

FCC PART 15.247

TEST REPORT

For

SZ DJI TECHNOLOGY CO., LTD

14th floor, West Wing, Skyworth Semiconductor Design Building NO.18 Gaoxin South 4th Ave,
Nanshan, Shenzhen, Guangdong, China

FCC ID: SS3-NB06251803

Report Type: Original Report	Product Name: Multilink
Report Number: RDG180409002-00B	
Report Date: 2018-06-05	
Reviewed By: Jerry Zhang EMC Manager	
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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

EUT Name:	Multilink
EUT Model:	NB0625
FCC ID:	SS3-NB06251803
Rated Input Voltage:	5Vdc
External Dimension:	77 mm (L) x 47 mm (W) x 14 mm (H)
Serial Number:	180409002
EUT Received Date:	2018-04-09

Objective

This report is prepared on behalf of **SZ DJI TECHNOLOGY CO., LTD** in accordance with Part 2, Subpart J, Part 15, Subparts A, and C of the Federal Communications Commission's rules.

The tests were performed in order to determine the compliance of the EUT with FCC Rules Part 15-Subpart C, section 15.203, 15.205, 15.209, 15.247 rules.

Related Submittal(s)/Grant(s)

FCC submissions with Part 15B JAB, FCC ID: SS3-NB06251803.

FCC submissions with Part 15E NII, FCC ID: SS3-NB06251803.

Part of system submissions with FCC ID: SS3-GL800A1703.

Test Methodology

All measurements detailed in this Test Report were performed in accordance with ANSI C63.10-2013 "American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices".

All emissions measurement was performed and Bay Area Compliance Laboratories Corp. (Dongguan).

Measurement Uncertainty

Parameter	Measurement Uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±0.61dB
Power Spectral Density, conducted	±0.61 dB
Unwanted Emissions, radiated	30MHz~200MHz: 4.58 dB for Horizontal, 4.59 dB for Vertical 200MHz~1GHz: 4.83 dB for Horizontal, 5.85 dB for Vertical 1~6GHz: 4.45 dB, 6~26.5GHz: 5.23 dB
Unwanted Emissions	±1.5 dB
Temperature	±1 °C
Humidity	±5%
DC and low frequency voltages	±0.4%
Duty Cycle	1%
AC Power Lines Conducted Emission	3.12 dB (150 kHz to 30 MHz)

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.69 Pulongcun, Puxinhu Industry Area, Tangxia, Dongguan, Guangdong, China.

The test site has been approved by the FCC under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 897218, the FCC Designation No. : CN1220.

The test site has been registered with ISED Canada under ISED Canada Registration Number 3062D.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in engineering mode, which was provided by manufacturer.

The system employed FHSS technology in 2.4GHz band, total 46 channels was used:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2408	24	2442.5
2	2409.5	...	...
...	...	...	...
...	...	...	...
...	...	45	2474
23	2441	46	2475.5

3 channels were tested: 2408MHz, 2442.5MHz and 2475.5MHz

EUT Exercise Software

The software “Certification_HG330.exe” was used for testing, which was provided by manufacturer. The maximum power level was configured as below table:

Test Software Version	Certification_HG330.exe		
Test Frequency	2408MHz	2442.5MHz	2475.5MHz
Power Level Setting	45	45	45

Equipment Modifications

No modification was made to the EUT.

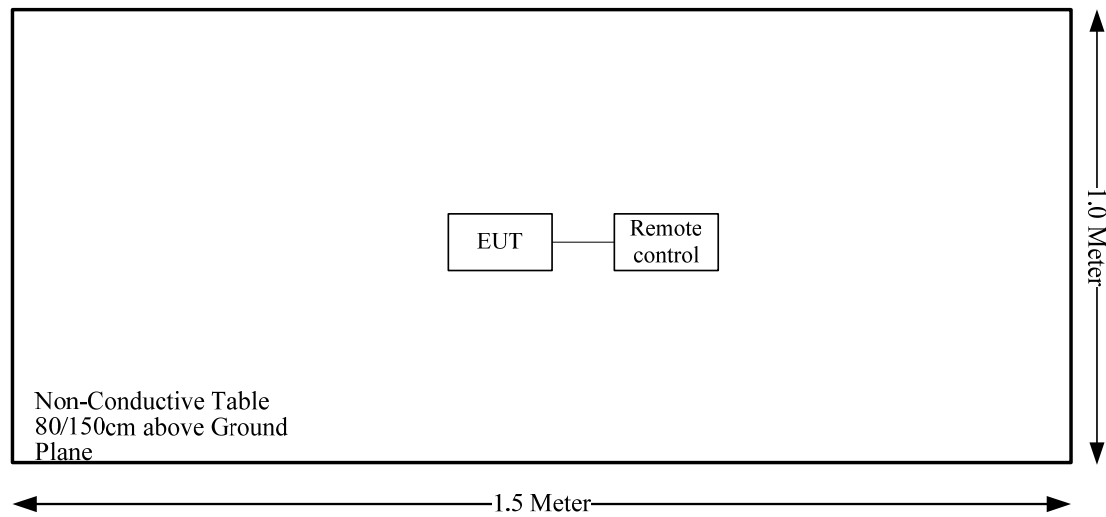
Support Equipment List and Details

Manufacturer	Description	Model	Serial Number	FCC ID
DJI	Remote control	GL800A	N/A	SS3-GL800A1703

Support Cable List and Details

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
Data Cable	No	Yes	0.2	Remote	EUT

Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

Rules	Description of Test	Result
FCC §15.247 (i) & §1.1310 & §2.1093	RF Exposure	Compliance
FCC§15.203	Antenna Requirement	Compliance
FCC§15.207 (a)	Conducted Emissions	Not applicable*
FCC§15.205, §15.209, FCC §15.247(d)	Spurious Emissions	Compliance
FCC§15.247 (a)(1)	Emission Bandwidth	Compliance
FCC§15.247(a)(1)	Channel Separation Test	Compliance
FCC§15.247(a)(1)(iii)	Time of Occupancy (Dwell Time)	Compliance
FCC§15.247(a)(1)(iii)	Quantity of hopping channel Test	Compliance
FCC§15.247(b)(1)	Peak Output Power Measurement	Compliance
FCC§15.247(d)	Band Edges	Compliance

Note:

Not applicable*: The device was powered by battery.

FCC §15.247 (i) & §1.1310 & §2.1093- RF EXPOSURE

Applicable Standard

According to §15.247(i), §1.1310 and §2.1093.

Test Result

Compliant, please refer to the SAR report: RDG180409002-20.

FCC §15.203 - ANTENNA REQUIREMENT

Applicable Standard

According to § 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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

- a. Antenna must be permanently attached to the unit.
- b. Antenna must use a unique type of connector to attach to the EUT.
- c. Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

Antenna Connector Construction

The EUT has a external antenna arrangement permanently attached to the unit, the antenna gain is 3.79 dBi in 2.4GHz band and 6.47 dBi in 5.8GHz band, fulfill the requirement of this section. Please refer to the EUT photos.

Result: Compliance.

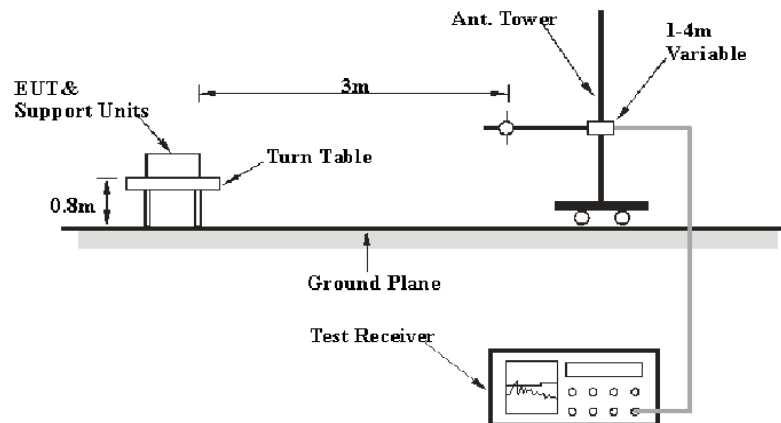
FCC §15.209, §15.205 & §15.247(d) - SPURIOUS EMISSIONS

Applicable Standard

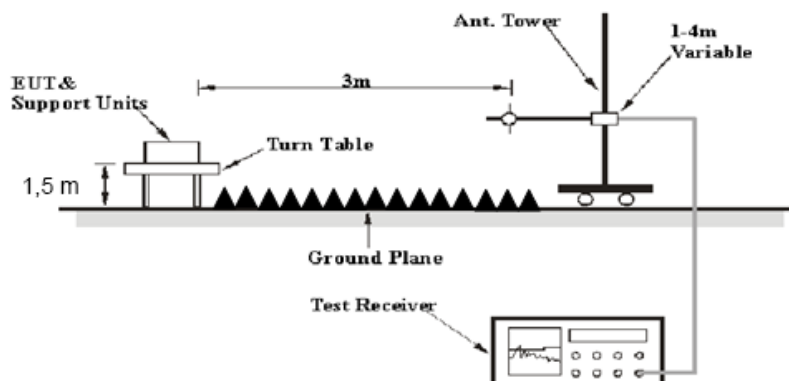
FCC §15.247 (d); §15.209; §15.205.

