FCC 47 CFR PART 15 SUBPART C

Product Type	:	Smart Watch
Applicant	:	Kronoz LLC
Address	:	Avenue Louis Casai 18 1209 Geneva Switzerland
Trade Name	:	MyKronoz
Model Number	:	ZeSplash^2
Test Specification	:	FCC 47 CFR PART 15 SUBPART C: Oct., 2013 ANSI C63.10:2013
Receive Date	:	28 Oct, 2015
Test Period	:	08 Nov, 2015 to 30 Nov, 2015
Issue Date	:	06 Dec, 2015

Issue by

A Test Lab Techno Corp.
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Taiwan Accreditation Foundation accreditation number: 1330

Revision History

Rev.	Issue Date	Revisions	Revised By
00	06 Dec, 2015	Initial Issue	

Certification of Compliance

Issued Date: 2015/12/06

Product Type	:	Smart Watch
Applicant	:	Kronoz LLC
Address	:	Avenue Louis Casai 18 1209 Geneva Switzerland
Trade Name	:	MyKronoz
Model Number	:	ZeSplash^2
FCC ID	:	2AA7D-ZESH2
EUT Rated Voltage	:	DC 3.8V
Test Voltage	:	DC 3.8V
Applicable Standard	:	FCC 47 CFR PART 15 SUBPART C: Oct., 2013 ANSI C63.10:2013
Test Result	:	Complied
Test Laboratory	:	Site 1 : A Test Lab Techno Corp. No. 140-1, Changan Street, Bade City, Taoyuan County 334, Taiwan R.O.C. Tel：+886-3-2710188 / Fax：+886-3-2710190 Taiwan Accreditation Foundation accreditation number: 1330 Site 2: Shenzhen Academy of Metrology and Quality Inspection No.4 TongFa Road, Xili Town Nanshan District, Shenzhen, China

The above equipment was tested by A Test Lab Techno Corp. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4: 2013 and the energy emitted by the sample tested as described in this report is in compliance with the requirements of FCC Rules Part 15.207, 15.209, 15.247 .The test results of this report relate only to the tested sample identified in this report.

Approved By	:	Fly Lu	Reviewed By	:	Eric Ou Yang
(Manager)		(Fly Lu)	(Testing Engineer)		(Eric Ou Yang)

TABLE OF CONTENTS

1 General Information

1.1. Summary of Test Result

Standard	Item	Result	Remark
15.207	AC Power Conducted Emission	PASS	-----
15.247(b)(1)	Max. Output Power	PASS	-----
15.247(c)	Transmitter Radiated Emissions	PASS	-----
15.247(a)(1)	20dB RF Bandwidth	PASS	-----
15.247(a)(1)(iii)	Carrier Frequency Separation	PASS	-----
15.247(a)(1)(iii)	Number of Hopping	PASS	-----
15.247(a)(1)(iii)	Time of Occupancy (Dwell Time)	PASS	-----
15.247(c)	Out of Band Conducted Spurious Emission	PASS	-----
15.247(c)	Band Edge Measurement	PASS	-----
15.247(c)	Occupied Bandwidth Measurement	PASS	-----
15.203	Antenna Requirement	PASS	-----

The test results of this report relate only to the tested sample(s) identified in this report. Manufacturer or whom it may concern should recognize the pass or fail of the test result.

1.2. Measurement Uncertainty

Test Item	Frequency Range		Uncertainty (dB)
Conducted Emission	9kHz ~ 30MHz		± 2.02
Radiated Emission	9kHz ~ 30MHz		± 3.49
	30MHz ~ 1000MHz	Horizontal	± 3.98
		Vertical	± 3.62
	1000MHz ~ 18000MHz	Horizontal	± 3.11
		Vertical	± 3.07
	18000MHz ~ 40000MHz	Horizontal	± 3.66
		Vertical	± 3.54

2 EUT Description

Product	Smart Watch
Trade Name	MyKronoz
Model Number	ZeSplash^2
Applicant	Kronoz LLC
Applicant Address	Avenue Louis Casai 18 1209 Geneva Switzerland
Manufacturer	Kronoz LLC
Manufacturer Address	Avenue Louis Casai 18 1209 Geneva Switzerland
FCC ID	2AA7D- ZESH2
Frequency Range	2402 ~ 2480 MHz
Bluetooth version	BT2.1+EDR
Modulation Type	GFSK for 1Mbps
	π/4-DQPSK for 2Mbps
	8DPSK for 3Mbps
Antenna Type	VLG Antenna
Antenna Gain	Bluetooth: 2.0 dBi
Hardware Version	W007_MB_V2.0
Software Version	W007C_ALPHA_01
PK Output Power (Conducted)	GFSK for 1Mbps -1.142 dBm / 0.000769 W π/4-DQPSK for 2Mbps -2.796 dBm / 0.000525 W 8DPSK for 3Mbps -2.786 dBm / 0.000527 W
Emission Bandwidth（20dB）	GFSK: 1.094MHz 8DPSK: 1.273MHz
Emission Designator	GFSK: 931KF1D 8DPSK: 1M15G1D

3 Test Methodology

3.1. Mode of Operation

Decision of Test ATL 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: Normal Operation Mode
Mode 2: GFSK Mode with No-hopping
Mode 3: π/4-DQPSK Mode with No-hopping
Mode 4: 8DPSK Mode with No-hopping
Mode 5: GFSK Mode with hopping
Mode 6: π/4-DQPSK Mode with hopping
Mode 7: 8DPSK Mode with hopping
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Note:
1. Preliminary tests were performed in different modulation to find the worst case. The modulation has shown the worst-case in section 4.5. Investigation has been done on all the possible configurations for searching the worst cases.
2. EUT was programmed to be in continuously transmitting mode and the transmit duty cycle is not less than 98%
3. Software used to control the EUT for staying in continuous transmitting mode was programmed.
   After verification, all tests were carried out with the worst case test modes as shown below except radiated spurious emission below 1GHz and power line conducted emissions below 30MHz, which worst case was in normal link mode only.
4. preliminary testing and verifying three axis (X, Y and Z) position of EUT transmitted status, it was found that “X axis” position was the worst, then the final test was executed the worst condition and test data were recorded in this report.

3.2. EUT Exercise Software

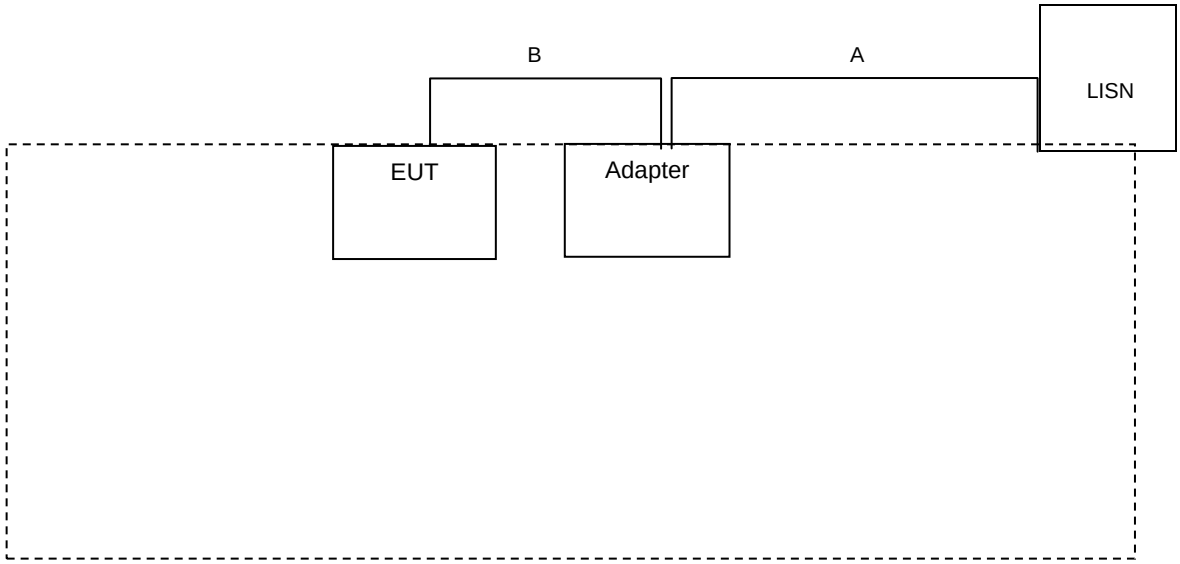
1	Setup the EUT and assistant equipment as shown on 5.3
2	Turn on the power of all equipment.
3	Make EUT into continue transmitting mode or receiving mode under the help of PC software.

Note: All tests used the new battery during the measurement.

3.3. Configuration of Test System Details

Conducted Emissions

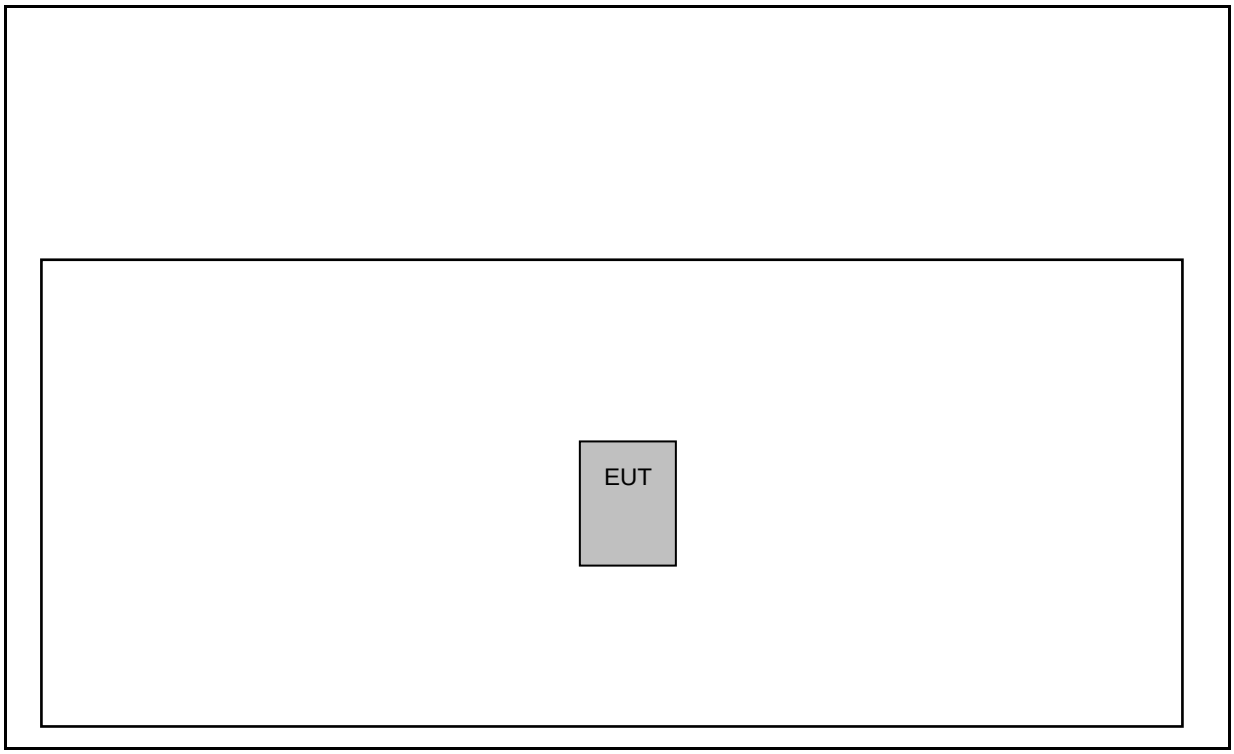
Mode 1



Signal Cable Type		Signal Cable Description
A	AC Power Cable	Non-Shielded, 1.2m
B	USB Power Cable	Non-Shielded, 0.4m

Auxiliary equipmentdescription				
Product		Manufacturer	Model Number	Description
(1)	Power Adapter	Sony	--	S/N :3513W51304150
(2)	Battery	Shenzhen Boheng Electronics cd., Ltd	ZWD751432	3.8Vdc,370mA,1.40Wh

Radiated Emissions



3.4. Test Site Environment

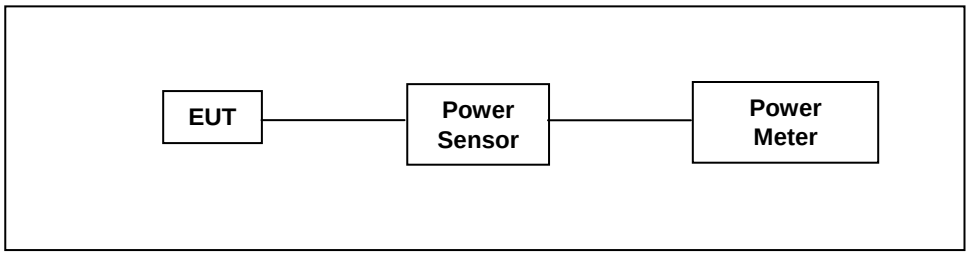
Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	26
Humidity (%RH)	25-75	60
Barometric pressure (mbar)	860-1060	950

4 Maximum Conducted Output Power Measurement

4.1. Limit

For frequency hopping systems operating in the 2400–2483.5 MHz band employing at least 75 non-overlapping hopping channels < 1 watt.

4.2. Test Setup



4.3. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Single Channel PK Power Sensor	Agilent	N1911A	MY45101619	12/15/2014	(1)
Wideband Power Meter	Agilent	N1921A	MY45241957	12/15/2014	(1)
Test Site	ATL	TE02	TE02	N.C.R.	-----
RF cable	WOKEN	---	C.10-07-02	10/24/2015	(1)
RF cable	WOKEN	---	C.10-07-03	10/24/2015	(1)
Temporary antenna connector	---	---	A01-224	05/24/2015	(1)

Remark: (1) Calibration period 1 year. (2) Calibration period 2 years.
NOTE: N.C.R. = No Calibration Request.
All the RF cables apply to 9 KHz to 40GHz.

4.4. Test Procedure

Testing must be done according to this procedure. This is the only method recognized by the FCC. The tests below are run with the EUT's transmitter set at high power in TX mode. The EUT is needed to force selection of output power level and channel number. While testing, EUT was set to transmit continuously. Remove the Subjective device's antenna and connect the RF output port to power sensor. The maximum peak output power shall not exceed 1 watt.
Use a direct connection between the antenna port of transmitter and the power sensor, for prevent the power sensor input attenuation 40-50 dB. Set the RBW Bandwidth of the emission or use a channel power meter mode.
For antennas with gains of 6 dBi or less, maximum allowed transmitter output is 1 watt (+30 dBm). For antennas with gains greater than 6 dBi, transmitter output level must be decreased by an amount equal to (GAIN - 6)/3 dBm.
The antenna port of the EUT was connected to the input of a power sensor. Power was read directly and cable loss correction was added to the reading to obtain power at the EUT antenna terminals.

