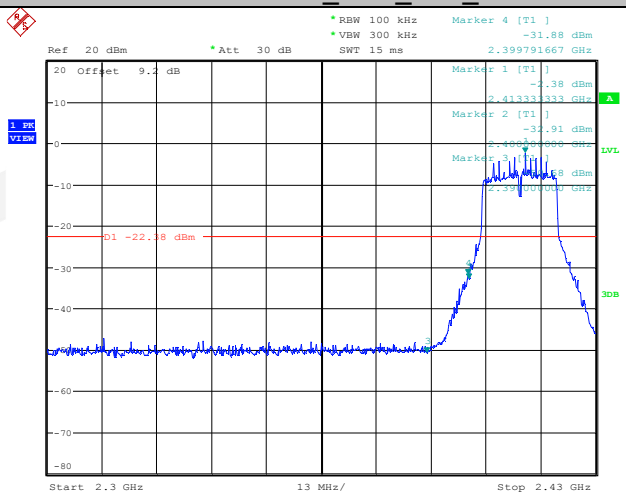
11G_Ant1_Low_2412



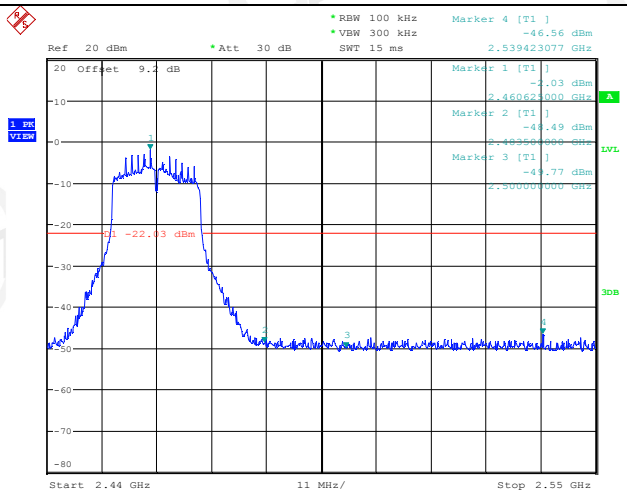
11G_Ant1_High_2462



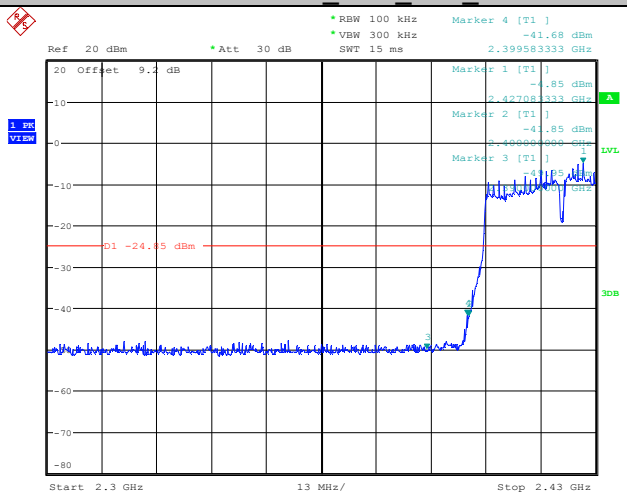
11N20SISO_Ant1_Low_2412



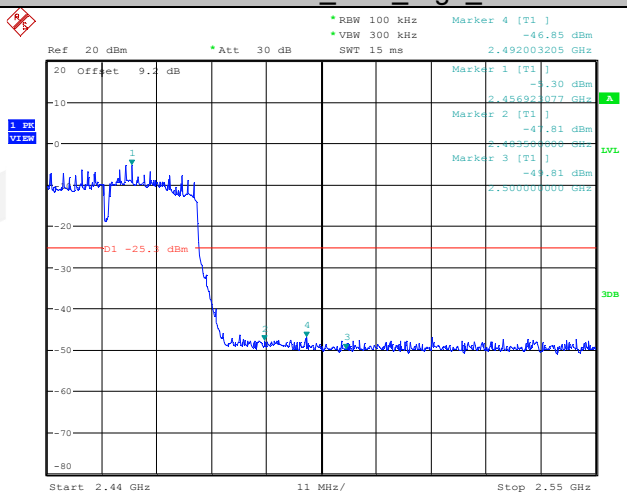
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422

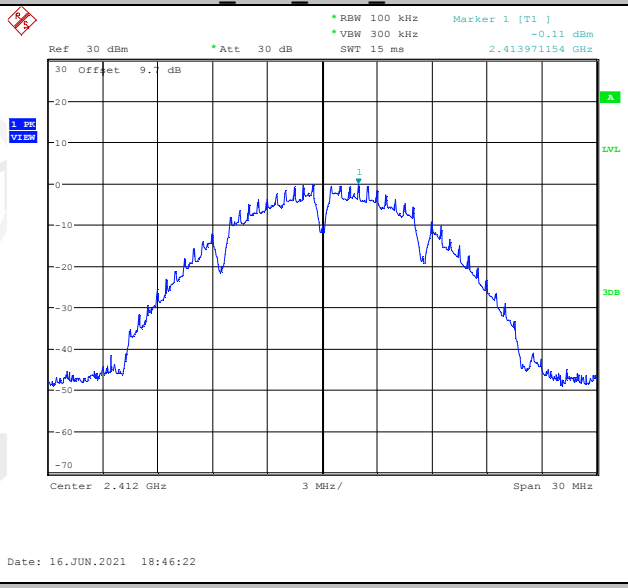


11N40SISO_Ant1_High_2452

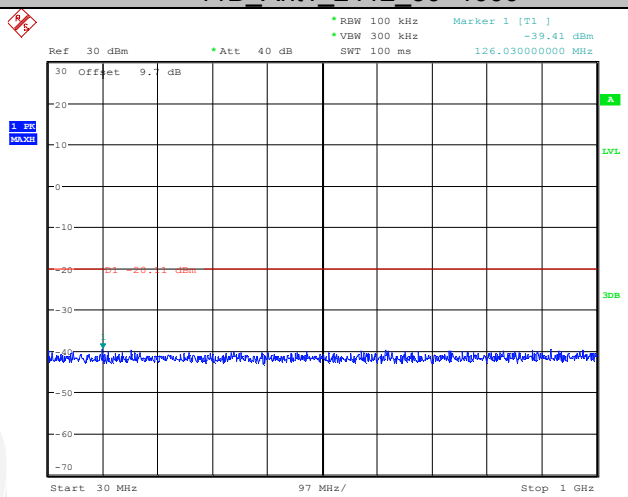


Spurious Emissions:

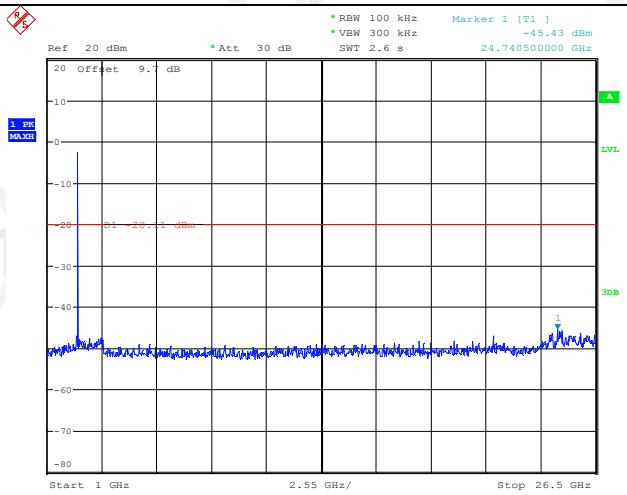
11B_Ant1_2412_0~Reference



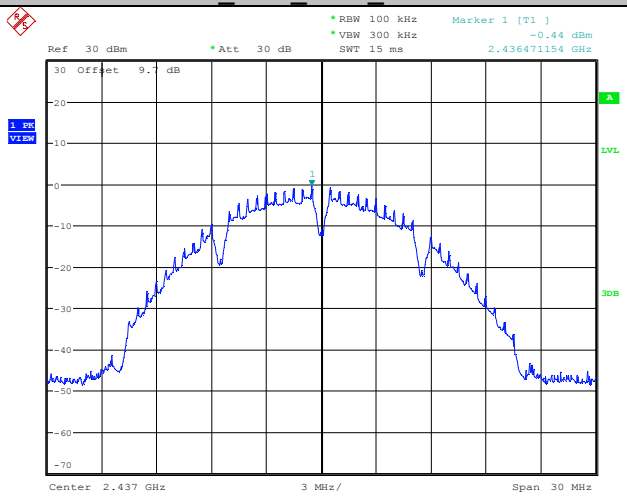
11B_Ant1_2412_30~1000



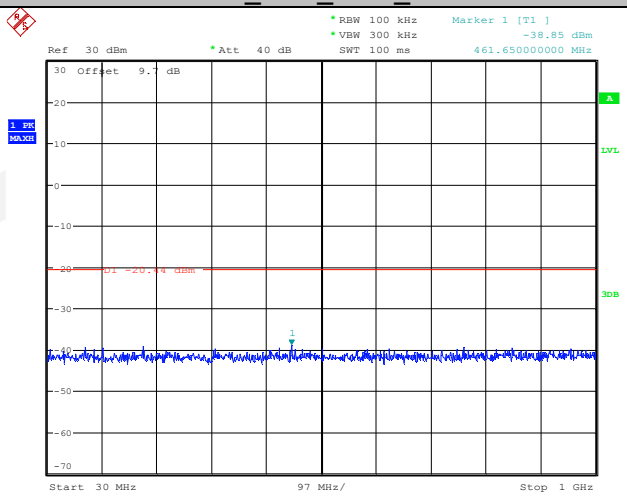
11B_Ant1_2412_1000~26500



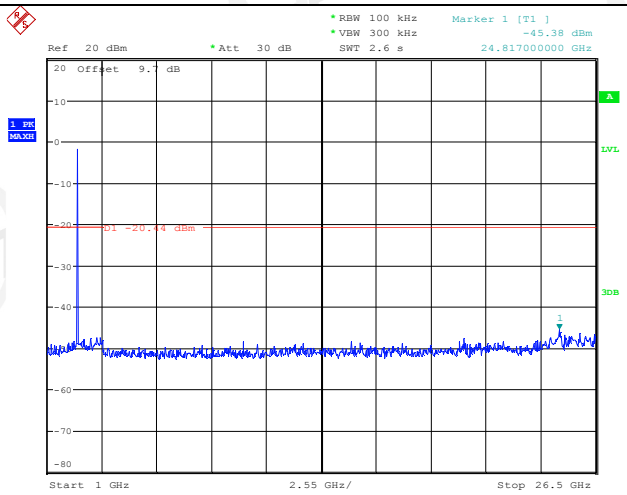
11B_Ant1_2437_0~Reference



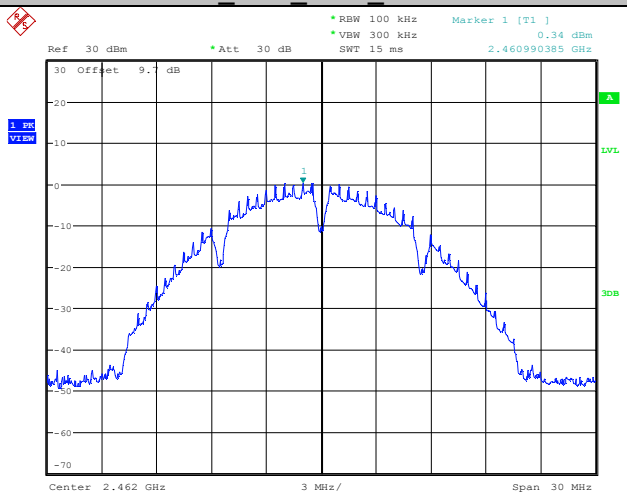
11B_Ant1_2437_30~1000



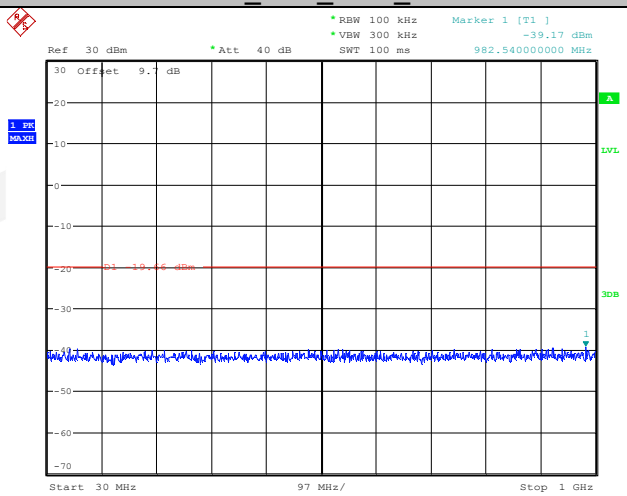
11B_Ant1_2437_1000~26500



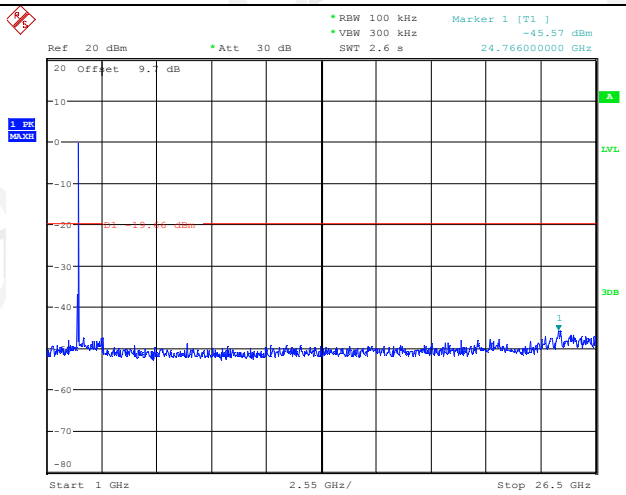
11B_Ant1_2462_0~Reference



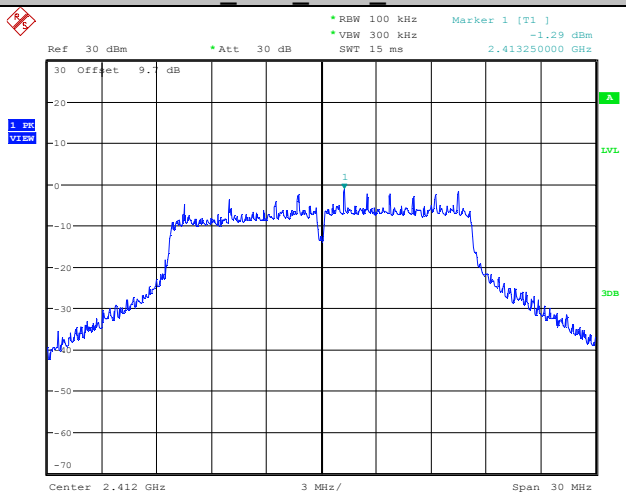
11B_Ant1_2462_30~1000



11B_Ant1_2462_1000~26500



11G_Ant1_2412_0~Reference



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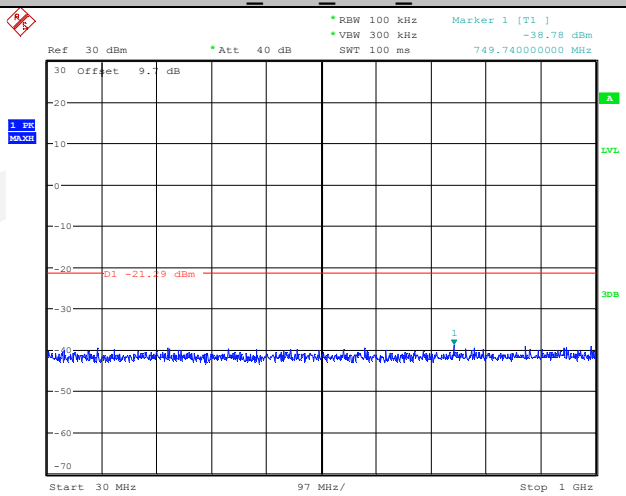

