TEST REPORT

FCC ID: 2AGJ5BJ-W5

Applicant	:	Gonsin Conference Equipment Co., Ltd
Address	:	No.401-406,Block C, Idea Industry Park, No.41 Fengxiang Road, Shunde, Foshan, Guangdong, China

Equipment Under Test (EUT):

Name	:	Wireless Voting Unit
Model	:	BJ-W5, BJ-W3, BJ-04-W

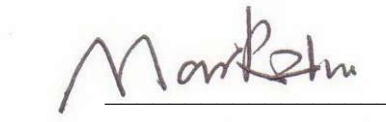
In Accordance with: FCC PART 15, SUBPART C : 2015 (Section 15.231)

Report No	:	T1851673 01
Date of Test	:	November 13-18, 2015
Date of Issue	:	November 18, 2015

Test Result: **PASS**

In the configuration tested, the EUT complied with the standards specified above

Authorized Signature



(Mark Zhu)
General Manager

Contents

1. General Information

1.1. Description of Device (EUT)

EUT	:	Wireless Voting Unit
Model No.	:	BJ-W5, BJ-W3, BJ-04-W
DIFF.	:	All model's the function, software and electric circuit are the same, only different in Model Name.
Trade mark	:	GONSIN
Power supply	:	DC 4.5V from three 1.5V alkaline AAA batteries
Operation frequency	:	428-439.5MHz
Modulation	:	FSK
Antenna Type	:	Internal antenna, max gain 0dBi.
Applicant	:	Gonsin Conference Equipment Co., Ltd
Address	:	No.401-406, Block C, Idea Industry Park,No.41 Fengxiang Road, Shunde, Foshan, Guangdong, China
Manufacturer		Gonsin Conference Equipment Co., Ltd
Address		No.401-406, Block C, Idea Industry Park,No.41 Fengxiang Road, Shunde, Foshan, Guangdong, China

1.2. Accessories of device (EUT)

Accessories	:	N/A
Model		N/A
Input		N/A
Output		N/A
Accessories2	:	N/A
Model		N/A

1.3. Test Lab information

Shenzhen Alpha Product Testing Co., Ltd
Building B, East Area of Nanchang Second, Industrial Zone, Gushu 2nd Road,
Bao'an, Shenzhen, China

August 11, 2014 File on Federal Communication Commission
Registration Number: 203110

July 18, 2014 Certificated by IC
Registration Number: 12135A

2. Summary of test

2.1. Summary of test result

Description of Test Item	Standard	Results
Spurious Emission	Section 15.231&15.209	PASS
Conduction Emission	Section 15.207	N/A
Occupied bandwidth	Section 15.231	PASS
Transmission time	Section 15.231	PASS
Band Edge	Section 15.231	N/A
Antenna Requirement	Section 15.203	PASS
Note ： Test according to ANSI C63.4-2014 and ANSI C63.10-2013		

2.2. Assistant equipment used for test

Description	:	N/A
Manufacturer	:	N/A
Model No.	:	N/A
Remark: N/A		

2.3. Block Diagram

1. For radiated emissions test: EUT was placed on a turn table, which is 0.8 meter high above ground. EUT was set into test mode before test. New battery is used during all test

2.4. Test mode

EUT work in Continuous TX mode, and select test channel, wireless mode

Tested mode, channel, and data rate information		
Mode	Channel	Frequency (MHz)
FHSS(FSK)	Low :CH0	428
	Middle: CH12	434
	High: CH23	439.5

Remark: New battery is used during all test

Channel List

Chanel No.	Frequency (MHz)	Chanel No.	Frequency (MHz)	Chanel No.	Frequency (MHz)	Chanel No.	Frequency (MHz)
0	428 MHz	6	431MHz	12	434MHz	18	437MHz
1	428.5MHz	7	431.5MHz	13	434.5MHz	19	437.5MHz
2	429MHz	8	432MHz	14	435MHz	20	438MHz
3	429.5MHz	9	432.5MHz	15	435.5MHz	21	438.5MHz
4	430MHz	10	433MHz	16	436MHz	22	439MHz
5	430.5MHz	11	433.5MHz	17	436.5MHz	23	439.5MHz

2.5. Test Conditions

Temperature range	21-25℃
Humidity range	40-75%
Pressure range	86-106kPa

2.6. Measurement Uncertainty (95% confidence levels, k=2)

Item	MU	Remark
Uncertainty for Power point Conducted Emissions Test	2.42dB	
Uncertainty for Radiation Emission test in 3m chamber (below 30MHz)	2.13 dB	Polarize: V
	2.57dB	Polarize: H
Uncertainty for Radiation Emission test in 3m chamber (30MHz to 1GHz)	3.54dB	Polarize: V
	4.1dB	Polarize: H
Uncertainty for Radiation Emission test in 3m chamber (1GHz to 25GHz)	2.08dB	Polarize: H
	2.56dB	Polarize: V
Uncertainty for radio frequency	1×10-9	
Uncertainty for conducted RF Power	0.65dB	
Uncertainty for temperature	0.2℃	
Uncertainty for humidity	1%	
Uncertainty for DC and low frequency voltages	0.06%	

2.7. Test Equipment

Equipment	Manufacture	Model No.	Serial No.	Last Cal.	Cal Interval
3m Semi-Anechoic	ETS-LINDGREN	N/A	SEL0017	2015.01.19	1Year
Spectrum analyzer	Agilent	E4407B	MY49510055	2015.01.19	1Year
Receiver	R&S	ESCI	101165	2015.01.19	1Year
Bilog Antenna	SCHWARZBECK	VULB 9168	9168-438	2014.01.21	2Year
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D(1201)	2014.01.21	2Year
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170 D(1432)	2014.01.21	2Year
Active Loop Antenna	Beijing Daze	ZN30900A	SEL0097	2015.01.19	1Year
Cable	Resenberger	SUCOFLEX 104	MY6562/4	2015.01.19	1Year
Cable	Resenberger	SUCOFLEX 104	309972/4	2015.01.19	1Year
Cable	Resenberger	SUCOFLEX 104	329112/4	2015.01.19	1Year
Power Meter	Anritsu	ML2487A	6K00001491	2015.01.19	1Year
Power sensor	Anritsu	ML2491A	32516	2015.01.19	1Year
Pre-amplifier	SCHWARZBECK	BBV9743	9743-019	2015.01.19	1Year
Pre-amplifier	Quietek	AP-180C	CHM-0602012	2015.01.19	1Year

3. Radiation Emission

3.1. Radiation Emission Limits(15.209&231)

Frequency (MHz)	**Field Strength Limits at 3 metres (watts, e.i.r.p.)**		
	uV/m	dB uV/m	Measurement distance(m)
0.009-0.490	2400/F(kHz)	XX	300
0.490-1.705	24000/F(kHz)	XX	30
1.705-30	30	29.5	30
30~88	100(3nW)	40	3
88~216	150(6.8nW)	43.5	3
216~960	200(12nW)	46	3
Above960	500(75nW)	54	3
Carrier frequency		80.8(AV)	3
Carrier frequency		100.8(PK)	3

