

Test Report

FCC Part15 Subpart C

Product Name : Radio Controller
Model No. : YKQ01FM
FCC ID : 2AG53YKQ01FM
IC : 21054-YKQ01FM

Applicant : BEIJING FIMI TECHNOLOGY LIMITED
Address : 07C, Block A, Floor 7, No.28 Xinxu Road Jia,
Haidian District, Beijing, China

Date of Receipt : Dec. 09, 2015
Test Date : Dec. 09, 2015~ Jan.19, 2016
Issued Date : Jun. 06, 2016
Report No. : 15C2020R-RF-US-P06V01
Report Version : V 1.1

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

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Test Report Certification

Issued Date : Jun. 06, 2016

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Product Name : Radio Controller
Applicant : BEIJING FIMI TECHNOLOGY LIMITED
Address : 07C, Block A, Floor 7, No.28 Xinxu Road Jia, Haidian District,
Beijing, China
Manufacturer : BEIJING FIMI TECHNOLOGY LIMITED
Address : 07C, Block A, Floor 7, No.28 Xinxu Road Jia, Haidian District,
Beijing, China
Model No. : YKQ01FM
Brand Name : 
FCC ID : 2AG53YKQ01FM
IC : 21054-YKQ01FM
EUT Voltage : DC 15.2V
Applicable Standard : FCC CFR Title 47 Part 15 Subpart C: 2014
ANSI C63.4: 2014; ANSI C63.10: 2013
Industry Canada RSS-Gen Issue 4/RSS-247 Issue 1
Test Result : Complied
Performed Location : Quietek Corporation - Suzhou EMC Laboratory
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TEL: +86-512-6251-5088 / FAX: +86-512-6251-5098
FCC Registration Number: 800392; IC Lab Code: 4075B

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(Engineering Manager : Harry Zhao)

Laboratory Information

We, **Quietek Corporation**, are an independent EMC and safety consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted(audited or listed) by the following related bodies in compliance with ISO 17025, EN 45001 and specified testing scope:

Taiwan R.O.C.	:	BSMI, NCC, TAF
USA	:	FCC
Japan	:	VCCI
China	:	CNAS

The related certificate for our laboratories about the test site and management system can be downloaded from Quietek Corporation's Web Site : <http://www.quietek.com/english/about/certificates.aspx?bval=5>
The address and introduction of Quietek Corporation's laboratories can be founded in our Web site : http://www.quietek.com/index_en.aspx
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History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
15C2020R-RF-US-P06V01	V1.0	Initial Issued Report	May. 06, 2016
15C2020R-RF-US-P06V01	V1.1	Modified the Antenna Delivery	Jun. 06, 2016

1. General Information

1.1. EUT Description

Product Name	Radio Controller
Brand Name	
Model No.	YKQ01FM
Working Voltage	DC 15.2V
Spread Frequency Mode	FHSS
Frequency Range	2426.2- 2461 MHz
Channel Number	30
Channel Separation	1.2MHz
Type of Modulation	FHSS
Data Rate	1Mbps
Antenna Delivery	1*Tx + 2*Rx
Antenna Type	Reference to Antenna List
Peak Antenna Gain	Reference to Antenna List

Note: There are two antennas and only one antenna can transmit at the same time.

Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
01	2426.2 MHz	02	2427.4 MHz	03	2428.6 MHz	04	2429.8 MHz
05	2431 MHz	06	2432.2 MHz	07	2433.4 MHz	08	2434.6 MHz
09	2435.8 MHz	10	2437 MHz	11	2438.2 MHz	12	2439.4 MHz
13	2440.6 MHz	14	2441.8 MHz	15	2443 MHz	16	2444.2 MHz
17	2445.4 MHz	18	2446.6 MHz	19	2447.8 MHz	20	2449 MHz
21	2450.2 MHz	22	2451.4 MHz	23	2452.6 MHz	24	2453.8 MHz
25	2455 MHz	26	2456.2 MHz	27	2457.4 MHz	28	2458.6 MHz
29	2459.8 MHz	30	2461 MHz	N/A	N/A	N/A	N/A

Antenna List

No.	Antenna	Manufacturer	Model No.	Peak Gain
#1	External Antenna	N/A	N/A	2.54dBi for 2.4GHz
#2	External Antenna	N/A	N/A	2.54dBi for 2.4GHz

1.2 Mode of Operation

QuieTek has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Test Mode
Mode 1: Transmit Mode

Note:

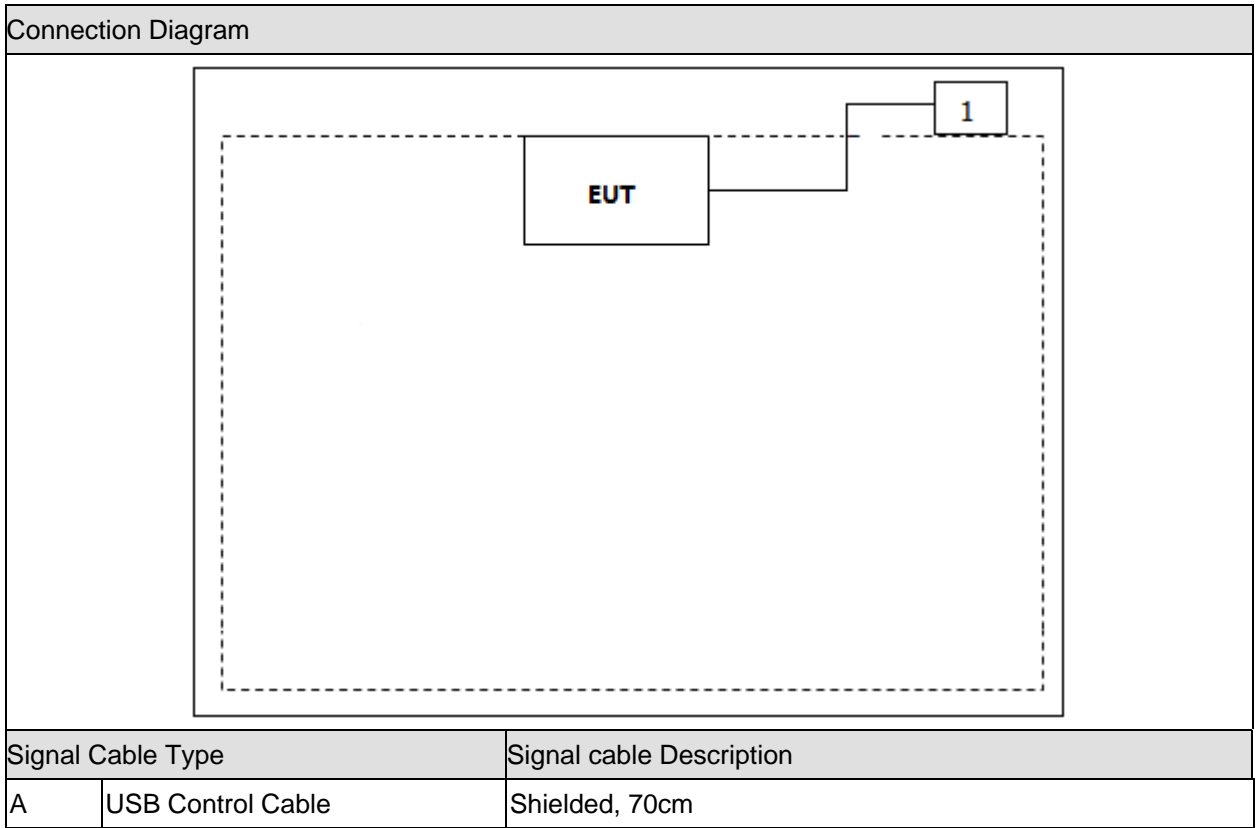
1. For portable device, radiated spurious emission was verified over X, Y, Z Axis, and shown the worst case on this report.
2. Regards to the frequency band operation for systems using FHSS modulation: normal operation (hopping) was selected to test for conducted, and the lowest, highest frequency channel for radiation spurious test.
3. The extreme test condition for voltage and temperature were declared by the manufacturer.
4. The reading values of all the test items contain cable loss.

1.3 Tested System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product	Manufacturer	Model No.	Serial No.	Power Cord
1 Notebook	Asus	N80V	8BN0AS226971468	N/A

1.4 Configuration of Tested System



1.5 EUT Exercise Software

1	Setup the EUT and simulators as shown on above.
2	Turn on the power of all equipment.
3	Run the RF test software, and set the test mode and channel, then press OK to start continue Transmit.

2. Technical Test

2.1. Summary of Test Result

- No deviations from the test standards
- Deviations from the test standards as below description:

For FCC

Performed Test Item	Normative References	Test Performed	Deviation
Conducted Emission	FCC CFR Title 47 Part 15 Subpart C: 2014 Section 15.207	No	No
Radiated Emission	FCC CFR Title 47 Part 15 Subpart C: 2014 Section 15.209	Yes	No
20dB Bandwidth	FCC CFR Title 47 Part 15 Subpart C: 2014 Section 15.247(a)(1)	Yes	No
Carrier Frequency Separation	FCC CFR Title 47 Part 15 Subpart C: 2014 Section 15.247(a)(1)	Yes	No
Number of Hopping Frequencies	FCC CFR Title 47 Part 15 Subpart C: 2014 Section 15.247(a)(1)(iii)	Yes	No
Time of Occupancy (Dwell Time)	FCC CFR Title 47 Part 15 Subpart C: 2014 Section 15.247(a)(1)(iii)	Yes	No
Peak Output Power	FCC CFR Title 47 Part 15 Subpart C: 2014 Section 15.247(b)(1)	Yes	No
Band-edge Compliance of RF Conducted Emissions	FCC CFR Title 47 Part 15 Subpart C: 2014 Section 15.215(c), 15.247(d)	Yes	No
Spurious RF Conducted Emissions	FCC CFR Title 47 Part 15 Subpart C: 2014 15.247(d)	Yes	No
Radiated Emission Band Edge	FCC CFR Title 47 Part 15 Subpart C: 2014 15.247(d)	Yes	No

For IC

Performed Test Item	Normative References	Test Performed	Deviation
Conducted Emission	RSS-Gen Issue 4 Section 8.8	No	No
Radiated Emission	RSS-Gen Issue 4 Section 8.9	Yes	No
20dB Bandwidth	RSS-247 Issue 1 Section 5.1	Yes	No
Carrier Frequency Separation	RSS-247 Issue 1 Section 5.1	Yes	No
Number of Hopping Frequencies	RSS-247 Issue 1 Section 5.1	Yes	No
Time of Occupancy (Dwell Time)	RSS-247 Issue 1 Section 5.1	Yes	No
Peak Output Power	RSS-247 Issue 1 Section 5.4	Yes	No
Band-edge Compliance of RF Conducted Emissions	RSS-247 Issue 1 Section 5.5	Yes	No
Spurious RF Conducted Emissions	RSS-247 Issue 1 Section 5.5	Yes	No
Radiated Emission Band Edge	RSS-Gen Issue 4 Section 8.10	Yes	No

Note: The EUT is powered by battery, so conducted emission is not tested.

2.2. Test Environment

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	21
Humidity (%RH)	25-75	50
Barometric pressure (mbar)	860-1060	950-1000

3. Conducted Emission

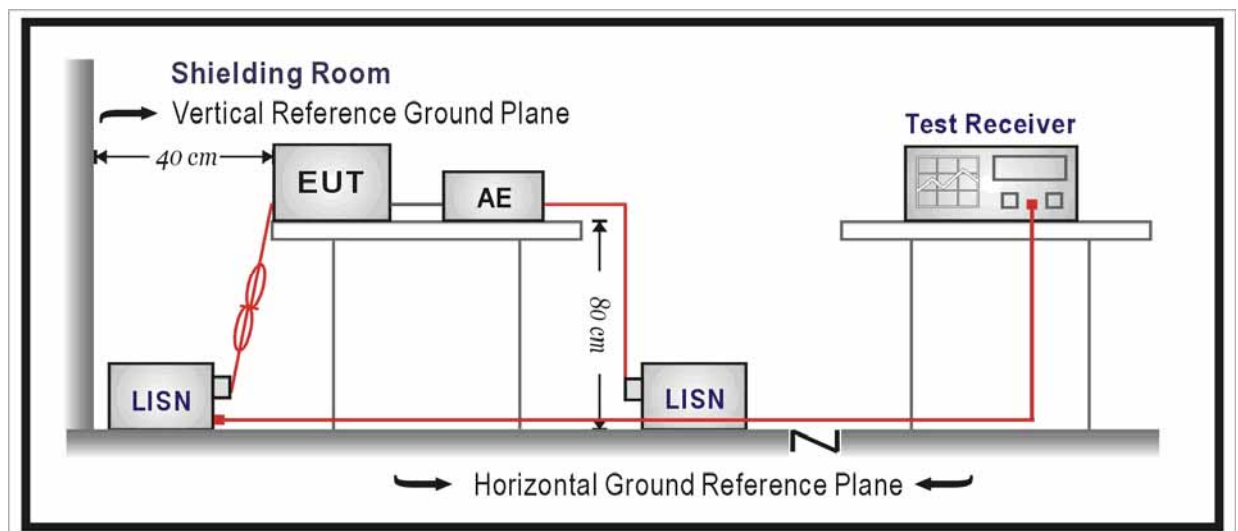
3.1. Test Equipment

Conducted Emission / TR-1

Instrument	Manufacturer	Type No.	Serial No.	Cal. Due Date
EMI Test Receiver	R&S	ESCI	100726	2016.03.10
Two-Line V-Network	R&S	ENV216	100043	2016.03.10
Two-Line V-Network	R&S	ENV216	100044	2016.09.16
50ohm Coaxial Switch	Anritsu	MP59B	6200464462	2016.03.01
50ohm Termination	SHX	TF2	07081401	2016.09.16
Temperature/Humidity Meter	zhicheng	ZC1-2	TR1-TH	2017.01.04

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

3.2. Test Setup



3.3. Limit

FCC Part 15 Subpart C Paragraph 15.207 Limits		
Frequency (MHz)	QP (dBuV)	AV (dBuV)
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Note 1: The lower limit shall apply at the transition frequencies.

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

3.4. Test Procedure

According to FCC ANSI C63.4: 2014 & ANSI C63.10: 2013.

The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)

Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

3.5. Uncertainty

The measurement uncertainty is defined as ± 2.02 dB

3.6. Test Result

The device was powered by battery, so the test is not applied.

