ISED Test Report

Product Name	Bluetooth Headset
Model No.	OTE120L (left earbud), OTE120R (right earbud), CPB120 (charging case)
IC ID	2386C-OTE120

Applicant	GN Audio A/S
Address	Lautrupbjerg 7, 2750 Ballerup, Denmark

Date of Receipt	Sep. 09, 2019
Issued Date	Sep. 25, 2019
Report No.	1990125R-RFCAP70V00
Report Version	V1.0

Testing Laboratory
3023

Test Report

Issued Date: Sep. 25, 2019
Report No.: 1990125R-RFCAP70V00

Product Name	Bluetooth Headset
Applicant	GN Audio A/S
Address	Lautrupbjerg 7, 2750 Ballerup, Denmark
Manufacturer	GN Audio A/S
Model No.	OTE120L (left earbud), OTE120R (right earbud), CPB120 (charging case)
IC ID.	2386C-OTE120
EUT Rated Voltage	DC 3.7V by Battery
EUT Test Voltage	DC 3.7V by Battery
Trade Name	Jabra
Applicable Standard	RSS-247 Issue 2 (Feb, 2017) ANSI C63.4: 2014, ANSI C63.10: 2013
Test Result	Complied

Documented By : Elephant Chen

(Adm. Specialist / Elephant Chen)

Tested By : Yun Che Chen

(Engineer / Yunche Chen)

Approved By :

(Director / Vincent Lin)

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1. GENERAL INFORMATION

1.1. EUT Description

Product Name	Bluetooth Headset
Trade Name	Jabra
Model No.	OTE120L (left earbud), OTE120R (right earbud), CPB120 (charging case)
IC ID	2386C-OTE120
Frequency Range	2402-2480MHz
Channel Number	79
Type of Modulation	FHSS: GFSK(1Mbps) /π/4DQPSK(2Mbps) / 8DPSK(3Mbps)
Antenna Type	PCB Antenna
Channel Control	Auto
Antenna Gain	Refer to the table “Antenna List”
USB Cable	Non-Shielded, 0.3m

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	Jabra	OTE120L/OTE120R	PCB Antenna	-5.83dBi for 2.4GHz

Firmware/Software Version

1	HW Version Identification Number (HVIN)	OTE120L (left earbud), OTE120R (right earbud), CPB120 (charging case)
2	Firmware Version Identification Number (FVIN)	N/A
3	Test SW Version	Blue test 3 V3.2.0
4	RF power setting in TEST SW	☐ RF power setting was not able to alter during testing. ☒ RF power setting was able to alter during testing. (See the following table)

Parameters of test software setting Bluetooth

Frequency	2402MHz	2441MHz	2480MHz
GFSK (1Mbps)	0,2,0	0,2,0	0,2,0
π/4-DQPSK(2Mbps)	0,3,0	0,3,0	0,3,0
8DPSK (3Mbps)	0,3,0	0,3,0	0,3,0

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 Bluetooth Headset with a built-in Bluetooth V5.0, 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.
3. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
4. These tests are conducted on a sample for the purpose of demonstrating compliance of transmitter with RSS-247 Issue 2 for spread spectrum devices.
5. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.
6. The circuit schematics and components of Right earbud (OTE120R) and Left earbud (OTE120L) are the same. So is the antenna, output power and software. The PCB layout of Right earbud and Left earbud are mirrored, but there are small variations in layout due to non-symmetries of certain component footprints (e.g. IC's).
7. Right ear and Left ear mode of the EUT,only the worst case(Right ear) is shown in the report. (Addition test of Radiated Emission below 1GHz for Left ear.)

Test Mode	Mode 1: Transmit - 1Mbps (GFSK) Mode 2: Transmit - 2Mbps (π/4DQPSK) Mode 3: Transmit - 3Mbps (8DPSK) Mode 4: Charge

1.3. Tested System Datails

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	Latitude E5440	FS9TK32	Non-Shielded, 0.8m

BT mode

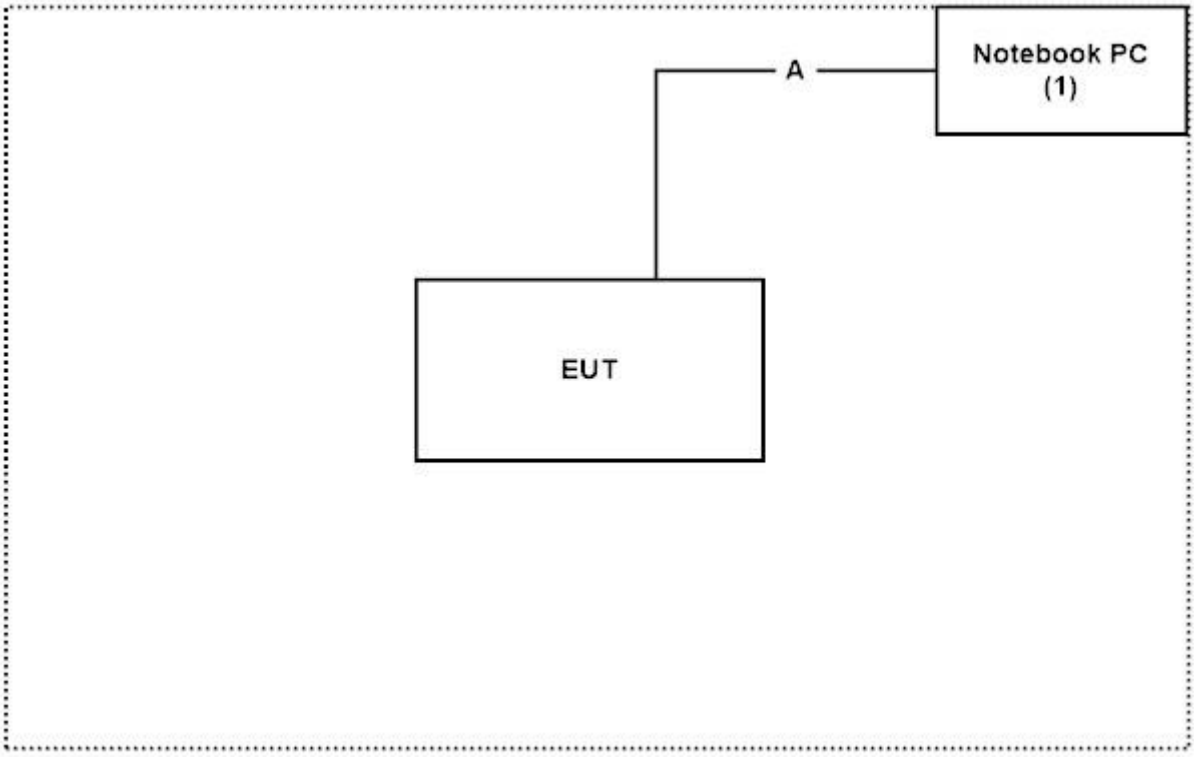
Signal Cable Type		Signal cable Description
A	USB Cable	Non-Shielded, 1.7m

Charge mode

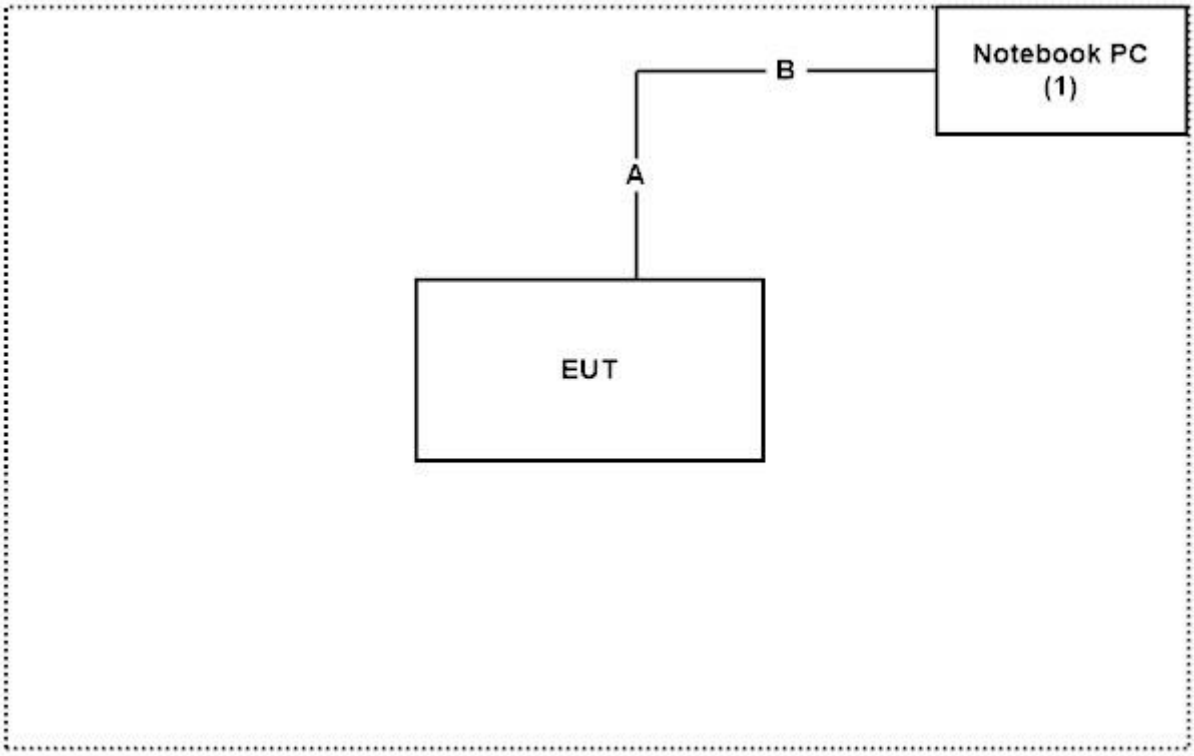
Signal Cable Type		Signal cable Description
A	USB Cable	Non-Shielded, 0.3m
B	USB Cable	Non-Shielded, 1.7m

1.4. Configuration of tested System

BT mode



Charge mode



1.5. EUT Exercise Software

1. Setup the EUT as shown in Section 1.4.
2. Execute software “Blue test3, Ver.3.2” on the EUT.
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

USA : FCC Registration Number: TW3023

Canada : IC Registration Number: 4075A

Site Description: Accredited by TAF
Accredited Number: 3023

Test Laboratory: DEKRA Testing and Certification Co., Ltd
Address: No.5-22, Ruishukeng, Linkou Dist., New Taipei City 24451, Taiwan, R.O.C.
Phone number: 886-2-8601-3788
Fax number: 886-2-8601-3789
Email address: info.tw@dekra.com
Website: http://www.dekra.com.tw

1.7. List of Test Equipment

For Conducted measurements /CB3/SR8

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Date	Due. Date
	Temperature Chamber	WIT GROUP	TH-1S-B	EQ-201-00146	2019/02/26	2020/02/25
X	Spectrum Analyzer	Agilent	N9010A	MY53470892	2018/09/27	2019/09/26
X	Peak Power Analyzer	Keysight	8990B	MY51000410	2019/08/01	2020/07/31
X	Wideband Power Sensor	Keysight	N1923A	MY56080003	2019/07/25	2020/07/24
X	Wideband Power Sensor	Keysight	N1923A	MY56080004	2019/07/25	2020/07/24
X	EMI Test Receiver	R&S	ESCS 30	100369	2018/11/19	2019/11/18
X	LISN	R&S	ENV216	101105	2019/03/30	2020/03/29
X	LISN	R&S	ESH3-Z5	836679/014	2019/04/02	2020/04/01
X	Coaxial Cable	DEKRA	RG 400	LC018-RG	2019/06/21	2020/06/20

For Radiated measurements /Site3/CB8

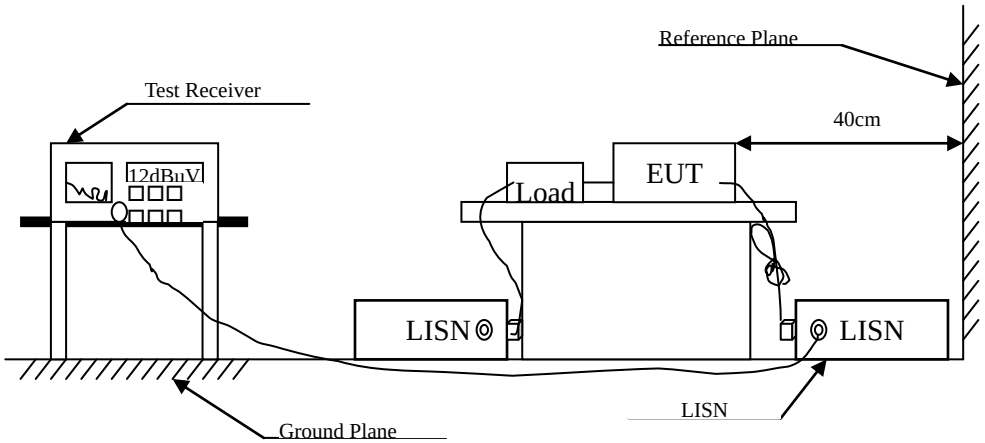
	Equipment	Manufacturer	Model No.	Serial No.	Cali. Date	Due. Date
X	Spectrum Analyzer	R&S	FSP40	100170	2019/03/11	2020/03/10
X	Loop Antenna	Teseq	HLA6121	37133	2018/10/13	2019/10/12
X	Bilog Antenna	Schaffner Chase	CBL6112B	2707	2019/06/24	2020/06/23
X	Coaxial Cable	DEKRA	RG 214	LC003-RG	2019/06/14	2020/06/13
X	Pre-Amplifier	Jet-Power	JPA-10M1G33	170101000330010	2019/06/14	2020/06/13
X	Horn Antenna	ETS-Lindgren	3117	00135205	2019/05/03	2020/05/02
X	Horn Antenna	SCHWARZBECK	9120D	576	2018/12/18	2019/12/17
X	Pre-Amplifier	EMCI	EMC012630SE	980210	2019/04/10	2020/04/09
	Horn Antenna	Com-Power	AH-840	101043	2019/01/09	2020/01/08
	Amplifier + Cable	EMCI	EMC184045SE	980370	2019/03/21	2020/03/20
X	Filter	MICRO-TRONICS	BRM50702	G270	2019/08/06	2020/08/05
	Filter	MICRO-TRONICS	BRM50716	G196	2019/08/06	2020/08/05

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

RSS-Gen Issue 5 Section 8.8 Limits		
Frequency MHz	Limits (dBuV)	
	QP	AVG
0.15 - 0.50	66-56	56-46
0.50-5.0	56	46
5.0 - 30	60	50

2.3. Test Procedure

The EUT and simulators 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 refers 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 of the interface cables must be changed according to ANSI C63.4: 2014 on conducted measurement.
Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

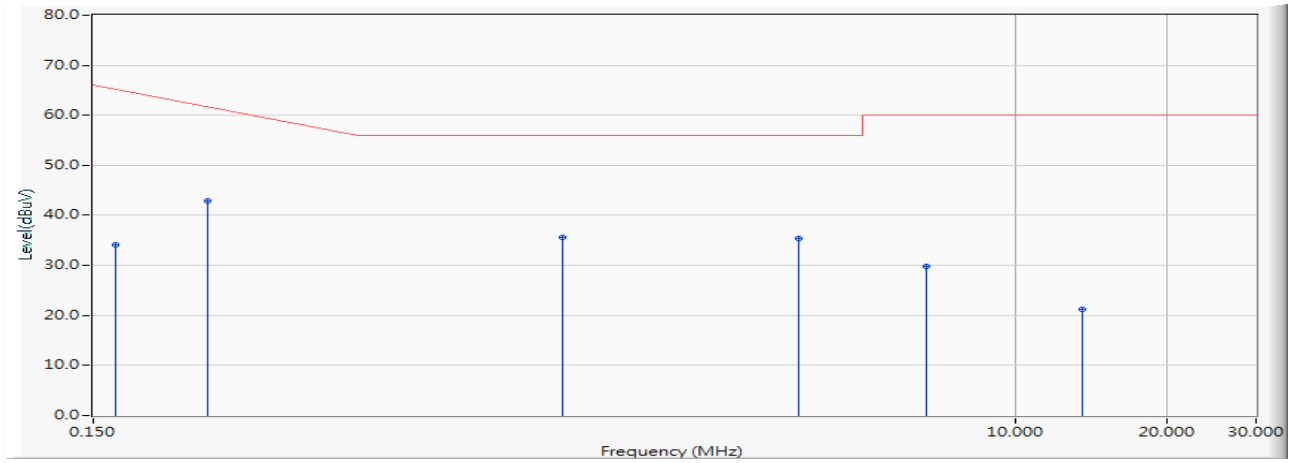
2.4. Uncertainty

± 2.26 dB

2.5. Test Result of Conducted Emission

Product : Bluetooth Headset
Test Item : Conducted Emission Test
Test date : 2019/09/17
Test Mode : Mode 3: Transmit - 3Mbps (8DPSK) (2441MHz)

Line 1



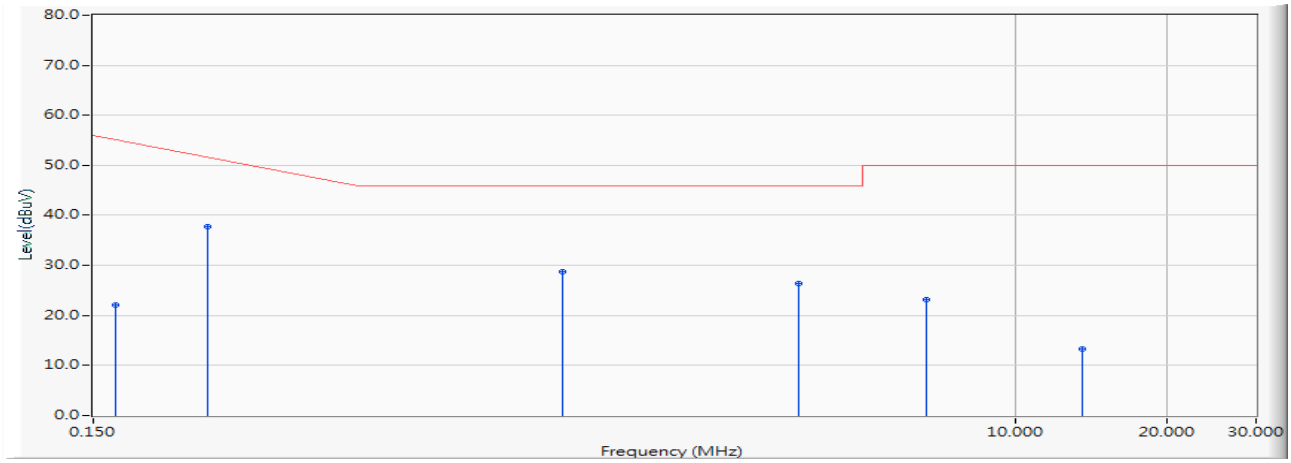
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.166	9.669	24.500	34.169	-31.374	65.543	QUASIPEAK
2	*	0.252	9.673	33.240	42.913	-20.173	63.086	QUASIPEAK
3		1.271	9.729	25.860	35.589	-20.411	56.000	QUASIPEAK
4		3.736	9.835	25.640	35.475	-20.525	56.000	QUASIPEAK
5		6.673	9.921	19.860	29.781	-30.219	60.000	QUASIPEAK
6		13.580	10.077	11.160	21.237	-38.763	60.000	QUASIPEAK

Note:

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

Product	:	Bluetooth Headset
Test Item	:	Conducted Emission Test
Test date	:	2019/09/17
Test Mode	:	Mode 3: Transmit - 3Mbps (8DPSK) (2441MHz)

Line 1



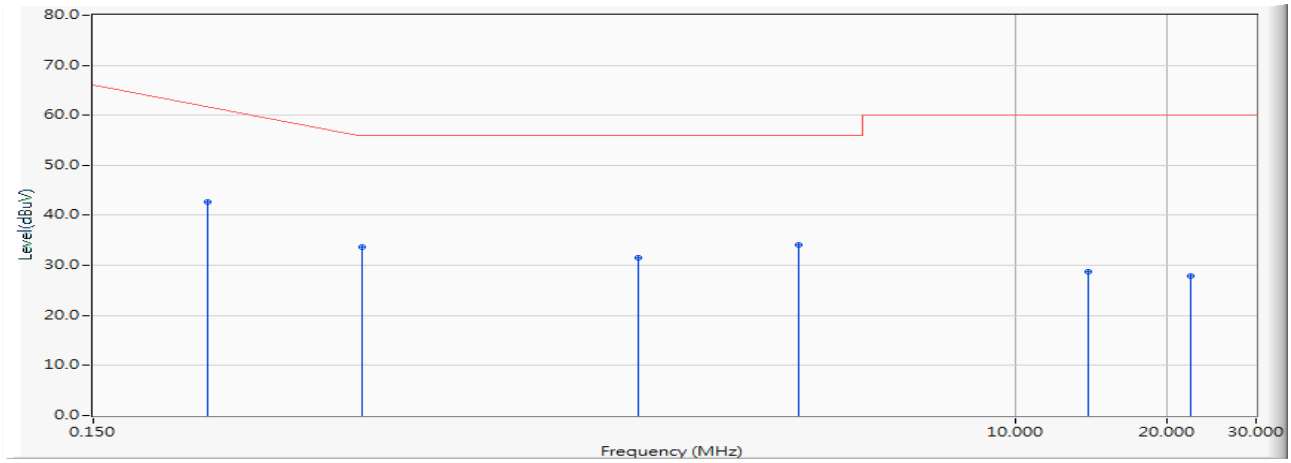
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.166	9.669	12.410	22.079	-33.464	55.543	AVERAGE
2	*	0.252	9.673	28.090	37.763	-15.323	53.086	AVERAGE
3		1.271	9.729	18.930	28.659	-17.341	46.000	AVERAGE
4		3.736	9.835	16.540	26.375	-19.625	46.000	AVERAGE
5		6.673	9.921	13.300	23.221	-26.779	50.000	AVERAGE
6		13.580	10.077	3.120	13.197	-36.803	50.000	AVERAGE

Note:

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

Product	:	Bluetooth Headset
Test Item	:	Conducted Emission Test
Test date	:	2019/09/17
Test Mode	:	Mode 3: Transmit - 3Mbps (8DPSK) (2441MHz)

Line 2



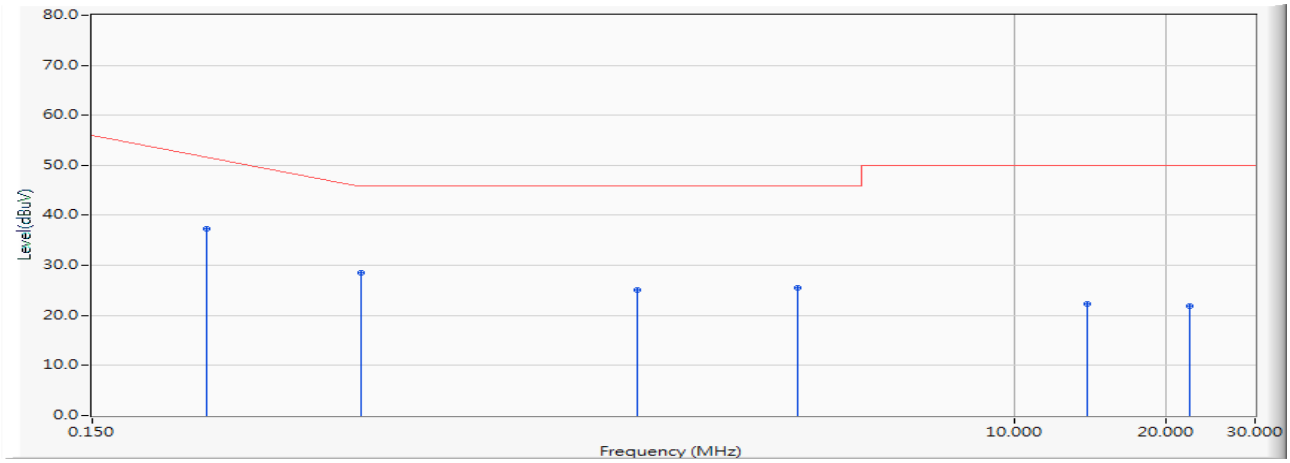
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.252	9.703	33.020	42.723	-20.363	63.086	QUASIPEAK
2		0.509	9.717	23.940	33.657	-22.343	56.000	QUASIPEAK
3		1.795	9.807	21.820	31.627	-24.373	56.000	QUASIPEAK
4		3.736	9.875	24.260	34.135	-21.865	56.000	QUASIPEAK
5		13.943	10.193	18.500	28.693	-31.307	60.000	QUASIPEAK
6		22.205	10.392	17.520	27.912	-32.088	60.000	QUASIPEAK

Note:

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

Product : Bluetooth Headset
Test Item : Conducted Emission Test
Test date : 2019/09/17
Test Mode : Mode 3: Transmit - 3Mbps (8DPSK) (2441MHz)

