Lab Code: 200707-0

FCC PART 15.247

TEST REPORT

For

Shenzhen Gospell Smarthome Electronic Co., Ltd

5 Floor/Block 2, Vision (SZ) Park, Hi-Tech, Industrial Park, Shenzhen, 518057 China

FCC ID: TW5GD7610

Report Type:	**Product Type:**
Original Report	Digital Wireless Backup Camera System with 3.5" TFT-LCD Monitor

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Report Number:	RSZ130104003-00
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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *Shenzhen Gospell Smarthome Electronic Co., Ltd*'s product, model number: *GD7610 (FCC ID: TW5GD7610)* (the "EUT") in this report was a *Digital Wireless Backup Camera System with 3.5'' TFT-LCD Monitor*, which was measured approximately: 10.8 cm (L) x 7.5 cm (W) x 3.8 cm (H), rated with input voltage: DC12V/24V from cigarette lighter adapter which was connected to car battery.

** All measurement and test data in this report was gathered from production sample serial number: 1201057 (Assigned by BACL, Shenzhen). The EUT supplied by the applicant was received on 2013-01-14.*

Objective

This report is prepared on behalf of *Shenzhen Gospell Smarthome Electronic Co., Ltd* in accordance with Part 2-Subpart J, Part 15-Subparts A, B 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)

No related submittal(s).

Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2009, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

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

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China.

Test site at Bay Area Compliance Laboratories Corp. (Shenzhen) has been fully described in reports submitted to the Federal Communication Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on December 06, 2010. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2009.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 382179. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

Additionally, Bay Area Compliance Laboratories Corp. (Shenzhen) is an ISO/IEC 17025 accredited laboratory, and is accredited by National Voluntary Laboratory Accredited Program (Lab Code 200707-0).

The current scope of accreditations can be found at http://ts.nist.gov/Standards/scopes/2007070.htm.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The EUT was configured for testing in an engineering mode which can transmit continuously at lowest, middle and highest channel frequencies individually.

EUT Exercise Software

No exercise software was used.

Equipment Modifications

Modification was made to the EUT tested by the supplier as follows:

The display cable was shielded with copper foil. (As in the picture below)

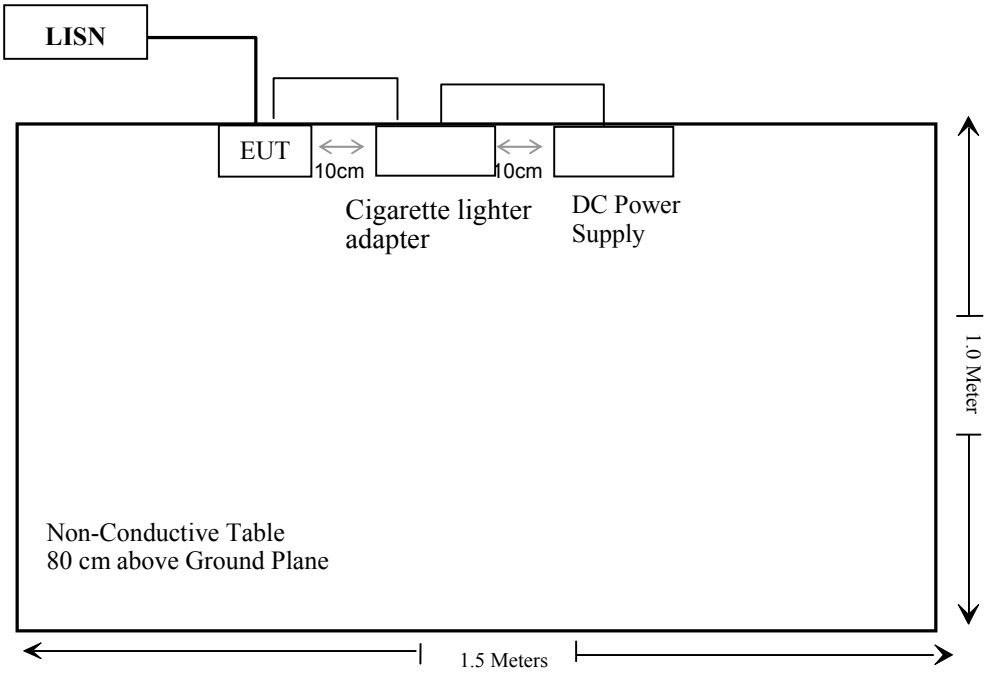
Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Long Wei	AC/DC Power Supply	TPR-6420D	-

External I/O Cable

Cable Description	Length (m)	From/Port	To
Un-shielding Detachable DC Power Cable	1.2	EUT	cigarette lighter adapter

Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.247 (i), §1.1307 (b)(1), §2.1091	Maximum Permissible Exposure (MPE)	Compliance
§15.203	Antenna Requirement	Compliance
§15.207 (a)	Conducted Emissions	Not Applicable
§15.205, §15.209, §15.247(d)	Radiated Emissions	Compliance
§15.247 (a)(1)	20 dB 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

Note: The EUT was powered by cigarette lighter adapter which was connected to car battery.

FCC §15.247 (i) & §1.1307 (b) (1) & §2.1091- MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Standard Applicable

According to subpart 15.247 (i) and subpart 1.1307 (b)(1), 2.1091 systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

Limits for General Population/Uncontrolled Exposure

Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	**Electric Field Strength (V/m)**	**Magnetic Field Strength (A/m)**	**Power Density (mW/cm^2)**	**Averaging Time (Minutes)**
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*($180/f^2$)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

f = frequency in MHz
* = Plane-wave equivalent power density

MPE Calculation

Predication of MPE limit at a given distance

$$S = PG/4\pi R^2$$

Where:

S = power density (in appropriate units, e.g. mW/cm^2)
P = power input to the antenna (in appropriate units, e.g., mW).
G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally ***numeric*** gain.
R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

Frequency (MHz)	**Antenna Gain**		**Conducted Power**		**Evaluation Distance (cm)**	**Power Density (mW/cm^2)**	**MPE Limit (mW/cm^2)**
	(dBi)	**(numeric)**	**(dBm)**	**(mW)**			
2403	2	1.58	17.04	50.58	20	0.015907	1.0
2442	2	1.58	17.86	61.09	20	0.019212	1.0
2478	2	1.58	17.86	61.09	20	0.019212	1.0

Note: To maintain compliance with the FCC's RF exposure guidelines, place the equipment at least 20cm from nearby persons.

Result: Compliance

FCC §15.203 – ANTENNA REQUIREMENT

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 use an external omni-directional dipole antenna which has a unique type of reverse connector and the maximum gain is 2.0 dBi, full fill the requirement of this section. Please refer to the internal photos.