4. Radiated Emission

4.1. Test Equipment

Radiated Emission / AC-2

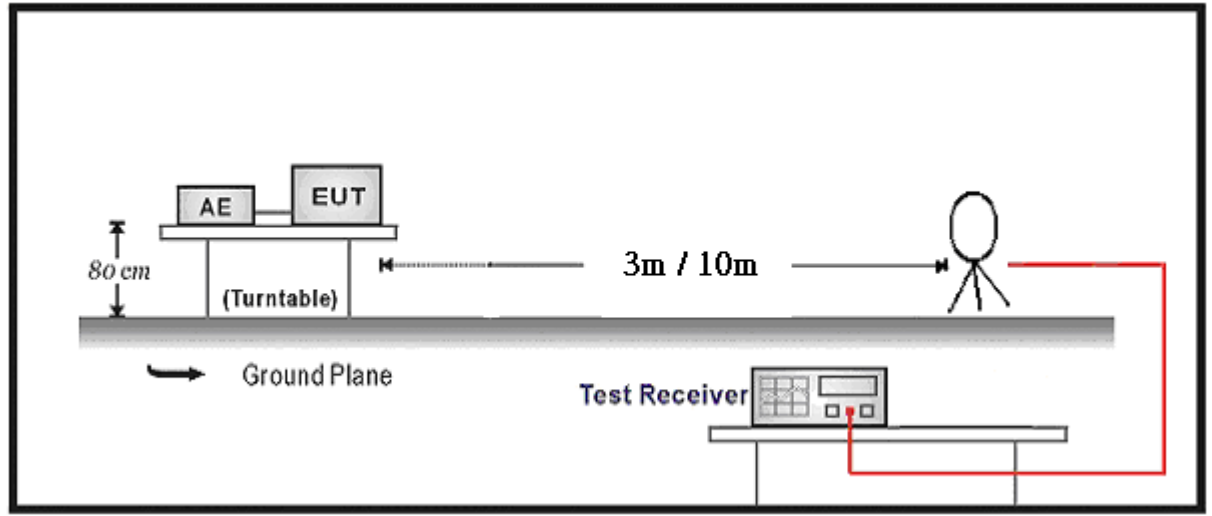
Instrument	Manufacturer	Type No.	Serial No.	Cal. Due Date
EMI Test Receiver	R&S	ESCI	100573	2016.03.10
Loop Antenna	R&S	HFH2-Z2	833799/003	2015.11.25
Bilog Antenna	Teseq GmbH	CBL6112D	27611	2016.10.10
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC2-C	2016.03.01
Temperature/Humidity Meter	Zhicheng	ZC1-2	AC2-TH	2017.01.04

Radiated Emission / AC-5

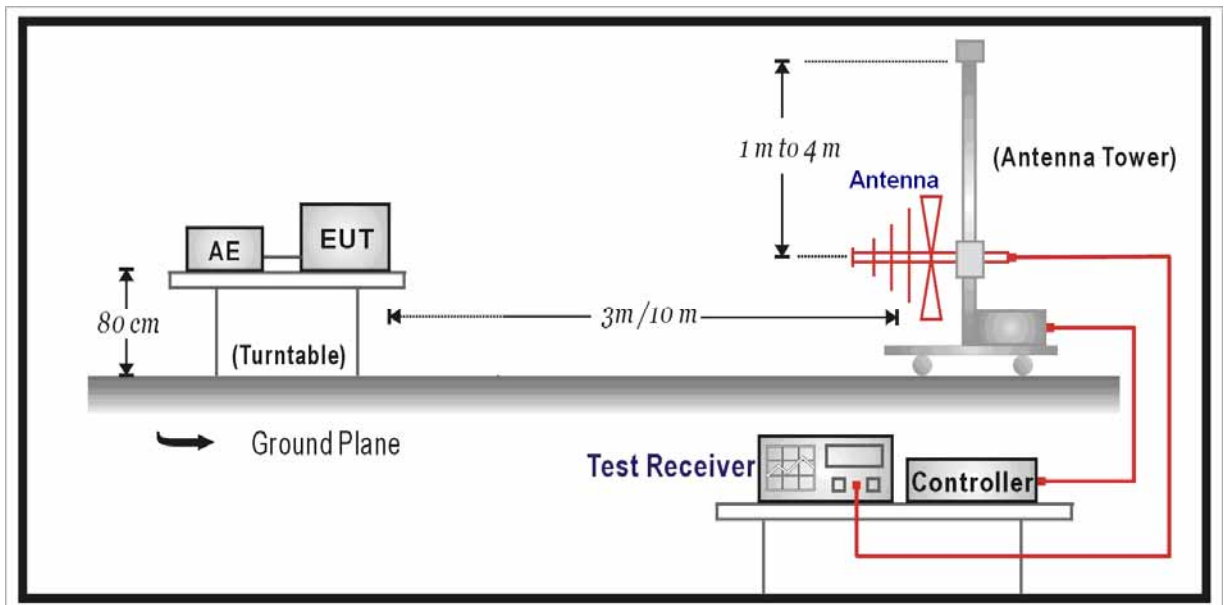
Instrument	Manufacturer	Type No.	Serial No.	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2016.03.10
Preamplifier	Miteq	NSP1800-25	1364185	2016.05.03
Preamplifier	Quietek	AP-040G	CHM-0906001	2016.05.03
Bilog Antenna	Teseq GmbH	CBL6112D	27612	2016.10.15
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	499	2016.06.08
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2016.04.10
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2016.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2016.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	AC5-C3	2016.03.01
Temperature/Humidity Meter	Zhicheng	ZC1-2	AC5-TH	2017.01.04

4.2. Test Setup

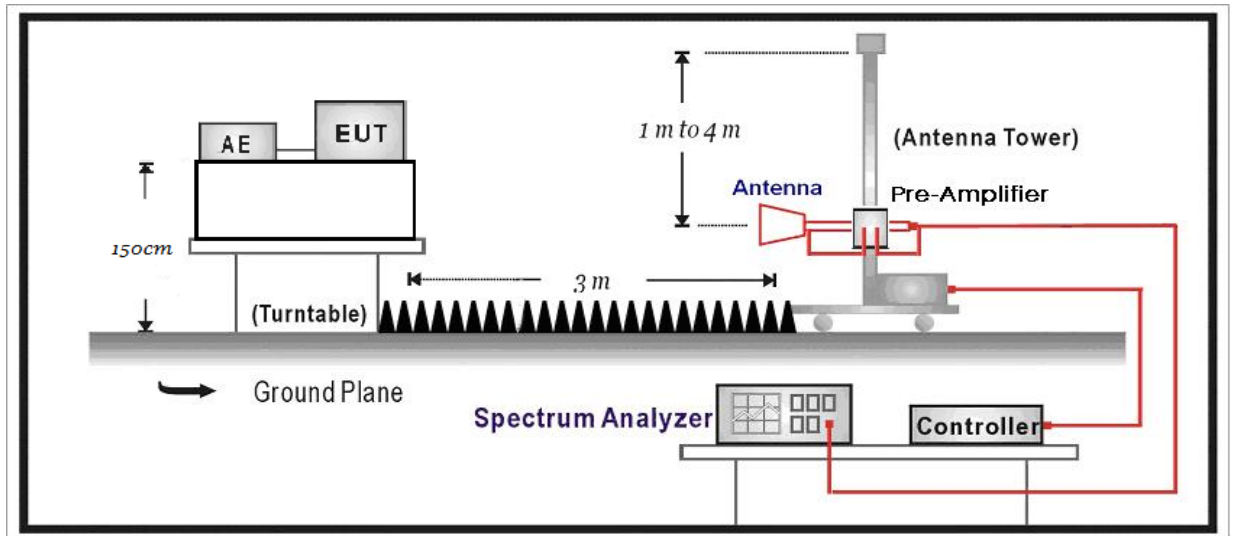
Below 30MHz Test Setup:



Below 1GHz Test Setup:



Above 1GHz Test Setup:



4.3. Limit

FCC Part 15 Subpart C Paragraph 15.209		
Frequency (MHz)	Distance (m)	Level (dBuV/m)
30 - 88	3	40
88 - 216	3	43.5
216 - 960	3	46
Above 960	3	54

Note 1: The lower limit shall apply at the transition frequency.

Note 2: Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

Note 3: E field strength (dBuV/m) = 20 log E field strength (uV/m)

4.4. Test Procedure

According to ANSI C63.4: 2014; ANSI C63.10: 2013.

The EUT is placed on a turn table which is 1.5 meter for above 1G and 0.8 meter for below 1G above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level.

This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4: 2014 on radiated measurement.

The resolution bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

The frequency range from 30MHz to 10th harmonic is checked.

Note: When doing emission measurement above 1GHz, the horn antenna will be bended down a little (as horn antenna has the narrow beamwidth) in order to keeping the antenna in the “cone of radiation” of EUT. The 3dB beamwidth is 60~10 degrees for H-plane and 90~10 degrees for E-plane.

4.5. Uncertainty

The measurement uncertainty above 1GHz is defined as ± 3.9 dB
below 1GHz is defined as ± 3.8 dB

4.6. Test Result

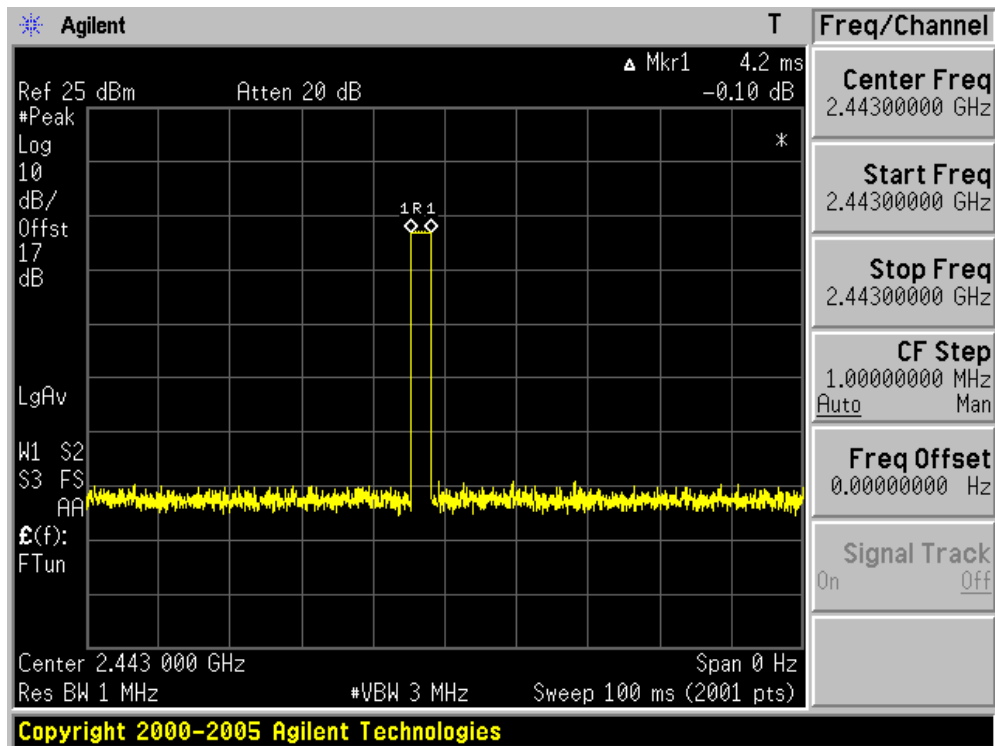
All of the test result shown indicates the worst case, and spectrum analyzer parameters setting as shown below:

Peak detector: RBW = 1MHz, VBW = 3MHz, sweep time = 200ms;

Average = Peak Measure Level+ Duty Factor

Duty Factor= $20 \cdot \text{LOG}(\text{Pulse Number} \cdot \text{On Time} / 100) = -27.54\text{dB}$ in worst condition in normal use.

Pulse Number



Mode 1: Transmit Mode

Chain	CH	Antenna	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
Ant 1	01	H	4852.4	32.4	8.1	40.5	54(Note2)	-13.5	PK
		V	4852.4	33.1	8.1	41.2	54(Note2)	-12.8	PK
		H	7278.6	27.5	12.5	40.0	54(Note2)	-14.0	PK
		V	7278.6	26.9	12.5	39.4	54(Note2)	-14.6	PK
		H	9704.8	20.8	15.9	36.7	54(Note2)	-17.3	PK
		V	9704.8	20.7	15.9	36.6	54(Note2)	-17.4	PK
	15	H	4886.0	31.4	8.6	40.0	54(Note2)	-14.0	PK
		V	4886.0	32.0	8.6	40.6	54(Note2)	-13.4	PK
		H	7329.0	26.4	12.8	39.2	54(Note2)	-14.8	PK
		V	7329.0	27.1	12.8	39.9	54(Note2)	-14.1	PK
		H	9772.0	23.9	16.3	40.2	54(Note2)	-13.8	PK
		V	9772.0	21.2	16.3	37.5	54(Note2)	-16.5	PK
	30	H	4922.0	31.0	9.0	40.0	54(Note2)	-14.0	PK
		V	4922.0	30.8	9.0	39.8	54(Note2)	-14.2	PK
		H	7383.0	23.7	13.6	37.3	54(Note2)	-16.7	PK
		V	7380.0	24.3	13.6	37.9	54(Note2)	-16.1	PK
		H	9844.0	22.2	16.8	39.0	54(Note2)	-15.0	PK
		V	9844.0	20.9	16.8	37.7	54(Note2)	-16.3	PK

Chain	CH	Antenna	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
Ant 2	01	H	4852.4	32.9	8.1	41.0	54(Note2)	-13.0	PK
		V	4852.4	33.1	8.1	41.2	54(Note2)	-12.8	PK
		H	7278.6	27.8	12.5	40.3	54(Note2)	-13.7	PK
		V	7278.6	27.1	12.5	39.6	54(Note2)	-14.4	PK
		H	9704.8	21.0	15.9	36.9	54(Note2)	-17.1	PK
		V	9704.8	20.9	15.9	36.8	54(Note2)	-17.2	PK
	15	H	4886.0	31.6	8.6	40.2	54(Note2)	-13.8	PK
		V	4886.0	32.1	8.6	40.7	54(Note2)	-13.3	PK
		H	7329.0	26.3	12.8	39.1	54(Note2)	-14.9	PK
		V	7329.0	27.3	12.8	40.1	54(Note2)	-13.9	PK
		H	9772.0	23.9	16.3	40.2	54(Note2)	-13.8	PK
		V	9772.0	21.5	16.3	37.8	54(Note2)	-16.2	PK
	30	H	4922.0	31.3	9.0	40.3	54(Note2)	-13.7	PK
		V	4922.0	30.9	9.0	39.9	54(Note2)	-14.1	PK
		H	7383.0	24.1	13.6	37.7	54(Note2)	-16.3	PK
		V	7380.0	24.4	13.6	38.0	54(Note2)	-16.0	PK
		H	9844.0	22.6	16.8	39.4	54(Note2)	-14.6	PK
		V	9844.0	21.1	16.8	37.9	54(Note2)	-16.1	PK

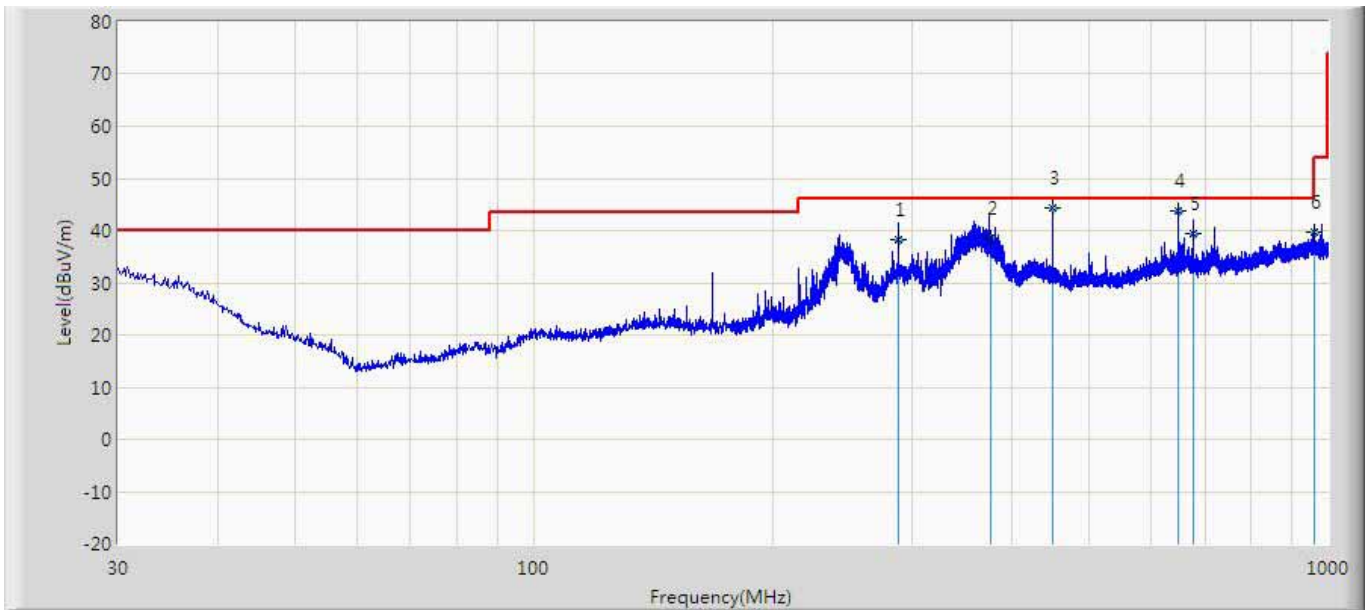
Note 1: The test frequency range, 9kHz~30MHz, 18GHz~25GHz, both of the worst case are at least 6dB below the limits, therefore no data appear in the report.

2: This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

3: Measure Level = Reading Level + Factor.