Line 2



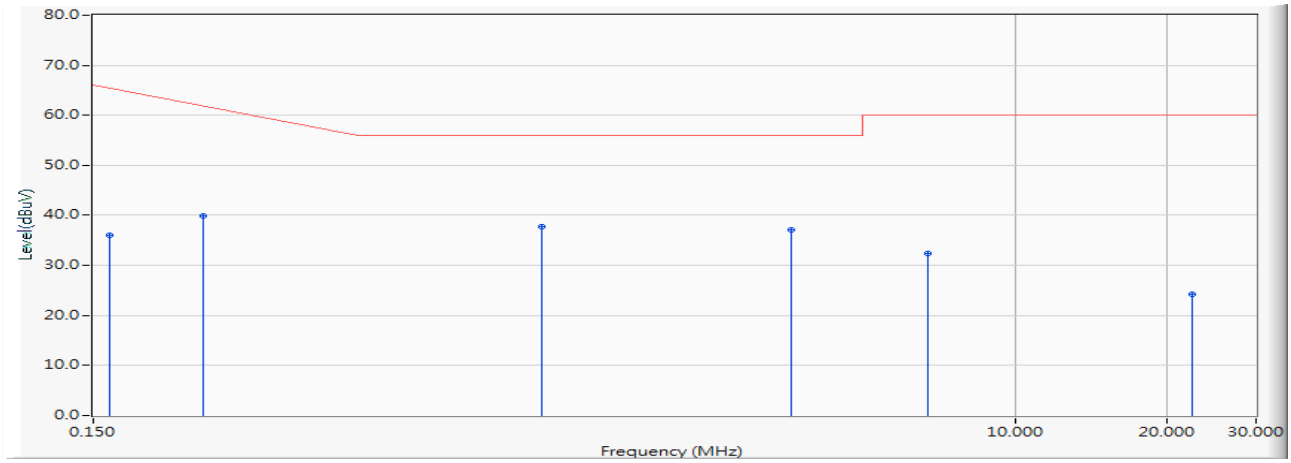
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.252	9.703	27.690	37.393	-15.693	53.086	AVERAGE
2		0.509	9.717	18.770	28.487	-17.513	46.000	AVERAGE
3		1.795	9.807	15.350	25.157	-20.843	46.000	AVERAGE
4		3.736	9.875	15.650	25.525	-20.475	46.000	AVERAGE
5		13.943	10.193	12.150	22.343	-27.657	50.000	AVERAGE
6		22.205	10.392	11.520	21.912	-28.088	50.000	AVERAGE

Note:

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

Product : Bluetooth Headset
Test Item : Conducted Emission Test
Test date : 2019/09/17
Test Mode : Mode 4: Charge

Line 1



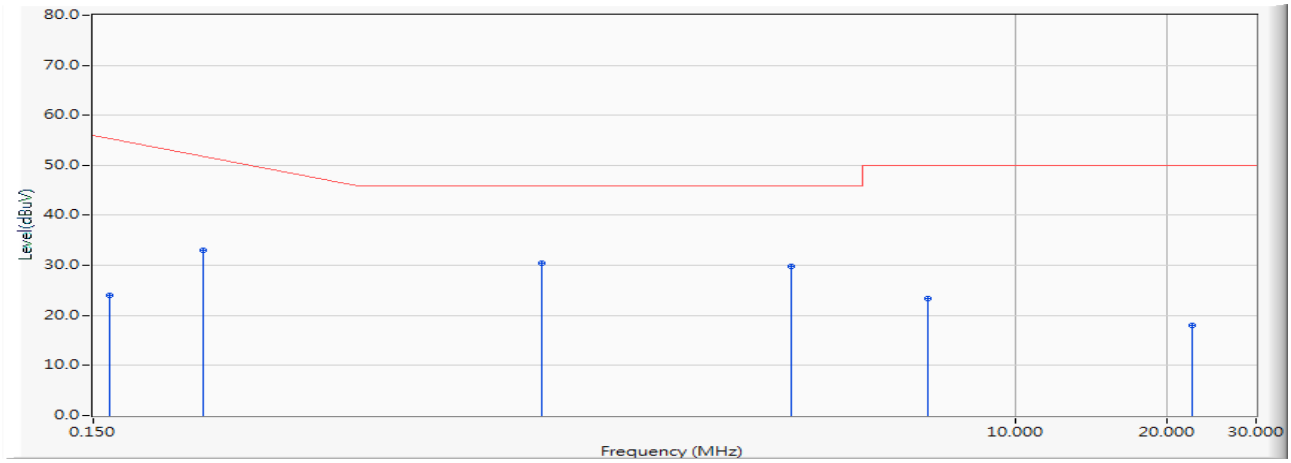
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.162	9.668	26.440	36.108	-29.549	65.657	QUASIPEAK
2		0.248	9.673	30.220	39.893	-23.307	63.200	QUASIPEAK
3	*	1.158	9.723	27.940	37.663	-18.337	56.000	QUASIPEAK
4		3.603	9.832	27.360	37.192	-18.808	56.000	QUASIPEAK
5		6.705	9.922	22.400	32.322	-27.678	60.000	QUASIPEAK
6		22.455	10.194	14.080	24.274	-35.726	60.000	QUASIPEAK

Note:

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

Product : Bluetooth Headset
Test Item : Conducted Emission Test
Test date : 2019/09/17
Test Mode : Mode 4: Charge

Line 1



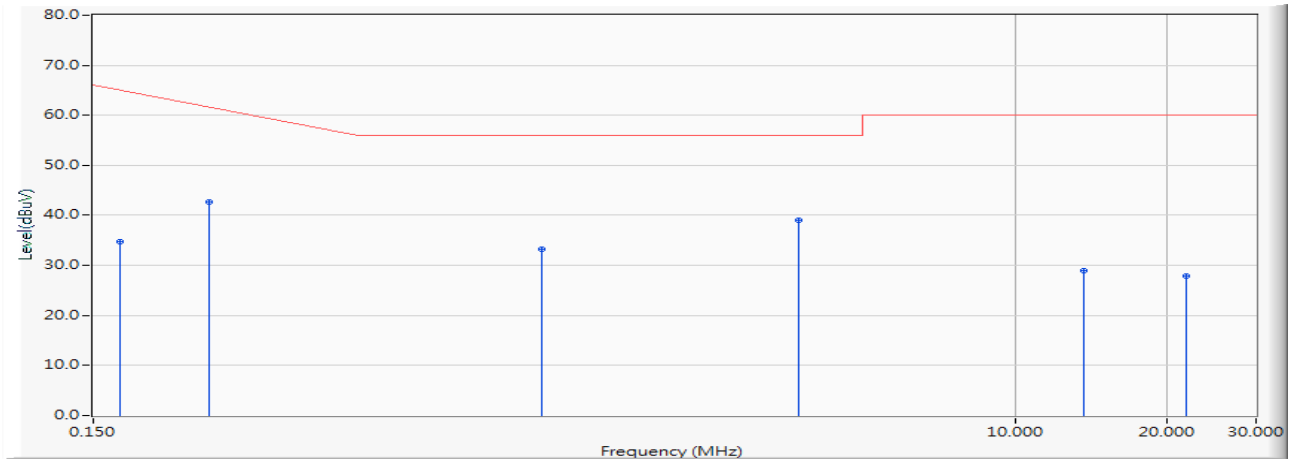
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.162	9.668	14.320	23.988	-31.669	55.657	AVERAGE
2		0.248	9.673	23.270	32.943	-20.257	53.200	AVERAGE
3	*	1.158	9.723	20.670	30.393	-15.607	46.000	AVERAGE
4		3.603	9.832	19.990	29.822	-16.178	46.000	AVERAGE
5		6.705	9.922	13.530	23.452	-26.548	50.000	AVERAGE
6		22.455	10.194	7.800	17.994	-32.006	50.000	AVERAGE

Note:

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

Product : Bluetooth Headset
Test Item : Conducted Emission Test
Test date : 2019/09/17
Test Mode : Mode 4: Charge

Line 2



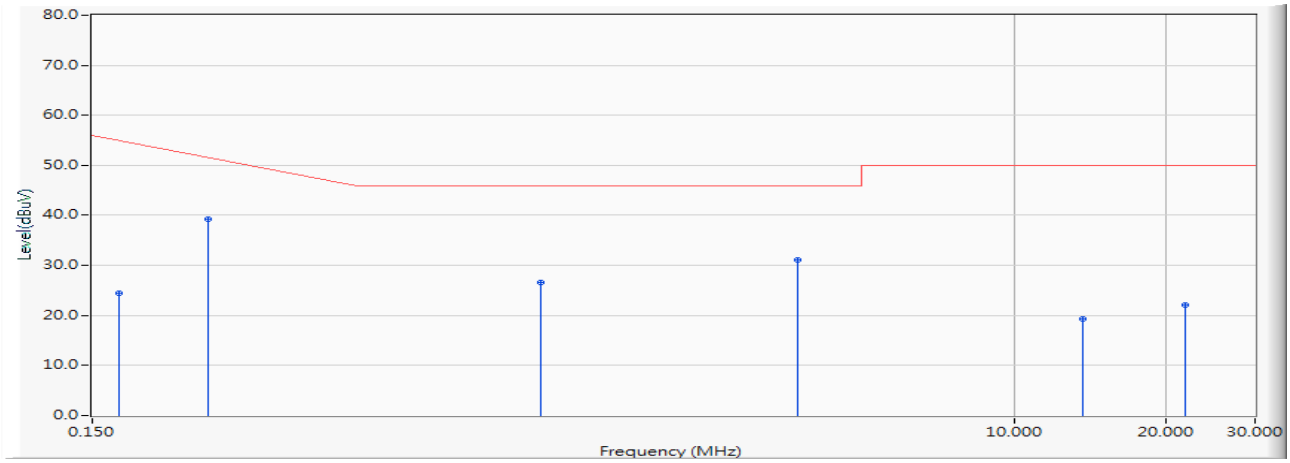
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.170	9.705	25.020	34.725	-30.704	65.429	QUASIPEAK
2		0.255	9.703	33.080	42.783	-20.217	63.000	QUASIPEAK
3		1.158	9.763	23.520	33.283	-22.717	56.000	QUASIPEAK
4	*	3.740	9.875	29.080	38.955	-17.045	56.000	QUASIPEAK
5		13.685	10.189	18.820	29.009	-30.991	60.000	QUASIPEAK
6		21.884	10.389	17.500	27.889	-32.111	60.000	QUASIPEAK

Note:

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

Product : Bluetooth Headset
Test Item : Conducted Emission Test
Test date : 2019/09/17
Test Mode : Mode 4: Charge

Line 2



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.170	9.705	14.720	24.425	-31.004	55.429	AVERAGE
2	*	0.255	9.703	29.580	39.283	-13.717	53.000	AVERAGE
3		1.158	9.763	16.750	26.513	-19.487	46.000	AVERAGE
4		3.740	9.875	21.180	31.055	-14.945	46.000	AVERAGE
5		13.685	10.189	9.200	19.389	-30.611	50.000	AVERAGE
6		21.884	10.389	11.700	22.089	-27.911	50.000	AVERAGE

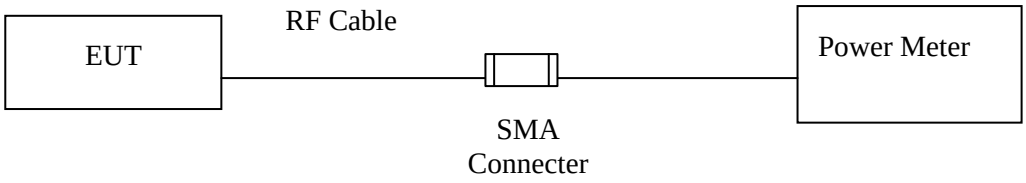
Note:

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

3. Peak Power Output

3.1. Test Setup

Conduction Power Measurement



3.2. Limits

According to RSS-247 Issue 2, 5.4(b) (Feb, 2017), the maximum peak conducted output power shall not exceed 1.0 W if the hopset uses 75 or more hopping channels and the e.i.r.p. shall not exceed 4 Watt.

3.3. Uncertainty

± 1.19 dB

3.4. Test Result of Peak Power Output

Product : Bluetooth Headset
Test Item : Peak Power Output
Test Site : No.3 OATS
Test date : 2019/09/20
Test Mode : Mode 1: Transmit - 1Mbps (GFSK)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit	Result
Channel 00	2402.00	7.43	1 Watt= 30 dBm	Pass
Channel 39	2441.00	7.51	1 Watt= 30 dBm	Pass
Channel 78	2480.00	7.65	1 Watt= 30 dBm	Pass

Channel No	Frequency Range	Output Power	Antenna gain	EIRP	EIRP Limit	Result
	(MHz)	(dBm)	(dBi)	(dBm)	(dBm)	
Channel 00	2402	7.43	-5.83	1.60	36	Pass
Channel 39	2441	7.51	-5.83	1.68	36	Pass
Channel 78	2480	7.65	-5.83	1.82	36	Pass

Product : Bluetooth Headset
Test Item : Peak Power Output
Test Site : No.3 OATS
Test date : 2019/09/20
Test Mode : Mode 2: Transmit - 2Mbps (π/4DQPSK)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit	Result
Channel 00	2402.00	10.59	1 Watt= 30 dBm	Pass
Channel 39	2441.00	10.64	1 Watt= 30 dBm	Pass
Channel 78	2480.00	10.72	1 Watt= 30 dBm	Pass

Channel No	Frequency Range	Output Power	Antenna gain	EIRP	EIRP Limit	Result
	(MHz)	(dBm)	(dBi)	(dBm)	(dBm)	
Channel 00	2402	10.59	-5.83	4.76	36	Pass
Channel 39	2441	10.64	-5.83	4.81	36	Pass
Channel 78	2480	10.72	-5.83	4.89	36	Pass

Product : Bluetooth Headset
Test Item : Peak Power Output
Test Site : No.3 OATS
Test date : 2019/09/20
Test Mode : Mode 3: Transmit - 3Mbps (8DPSK)

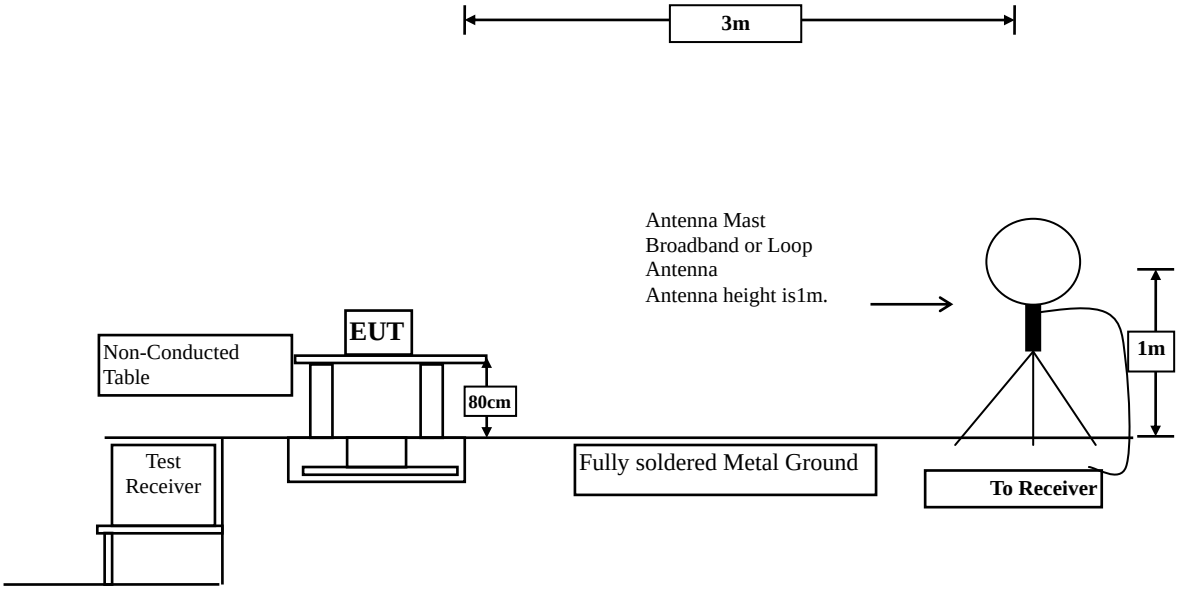
Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit	Result
Channel 00	2402.00	10.56	1 Watt= 30 dBm	Pass
Channel 39	2441.00	10.87	1 Watt= 30 dBm	Pass
Channel 78	2480.00	10.78	1 Watt= 30 dBm	Pass

Channel No	Frequency Range	Output Power	Antenna gain	EIRP	EIRP Limit	Result
	(MHz)	(dBm)	(dBi)	(dBm)	(dBm)	
Channel 00	2402	10.56	-5.83	4.73	36	Pass
Channel 39	2441	10.87	-5.83	5.04	36	Pass
Channel 78	2480	10.78	-5.83	4.95	36	Pass

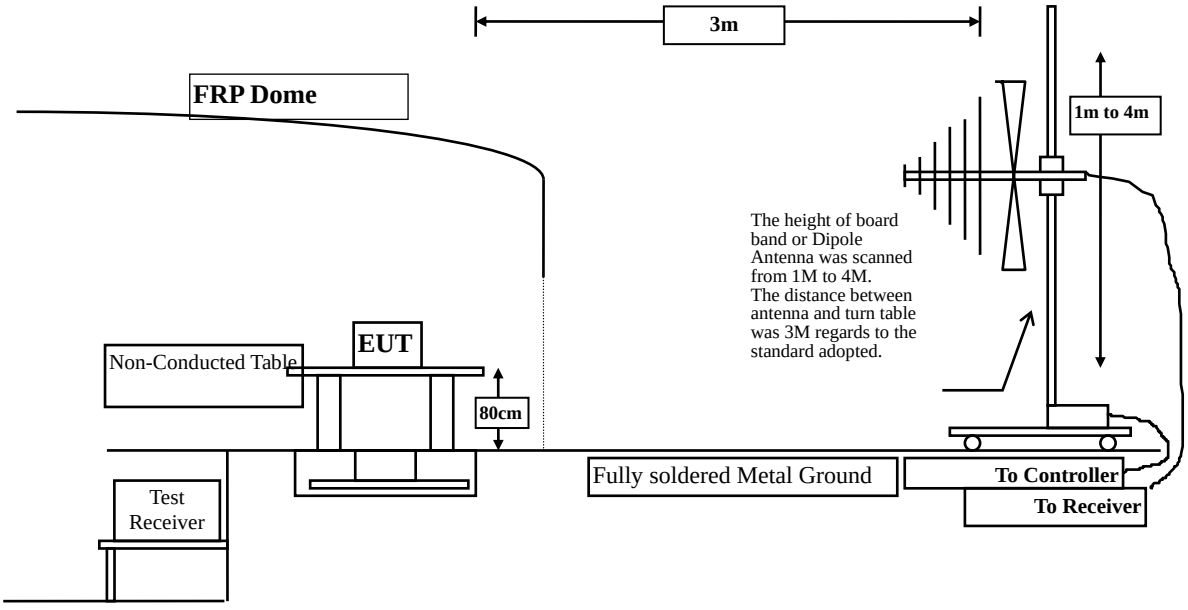
4. Radiated Emission

4.1. Test Setup

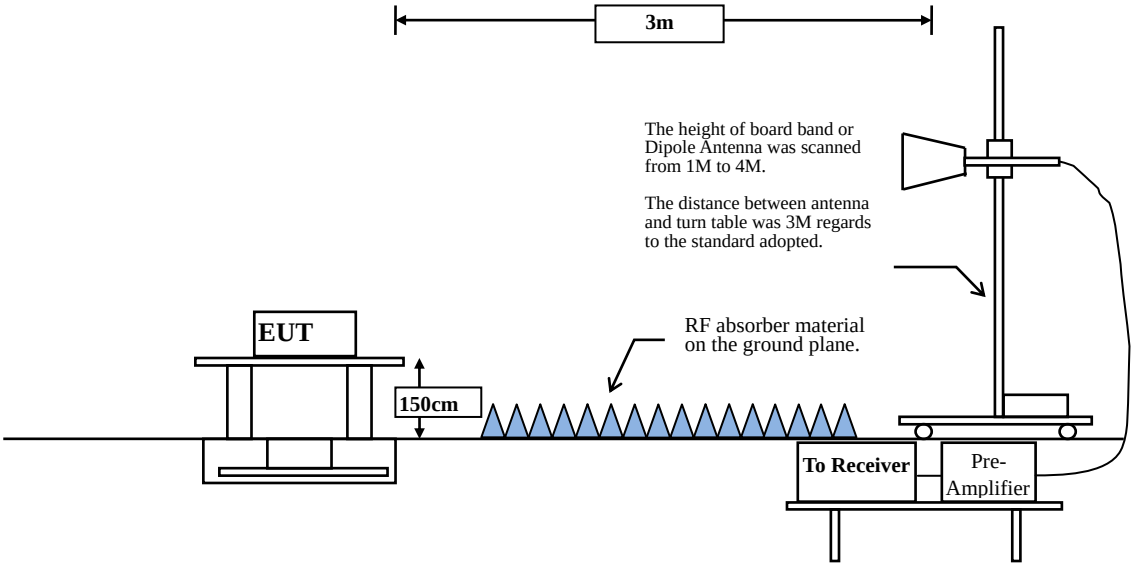
Under 30MHz



Below 1GHz



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 RSS-Gen Issue 5 Section 8.9, whichever is the lesser attenuation.

RSS-Gen Issue 5 Section 8.9 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

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 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 C63.4: 2014 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 form 9kHz - 10th Harmonic of fundamental was investigated.

4.4. Uncertainty

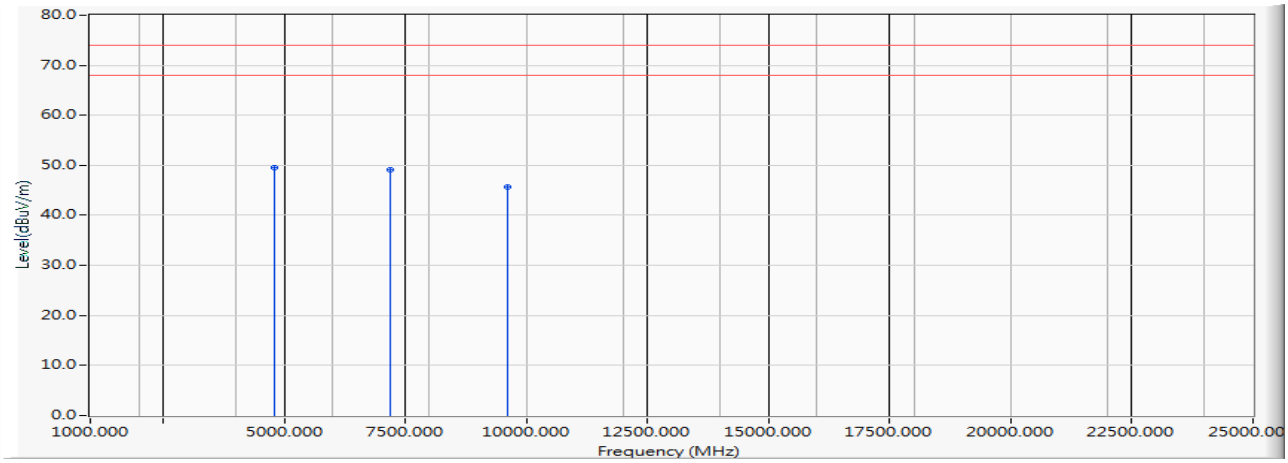
± 4.08 dB above 1GHz

± 4.22 dB below 1GHz

4.5. Test Result of Radiated Emission

Product : Bluetooth Headset
Test Item : Harmonic Radiated Emission
Test Site : No.3 OATS
Test date : 2019/09/18
Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(2402MHz)

Horizontal



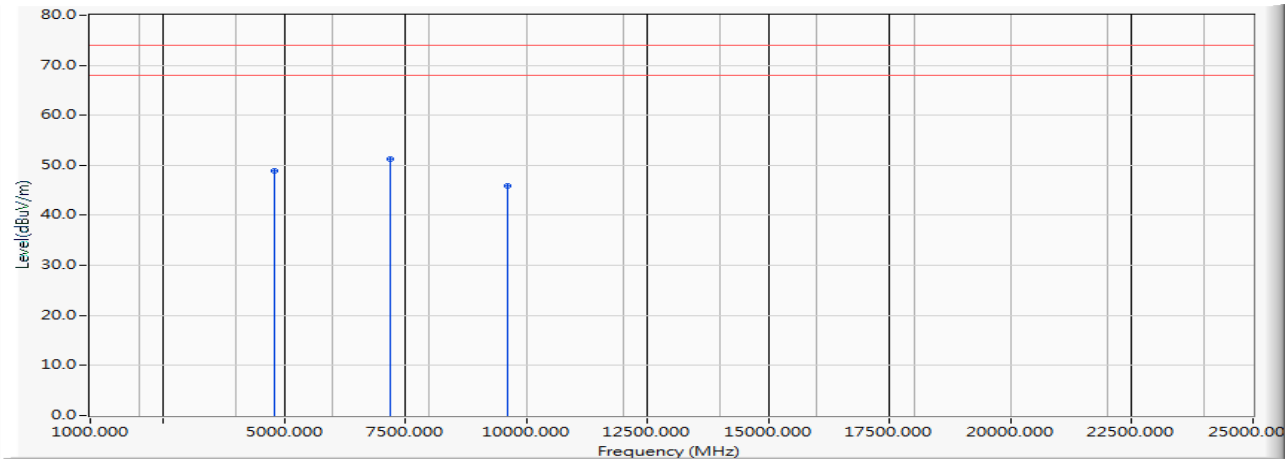
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4804.000	-15.236	64.870	49.634	-24.366	74.000	PEAK
2		7206.000	-12.053	61.120	49.067	-24.933	74.000	PEAK
3		9608.000	-11.738	57.490	45.752	-28.248	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Bluetooth Headset
Test Item : Harmonic Radiated Emission
Test Site : No.3 OATS
Test date : 2019/09/18
Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(2402MHz)

