



# FCC PART 15.247


## TEST REPORT

For

### Weccan Industrial Limited

Room209, 2/F, Building W1-A, No.34 Gaoxin South 4th St Hi-tech Industrial Park, Nanshan District, Shenzhen, China

**FCC ID: Z3CDRW358F60W**

<b>Report Type:</b> Original Report	<b>Product Type:</b> 2.4 G RC Drone With WIFI Camera(remove control unit)
<b>Report Number:</b> <u>RSZ170623801-00</u>	
<b>Report Date:</b> <u>2017-07-12</u>	
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**Note:** This test report is prepared for the customer shown above and for the equipment described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp.

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## GENERAL INFORMATION

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### Product Description for Equipment under Test (EUT)

The *Weccan Industrial Limited's* product, model number: *DRW358S (FCC ID: Z3CDRW358F60W)* or the "EUT" in this report was a *2.4 G RC Drone With WIFI Camera(remove control unit)*, which was measured approximately: 17cm (L) x 12 cm (W) x 6 cm (H), rated with input voltage: 6V from battery.

*Notes: This series products model: SG-F50, SG-F51, SG-F52, SG-F53, SG-F54, SG-F55, SG-F56, SG-F57, SG-F58, SG-F59,SG-F60, SG-F61, SG-F62, SG-F63, SG-F64, SG-F65, SG-F66, SG-F67,SG-68,SG-F69, SG-F70,SG-F71, SG-F72,SG-F73, SG-F74, SG-F75, SG-F76, SG-F77, SG-F78, SG-F79, SG-F80, SG-F81,SG-F82, SG-F83, SG-F84, SG-F85, SG-F86, SG-F87, SG-F88, SG-F89, SG-F90, SG-F91, SG-F92,SG-F93, SG-F94, SG-F95, SG-F96, SG-F97, SG-F98 , SG-F99and DRW358S are identical; they have the identical schematics , they have different model number and color. Model DRW358S was selected for fully testing, the detailed information can be referred to the declaration which was stated and guaranteed by the applicant.*

*\* All measurement and test data in this report was gathered from production sample serial number: 170623801 (Assigned by BACL, Kunshan). The EUT supplied by the applicant was received on 2017-06-23.*

### Objective

This report is prepared on behalf of *Weccan Industrial Limited* in accordance with Part 2-Subpart J, Part 15-Subparts A, and C of the Federal Communication Commissions rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart C, section 15.203, 15.205, 15.207, 15.209 and 15.247 rules.

### Related Submittal(s)/Grant(s)

The Camera Unit of a system submission with FCC ID: Z3CDRW358F60.

### Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

All emissions measurement was performed at Bay Area Compliance Laboratories Corp. (Kunshan). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

### Measurement Uncertainty

Item		Uncertainty
RF conducted test with spectrum		±0.9dB
RF Output Power with Power meter		±0.5dB
Radiated emission	30MHz~1GHz	±5.91dB
	Above 1G	±4.92dB
Occupied Bandwidth		±0.5kHz
Temperature		±1.0°C
Humidity		±6%

### Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Kunshan) to collect test data is located on the No.248 Chenghu Road, Kunshan, Jiangsu province, China

Bay Area Compliance Laboratories Corp. (Kunshan) has been accredited to ISO/IEC 17025 by CNAS(Lab code: L9963). And accredited to ISO/IEC 17025 by A2LA(Lab code: 4323.01), the FCC Designation No. CN1185 under the KDB 974614 D01.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 815570. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

Bay Area Compliance Laboratories Corp. (Kunshan) was registered with ISED Canada under ISED Canada Registration Number 3062E.

**SYSTEM TEST CONFIGURATION**

**Description of Test Configuration**

The system was configured for testing in an engineering mode which was selected by manufacturer.

Channel list:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2447	9	2463
2	2449	10	2465
3	2451	11	2467
4	2453	12	2469
5	2455	13	2471
6	2457	14	2473
7	2459	15	2475
8	2461	16	2477

Channel 1, 8, 16 were testd.

**EUT Exercise Software**

No exercise software was used.

**Equipment Modifications**

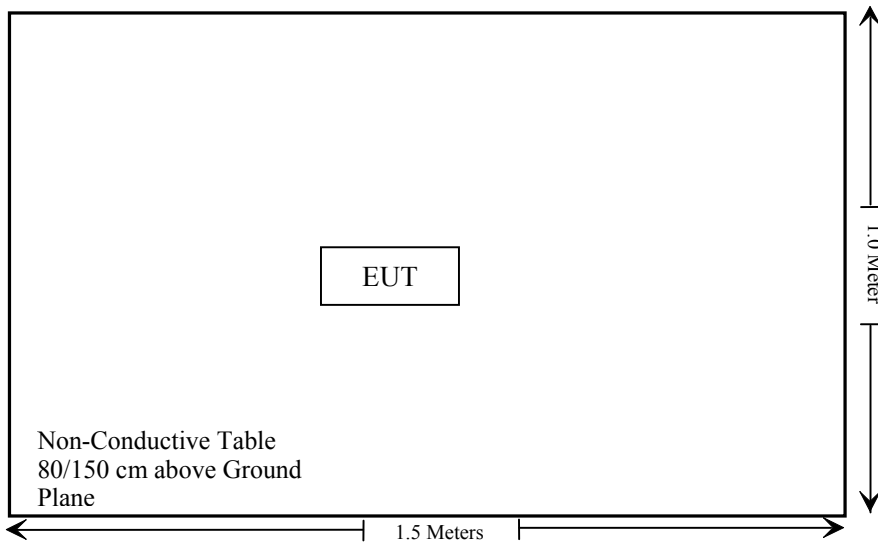
No modification was made to the EUT tested.

