


# FCC Radio Test Report

## FCC ID: ZHK-GC-00006

**Report No.** : TB-FCC1620100  
**Applicant** : SteelSeries ApS  
**Equipment Under Test (EUT)**  
**EUT Name** : Gaming Controller  
**Model No.** : GC-00006  
**Serial Model No.** : N/A  
**Brand Name** :   
**Receipt Date** : 2018-09-21  
**Test Date** : 2018-09-21 to 2018-12-06  
**Issue Date** : 2018-12-14  
**Standards** : FCC Part 15, Subpart C (15.249)  
**Test Method** : ANSI C63.10: 2013  
**Conclusions** : **PASS**

In the configuration tested, the EUT complied with the standards specified above,  
The EUT technically complies with the FCC requirements

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**Engineer Supervisor** :  Ivan Su

**Engineer Manager** :  Ray Lai

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in the report.

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## 1. General Information about EUT

### 1.1 Client Information

<b>Applicant</b>	:	SteelSeries ApS
<b>Address</b>	:	656 W Randolph St., Suite 3E Chicago, IL 60661, USA
<b>Manufacturer</b>	:	SteelSeries ApS
<b>Address</b>	:	656 W Randolph St., Suite 3E Chicago, IL 60661, USA

### 1.2 General Description of EUT (Equipment Under Test)

<b>EUT Name</b>	:	Gaming Controller		
<b>Models No.</b>	:	GC-00006		
<b>Model Difference</b>	:	N/A		
<b>Product Description</b>	:	Operation Frequency: 2404MHz-2480MHz		
	:	Number of Channel: 39 channels <i>see note(3)</i>		
	:	Max. Field Strength:	84.58dBuV/m@3m	
	:	Antenna Gain:	0.5 dBi PCB Antenna	
	:	Modulation Type:	GFSK	
	:	Data Rate:	4Mbps	
<b>Power Rating</b>	:	DC 2*1.5V by AAA Battery. DC 5V USB Port		
<b>Software Version</b>	:	N/A		
<b>Hardware Version</b>	:	N/A		
<b>Connecting I/O Port(S)</b>	:	Please refer to the User's Manual		

**Note:**

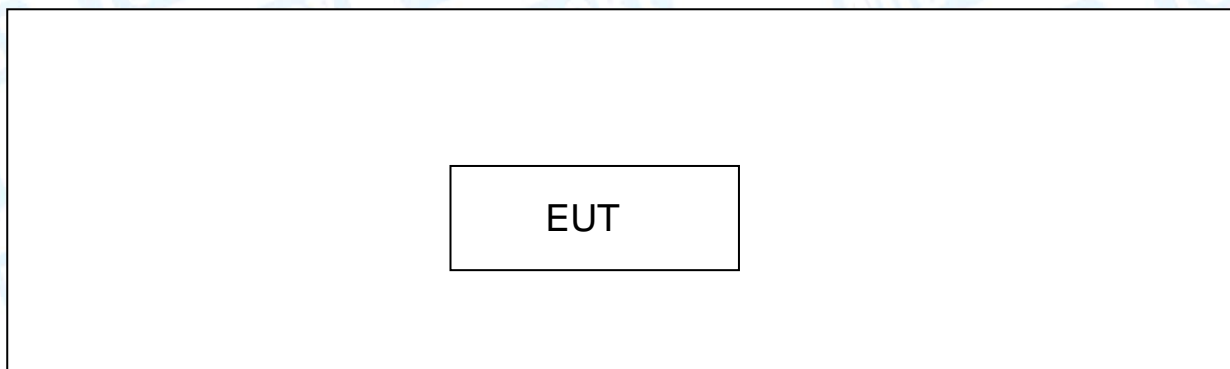
- (1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
- (2) Antenna information provided by the applicant.

## (3) Channel List:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
00	2404	14	2432	28	2460
01	2406	15	2434	29	2462
02	2408	16	2436	30	2464
03	2410	17	2438	31	2466
04	2412	18	2440	32	2468
05	2414	19	2442	33	2470
06	2416	20	2444	34	2472
07	2418	21	2446	35	2474
08	2420	22	2448	36	2476
09	2422	23	2450	37	2478
10	2424	24	2452	38	2480
11	2426	25	2454		
12	2428	26	2456		
13	2430	27	2458		

## 1.3 Block Diagram Showing the Configuration of System Tested

TX Mode



## 1.4 Description of Support Units

The EUT has been test as independent unit.

## 1.5 Description of Test Mode

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned follow was evaluated respectively.

For Conducted Test	
Final Test Mode	Description
Mode 1	Supply electricity + TX Mode
For Radiated Test	
Final Test Mode	Description
Mode 2	Supply electricity + TX Mode
Mode 3	Supply electricity + TX Mode (Channel 00/19/38)

**Note:**

For all test, we have verified the construction and function in typical operation. And all the test modes were carried out with the EUT in transmitting operation in maximum power with all kinds of data rate.

- (1) According to ANSI C63.10 standards, the measurements are performed at the highest, middle, lowest available channels.
- (2) During the testing procedure, the continuously transmitting with the maximum power mode was programmed by the customer.
- (3) The EUT is considered a portable unit; it was pre-tested on the positioned of each 3 axis, X-plane, Y-plane and Z-plane. The worst case was found positioned on X-plane. Therefore only the test data of this X-plane was used for radiated emission measurement test.

## 1.6 Description of Test Software Setting

During testing channel & Power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of RF mode.

Test Software Version			
Frequency	2404 MHz	2442MHz	2480 MHz
GFSK	DEF	DEF	DEF

## 1.7 Measurement Uncertainty

The reported uncertainty of measurement  $y \pm U$ , where expended uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95 %.

Test Item	Parameters	Expanded Uncertainty ( $U_{Lab}$ )
Conducted Emission	Level Accuracy: 9kHz~150kHz	$\pm 3.42$ dB

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	150kHz to 30MHz	$\pm 3.42$ dB
Radiated Emission	Level Accuracy: 9kHz to 30 MHz	$\pm 4.60$ dB
Radiated Emission	Level Accuracy: 30MHz to 1000 MHz	$\pm 4.40$ dB
Radiated Emission	Level Accuracy: Above 1000MHz	$\pm 4.20$ dB

## 1.8 Test Facility

The testing report were performed by the Shenzhen Toby Technology Co., Ltd., in their facilities located at 1A/F., Bldg.6, Yusheng Industrial Zone, The National Road No.107 Xixiang Section 467, Xixiang, Bao'an, Shenzhen, Guangdong, China. At the time of testing, the following bodies accredited the Laboratory:

### **CNAS (L5813)**

The Laboratory has been accredited by CNAS to ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories for the competence in the field of testing. And the Registration No.: CNAS L5813.

