

9. RF Conducted Spurious Emissions

9.1. Block diagram of test setup

Same as section 4.1

9.2. Limits

In any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is 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.

9.3. 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	Test frequency
RBW:	100 kHz
VBW:	300 kHz
Span	Wide enough to capture the peak level of the in-band emission
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	$\geq \text{span}/\text{RBW}$
Detector Mode:	Peak
Sweep time:	auto
Trace mode	Max hold

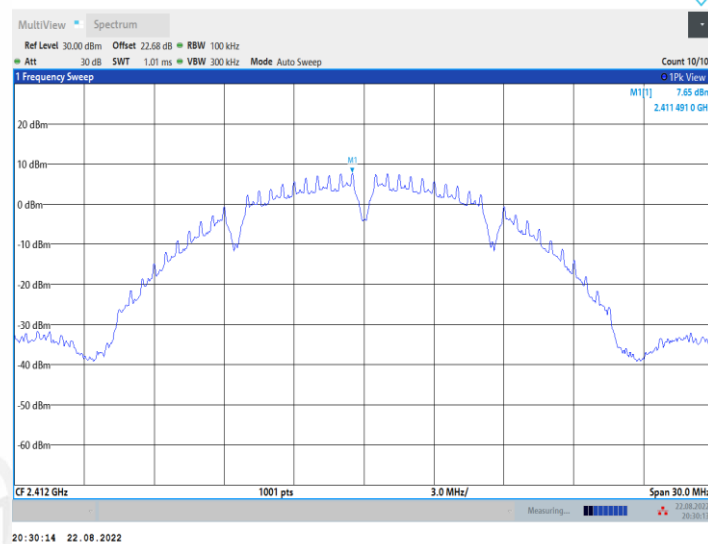
(5) Allow the trace to stabilize, use the peak marker function to determine the maximum amplitude of all unwanted emissions outside of the authorized frequency band

9.4. Test Result

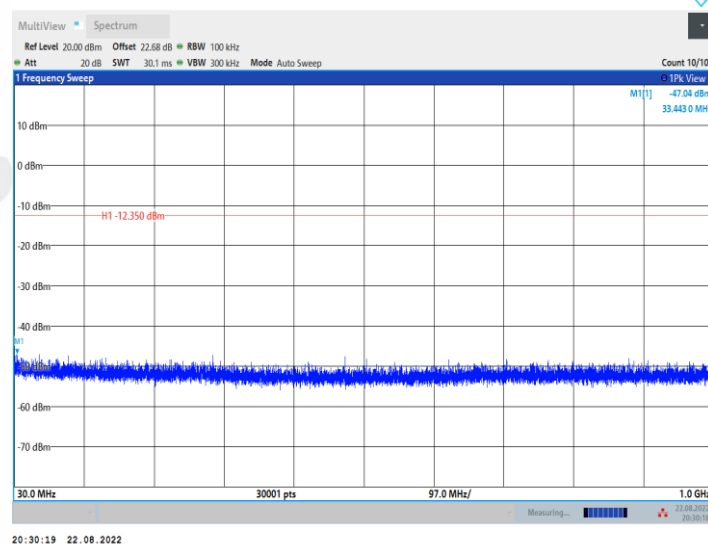
EUT Set Mode	CH or Frequency	Result (dBm)	EUT Set Mode	CH or Frequency	Result Result (dBm)
11b	CH1	Pass	11n HT 20	CH1	Pass
	CH6	Pass		CH6	Pass
	CH11	Pass		CH11	Pass
11g	CH1	Pass	11n HT 40	CH3	Pass
	CH6	Pass		CH6	Pass
	CH11	Pass		CH9	Pass

9.5. original test data

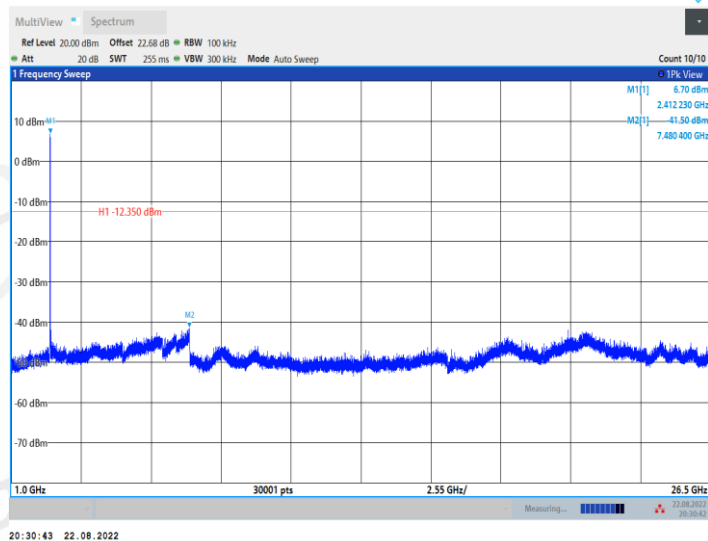
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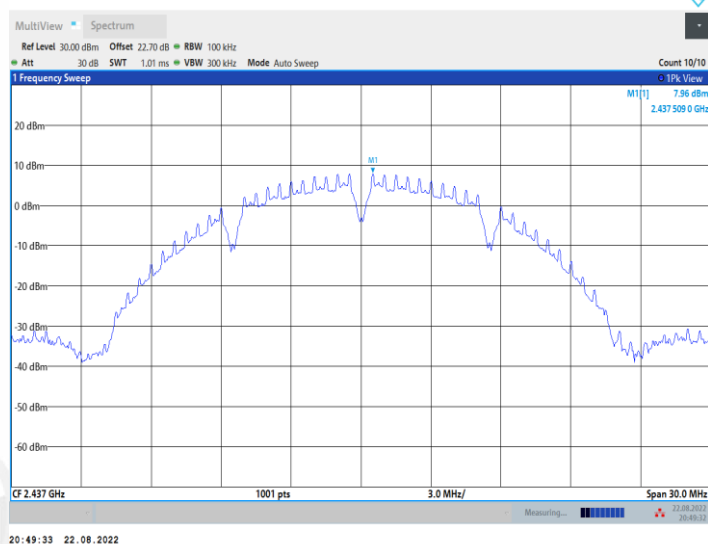
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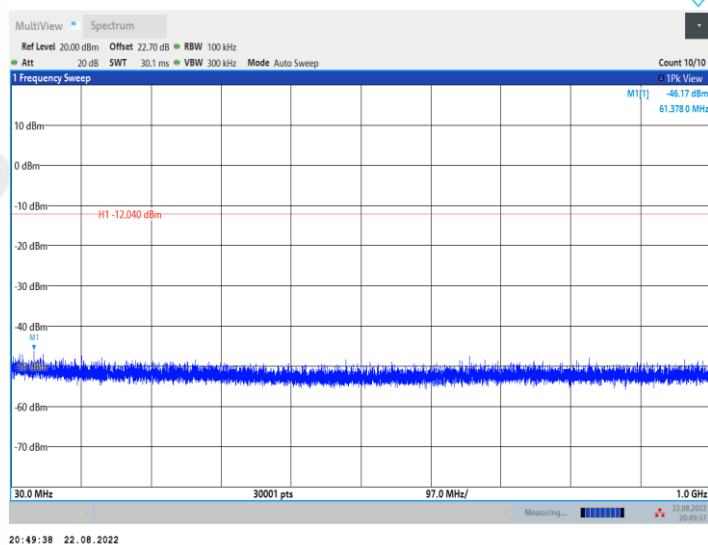
11B_Ant1_2412_1000~26500



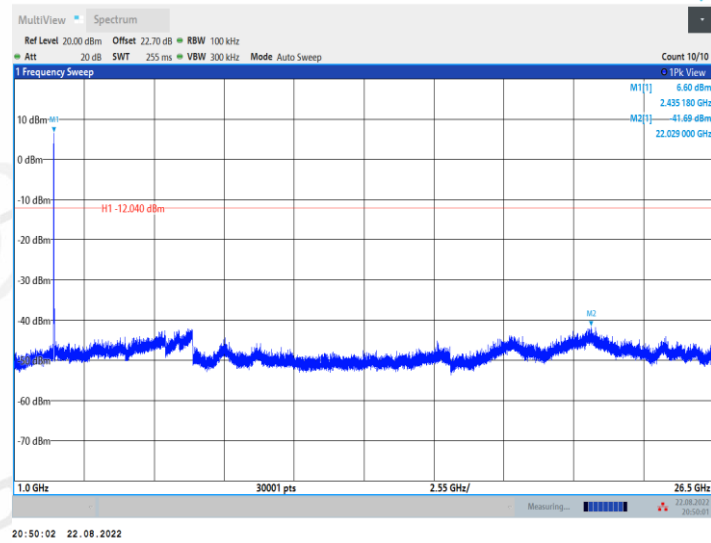
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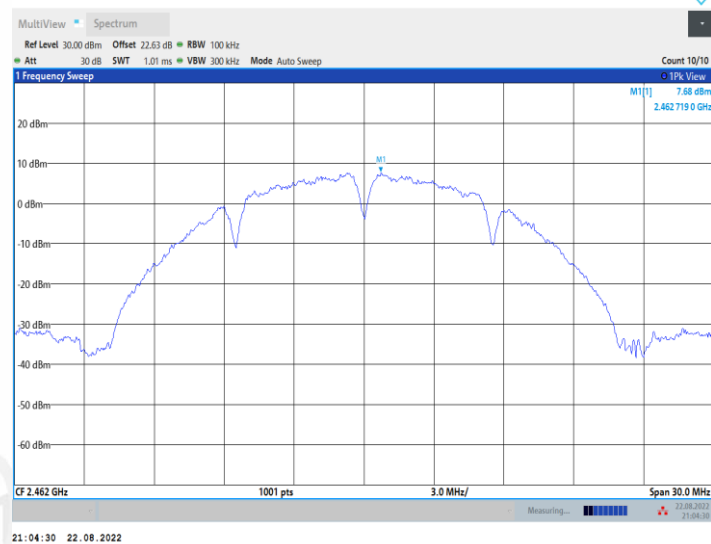
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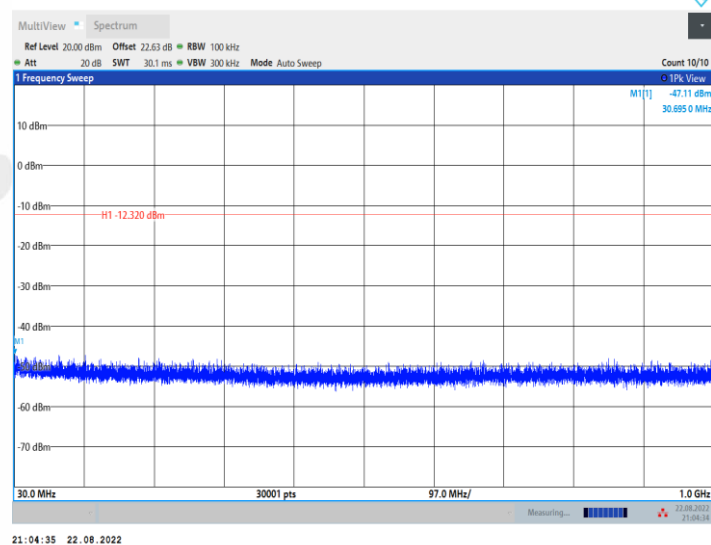
11B_Ant1_2437_1000~26500



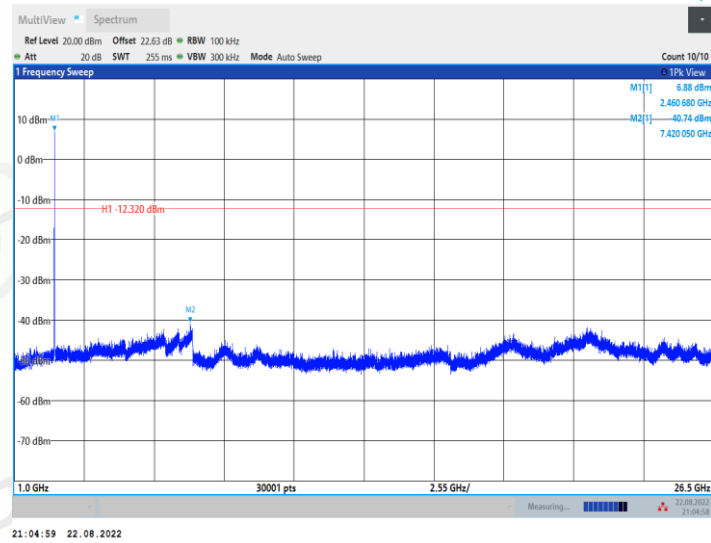
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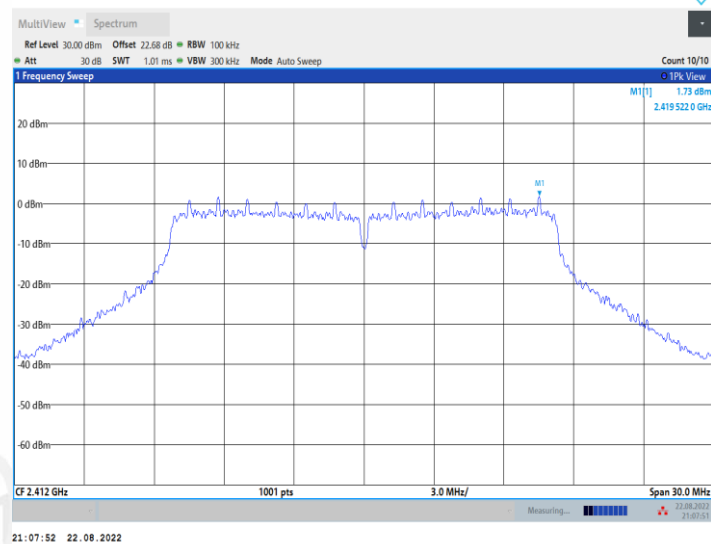
11B_Ant1_2462_30~1000