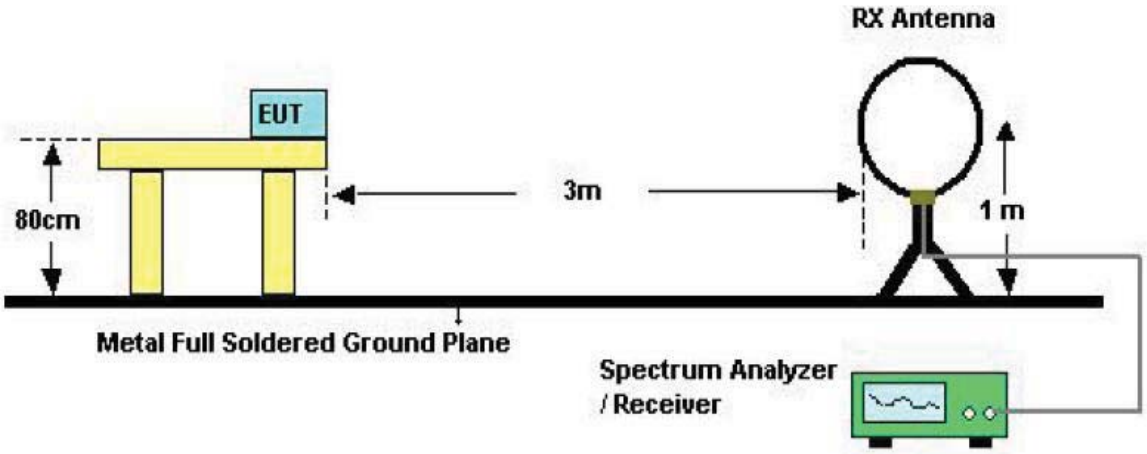
NOTE:

a) The tighter limit applies at the band edges.

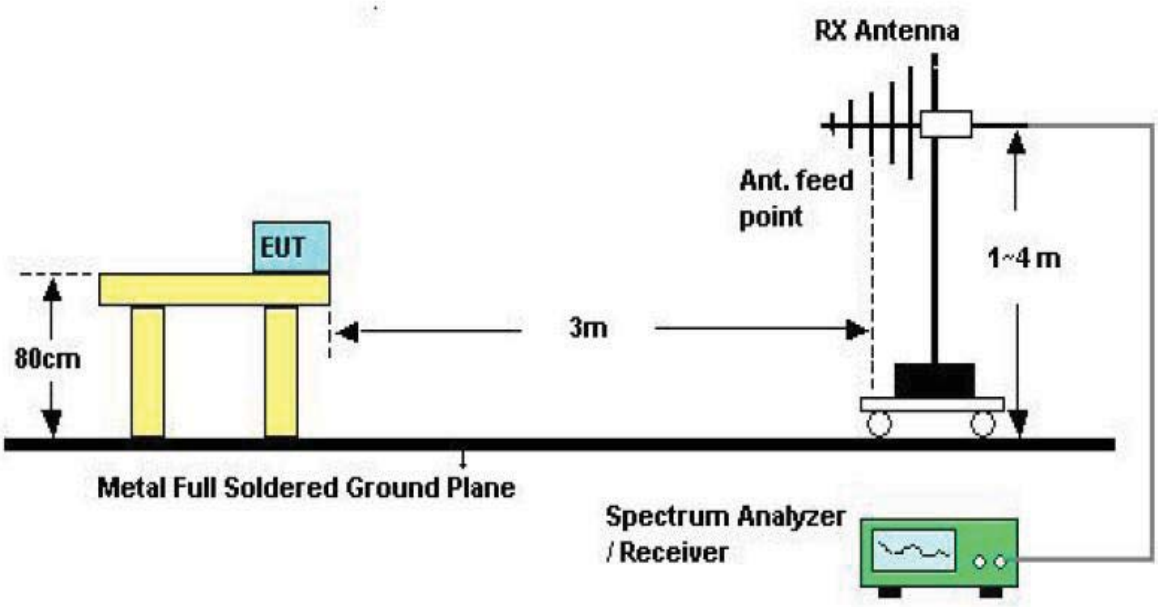
b) Emission Level(dB uV/m)=20log Emission Level(Uv/m)

3.2. Test Setup

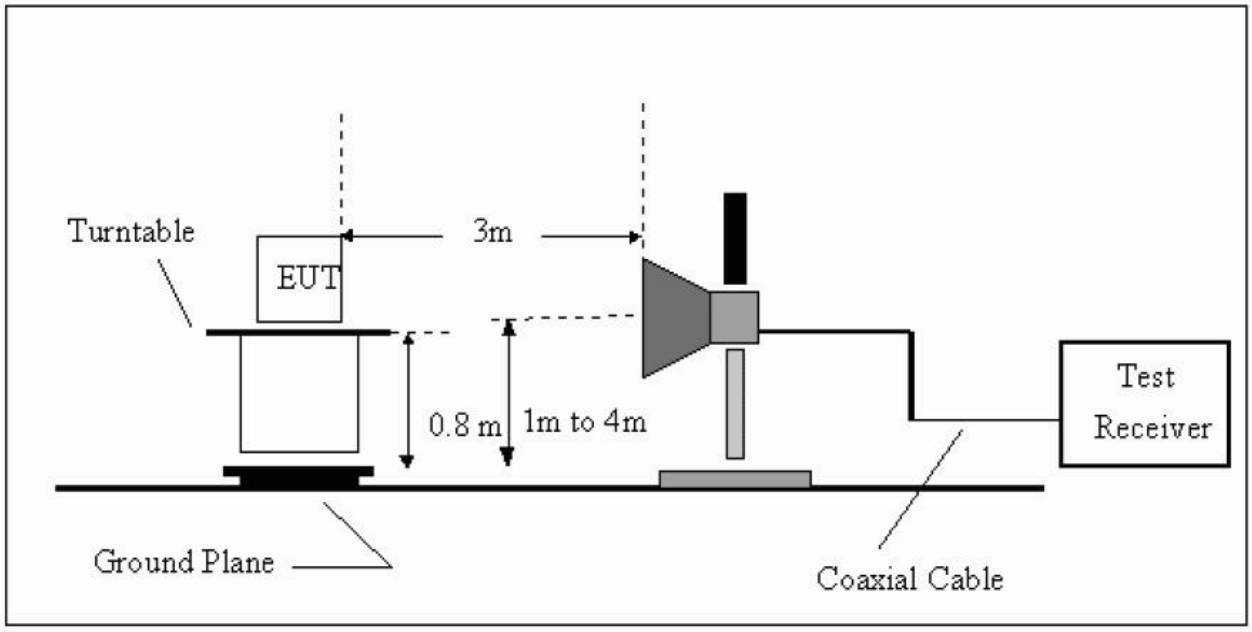
See the next page.