**External I/O Cable**

Cable Description	Length (m)	From Port	To
/	/	/	/

### Block Diagram of Test Setup

For radiated emission



**SUMMARY OF TEST RESULTS**

<b>FCC Rules</b>	<b>Description of Test</b>	<b>Result</b>
§1.1307(b) & §2.1093	RF EXPOSURE	Compliance
§15.203	Antenna Requirement	Compliance
§15.207 (a)	AC Line Conducted Emissions	Not Applicable
§15.205, §15.209, §15.247(d)	Radiated Emissions	Compliance
§15.247 (a)(1)	20 dB Emission Bandwidth	Compliance
§15.247(a)(1)	Channel Separation	Compliance
§15.247(a)(1)(iii)	Time of Occupancy (Dwell Time)	Compliance
§15.247(a)(1)(iii)	Quantity of hopping channel	Compliance
§15.247(b)(1)	Peak Output Power Measurement	Compliance
§15.247(d)	Band Edges	Compliance

Not Applicable: EUT power by battery.



## TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
<b>Radiation test</b>					
Sonoma Instrument	Amplifier	330	171377	2016-12-12	2017-12-12
Rohde & Schwarz	EMI Test Receiver	ESCI	100195	2016-11-25	2017-11-25
Sunol Sciences	Broadband Antenna	JB3	A090314-2	2016-01-09	2019-01-08
Narda	Pre-amplifier	AFS42-00101800	2001270	2016-09-08	2017-09-08
EMCO	Horn Antenna	3116	00084159	2016-10-18	2019-10-17
Rohde & Schwarz	Signal Analyzer	FSIQ26	100048	2016-11-25	2017-11-25
ETS	Horn Antenna	3115	9311-4159	2016-12-12	2019-12-12
R&S	Auto test Software	EMC32	V 09.10.0	NCR	NCR
BACL	RF cable	KS-LAB-012	KS-LAB-012	2016-12-15	2017-12-15
Ducommun technologies	RF Cable	104PEA	218124002	2017-04-22	2018-04-22
<b>RF Conducted test</b>					
BACL	TS 8997 Cable-01	T-KS-EMC086	T-KS-EMC086	2016-12-09	2017-12-08
BACL	RF cable	KS-LAB-012	KS-LAB-012	2016-12-15	2017-12-15
WEINSCHL	3dB Attenuator	5326	N/A	2017-06-18	2018-06-18
Agilent	Power Meter	N1912A	MY5000492	2016-11-17	2017-11-16
Agilent	Power Sensor	N1921A	MY54210024	2016-11-17	2017-11-16
Rohde & Schwarz	Signal Analyzer	FSIQ26	836131	2016-09-21	2017-09-21

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

## **FCC §1.1307(b) & §2.1093 - RF EXPOSURE**

### **Applicable Standard**

According to FCC §2.1093 and §1.1307(b) (1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

According to KDB 447498 D01 General RF Exposure Guidance

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR, where

1.  $f(\text{GHz})$  is the RF channel transmit frequency in GHz.
2. Power and distance are rounded to the nearest mW and mm before calculation.
3. The result is rounded to one decimal place for comparison.
4. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test Exclusion.

### **Measurement Result**

**For worst case:**

<b>Mode</b>	<b>Frequency (MHz)</b>	<b>Max Tune-up Conducted Power (dBm)</b>	<b>Max Tune-up Conducted Power (mW)</b>	<b>Calculated Distance (mm)</b>	<b>Calculated value</b>	<b>Threshold (1-g SAR)</b>	<b>SAR Test Exclusion</b>
GFSK	2477	4.0	2.51	5	0.8	3.0	Yes

**Result: No SAR test is required**

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## **FCC §15.203 – ANTENNA REQUIREMENT**

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### **Applicable Standard**

According to FCC § 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 use of a standard antenna jack or electrical connector is prohibited.

### **Antenna Connector Construction**

The EUT has one internal antenna arrangement which was permanently attached and the antenna gain is 0 dBi, fulfill the requirement of this section. Please refer to the EUT photos.

**Result:** Compliance.

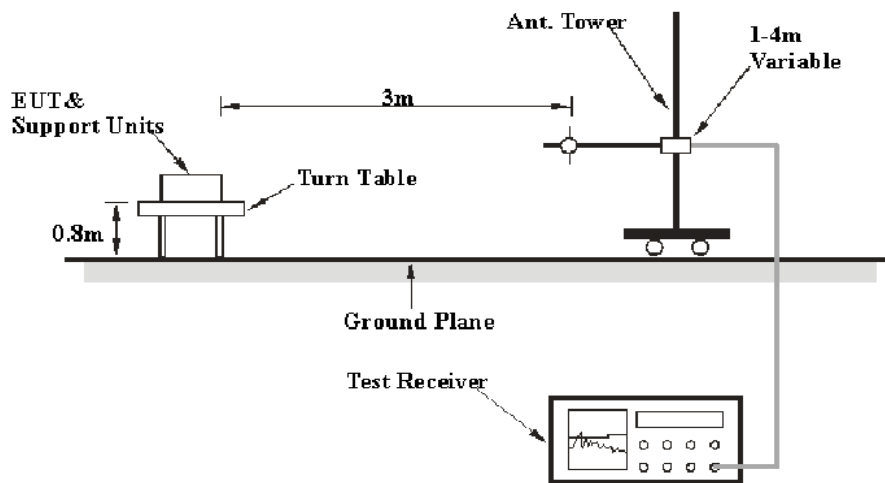
**FCC §15.209, §15.205 & §15.247(d) - SPURIOUS EMISSIONS**