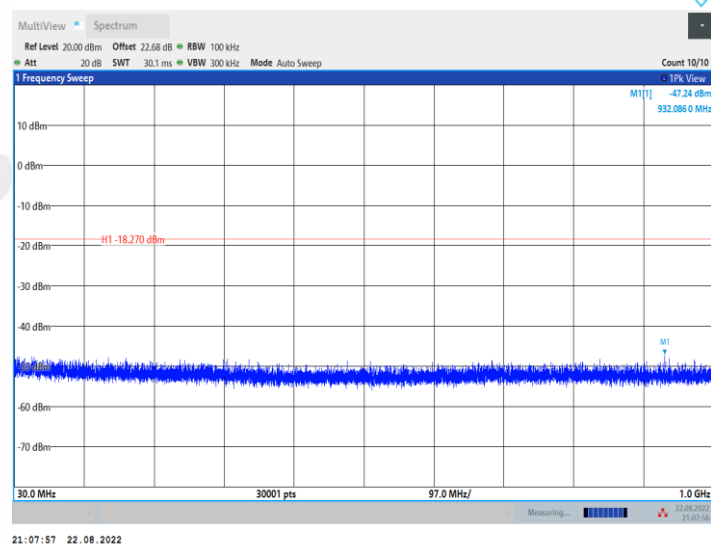
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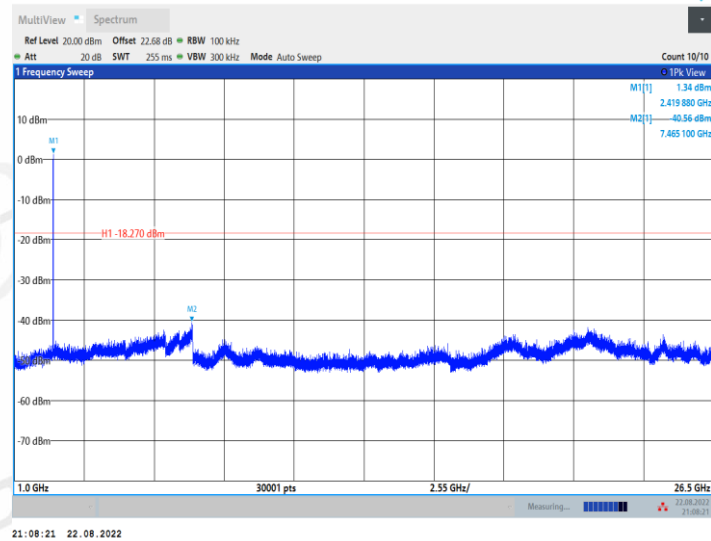
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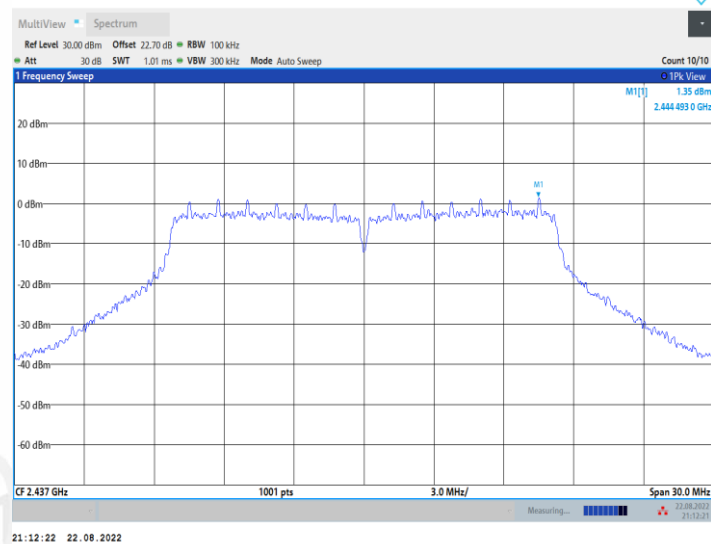
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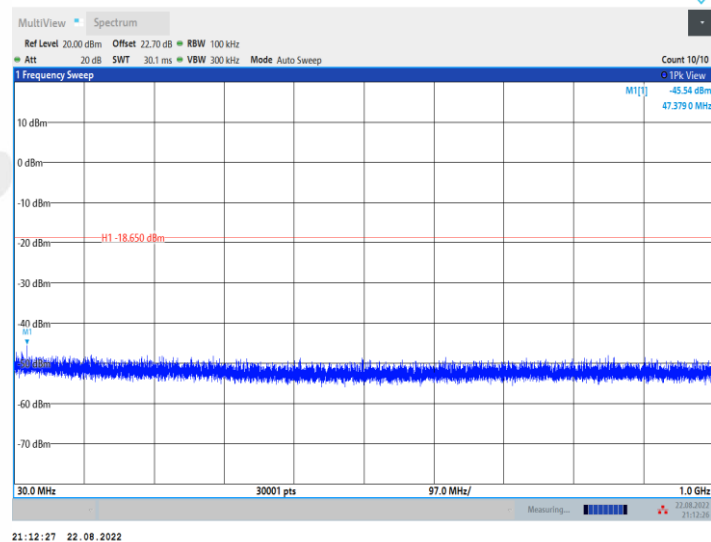
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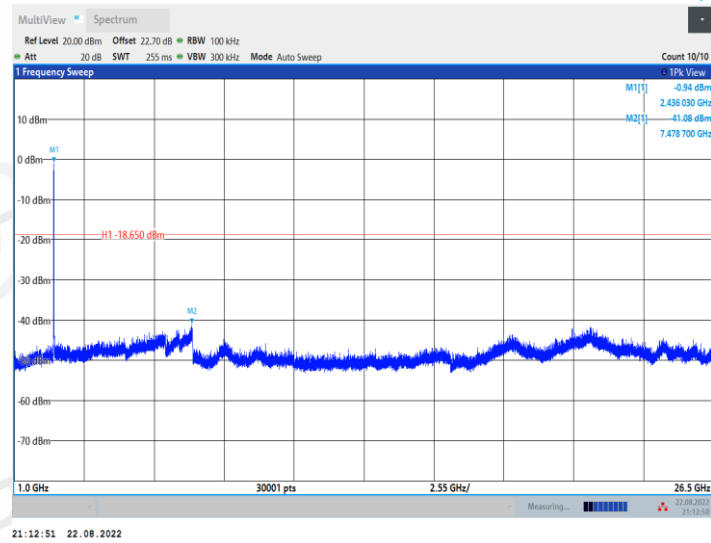
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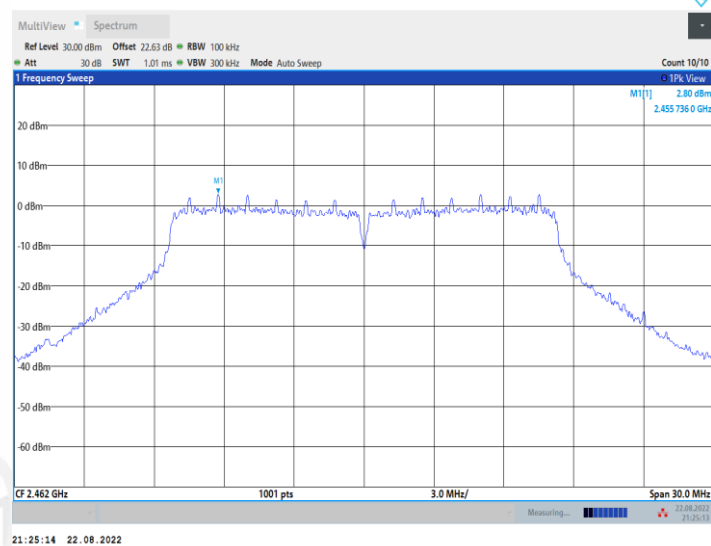
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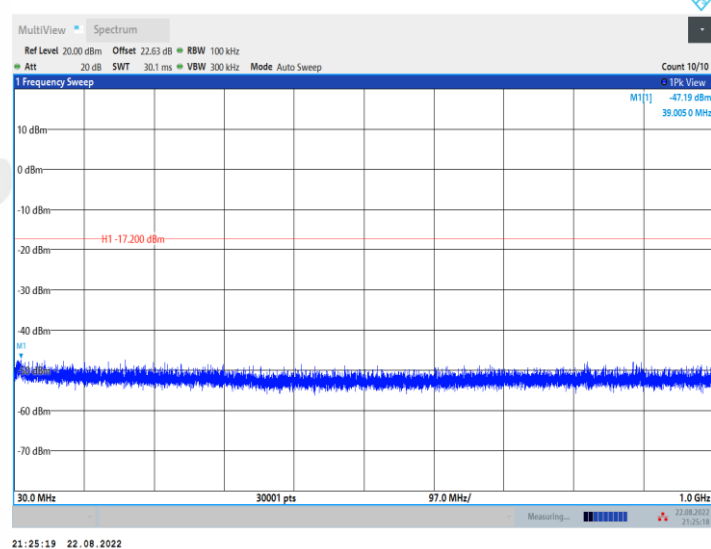
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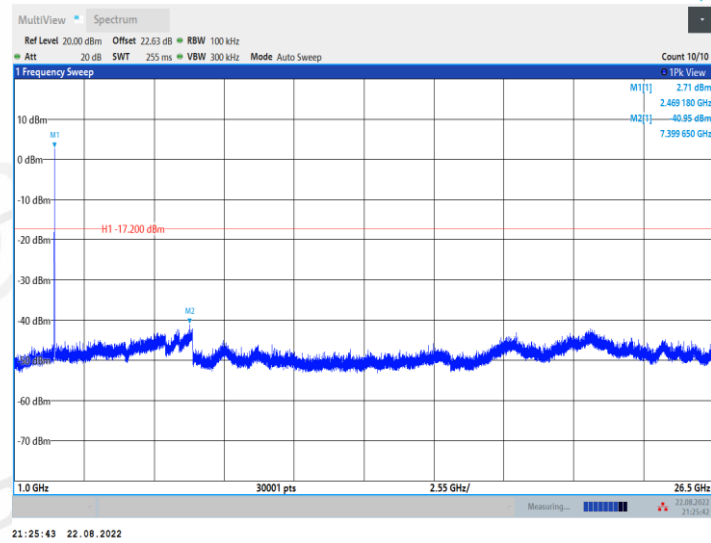
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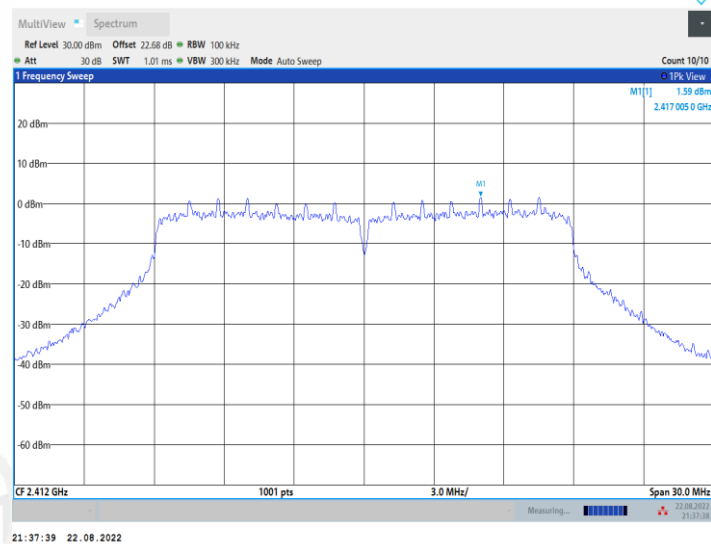
11G_Ant1_2462_30~1000



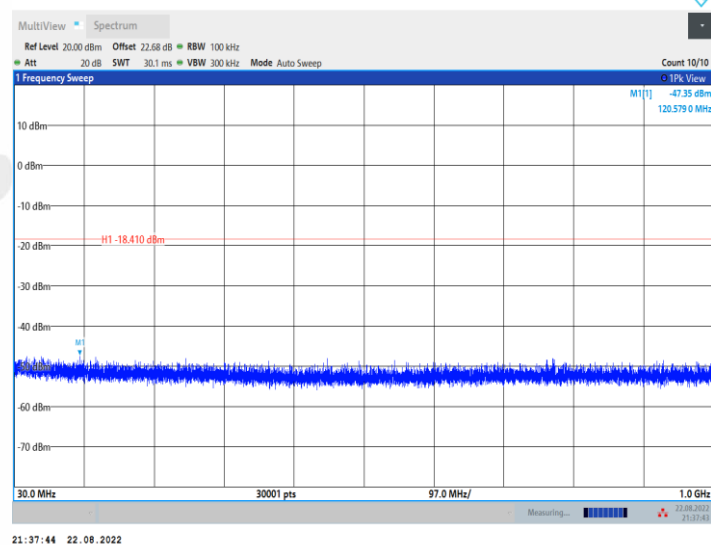
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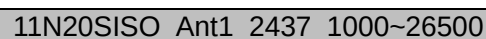
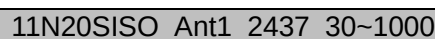
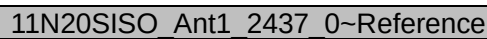
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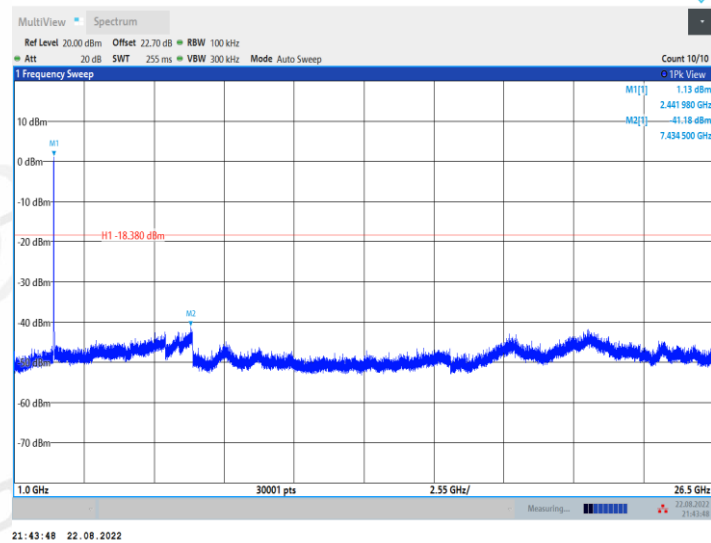