EUT Setup

Below 1GHz:



Above 1GHz:



The radiated emission tests were performed in the 3 meters distance, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209, 15.247 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 25 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
30 MHz – 1000 MHz	120 kHz	300 kHz	120 kHz	QP
Above 1 GHz	1MHz	3 MHz	/	PK
	1MHz	10 Hz	/	AV

Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 30 MHz - 1 GHz, peak and average detection modes for frequencies above 1 GHz.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI Test Receiver	ESCI	100224	2017-12-11	2018-12-11
Sunol Sciences	Antenna	JB3	A060611-1	2017-11-10	2020-11-10
HP	Amplifier	8447D	2727A05902	2017-09-05	2018-09-05
unknown	Coaxial Cable	4m	C0400/01	2017-09-05	2018-09-05
unknown	Coaxial Cable	0.75m	C0075/01	2017-09-05	2018-09-05
unknown	Coaxial Cable	10m	C1000/01	2017-09-05	2018-09-05
Agilent	Spectrum Analyzer	E4440A	SG43360054	2018-01-04	2019-01-04
ETS-Lindgren	Horn Antenna	3115	000 527 35	2016-01-05	2019-01-05
MITEQ	Amplifier	AFS42-00101800-25-S-42	2001271	2017-09-05	2018-09-05
Quinstar	Amplifier	QLW-18405536-JO	15964001001	2017-06-27	2018-06-27
Ducommun Technologies	Horn Antenna	ARH-4223-02	1007726-02 1304	2017-06-16	2020-06-15
unknown	Coaxial Cable	8m	C0800/01	2017-09-05	2018-09-05
E-Microwave	Band-stop Filters	OBSF-2400-2483.5-S	OE01601525	2017-06-16	2018-06-16
Micro-tronics	High Pass Filter	HPM50111	S/N-G217	2017-06-16	2018-06-16
Farad	Test Software	EZ-EMC	V1.1.4.2	N/A	N/A

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

$$\text{Corrected Amplitude} = \text{Meter Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

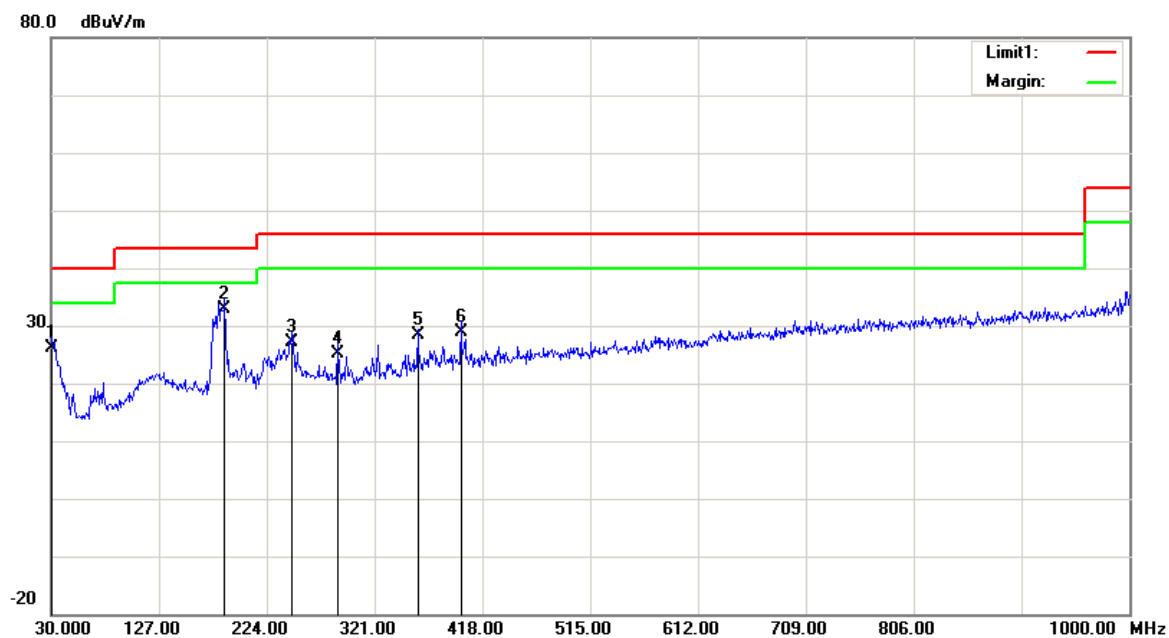
Test Data

Environmental Conditions

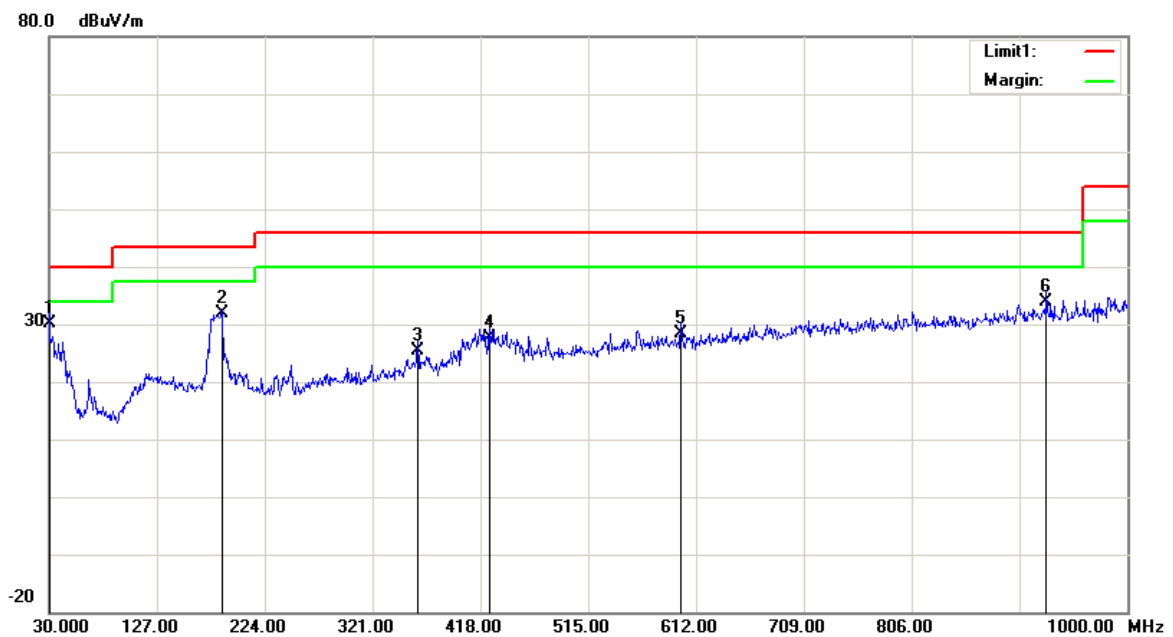
Temperature:	24.4~24.6 °C
Relative Humidity:	39~42 %
ATM Pressure:	100.5~101.1 kPa

* The testing was performed by Blake Yang & Steve Zuo on 2018-04-15& 2018-04-16.