4.5. Test Result

Model Number	ZeSplash^2			
Test Item	Maximum Conducted Output Power			
Test Mode	Mode 2			
Date of Test	2015/11/24		Test Site	TE02

Frequency (MHz)	Packet Type	Peak Power		Limit (W)
		(dBm)	(W)	
2402	DH1	-1.159	0.000766	< 1
	DH3	-1.148	0.000768	< 1
	DH5	-1.142	0.000769	< 1
2441	DH1	-1.573	0.000696	< 1
	DH3	-1.569	0.000697	< 1
	DH5	-1.563	0.000698	< 1
2480	DH1	-1.967	0.000636	< 1
	DH3	-1.961	0.000637	< 1
	DH5	-1.952	0.000638	< 1

Model Number	ZeSplash^2			
Test Item	Maximum Conducted Output Power			
Test Mode	Mode 3			
Date of Test	2015/11/24		Test Site	TE02

Frequency (MHz)	Packet Type	Peak Power		Limit (W)
		(dBm)	(W)	
2402	DH1	-2.825	0.000522	< 1
	DH3	-2.816	0.000523	< 1
	DH5	-2.796	0.000525	< 1
2441	DH1	-3.221	0.000476	< 1
	DH3	-3.195	0.000479	< 1
	DH5	-3.189	0.000480	< 1
2480	DH1	-3.493	0.000447	< 1
	DH3	-3.486	0.000448	< 1
	DH5	-3.481	0.000449	< 1

Model Number	ZeSplash^2		
Test Item	Maximum Conducted Output Power		
Test Mode	Mode 4		
Date of Test	2015/11/24	Test Site	TE02

Frequency (MHz)	Packet Type	Peak Power		Limit (W)
		(dBm)	(W)	
2402	DH1	-2.807	0.000524	< 1
	DH3	-2.801	0.000525	< 1
	DH5	-2.786	0.000527	< 1
2441	DH1	-3.205	0.000478	< 1
	DH3	-3.189	0.000480	< 1
	DH5	-3.177	0.000481	< 1
2480	DH1	-3.476	0.000449	< 1
	DH3	-3.469	0.000450	< 1
	DH5	-3.463	0.000451	< 1

5 Conducted Emission Measurement

5.1. Limit

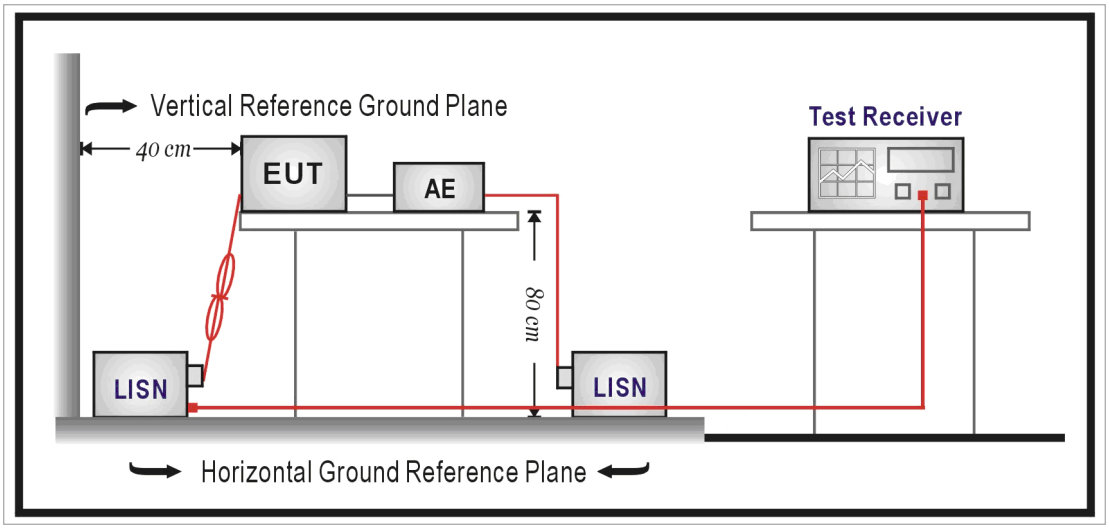
Frequency (MHz)	Quasi-peak	Average
0.15 - 0.5	66 to 56	56 to 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

5.2. Test Instruments

Describe	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Test Receiver	R&S	ESCI	100367	06/06/2015	(1)
LISN	R&S	ENV216	101040	03/07/2015	(1)
LISN	R&S	ENV216	101041	03/07/2015	(1)
Test Site	ATL	TE05	TE05	N.C.R.	-----
RF cable	WOKEN	---	C.10-07-04	10/24/2015	(1)
RF cable	WOKEN	---	C.10-07-05	10/24/2015	(1)

Remark: (1) Calibration period 1 year. (2) Calibration period 2 years.
NOTE: N.C.R. = No Calibration Request.
All the RF cables apply to 9 KHz to 40GHz.

5.3. Test Setup



5.4. Test Procedure

The power line conducted emission measurements were performed in a shielded enclosure. The EUT was assembled on a wooden table which is 80 centimeters high, was placed 40 centimeters from the back wall and at least 1 meter from the sidewall.

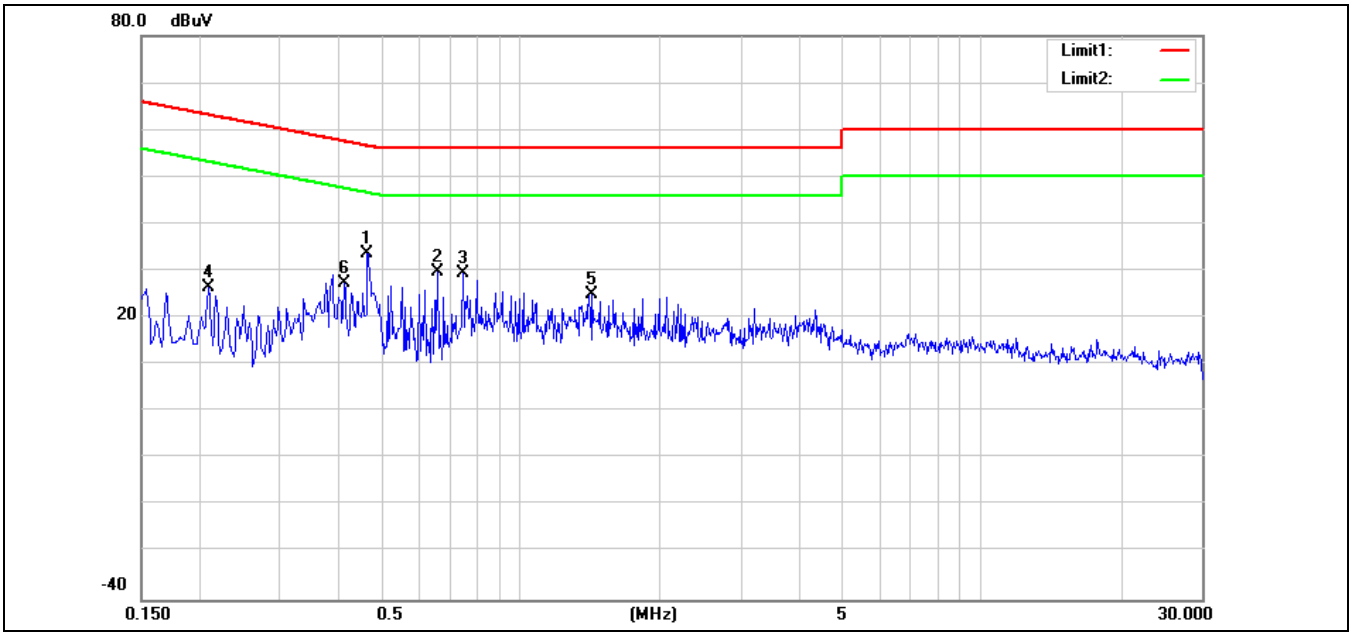
Power was fed to the EUT from the public utility power grid through a line filter and EMCO Model ENV216 SH Line Impedance Stabilization Networks (LISN). The LISN housing, measuring instrumentation case, ground plane, etc., were electrically bonded together at the same RF potential. The Spectrum analyzer was connected to the AC line through an isolation transformer. The 50-ohm output of the LISN was connected to the spectrum analyzer directly. Conducted emission levels were in the CISPR quasi-peak detection mode. The analyzer's 6 dB bandwidth was set to 9 KHz. No post-detector video filter was used.

The spectrum was scanned from 150 KHz to 30 MHz. The physical arrangement of the test system and associated cabling was varied (within the scope of arrangements likely to be encountered in actual use) to determine the effect on the unit's emanations in amplitude and frequency. All spurious emission frequencies were observed. The highest emission amplitudes relative to the appropriate limit were measured and have been recorded in paragraph 4.1.

Note：After verification, EUT connects to the PC or AC adapter were carried out with the worst case test modes as shown, it is EUT connects to the PC.

5.5. Test Result

Standard:	FCC Class B Conduction(QP)	Line:	L1
Test item:	Conducted Emission	Power:	AC 120V/60Hz
Model Number:	ZeSplash^2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	1	Date:	2015/11/25
Description:			

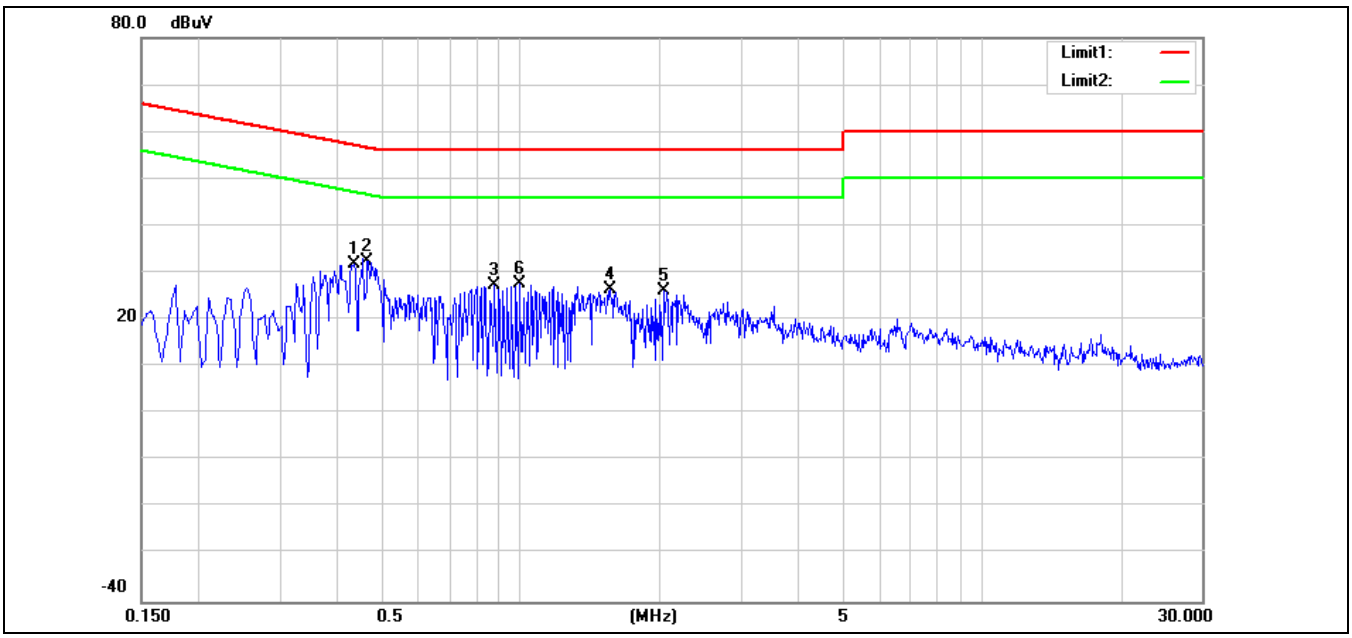


No.	Frequency (MHz)	QP Reading (dBuV)	AVG Reading (dBuV)	Correction Factor (dB)	QP Result (dBuV)	AVG Result (dBuV)	QP Limit (dBuV)	AVG Limit (dBuV)	QP Margin (dB)	AVG Margin (dB)	Remark
1	0.4660	33.30	14.63	0.35	33.65	14.98	56.58	46.58	-22.93	-31.60	Pass
2	0.6580	18.91	10.23	0.38	19.29	10.61	56.00	46.00	-36.71	-35.39	Pass
3	0.7500	17.55	6.83	0.40	17.95	7.23	56.00	46.00	-38.05	-38.77	Pass
4	0.2100	17.19	7.34	0.27	17.46	7.61	63.21	53.21	-45.75	-45.60	Pass
5	1.4300	15.18	7.77	0.41	15.59	8.18	56.00	46.00	-40.41	-37.82	Pass
6	0.4140	21.71	12.28	0.35	22.06	12.63	57.57	47.57	-35.51	-34.94	Pass

Note:1. Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

Standard:	FCC Class B Conduction(QP)	Line:	N
Test item:	Conducted Emission	Power:	AC 120V/60Hz
Model Number:	ZeSplash^2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	1	Date:	2015/11/25
Description:			



No.	Frequency (MHz)	QP Reading (dBuV)	AVG Reading (dBuV)	Correction Factor (dB)	QP Result (dBuV)	AVG Result (dBuV)	QP Limit (dBuV)	AVG Limit (dBuV)	QP Margin (dB)	AVG Margin (dB)	Remark
1	0.4340	33.71	21.45	0.35	34.06	21.80	57.18	47.18	-23.12	-25.38	Pass
2	0.4660	31.20	17.78	0.35	31.55	18.13	56.58	46.58	-25.03	-28.45	Pass
3	0.8780	21.56	8.66	0.40	21.96	9.06	56.00	46.00	-34.04	-36.94	Pass
4	1.5620	21.25	9.60	0.42	21.67	10.02	56.00	46.00	-34.33	-35.98	Pass
5	2.0340	21.66	9.30	0.46	22.12	9.76	56.00	46.00	-33.88	-36.24	Pass
6	0.9940	23.63	11.50	0.38	24.01	11.88	56.00	46.00	-31.99	-34.12	Pass

Note:1. Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

6 Radiated Interference Measurement

6.1. Limit

According to §15.209(a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (μV/m at meter)	Measurement Distance (meters)
0.009 – 0.490	2400 / F (kHz)	300
0.490 – 1.705	24000 / F (kHz)	30
1.705 – 30.0	30	30
30 - 88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