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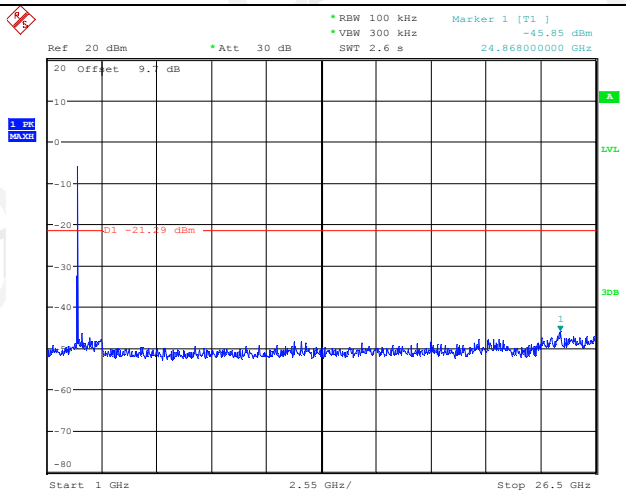

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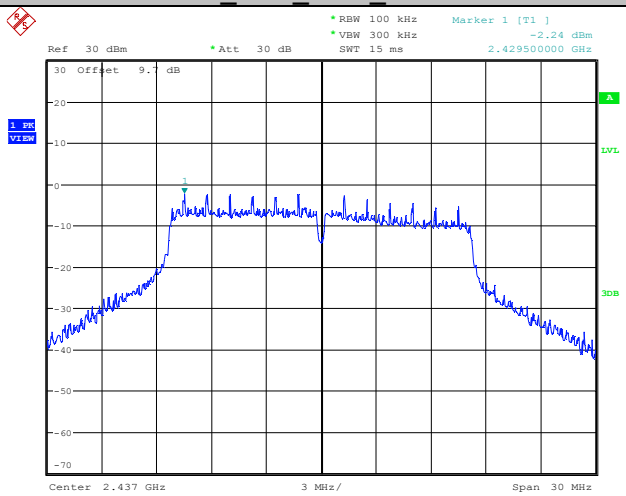

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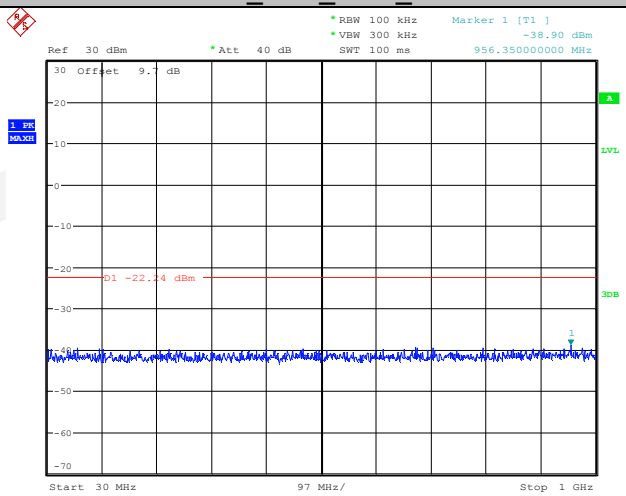

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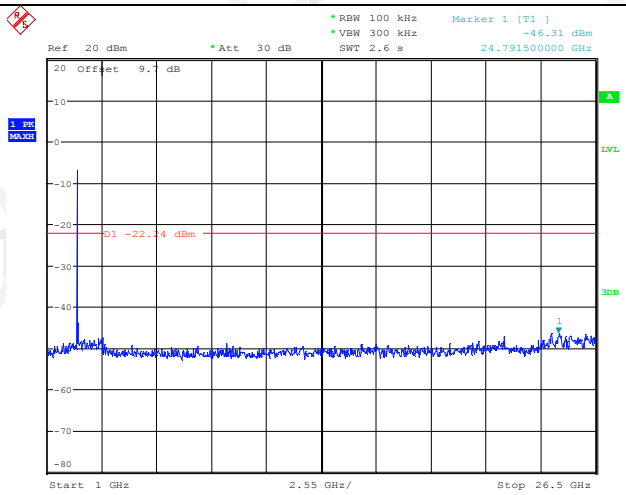

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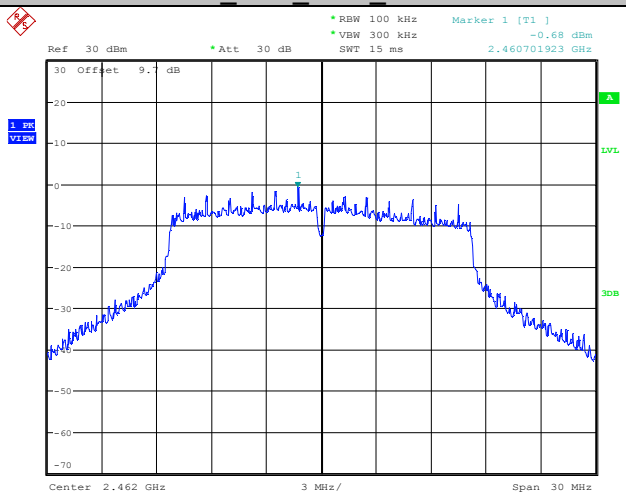

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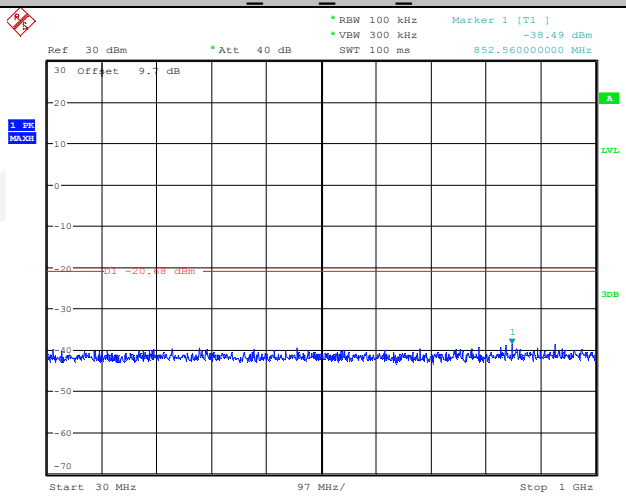

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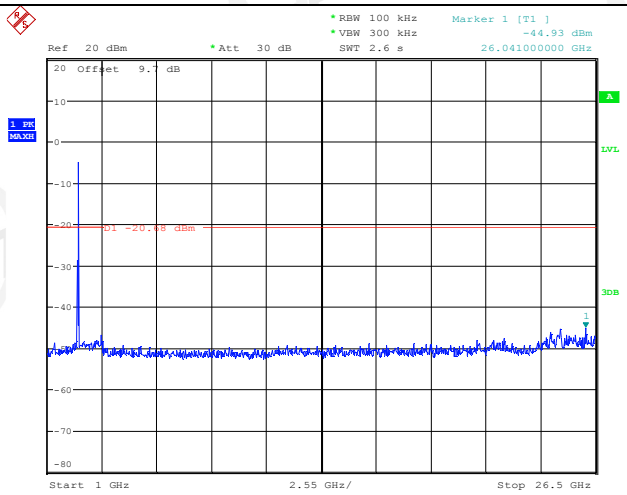

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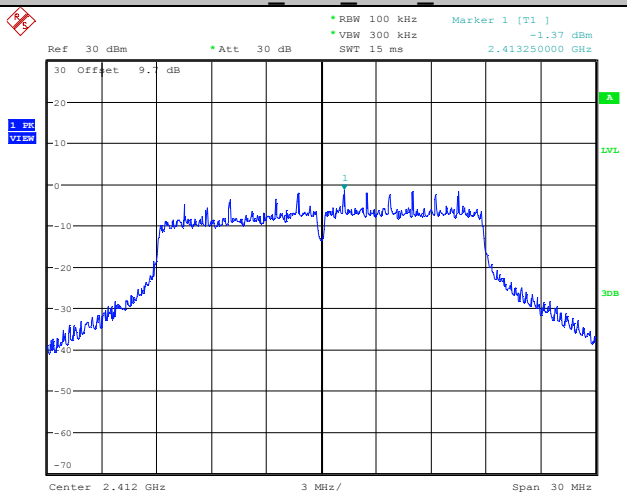

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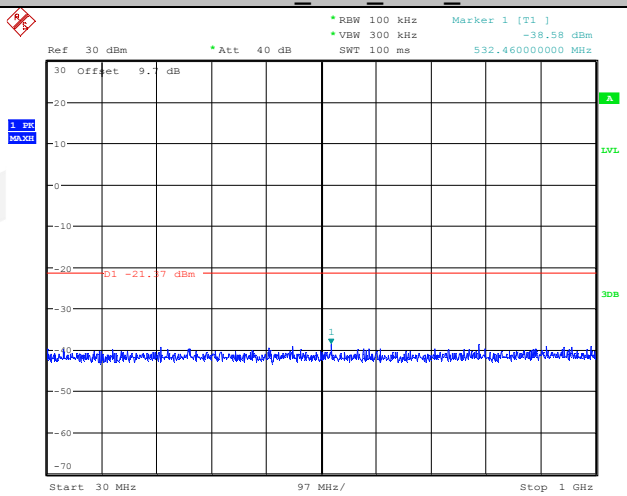
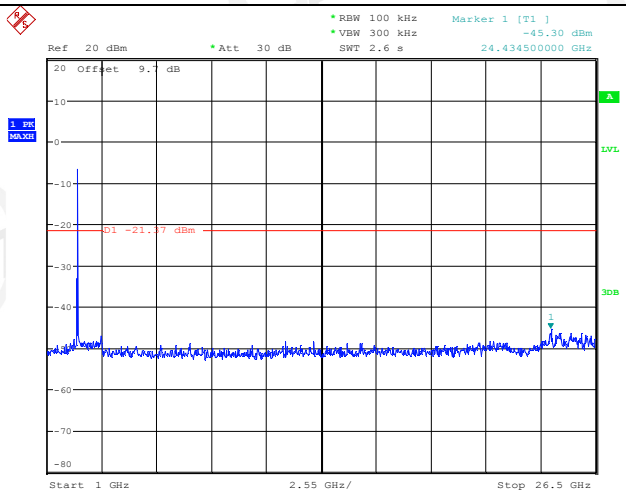


11N20SISO_Ant1_2412_1000~26500



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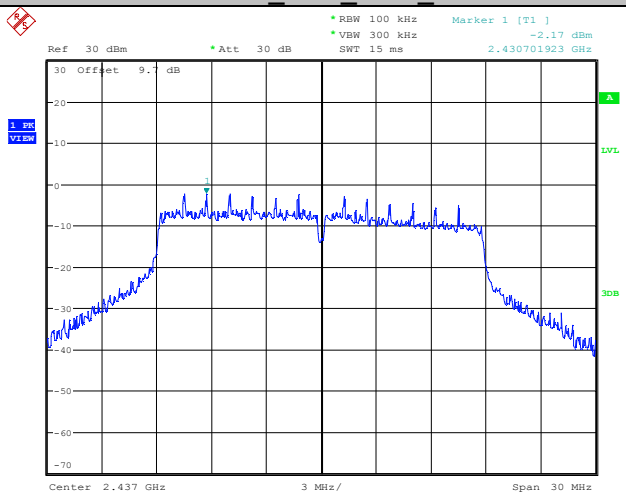

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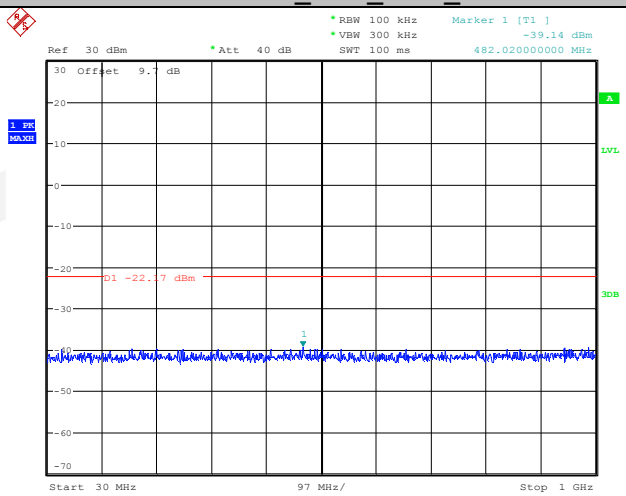

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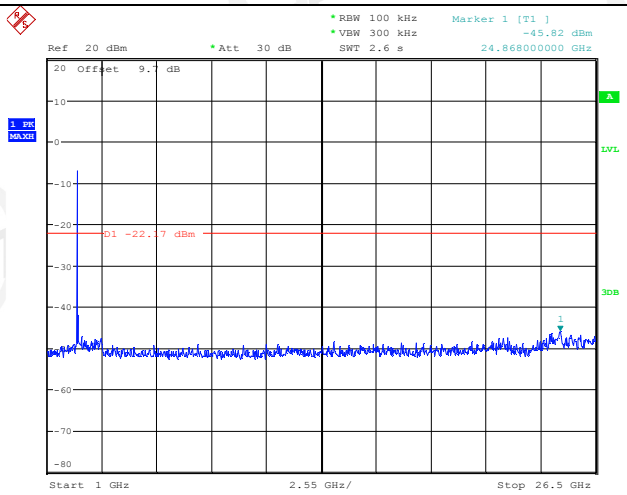

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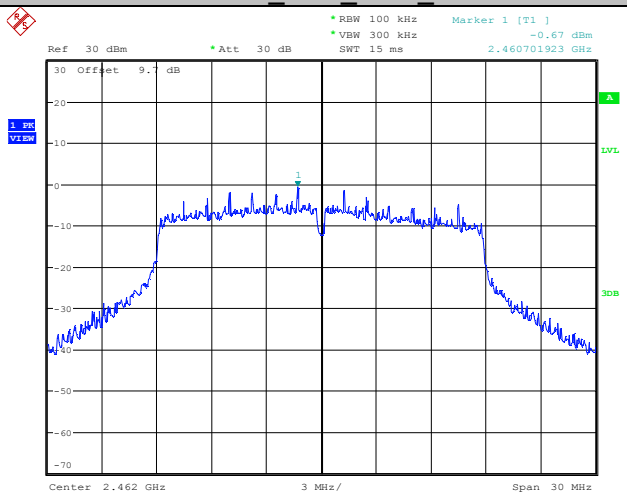

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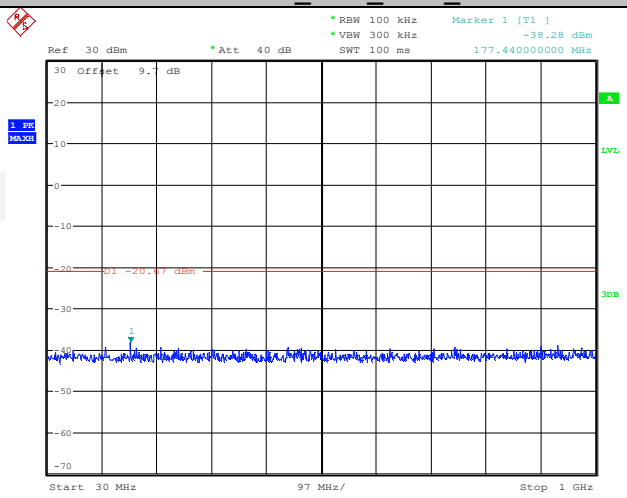

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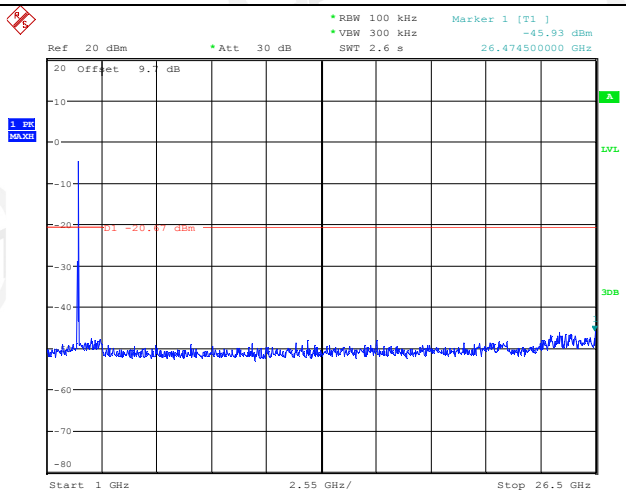