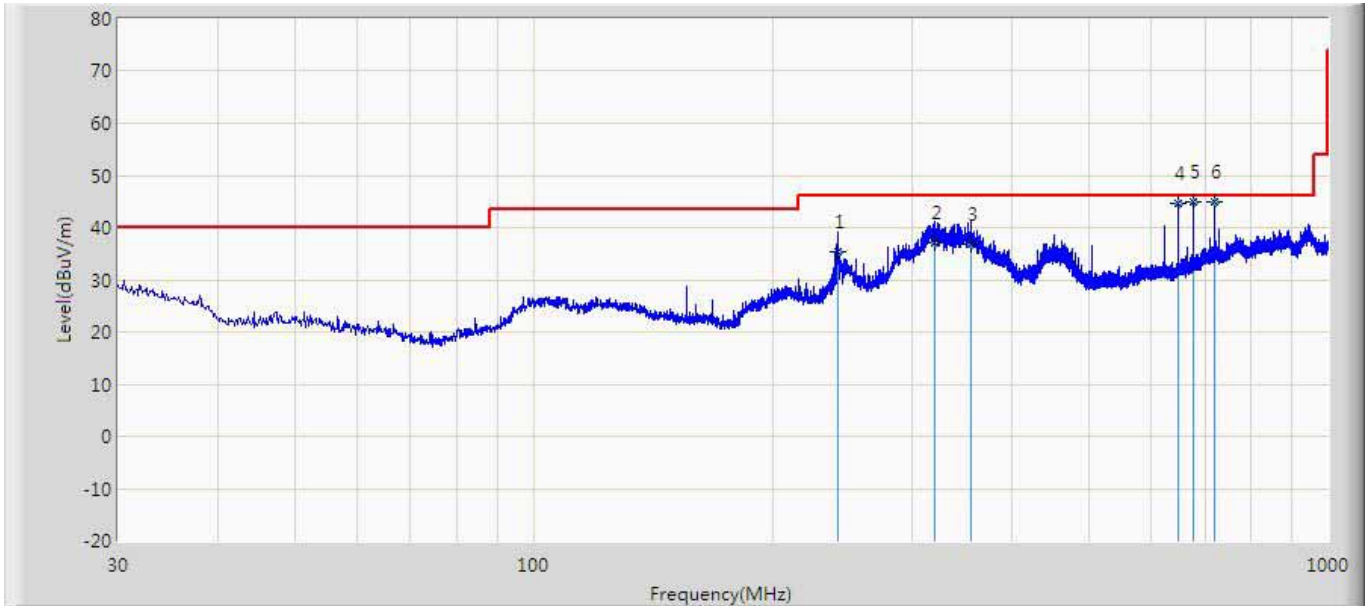
The worst case of Radiated Emission below 1GHz:

Engineer: Scott	
Site: AC2	Time: 2015/12/20 - 11:55
Limit: FCC_Part15.109_RE(3m)_ClassB	Margin: 0
Probe: AC2_10M(30-1000M)	Polarity: Horizontal
EUT: Radio Controller	Power: AC 120V/60Hz
Note: Mode 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		288.610	38.362	17.600	-7.638	46.000	20.762	QP
2		375.860	38.681	15.100	-7.319	46.000	23.581	QP
3	*	450.014	44.374	17.300	-1.626	46.000	27.074	QP
4		648.026	43.746	15.100	-2.254	46.000	28.646	QP
5		676.330	39.349	10.600	-6.651	46.000	28.749	QP
6		960.203	39.822	7.100	-14.178	54.000	32.722	QP

Engineer: Scott	
Site: AC2	Time: 2015/12/20 - 12:15
Limit: FCC_Part15.109_RE(3m)_ClassB	Margin: 0
Probe: AC2_10M(30-1000M)	Polarity: Vertical
EUT: Radio Controller	Power: AC 120V/60Hz
Note: Mode 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		241.330	35.360	12.100	-10.640	46.000	23.260	QP
2		320.160	37.091	13.800	-8.909	46.000	23.291	QP
3		355.263	36.924	12.100	-9.076	46.000	24.824	QP
4		648.037	44.763	17.400	-1.237	46.000	27.363	QP
5		676.034	44.897	16.400	-1.103	46.000	28.497	QP
6	*	720.035	44.993	14.800	-1.007	46.000	30.193	QP

5. 20dB Bandwidth

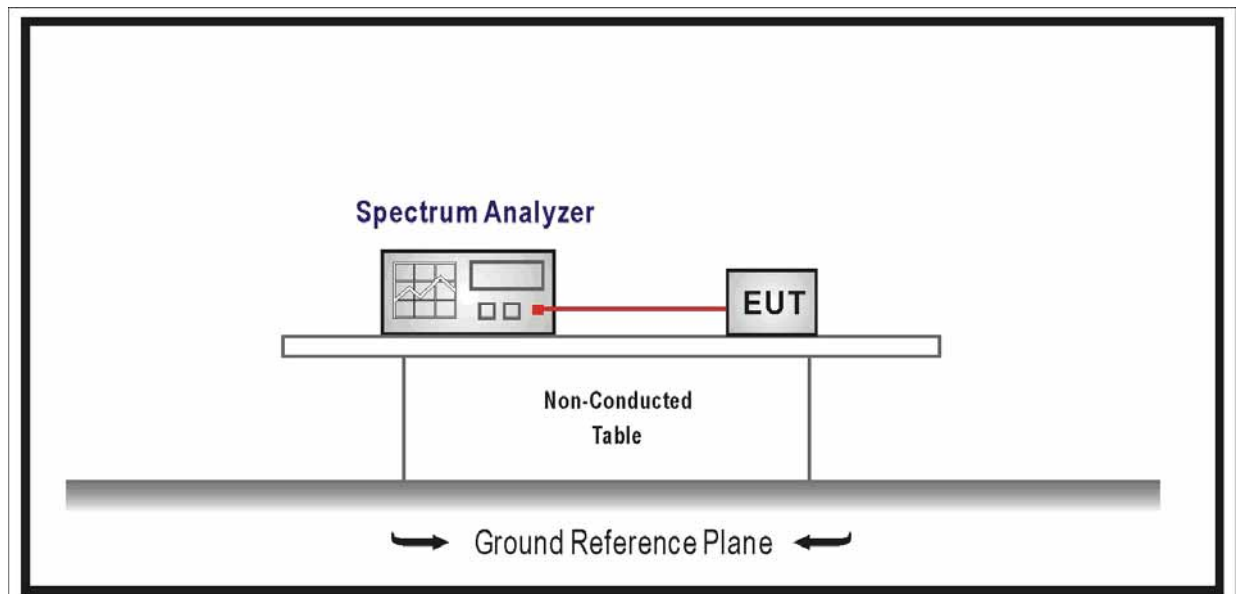
5.1 Test Equipment

20dB Bandwidth / TR8

Instrument	Manufacturer	Type No.	Serial No.	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2016.03.10
Temperature/Humidity Meter	Zhicheng	ZC1-2	TR8-TH	2016.04.09

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

5.2 Test Setup



5.3 Limit

- For frequency hopping systems operating in 2400-2483.5 MHz band, no limitation.
- For frequency hopping systems operating in 902-928 MHz band, the maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.
- For frequency hopping systems operating in 5725-5850 MHz band, the maximum 20 dB bandwidth of the hopping channel is 1 MHz.

The 20dB bandwidth must be contained within the frequency band designated in the rule section under which the equipment is operated.

5.4 Test Procedure

According to ANSI C63.10: 2013& ANSI C63.4: 2014

Use the following spectrum analyzer settings:

Span = approximately 2 to 3 times the 20dB bandwidth, centered on a hopping channel

RBW \cong 1% of the 20dB bandwidth

VBW \cong RBW

Sweep = auto

Detector function = peak

Trace = max hold

The EUT should be transmitting at its maximum data rate. Allow the trace to stabilize.

Use the marker-to-peak function to set the marker to the peak of the emission. Use the marker-delta function to measure 20 dB down one side of the emission. Reset the marker-delta function, and move the marker to the other side of the emission, until it is (as close as possible to) even with the reference marker level. The marker-delta reading at this point is the 20 dB bandwidth of the emission. If this value varies with different modes of operation (e.g., data rate, modulation format, etc.), repeat this test for each variation.

5.5 Uncertainty

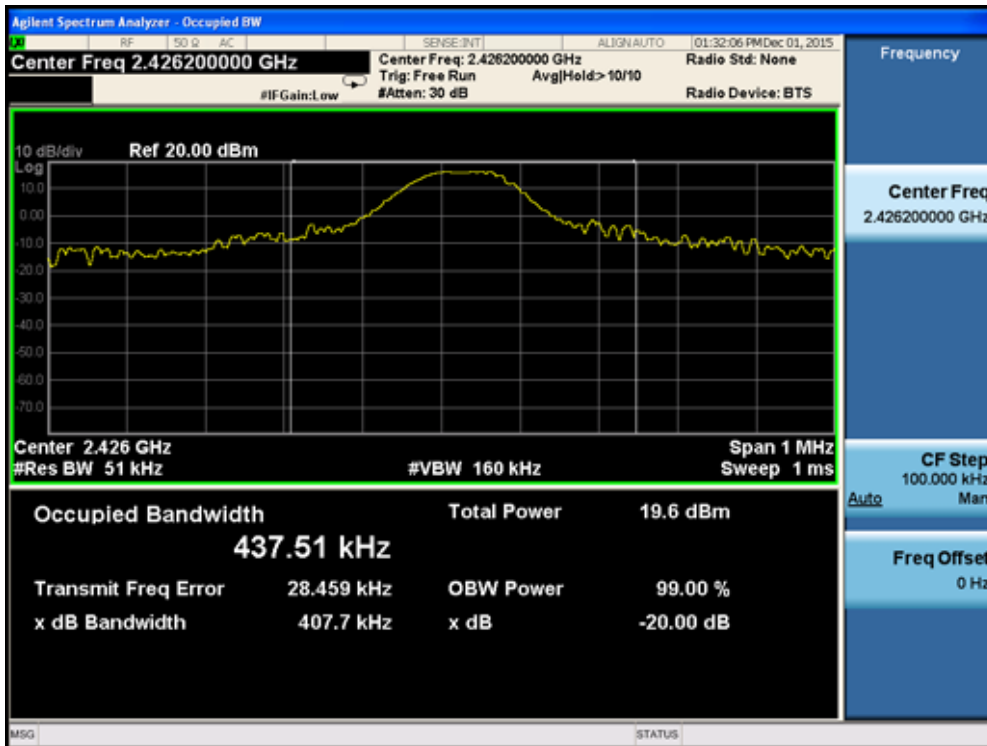
The measurement uncertainty is defined as ± 1 kHz

5.6 Test Result

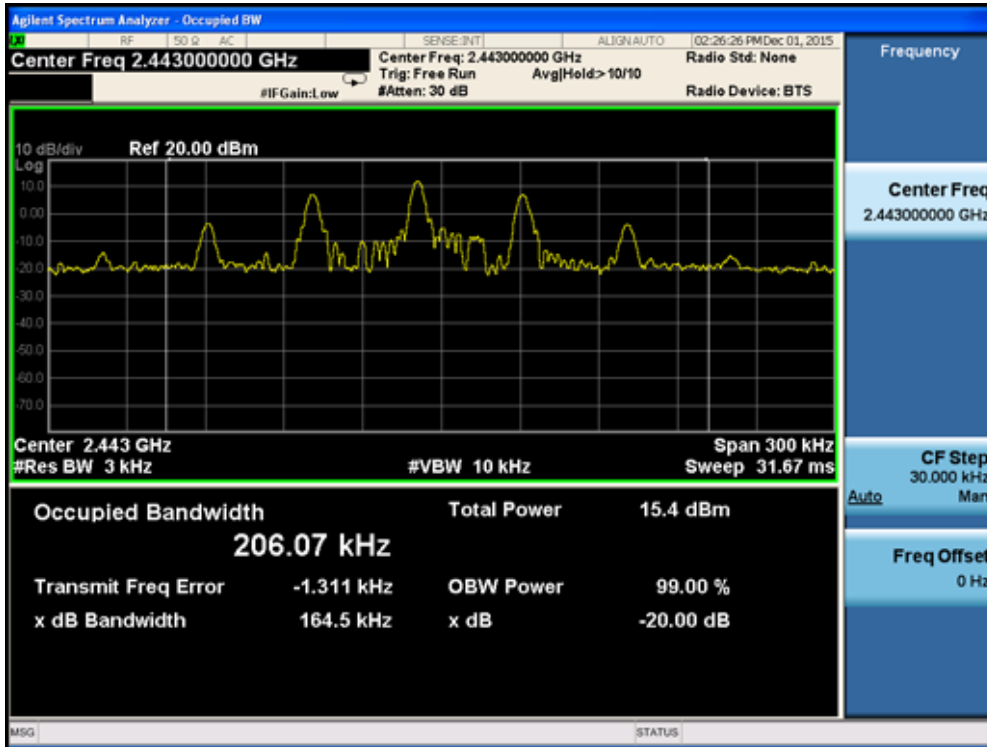
Product	:	Radio Controller
Test Item	:	Occupied Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmit Mode

Channel No.	Frequency (MHz)	20dB Bandwidth (kHz)	99% Bandwidth (kHz)
01	2426.2	407.7	437.51
15	2443	164.5	206.07
30	2461	165.0	234.29

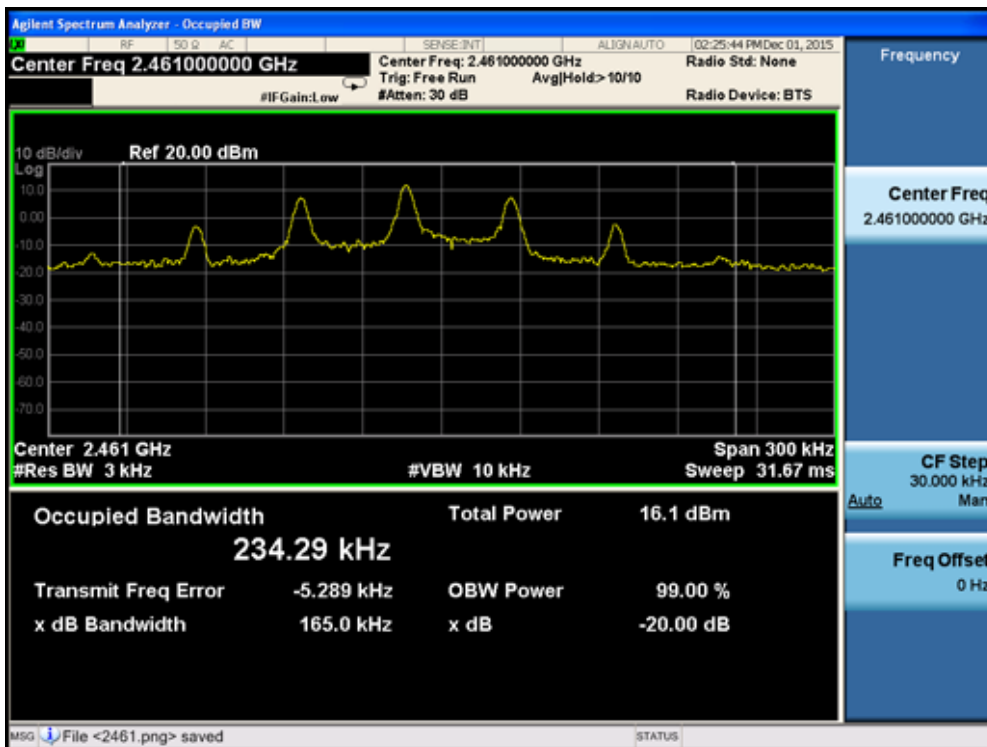
Channel 01 (2426.2MHz)



Channel 15 (2443MHz)



Channel 30 (2461MHz)



Note: For this test item, the modulation of each mode we have evaluated each antennas, presented data in the report is the worst case.