Result: Compliance.

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

Applicable Standard

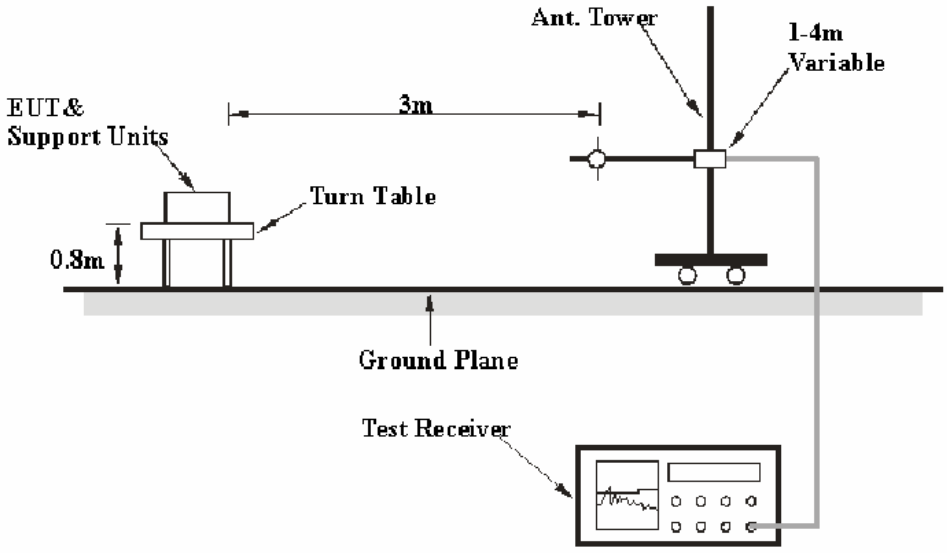
FCC §15.247 (d); §15.209; §15.205;

Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on CISPR 16-4-2, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of radiation emissions measurement at Bay Area Compliance Laboratories Corp. (Shenzhen) is 4.0 dB (k=2, 95% level of confidence), and the uncertainty will not be taken into consideration for the test data recorded in the report.

EUT Setup



The radiated emission tests were performed in the 3 meters test site, using the setup accordance with the ANSI C63.4-2009. 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.

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
30MHz – 1000 MHz	100 kHz	300 kHz	120kHz	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.

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.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
HP	Amplifier	8447E	1937A01046	2012-11-24	2013-11-23
Rohde & Schwarz	EMI Test Receiver	ESCI	101122	2012-08-08	2013-08-07
Sunol Sciences	Broadband Antenna	JB1	A040904-2	2011-11-28	2014-11-27
SUPER ULTRA	Amplifier	ZVA-213+	N/A	2012-11-24	2013-11-23
Sunol Sciences	Horn Antenna	DRH-118	A052304	2011-12-01	2014-11-30
Rohde & Schwarz	Signal Analyzer	FSIQ26	8386001028	2012-11-24	2013-11-23
the electro-Mechanics Co.	Horn Antenna	3116	9510-2270	2010-10-14	2013-10-13

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements that 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:

Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - 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:

Margin = Limit – 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, with the worst margin reading of:

5.2 dB at **108.001700 MHz** in the **Vertical** polarization

Test Data

Environmental Conditions

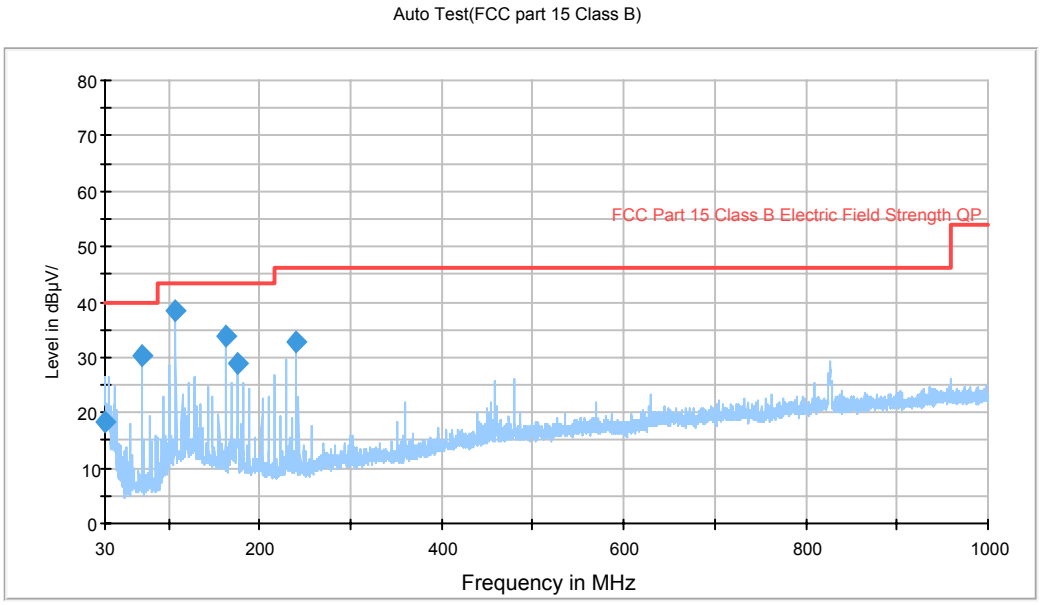
Temperature:	25 ℃
Relative Humidity:	56 %
ATM Pressure:	100.0kPa

The testing was performed by Gardon Zhang on 2013-01-20.

Note: As the monitor unit has two power supply mode (DC12V/24V), both have been checked. The data in this report represented the worst-case.