**Applicable Standard**

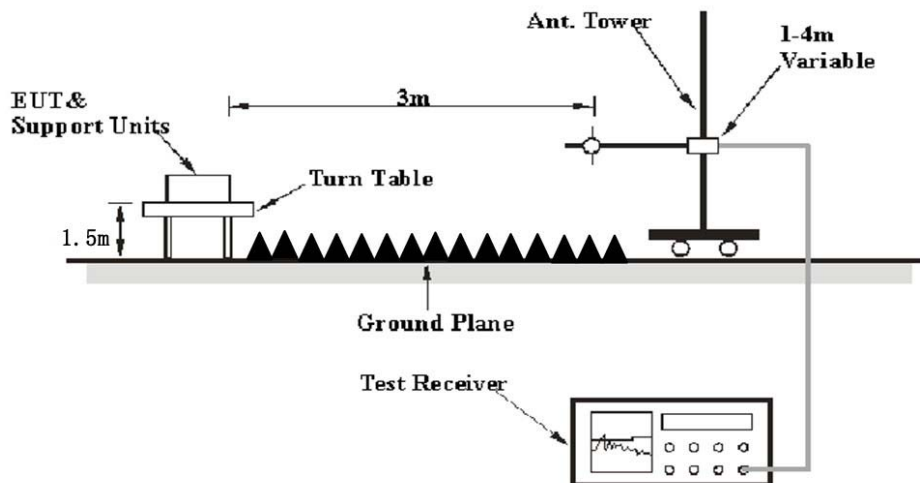
FCC §15.247 (d); §15.209; §15.205;

**EUT Setup**

**Below 1 GHz:**



**Above 1GHz:**



The radiated emission tests were performed in the 3 meters test site, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209 and FCC 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	Detector
30 MHz – 1000 MHz	100 kHz	300 kHz	120 kHz	QP
Above 1 GHz	1MHz	3 MHz	/	PK
	1MHz	10 Hz	/	Ave.

## Test Procedure

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

All final data was recorded in Quasi-peak detection mode for frequency range of 30 MHz to 1GHz and peak and Average detection modes for frequencies above 1GHz.

## 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 Results Summary

According to the recorded data in following table, the EUT complied with the FCC Title 47, Part 15, Subpart C, section 15.205, 15.209 and 15.247.

Refer to CISPR16-4-2:2011 and CISPR 16-4-1:2009, the measured level compliance with the limit if

$$L_m + U_{(L_m)} \leq L_{lim} + U_{cispr}$$

In BAEL,  $U_{(L_m)}$  is less than  $+ U_{cispr}$ , if  $L_m$  is less than  $L_{lim}$ , it implies that the EUT complies with the limit.

**Test Data**

**Environmental Conditions**

<b>Temperature:</b>	21 °C
<b>Relative Humidity:</b>	50 %
<b>ATM Pressure:</b>	101 kPa

*The testing was performed by Layne Li on 2017-07-01.*

**30 MHz -25 GHz:**

*Test Mode: Transmitting (Scan with X-AXIS ,Y-AXIS, Z-AXIS, the worst case was recorded)*

Frequency (MHz)	Receiver		Turn table Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBµV/m)	FCC Part 15.247/205/209	
	Reading (dBµV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBµV/m)	Margin (dB)
<b>Low Channel(2447MHz)</b>									
154.5	27.46	QP	211	1.2	H	-0.62	26.84	43.5	16.66
2447.00	100.41	PK	355	1.9	H	-6.19	94.22	/	/
2447.00	87.71	Ave.	355	1.9	H	-6.19	81.52	/	/
2447.00	97.57	PK	32	2.1	V	-6.19	91.38	/	/
2447.00	85.35	Ave.	32	2.1	V	-6.19	79.16	/	/
2355.69	57.4	PK	148	1.5	H	-6.19	51.21	74	22.79
2355.69	43.59	Ave.	148	1.5	H	-6.19	37.40	54	16.6
2380.60	58.31	PK	108	2.0	H	-6.19	52.12	74	21.88
2380.60	44.16	Ave.	108	2.0	H	-6.19	37.97	54	16.03
2491.96	56.72	PK	304	1.1	H	-5.97	50.75	74	23.25
2491.96	43.38	Ave.	304	1.1	H	-5.97	37.41	54	16.59
4894.00	49.39	PK	159	2.5	H	1.83	51.22	74	22.78
4894.00	35.67	Ave.	159	2.5	H	1.83	37.50	54	16.5
7341.00	58.1	PK	128	1.2	H	7.54	65.64	74	8.36
7341.00	41.52	Ave.	128	1.2	H	7.54	49.06	54	4.94