Test Mode: Transmitting

1) 30MHz-1GHz(High Channel was the worst):**Horizontal:**

Frequency (MHz)	Receiver Reading (dBuV)	Detector	Correction Factor (dB/m)	Cord. Amp. (dBuV/m)	Limit (dBuV/m)	Margin (dB)
30.0000	24.66	QP	1.54	26.20	40.00	13.80
186.1700	40.34	QP	-7.54	32.80	43.50	10.70
246.3100	33.22	QP	-6.12	27.10	46.00	18.90
288.0200	29.20	QP	-4.10	25.10	46.00	20.90
359.8000	31.15	QP	-2.85	28.30	46.00	17.70
398.6000	30.95	QP	-2.05	28.90	46.00	17.10

Vertical:

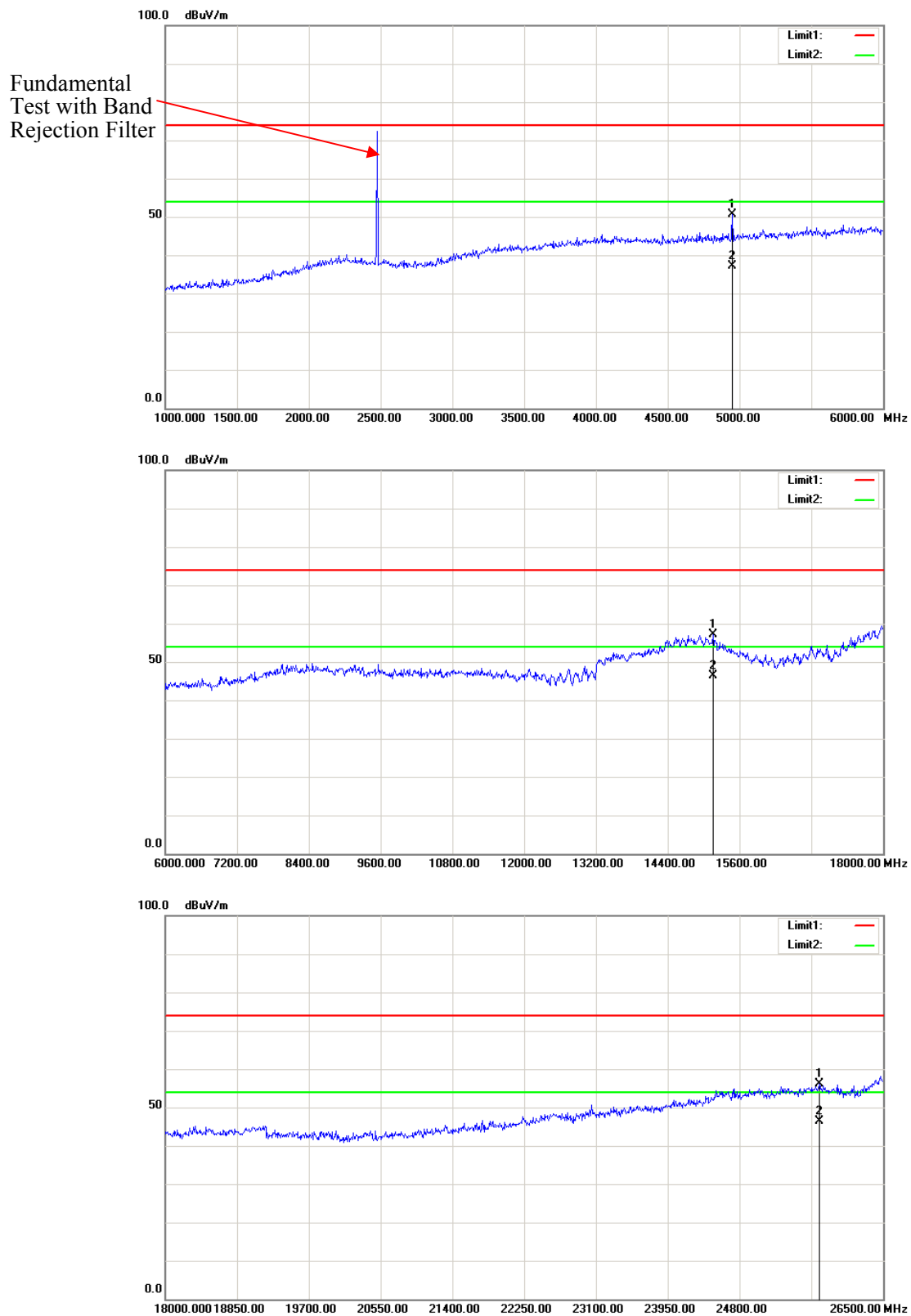
Frequency (MHz)	Receiver Reading (dBuV)	Detector	Correction Factor (dB/m)	Cord. Amp. (dBuV/m)	Limit (dBuV/m)	Margin (dB)
30.0000	28.66	QP	1.54	30.20	40.00	9.80
185.2000	39.38	QP	-7.58	31.80	43.50	11.70
361.7400	28.12	QP	-2.82	25.30	46.00	20.70
425.7600	29.09	QP	-1.49	27.60	46.00	18.40
598.4200	27.57	QP	0.83	28.40	46.00	17.60
927.2500	27.29	QP	6.61	33.90	46.00	12.10

2) 1-25GHz:

Frequency	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
(MHz)	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)					
Low Channel: 2408 MHz									
2408.00	84.86	PK	H	28.12	1.80	0.00	114.78	N/A	N/A
2408.00	67.35	AV	H	28.12	1.80	0.00	97.27	N/A	N/A
2408.00	68.49	PK	V	28.12	1.80	0.00	98.41	N/A	N/A
2408.00	51.57	AV	V	28.12	1.80	0.00	81.49	N/A	N/A
2390.00	25.68	PK	H	28.08	1.80	0.00	55.56	74.00	18.44
2390.00	13.14	AV	H	28.08	1.80	0.00	43.02	54.00	10.98
4816.00	47.63	PK	H	32.93	3.18	37.20	46.54	74.00	27.46
4816.00	35.28	AV	H	32.93	3.18	37.20	34.19	54.00	19.81
7224.00	46.19	PK	H	35.79	4.79	37.25	49.52	74.00	24.48
7224.00	34.03	AV	H	35.79	4.79	37.25	37.36	54.00	16.64
Middle Channel: 2442.5 MHz									
2442.50	85.46	PK	H	28.19	1.82	0.00	115.47	N/A	N/A
2442.50	68.52	AV	H	28.19	1.82	0.00	98.53	N/A	N/A
2442.50	69.85	PK	V	28.19	1.82	0.00	99.86	N/A	N/A
2442.50	58.43	AV	V	28.19	1.82	0.00	88.44	N/A	N/A
4885.00	48.63	PK	H	33.07	3.28	37.21	47.77	74.00	26.23
4885.00	36.52	AV	H	33.07	3.28	37.21	35.66	54.00	18.34
7327.50	46.26	PK	H	36.05	4.61	37.38	49.54	74.00	24.46
7327.50	34.17	AV	H	36.05	4.61	37.38	37.45	54.00	16.55
High Channel: 2475.5 MHz									
2475.50	88.46	PK	H	28.25	1.84	0.00	118.55	N/A	N/A
2475.50	71.37	AV	H	28.25	1.84	0.00	101.46	N/A	N/A
2475.50	69.83	PK	V	28.25	1.84	0.00	99.92	N/A	N/A
2475.50	58.56	AV	V	28.25	1.84	0.00	88.65	N/A	N/A
2483.50	29.54	PK	H	28.27	1.84	0.00	59.65	74.00	14.35
2483.50	14.86	AV	H	28.27	1.84	0.00	44.97	54.00	9.03
4951.00	51.38	PK	H	33.20	3.24	37.24	50.58	74.00	23.42
4951.00	37.86	AV	H	33.20	3.24	37.24	37.06	54.00	16.94
7426.50	46.53	PK	H	36.31	4.44	37.51	49.77	74.00	24.23
7426.50	34.26	AV	H	36.31	4.44	37.51	37.50	54.00	16.50