1) 30MHz ~ 1000 MHz

Test Mode: Comunicating (Hopping mode)



Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity	Turntable Position (Degree)	Correction Factor (dB)	Limit (dBµV/m)	Margin (dB)
108.001700	38.3	106.0	V	289.0	-15.4	43.5	5.2
71.590100	30.5	104.0	H	100.0	-20.6	40.0	9.5
162.004300	33.8	105.0	V	78.0	-15.4	43.5	9.7
240.011450	32.6	136.0	H	65.0	-15.9	46.0	13.4
175.508700	28.8	104.0	V	0.0	-16.0	43.5	14.7
30.533956	18.3	131.0	V	43.0	-7.1	40.0	21.7

2) 1 GHz ~ 25 GHz

Test Mode: Transmitting (CTX)

Frequency (MHz)	Receiver		Turntable 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)
Low Channel (2403 MHz)									
2403.0	100.25	PK	23	1.6	H	6.13	106.38	/	/
2403.0	64.39	Ave.	23	1.6	H	6.13	70.52	/	/
2403.0	110.25	PK	11	1.5	V	6.13	116.38	/	/
2403.0	74.75	Ave.	11	1.5	V	6.13	80.88	/	/
4806.0	54.07	PK	81	1.4	V	12.40	66.47	74	7.53
2489.1	55.91	PK	23	1.3	V	6.81	62.72	74	11.28
2489.1	34.83	Ave.	23	1.3	V	6.81	41.64	54	12.36
2360.5	54.65	PK	91	1.2	V	5.48	60.13	74	13.87
2339.8	53.89	PK	111	1.1	H	5.48	59.37	74	14.63
9612.0	19.91	Ave.	103	1.2	H	19.28	39.19	54	14.81
2360.5	33.10	Ave.	91	1.2	V	5.48	38.58	54	15.42
9612.0	39.22	PK	103	1.2	H	19.28	58.50	74	15.50
2339.8	32.63	Ave.	111	1.1	H	5.48	38.11	54	15.89
4806.0	25.52	Ave.	81	1.4	V	12.40	37.92	54	16.08
7209.0	18.73	Ave.	60	1.3	V	17.06	35.79	54	18.21
7209.0	36.89	PK	60	1.3	V	17.06	53.95	74	20.05
Middle Channel (2442 MHz)									
2442.0	100.93	PK	25	1.5	H	7.21	108.14	/	/
2442.0	65.07	Ave.	25	1.5	H	7.21	72.28	/	/
2442.0	111.29	PK	19	1.2	V	6.81	118.10	/	/
2442.0	75.33	Ave.	19	1.2	V	6.81	82.14	/	/
4884.0	53.93	PK	33	1.1	V	12.46	66.39	74	7.61
2489.1	55.91	PK	91	1.6	V	6.81	62.72	74	11.28
2489.1	35.03	Ave.	91	1.6	V	6.81	41.84	54	12.16
2366.5	54.91	PK	15	1.3	V	5.48	60.39	74	13.61
9768.0	20.15	Ave.	28	1.4	H	19.40	39.55	54	14.45
2337.8	53.91	PK	99	1.4	H	5.48	59.39	74	14.61
2366.5	33.81	Ave.	15	1.3	V	5.48	39.29	54	14.71
9768.0	38.77	PK	28	1.4	H	19.40	58.17	74	15.83
2337.8	32.06	Ave.	99	1.4	H	5.48	37.54	54	16.46
7326.0	20.06	Ave.	60	1.3	V	16.49	36.55	54	17.45
4884.0	24.04	Ave.	33	1.1	V	12.46	36.50	54	17.50
7326.0	38.91	PK	60	1.3	V	16.49	55.40	74	18.60

Frequency (MHz)	Receiver		Turntable 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)
High Channel (2478 MHz)									
2478.0	101.93	PK	28	1.3	H	7.21	109.14	/	/
2478.0	65.25	Ave.	28	1.3	H	7.21	72.46	/	/
2478.0	110.81	PK	33	1.5	V	6.81	117.62	/	/
2478.0	74.91	Ave.	33	1.5	V	6.81	81.72	/	/
4956.0	55.73	PK	92	1.2	V	12.50	68.23	74	5.77
2485.2	55.91	PK	6	1.3	V	6.81	62.72	74	11.28
2485.2	34.66	Ave.	6	1.3	V	6.81	41.47	54	12.53
2368.7	54.96	PK	91	1.2	V	5.48	60.44	74	13.56
9912.0	20.07	Ave.	236	1.3	H	19.38	39.45	54	14.55
2330.8	53.91	PK	87	1.2	H	5.48	59.39	74	14.61
2368.7	33.71	Ave.	91	1.2	V	5.48	39.19	54	14.81
4956.0	26.07	Ave.	92	1.2	V	12.50	38.57	54	15.43
9912.0	38.93	PK	236	1.3	H	19.38	58.31	74	15.69
2330.8	32.81	Ave.	87	1.2	H	5.48	38.29	54	15.71
7434.0	20.11	Ave.	101	1.2	V	15.90	36.01	54	17.99
7434.0	38.96	PK	101	1.2	V	15.90	54.86	74	19.14

FCC §15.247(a) (1)-CHANNEL SEPARATION

Applicable Standard

Frequency hopping systems shall have hoping 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≥ 3RBW maxhold the channel.
2. Set the adjacent channel of the EUT maxhold another trace
3. Measure the channel separation.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	Signal Analyzer	FSIQ26	8386001028	2012-11-24	2013-11-23

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

Test Data

Environmental Conditions

Temperature:	25 ℃
Relative Humidity:	56 %
ATM Pressure:	100.0 kPa

** The testing was performed by Gardon Zhang on 2013-01-18.*

Test Result: Compliance.

Please refer to following tables and plots

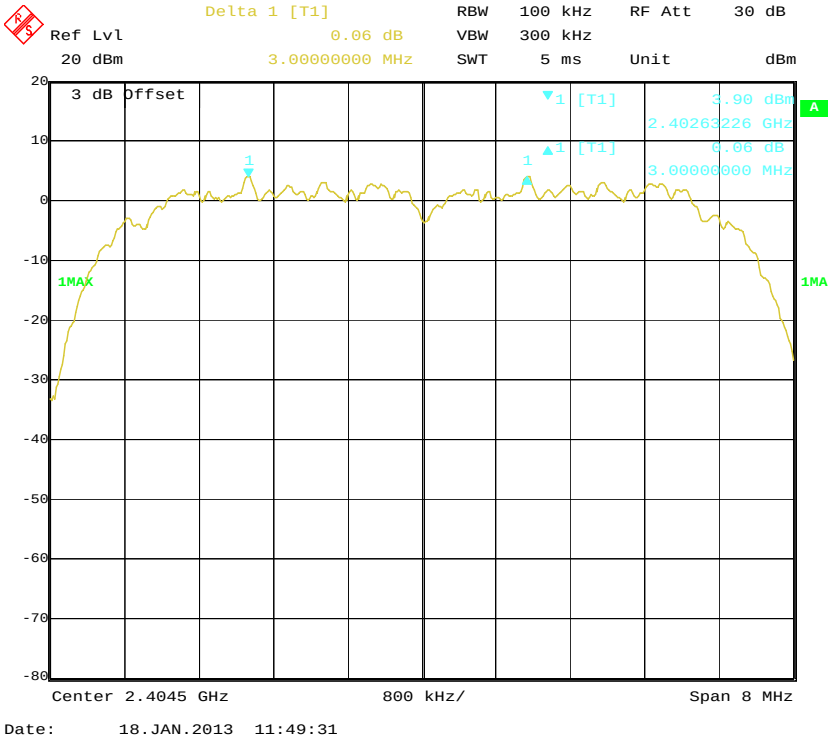
Test Mode: Transmitting

Channel	Channel Frequency (MHz)	Channel Separation (MHz)	>Limit (MHz)	Result
Low	2403	3.000	2.979	Pass
Adjacent	2406			
Middle	2442	3.000	2.979	
Adjacent	2439			
High	2478	3.000	2.979	
Adjacent	2475			