Frequency (MHz)	Receiver		Turn table Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBµV/m)	FCC Part 15.247/205/209	
	Reading (dBµV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBµV/m)	Margin (dB)
<b>Middle Channel(2461MHz)</b>									
154.5	28.1	QP	154	1.8	H	-0.62	27.48	43.5	16.02
2461.00	102.09	PK	346	2.0	H	-5.97	96.12	/	/
2461.00	89.45	Ave.	346	2.0	H	-5.97	83.48	/	/
2461.00	98.22	PK	230	2.3	V	-5.97	92.25	/	/
2461.00	85.36	Ave.	230	2.3	V	-5.97	79.39	/	/
2362.42	56.87	PK	295	2.5	H	-6.19	50.68	74	23.32
2362.42	43.33	Ave.	295	2.5	H	-6.19	37.14	54	16.86
2377.33	57.84	PK	243	1.2	H	-6.19	51.65	74	22.35
2377.33	43.97	Ave.	243	1.2	H	-6.19	37.78	54	16.22
2485.56	57.17	PK	175	1.8	H	-5.97	51.20	74	22.8
2485.56	43.51	Ave.	175	1.8	H	-5.97	37.54	54	16.46
4922.00	48.58	PK	168	1.4	H	1.83	50.41	74	23.59
4922.00	36.7	Ave.	168	1.4	H	1.83	38.53	54	15.47
7383.00	56.89	PK	113	2.3	H	7.54	64.43	74	9.57
7383.00	40.56	Ave.	113	2.3	H	7.54	48.10	54	5.9
<b>High Channel(2477 MHz)</b>									
154.5	28.8	QP	165	1.9	H	-0.62	28.18	43.5	15.32
2477.00	103.27	PK	41	1.1	H	-5.97	97.30	/	/
2477.00	89.47	Ave.	41	1.1	H	-5.97	83.50	/	/
2477.00	101.2	PK	346	2.2	V	-5.97	95.23	/	/
2477.00	87.64	Ave.	346	2.2	V	-5.97	81.67	/	/
2366.91	57.16	PK	48	2.4	H	-6.19	50.97	74	23.03
2366.91	43.4	Ave.	48	2.4	H	-6.19	37.21	54	16.79
2484.69	56.66	PK	230	2.3	H	-5.97	50.69	74	23.31
2484.69	43.32	Ave.	230	2.3	H	-5.97	37.35	54	16.65
2488.75	57.31	PK	228	1.2	H	-5.97	51.34	74	22.66
2488.75	43.54	Ave.	228	1.2	H	-5.97	37.57	54	16.43
4954.00	51.01	PK	56	1.3	H	2.06	53.07	74	20.93
4954.00	37.3	Ave.	56	1.3	H	2.06	39.36	54	14.64
7431.00	57.4	PK	1	1.8	H	7.54	64.94	74	9.06
7431.00	40.17	Ave.	1	1.8	H	7.54	47.71	54	6.29

**Note:**

1. Corrected Factor=Antenna factor (RX) +cable loss – amplifier factor

2. Corrected Amplitude = Corrected Factor + Receiver Reading

3. Margin = Limit- Corrected Amplitude

The other spurious emission which is 20dB to the limit was not recorded.

## **FCC §15.247(a) (1)-CHANNEL SEPARATION**

### **Applicable Standard**

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 2400-2483.5 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 Procedure**

1. Set the EUT in operating mode, RBW was set at 100 kHz, VBW  $\geq$  3RBW maxhold the channel.
2. Set the adjacent channel of the EUT maxhold another trace
3. Measure the channel separation.

### **Test Data**

#### **Environmental Conditions**

<b>Temperature:</b>	22 °C
<b>Relative Humidity:</b>	48 %
<b>ATM Pressure:</b>	101.5 kPa

*The testing was performed by Ada Yu on 2017-07-10.*

*Test Result: Compliance. Please refer to following tables and plots.*

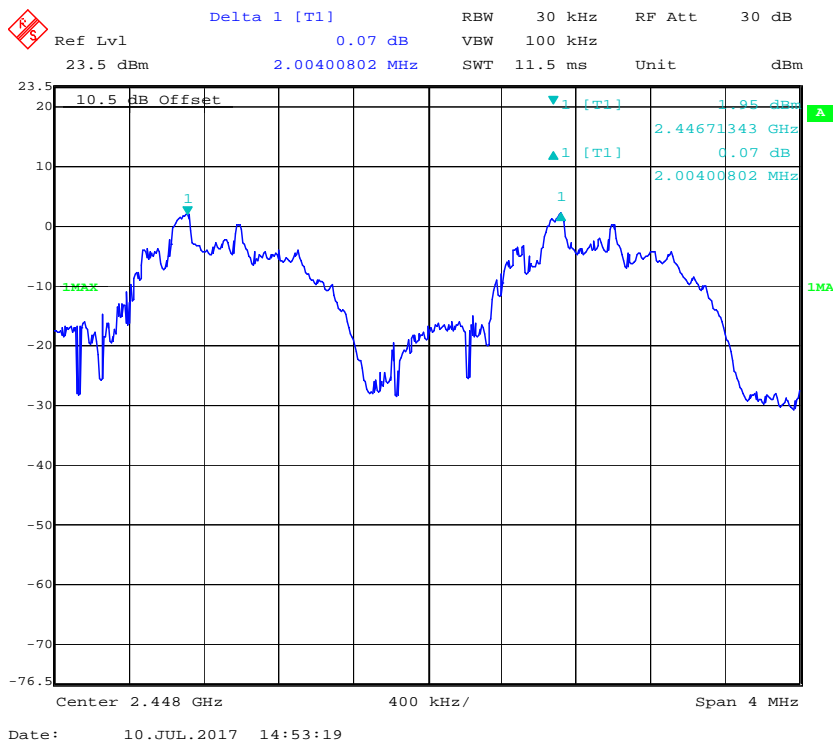


Test Mode: Transmitting

Channel	Channel Frequency (MHz)	Channel Separation (MHz)	≥ Limit (MHz)
Low Channel	2447	2.004	1.058
Adjacency Channel	2449		
Middle Channel	2461	2.004	1.159
Adjacency Channel	2463		
High Channel	2477	2.004	0.898
Adjacency Channel	2475		

