

FCC AND ISED CERTIFICATION TEST REPORT

FOR

Applicant	:	Beijing MADV Technology Co., Ltd
Address	:	No.80, Floor 4, building17, Yard 30, Shixingdajie Shijingshan District ,Beijing, China
Equipment under Test	:	Reli Light Cam Battery D1
Model No.	:	FJ11HWXJ
Trade Mark	:	Reli
FCC ID	:	2AJ2LFJ11HWXJ
IC	:	22760-FJ11HWXJ
Manufacturer	:	Beijing MADV Technology Co., Ltd
Address	:	No.80, Floor 4, building17, Yard 30, Shixingdajie Shijingshan District ,Beijing, China

Issued By: Dongguan Dongdian Testing Service Co., Ltd.

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Dongguan City, Guangdong Province, China, 523808

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REPORT

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Test Report Declare

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Address	:	No.80, Floor 4, building17, Yard 30, Shixingdajie Shijingshan District ,Beijing, China
Equipment under Test	:	Reli Light Cam Battery D1
Model No.	:	FJ11HWXJ
Trade Mark	:	Reli
Manufacturer	:	Beijing MADV Technology Co., Ltd
Address	:	No.80, Floor 4, building17, Yard 30, Shixingdajie Shijingshan District ,Beijing, China

Test Standard Used:

FCC Rules and Regulations Part 15 Subpart C, RSS-247 Issue 2 February 2017.

Test Procedure Used:

ANSI C63.10:2013, RSS-Gen Issue 5, Apr. 2018, 558074 D01 15.247 Meas Guidance v05r02, 662911 D01 Multiple Transmitter Output v02r01

We Declare:

The equipment described above is tested by Dongguan Dongdian Testing Service Co., Ltd. and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and Dongguan Dongdian Testing Service Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

After test and evaluation, our opinion is that the equipment provided for test compliance with the requirement of the above FCC&ISED standards.

Report No:	DDT-R22060726-2E01		
Date of Receipt:	Jun. 10, 2022	Date of Test:	Jun. 10, 2022 ~ Aug. 31, 2022

Prepared By:

Ella Gong

Ella Gong/Engineer

Approved By:



Damon Hu/EMC Manager

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Dongguan Dongdian Testing Service Co., Ltd.

Revision History

Rev.	Revisions	Issue Date	Revised By
---	Initial issue	Aug. 31, 2022	

1. Summary of Test Results

The EUT have been tested according to the applicable standards as referenced below.		
Description of Test Item	Standard	Results
6dB Bandwidth and 99% Bandwidth	FCC Part 15: 15.247 ANSI C63.10:2013 RSS-247 Issue 2	Pass
Conducted Peak Output Power	FCC Part 15: 15.247 ANSI C63.10:2013 RSS-247 Issue 2	Pass
Power Spectral Density	FCC Part 15:15.247 ANSI C63.10:2013 RSS-247 Issue 2	Pass
Band-edge and Spurious Emissions (Conducted)	FCC Part 15: 15.209 FCC Part 15: 15.247 ANSI C63.10: 2013 RSS-247 Issue 2 RSS-Gen Issue 5	Pass
Radiated Spurious Emissions	FCC Part 15: 15.247 ANSI C63.10:2013 RSS-247 Issue 2 RSS-Gen Issue 5	Pass
Radiated Band Edge Compliance	FCC Part 15: 15.209 FCC Part 15: 15.247 ANSI C63.10: 2013 RSS-247 Issue 2 RSS-Gen Issue 5	Pass
Power Line Conducted Emission	FCC Part 15: 15.207 ANSI C63.10: 2013 RSS-Gen Issue 5	Pass
Antenna requirement	FCC Part 15: 15.203 RSS-Gen Issue 5	Pass

2. General test information

2.1. Description of EUT

EUT* Name	: Reli Light Cam Battery D1
Model Number	: FJ11HWXJ
EUT function description	: Please reference user manual of this device
Power Supply	: DC 5V from Type C or a built-in 3.7V lithium battery.
Radio Technology	: IEEE 802.11b/g/n
Operation frequency	: IEEE 802.11b: 2412MHz - 2462MHz IEEE 802.11g: 2412MHz - 2462MHz IEEE 802.11n HT20: 2412MHz - 2462MHz IEEE 802.11n HT40: 2422MHz - 2452MHz
Modulation	: IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Transmitter rate	: IEEE 802.11b: 1, 2, 5.5, 11 Mbps IEEE 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps IEEE 802.11n HT20: up to 72.2 Mbps IEEE 802.11n HT40: up to 150 Mbps
Antenna Type	: FPC antenna, maximum PK gain: 4.89 dBi
Sample Number	: S22060726-04 for conductive S22060726-05 for radiation

Note: EUT is the ab. of equipment under test.

Channel information					
CH	Frequency (MHz)	CH	Frequency (MHz)	CH	Frequency (MHz)
1	2412	5	2432	9	2452
2	2417	6	2437	10	2457
3	2422	7	2442	11	2462
4	2427	8	2447	/	/

2.2. Accessories of EUT

Assistant equipment	Manufacturer	Model number	Other
USB Cable	N/A	N/A	Length: 0.20m, Unshielded

2.3. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	EMC Compliance	Other
Adapter	HUAWEI	HW-050450C00	N/A	Input: 100-240V~50/60Hz, Output: 5V/2A or 4.5V/5A or 5V/4.5A

2.4. Block diagram of EUT configuration for test



Test software: UI_mptool 1v8.3.exe

The test software was used to control EUT work in Continuous Tx mode and select test channel, wireless mode as below table.

The pathloss of external cable: 0.5dB (According to the manufacturer's claims)

Tested mode, channel, and data rate information				
Mode	Setting Tx Power	data rate (Mbps) (See Note)	Channel	Frequency (MHz)
IEEE 802.11b	/	1	LCH: CH1	2412
	/	1	MCH: CH6	2437
	/	1	HCH: CH11	2462
IEEE 802.11g	/	6	LCH: CH1	2412
	/	6	MCH: CH6	2437
	/	6	HCH: CH11	2462
IEEE 802.11n HT20	/	MCS 0	LCH: CH1	2412
	/	MCS 0	MCH: CH6	2437
	/	MCS 0	HCH: CH11	2462
IEEE 802.11n HT40	/	MCS 0	LCH: CH3	2422
	/	MCS 0	MCH: CH6	2437
	/	MCS 0	HCH: CH9	2452
Note: According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test.				

2.5. Deviations of test standard

No Deviation

2.6. Test environment conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature range:	21-25°C
Humidity range:	40-75%
Pressure range:	86-106kPa

2.7. Test laboratory

Dongguan Dongdian Testing Service Co., Ltd.

Add.: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City, Guangdong Province, China, 523808.

Tel.: +86-0769-38826678, <http://www.dgddt.com>, Email: ddt@dgddt.com.

CNAS Accreditation No. L6451; A2LA Accreditation Number: 3870.01

FCC Designation Number: CN1182, Test Firm Registration Number: 540522

Innovation, Science and Economic Development Canada Site Registration Number: 10288A

Conformity Assessment Body identifier: CN0048

VCCI facility registration number: C-20087, T-20088, R-20123, R-20155, G-20118

2.8. Measurement uncertainty

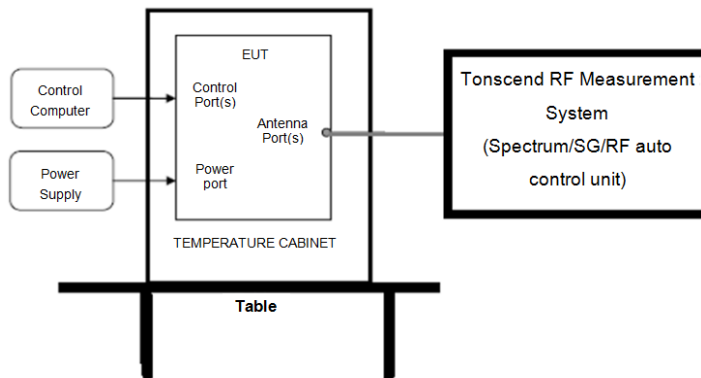
Test Item	Uncertainty
Bandwidth	1.1%
Peak Output Power (Conducted) (Spectrum analyzer)	0.86 dB ($10 \text{ MHz} \leq f < 3.6 \text{ GHz}$);
	1.38 dB ($3.6 \text{ GHz} \leq f < 8 \text{ GHz}$)
Peak Output Power (Conducted) (Power Sensor)	0.74 dB
Power Spectral Density	0.74 dB ($10 \text{ MHz} \leq f < 3.6 \text{ GHz}$);
	1.38 dB ($3.6 \text{ GHz} \leq f < 8 \text{ GHz}$)
Frequencies Stability	6.7×10^{-8} (Antenna couple method)
	5.5×10^{-8} (Conducted method)
Conducted spurious emissions	0.86 dB ($10 \text{ MHz} \leq f < 3.6 \text{ GHz}$);
	1.40 dB ($3.6 \text{ GHz} \leq f < 8 \text{ GHz}$)
	1.66 dB ($8 \text{ GHz} \leq f < 26.5 \text{ GHz}$)
Uncertainty for radio frequency (RBW<20 kHz)	3×10^{-8}
Temperature	0.4°C
Humidity	2%
Uncertainty for Radiation Emission Test (9 kHz – 30 MHz)	3.44 dB
Uncertainty for Radiation Emission test (30 MHz -1 GHz)	4.70 dB (Antenna Polarize: V)
	4.84 dB (Antenna Polarize: H)
Uncertainty for Radiation Emission test (1 GHz-40 GHz)	4.10 dB (1-6 GHz)
	4.40 dB (6 GHz-18 GHz)
	3.54 dB (18 GHz-26 GHz)
	4.30 dB (26 GHz-40 GHz)
Uncertainty for Power line conduction emission test	3.32 dB (150 kHz-30 MHz)
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

3. Equipment used during test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
☑RF Connected Test (Tonscend RF Measurement System 4#)					
MXA Signal Analyzer	Agilent	N9020A	MY49100362	Sep. 02, 2021	1 Year
Signal & Spectrum analyzer	R&S	FSV3044	101173	Apr. 13, 2022	1 Year
Wideband Radio Communication tester	R&S	CMW500	120259	May 18, 2022	1 Year
MXG Vector Signal Generator	Agilent	N5182B	MY59100192	May 18, 2022	1 Year
Vector Signal Generator	Agilent	E8267D	US49060192	Oct. 15, 2021	1 Year
RF Control Unit	Tonsend	JS0806-2	2118060485	Oct. 18, 2021	1 Year
Temp&Humi Programmable	ZHIXIANG	ZXGDJS-150L	ZX170110-A	May 26, 2022	1 Year
Test Software	JS Tonscend	JS1120-3	Ver.2.6.88.0346	N/A	N/A
☑Radiation 3#chamber					
EMI Test Receiver	R&S	ESU	100472	May 18, 2022	1 Year
Spectrum analyzer	Agilent	E4447A	MY50180031	May 18, 2022	1 Year
Active Loop antenna	Schwarzbeck	FMZB-1519	1519-038	Sep. 19, 2021	1 Year
Trilog Broadband Antenna	Schwarzbeck	VULB 9161	4034	Sep. 19, 2021	1 Year
Double Ridged Horn Antenna	Schwarzbeck	BBHA9120	02468	Nov. 17, 2021	1 Year
Broad Band Horn Antenna	Schwarzbeck	BBHA 9170	790	May 06, 2022	1 Year
Pre-amplifier	COM-POWER	PAM-118A	18040084	Sep. 02, 2021	1 Year
Pre-amplifier	COM-POWER	PAM-840A	461369	Apr. 11, 2022	1 Year
Test software	Audix	E3	V 6.1.1.1	N/A	N/A
☑Power Line Conducted Emissions Test 1#					
Test Receiver	R&S	ESCI	100551	Sep. 02, 2021	1 Year
LISN 1	R&S	ENV216	101109	Sep. 02, 2021	1 Year
LISN 2	R&S	ESH2-Z5	100309	Sep. 02, 2021	1 Year
Pulse Limiter	R&S	ESH3-Z2	101242	Sep. 02, 2021	1 Year
CE Cable 1	HUBSER	N/A	W10.01	Sep. 02, 2021	1 Year
LISN 3	SCHWARZBECK	NSLK 8163	00017	Sep. 02, 2021	1 Year
Test software	Audix	E3	V 6.11111b	N/A	N/A

4. 6dB Bandwidth and 99% Bandwidth

4.1. Block diagram of test setup



4.2. Limits

For direct sequence systems, the minimum 6 dB bandwidth shall be at least 500 kHz

4.3. Test Procedure

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

(2) 99% Bandwidth set the spectrum analyzer as follows:

RBW:	500 kHz
VBW:	2 MHz
Detector Mode:	Peak
Sweep time:	auto
Trace mode	Max hold

(3) 6dB Bandwidth set the spectrum analyzer as follows:

RBW:	100 kHz
VBW:	300 kHz
Detector Mode:	Peak
Sweep time:	auto
Trace mode	Max hold

(4) Allow the trace to stabilize, measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

4.4. Test Result

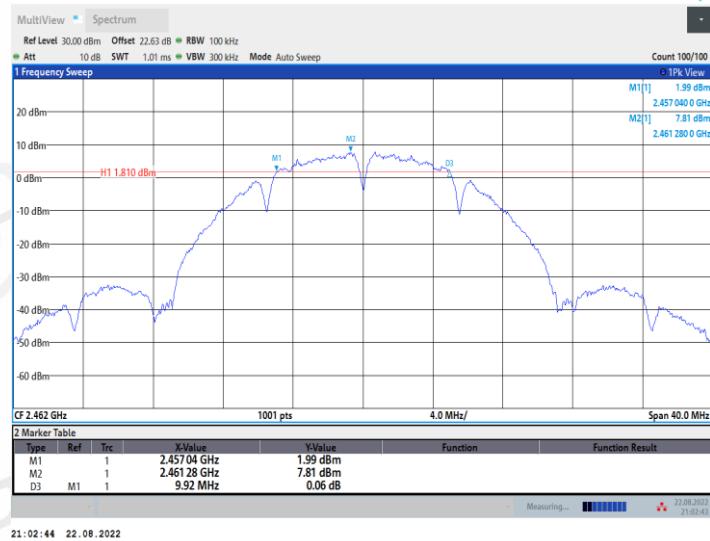
Test Mode	Test	Ant	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	2412	Ant1	10.04	0.5	Pass
11B	2437	Ant1	10.04	0.5	Pass
11B	2462	Ant1	9.92	0.5	Pass
11G	2412	Ant1	16.32	0.5	Pass
11G	2437	Ant1	16.32	0.5	Pass
11G	2462	Ant1	16.32	0.5	Pass
11N20SISO	2412	Ant1	17.60	0.5	Pass
11N20SISO	2437	Ant1	17.60	0.5	Pass
11N20SISO	2462	Ant1	17.60	0.5	Pass
11N40SISO	2422	Ant1	35.92	0.5	Pass
11N40SISO	2437	Ant1	36.08	0.5	Pass
11N40SISO	2452	Ant1	36.08	0.5	Pass

Test Mode	Test	Ant	99% OBW [MHz]	Limit [MHz]	Verdict
11B	2412	Ant1	15.809	---	Pass
11B	2437	Ant1	15.817	---	Pass
11B	2462	Ant1	15.592	---	Pass
11G	2412	Ant1	18.455	---	Pass
11G	2437	Ant1	18.41	---	Pass
11G	2462	Ant1	18.222	---	Pass
11N20SISO	2412	Ant1	19.135	---	Pass
11N20SISO	2437	Ant1	19.247	---	Pass
11N20SISO	2462	Ant1	19.145	---	Pass
11N40SISO	2422	Ant1	38.133	---	Pass
11N40SISO	2437	Ant1	38.157	---	Pass
11N40SISO	2452	Ant1	37.725	---	Pass