11N20SISO Ant1 2412 30~1000

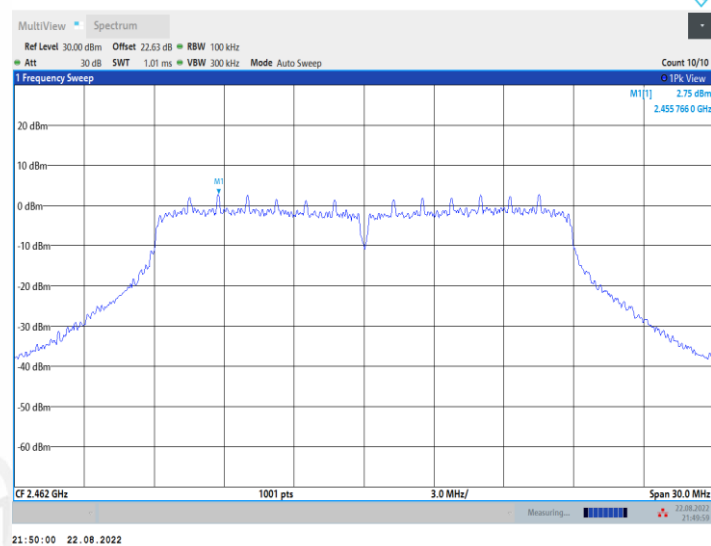


11N20SISO Ant1 2412 1000~26500

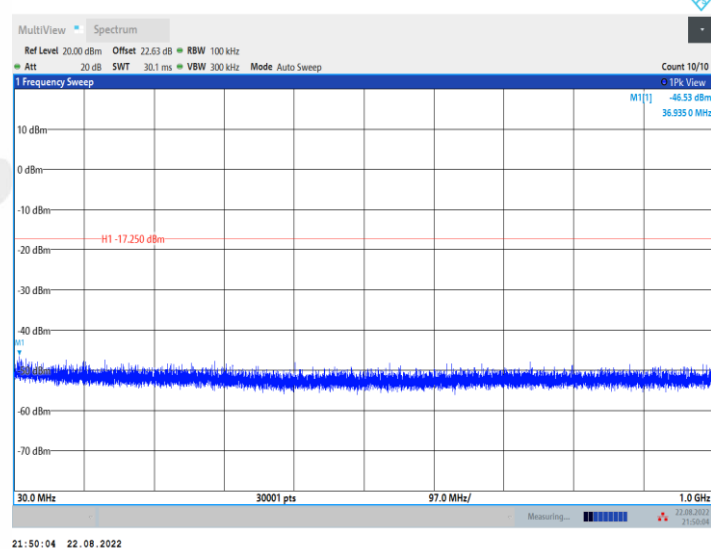




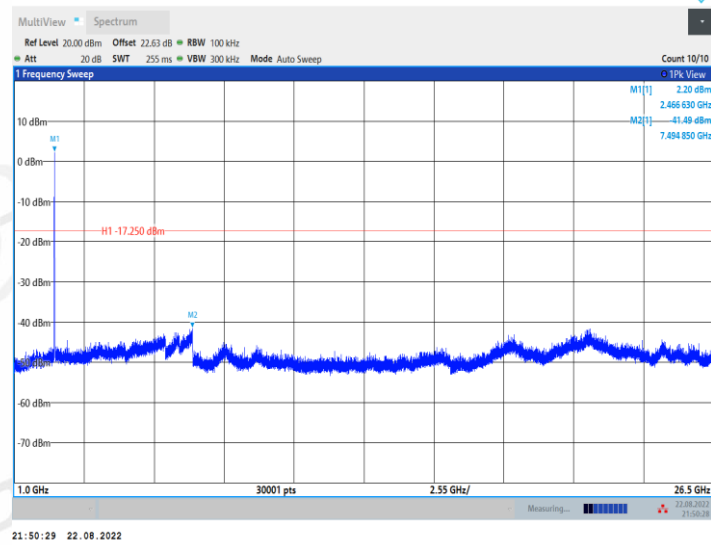
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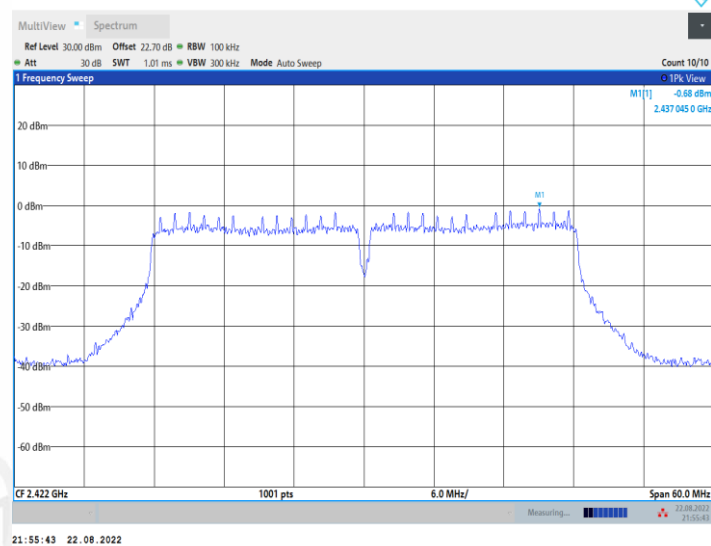
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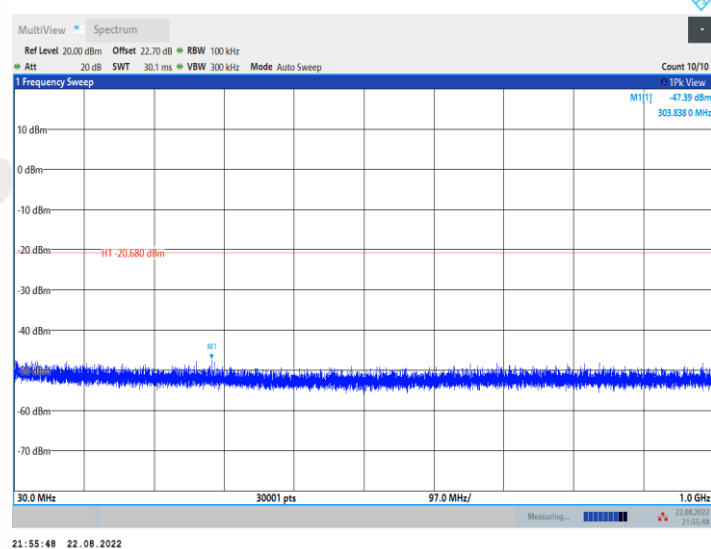
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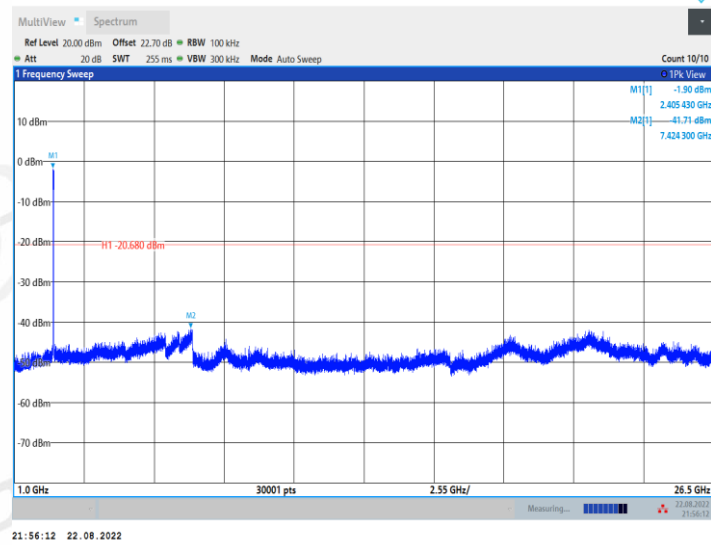
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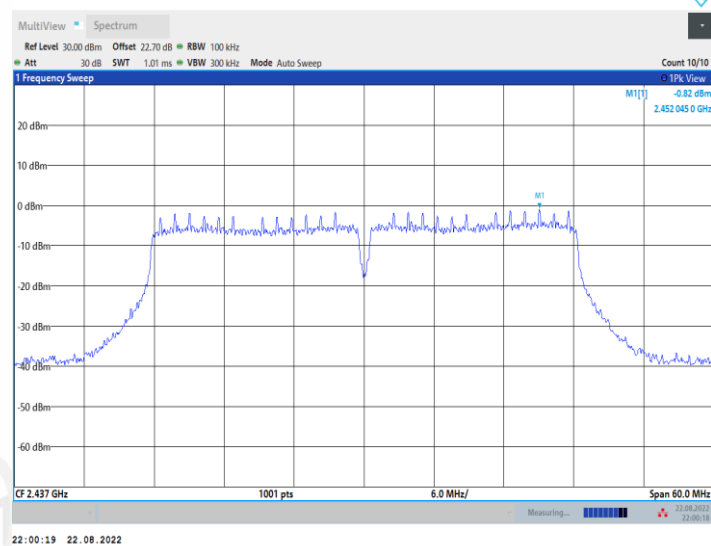
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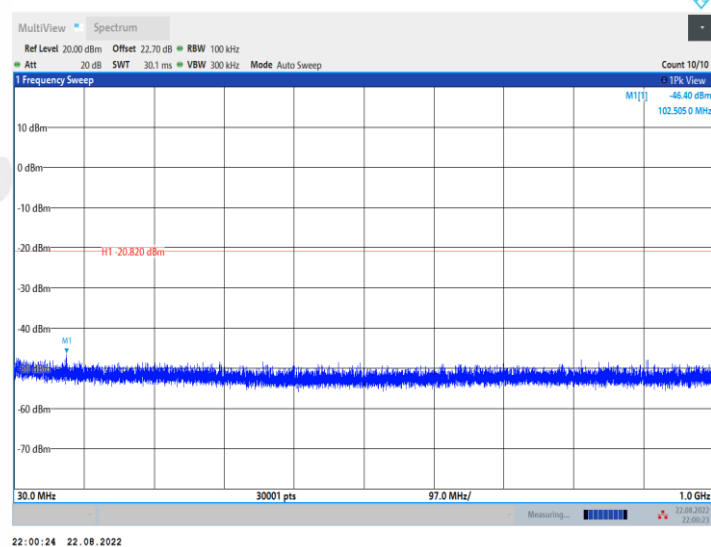
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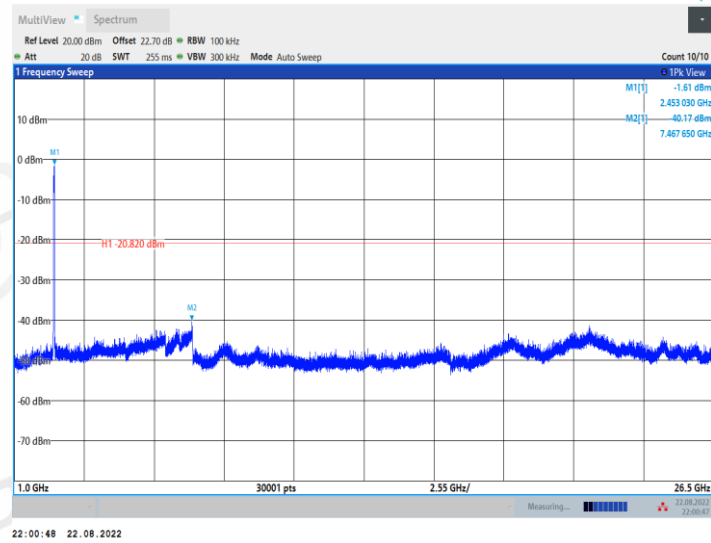
11N40SISO_Ant1_2437_0~Reference