Vertical



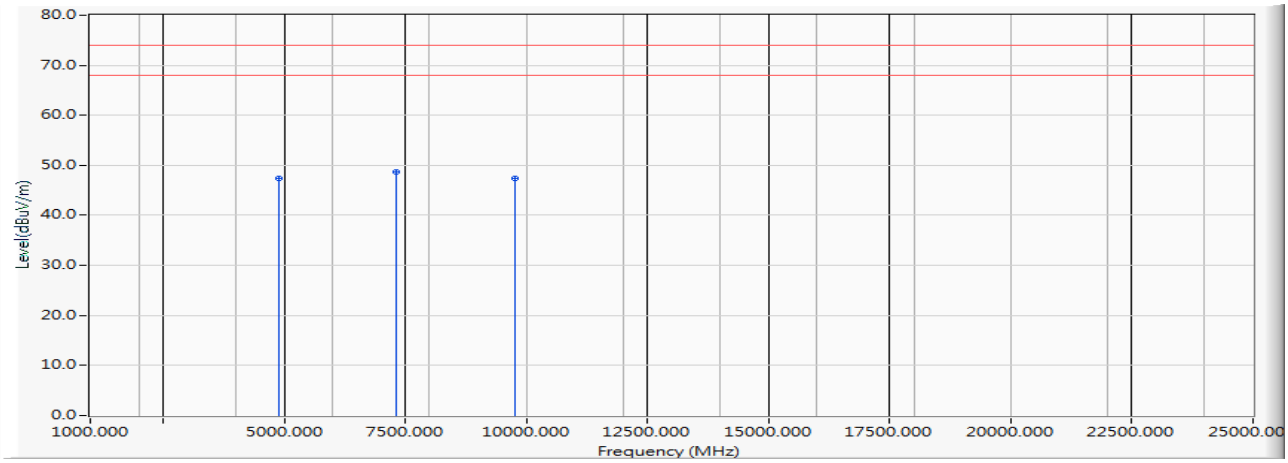
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4804.000	-15.236	64.110	48.874	-25.126	74.000	PEAK
2	*	7206.000	-12.053	63.220	51.167	-22.833	74.000	PEAK
3		9608.000	-11.738	57.600	45.862	-28.138	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Bluetooth Headset
Test Item	:	Harmonic Radiated Emission
Test Site	:	No.3 OATS
Test date	:	2019/09/18
Test Mode	:	Mode 1: Transmit - 1Mbps (GFSK)(2441MHz)

Horizontal



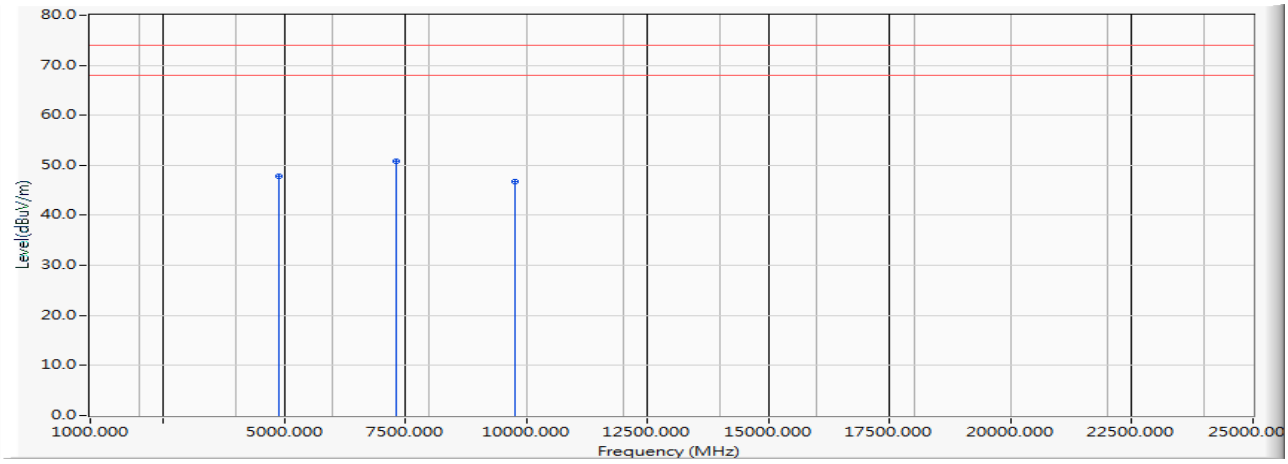
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4882.000	-14.379	61.750	47.371	-26.629	74.000	PEAK
2	*	7323.000	-12.564	61.290	48.726	-25.274	74.000	PEAK
3		9764.000	-10.701	58.020	47.319	-26.681	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Bluetooth Headset
Test Item : Harmonic Radiated Emission
Test Site : No.3 OATS
Test date : 2019/09/18
Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(2441MHz)

Vertical



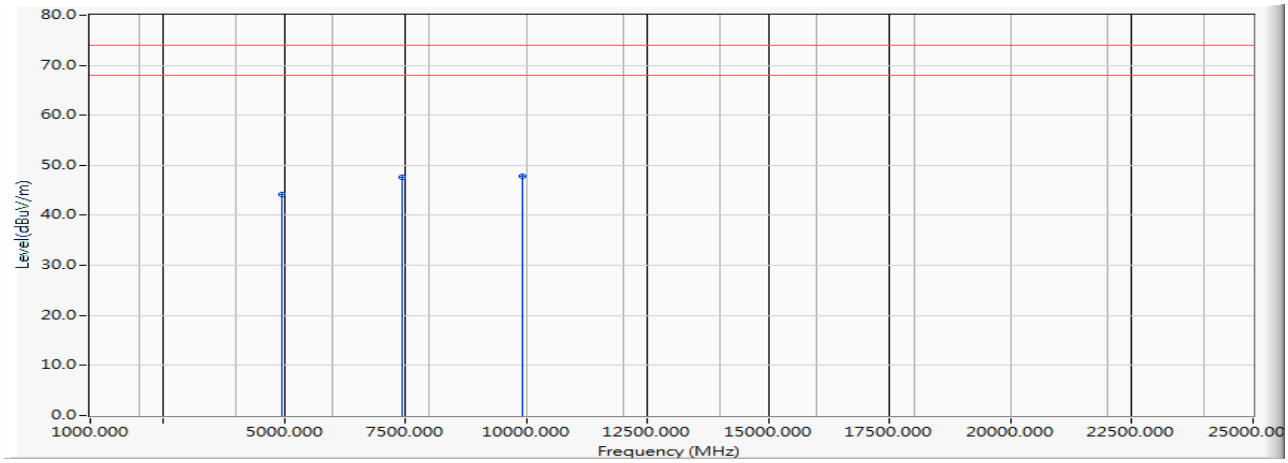
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4882.000	-14.379	62.130	47.751	-26.249	74.000	PEAK
2	*	7323.000	-12.564	63.490	50.926	-23.074	74.000	PEAK
3		9764.000	-10.701	57.540	46.839	-27.161	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Bluetooth Headset
Test Item	:	Harmonic Radiated Emission
Test Site	:	No.3 OATS
Test date	:	2019/09/18
Test Mode	:	Mode 1: Transmit - 1Mbps (GFSK)(2480MHz)

Horizontal



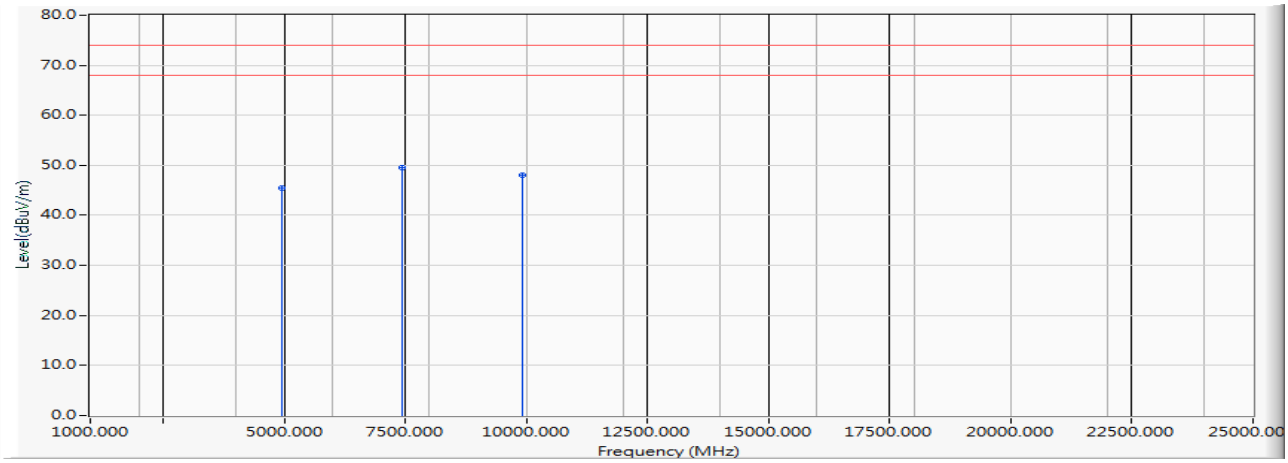
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4960.000	-13.462	57.620	44.158	-29.842	74.000	PEAK
2		7440.000	-13.842	61.420	47.578	-26.422	74.000	PEAK
3	*	9920.000	-12.531	60.330	47.799	-26.201	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Bluetooth Headset
Test Item	:	Harmonic Radiated Emission
Test Site	:	No.3 OATS
Test date	:	2019/09/18
Test Mode	:	Mode 1: Transmit - 1Mbps (GFSK)(2480MHz)

Vertical



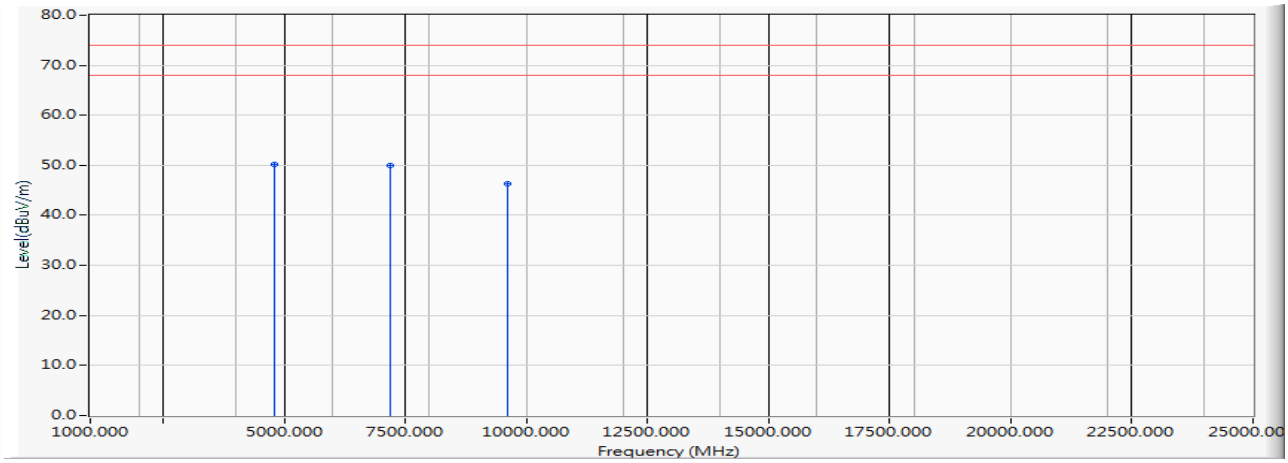
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4960.000	-13.462	58.910	45.448	-28.552	74.000	PEAK
2	*	7440.000	-13.842	63.460	49.618	-24.382	74.000	PEAK
3		9920.000	-12.531	60.640	48.109	-25.891	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Bluetooth Headset
Test Item : Harmonic Radiated Emission
Test Site : No.3 OATS
Test date : 2019/09/18
Test Mode : Mode 2: Transmit - 2Mbps (π/4DQPSK) (2402MHz)

Horizontal



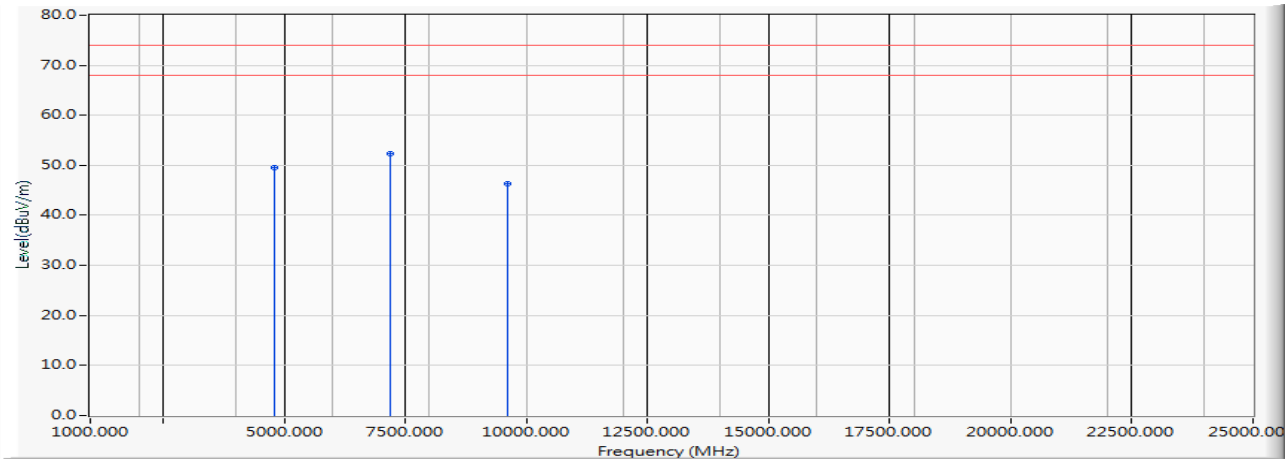
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4804.000	-15.236	65.430	50.194	-23.806	74.000	PEAK
2		7206.000	-12.053	61.950	49.897	-24.103	74.000	PEAK
3		9608.000	-11.738	58.050	46.312	-27.688	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Bluetooth Headset
Test Item : Harmonic Radiated Emission
Test Site : No.3 OATS
Test date : 2019/09/18
Test Mode : Mode 2: Transmit - 2Mbps (π/4DQPSK) (2402MHz)

Vertical



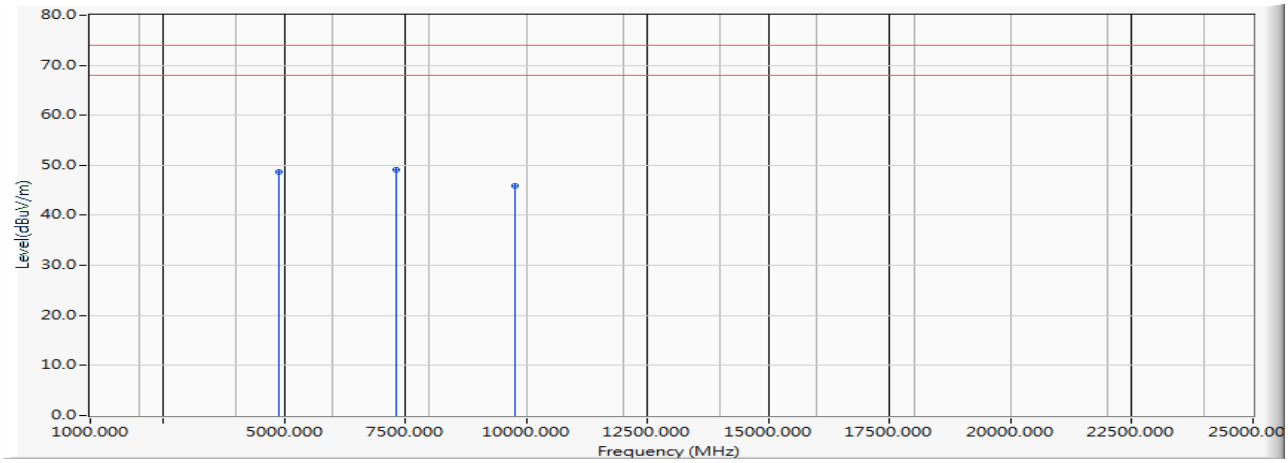
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4804.000	-15.236	64.830	49.594	-24.406	74.000	PEAK
2	*	7206.000	-12.053	64.460	52.407	-21.593	74.000	PEAK
3		9608.000	-11.738	58.050	46.312	-27.688	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Bluetooth Headset
Test Item : Harmonic Radiated Emission
Test Site : No.3 OATS
Test date : 2019/09/18
Test Mode : Mode 2: Transmit - 2Mbps (π/4DQPSK) (2441MHz)

Horizontal



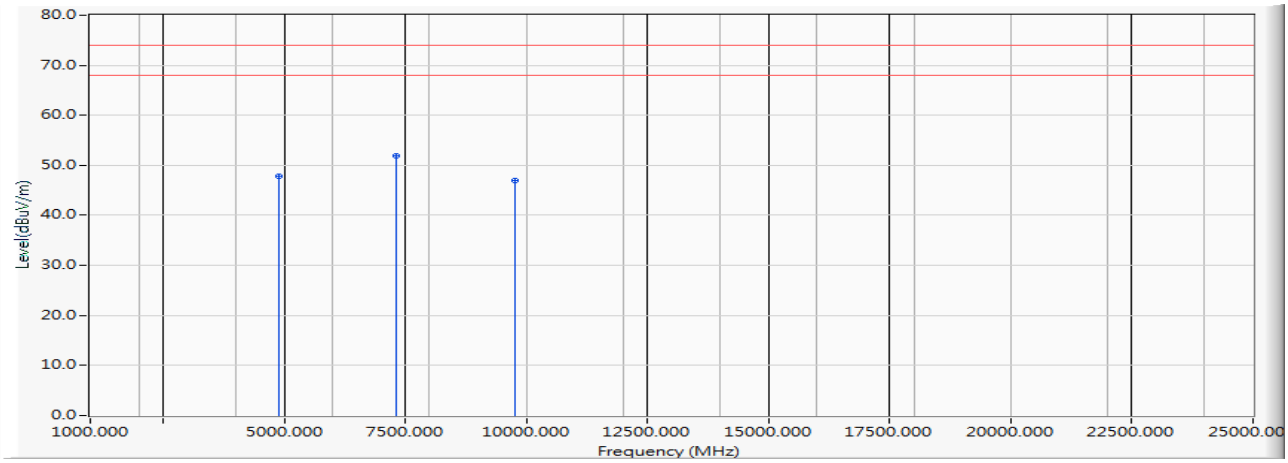
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4882.000	-14.379	63.020	48.641	-25.359	74.000	PEAK
2	*	7323.000	-12.564	61.720	49.156	-24.844	74.000	PEAK
3		9764.000	-10.701	56.520	45.819	-28.181	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Bluetooth Headset
Test Item : Harmonic Radiated Emission
Test Site : No.3 OATS
Test date : 2019/09/18
Test Mode : Mode 2: Transmit - 2Mbps (π/4DQPSK) (2441MHz)

Vertical



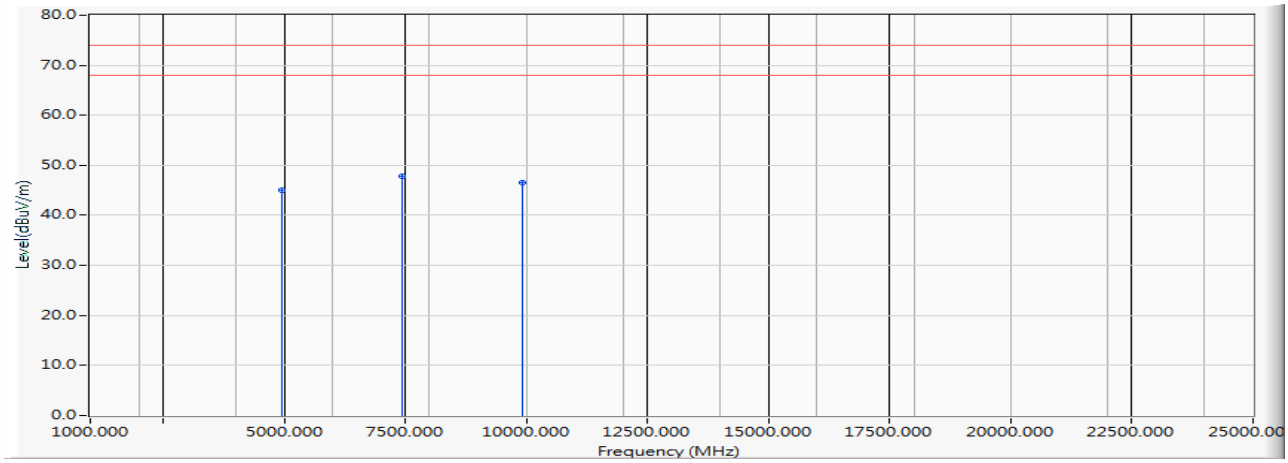
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4882.000	-14.379	62.260	47.881	-26.119	74.000	PEAK
2	*	7323.000	-12.564	64.500	51.936	-22.064	74.000	PEAK
3		9764.000	-10.701	57.660	46.959	-27.041	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Bluetooth Headset
Test Item	:	Harmonic Radiated Emission
Test Site	:	No.3 OATS
Test date	:	2019/09/18
Test Mode	:	Mode 2: Transmit - 2Mbps (π/4DQPSK) (2480MHz)

Horizontal



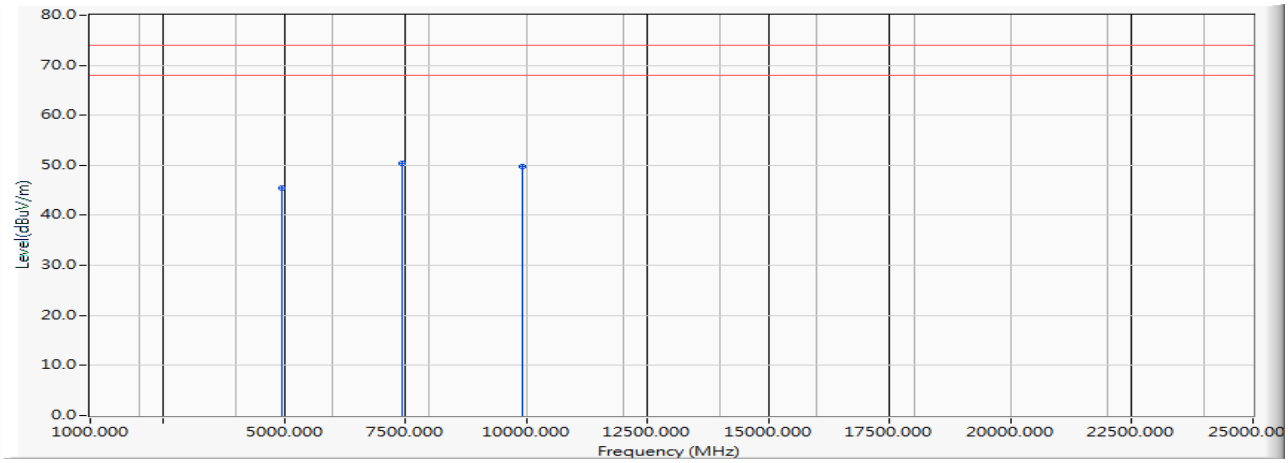
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4960.000	-13.462	58.500	45.038	-28.962	74.000	PEAK
2	*	7440.000	-13.842	61.710	47.868	-26.132	74.000	PEAK
3		9920.000	-12.531	59.110	46.579	-27.421	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Bluetooth Headset
Test Item	:	Harmonic Radiated Emission
Test Site	:	No.3 OATS
Test date	:	2019/09/18
Test Mode	:	Mode 2: Transmit - 2Mbps (π/4DQPSK)(2480MHz)

Vertical



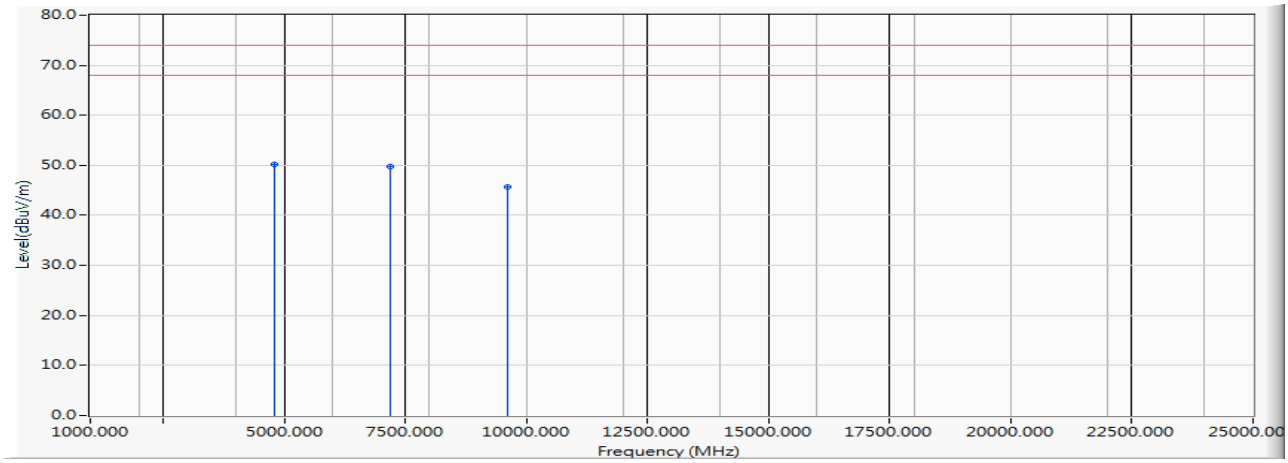
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4960.000	-13.462	58.990	45.528	-28.472	74.000	PEAK
2	*	7440.000	-13.842	64.230	50.388	-23.612	74.000	PEAK
3		9920.000	-12.531	62.290	49.759	-24.241	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Bluetooth Headset
Test Item	:	Harmonic Radiated Emission
Test Site	:	No.3 OATS
Test date	:	2019/09/18
Test Mode	:	Mode 3: Transmit - 3Mbps (8DPSK)(2402MHz)