Note: limit = 2/3 of 20 dB bandwidth

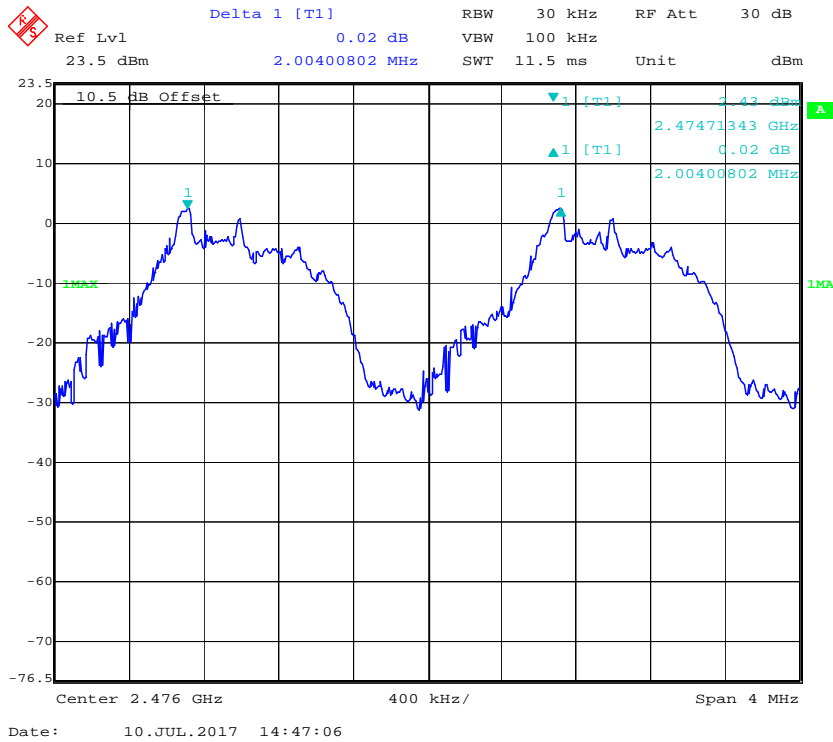
Low Channel



### Middle Channel



### High Channel



## **FCC §15.247(a) (1) – 20 dB EMISSION BANDWIDTH**

### **Applicable Standard**

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 125mW.

### **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 without connection to measurement instrument. Turn on the EUT and connect it to measurement instrument. 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 Data**

#### **Environmental Conditions**

<b>Temperature:</b>	22 °C
<b>Relative Humidity:</b>	48 %
<b>ATM Pressure:</b>	101.5 kPa

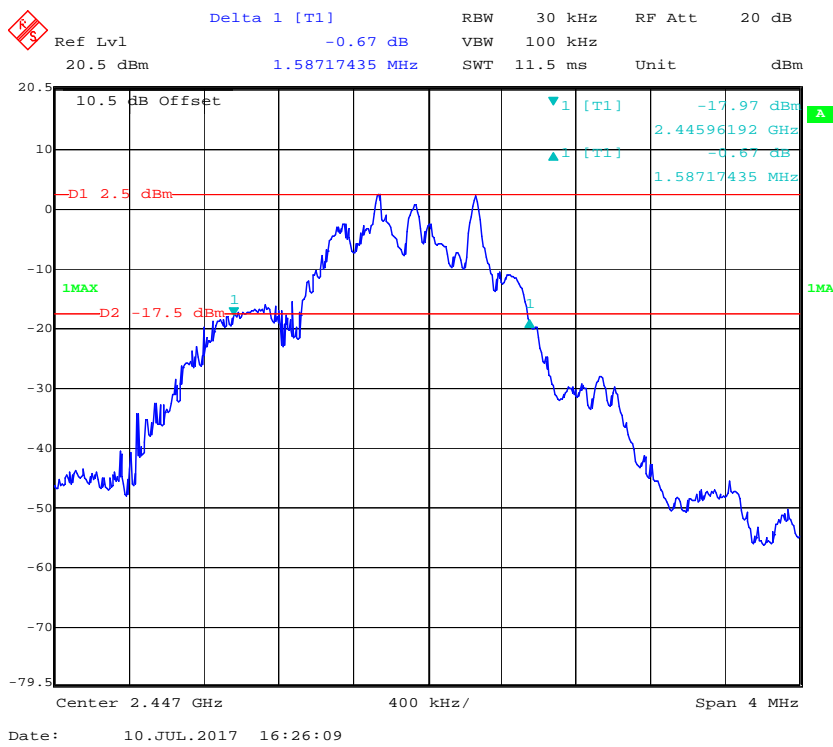
*The testing was performed by Ada Yu on 2017-07-10.*