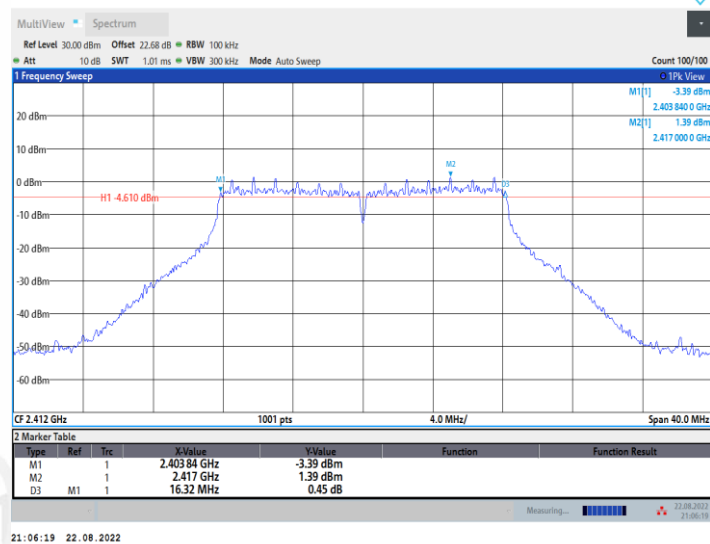
4.5. original test data

6 dB bandwidth:

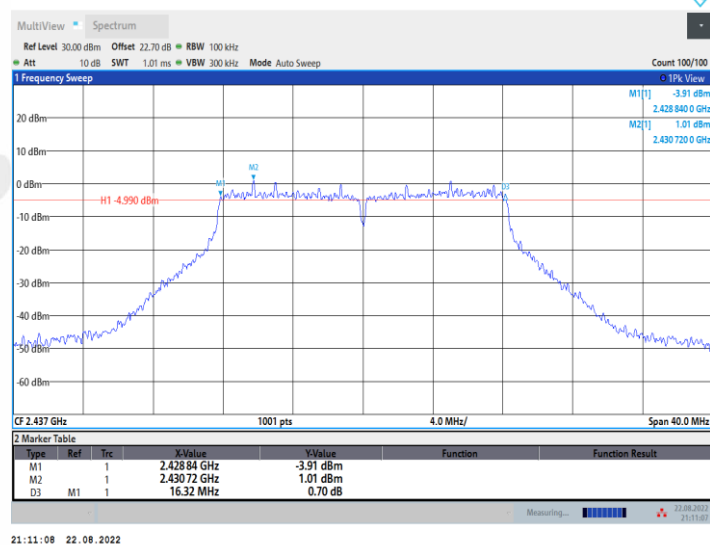




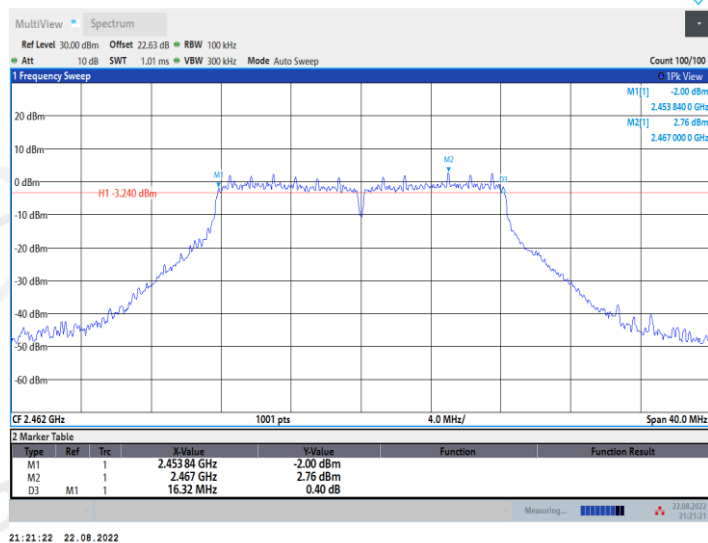
11G_Ant1_2412



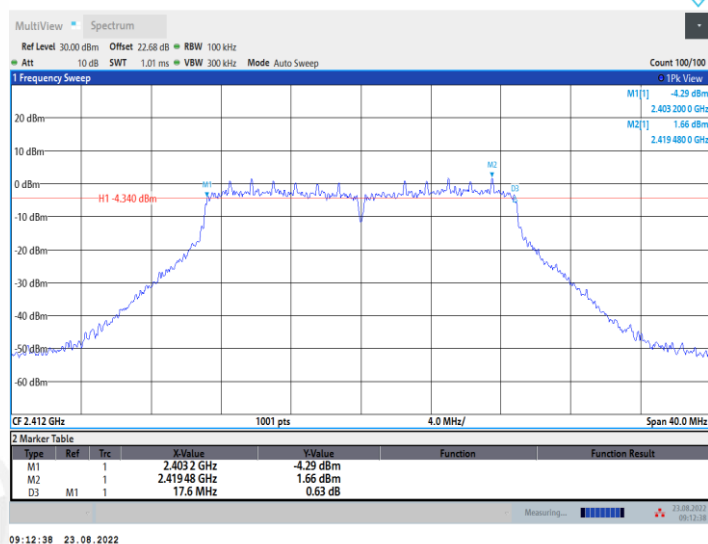
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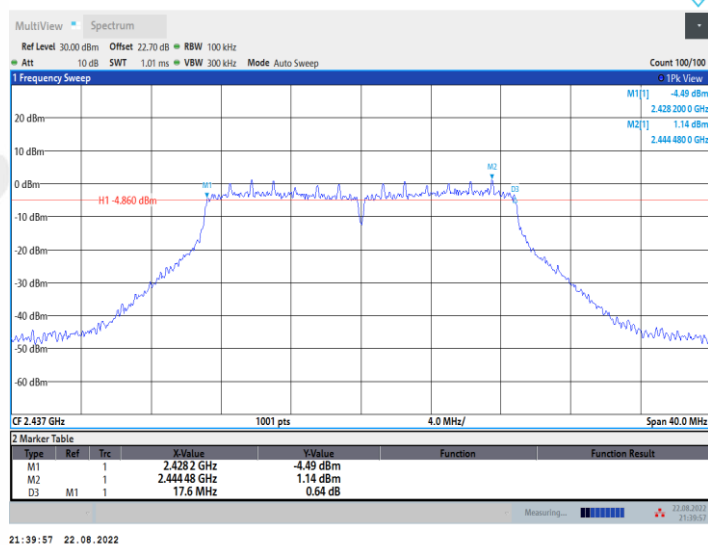
11G_Ant1_2462



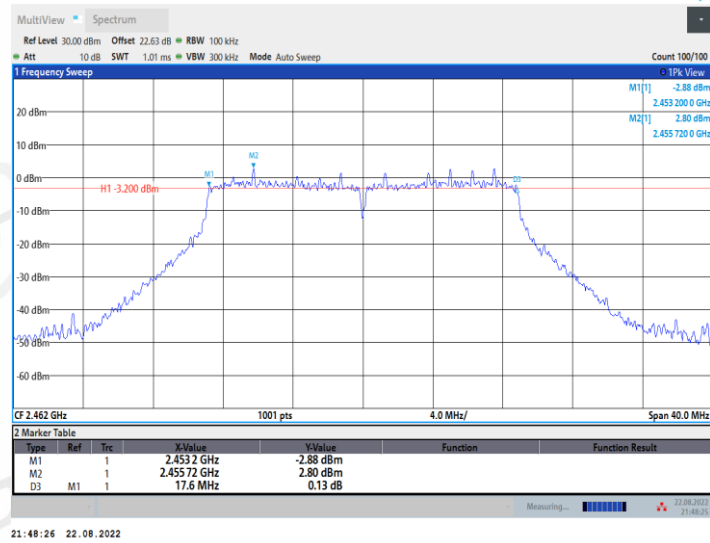
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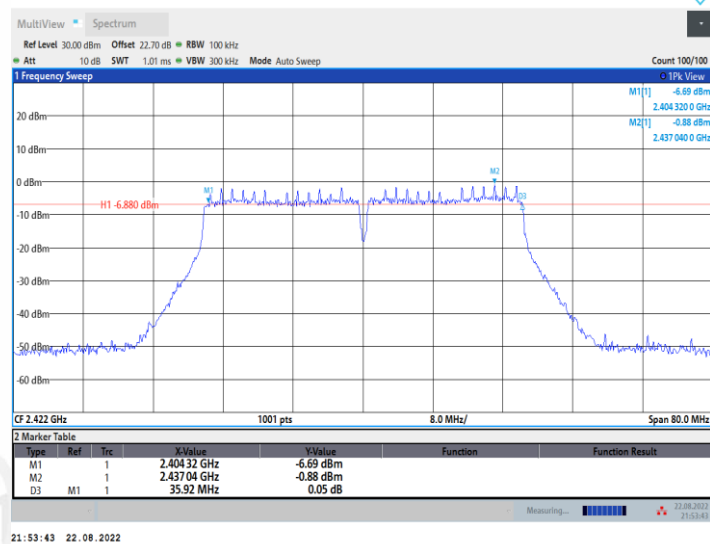
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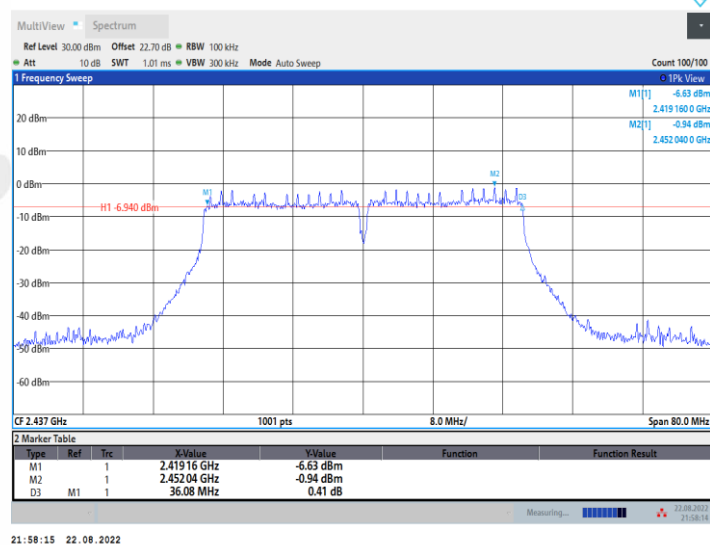
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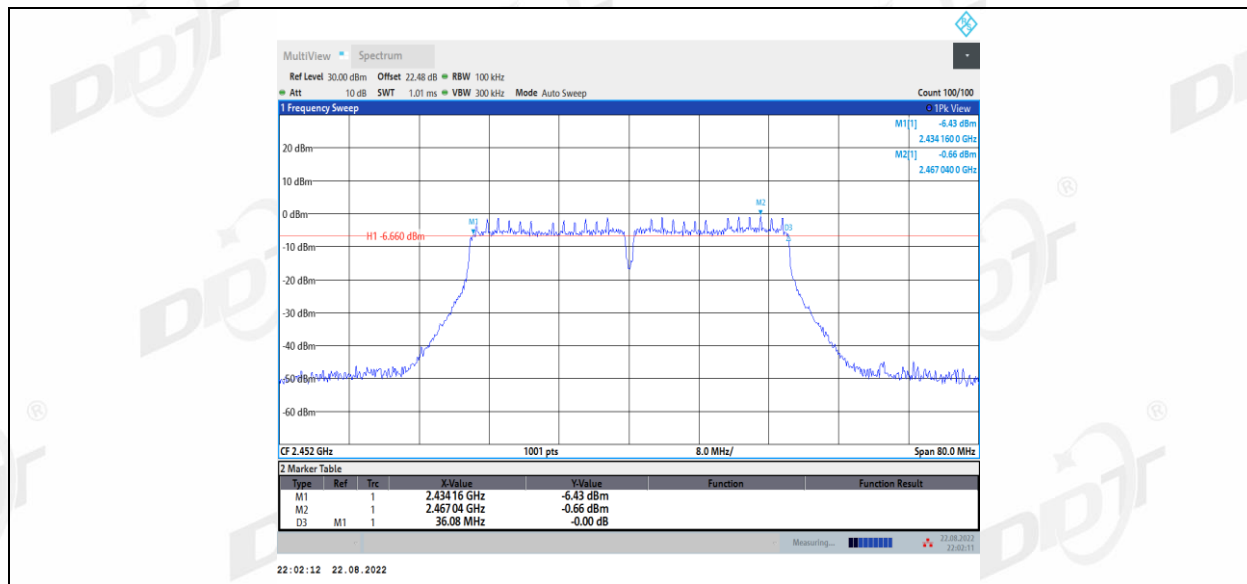
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11N40SISO_Ant1_2437

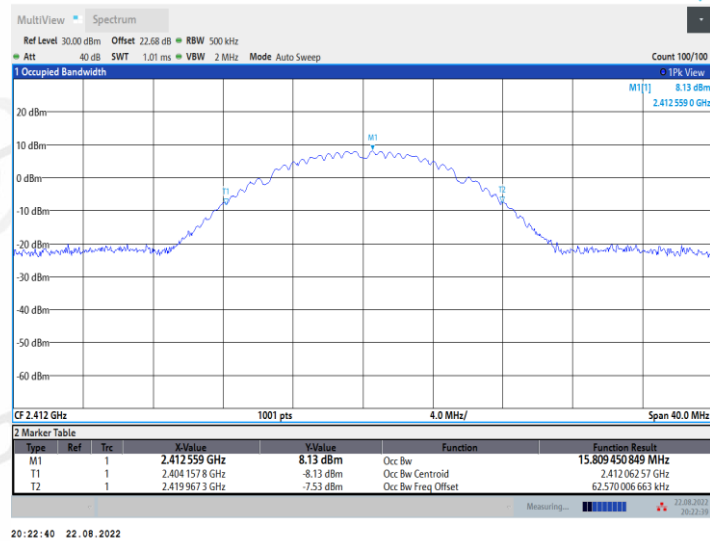


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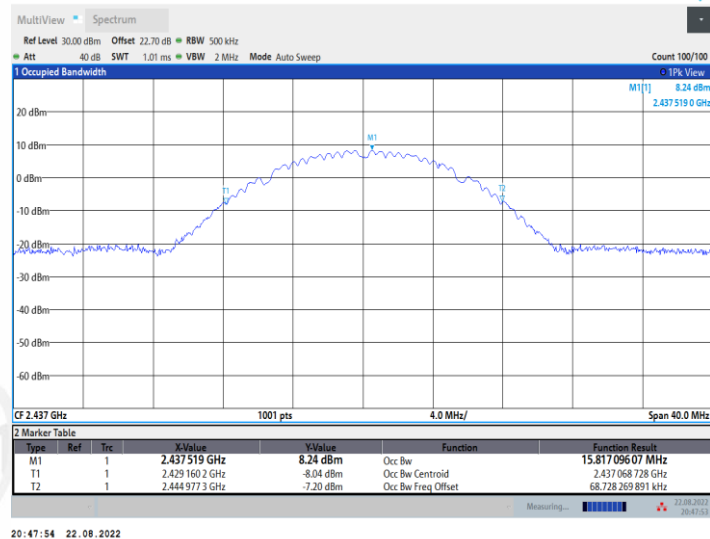


99% bandwidth:

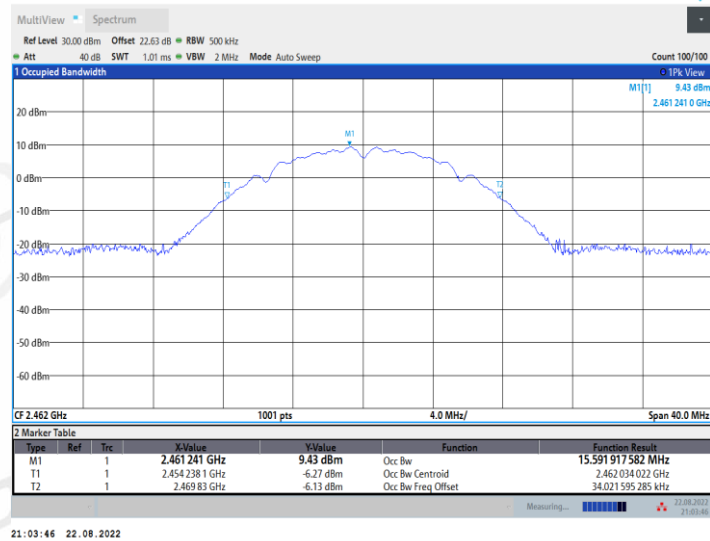
11B_Ant1_2412



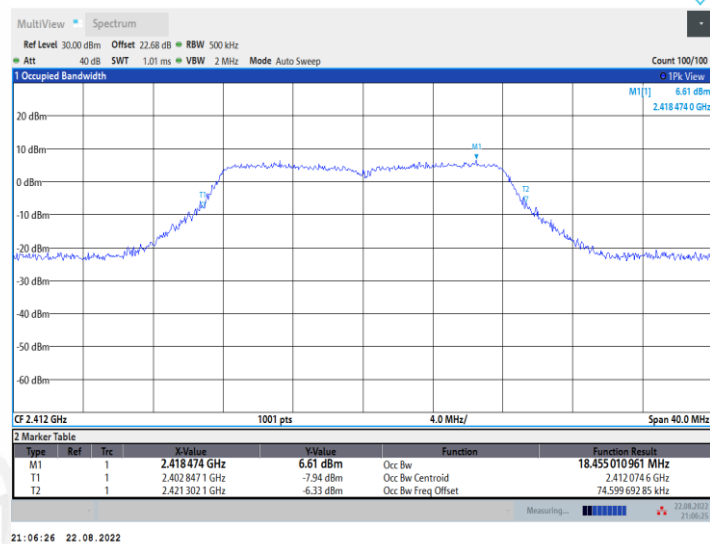
11B_Ant1_2437



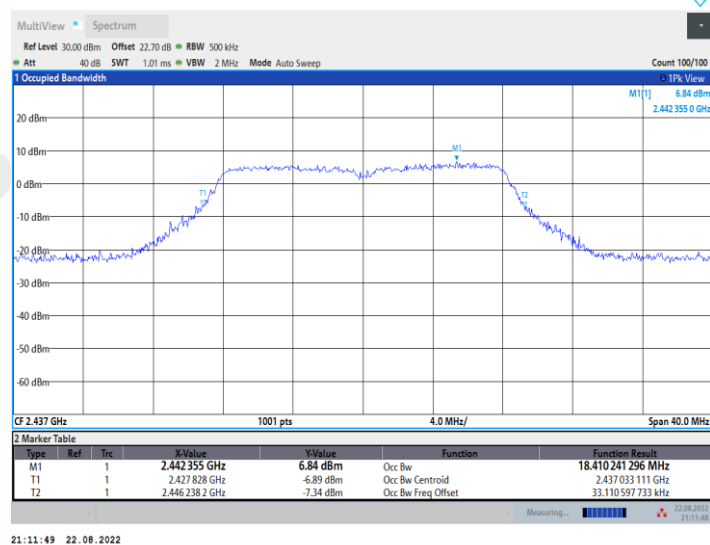
11B_Ant1_2462



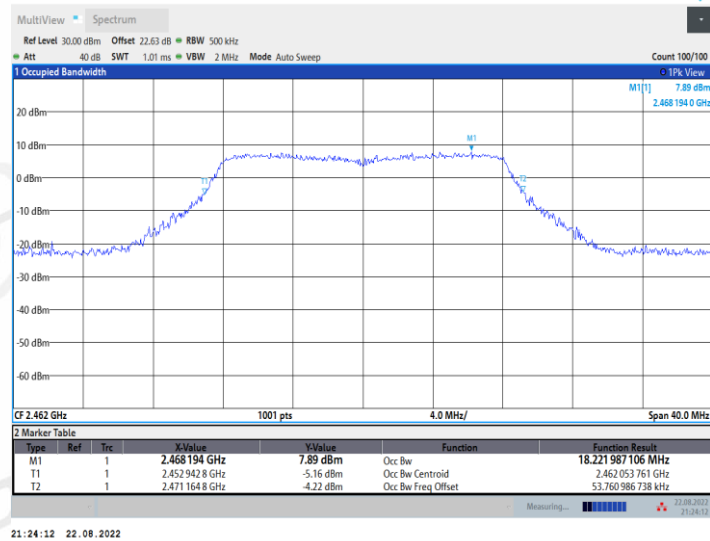
11G_Ant1_2412



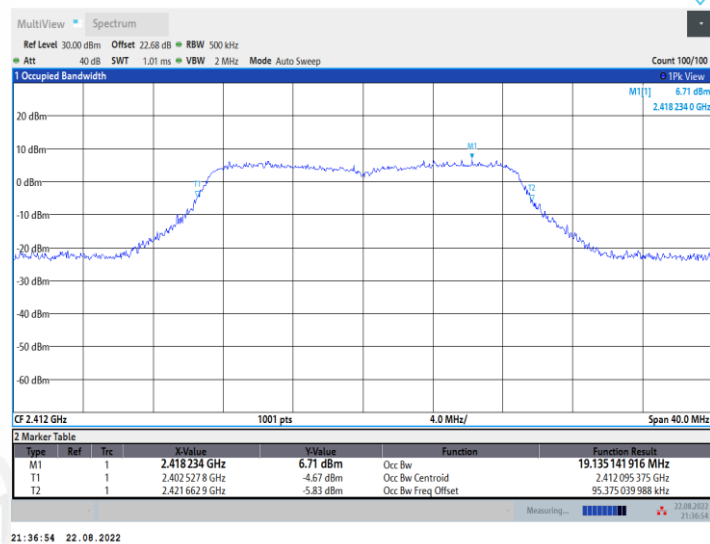
11G_Ant1_2437



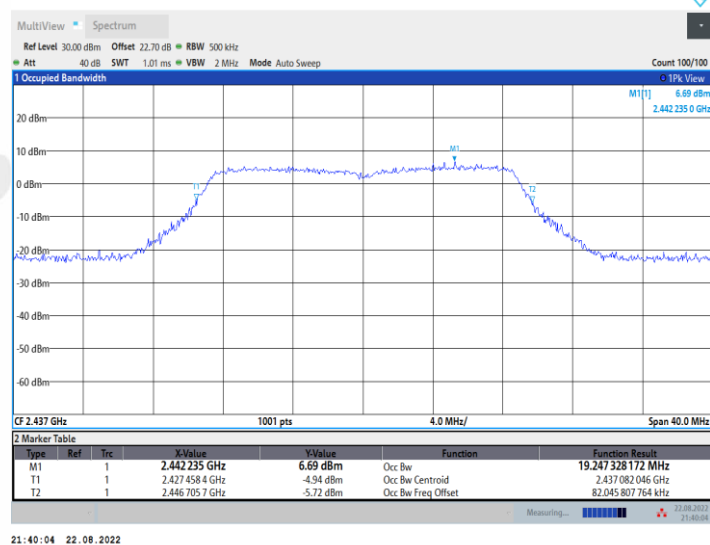
11G_Ant1_2462



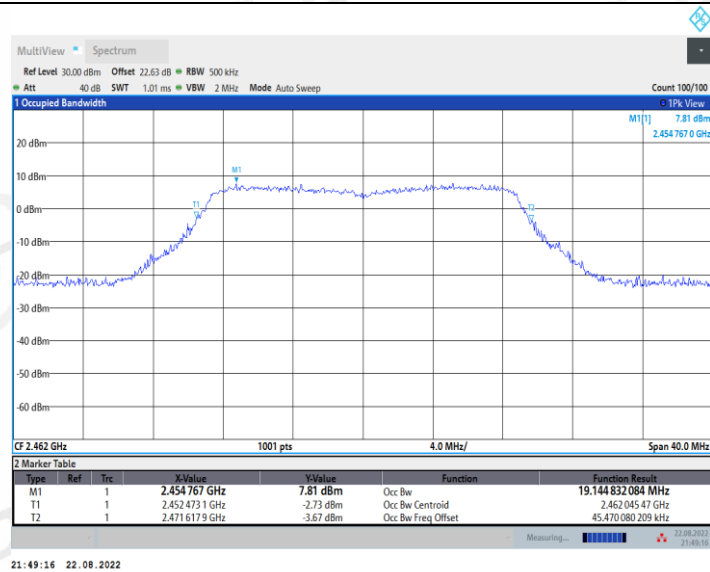
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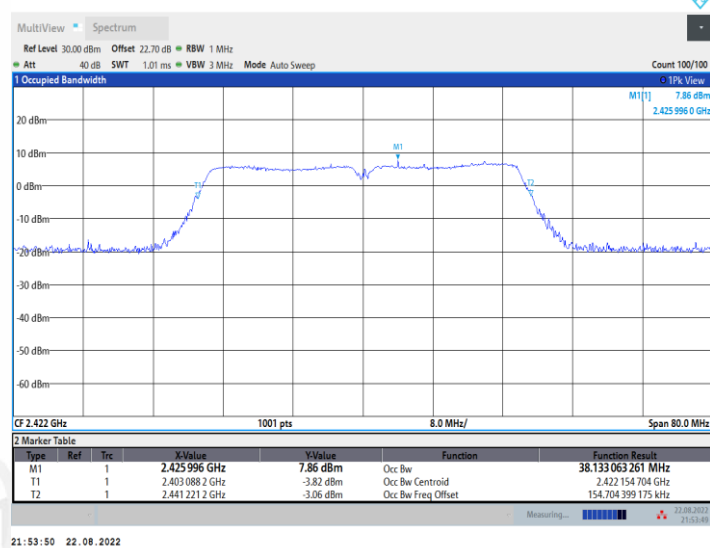
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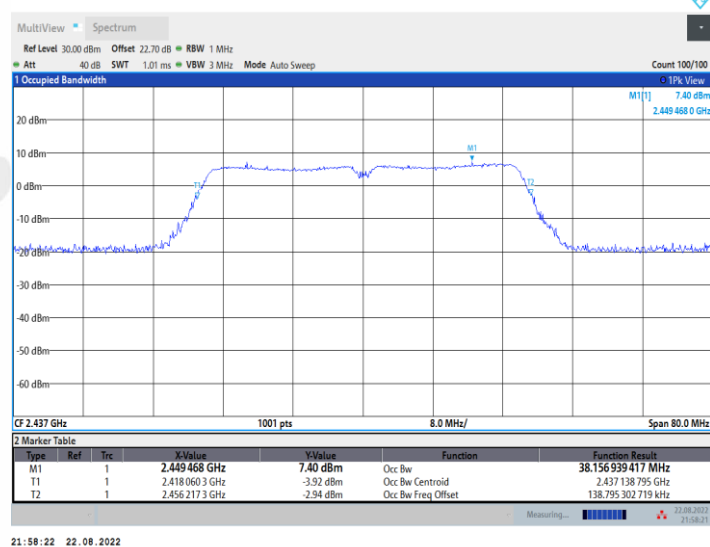
11N20SISO_Ant1_2462



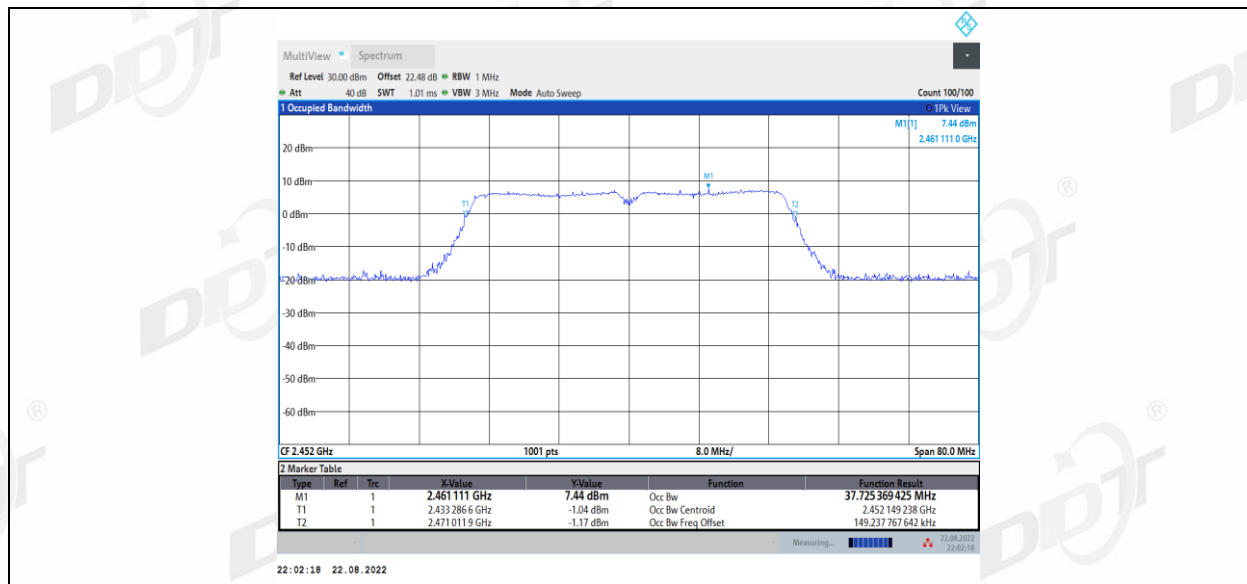
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



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 meter.

5.4. Test Result

Test Mode	Test Channel	Ant	Conducted Output Power (dBm)	Limit [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
11B	2412	Ant1	16.85	30	21.74	36	Pass
11B	2437	Ant1	16.96	30	21.85	36	Pass
11B	2462	Ant1	17.34	30	22.23	36	Pass
11G	2412	Ant1	13.11	30	18.00	36	Pass
11G	2437	Ant1	12.97	30	17.86	36	Pass
11G	2462	Ant1	14.32	30	19.21	36	Pass
11N20SISO	2412	Ant1	13.11	30	18.00	36	Pass
11N20SISO	2437	Ant1	13.04	30	17.93	36	Pass
11N20SISO	2462	Ant1	14.40	30	19.29	36	Pass
11N40SISO	2422	Ant1	13.59	30	18.48	36	Pass
11N40SISO	2437	Ant1	13.39	30	18.28	36	Pass
11N40SISO	2452	Ant1	14.04	30	18.93	36	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:	$3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$
VBW:	$\geq 3\text{RBW}$
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.

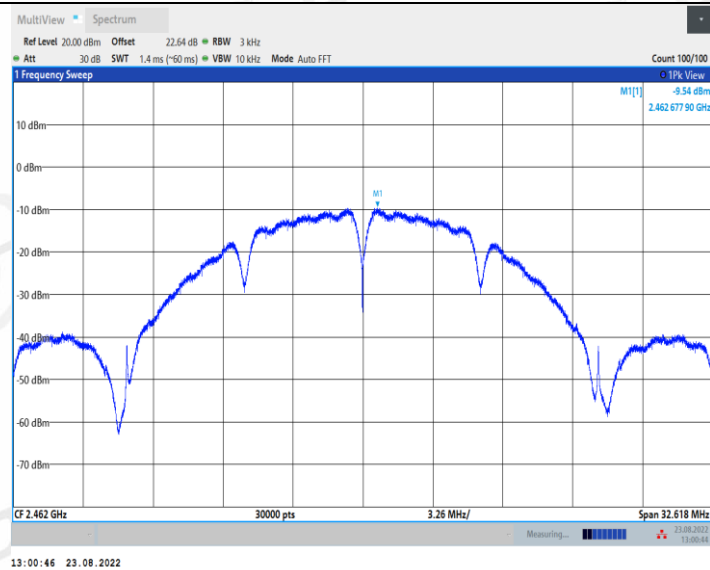
(4) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

6.4. Test Result

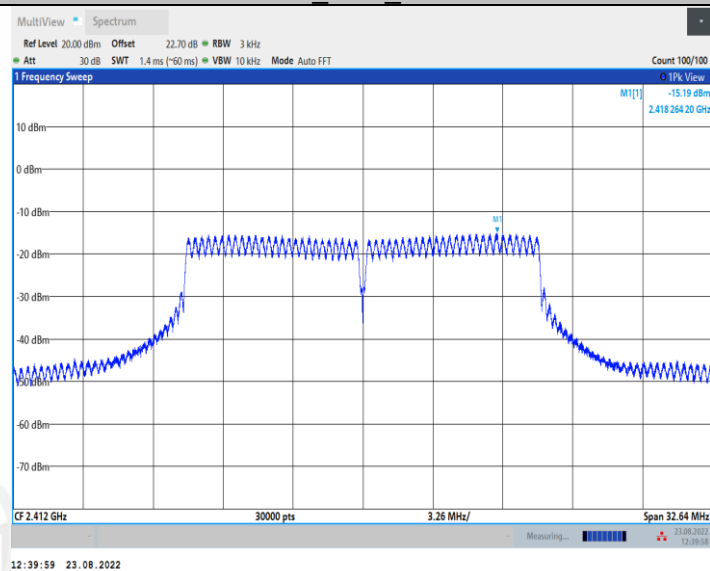
Test Mode	Antenna	Channel [MHz]	Result [dBm/ 3 kHz]	Limit [dBm/ 3 kHz]	Verdict
11B	Ant1	2412	-9.27	8.00	Pass
11B	Ant1	2437	-9.43	8.00	Pass
11B	Ant1	2462	-9.54	8.00	Pass
11G	Ant1	2412	-15.19	8.00	Pass
11G	Ant1	2437	-14.53	8.00	Pass
11G	Ant1	2462	-13.79	8.00	Pass
11N20SISO	Ant1	2412	-15.54	8.00	Pass
11N20SISO	Ant1	2437	-15.31	8.00	Pass
11N20SISO	Ant1	2462	-14.90	8.00	Pass
11N40SISO	Ant1	2422	-18.09	8.00	Pass
11N40SISO	Ant1	2437	-17.80	8.00	Pass
11N40SISO	Ant1	2452	-17.85	8.00	Pass

