

FCC Test Report

Product Name	ROG Strix Fusion 700 Gaming Headset
Model No.	ROGSTRIX F700/BLK/UBD/AS
FCC ID.	MSQ-ROGSTRIXF700

Applicant	ASUSTeK COMPUTER INC.
Address	4F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan

Date of Receipt	Apr. 19, 2018
Issued Date	May 30, 2018
Report No.	1840232R-RFUSP01V00
Report Version	V1.0



The test results relate only to the samples tested.

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

This report must not be used to claim product endorsement by TAF or any agency of the government.

The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.

Test Report

Issued Date: May 30, 2018

Report No.: 1840232R-RFUSP01V00



Product Name	ROG Strix Fusion 700 Gaming Headset
Applicant	ASUSTeK COMPUTER INC.
Address	4F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan
Manufacturer	ASUSTeK COMPUTER INC.
Model No.	ROGSTRIX F700/BLK/UBD/AS
FCC ID.	MSQ-ROGSTRIXF700
EUT Rated Voltage	DC 3.7V by Battery or DC 5V by USB
EUT Test Voltage	DC 5V by USB
Trade Name	ASUS
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2017 ANSI C63.4: 2014, ANSI C63.10: 2013
Test Result	Complied

Documented By : Jinn Chen
(Senior Adm. Specialist / Jinn Chen)

Tested By : Ivan Chuang
(Senior Engineer / Ivan Chuang)

Approved By : [Signature]
(Director / Vincent Lin)

TABLE OF CONTENTS

Description	Page
1. GENERAL INFORMATION	5
1.1. EUT Description.....	5
1.2. Operational Description.....	7
1.3. Tested System Details.....	8
1.4. Configuration of Tested System	8
1.5. EUT Exercise Software	8
1.6. Test Facility	9
1.7. List of Test Equipment.....	10
2. CONDUCTED EMISSION	11
2.1. Test Setup	11
2.2. Limits.....	11
2.3. Test Procedure	12
2.4. Uncertainty	12
2.5. Test Result of Conducted Emission.....	13
3. PEAK POWER OUTPUT	15
3.1. Test Setup	15
3.2. Limit	15
3.3. Test Procedure	15
3.4. Uncertainty	15
3.5. Test Result of Peak Power Output	16
4. RADIATED EMISSION	18
4.1. Test Setup	18
4.2. Limits.....	19
4.3. Test Procedure	20
4.4. Uncertainty	21
4.5. Test Result of Radiated Emission.....	22
5. RF ANTENNA CONDUCTED TEST	30
5.1. Test Setup	30
5.2. Limits.....	30
5.3. Test Procedure	30
5.4. Uncertainty	30
5.5. Test Result of RF Antenna Conducted Test	31
6. BAND EDGE	33
6.1. Test Setup	33
6.2. Limit	34
6.3. Test Procedure	34
6.4. Uncertainty	35
6.5. Test Result of Band Edge	36
7. CHANNEL NUMBER.....	48
7.1. Test Setup	48
7.2. Limit	48
7.3. Test Procedure	48
7.4. Uncertainty	48
7.5. Test Result of Channel Number.....	49
8. CHANNEL SEPARATION.....	51
8.1. Test Setup	51
8.2. Limit	51
8.3. Test Procedure	51
8.4. Uncertainty	51
8.5. Test Result of Channel Separation.....	52
9. DWELL TIME	56
9.1. Test Setup	56
9.2. Limit	56
9.3. Test Procedure	56
9.4. Uncertainty	56
9.5. Test Result of Dwell Time	57
10. OCCUPIED BANDWIDTH	61
10.1. Test Setup	61

10.2.	Limits.....	61
10.3.	Test Procedure	61
10.4.	Uncertainty	61
10.5.	Test Result of Occupied Bandwidth	62
11.	DUTY CYCLE	66
11.1.	Test Setup	66
11.2.	Test Procedure	66
11.3.	Uncertainty	66
11.4.	Test Result of Duty Cycle.....	67
12.	EMI REDUCTION METHOD DURING COMPLIANCE TESTING	69

Attachment 1: EUT Test Photographs

Attachment 2: EUT Detailed Photographs

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	ROG Strix Fusion 700 Gaming Headset
Trade Name	ASUS
Model No.	ROGSTRIX F700/BLK/UBD/AS
FCC ID.	MSQ-ROGSTRIXF700
Frequency Range	2402 – 2480MHz
Channel Number	79
Type of Modulation	FHSS: GFSK(1Mbps) / π /4DQPSK(2Mbps) / 8DPSK(3Mbps)
Antenna Type	PIFA Antenna
Channel Control	Auto
Antenna Gain	Refer to the table “Antenna List”

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	ASUS	N/A	PIFA Antenna	2.62dBi for 2.4 GHz

Note: The antenna of EUT is conforming to FCC 15.203.

Center Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 00:	2402 MHz	Channel 20:	2422 MHz	Channel 40:	2442 MHz	Channel 60:	2462 MHz
Channel 01:	2403 MHz	Channel 21:	2423 MHz	Channel 41:	2443 MHz	Channel 61:	2463 MHz
Channel 02:	2404 MHz	Channel 22:	2424 MHz	Channel 42:	2444 MHz	Channel 62:	2464 MHz
Channel 03:	2405 MHz	Channel 23:	2425 MHz	Channel 43:	2445 MHz	Channel 63:	2465 MHz
Channel 04:	2406 MHz	Channel 24:	2426 MHz	Channel 44:	2446 MHz	Channel 64:	2466 MHz
Channel 05:	2407 MHz	Channel 25:	2427 MHz	Channel 45:	2447 MHz	Channel 65:	2467 MHz
Channel 06:	2408 MHz	Channel 26:	2428 MHz	Channel 46:	2448 MHz	Channel 66:	2468 MHz
Channel 07:	2409 MHz	Channel 27:	2429 MHz	Channel 47:	2449 MHz	Channel 67:	2469 MHz
Channel 08:	2410 MHz	Channel 28:	2430 MHz	Channel 48:	2450 MHz	Channel 68:	2470 MHz
Channel 09:	2411 MHz	Channel 29:	2431 MHz	Channel 49:	2451 MHz	Channel 69:	2471 MHz
Channel 10:	2412 MHz	Channel 30:	2432 MHz	Channel 50:	2452 MHz	Channel 70:	2472 MHz
Channel 11:	2413 MHz	Channel 31:	2433 MHz	Channel 51:	2453 MHz	Channel 71:	2473 MHz
Channel 12:	2414 MHz	Channel 32:	2434 MHz	Channel 52:	2454 MHz	Channel 72:	2474 MHz
Channel 13:	2415 MHz	Channel 33:	2435 MHz	Channel 53:	2455 MHz	Channel 73:	2475 MHz
Channel 14:	2416 MHz	Channel 34:	2436 MHz	Channel 54:	2456 MHz	Channel 74:	2476 MHz
Channel 15:	2417 MHz	Channel 35:	2437 MHz	Channel 55:	2457 MHz	Channel 75:	2477 MHz
Channel 16:	2418 MHz	Channel 36:	2438 MHz	Channel 56:	2458 MHz	Channel 76:	2478 MHz
Channel 17:	2419 MHz	Channel 37:	2439 MHz	Channel 57:	2459 MHz	Channel 77:	2479 MHz
Channel 18:	2420 MHz	Channel 38:	2440 MHz	Channel 58:	2460 MHz	Channel 78:	2480 MHz
Channel 19:	2421 MHz	Channel 39:	2441 MHz	Channel 59:	2461 MHz		

Note:

1. The EUT is a ROG Strix Fusion 700 Gaming Headset with built-in Bluetooth V4.2 、 V2.1+EDR transceiver, this report for Bluetooth V2.1+EDR.
2. These tests were conducted on a sample for the purpose of demonstrating compliance of Bluetooth V2.1+EDR transmitter with Part 15 Subpart C Paragraph 15.247 for spread spectrum devices.
3. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
4. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.
5. Bluetooth operation was evaluated at both 1Mb/s and 3Mb/s data rates. 2Mb/s data rate was found, through pre-testing, to produce emissions similar to those for 3Mb/s.

Test Mode	Mode 1: Transmit - 1Mbps Mode 2: Transmit - 3Mbps
-----------	--

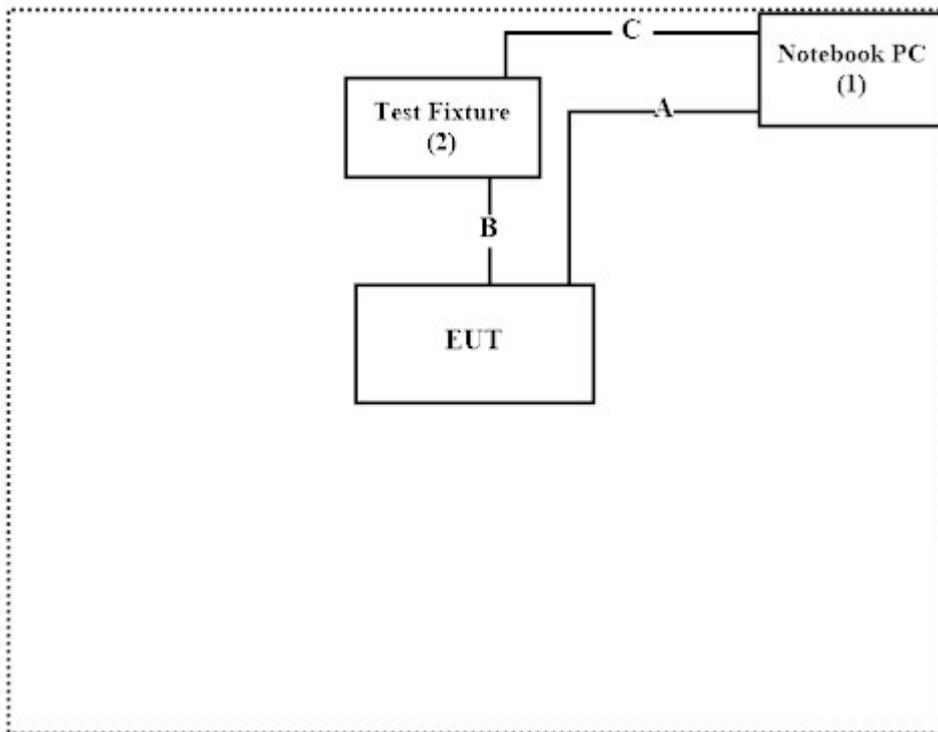
1.3. Tested System Details

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

Product	Manufacturer	Model No.	Serial No.	Power Cord	
1	Notebook PC	DELL	P62G	CY9FJC2	N/A
2	Test Fixture	CSR	N/A	N/A	N/A

Signal Cable Type	Signal cable Description
A	USB Cable Non-shielded, 0.5m
B	Signal Cable Non-shielded, 0.45m
C	USB Cable Shielded, 1.8m

1.4. Configuration of Tested System



1.5. EUT Exercise Software

1. Setup the EUT as shown in Section 1.4.
2. Execute software “CSR BlueSuite v2.6.2” on the Notebook PC .
3. Configure the test mode, the test channel, and the data rate.
4. Press “OK” to start the continuous Transmit.
5. Verify that the EUT works properly.

1.6. Test Facility

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	20-35
Humidity (%RH)	25-75	50-65
Barometric pressure (mbar)	860-1060	950-1000

The related certificate for our laboratories about the test site and management system can be downloaded from DEKRA Testing and Certification Co., Ltd. Web Site:

<http://www.dekra.com.tw/english/about/certificates.aspx?bval=5>

The address and introduction of DEKRA Testing and Certification Co., Ltd. laboratories can be founded in our Web site: http://www.dekra.com.tw/index_en

Site Description: Accredited by TAF
Accredited Number: 3023

Site Name: DEKRA Testing and Certification Co., Ltd.
Site Address: No.159, Sec. 2, Wenhua 1st Rd., Linkou Dist.,
New Taipei City 24457, Taiwan.
TEL: 886-2-2602-7968 / FAX : 866-2-2602-3286
E-Mail : info.tw@dekra.com

FCC Accreditation Number: TW0023

1.7. List of Test Equipment

For Conduction measurements /ASR1

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	EMI Test Receiver	R&S	ESR7	101601	2018.02.08	2019.02.07
X	Two-Line V-Network	R&S	ENV216	101306	2018.03.09	2019.03.08
X	Two-Line V-Network	R&S	ENV216	101307	2018.03.20	2019.03.19
X	Coaxial Cable	Quietek	RG400_BNC	RF001	2018.05.24	2019.05.23

Note:

1. All equipments are calibrated every one year.
2. The test instruments marked with "X" are used to measure the final test results.
3. Test Software version : QuieTek EMI 2.0 V2.1.113

For Conducted measurements /ASR4

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Spectrum Analyzer	R&S	FSV30	103464	2018.01.23	2019.01.22
X	Power Meter	Anritsu	ML2496A	1548003	2017.12.11	2018.12.10
X	Power Sensor	Anritsu	MA2411B	1531024	2017.12.11	2018.12.10
X	Power Sensor	Anritsu	MA2411B	1531025	2017.12.11	2018.12.10
	Bluetooth Tester	R&S	CBT	101238	2018.01.18	2019.01.17

Note:

1. All equipments are calibrated every one year.
2. The test instruments marked with "X" are used to measure the final test results.
3. Test Software version : DEKRA Conduction Test System V9.0.1

For Radiated measurements /ACB1

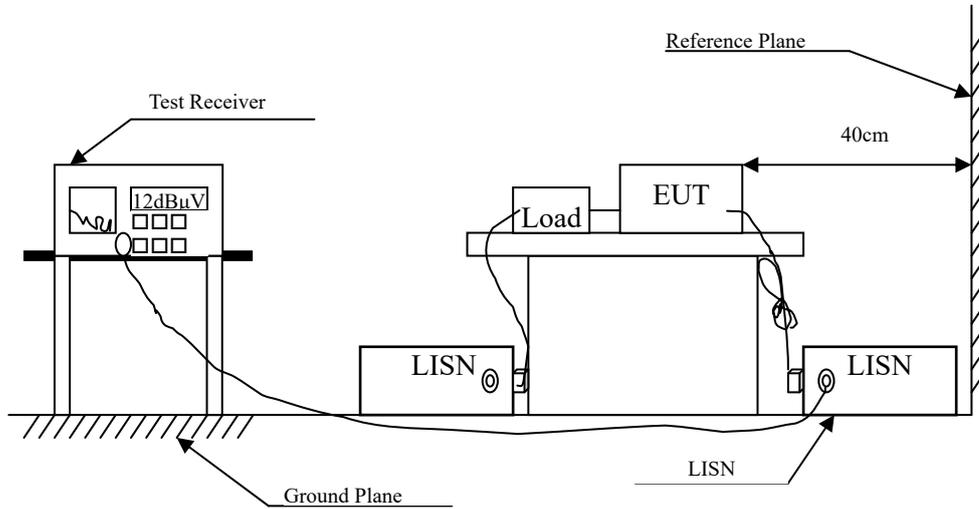
	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Loop Antenna	AMETEK	HLA6121	49611	2018.01.26	2019.01.25
X	Bi-Log Antenna	SCHWARZBECK	VULB9168	9168-674	2018.04.02	2019.04.01
X	Horn Antenna	ETS-Lindgren	3117	00203800	2017.11.10	2018.11.09
X	Horn Antenna	Com-Power	AH-840	101088	2017.08.22	2018.08.21
X	Pre-Amplifier	EMCI	EMC001330	980301	2018.05.17	2019.05.16
X	Pre-Amplifier	EMCI	EMC051835SE	980312	2018.05.16	2019.05.15
X	Pre-Amplifier	EMCI	EMC05820SE	980308	2017.06.13	2018.06.12
X	Pre-Amplifier	EMCI	EMC184045SE	980314	2018.05.16	2019.05.15
X	Filter	MICRO TRONICS	BRM50702	G251	2017.08.30	2018.08.29
	Filter	MICRO TRONICS	BRM50716	G188	2017.08.30	2018.08.29
X	EMI Test Receiver	R&S	ESR7	101602	2017.12.11	2018.12.10
X	Spectrum Analyzer	R&S	FSV40	101148	2018.02.08	2019.02.07
X	Coaxial Cable	SUHNER	SUCOFLEX 106	RF002	2018.05.25	2019.05.24
X	Mircoflex Cable	HUBER SUHNER	SUCOFLEX 102	MY3381/2	2017.08.11	2018.08.10

Note:

1. All equipments are calibrated every one year.
2. The test instruments marked with "X" are used to measure the final test results.
3. Test Software version : QuieTek EMI 2.0 V2.1.113

2. Conducted Emission

2.1. Test Setup



2.2. Limits

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

Remarks: In the above table, the tighter limit applies at the band edges.

2.3. Test Procedure

The EUT and Peripherals are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all the interface cables must be changed according to ANSI C63.4: 2014 on conducted measurement.

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

The EUT was setup to ANSI C63.4, 2014; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

2.4. Uncertainty

±2.35dB

2.5. Test Result of Conducted Emission

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Conducted Emission Test
 Power Line : Line 1
 Test Mode : Mode 2: Transmit - 3Mbps (2441MHz)
 Test Date : 2018/05/16

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V	Margin dB	Limit dB μ V
LINE 1					
Quasi-Peak					
0.172	9.663	36.956	46.619	-18.752	65.371
0.230	9.682	29.645	39.326	-24.388	63.714
0.470	9.698	29.470	39.168	-17.689	56.857
1.300	9.730	26.621	36.351	-19.649	56.000
3.100	9.781	16.958	26.739	-29.261	56.000
14.000	10.003	25.480	35.483	-24.517	60.000
Average					
0.172	9.663	24.497	34.160	-21.211	55.371
0.230	9.682	19.122	28.804	-24.910	53.714
0.470	9.698	18.831	28.529	-18.328	46.857
1.300	9.730	14.408	24.138	-21.862	46.000
3.100	9.781	6.884	16.665	-29.335	46.000
14.000	10.003	15.664	25.667	-24.333	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Conducted Emission Test
 Power Line : Line 2
 Test Mode : Mode 2: Transmit - 3Mbps (2441MHz)
 Test Date : 2018/05/16

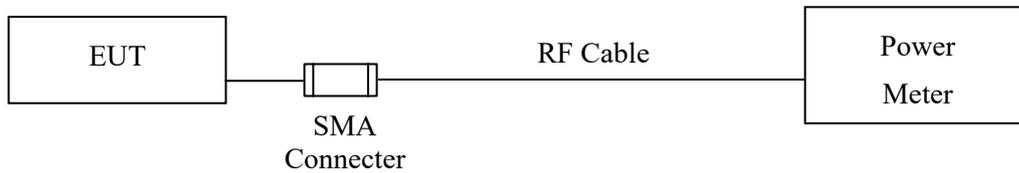
Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V	Margin dB	Limit dB μ V
LINE 2					
Quasi-Peak					
0.172	9.658	36.364	46.022	-19.349	65.371
0.240	9.682	27.418	37.100	-26.329	63.429
0.420	9.688	28.065	37.753	-20.533	58.286
1.300	9.730	21.790	31.520	-24.480	56.000
3.500	9.795	18.127	27.922	-28.078	56.000
15.790	10.032	23.909	33.941	-26.059	60.000
Average					
0.172	9.658	22.777	32.435	-22.936	55.371
0.240	9.682	18.936	28.617	-24.812	53.429
0.420	9.688	18.444	28.132	-20.154	48.286
1.300	9.730	9.317	19.047	-26.953	46.000
3.500	9.795	10.876	20.671	-25.329	46.000
15.790	10.032	13.697	23.729	-26.271	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

3. Peak Power Output

3.1. Test Setup



3.2. Limit

The maximum peak power shall be less 1Watt.