### **A2LA Certificate No.: 4750.01**

The laboratory has been accredited by American Association for Laboratory Accreditation(A2LA) to ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories for the technical competence in the field of Electrical Testing. And the A2LA Certificate No.: 4750.01.

FCC Accredited Test Site Number: 854351.

### **IC Registration No.: (11950A-1)**

The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing. The site registration: Site# 11950A-1.



## 2. Test Summary

FCC Part 15 Subpart C(15.249)			
Standard Section	Test Item	Judgment	Remark
15.203	Antenna Requirement	PASS	N/A
15.205	Restricted Bands	PASS	N/A
15.207	AC Power Conducted Emission	PASS	N/A
15.249 &15.209	Radiated Spurious Emission	PASS	N/A
15.215(C)	20dB Bandwidth	PASS	N/A

**Note:** N/A is an abbreviation for Not Applicable.

### 3. Test Equipment

Conducted Emission Test					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
EMI Test Receiver	Rohde & Schwarz	ESCI	100321	Jul.18, 2018	Jul. 17, 2019
RF Switching Unit	Compliance Direction Systems Inc	RSU-A4	34403	Jul.18, 2018	Jul. 17, 2019
AMN	SCHWARZBECK	NNBL 8226-2	8226-2/164	Jul.18, 2018	Jul. 17, 2019
LISN	Rohde & Schwarz	ENV216	101131	Jul.18, 2018	Jul. 17, 2019
Radiation Emission Test					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul.18, 2018	Jul. 17, 2019
EMI Test Receiver	Rohde & Schwarz	ESPI	100010/007	Jul.18, 2018	Jul. 17, 2019
Bilog Antenna	ETS-LINDGREN	3142E	00117537	Mar.16, 2018	Mar. 15, 2019
Bilog Antenna	ETS-LINDGREN	3142E	00117542	Mar.16, 2018	Mar. 15, 2019
Horn Antenna	ETS-LINDGREN	3117	00143207	Mar.16, 2018	Mar. 15, 2019
Horn Antenna	ETS-LINDGREN	3117	00143209	Mar.16, 2018	Mar. 15, 2019
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-059	Jul. 15, 2018	Jul. 14, 2019
Pre-amplifier	Sonoma	310N	185903	Mar.16, 2018	Mar. 15, 2019
Pre-amplifier	HP	8449B	3008A00849	Mar.16, 2018	Mar. 15, 2019
Cable	HUBER+SUHNER	100	SUCOFLEX	Mar.16, 2018	Mar. 15, 2019
Positioning Controller	ETS-LINDGREN	2090	N/A	N/A	N/A
Antenna Conducted Emission					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul.18, 2018	Jul. 17, 2019
Spectrum Analyzer	Rohde & Schwarz	ESCI	100010/007	Jul.18, 2018	Jul. 17, 2019
MXA Signal Analyzer	Agilent	N9020A	MY49100060	Sep. 15, 2018	Sep. 14, 2019
Vector Signal Generator	Agilent	N5182A	MY50141294	Sep. 15, 2018	Sep. 14, 2019
Analog Signal Generator	Agilent	N5181A	MY50141953	Sep. 15, 2018	Sep. 14, 2019
RF Power Sensor	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO26	Sep. 15, 2018	Sep. 14, 2019
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO29	Sep. 15, 2018	Sep. 14, 2019
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO31	Sep. 15, 2018	Sep. 14, 2019
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO33	Sep. 15, 2018	Sep. 14, 2019

## 4. Conducted Emission Test

### 4.1 Test Standard and Limit

- 4.1.1 Test Standard  
 FCC Part 15.207
- 4.1.2 Test Limit

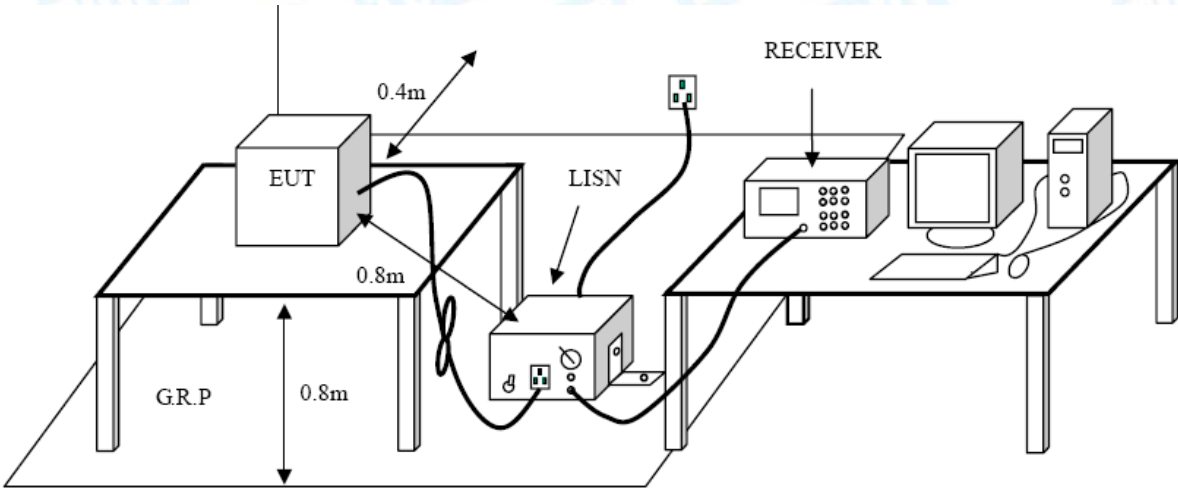
**Conducted Emission Test Limit**

Frequency	Maximum RF Line Voltage (dB $\mu$ V)	
	Quasi-peak Level	Average Level
150kHz~500kHz	66 ~ 56 *	56 ~ 46 *
500kHz~5MHz	56	46
5MHz~30MHz	60	50

Notes:

- (1) \*Decreasing linearly with logarithm of the frequency.
- (2) The lower limit shall apply at the transition frequencies.
- (3) The limit decrease in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

### 4.2 Test Setup



### 4.3 Test Procedure

The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

LISN is at least 80 cm from nearest part of EUT chassis.

The bandwidth of EMI test receiver is set at 9kHz, and the test frequency band is from 0.15MHz to 30MHz.