Horizontal



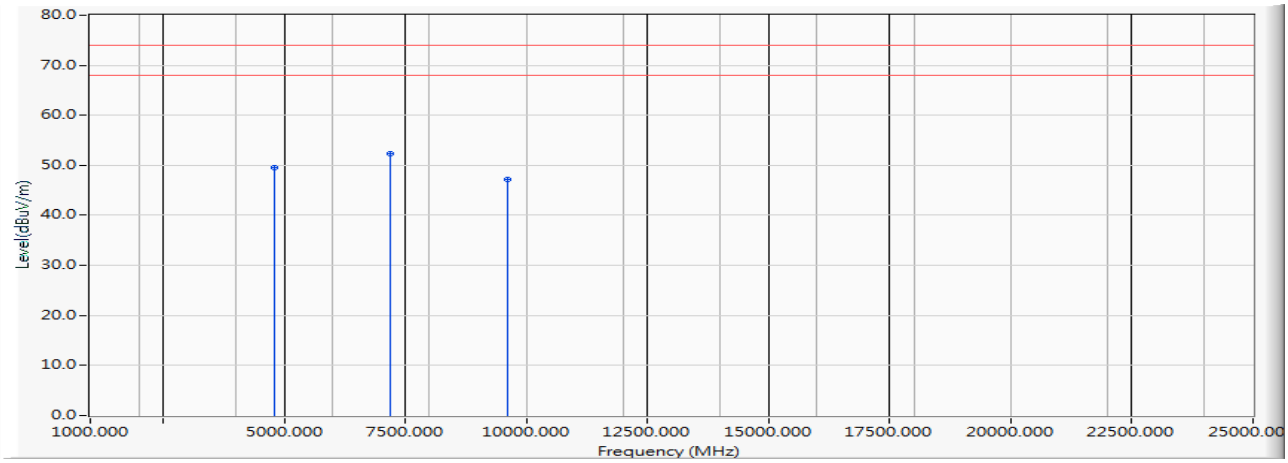
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4804.000	-15.236	65.420	50.184	-23.816	74.000	PEAK
2		7206.000	-12.053	61.740	49.687	-24.313	74.000	PEAK
3		9608.000	-11.738	57.490	45.752	-28.248	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Bluetooth Headset
Test Item	:	Harmonic Radiated Emission
Test Site	:	No.3 OATS
Test date	:	2019/09/18
Test Mode	:	Mode 3: Transmit - 3Mbps (8DPSK)(2402MHz)

Vertical



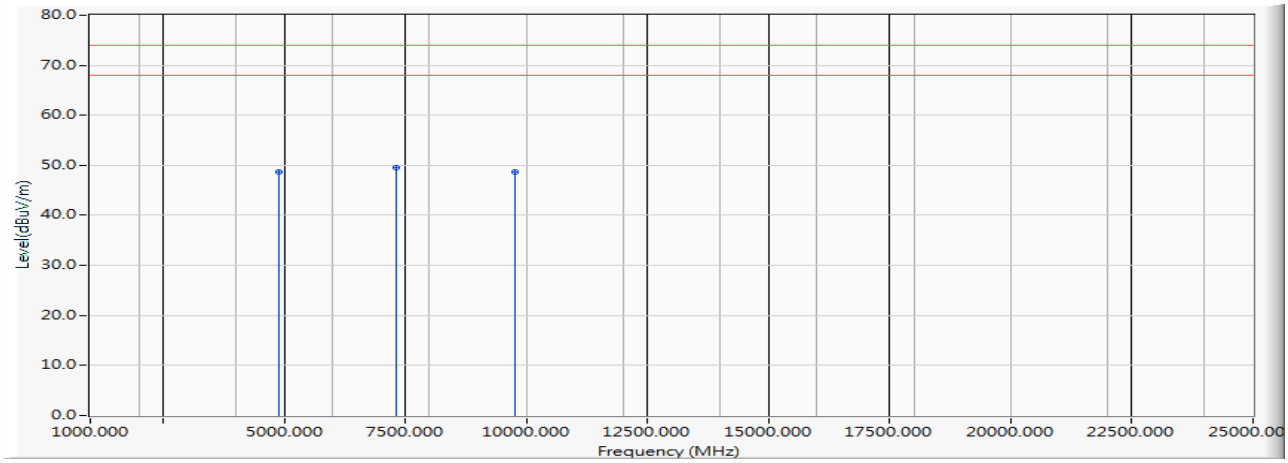
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4804.000	-15.236	64.880	49.644	-24.356	74.000	PEAK
2	*	7206.000	-12.053	64.310	52.257	-21.743	74.000	PEAK
3		9608.000	-11.738	58.990	47.252	-26.748	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Bluetooth Headset
Test Item	:	Harmonic Radiated Emission
Test Site	:	No.3 OATS
Test date	:	2019/09/18
Test Mode	:	Mode 3: Transmit - 3Mbps (8DPSK) (2441MHz)

Horizontal



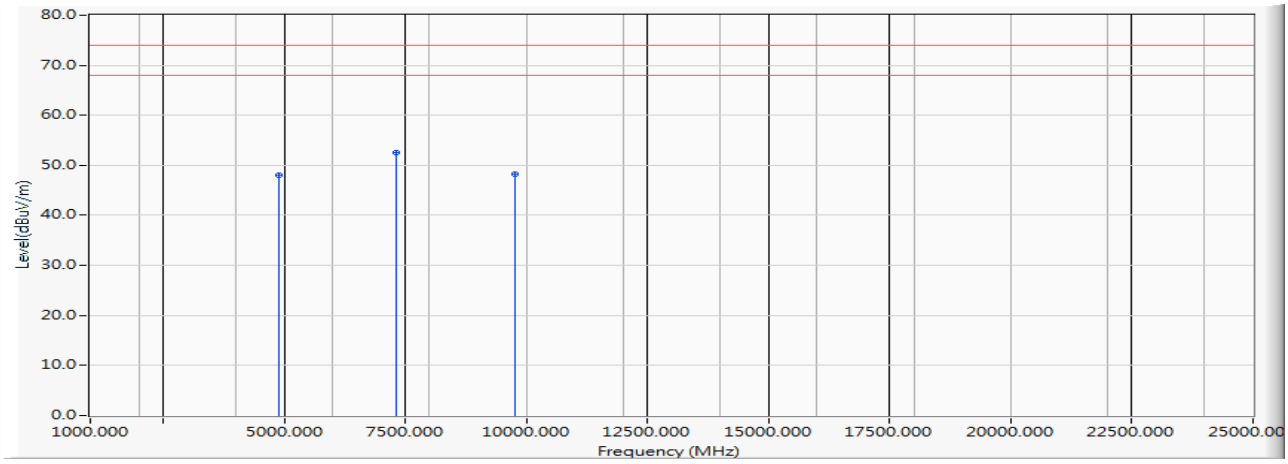
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4882.000	-14.379	63.170	48.791	-25.209	74.000	PEAK
2	*	7323.000	-12.564	62.110	49.546	-24.454	74.000	PEAK
3		9764.000	-10.701	59.470	48.769	-25.231	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Bluetooth Headset
Test Item	:	Harmonic Radiated Emission
Test Site	:	No.3 OATS
Test date	:	2019/09/18
Test Mode	:	Mode 3: Transmit - 3Mbps (8DPSK) (2441MHz)

Vertical



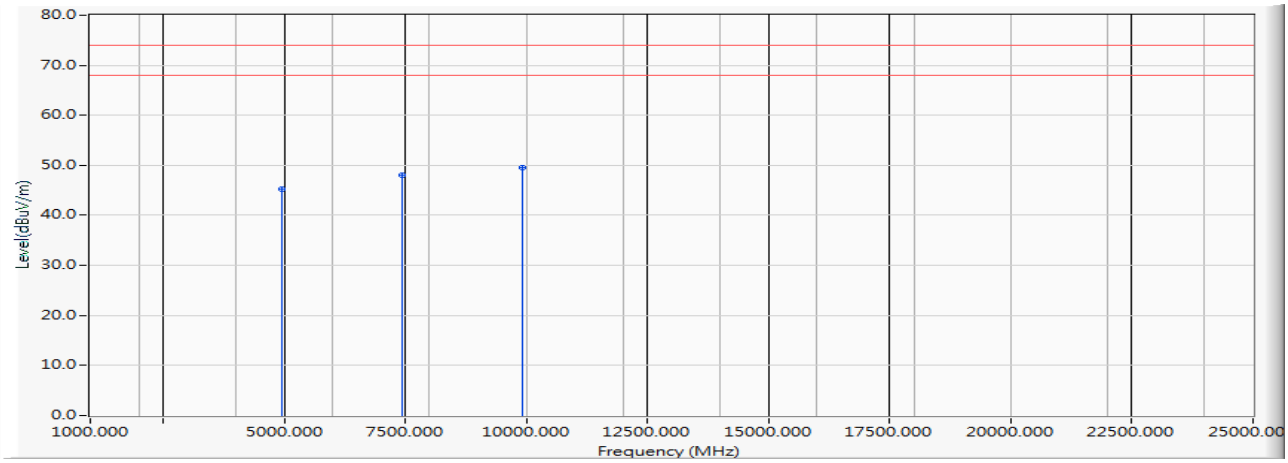
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4882.000	-14.379	62.430	48.051	-25.949	74.000	PEAK
2	*	7323.000	-12.564	65.020	52.456	-21.544	74.000	PEAK
3		9764.000	-10.701	58.880	48.179	-25.821	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Bluetooth Headset
Test Item	:	Harmonic Radiated Emission
Test Site	:	No.3 OATS
Test date	:	2019/09/18
Test Mode	:	Mode 3: Transmit - 3Mbps (8DPSK) (2480MHz)

Horizontal



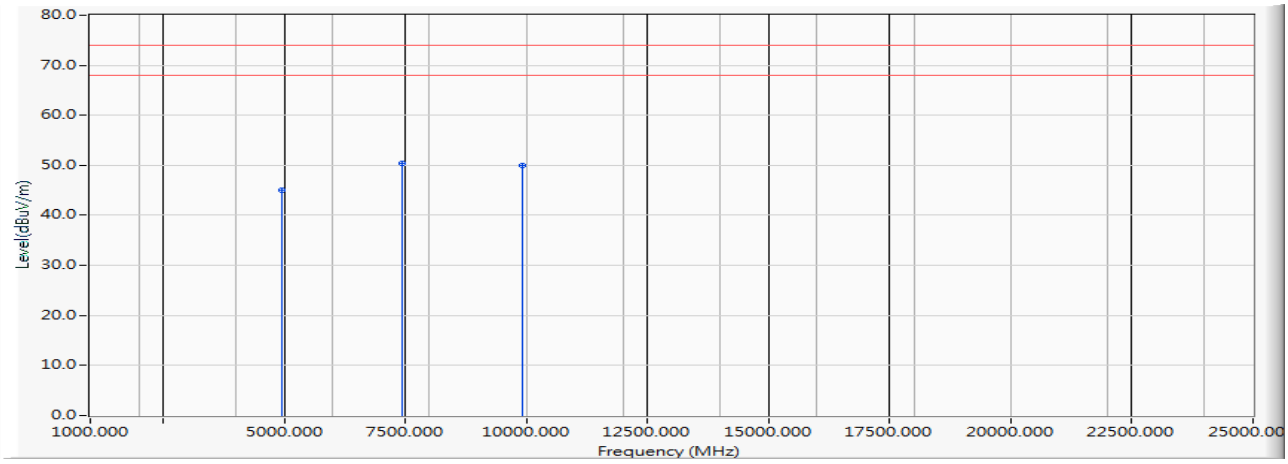
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4960.000	-13.462	58.670	45.208	-28.792	74.000	PEAK
2		7440.000	-13.842	61.830	47.988	-26.012	74.000	PEAK
3	*	9920.000	-12.531	62.060	49.529	-24.471	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Bluetooth Headset
Test Item : Harmonic Radiated Emission
Test Site : No.3 OATS
Test date : 2019/09/18
Test Mode : Mode 3: Transmit - 3Mbps (8DPSK) (2480MHz)

Vertical



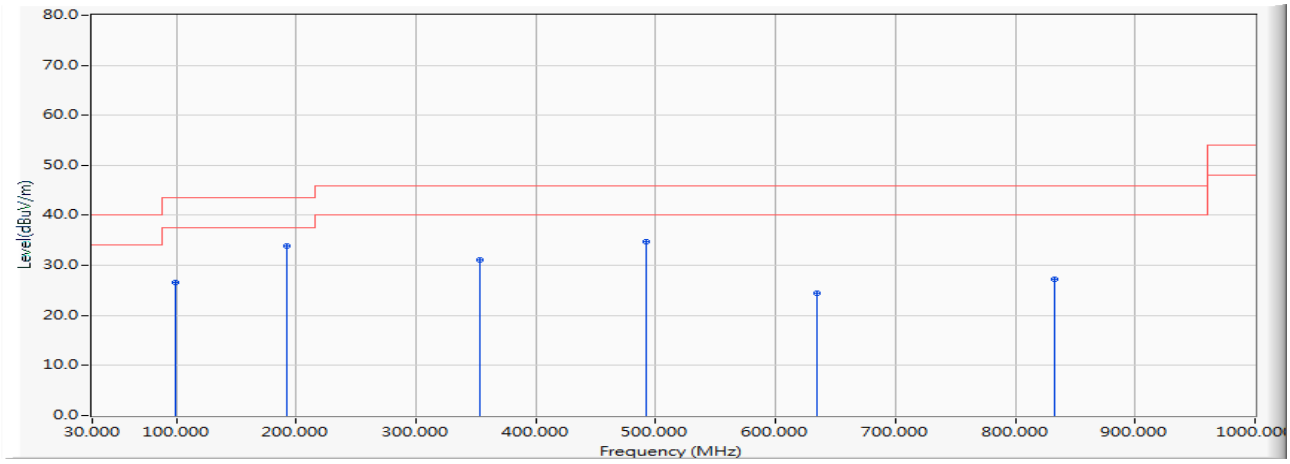
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4960.000	-13.462	58.420	44.958	-29.042	74.000	PEAK
2	*	7440.000	-13.842	64.260	50.418	-23.582	74.000	PEAK
3		9920.000	-12.531	62.540	50.009	-23.991	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Bluetooth Headset
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test date : 2019/09/17
Test Mode : Mode 1: Transmit - 1Mbps (GFSK) (2441MHz) (Right ear)

Horizontal



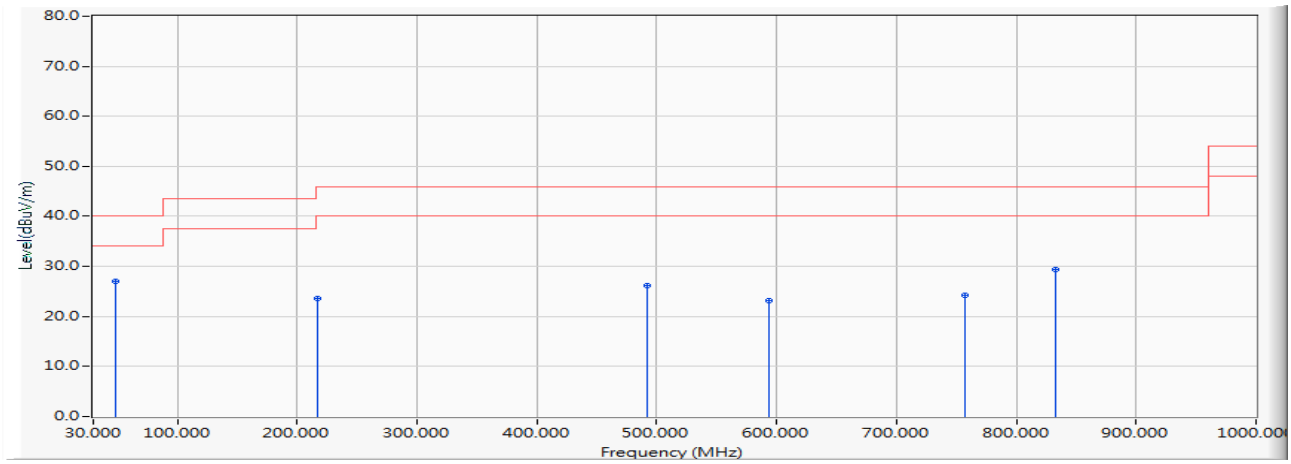
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		98.884	-16.266	42.916	26.650	-16.850	43.500	QUASIPEAK
2	*	191.667	-18.644	52.598	33.954	-9.546	43.500	QUASIPEAK
3		353.333	-13.111	44.189	31.078	-14.922	46.000	QUASIPEAK
4		492.507	-11.335	46.152	34.817	-11.183	46.000	QUASIPEAK
5		634.493	-8.631	33.054	24.423	-21.577	46.000	QUASIPEAK
6		832.710	-8.624	35.758	27.134	-18.866	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Bluetooth Headset
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test date : 2019/09/17
Test Mode : Mode 1: Transmit - 1Mbps (GFSK) (2441MHz) (Right ear)

Vertical



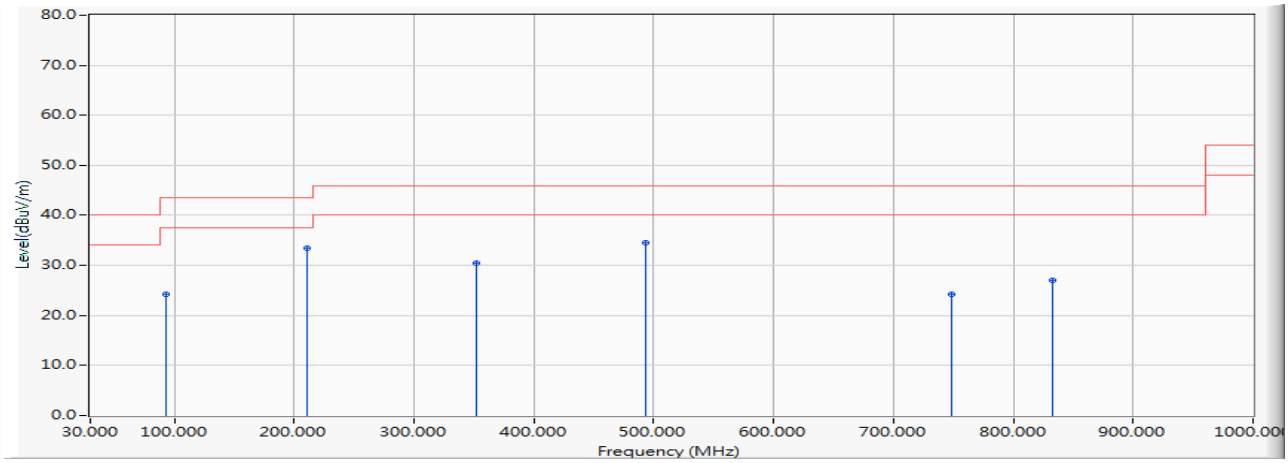
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	48.275	-18.060	45.154	27.093	-12.907	40.000	QUASIPEAK
2		216.971	-18.118	41.797	23.679	-22.321	46.000	QUASIPEAK
3		492.507	-11.335	37.400	26.065	-19.935	46.000	QUASIPEAK
4		593.725	-6.884	30.143	23.259	-22.741	46.000	QUASIPEAK
5		756.797	-7.372	31.575	24.202	-21.798	46.000	QUASIPEAK
6		832.710	-8.624	37.934	29.310	-16.690	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Bluetooth Headset
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test date : 2019/09/17
Test Mode : Mode 2: Transmit - 2Mbps (π/4DQPSK) (2441MHz) (Right ear)

Horizontal



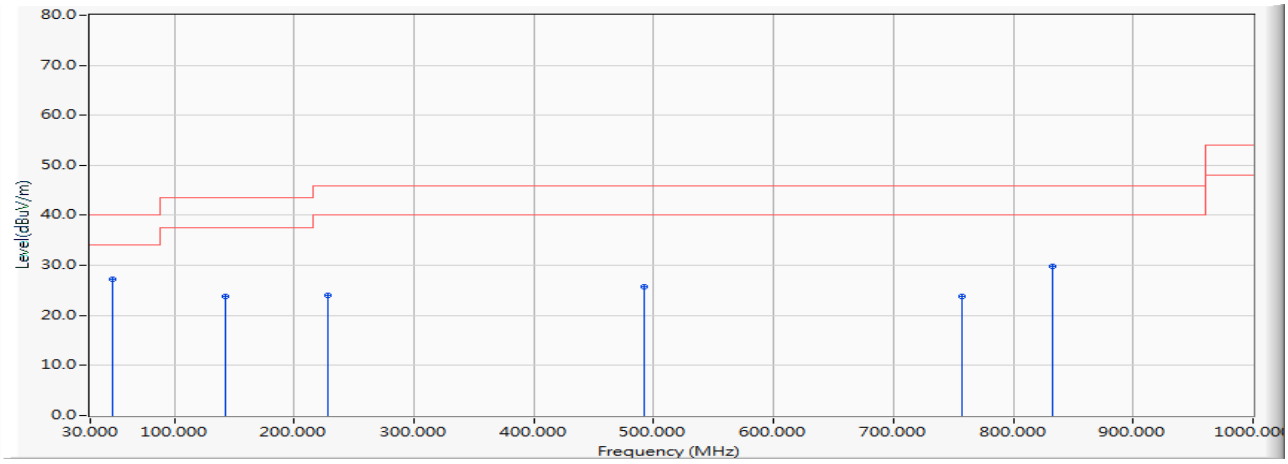
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		93.261	-17.066	41.339	24.272	-19.228	43.500	QUASIPEAK
2	*	211.348	-18.197	51.730	33.532	-9.968	43.500	QUASIPEAK
3		351.928	-13.196	43.584	30.388	-15.612	46.000	QUASIPEAK
4		493.913	-11.247	45.754	34.508	-11.492	46.000	QUASIPEAK
5		748.362	-6.419	30.732	24.313	-21.687	46.000	QUASIPEAK
6		832.710	-8.624	35.561	26.937	-19.063	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Bluetooth Headset
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test date : 2019/09/17
Test Mode : Mode 2: Transmit - 2Mbps (π/4DQPSK) (2441MHz) (Right ear)

Vertical



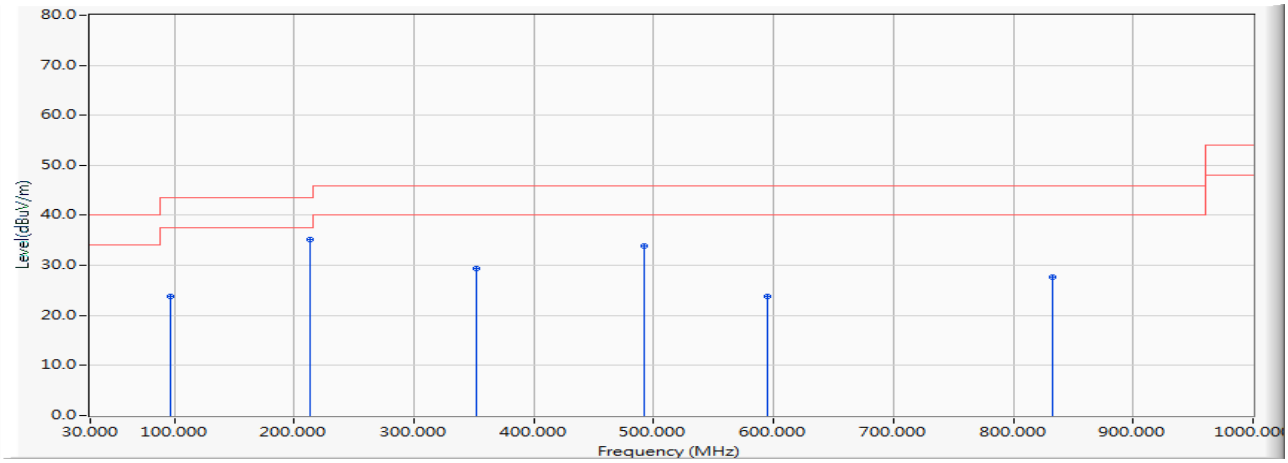
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	48.275	-18.060	45.380	27.319	-12.681	40.000	QUASIPEAK
2		142.464	-18.164	42.016	23.851	-19.649	43.500	QUASIPEAK
3		228.217	-17.691	41.610	23.919	-22.081	46.000	QUASIPEAK
4		492.507	-11.335	36.991	25.656	-20.344	46.000	QUASIPEAK
5		756.797	-7.372	31.277	23.904	-22.096	46.000	QUASIPEAK
6		832.710	-8.624	38.411	29.787	-16.213	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Bluetooth Headset
Test Item	:	General Radiated Emission
Test Site	:	No.3 OATS
Test date	:	2019/09/17
Test Mode	:	Mode 3: Transmit - 3Mbps (8DPSK) (2441MHz) (Right ear)