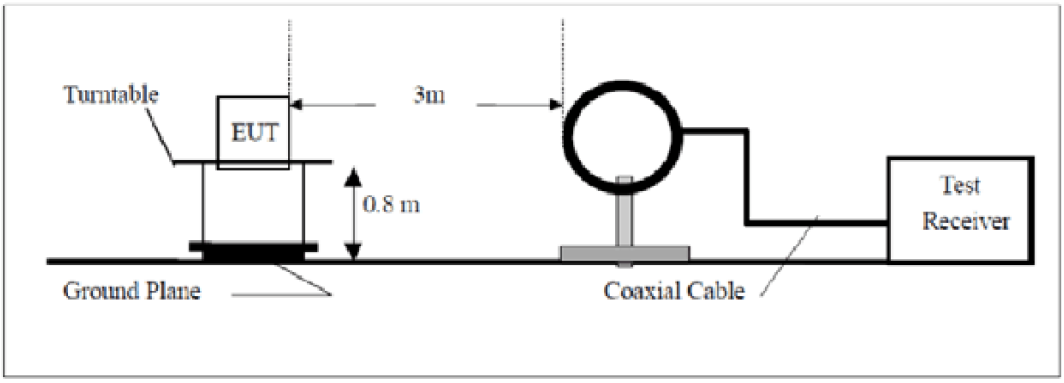
6.2. Test Instruments

3 Meter Chamber					
Model No.	Equipment	Manufacturer	Serial Number	Cal. Date	Remark
ESCS30	EMI Test Receiver	Rohde & Schwarz	830245/009	Dec.29, 2014	1 Year
VULB9163	Bilog Antenna	Schwarzbeck	264	Jan.19, 2015	1 Year
9X6X6	3m Semi-anechoic chamber	Albatross Projects	SB3450/01	Oct.12, 2015	1 Year
HF907	Horn Antenna	Rohde & Schwarz	100309	May.15,2015	1 Year
FMZB1516	Loop Antenna	Schwarzbeck	113	Jan 21,2015	1 Year
3160-09	Horn antenna	ETS	8501/10	May.15.2015	1 Year
SCU26	Pre Amplifier	Rohde & Schwarz	10020	May.15.2015	1 Year
SCU40	Pre Amplifier	Rohde & Schwarz	10015	May.15.2015	1 Year
ESU40	Test Receiver	Rohde & Schwarz	100263	May.15.2015	1 Year
---	RF cable	WOKEN	S02-1404-09-065	May.11.2015	1 year
---	RF cable	WOKEN	S02-1404-09-047	May.11.2015	1 year
---	RF cable	WOKEN	S02-1404-09-052	May.11.2015	1 year

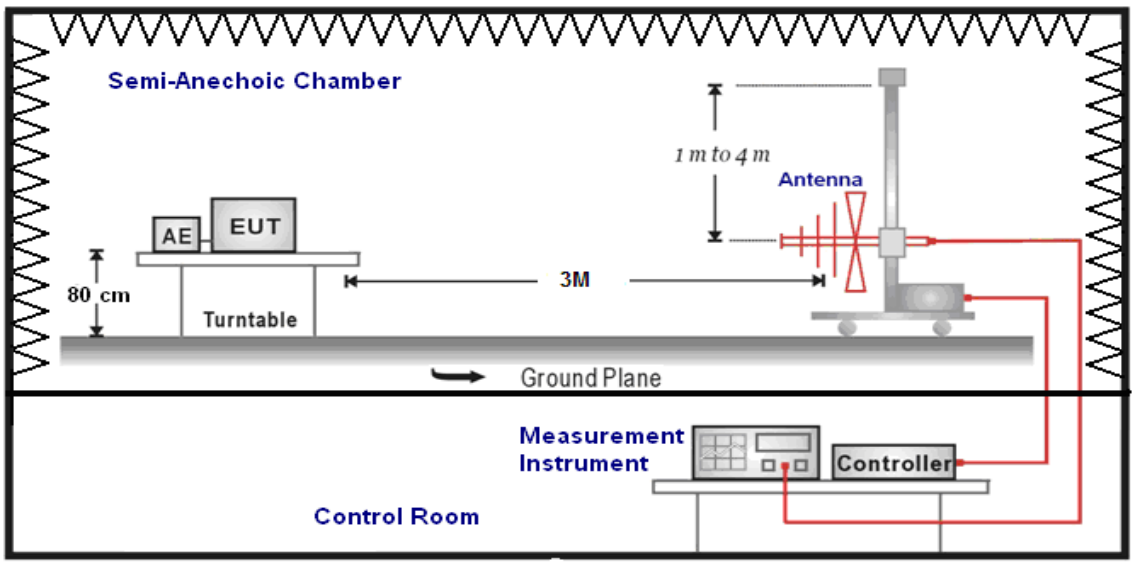
Remark: (1) Calibration period 1 year. (2) Calibration period 2 years. (3) Calibration period 3 years.
NOTE: N.C.R. = No Calibration Request. All the RF cables apply to 9 KHz to 40GHz.

6.3. Setup

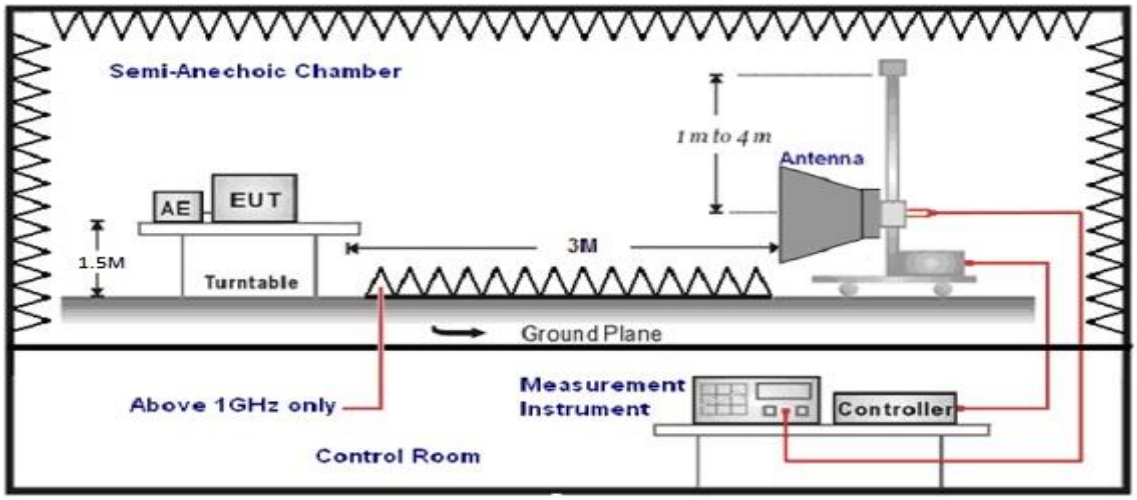
9KHz-30MHz



30MHz- 1GHz



Above 1GHz



6.4. Test Procedure

Final radiation measurements were made on a three-meter, Semi Anechoic Chamber. The EUT system was placed on a nonconductive turntable which is 0.8 meters height for below 1GHz and 1.5 meters height for above 1GHz, top surface 1.0 x 1.5 meter. The spectrum was examined from 9 kHz to 26.5 GHz in order to cover the whole spectrum below 10th harmonic which could generate from the EUT. During the test, EUT was set to transmit continuously & Measurements spectrum range from 9 kHz to 26.5 GHz is investigated.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, and then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

A nonconductive material surrounded the EUT to supporting the EUT for standing on tree orthogonal planes. At each condition, the EUT was rotated 360 degrees, and the antenna was raised and lowered from one to four meters to find the maximum emission levels. Measurements were taken using both horizontal and vertical antenna polarization.

SCHWARZBECK MESS-ELEKTRONIK Biconilog Antenna (mode VULB9163) at 3 Meter and the SCHWARZBECK Double Ridged Guide Antenna (model FH907&3160) was used in frequencies 1 – 26.5 GHz at a distance of 1 meter. All test results were extrapolated to equivalent signal at 3 meters utilizing an inverse linear distance extrapolation Factor (20dB/decade).

For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

Appropriate preamplifiers were used for improving sensitivity and precautions were taken to avoid overloading or desensitizing the spectrum analyzer. No post – detector video filters were used in the test.

For the radiated emission test above 1GHz:

Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.

The spectrum analyzer's 6 dB bandwidth was set to 1 MHz, and the analyzer was operated in the peak detection mode, for frequencies both below and up 1 GHz. The average levels were obtained by subtracting the duty cycle correction factor from the peak readings.

The following procedures were used to convert the emission levels measured in decibels referenced to 1 microvolt (dBuV) into field intensity in micro volts pre meter (uV/m).

The actual field intensity in decibels referenced to 1 microvolt in to field intensity in micro colts per meter (dBuV/m).

The actual field is intensity in referenced to 1 microvolt per meter (dBuV/m) is determined by algebraically adding the measured reading in dBuV, the antenna factor (dB), and cable loss (dB) and Subtracting the gain of preamplifier (dB) is auto calculate in spectrum analyzer.

(1) Amplitude (dBuV/m) = FI (dBuV) +AF (dBuV) +CL (dBuV)-Gain (dB)
FI= Reading of the field intensity.
AF= Antenna factor.
CL= Cable loss.
P.S Amplitude is auto calculate in spectrum analyzer.

(2) Actual Amplitude (dBuV/m) = Amplitude (dBuV)-Dis(dB)
The FCC specified emission limits were calculated according the EUT operating frequency and by following linear interpolation equations:
(a) For fundamental frequency : Transmitter Output < +30dBm
(b) For spurious frequency : Spurious emission limits = fundamental emission limit /10

Data of measurement within this frequency range without mark in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

Note: We tests were performed in different modulation to find the worst case. And show the worst-case here.

6.5. Test Result

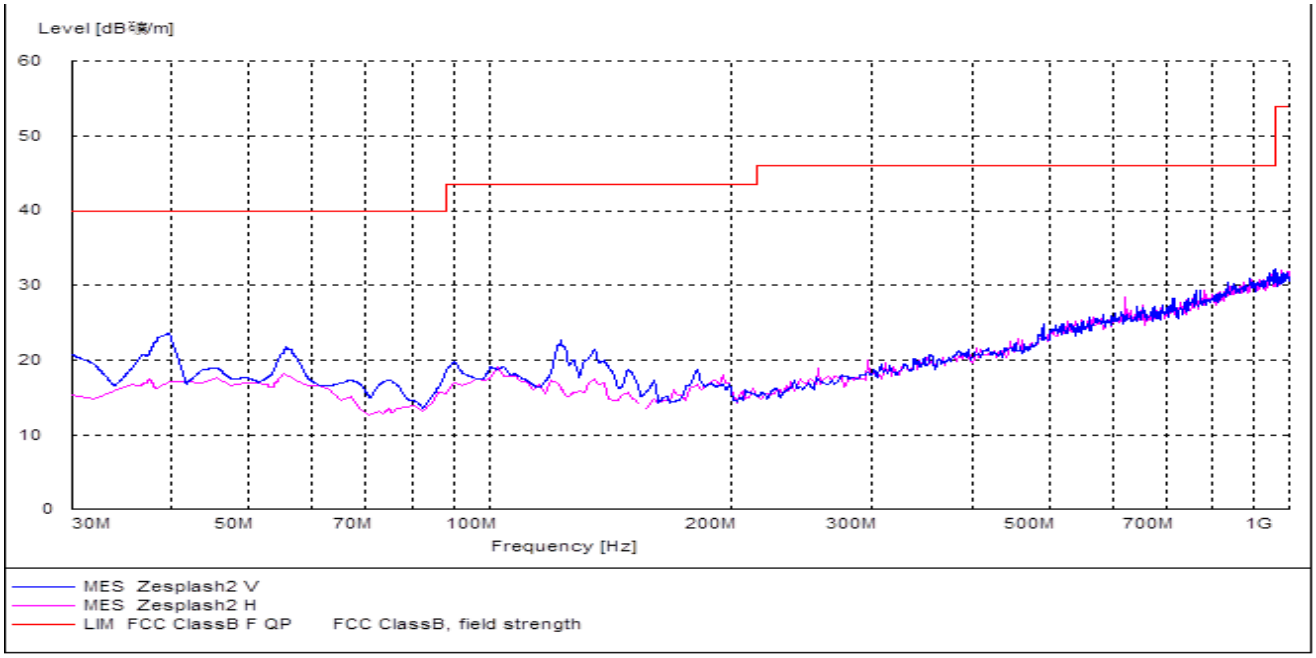
Below 1GHz

Standard:	FCC Part 15C	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.8V
Model Number:	ZeSplash^2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 2	Date:	2015/11/25
Frequency:	2402 MHz		

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
55.390	32.59	-14.68	17.91	40.00	22.06	QP	H
--	--	--	--	--	--	QP	H
--	--	--	--	--	--	QP	H
56.730	37.21	-14.57	22.64	40.00	17.36	QP	V
--	--	--	--	--	--	QP	V
--	--	--	--	--	--	QP	V

Note: No emission found between lowest internal used/generated frequencies to 30MHz (9 kHz~30MHz).

Horizontal/ Vertical

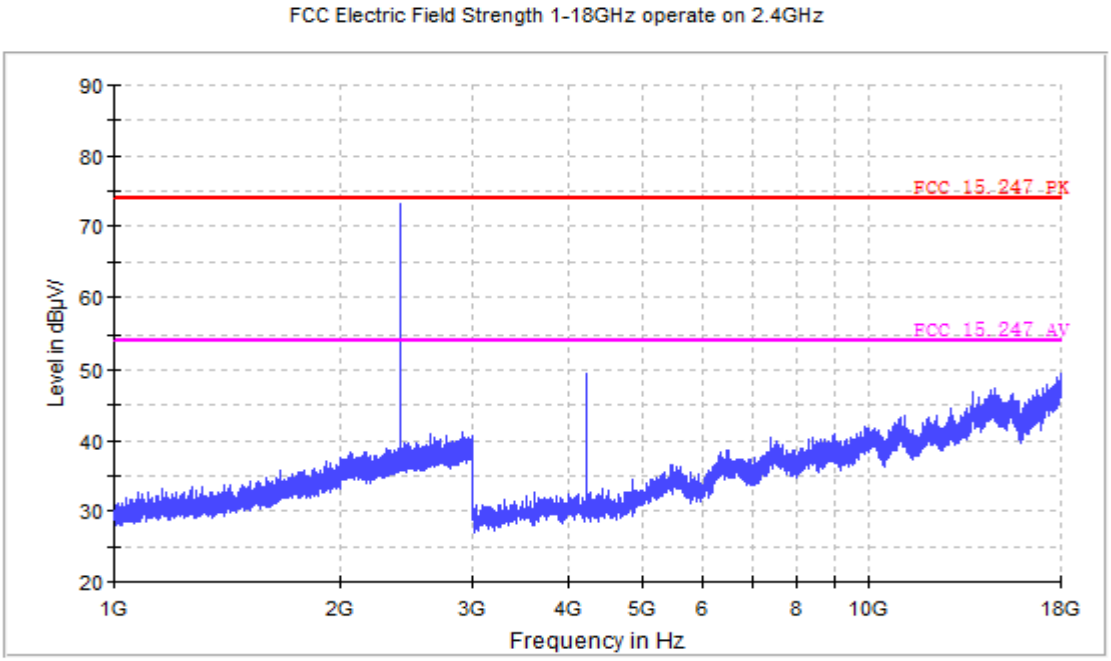


Above 1GHz

Standard:	FCC Part 15C	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.8V
Model Number:	ZeSplash^2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 2	Date:	2015/11/25
Frequency:	2402 MHz		