6. Carrier Frequency Separation

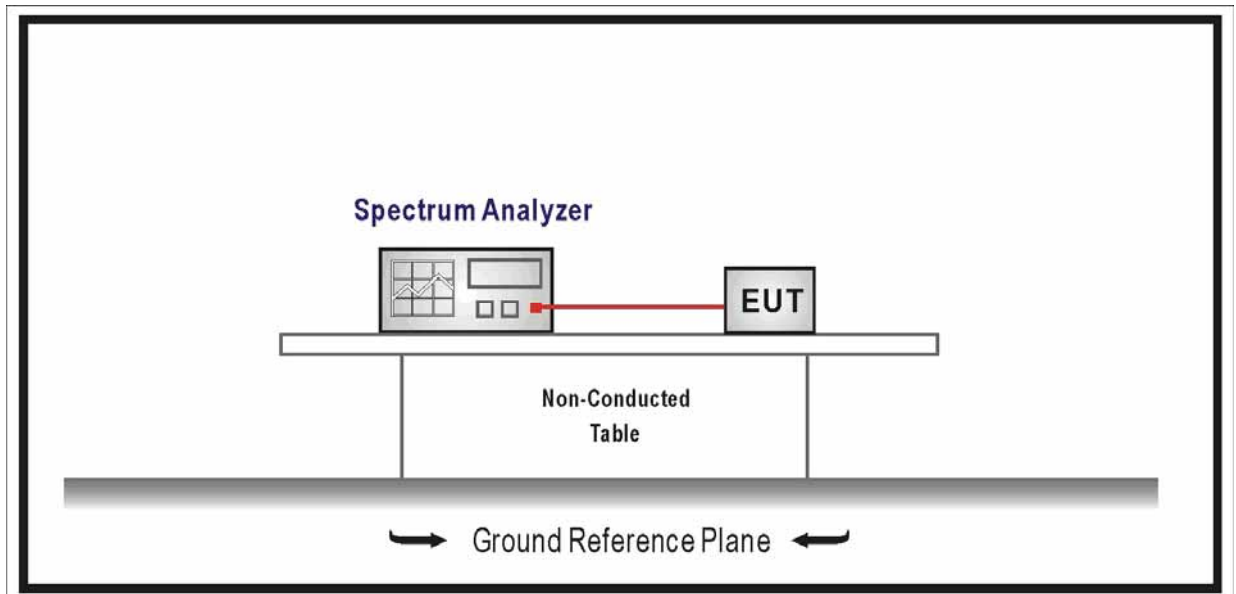
6.1. Test Equipment

Carrier Frequency Separation / TR-8

Instrument	Manufacturer	Type No.	Serial No.	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2016.03.10
Temperature/Humidity Meter	Zhicheng	ZC1-2	TR8-TH	2016.04.09

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

6.2. Test Setup



6.3. Limit

- Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB 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 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping

channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

- For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; If the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.
- Frequency hopping systems operating in the 5725-5850 MHz band shall use at least 75 hopping frequencies. The maximum 20 dB bandwidth of the hopping channel is 1 MHz. The average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 30 second period.

6.4. Test Procedure

According to ANSI C63.10: 2013& ANSI C63.4: 2014

The EUT must have its hopping function enabled. Use the following spectrum analyzer settings:

Span = wide enough to capture the peaks of two adjacent channels

Resolution (or IF) Bandwidth (RBW) \geq 1% of the span

Video (or Average) Bandwidth VBW \geq RBW

Sweep = auto

Detector function = peak

Trace = max hold

Allow the trace to stabilize. Use the marker-delta function to determine the separation between the peaks of the adjacent channels.

6.5. Uncertainty

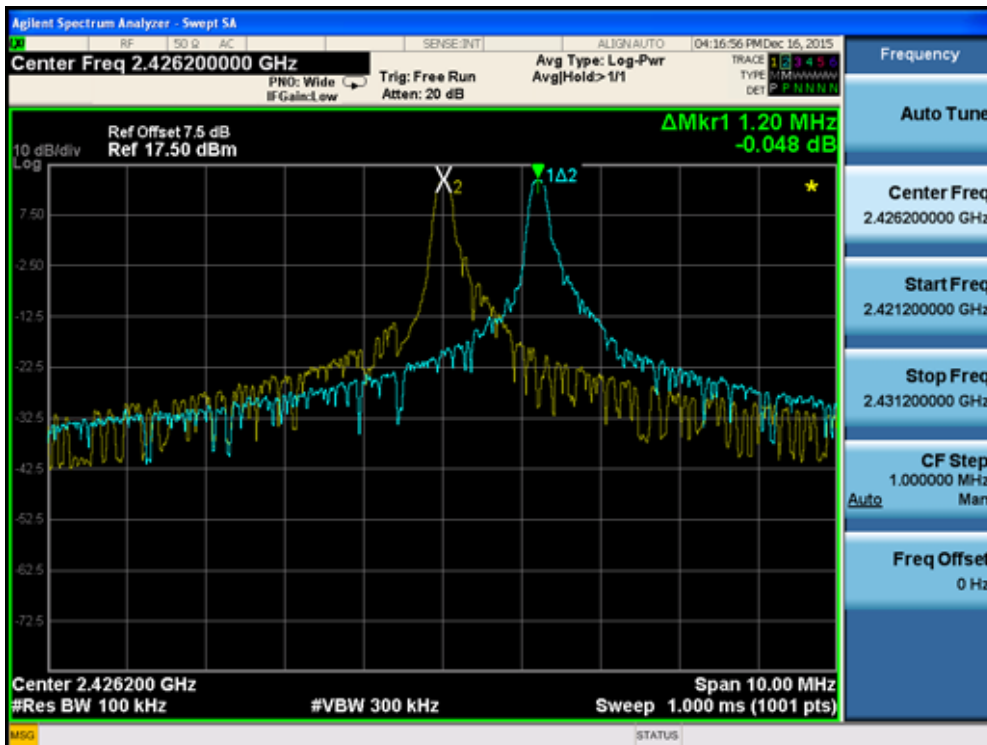
The measurement uncertainty is defined as ± 1 kHz

6.6. Test Result

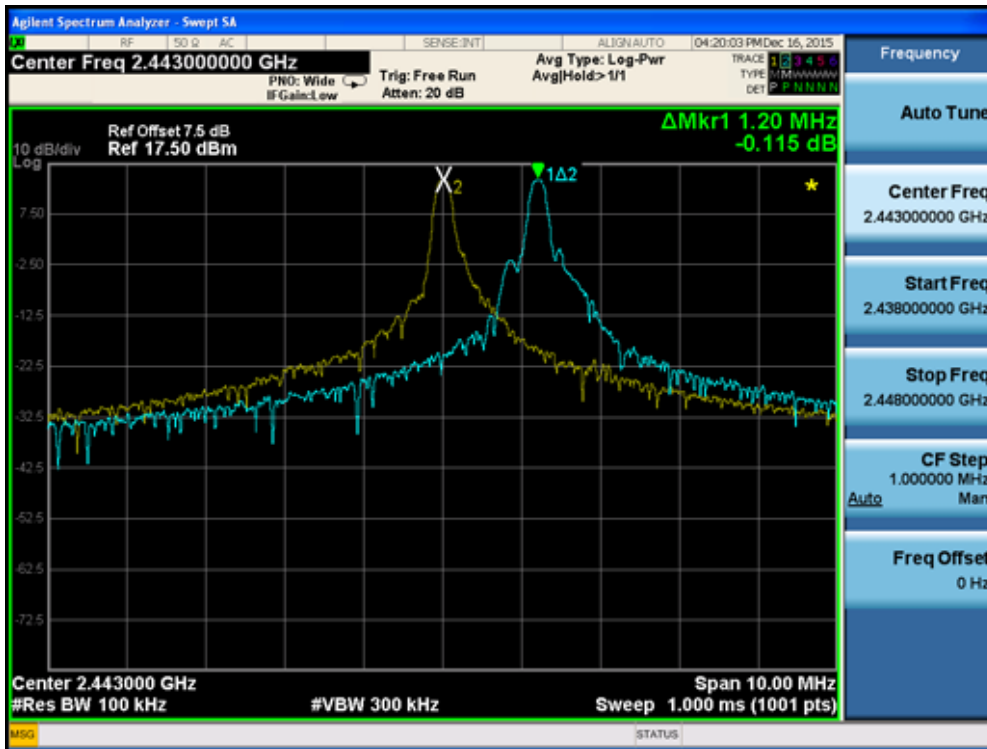
Product	:	Radio Controller
Test Item	:	Carrier Frequency Separation
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmit Mode

Channel No.	Frequency (MHz)	Carrier Frequency Separation (kHz)	Limit (kHz)	Result
01	2426.2	1200	>25 kHz or 2/3 of 20 dB BW	Pass
15	2443	1200	>25 kHz or 2/3 of 20 dB BW	Pass
30	2461	1200	>25 kHz or 2/3 of 20 dB BW	Pass

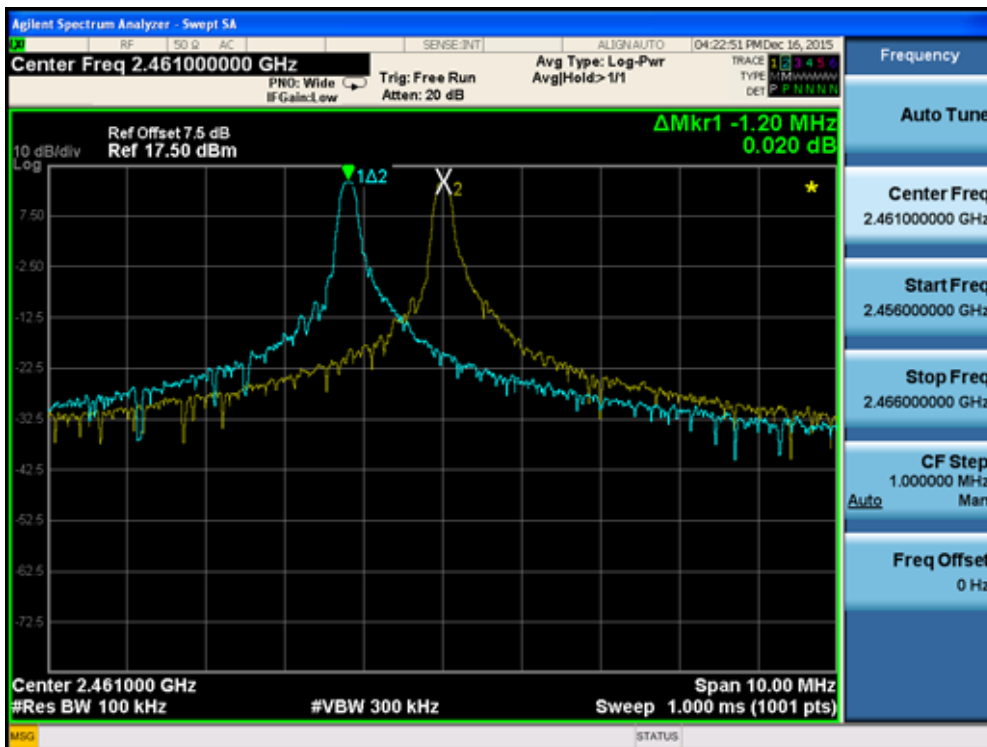
Channel 01 (2426.2MHz)



Channel 15 (2443MHz)



Channel 30 (2461MHz)



Note: For this test item, the modulation of each mode we have evaluated each antennas, presented data in the report is the worst case.

7. Number of Hopping Frequencies

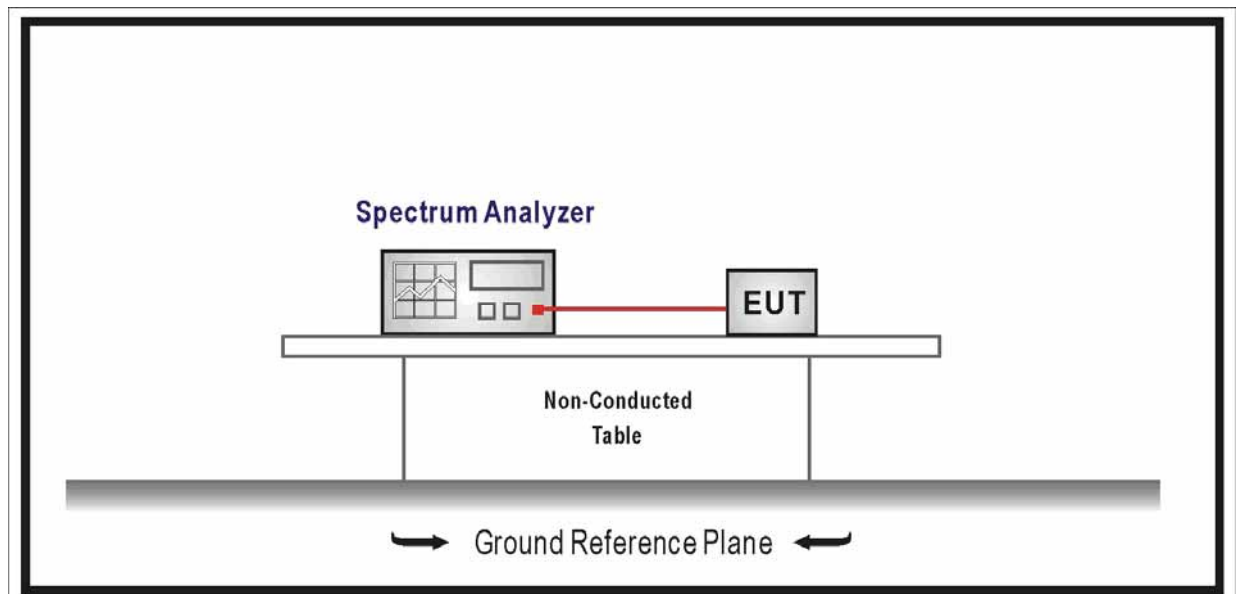
7.1. Test Equipment

Number of Hopping Frequencies / TR-8

Instrument	Manufacturer	Type No.	Serial No.	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2016.03.10
Temperature/Humidity Meter	Zhicheng	ZC1-2	TR8-TH	2016.04.09

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

7.2. Test Setup



7.3. Limit

- For frequency hopping systems operating in the 2400-2483.5 MHz band shall use at least 15 hopping frequencies.
- For frequency hopping systems operating in 902-928 MHz band shall use at least 50 hopping frequencies.
- For frequency hopping systems operating in the 5725-5850 MHz band shall use at least 75 hopping frequencies.

7.4. Test Procedure

According to ANSI C63.10: 2013& ANSI C63.4: 2014

The EUT must have its hopping function enabled. Use the following spectrum analyzer settings:

Span = the frequency band of operation

RBW \cong 1% of the span

VBW \cong RBW

Sweep = auto

Detector function = peak

Trace = max hold

Allow the trace to stabilize. It may prove necessary to bread the span up to sections, in order to clearly show all of the hopping frequencies.

7.5. Uncertainty

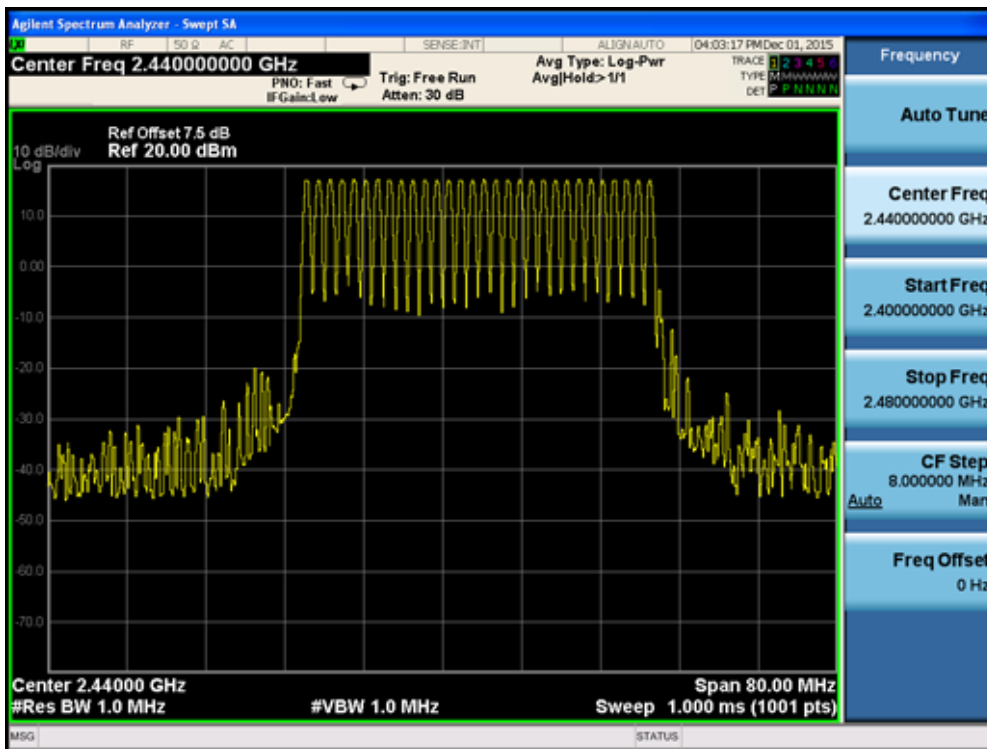
The measurement uncertainty is defined as ± 1 kHz

7.6. Test Result

Product	:	Radio Controller
Test Item	:	Number of Hopping Frequencies
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmit Mode

Frequency Band (MHz)	Number of Hopping Frequencies	Limit	Result
2426.2 - 2461	30	>15	Pass

2400 - 2480 MHz



Note: For this test item, the modulation of each mode we have evaluated each antennas, presented data in the report is the worst case.