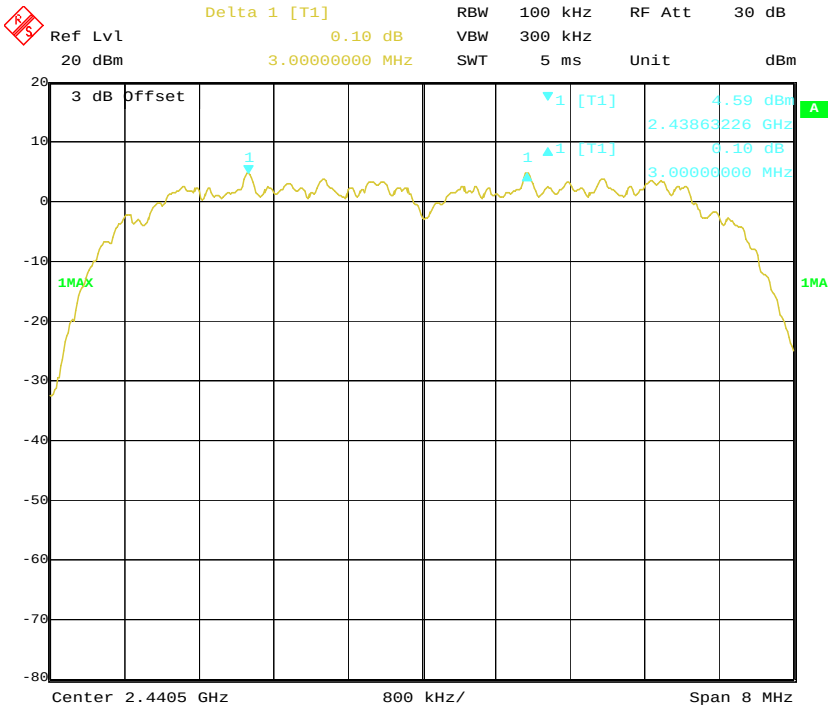
Note: limit =2/3 of 20 dB bandwidth

Please refer to the following plots.

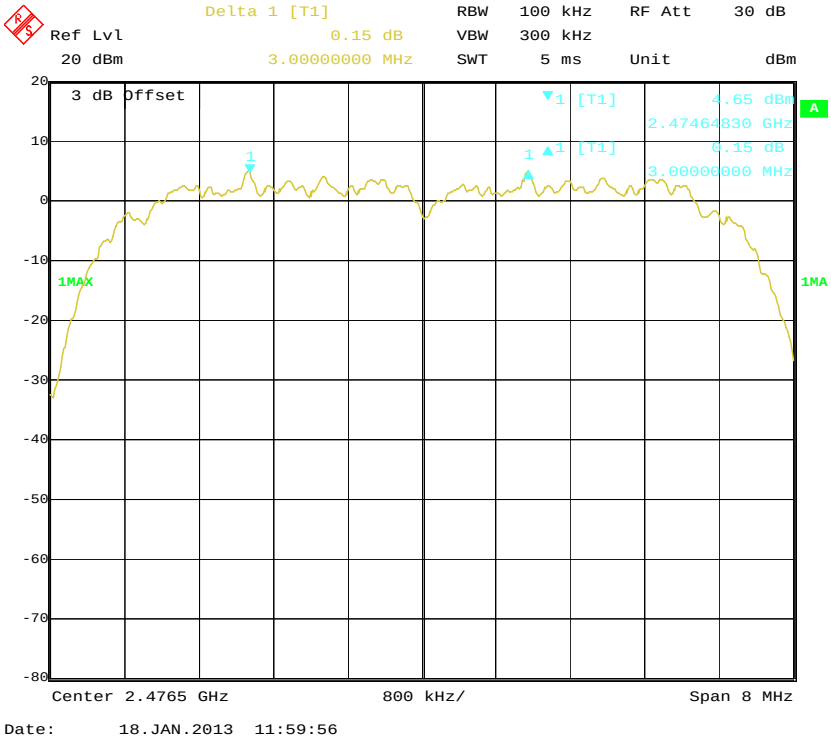
Low Channel



Middle Channel



High Channel



FCC §15.247(a) (1) – 20 dB 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 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
Rohde & Schwarz	Signal Analyzer	FSIQ26	8386001028	2012-11-24	2013-11-23

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

Test Data

Environmental Conditions

Temperature:	25 ℃
Relative Humidity:	56 %
ATM Pressure:	100.0 kPa

** The testing was performed by Gardon Zhang on 2013-01-18.*

Test Result: Compliance.

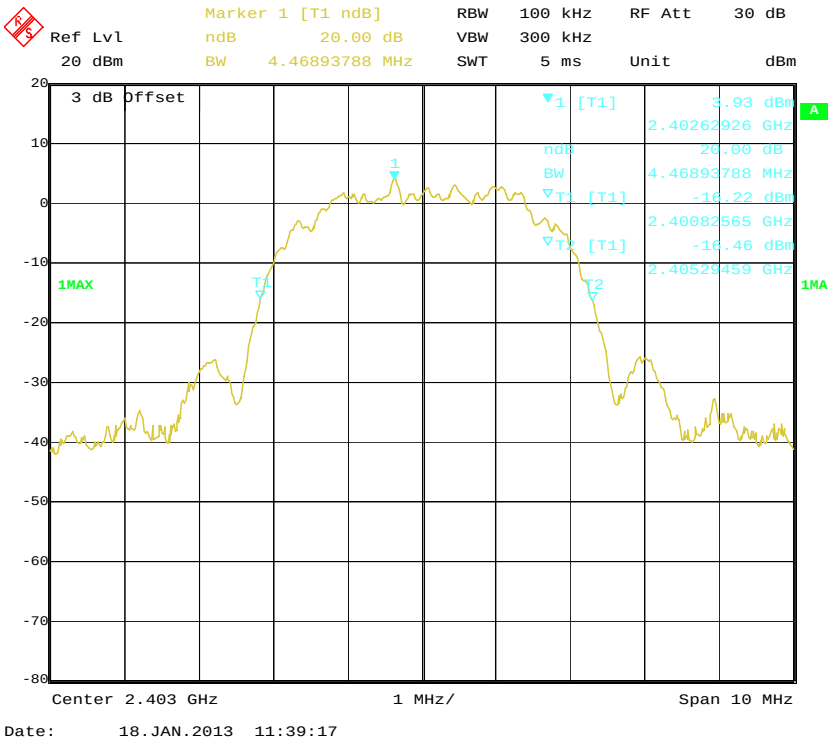
Please refer to following tables and plots