#### 4.4 EUT Operating Mode

Please refer to the description of test mode.

#### 4.5 Test Data

Please refer to the Attachment A.

## 5. Radiated Emission Test

### 5.1 Test Standard and Limit

#### 5.1.1 Test Standard

FCC Part 15.209

#### 5.1.2 Test Limit

#### Radiated Emission Limit (9kHz~1000MHz)

Frequency (MHz)	Field Strength (microvolt/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

#### Radiated Emission Limit (Above 1000MHz)

Frequency (MHz)	Distance Meters (at 3m)	
	Peak	Average
Above 1000	74	54

#### Note:

- (1) The tighter limit applies at the band edges.
- (2) Emission Level(dBuV/m)=20log Emission Level(Uv/m)

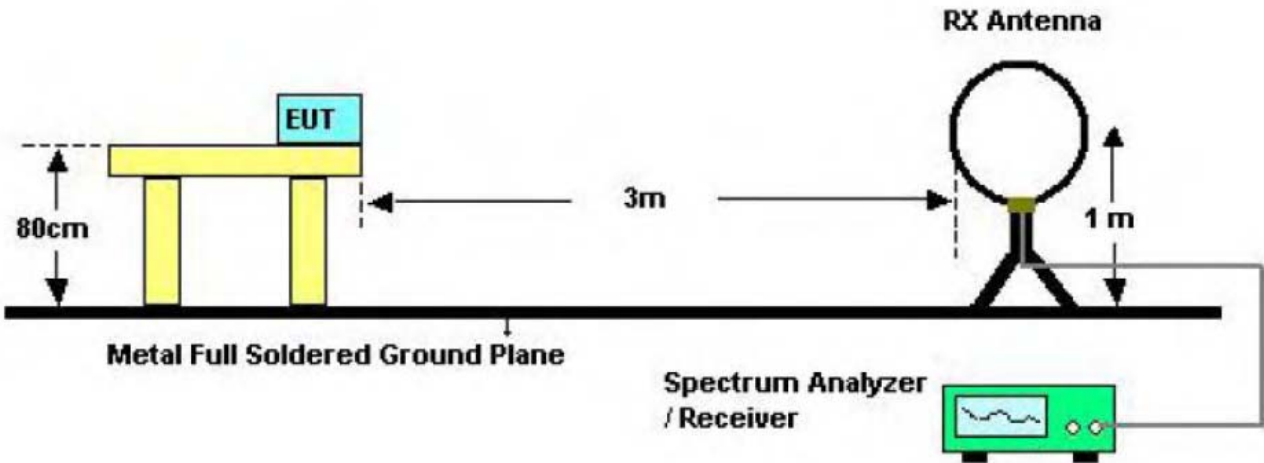
#### Limits of radiated emission measurement (15.249)

FCC Part 15 (15.249), Subpart C	
Limit	Frequency Range (MHz)
114.0(dBμV)/m (Peak) @ 3 m 94.0(dBμV)/m (Average)@ 3 m	Field Strength of fundamental emissions for 2.4GHz-2.4835GHz

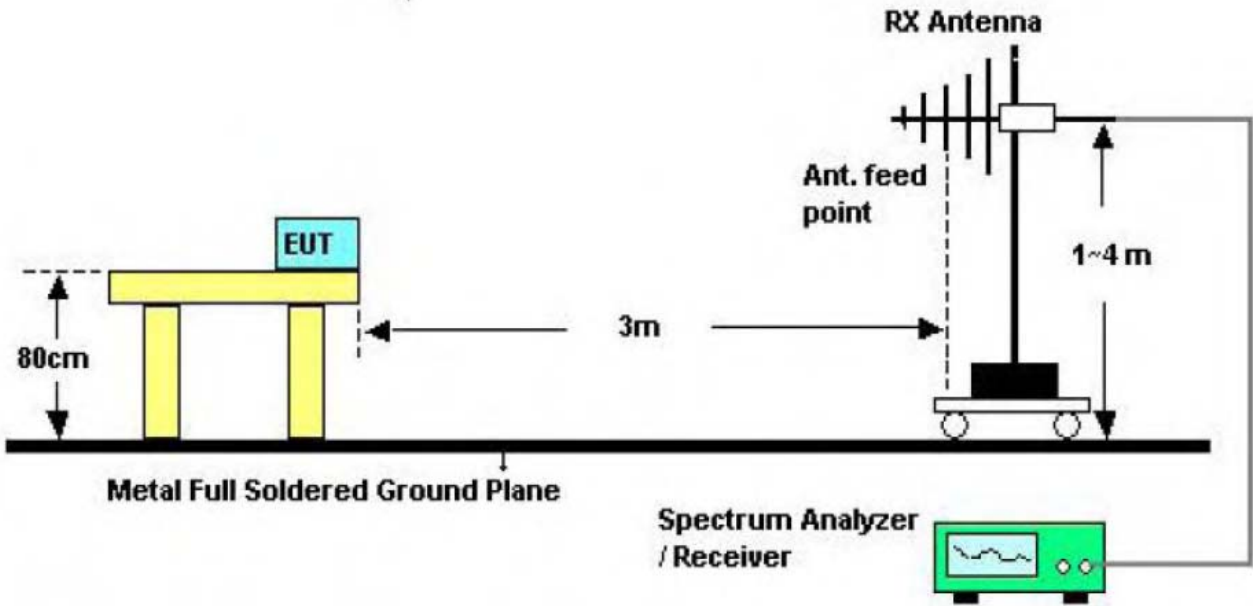
**Restricted bands requirement for equipment operating in 2400MHz to 2483.5 MHz (15.249)**

Restricted Frequency Band (MHz)	(dBuV/m)(at 3 M)
2310~2390	Attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in 15.209, whichever is the lesser attenuation
2483.5~2500	