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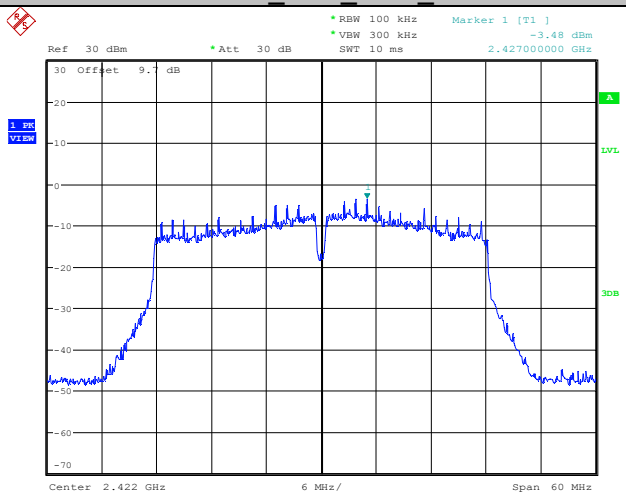

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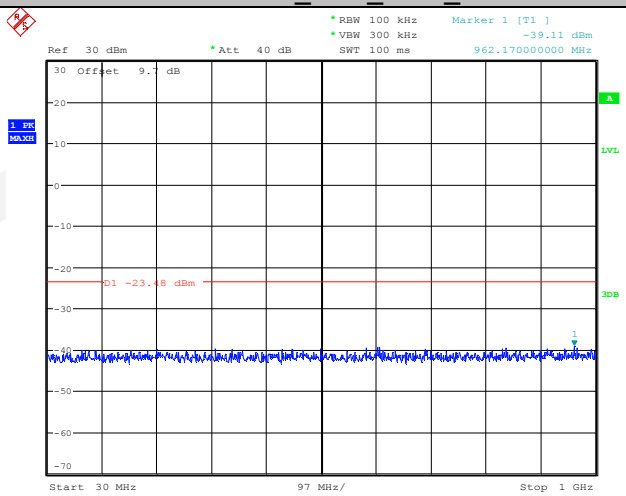

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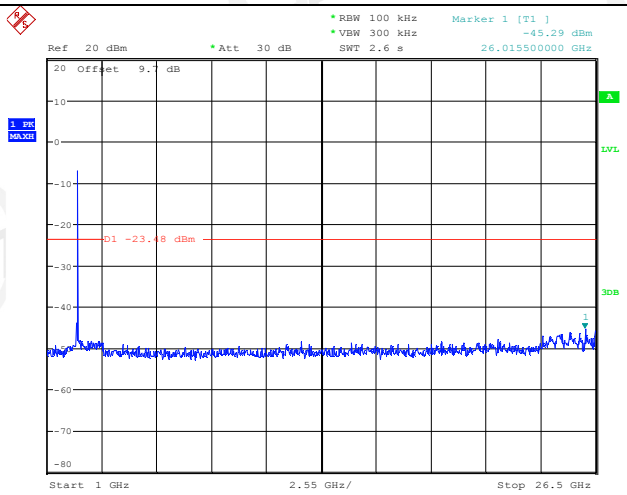

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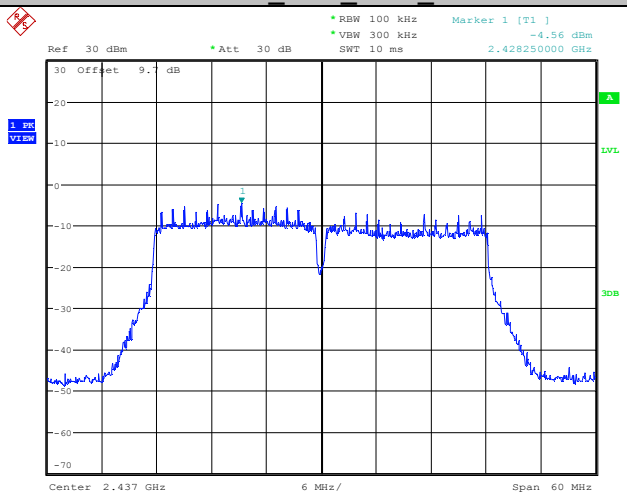

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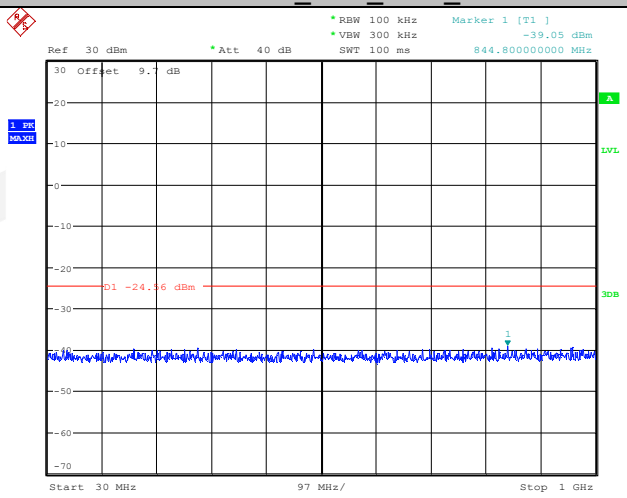

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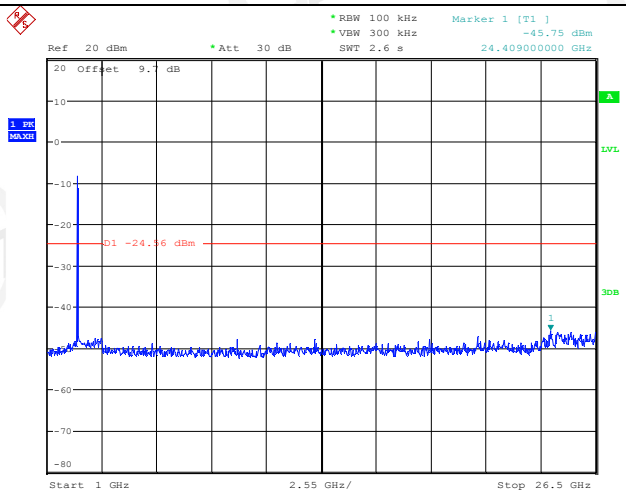

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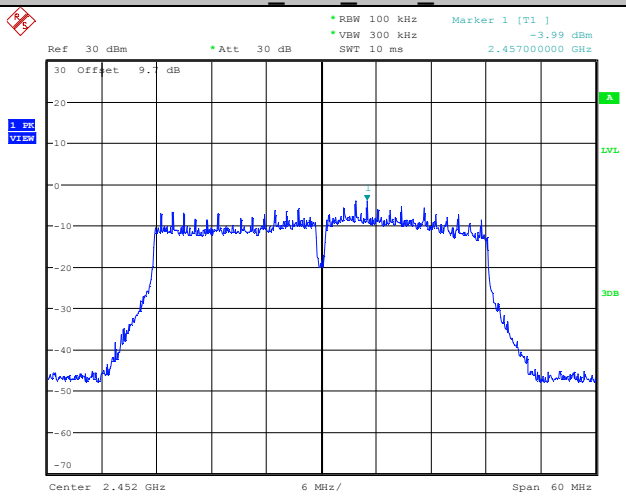

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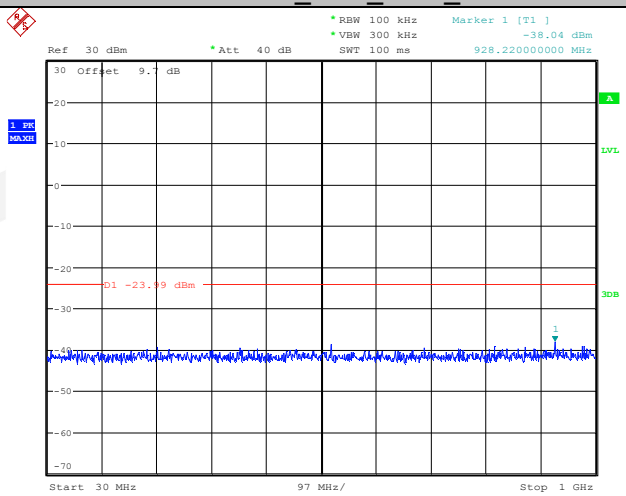

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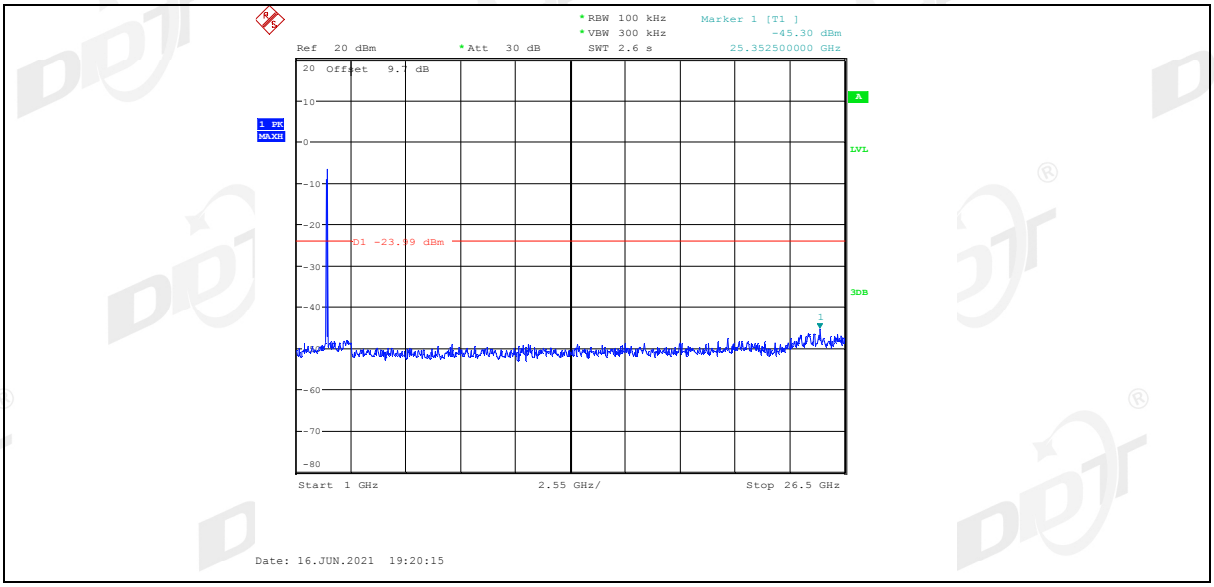
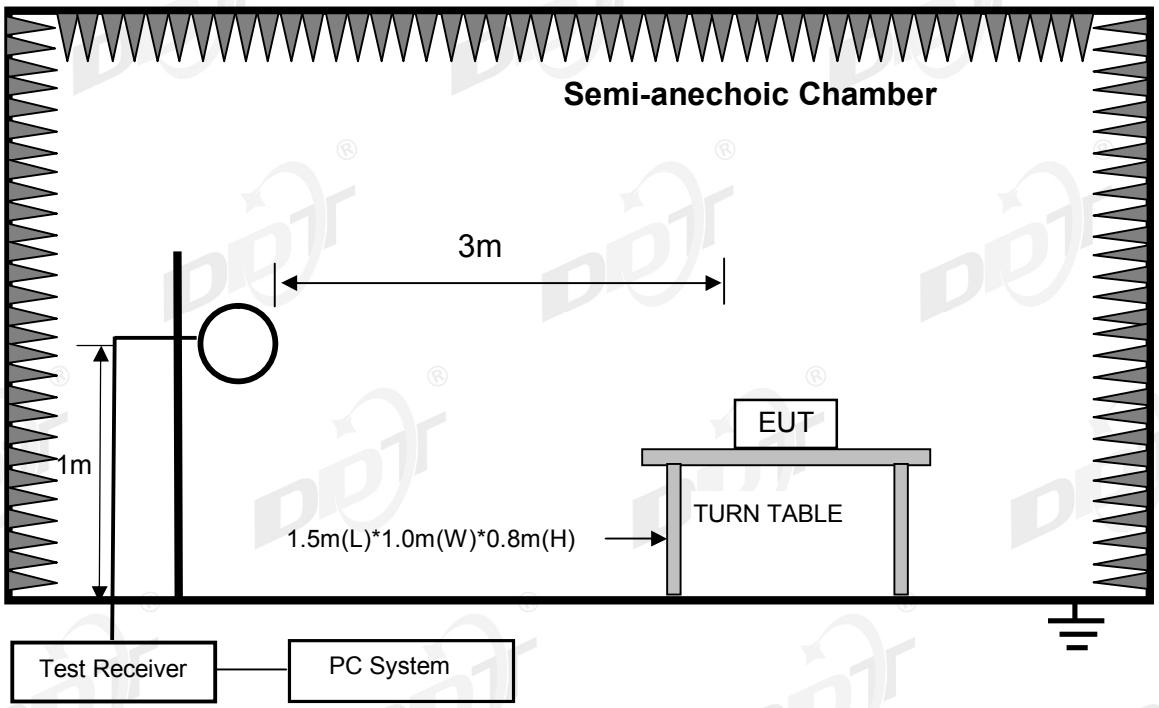

RBW 100 kHz
VBW 300 kHz
SWT 2.6 s
Marker 1 [T1]
-45.30 dBm
25.352500000 GHz
Ref 20 dBm
Att 30 dB
Offset 9.7 dB
D1 -23.89 dBm
Start 1 GHz
2.55 GHz/
Stop 26.5 GHz
Date: 16.JUN.2021 19:20:15

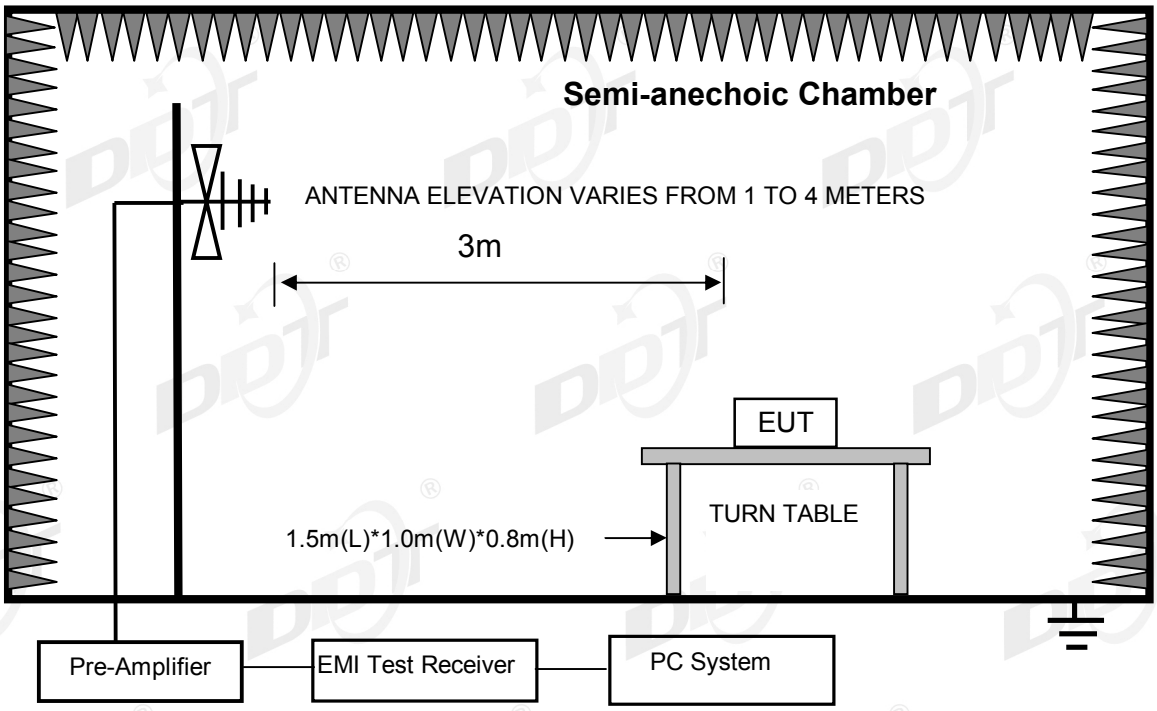
8. Radiated Spurious Emissions

8.1. Block diagram of test setup

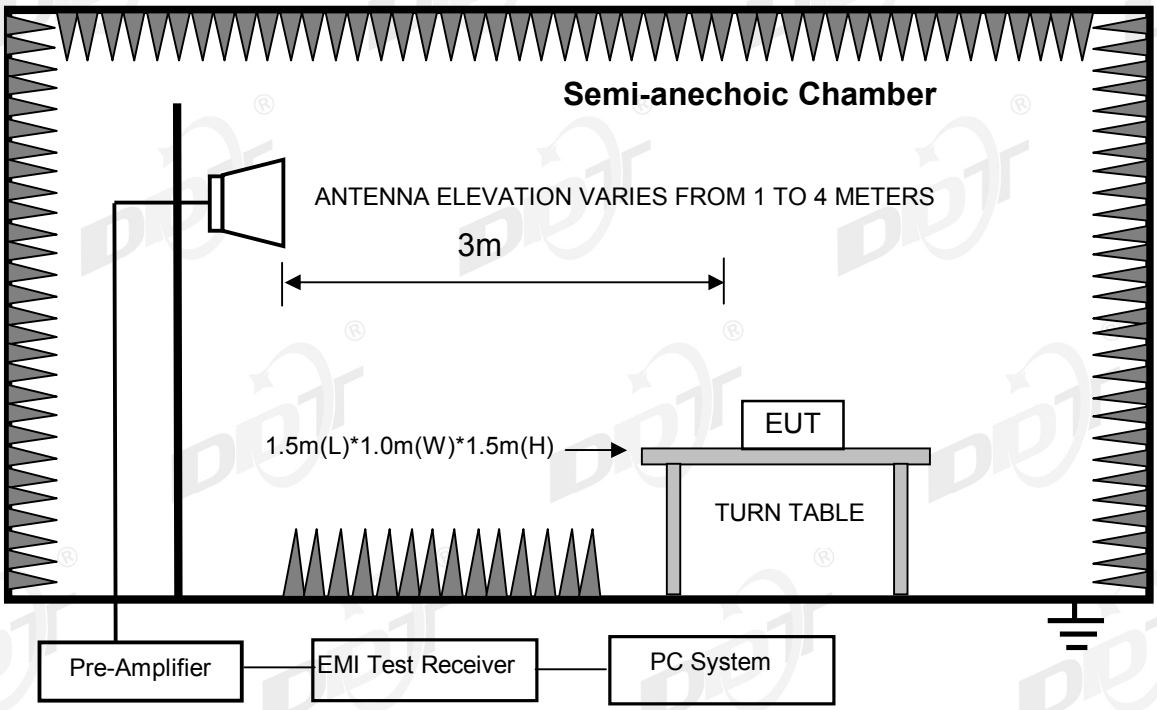
In 3 m Anechoic Chamber, test setup diagram for 9 kHz - 30 MHz:



In 3 m Anechoic Chamber, test setup diagram for 30 MHz - 1 GHz:



In 3 m Anechoic Chamber, test setup diagram for frequency above 1 GHz:



Note: For harmonic emissions test an appropriate high pass filter was inserted in the input port of AMP.

8.2. Limit

8.2.1 FCC 15.205 Restricted frequency band

MHz	MHz	MHz	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	8.025-8.5
4.1772&4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.2072&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	156.52475-156.52525	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			

[1]Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

[2]Above 38.6

8.2.2 FCC 15.209 Limit.

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μV/m	dB(μV)/m
0.009 ~ 0.490	300	2400/F(kHz)	67.6-20log(F)
0.490 ~ 1.705	30	24000/F(kHz)	87.6-20log(F)
1.705 ~ 30.0	30	30	29.54
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	

Note: (1) The emission limits shown in the above table are based on measurements employing a CISPR QP detector except for the frequency bands 9 - 90 kHz, 110 - 490 kHz and above 1000 MHz. Radiated emissions limits in these three bands are based on measurements employing an average detector.

(2) At frequencies below 30 MHz, measurement may be performed at a distance closer than that specified, and the limit at closer measurement distance can be extrapolated by below formula:

$$Limit_{3m}(dBuV/m) = Limit_{30m}(dBuV/m) + 40Log(30m/3m)$$

8.2.3 Limit for this EUT

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20 dB below the fundamental emissions or comply with 15.209 limits.

8.3. Test procedure

(1) EUT height should be 0.8 m for below 1 GHz at a semi‐anechoic chamber while EUT height should be 1.5 m for above 1 GHz at full chamber or semi‐anechoic chamber ground with absorbers.

(2) The antenna used as below table.

Test frequency range	Test antenna used	Measuring distance
9 kHz - 30 MHz	Active Loop antenna	3 m
30 MHz - 1 GHz	Trilog Broadband Antenna	3 m
1 GHz - 18 GHz	Double Ridged Horn Antenna (1 GHz - 18 GHz)	3 m
18 GHz - 40 GHz	Horn Antenna (18 GHz - 40 GHz)	1 m

According ANSI C63.10:2013 clause 6.4.4.2 and 6,5.3, for measurements below 30 MHz, the loop antenna was positioned with its plane vertical from the EUT and rotated about its vertical

axis for maximum response at each azimuth position around the EUT. And the loop antenna also is positioned with its plane horizontal at the specified distance from the EUT. The center of the loop is 1 m above the ground. For measurement above 30 MHz, the Trilog Broadband Antenna or Horn Antenna was located 3 m from EUT, Measurements were made with the antenna positioned in both the horizontal and vertical planes of Polarization, and the measurement antenna was varied from 1 m to 4 m. in height above the reference ground plane to obtain the maximum signal strength.

(3) Below pre-scan procedure was first performed in order to find prominent frequency spectrum radiated emissions from 9 kHz to 25 GHz:

(a) Scanning the peak frequency spectrum with the antenna specified in step (3), and the EUT was rotated 360 degree, the antenna height was varied from 1 m to 4 m (Except loop antenna, it's fixed 1 m above ground.)

(b) Change work frequency or channel of device if practicable.

(c) Change modulation type of device if practicable.

(d) Change power supply range from 85% to 115% of the rated supply voltage

(e) Rotated EUT though three orthogonal axes to determine the attitude of EUT arrangement produces highest emissions.

Spectrum frequency from 9 kHz to 25 GHz (tenth harmonic of fundamental frequency) was investigated, and no any obvious emission were detected from 18 GHz to 25 GHz, so below final test was performed with frequency range from 9 kHz to 18 GHz.

(4) For final emissions measurements at each frequency of interest, the EUT was rotated and the antenna height was varied between 1 m and 4 m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.10:2013 on Radiated Emission test.

(5) The emissions from 9 kHz to 1 GHz were measured based on CISPR QP detector except for the frequency bands 9 - 90 kHz, 110 - 490 kHz, for emissions from 9 kHz - 90 kHz, 110 kHz - 490 kHz and above 1 GHz were measured based on average detector, for emissions above 1 GHz, peak emissions also be measured and need comply with Peak limit.

(6) The emissions from 9 kHz to 1 GHz, QP or average values were measured with EMI receiver with below RBW:

Frequency band	RBW
9 kHz - 150 kHz	200 Hz
150 kHz - 30 MHz	9 kHz
30 MHz - 1 GHz	120 kHz

(7) For emissions above 1 GHz, both Peak and Average level were measured with Spectrum Analyzer, and the RBW is set at 1 MHz, VBW is set at 3 MHz for Peak measure; About

Average measure refer to ANSI C63.10:2013 clause 4.2.3.2.3 procedure.

(8) X axis, Y axis, Z axis are tested, and worse setup X axis is reported.

8.4. Test result

Pass. (See below detailed test result)

All the emissions except fundamental emission from 9 kHz to 25 GHz were comply with 15.209 limit.

Note1: According exploratory test, the emission levels are 20 dB below the limit detected from 9 kHz to 30 MHz and 18 GHz to 25 GHz, so the final test was performed with frequency range from 30 MHz to 18 GHz and recorded in below.

Note2: For emissions below 1 GHz, according exploratory explorer test, when change Tx mode and channel, have no distinct influence on emissions level, so for emissions below 1 GHz, the final test was only performed with EUT working in 11b, Tx CH11 mode.

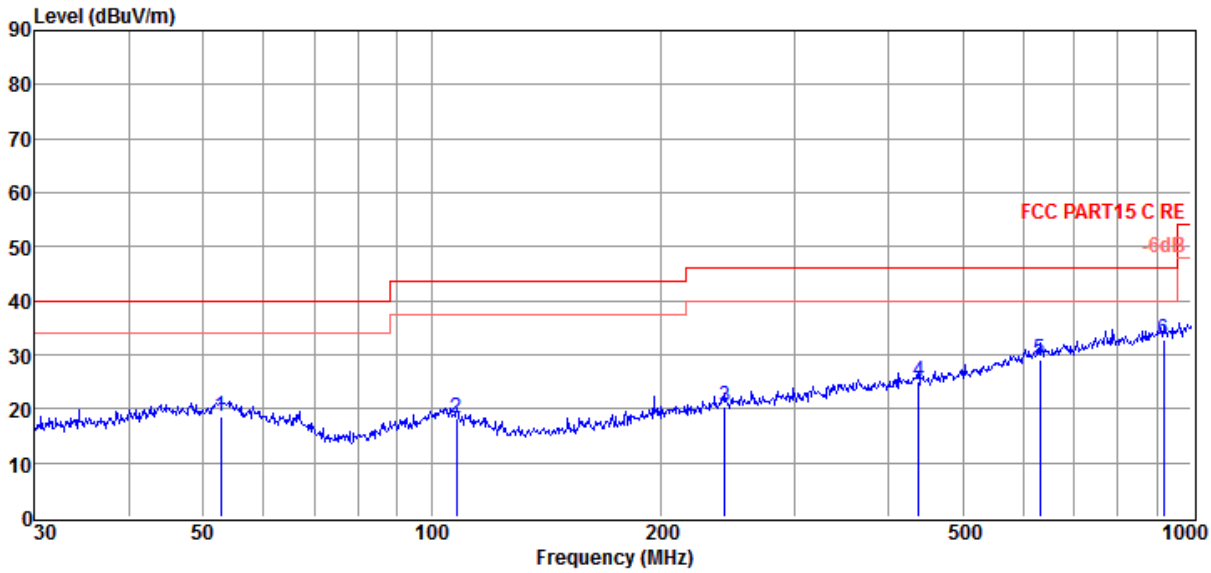
Note3: For emissions above 1 GHz. If peak results comply with AV limit, AV Result is deemed to comply with AV limit.

Radiated Emission test (below 1 GHz)

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 2#	D:\2021 RE2# Report Data\Q21052802-1E M11 PLUS\FCC BELOW1G.EM6	
Test Date	: 2021-07-15	**Tested By**	: Zora
EUT	: Portable High Resolution Music Player	**Model Number**	: M11 Plus
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2020 VULB 9163 2#/3m/VERTICAL
Memo	:		

Data: 5



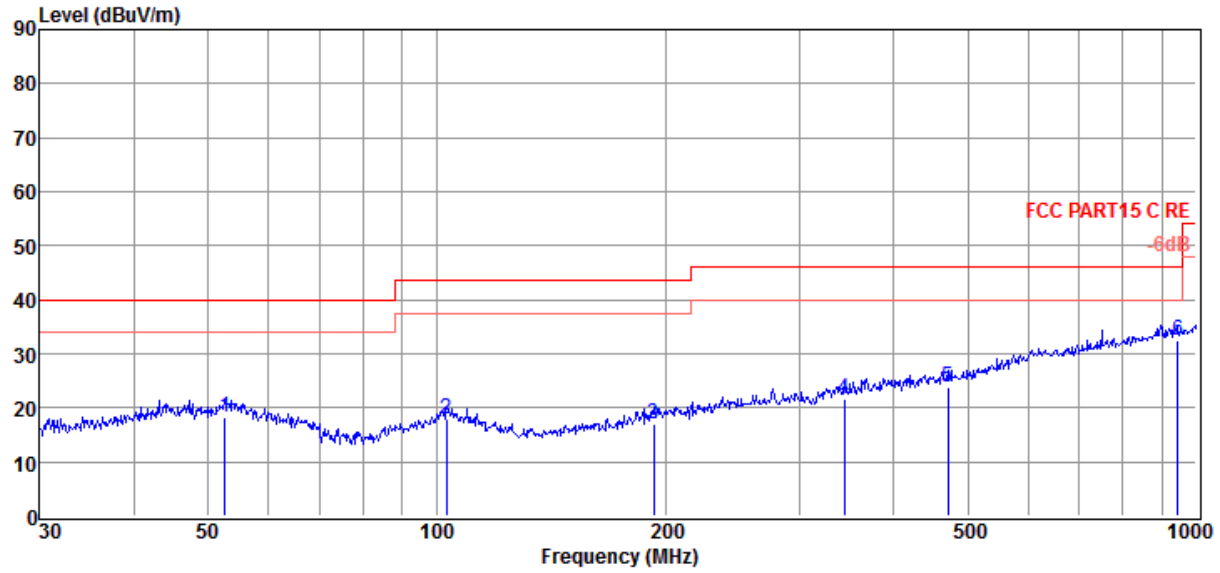
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	52.76	0.91	13.68	3.88	18.47	40.00	-21.53	QP	VERTICAL
2	107.89	2.74	11.04	4.47	18.25	43.50	-25.25	QP	VERTICAL
3	243.38	2.86	12.32	5.24	20.42	46.00	-25.58	QP	VERTICAL
4	437.12	2.77	16.08	6.06	24.91	46.00	-21.09	QP	VERTICAL
5	631.69	3.01	19.26	6.84	29.11	46.00	-16.89	QP	VERTICAL
6	919.29	2.95	21.94	7.76	32.65	46.00	-13.35	QP	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 2#	D:\2021 RE2# Report Data\Q21052802-1E M11 PLUS\FCC BELOW1G.EM6	
Test Date	: 2021-07-15	**Tested By**	: Zora
EUT	: Portable High Resolution Music Player	**Model Number**	: M11 Plus
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2020 VULB 9163 2#/3m/HORIZONTAL
Memo	:		

Data: 6



Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	52.58	0.81	13.59	3.88	18.28	40.00	-21.72	QP	HORIZONTAL
2	103.08	1.50	12.08	4.43	18.01	43.50	-25.49	QP	HORIZONTAL
3	193.09	1.72	10.39	5.00	17.11	43.50	-26.39	QP	HORIZONTAL
4	344.39	1.13	14.82	5.69	21.64	46.00	-24.36	QP	HORIZONTAL
5	470.52	1.32	16.42	6.19	23.93	46.00	-22.07	QP	HORIZONTAL
6	945.44	2.49	21.99	7.85	32.33	46.00	-13.67	QP	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

Radiated Emission test (above 1 GHz)