6.5. original test data

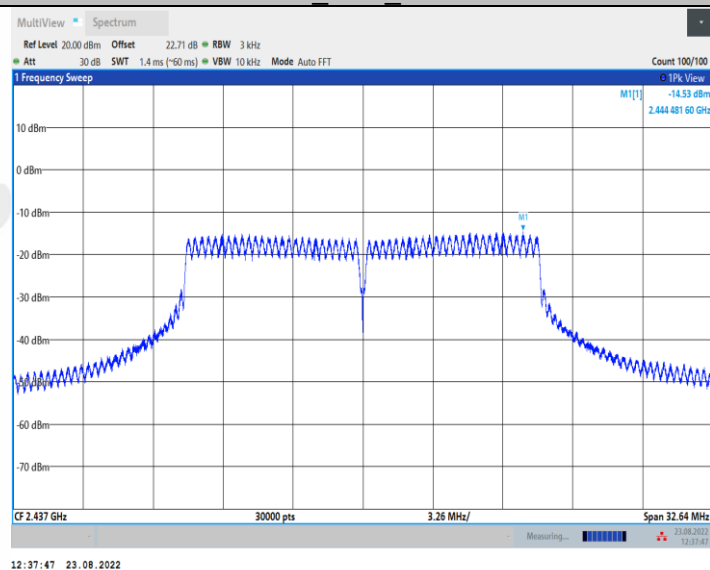




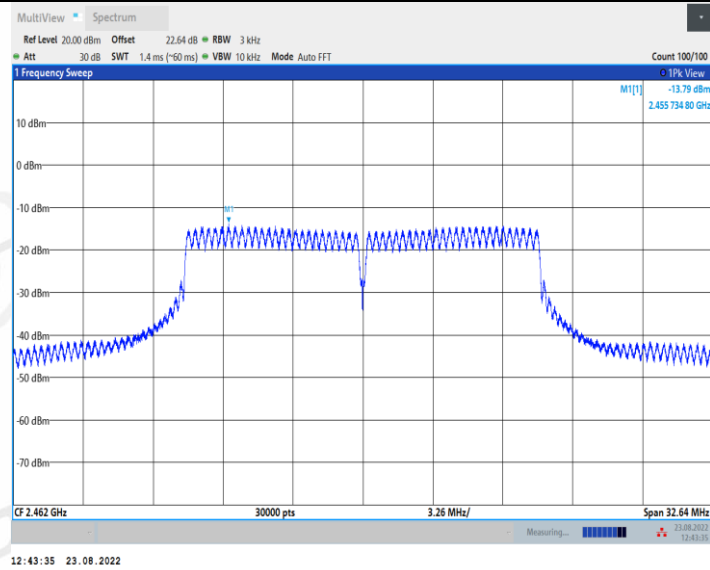
11G_Ant1_2412



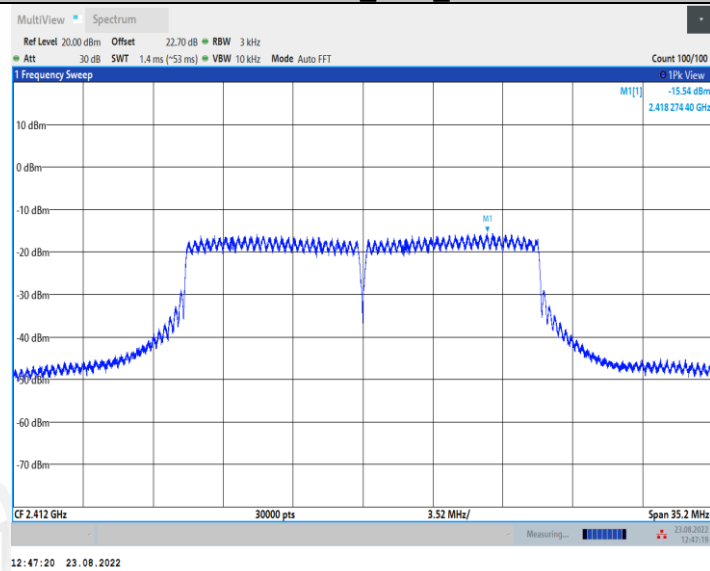
11G_Ant1_2437



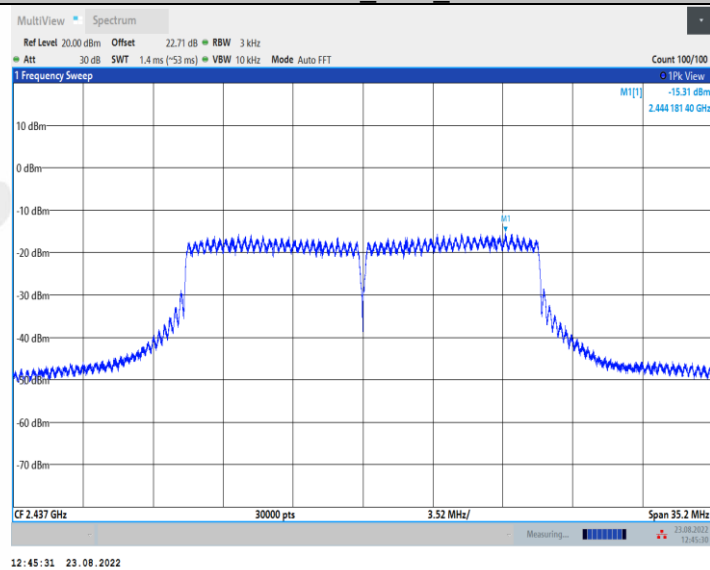
11G_Ant1_2462



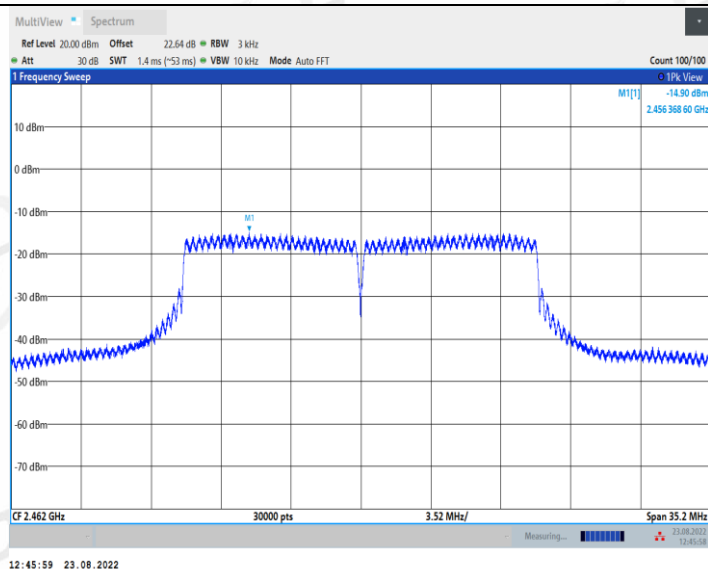
11N20SISO_Ant1_2412



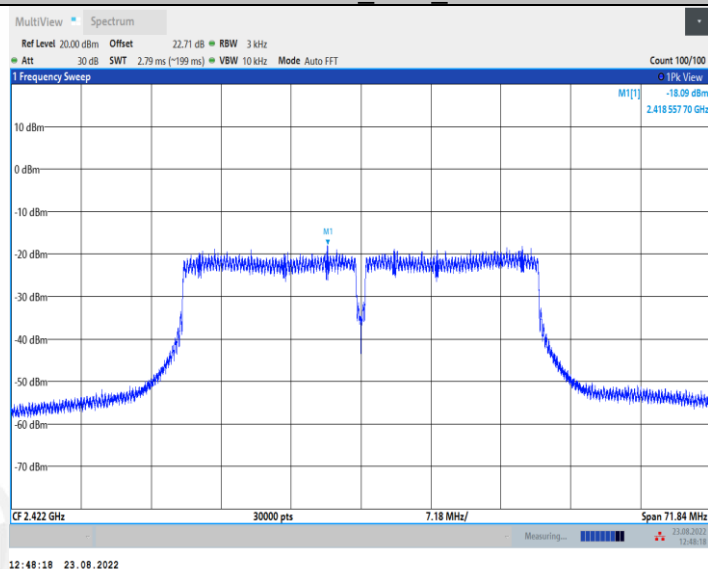
11N20SISO_Ant1_2437



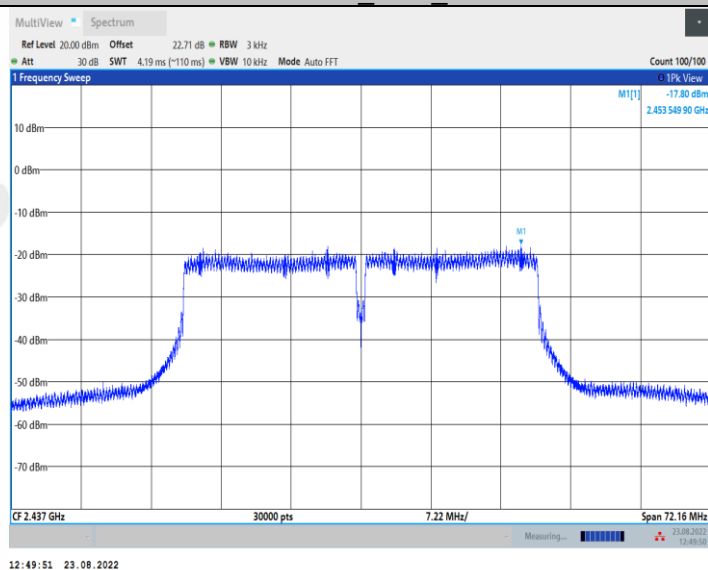
11N20SISO_Ant1_2462



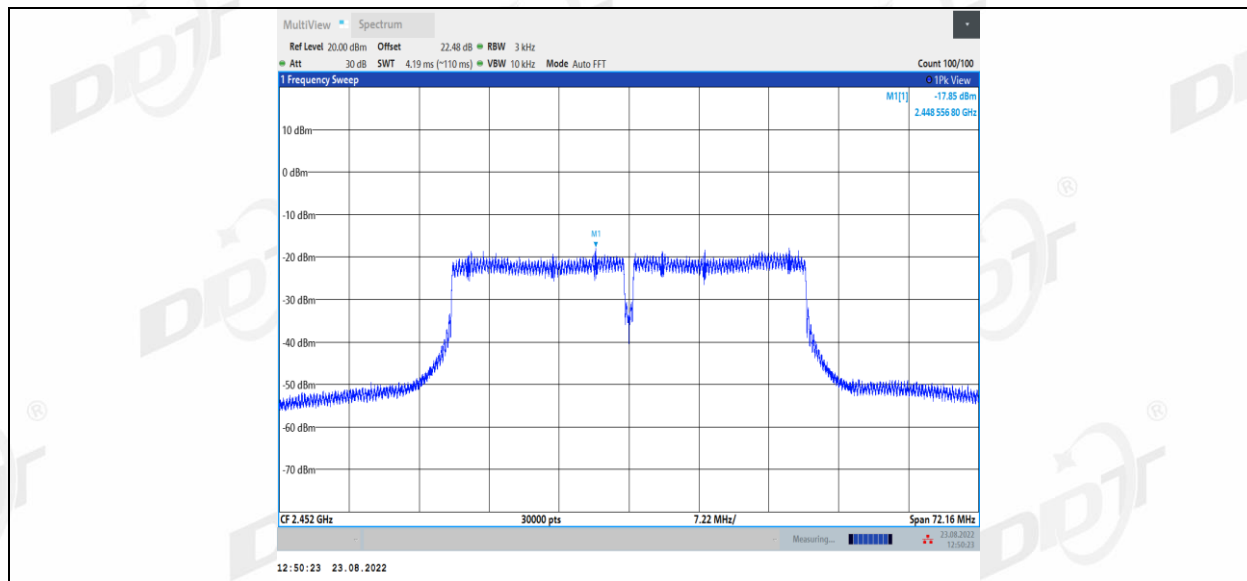
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



7. Band Edge Compliance (Conducted Method)

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 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.

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:

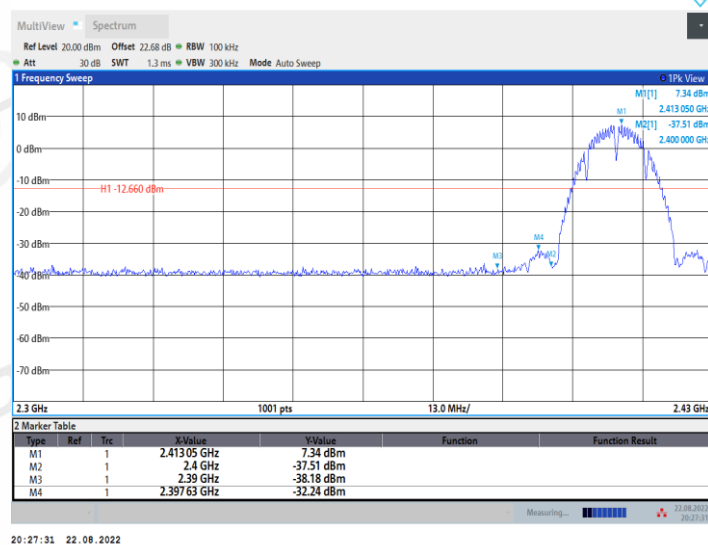
RBW:	100 kHz
VBW:	300 kHz
Span	Encompass frequency range to be measured
Detector Mode:	Peak
Sweep time:	auto
Trace mode	Max hold
- (3) Allow the trace to stabilize, use the peak marker function to determine the maximum peak power level to establish the reference level.
- (4) Then mark the maximum amplitude of all unwanted emissions outside of the authorized frequency band.