3.3. Test Procedure

The EUT was setup to ANSI C63.4, 2014; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

3.4. Uncertainty

± 0.86 dB

3.5. Test Result of Peak Power Output

Product : ROG Strix Fusion 700 Gaming Headset
Test Item : Peak Power Output
Test Mode : Mode 1: Transmit - 1Mbps
Test Date : 2018/04/27

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit	Result
Channel 00	2402.00	6.85	1 Watt= 30 dBm	Pass
Channel 39	2441.00	6.88	1 Watt= 30 dBm	Pass
Channel 78	2480.00	6.91	1 Watt= 30 dBm	Pass

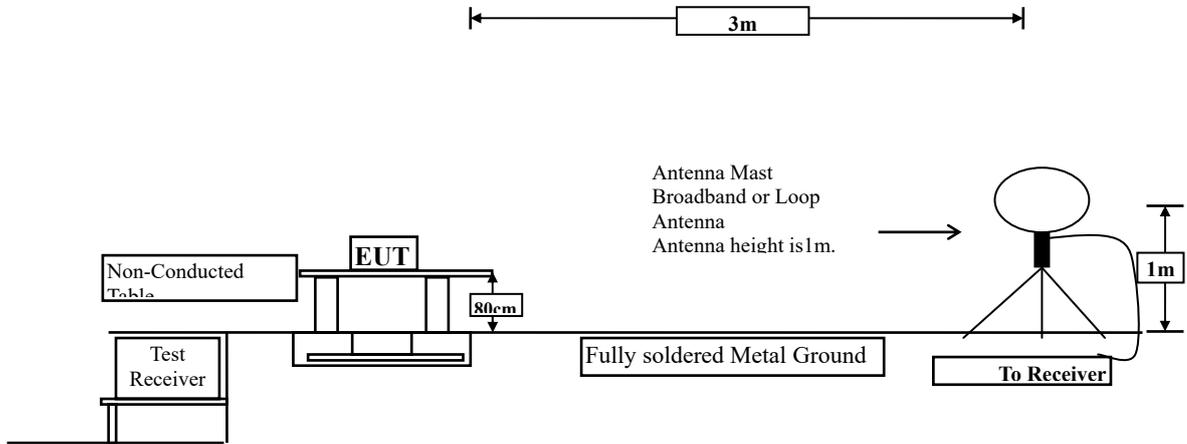
Product : ROG Strix Fusion 700 Gaming Headset
Test Item : Peak Power Output
Test Mode : Mode 2: Transmit - 3Mbps
Test Date : 2018/04/27

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit	Result
Channel 00	2402.00	5.31	1 Watt= 30 dBm	Pass
Channel 39	2441.00	6.71	1 Watt= 30 dBm	Pass
Channel 78	2480.00	6.75	1 Watt= 30 dBm	Pass

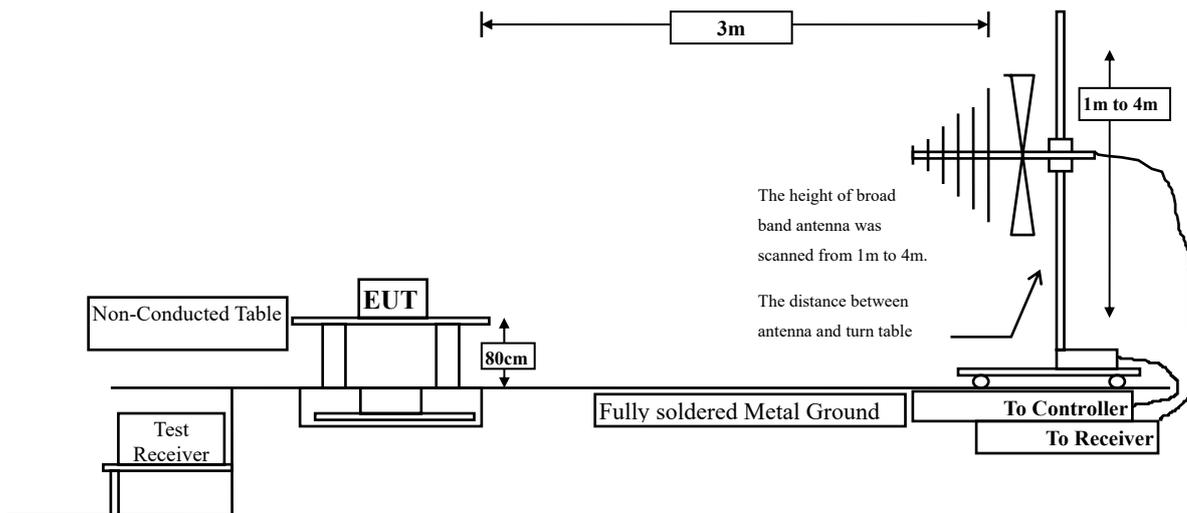
4. Radiated Emission

4.1. Test Setup

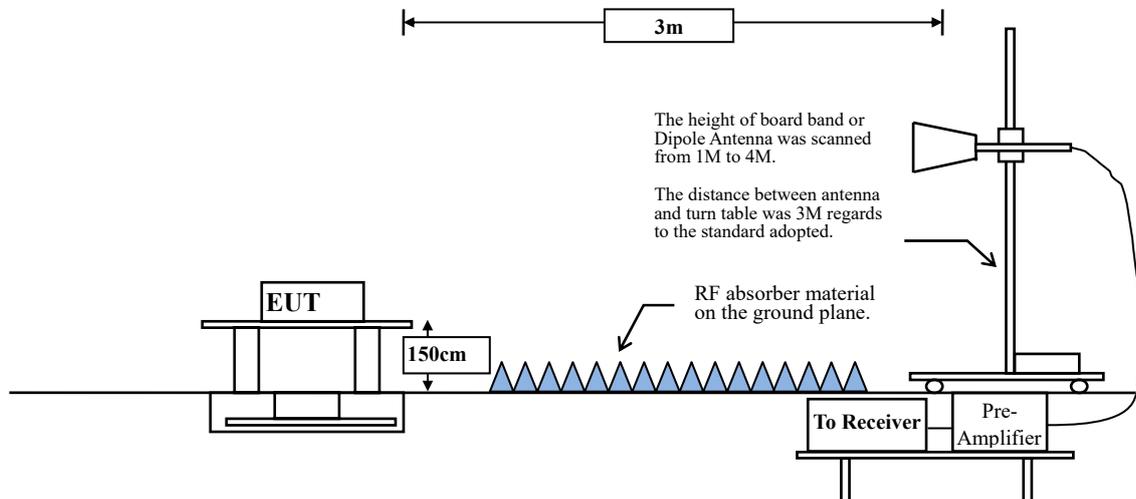
Radiated Emission Under 30MHz



Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



4.2. Limits

➤ General Radiated Emission Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209 Limits		
Frequency MHz	Field strength (microvolts/meter)	Measurement distance (meter)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

- Remarks:
1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
 2. In the Above Table, the tighter limit applies at the band edges.
 3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

4.3. Test Procedure

The EUT was setup according to ANSI C63.10, 2013 and tested compliance to FCC 47CFR 15.247 requirements.

Measuring the frequency range below 1GHz, the EUT is placed on a turn table which is 0.8 meter above ground, when measuring the frequency range above 1GHz, the EUT is placed on a turn table which is 1.5 meter above ground.

The turn table is rotated 360 degrees to determine the position of the maximum emission level.

The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned between 1 meter and 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10: 2013 on radiated measurement.

The resolution bandwidth below 30MHz setting on the field strength meter is 9kHz and 30MHz~1GHz is 120kHz and above 1GHz is 1MHz.

Radiated emission measurements below 30MHz are made using Loop Antenna and 30MHz~1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.

The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna.

The measurement frequency range from 9kHz - 10th Harmonic of fundamental was investigated.

RBW and VBW Parameter setting:

According to KDB 558074 section 12.2.4. Peak power measurement procedure

RBW = as specified in Table 1.

$VBW \geq 3 \times RBW$.

Table 1 —RBW as a function of frequency

Frequency	RBW
9-150 kHz	200-300 Hz
0.15-30 MHz	9-10 kHz
30-1000 MHz	100-120 kHz
> 1000 MHz	1 MHz

According to KDB 558074 section 12.2.5. Average power measurement procedure

RBW = 1MHz.

VBW = 10Hz, when duty cycle $\geq 98 \%$

$VBW \geq 1/T$, when duty cycle $< 98 \%$

(T refers to the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.)

2.4GHz band	Duty Cycle (%)	T (ms)	1/T (Hz)	VBW (Hz)
BT-1M	76.54	2.8841	347	1k
BT-3M	76.92	2.8986	345	1k

Note: Duty Cycle Refer to Section 11

4.4. Uncertainty

Horizontal polarization :

30-300MHz: ± 4.08 dB ; 300M-1GHz: ± 3.86 dB ; 1-18GHz: ± 3.77 dB ; 18-40GHz: ± 3.98 dB

Vertical polarization :

30-300MHz: ± 4.81 dB ; 300M-1GHz: ± 3.87 dB ; 1-18GHz: ± 3.83 dB ; 18-40GHz: ± 3.98 dB

4.5. Test Result of Radiated Emission

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Harmonic Radiated Emission
 Test Mode : Mode 1: Transmit - 1Mbps(2402MHz)
 Test Date : 2018/05/03

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
Peak Detector:					
4804.000	-6.114	53.960	47.846	-26.154	74.000
7206.000	-3.112	53.080	49.968	-24.032	74.000
9608.000	-0.801	46.260	45.460	-28.540	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
4804.000	-6.114	55.140	49.026	-24.974	74.000
7206.000	-3.112	56.090	52.978	-21.022	74.000
9608.000	-0.801	46.370	45.570	-28.430	74.000
Average Detector:					
--					54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Harmonic Radiated Emission
 Test Mode : Mode 1: Transmit - 1Mbps(2441MHz)
 Test Date : 2018/05/03

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
Peak Detector:					
4882.000	-6.066	55.800	49.734	-24.266	74.000
7323.000	-3.022	54.790	51.768	-22.232	74.000
9764.000	-0.522	46.860	46.337	-27.663	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
4882.000	-6.066	57.170	51.104	-22.896	74.000
7323.000	-3.022	59.770	56.748	-17.252	74.000
9764.000	-0.522	47.210	46.687	-27.313	74.000
Average Detector:					
7323.000	-3.022	53.158	50.136	-3.864	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Harmonic Radiated Emission
 Test Mode : Mode 1: Transmit - 1Mbps(2480MHz)
 Test Date : 2018/05/03

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
Peak Detector:					
4960.000	-6.055	56.180	50.125	-23.875	74.000
7440.000	-2.861	53.370	50.508	-23.492	74.000
9920.000	-0.306	45.730	45.424	-28.576	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
4960.000	-6.055	56.380	50.325	-23.675	74.000
7740.000	-2.861	60.859	57.998	-16.002	74.000
9920.000	-0.306	46.170	45.864	-28.136	74.000
Average Detector:					
7440.000	-2.861	53.156	50.295	-3.705	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Harmonic Radiated Emission
 Test Mode : Mode 2: Transmit - 3Mbps(2402MHz)
 Test Date : 2018/05/03

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
Peak Detector:					
4804.000	-6.114	51.380	45.266	-28.734	74.000
7206.000	-3.112	49.690	46.578	-27.422	74.000
9608.000	-0.801	46.340	45.540	-28.460	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
4804.000	-6.114	52.270	46.156	-27.844	74.000
7206.000	-3.112	52.140	49.028	-24.972	74.000
9608.000	-0.801	46.550	45.750	-28.250	74.000
Average Detector:					
--					54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Harmonic Radiated Emission
 Test Mode : Mode 2: Transmit - 3Mbps (2441MHz)
 Test Date : 2018/05/03

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
Peak Detector:					
4882.000	-6.066	54.270	48.204	-25.796	74.000
7323.000	-3.022	51.390	48.368	-25.632	74.000
9764.000	-0.522	46.990	46.467	-27.533	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
4882.000	-6.066	55.010	48.944	-25.056	74.000
7323.000	-3.022	55.020	51.998	-22.002	74.000
9764.000	-0.522	46.730	46.207	-27.793	74.000
Average Detector:					
--					54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Harmonic Radiated Emission
 Test Mode : Mode 2: Transmit - 3Mbps (2480MHz)
 Test Date : 2018/05/03

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
Peak Detector:					
4960.000	-6.055	54.700	48.645	-25.355	74.000
7440.000	-2.861	50.420	47.558	-26.442	74.000
9920.000	-0.306	45.960	45.654	-28.346	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
4960.000	-6.055	54.490	48.435	-25.565	74.000
7440.000	-2.861	54.220	51.358	-22.642	74.000
9920.000	-0.306	45.940	45.634	-28.366	74.000
Average Detector:					
--					54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : General Radiated Emission
 Test Mode : Mode 1: Transmit - 1Mbps (2441MHz)
 Test Date : 2018/05/16

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
0.172	9.663	36.956	46.619	-18.752	65.371
0.230	9.682	29.645	39.326	-24.388	63.714
0.470	9.698	29.470	39.168	-17.689	56.857
1.300	9.730	26.621	36.351	-19.649	56.000
3.100	9.781	16.958	26.739	-29.261	56.000
14.000	10.003	25.480	35.483	-24.517	60.000
Vertical					
0.172	9.663	24.497	34.160	-21.211	55.371
0.230	9.682	19.122	28.804	-24.910	53.714
0.470	9.698	18.831	28.529	-18.328	46.857
1.300	9.730	14.408	24.138	-21.862	46.000
3.100	9.781	6.884	16.665	-29.335	46.000
14.000	10.003	15.664	25.667	-24.333	50.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : General Radiated Emission
 Test Mode : Mode 2: Transmit - 3Mbps (2441MHz)
 Test Date : 2018/05/16

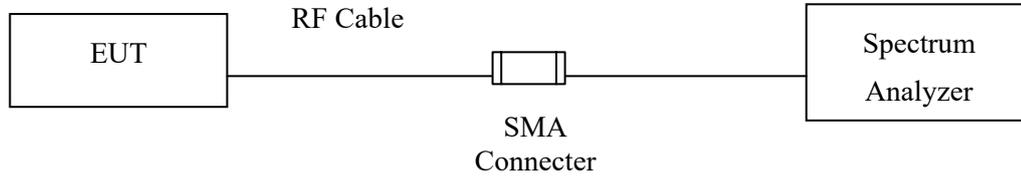
Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
0.172	9.658	36.364	46.022	-19.349	65.371
0.240	9.682	27.418	37.100	-26.329	63.429
0.420	9.688	28.065	37.753	-20.533	58.286
1.300	9.730	21.790	31.520	-24.480	56.000
3.500	9.795	18.127	27.922	-28.078	56.000
15.790	10.032	23.909	33.941	-26.059	60.000
Vertical					
0.172	9.658	22.777	32.435	-22.936	55.371
0.240	9.682	18.936	28.617	-24.812	53.429
0.420	9.688	18.444	28.132	-20.154	48.286
1.300	9.730	9.317	19.047	-26.953	46.000
3.500	9.795	10.876	20.671	-25.329	46.000
15.790	10.032	13.697	23.729	-26.271	50.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

5. RF Antenna Conducted Test

5.1. Test Setup



5.2. Limits

According to FCC Section 15.247(d). In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

5.3. Test Procedure

The EUT was setup to ANSI C63.4, 2014; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

5.4. Uncertainty

$\pm 1.23\text{dB}$

5.5. Test Result of RF Antenna Conducted Test

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : RF Antenna Conducted Test
 Test Mode : Mode 1: Transmit - 1Mbps
 Test Date : 2018/04/27

Figure Channel 00:

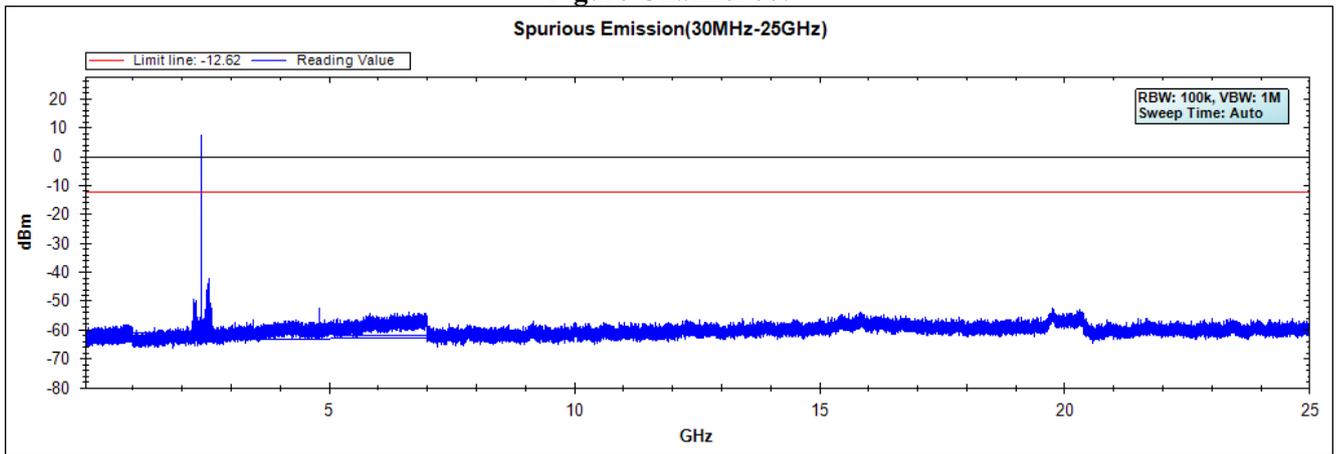


Figure Channel 39:

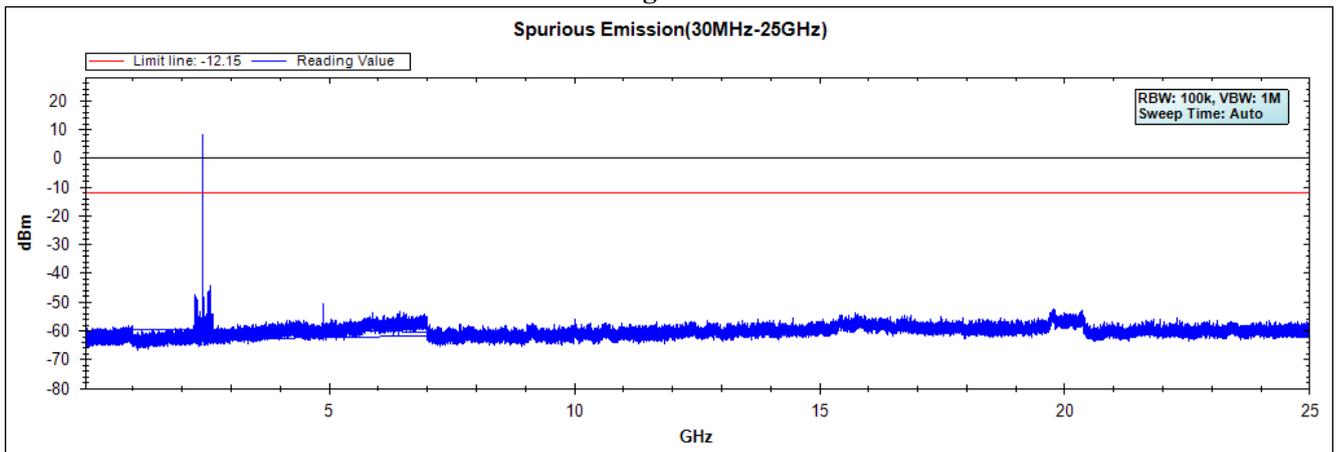
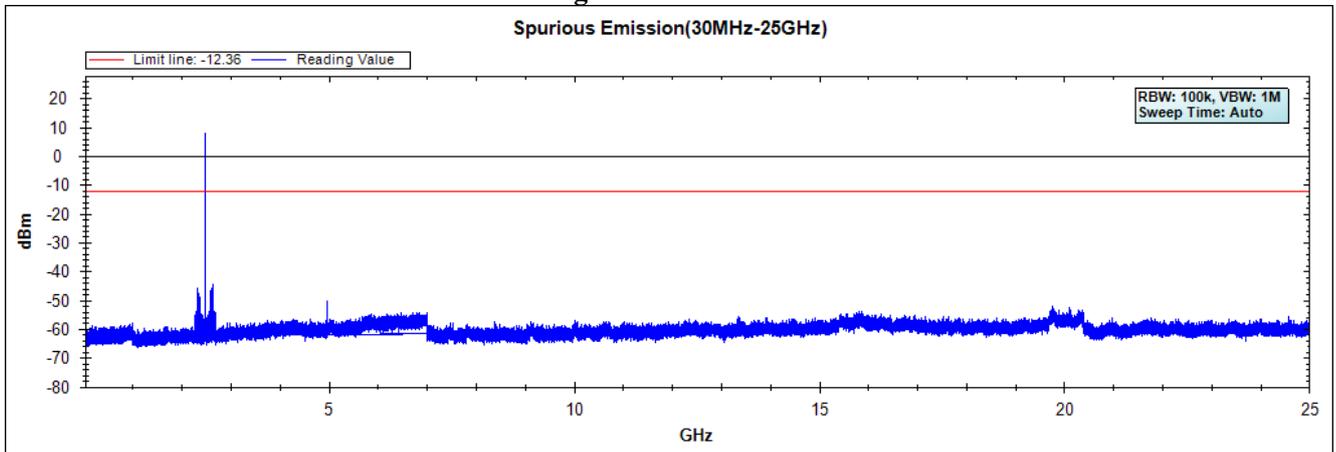


Figure Channel 78:



Note: The above test pattern is synthesized by multiple of the frequency range.