Freq. (MHz)	Read level (dBμV)	Antenna Factor (dB/m)	PRM Factor(dB)	Cable Loss (dB)	Result Level (dBμV/m)	Limit (dBμV/ m)	Margin (dB)	Detector type	Polarization
CH1									
5539.00	48.10	32.95	43.37	7.14	44.82	74.00	-29.18	Peak	HORIZONTAL
7885.00	46.48	37.72	42.38	8.68	50.50	74.00	-23.50	Peak	HORIZONTAL
9636.00	45.37	38.80	42.06	9.83	51.94	74.00	-22.06	Peak	HORIZONTAL
13019.00	45.36	39.74	42.99	11.18	53.29	74.00	-20.71	Peak	HORIZONTAL
16045.00	43.51	39.19	42.30	12.70	53.10	74.00	-20.90	Peak	HORIZONTAL
17949.00	40.94	47.79	42.49	14.51	60.75	74.00	-13.25	Peak	HORIZONTAL
17949.00	29.68	47.79	42.49	14.51	49.49	54.00	-4.51	Average	HORIZONTAL
5505.00	48.48	32.91	43.36	7.12	45.15	74.00	-28.85	Peak	VERTICAL
8021.00	46.18	37.90	42.29	8.64	50.43	74.00	-23.57	Peak	VERTICAL
10214.00	46.22	39.14	42.36	10.31	53.31	74.00	-20.69	Peak	VERTICAL
12866.00	45.21	39.49	42.79	11.41	53.32	74.00	-20.68	Peak	VERTICAL
16215.00	42.46	39.90	42.28	12.88	52.96	74.00	-21.04	Peak	VERTICAL
17881.00	42.13	47.50	42.47	14.35	61.51	74.00	-12.49	Peak	VERTICAL
17881.00	30.24	47.50	42.47	14.35	49.62	54.00	-4.38	Average	VERTICAL
CH6									
5131.00	48.40	32.75	43.24	7.06	44.97	74.00	-29.03	Peak	HORIZONTAL
7341.00	46.52	36.85	42.75	8.57	49.19	74.00	-24.81	Peak	HORIZONTAL
9721.00	45.24	38.80	42.09	9.94	51.89	74.00	-22.11	Peak	HORIZONTAL
13240.00	44.69	40.23	42.88	11.36	53.40	74.00	-20.60	Peak	HORIZONTAL
15671.00	44.06	39.39	42.11	12.47	53.81	74.00	-20.19	Peak	HORIZONTAL
17949.00	41.42	47.79	42.49	14.51	61.23	74.00	-12.77	Peak	HORIZONTAL
17949.00	30.17	47.79	42.49	14.51	49.98	54.00	-4.02	Average	HORIZONTAL
5420.00	48.19	32.87	43.33	7.11	44.84	74.00	-29.16	Peak	VERTICAL
8055.00	46.21	37.91	42.27	8.65	50.50	74.00	-23.50	Peak	VERTICAL
9840.00	45.89	38.80	42.14	10.09	52.64	74.00	-21.36	Peak	VERTICAL
12679.00	44.66	39.19	42.50	11.76	53.11	74.00	-20.89	Peak	VERTICAL
15110.00	42.23	40.22	41.77	12.93	53.61	74.00	-20.39	Peak	VERTICAL
17949.00	41.71	47.79	42.49	14.51	61.52	74.00	-12.48	Peak	VERTICAL
17949.00	30.02	47.79	42.49	14.51	49.83	54.00	-4.17	Average	VERTICAL
CH11									
5131.00	48.72	32.75	43.24	7.06	45.29	74.00	-28.71	Peak	HORIZONTAL
7664.00	45.70	37.36	42.52	8.77	49.31	74.00	-24.69	Peak	HORIZONTAL
9670.00	45.85	38.80	42.07	9.87	52.45	74.00	-21.55	Peak	HORIZONTAL
12679.00	44.99	39.19	42.50	11.76	53.44	74.00	-20.56	Peak	HORIZONTAL
15654.00	43.68	39.42	42.10	12.46	53.46	74.00	-20.54	Peak	HORIZONTAL
17949.00	42.01	47.79	42.49	14.51	61.82	74.00	-12.18	Peak	HORIZONTAL
17949.00	30.27	47.79	42.49	14.51	50.08	54.00	-3.92	Average	HORIZONTAL
5131.00	48.58	32.75	43.24	7.06	45.15	74.00	-28.85	Peak	VERTICAL
8565.00	46.17	38.04	42.01	8.90	51.10	74.00	-22.90	Peak	VERTICAL
11115.00	44.93	39.80	42.72	10.70	52.71	74.00	-21.29	Peak	VERTICAL
13019.00	44.59	39.74	42.99	11.18	52.52	74.00	-21.48	Peak	VERTICAL
15875.00	43.55	39.15	42.23	12.58	53.05	74.00	-20.95	Peak	VERTICAL
17966.00	42.02	47.86	42.49	14.55	61.94	74.00	-12.06	Peak	VERTICAL

17966.00	29.78	47.86	42.49	14.55	49.70	54.00	-4.30	Average	VERTICAL
Result: Pass									

Note: 1.30 MHz ~ 25 GHz: (Scan with 11b mode, 11g mode, 11n HT20 and 11n HT40 mode, the worst case is 11b mode)

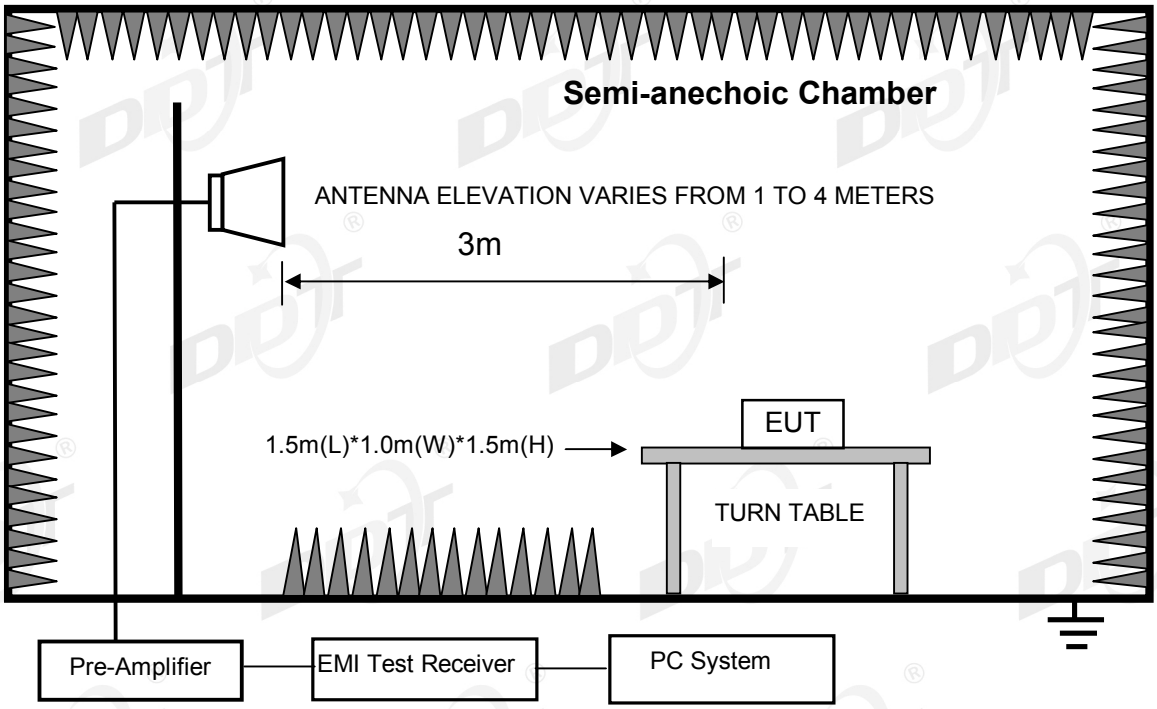
2. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

4. For emissions above 1 GHz. If peak results comply with AV limit, AV Result is deemed to comply with AV limit. All other emissions are attenuated 20 dB below the limits, so does not record.

9. Radiated Band Edge Compliance

9.1. Block diagram of test setup



9.2. Limit

All restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400 MHz to 2483.5 MHz shall be at least 20 dB below the fundamental emissions or comply with FCC 15.209 limits.

9.3. Test procedure

Same with clause 8.3 except change investigated frequency range from 2310 MHz to 2430 MHz and 2440 MHz to 2500 MHz.

Remark: All restriction band have been tested, and only the worst case is shown in report.

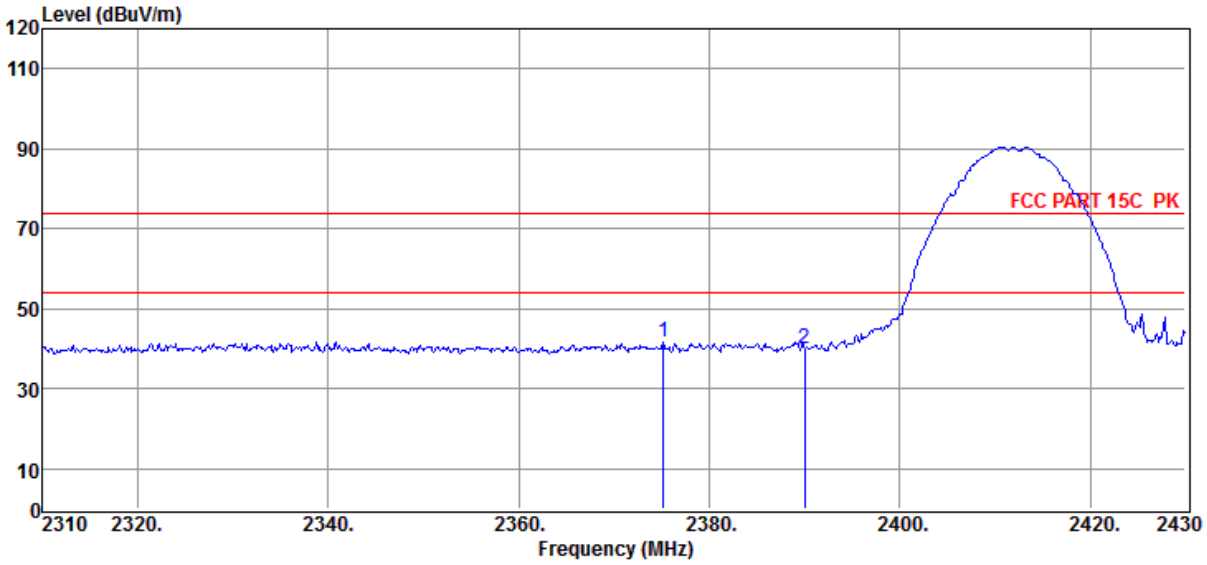
9.4. Test result

Pass. (See below detailed test result)

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 2#	D:\2021 RE2# Report Data\Q21052802-1E M11 PLUS\FCC ABOVE 1G 2.4G WIFI.EM6		
Test Date	:	2021-06-20	**Tested By**	:	Zora
EUT	:	Portable High Resolution Music Player	**Model Number**	:	M11 Plus
Power Supply	:	Battery	**Test Mode**	:	Tx mode
Condition	:	Temp:24.5°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2020 BBHA9120D/3m/HORIZONTAL
Memo	:	11B 2412			

Data: 9



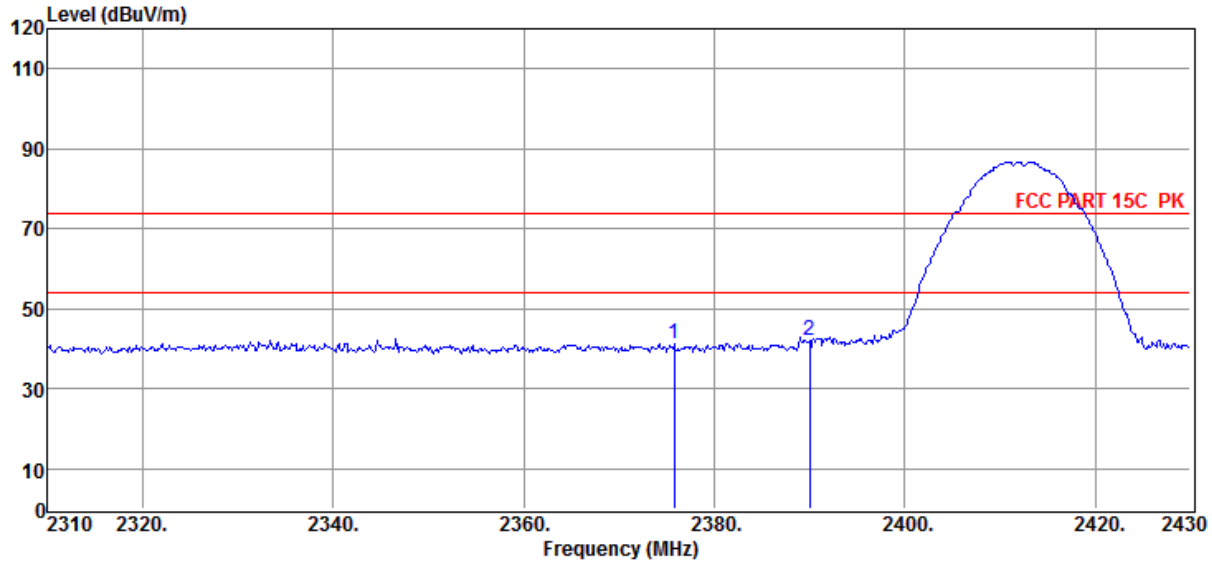
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2375.16	51.98	27.88	43.12	4.78	41.52	74.00	-32.48	Peak	HORIZONTAL
2	2390.00	50.26	27.89	43.14	4.80	39.81	74.00	-34.19	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 2#	D:\2021 RE2# Report Data\Q21052802-1E M11 PLUS\FCC ABOVE 1G 2.4G WIFI.EM6	
Test Date	: 2021-06-20	**Tested By**	: Zora
EUT	: Portable High Resolution Music Player	**Model Number**	: M11 Plus
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2020 BBHA9120D/3m/VERTICAL
Memo	: 11B 2412		

Data: 10



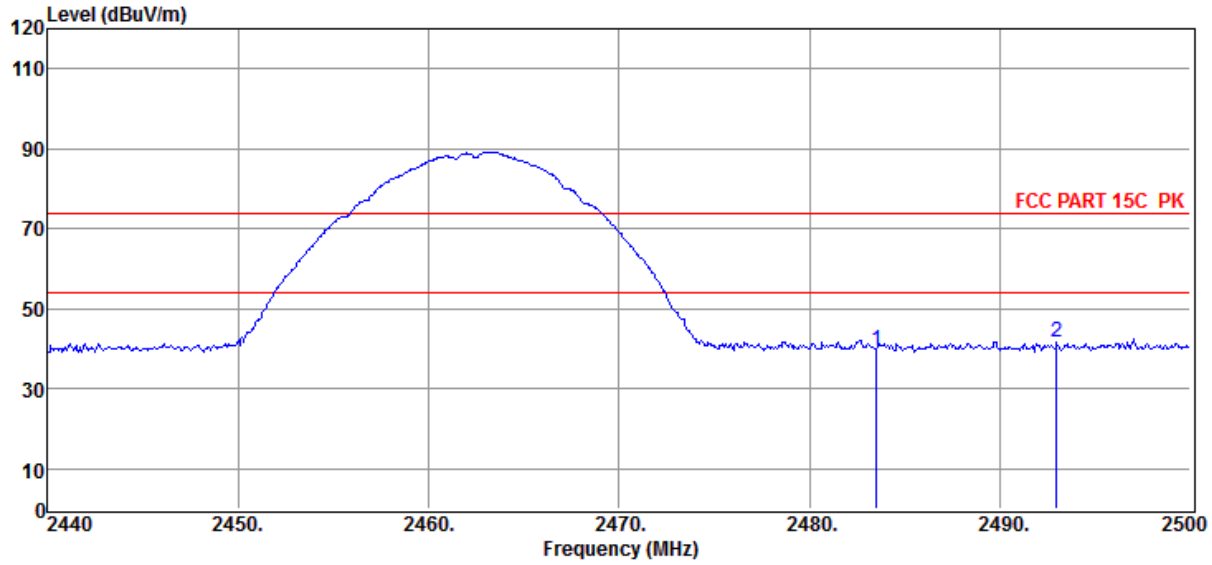
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	2375.76	51.54	27.88	43.12	4.78	41.08	74.00	-32.92	Peak	VERTICAL
2	2390.00	52.51	27.89	43.14	4.80	42.06	74.00	-31.94	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 2#	D:\2021 RE2# Report Data\Q21052802-1E M11 PLUS\FCC ABOVE 1G 2.4G WIFI.EM6		
Test Date	:	2021-06-20	**Tested By**	:	Zora
EUT	:	Portable High Resolution Music Player	**Model Number**	:	M11 Plus
Power Supply	:	Battery	**Test Mode**	:	Tx mode
Condition	:	Temp:24.5°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2020 BBHA9120D/3m/VERTICAL
Memo	:	11B 2462			