7.4. Test Result

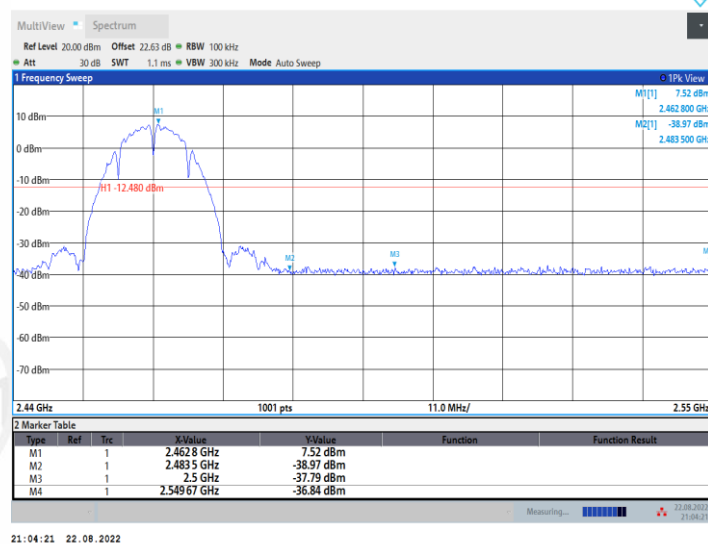
EUT Set Mode	CH or Frequency	Result (dBm)	EUT Set Mode	CH or Frequency	Result Result (dBm)
11b	CH1	Pass	11n HT 20	CH1	Pass
	CH6	Pass		CH6	Pass
	CH11	Pass		CH11	Pass
11g	CH1	Pass	11n HT 40	CH3	Pass
	CH6	Pass		CH6	Pass
	CH11	Pass		CH9	Pass

7.5. original test data

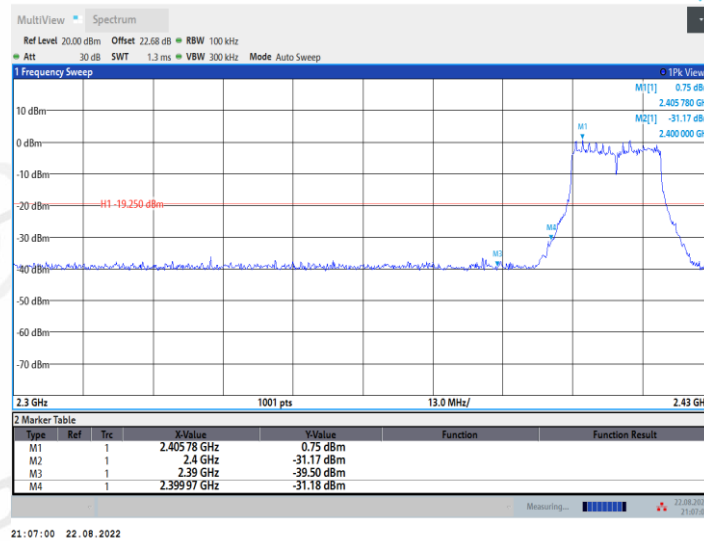
11B_Ant1_Low_2412



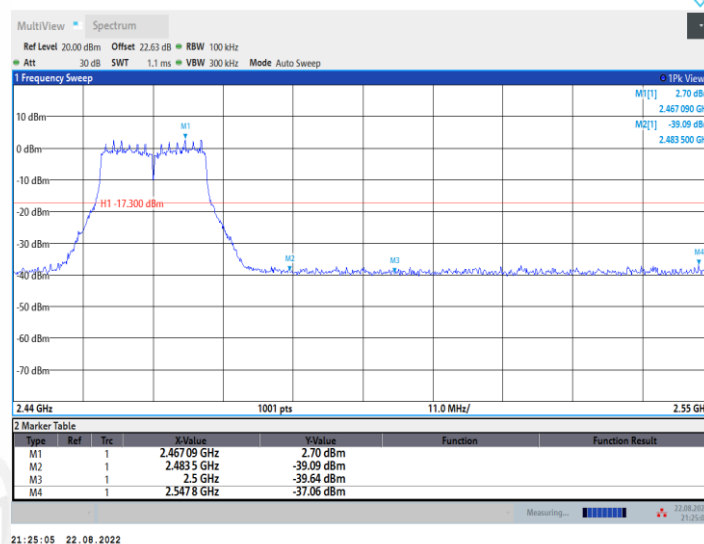
11B_Ant1_High_2462



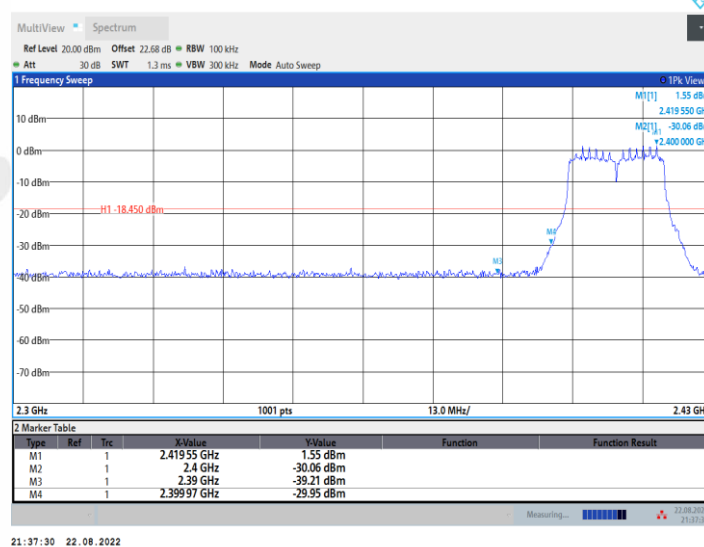
11G_Ant1_Low_2412



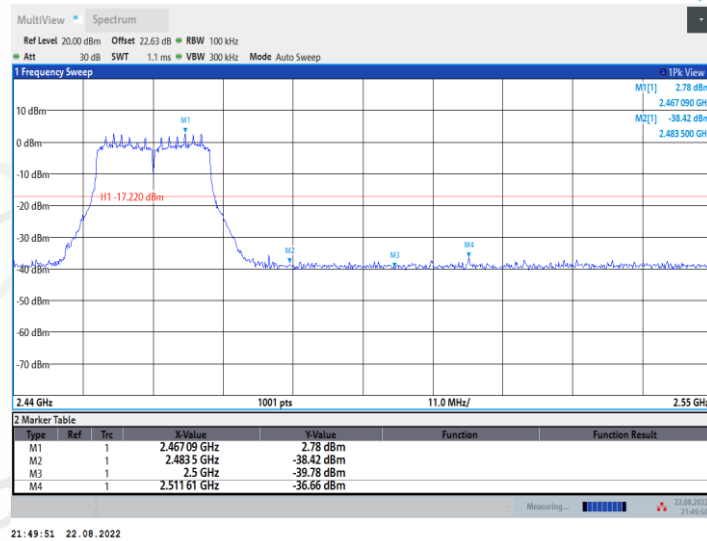
11G_Ant1_High_2462



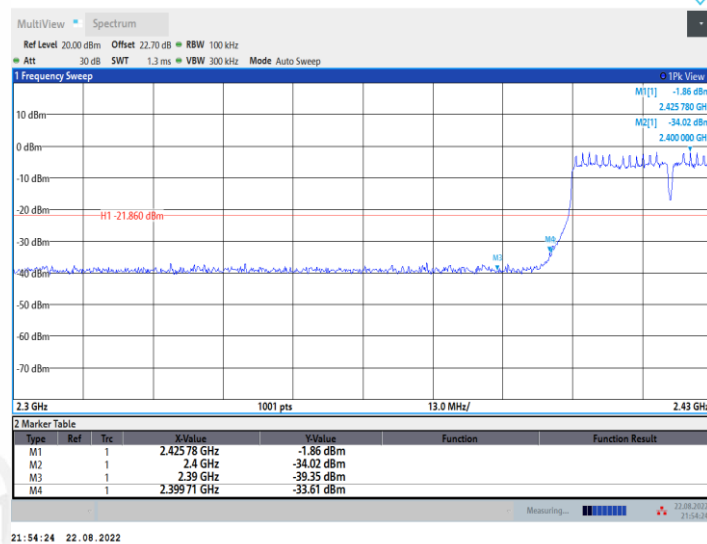
11N20SISO_Ant1_Low_2412



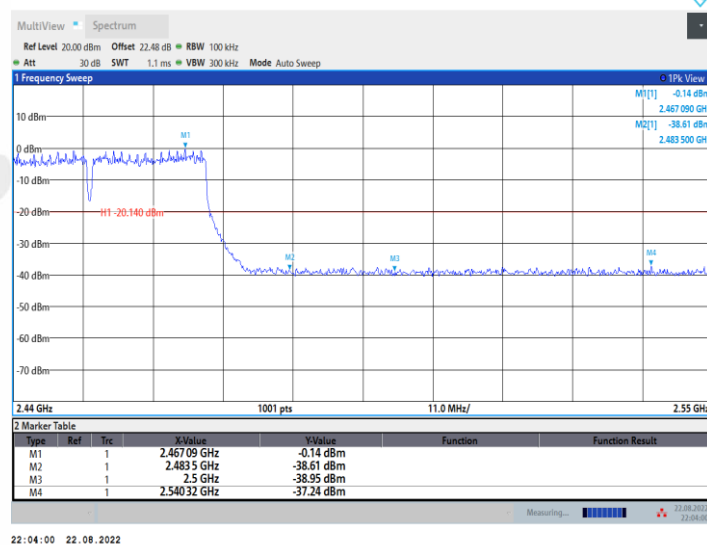
11N20SISO_Ant1_High_2462



11N40SISO Ant1 Low 2422



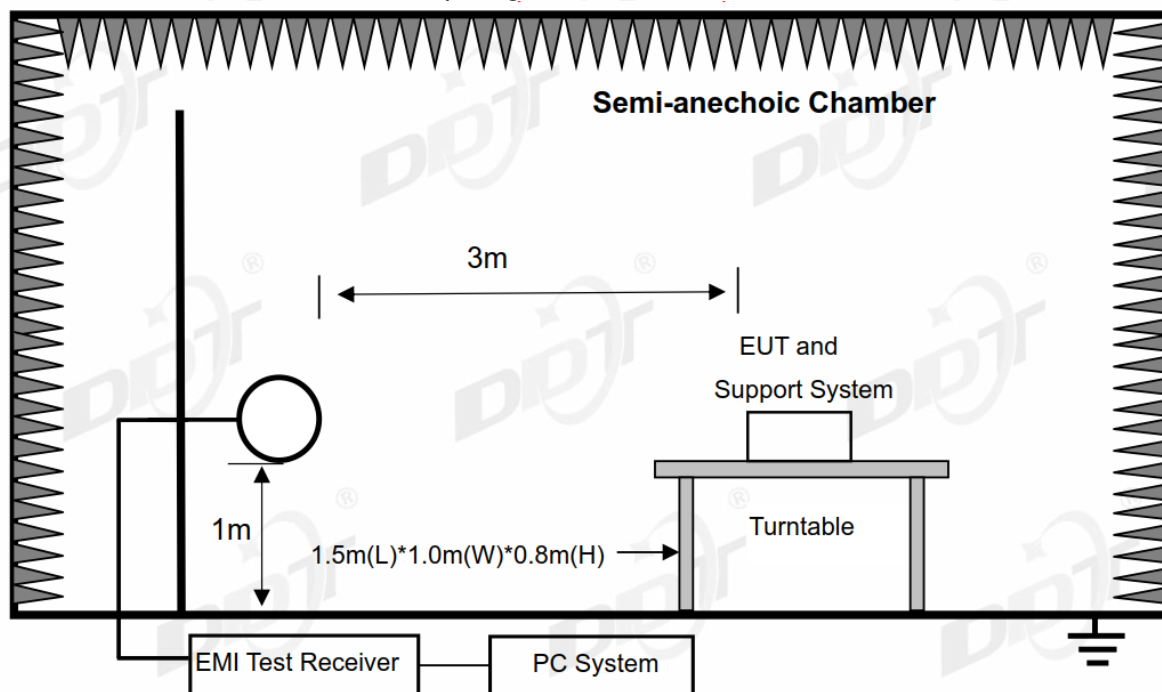
11N40SISO Ant1 High 2452



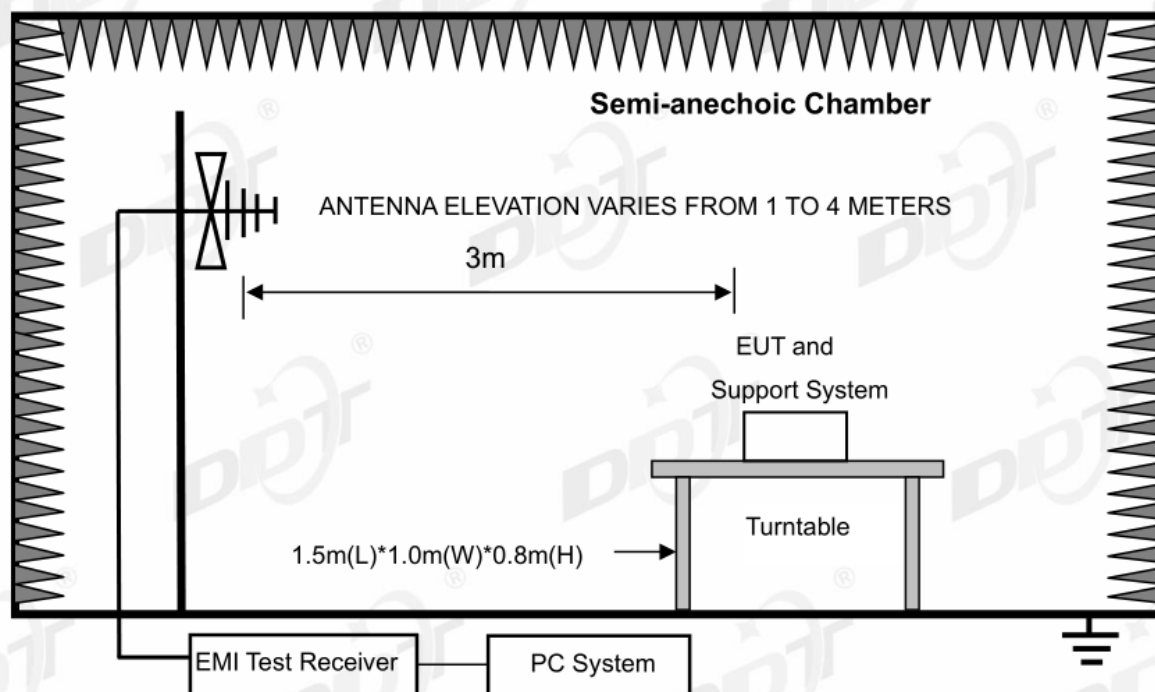
8. Radiated Spurious Emissions

8.1. Block diagram of test setup

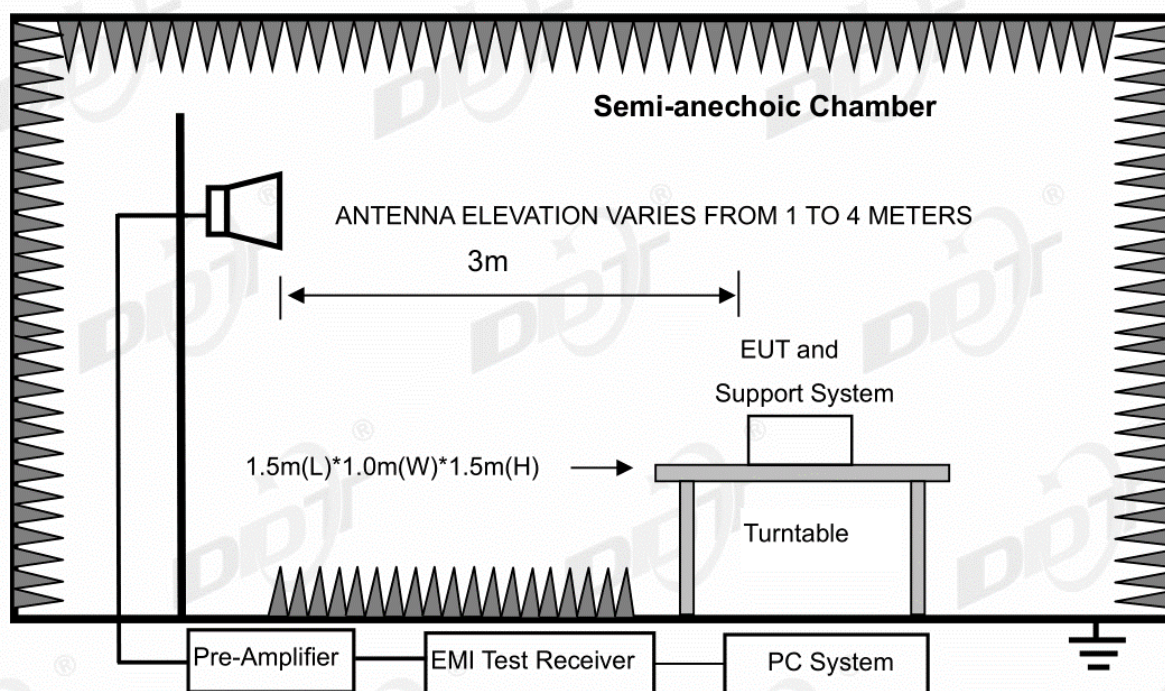
In 3 m Anechoic Chamber, test setup diagram for 9 kHz - 30 MHz:



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

(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			

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

²Above 38.6

RSS-Gen section 8.10 Restricted frequency bands*

MHz	MHz	MHz	GHz
0.090-0.110	12.51975-12.52025	240-285	3.5-4.4
0.495-0.505	12.57675-12.57725	322-335.4	4.5-5.15
2.1735-2.1905	13.36-13.41	399.9-410	5.35-5.46
3.020-3.026	16.42-16.423	608-614	7.25-7.75
4.125-4.128	16.69475-16.69525	960-1427	8.025-8.5
4.1772&4.17775	16.80425-16.80475	1435-1626.5	9.0-9.2
4.2072&4.20775	25.5-25.67	1645.5-1646.5	9.3-9.5
5.677-5.683	37.5-38.25	1660-1710	10.6-12.7
6.215-6.218	73-74.6	1718.8-1722.2	13.25-13.4
6.26775-6.26825	74.8-75.2	2200-2300	14.47-14.5
6.31175-6.31225	108-138	2310-2390	15.35-16.2
8.291-8.294	149.9-150.05	2483.5-2500	17.7-21.4
8.362-8.366	156.52475-156.52525	2655-2900	22.01-23.12
8.37625-8.38675	156.7-156.9	3260-3267	23.6-24.0
8.41425-8.41475	162.0125-167.17	3332-3339	31.2-31.8
12.29-12.293	167.72-173.2	3345.8-3358	36.43-36.5
			Above 38.6

* Certain frequency bands listed in table and in bands above 38.6 GHz are designated for licence-exempt applications. These frequency bands and the requirements that apply to related devices are set out in the 200 and 300 series of RSSs.