Product : ROG Strix Fusion 700 Gaming Headset
Test Item : RF Antenna Conducted Test
Test Mode : Mode 2: Transmit - 3Mbps
Test Date : 2018/04/27

Figure Channel 00:

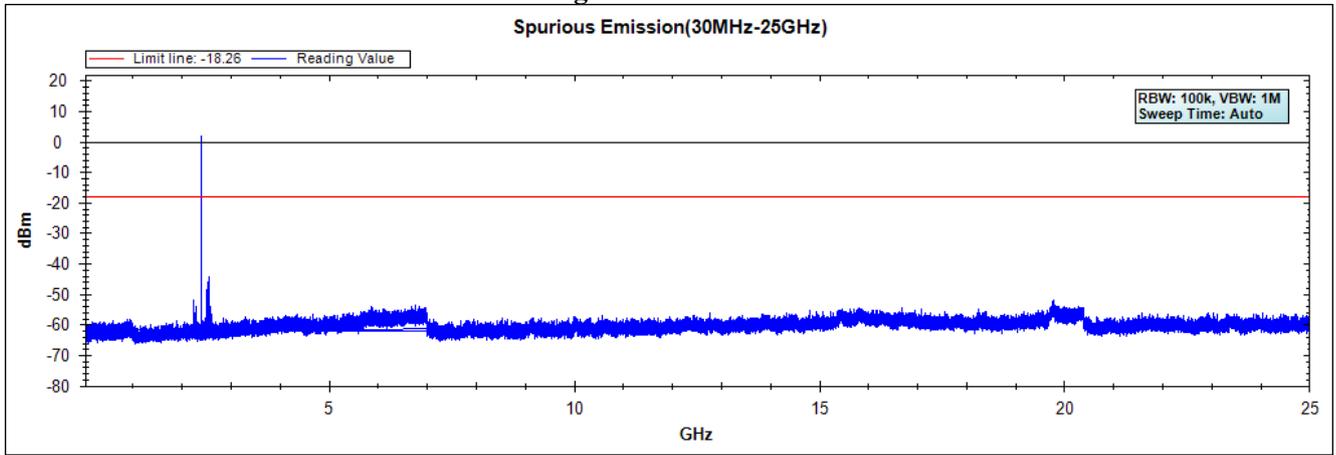


Figure Channel 39:

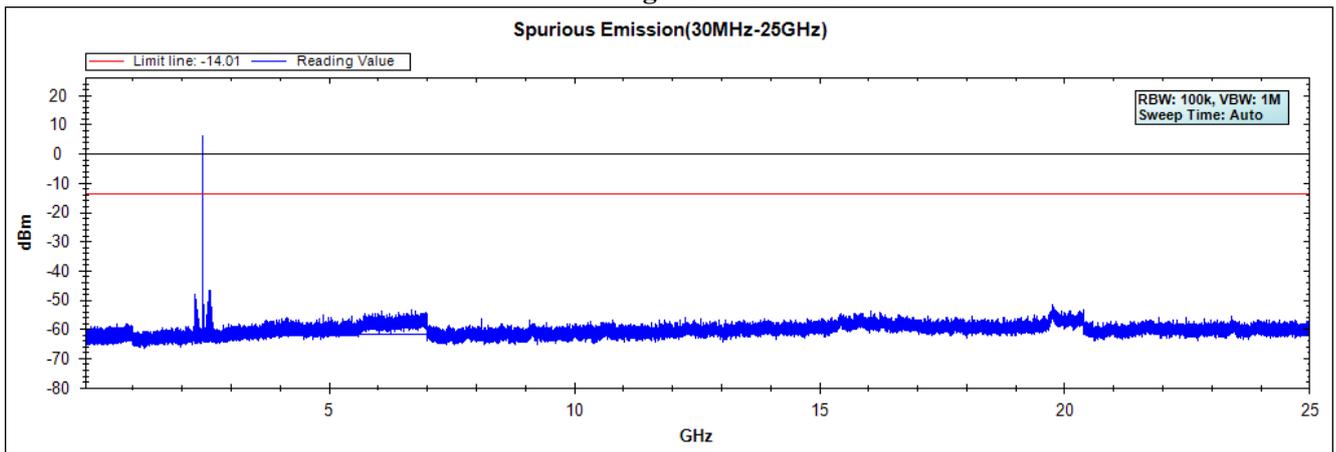
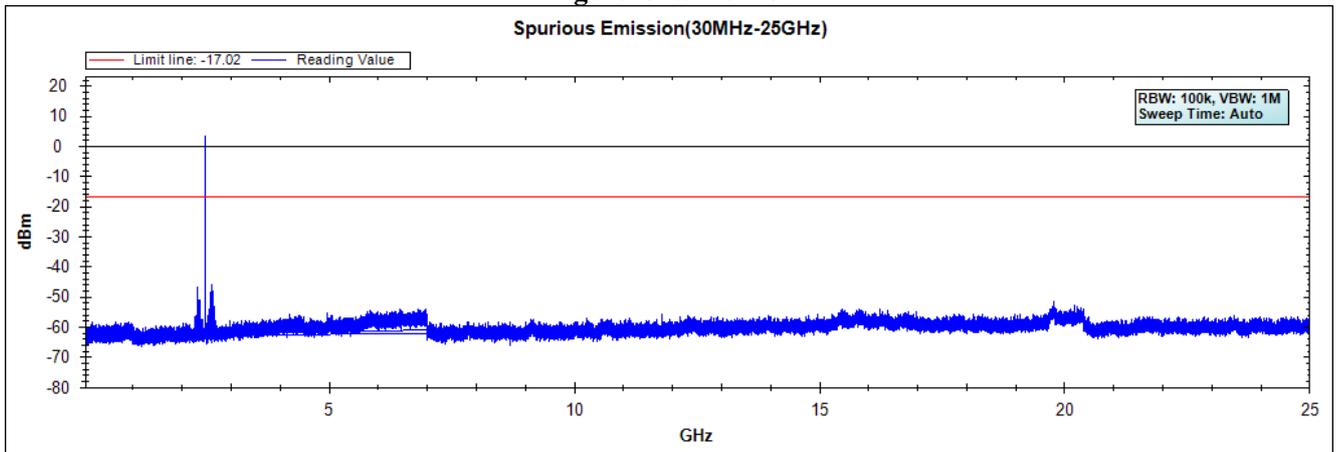


Figure Channel 78:

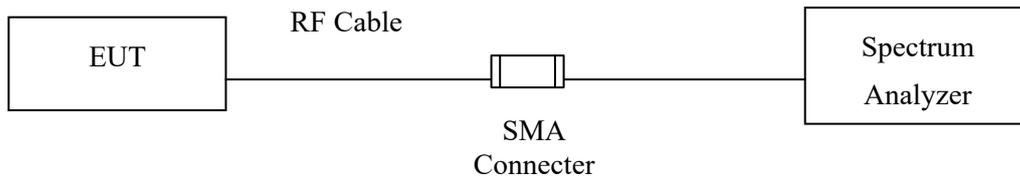


Note: The above test pattern is synthesized by multiple of the frequency range.

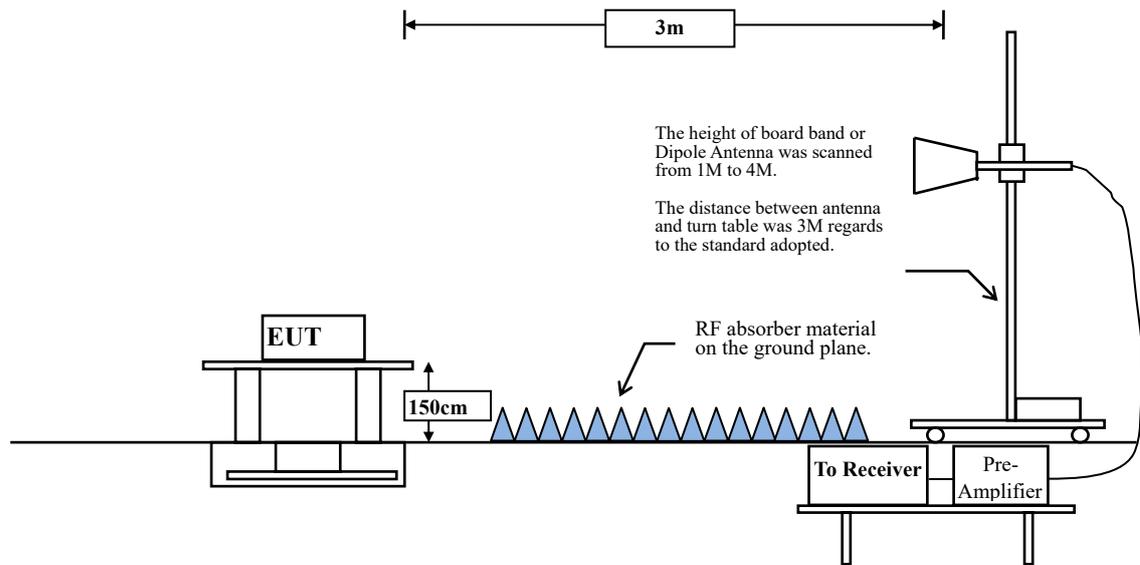
6. Band Edge

6.1. Test Setup

RF Conducted Measurement



RF Radiated Measurement:



6.2. Limit

According to FCC Section 15.247(d). In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

6.3. Test Procedure

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

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10: 2013 on radiated measurement.

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

RBW and VBW Parameter setting:

According to KDB 558074 section 12.2.4. Peak power measurement procedure

RBW = as specified in Table 1.

VBW \geq 3 x RBW.

Table 1 —RBW as a function of frequency

Frequency	RBW
9-150 kHz	200-300 Hz
0.15-30 MHz	9-10 kHz
30-1000 MHz	100-120 kHz
> 1000 MHz	1 MHz

According to KDB 558074 section 12.2.5. Average power measurement procedure

RBW = 1MHz.

VBW = 10Hz, when duty cycle \geq 98 %

VBW \geq 1/T, when duty cycle < 98 %

(T refers to the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.)

2.4GHz band	Duty Cycle (%)	T (ms)	1/T (Hz)	VBW (Hz)
BT-1M	76.54	2.8841	347	1k
BT-3M	76.92	2.8986	345	1k

Note: Duty Cycle Refer to Section 11

6.4. Uncertainty

Conducted: \pm 1.23dB

Radiated:

Horizontal polarization : 1-18GHz: \pm 3.77dB

Vertical polarization : 1-18GHz : \pm 3.83dB

6.5. Test Result of Band Edge

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Band Edge
 Test Mode : Mode 1: Transmit - 1Mbps (2402MHz)
 Test Date : 2018/05/03

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
00 (Peak)	2350.435	10.098	39.769	49.867	74.00	54.00	Pass
00 (Peak)	2390.000	10.262	37.695	47.957	74.00	54.00	Pass
00 (Peak)	2400.000	10.304	60.798	71.101	--	--	Pass
00 (Peak)	2402.174	10.312	95.353	105.665	--	--	--
00 (Average)	2385.797	10.123	25.744	35.867	74.00	54.00	Pass
00 (Average)	2390.000	10.262	18.721	28.983	74.00	54.00	Pass
00 (Average)	2400.000	10.304	42.884	53.188	--	--	Pass
00 (Average)	2402.029	10.309	89.859	100.168	--	--	--

Figure Channel 00: Horizontal (Peak)

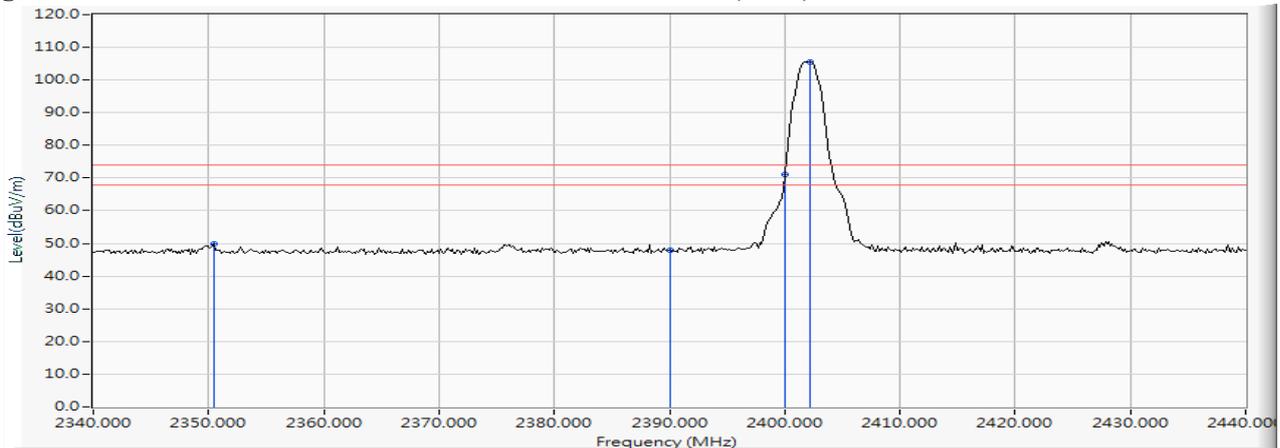
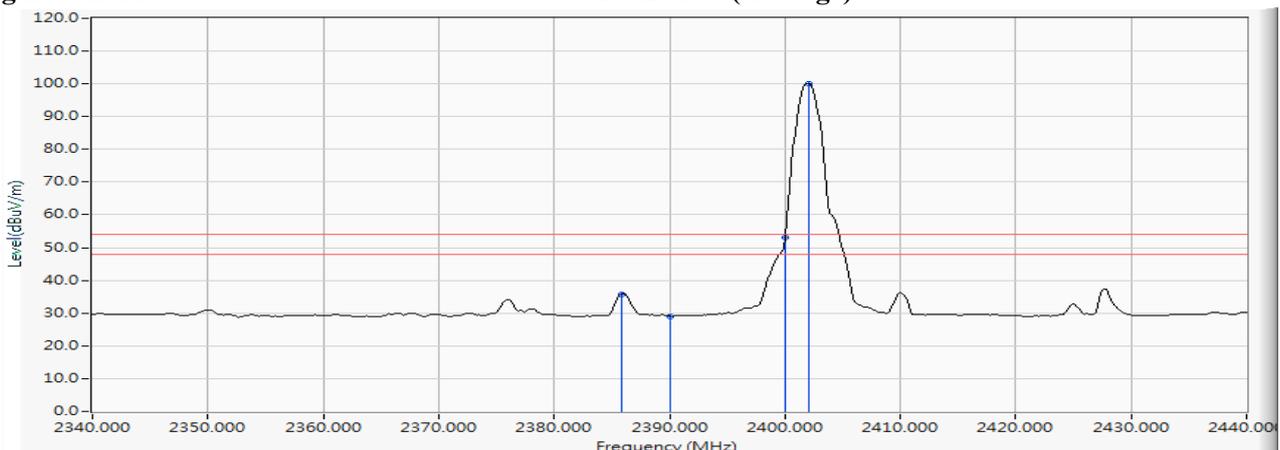


Figure Channel 00: Horizontal (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Band Edge
 Test Mode : Mode 1: Transmit - 1Mbps (2402MHz)
 Test Date : 2018/05/03

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
00 (Peak)	2385.652	10.244	38.802	49.046	74.00	54.00	Pass
00 (Peak)	2390.000	10.262	36.966	47.228	74.00	54.00	Pass
00 (Peak)	2400.000	10.304	55.139	65.442	--	--	Pass
00 (Peak)	2402.174	10.312	89.552	99.864	--	--	--
00 (Average)	2376.087	10.212	23.366	33.578	74.00	54.00	Pass
00 (Average)	2390.000	10.262	18.552	28.814	74.00	54.00	Pass
00 (Average)	2400.000	10.304	43.792	54.096	--	--	Pass
00 (Average)	2402.029	10.309	89.357	99.666	--	--	--

Figure Channel 00: VERTICAL (Peak)

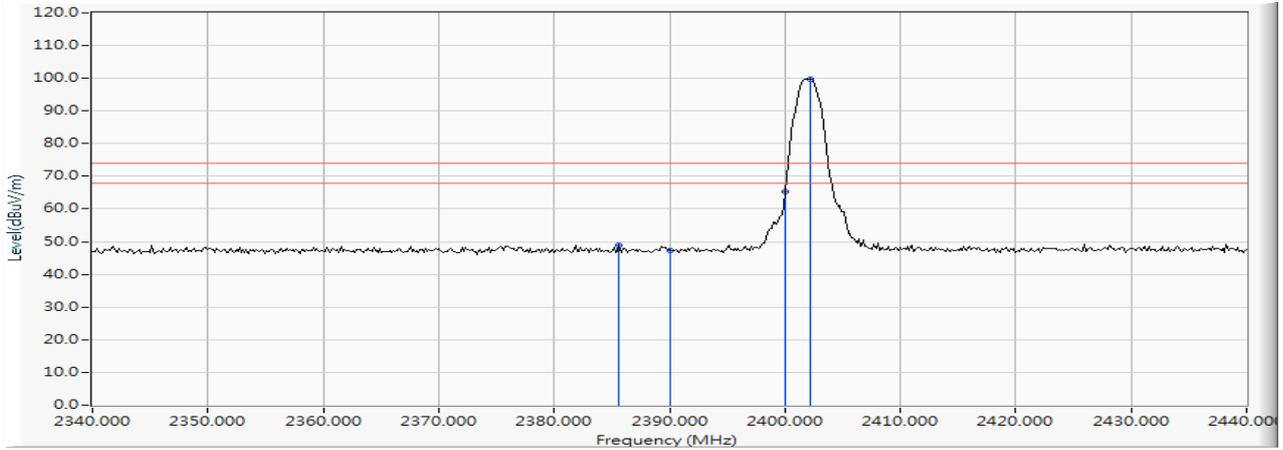
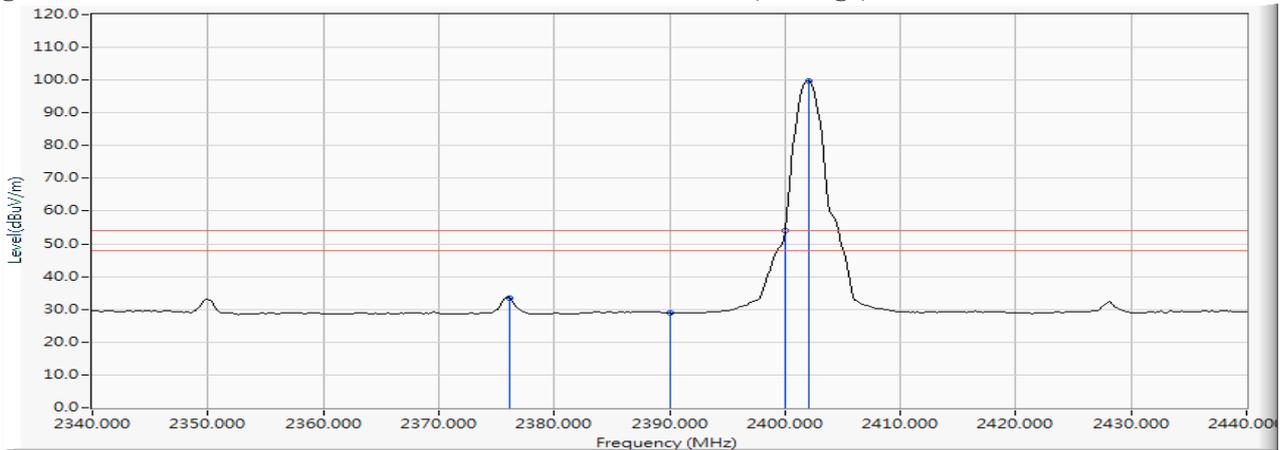