Test Mode: Transmitting

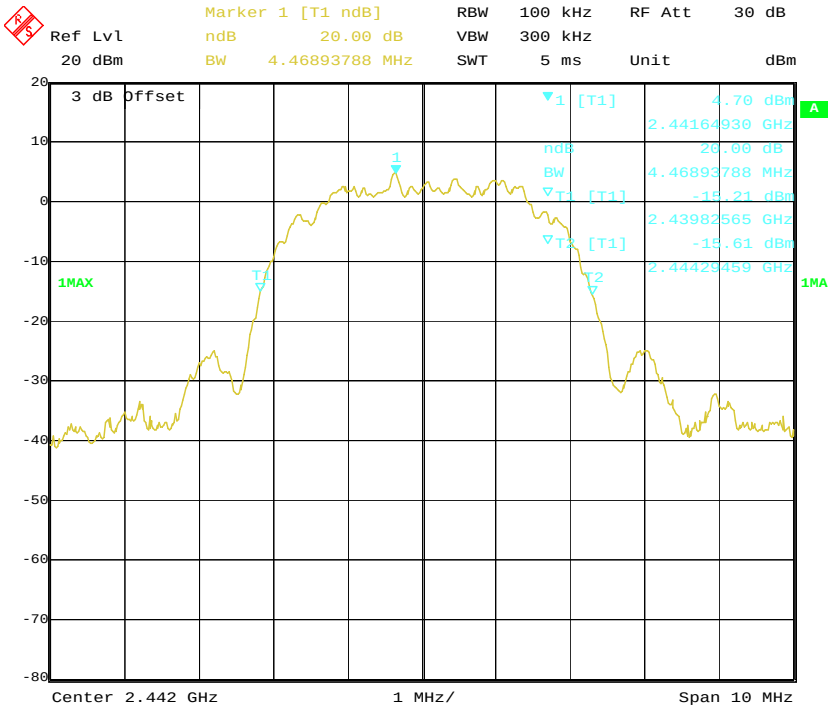
Channel	Frequency (MHz)	20 dB Bandwidth (MHz)
Low	2403	4.469
Middle	2442	4.469
High	2478	4.469

Please refer to the following plots.

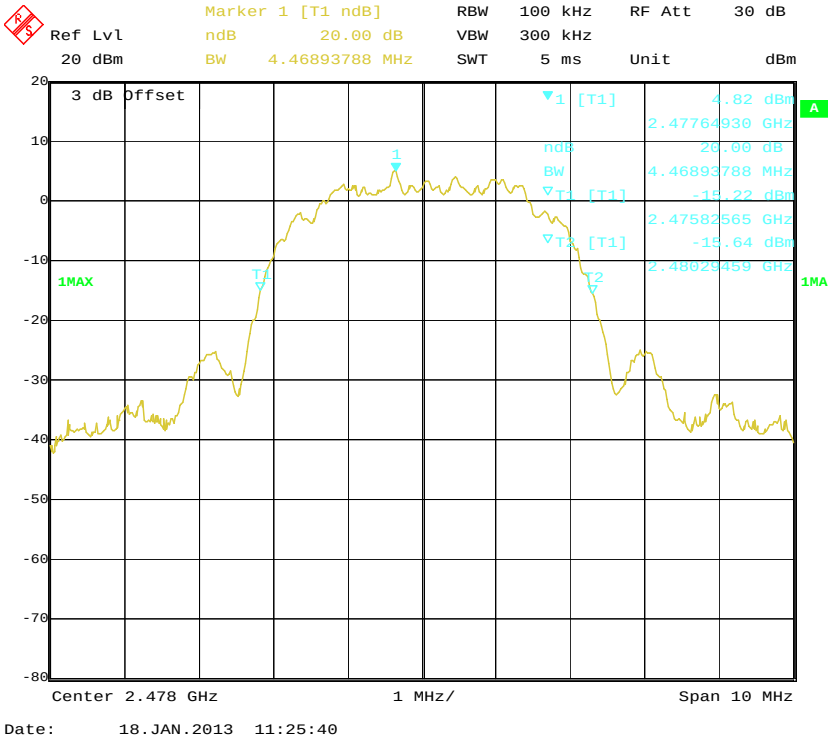
Low Channel



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 Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	Signal Analyzer	FSIQ26	8386001028	2012-11-24	2013-11-23

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

Test Data

Environmental Conditions

Temperature:	25℃
Relative Humidity:	56 %
ATM Pressure:	100.0 kPa

The testing was performed by Gardon Zhang on 2013-01-18.

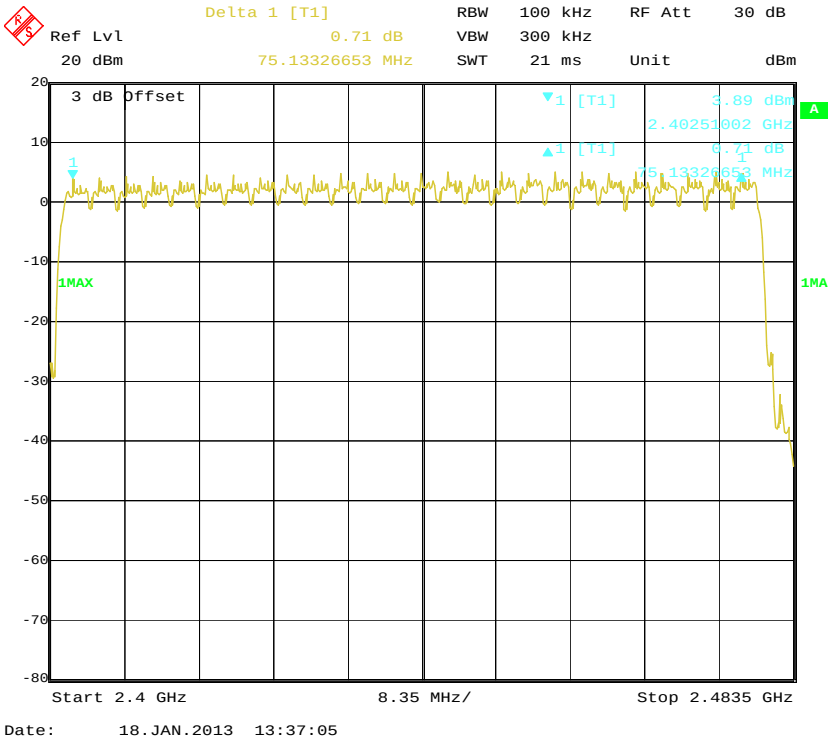
Test Result: Compliance.