(2) FCC 15.209 Limit & RSS-Gen section 8.9 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:

$$\text{Limit}_{3m}(\text{dB}\mu\text{V}/\text{m}) = \text{Limit}_{30m}(\text{dB}\mu\text{V}/\text{m}) + 40\text{Log}(30m/3m)$$

(3) Limit for this EUT

The emissions appearing within 15.205 restricted frequency bands shall not exceed the limits

shown in 15.209, and the emissions appearing within RSS-Gen section 8.10 Restricted frequency bands shall not exceed the limits shown in RSS-Gen section 8.9, all the other emissions shall be at least 20 dB below the fundamental emissions or comply with 15.209 limits and RSS-Gen section 8.9 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(1GHz-18GHz)	3 m
18 GHz-40 GHz	Horn Antenna(18GHz-40GHz)	1 m

According ANSI C63.10:2013 clause 6.4.6 and 6.5.3, for measurements below 30 MHz, Antenna was located 3 m from EUT, the loop antenna was positioned in three antenna orientations (parallel, perpendicular, and round-parallel), for each measurement antenna alignment, the EUT shall be rotated through 0° to 360° on a turntable, and the lowest height of the magnetic antenna shall be 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 1m 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 18GHz to 25GHz, so below

final test was performed with frequency range from 9kHz to 18GHz.

- (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 1GHz, 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; RMS detector RBW 1 MHz VBW 10 Hz for Average measure (according ANSI C63.10:2013 clause 4.2.3.2.3 procedure for average measure).

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 limits.

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: 30 MHz ~ 25 GHz: (Scan with all mode, the worst case is 802.11b mode)

Note3: 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 Ant1 of 802.11b, Tx 2462 MHz 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 1GHz)

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 BELOW 1G.EM6

Test Date : 2022-08-18

Tested By : James Gan

EUT : Reli Light Cam Battery D1

Model Number : FJ11HWXJ

Power Supply : Battery

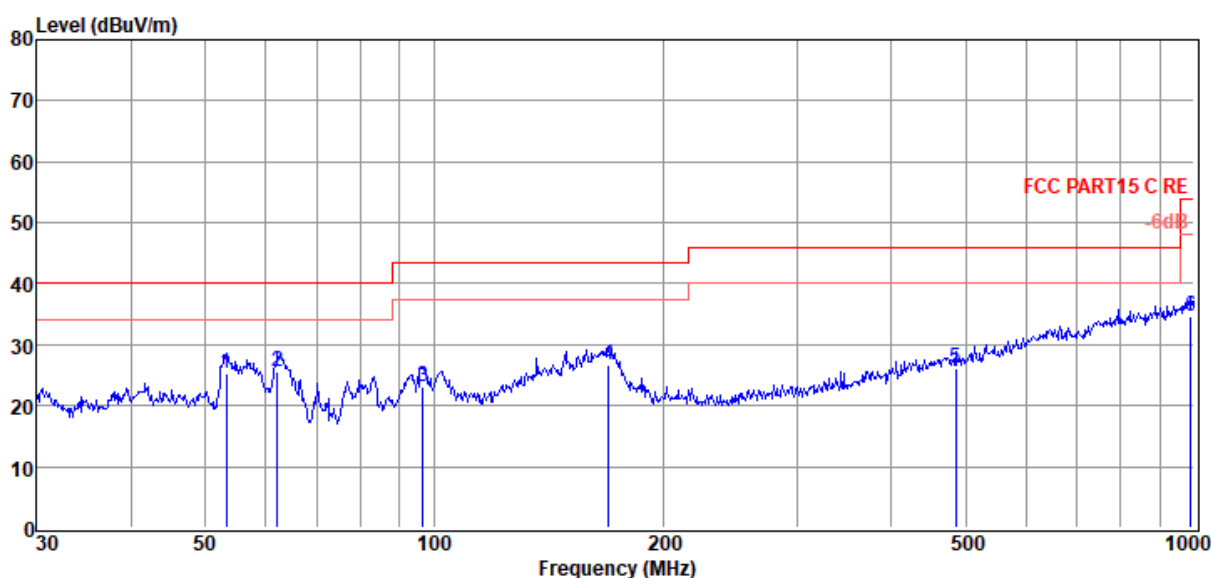
Test Mode : Tx Mode

Condition : Temp:22.8°C,Humi:53.3%,Press:100.3kPa Antenna/Distance : 2022 9161 #3/3m/VERTICAL

Memo : 2.4G WIFI

Data:

1



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	53.32	10.35	11.20	3.70	25.25	40.00	-14.75	QP	VERTICAL
2	62.21	10.35	11.51	3.77	25.63	40.00	-14.37	QP	VERTICAL
3	96.78	7.12	12.08	3.97	23.17	43.50	-20.33	QP	VERTICAL
4	169.60	2.87	19.40	4.34	26.61	43.50	-16.89	QP	VERTICAL
5	485.61	3.35	17.20	5.44	25.99	46.00	-20.01	QP	VERTICAL
6	989.54	4.13	23.80	6.78	34.71	54.00	-19.29	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 3#

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

Test Date : 2022-08-18

Tested By : James Gan

EUT : Reli Light Cam Battery D1

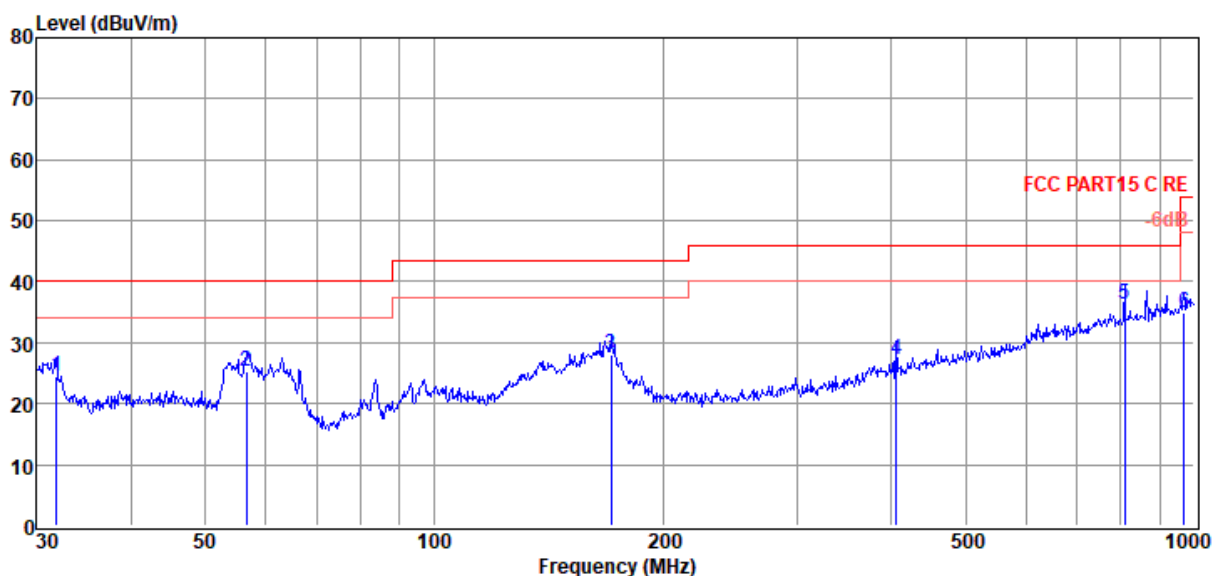
Model Number : FJ11HWXJ

Power Supply : Battery

Test Mode : Tx Mode

Condition : Temp:22.8°C,Humi:53.3%,Press:100.3kPa Antenna/Distance : 2022 9161 #3/3m/HORIZONTAL

Memo : 2.4G WIFI

Data:
2

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	31.84	9.90	11.08	3.56	24.54	40.00	-15.46	QP	HORIZONTAL
2	56.59	9.99	11.46	3.73	25.18	40.00	-14.82	QP	HORIZONTAL
3	170.79	4.36	19.40	4.34	28.10	43.50	-15.40	QP	HORIZONTAL
4	406.09	6.29	15.74	5.17	27.20	46.00	-18.80	QP	HORIZONTAL
5	810.27	8.16	22.00	6.25	36.41	46.00	-9.59	QP	HORIZONTAL
6	968.93	4.57	23.76	6.67	35.00	54.00	-19.00	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)

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

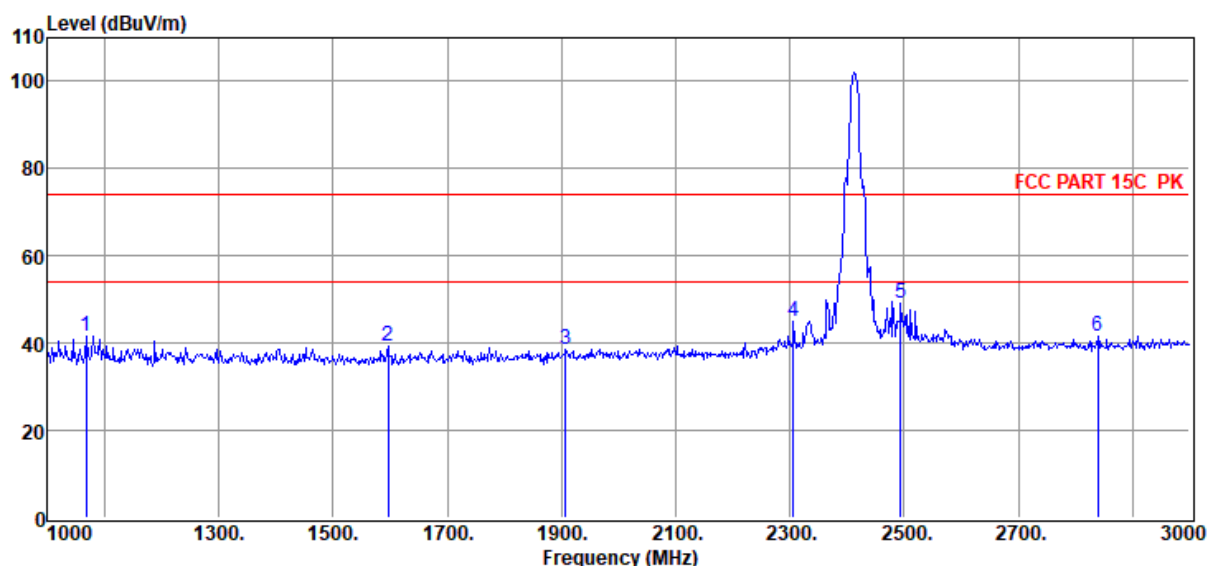
Test Mode : Tx Mode

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

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

Memo : 11B 2412

Data: 17



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	1068.00	52.47	25.49	38.00	1.14	0.51	41.61	74.00	-32.39	Peak	HORIZONTAL
2	1596.00	50.52	25.65	38.79	1.42	0.61	39.41	74.00	-34.59	Peak	HORIZONTAL
3	1908.00	49.28	26.46	39.26	1.56	0.66	38.70	74.00	-35.30	Peak	HORIZONTAL
4	2306.00	55.04	27.25	39.55	1.69	0.71	45.14	74.00	-28.86	Peak	HORIZONTAL
5	2494.00	58.71	27.59	39.65	1.74	0.73	49.12	74.00	-24.88	Peak	HORIZONTAL
6	2840.00	49.90	28.89	39.82	1.83	0.77	41.57	74.00	-32.43	Peak	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

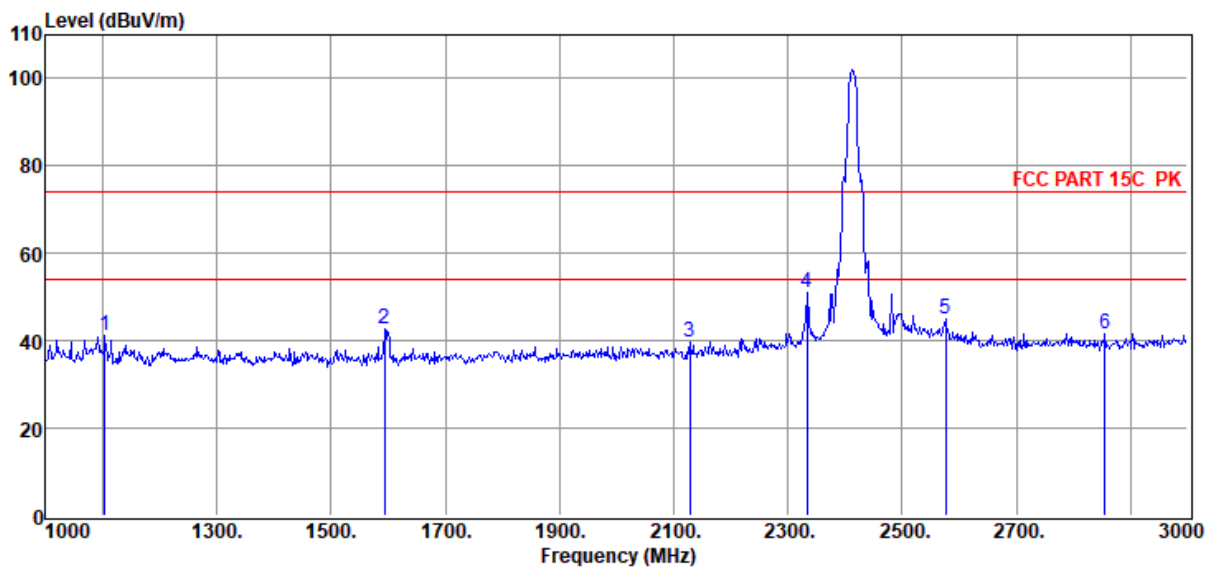
Test Mode : Tx Mode

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

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

Memo : 11B 2412

Data: 18



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	1104.00	51.92	25.48	38.06	1.16	0.52	41.02	74.00	-32.98	Peak	VERTICAL
2	1594.00	53.92	25.64	38.79	1.42	0.61	42.80	74.00	-31.20	Peak	VERTICAL
3	2128.00	49.91	26.93	39.46	1.64	0.69	39.71	74.00	-34.29	Peak	VERTICAL
4	2334.00	60.79	27.30	39.57	1.69	0.72	50.93	74.00	-23.07	Peak	VERTICAL
5	2576.00	54.39	27.89	39.69	1.76	0.74	45.09	74.00	-28.91	Peak	VERTICAL
6	2856.00	49.94	28.95	39.83	1.83	0.77	41.66	74.00	-32.34	Peak	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