Figure Channel 00: VERTICAL (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Band Edge
 Test Mode : Mode 1: Transmit - 1Mbps (2480MHz)
 Test Date : 2018/05/03

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
78 (Peak)	2479.877	10.628	94.706	105.333	--	--	--
78 (Peak)	2483.500	10.640	44.550	55.191	74.00	54.00	Pass
78 (Average)	2480.022	10.631	91.102	101.733	--	--	--
78 (Average)	2483.500	10.640	26.475	37.115	74.00	54.00	Pass
78 (Average)	2533.500	10.710	33.113	43.823	74.00	54.00	Pass

Figure Channel 78: Horizontal (Peak)

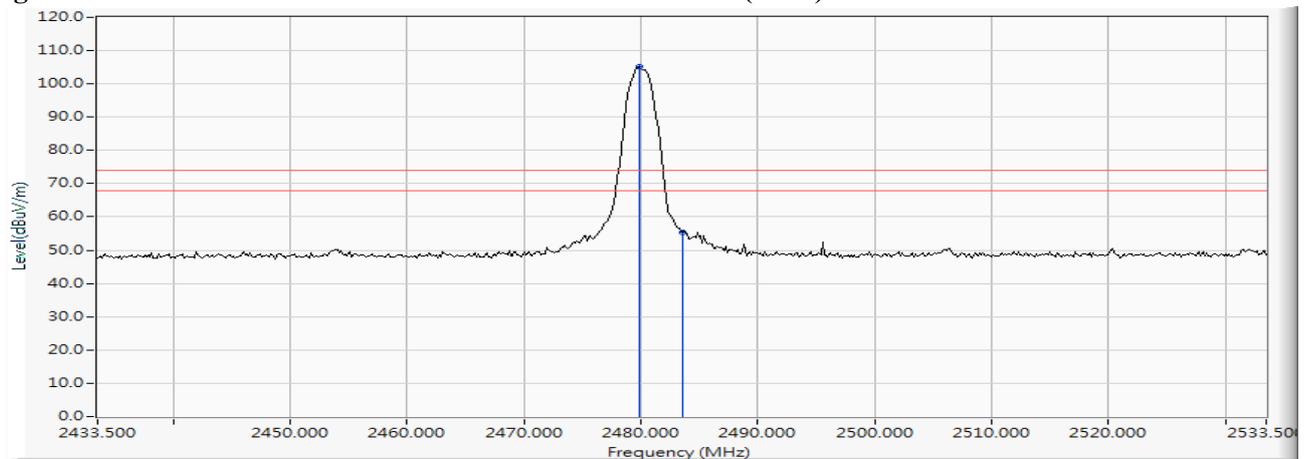
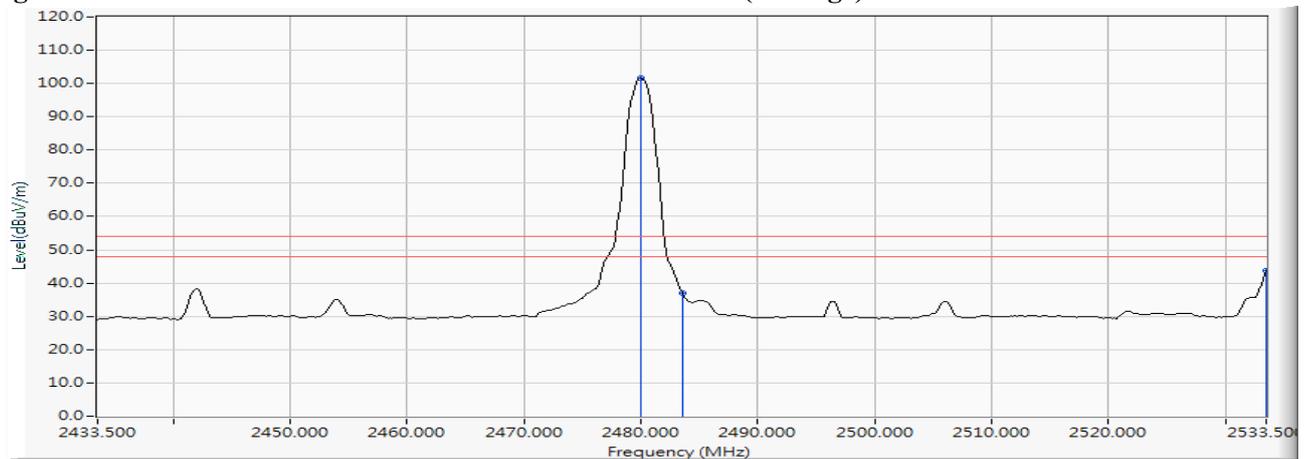


Figure Channel 78: Horizontal (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Band Edge
 Test Mode : Mode 1: Transmit - 1Mbps (2480MHz)
 Test Date : 2018/05/03

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
78 (Peak)	2479.877	10.628	87.547	98.174	--	--	--
78 (Peak)	2483.500	10.640	42.106	52.747	74.00	54.00	Pass
78 (Average)	2480.022	10.632	86.981	97.613	--	--	--
78 (Average)	2483.500	10.640	23.53	34.170	74.00	54.00	Pass

Figure Channel 78: VERTICAL (Peak)

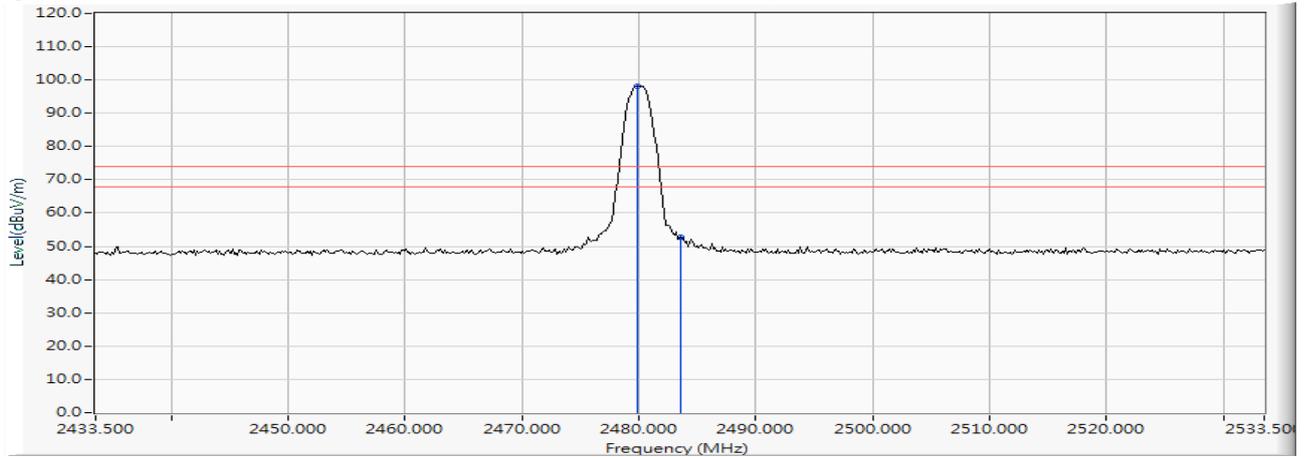
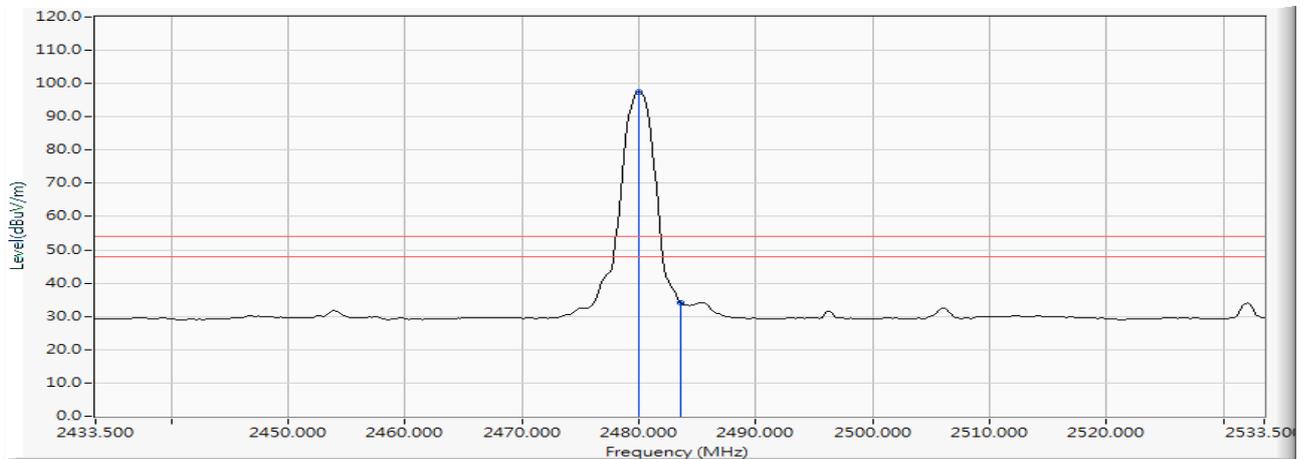


Figure Channel 78: VERTICAL (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Band Edge
 Test Mode : Mode 2: Transmit - 3Mbps (2402MHz)
 Test Date : 2018/05/03

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
00 (Peak)	2375.072	10.201	39.516	49.717	74.00	54.00	Pass
00 (Peak)	2390.000	10.262	38.144	48.406	74.00	54.00	Pass
00 (Peak)	2400.000	10.304	67.907	78.210	--	--	Pass
00 (Peak)	2402.029	10.312	93.415	103.727	--	--	--
00 (Average)	2385.942	10.231	27.023	37.254	74.00	54.00	Pass
00 (Average)	2390.000	10.262	18.539	28.801	74.00	54.00	Pass
00 (Average)	2400.000	10.304	65.845	76.149	--	--	Pass
00 (Average)	2401.884	10.308	85.869	96.177	--	--	--

Figure Channel 00: Horizontal (Peak)

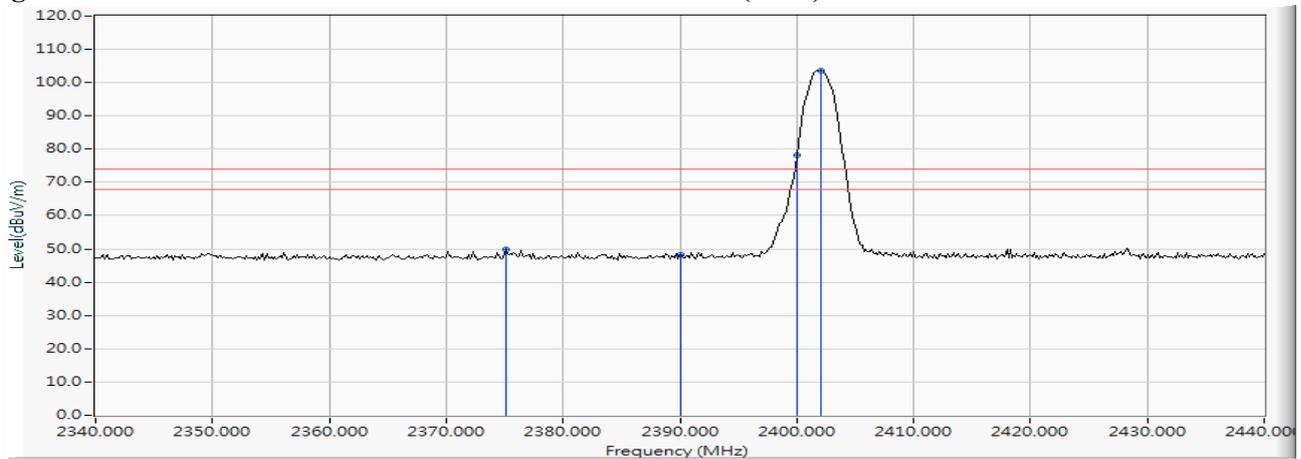
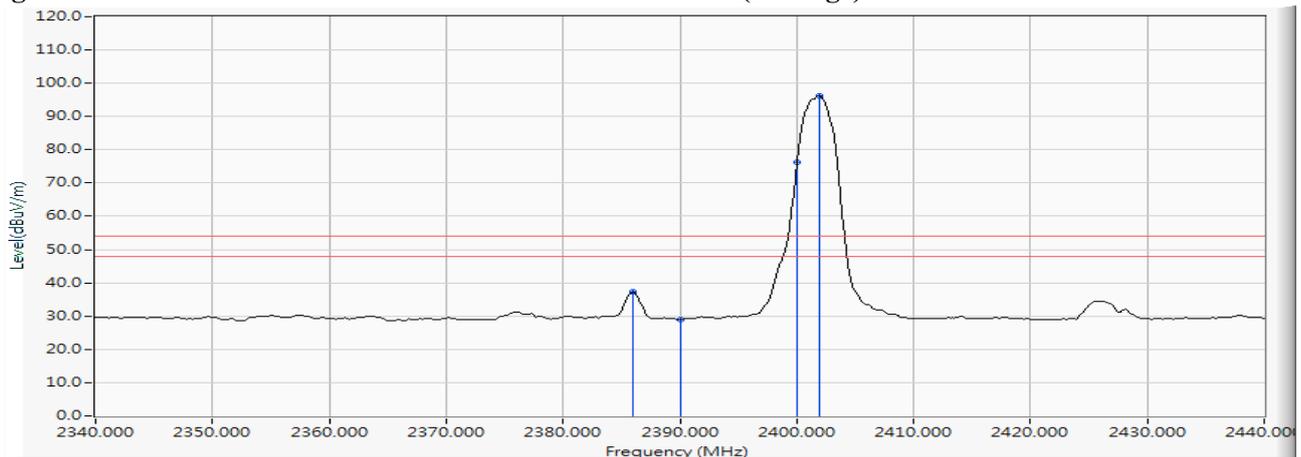


Figure Channel 00: Horizontal (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Band Edge
 Test Mode : Mode 2: Transmit - 3Mbps (2402MHz)
 Test Date : 2018/05/03

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
00 (Peak)	2364.638	10.161	38.671	48.832	74.00	54.00	Pass
00 (Peak)	2390.000	10.262	36.988	47.250	74.00	54.00	Pass
00 (Peak)	2400.000	10.304	62.094	72.397	--	--	Pass
00 (Peak)	2402.029	10.312	87.757	98.069	--	--	--
00 (Average)	2376.087	10.191	20.940	31.131	74.00	54.00	Pass
00 (Average)	2390.000	10.262	18.594	28.856	74.00	54.00	Pass
00 (Average)	2400.000	10.304	47.680	57.984	--	--	Pass
00 (Average)	2401.884	10.308	85.272	95.580	--	--	--

Figure Channel 00: VERTICAL (Peak)

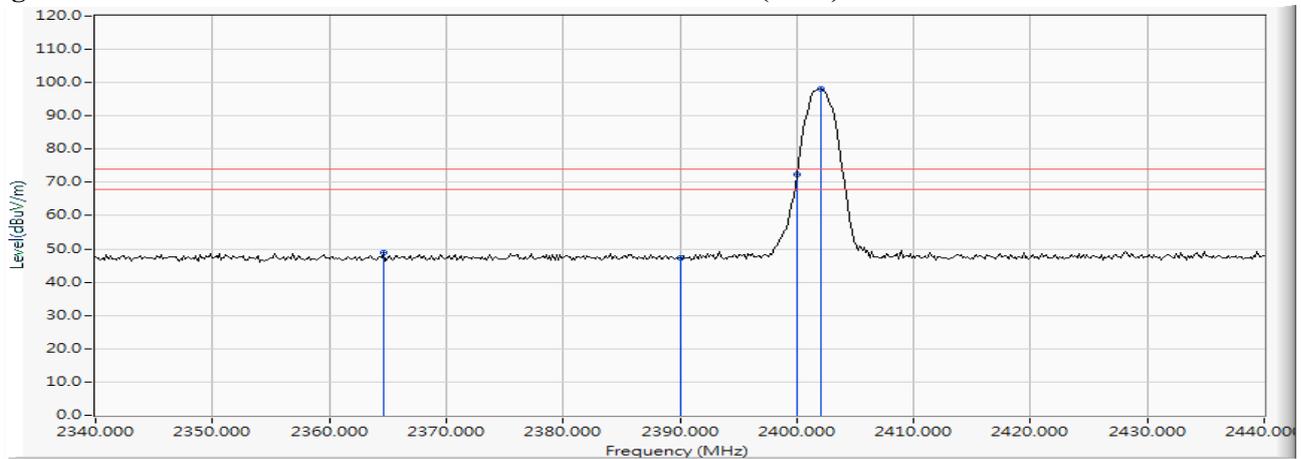
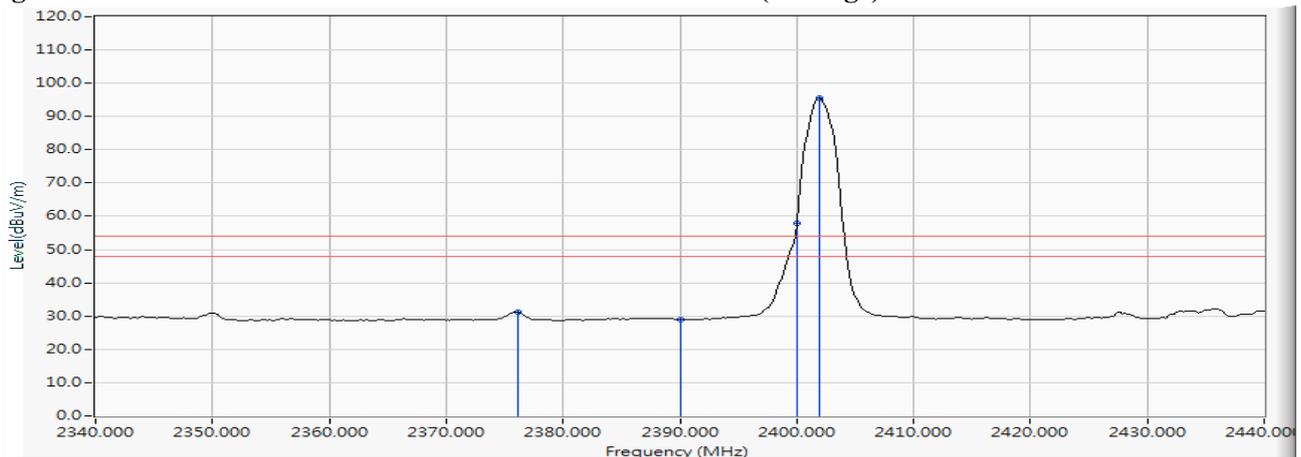


Figure Channel 00: VERTICAL (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Band Edge
 Test Mode : Mode 2: Transmit - 3Mbps (2480MHz)
 Test Date : 2018/05/03

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
78 (Peak)	2480.312	10.629	92.590	103.219	--	--	--
78 (Peak)	2483.500	10.640	42.736	53.377	74.00	54.00	Pass
78 (Peak)	2483.645	10.642	43.630	54.272	74.00	54.00	Pass
78 (Average)	2480.022	10.611	87.889	98.500	--	--	--
78 (Average)	2483.500	10.640	24.676	35.316	74.00	54.00	Pass
78 (Average)	2533.500	10.682	25.781	36.463	74.00	54.00	Pass

Figure Channel 00: Horizontal (Peak)