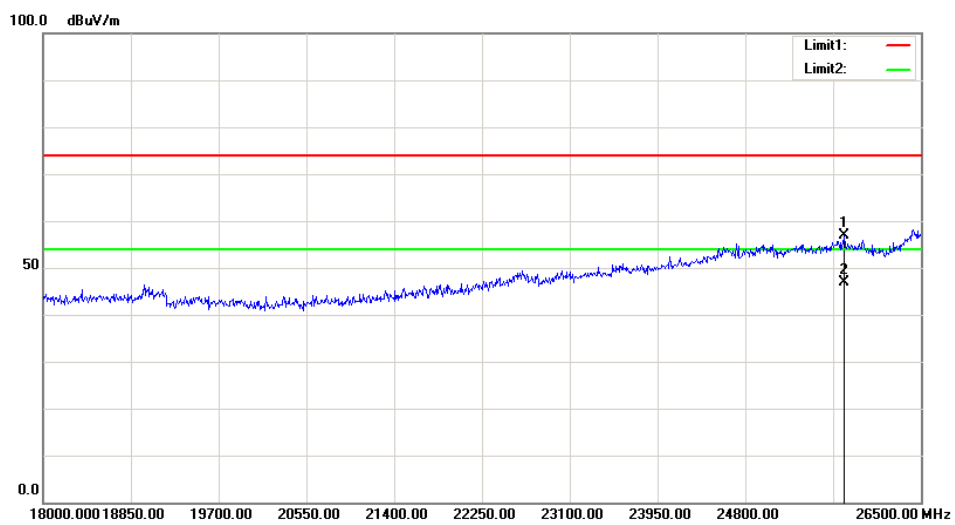
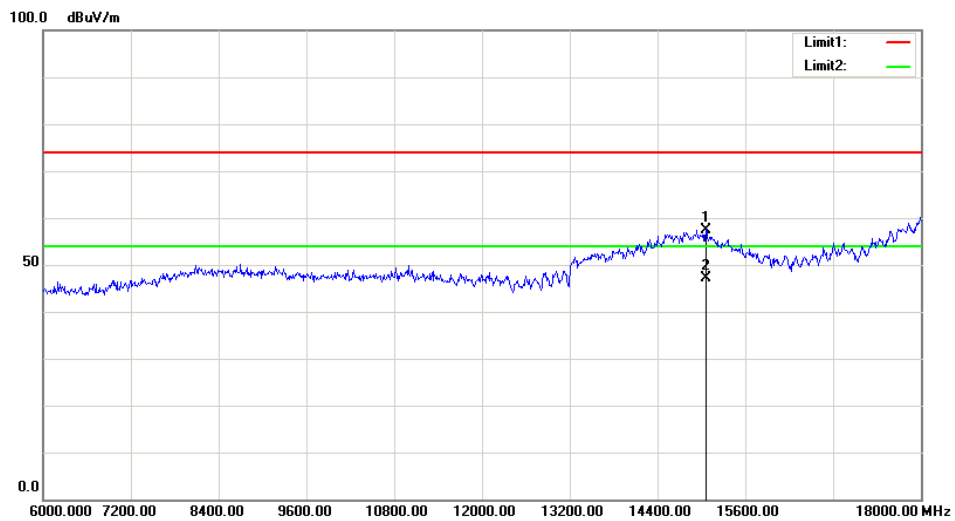
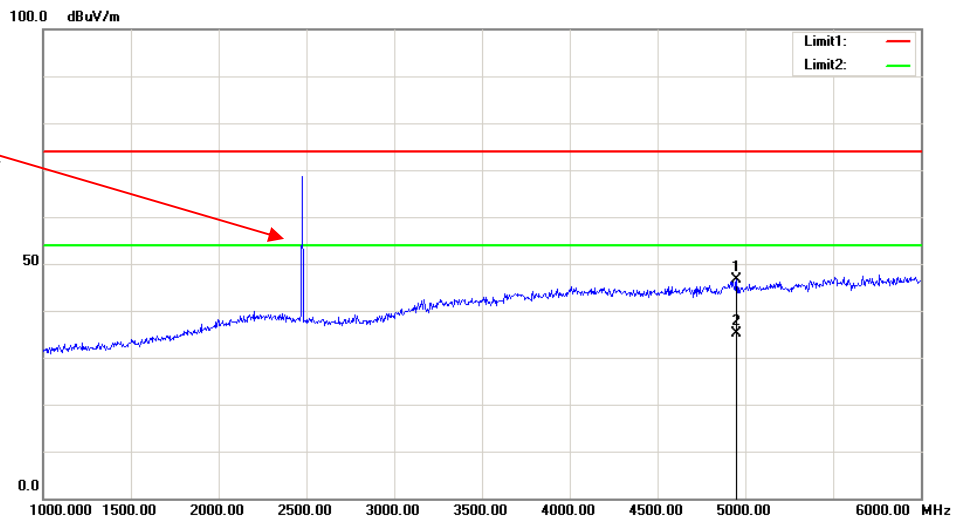
Worst mode Plots(High channel)

Horizontal:



Vertical:

Fundamental
Test with Band
Rejection Filter



FCC §15.247(a) (1) - CHANNEL SEPARATION**Applicable Standard**

According to FCC §15.247(a) (1)

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.50 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20dB bandwidth of the hopping channel, whichever is greater provided the systems operate with an output power no greater than 125 mW.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSP 38	100478	2017-12-08	2018-12-08
Unknown	Coaxial Cable	C-SJ00-0010	C0010/05	Each Time	/

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Procedure

1. Set the EUT in transmitting mode, spectrum Bandwidth was set at 30 kHz, maxhold the channel.
2. Set the adjacent channel of the EUT maxhold another trace.
3. Measure the channel separation.

Test Data**Environmental Conditions**

Temperature:	26.3 °C
Relative Humidity:	54 %
ATM Pressure:	101.2kPa

* The testing was performed by Emily Wang on 2018-06-04.

Test Result: Compliance.

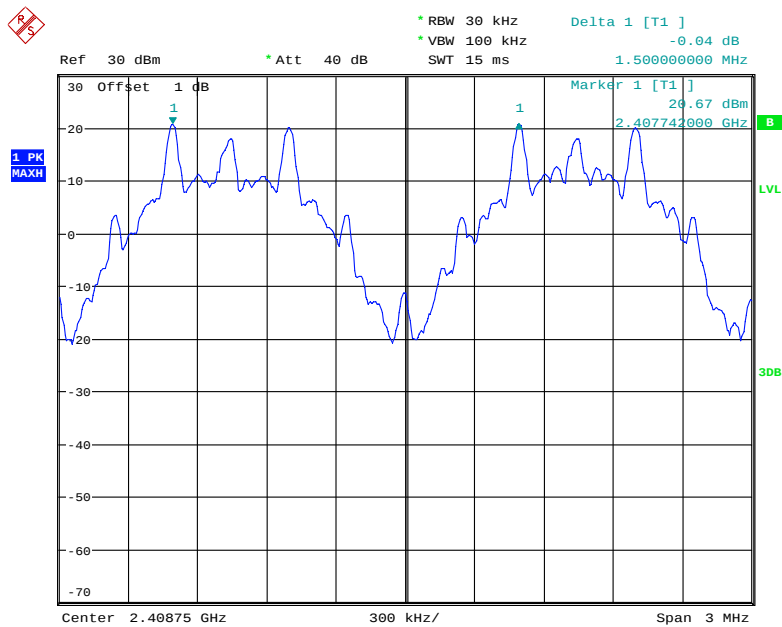
Please refer to following tables and plots

Test Mode: Transmitting

Channel	Frequency	Channel Separation	Limit
	MHz	MHz	MHz
Low	2408	1.500	0.69
Middle	2442.5	1.502	0.69
High	2475.5	1.506	0.69