Data: 11



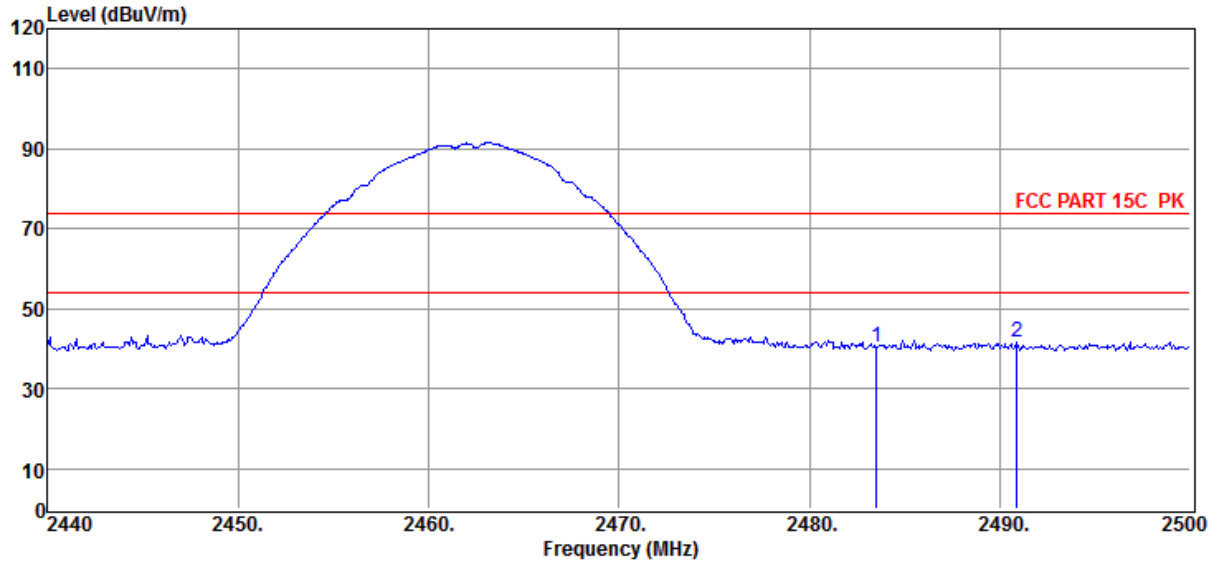
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2483.50	50.11	27.98	43.23	4.90	39.76	74.00	-34.24	Peak	VERTICAL
2	2492.98	51.94	27.99	43.24	4.91	41.60	74.00	-32.40	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 2#	D:\2021 RE2# Report Data\Q21052802-1E M11 PLUS\FCC ABOVE 1G 2.4G WIFI.EM6	
Test Date	: 2021-06-20	**Tested By**	: Zora
EUT	: Portable High Resolution Music Player	**Model Number**	: M11 Plus
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2020 BBHA9120D/3m/HORIZONTAL
Memo	: 11B 2462		

Data: 12



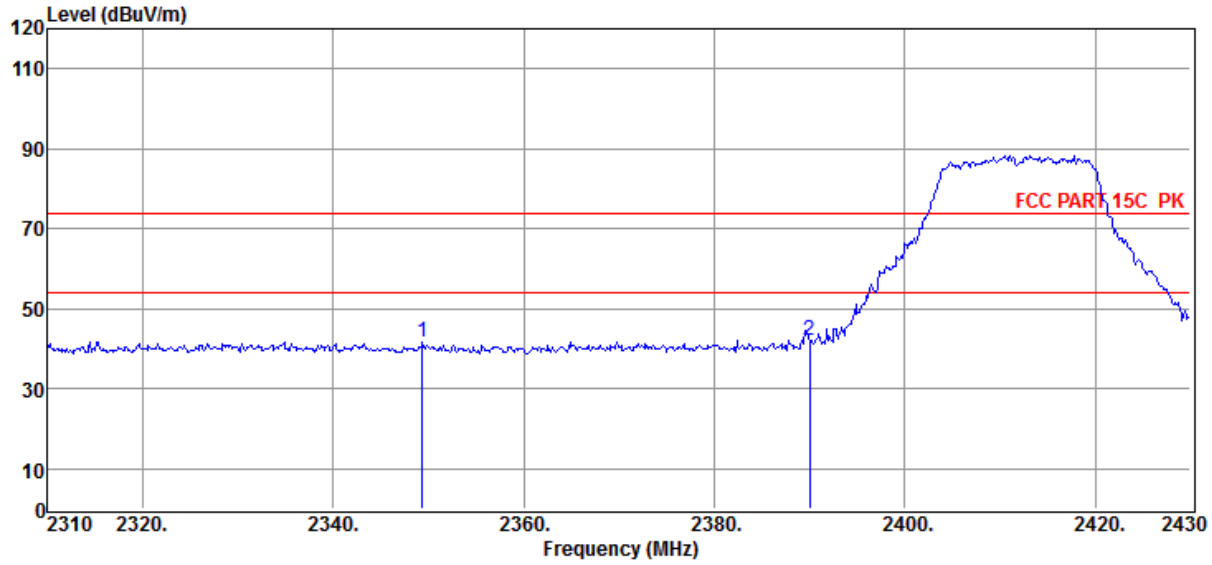
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2483.50	50.70	27.98	43.23	4.90	40.35	74.00	-33.65	Peak	HORIZONTAL
2	2490.88	51.91	27.99	43.24	4.91	41.57	74.00	-32.43	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 2#	D:\2021 RE2# Report Data\Q21052802-1E M11 PLUS\FCC ABOVE 1G 2.4G WIFI.EM6		
Test Date	:	2021-06-20	**Tested By**	:	Zora
EUT	:	Portable High Resolution Music Player	**Model Number**	:	M11 Plus
Power Supply	:	Battery	**Test Mode**	:	Tx mode
Condition	:	Temp:24.5°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2020 BBHA9120D/3m/VERTICAL
Memo	:	11G 2412			

Data: 13



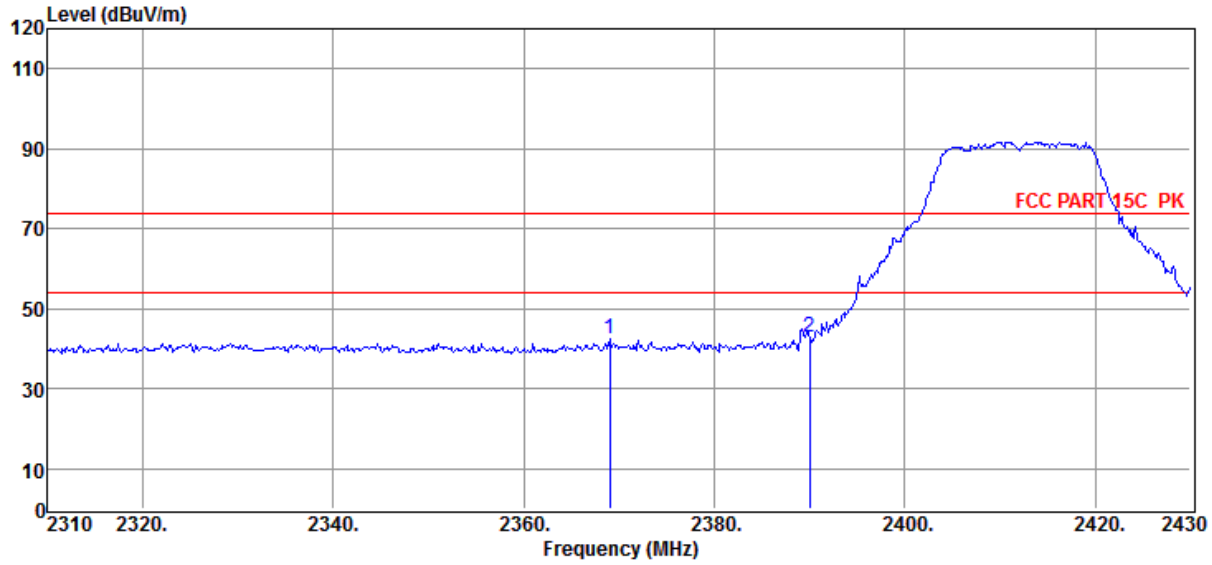
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2349.36	52.17	27.85	43.10	4.75	41.67	74.00	-32.33	Peak	VERTICAL
2	2390.00	52.71	27.89	43.14	4.80	42.26	74.00	-31.74	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 2#	D:\2021 RE2# Report Data\Q21052802-1E M11 PLUS\FCC ABOVE 1G 2.4G WIFI.EM6		
Test Date	:	2021-06-20	**Tested By**	:	Zora
EUT	:	Portable High Resolution Music Player	**Model Number**	:	M11 Plus
Power Supply	:	Battery	**Test Mode**	:	Tx mode
Condition	:	Temp:24.5°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2020 BBHA9120D/3m/HORIZONTAL
Memo	:	11G 2412			

Data: 14



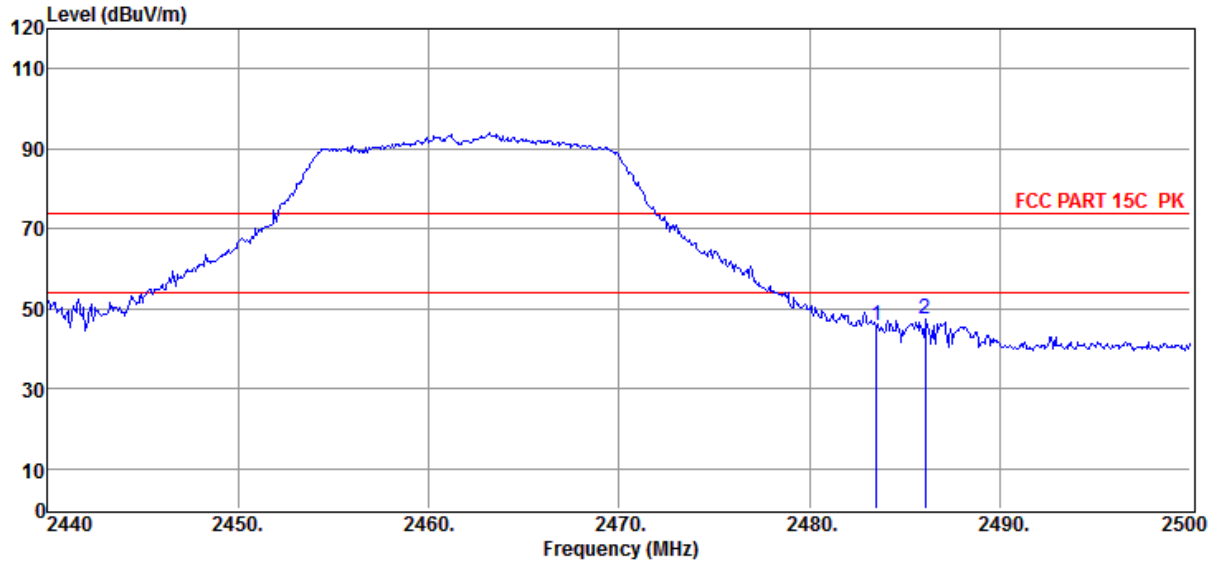
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	2369.04	53.14	27.87	43.12	4.78	42.67	74.00	-31.33	Peak	HORIZONTAL
2	2390.00	53.46	27.89	43.14	4.80	43.01	74.00	-30.99	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 2#	D:\2021 RE2# Report Data\Q21052802-1E M11 PLUS\FCC ABOVE 1G 2.4G WIFI.EM6		
Test Date	:	2021-06-20	**Tested By**	:	Zora
EUT	:	Portable High Resolution Music Player	**Model Number**	:	M11 Plus
Power Supply	:	Battery	**Test Mode**	:	Tx mode
Condition	:	Temp:24.5°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2020 BBHA9120D/3m/HORIZONTAL
Memo	:	11G 2462			

Data: 15



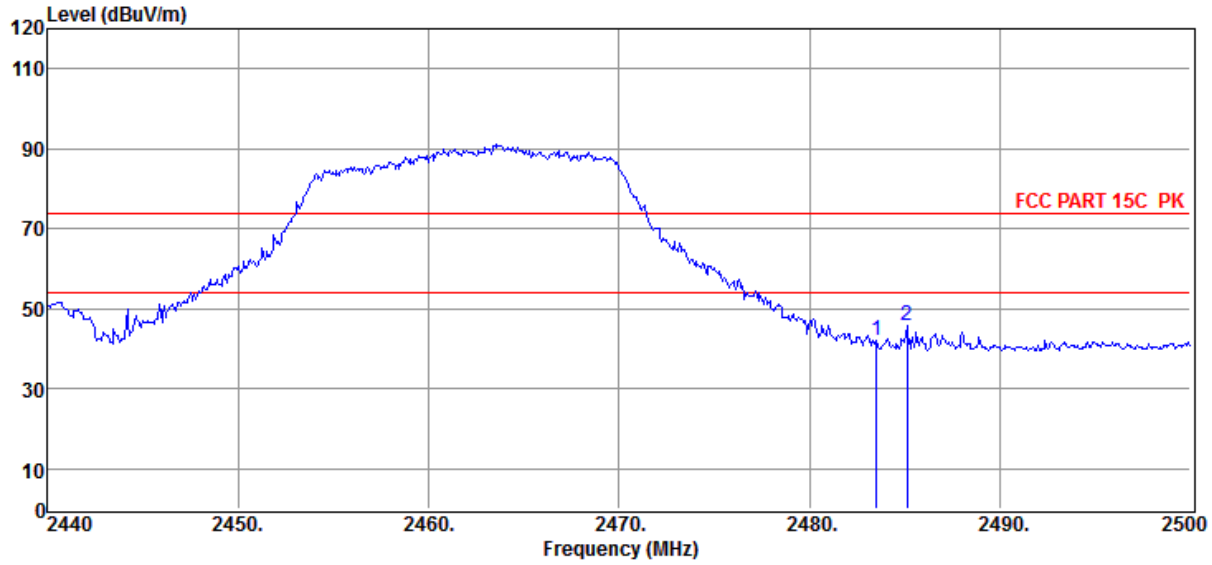
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2483.50	55.92	27.98	43.23	4.90	45.57	74.00	-28.43	Peak	HORIZONTAL
2	2486.08	57.68	27.99	43.24	4.90	47.33	74.00	-26.67	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 2#	D:\2021 RE2# Report Data\Q21052802-1E M11 PLUS\FCC ABOVE 1G 2.4G WIFI.EM6		
Test Date	:	2021-06-20	**Tested By**	:	Zora
EUT	:	Portable High Resolution Music Player	**Model Number**	:	M11 Plus
Power Supply	:	Battery	**Test Mode**	:	Tx mode
Condition	:	Temp:24.5°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2020 BBHA9120D/3m/VERTICAL
Memo	:	11G 2462			

Data: 16



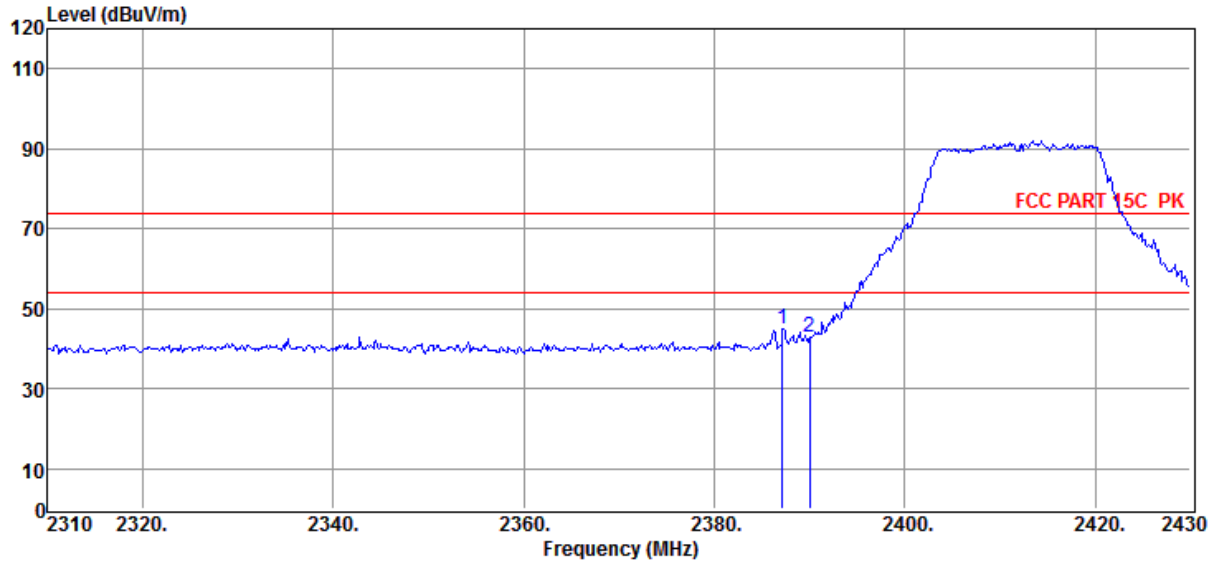
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2483.50	52.35	27.98	43.23	4.90	42.00	74.00	-32.00	Peak	VERTICAL
2	2485.12	55.92	27.99	43.24	4.90	45.57	74.00	-28.43	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 2#	D:\2021 RE2# Report Data\Q21052802-1E M11 PLUS\FCC ABOVE 1G 2.4G WIFI.EM6		
Test Date	:	2021-06-20	**Tested By**	:	Zora
EUT	:	Portable High Resolution Music Player	**Model Number**	:	M11 Plus
Power Supply	:	Battery	**Test Mode**	:	Tx mode
Condition	:	Temp:24.5°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2020 BBHA9120D/3m/HORIZONTAL
Memo	:	11N20 2412			