8. Time of Occupancy (Dwell Time)

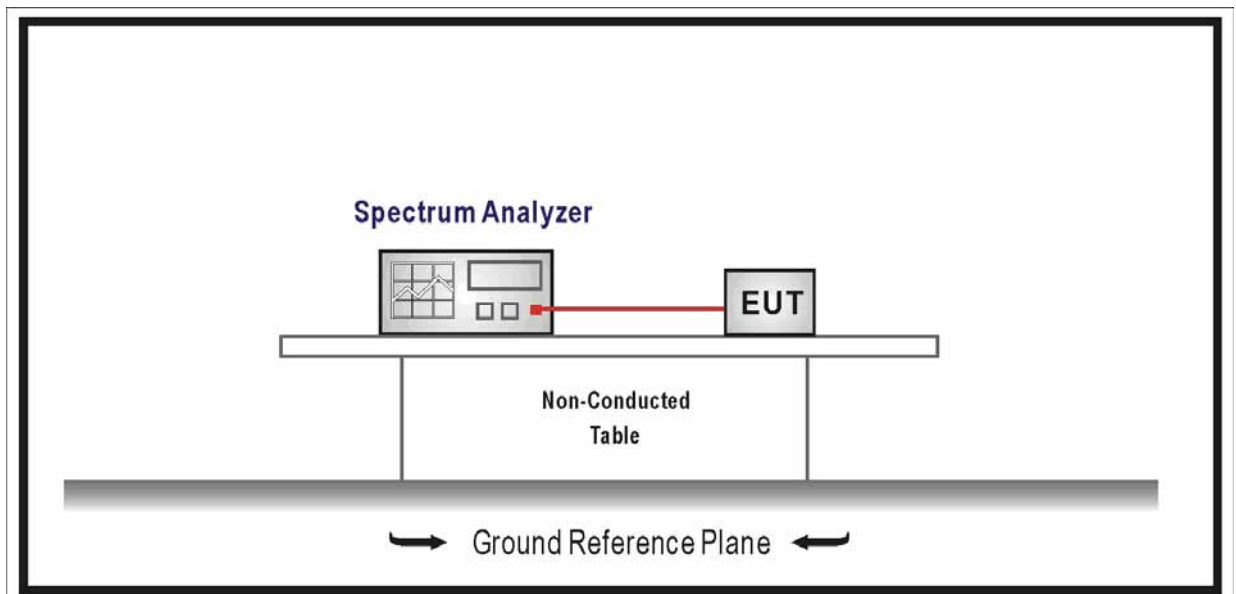
8.1. Test Equipment

Time of Occupancy (Dwell Time) / TR-8

Instrument	Manufacturer	Type No.	Serial No.	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2016.03.10
Temperature/Humidity Meter	Zhicheng	ZC1-2	TR8-TH	2016.04.09

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

8.2. Test Setup



8.3. Limit

- For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; If the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.
- Frequency hopping systems operating in the 5725-5850 MHz band shall use at least 75

hopping frequencies. The maximum 20 dB bandwidth of the hopping channel is 1 MHz. The average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 30 second period.

- 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.

8.4. Test Procedure

According to ANSI C63.10: 2013& ANSI C63.4: 2014

The EUT must have its hopping function enabled. Use the following spectrum analyzer settings:

Span = zero span, centered on a hopping channel

RBW = 1MHz

VBW \geq RBW

Sweep = as necessary to capture the entire dwell time per hopping channel

Detector function = peak

Trace = max hold

If possible, use the marker-delta function to determine the dwell time. If this value varies with different modes of operation (e.g., data rate, modulation format, etc.), repeat this test for each variation.

8.5. Uncertainty

The measurement uncertainty is defined as ± 0.1 us

8.6. Test Result

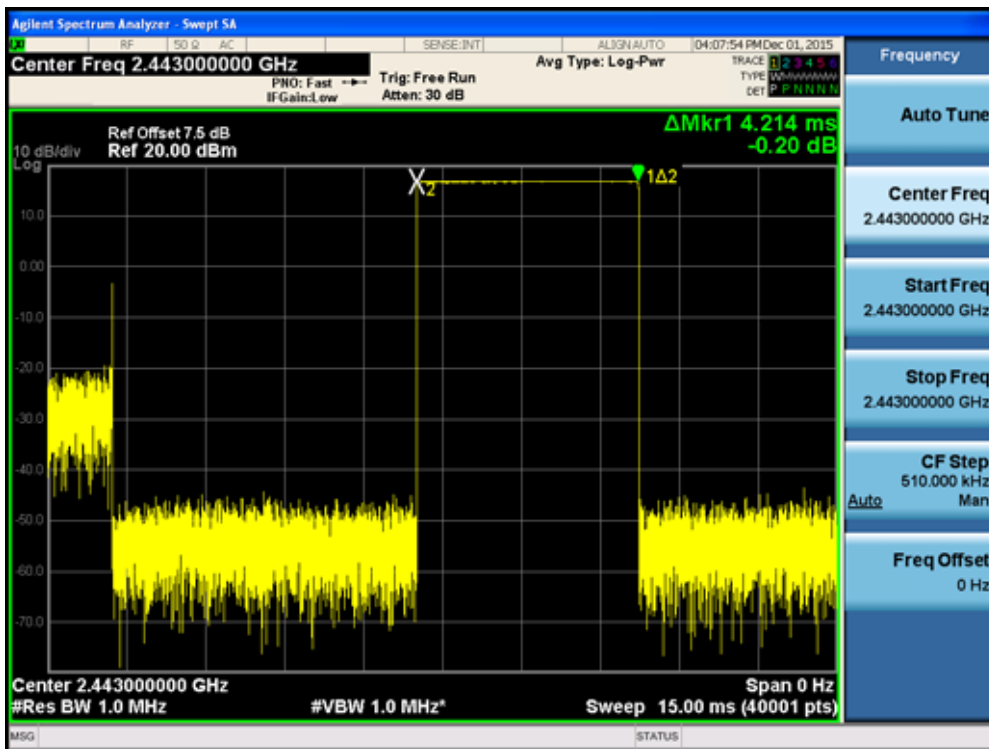
Product	:	Radio Controller
Test Item	:	Time of Occupancy (Dwell Time)
Test Site	:	TR-8
Test Mode	:	Normal Mode(Hopping)

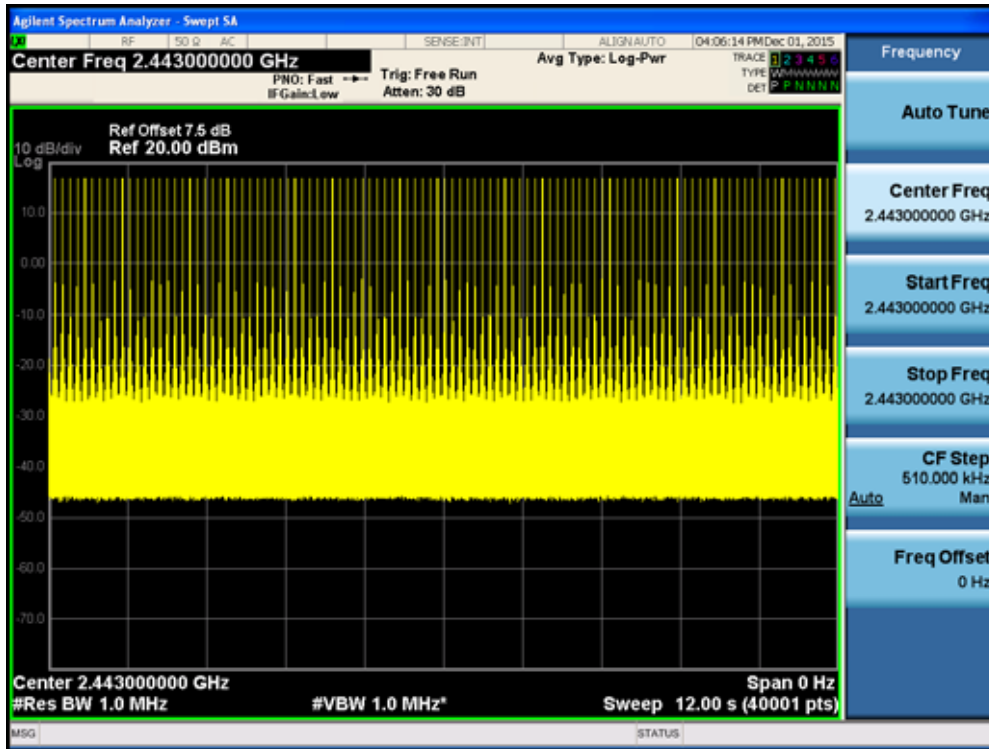
Channel No.	Frequency (MHz)	Time of Occupancy (ms)	Limit (ms)	Result
15	2443	316.05	< 400	Pass

Test Time Period: $0.4 \times 30 = 12\text{sec}$.

- 2443MHz, The Maximum Occupancy Time Within 12sec: $4.214\text{ms} \times 75 = 316.05\text{msec}$

Channel 15 (2443MHz)





Note: For this test item, the modulation of each mode we have evaluated each antennas, presented data in the report is the worst case.

9. Peak Output Power

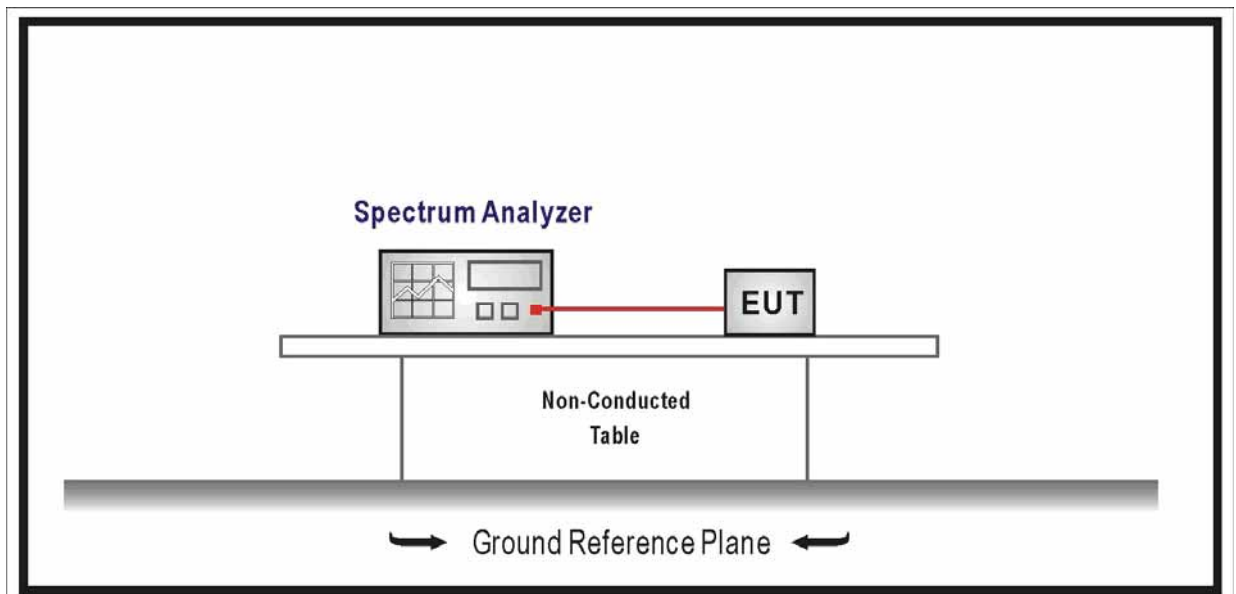
9.1. Test Equipment

Peak Output Power / TR-8

Instrument	Manufacturer	Type No.	Serial No.	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2016.03.10
Temperature/Humidity Meter	Zhicheng	ZC1-2	TR8-TH	2016.04.09

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

9.2. Test Setup



9.3. Limit

- 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.
- For frequency hopping systems operating in the 902-928 MHz band: 1 watt for systems employing at least 50 hopping channels; and, 0.25 watts for systems employing less than 50 hopping channels, but at least 25 hopping channels.

Note: the conducted output power limit specified above is based on the use the antennas with

directional gains that do not exceed 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values above, as appropriate, by the amount in dB that the directional gain of antenna exceeds 6 dBi.

9.4. Test Procedure

According to ANSI C63.10: 2013& ANSI C63.4: 2014

Use the following spectrum analyzer settings:

Span = approximately 5 times the 20dB bandwidth, centered on a hopping channel

RBW > the 20 dB bandwidth of the emission being measured.

VBW \cong RBW

Sweep = auto

Detector function = peak

Trace = max hold

Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. The indicated level is the peak output power (don't forget added the external attenuation and cable loss).

9.5. Uncertainty

The measurement uncertainty is defined as ± 1.0 dB

9.6. Test Result

Product	:	Radio Controller
Test Item	:	Power Output
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmit Mode

Channel No.	Frequency (MHz)	Measurement Power Output (dBm)		Limit (dBm)	Result
		Antenna 1	Antenna 2		
01	2426.2	14.32	14.55	21.00	Pass
15	2443	14.30	13.79	21.00	Pass
30	2461	14.20	14.13	21.00	Pass

10. Band-edge Compliance of RF Conducted Emissions

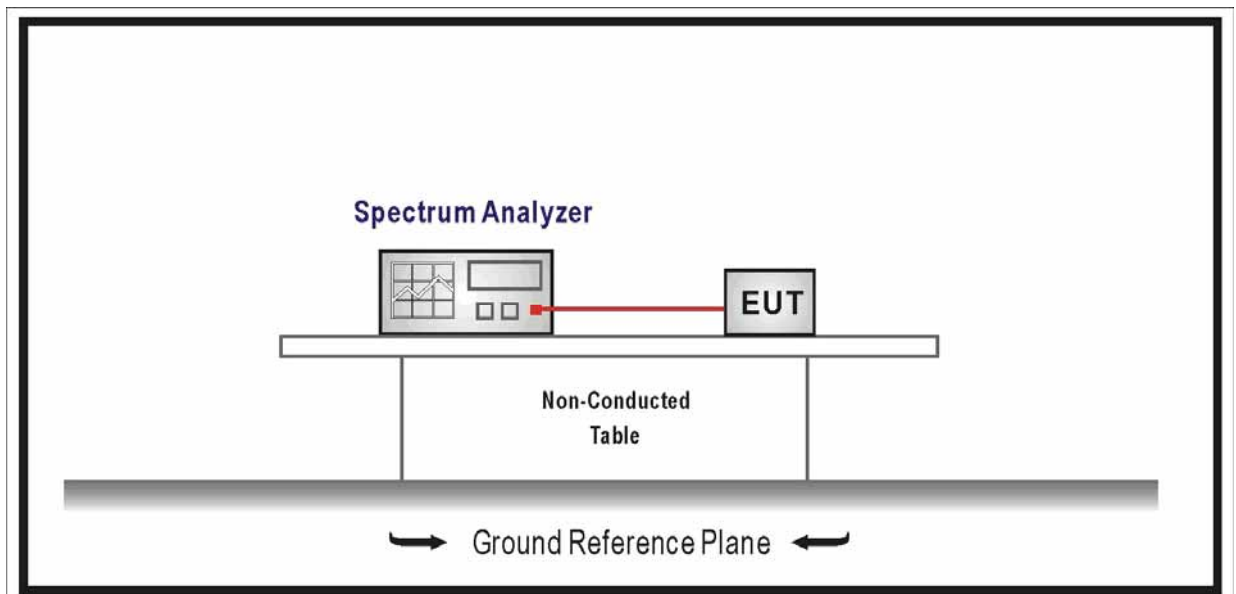
10.1. Test Equipment

Band-edge Compliance of RF Conducted Emissions / TR-8

Instrument	Manufacturer	Type No.	Serial No.	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2016.03.10
Temperature/Humidity Meter	Zhicheng	ZC1-2	TR8-TH	2016.04.09

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

10.2. Test Setup



10.3. Limit

- Intentional radiators operating under the alternative provisions to the general emission limits as contained in 15.217 through 15.257 and in Subpart E of FCC part 15, must be designed to ensure that 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.
- 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 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, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) of FCC part 15 is not required.