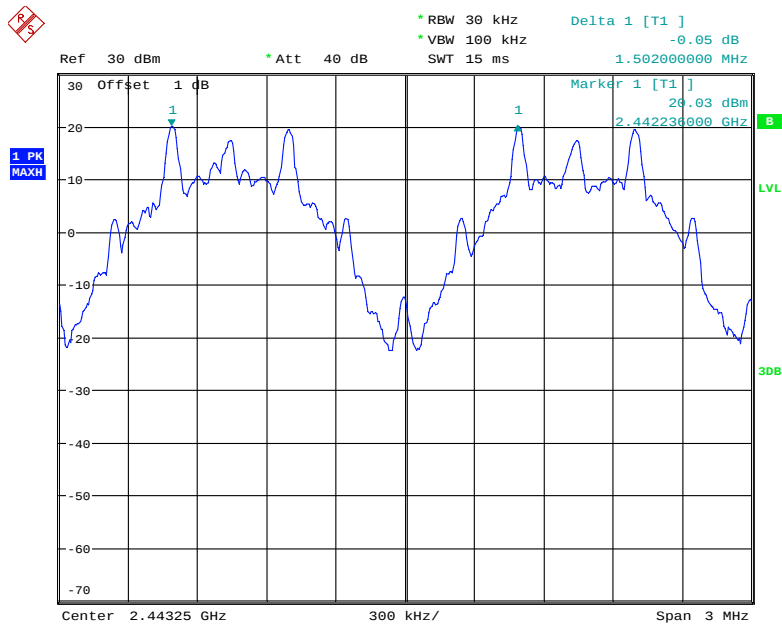
Note: channel operation is more than two-thirds of the 20dB bandwidth

Low Channel



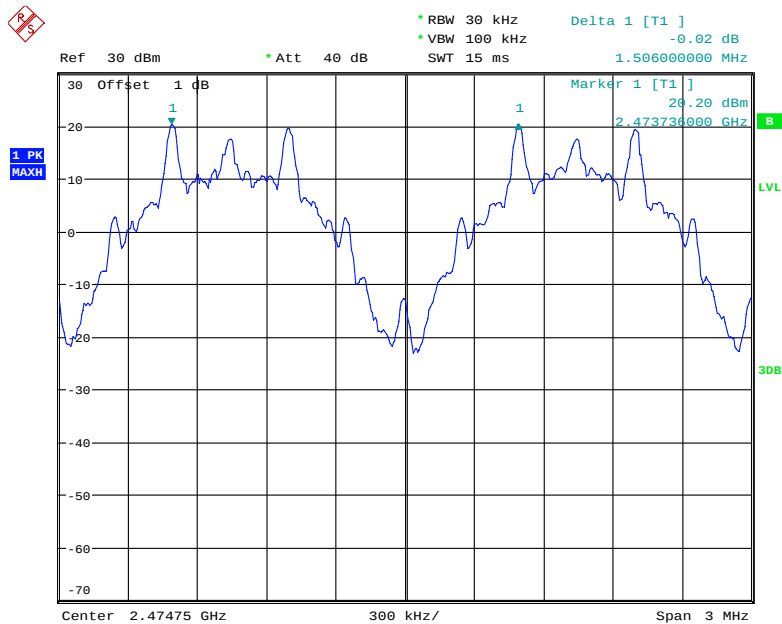
Date: 4.JUN.2018 19:57:35

Middle Channel



Date: 4.JUN.2018 19:59:40

High Channel



Date: 4.JUN.2018 20:01:22

FCC §15.247(a) (1) –EMISSION BANDWIDTH**Applicable Standard**

According to FCC §15.247(a) (1)

Alternatively, frequency hopping systems operating in the 2400–2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT on the test table without connection to measurement instrument. Turn on the EUT. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth.
4. Repeat above procedures until all frequencies measured were complete.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSP 38	100478	2017-12-08	2018-12-08
Unknown	Coaxial Cable	C-SJ00-0010	C0010/05	Each Time	/

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data**Environmental Conditions**

Temperature:	26.3 °C
Relative Humidity:	54 %
ATM Pressure:	101.2kPa

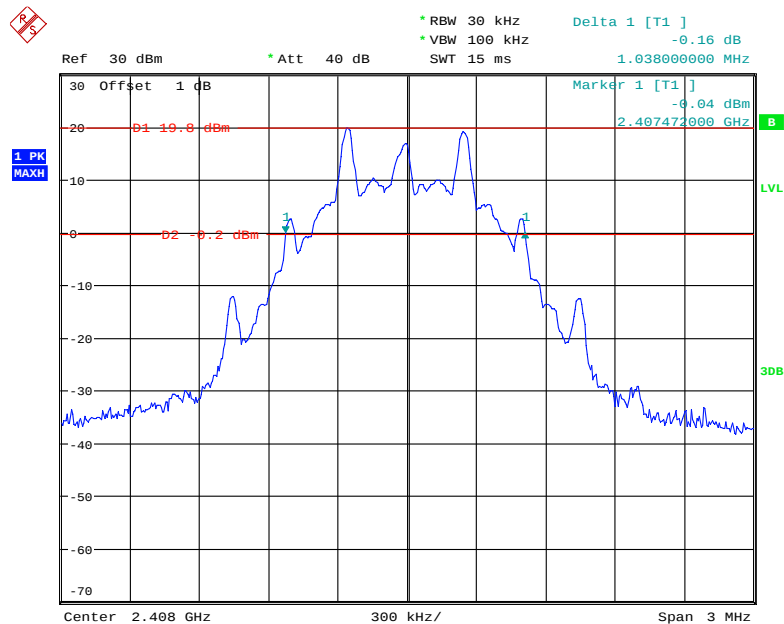
* The testing was performed by Emily Wang on 2018-06-04.

Test Result: Compliance.

Please refer to following tables and plots

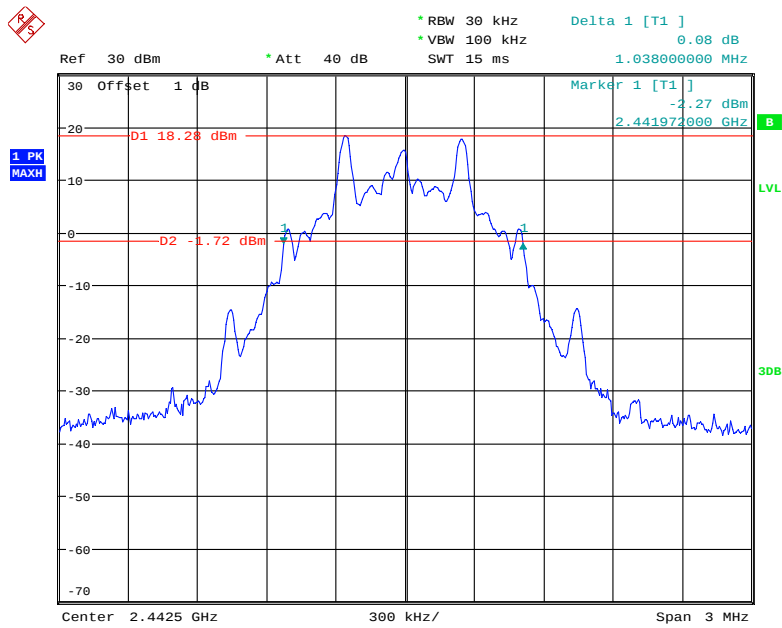
Test Mode: Transmitting

Channel	Frequency (MHz)	20 dB Bandwidth (MHz)
Low	2408	1.04
Middle	2442.5	1.04
High	2475.5	1.04

20dB Bandwidth:**Low Channel**

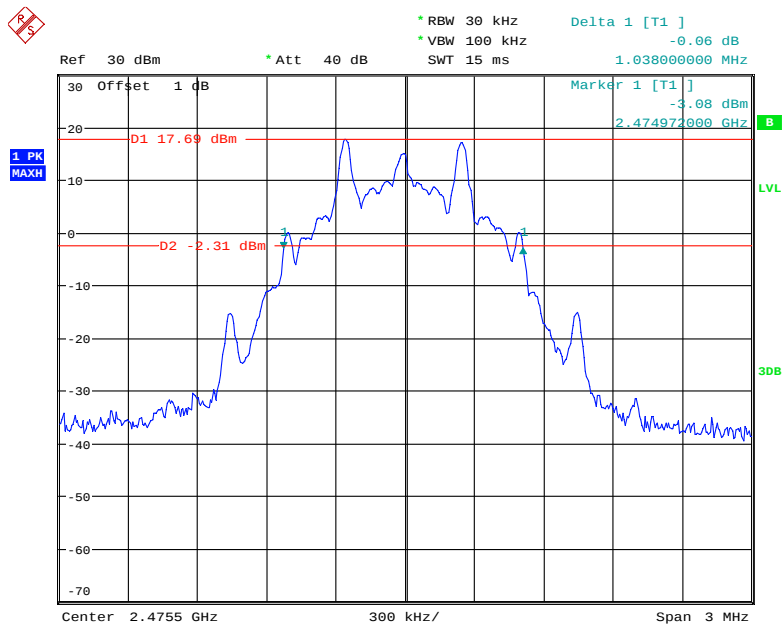
Date: 4.JUN.2018 20:21:40

Middle Channel



Date: 4.JUN.2018 20:25:07

High Channel



Date: 4.JUN.2018 20:27:38

FCC §15.247(a) (1) (iii) - QUANTITY OF HOPPING CHANNEL**Applicable Standard**

According to FCC §15.247(a) (1) (iii)