Data: 17



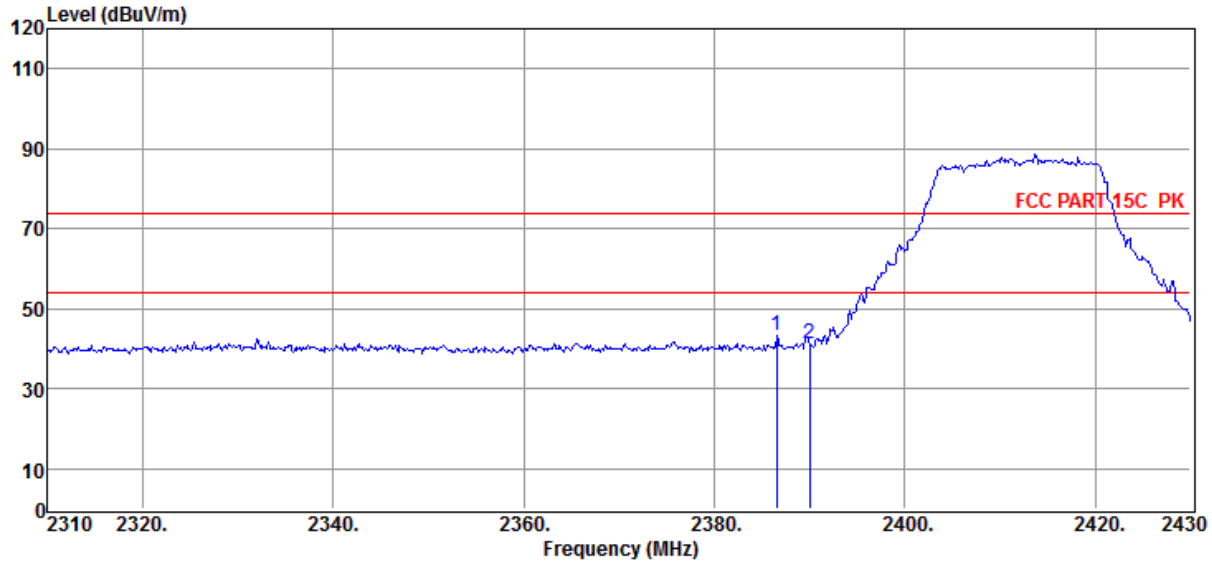
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2387.16	55.36	27.89	43.14	4.80	44.91	74.00	-29.09	Peak	HORIZONTAL
2	2390.00	53.20	27.89	43.14	4.80	42.75	74.00	-31.25	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 2#	D:\2021 RE2# Report Data\Q21052802-1E M11 PLUS\FCC ABOVE 1G 2.4G WIFI.EM6		
Test Date	:	2021-06-20	**Tested By**	:	Zora
EUT	:	Portable High Resolution Music Player	**Model Number**	:	M11 Plus
Power Supply	:	Battery	**Test Mode**	:	Tx mode
Condition	:	Temp:24.5°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2020 BBHA9120D/3m/VERTICAL
Memo	:	11N20 2412			

Data: 18



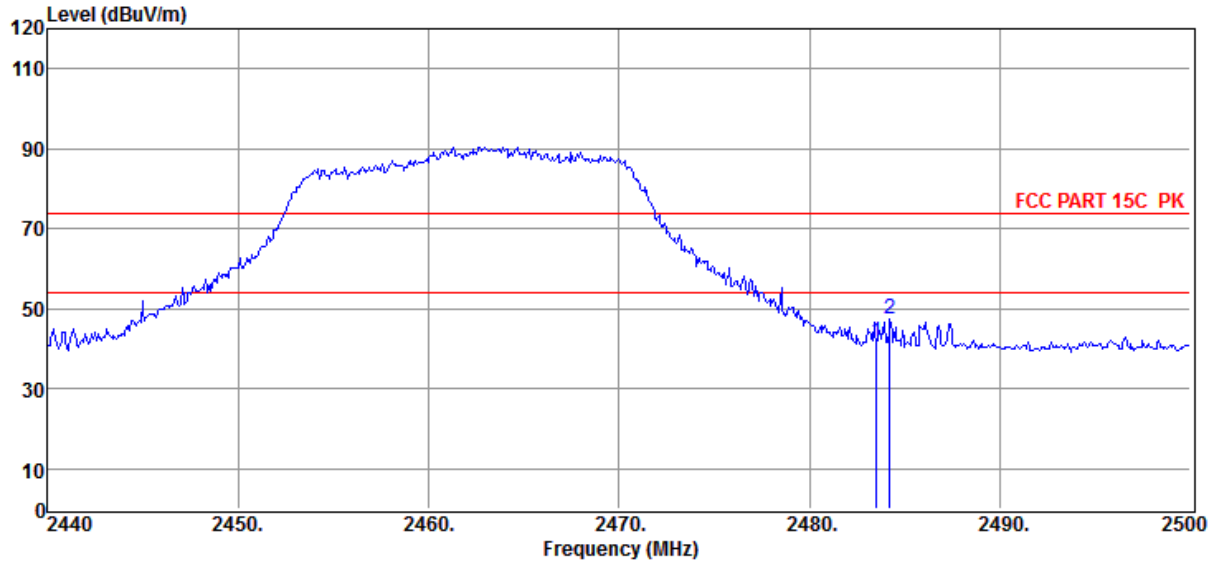
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2386.56	53.87	27.89	43.14	4.80	43.42	74.00	-30.58	Peak	VERTICAL
2	2390.00	51.68	27.89	43.14	4.80	41.23	74.00	-32.77	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 2#	D:\2021 RE2# Report Data\Q21052802-1E M11 PLUS\FCC ABOVE 1G 2.4G WIFI.EM6		
Test Date	:	2021-06-20	**Tested By**	:	Zora
EUT	:	Portable High Resolution Music Player	**Model Number**	:	M11 Plus
Power Supply	:	Battery	**Test Mode**	:	Tx mode
Condition	:	Temp:24.5°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2020 BBHA9120D/3m/VERTICAL
Memo	:	11N20 2462			

Data: 19



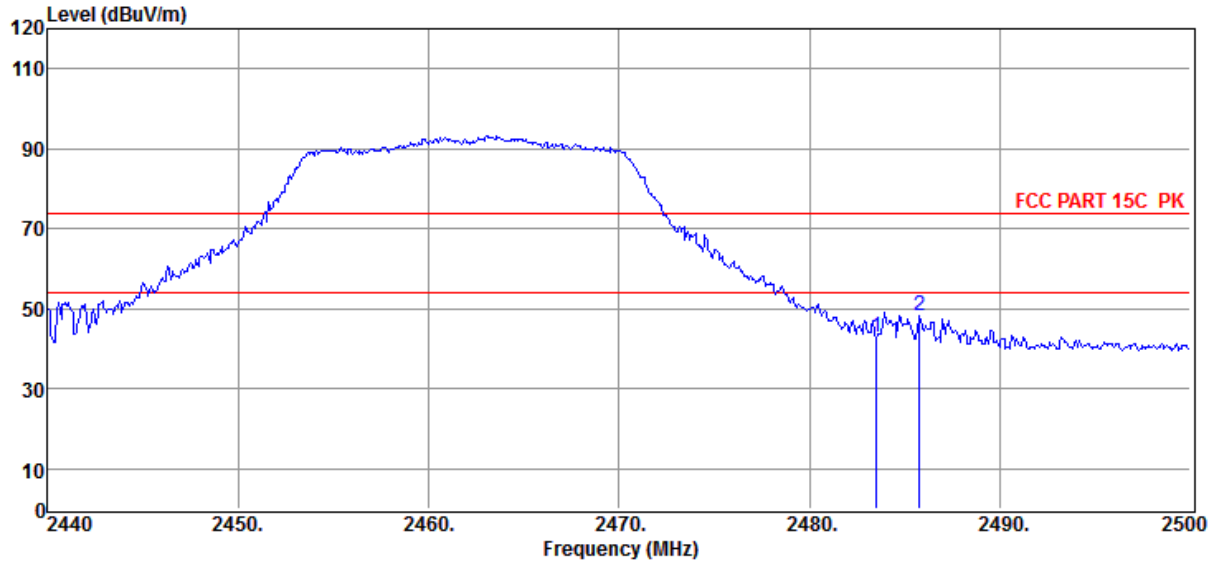
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2483.50	52.06	27.98	43.23	4.90	41.71	74.00	-32.29	Peak	VERTICAL
2	2484.22	57.88	27.98	43.23	4.90	47.53	74.00	-26.47	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 2#	D:\2021 RE2# Report Data\Q21052802-1E M11 PLUS\FCC ABOVE 1G 2.4G WIFI.EM6		
Test Date	:	2021-06-20	**Tested By**	:	Zora
EUT	:	Portable High Resolution Music Player	**Model Number**	:	M11 Plus
Power Supply	:	Battery	**Test Mode**	:	Tx mode
Condition	:	Temp:24.5°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2020 BBHA9120D/3m/HORIZONTAL
Memo	:	11N20 2462			

Data: 20



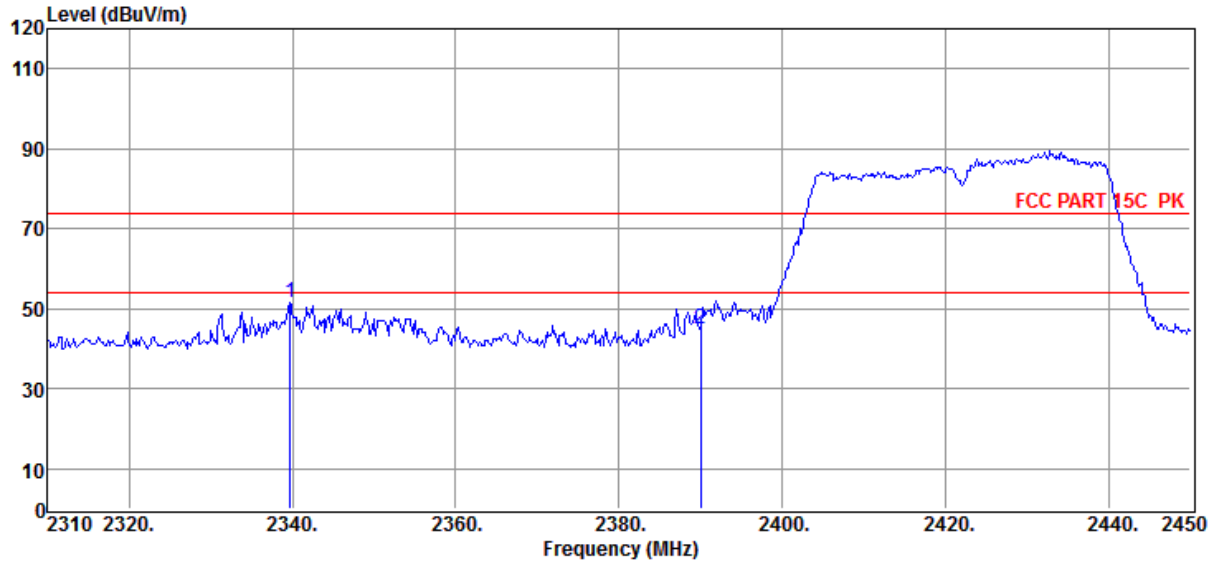
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2483.50	53.36	27.98	43.23	4.90	43.01	74.00	-30.99	Peak	HORIZONTAL
2	2485.78	58.58	27.99	43.24	4.90	48.23	74.00	-25.77	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 2#	D:\2021 RE2# Report Data\Q21052802-1E M11 PLUS\FCC ABOVE 1G 2.4G WIFI.EM6		
Test Date	:	2021-07-16	**Tested By**	:	Zora
EUT	:	Portable High Resolution Music Player	**Model Number**	:	M11 Plus
Power Supply	:	Battery	**Test Mode**	:	Tx mode
Condition	:	Temp:24.5°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2020 BBHA9120D/3m/VERTICAL
Memo	:	11N40 2422			

Data: 21



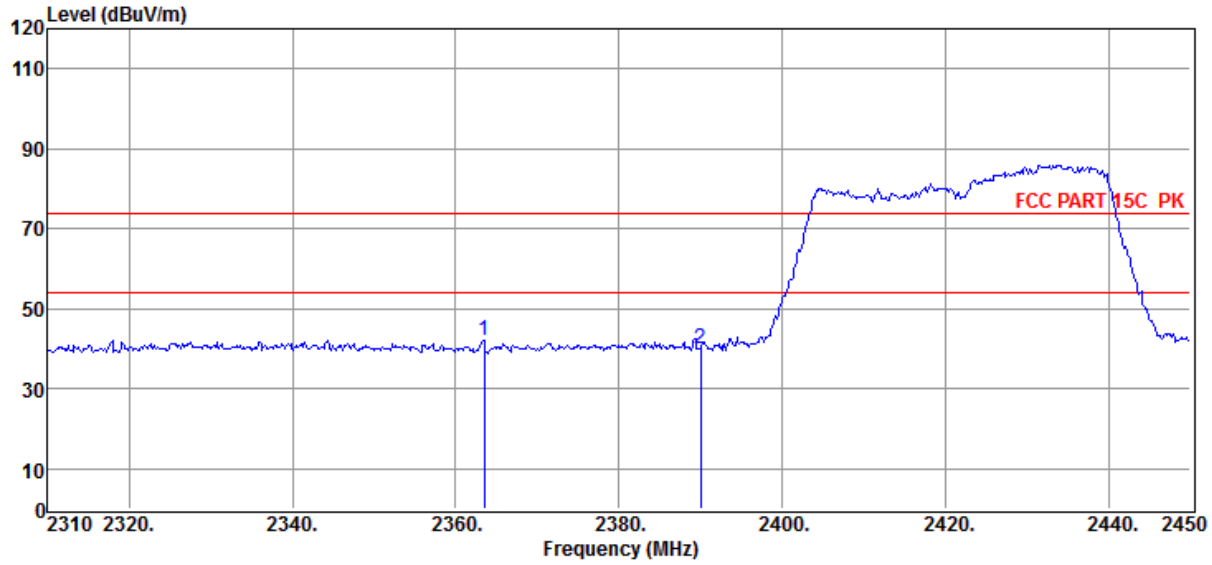
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	2339.68	62.09	27.84	43.09	4.74	51.58	74.00	-22.42	Peak	VERTICAL
2	2390.00	55.23	27.89	43.14	4.80	44.78	74.00	-29.22	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 2#	D:\2021 RE2# Report Data\Q21052802-1E M11 PLUS\FCC ABOVE 1G 2.4G WIFI.EM6		
Test Date	:	2021-07-16	**Tested By**	:	Zora
EUT	:	Portable High Resolution Music Player	**Model Number**	:	M11 Plus
Power Supply	:	Battery	**Test Mode**	:	Tx mode
Condition	:	Temp:24.5°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2020 BBHA9120D/3m/HORIZONTAL
Memo	:	11N40 2422			