Below 30MHz Test Setup



Above 30MHz Test Setup



Above 1GHz Test Setup

3.3. Test Procedure

a) The measureing distance of 3m shall be used for measurements at frequency up to 1GHz and above 1GHz, The EUT was placed on a rotating 0.8 m high above ground,The table was rotated 360 degrees to determine the position of the highest radiation
b) The Test antenna shall vary between 1m and 4m,Both Horizontal and Vertical antenna are set ot make measurement.
c) The initial step in collecting conducted emission data is a spectrum analyzer Peak detector mode pre-scanning the measurement frequency range. Significent Peaks are then marked. and then Qusia Peak Detector mode remeasured
d) If Peak value comply with QP limit Below 1GHz.The EUT deemed to comply with QP limit. But the Peak value and average value both need to comply with applicable limit above 1GHz.
e) For the actual test configuration, please see the test setup photo.

3.4. Test Equipment Setting For emission test.

9KHz~150KHz	RBW 200Hz	VBW1KHz
150KHz~30MHz	RBW 9KHz	VBW 30KHz
30MHz~1GHz	RBW 120KHz	VBW 300KHz
Above 1GHz	RBW 1MHz	VBW 3MHz

3.5. Test Condition

Continual Transmitting in maximum power(The new battery be used during Test)

3.6. Test Result

We have scanned the 10th harmonic from 9KHz to the EUT.
Detailed information please see the following page.

From 9KHz to 30MHz: Conclusion: **PASS**

Note: The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Notes: 1 --Means other frequency and mode comply with standard requirements and at least have 20dB margin.
Correct Factor=Cable Loss+Antenna Factor-Amplifier Gain
Measurement Result=Reading + Correct Factor
Margin=Measurement Result-Limit
2 –Spectrum setting:
a. Peak setting 30MHz-1GHz, RBW=100KHz, VBW=300KHz.
3- PK measure result values is less than the AVG limit values, so AV measure result values test not applicable.

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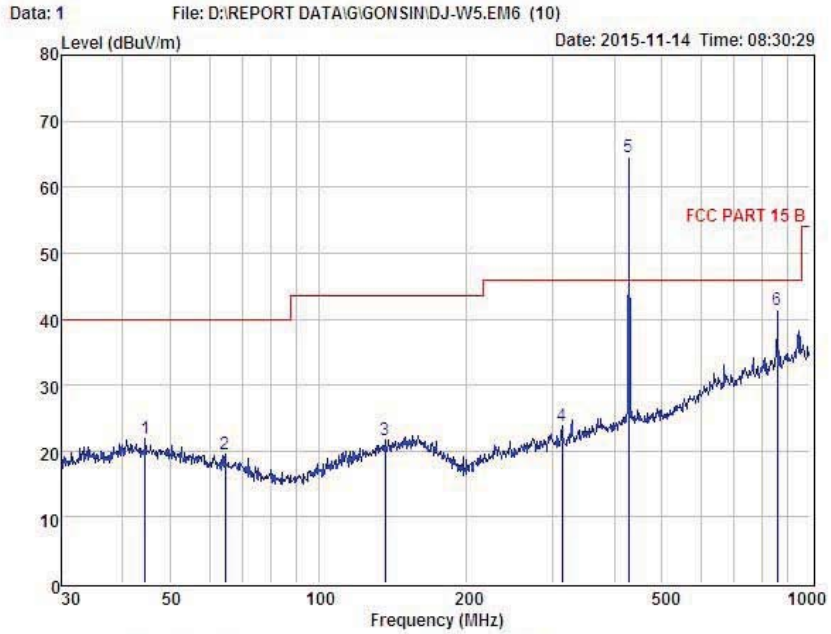

Condition : FCC PART 15 B 3m POL: HORIZONTAL
EUT :
Model No : DJ-W5
Test Mode :
Power :
Test Engineer :
Remark :
Temp : 24.2℃
Hum : 54%

Item	Freq	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Level	Limit	Margin	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dBuV	
1	44.43	38.05	13.79	29.96	0.03	21.91	40.00	-18.09	Peak
2	64.66	38.30	11.59	30.52	0.25	19.62	40.00	-20.38	Peak
3	136.46	37.47	13.22	29.41	0.44	21.72	43.50	-21.78	Peak
4	313.28	38.17	13.14	27.94	0.52	23.89	46.00	-22.11	Peak
5	428.00	75.55	15.43	27.10	0.68	64.56			Peak
6	856.00	43.97	21.10	24.80	1.16	41.43	46.00	-4.57	Peak

Remark: Level = Read Level + Antenna Factor - Preamp Factor + Cable Loss

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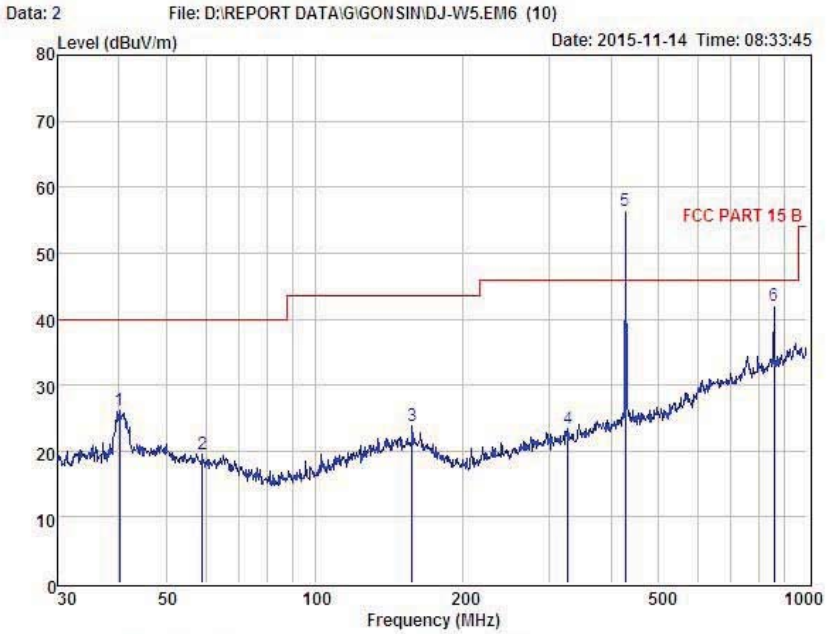

Condition : FCC PART 15 B 3m POL: VERTICAL
EUT :
Model No : DJ-W5
Test Mode :
Power :
Test Engineer :
Remark :
Temp : 24.2℃
Hum : 54%