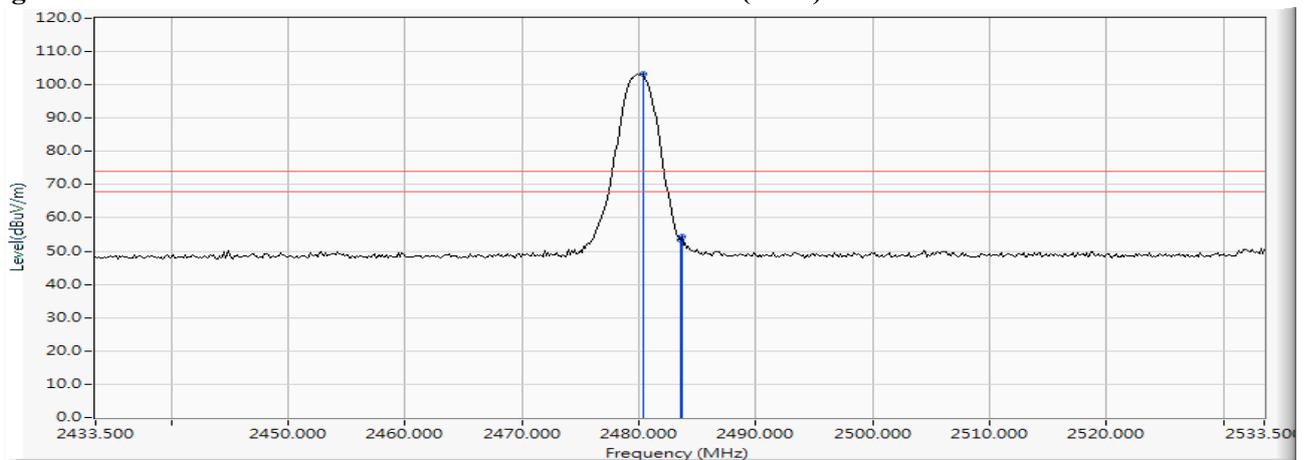
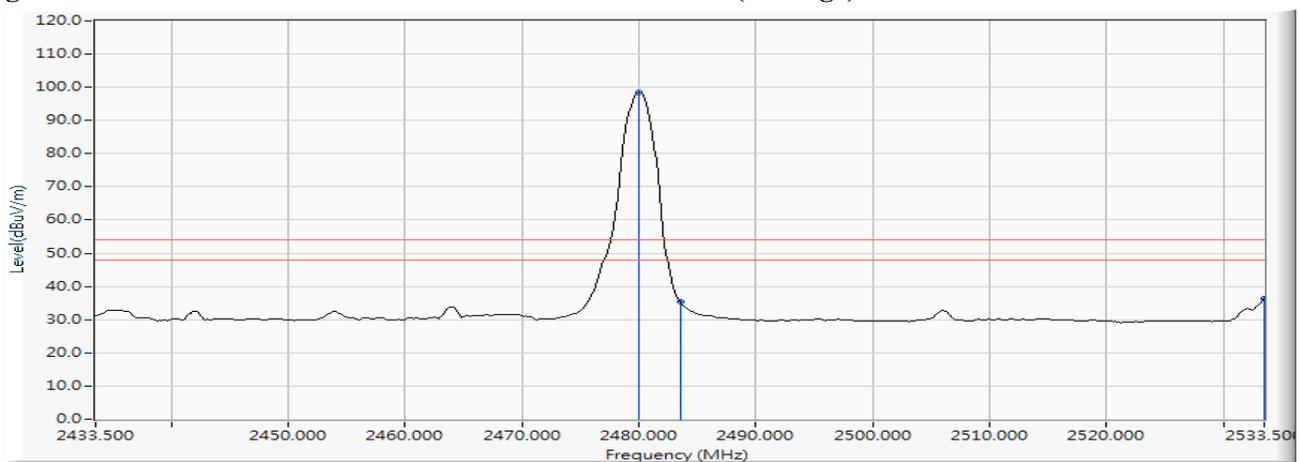


Figure Channel 00: Horizontal (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Band Edge
 Test Mode : Mode 2: Transmit - 3Mbps (2480MHz)
 Test Date : 2018/05/03

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
78 (Peak)	2480.167	10.629	87.014	97.643	--	--	--
78 (Peak)	2483.500	10.640	40.592	51.233	74.00	54.00	Pass
78 (Average)	2480.022	10.619	84.351	94.970	--	--	--
78 (Average)	2483.500	10.640	22.393	33.033	74.00	54.00	Pass
78 (Average)	2531.906	10.631	22.635	33.266	74.00	54.00	Pass

Figure Channel 78: VERTICAL (Peak)

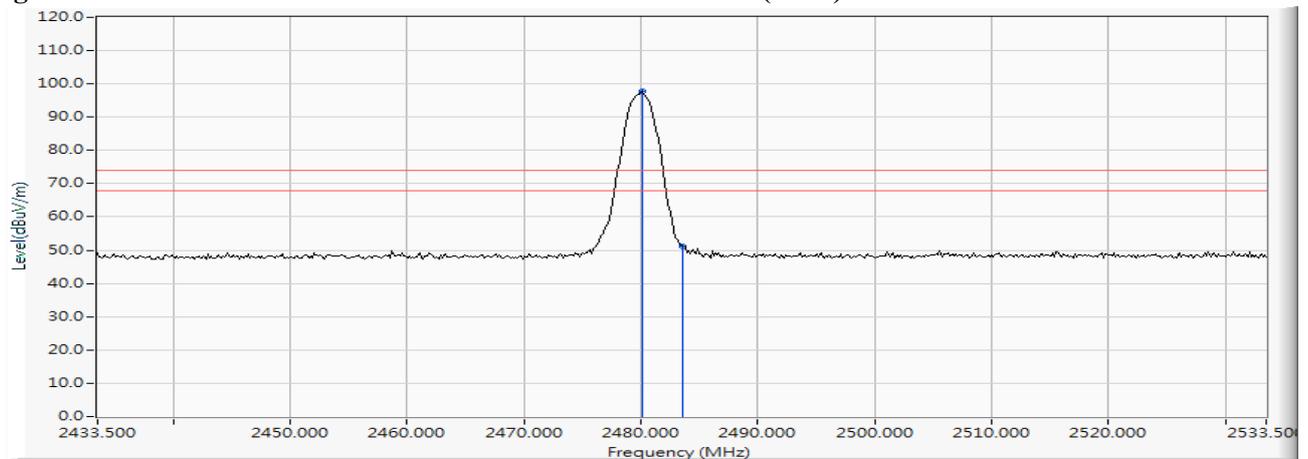
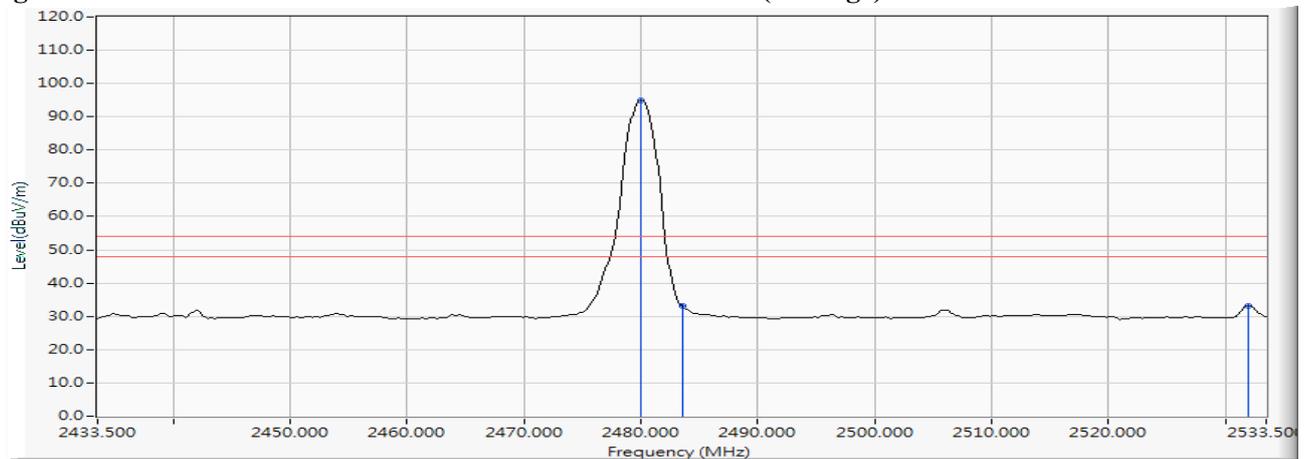


Figure Channel 78: VERTICAL (Average)



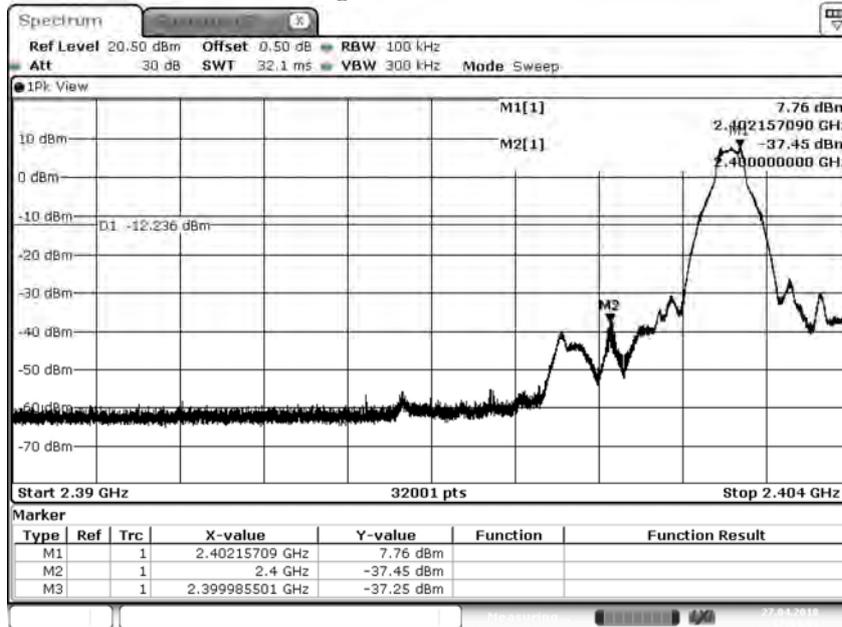
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Band Edge
 Test Mode : Mode 1: Transmit - 1Mbps(Hopping off)

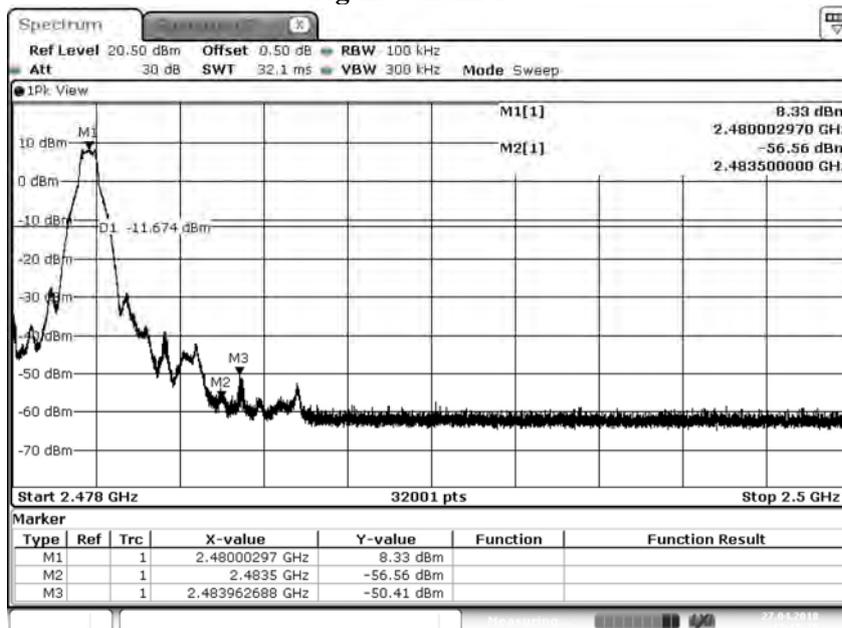
Measurement Level	Result
Δ (dB)	
> 20	PASS

Figure Channel 00:



Date: 27.APR.2018 17:04:04

Figure Channel 78:

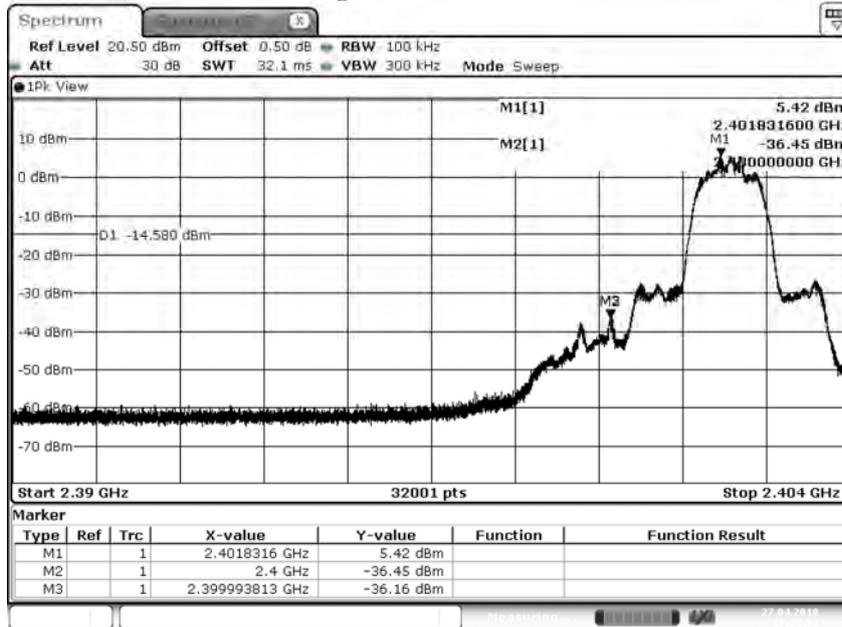


Date: 27.APR.2018 17:15:15

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Band Edge
 Test Mode : Mode 2: Transmit - 3Mbps (Hopping off)

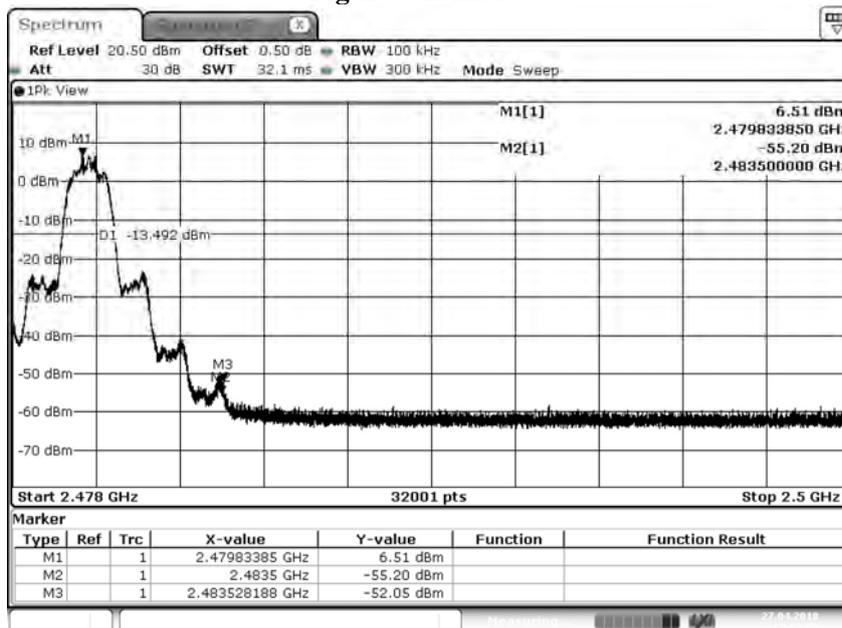
Measurement Level	Result
Δ (dB)	
> 20	PASS

Figure Channel 00:



Date: 27.APR.2018 17:25:52

Figure Channel 78:

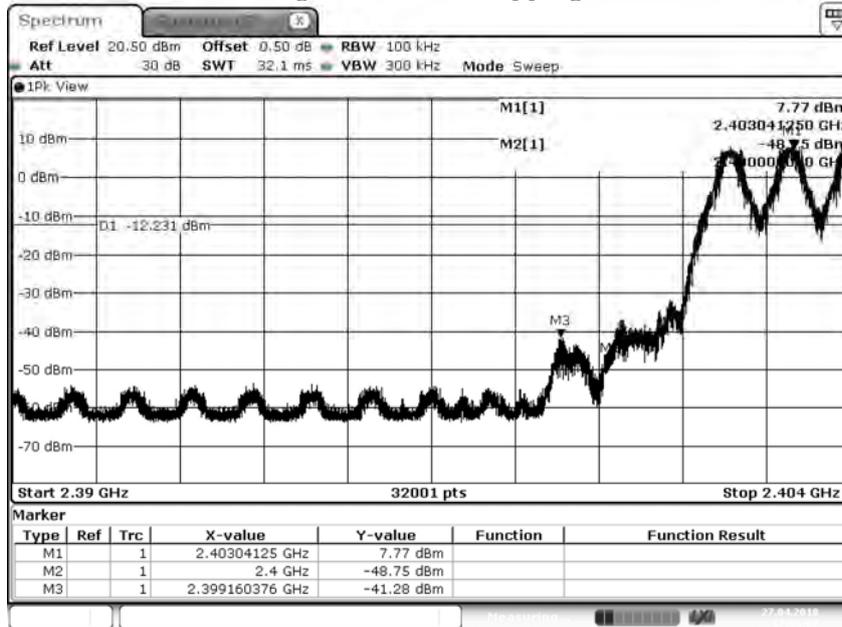


Date: 27.APR.2018 17:38:06

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Band Edge
 Test Mode : Mode 1: Transmit - 1Mbps(Hopping on)

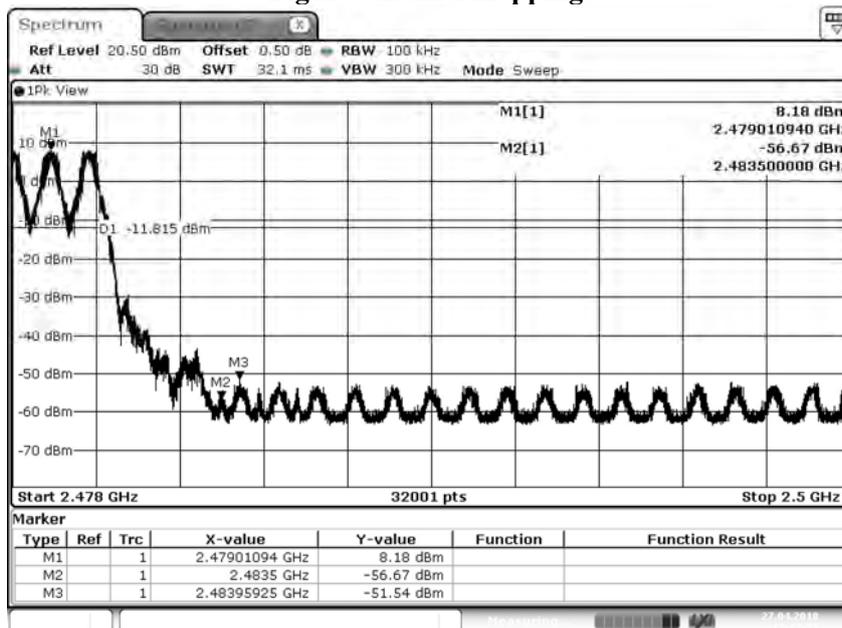
Measurement Level	Result
Δ (dB)	
> 20	PASS

Figure Channel Hopping:



Date: 27.APR.2018 17:06:07

Figure Channel Hopping:

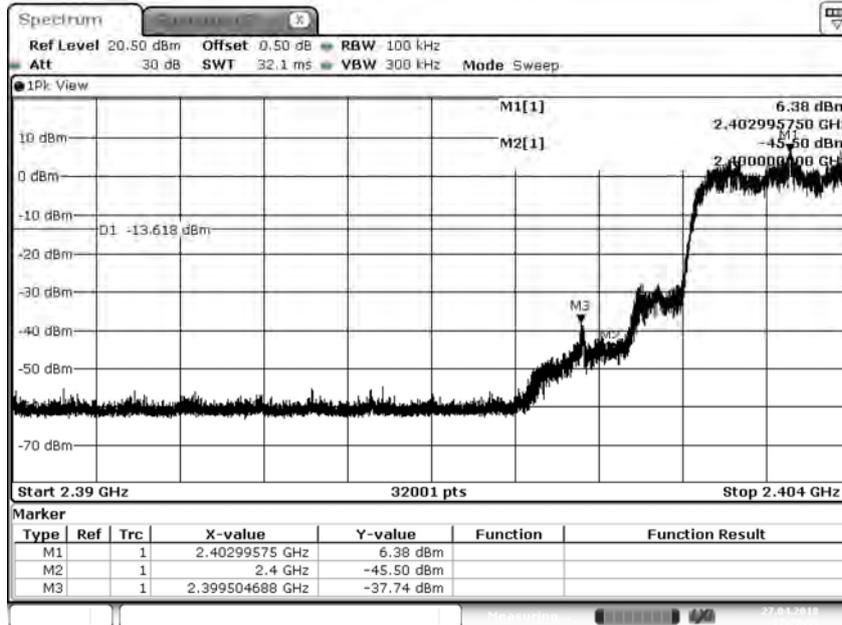


Date: 27.APR.2018 17:17:27

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Band Edge
 Test Mode : Mode 2: Transmit - 3Mbps (Hopping on)