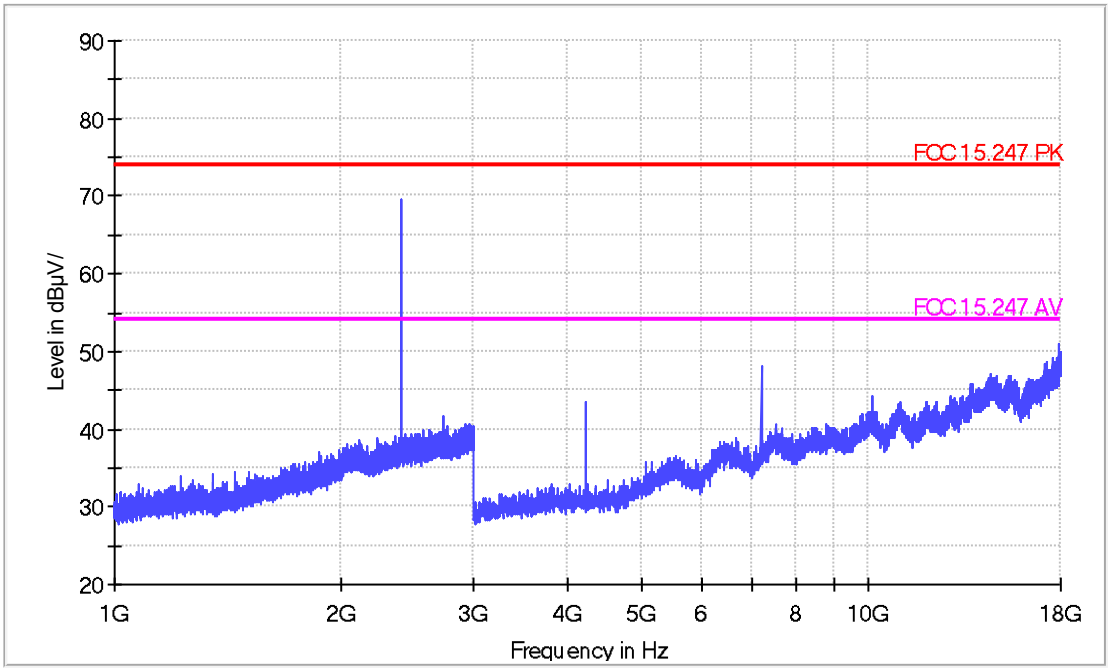
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
4213.000	45.98	3.15	49.13	74.00	24.87	peak	H
4213.000	40.53	3.15	43.68	54.00	10.32	Average	H
7206.000	33.91	6.15	40.06	74.00	33.94	peak	H
7206.000	28.82	6.15	34.97	54.00	19.03	Average	H
4213.000	40.33	3.15	43.48	74.00	30.52	peak	V
4213.000	34.46	3.15	37.61	54.00	16.39	Average	V
7206.000	41.87	6.15	48.02	74.00	25.98	peak	V
7206.000	35.81	6.15	41.96	54.00	12.04	Average	V

Horizontal



Vertical

FCC Electric Field Strength 1-18GHz operate on 2.4GHz

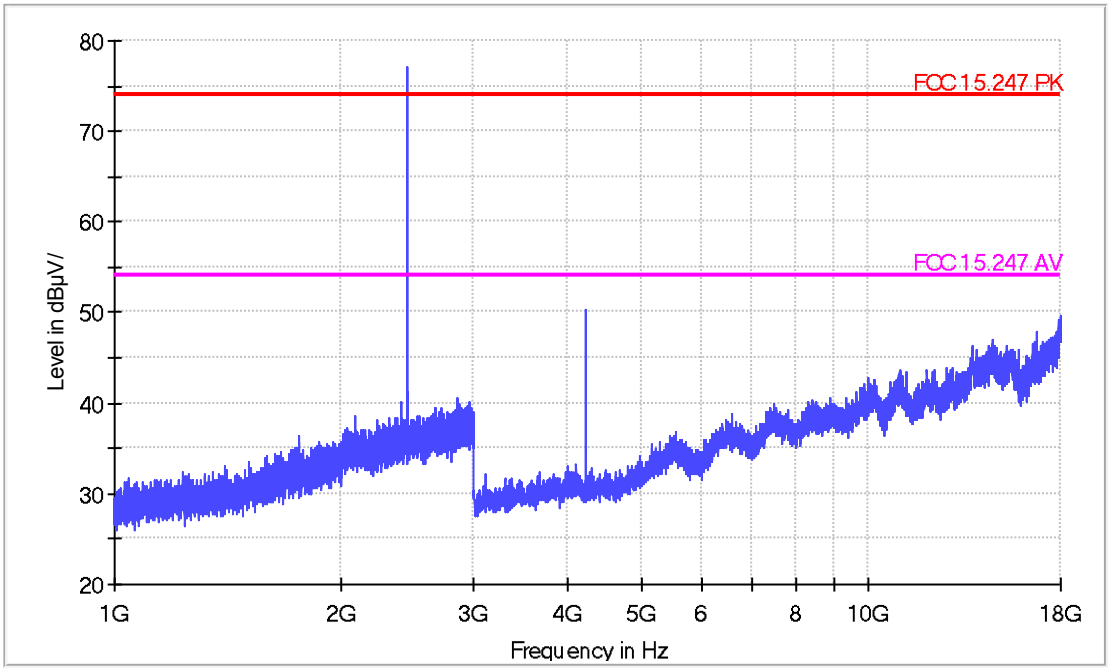


Standard:	FCC Part 15C	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.8V
Model Number:	ZeSplash^2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 2	Date:	2015/11/25
Frequency:	2441 MHz		

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
4213.000	47.28	3.15	50.43	74.00	23.57	peak	H
4213.000	41.04	3.15	44.19	54.00	9.81	Average	H
7320.000	31.05	7.21	38.26	74.00	35.74	peak	H
7320.000	25.70	7.21	32.91	54.00	21.09	Average	H
4213.000	39.68	3.15	42.83	74.00	31.17	peak	V
4213.000	33.68	3.15	36.83	54.00	17.17	Average	V
7320.000	30.96	7.21	38.17	74.00	35.83	peak	V
7320.000	26.24	7.21	33.45	54.00	20.55	Average	V

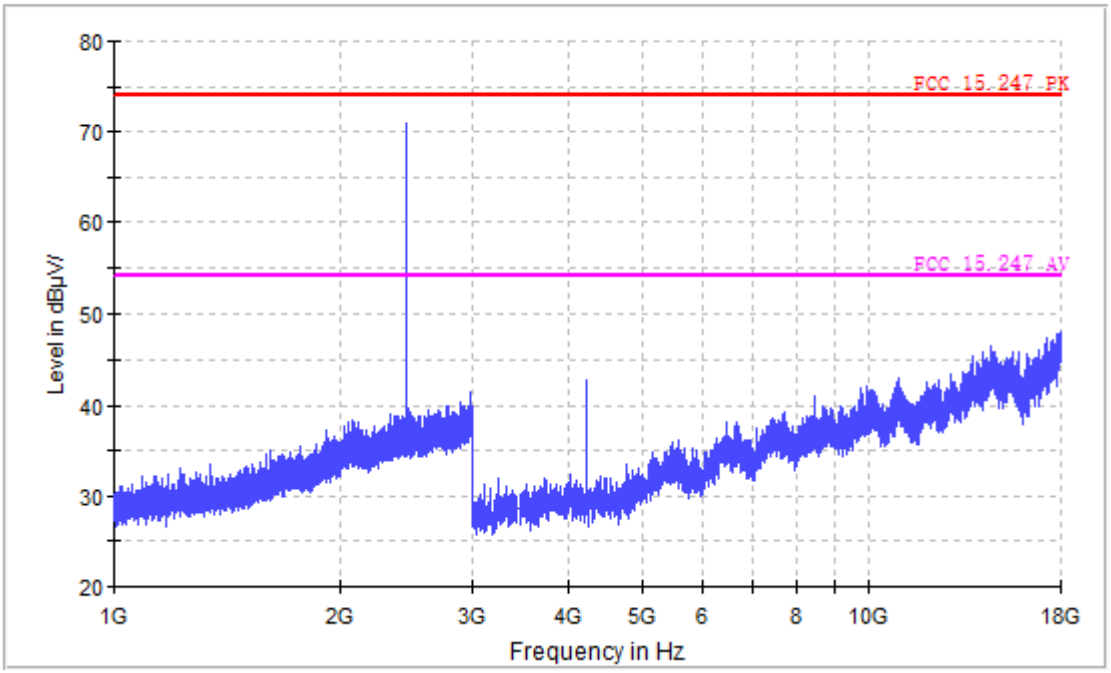
Horizontal

FCC Electric Field Strength 1-18GHz operate on 2.4GHz



Vertical

FCC Electric Field Strength 1-18GHz operate on 2.4GHz

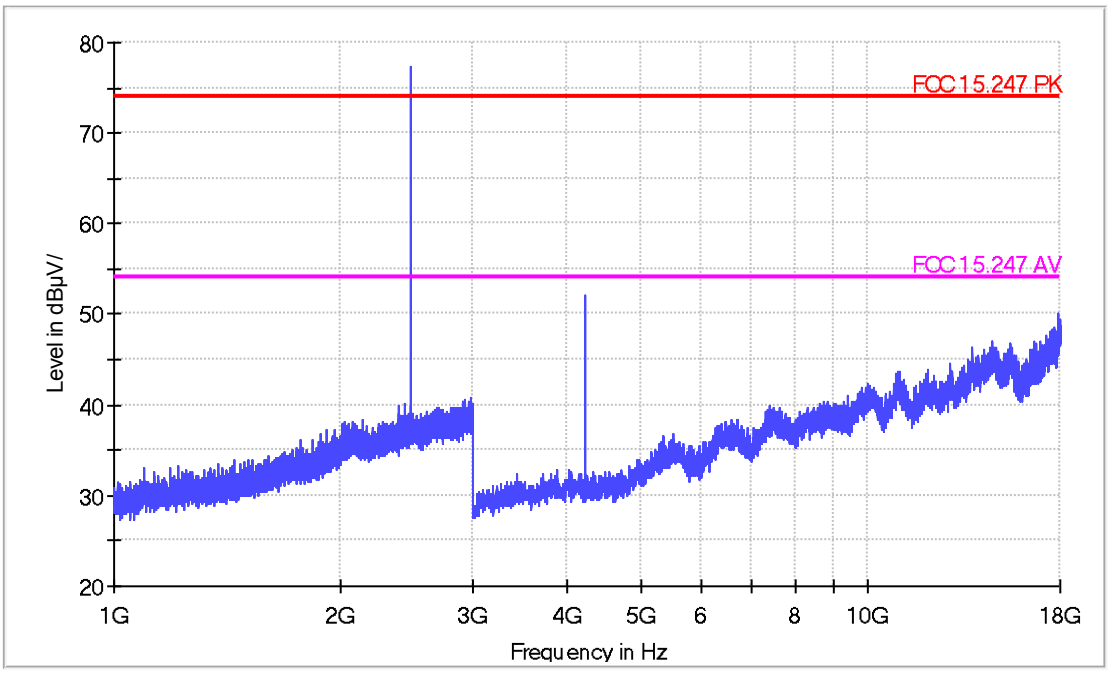


Standard:	FCC Part 15C	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.8V
Model Number:	ZeSplash^2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 2	Date:	2015/11/25
Frequency:	2480 MHz		

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
4213.000	51.37	3.15	54.52	74.00	19.48	peak	H
4213.000	47.76	3.15	50.91	54.00	3.09	Average	H
7440.000	31.79	8.36	40.15	74.00	33.85	peak	H
7440.000	26.50	8.36	34.86	54.00	19.14	Average	H
4213.000	43.98	3.15	47.13	74.00	26.87	peak	V
4213.000	38.27	3.15	41.42	54.00	12.58	Average	V
7440.000	31.50	8.36	39.86	74.00	34.14	peak	V
7440.000	25.25	8.36	33.61	54.00	20.39	Average	V

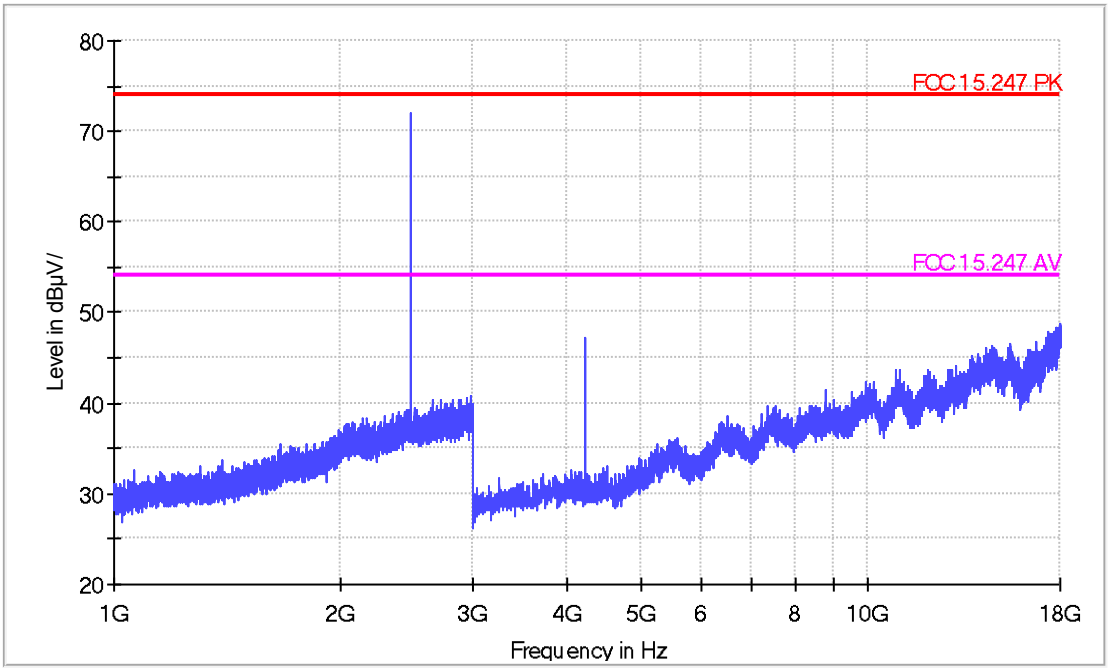
Horizontal

FCC Electric Field Strength 1-18GHz operate on 2.4GHz



Vertical

FCC Electric Field Strength 1-18GHz operate on 2.4GHz

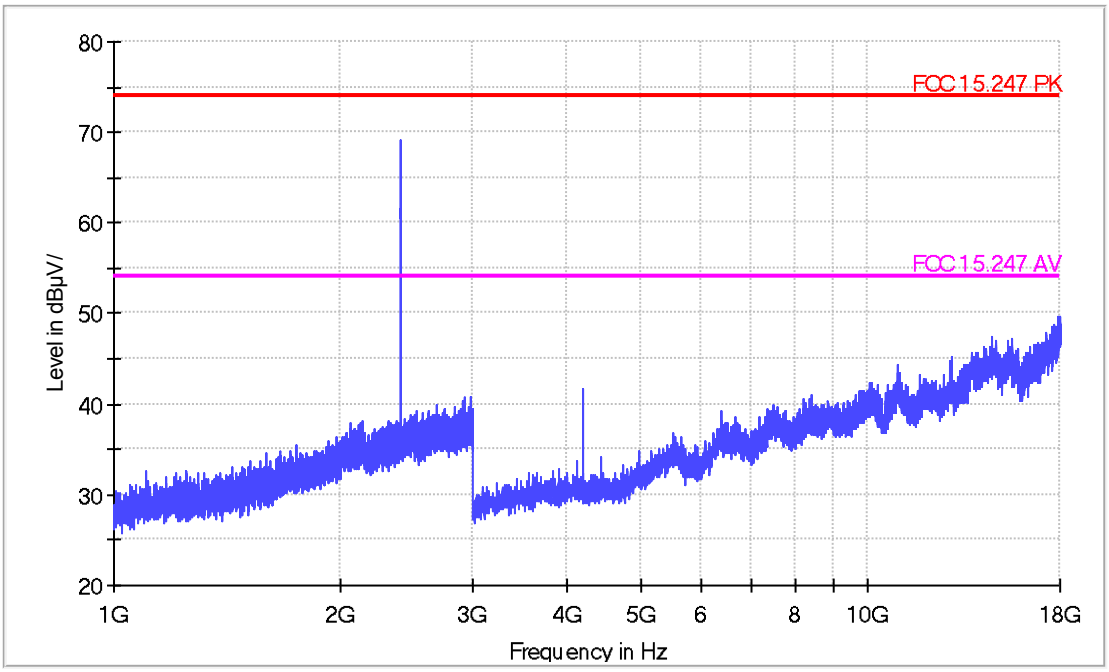


Standard:	FCC Part 15C	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.8V
Model Number:	ZeSplash^2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 4	Date:	2015/11/25
Frequency:	2402 MHz		