Item	Freq	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Level	Limit	Margin	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dBuV	
1	40.13	42.80	14.07	30.85	0.17	26.19	40.00	-13.81	Peak
2	59.03	37.36	12.75	30.89	0.32	19.54	40.00	-20.46	Peak
3	157.56	38.50	14.15	29.24	0.39	23.80	43.50	-19.70	Peak
4	326.74	36.92	13.46	27.86	0.75	23.27	46.00	-22.73	Peak
5	428.00	67.42	15.43	27.10	0.68	56.43			
6	856.00	44.66	21.10	24.80	1.16	42.12	46.00	-3.88	Peak

Remark: Level = Read Level + Antenna Factor - Preamp Factor + Cable Loss

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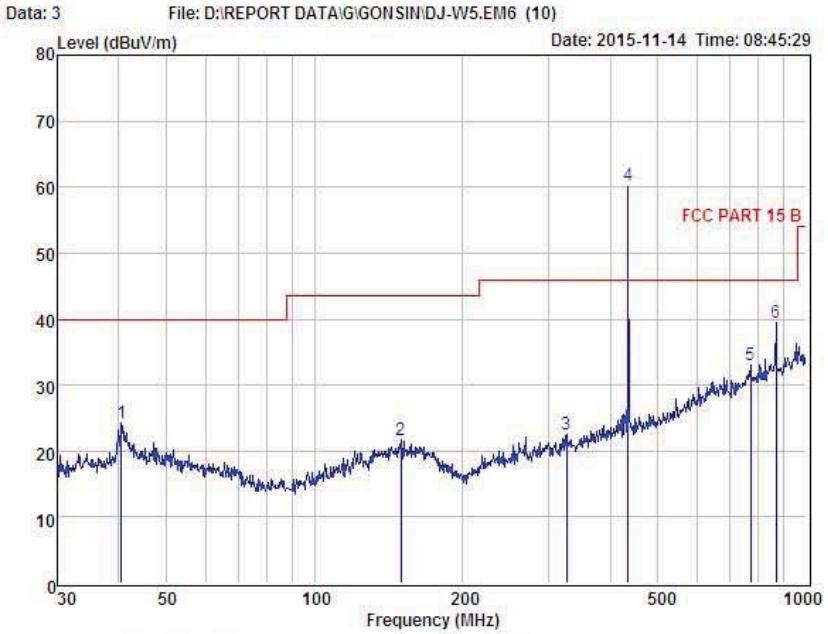

Condition : FCC PART 15 B 3m POL: VERTICAL
EUT :
Model No : DJ-W5
Test Mode :
Power :
Test Engineer :
Remark :
Temp : 24.2℃
Hum : 54%

Item	Freq	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Level	Limit	Margin	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dBuV	
1	40.56	40.82	14.07	30.85	0.18	24.22	40.00	-15.78	Peak
2	150.01	36.47	14.16	29.45	0.39	21.57	43.50	-21.93	Peak
3	325.60	36.12	13.43	27.86	0.78	22.47	46.00	-23.53	Peak
4	434.00	71.26	15.58	27.22	0.67	60.29			
5	771.45	36.60	20.52	25.34	1.23	33.01	46.00	-12.99	Peak
6	868.00	41.56	21.23	24.89	1.47	39.37	46.00	-6.63	Peak

Remark: Level = Read Level + Antenna Factor - Preamp Factor + Cable Loss

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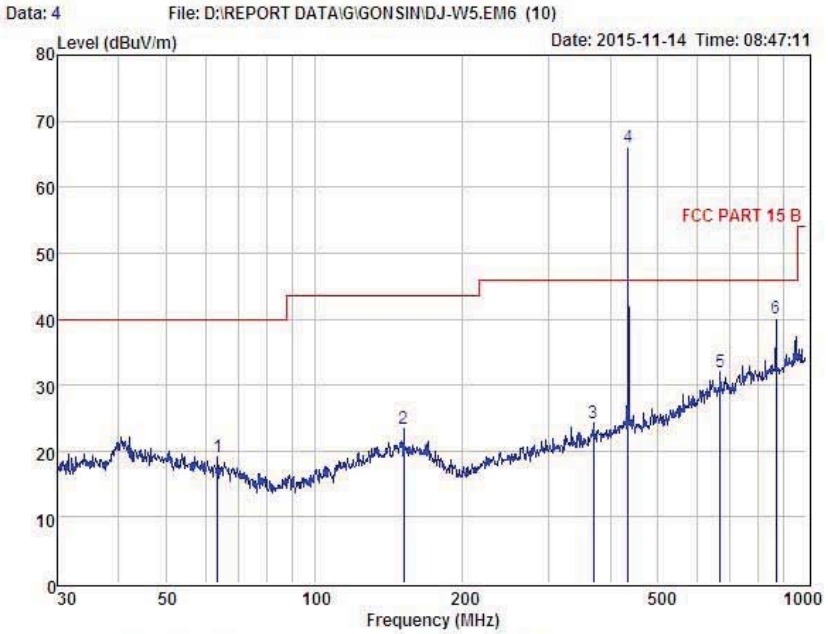

Condition : FCC PART 15 B 3m POL: HORIZONTAL
EUT :
Model No : DJ-W5
Test Mode :
Power :
Test Engineer :
Remark :
Temp : 24.2℃
Hum : 54%

Item	Freq	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Level	Limit	Margin	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dBuV	
1	63.54	37.47	11.98	30.52	0.24	19.17	40.00	-20.83	Peak
2	152.13	38.32	14.16	29.41	0.41	23.48	43.50	-20.02	Peak
3	369.40	36.75	14.20	27.51	0.77	24.21	46.00	-21.79	Peak
4	434.00	77.11	15.58	27.22	0.67	66.14			
5	668.14	37.40	19.30	25.70	1.01	32.01	46.00	-13.99	Peak
6	868.00	42.23	21.23	24.89	1.47	40.04	46.00	-5.96	Peak

Remark: Level = Read Level + Antenna Factor - Preamp Factor + Cable Loss

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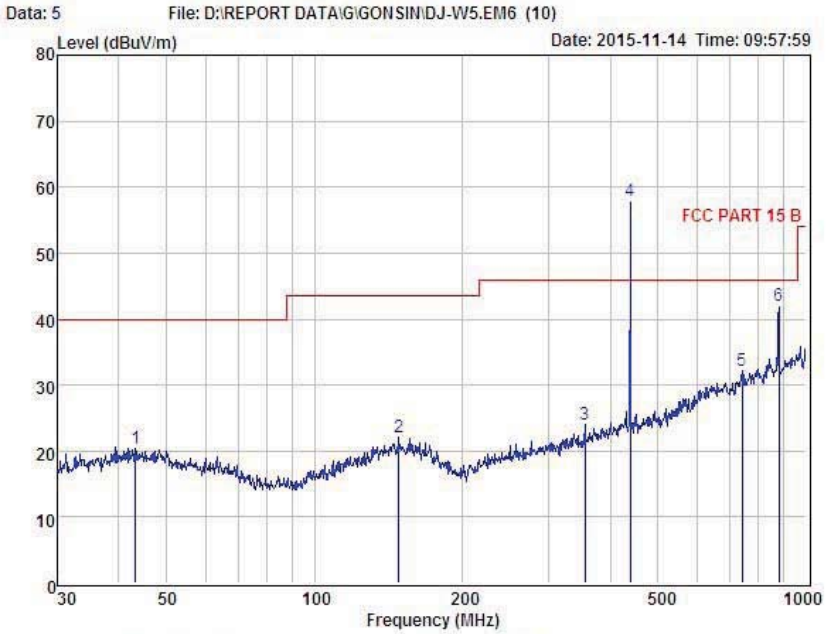