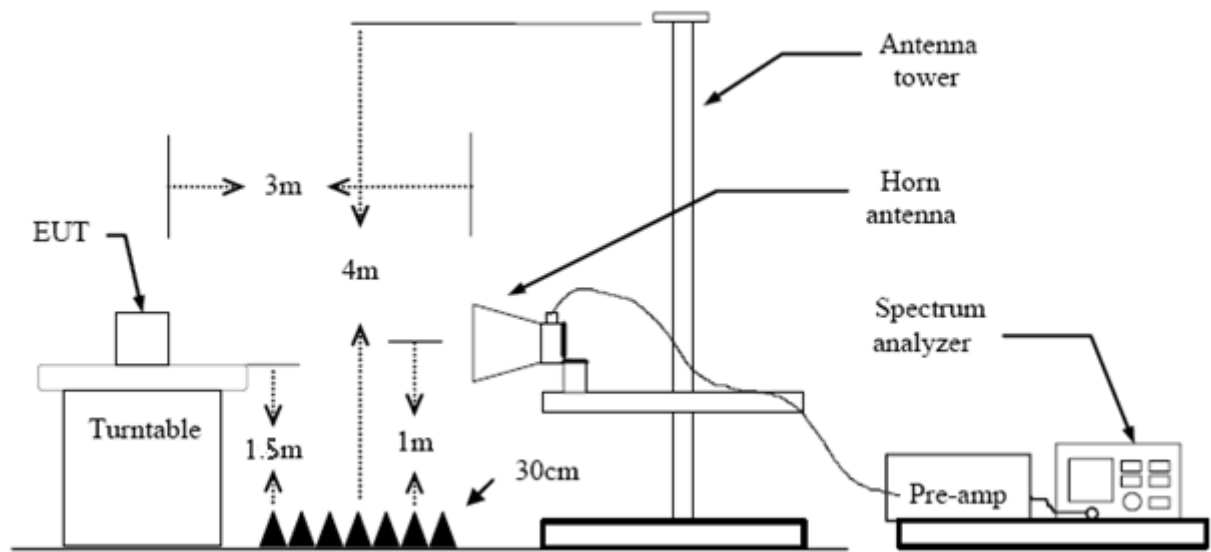
5.2 Test Setup



Bellow 30MHz Test Setup



Bellow 1000MHz Test Setup



Above 1GHz Test Setup

### 5.3 Test Procedure

- (1) The measuring distance of 3m shall be used for measurements at frequency Below 1GHz. The EUT was placed on a rotating 0.8m high above ground, the table was rotated 360 degrees to determine the position of the highest radiation.
- (2) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.
- (3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.
- (4) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- (5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.
- (6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.
- (7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.
- (8) For the actual test configuration, please see the test setup photo.

#### 5.4 EUT Operating Condition

The EUT was set to Continual Transmitting in maximum power, and new batteries are used during testing.

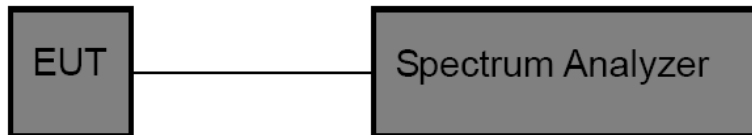
#### 5.5 Test Data

Please refer to the Attachment B.



## 6. Bandwidth Test

### 6.1 Test Setup



### 6.2 Test Procedure

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) Spectrum Setting:  
Bandwidth: RBW=100 kHz, VBW=300kHz.
- (3) 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.

### 6.3 EUT Operating Condition

The EUT was set to continuously transmitting for the Bandwidth Test.

### 6.4 Test Data

Please refer to the Attachment C.

## 7. Antenna Requirement

### 7.1 Standard Requirement

#### 7.1.1 Standard

FCC Part 15.203

#### 7.1.2 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 gains of the antenna used for transmitting is 0.5dBi, and the antenna de-signed with permanent attachment and no consideration of replacement. Please see the EUT photo for details.

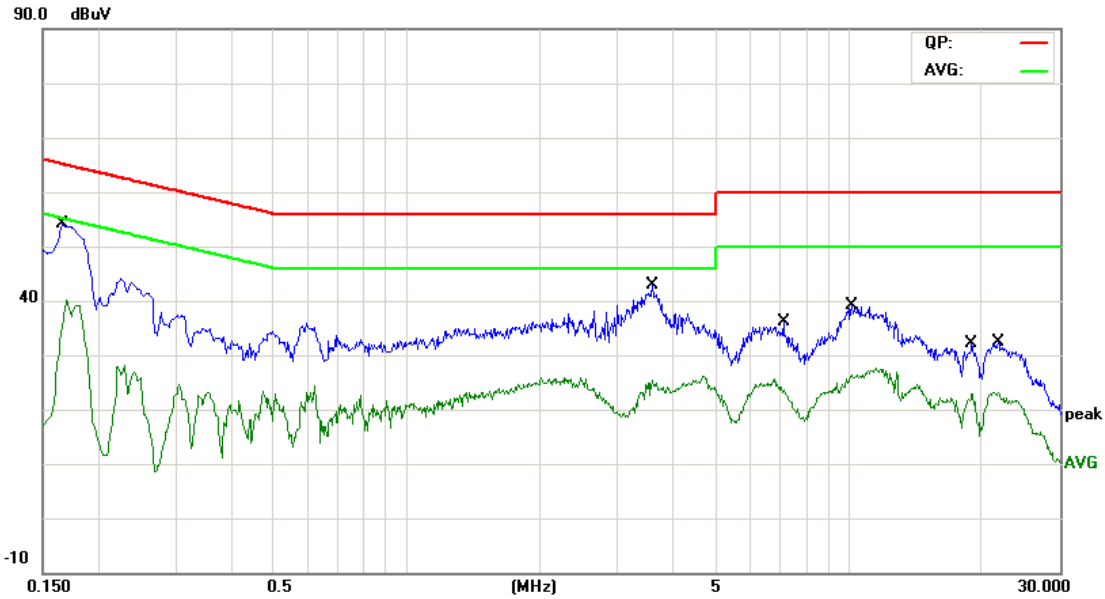
### 7.3 Result

The EUT antenna is a PCB Antenna. It complies with the standard requirement.

Antenna Type
<input checked="" type="checkbox"/> Permanent attached antenna
<input type="checkbox"/> Unique connector antenna
<input type="checkbox"/> Professional installation antenna