Please refer to following tables and plots

Test Mode: Transmitting

Frequency Range (MHz)	Number of Hopping Channel	Limit
2400-2483.50	26	≥ 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.

Dwell Time= Pulse time (ms) * hope rate/2/ number of hopping channels * hopping No.*0.4 s

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	Signal Analyzer	FSIQ26	8386001028	2012-11-24	2013-11-23

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

Test Data

Environmental Conditions

Temperature:	25℃
Relative Humidity:	56 %
ATM Pressure:	100.0kPa

The testing was performed by Gardon Zhang on 2013-01-18.

Test Result: Compliance.

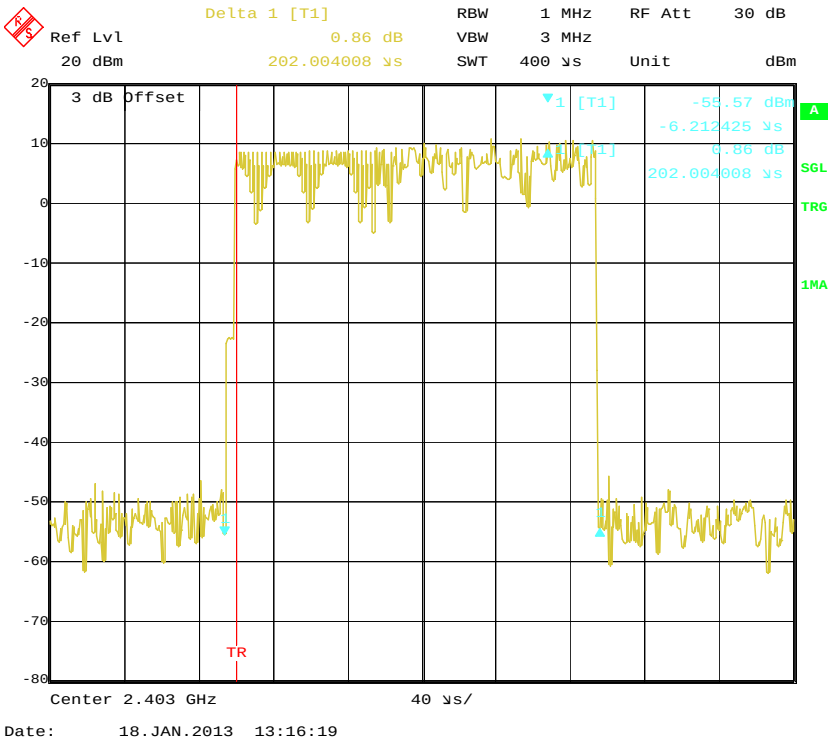
Please refer to following tables and plots

Test Mode: Transmitting

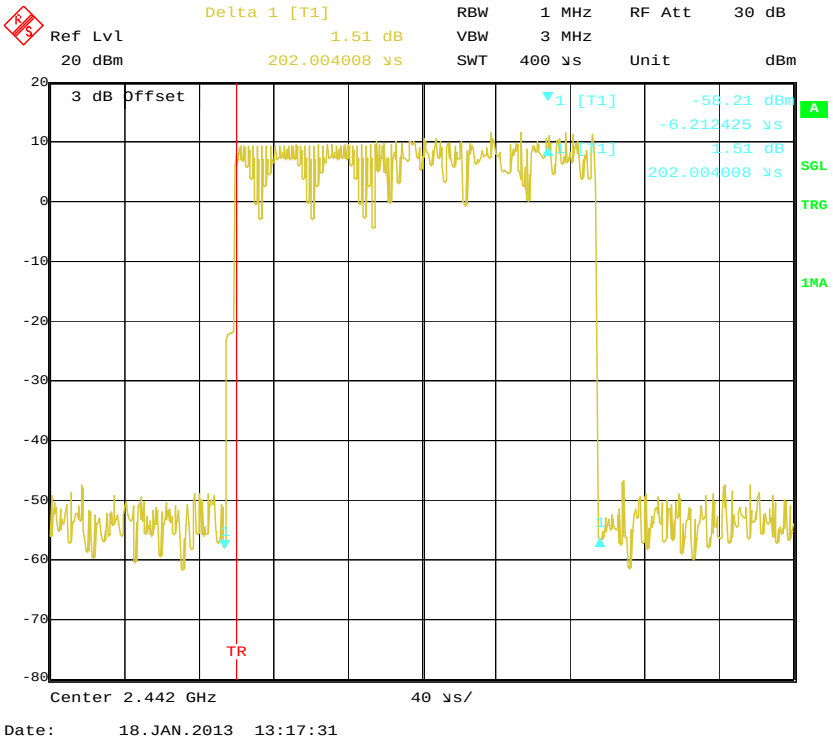
Channel	Pulse Width (ms)	Dwell Time (S)	Limit (S)	Result
Low	0.202	0.0485	0.4	Pass
Middle	0.202	0.0485	0.4	Pass
High	0.202	0.0485	0.4	Pass
*Note: Dwell time=Pulse time (ms) × (1200/2/26) ×26*0.4 S*				

Please refer to the following plots.