*Test Result: Compliance. Please refer to following tables and plots.*

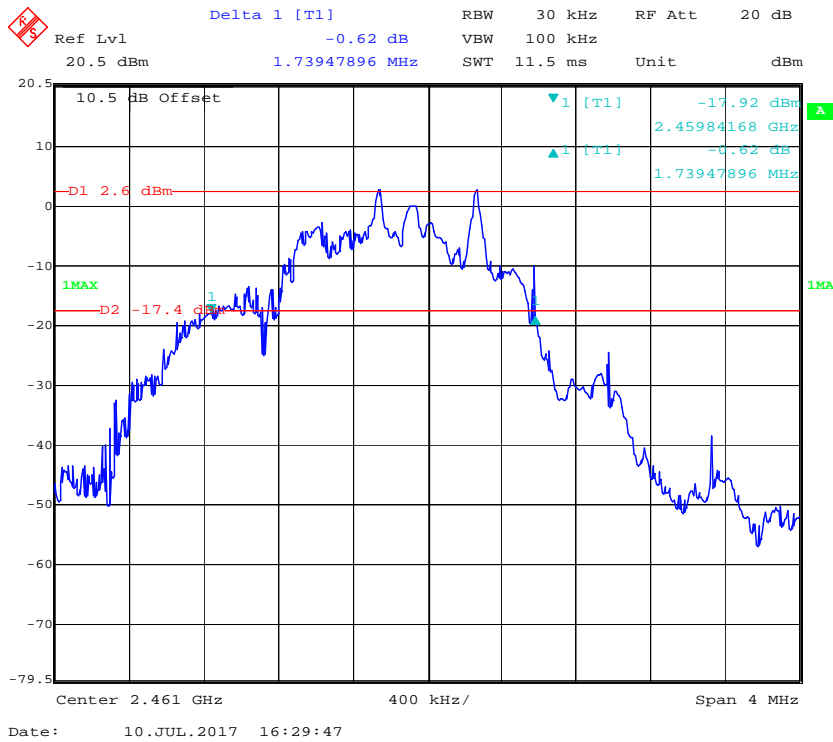
Test Mode: Transmitting

Channel	Frequency (MHz)	20 dB Emission Bandwidth (MHz)
Low	2447	1.587
Middle	2461	1.739
High	2477	1.347

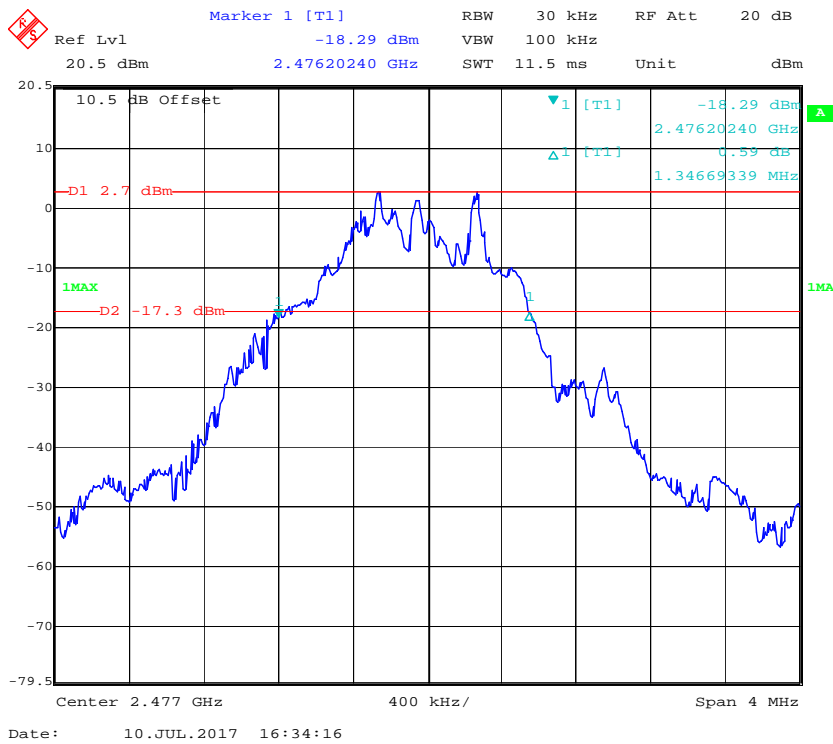
Low Channel



### Middle Channel



### High Channel



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

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 Data****Environmental Conditions**

<b>Temperature:</b>	22 °C
<b>Relative Humidity:</b>	48 %
<b>ATM Pressure:</b>	101.5 kPa

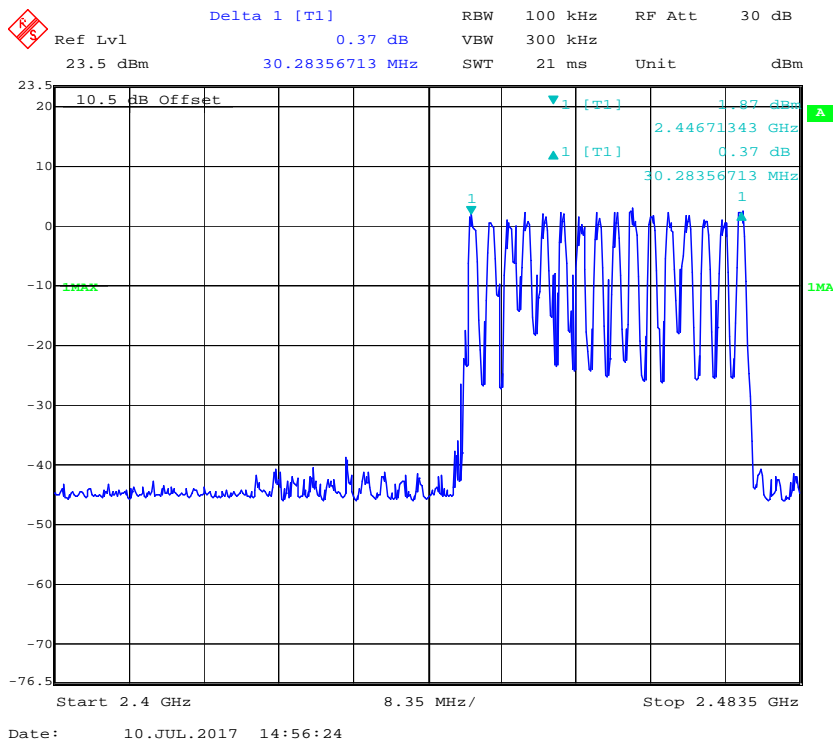
*The testing was performed by Ada Yu on 2017-07-10.*