### Attachment A-- Conducted Emission Test Data

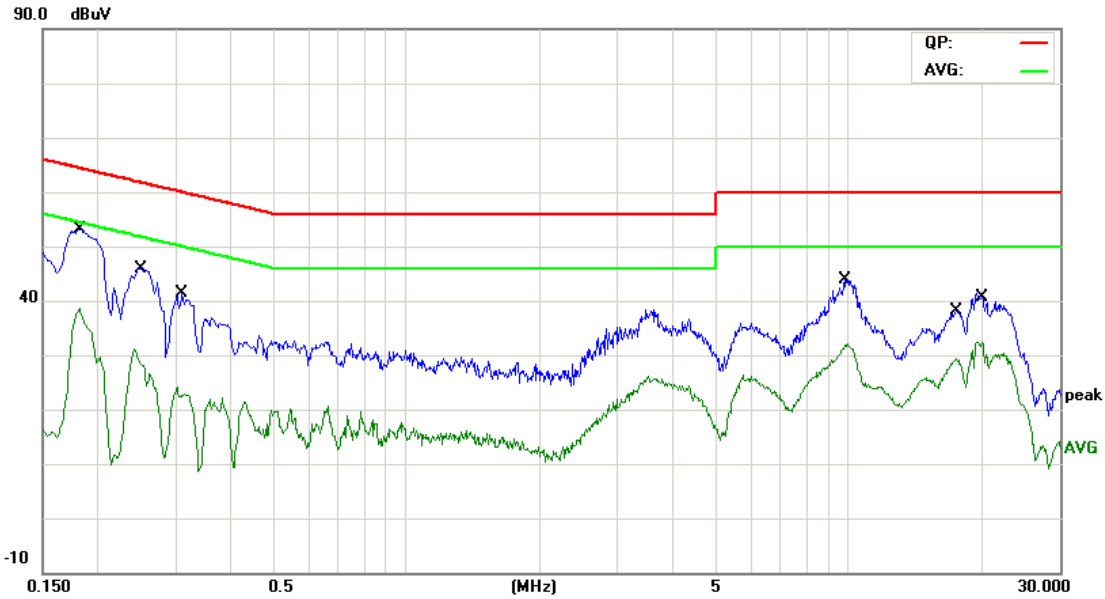
Temperature:	25°C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Terminal:	Line		
Test Mode:	TX Mode 2404 MHz		
Remark:	Only worse case is reported		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1	*	0.1660	41.95	9.58	51.53	65.15	-13.62	QP
2		0.1660	27.45	9.58	37.03	55.15	-18.12	AVG
3		3.5940	26.30	9.67	35.97	56.00	-20.03	QP
4		3.5940	14.31	9.67	23.98	46.00	-22.02	AVG
5		7.1140	18.23	9.87	28.10	60.00	-31.90	QP
6		7.1140	11.87	9.87	21.74	50.00	-28.26	AVG
7		10.1580	22.17	10.06	32.23	60.00	-27.77	QP
8		10.1580	14.61	10.06	24.67	50.00	-25.33	AVG
9		19.0100	15.02	10.51	25.53	60.00	-34.47	QP
10		19.0100	9.17	10.51	19.68	50.00	-30.32	AVG
11		21.7500	16.03	10.57	26.60	60.00	-33.40	QP
12		21.7500	10.85	10.57	21.42	50.00	-28.58	AVG

Emission Level= Read Level+ Correct Factor

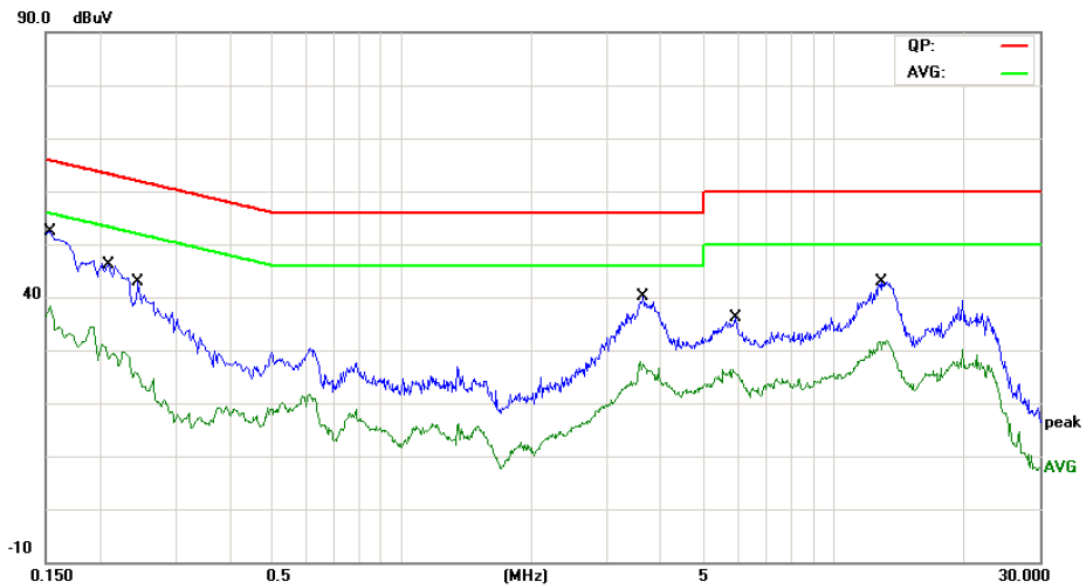
<b>Temperature:</b>	25°C	<b>Relative Humidity:</b>	55%
<b>Test Voltage:</b>	AC 120V/60 Hz		
<b>Terminal:</b>	Neutral		
<b>Test Mode:</b>	TX Mode 2404 MHz		
<b>Remark:</b>	Only worse case is reported		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1	*	0.1819	41.17	9.65	50.82	64.39	-13.57	QP
2		0.1819	26.64	9.65	36.29	54.39	-18.10	AVG
3		0.2500	31.14	9.61	40.75	61.75	-21.00	QP
4		0.2500	15.45	9.61	25.06	51.75	-26.69	AVG
5		0.3100	27.34	9.57	36.91	59.97	-23.06	QP
6		0.3100	11.96	9.57	21.53	49.97	-28.44	AVG
7		9.7900	27.01	10.24	37.25	60.00	-22.75	QP
8		9.7900	19.86	10.24	30.10	50.00	-19.90	AVG
9		17.5500	20.81	10.63	31.44	60.00	-28.56	QP
10		17.5500	15.54	10.63	26.17	50.00	-23.83	AVG
11		20.0540	22.01	10.65	32.66	60.00	-27.34	QP
12		20.0540	16.77	10.65	27.42	50.00	-22.58	AVG