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
4213.000	38.78	3.15	41.93	74.00	32.07	peak	H
4213.000	32.31	3.15	35.46	54.00	18.54	Average	H
7206.000	30.72	6.15	36.87	74.00	37.13	peak	H
7206.000	25.34	6.15	31.49	54.00	22.51	Average	H
4213.000	43.38	3.15	46.53	74.00	27.47	peak	V
4213.000	37.47	3.15	40.62	54.00	13.38	Average	V
7206.000	30.97	6.15	37.12	74.00	36.88	peak	V
7206.000	25.94	6.15	32.09	54.00	21.91	Average	V

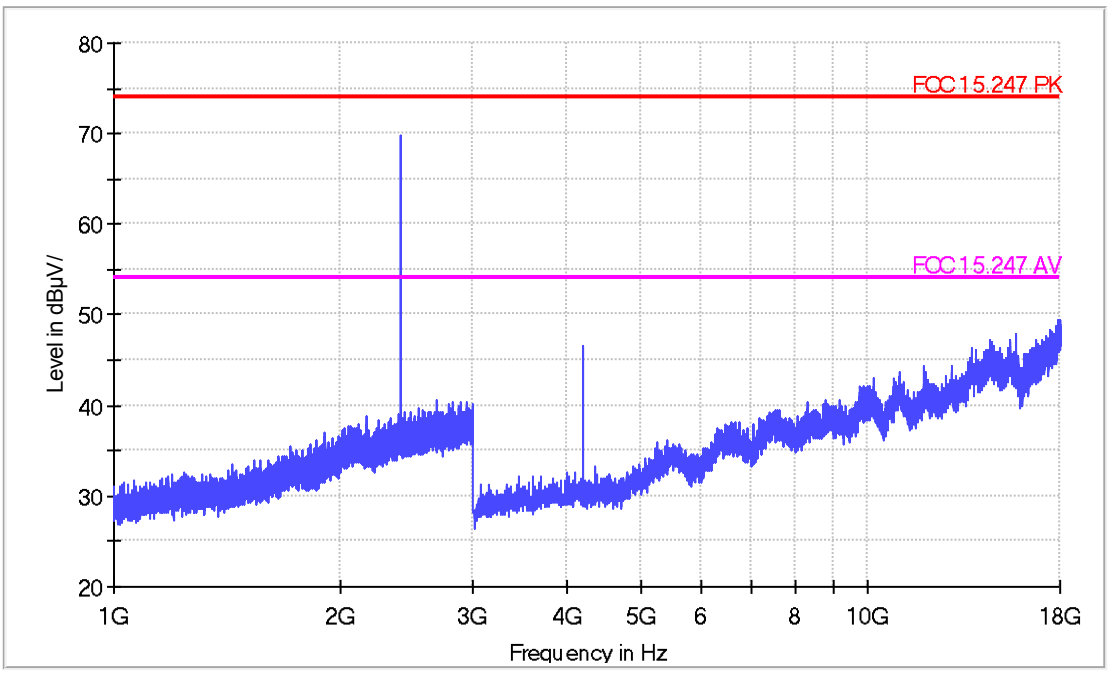
Horizontal

FCC Electric Field Strength 1-18GHz operate on 2.4GHz



Vertical

FCC Electric Field Strength 1-18GHz operate on 2.4GHz

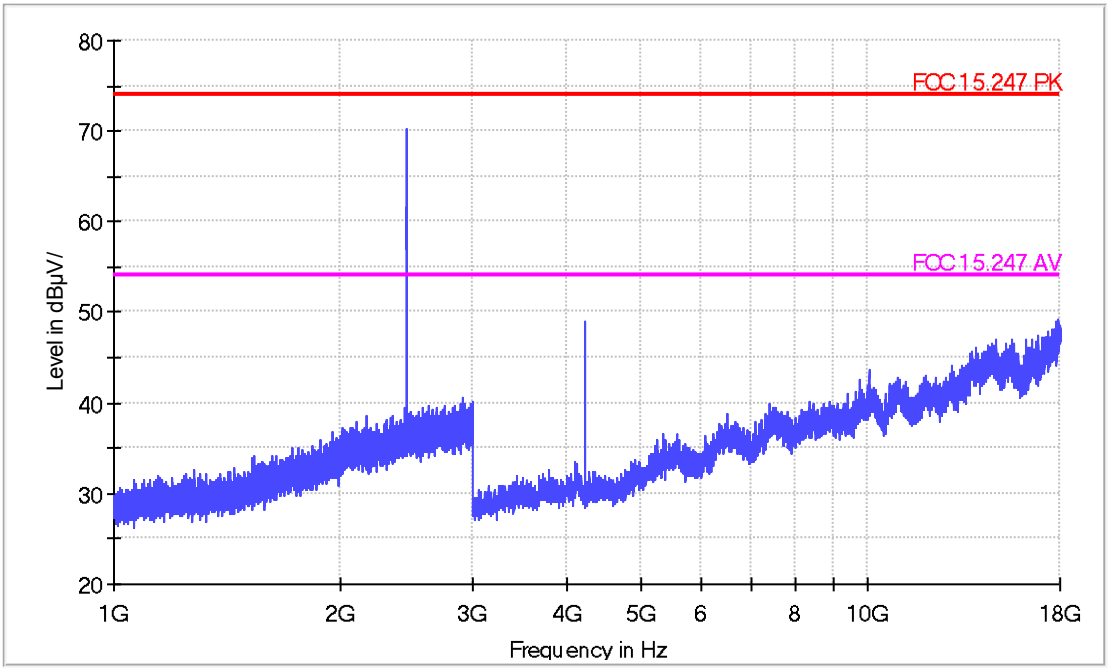


Standard:	FCC Part 15C	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.8V
Model Number:	ZeSplash^2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 4	Date:	2015/11/25
Frequency:	2441 MHz		

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
4213.000	45.77	3.15	48.92	74.00	25.08	peak	H
4213.000	39.22	3.15	42.37	54.00	11.63	Average	H
7320.000	32.20	7.21	39.41	74.00	34.59	peak	H
7320.000	26.35	7.21	33.56	54.00	20.44	Average	H
4213.000	43.57	3.15	46.72	74.00	27.28	peak	V
4213.000	37.93	3.15	41.08	54.00	12.92	Average	V
7320.000	30.60	7.21	37.81	74.00	36.19	peak	V
7320.000	24.75	7.21	31.96	54.00	22.04	Average	V

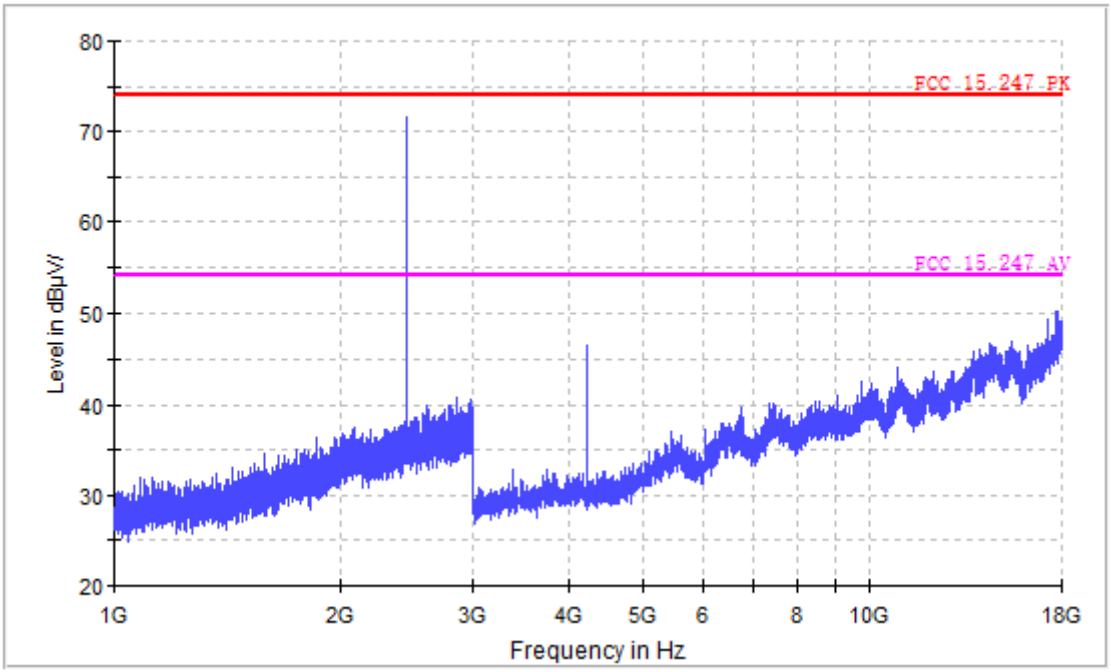
Horizontal

FCC Electric Field Strength 1-18GHz operate on 2.4GHz



Vertical

FCC Electric Field Strength 1-18GHz operate on 2.4GHz

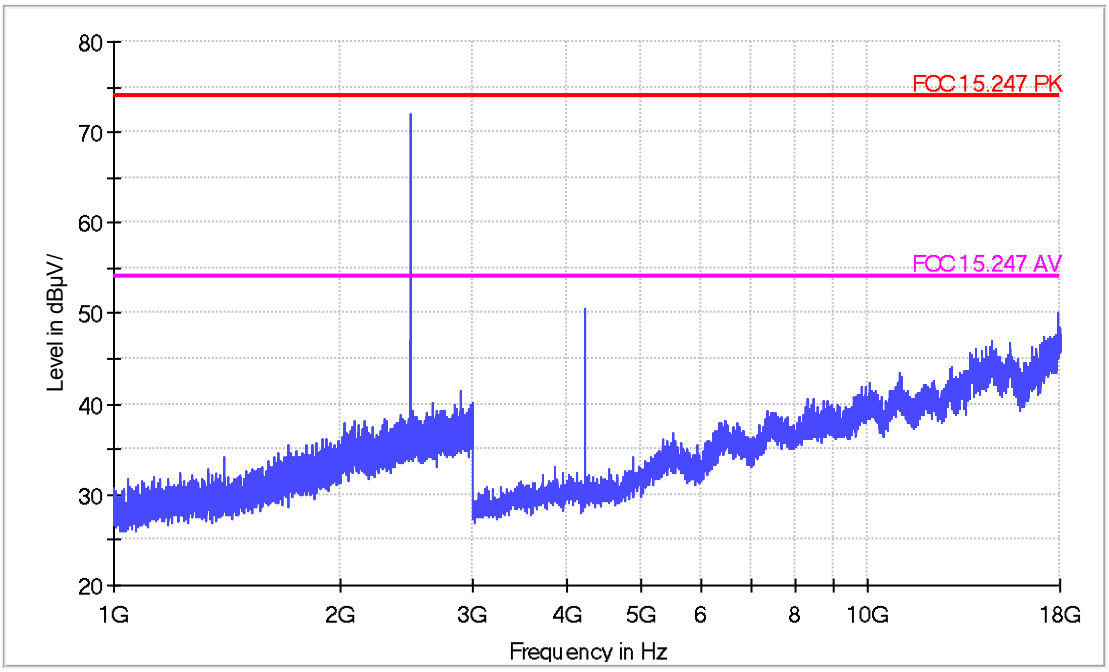


Standard:	FCC Part 15C	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.8V
Model Number:	ZeSplash^2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 4	Date:	2015/11/25
Frequency:	2480 MHz	Test By:	Ricky

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
4213.000	47.47	3.15	50.62	74.00	23.38	peak	H
4213.000	42.03	3.15	45.18	54.00	8.82	Average	H
7440.000	30.45	8.36	38.81	74.00	35.19	peak	H
7440.000	24.61	8.36	32.97	54.00	21.03	Average	H
4213.000	41.91	3.15	45.06	74.00	28.94	peak	V
4213.000	36.68	3.15	39.83	54.00	14.17	Average	V
7440.000	31.05	8.36	39.41	74.00	34.59	peak	V
7440.000	24.60	8.36	32.96	54.00	21.04	Average	V