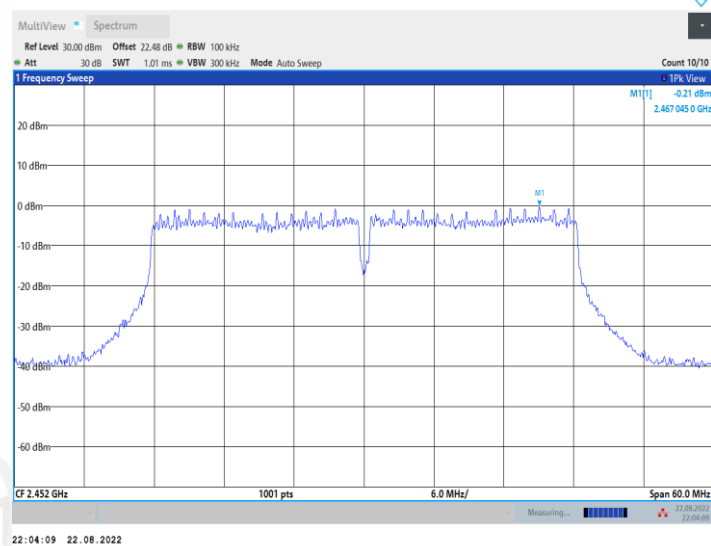
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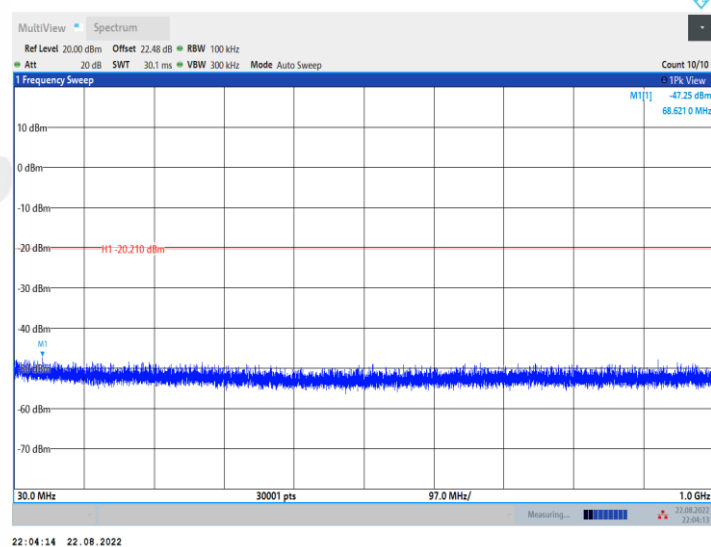
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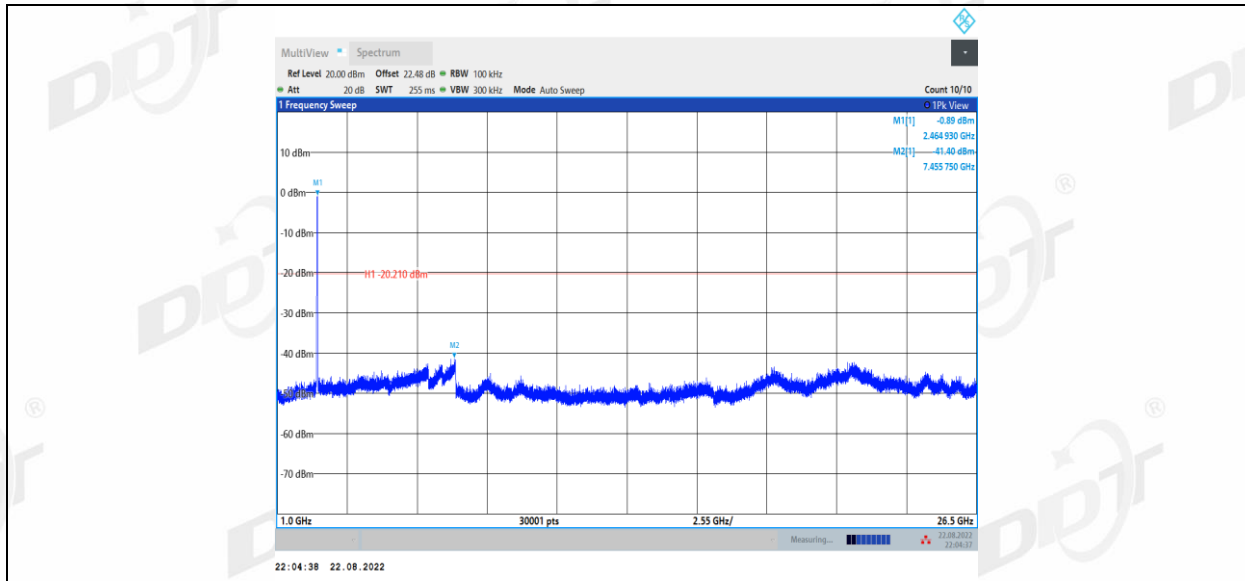
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11N40SISO Ant1 2452 30~1000

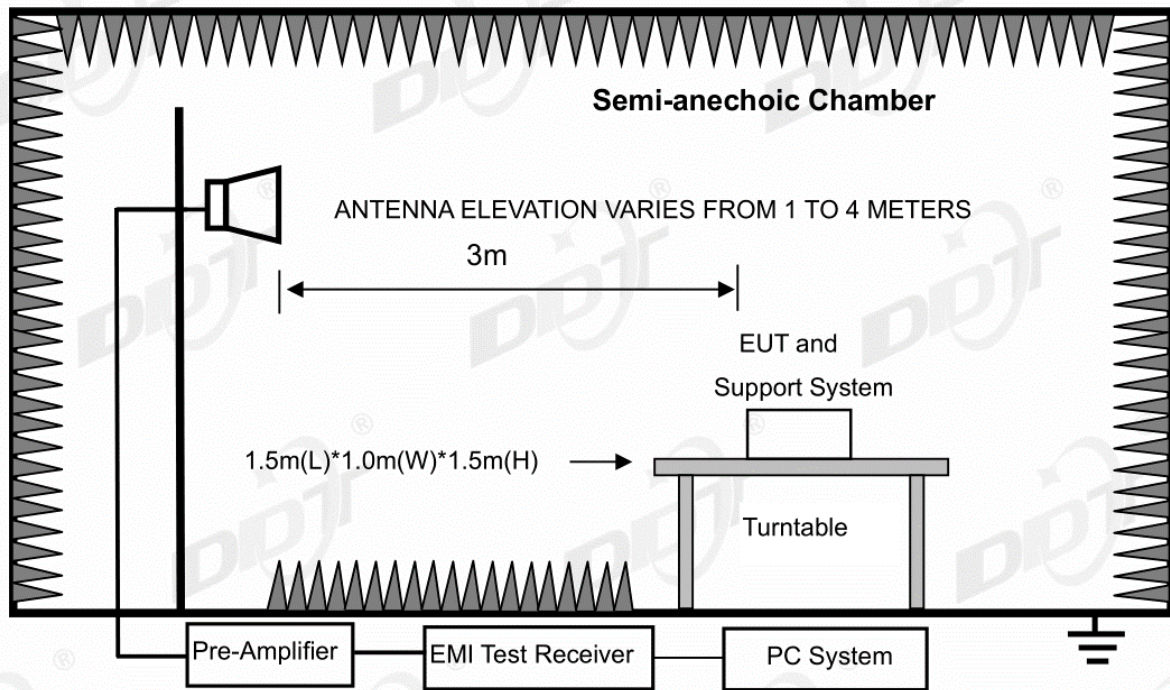


11N40SISO Ant1 2452 1000~26500



10. Radiated Band Edge Compliance

10.1. Block diagram of test setup



10.2. 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 20dB below the fundamental emissions or comply with FCC 15.209 limits.

10.3. Test Procedure

Same with clause 8.3 except change investigated frequency range from 2310 MHz to 2430 MHz and 2445 MHz to 2500 MHz.

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

10.4. Test result

Pass. (See below detailed test result)

Note: All mode were tested and only the worst case was recorded this report.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 3#

D:\E3 6.111\2022 Report Data\Q22060726-2E D1\FCC ABOVE 1G .EM6

Test Date : 2022-08-18

Tested By : James Gan

EUT : Reli Light Cam Battery D1

Model Number : FJ11HWXJ

Power Supply : Battery

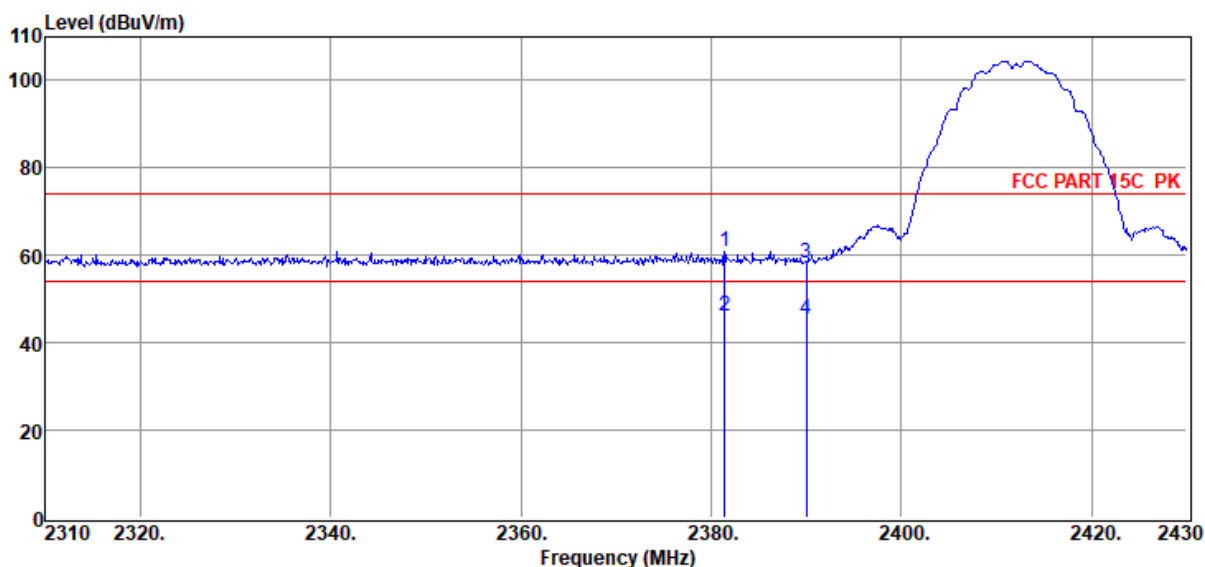
Test Mode : Tx Mode

Condition : Temp:22.8°C,Humi:54.2%,Press:100.3kPa

Antenna/Distance : 2021 BBHA 9120D
3#/3m/HORIZONTAL

Memo : 11B 2412

Data: 1



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Filter Factor dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	2381.40	50.71	27.39	39.59	1.71	0.72	60.94	74.00	-13.06	Peak	HORIZONTAL
2	2381.40	36.00	27.39	39.59	1.71	0.72	46.23	54.00	-7.77	Average	HORIZONTAL
3	2390.04	48.16	27.40	39.60	1.71	0.72	58.39	74.00	-15.61	Peak	HORIZONTAL
4	2390.04	35.25	27.40	39.60	1.71	0.72	45.48	54.00	-8.52	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss + Filter Factor - 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.

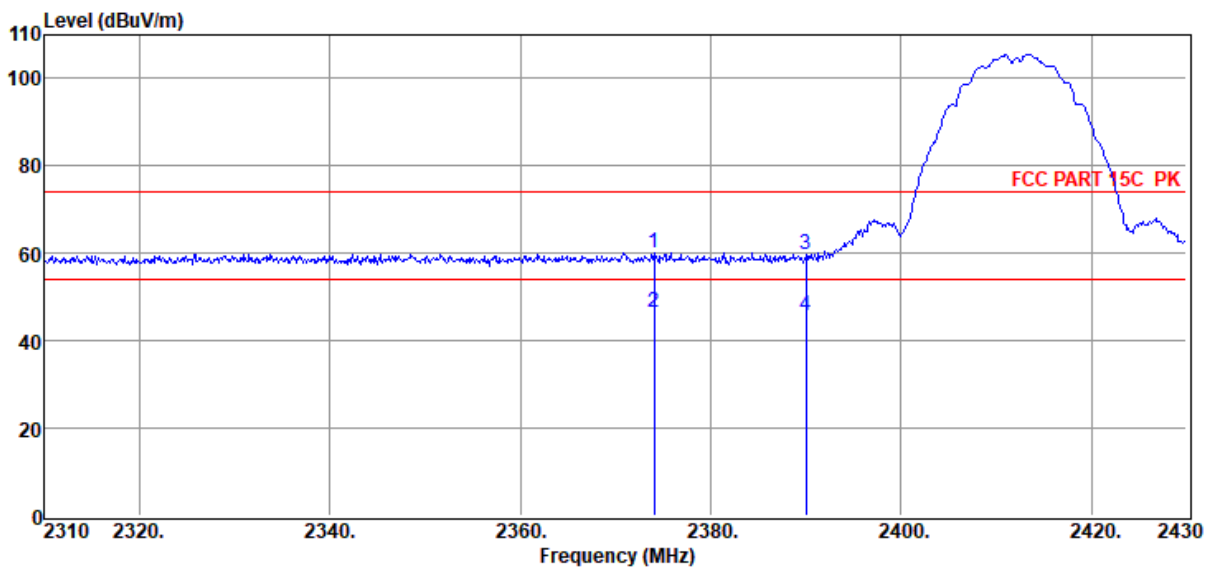
TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 3#
Test Date : 2022-08-18
EUT : Reli Light Cam Battery D1
Power Supply : Battery
Condition : Temp:22.8°C,Humi:54.2%,Press:100.3kPa
Memo : 11B 2412

Tested By : James Gan
Model Number : FJ11HWXJ
Test Mode : Tx Mode
Antenna/Distance : 2021 BBHA 9120D 3#/3m/VERTICAL

D:\E3 6.111\2022 Report Data\Q22060726-2E D1\FCC ABOVE 1G .EM6

Data: 2



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Filter Factor dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	2374.08	49.99	27.37	39.59	1.70	0.72	60.19	74.00	-13.81	Peak	VERTICAL
2	2374.08	36.18	27.37	39.59	1.70	0.72	46.38	54.00	-7.62	Average	VERTICAL
3	2390.04	49.37	27.40	39.60	1.71	0.72	59.60	74.00	-14.40	Peak	VERTICAL
4	2390.04	35.60	27.40	39.60	1.71	0.72	45.83	54.00	-8.17	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss + Filter Factor - 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 3#

D:\E3 6.111\2022 Report Data\Q22060726-2E D1\FCC ABOVE 1G .EM6

Test Date : 2022-08-18

Tested By : James Gan

EUT : Reli Light Cam Battery D1

Model Number : FJ11HWXJ

Power Supply : Battery

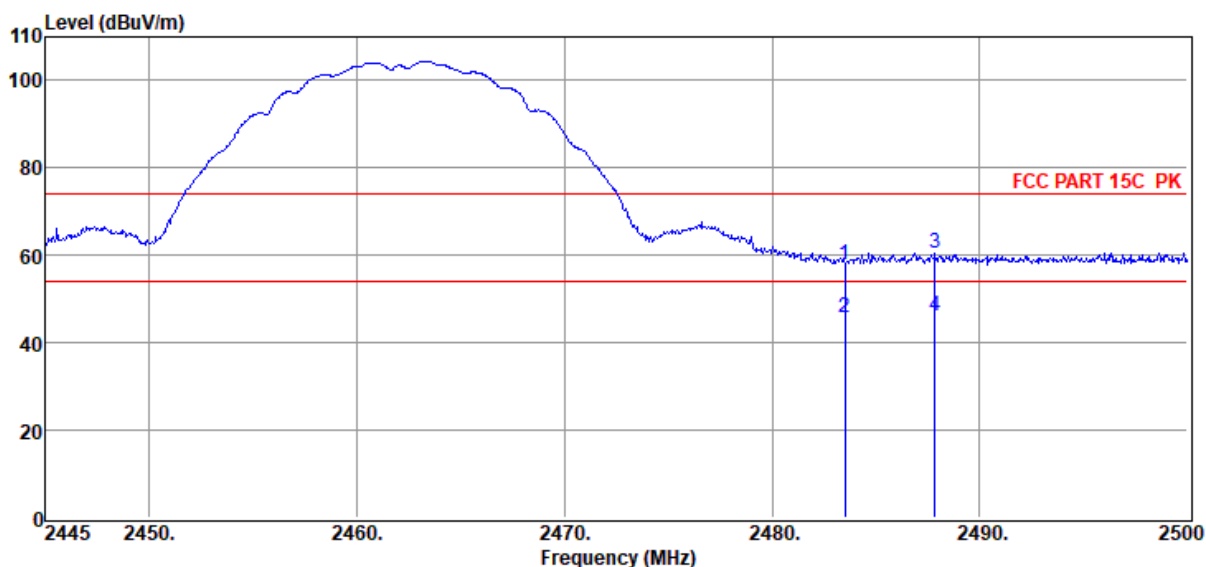
Test Mode : Tx Mode

Condition : Temp:22.8°C,Humi:54.2%,Press:100.3kPa

Antenna/Distance : 2021 BBHA 9120D
3#/3m/HORIZONTAL

Memo : 11B 2462

Data: 3



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Filter Factor dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	2483.50	47.59	27.57	39.64	1.74	0.73	57.99	74.00	-16.01	Peak	HORIZONTAL
2	2483.50	35.47	27.57	39.64	1.74	0.73	45.87	54.00	-8.13	Average	HORIZONTAL
3	2487.85	50.19	27.58	39.64	1.74	0.73	60.60	74.00	-13.40	Peak	HORIZONTAL
4	2487.85	35.82	27.58	39.64	1.74	0.73	46.23	54.00	-7.77	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss + Filter Factor - PRM Factor.