Condition : FCC PART 15 B 3m POL: HORIZONTAL
EUT :
Model No : DJ-W5
Test Mode :
Power :
Test Engineer :
Remark :
Temp : 24.2℃
Hum : 54%

Item	Freq	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Level	Limit	Margin	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dBuV	
1	43.20	37.00	13.79	30.40	0.09	20.48	40.00	-19.52	Peak
2	148.44	37.23	14.03	29.45	0.32	22.13	43.50	-21.37	Peak
3	355.43	37.34	13.91	27.75	0.63	24.13	46.00	-21.87	Peak
4	439.50	68.62	15.72	27.36	0.83	57.81			
5	739.66	36.37	20.13	25.42	1.00	32.08	46.00	-13.92	Peak
6	879.00	44.05	21.37	24.98	1.59	42.03	46.00	-3.97	Peak

Remark: Level = Read Level + Antenna Factor - Preamp Factor + Cable Loss

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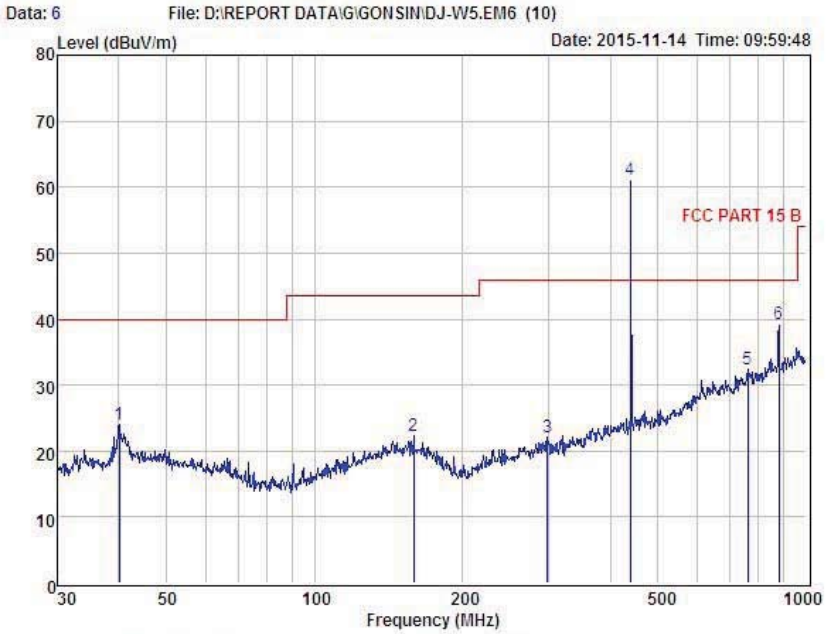


Condition : FCC PART 15 B 3m POL: VERTICAL
EUT :
Model No : DJ-W5
Test Mode :
Power :
Test Engineer :
Remark :
Temp : 24.2℃
Hum : 54%

Item	Freq	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Level	Limit	Margin	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dBuV	
1	40.13	40.53	14.07	30.85	0.17	23.92	40.00	-16.08	Peak
2	159.23	36.82	14.14	29.17	0.41	22.20	43.50	-21.30	Peak
3	298.27	36.66	12.80	28.03	0.77	22.20	46.00	-23.80	Peak
4	439.50	71.93	15.72	27.36	0.83	61.12			
5	760.70	35.81	20.38	25.34	1.45	32.30	46.00	-13.70	Peak
6	879.00	41.30	21.37	24.98	1.59	39.28	46.00	-6.72	Peak

Remark: Level = Read Level + Antenna Factor - Preamp Factor + Cable Loss

Radiated Emissions Result of Inside band

EUT	Wireless Voting Unit	**Model Name**	BJ-W5
Temperature	25°C	**Relative Humidity**	56%
Pressure	960hPa	**Test voltage**	DC 4.5V from three 1.5V alkaline AAA batteries
Test Mode	TX CH0	**Test by**	Eric

Channel (428MHz Below 1GHz)									
Fre. MHz	**Plority H/V**	**Reading dBuV**	**Antenna Factor dB**	**Cable Loss dB**	**Amplifier Gain dB**	**Correct Factor dB**	**Measure Result dBuV/m**	**Limit dBuV/m**	**Margin dB**
428	H	75.55（PK）	15.43	0.65	27.10	-11.02	64.53	80.63（PK）	-16.1
--	H	--	--	--	--	--	--	--	--
428	V	67.42（PK）	15.43	0.65	27.1	-11.02	56.4	80.63（PK）	-24.23
--	**V**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**

EUT	Wireless Voting Unit	**Model Name**	BJ-W5
Temperature	25°C	**Relative Humidity**	56%
Pressure	960hPa	**Test voltage**	DC 4.5V from three 1.5V alkaline AAA batteries
Test Mode	TX CH12	**Test by**	Eric

Channel (434MHz Below 1GHz)									
Fre. MHz	**Plority H/V**	**Reading dBuV**	**Antenna Factor dB**	**Cable Loss dB**	**Amplifier Gain dB**	**Correct Factor dB**	**Measure Result dBuV/m**	**Limit dBuV/m**	**Margin dB**
434	H	77.11（PK）	15.58	0.67	27.22	-10.97	66.14	80.83（PK）	-14.69
--	H	--	--	--	--	--	--	--	--
434	V	71.26（PK）	15.58	0.67	27.22	-10.97	60.29	80.83（PK）	-20.54
--	**V**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**

EUT	Wireless Voting Unit	Model Name	BJ-W5
Temperature	25°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 4.5V from three 1.5V alkaline AAA batteries
Test Mode	TX CH23	Test by	Eric

Channel (439.5MHz Below 1GHz)

Fre. MHz	Plority H/V	Reading dBuV	Antenna Factor dB	Cable Loss dB	Amplifier Gain dB	Correct Factor dB	Measure Result dBuV/m	Limit dBuV/m	Margin dB
439.5	H	68.62（PK）	15.72	0.83	27.36	-10.81	57.81	81.01（PK）	-23.2
--	H	--	--	--	--	--	--	--	--
439.5	V	71.93（PK）	15.72	0.83	27.36	-10.81	61.62	81.01（PK）	-19.48
--	V	--	--	--	--	--	--	--	--