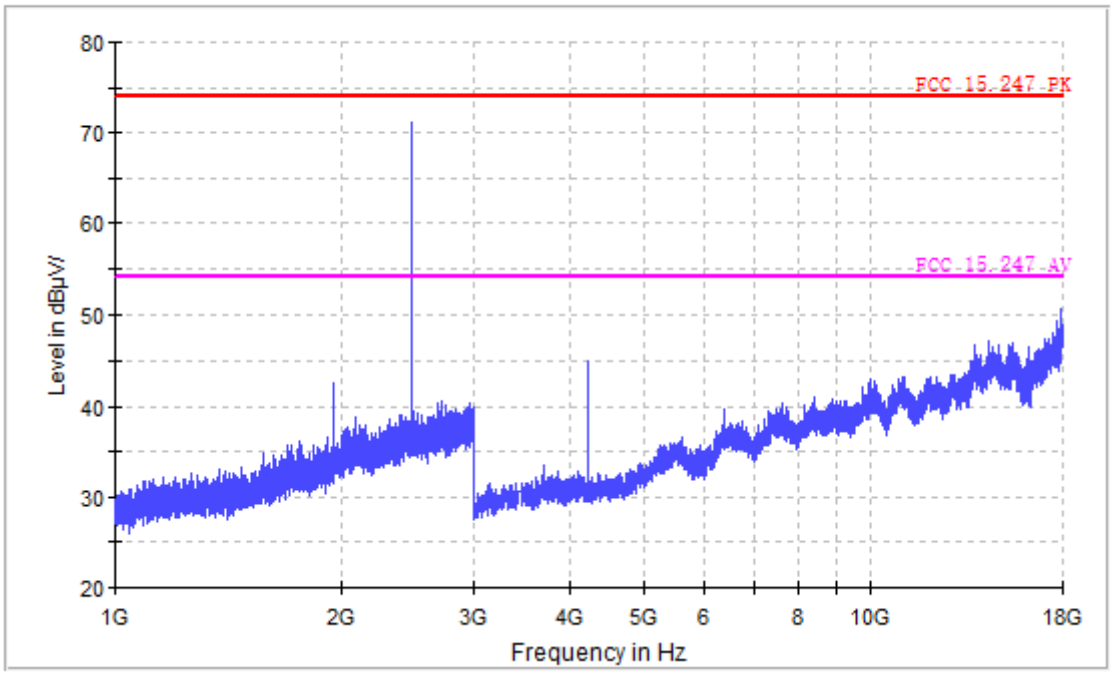
Horizontal

FCC Electric Field Strength 1-18GHz operate on 2.4GHz



Vertical

FCC Electric Field Strength 1-18GHz operate on 2.4GHz

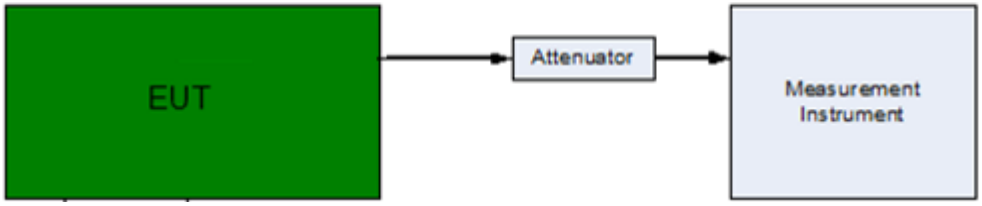


7 20dB RF Bandwidth and 99 % Occupied Bandwidth Measurement

7.1. Limit

N/A

7.2. Test Setup



7.3. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	N9020A	MY53420615	05/12/2015	(1)
Test Site	ATL	TE02	TE02	N.C.R.	-----
RF cable	WOKEN	---	C.10-07-02	10/24/2015	(1)
RF cable	WOKEN	---	C.10-07-03	10/24/2015	(1)
Temporary antenna connector	---	---	A01-224	05/24/2015	(1)

Remark: (1) Calibration period 1 year. (2) Calibration period 2 years.
NOTE: N.C.R. = No Calibration Request. All the RF cables apply to 9 KHz to 40GHz.

7.4. Test Procedure

20dB RF Bandwidth
Testing must be done according to this procedure. This is the only method recognized by the FCC. The RF output port of the Equipment-Under-Test is directly coupled to the input of the EMC analyzer through a specialized RF connector and a 10dB passive attenuator. A fully charged battery was used for the supply voltage. The Bluetooth frequency hopping function of the EUT was enabled. The spectrum analyzer used the following settings:
1. Span = approx. 2 to 3 times the 20dB bandwidth, centered on a hopping frequency
2. RBW ≥1% of the 20dB span, VBW ≥ RBW
4. Sweep = auto
5. Detector function = peak
6. Trace = max hold
The trace was allowed to stabilize. The EUT was transmitting at its maximum data rate. The marker-to-peak function was used to set the marker to the peak of the emission. The marker-delta function was used to measure 20dB down one side of the emission. The marker-delta function and marker was moved to the other side of the emission until it was even with the reference marker. The marker-delta reading at this point was the 20dB bandwidth of the emission.

99 % Occupied Bandwidth
The transmitter shall be operated at its maximum carrier power measured under normal test conditions.
The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts.
The resolution bandwidth shall be set to as close to 1% of the selected span as is possible without being below 1%.
The video bandwidth shall be set to 3 times the resolution bandwidth. Video averaging is not permitted. Where practical, a sampling detector shall be used since a peak or, peak hold, may produce a wider bandwidth than actual.
The trace data points are recovered and are directly summed in linear terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached and that frequency recorded. The process is repeated for the highest frequency data points. This frequency is recorded.

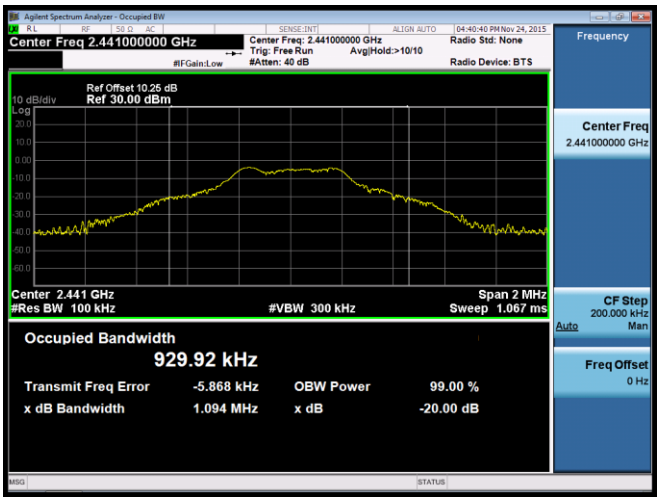
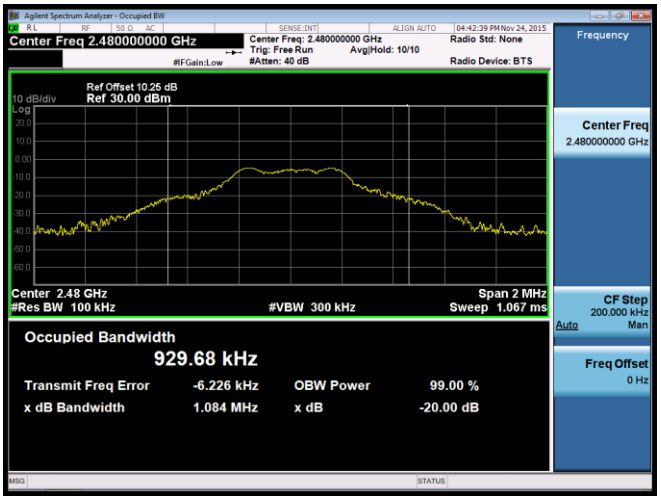
Note: We tests were performed in different modulation to find the worst case. And show the worst-case here.

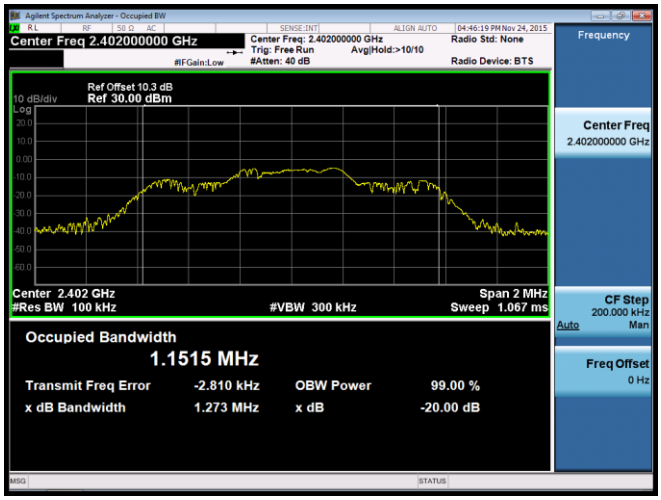
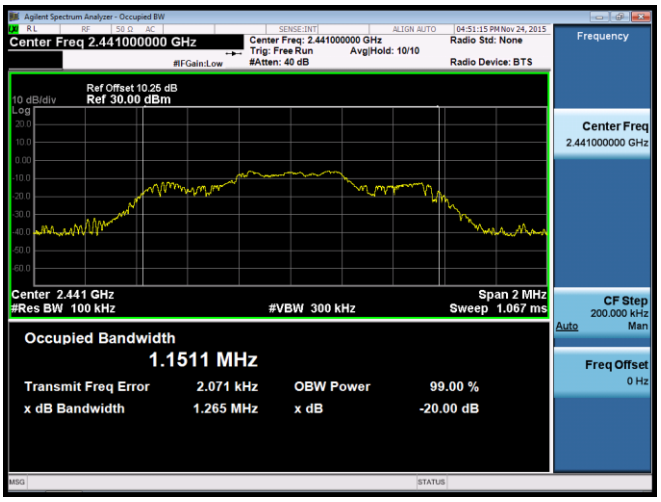
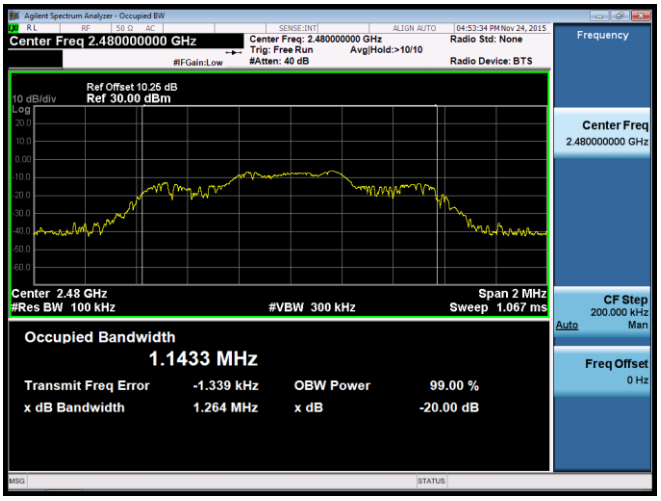
7.5. Test Result

Model Number	ZeSplash^2			
Test Item	20dB RF Bandwidth and 99 % Occupied Bandwidth			
Test Mode	Mode 2			
Date of Test	2015/11/24		Test Site	TE02
Frequency (MHz)	20dB RF Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	Limit (MHz)	
2402	1.083	0.931	-----	
2441	1.094	0.930	-----	
2480	1.084	0.930	-----	

Model Number	ZeSplash^2			
Test Item	20dB RF Bandwidth and 99 % Occupied Bandwidth			
Test Mode	Mode 4			
Date of Test	2015/11/24		Test Site	TE02
Frequency (MHz)	20dB RF Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	Limit (MHz)	
2402	1.273	1.152	-----	
2441	1.265	1.151	-----	
2480	1.264	1.143	-----	

7.6. Test Graphs

Mode 2: GFSK Link Mode	
2402	
2441	
2480	

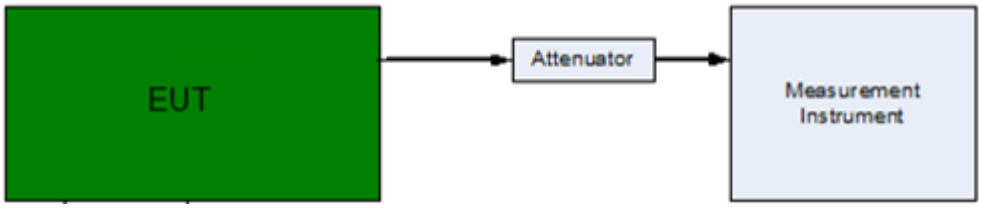
Mode 4: 8DPSK Mode	
2402	
2441	
2480	

8 Carrier Frequency Separation Measurement

8.1. Limit

Title 47 of the CFR, Part 15 Subpart (c) 15.247(a)(1)(i) requires the measurement of the bandwidth of the transmission between the -20 dB points on the transmitted spectrum. The results of this test determine the limits for channel spacing. The channel spacing shall be a minimum of 25 kHz or the 20 dB bandwidth.

8.2. Test Setup



8.3. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	N9020A	MY53420615	05/12/2015	(1)
Test Site	ATL	TE02	TE02	N.C.R.	-----
RF cable	WOKEN	---	C.10-07-02	10/24/2015	(1)
RF cable	WOKEN	---	C.10-07-03	10/24/2015	(1)
Temporary antenna connector	---	---	A01-224	05/24/2015	(1)

Remark: (1) Calibration period 1 year. (2) Calibration period 2 years.
NOTE: N.C.R. = No Calibration Request. All the RF cables apply to 9 KHz to 40GHz.

8.4. Test Procedure

Testing must be done according to this procedure. This is the only method recognized by the FCC. The RF output port of the Equipment-Under-Test is directly coupled to the input of the EMC analyzer through a specialized RF connector and a 10dB passive attenuator. A fully charged battery was used for the supply voltage. The Bluetooth hopping function of the EUT was enabled. The following spectrum analyzer settings were used:

1. Span = wide enough to capture the peaks of two adjacent channels
2. Resolution (or IF) Bandwidth (RBW) ≥1% of the span
3. Video (or Average) Bandwidth (VBW) ≥RBW
4. Sweep = auto
5. Detector function = peak
6. Trace = max hold

The trace was allowed to stabilize. The marker-delta function was used to determine the separation between the peaks of the adjacent channels.

Note: We tests were performed in different modulation to find the worst case. And show the worst-case here.