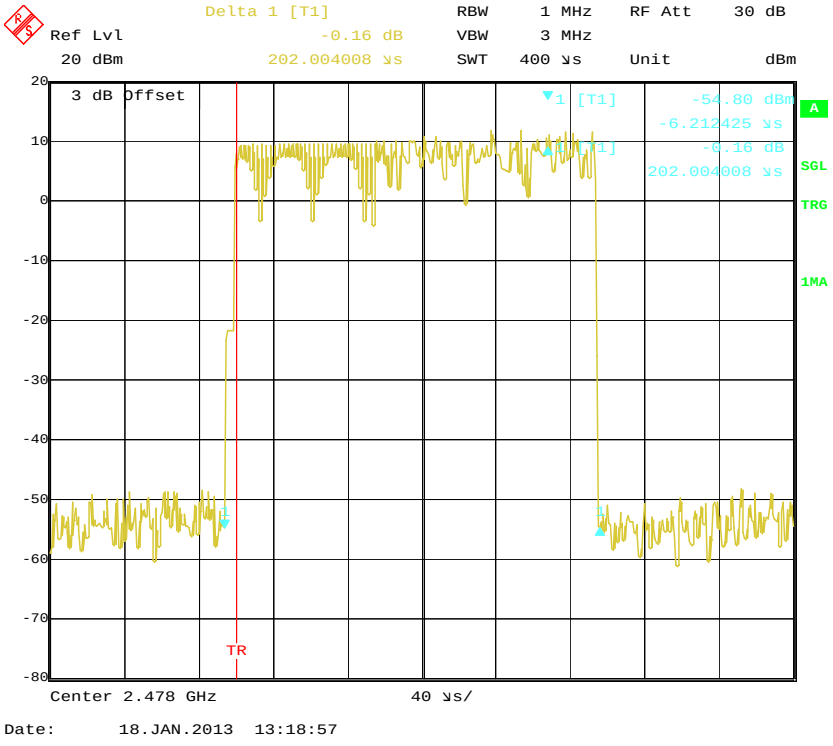
Low Channel



Middle Channel



High Channel



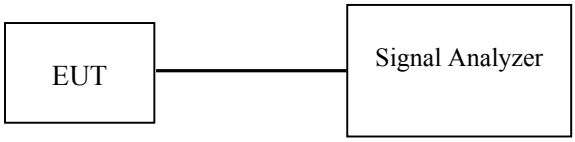
FCC §15.247(b) (1) - PEAK OUTPUT POWER MEASUREMENT

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 Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	Signal Analyzer	FSIQ26	8386001028	2012-11-24	2013-11-23

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

Test Data

Environmental Conditions

Temperature:	25 ℃
Relative Humidity:	56 %
ATM Pressure:	100.0kPa

** The testing was performed by Gardon Zhang on 2013-01-18.*

Test Result: Compliance.

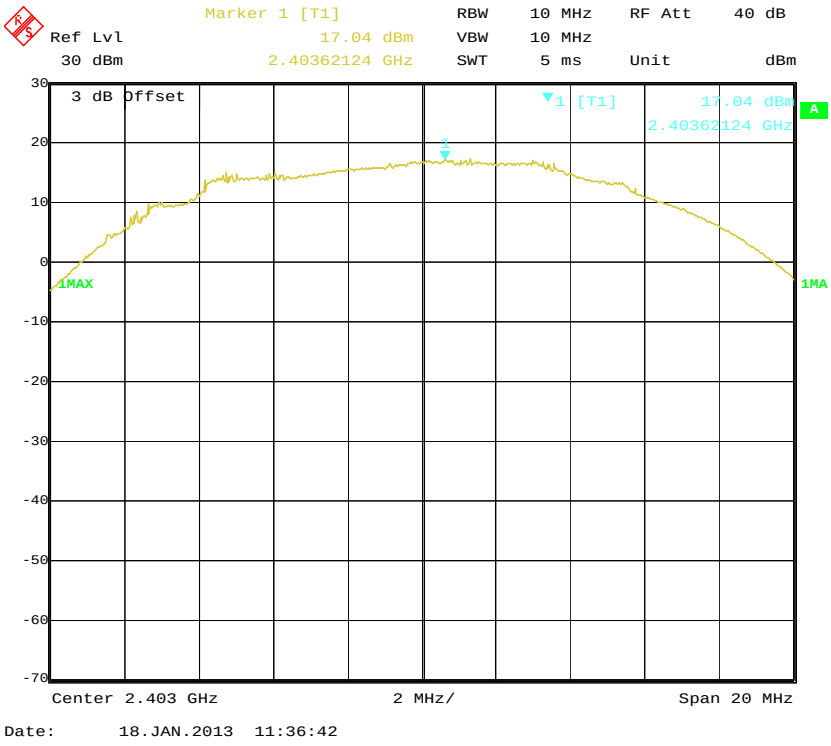
Note: As the monitor unit has two power supply mode (DC12V/24V), both have been checked. The data in this report represented the worst-case.

Test Mode: Transmitting

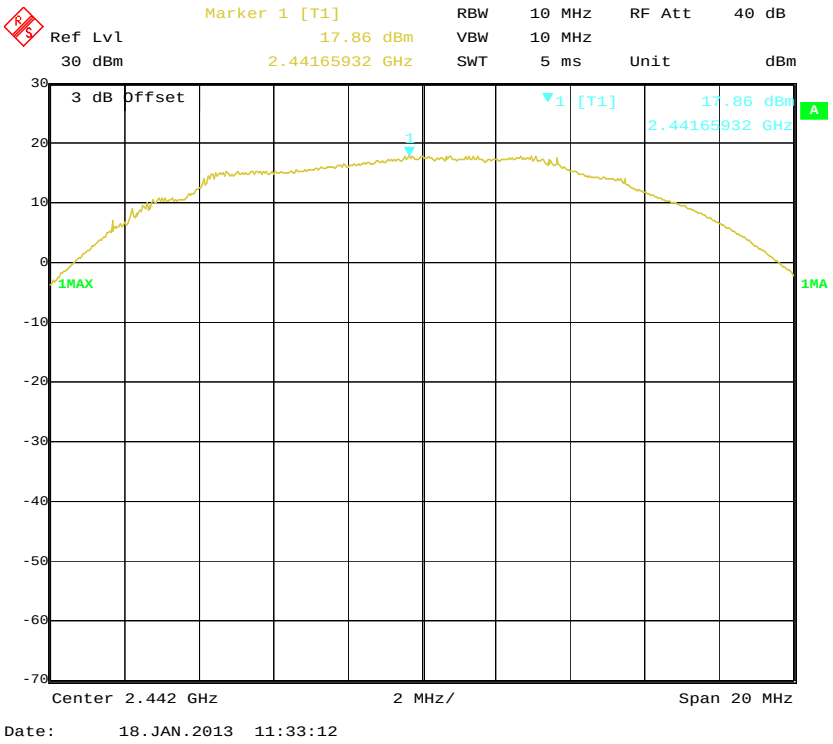
Channel	Channel frequency (MHz)	Peak output power (dBm)	Power output (mW)	Limit (mW)
Low channel	2403	17.04	50.58	125
Middle channel	2442	17.86	61.09	125
High channel	2478	17.86	61.09	125

Note: The data above was tested in conducted mode.