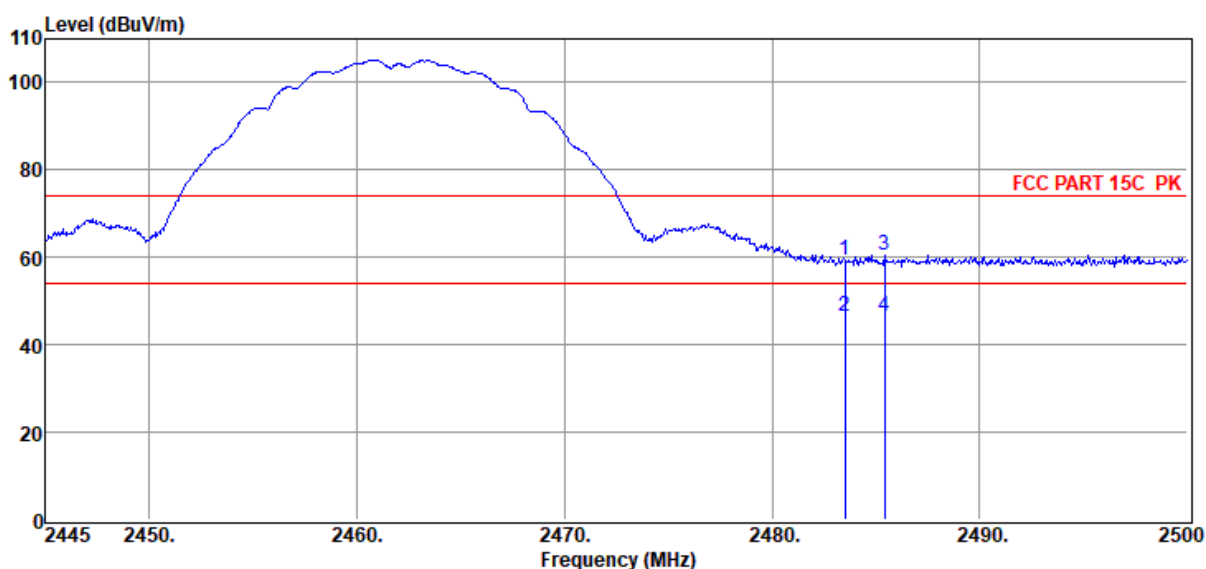
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

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 3#D:\E3 6.111\2022 Report Data\Q22060726-2E D1\FCC
ABOVE 1G .EM6**Test Date** : 2022-08-18**Tested By** : James Gan**EUT** : Reli Light Cam Battery D1**Model Number** : FJ11HWXJ**Power Supply** : Battery**Test Mode** : Tx Mode**Condition** : Temp:22.8°C,Humi:54.2%,Press:100.3kPa**Antenna/Distance** : 2021 BBHA 9120D 3#/3m/VERTICAL**Memo** : 11B 2462

Data: 4



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Filter Factor dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	2483.50	48.85	27.57	39.64	1.74	0.73	59.25	74.00	-14.75	Peak	VERTICAL
2	2483.50	36.09	27.57	39.64	1.74	0.73	46.49	54.00	-7.51	Average	VERTICAL
3	2485.43	50.21	27.57	39.64	1.74	0.73	60.61	74.00	-13.39	Peak	VERTICAL
4	2485.43	36.15	27.57	39.64	1.74	0.73	46.55	54.00	-7.45	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss + Filter Factor - 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 3#

D:\E3 6.111\2022 Report Data\Q22060726-2E D1\FCC ABOVE 1G .EM6

Test Date : 2022-08-18

Tested By : James Gan

EUT : Reli Light Cam Battery D1

Model Number : FJ11HWXJ

Power Supply : Battery

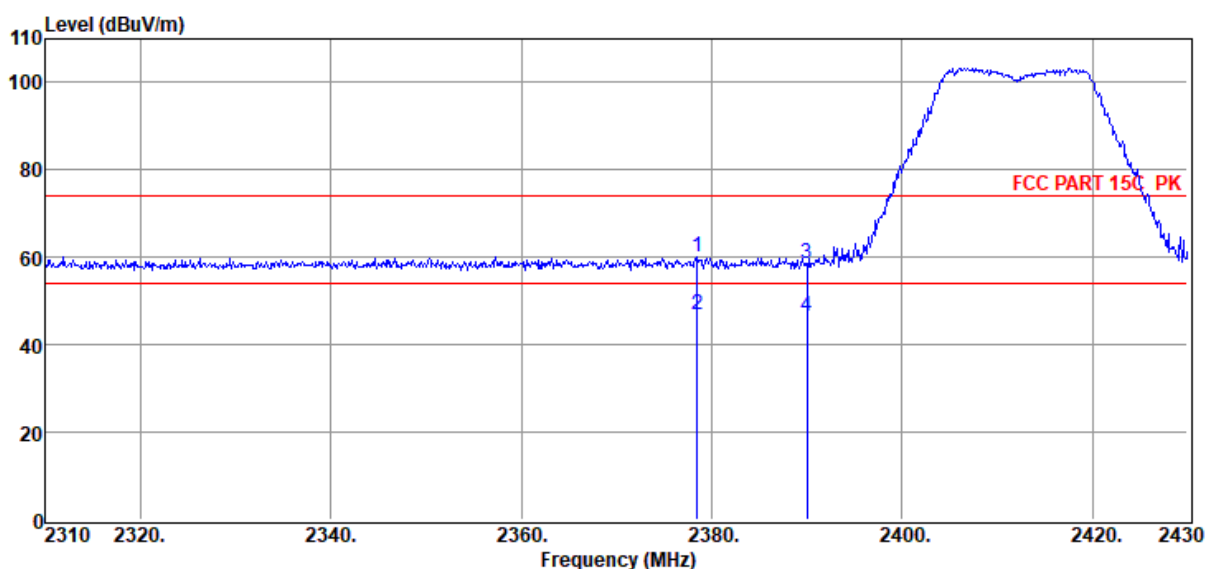
Test Mode : Tx Mode

Condition : Temp:22.8°C,Humi:54.2%,Press:100.3kPa

Antenna/Distance : 2021 BBHA 9120D
3#/3m/HORIZONTAL

Memo : 11G 2412

Data: 5



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Filter Factor dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	2378.52	49.83	27.38	39.59	1.71	0.72	60.05	74.00	-13.95	Peak	HORIZONTAL
2	2378.52	36.55	27.38	39.59	1.71	0.72	46.77	54.00	-7.23	Average	HORIZONTAL
3	2390.04	48.26	27.40	39.60	1.71	0.72	58.49	74.00	-15.51	Peak	HORIZONTAL
4	2390.04	36.38	27.40	39.60	1.71	0.72	46.61	54.00	-7.39	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss + Filter Factor - 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 3#

D:\E3 6.111\2022 Report Data\Q22060726-2E D1\FCC ABOVE 1G .EM6

Test Date : 2022-08-18

Tested By : James Gan

EUT : Reli Light Cam Battery D1

Model Number : FJ11HWXJ

Power Supply : Battery

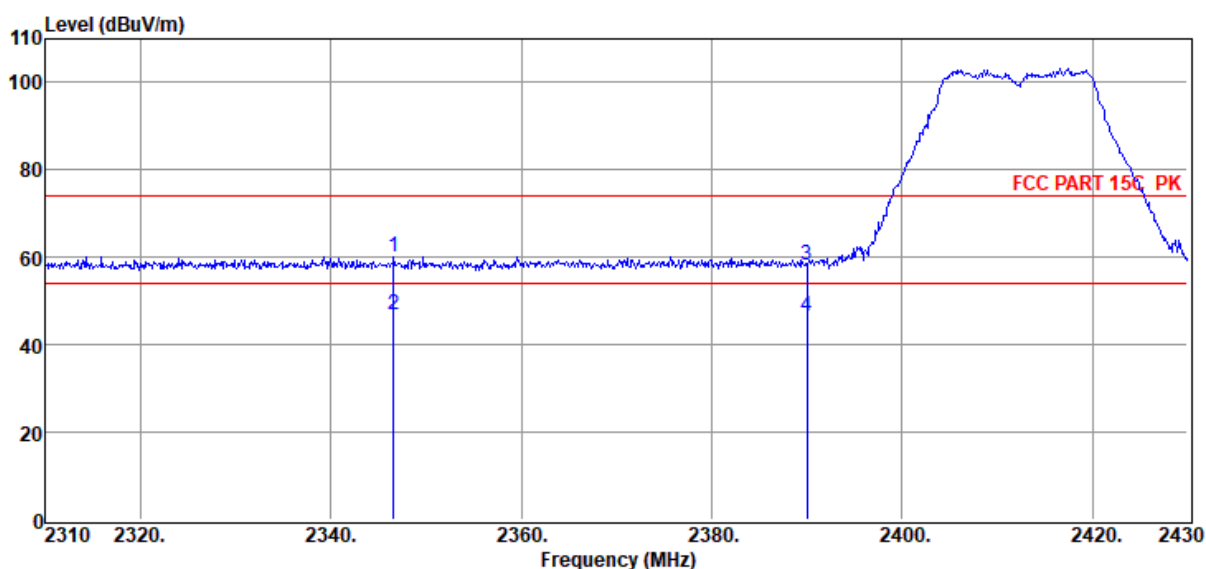
Test Mode : Tx Mode

Condition : Temp:22.8°C,Humi:54.2%,Press:100.3kPa

Antenna/Distance : 2021 BBHA 9120D 3#/3m/VERTICAL

Memo : 11G 2412

Data: 6



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Filter Factor dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	2346.60	50.04	27.32	39.57	1.70	0.72	60.21	74.00	-13.79	Peak	VERTICAL
2	2346.60	36.86	27.32	39.57	1.70	0.72	47.03	54.00	-6.97	Average	VERTICAL
3	2390.04	48.04	27.40	39.60	1.71	0.72	58.27	74.00	-15.73	Peak	VERTICAL
4	2390.04	36.44	27.40	39.60	1.71	0.72	46.67	54.00	-7.33	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss + Filter Factor - 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 3#

D:\E3 6.111\2022 Report Data\Q22060726-2E D1\FCC ABOVE 1G .EM6

Test Date : 2022-08-18

Tested By : James Gan

EUT : Reli Light Cam Battery D1

Model Number : FJ11HWXJ

Power Supply : Battery

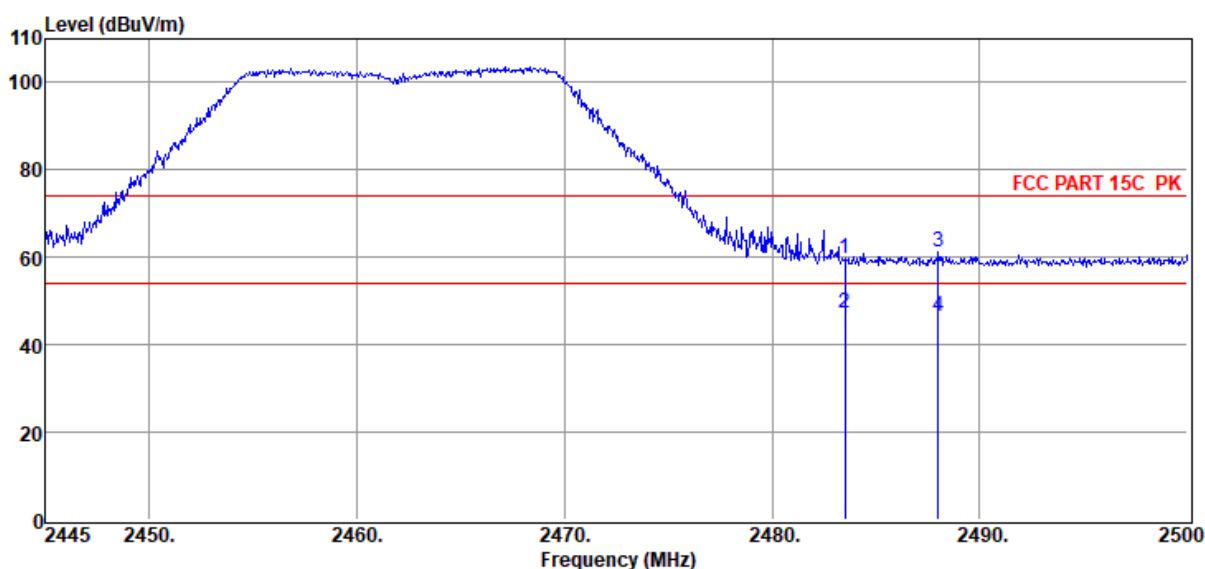
Test Mode : Tx Mode

Condition : Temp:22.8°C,Humi:54.2%,Press:100.3kPa

Antenna/Distance : 2021 BBHA 9120D
3#/3m/HORIZONTAL

Memo : 11G 2462

Data: 7



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Filter Factor dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	2483.50	49.50	27.57	39.64	1.74	0.73	59.90	74.00	-14.10	Peak	HORIZONTAL
2	2483.50	36.75	27.57	39.64	1.74	0.73	47.15	54.00	-6.85	Average	HORIZONTAL
3	2488.01	50.87	27.58	39.64	1.74	0.73	61.28	74.00	-12.72	Peak	HORIZONTAL
4	2488.01	36.10	27.58	39.64	1.74	0.73	46.51	54.00	-7.49	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss + Filter Factor - 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 3#