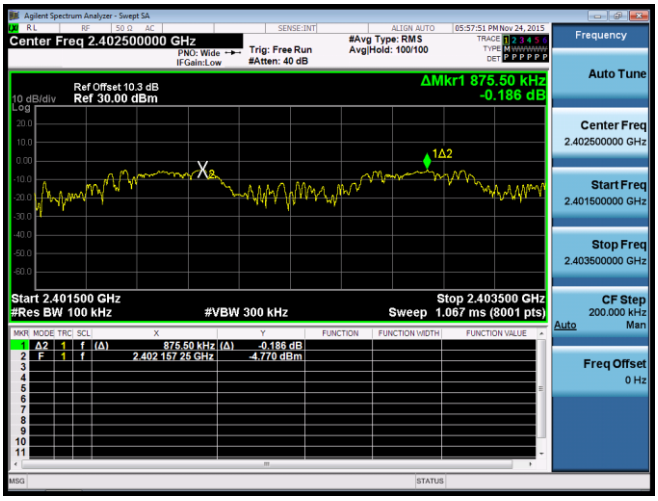
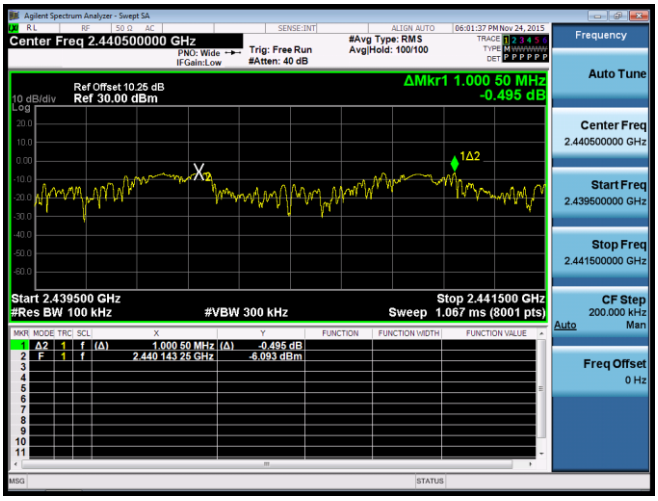
8.5. Test Result

Model Number	ZeSplash^2		
Test Item	Carrier Frequency Separation		
Test Mode	Mode 5		
Date of Test	2015/11/24	Test Site	TE02
Frequency (MHz)	Measurement (MHz)		Limit (MHz)
2402	1.006		>0.722
2441	1.003		>0.729
2480	1.001		>0.723

Model Number	ZeSplash^2		
Test Item	Carrier Frequency Separation		
Test Mode	Mode 7		
Date of Test	2015/11/24	Test Site	TE02
Frequency (MHz)	Measurement (MHz)		Limit (MHz)
2402	0.876		>0.849
2441	1.001		>0.843
2480	0.929		>0.843

8.6. Test Graphs

Mode 5	
2402	
2441	
2480	

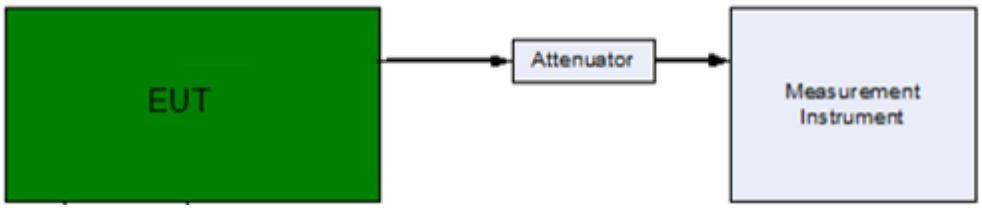
Mode 7	
2402	
2441	
2480	

9 Number of Hopping Measurement

9.1. Limit

Frequency hopping systems in the 2400–2483.5 MHz band shall use at least 15 channels.

9.2. Test Setup



9.3. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	N9020A	MY53420615	05/12/2015	(1)
Test Site	ATL	TE02	TE02	N.C.R.	-----
RF cable	WOKEN	---	C.10-07-02	10/24/2015	(1)
RF cable	WOKEN	---	C.10-07-03	10/24/2015	(1)
Temporary antenna connector	---	---	A01-224	05/24/2015	(1)

Remark: (1) Calibration period 1 year. (2) Calibration period 2 years.
NOTE: N.C.R. = No Calibration Request. All the RF cables apply to 9 KHz to 40GHz.

9.4. Test Procedure

Testing must be done according to this procedure. This is the only method recognized by the FCC. The RF output port of the Equipment-Under-Test is directly coupled to the input of the EMC analyzer through a specialized RF connector and a 10dB passive attenuator. A fully charged battery was used for the supply voltage. The Bluetooth frequency hopping function of the EUT was enabled. The spectrum analyzer used the following settings:

1. Span = the frequency band of operation
2. RBW ⩾1% of the span
3. VBW ⩾RBW
4. Sweep = auto
5. Detector function = peak
6. Trace = max hold

The trace was allowed to stabilize.

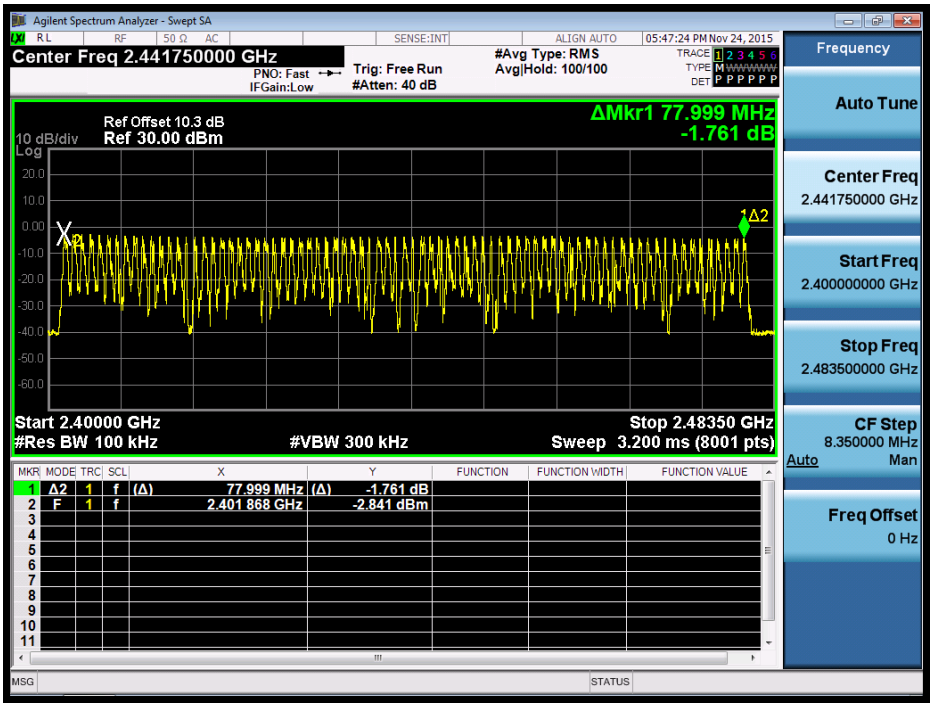
Note: We tests were performed in different modulation to find the worst case. And show the worst-case here.

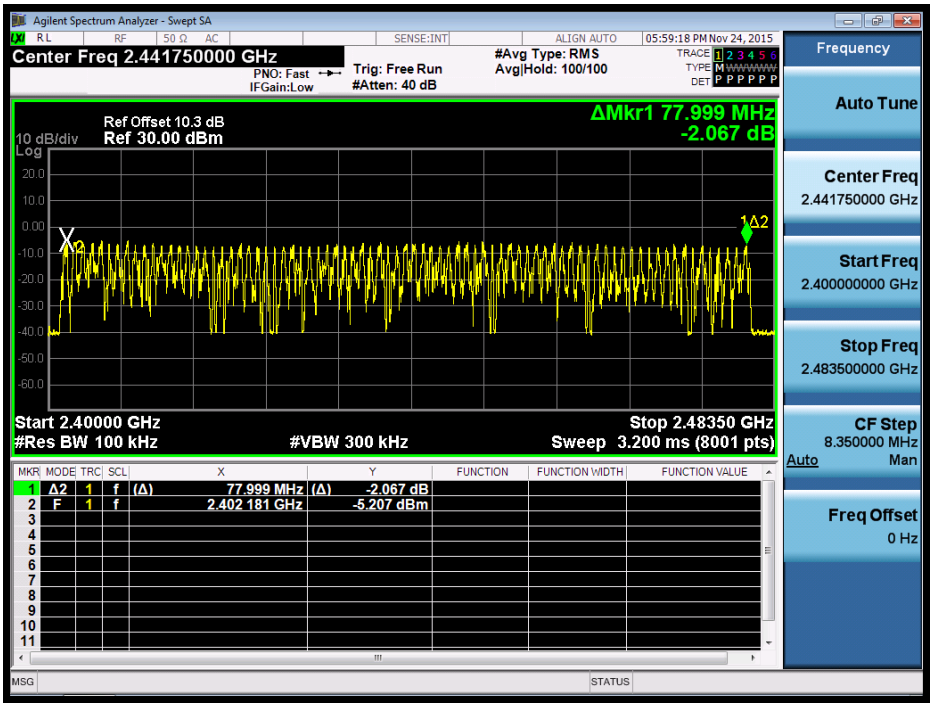
9.5. Test Result

Model Number	ZeSplash^2		
Test Item	Number of Hopping		
Test Mode	Mode 5		
Date of Test	2015/11/24	Test Site	TE02
Frequency Range (MHz)	Measurement (ch)	Limit (ch)	
2402 - 2480	79	> 15	

Model Number	ZeSplash^2		
Test Item	Number of Hopping		
Test Mode	Mode 7		
Date of Test	2015/11/24	Test Site	TE02
Frequency Range (MHz)	Measurement (ch)	Limit (ch)	
2402 - 2480	79	> 15	

9.6. Test Graphs

Mode 5	
CH0~CH78	

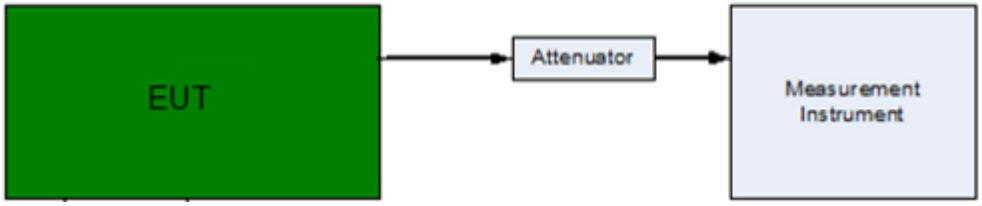
Mode 7	
CH0~CH78	

10 Time of Occupancy (Dwell Time) Measurement

10.1. Limit

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.

10.2. Test Setup



10.3. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	N9020A	MY53420615	05/12/2015	(1)
Test Site	ATL	TE02	TE02	N.C.R.	-----
RF cable	WOKEN	---	C.10-07-02	10/24/2015	(1)
RF cable	WOKEN	---	C.10-07-03	10/24/2015	(1)
Temporary antenna connector	---	---	A01-224	05/24/2015	(1)

Remark: (1) Calibration period 1 year. (2) Calibration period 2 years.

NOTE: N.C.R. = No Calibration Request. All the RF cables apply to 9 KHz to 40GHz.

10.4. Test Procedure

Testing must be done according to this procedure. This is the only method recognized by the FCC. The RF output port of the Equipment-Under-Test is directly coupled to the input of the EMC analyzer through a specialized RF connector and a 10dB passive attenuator. A fully charged battery was used for the supply voltage. The Bluetooth hopping function of the EUT was enabled. The following spectrum analyzer settings were used:

1. Span = zero span, centered on a hopping channel
2. RBW = 1 MHz
3. VBW ≥RBW
4. Sweep = as necessary to capture the entire dwell time per hopping channel
5. Detector function = peak
6. Trace = max hold

The marker-delta function was used to determine the dwell time.

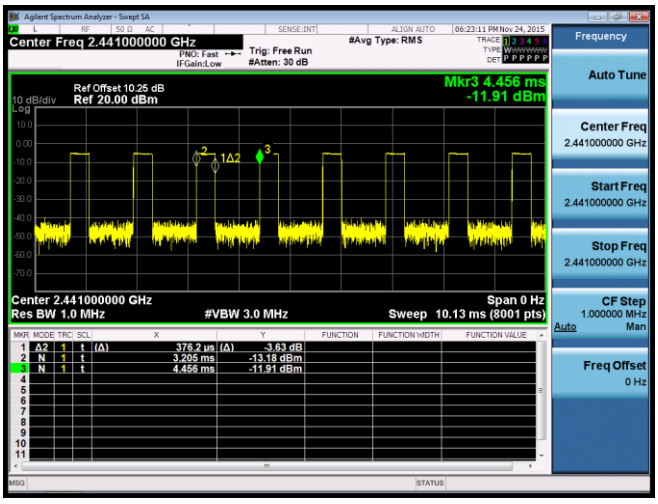
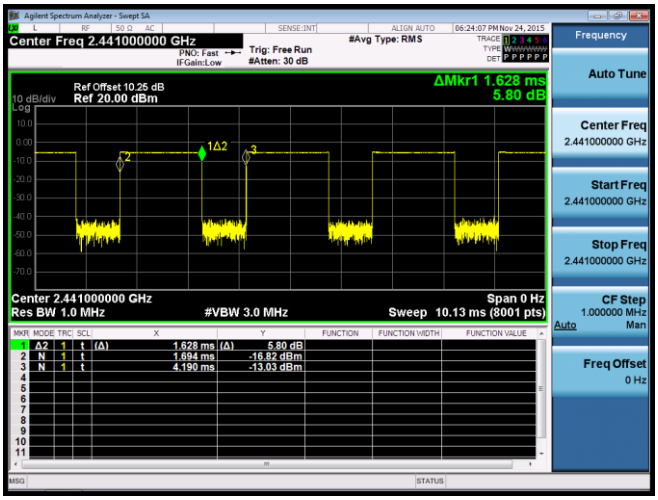
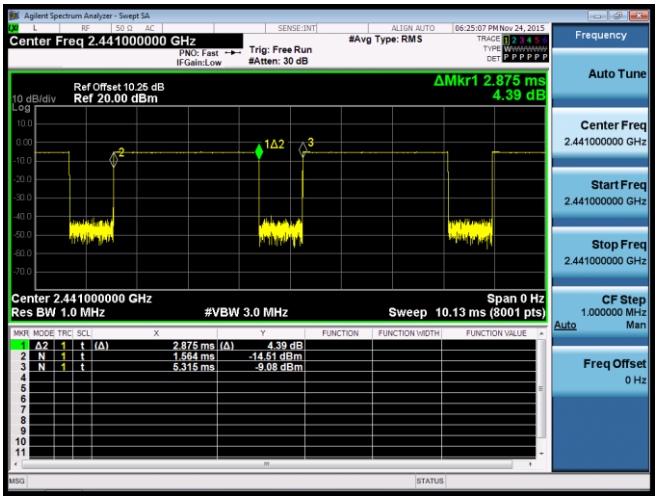
Note: We tests were performed in different modulation to find the worst case. And show the worst-case here.