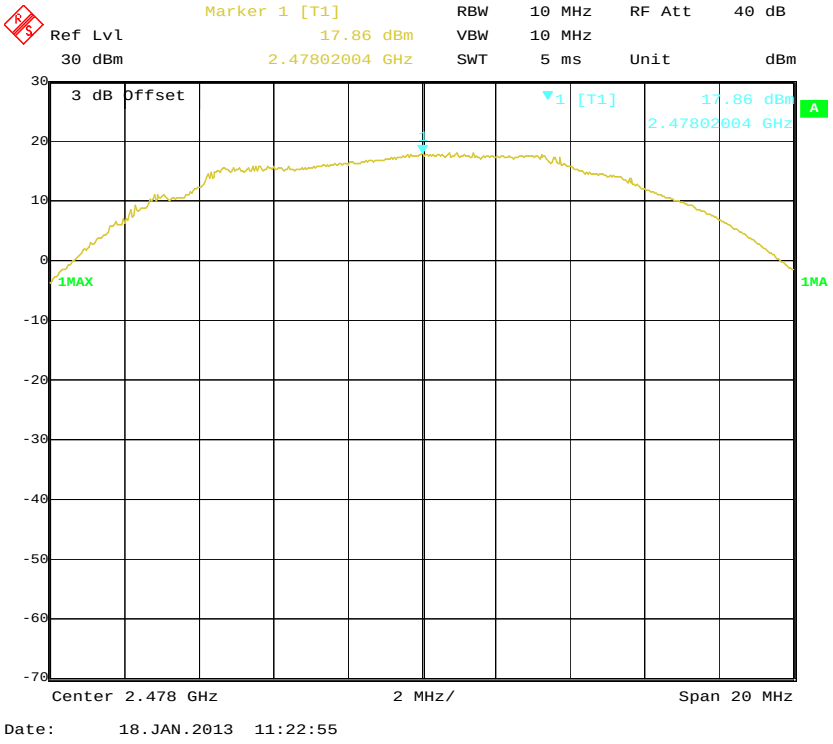
Low Channel



Middle Channel



High Channel



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. Position the EUT without connection to measurement instrument. Put it on the Rotated table and turn on the EUT and make it operate in Operating 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. 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.
4. Repeat above procedures until all measured frequencies were complete.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	Signal Analyzer	FSIQ26	8386001028	2012-11-24	2013-11-23

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

Test Data

Environmental Conditions

Temperature:	25 ℃
Relative Humidity:	56 %
ATM Pressure:	100.0kPa

**The testing was performed by Gardon Zhang on 2013-01-18.*

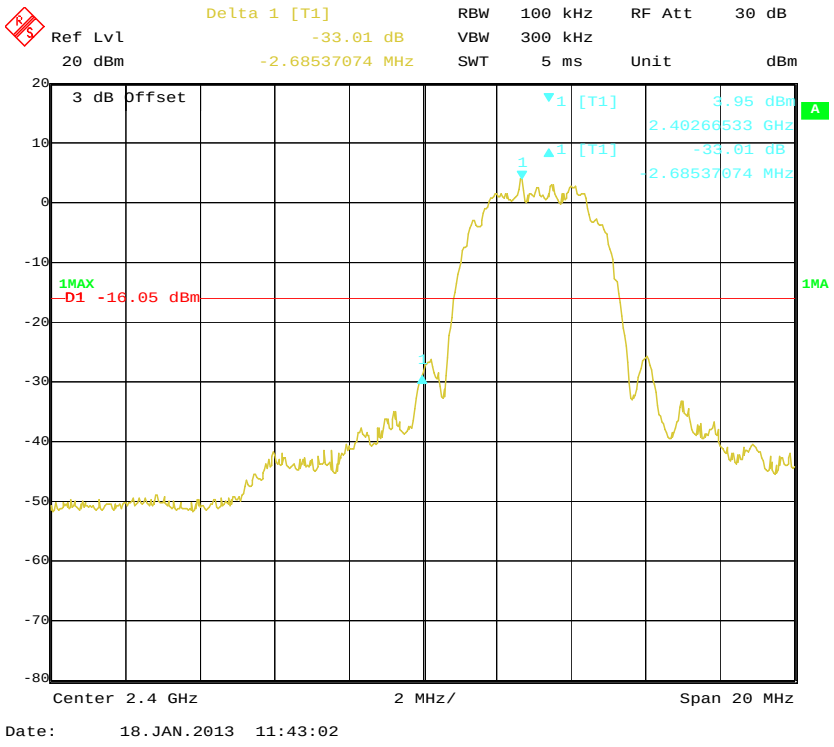
Test Result: Compliance.

Test Mode: Transmitting

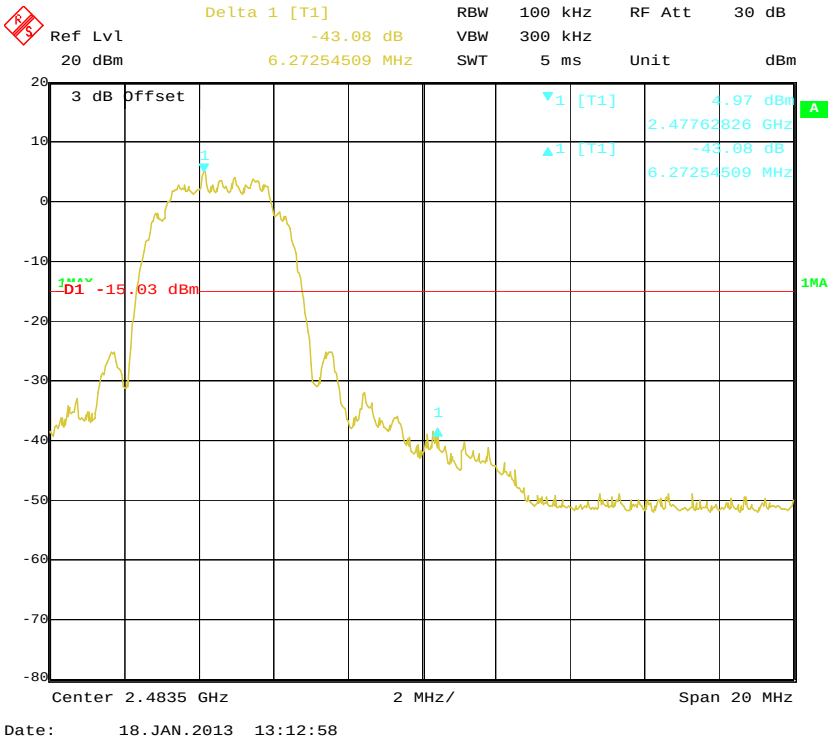
Band Side	Delta Peak to Band Emission (dBc)	Limit (dBc)
Left Side	33.01	20
Right Side	43.08	20

Please refer to follow plots:

Band Edge: Left Side



Band Edge: Right Side



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