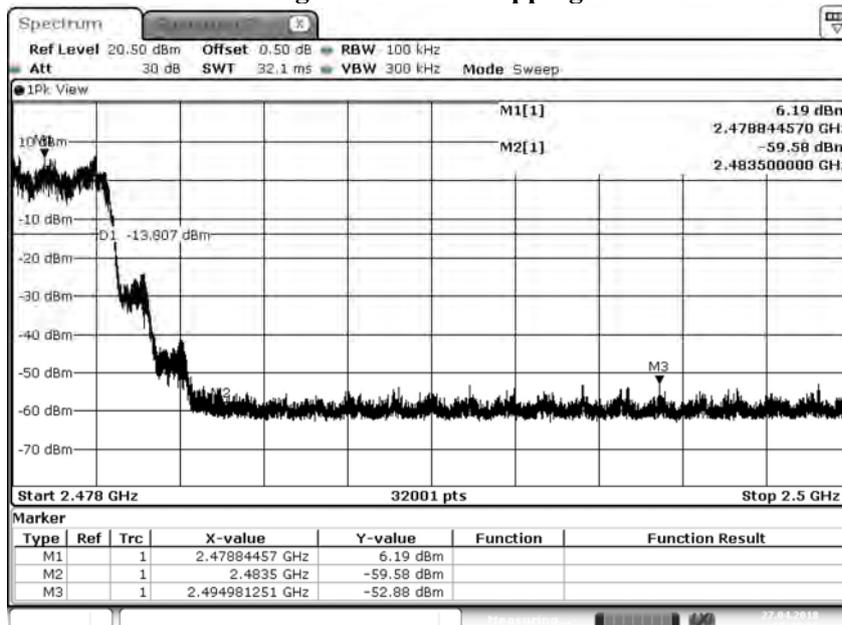
Measurement Level	Result
Δ (dB)	
> 20	PASS

Figure Channel Hopping:



Date: 27.APR.2018 17:28:55

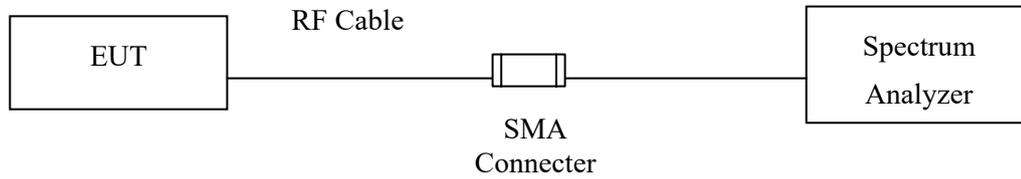
Figure Channel Hopping:



Date: 27.APR.2018 17:40:36

7. Channel Number

7.1. Test Setup



7.2. Limit

Frequency hopping systems operating in the 2400-2483.5 MHz bands shall use at least 75 hopping frequencies.

7.3. Test Procedure

The EUT was setup to ANSI C63.4, 2014; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

7.4. Uncertainty

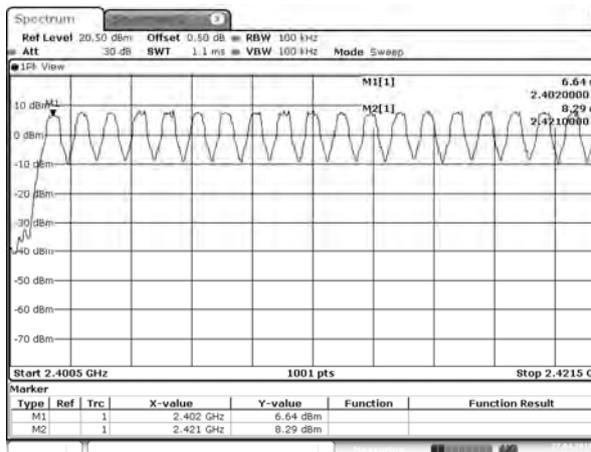
N/A

7.5. Test Result of Channel Number

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Channel Number
 Test Mode : Mode 1: Transmit - 1Mbps

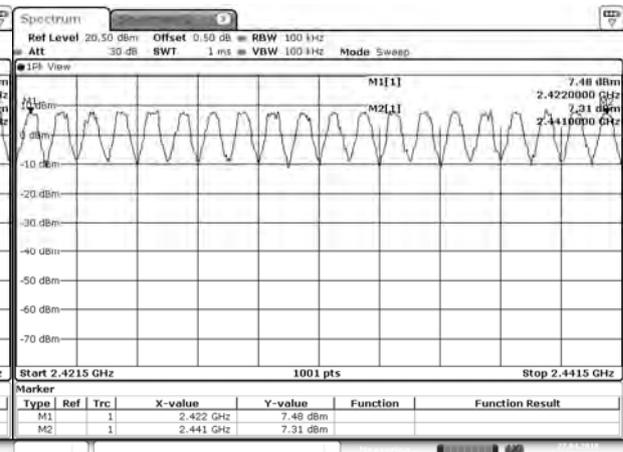
Frequency Range (MHz)	Measurement (Hopping Channel)	Required Limit (Hopping Channel)	Result
2402 ~ 2480	79	>75	Pass

2402-2421MHz



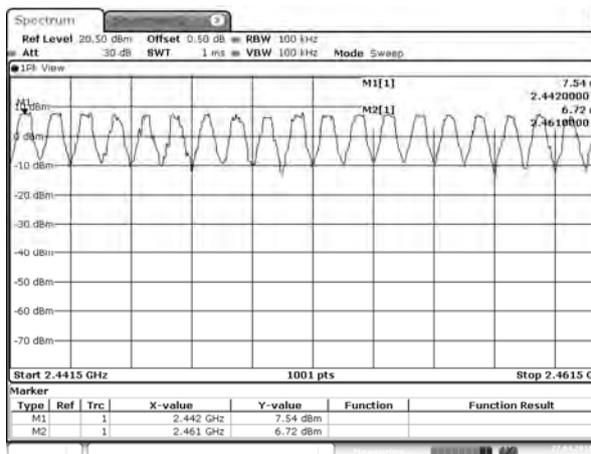
Date: 27 APR 2018 17:19:03

2422-2441MHz



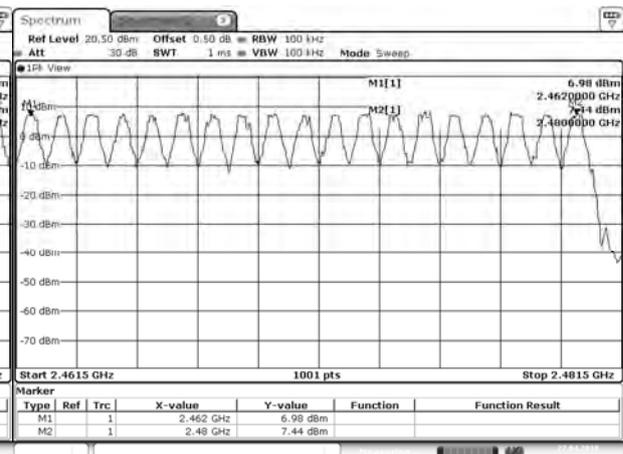
Date: 27 APR 2018 17:19:43

2442-2461MHz



Date: 27 APR 2018 17:20:40

2462-2480MHz

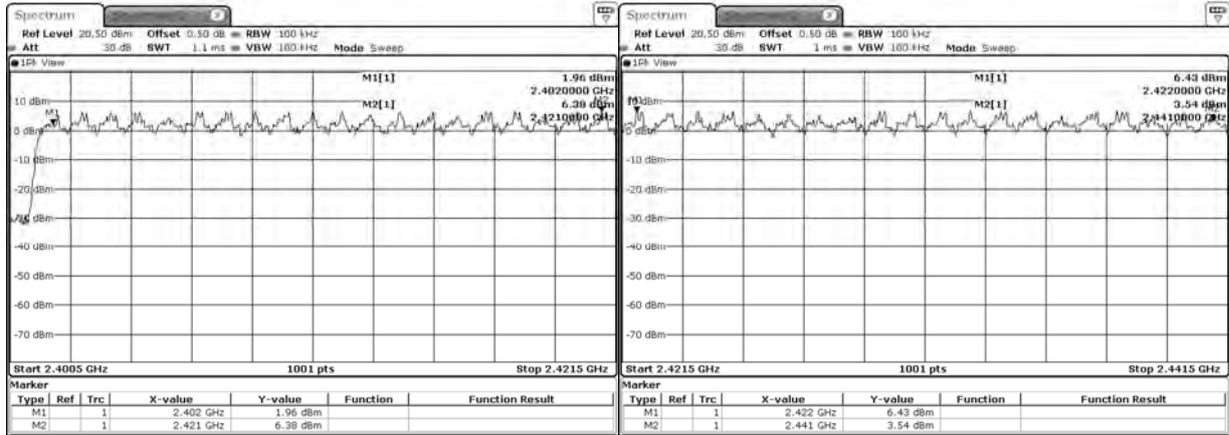


Date: 27 APR 2018 17:21:20

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Channel Number
 Test Mode : Mode 2: Transmit - 3Mbps

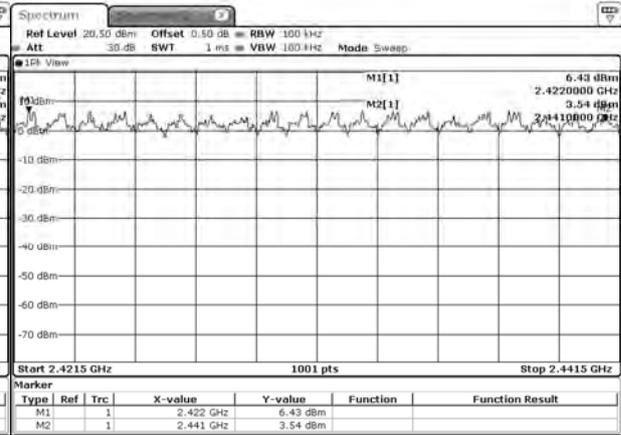
Frequency Range (MHz)	Measurement (Hopping Channel)	Required Limit (Hopping Channel)	Result
2402 ~ 2480	79	>75	Pass

2402-2421MHz



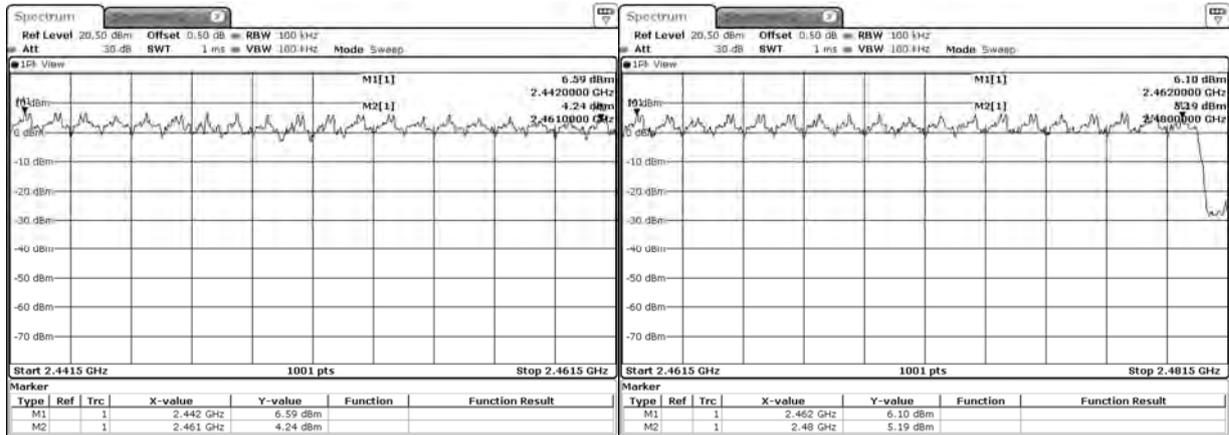
Date: 27 APR 2018 17:42:46

2422-2441MHz



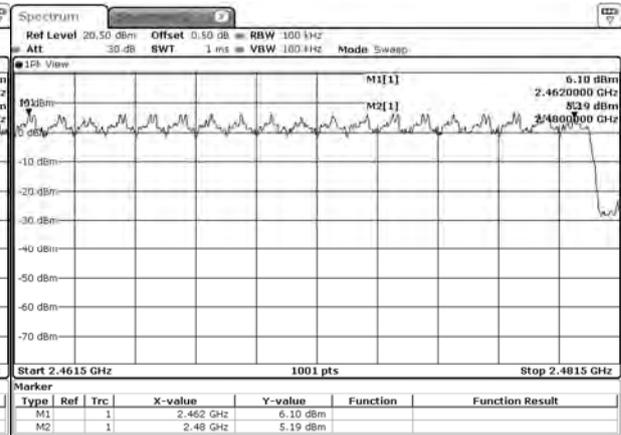
Date: 27 APR 2018 17:44:35

2442-2461MHz



Date: 27 APR 2018 17:47:41

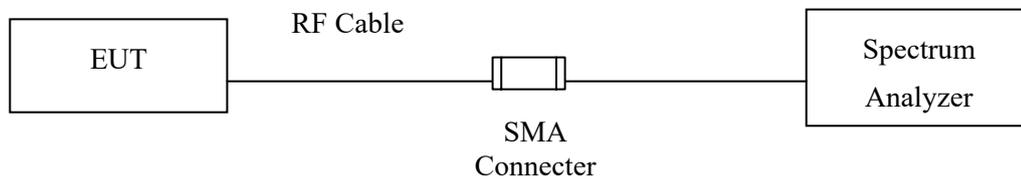
2462-2480MHz



Date: 27 APR 2018 17:50:08

8. Channel Separation

8.1. Test Setup



8.2. Limit

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

8.3. Test Procedure

The EUT was setup to ANSI C63.4, 2014; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

8.4. Uncertainty

$\pm 279.2\text{Hz}$

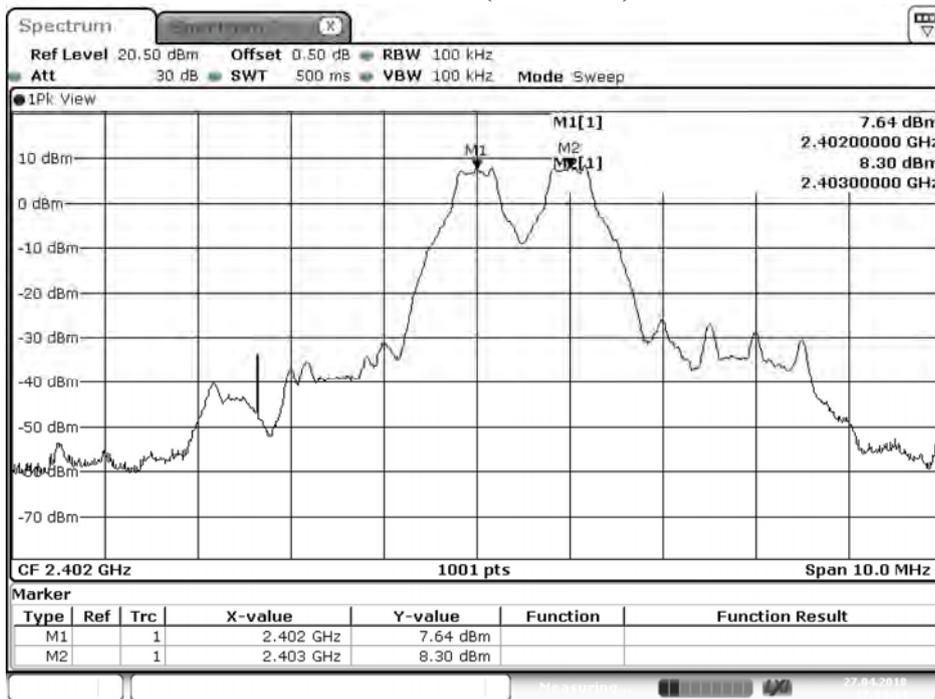
8.5. Test Result of Channel Separation

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Channel Separation
 Test Mode : Mode 1: Transmit - 1Mbps

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Limit (kHz)	Limit of (2/3)*20dB Bandwidth (kHz)	Result
00	2402	1000	>25 kHz	632.0	Pass
39	2441	1000	>25 kHz	630.0	Pass
78	2480	1000	>25 kHz	630.0	Pass

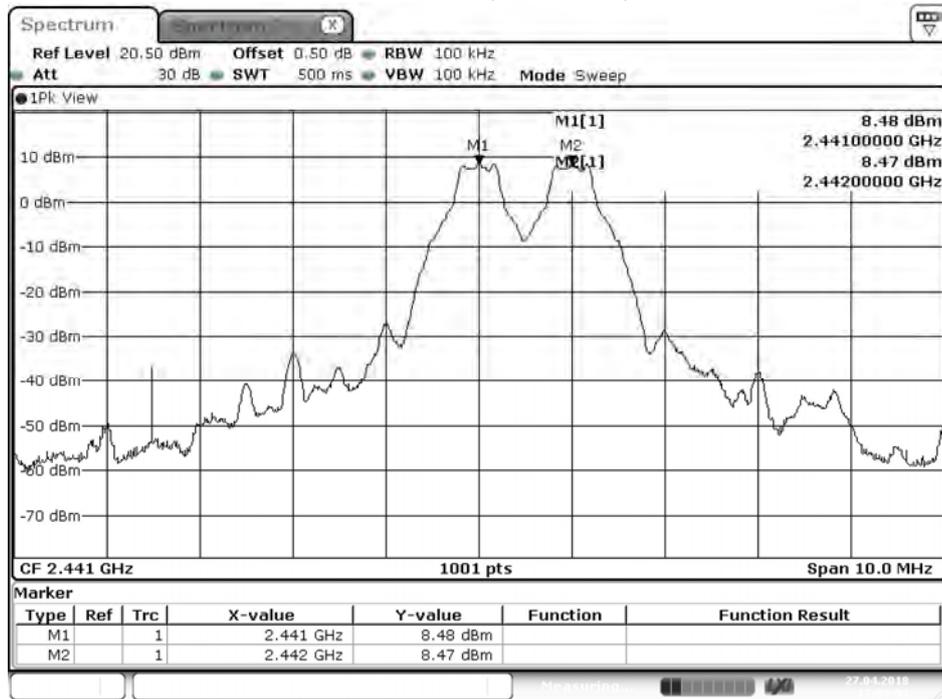
NOTE: The 20dB Bandwidth is refer to section 10.