D:\E3 6.111\2022 Report Data\Q22060726-2E D1\FCC ABOVE 1G .EM6

Test Date : 2022-08-18

Tested By : James Gan

EUT : Reli Light Cam Battery D1

Model Number : FJ11HWXJ

Power Supply : Battery

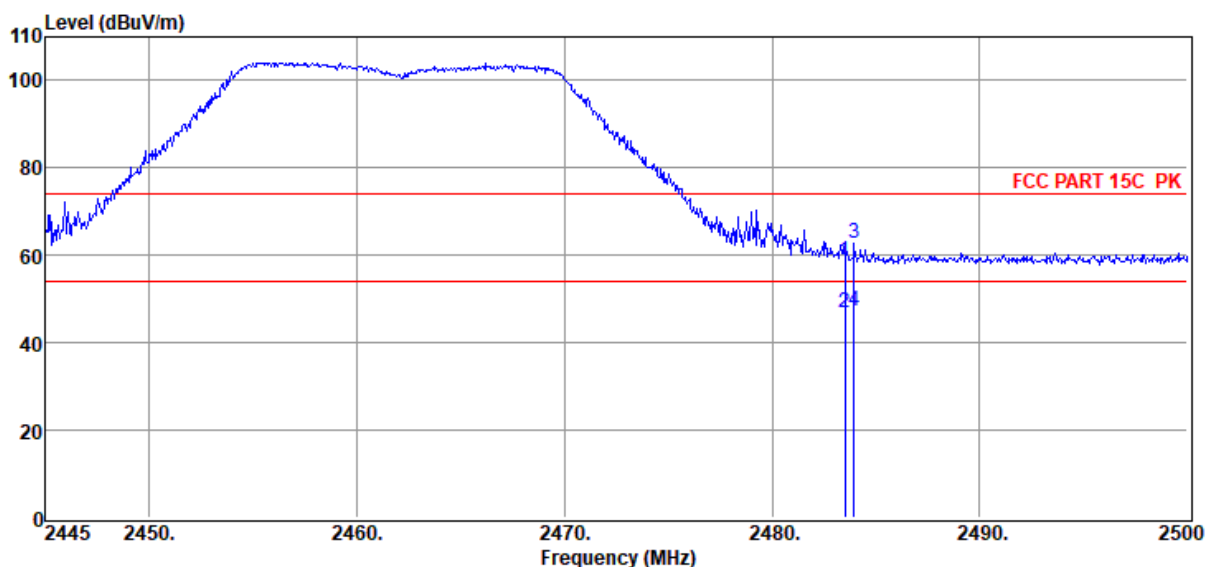
Test Mode : Tx Mode

Condition : Temp:22.8°C,Humi:54.2%,Press:100.3kPa

Antenna/Distance : 2021 BBHA 9120D 3#/3m/VERTICAL

Memo : 11G 2462

Data: 8



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Filter Factor dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	2483.50	48.33	27.57	39.64	1.74	0.73	58.73	74.00	-15.27	Peak	VERTICAL
2	2483.50	36.63	27.57	39.64	1.74	0.73	47.03	54.00	-6.97	Average	VERTICAL
3	2483.94	52.40	27.57	39.64	1.74	0.73	62.80	74.00	-11.20	Peak	VERTICAL
4	2483.94	36.79	27.57	39.64	1.74	0.73	47.19	54.00	-6.81	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss + Filter Factor - 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 3#

D:\E3 6.111\2022 Report Data\Q22060726-2E D1\FCC ABOVE 1G .EM6

Test Date : 2022-08-18

Tested By : James Gan

EUT : Reli Light Cam Battery D1

Model Number : FJ11HWXJ

Power Supply : Battery

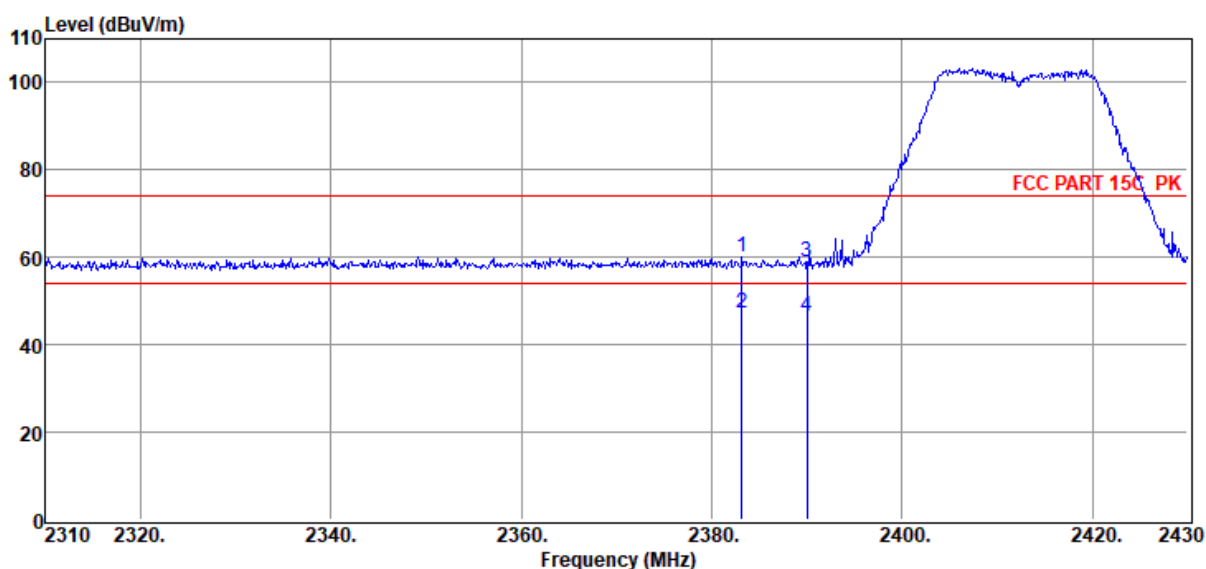
Test Mode : Tx Mode

Condition : Temp:22.8°C,Humi:54.2%,Press:100.3kPa

Antenna/Distance : 2021 BBHA 9120D
3#/3m/HORIZONTAL

Memo : 11N20 2412

Data: 9



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Filter Factor dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	2383.20	49.93	27.39	39.59	1.71	0.72	60.16	74.00	-13.84	Peak	HORIZONTAL
2	2383.20	36.97	27.39	39.59	1.71	0.72	47.20	54.00	-6.80	Average	HORIZONTAL
3	2390.04	48.92	27.40	39.60	1.71	0.72	59.15	74.00	-14.85	Peak	HORIZONTAL
4	2390.04	36.44	27.40	39.60	1.71	0.72	46.67	54.00	-7.33	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss + Filter Factor - PRM Factor.

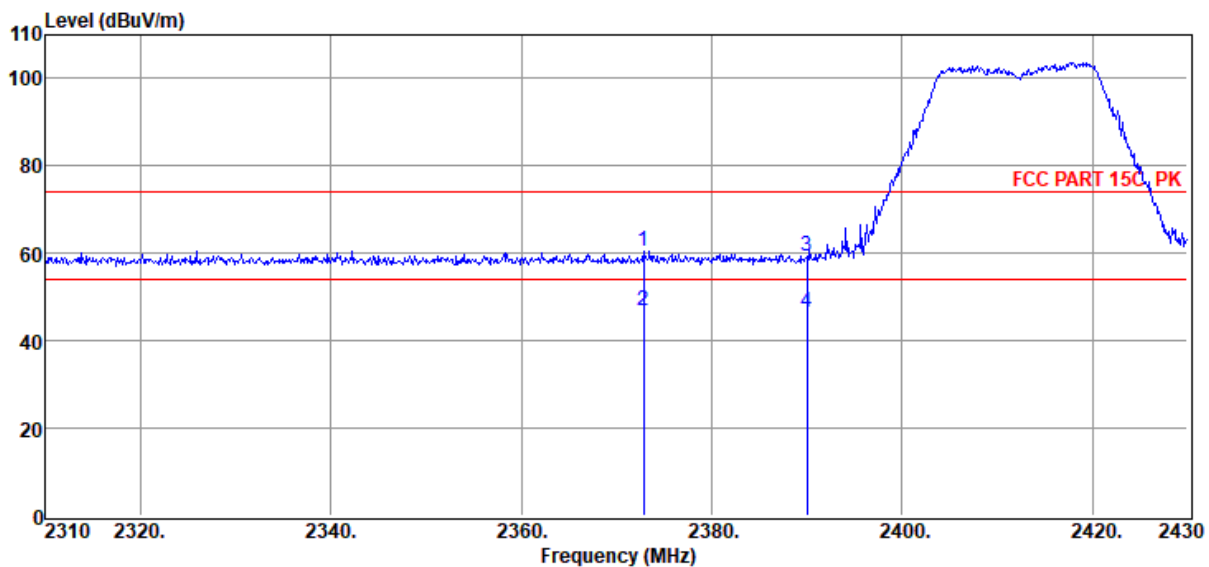
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

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 3#D:\E3 6.111\2022 Report Data\Q22060726-2E D1\FCC
ABOVE 1G .EM6**Test Date** : 2022-08-18**Tested By** : James Gan**EUT** : Reli Light Cam Battery D1**Model Number** : FJ11HWXJ**Power Supply** : Battery**Test Mode** : Tx Mode**Condition** : Temp:22.8°C,Humi:54.2%,Press:100.3kPa**Antenna/Distance** : 2021 BBHA 9120D 3#/3m/VERTICAL**Memo** : 11N20 2412

Data: 10



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Filter Factor dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	2372.88	50.23	27.37	39.59	1.70	0.72	60.43	74.00	-13.57	Peak	VERTICAL
2	2372.88	36.59	27.37	39.59	1.70	0.72	46.79	54.00	-7.21	Average	VERTICAL
3	2390.04	49.04	27.40	39.60	1.71	0.72	59.27	74.00	-14.73	Peak	VERTICAL
4	2390.04	36.22	27.40	39.60	1.71	0.72	46.45	54.00	-7.55	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss + Filter Factor - 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 3#

D:\E3 6.111\2022 Report Data\Q22060726-2E D1\FCC ABOVE 1G .EM6

Test Date : 2022-08-18

Tested By : James Gan

EUT : Reli Light Cam Battery D1

Model Number : FJ11HWXJ

Power Supply : Battery

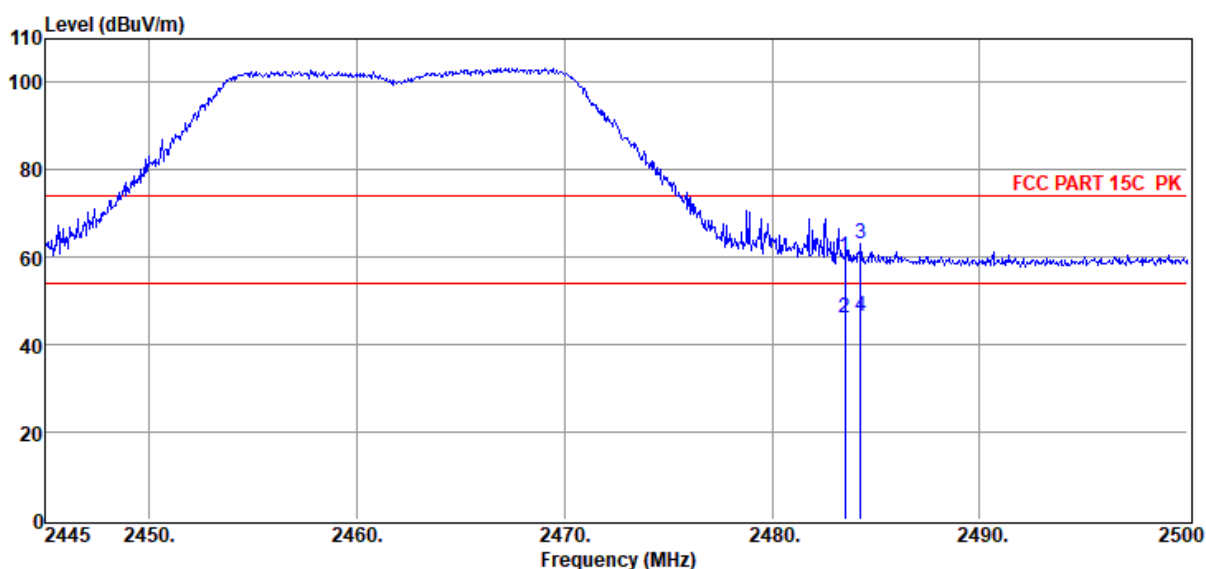
Test Mode : Tx Mode

Condition : Temp:22.8°C,Humi:54.2%,Press:100.3kPa

Antenna/Distance : 2021 BBHA 9120D
3#/3m/HORIZONTAL

Memo : 11N20 2462

Data: 11



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Filter Factor dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	2483.50	49.74	27.57	39.64	1.74	0.73	60.14	74.00	-13.86	Peak	HORIZONTAL
2	2483.50	35.54	27.57	39.64	1.74	0.73	45.94	54.00	-8.06	Average	HORIZONTAL
3	2484.27	52.81	27.57	39.64	1.74	0.73	63.21	74.00	-10.79	Peak	HORIZONTAL
4	2484.27	36.22	27.57	39.64	1.74	0.73	46.62	54.00	-7.38	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss + Filter Factor - 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 3#