*Test Result: Compliance. Please refer to following tables and plots.*

Test Mode: Transmitting

Frequency Range (MHz)	Number of Hopping Channel	Limit
2400-2483.5	16	≥ 15

Number of Hopping Channels



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

**Applicable Standard**

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. Sweep was set as 0.4 X channel no. (s), the quantity of pulse was get from single sweep. In addition, the time of single pulses was tested.

**Test Data**

**Environmental Conditions**

<b>Temperature:</b>	26 °C
<b>Relative Humidity:</b>	48 %
<b>ATM Pressure:</b>	101.5 kPa

*The testing was performed by Ada Yu on 2017-07-10.*

*Test Result: Compliance. Please refer to following tables and plots.*

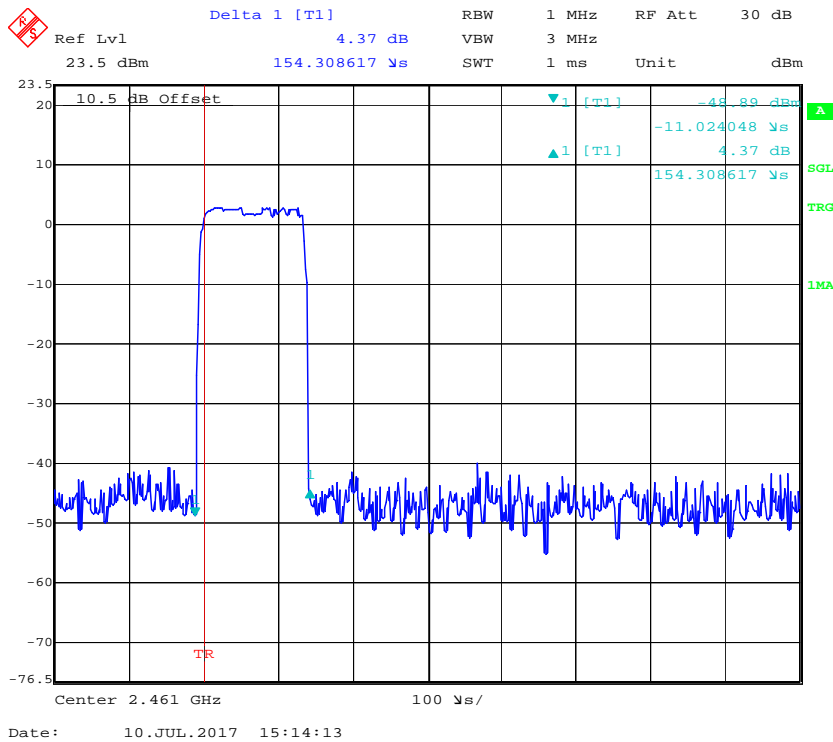
*Test Mode: Transmitting*

Mode	Number of hops in the period	Pulse Width (ms)	Dwell Time (S)	Limit (S)	Result
GFSK	320	0.154	0.049	0.4	Pass
Note: (Number of hops in the period) = (number of hops on spectrum analyzer) × (period specified in the requirements / analyzer sweep time) Dwell time = Pulse time*( Number of hops in the period) s					

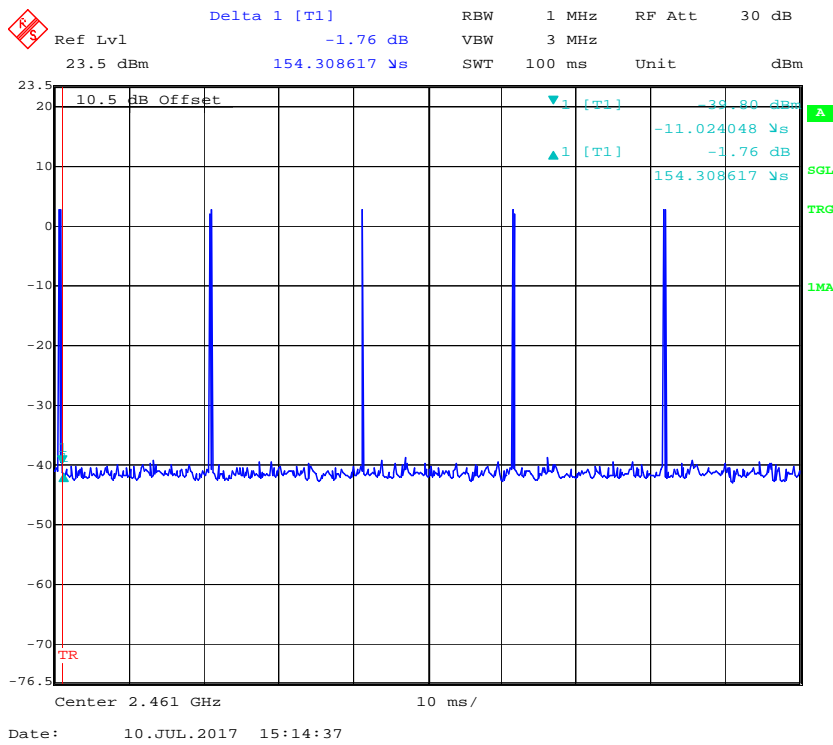
**Number of hops in the period=5\*(0.4\*16)/0.1=320**



Pulse time



Number of hops on spectrum analyzer



## 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 it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to an EMI Test Receiver.
3. Add a correction factor to the display.