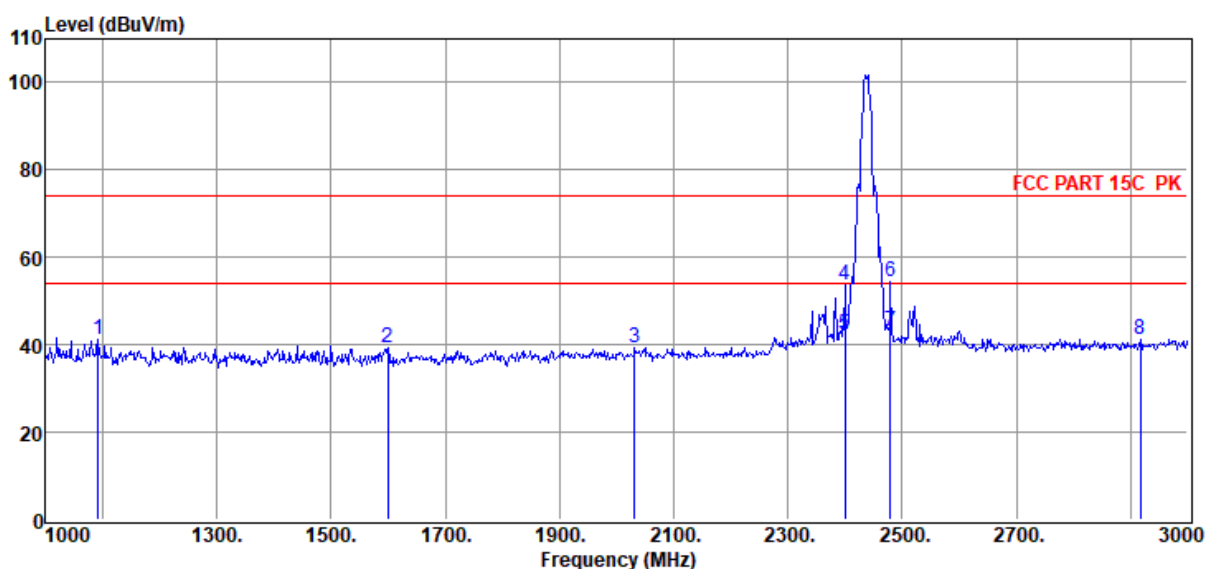
Test Mode : Tx Mode

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

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

Memo : 11B 2437

Data: 21



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Filter Factor dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	1092.00	52.09	25.48	38.04	1.15	0.52	41.20	74.00	-32.80	Peak	HORIZONTAL
2	1600.00	50.39	25.66	38.80	1.42	0.61	39.28	74.00	-34.72	Peak	HORIZONTAL
3	2032.00	49.58	26.76	39.42	1.61	0.68	39.21	74.00	-34.79	Peak	HORIZONTAL
4	2400.00	63.36	27.42	39.60	1.71	0.72	53.61	74.00	-20.39	Peak	HORIZONTAL
5	2400.00	52.26	27.42	39.60	1.71	0.72	42.51	54.00	-11.49	Average	HORIZONTAL
6	2480.00	64.03	27.56	39.64	1.73	0.73	54.41	74.00	-19.59	Peak	HORIZONTAL
7	2480.00	52.88	27.56	39.64	1.73	0.73	43.26	54.00	-10.74	Average	HORIZONTAL
8	2918.00	49.18	29.19	39.86	1.85	0.78	41.14	74.00	-32.86	Peak	HORIZONTAL

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

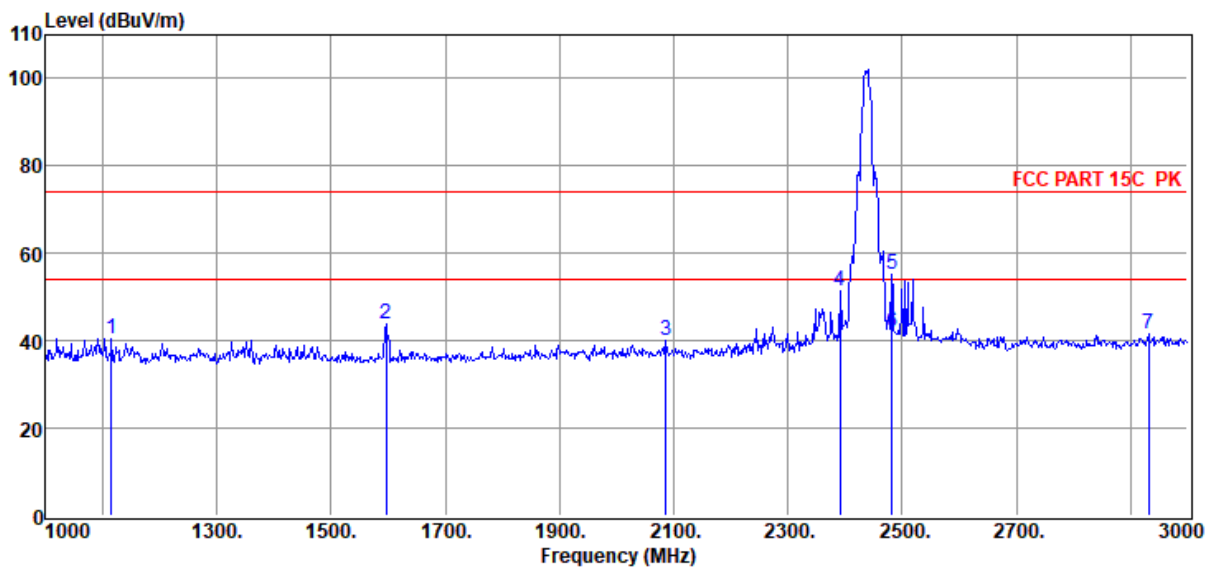
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

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 2437

Data: 22



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Filter Factor dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	1116.00	51.51	25.48	38.07	1.16	0.52	40.60	74.00	-33.40	Peak	VERTICAL
2	1596.00	54.88	25.65	38.79	1.42	0.61	43.77	74.00	-30.23	Peak	VERTICAL
3	2086.00	50.52	26.85	39.44	1.62	0.69	40.24	74.00	-33.76	Peak	VERTICAL
4	2392.00	60.99	27.41	39.60	1.71	0.72	51.23	74.00	-22.77	Peak	VERTICAL
5	2482.00	64.70	27.57	39.64	1.73	0.73	55.09	74.00	-18.91	Peak	VERTICAL
6	2482.00	51.74	27.57	39.64	1.73	0.73	42.13	54.00	-11.87	Average	VERTICAL
7	2932.00	49.56	29.24	39.87	1.85	0.78	41.56	74.00	-32.44	Peak	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

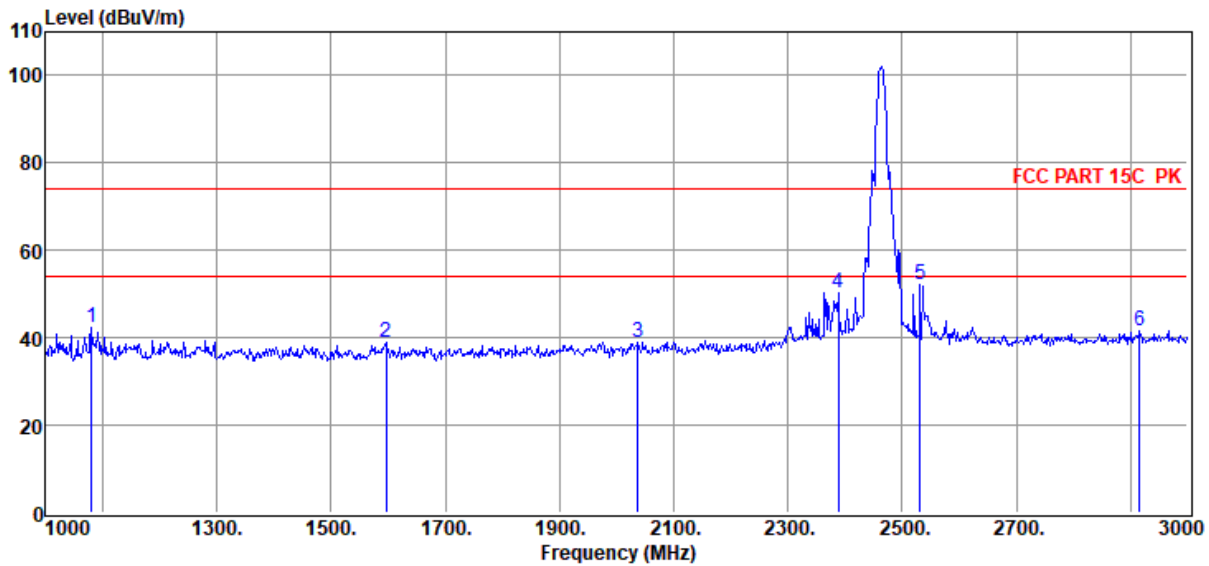
Test Mode : Tx Mode

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

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

Memo : 11B 2462

Data: 25



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	1080.00	53.28	25.48	38.02	1.14	0.51	42.39	74.00	-31.61	Peak	HORIZONTAL
2	1596.00	50.03	25.65	38.79	1.42	0.61	38.92	74.00	-35.08	Peak	HORIZONTAL
3	2038.00	49.48	26.77	39.42	1.61	0.68	39.12	74.00	-34.88	Peak	HORIZONTAL
4	2388.00	60.18	27.40	39.59	1.71	0.72	50.42	74.00	-23.58	Peak	HORIZONTAL
5	2532.00	61.68	27.72	39.67	1.75	0.74	52.22	74.00	-21.78	Peak	HORIZONTAL
6	2916.00	49.64	29.18	39.86	1.85	0.78	41.59	74.00	-32.41	Peak	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#

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ABOVE 1G .EM6

Test Date : 2022-08-18

Tested By : James Gan

EUT : Reli Light Cam Battery D1

Model Number : FJ11HWXJ

Power Supply : Battery

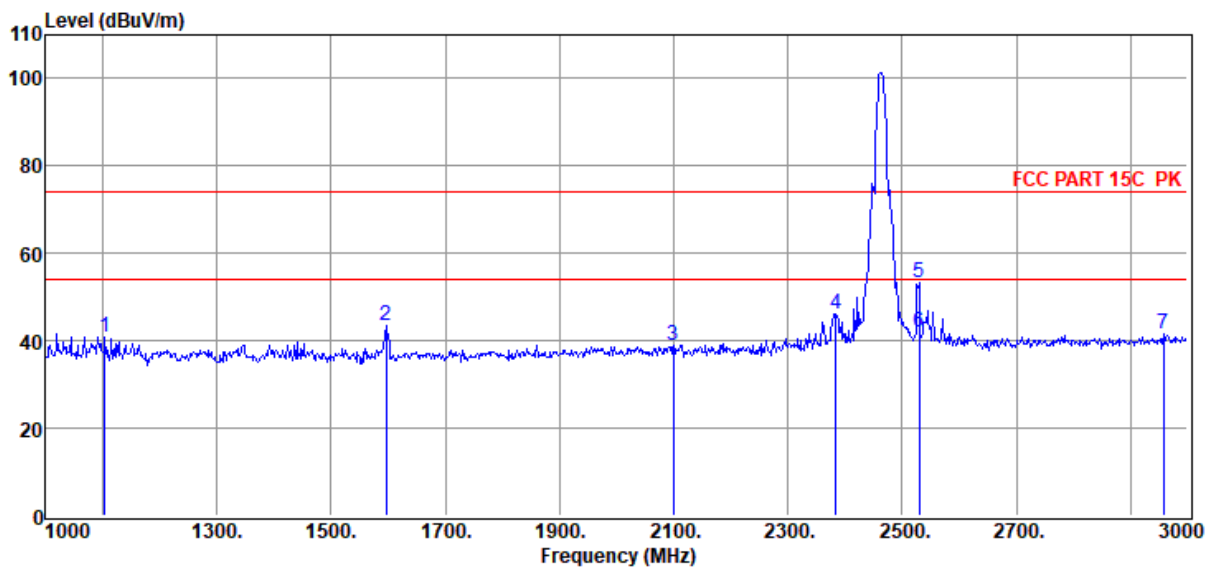
Test Mode : Tx Mode

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

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

Memo : 11B 2462

Data: 26



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	1104.00	51.83	25.48	38.06	1.16	0.52	40.93	74.00	-33.07	Peak	VERTICAL
2	1596.00	54.76	25.65	38.79	1.42	0.61	43.65	74.00	-30.35	Peak	VERTICAL
3	2100.00	49.09	26.88	39.45	1.63	0.69	38.84	74.00	-35.16	Peak	VERTICAL
4	2384.00	55.94	27.39	39.59	1.71	0.72	46.17	74.00	-27.83	Peak	VERTICAL
5	2530.00	62.73	27.71	39.67	1.75	0.74	53.26	74.00	-20.74	Peak	VERTICAL
6	2530.00	51.30	27.71	39.67	1.75	0.74	41.83	54.00	-12.17	Average	VERTICAL
7	2958.00	49.35	29.34	39.88	1.86	0.79	41.46	74.00	-32.54	Peak	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.

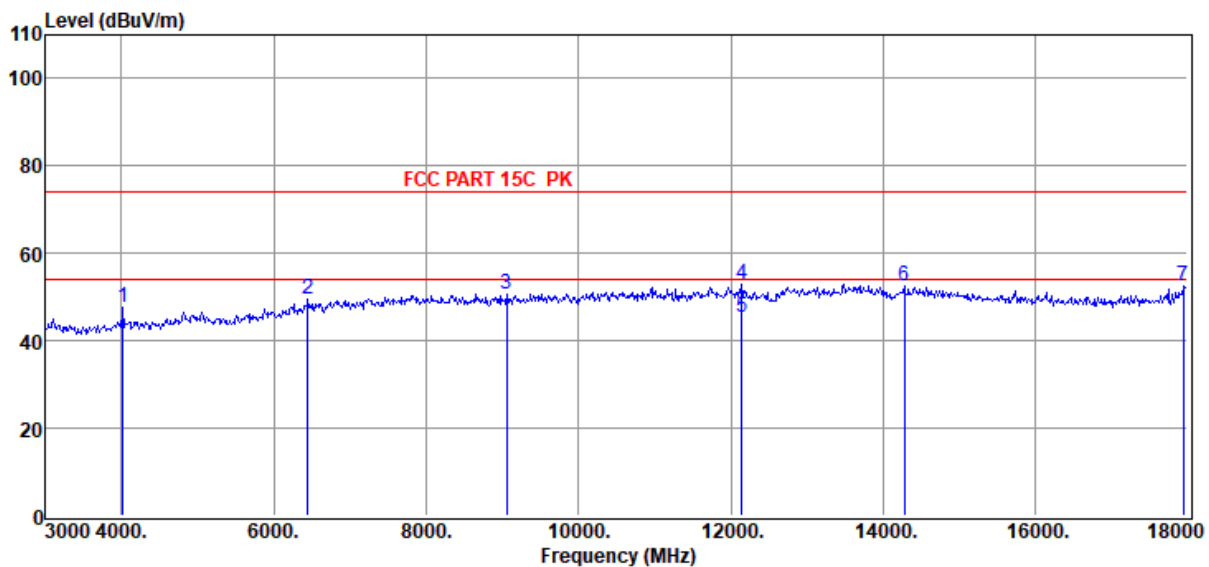
TR-4-E-009 Radiated Emission Test Result

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 : 11B 2412

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

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Data: 19



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	4020.00	52.49	31.12	40.20	2.12	2.04	47.57	74.00	-26.43	Peak	HORIZONTAL
2	6450.00	48.75	35.08	40.14	3.25	2.56	49.50	74.00	-24.50	Peak	HORIZONTAL
3	9060.00	46.67	38.35	39.94	3.36	2.20	50.64	74.00	-23.36	Peak	HORIZONTAL
4	12150.00	47.40	39.14	40.15	3.95	2.48	52.82	74.00	-21.18	Peak	HORIZONTAL
5	12150.00	39.98	39.14	40.15	3.95	2.48	45.40	54.00	-8.60	Average	HORIZONTAL
6	14280.00	45.01	39.90	39.67	4.43	2.82	52.49	74.00	-21.51	Peak	HORIZONTAL
7	17940.00	42.38	42.13	40.66	4.94	3.77	52.56	74.00	-21.44	Peak	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#