Horizontal



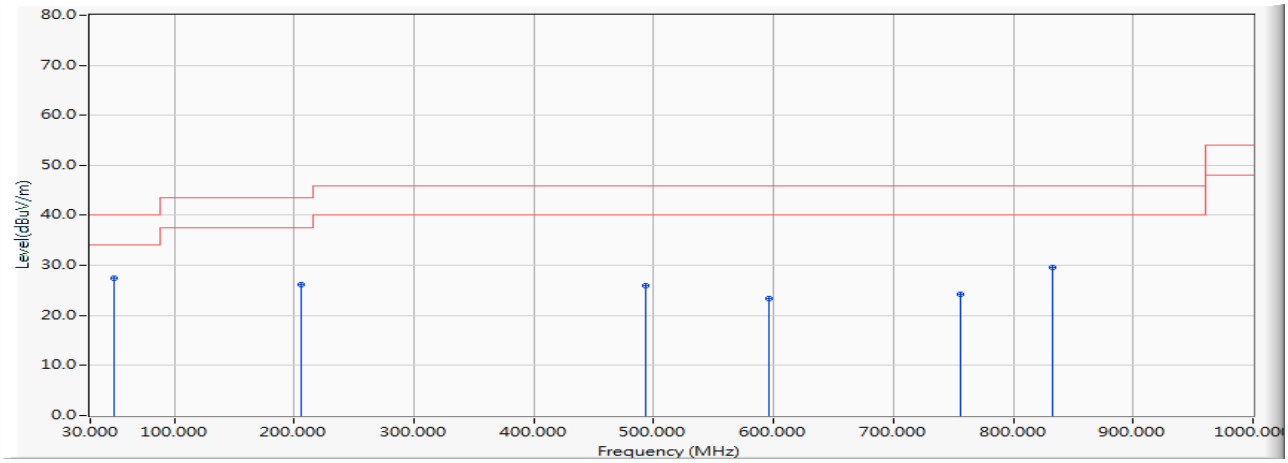
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		97.478	-16.559	40.468	23.909	-19.591	43.500	QUASIPEAK
2	*	212.754	-18.175	53.300	35.125	-8.375	43.500	QUASIPEAK
3		351.928	-13.196	42.562	29.366	-16.634	46.000	QUASIPEAK
4		492.507	-11.335	45.151	33.816	-12.184	46.000	QUASIPEAK
5		595.130	-6.823	30.694	23.871	-22.129	46.000	QUASIPEAK
6		832.710	-8.624	36.268	27.644	-18.356	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Bluetooth Headset
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test date : 2019/09/17
Test Mode : Mode 3: Transmit - 3Mbps (8DPSK) (2441MHz) (Right ear)

Vertical



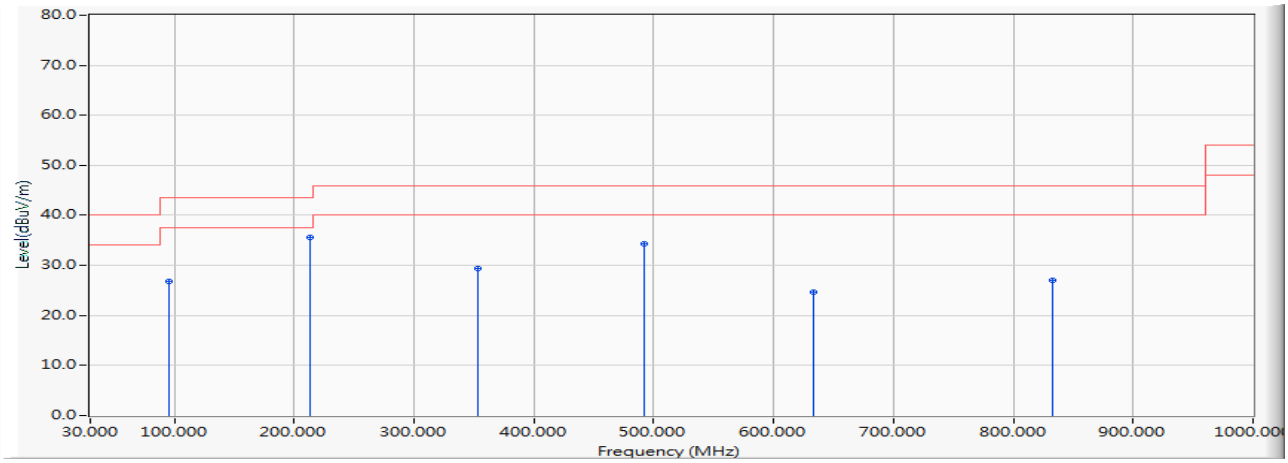
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	49.681	-17.989	45.462	27.473	-12.527	40.000	QUASIPEAK
2		205.725	-18.177	44.435	26.258	-17.242	43.500	QUASIPEAK
3		493.913	-11.247	37.246	26.000	-20.000	46.000	QUASIPEAK
4		596.536	-6.759	30.115	23.356	-22.644	46.000	QUASIPEAK
5		755.391	-7.210	31.444	24.235	-21.765	46.000	QUASIPEAK
6		832.710	-8.624	38.219	29.595	-16.405	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Bluetooth Headset
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test date : 2019/09/17
Test Mode : Mode 1: Transmit - 1Mbps (GFSK) (2441MHz) (Left ear)

Horizontal



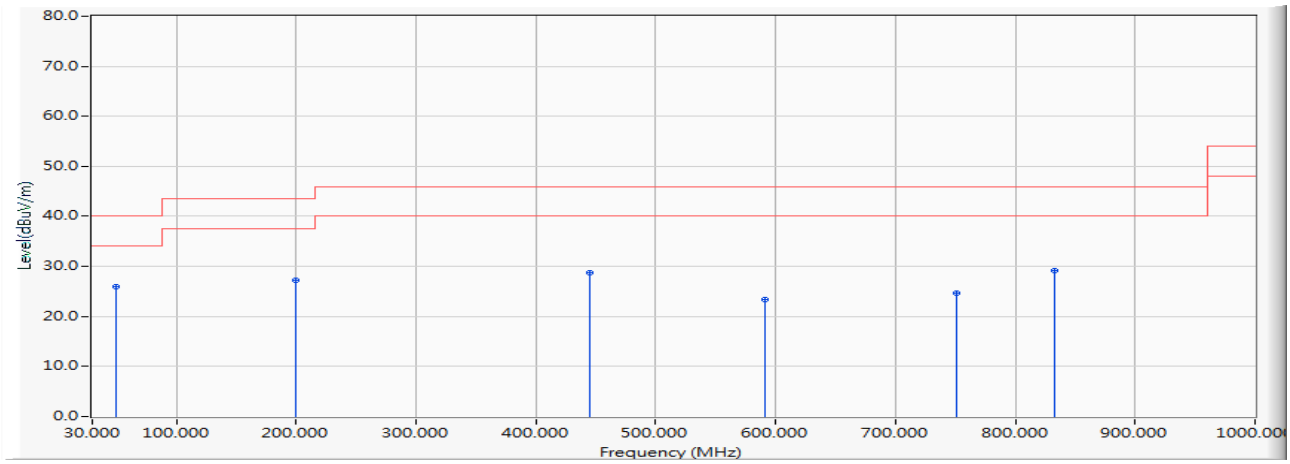
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		96.072	-16.854	43.575	26.721	-16.779	43.500	QUASIPEAK
2	*	212.754	-18.175	53.751	35.576	-7.924	43.500	QUASIPEAK
3		353.333	-13.111	42.428	29.317	-16.683	46.000	QUASIPEAK
4		492.507	-11.335	45.562	34.227	-11.773	46.000	QUASIPEAK
5		633.087	-8.585	33.284	24.698	-21.302	46.000	QUASIPEAK
6		832.710	-8.624	35.590	26.966	-19.034	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Bluetooth Headset
Test Item	:	General Radiated Emission
Test Site	:	No.3 OATS
Test date	:	2019/09/17
Test Mode	:	Mode 1: Transmit - 1Mbps (GFSK) (2441MHz) (Left ear)

Vertical



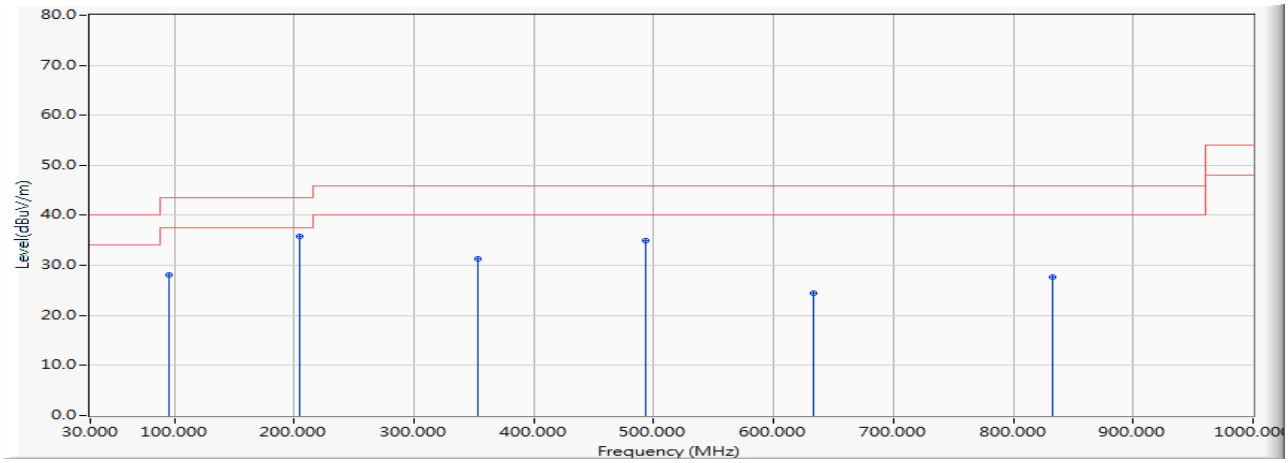
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	49.681	-17.989	43.941	25.952	-14.048	40.000	QUASIPEAK
2		200.101	-18.150	45.387	27.237	-16.263	43.500	QUASIPEAK
3		444.710	-9.941	38.760	28.818	-17.182	46.000	QUASIPEAK
4		590.913	-7.009	30.358	23.349	-22.651	46.000	QUASIPEAK
5		751.174	-6.727	31.303	24.576	-21.424	46.000	QUASIPEAK
6		832.710	-8.624	37.868	29.244	-16.756	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Bluetooth Headset
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test date : 2019/09/17
Test Mode : Mode 2: Transmit - 2Mbps (π/4DQPSK) (2441MHz) (Left ear)

Horizontal



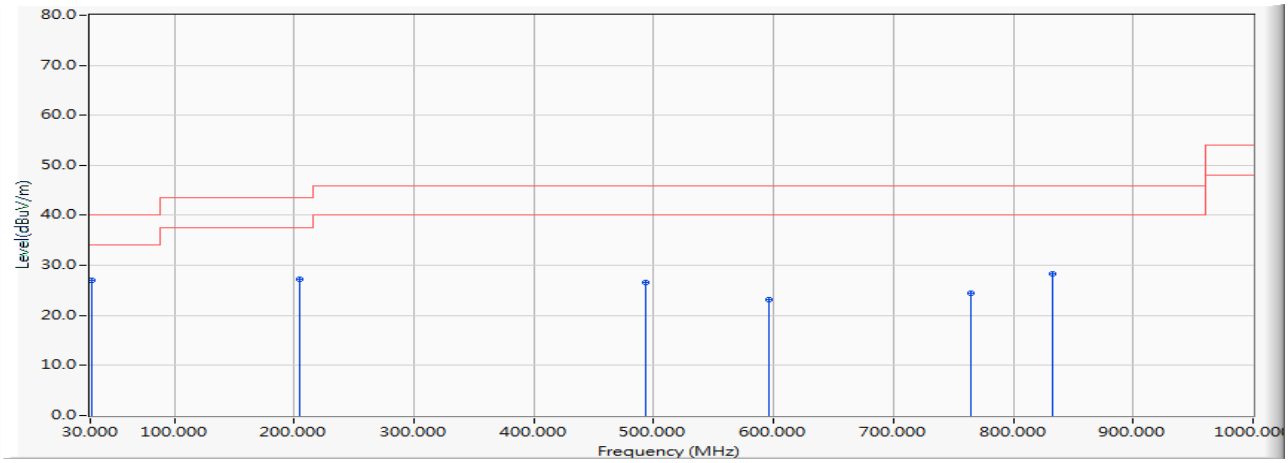
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		96.072	-16.854	44.864	28.010	-15.490	43.500	QUASIPEAK
2	*	204.319	-18.166	54.057	35.891	-7.609	43.500	QUASIPEAK
3		353.333	-13.111	44.404	31.293	-14.707	46.000	QUASIPEAK
4		493.913	-11.247	46.113	34.867	-11.133	46.000	QUASIPEAK
5		633.087	-8.585	33.085	24.499	-21.501	46.000	QUASIPEAK
6		832.710	-8.624	36.217	27.593	-18.407	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Bluetooth Headset
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test date : 2019/09/17
Test Mode : Mode 2: Transmit - 2Mbps (π/4DQPSK) (2441MHz) (Left ear)

Vertical



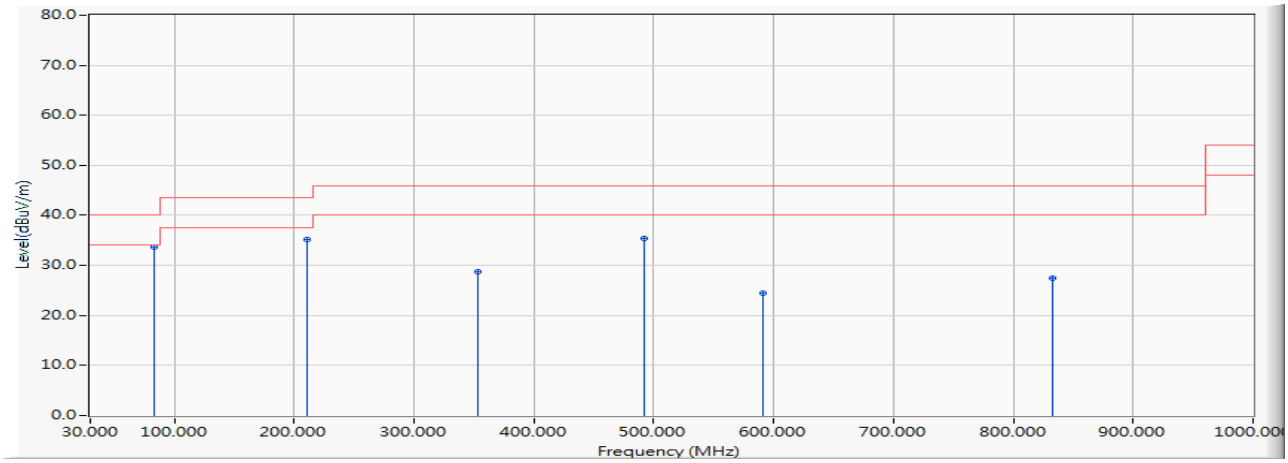
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	31.406	-14.090	41.027	26.937	-13.063	40.000	QUASIPEAK
2		204.319	-18.166	45.469	27.303	-16.197	43.500	QUASIPEAK
3		493.913	-11.247	37.870	26.624	-19.376	46.000	QUASIPEAK
4		596.536	-6.759	29.938	23.179	-22.821	46.000	QUASIPEAK
5		765.232	-7.956	32.391	24.435	-21.565	46.000	QUASIPEAK
6		832.710	-8.624	36.958	28.334	-17.666	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Bluetooth Headset
Test Item	:	General Radiated Emission
Test Site	:	No.3 OATS
Test date	:	2019/09/17
Test Mode	:	Mode 3: Transmit - 3Mbps (8DPSK) (2441MHz) (Left ear)

Horizontal



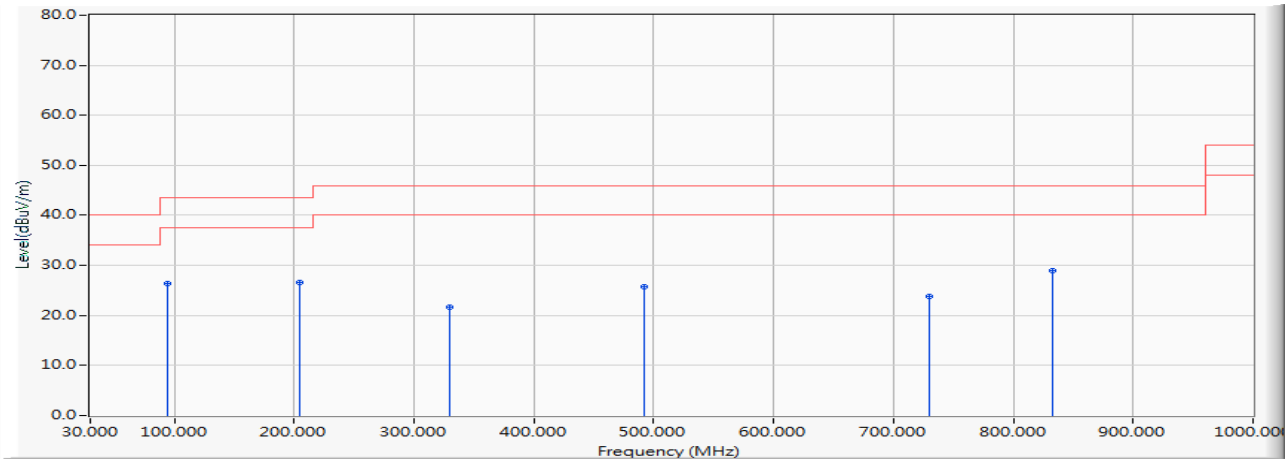
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	83.420	-18.673	52.274	33.601	-6.399	40.000	QUASIPEAK
2		211.348	-18.197	53.428	35.230	-8.270	43.500	QUASIPEAK
3		353.333	-13.111	41.948	28.837	-17.163	46.000	QUASIPEAK
4		492.507	-11.335	46.654	35.319	-10.681	46.000	QUASIPEAK
5		590.913	-7.009	31.555	24.546	-21.454	46.000	QUASIPEAK
6		832.710	-8.624	35.972	27.348	-18.652	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Bluetooth Headset
Test Item	:	General Radiated Emission
Test Site	:	No.3 OATS
Test date	:	2019/09/17
Test Mode	:	Mode 3: Transmit - 3Mbps (8DPSK) (2441MHz) (Left ear)

Vertical



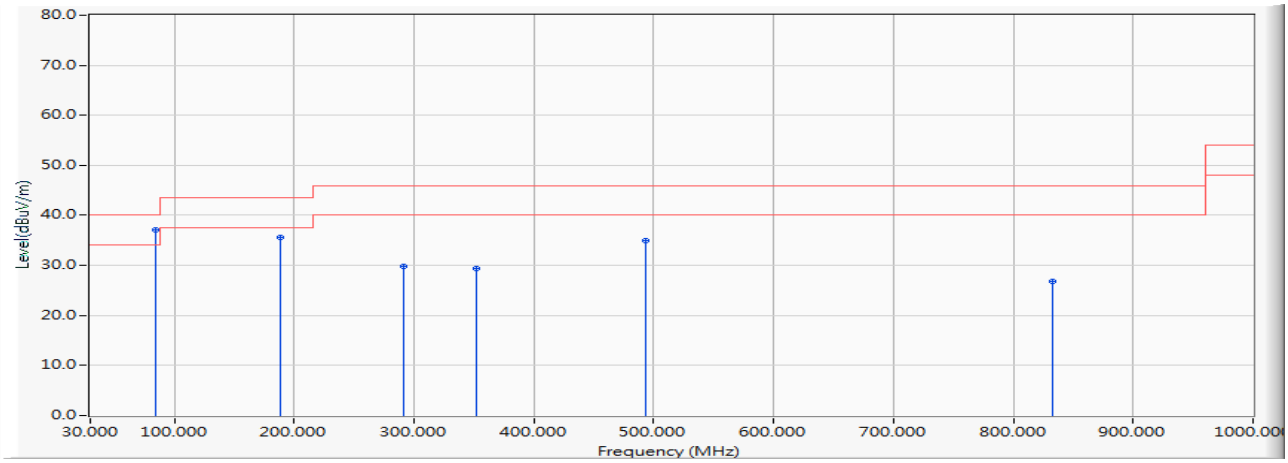
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		94.667	-17.077	43.518	26.441	-17.059	43.500	QUASIPEAK
2	*	204.319	-18.166	44.855	26.689	-16.811	43.500	QUASIPEAK
3		329.435	-14.011	35.616	21.605	-24.395	46.000	QUASIPEAK
4		492.507	-11.335	37.141	25.806	-20.194	46.000	QUASIPEAK
5		730.087	-7.221	31.076	23.856	-22.144	46.000	QUASIPEAK
6		832.710	-8.624	37.524	28.900	-17.100	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Bluetooth Headset
Test Item	:	General Radiated Emission
Test Site	:	No.3 OATS
Test date	:	2019/09/17
Test Mode	:	Mode 4: Charge

Horizontal



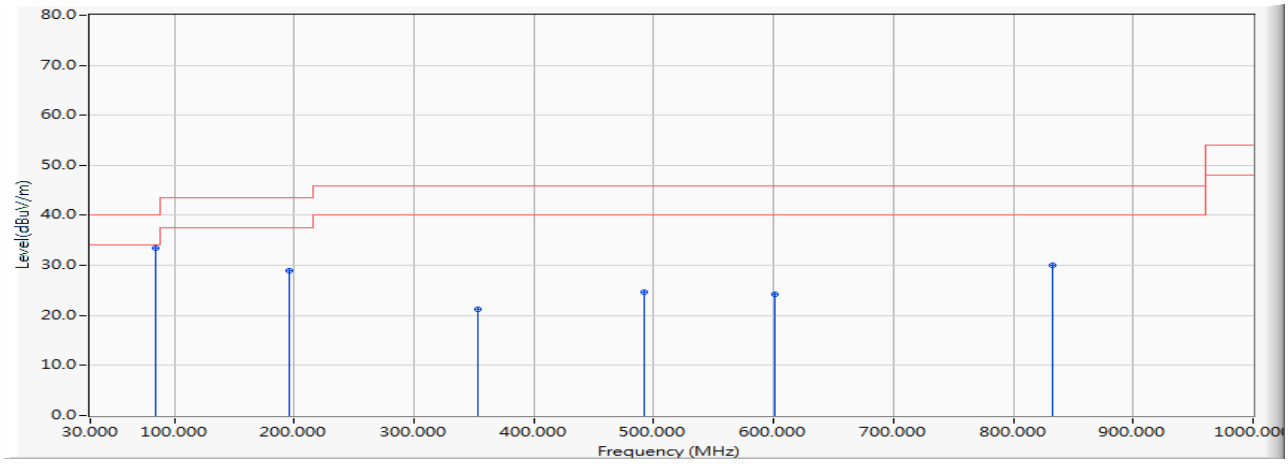
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	84.826	-18.413	55.549	37.136	-2.864	40.000	QUASIPEAK
2		188.855	-18.813	54.492	35.679	-7.821	43.500	QUASIPEAK
3		291.478	-16.707	46.423	29.715	-16.285	46.000	QUASIPEAK
4		351.928	-13.196	42.654	29.458	-16.542	46.000	QUASIPEAK
5		493.913	-11.247	46.249	35.003	-10.997	46.000	QUASIPEAK
6		832.710	-8.624	35.386	26.762	-19.238	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Bluetooth Headset
Test Item	:	General Radiated Emission
Test Site	:	No.3 OATS
Test date	:	2019/09/17
Test Mode	:	Mode 4: Charge

Vertical



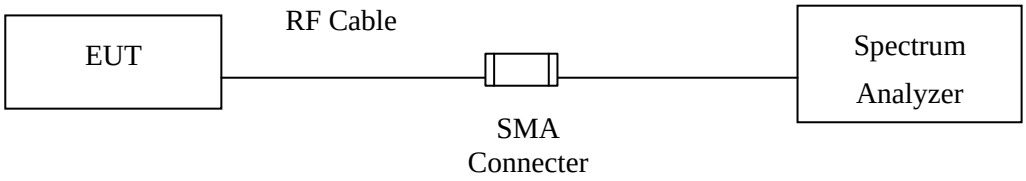
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	84.826	-18.413	51.822	33.409	-6.591	40.000	QUASIPEAK
2		195.884	-18.391	47.247	28.856	-14.644	43.500	QUASIPEAK
3		353.333	-13.111	34.252	21.141	-24.859	46.000	QUASIPEAK
4		492.507	-11.335	35.905	24.570	-21.430	46.000	QUASIPEAK
5		600.754	-6.657	30.826	24.170	-21.830	46.000	QUASIPEAK
6		832.710	-8.624	38.695	30.071	-15.929	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

5. RF Antenna Conducted Test

5.1. Test Setup



5.2. Limits

According to RSS-247 Issue 2, 5.5 (Feb, 2017). In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

5.3. Test Procedure

The EUT was setup to ANSI C63.10: 2013; According to RSS-247 Issue 2, 5.5 (Feb, 2017).