10.4. Test Procedure

According to ANSI C63.10: 2013& ANSI C63.4: 2014

Use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the emission operating on the channel closest to the bandedge, as well as any modulation products which fall outside of the authorized band of operation.

RBW \cong 1% of the span

VBW \cong RBW

Sweep = auto

Detector function = peak

Trace = max hold

Allow the trace to stabilize. Set the marker on the emission at the bandedge, or on the highest modulation product outside of the band, if this level is greater than that at the bandedge.

Enable the marker-delta function, then use the marker-to-peak function to move the marker to the peak of the in-band emission. The marker-delta value now displayed must comply with the limit specified in this Section.

Now, using the same instrument settings, enable the hopping function of the EUT. Allow the trace to stabilize. Follow the same procedure listed above to determine if any spurious emissions caused by the hopping function also comply with the specified limit.

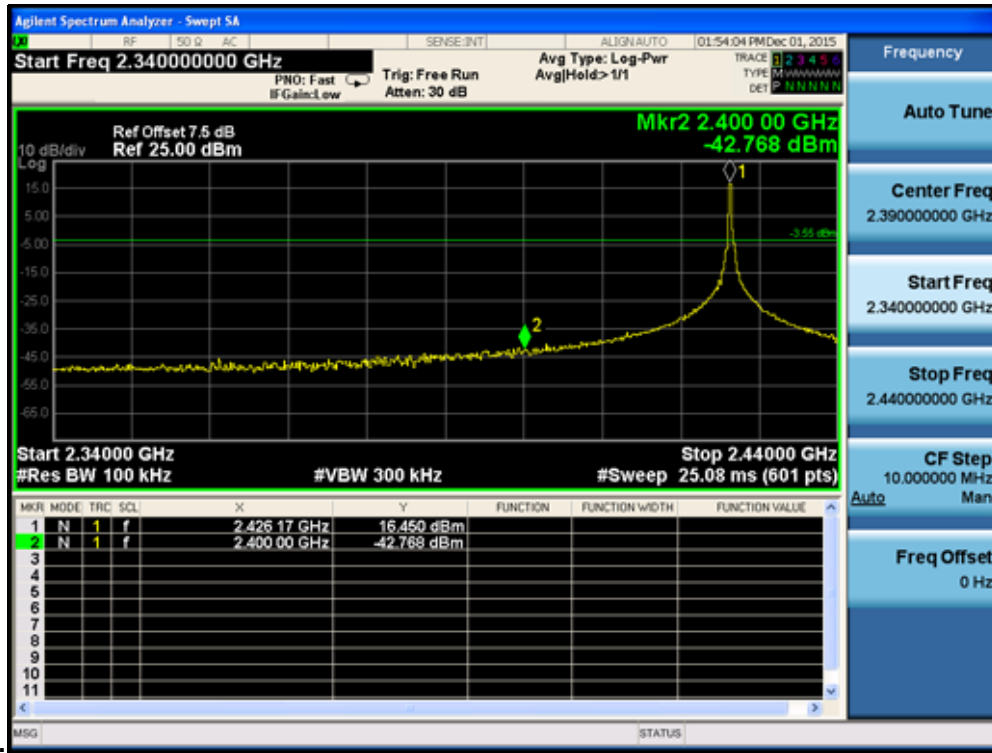
10.5. Uncertainty

The measurement uncertainty is defined as ± 1.0 dB

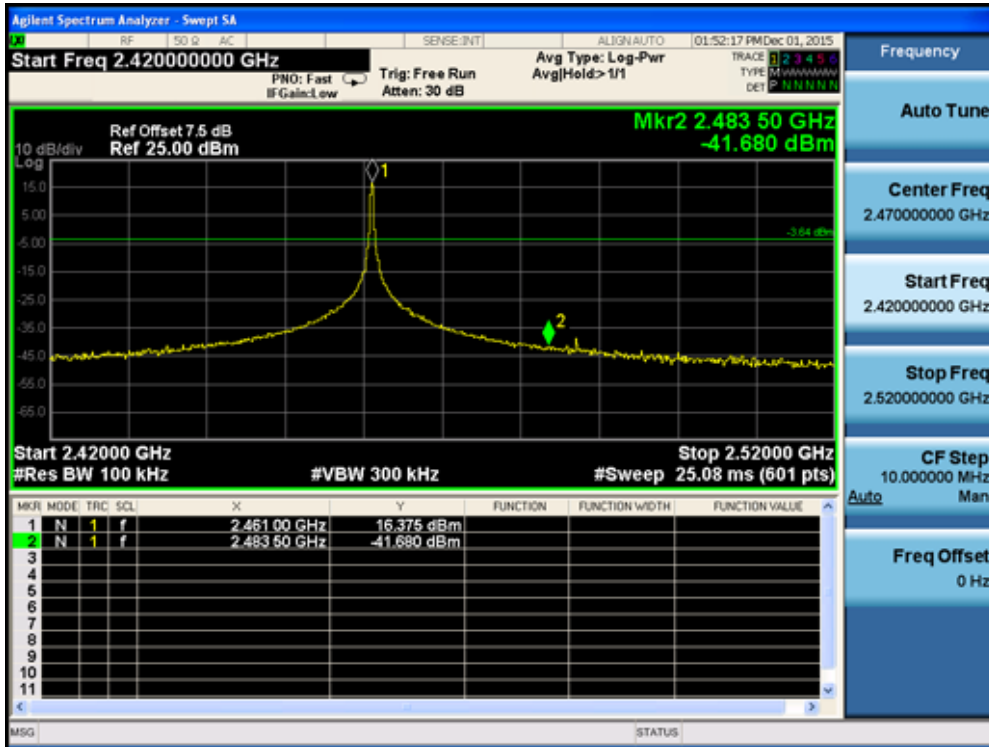
10.6. Test Result

Product	:	Radio Controller
Test Item	:	Band-edge Compliance of RF Conducted Emissions
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmit Mode

Channel 01 (2426.2MHz)



Channel 30 (2461MHz)



Note: For this test item, the modulation of each mode we have evaluated each antennas, presented data in the report is the worst case.

11. Spurious RF Conducted Emissions

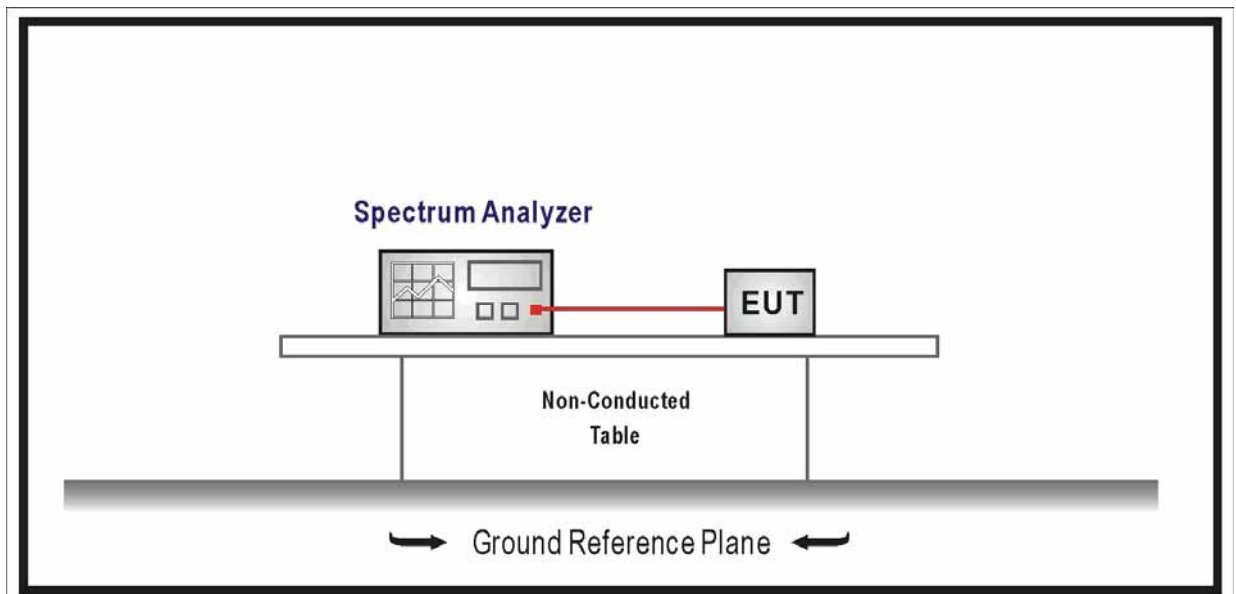
11.1. Test Equipment

Spurious RF Conducted Emissions / TR-8

Instrument	Manufacturer	Type No.	Serial No.	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2016.03.10
Temperature/Humidity Meter	Zhicheng	ZC1-2	TR8-TH	2016.04.09

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

11.2. Test Setup



11.3. Limit

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 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, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in

Section 15.209(a) of FCC part 15 is not required.

11.4. Test Procedure

According to ANSI C63.10: 2013.

Use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the in-band emission and all spurious emissions (e.g., harmonics) from the lowest frequency generated in the EUT up through the 10th harmonic. Typically, several plots are required to cover this entire span.

RBW = 100 kHz

VBW \cong RBW

Sweep = auto

Detector function = peak

Trace = max hold

Allow the trace to stabilize. Set the marker on the peak of any spurious emission recorded.

The level displayed must comply with the limit specified in this section.

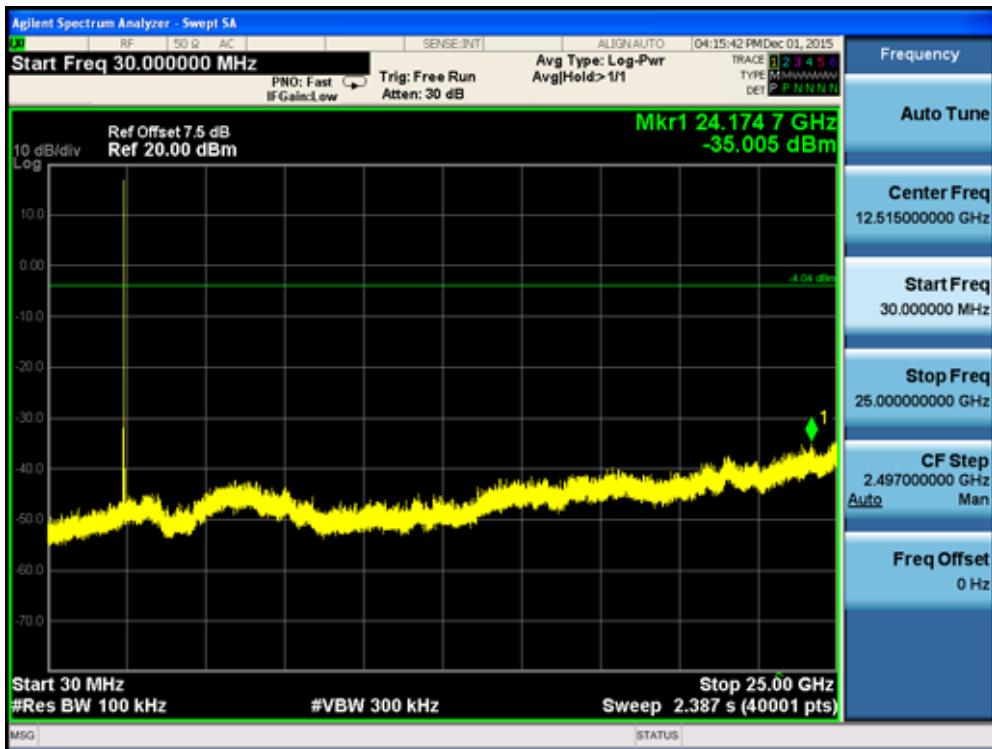
11.5. Uncertainty

The measurement uncertainty is defined as ± 1.0 dB

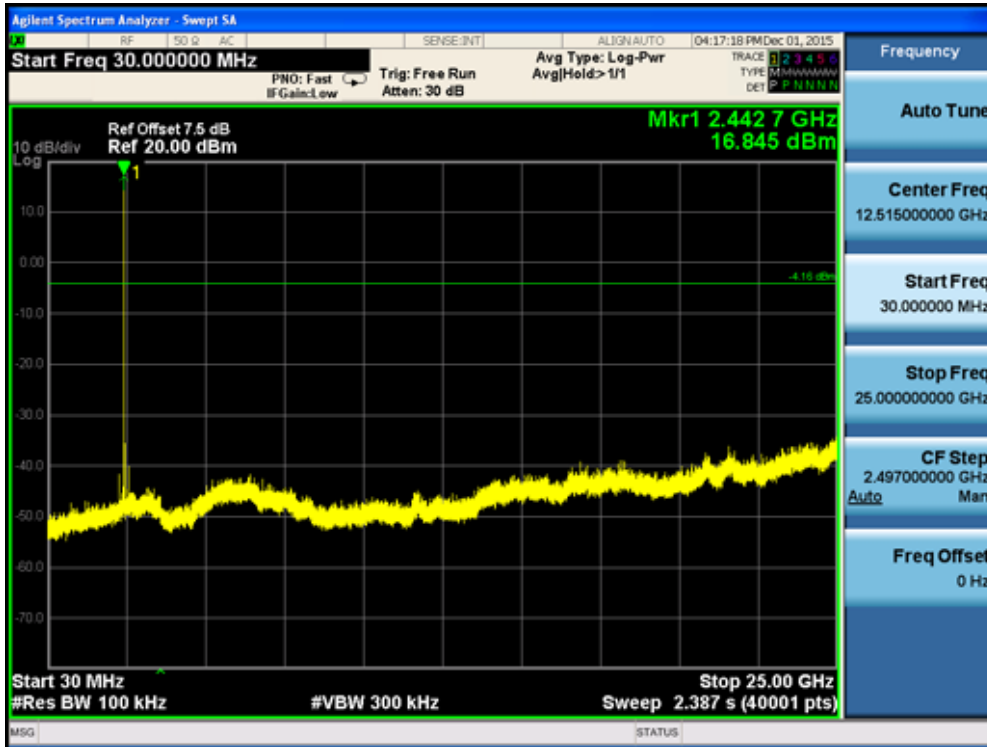
11.6. Test Result

Product	:	Radio Controller
Test Item	:	Spurious RF Conducted Emissions
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmit Mode

Channel 01 (2426.2MHz)



Channel 15 (2443MHz)



Channel 30 (2461MHz)



Note: For this test item, the modulation of each mode we have evaluated each antennas, presented data in the report is the worst case.