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Test Date : 2022-08-18

Tested By : James Gan

EUT : Reli Light Cam Battery D1

Model Number : FJ11HWXJ

Power Supply : Battery

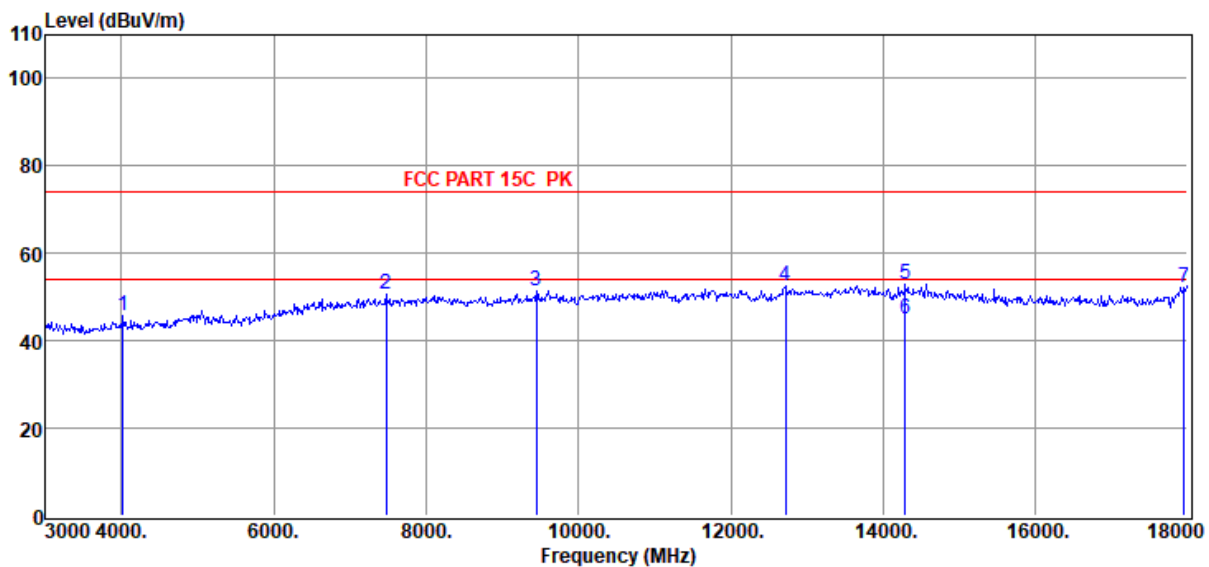
Test Mode : Tx Mode

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

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

Memo : 11B 2412

Data: 20



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	4020.00	50.64	31.12	40.20	2.12	2.04	45.72	74.00	-28.28	Peak	VERTICAL
2	7470.00	48.55	36.38	39.75	3.13	2.27	50.58	74.00	-23.42	Peak	VERTICAL
3	9450.00	47.19	38.66	40.22	3.59	2.32	51.54	74.00	-22.46	Peak	VERTICAL
4	12720.00	46.78	39.26	40.32	4.01	2.80	52.53	74.00	-21.47	Peak	VERTICAL
5	14295.00	45.34	39.90	39.67	4.42	2.82	52.81	74.00	-21.19	Peak	VERTICAL
6	14295.00	37.39	39.90	39.67	4.42	2.82	44.86	54.00	-9.14	Average	VERTICAL
7	17955.00	41.92	42.22	40.67	4.95	3.78	52.20	74.00	-21.80	Peak	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#

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Test Date : 2022-08-18

Tested By : James Gan

EUT : Reli Light Cam Battery D1

Model Number : FJ11HWXJ

Power Supply : Battery

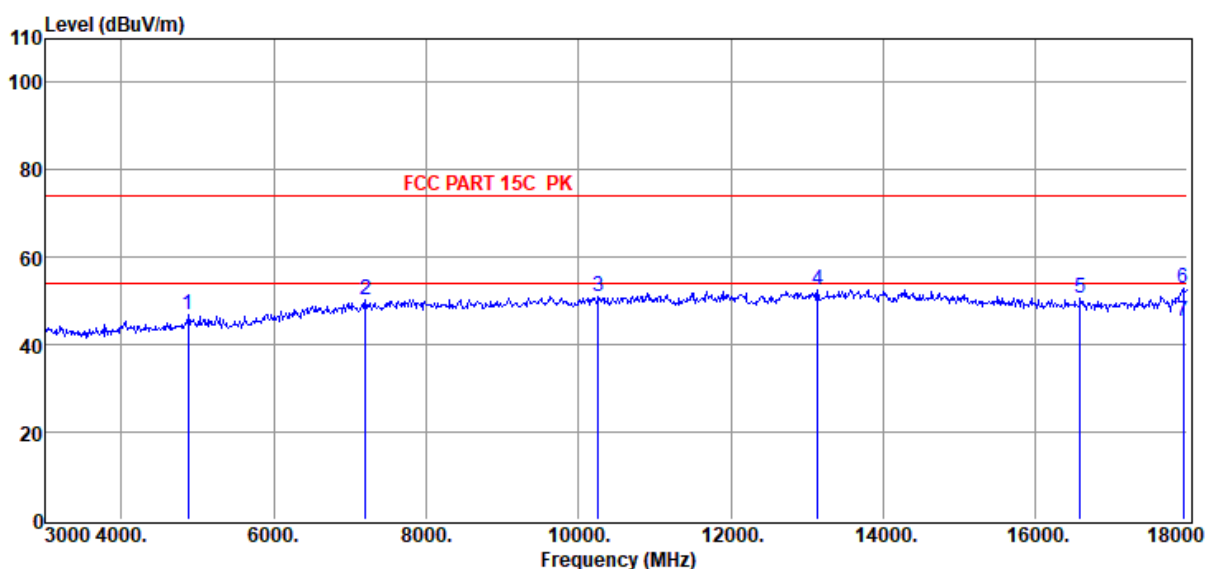
Test Mode : Tx Mode

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

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

Memo : 11B 2437

Data: 23



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	4874.00	50.04	32.70	40.37	2.49	2.17	47.03	74.00	-26.97	Peak	HORIZONTAL
2	7200.00	48.56	36.16	39.72	3.07	2.26	50.33	74.00	-23.67	Peak	HORIZONTAL
3	10260.00	46.64	38.71	40.50	3.67	2.45	50.97	74.00	-23.03	Peak	HORIZONTAL
4	13140.00	45.88	39.71	40.30	4.29	2.95	52.53	74.00	-21.47	Peak	HORIZONTAL
5	16590.00	44.76	38.01	40.02	4.73	3.35	50.83	74.00	-23.17	Peak	HORIZONTAL
6	17940.00	42.73	42.13	40.66	4.94	3.77	52.91	74.00	-21.09	Peak	HORIZONTAL
7	17940.00	35.29	42.13	40.66	4.94	3.77	45.47	54.00	-8.53	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#

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Test Date : 2022-08-18

Tested By : James Gan

EUT : Reli Light Cam Battery D1

Model Number : FJ11HWXJ

Power Supply : Battery

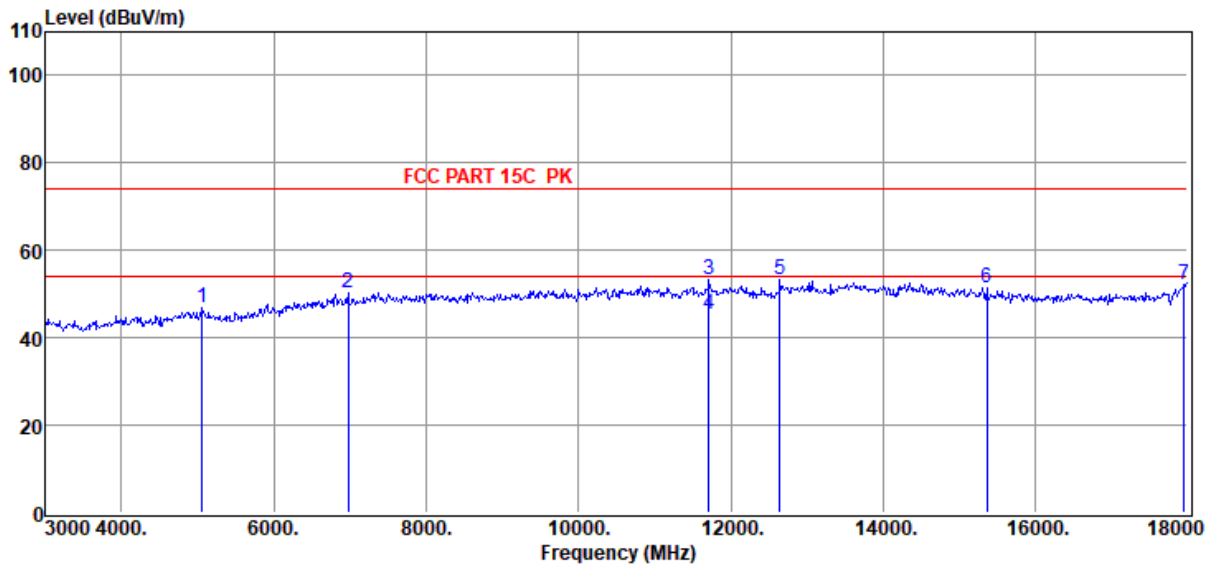
Test Mode : Tx Mode

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

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

Memo : 11B 2437

Data: 24



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	5055.00	49.39	33.07	40.41	2.54	2.22	46.81	74.00	-27.19	Peak	VERTICAL
2	6975.00	48.73	35.96	39.72	3.03	2.27	50.27	74.00	-23.73	Peak	VERTICAL
3	11715.00	48.13	39.09	40.13	4.00	2.39	53.48	74.00	-20.52	Peak	VERTICAL
4	11715.00	40.08	39.09	40.13	4.00	2.39	45.43	54.00	-8.57	Average	VERTICAL
5	12645.00	47.83	39.17	40.29	3.91	2.76	53.38	74.00	-20.62	Peak	VERTICAL
6	15360.00	44.71	39.00	39.71	4.53	2.80	51.33	74.00	-22.67	Peak	VERTICAL
7	17955.00	41.91	42.22	40.67	4.95	3.78	52.19	74.00	-21.81	Peak	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.

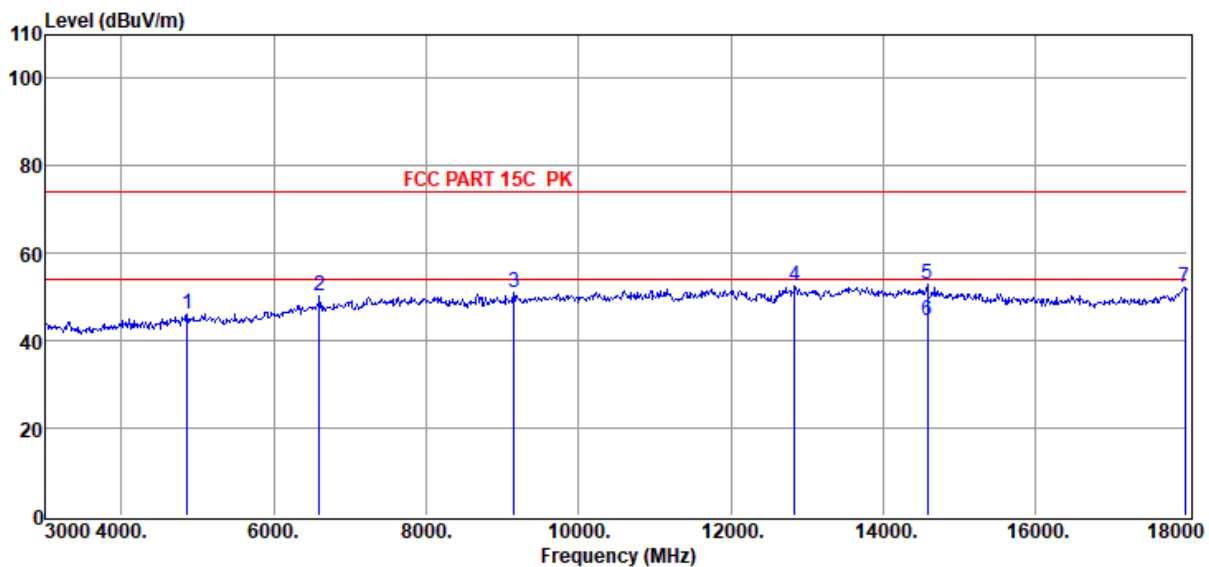
TR-4-E-009 Radiated Emission Test Result

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 : 11B 2462

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

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Data: 27



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	4860.00	49.23	32.65	40.37	2.49	2.17	46.17	74.00	-27.83	Peak	HORIZONTAL
2	6600.00	49.10	35.36	40.02	3.22	2.48	50.14	74.00	-23.86	Peak	HORIZONTAL
3	9150.00	46.80	38.42	40.01	3.42	2.23	50.86	74.00	-23.14	Peak	HORIZONTAL
4	12840.00	46.35	39.41	40.35	4.18	2.87	52.46	74.00	-21.54	Peak	HORIZONTAL
5	14580.00	45.73	39.84	39.64	4.37	2.74	53.04	74.00	-20.96	Peak	HORIZONTAL
6	14580.00	37.48	39.84	39.64	4.37	2.74	44.79	54.00	-9.21	Average	HORIZONTAL
7	17970.00	41.74	42.31	40.68	4.95	3.78	52.10	74.00	-21.90	Peak	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.

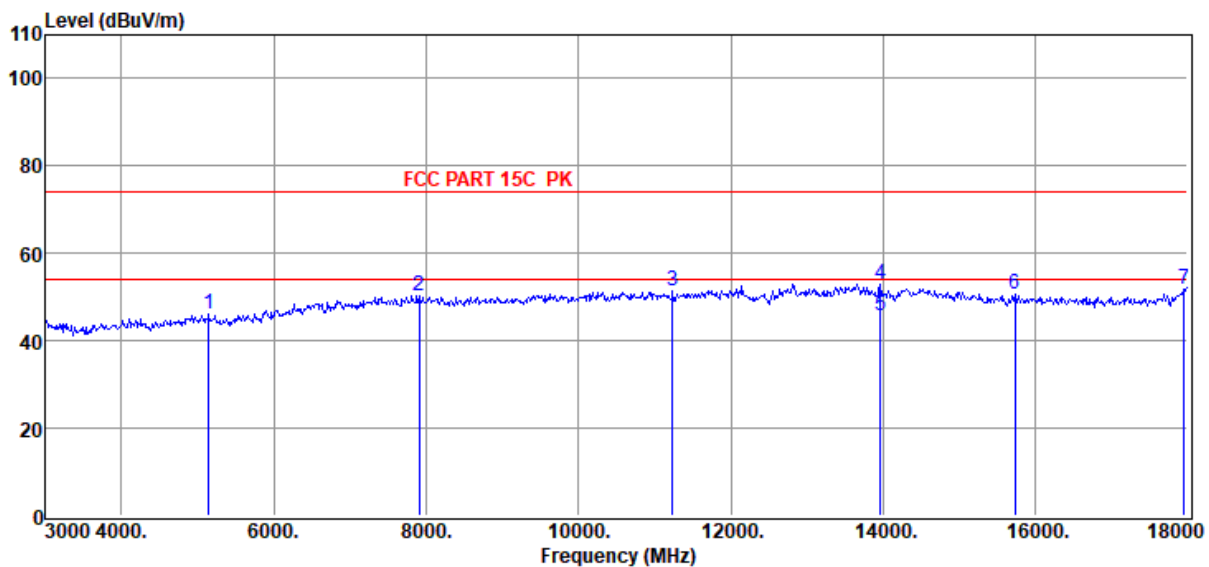
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

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 2462

D:\E3 6.111\2022 Report Data\Q22060726-2E D1\FCC ABOVE 1G .EM6
Tested By : James Gan
Model Number : FJ11HWXJ
Test Mode : Tx Mode
Antenna/Distance : 2021 BBHA 9120D 3#/3m/VERTICAL

Data: 28



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Filter Factor dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5145.00	48.69	33.01	40.41	2.55	2.28	46.12	74.00	-27.88	Peak	VERTICAL
2	7905.00	47.75	36.89	39.79	3.18	2.28	50.31	74.00	-23.69	Peak	VERTICAL
3	11235.00	46.24	39.16	40.18	3.88	2.38	51.48	74.00	-22.52	Peak	VERTICAL
4	13965.00	45.40	39.91	39.72	4.49	2.90	52.98	74.00	-21.02	Peak	VERTICAL
5	13965.00	38.01	39.91	39.72	4.49	2.90	45.59	54.00	-8.41	Average	VERTICAL
6	15735.00	44.39	38.38	39.82	4.58	2.99	50.52	74.00	-23.48	Peak	VERTICAL
7	17955.00	41.34	42.22	40.67	4.95	3.78	51.62	74.00	-22.38	Peak	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.