Emission Level= Read Level+ Correct Factor

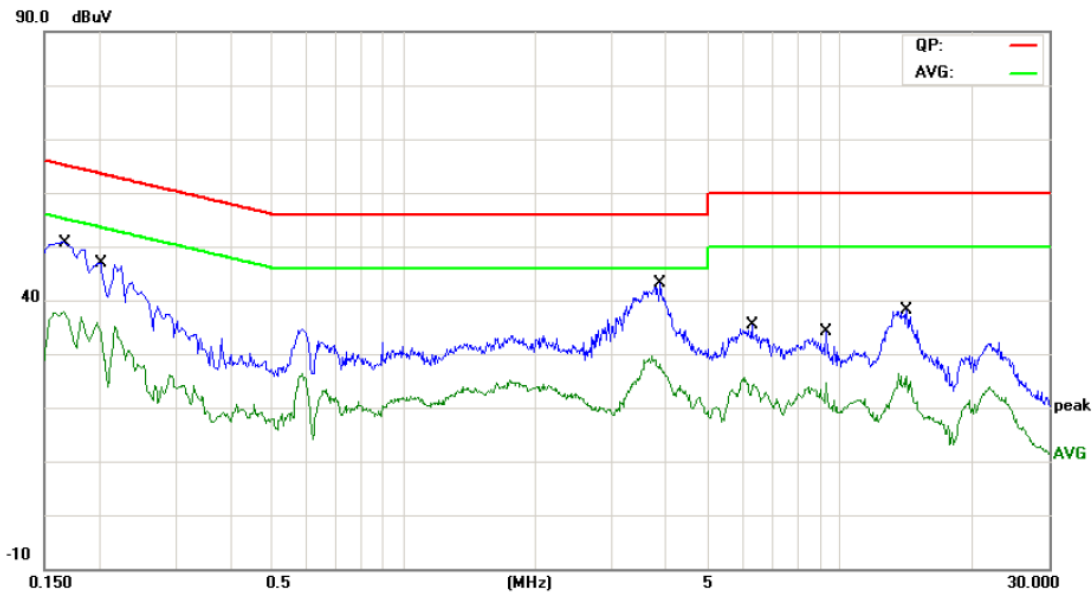
<b>Temperature:</b>	25°C	<b>Relative Humidity:</b>	55%
<b>Test Voltage:</b>	AC 240V/60 Hz		
<b>Terminal:</b>	Line		
<b>Test Mode:</b>	TX Mode 2404 MHz		
<b>Remark:</b>	Only worse case is reported		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1		0.1539	31.13	9.58	40.71	65.78	-25.07	QP
2		0.1539	16.15	9.58	25.73	55.78	-30.05	AVG
3		0.2100	25.94	9.58	35.52	63.20	-27.68	QP
4		0.2100	16.58	9.58	26.16	53.20	-27.04	AVG
5		0.2460	22.90	9.58	32.48	61.89	-29.41	QP
6		0.2460	12.90	9.58	22.48	51.89	-29.41	AVG
7		3.6300	20.05	9.67	29.72	56.00	-26.28	QP
8		3.6300	11.08	9.67	20.75	46.00	-25.25	AVG
9		5.9300	16.22	9.80	26.02	60.00	-33.98	QP
10		5.9300	11.24	9.80	21.04	50.00	-28.96	AVG
11		12.9500	21.71	10.30	32.01	60.00	-27.99	QP
12	*	12.9500	16.13	10.30	26.43	50.00	-23.57	AVG

Emission Level= Read Level+ Correct Factor

<b>Temperature:</b>	25°C	<b>Relative Humidity:</b>	55%
<b>Test Voltage:</b>	AC 240V/60 Hz		
<b>Terminal:</b>	Neutral		
<b>Test Mode:</b>	TX Mode 2404 MHz		
<b>Remark:</b>	Only worse case is reported		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1	*	0.1685	36.07	9.58	45.65	65.03	-19.38	QP
2		0.1685	18.89	9.58	28.47	55.03	-26.56	AVG
3		0.2020	32.51	9.58	42.09	63.52	-21.43	QP
4		0.2020	20.51	9.58	30.09	53.52	-23.43	AVG
5		3.8780	25.85	9.68	35.53	56.00	-20.47	QP
6		3.8780	15.46	9.68	25.14	46.00	-20.86	AVG
7		6.2580	18.14	9.82	27.96	60.00	-32.04	QP
8		6.2580	11.58	9.82	21.40	50.00	-28.60	AVG
9		9.2780	15.09	10.00	25.09	60.00	-34.91	QP
10		9.2780	9.66	10.00	19.66	50.00	-30.34	AVG
11		14.1380	19.80	10.40	30.20	60.00	-29.80	QP
12		14.1380	11.53	10.40	21.93	50.00	-28.07	AVG

Emission Level= Read Level+ Correct Factor

# Attachment B-- Radiated Emission Test Data

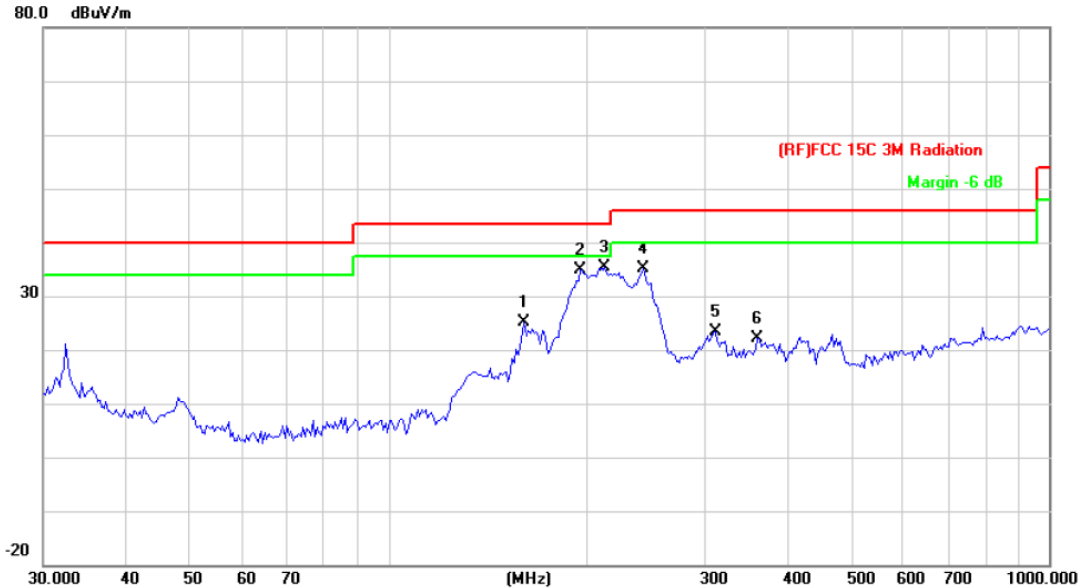
## Radiated Spurious Emission (9 KHz~30 MHz)

From 9 KHz to 30 MHz: 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.