D:\E3 6.111\2022 Report Data\Q22060726-2E D1\FCC ABOVE 1G .EM6

Test Date : 2022-08-18

Tested By : James Gan

EUT : Reli Light Cam Battery D1

Model Number : FJ11HWXJ

Power Supply : Battery

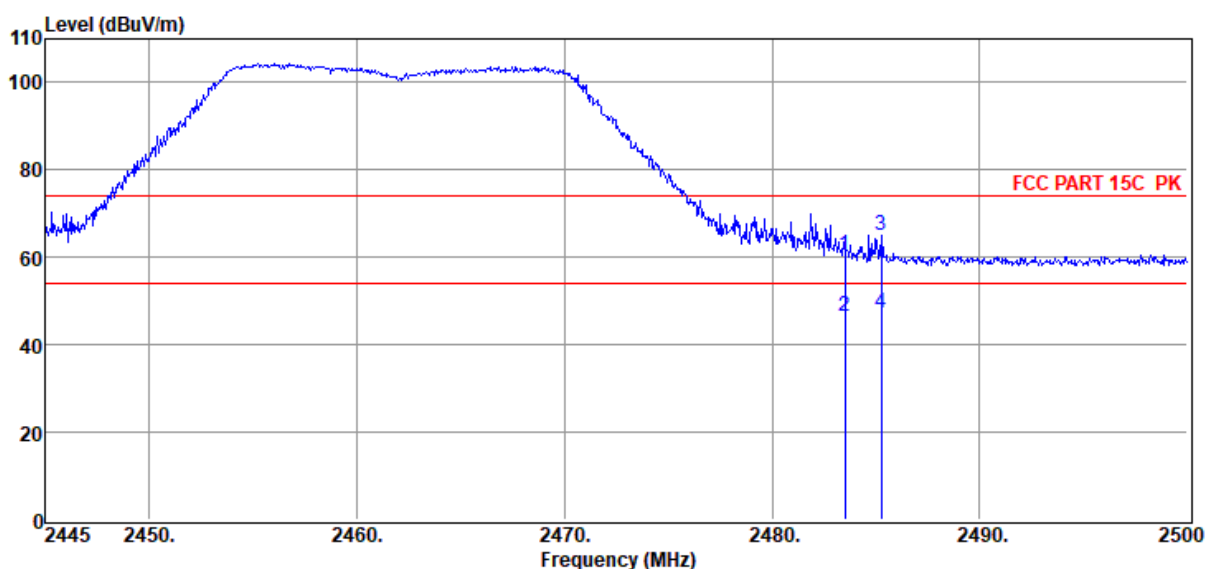
Test Mode : Tx Mode

Condition : Temp:22.8°C,Humi:54.2%,Press:100.3kPa

Antenna/Distance : 2021 BBHA 9120D 3#/3m/VERTICAL

Memo : 11N20 2462

Data: 12



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Filter Factor dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	2483.50	50.24	27.57	39.64	1.74	0.73	60.64	74.00	-13.36	Peak	VERTICAL
2	2483.50	36.03	27.57	39.64	1.74	0.73	46.43	54.00	-7.57	Average	VERTICAL
3	2485.26	54.73	27.57	39.64	1.74	0.73	65.13	74.00	-8.87	Peak	VERTICAL
4	2485.26	36.89	27.57	39.64	1.74	0.73	47.29	54.00	-6.71	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss + Filter Factor - 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.

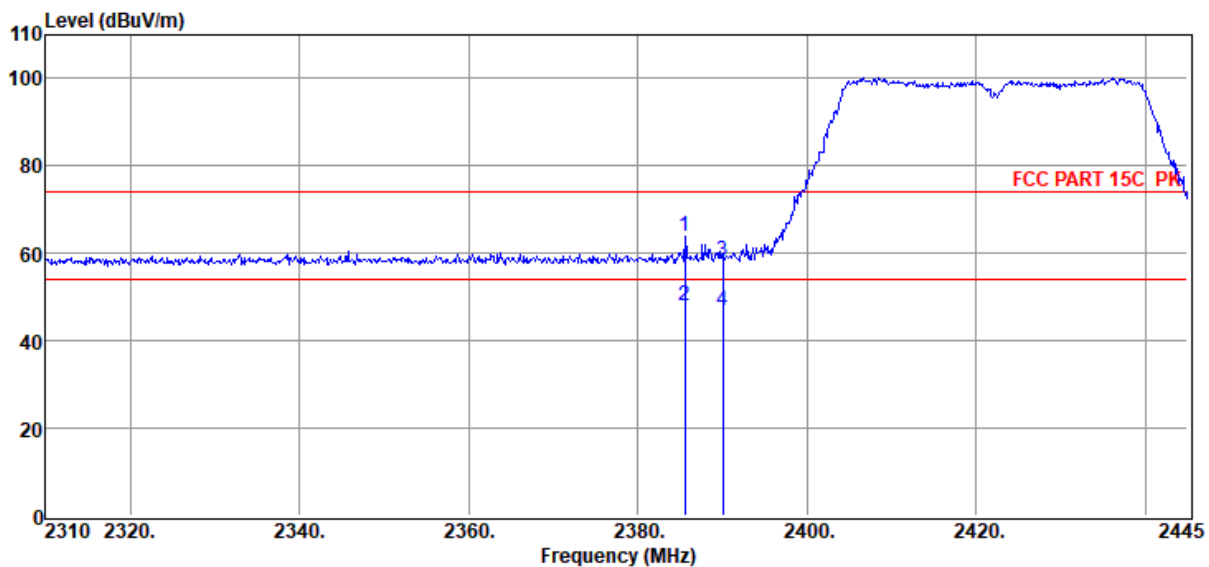
TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 3#
Test Date : 2022-08-18
EUT : Reli Light Cam Battery D1
Power Supply : Battery
Condition : Temp:22.8°C,Humi:54.2%,Press:100.3kPa
Memo : 11N40 2422

Tested By : James Gan
Model Number : FJ11HWXJ
Test Mode : Tx Mode
Antenna/Distance : 2021 BBHA 9120D
 3#/3m/HORIZONTAL

D:\E3 6.111\2022 Report Data\Q22060726-2E D1\FCC ABOVE 1G .EM6

Data: 13



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Filter Factor dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	2385.60	53.73	27.39	39.59	1.71	0.72	63.96	74.00	-10.04	Peak	HORIZONTAL
2	2385.60	37.85	27.39	39.59	1.71	0.72	48.08	54.00	-5.92	Average	HORIZONTAL
3	2390.00	48.04	27.40	39.60	1.71	0.72	58.27	74.00	-15.73	Peak	HORIZONTAL
4	2390.00	36.50	27.40	39.60	1.71	0.72	46.73	54.00	-7.27	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss + Filter Factor - PRM Factor.

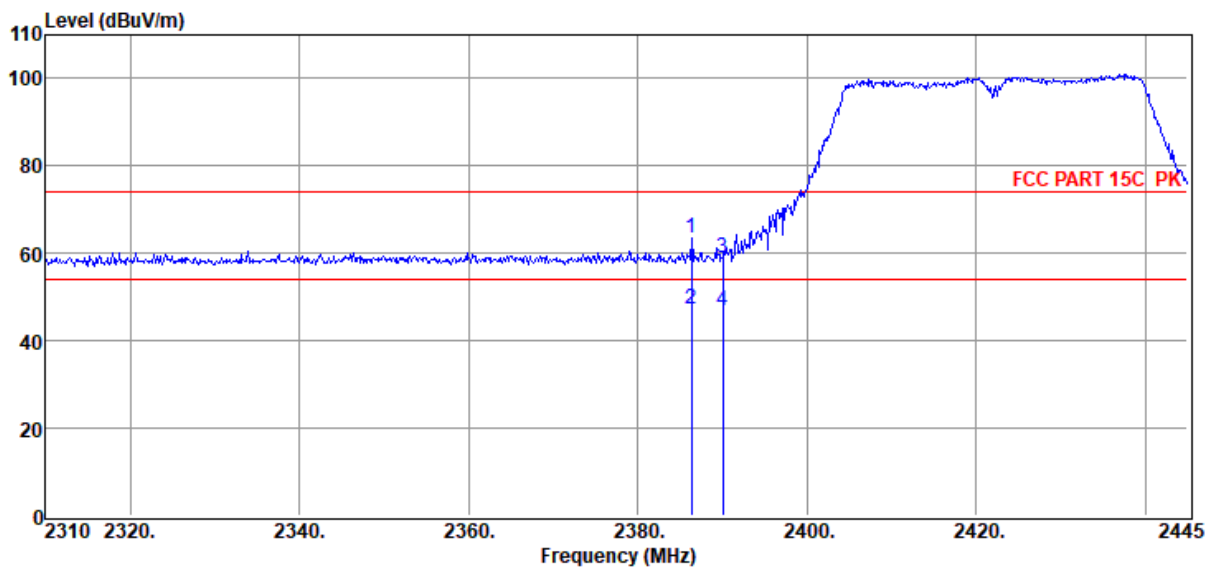
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

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 3#D:\E3 6.111\2022 Report Data\Q22060726-2E D1\FCC
ABOVE 1G .EM6**Test Date** : 2022-08-18**Tested By** : James Gan**EUT** : Reli Light Cam Battery D1**Model Number** : FJ11HWXJ**Power Supply** : Battery**Test Mode** : Tx Mode**Condition** : Temp:22.8°C,Humi:54.2%,Press:100.3kPa**Antenna/Distance** : 2021 BBHA 9120D 3#/3m/VERTICAL**Memo** : 11N40 2422

Data: 14



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Filter Factor dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	2386.41	53.09	27.40	39.59	1.71	0.72	63.33	74.00	-10.67	Peak	VERTICAL
2	2386.41	37.13	27.40	39.59	1.71	0.72	47.37	54.00	-6.63	Average	VERTICAL
3	2390.00	48.82	27.40	39.60	1.71	0.72	59.05	74.00	-14.95	Peak	VERTICAL
4	2390.00	36.53	27.40	39.60	1.71	0.72	46.76	54.00	-7.24	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss + Filter Factor - 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.

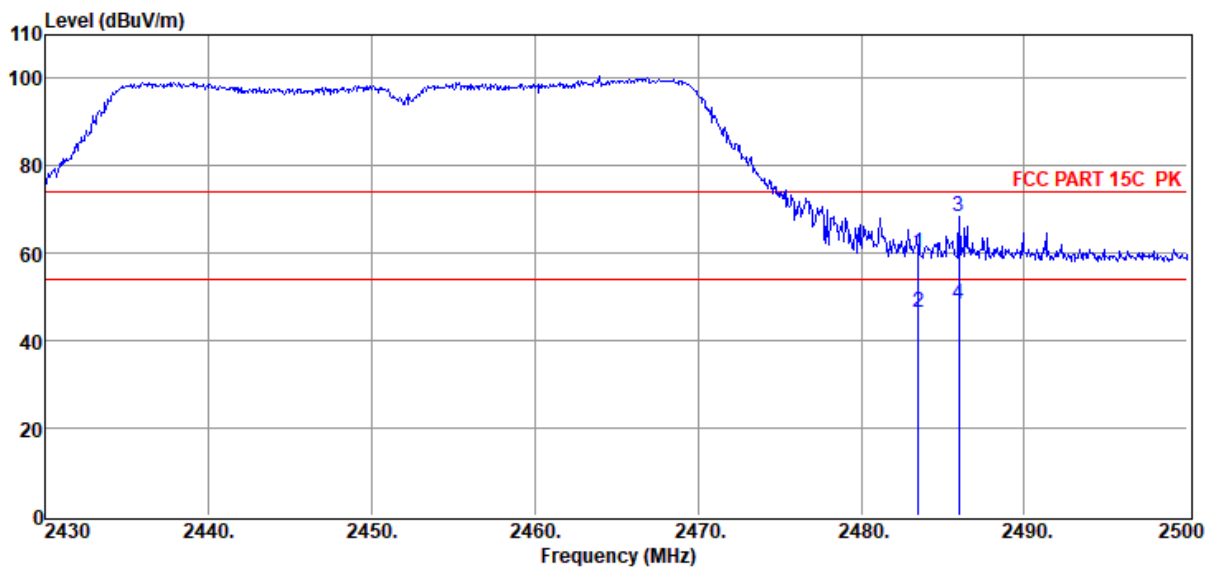
TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 3#
Test Date : 2022-08-18
EUT : Reli Light Cam Battery D1
Power Supply : Battery
Condition : Temp:22.8°C,Humi:54.2%,Press:100.3kPa
Memo : 11N40 2452

Tested By : James Gan
Model Number : FJ11HWXJ
Test Mode : Tx Mode
Antenna/Distance : 2021 BBHA 9120D
 3#/3m/HORIZONTAL

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Data: 15



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Filter Factor dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	2483.50	49.60	27.57	39.64	1.74	0.73	60.00	74.00	-14.00	Peak	HORIZONTAL
2	2483.50	36.22	27.57	39.64	1.74	0.73	46.62	54.00	-7.38	Average	HORIZONTAL
3	2486.00	58.03	27.57	39.64	1.74	0.73	68.43	74.00	-5.57	Peak	HORIZONTAL
4	2486.00	38.07	27.57	39.64	1.74	0.73	48.47	54.00	-5.53	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss + Filter Factor - 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 3#