EUT	Wireless Voting Unit	Model Name	BJ-W5
Temperature	25°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 4.5V from three 1.5V alkaline AAA batteries
Test Mode	TX CH0	Test by	Eric

Channel (428MHz Above 1GHz)

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs Peak (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Remark
1284	V	52.32	---	-10.84	41.48	74.00	-52.52	Peak
--	V	--	---	--	--	--	--	--
1284	H	51.74	---	-10.84	40.9	74.00	-33.1	Peak
--	H	--	---	--	--	--	--	--

EUT	Wireless Voting Unit	Model Name	BJ-W5
Temperature	25°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 4.5V from three 1.5V alkaline AAA batteries
Test Mode	TX CH12	Test by	Eric

Channel (434MHz Above 1GHz)

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs Peak (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Remark
1302	V	53.04	---	-10.64	42.4	74.00	-31.6	Peak
--	V	--	---	--	--	--	--	--
1302	H	51.74	---	-10.64	41.89	74.00	-32.11	Peak
--	H	--	---	--	--	--	--	--

EUT	Wireless Voting Unit	Model Name	BJ-W5
Temperature	25°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 4.5V from three 1.5V alkaline AAA batteries
Test Mode	TX CH23	Test by	Eric

Channel (439.5MHz Above 1GHz)

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs Peak (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Remark
1318.5	V	54.16	---	-10.71	43.45	74.00	-30.55	Peak
--	V	--	---	--	--	--	--	--
1318.5	H	52.83	---	-10.71	42.12	74.00	-31.88	Peak
--	H	--	---	--	--	--	--	--

4. POWER LINE CONDUCTED EMISSION

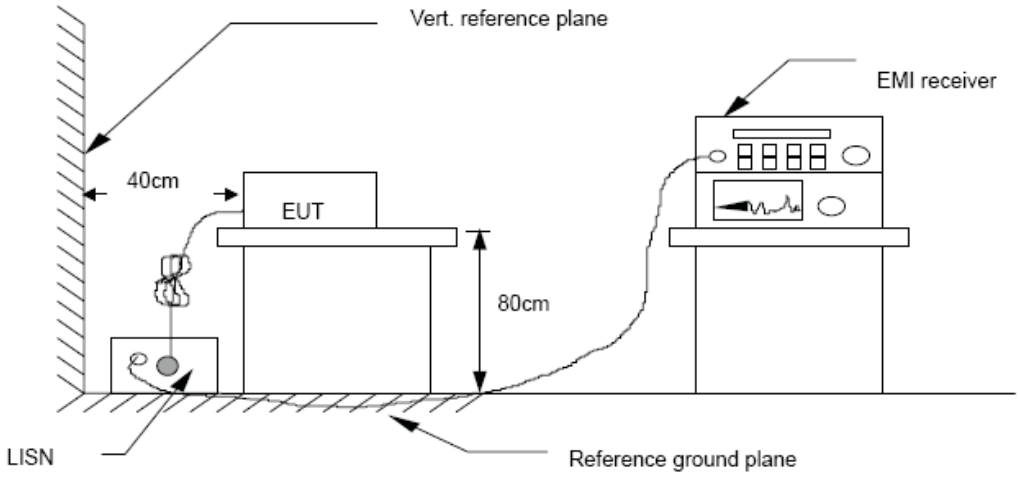
4.1. Conducted Emission Limits(15.209)

Frequency MHz	Limits dB(μV)	
	Quasi-peak Level	Average Level
0.15 -0.50	66 -56*	56 - 46*
0.50 -5.00	56	46
5.00 -30.00	60	50

Notes: 1. *Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

3.The limit decreases in line with the logarithm of the frequency in the rang of 0.15 to 0.50 MHz.

4.2. Test Setup



4.3. Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4-2003 on Conducted Emission Measurement.
The bandwidth of test receiver (R & S ESCS30) is set at 9 kHz.

4.4. Test Results

EUT power supply by battery, so the test not applicable.

5. Occupied bandwidth

5.1. Test limit

Please refer section15.231

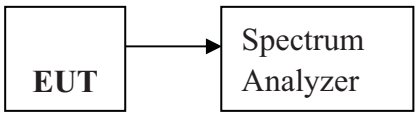
According to§15.231(C), The bandwidth of the emission shall be no wider than 0.25% of the center frequency for devices operating above 70MHz and below 900MHz.

5.2. Method of measurement

a)The bandwidth is measured at an amplitude level reduced 20dB from the reference level. The reference level is the level of the highest amplitude signal observed from the transmitter at the fundamental frequency. Once the reference level is established, the equipment is conditioned with typical modulating signal to produce the worst-case (i.e. the widest) bandwidth.

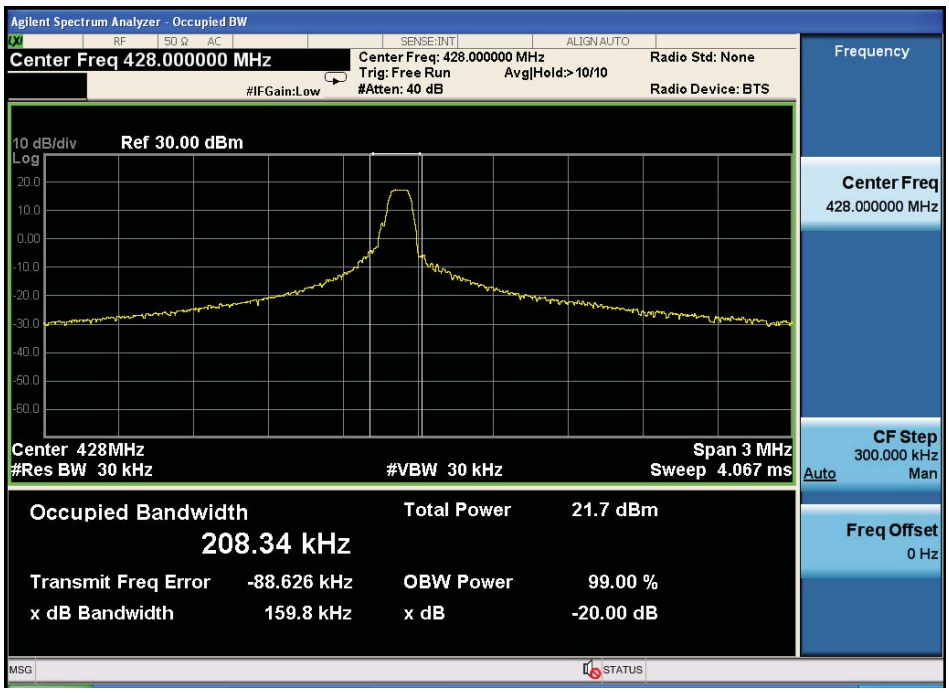
b)The test receiver RBW set 30KHz,VBW set 30KHz,Sweep time set auto.