Data: 22



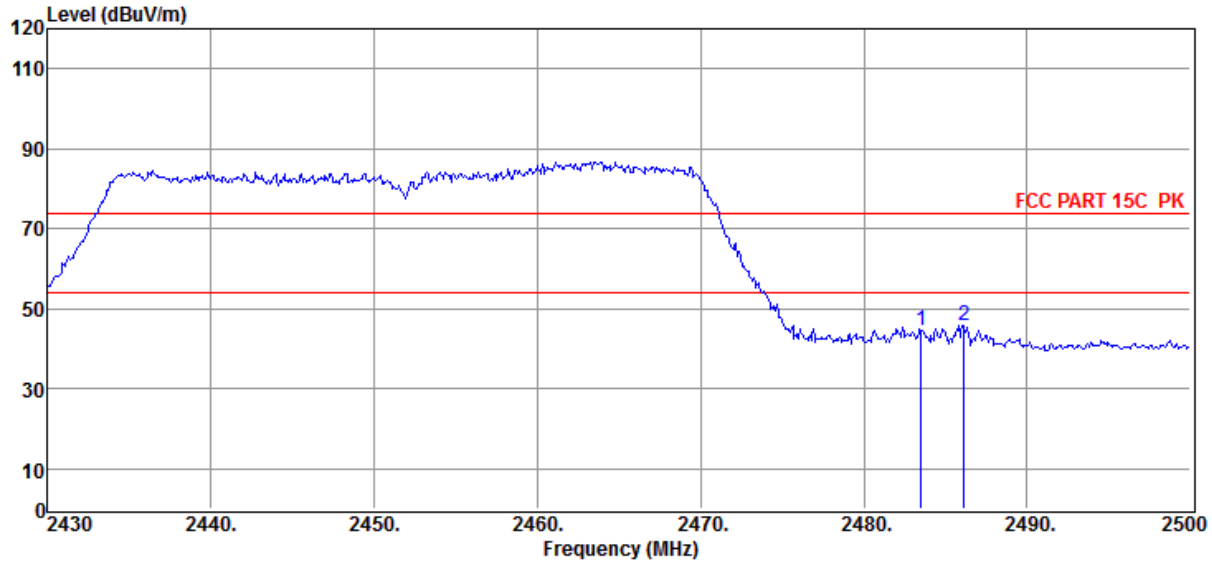
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2363.48	52.55	27.86	43.11	4.77	42.07	74.00	-31.93	Peak	HORIZONTAL
2	2390.00	50.52	27.89	43.14	4.80	40.07	74.00	-33.93	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 2#	D:\2021 RE2# Report Data\Q21052802-1E M11 PLUS\FCC ABOVE 1G 2.4G WIFI.EM6		
Test Date	:	2021-06-20	**Tested By**	:	Zora
EUT	:	Portable High Resolution Music Player	**Model Number**	:	M11 Plus
Power Supply	:	Battery	**Test Mode**	:	Tx mode
Condition	:	Temp:24.5°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2020 BBHA9120D/3m/VERTICAL
Memo	:	11N40 2452			

Data: 23



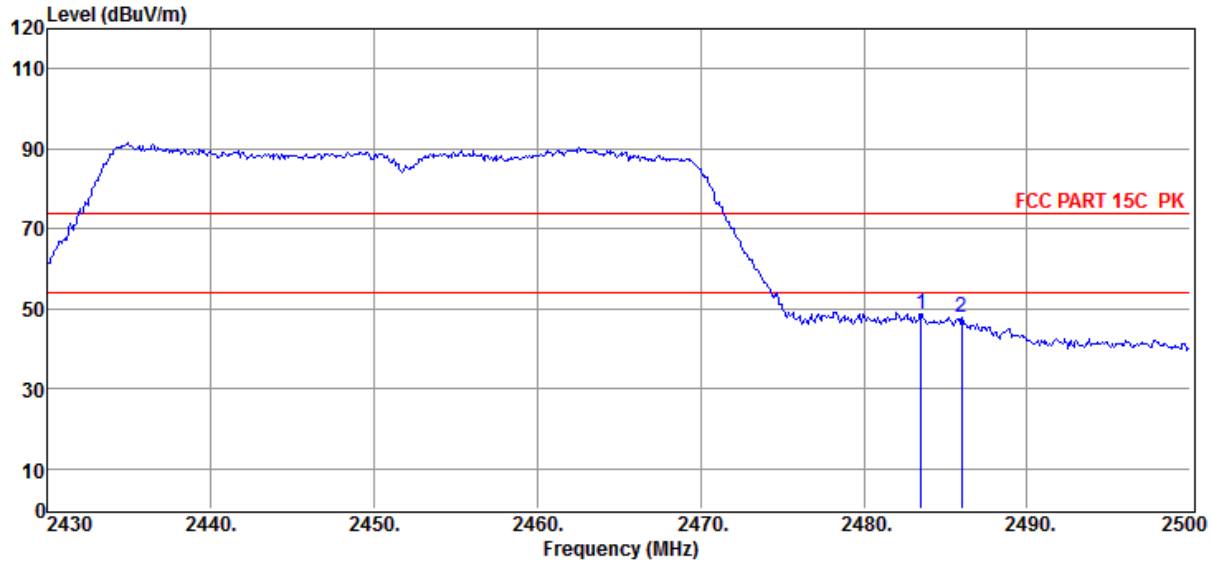
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2483.50	55.09	27.98	43.23	4.90	44.74	74.00	-29.26	Peak	VERTICAL
2	2486.14	56.16	27.99	43.24	4.91	45.82	74.00	-28.18	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 2#	D:\2021 RE2# Report Data\Q21052802-1E M11 PLUS\FCC ABOVE 1G 2.4G WIFI.EM6		
Test Date	:	2021-06-20	**Tested By**	:	Zora
EUT	:	Portable High Resolution Music Player	**Model Number**	:	M11 Plus
Power Supply	:	Battery	**Test Mode**	:	Tx mode
Condition	:	Temp:24.5°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2020 BBHA9120D/3m/HORIZONTAL
Memo	:	11N40 2452			

Data: 24

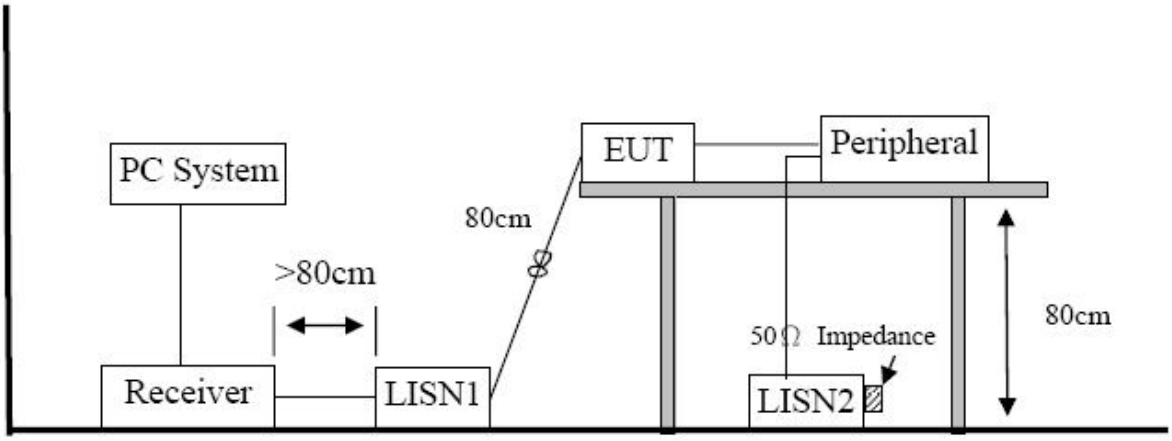


Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2483.50	59.05	27.98	43.23	4.90	48.70	74.00	-25.30	Peak	HORIZONTAL
2	2486.00	58.38	27.99	43.24	4.90	48.03	74.00	-25.97	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

10. Power Line Conducted Emission

10.1. Block diagram of test setup



10.2. Power line conducted emission limits (Class B)

Frequency	Quasi-Peak Level dB(μV)	Average Level dB(μV)
150 kHz ~ 500 kHz	66 ~ 56*	56 ~ 46*
500 kHz ~ 5 MHz	56	46
5 MHz ~ 30 MHz	60	50

Note 1: * Decreasing linearly with logarithm of frequency.

Note 2: The lower limit shall apply at the transition frequencies.

10.3. Test procedure

The EUT and Support equipment, if needed, were put placed on a non-metallic table, 80cm above the ground plane.

All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.

All support equipment power received from a second LISN.

Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.

The Receiver scanned from 150 kHz to 30 MHz for emissions in each of the test modes.

During the above scans, the emissions were maximized by cable manipulation.

After the preliminary scan, we found the test mode producing the highest emission level.

The EUT configuration and worse cable configuration of the above highest emission levels were recorded for reference of the final test.

EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test.

A scan was taken on both power lines, Neutral and Line, recording at least the six highest emissions.

Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.

The test data of the worst-case condition(s) was recorded.

The bandwidth of test receiver is set at 9 kHz.

10.4. Test result

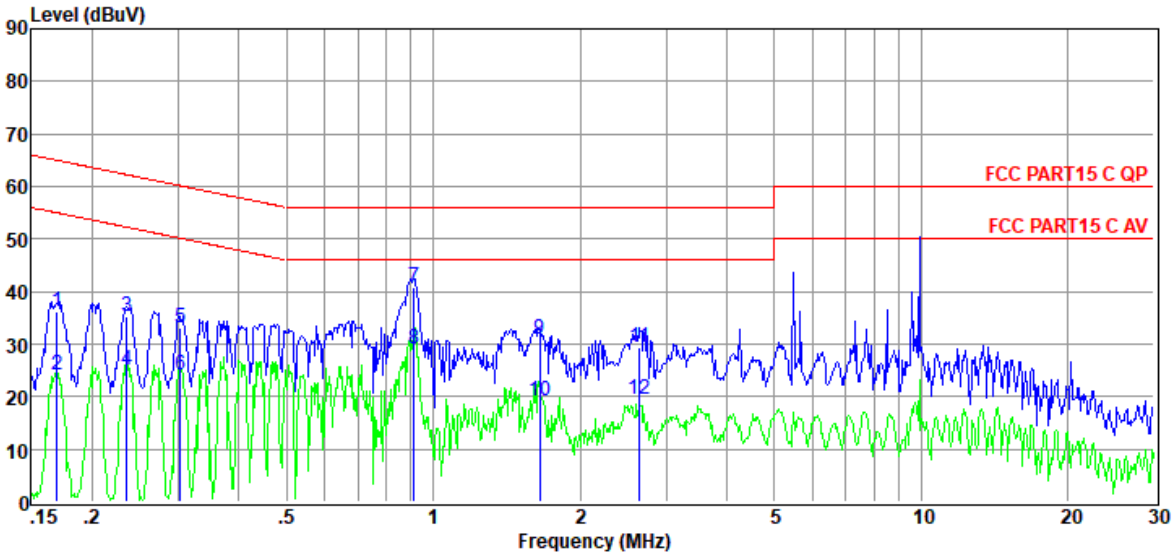
Pass. (See below detailed test result)

Note1: All emissions not reported below are too low against the prescribed limits.
Note2: "-----" means peak detection; "-----" means average detection
Note3: Pre-test AC conducted emission at both voltage AC 120V/60Hz and AC 240V/50Hz, recorded worse case.

TR-4-E-010 Conducted Emission Test Result

Test Site	:	DDT 1# Shield Room	D:\2021 CE report date\Q21052802-2E\20210621 CE.EM6		
Test Date	:	2021-06-21	**Tested By**	:	Youbin He
EUT	:	Portable High Resolution Music Player	**Model Number**	:	M11 Plus
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.5'C,Humi:55%,Press:101.4kPa	**LISN**	:	2020 ENV 216 1#/LINE
Memo	:				

Data: 10



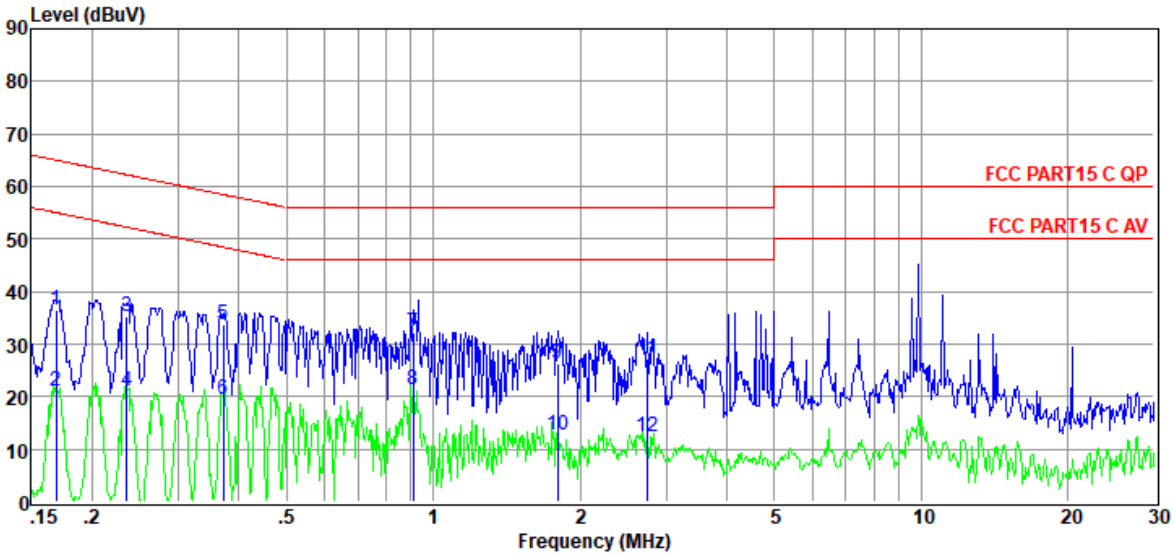
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	LISN Factor (dB)	Cable Loss (dB)	Pulse Limiter Factor (dB)	Result Level (dBµV)	Limit Line (dBµV)	Over Limit (dB)	Detector	Phase
1	0.17	17.04	9.39	0.02	9.86	36.31	64.99	-28.68	QP	LINE
2	0.17	4.91	9.39	0.02	9.86	24.18	54.99	-30.81	Average	LINE
3	0.24	15.96	9.40	0.02	9.86	35.24	62.26	-27.02	QP	LINE
4	0.24	5.70	9.40	0.02	9.86	24.98	52.26	-27.28	Average	LINE
5	0.30	13.78	9.41	0.02	9.86	33.07	60.15	-27.08	QP	LINE
6	0.30	4.98	9.41	0.02	9.86	24.27	50.15	-25.88	Average	LINE
7	0.91	21.38	9.42	0.03	9.86	40.69	56.00	-15.31	QP	LINE
8	0.91	9.79	9.42	0.03	9.86	29.10	46.00	-16.90	Average	LINE
9	1.65	11.55	9.42	0.04	9.86	30.87	56.00	-25.13	QP	LINE
10	1.65	0.00	9.42	0.04	9.86	19.32	46.00	-26.68	Average	LINE
11	2.65	9.98	9.43	0.06	9.87	29.34	56.00	-26.66	QP	LINE
12	2.65	0.16	9.43	0.06	9.87	19.52	46.00	-26.48	Average	LINE

Note:
1. Result Level = Read Level +LISN Factor + Pulse Limiter Factor + Cable loss.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

TR-4-E-010 Conducted Emission Test Result

Test Site	:	DDT 1# Shield Room	D:\2021 CE report date\Q21052802-2E\20210621 CE.EM6		
Test Date	:	2021-06-21	**Tested By**	:	Youbin He
EUT	:	Portable High Resolution Music Player	**Model Number**	:	M11 Plus
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.5'C,Humi:55%,Press:101.4kPa	**LISN**	:	2020 ENV 216 1#/NEUTRAL
Memo	:				

Data: 12



Item (Mark)	Freq. (MHz)	Read Level (dBµV)	LISN Factor (dB)	Cable Loss (dB)	Pulse Limiter Factor (dB)	Result Level (dBµV)	Limit Line (dBµV)	Over Limit (dB)	Detector	Phase
1	0.17	17.26	9.38	0.02	9.86	36.52	65.03	-28.51	QP	NEUTRAL
2	0.17	1.88	9.38	0.02	9.86	21.14	55.03	-33.89	Average	NEUTRAL
3	0.24	16.09	9.37	0.02	9.86	35.34	62.26	-26.92	QP	NEUTRAL
4	0.24	1.89	9.37	0.02	9.86	21.14	52.26	-31.12	Average	NEUTRAL
5	0.37	14.38	9.38	0.02	9.86	33.64	58.47	-24.83	QP	NEUTRAL
6	0.37	0.22	9.38	0.02	9.86	19.48	48.47	-28.99	Average	NEUTRAL
7	0.91	12.73	9.39	0.03	9.86	32.01	56.00	-23.99	QP	NEUTRAL
8	0.91	2.21	9.39	0.03	9.86	21.49	46.00	-24.51	Average	NEUTRAL
9	1.80	6.97	9.40	0.05	9.87	26.29	56.00	-29.71	QP	NEUTRAL
10	1.80	-6.75	9.40	0.05	9.87	12.57	46.00	-33.43	Average	NEUTRAL
11	2.75	7.73	9.41	0.06	9.87	27.07	56.00	-28.93	QP	NEUTRAL
12	2.75	-7.07	9.41	0.06	9.87	12.27	46.00	-33.73	Average	NEUTRAL

Note:

1. Result Level = Read Level +LISN Factor + Pulse Limiter Factor + Cable loss.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

11. Antenna Requirements

11.1. Limit

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

11.2. Result

The antenna used for this product is Dedicated FPC antenna and that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain is 1.22 dBi.

END OF REPORT