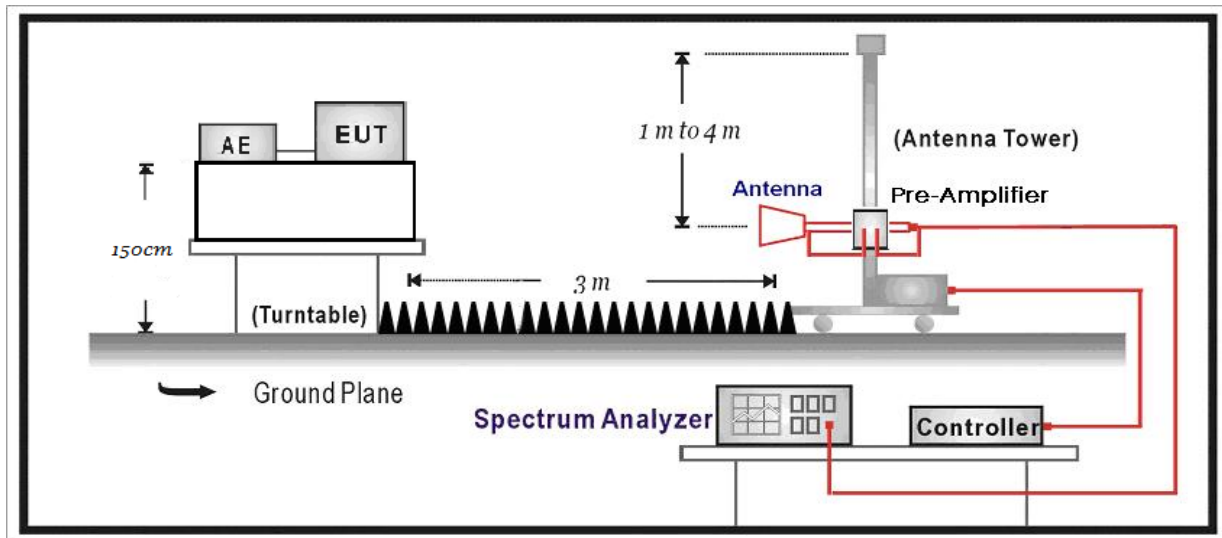
12. Radiated Emission Band Edge

12.1. Test Equipment

Radiated Emission Band Edge / AC-5

Instrument	Manufacturer	Type No.	Serial No.	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2016.03.10
Preamplifier	Miteq	NSP1800-25	1364185	2016.05.03
Preamplifier	Quietek	AP-040G	CHM-0906001	2016.05.03
Bilog Antenna	Teseq GmbH	CBL6112D	27612	2016.10.15
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	733	2016.02.26
DRG Horn	ETS-Lindgren	3117	00167055	2016.07.16
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2016.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2016.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2016.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	AC5-C3	2016.08.07
Temperature/Humidity Meter	Zhicheng	ZC1-2	AC5-TH	2017.01.04

12.2. Test Setup



12.3. Limit

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a) of FCC part 15.

12.4. Test Procedure

According to ANSI C63.10: 2013& ANSI C63.4: 2014

This test is required for any spurious emission or modulation product that falls in a Restricted Band, as defined in Section 15.205 of FCC part 15. It must be performed with the highest gain of each type of antenna proposed for use with the EUT. Use the following spectrum analyzer settings:

Span = wide enough to fully capture the emission being measured

RBW = 1 MHz for $f \geq 1$ GHz, 100 kHz for $f < 1$ GHz

VBW \geq RBW

Sweep = auto

Detector function = peak

Trace = max hold

Follow the guidelines in ANSI C63.4 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization, etc. A pre-amp and a high pass filter are required for this test, in order to provide the measuring system with sufficient sensitivity. Allow the trace to stabilize. The peak reading of the emission, after being

corrected by the antenna factor, cable loss, pre-amp gain, etc., is the peak field strength, which must comply with the limit specified in Section 15.35(b) of FCC part 15.

Now set the VBW to 10 Hz, while maintaining all of the other instrument settings. This peak level, once corrected, must comply with the limit specified in Section 15.209 of FCC Part 15. If the dwell time per channel of the hopping signal is less than 100 ms, then the reading obtained with the 10 Hz VBW may be further adjusted by a “duty cycle correction factor”, derived from $20\log(\text{dwell time}/100 \text{ ms})$, in an effort to demonstrate compliance with the 15.209 limit of FCC part 15.

If the emission on which a radiated measurement must be made is located at the edge of the authorized band of operation, then the alternative “marker-delta” method may be employed.

12.5. Uncertainty

The measurement uncertainty above 1GHz is defined as $\pm 3.9 \text{ dB}$
below 1GHz is defined as $\pm 3.8 \text{ dB}$

12.6. Test Result

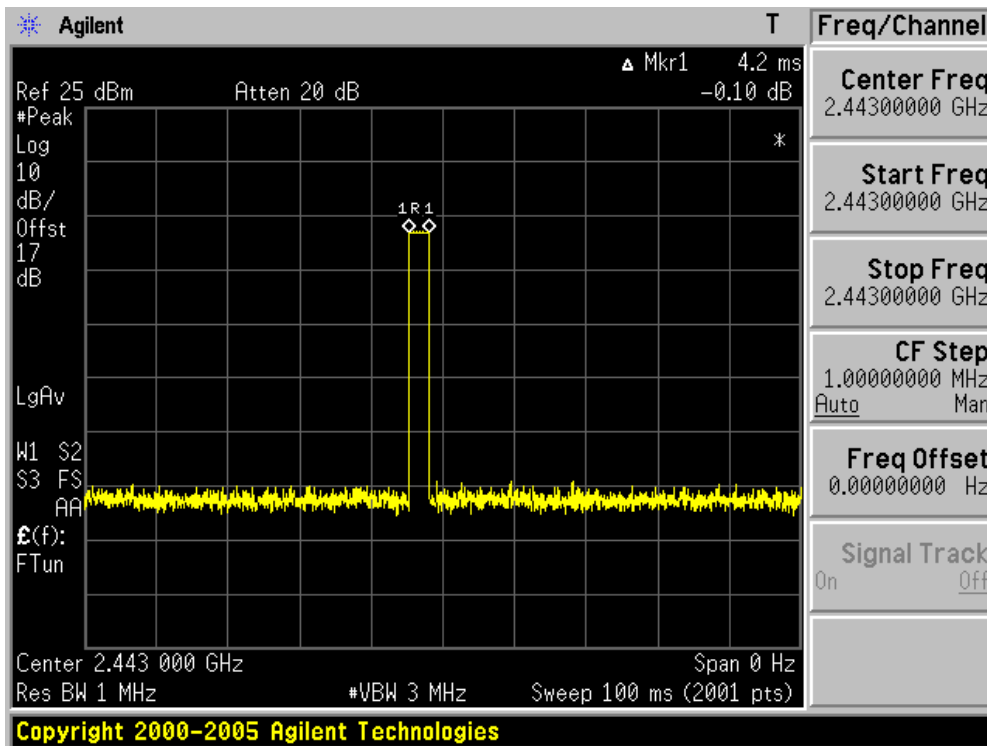
All of the test result shown indicates the worst case, and spectrum analyzer parameters setting as shown below:

Peak detector: RBW = 1MHz, VBW = 3MHz, sweep time = 200ms;

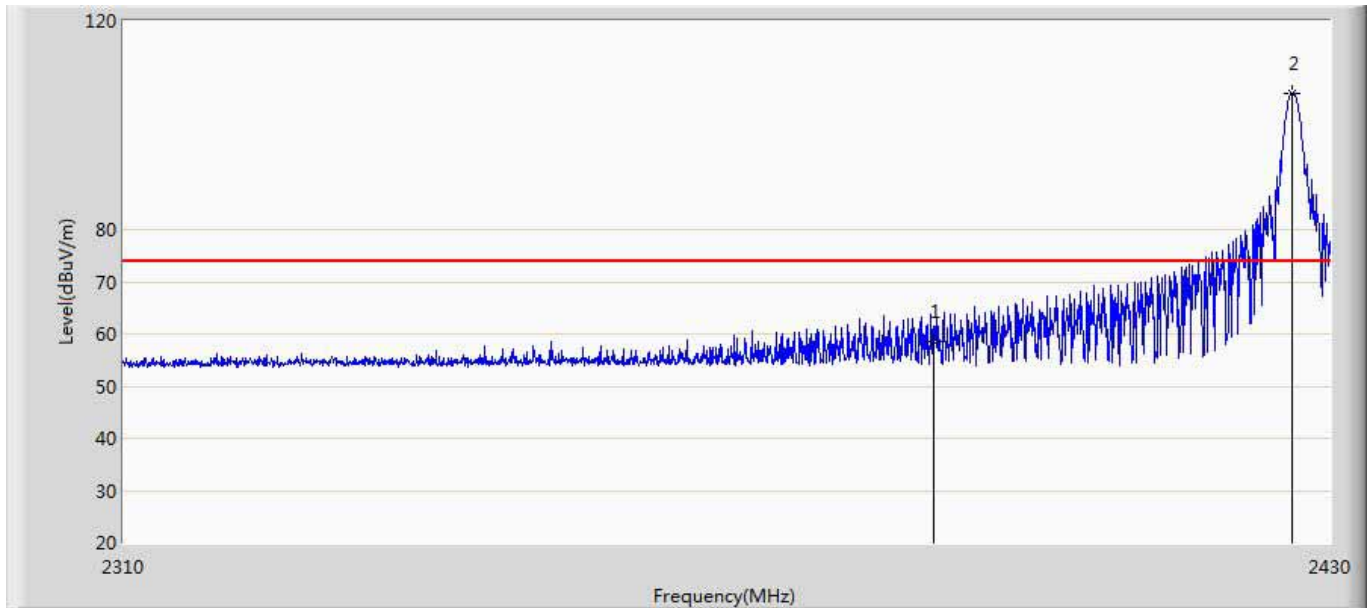
Average = Peak Measure Level+ Duty Factor

Duty Factor= $20 \cdot \text{LOG}(\text{Pulse Number} \cdot \text{On Time}/100) = -27.54\text{dB}$ in worst condition in normal use.

Pulse Number



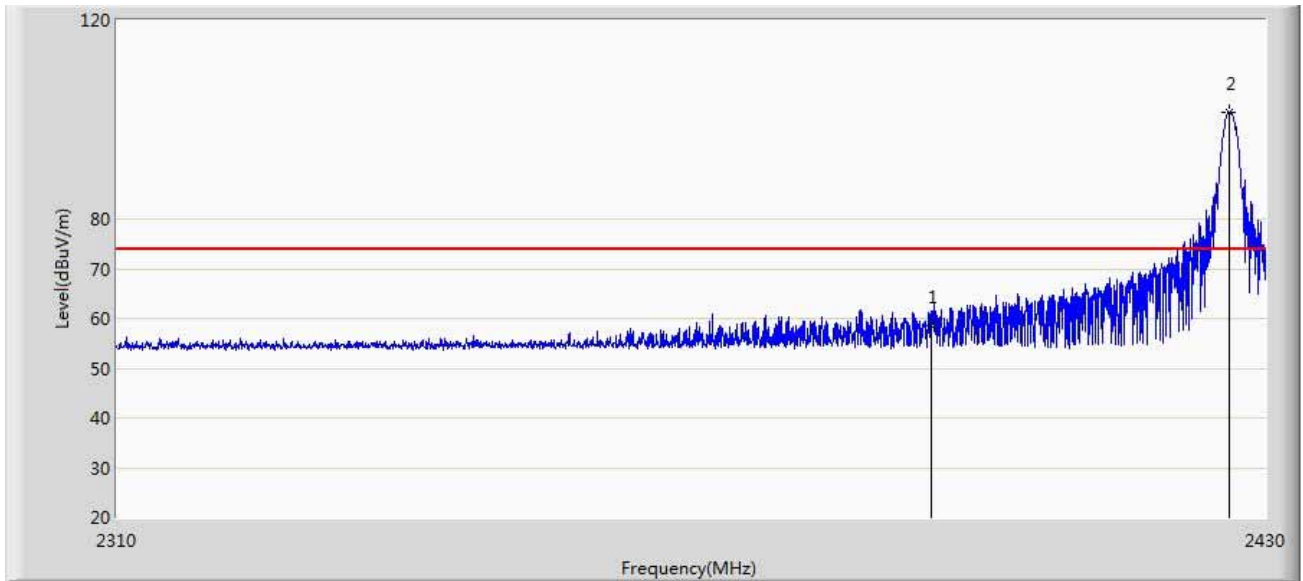
Engineer: Scott	
Site: AC5	Time: 2015/12/17 - 17:22
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Radio Controller	Power: By Battery
Note: Mode 1:Trasmit at channel 2426.2Mhz ant 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	58.632	21.277	-15.368	74.000	37.355	PK
2	*	2426.100	106.189	68.760	N/A	N/A	37.430	PK

No	Mark	Frequency (MHz)	Peak Level (dBuV/m)	AV Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Factor (dB)	Type
1		2390.000	58.632	31.092	-22.908	54.000	-27.54	AV
3	*	2426.100	106.189	78.649	N/A	N/A	-27.54	AV

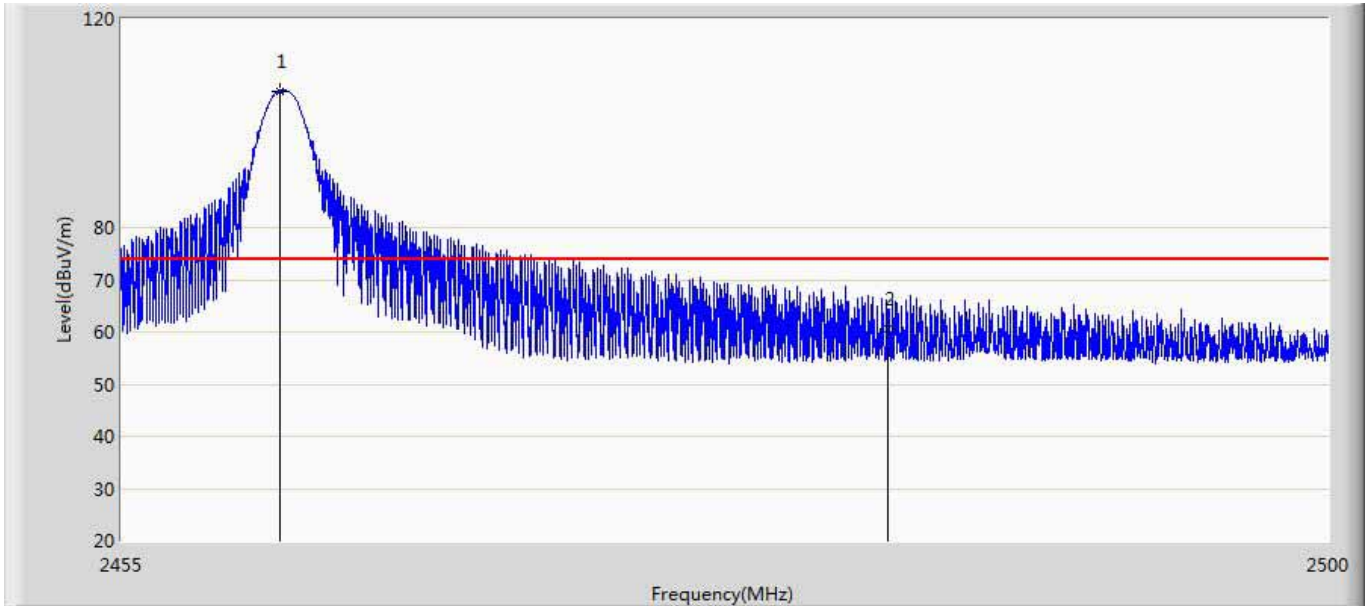
Engineer: Scott	
Site: AC5	Time: 2015/12/17 - 17:25
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Radio Controller	Power: By Battery
Note: Mode 1:Trasmit at channel 2426.2Mhz ant 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	56.392	19.037	-17.608	74.000	37.355	PK
2	*	2426.220	103.057	65.627	N/A	N/A	37.430	PK

No	Mark	Frequency (MHz)	Peak Level (dBuV/m)	AV Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Factor (dB)	Type
1		2390.000	56.392	28.852	-25.148	54.000	-27.54	AV
2	*	2426.220	103.057	75.517	N/A	N/A	-27.54	AV