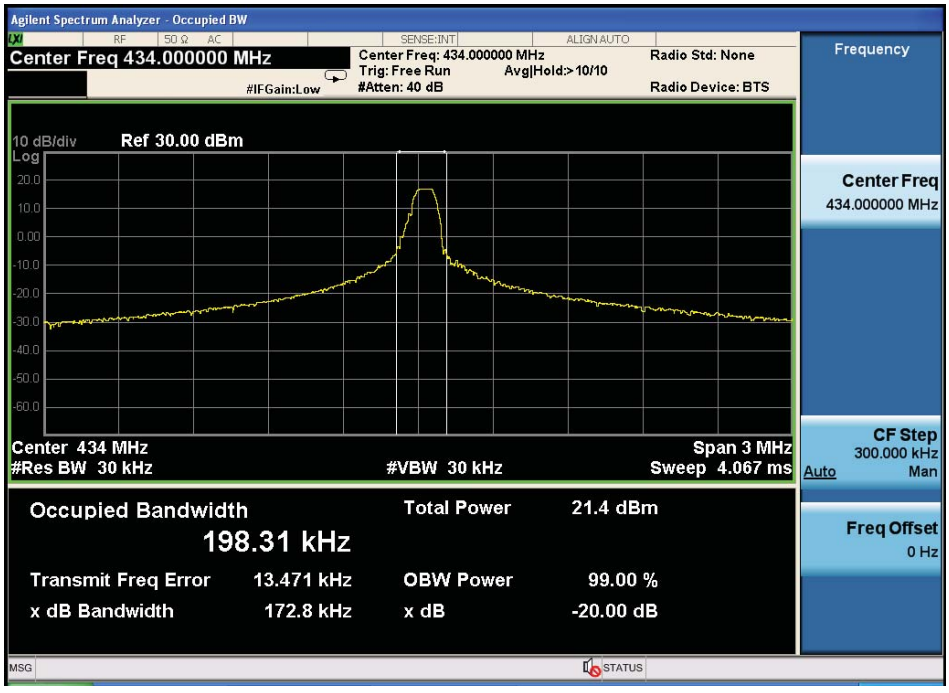
5.3. Test Setup

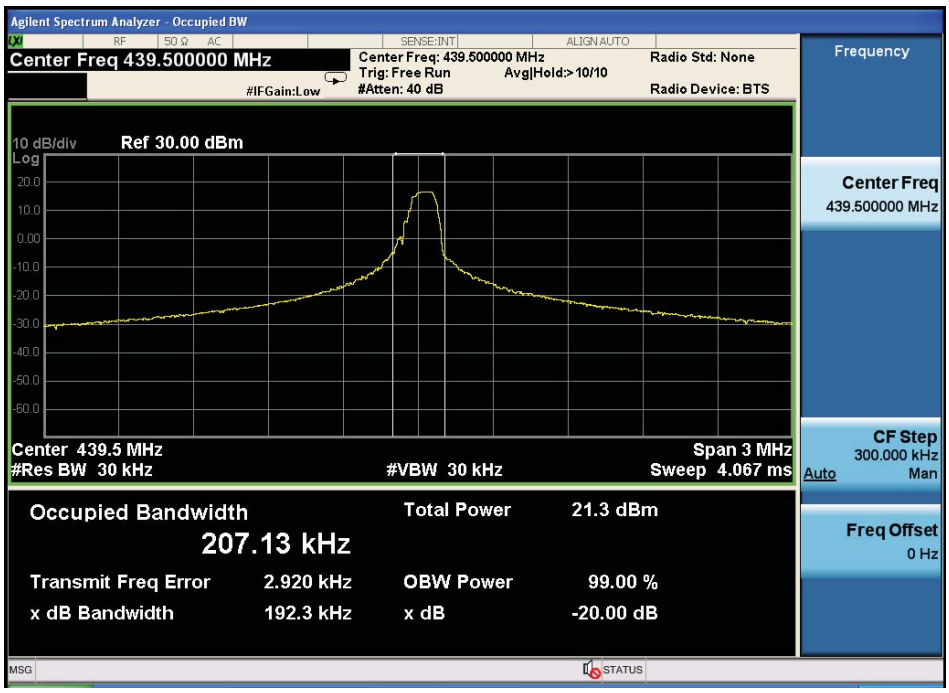


5.4. Test Results

EUT: Wireless Voting Unit				
M/N: BJ-W5				
Test Mode: Keeping TX mode				
Test date: 2015-11-16		Test site: RF site	Tested by: Eric	
Mode	Freq (MHz)	20dB Bandwidth (KHz)	Limit (kHz)	Conclusion
FHSS(FSK)	428	159.8	/	PASS
	434	172.8	/	PASS
	439.5	192.3	/	PASS


Agilent Spectrum Analyzer - Occupied BW
Center Freq 428.000000 MHz
Center Freq: 428.000000 MHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 40 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 30.00 dBm
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
Center 428MHz
#Res BW 30 kHz
#VBW 30 kHz
Span 3 MHz
Sweep 4.067 ms
Occupied Bandwidth
208.34 kHz
Total Power
21.7 dBm
Transmit Freq Error
-88.626 kHz
OBW Power
99.00 %
x dB Bandwidth
159.8 kHz
x dB
-20.00 dB
Center Freq
428.000000 MHz
CF Step
300.000 kHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS


Agilent Spectrum Analyzer - Occupied BW
Center Freq 434.000000 MHz
Center Freq: 434.000000 MHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 40 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 30.00 dBm
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
Center 434 MHz
#Res BW 30 kHz
#VBW 30 kHz
Span 3 MHz
Sweep 4.067 ms
Occupied Bandwidth
198.31 kHz
Total Power
21.4 dBm
Transmit Freq Error
13.471 kHz
OBW Power
99.00 %
x dB Bandwidth
172.8 kHz
x dB
-20.00 dB
Center Freq
434.000000 MHz
CF Step
300.000 kHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS


Agilent Spectrum Analyzer - Occupied BW
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
Center Freq 439.500000 MHz
#IFGain:Low
Center Freq: 439.500000 MHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 40 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 30.00 dBm
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
Center Freq
439.500000 MHz
Center 439.5 MHz
#Res BW 30 kHz
#VBW 30 kHz
Span 3 MHz
Sweep 4.067 ms
CF Step
300.000 kHz
Auto
Man
Occupied Bandwidth
207.13 kHz
Total Power
21.3 dBm
Transmit Freq Error
2.920 kHz
OBW Power
99.00 %
x dB Bandwidth
192.3 kHz
x dB
-20.00 dB
Freq Offset
0 Hz
MSG
STATUS

6. Transmission time

6.1. Test limit

Please refer section15.231

According to §15.231(a)(1), A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.

According to §15.231(a)(2), A transmitter sctivated automatically shall cease transmission within 5 seconds after activation.