## Radiated Spurious Emission (Below 1 GHz)

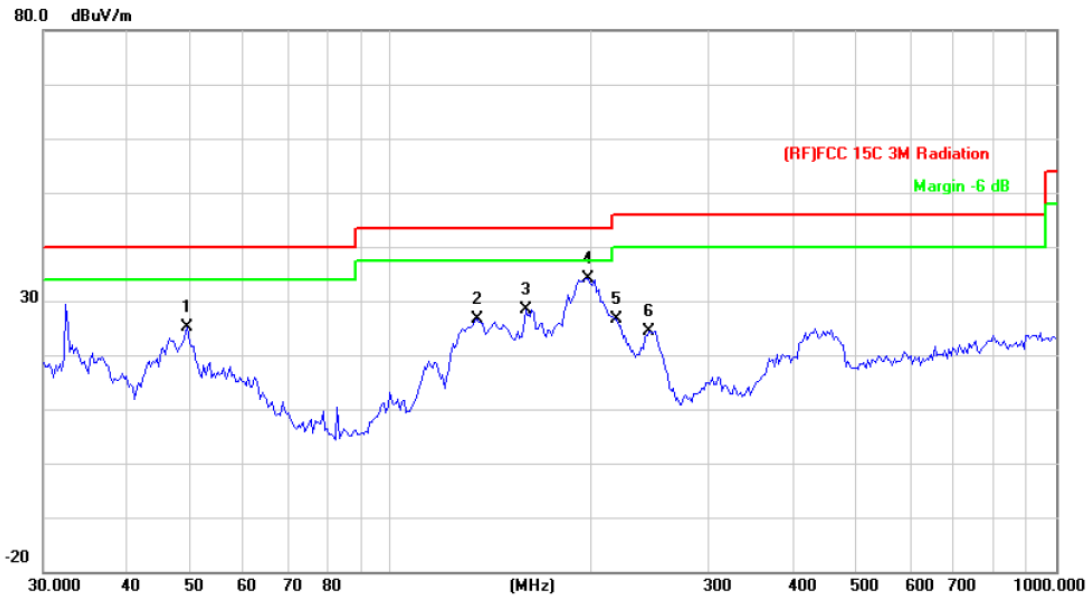
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX 2404MHz		
Remark:	Only worse case is reported		



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measurement dBuV/m	Limit dBuV/m	Over dB	Detector
1	160.3456	46.05	-20.86	25.19	43.50	-18.31	QP
2	195.1365	54.72	-19.88	34.84	43.50	-8.66	QP
3 *	212.2695	54.65	-19.28	35.37	43.50	-8.13	QP
4	242.5253	52.81	-17.60	35.21	46.00	-10.79	QP
5	312.1794	39.10	-15.80	23.30	46.00	-22.70	QP
6	361.7139	36.05	-14.04	22.01	46.00	-23.99	QP

Emission Level= Read Level+ Correct Factor

<b>Temperature:</b>	25 °C	<b>Relative Humidity:</b>	55%
<b>Test Voltage:</b>	DC 5V		
<b>Ant. Pol.</b>	Vertical		
<b>Test Mode:</b>	TX 2404MHz		
<b>Remark:</b>	Only worse case is reported		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		49.3594	48.09	-23.02	25.07	40.00	-14.93	QP
2		134.5592	49.03	-22.46	26.57	43.50	-16.93	QP
3		159.2251	49.33	-20.92	28.41	43.50	-15.09	QP
4	*	197.8928	54.00	-19.93	34.07	43.50	-9.43	QP
5		218.3085	45.67	-18.94	26.73	46.00	-19.27	QP
6		244.2321	41.99	-17.50	24.49	46.00	-21.51	QP

Emission Level= Read Level+ Correct Factor



**Field Strength of the Fundamental and Restricted Bands Requirement Test Data**

Low channel: 2404 MHz										
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dB $\mu$ V)	AV reading (dBuV)	Correction Factor (dB/m)	Emission Level		Peak limit (dB $\mu$ V/m)	AV limit (dB $\mu$ V/m)	Peak Margin (dB)	AV Margin (dB)
					Peak (dB $\mu$ V/m)	AV (dB $\mu$ V/m)				
2390	H	41.32	30.63	2.82	44.14	33.45	74	54	-29.86	-20.55
2404	H	81.71	---	2.87	84.58	---	114	94	-29.42	---
4808	H	44.07	29.17	14.44	58.51	43.61	74	54	-15.49	-10.39
---	H	---	---	---	---	----	---	---	---	---
2390	V	42.02	30.63	2.82	44.84	33.45	74	54	-29.16	-20.55
2404	V	74.47	---	2.87	77.34	---	114	94	-36.66	---
4808	V	45.59	31.26	14.44	60.03	45.7	74	54	-13.97	-8.3
---	V	---	---	---	---	----	---	---	---	---

Middle channel: 2442 MHz										
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dB $\mu$ V)	AV reading (dBuV)	Correction Factor (dB/m)	Emission Level		Peak limit (dB $\mu$ V/m)	AV limit (dB $\mu$ V/m)	Peak Margin (dB)	AV Margin (dB)
					Peak (dB $\mu$ V/m)	AV (dB $\mu$ V/m)				
2442	H	79.26	---	3.12	82.38	---	114	94	-31.62	---
4884	H	43.21	28.62	14.91	58.12	43.53	74	54	-15.88	-10.47
---	H	---	---	---	---	----	---	---	---	---
2442	V	72.62	---	3.12	75.74	---	114	94	-38.26	---
4884	V	42.58	28.74	14.91	57.49	43.65	74	54	-16.51	-10.35
---	V	---	---	---	---	----	---	---	---	---