Frequency hopping systems in the 2400–2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

Test Procedure

1. Check the calibration of the measuring instrument (SA) using either an internal calibrator or a known signal from an external generator.
2. Set the EUT in hopping mode from first channel to last.
3. By using the Max-Hold function record the Quantity of the channel.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSP 38	100478	2017-12-08	2018-12-08
Unknown	Coaxial Cable	0.1m	C-1	Each Time	/

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data**Environmental Conditions**

Temperature:	26.3 °C
Relative Humidity:	54 %
ATM Pressure:	101.2kPa

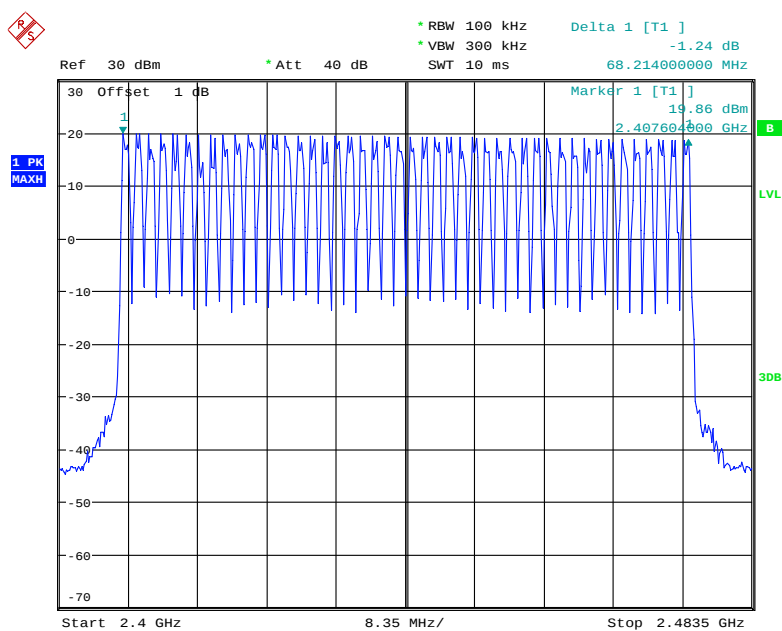
* The testing was performed by Emily Wang on 2018-06-04.

Test Result: Compliance.

Please refer to following tables and plots

Test Mode: Transmitting

Frequency Range (MHz)	Number of Hopping Channel	Limit
2400-2483.5	46	≥ 15

Number of Hopping Channels

Date: 4.JUN.2018 20:15:39

FCC §15.247(a) (1) (iii) - TIME OF OCCUPANCY (DWELL TIME)**Applicable Standard**

According to FCC §15.247(a) (1) (iii)

Frequency hopping systems in the 2400-2483.5 MHz shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

Test Procedure

The EUT was worked in channel hopping; Spectrum SPAN was set as 0. The time of single pulses was tested.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSP 38	100478	2017-12-08	2018-12-08
Unknown	Coaxial Cable	C-SJ00-0010	C0010/05	Each Time	/

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data**Environmental Conditions**

Temperature:	26.3 °C
Relative Humidity:	54 %
ATM Pressure:	101.2kPa

* The testing was performed by Emily Wang on 2018-06-04.

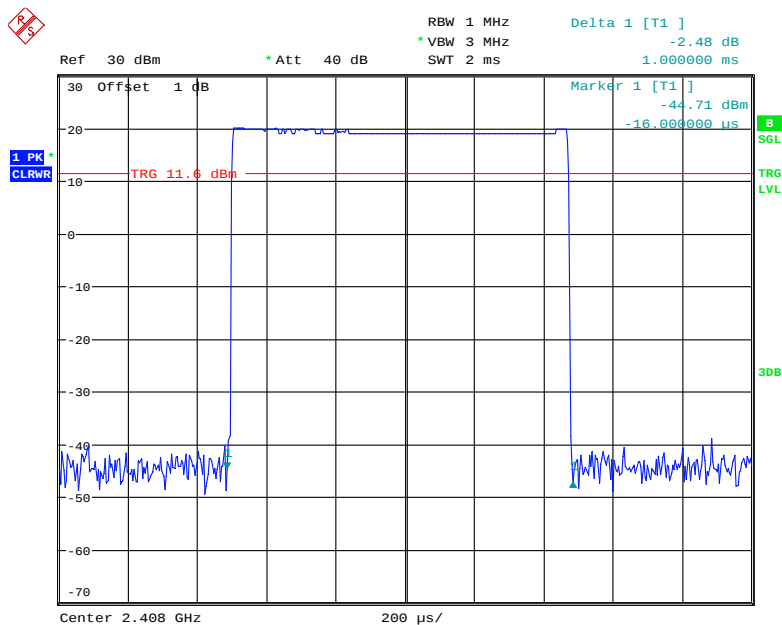
Test Result: Compliance.

Please refer to following tables and plots

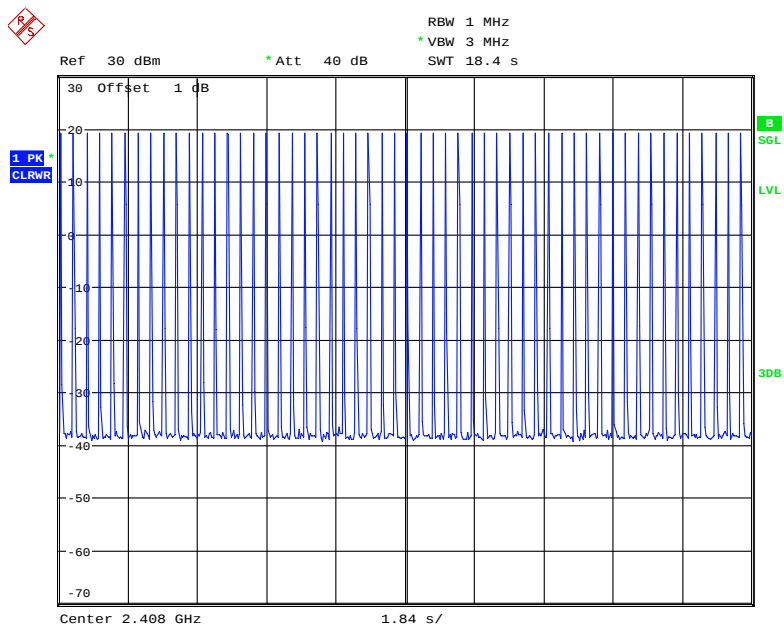
Test Mode: Transmitting

Channel	Pulse Width (ms)	Hopping numbers in during (Hopping channel number*0.4)	Dwell Time (s)	Limit (s)	Result
Low	1.000	54	0.054	0.4	Compliance
Middle	1.000	55	0.055	0.4	Compliance
High	1.000	55	0.055	0.4	Compliance
Note: Dwell time=Pulse time (ms) × hopping numbers in during During=Hopping channel number*0.4=46*0.4=18.4s					