Channel 00 (2402MHz)



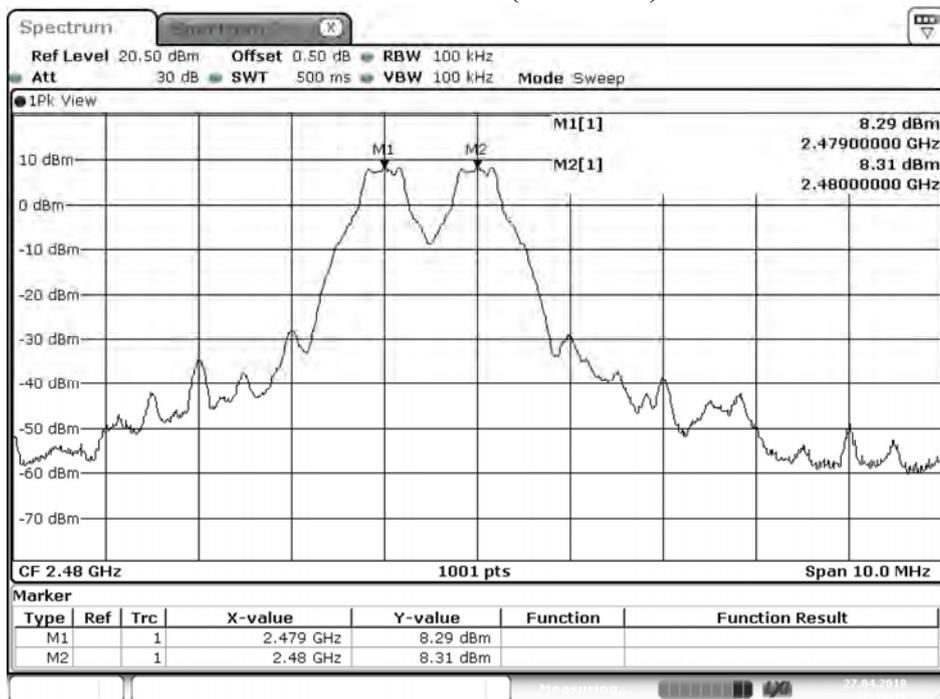
Date: 27.APR.2018 17:03:34

Channel 39 (2441MHz)



Date: 27.APR.2018 17:09:53

Channel 78 (2480MHz)



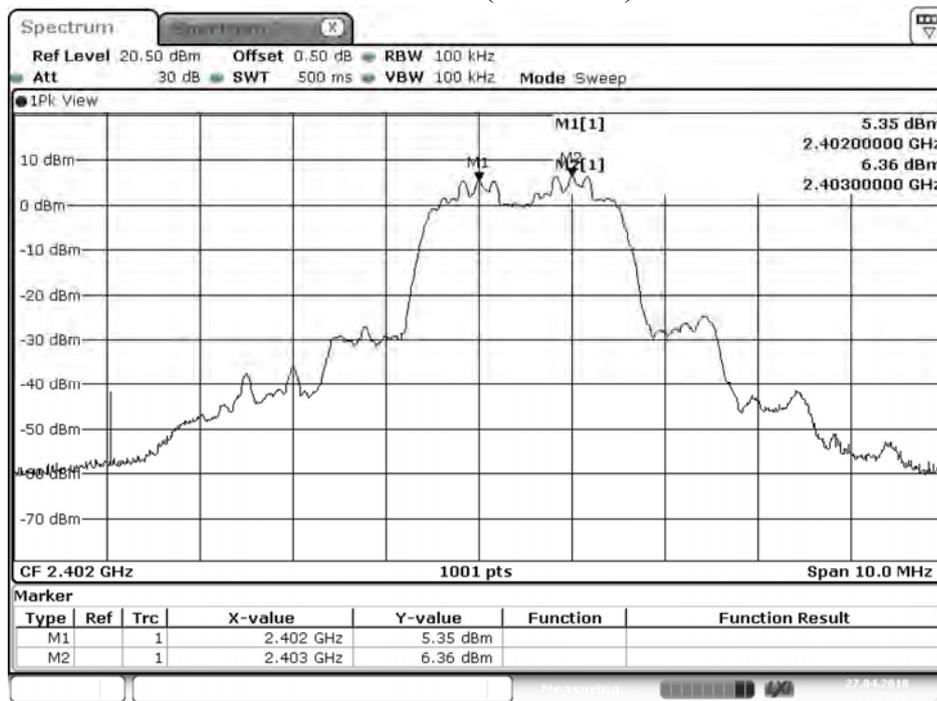
Date: 27.APR.2018 17:14:51

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Channel Separation
 Test Mode : Mode 2: Transmit - 3Mbps

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Limit (kHz)	Limit of (2/3)*20dB Bandwidth (kHz)	Result
00	2402	1000	>25 kHz	842.0	Pass
39	2441	1000	>25 kHz	846.0	Pass
78	2480	1000	>25 kHz	844.0	Pass

NOTE: The 20dB Bandwidth is refer to section 10.

Channel 00 (2402MHz)



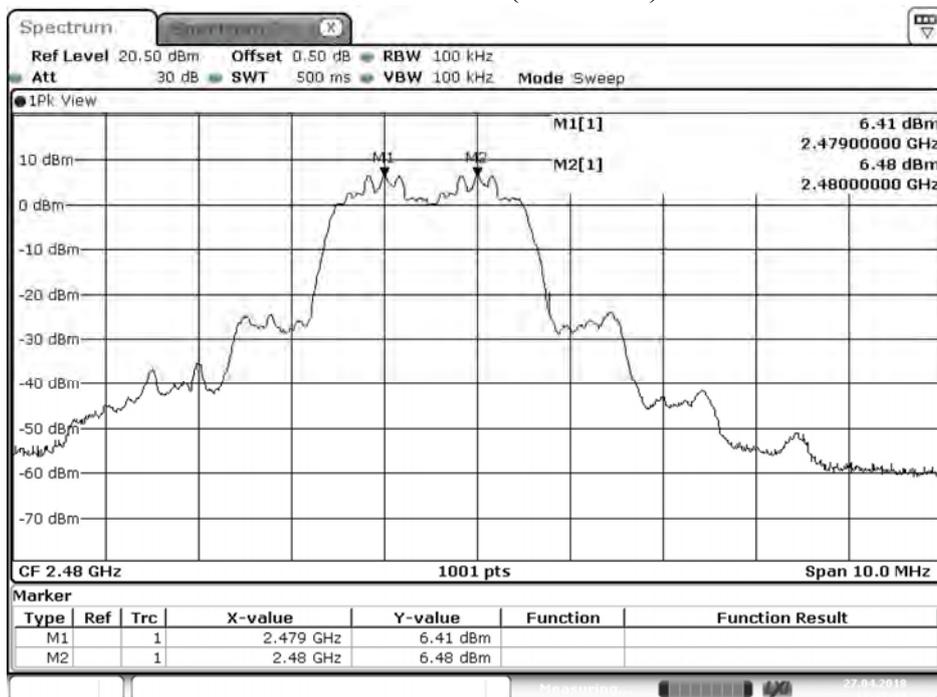
Date: 27.APR.2018 17:25:27

Channel 39 (2441MHz)



Date: 27.APR.2018 17:32:34

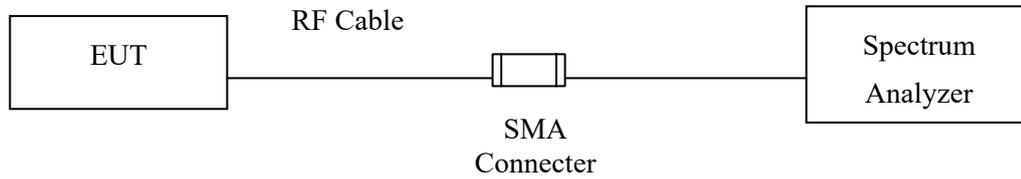
Channel 78 (2480MHz)



Date: 27.APR.2018 17:37:34

9. Dwell Time

9.1. Test Setup



9.2. 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.

9.3. Test Procedure

The EUT was setup to ANSI C63.4, 2014; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

9.4. Uncertainty

$\pm 2.31\text{msec}$

9.5. Test Result of Dwell Time

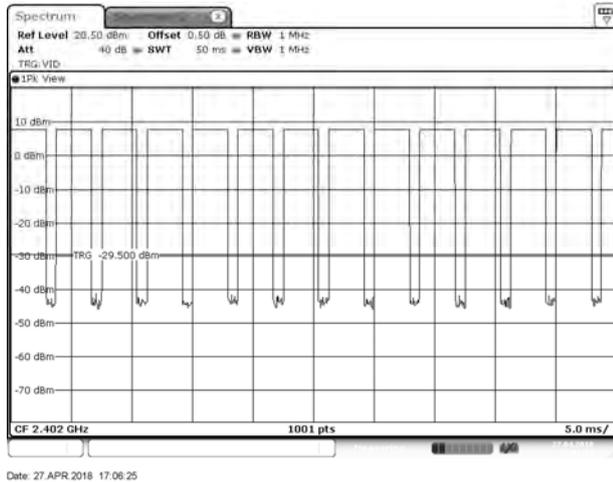
Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Dwell Time
 Test Mode : Mode 1: Transmit - 1Mbps (Channel 00,39,78)

Frequency (MHz)	Time slot length (ms)	Hopping of Number	Sweep time (ms)	Duty cycle	Dwell Time (Sec)	Limit (Sec)	Result
2402	2.897	13	50	0.75	0.301	0.4	Pass
2441	2.897	13	50	0.75	0.301	0.4	Pass
2480	2.897	13	50	0.75	0.301	0.4	Pass

Duty cycle = ((Time slot length(ms)*Hopping of Number) / Sweep time (ms)

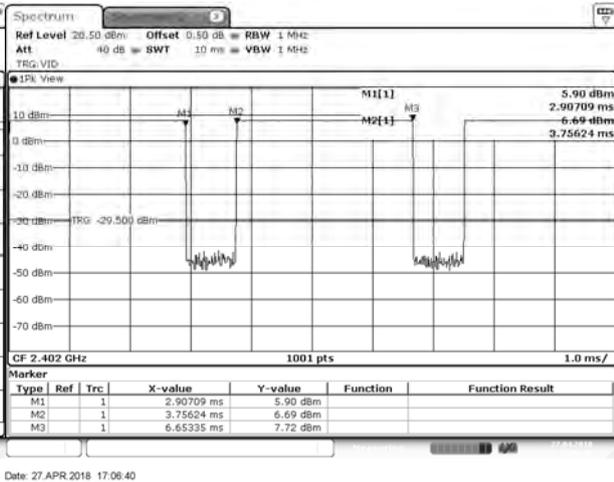
Dwell time = (Duty cycle /79) * (79*0.4)

CH 00 Hopping of Number



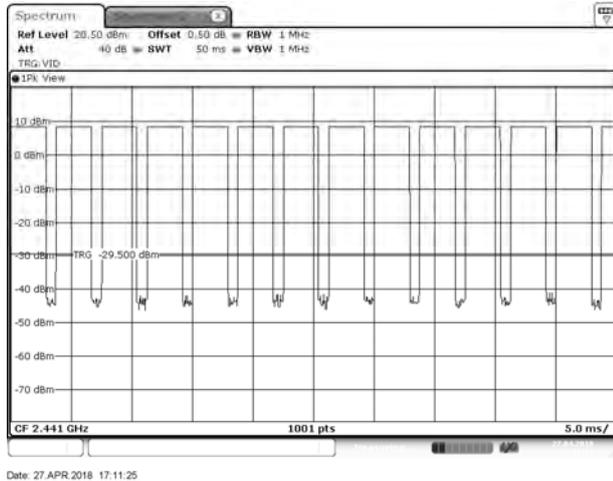
Date: 27 APR 2018 17:06:25

CH 00 Time slot length



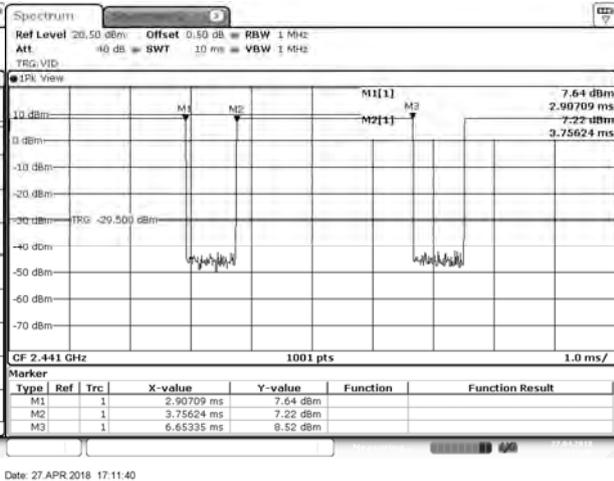
Date: 27 APR 2018 17:06:40

CH39 Hopping of Number



Date: 27 APR 2018 17:11:25

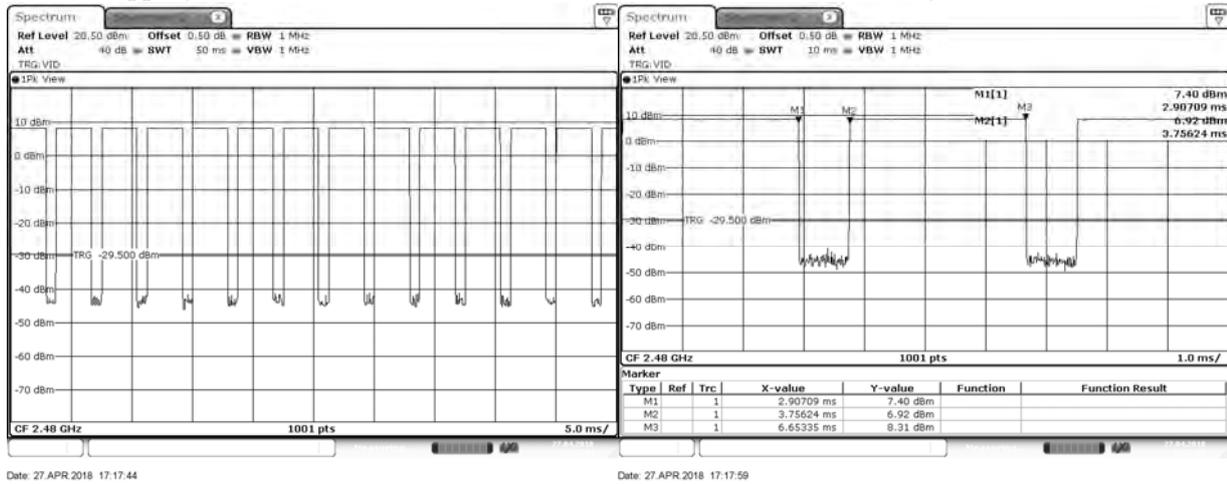
CH 39 Time slot length



Date: 27 APR 2018 17:11:40

CH 78 Hopping of Number

CH 78 Time slot length



Note:

The dwell times of the packet type of DH1, DH3, and DH5 are tested. Only the worst case is shown on the report.

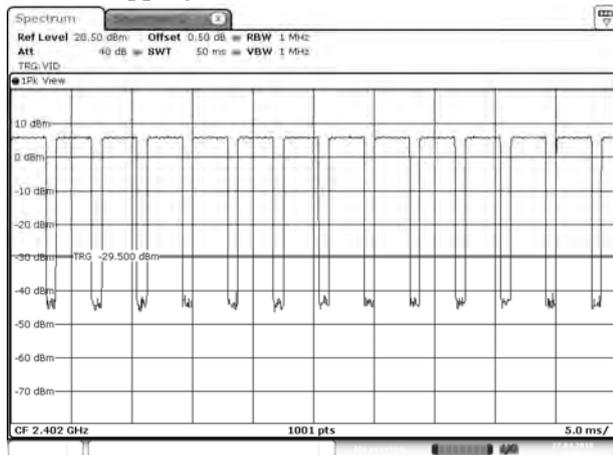
Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Dwell Time
 Test Mode : Mode 2: Transmit - 3Mbps (Channel 00,39,78)

Frequency (MHz)	Time slot length (ms)	Hopping of Number	Sweep time (ms)	Duty cycle	Dwell Time (Sec)	Limit (Sec)	Result
2402	2.907	13	50	0.76	0.302	0.4	Pass
2441	2.907	13	50	0.76	0.302	0.4	Pass
2480	2.907	13	50	0.76	0.302	0.4	Pass

Duty cycle = ((Time slot length(ms)*Hopping of Number) / Sweep time (ms))

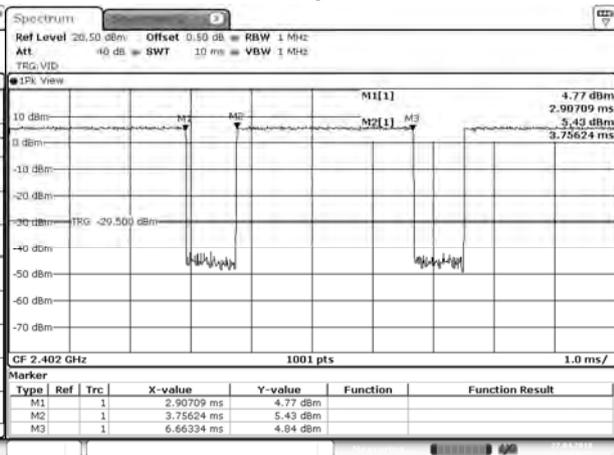
Dwell time = (Duty cycle / 79) * (79*0.4)

CH 00 Hopping of Number



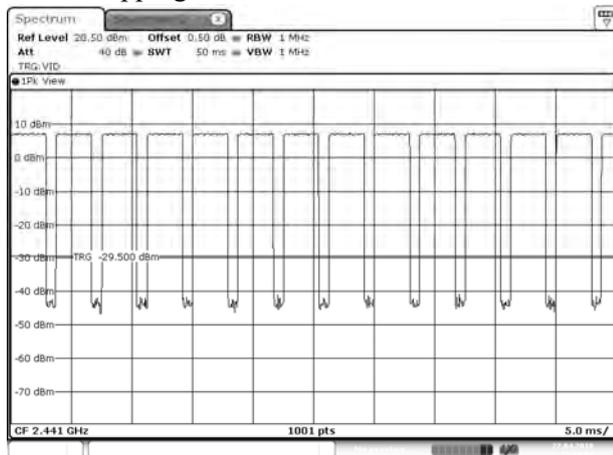
Date: 27 APR 2016 17:29:16

CH 00 Time slot length



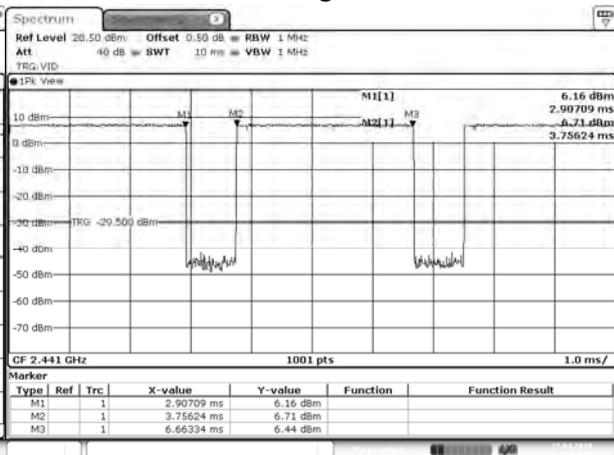
Date: 27 APR 2016 17:29:31

CH39 Hopping of Number



Date: 27 APR 2016 17:34:05

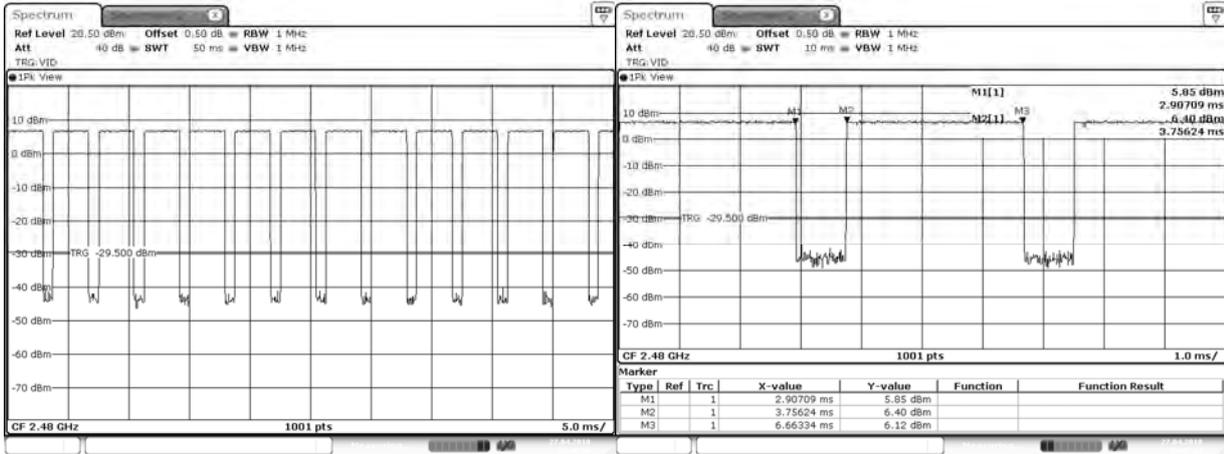
CH 39 Time slot length



Date: 27 APR 2016 17:34:21

CH 78 Hopping of Number

CH 78 Time slot length



Date: 27 APR 2018 17:40:59

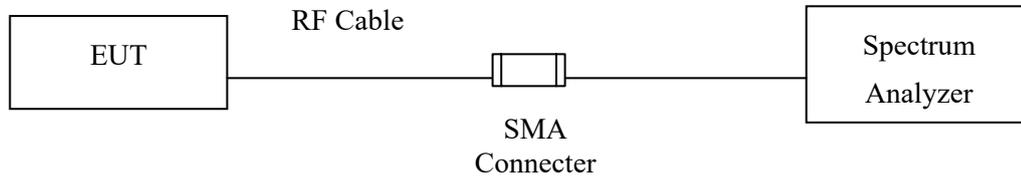
Date: 27 APR 2018 17:41:15

Note:

The dwell times of the packet type of DH1, DH3, and DH5 are tested. Only the worst case is shown on the report.