5.4. Uncertainty

± 1.20dB

5.5. Test Result of RF Antenna Conducted Test

Product	:	Bluetooth Headset
Test Item	:	RF Antenna Conducted Test
Test Site	:	No.3 OATS
Test date	:	2019/09/10
Test Mode	:	Mode 1: Transmit - 1Mbps (GFSK)

Figure Channel 00:

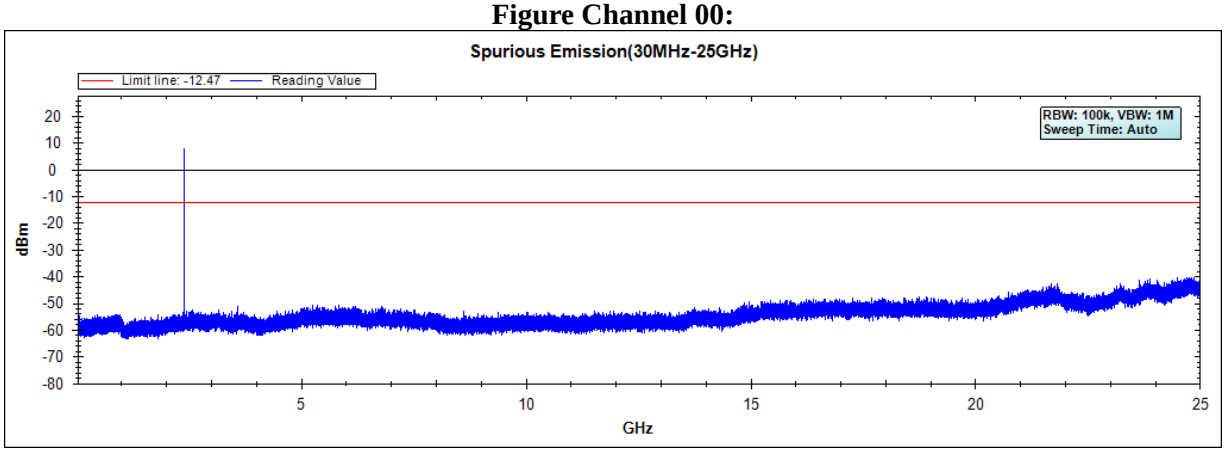


Figure Channel 39:

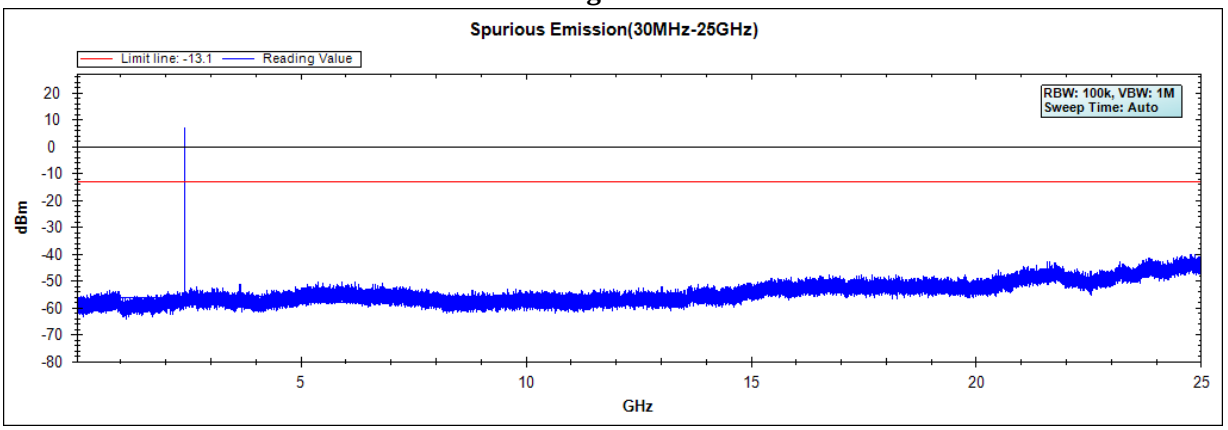
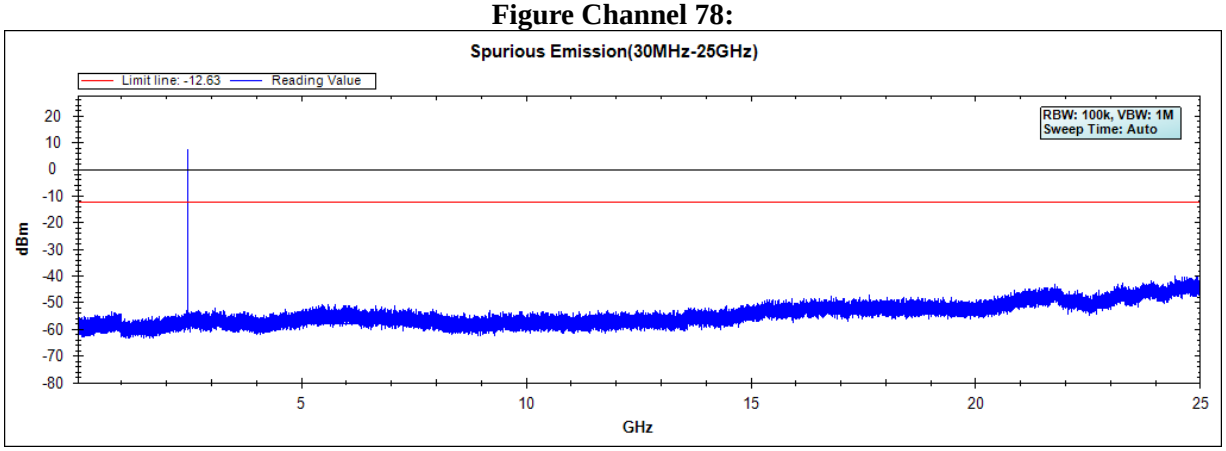


Figure Channel 78:



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

Product	:	Bluetooth Headset
Test Item	:	RF Antenna Conducted Test
Test Site	:	No.3 OATS
Test date	:	2019/09/11
Test Mode	:	Mode 2: Transmit - 2Mbps (π/4DQPSK)

Figure Channel 00:

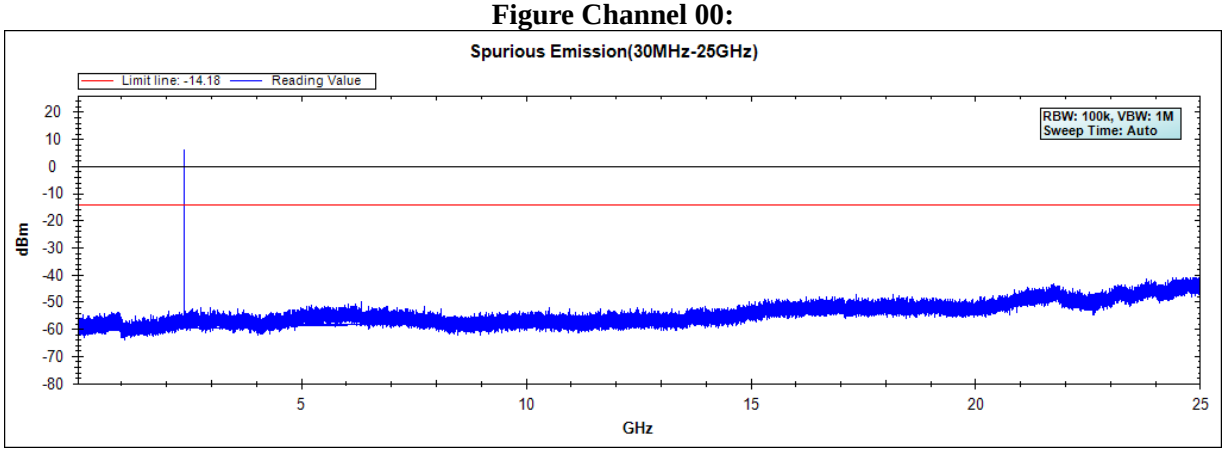


Figure Channel 39:

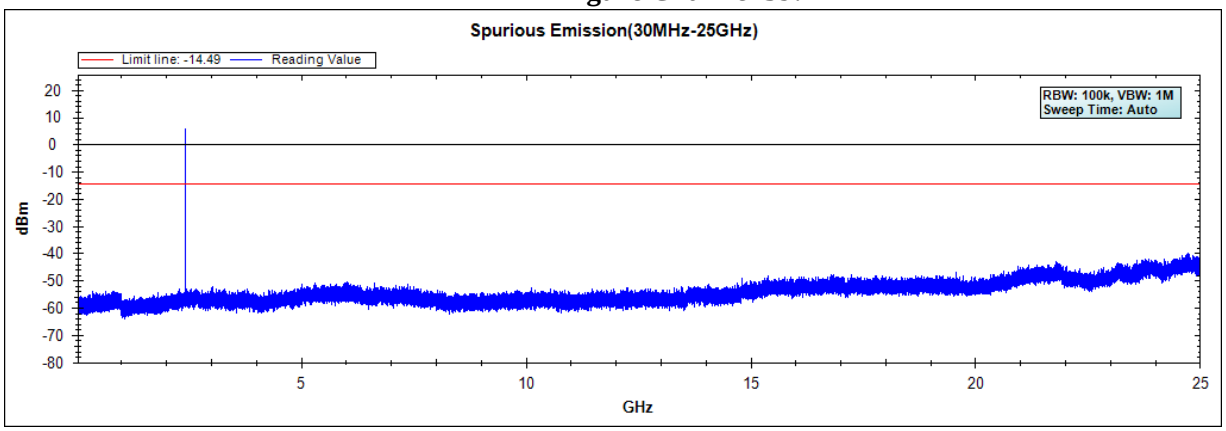
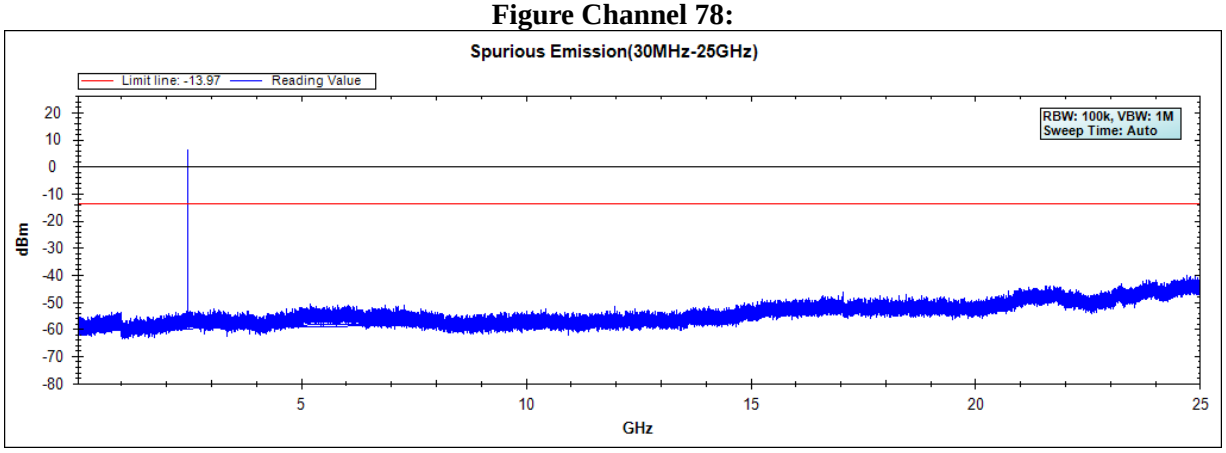


Figure Channel 78:



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

Product	:	Bluetooth Headset
Test Item	:	RF Antenna Conducted Test
Test Site	:	No.3 OATS
Test date	:	2019/09/11
Test Mode	:	Mode 3: Transmit - 3Mbps (8DPSK)

Figure Channel 00:

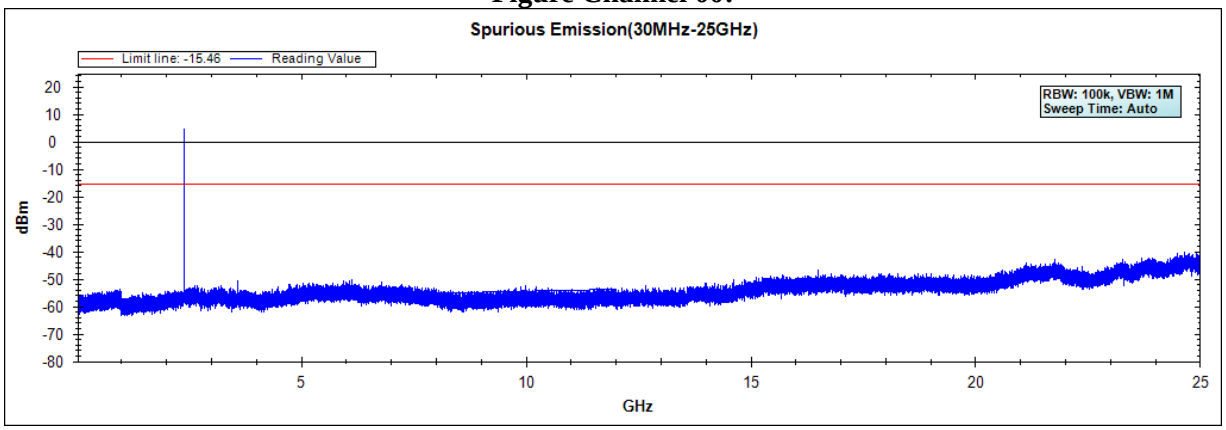


Figure Channel 39:

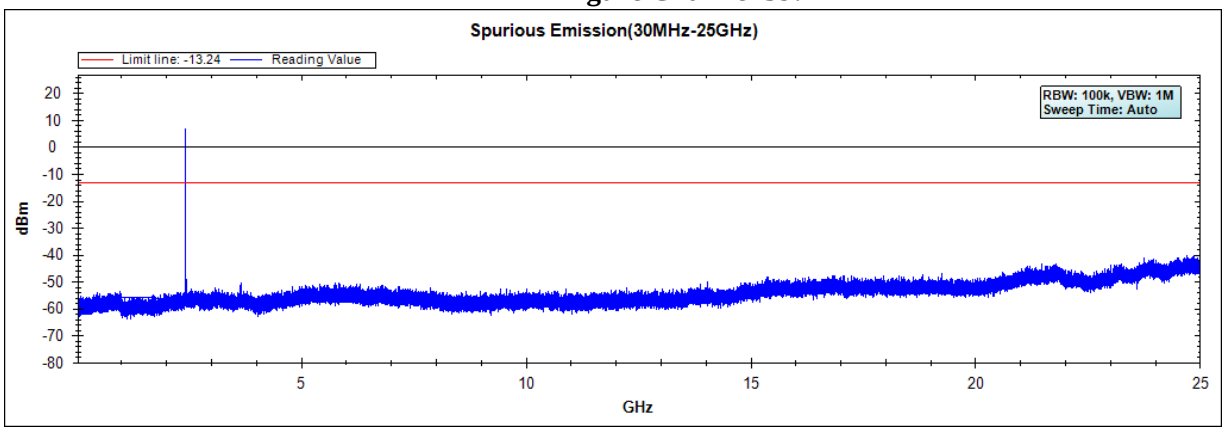
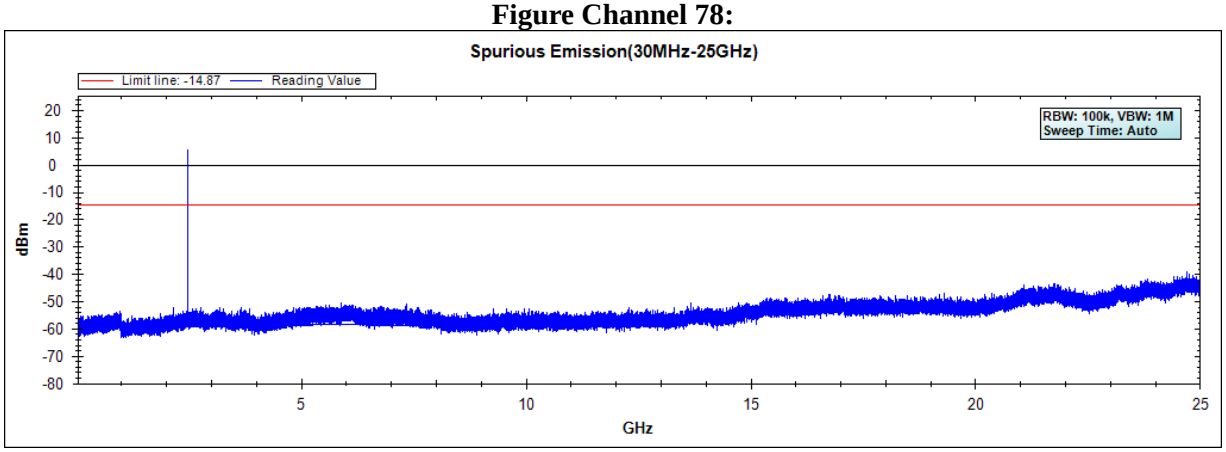


Figure Channel 78:

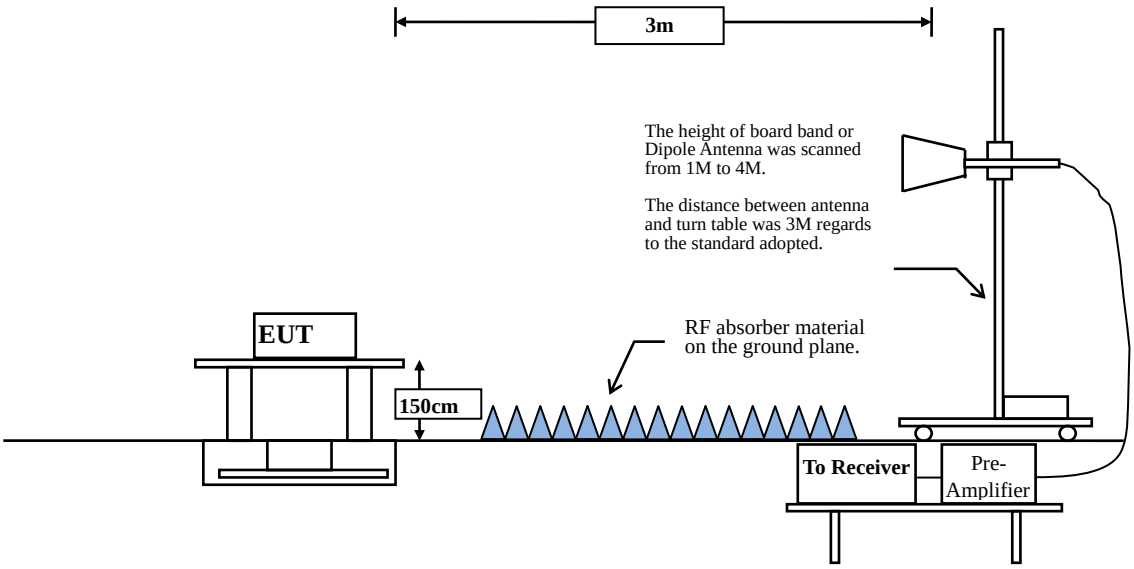


Note: The above test pattern is synthesized by multiple of the frequency range.

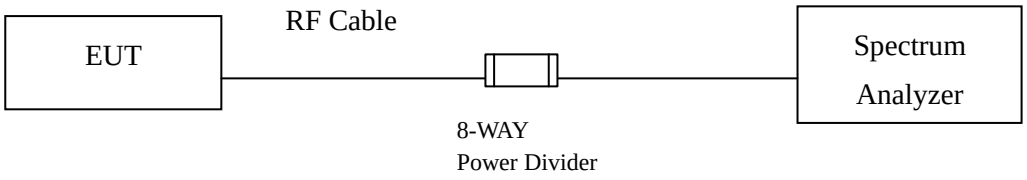
6. Band Edge

6.1. Test Setup

Above 1GHz



RF Conducted Measurement



6.2. Limits

According to RSS-247 Issue 2 (Feb 2017). In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

6.3. Test Procedure

The EUT and its simulators are placed on a turn table which is 1.5 meter above ground. The turn table can rotate 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 below 1GHz setting on the field strength meter is 120 kHz, above 1GHz are 1 MHz.

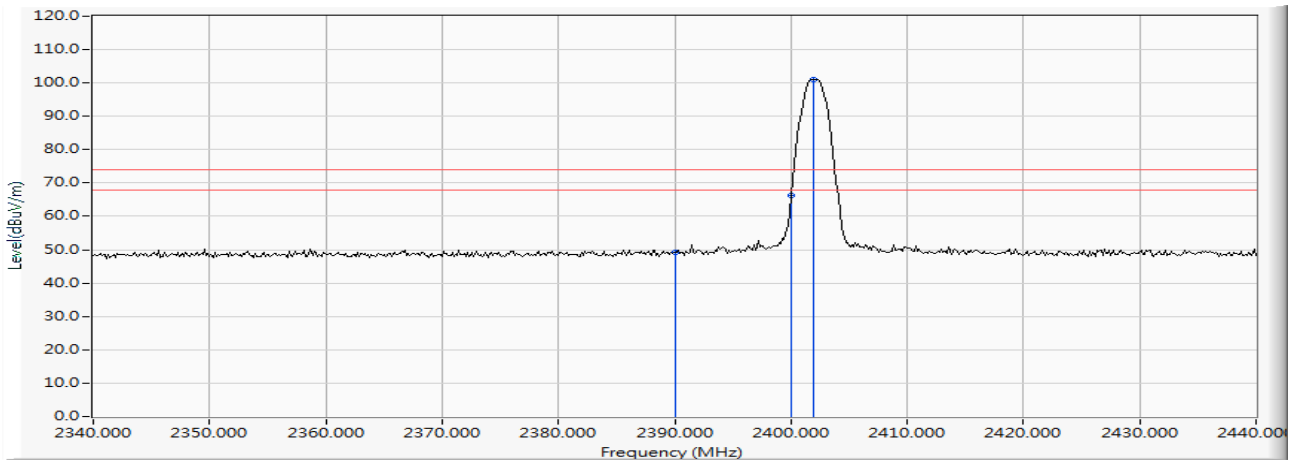
6.4. Uncertainty

± 4.08 dB above 1GHz
± 4.22 dB below 1GHz

6.5. Test Result of Band Edge

Product	:	Bluetooth Headset
Test Item	:	Band Edge
Test Site	:	No.3 OATS
Test date	:	2019/09/16
Test Mode	:	Mode 1: Transmit - 1Mbps (GFSK) (2402MHz)

Horizontal



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	8.763	40.603	49.366	-24.634	74.000	PEAK
2		2400.000	8.799	57.586	66.385	--	--	PEAK
3	*	2401.884	8.806	92.294	101.100	--	--	PEAK

Note:

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

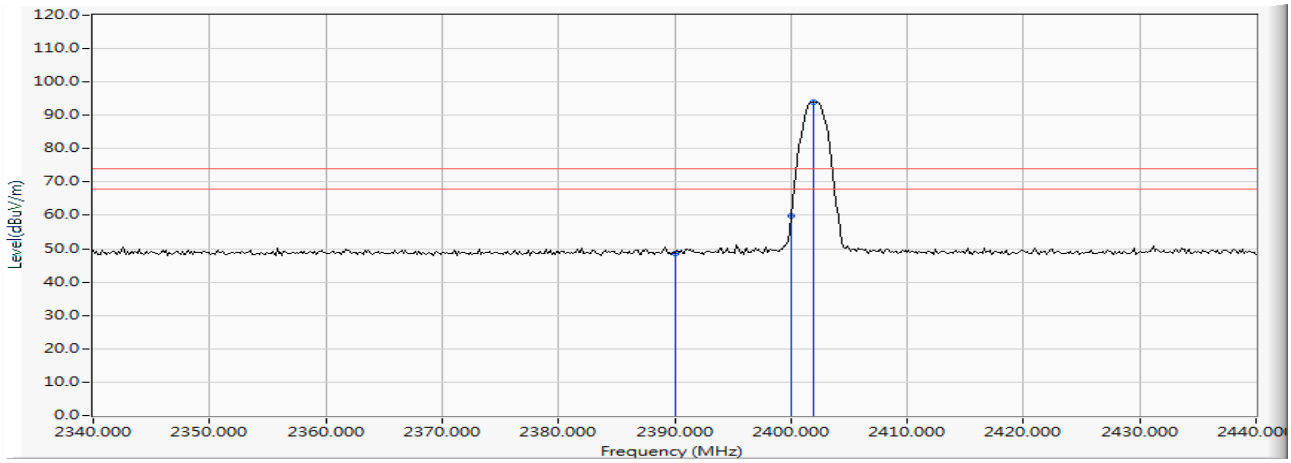
Channel No.	Frequency (MHz)	Peak Measurement (dBµV/m)	Duty Cycle Factor (dB)	Measurement (dBµV/m)	Margin (dB)	Limit (dBuV/m)
00 (Average)	2390	49.366	-2.662	46.704	-7.296	54.000
00 (Average)	2400	66.385	-2.662	63.723	--	--
00 (Average)	2401.884	101.1	-2.662	98.438	--	--

Note:

1. Average Measurement=Peak Measurement + Duty Cycle Factor
2. The Duty Cycle is refer to section 12.

Product : Bluetooth Headset
Test Item : Band Edge
Test Site : No.3 OATS
Test date : 2019/09/16
Test Mode : Mode 1: Transmit - 1Mbps (GFSK) (2402MHz)

Vertical



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	8.763	39.926	48.689	-25.311	74.000	PEAK
2		2400.000	8.799	50.892	59.691	--	--	PEAK
3	*	2401.884	8.806	85.270	94.076	--	--	PEAK

Note:

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

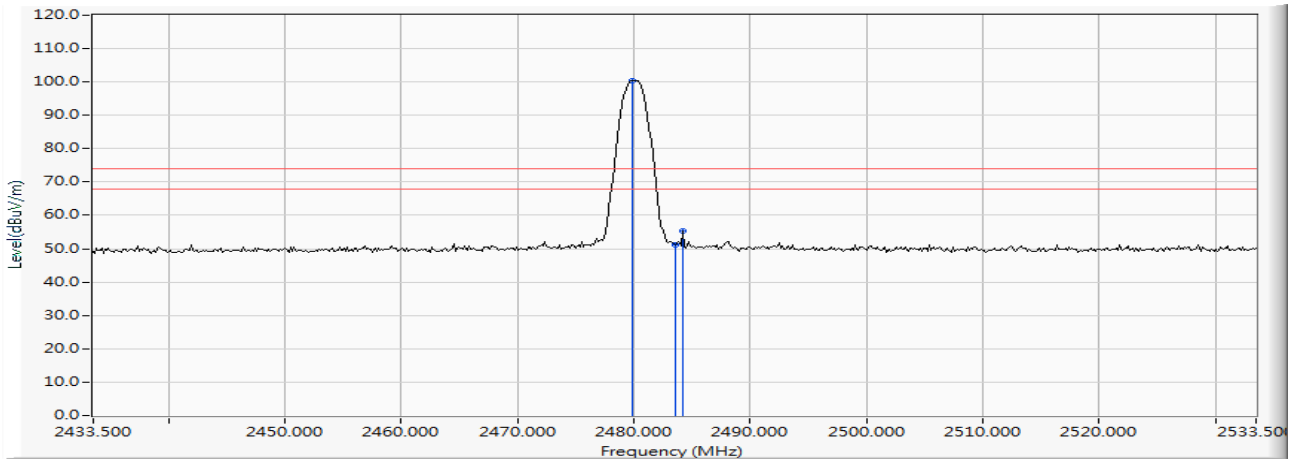
Channel No.	Frequency (MHz)	Peak Measurement (dBµV/m)	Duty Cycle Factor (dB)	Measurement (dBµV/m)	Margin (dB)	Limit (dBuV/m)
00 (Average)	2390	48.689	-2.662	46.027	-7.973	54.000
00 (Average)	2400	59.691	-2.662	57.029	--	--
00 (Average)	2401.884	94.076	-2.662	91.414	--	--