Low Channel

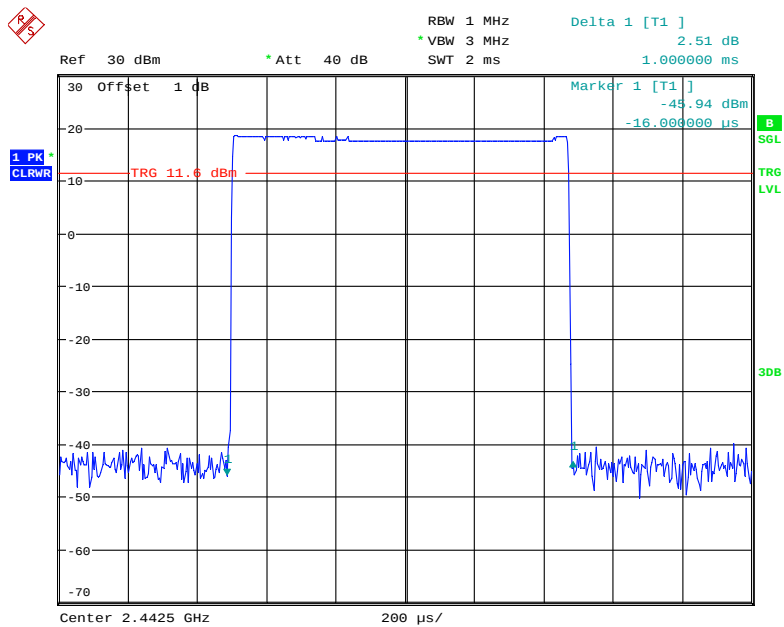


Date: 4.JUN.2018 20:36:55

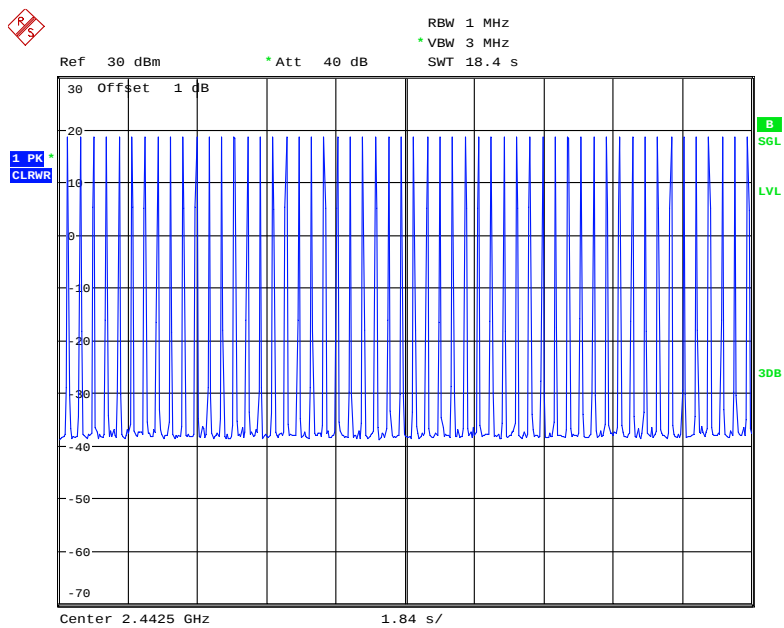


Date: 4.JUN.2018 20:44:15

Middle Channel

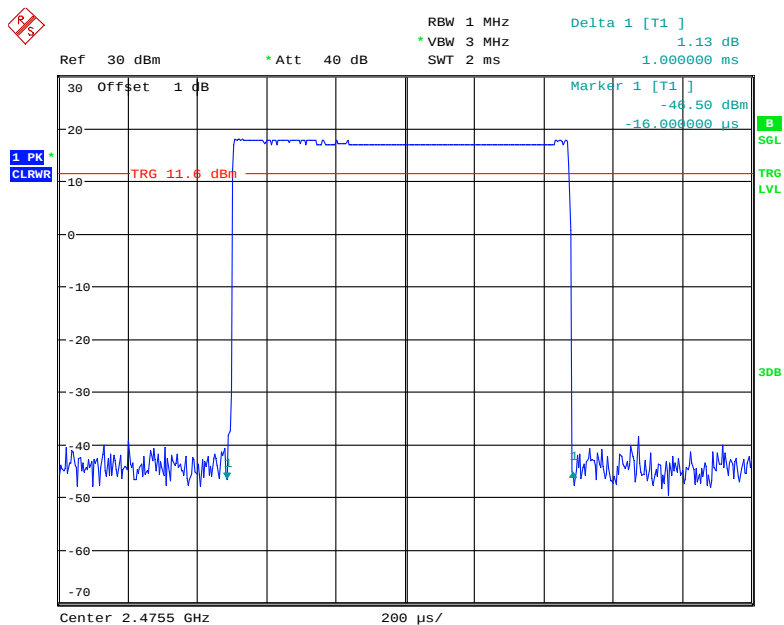


Date: 4.JUN.2018 20:39:00

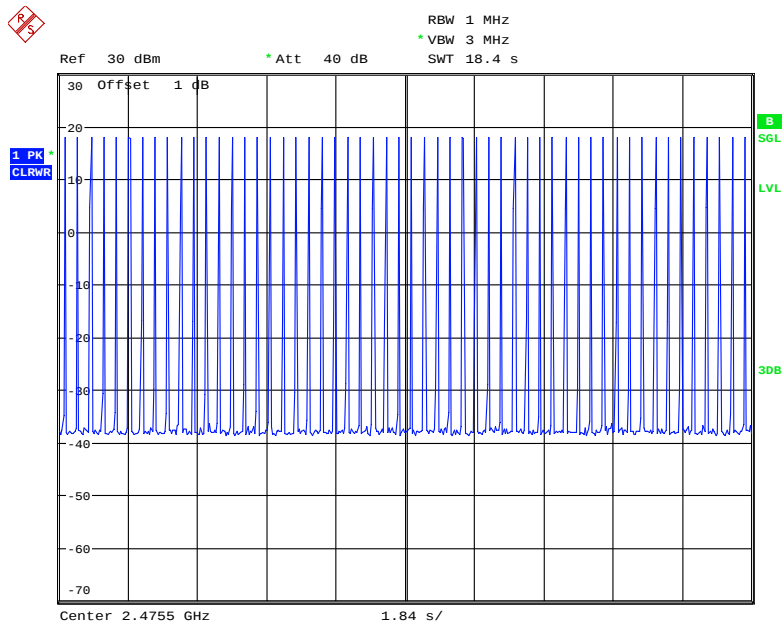


Date: 4.JUN.2018 20:43:42

High Channel



Date: 4.JUN.2018 20:41:31



Date: 4.JUN.2018 20:42:50

FCC §15.247(b) (1) - PEAK OUTPUT POWER MEASUREMENT

Applicable Standard

According to §15.247(b) (1)

For frequency hopping systems operating in the 2400–2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725–5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400–2483.5 MHz band: 0.125 watts

Test Procedure

1. Place the EUT on a bench and set in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to one test equipment.
3. Add a correction factor to the display.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSP 38	100478	2017-12-08	2018-12-08
Unknown	Coaxial Cable	C-SJ00-0010	C0010/05	Each Time	/

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data

Environmental Conditions

Temperature:	26.3 °C
Relative Humidity:	54 %
ATM Pressure:	101.2kPa

* The testing was performed by Emily Wang on 2018-06-04.

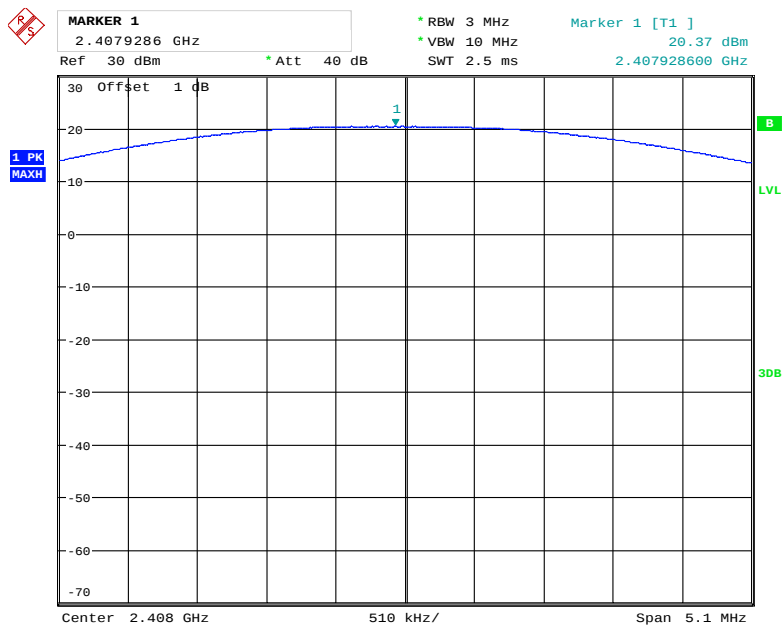
Test Result: Compliance.