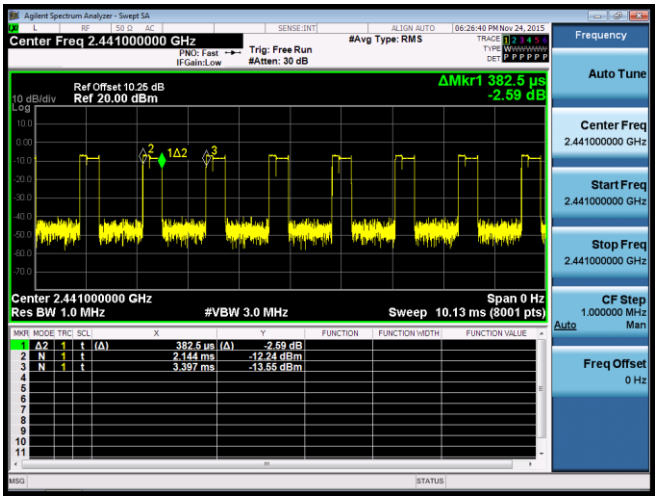
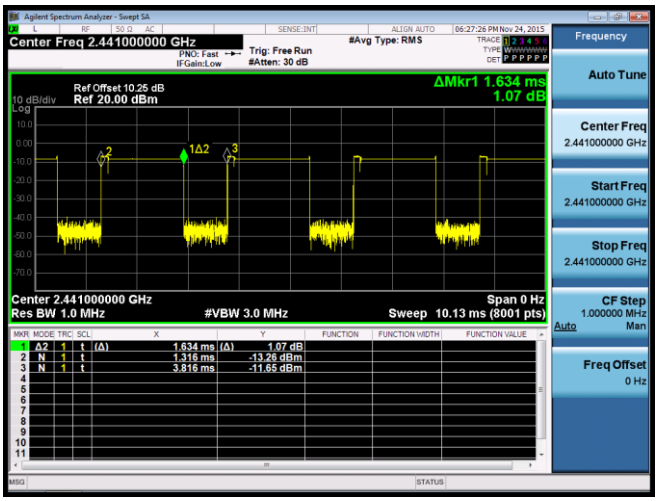
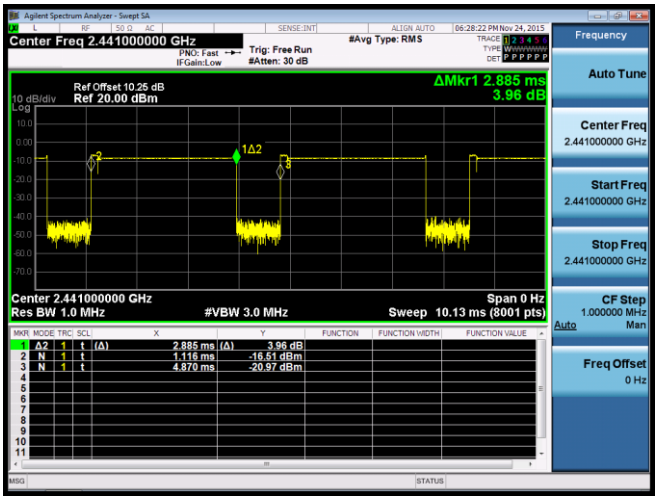
10.5. Test Result

Model Number	ZeSplash^2		
Test Item	Time of Occupancy (Dwell Time)		
Test Mode	Mode 2		
Date of Test	2015/11/24	Test Site	TE02
DH1			
Frequency	2441 MHz		
Cycle Calculate	79CH * 0.4 = 31.6 (sec)		
The EUT Hopping Number per Sec	1600 times/sec		
Each Channel Dwell Times per Sec	800/79CH = 10.13(times/sec)		
Each Channel Dwell Times (1)	0.376 ms (sec)		
Each Channel Dwell Times on Cycle(2)	31.6 * 10.13 = 320.108(times)		
Dwell Times on Cycle (1) * (2)	120.361 ms (sec)		
LIMIT(msec)	< = 400		
DH3			
Frequency	2441 MHz		
Cycle Calculate	79CH * 0.4 = 31.6 (sec)		
The EUT Hopping Number per Sec	1600 times/sec		
Each Channel Dwell Times per Sec	400/79CH = 5.06(times/sec)		
Each Channel Dwell Times (1)	1.628 ms (sec)		
Each Channel Dwell Times on Cycle(2)	31.6 * 5.1 = 159.896(times)		
Dwell Times on Cycle (1) * (2)	260.311 ms (sec)		
LIMIT(msec)	< = 400		
DH5			
Frequency	2441 MHz		
Cycle Calculate	79CH * 0.4 = 31.6 (sec)		
The EUT Hopping Number per Sec	1600 times/sec		
Each Channel Dwell Times per Sec	266.7/79CH = 3.38(times/sec)		
Each Channel Dwell Times (1)	2.875 ms (sec)		
Each Channel Dwell Times on Cycle(2)	31.6 * 3.38 = 106.808(times)		
Dwell Times on Cycle (1) * (2)	307.073 ms (sec)		
LIMIT(msec)	< = 400		

Model Number	ZeSplash^2		
Test Item	Time of Occupancy (Dwell Time)		
Test Mode	Mode 4		
Date of Test	2015/11/24	Test Site	TE02
3DH1			
Frequency	2441 MHz		
Cycle Calculate	79CH * 0.4 = 31.6 (sec)		
The EUT Hopping Number per Sec	1600 times/sec		
Each Channel Dwell Times per Sec	800/79CH = 10.13(times/sec)		
Each Channel Dwell Times (1)	0.383 ms (sec)		
Each Channel Dwell Times on Cycle(2)	31.6 * 10.13 = 320.108(times)		
Dwell Times on Cycle (1) * (2)	122.601 ms (sec)		
LIMIT(msec)	< = 400		
3DH3			
Frequency	2441 MHz		
Cycle Calculate	79CH * 0.4 = 31.6 (sec)		
The EUT Hopping Number per Sec	1600 times/sec		
Each Channel Dwell Times per Sec	400/79CH = 5.06(times/sec)		
Each Channel Dwell Times (1)	1.634 ms (sec)		
Each Channel Dwell Times on Cycle(2)	31.6 * 5.06 = 159.896(times)		
Dwell Times on Cycle (1) * (2)	261.270 ms (sec)		
LIMIT(msec)	< = 400		
3DH5			
Frequency	2480 MHz		
Cycle Calculate	79CH * 0.4 = 31.6 (sec)		
The EUT Hopping Number per Sec	1600 times/sec		
Each Channel Dwell Times per Sec	266.7/79CH = 3.38(times/sec)		
Each Channel Dwell Times (1)	2.885 ms (sec)		
Each Channel Dwell Times on Cycle(2)	31.6 * 3.38 = 106.808(times)		
Dwell Times on Cycle (1) * (2)	308.141 ms (sec)		
LIMIT(msec)	< = 400		

10.6. Test Graphs

Mode 2	
DH1	
DH3	
DH5	

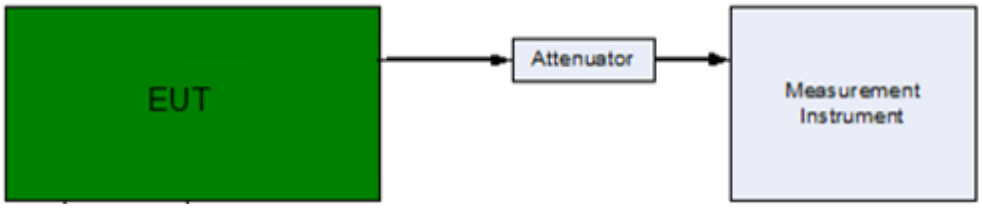
Mode 4	
3DH1	
3DH3	
3DH5	

11 Out of Band Conducted Emissions Measurement

11.1. 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

11.2. Test Setup



11.3. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	N9020A	MY53420615	05/12/2015	(1)
Test Site	ATL	TE02	TE02	N.C.R.	-----
RF cable	WOKEN	---	C.10-07-02	10/24/2015	(1)
RF cable	WOKEN	---	C.10-07-03	10/24/2015	(1)
Temporary antenna connector	---	---	A01-224	05/24/2015	(1)

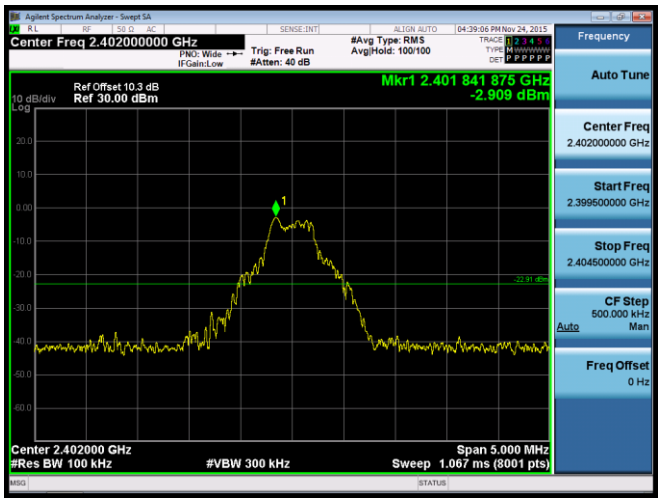
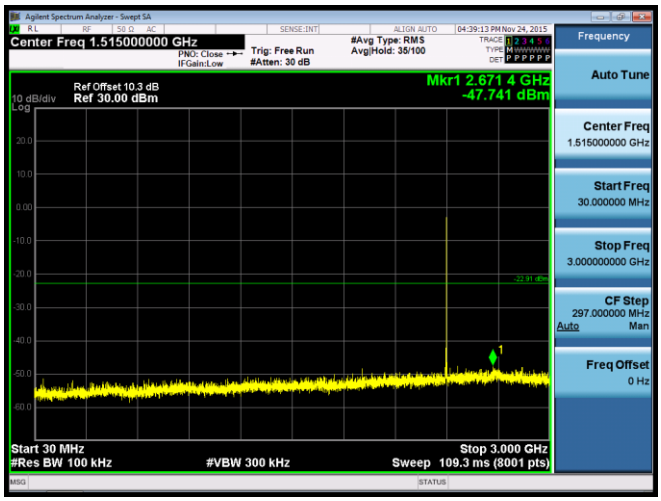
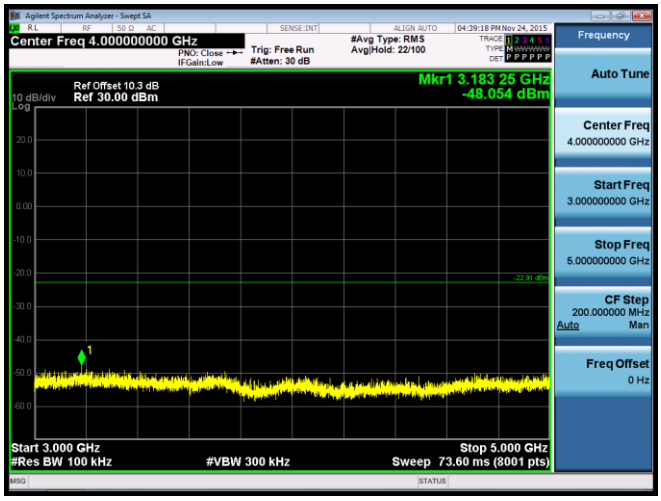
Remark: (1) Calibration period 1 year. (2) Calibration period 2 years.
NOTE: N.C.R. = No Calibration Request. All the RF cables apply to 9 KHz to 40GHz.

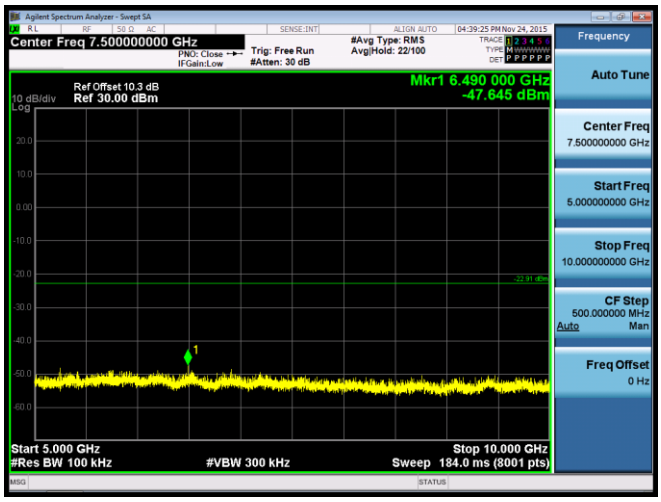
11.4. Test Procedure

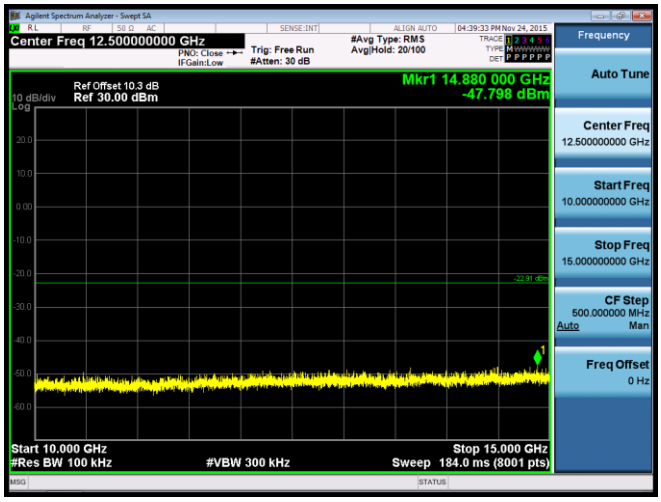
Testing must be done according to this procedure. This is the only method recognized by the FCC. In any 100 kHz bandwidth outside the EUT pass band, the RF power produced by the modulation products of the spreading sequence, the information sequence, and the carrier frequency shall be at least 20 dB below that of the maximum in-band 100 kHz emission, antenna output of the EUT was coupled directly to spectrum analyzer; if an external attenuator and/or cable was used, these losses are compensated for with the analyzer OFFSET function.
All other types of emissions from the EUT shall meet the general limits for radiated frequencies outside the pass band. The test was performed at 3 channels (Channel 0, 39, 78), and the setting value of instrument are as below:
Decetor=Peak, RBW=100kHz, VBW=300kHz

Note: We tests were performed in different modulation to find the worst case. And show the worst-case here.

11.5. Test Graphs

Mode 2	
2402	
	
	


Agilent Spectrum Analyzer - Swept SA
Center Freq 7.500000000 GHz
PNO: Close
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 22/100
04:39:25 PM Nov 24, 2015
Frequency
Ref Offset 10.3 dB
10 dB/div
Ref 30.00 dBm
Log
Mkr1 6.490 000 GHz
-47.645 dBm
Auto Tune
Center Freq
7.500000000 GHz
Start Freq
5.000000000 GHz
Stop Freq
10.000000000 GHz
CF Step
500.000000 MHz
Auto
Man
Freq Offset
0 Hz
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 10.000 GHz
Sweep 184.0 ms (8001 pts)


Agilent Spectrum Analyzer - Swept SA
Center Freq 12.500000000 GHz
PNO: Close
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 20/100
04:39:33 PM Nov 24, 2015
Frequency
Ref Offset 10.3 dB
10 dB/div
Ref 30.00 dBm
Log
Mkr1 14.880 000 GHz
-47.798 dBm
Auto Tune
Center Freq
12.500000000 GHz
Start Freq
10.000000000 GHz
Stop Freq
15.000000000 GHz
CF Step
500.000000 MHz
Auto
Man
Freq Offset
0 Hz
Start 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 15.000 GHz
Sweep 184.0 ms (8001 pts)


Agilent Spectrum Analyzer - Swept SA
Center Freq 20.000000000 GHz
PNO: Close
IFGain:Low
Trig: Free Run
#Atten: 32 dB
#Avg Type: RMS
Avg|Hold: 11/100
04:39:40 PM Nov 24, 2015
Frequency
Ref Offset 10.3 dB
10 dB/div
Ref 30.00 dBm
Log
Mkr1 24.293 75 GHz
-37.145 dBm
Auto Tune
Center Freq
20.000000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
1.000000000 GHz
Auto
Man
Freq Offset
0 Hz
Start 15.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 368.0 ms (8001 pts)