### Test Data

#### Environmental Conditions

<b>Temperature:</b>	22 °C
<b>Relative Humidity:</b>	48 %
<b>ATM Pressure:</b>	101.5 kPa

*The testing was performed by Ada Yu on 2017-07-10.*

*Test Result: Compliance. Please refer to following tables and plots.*

*Test Mode: Transmitting*

Channel	Channel Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (mW)
Low	2447	3.22	2.10	125
Middle	2461	3.35	2.16	125
High	2477	3.55	2.26	125

## FCC §15.247(d) - BAND EDGES

### Applicable Standard

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 of spectrum analyzer to 100 kHz 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 Data

#### Environmental Conditions

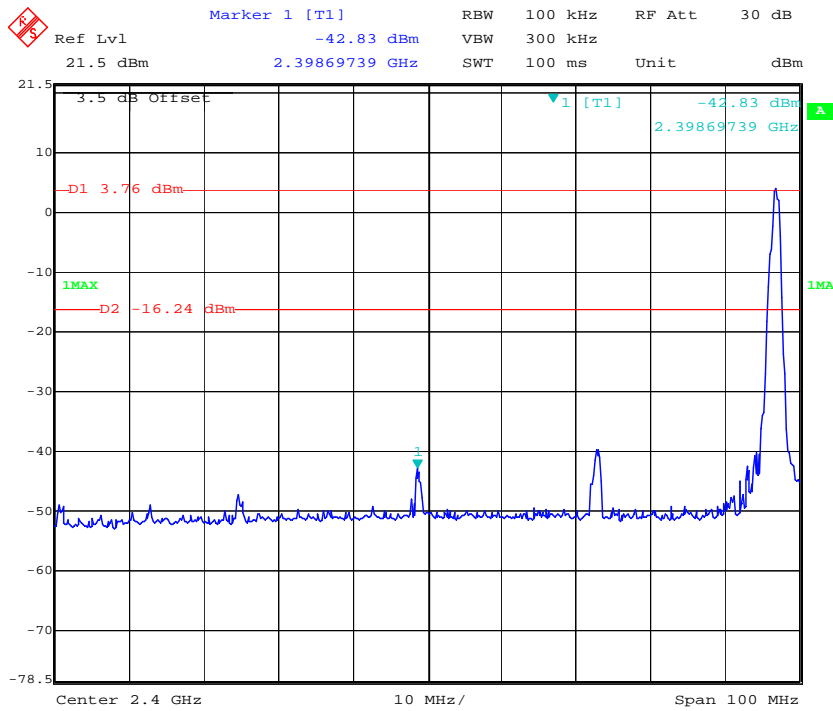
<b>Temperature:</b>	22 °C
<b>Relative Humidity:</b>	48 %
<b>ATM Pressure:</b>	101.5 kPa

*The testing was performed by Ada Yu on 2017-07-08.*

*Test Result: Compliance. Please refer to following tables and plots.*

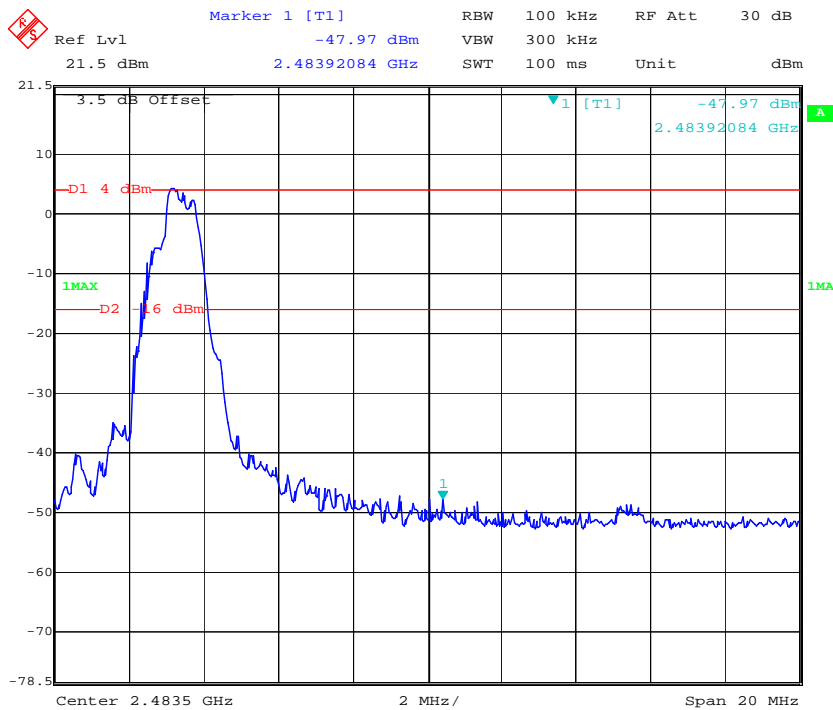
*Test Mode: Transmitting*

### Band Edge: Left Side



Date: 8.JUL.2017 13:33:57

### Band Edge: Right Side



Date: 8.JUL.2017 13:46:12

\*\*\*\*\* END OF REPORT \*\*\*\*\*