Note:

1. Average Measurement=Peak Measurement + Duty Cycle Factor
2. The Duty Cycle is refer to section 12.

Product : Bluetooth Headset
Test Item : Band Edge
Test Site : No.3 OATS
Test date : 2019/09/16
Test Mode : Mode 1: Transmit - 1Mbps (GFSK) (2480MHz)

Horizontal



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2479.877	9.086	91.286	100.372	--	--	PEAK
2		2483.500	9.100	42.152	51.251	-22.749	74.000	PEAK
3		2484.225	9.102	46.090	55.192	-18.808	74.000	PEAK

Note:

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

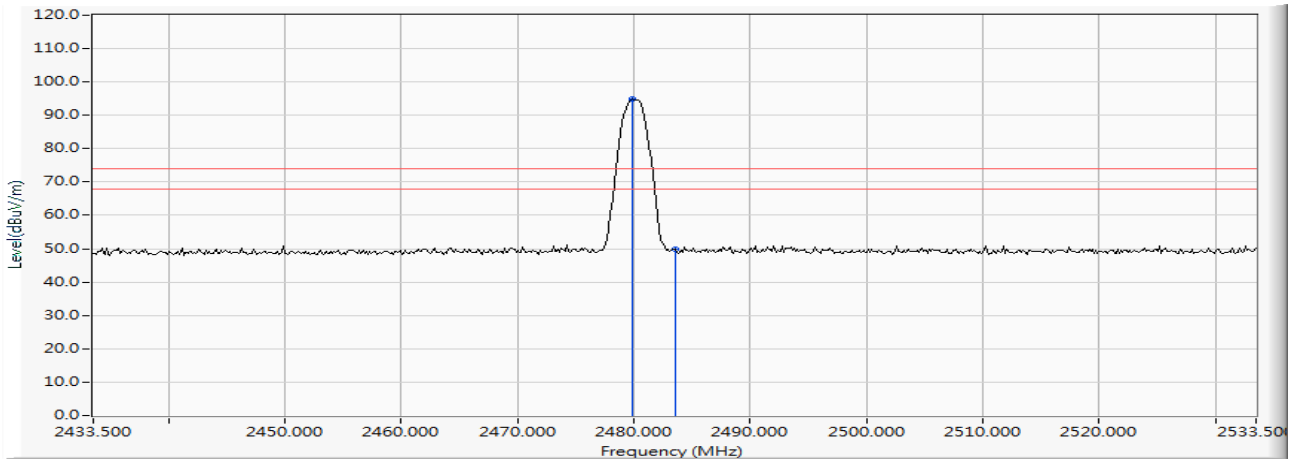
Channel No.	Frequency (MHz)	Peak Measurement (dBµV/m)	Duty Cycle Factor (dB)	Measurement (dBµV/m)	Margin (dB)	Limit (dBuV/m)
78 (Average)	2479.877	100.372	-2.662	97.710	--	--
78 (Average)	2483.5	51.251	-2.662	48.589	-5.411	54.000
78 (Average)	2484.225	55.192	-2.662	52.530	-1.470	54.000

Note:

1. Average Measurement=Peak Measurement + Duty Cycle Factor
2. The Duty Cycle is refer to section 12.

Product : Bluetooth Headset
Test Item : Band Edge
Test Site : No.3 OATS
Test date : 2019/09/16
Test Mode : Mode 1: Transmit - 1Mbps (GFSK) (2480MHz)

Vertical



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2479.877	9.086	85.697	94.783	--	--	PEAK
2		2483.500	9.100	40.694	49.793	-24.207	74.000	PEAK

Note:

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

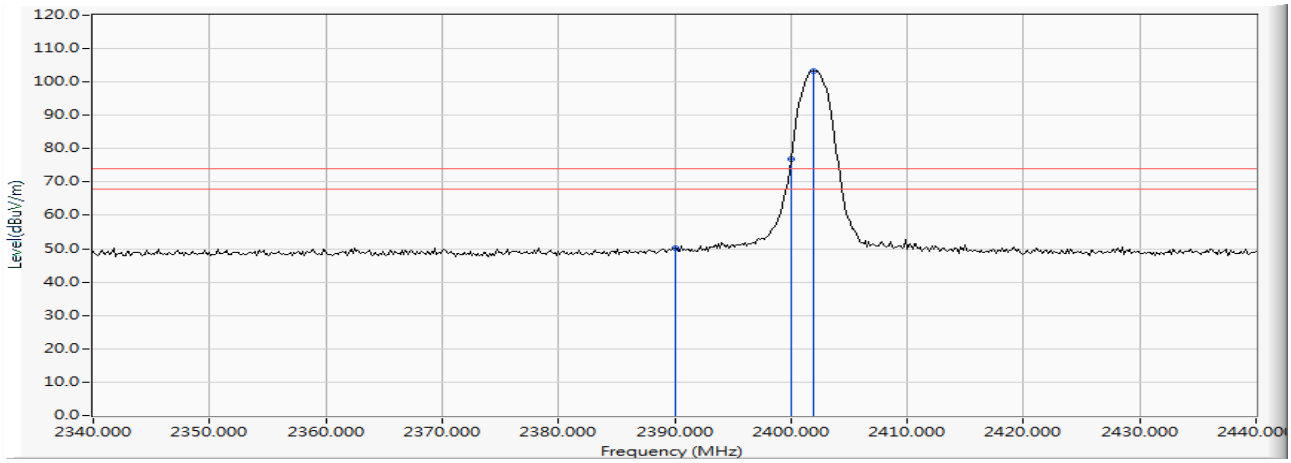
Channel No.	Frequency (MHz)	Peak Measurement (dBµV/m)	Duty Cycle Factor (dB)	Measurement (dBµV/m)	Margin (dB)	Limit (dBuV/m)
78 (Average)	2479.877	94.783	-2.662	92.121	--	--
78 (Average)	2483.5	49.793	-2.662	47.131	-6.869	54.000

Note:

1. Average Measurement=Peak Measurement + Duty Cycle Factor
2. The Duty Cycle is refer to section 12.

Product : Bluetooth Headset
Test Item : Band Edge
Test Site : No.3 OATS
Test date : 2019/09/16
Test Mode : Mode 2: Transmit - 2Mbps (π/4DQPSK) (2402MHz)

Horizontal



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	8.763	41.441	50.204	-23.796	74.000	PEAK
2		2400.000	8.799	68.225	77.024	--	--	PEAK
3	*	2401.884	8.806	94.484	103.290	--	--	PEAK

Note:

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

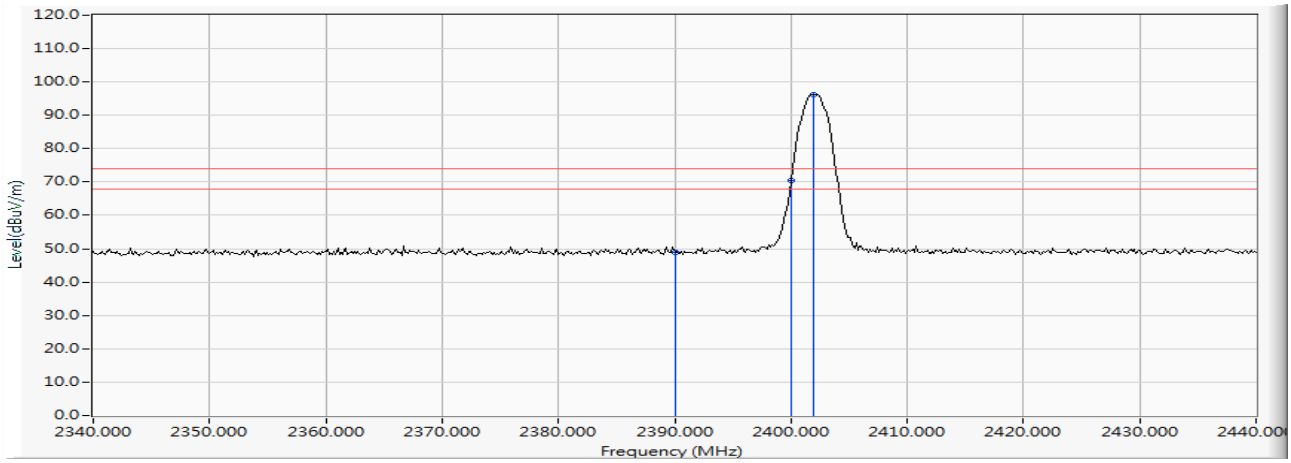
Channel No.	Frequency (MHz)	Peak Measurement (dBμV/m)	Duty Cycle Factor (dB)	Measurement (dBμV/m)	Margin (dB)	Limit (dBuV/m)
00 (Average)	2390	50.204	-2.293	47.911	-6.089	54.000
00 (Average)	2400	77.024	-2.293	74.731	--	--
00 (Average)	2401.884	103.29	-2.293	100.997	--	--

Note:

1. Average Measurement=Peak Measurement + Duty Cycle Factor
2. The Duty Cycle is refer to section 12.

Product : Bluetooth Headset
Test Item : Band Edge
Test Site : No.3 OATS
Test date : 2019/09/16
Test Mode : Mode 2: Transmit - 2Mbps (π/4DQPSK) (2402MHz)

Vertical



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	8.763	40.127	48.890	-25.110	74.000	PEAK
2		2400.000	8.799	61.588	70.387	--	--	PEAK
3	*	2401.884	8.806	87.526	96.332	--	--	PEAK

Note:

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

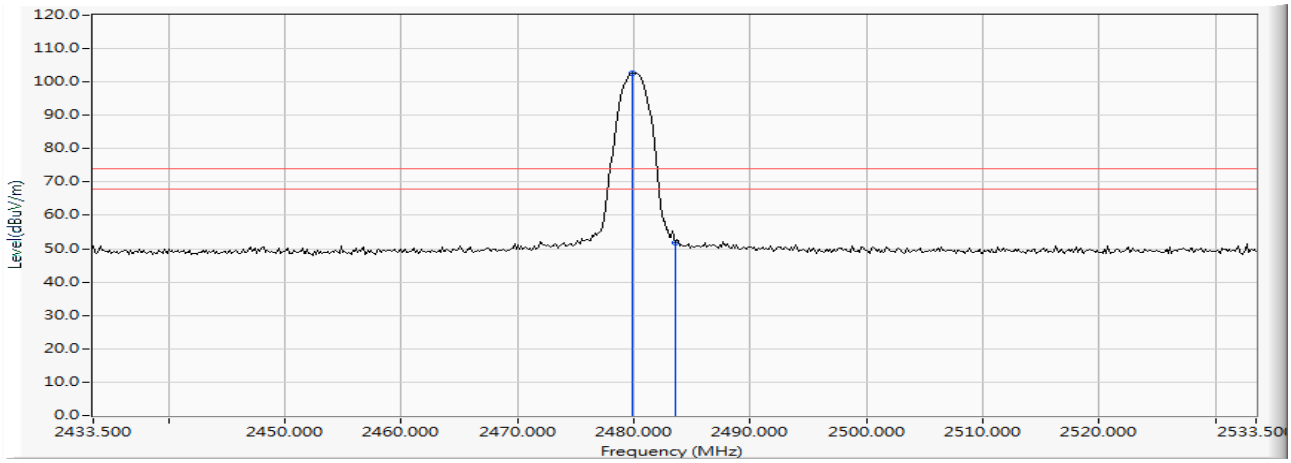
Channel No.	Frequency (MHz)	Peak Measurement (dBμV/m)	Duty Cycle Factor (dB)	Measurement (dBμV/m)	Margin (dB)	Limit (dBuV/m)
00 (Average)	2390	48.89	-2.293	46.597	-7.403	54.000
00 (Average)	2400	70.387	-2.293	68.094	--	--
00 (Average)	2401.884	96.332	-2.293	94.039	--	--

Note:

1. Average Measurement=Peak Measurement + Duty Cycle Factor
2. The Duty Cycle is refer to section 12.

Product : Bluetooth Headset
Test Item : Band Edge
Test Site : No.3 OATS
Test date : 2019/09/16
Test Mode : Mode 2: Transmit - 2Mbps (π/4DQPSK) (2480MHz)

Horizontal



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2479.877	9.086	93.527	102.613	--	--	PEAK
2		2483.500	9.100	42.643	51.742	-22.258	74.000	PEAK

Note:

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

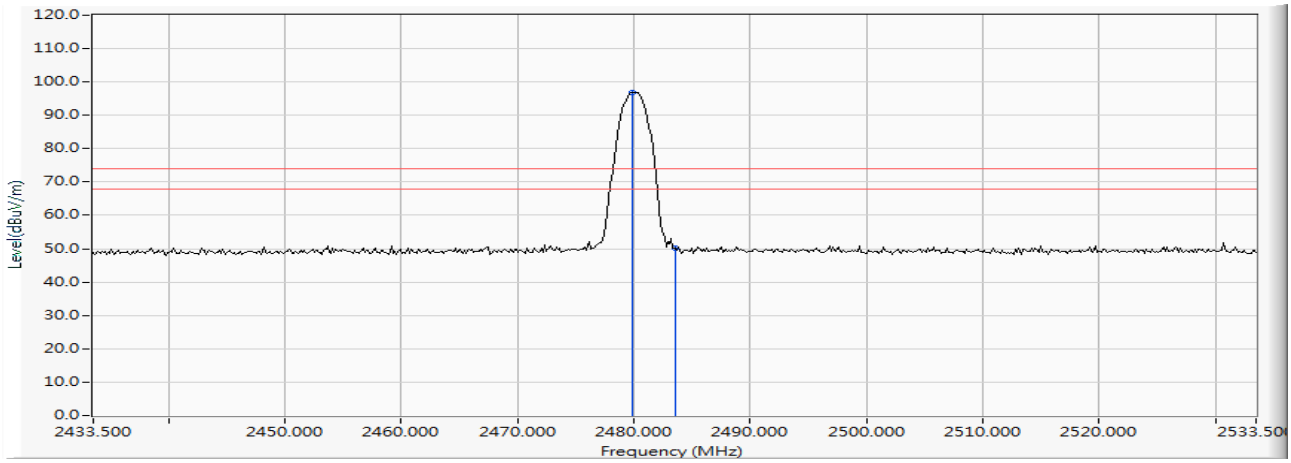
Channel No.	Frequency (MHz)	Peak Measurement (dBμV/m)	Duty Cycle Factor (dB)	Measurement (dBμV/m)	Margin (dB)	Limit (dBuV/m)
78 (Average)	2479.877	102.613	-2.293	100.320	--	--
78 (Average)	2483.5	51.742	-2.293	49.449	-4.551	54.000

Note:

1. Average Measurement=Peak Measurement + Duty Cycle Factor
2. The Duty Cycle is refer to section 12.

Product : Bluetooth Headset
Test Item : Band Edge
Test Site : No.3 OATS
Test date : 2019/09/16
Test Mode : Mode 2: Transmit - 2Mbps (π/4DQPSK) (2480MHz)

Vertical



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2479.877	9.086	87.911	96.997	--	--	PEAK
2		2483.500	9.100	41.180	50.279	-23.721	74.000	PEAK

Note:

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

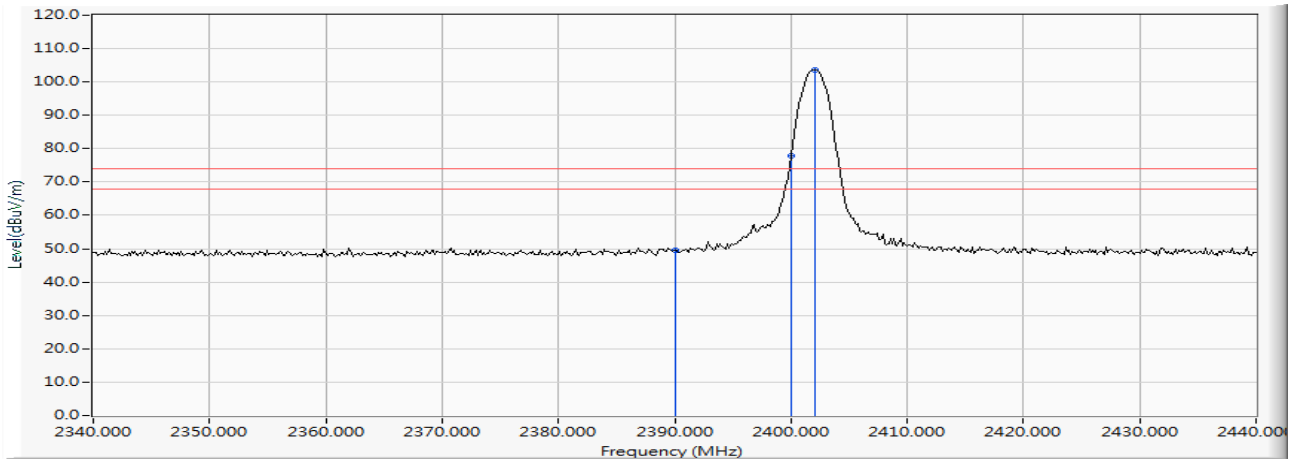
Channel No.	Frequency (MHz)	Peak Measurement (dBµV/m)	Duty Cycle Factor (dB)	Measurement (dBµV/m)	Margin (dB)	Limit (dBuV/m)
78 (Average)	2479.877	96.997	-2.293	94.704	--	--
78 (Average)	2483.5	50.279	-2.293	47.986	-6.014	54.000

Note:

1. Average Measurement=Peak Measurement + Duty Cycle Factor
2. The Duty Cycle is refer to section 12.

Product : Bluetooth Headset
Test Item : Band Edge
Test Site : No.3 OATS
Test date : 2019/09/16
Test Mode : Mode 3: Transmit - 3Mbps (8DPSK) (2402MHz)

Horizontal



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	8.763	40.657	49.420	-24.580	74.000	PEAK
2		2400.000	8.799	68.947	77.746	--	--	PEAK
3	*	2402.029	8.807	94.867	103.673	--	--	PEAK

Note:

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

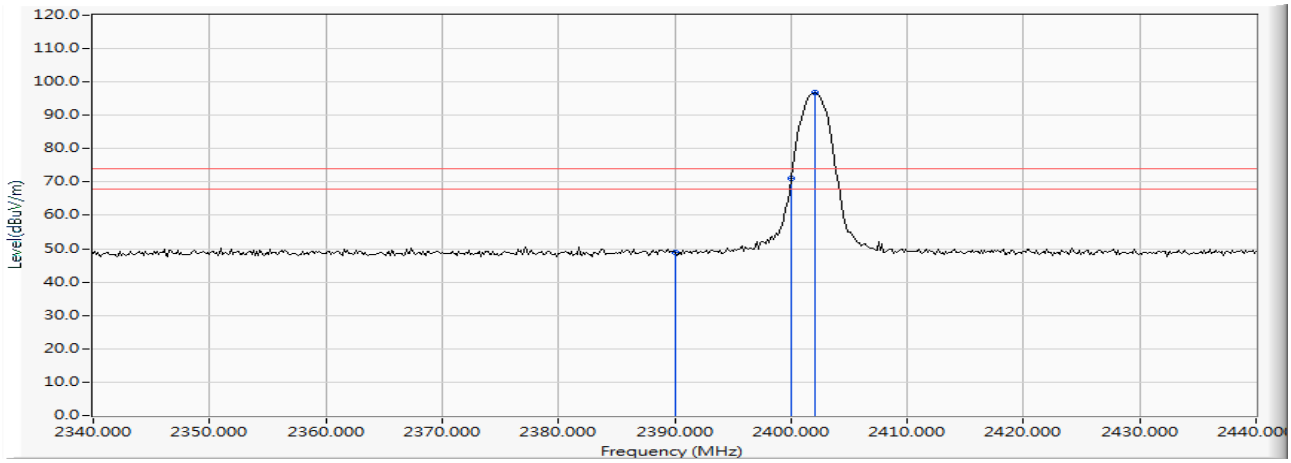
Channel No.	Frequency (MHz)	Peak Measurement (dBμV/m)	Duty Cycle Factor (dB)	Measurement (dBμV/m)	Margin (dB)	Limit (dBuV/m)
00 (Average)	2390	49.42	-2.293	47.127	-6.873	54.000
00 (Average)	2400	77.746	-2.293	75.453	--	--
00 (Average)	2402.029	103.673	-2.293	101.380	--	--

Note:

1. Average Measurement=Peak Measurement + Duty Cycle Factor
2. The Duty Cycle is refer to section 12.

Product : Bluetooth Headset
Test Item : Band Edge
Test Site : No.3 OATS
Test date : 2019/09/16
Test Mode : Mode 3: Transmit - 3Mbps (8DPSK) (2402MHz)

Vertical



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	8.763	40.239	49.002	-24.998	74.000	PEAK
2		2400.000	8.799	62.349	71.148	--	--	PEAK
3	*	2402.029	8.807	87.879	96.685	--	--	PEAK

Note:

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

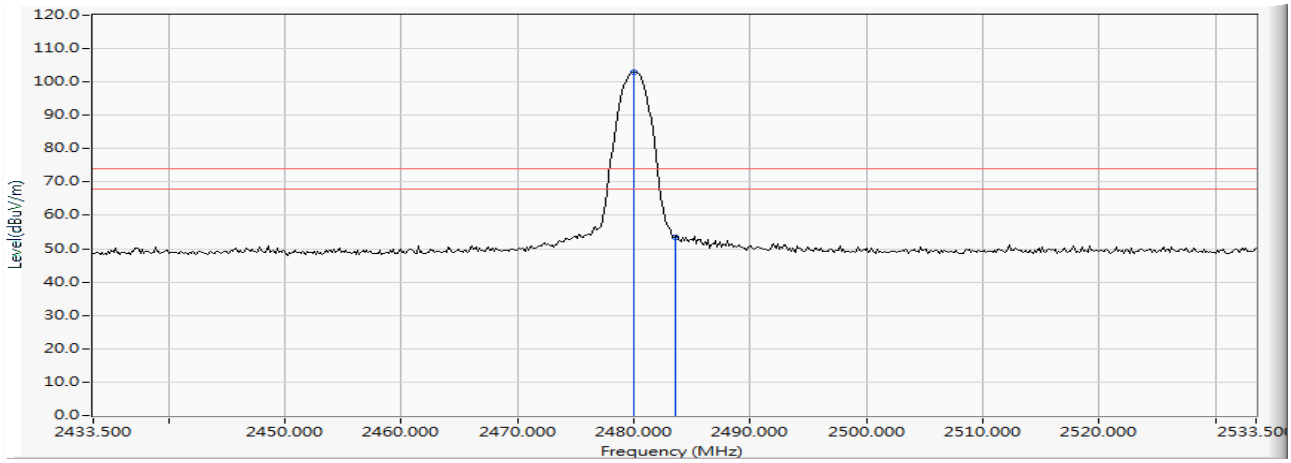
Channel No.	Frequency (MHz)	Peak Measurement (dBµV/m)	Duty Cycle Factor (dB)	Measurement (dBµV/m)	Margin (dB)	Limit (dBuV/m)
00 (Average)	2390	49.002	-2.293	46.709	-7.291	54.000
00 (Average)	2400	71.148	-2.293	68.855	--	--
00 (Average)	2402.029	96.685	-2.293	94.392	--	--

Note:

1. Average Measurement=Peak Measurement + Duty Cycle Factor
2. The Duty Cycle is refer to section 12.

Product : Bluetooth Headset
Test Item : Band Edge
Test Site : No.3 OATS
Test date : 2019/09/16
Test Mode : Mode 3: Transmit - 3Mbps (8DPSK) (2480MHz)

Horizontal



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2480.022	9.086	93.932	103.019	--	--	PEAK
2		2483.500	9.100	44.217	53.316	-20.684	74.000	PEAK

Note:

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

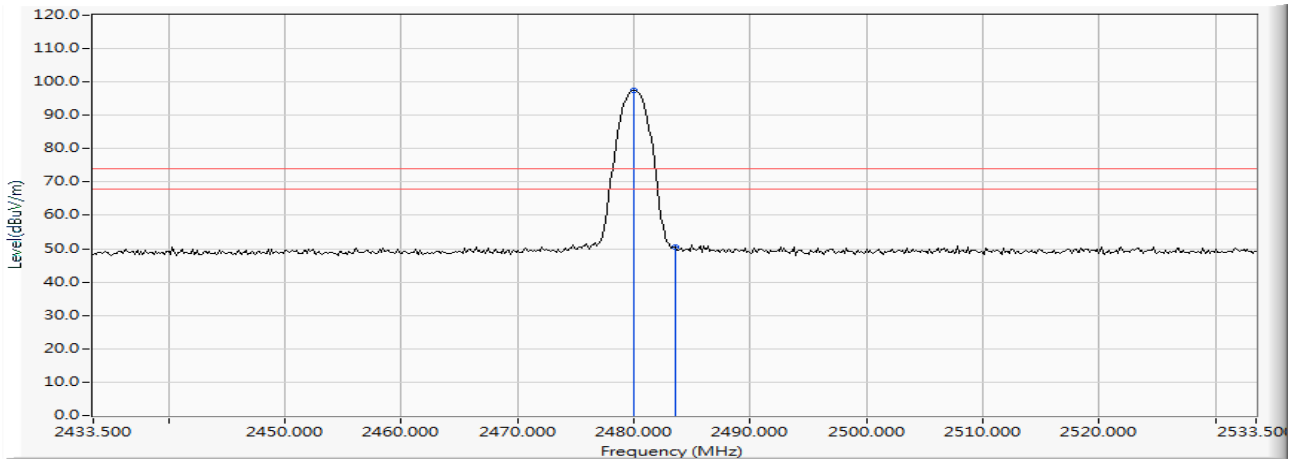
Channel No.	Frequency (MHz)	Peak Measurement (dBµV/m)	Duty Cycle Factor (dB)	Measurement (dBµV/m)	Margin (dB)	Limit (dBuV/m)
78 (Average)	2480.022	103.019	-2.293	100.726	--	--
78 (Average)	2483.5	53.316	-2.293	51.023	-2.977	54.000