D:\E3 6.111\2022 Report Data\Q22060726-2E D1\FCC ABOVE 1G .EM6

Test Date : 2022-08-18

Tested By : James Gan

EUT : Reli Light Cam Battery D1

Model Number : FJ11HWXJ

Power Supply : Battery

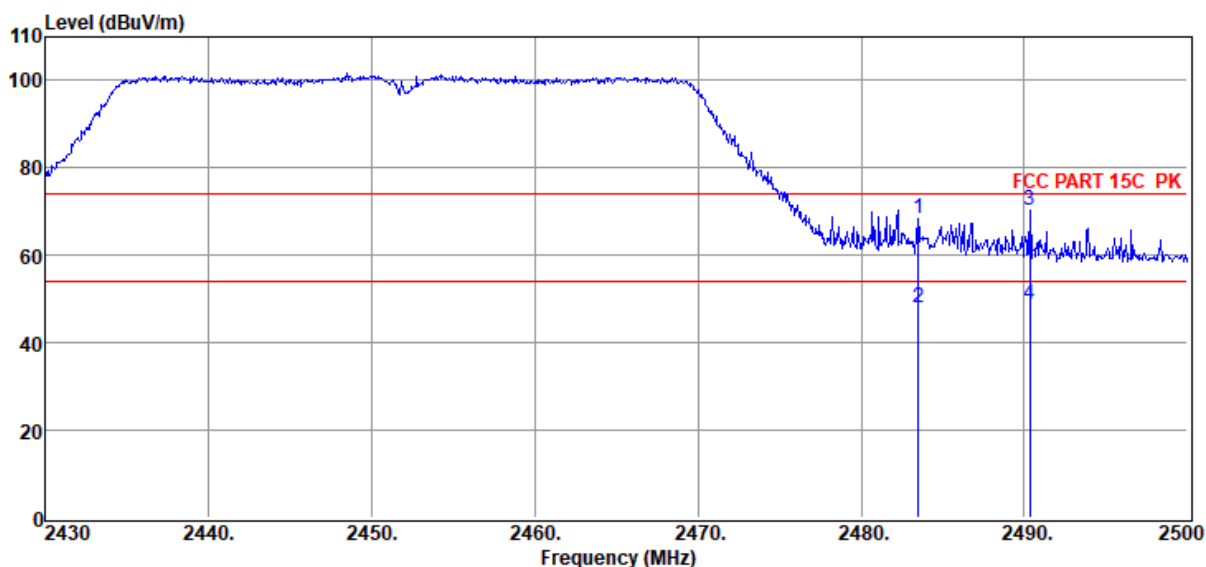
Test Mode : Tx Mode

Condition : Temp:22.8°C,Humi:54.2%,Press:100.3kPa

Antenna/Distance : 2021 BBHA 9120D 3#/3m/VERTICAL

Memo : 11N40 2452

Data: 16



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Filter Factor dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	2483.50	57.90	27.57	39.64	1.74	0.73	68.30	74.00	-5.70	Peak	VERTICAL
2	2483.50	37.68	27.57	39.64	1.74	0.73	48.08	54.00	-5.92	Average	VERTICAL
3	2490.34	60.07	27.58	39.65	1.74	0.73	70.47	74.00	-3.53	Peak	VERTICAL
4	2490.34	38.25	27.58	39.65	1.74	0.73	48.65	54.00	-5.35	Average	VERTICAL

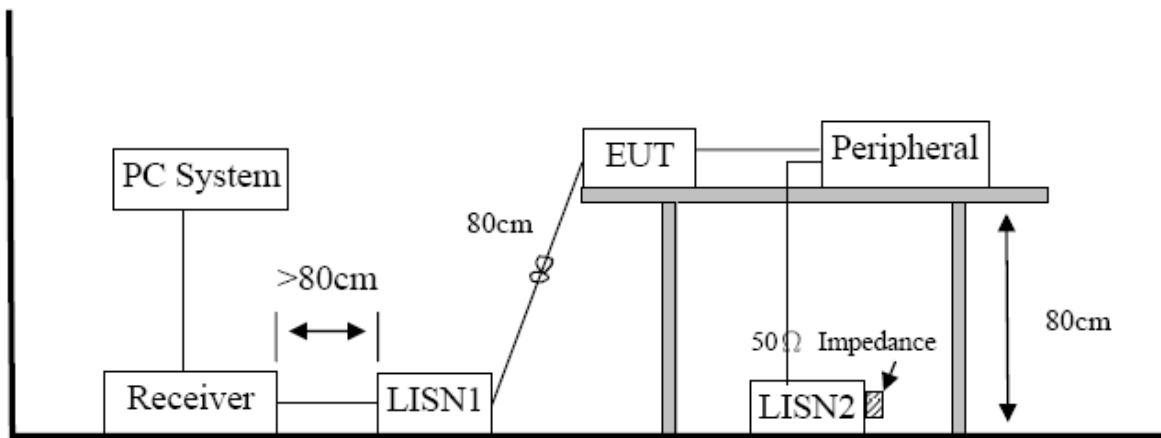
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss + Filter Factor - PRM Factor.

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.

11. Power Line Conducted Emission

11.1. Block diagram of test setup



11.2. 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.

11.3. 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 30MHz 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.

11.4. Test Result

Pass. (See below detailed test result)

Note1: All emissions not reported below are too low against the prescribed limits.

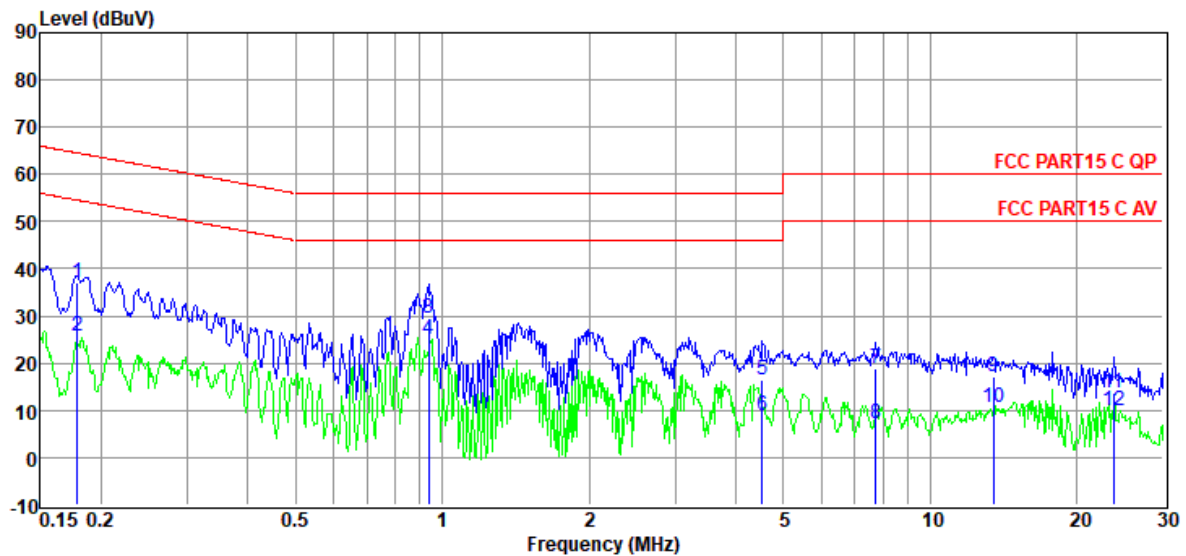
Note2: "----" means peak detection; "----" means average detection

Note3: Pre-test AC conducted emission at both voltage AC 120V/60Hz and AC 240V/60Hz, recorded worse case.

TR-4-E-010 Conducted Emission Test Result

Test Site : DDT 1# Shield Room **D:\2022 CE report date\Q22060726-2E D1\FCC.EM6**
Test Date : 2022-08-18 **Tested By** : Bairong
EUT : Reli Light Cam Battery D1 **Model Number** : FJ11HWXJ
Power Supply : AC 120V/60Hz **Test Mode** : TX mode
Condition : TEMP:23.8°C, RH:62.0%, BP:101.2kPa **LISN** : 2021 1# ENV216/NEUTRAL
Memo : 2.4G WIFI

Data: 2



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	0.18	17.42	9.80	0.01	9.92	37.15	64.55	-27.40	QP	NEUTRAL
2	0.18	5.87	9.80	0.01	9.92	25.60	54.55	-28.95	Average	NEUTRAL
3	0.94	9.94	9.72	0.03	9.89	29.58	56.00	-26.42	QP	NEUTRAL
4	0.94	5.30	9.72	0.03	9.89	24.94	46.00	-21.06	Average	NEUTRAL
5	4.53	-3.17	9.76	0.06	9.92	16.57	56.00	-39.43	QP	NEUTRAL
6	4.53	-10.99	9.76	0.06	9.92	8.75	46.00	-37.25	Average	NEUTRAL
7	7.73	-0.92	9.66	0.09	9.94	18.77	60.00	-41.23	QP	NEUTRAL
8	7.73	-12.53	9.66	0.09	9.94	7.16	50.00	-42.84	Average	NEUTRAL
9	13.48	-2.63	9.65	0.14	9.93	17.09	60.00	-42.91	QP	NEUTRAL
10	13.48	-9.00	9.65	0.14	9.93	10.72	50.00	-39.28	Average	NEUTRAL
11	23.76	-6.42	9.84	0.19	9.98	13.59	60.00	-46.41	QP	NEUTRAL
12	23.76	-9.91	9.84	0.19	9.98	10.10	50.00	-39.90	Average	NEUTRAL

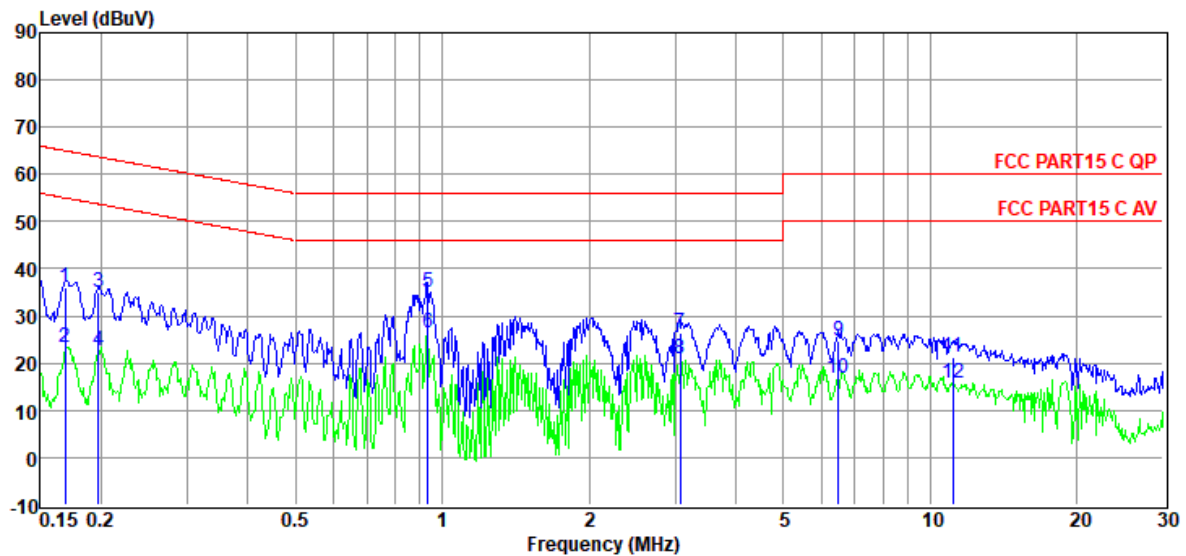
Note:

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.

TR-4-E-010 Conducted Emission Test Result

Test Site : DDT 1# Shield Room **D:\2022 CE report date\Q22060726-2E D1\FCC.EM6**
Test Date : 2022-08-18 **Tested By** : Bairong
EUT : Reli Light Cam Battery D1 **Model Number** : FJ11HWXJ
Power Supply : AC 120V/60Hz **Test Mode** : TX mode
Condition : TEMP:23.8°C, RH:62.0%, BP:101.2kPa **LISN** : 2021 1# ENV216/LINE
Memo : 2.4G WIFI

Data: 4



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	16.36	9.68	0.01	9.92	35.97	65.03	-29.06	QP	LINE
2	0.17	3.76	9.68	0.01	9.92	23.37	55.03	-31.66	Average	LINE
3	0.20	15.19	9.79	0.01	9.92	34.91	63.71	-28.80	QP	LINE
4	0.20	2.84	9.79	0.01	9.92	22.56	53.71	-31.15	Average	LINE
5	0.93	15.45	9.58	0.03	9.89	34.95	56.00	-21.05	QP	LINE
6	0.93	6.82	9.58	0.03	9.89	26.32	46.00	-19.68	Average	LINE
7	3.07	7.01	9.56	0.05	9.91	26.53	56.00	-29.47	QP	LINE
8	3.07	1.51	9.56	0.05	9.91	21.03	46.00	-24.97	Average	LINE
9	6.49	5.24	9.51	0.08	9.94	24.77	60.00	-35.23	QP	LINE
10	6.49	-2.61	9.51	0.08	9.94	16.92	50.00	-33.08	Average	LINE
11	11.14	1.65	9.58	0.12	9.94	21.29	60.00	-38.71	QP	LINE
12	11.14	-3.86	9.58	0.12	9.94	15.78	50.00	-34.22	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.

12. Antenna Requirements

12.1. 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.

For intentional device, according to RSS-Gen issue 5 section 6.8.

The applicant for equipment certification shall provide a list of all antenna types that may be used with the transmitter, where applicable (i.e. for transmitters with detachable antenna), indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna.

The test report shall demonstrate the compliance of the transmitter with the limit for maximum equivalent isotropically radiated power (e.i.r.p.) specified in the applicable RSS, when the transmitter is equipped with any antenna type, selected from this list.

12.2. Result

The antennas used for this product and that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is 4.89 dBi.