Test Mode: Transmitting

Frequency (MHz)	Conducted Peak Output power (dBm)	Limit (dBm)
2408	20.37	21
2442.5	20.59	21
2475.5	20.54	21

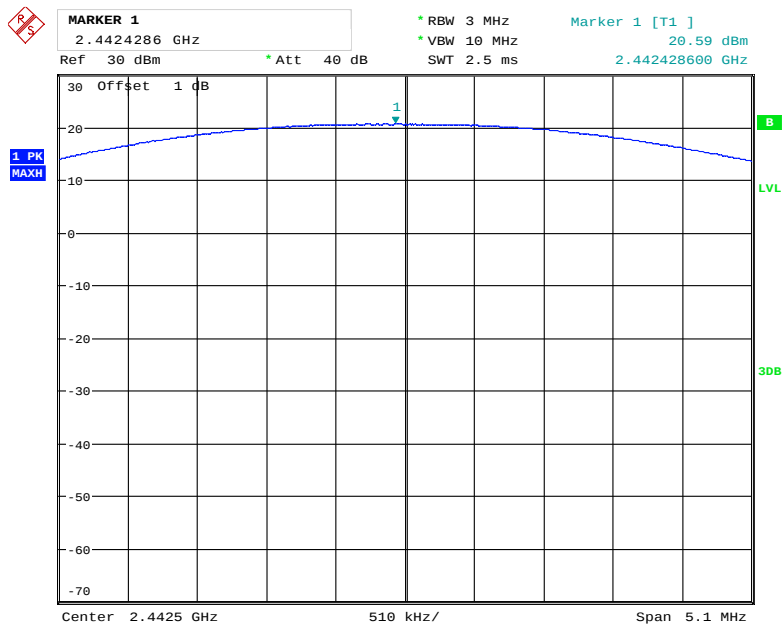
Note: the antenna gain is 3.79dBi in 2.4GHz band.

Low Channel



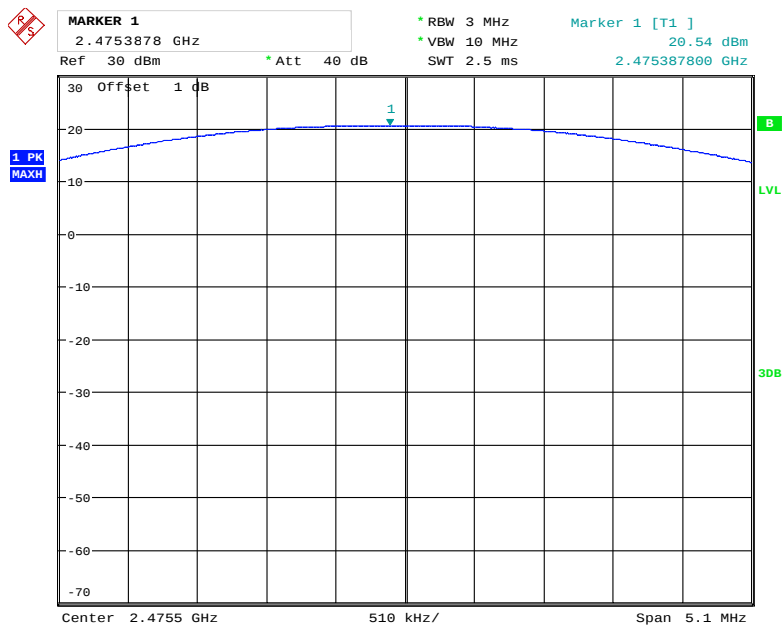
Date: 4.JUN.2018 21:23:30

Middle Channel



Date: 4.JUN.2018 21:25:24

High Channel



Date: 4.JUN.2018 21:15:49

FCC §15.247(d) - BAND EDGES TESTING

Applicable Standard

According to FCC §15.247(d)

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Remove the antenna from the EUT and then connect to a low loss RF cable from the antenna port to a EMI test receiver, then turn on the EUT and make it operate in transmitting mode. Then set it to Low Channel and High Channel within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW/VBW=100/300kHz of spectrum analyzer with a convenient frequency span including 100 kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSP 38	100478	2017-12-08	2018-12-08
Unknown	Coaxial Cable	C-SJ00-0010	C0010/05	Each Time	/

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data**Environmental Conditions**

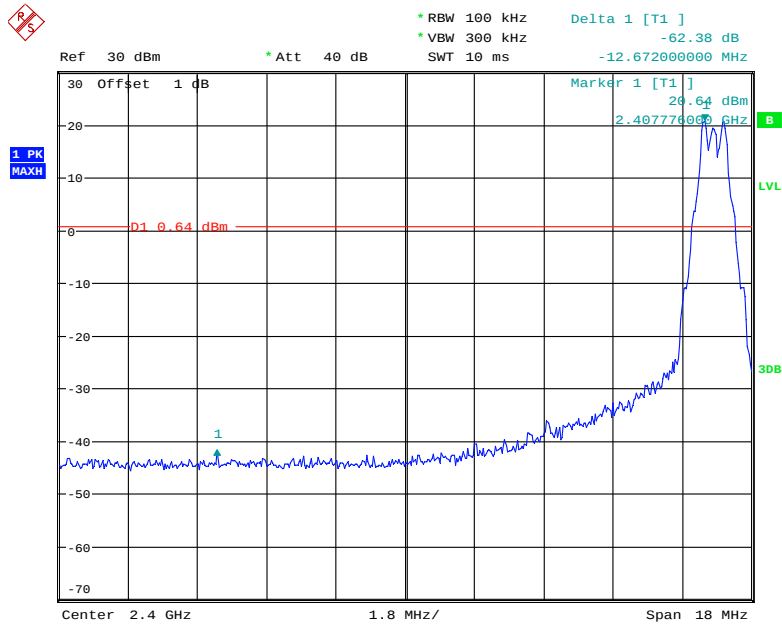
Temperature:	26.3 °C
Relative Humidity:	54 %
ATM Pressure:	101.2kPa

* The testing was performed by Emily Wang on 2018-06-04.

Test Result: Compliance

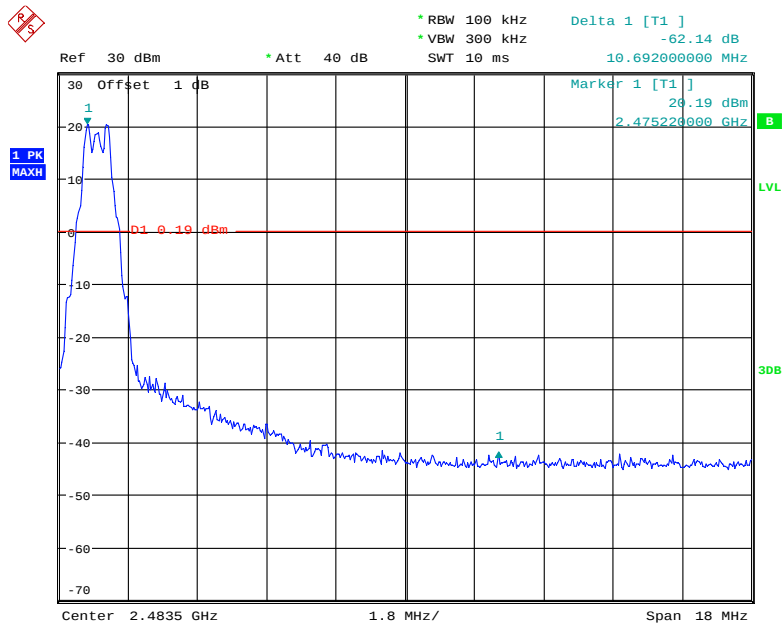
Single:

Band Edge, Left Side



Date: 4.JUN.2018 20:48:10

Band Edge, Right Side



Date: 4.JUN.2018 20:50:56