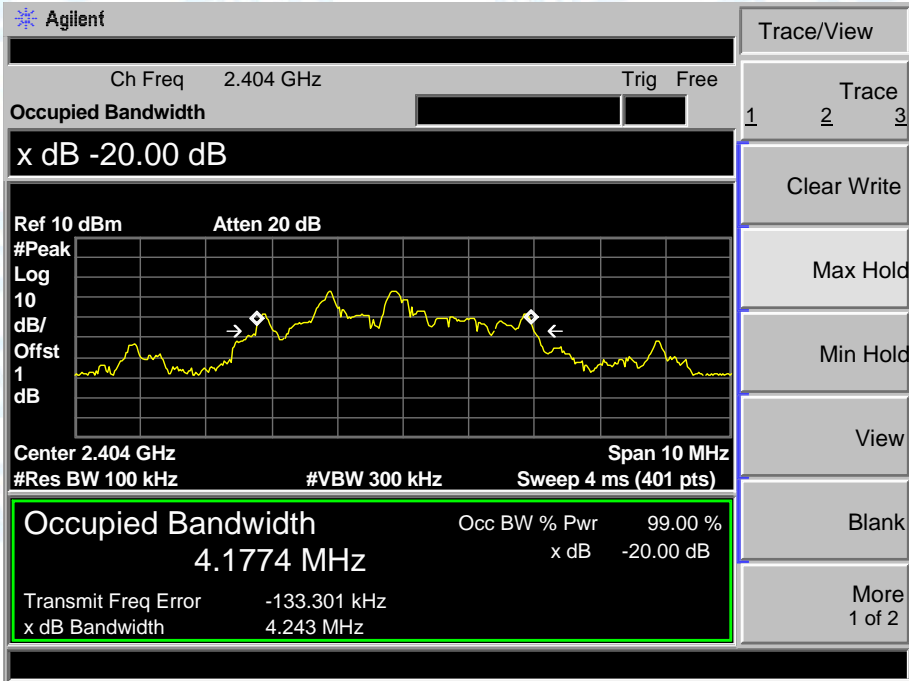
High channel: 2480 MHz										
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dB $\mu$ V)	AV reading (dBuV)	Correction Factor (dB/m)	Emission Level		Peak limit (dB $\mu$ V/m)	AV limit (dB $\mu$ V/m)	Peak Margin (dB)	AV Margin (dB)
					Peak (dB $\mu$ V/m)	AV (dB $\mu$ V/m)				
2483.5	H	42.01	29.74	3.41	45.42	33.15	74	54	-28.58	-20.85
2480	H	77.60	---	3.37	80.97	---	114	94	-33.03	---
4960	H	44.41	30.15	15.39	59.8	45.54	74	54	-14.2	-8.46
---	H	---	---	---	---	----	---	---	---	---
2483.5	V	42.19	30.72	3.41	45.60	34.13	74	54	-28.40	-19.87
2480	V	70.54	---	3.38	73.92	---	114	94	-40.08	---
4960	V	43.35	29.03	15.39	58.74	44.42	74	54	-15.26	-9.58
---	V	---	---	---	---	----	---	---	---	---

Note 1: Average limit is 20dB below peak limit, so if peak measured level comply with average limit, the average level was deemed to comply with average limit.

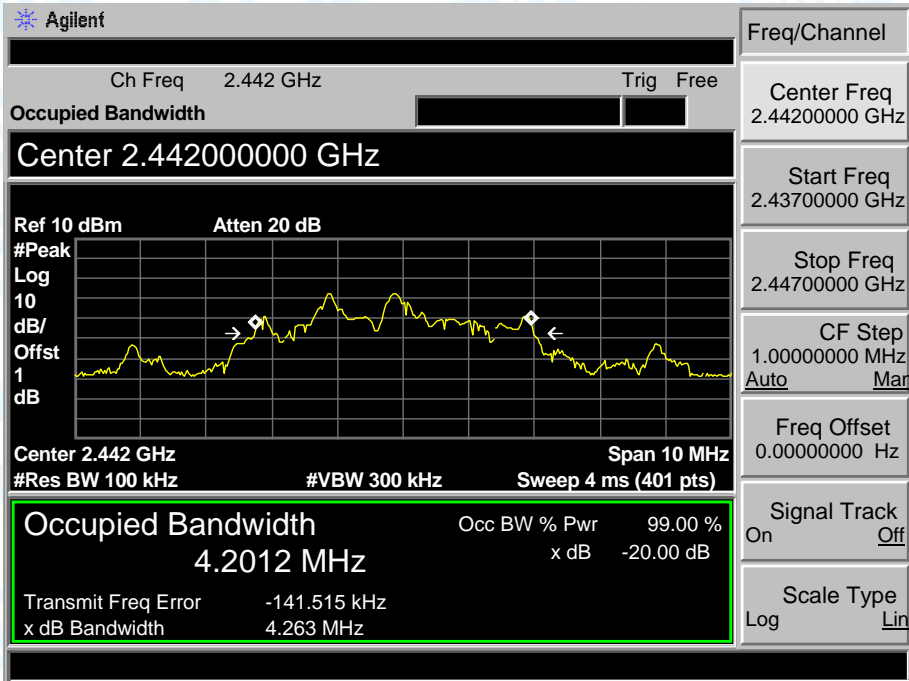
### Attachment C--Bandwidth Test Data

Channel Frequency (MHz)	20dB Bandwidth (KHz)
2404	4.243
2442	4.263
2480	4.274

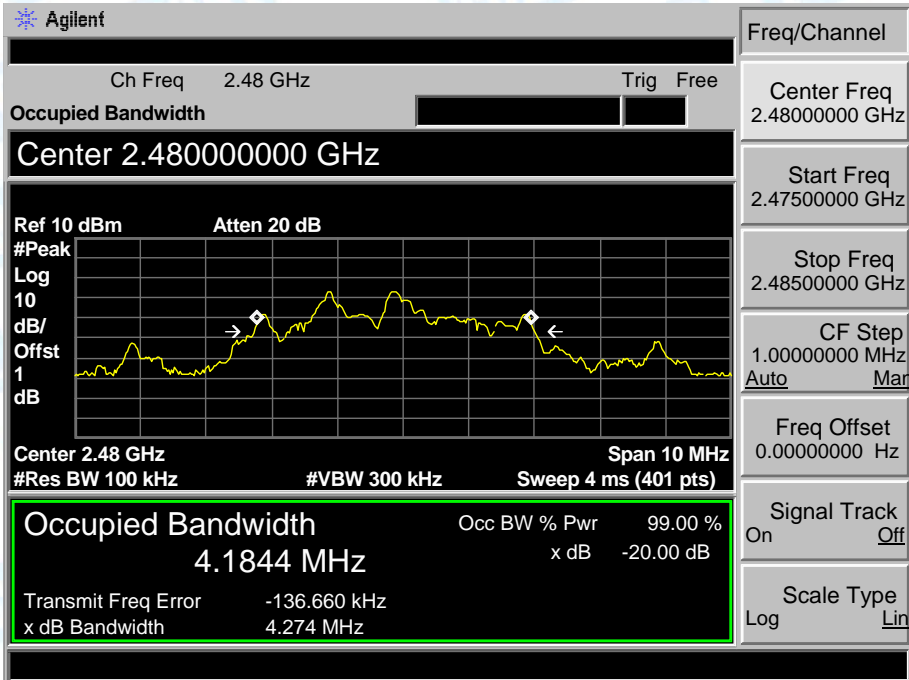
#### 2404 MHz



#### 2442 MHz



**2480 MHz**



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