10. Occupied Bandwidth

10.1. Test Setup



10.2. Limits

N/A

10.3. Test Procedure

The EUT was setup to ANSI C63.4, 2014; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

10.4. Uncertainty

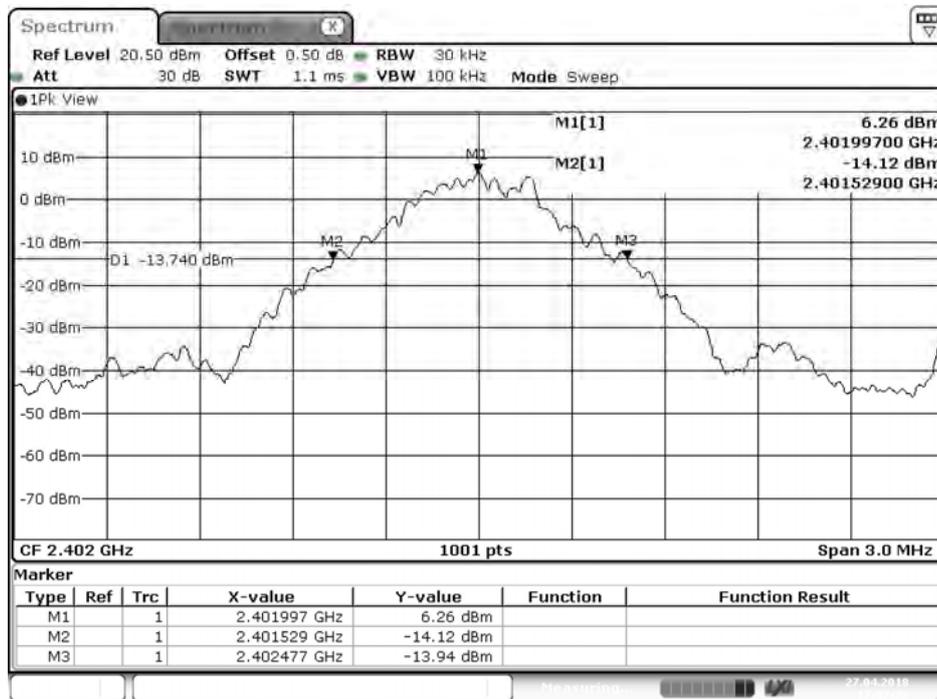
$\pm 279.2\text{Hz}$

10.5. Test Result of Occupied Bandwidth

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Occupied Bandwidth Data
 Test Mode : Mode 1: Transmit - 1Mbps

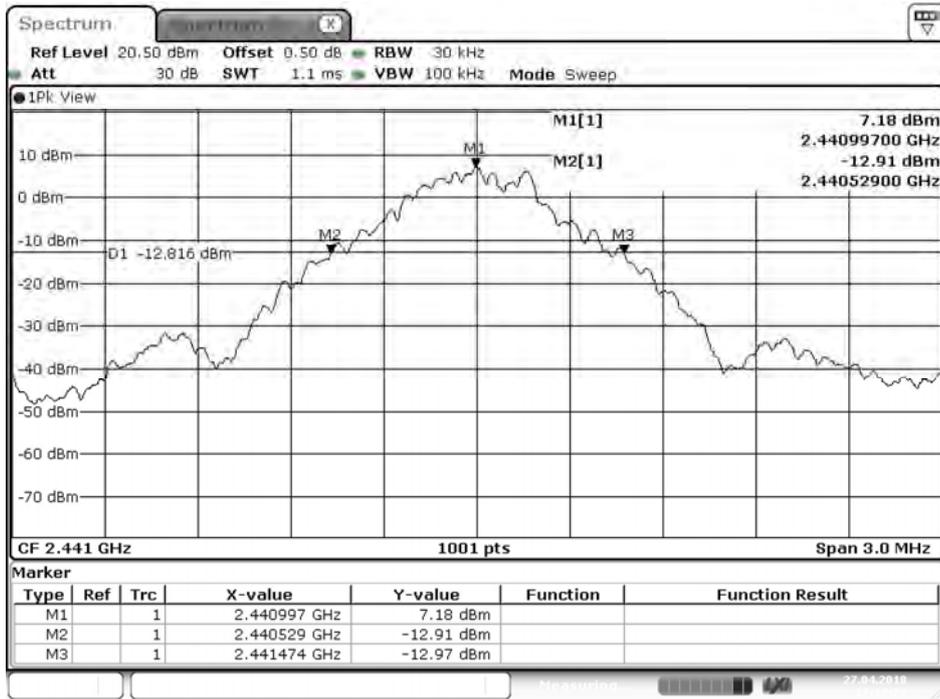
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
00	2402	948	--	NA
39	2441	945	--	NA
78	2480	945	--	NA

Figure Channel 00:



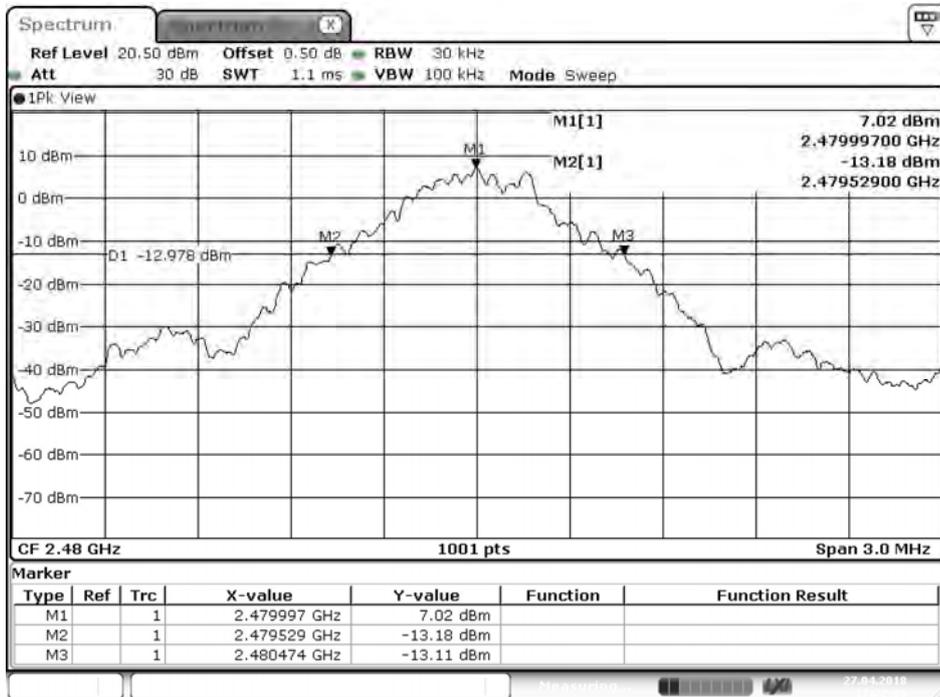
Date: 27.APR.2018 17:07:23

Figure Channel 39:



Date: 27.APR.2018 17:12:23

Figure Channel 78:

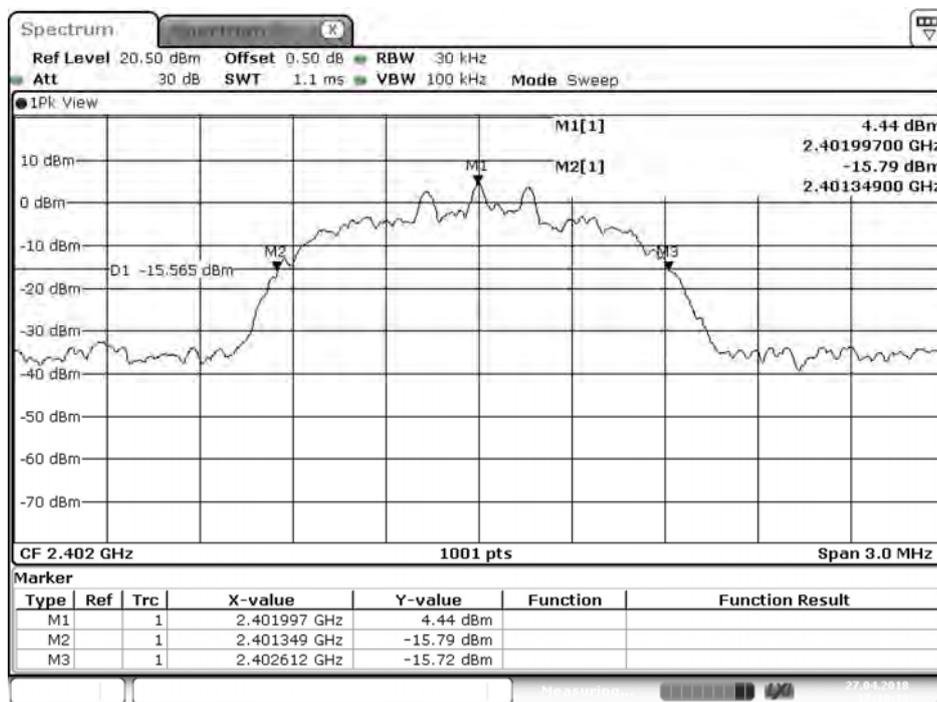


Date: 27.APR.2018 17:22:10

Product : ROG Strix Fusion 700 Gaming Headset
 Test Item : Occupied Bandwidth Data
 Test Mode : Mode 2: Transmit - 3Mbps

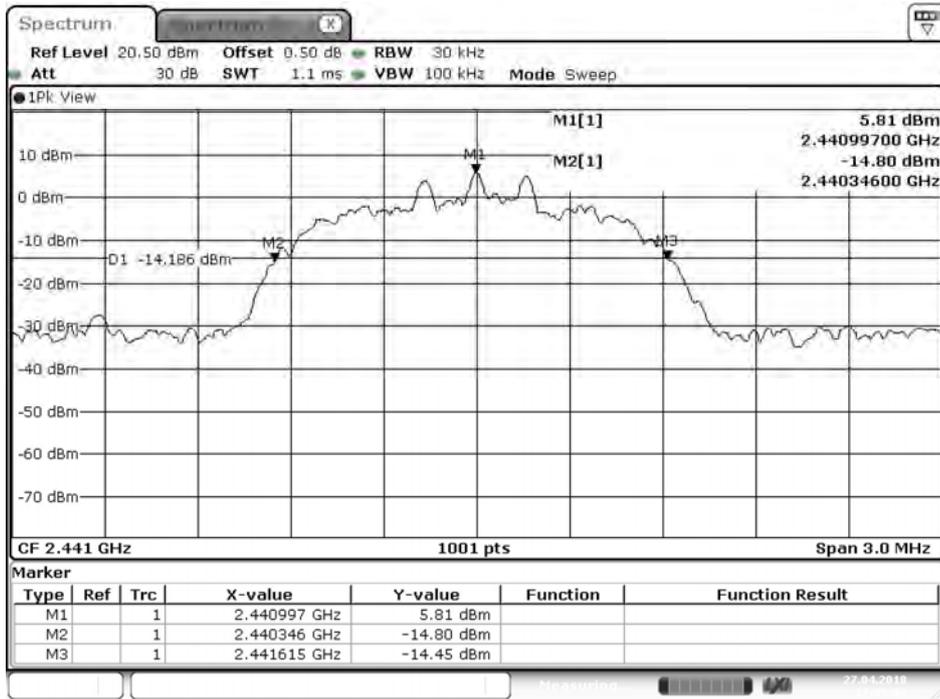
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
00	2402	1263	--	NA
39	2441	1269	--	NA
78	2480	1266	--	NA

Figure Channel 00:



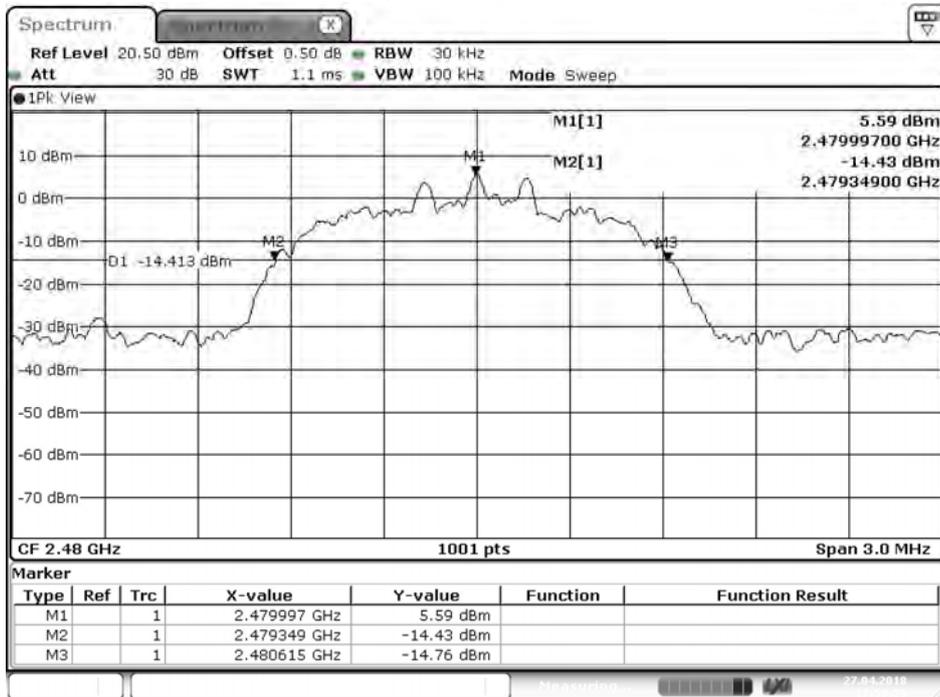
Date: 27.APR.2018 17:30:14

Figure Channel 39:



Date: 27.APR.2018 17:35:03

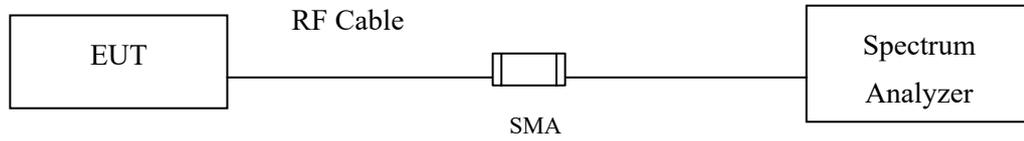
Figure Channel 78:



Date: 27.APR.2018 17:51:00

11. Duty Cycle

11.1. Test Setup



11.2. Test Procedure

The EUT was setup according to ANSI C63.10 2013; tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

11.3. Uncertainty

$\pm 2.31\text{msec}$

11.4. Test Result of Duty Cycle

Product : ROG Strix Fusion 700 Gaming Headset
Test Item : Duty Cycle
Test Mode : Transmit mode

Duty Cycle Formula:

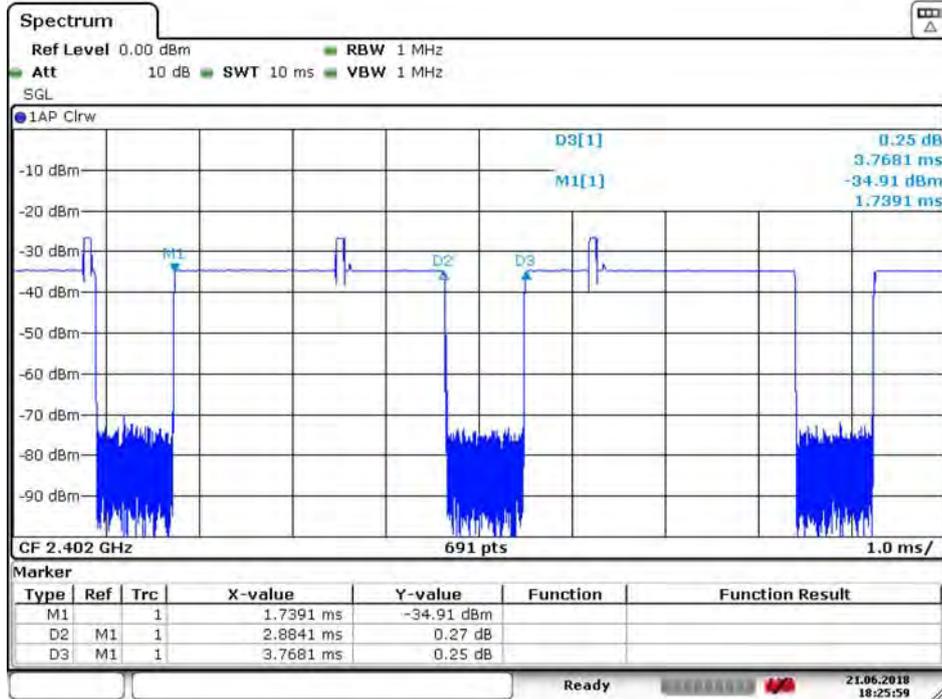
Duty Cycle = Ton / (Ton + Toff)

Duty Factor = 10 Log (1/Duty Cycle)

Results:

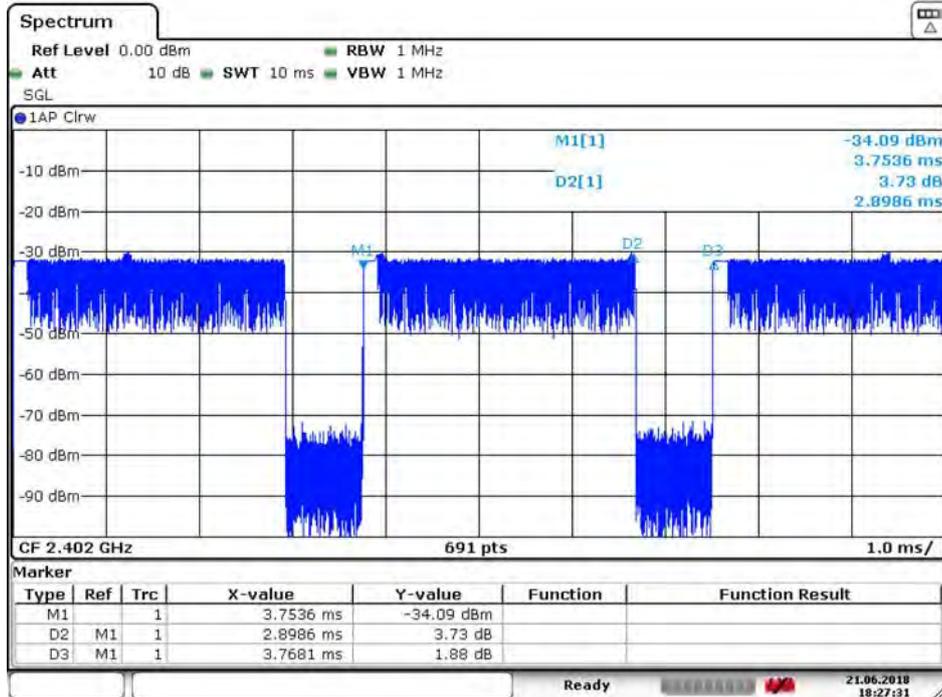
2.4GHz band	Ton (ms)	Ton + Toff (ms)	Duty Cycle (%)	Duty Factor (dB)
BT 1M	2.8841	3.7681	76.54	1.16
BT 3M	2.8986	3.7681	76.92	1.14

BT 1M



Date: 21 JUN.2018 18:25:59

BT 3M



Date: 21 JUN.2018 18:27:32

12. EMI Reduction Method During Compliance Testing

No modification was made during testing.