6.2. Method of measurement

6.2.1. Place the EUT on the table and set it in transmitting mode.

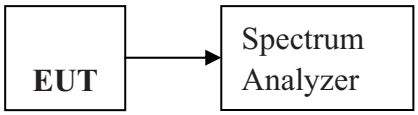
6.2.2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.

6.2.3. Set spectrum analyzer Center=434MHz, Span = 0MHz, Sweep = 200ms.

6.2.4. Set the spectrum analyzer as RBW, VBW=1MHz,

6.2.5. Max hold, view and count how many channel in the band.

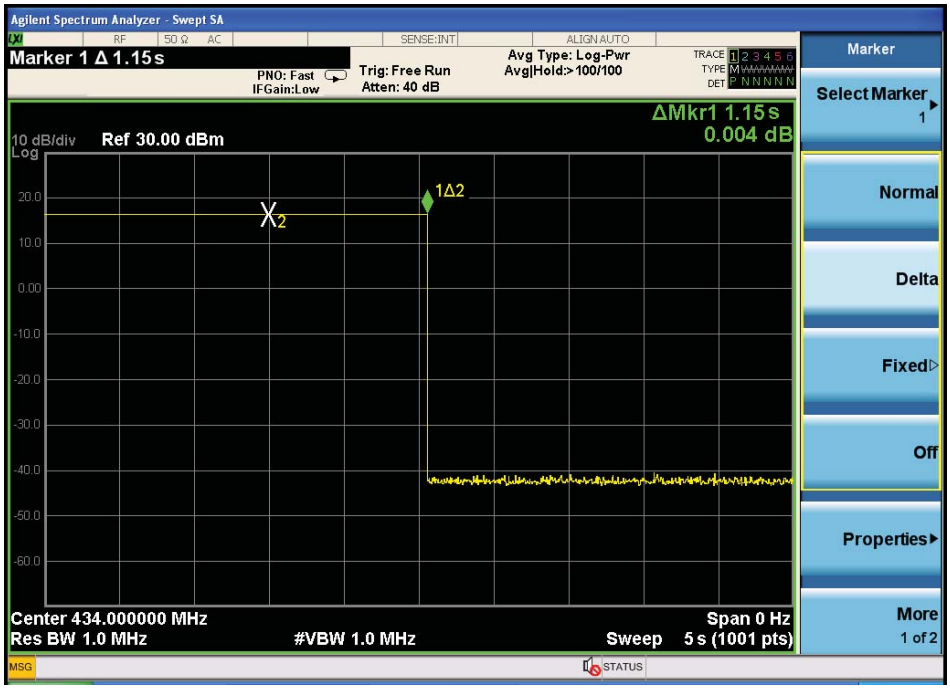
6.3. Test Setup



6.4. Test Results

EUT: Wireless Voting Unit				
M/N: BJ-W5				
Test Mode: Keeping TX mode				
Test date: 2015-11-16		Test site: RF site	Tested by: Eric	
Mode	Freq (MHz)	Test Result(s)	Limit (s)	Conclusion
FSK	434	1.15	< 5s	PASS

EUT After Release the button, EUT emission Continue 1 seconds, Compliance with 15.231 a(1) section.



7. Antenna Requirement

7.1. Standard Requirement

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.

7.2. Antenna Connected Construction

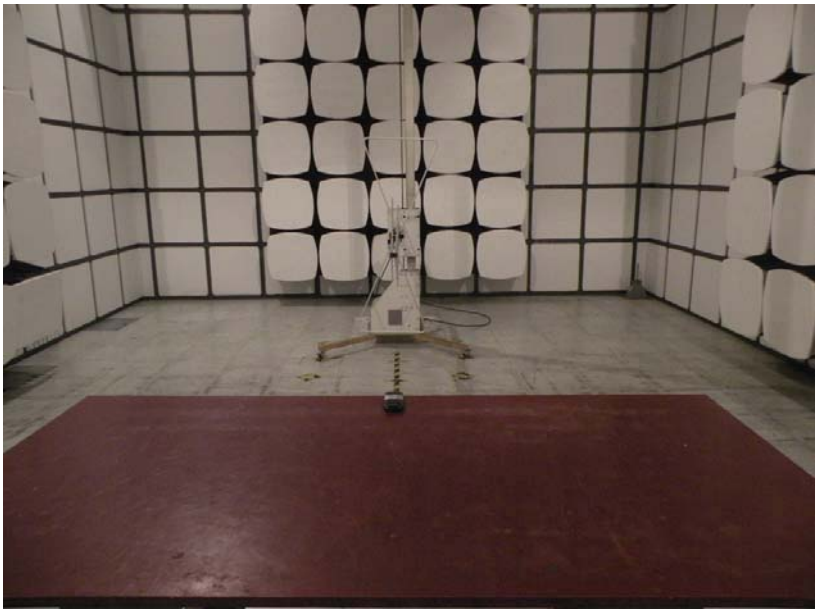
The directional gains of antenna used for transmitting is 0 dBi, and the antenna connector is de- signed with permanent attachment and no consideration of replacement. Please see EUT photo for details.

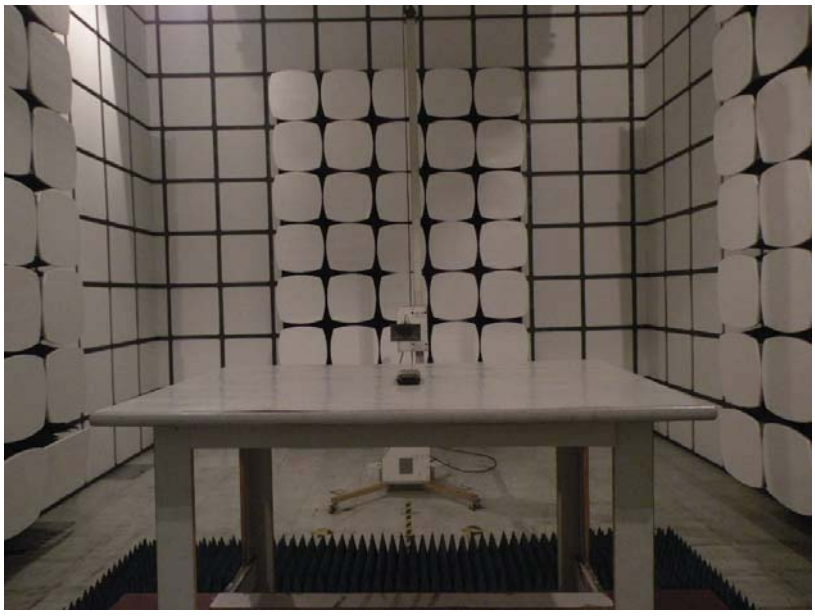
7.3. Result

The EUT antenna is PCB antenna. It comply with the standard requirement.

8. Test setup photo

Photos of Radiated emission





9. Photos of EUT


GONSIN


GONSIN
CH-
CH+

---------END OF THE REPORT-------