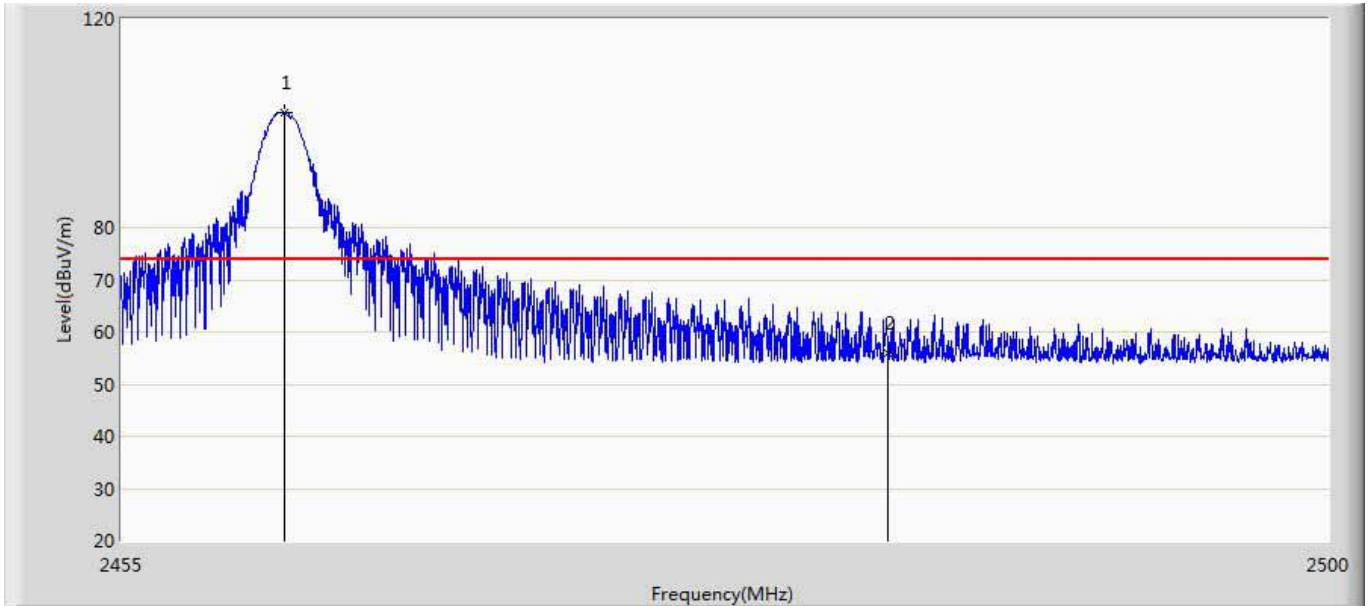
Engineer: Scott	
Site: AC5	Time: 2015/12/17 - 17:29
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Radio Controller	Power: By Battery
Note: Mode 1:Trasmit at channel 2461Mhz ant 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2460.850	106.216	68.795	N/A	N/A	37.422	PK
2		2483.500	60.642	23.131	-13.358	74.000	37.511	PK

No	Mark	Frequency (MHz)	Peak Level (dBuV/m)	AV Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Factor (dB)	Type
1	*	2460.850	106.216	78.676	N/A	N/A	-27.54	AV
2		2483.500	60.642	33.102	-20.898	54.000	-27.54	AV

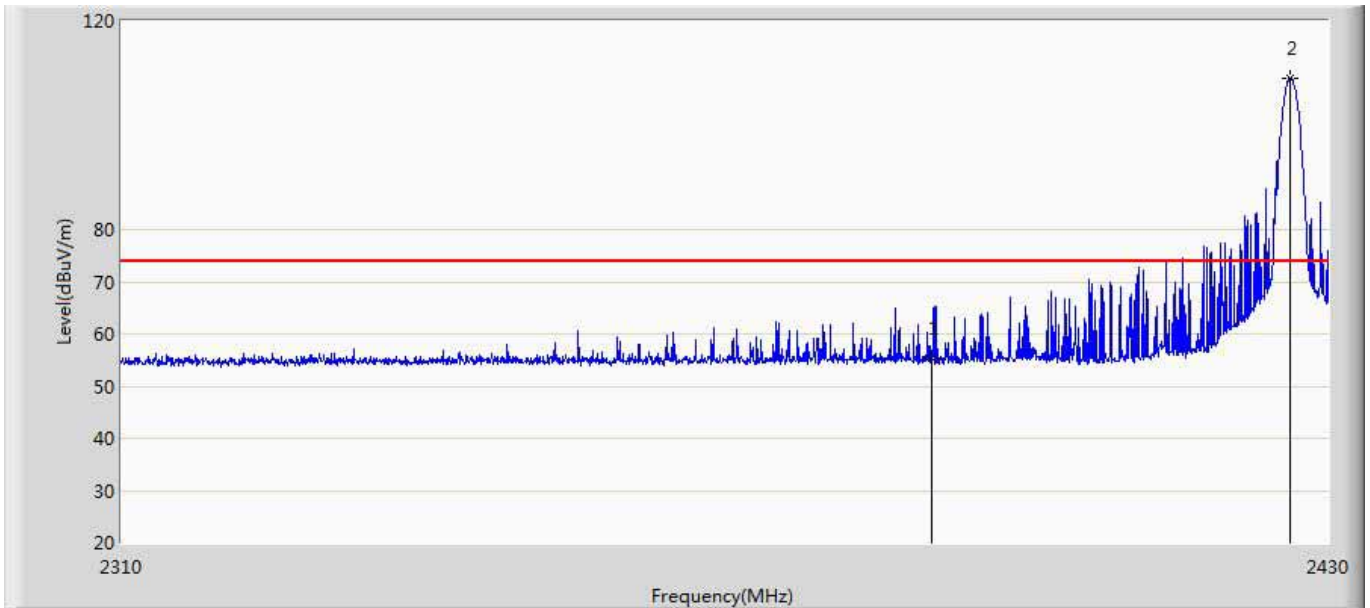
Engineer: Scott	
Site: AC5	Time: 2015/12/17 - 17:32
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Radio Controller	Power: By Battery
Note: Mode 1:Trasmit at channel 2461Mhz ant 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2461.052	102.089	64.668	N/A	N/A	37.421	PK
2		2483.500	55.955	18.444	-18.045	74.000	37.511	PK

No	Mark	Frequency (MHz)	Peak Level (dBuV/m)	AV Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Factor (dB)	Type
1	*	2461.052	102.089	74.549	N/A	N/A	-27.54	AV
2		2483.500	55.955	28.415	-25.585	54.000	-27.54	AV

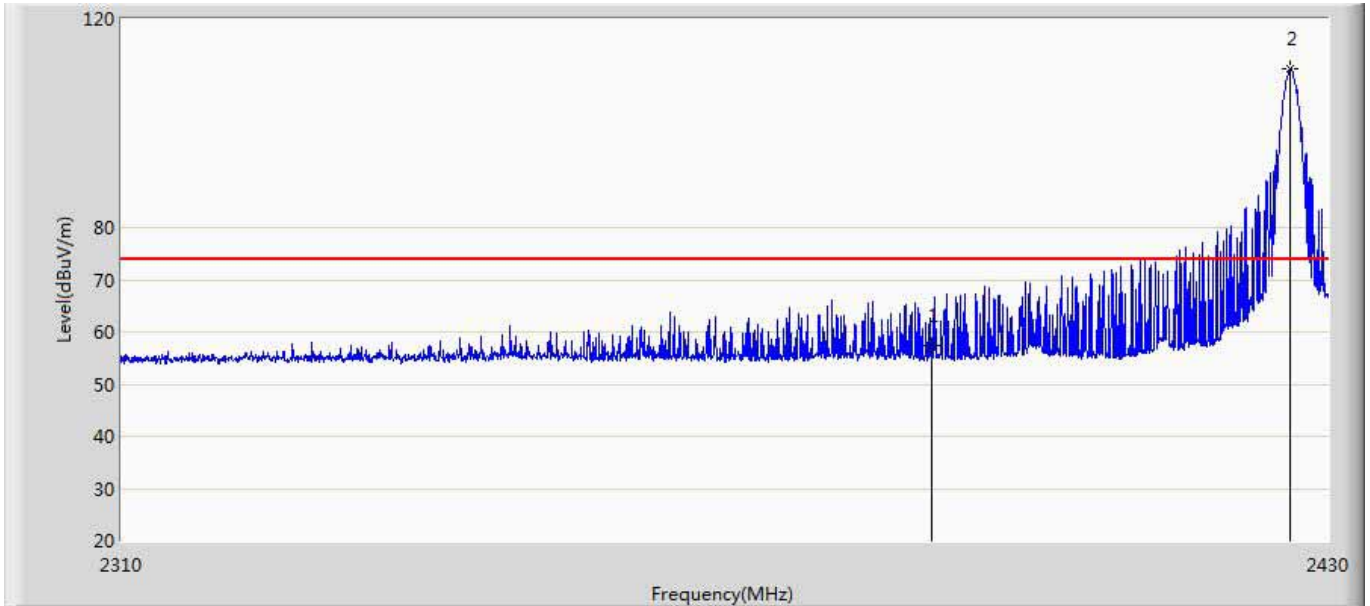
Engineer: Scott	
Site: AC5	Time: 2015/12/17 - 17:40
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Radio Controller	Power: By Battery
Note: Mode 1:Trasmit at channel 2426.2Mhz ant 2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	55.282	17.927	-18.718	74.000	37.355	PK
2	*	2426.100	108.981	71.552	N/A	N/A	37.430	PK

No	Mark	Frequency (MHz)	Peak Level (dBuV/m)	AV Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Factor (dB)	Type
1		2390.000	55.282	27.742	-26.258	54.000	-27.54	AV
2	*	2426.100	108.981	81.441	N/A	N/A	-27.54	AV

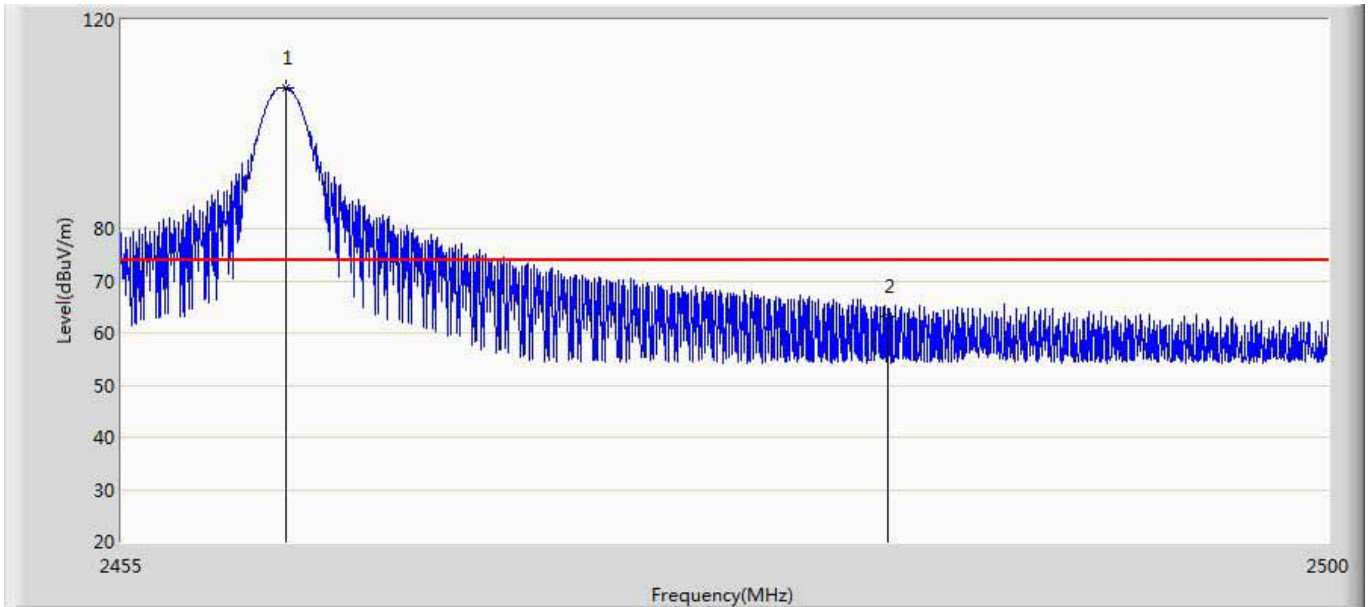
Engineer: Scott	
Site: AC5	Time: 2015/12/17 - 17:43
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Radio Controller	Power: By Battery
Note: Mode 1:Trasmit at channel 2426.2Mhz ant 2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	57.381	20.026	-16.619	74.000	37.355	PK
2	*	2426.100	110.462	73.033	N/A	N/A	37.430	PK

No	Mark	Frequency (MHz)	Peak Level (dBuV/m)	AV Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Factor (dB)	Type
1		2390.000	57.381	29.841	-24.159	54.000	-27.54	AV
2	*	2426.100	110.462	82.922	N/A	N/A	-27.54	AV

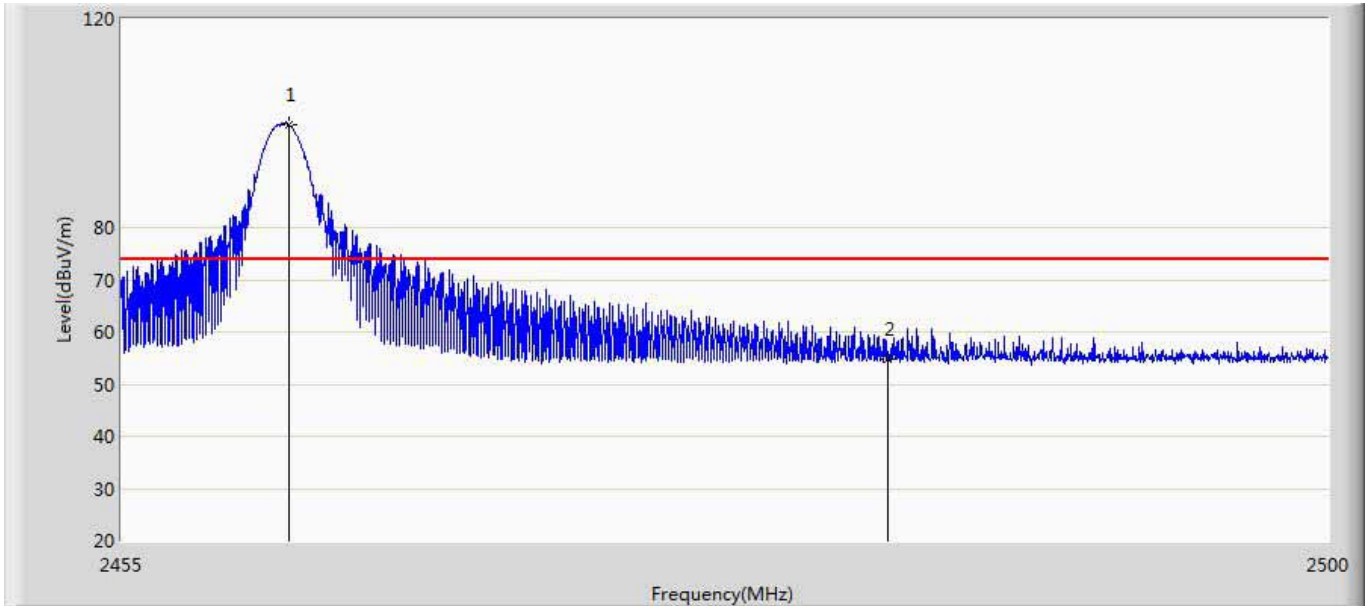
Engineer: Scott	
Site: AC5	Time: 2015/12/17 - 18:17
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Radio Controller	Power: By Battery
Note: Mode 1:Trasmit at channel 2461Mhz ant 2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2461.120	106.959	69.538	N/A	N/A	37.421	PK
2		2483.500	63.265	25.754	-10.735	74.000	37.511	PK

No	Mark	Frequency (MHz)	Peak Level (dBuV/m)	AV Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Factor (dB)	Type
1	*	2461.120	106.959	79.419	N/A	N/A	-27.54	AV
2		2483.500	63.265	35.725	-18.275	54.000	-27.54	AV

Engineer: Scott	
Site: AC5	Time: 2015/12/17 - 18:20
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Radio Controller	Power: By Battery
Note: Mode 1:Trasmit at channel 2461Mhz ant 2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2461.187	99.751	62.330	N/A	N/A	37.421	PK
2		2483.500	54.864	17.353	-19.136	74.000	37.511	PK

No	Mark	Frequency (MHz)	Peak Level (dBuV/m)	AV Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Factor (dB)	Type
1	*	2461.187	99.751	72.211	N/A	N/A	-27.54	AV
2		2483.500	54.864	27.324	-26.676	54.000	-27.54	AV

————— The End —————