Note:

1. Average Measurement=Peak Measurement + Duty Cycle Factor
2. The Duty Cycle is refer to section 12.

Product : Bluetooth Headset
Test Item : Band Edge
Test Site : No.3 OATS
Test date : 2019/09/16
Test Mode : Mode 3: Transmit - 3Mbps (8DPSK) (2480MHz)

Vertical



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2480.022	9.086	88.329	97.416	--	--	PEAK
2		2483.500	9.100	41.258	50.357	-23.643	74.000	PEAK

Note:

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

Channel No.	Frequency (MHz)	Peak Measurement (dBµV/m)	Duty Cycle Factor (dB)	Measurement (dBµV/m)	Margin (dB)	Limit (dBuV/m)
78 (Average)	2480.022	97.416	-2.293	95.123	--	--
78 (Average)	2483.5	50.357	-2.293	48.064	-5.936	54.000

Note:

1. Average Measurement=Peak Measurement + Duty Cycle Factor
2. The Duty Cycle is refer to section 12.

Product : Bluetooth Headset
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(Hopping off)

Measurement Level Δ (dB)	Result
> 20	PASS

Figure Channel 00:

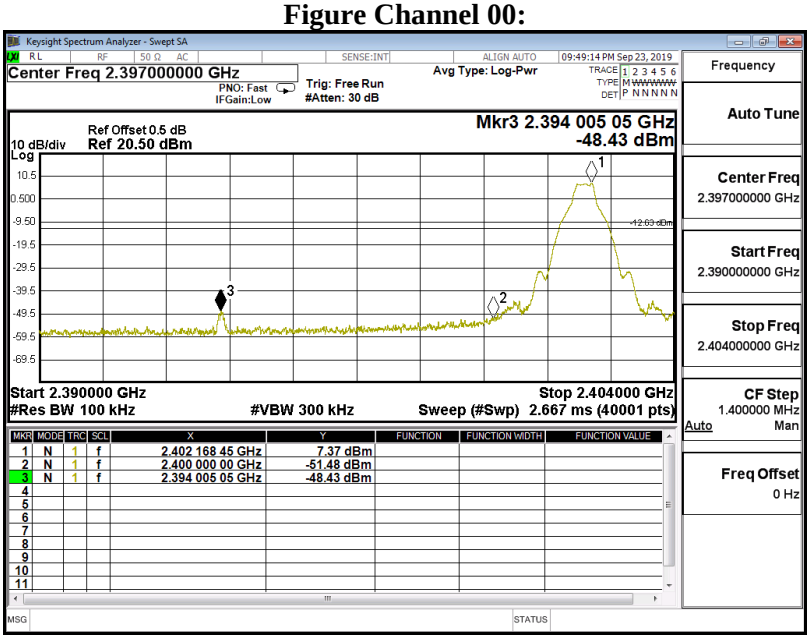
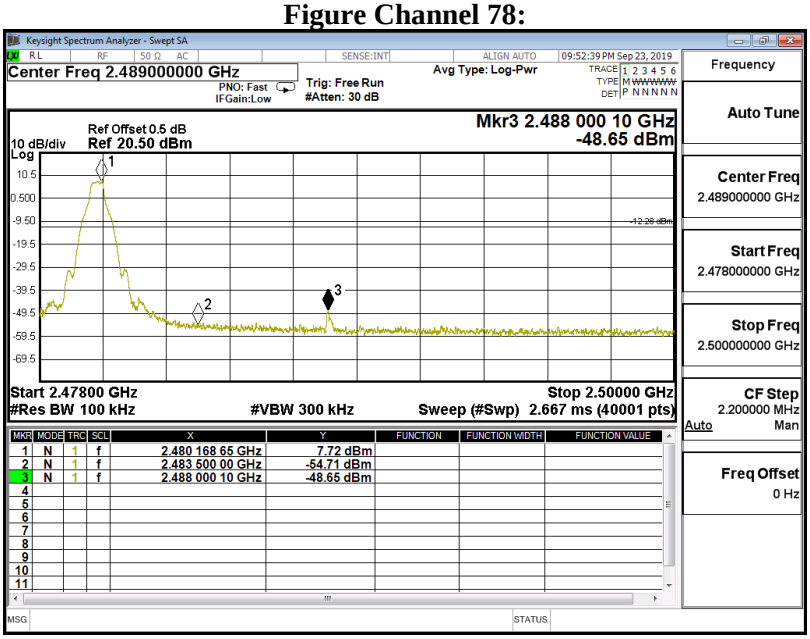


Figure Channel 78:



Product : Bluetooth Headset
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit - 2Mbps (π/4DQPSK)(Hopping off)

Measurement Level Δ (dB)	Result
> 20	PASS

Figure Channel 00:

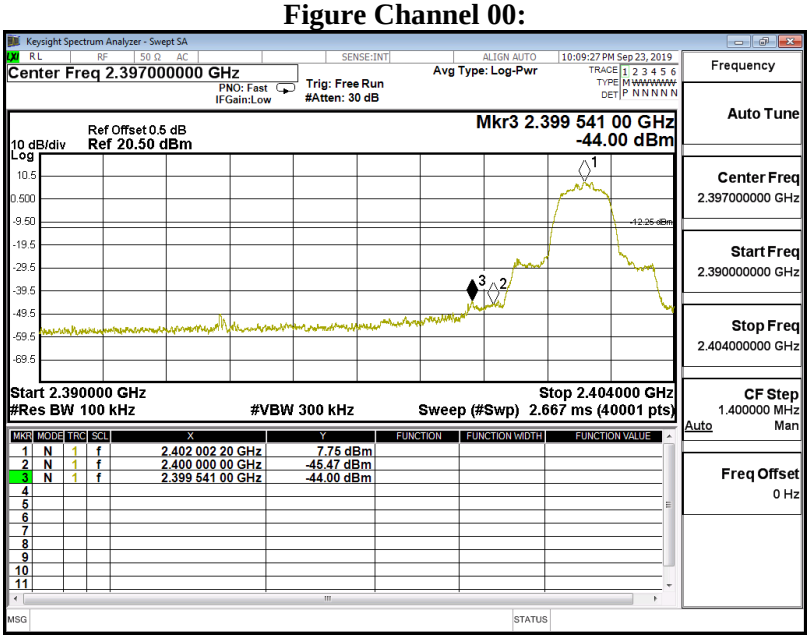
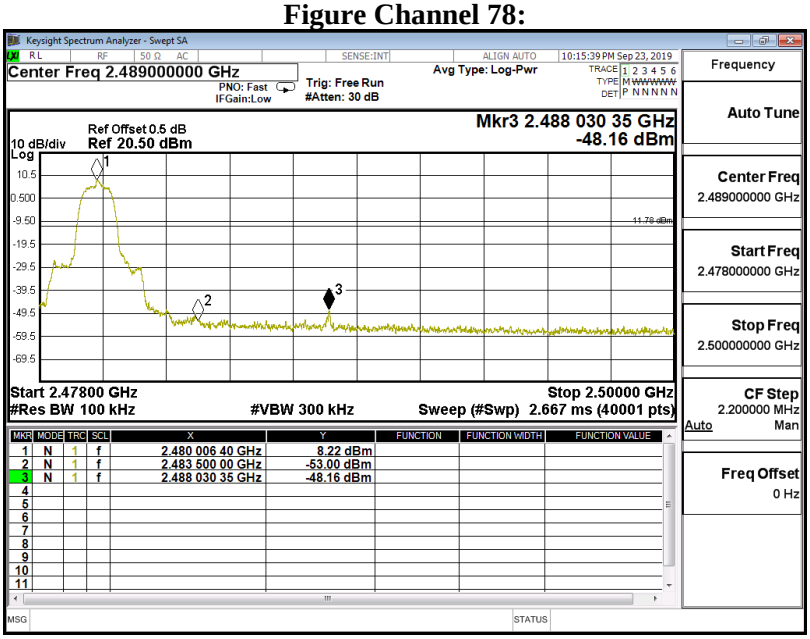


Figure Channel 78:



Product : Bluetooth Headset
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit - 3Mbps (8DPSK) (Hopping off)

Measurement Level Δ (dB)	Result
> 20	PASS

Figure Channel 00:

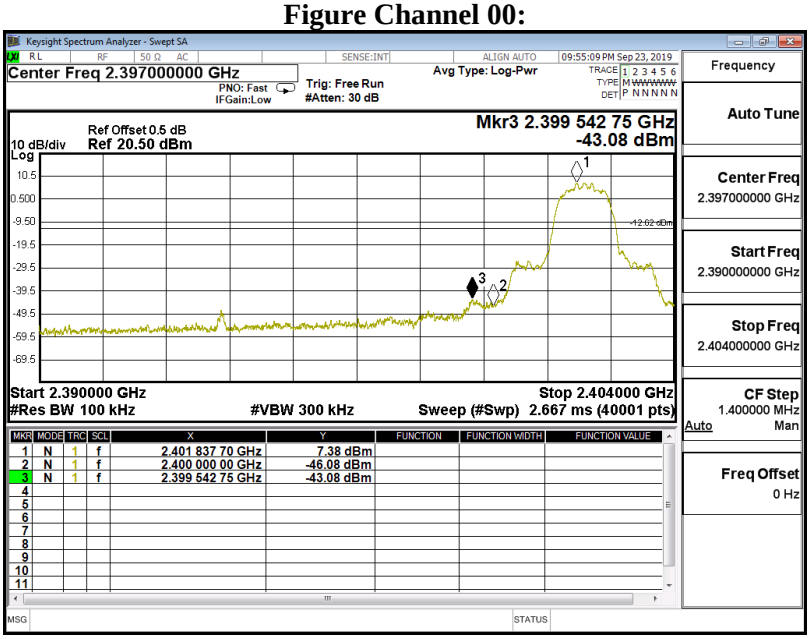
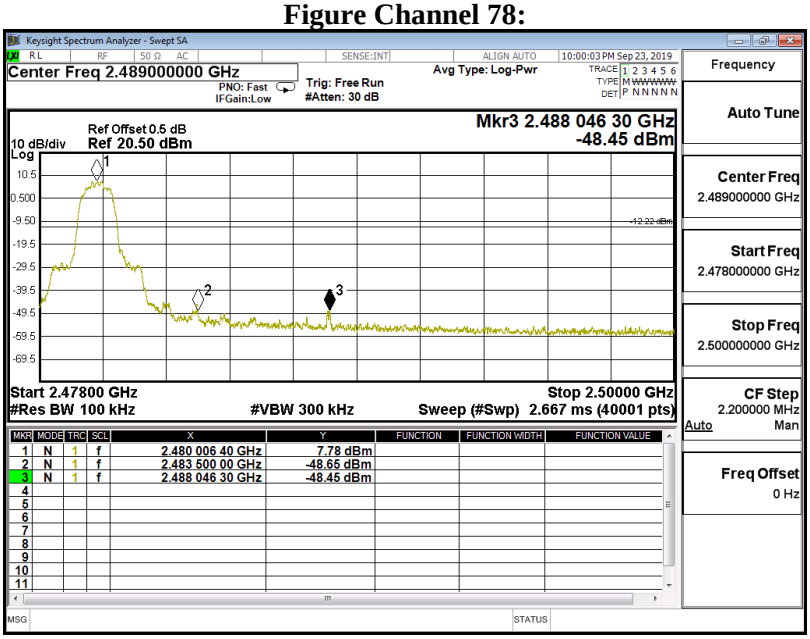


Figure Channel 78:



Product : Bluetooth Headset
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(Hopping on)

Measurement Level Δ (dB)	Result
> 20	PASS

Figure Channel 00 Hopping:

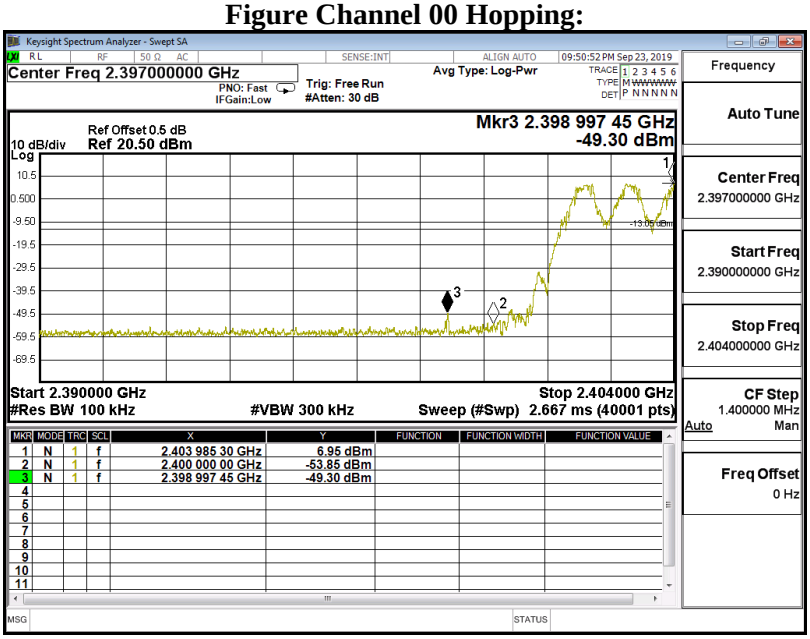
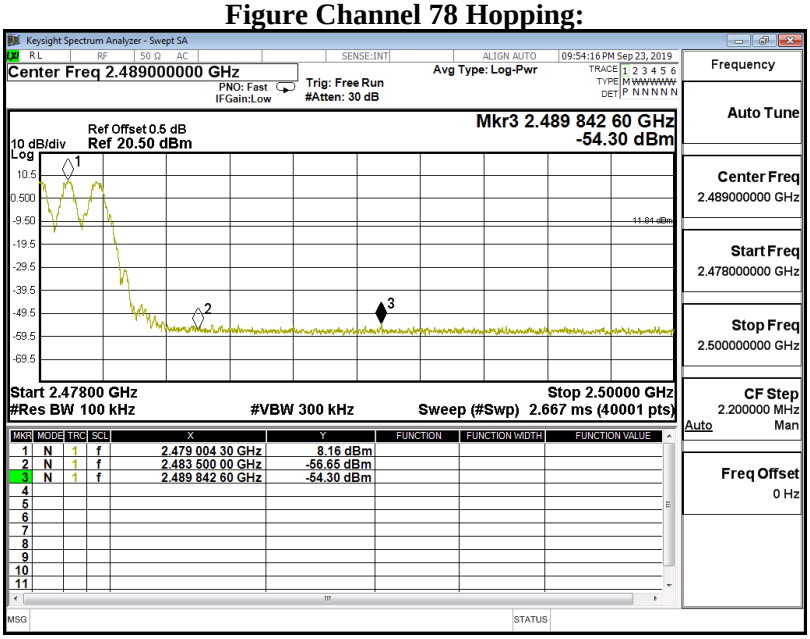


Figure Channel 78 Hopping:



Product : Bluetooth Headset
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit - 2Mbps (π/4DQPSK)(Hopping on)

Measurement Level Δ (dB)	Result
> 20	PASS

Figure Channel 00 Hopping:

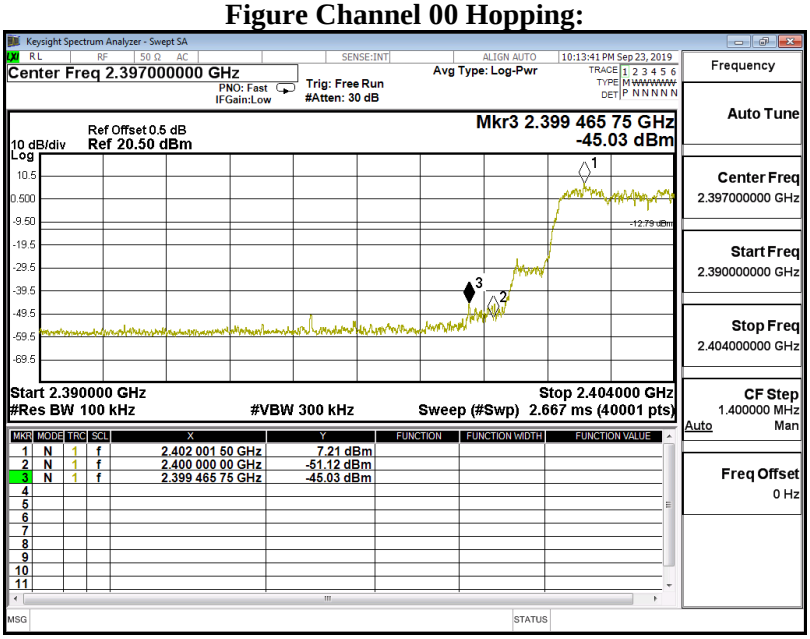
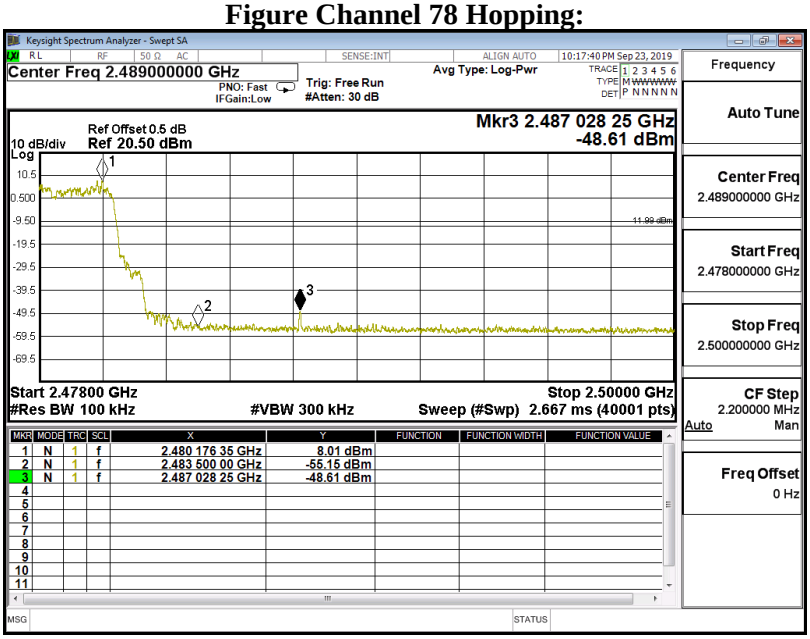


Figure Channel 78 Hopping:



Product : Bluetooth Headset
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit - 3Mbps (8DPSK) (Hopping on)

Measurement Level Δ (dB)	Result
> 20	PASS

Figure Channel 00 Hopping:

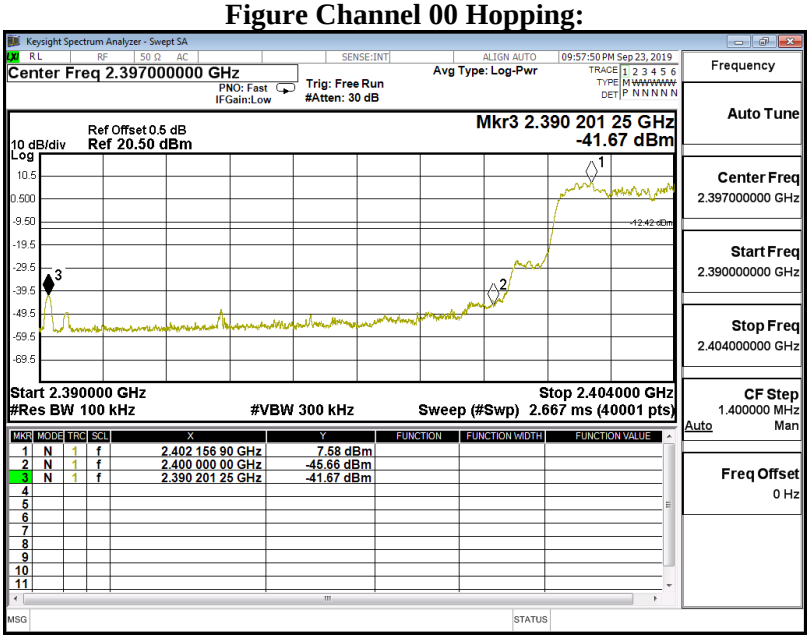
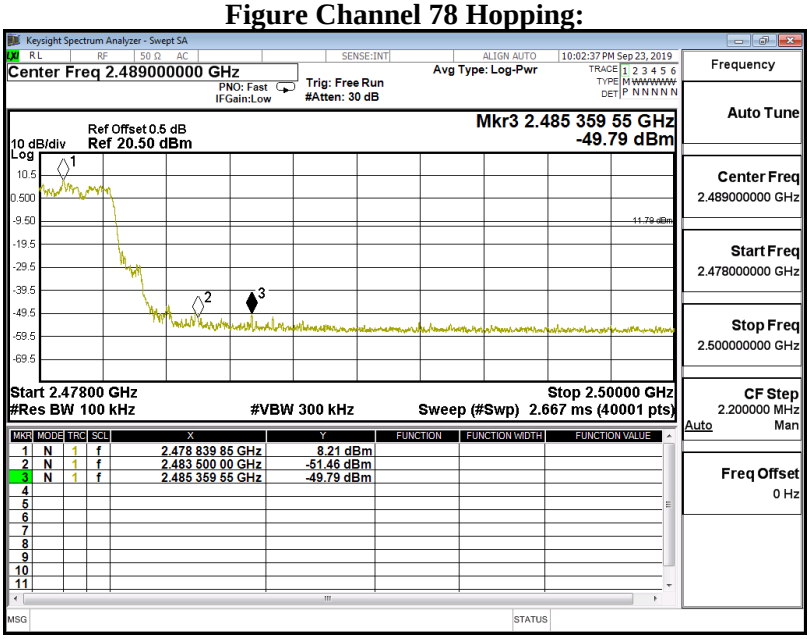
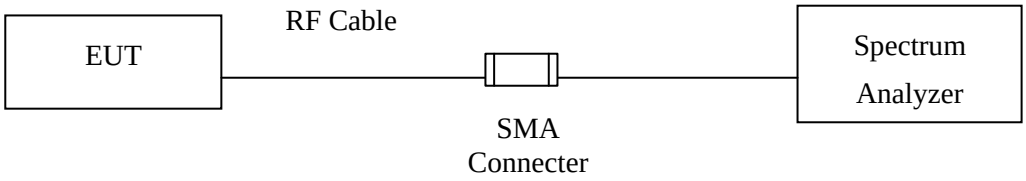


Figure Channel 78 Hopping:



7. Channel Number

7.1. Test Setup



7.2. Limit

The 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 C63.10: 2013; According to RSS-247 Issue 2, 5.4(b) (Feb, 2017).

7.4. Uncertainty

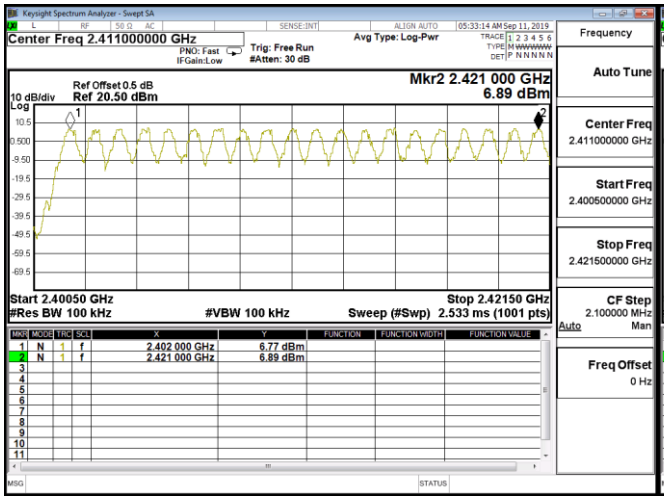
N/A

7.5. Test Result of Channel Number

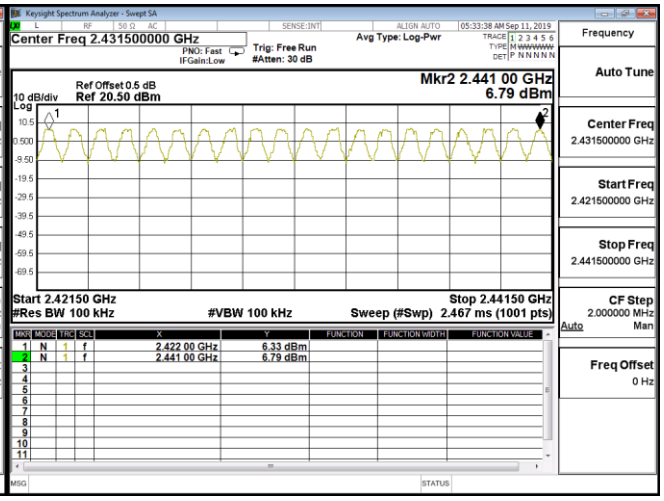
Product : Bluetooth Headset
Test Item : Channel Number
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit - 1Mbps (GFSK)

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

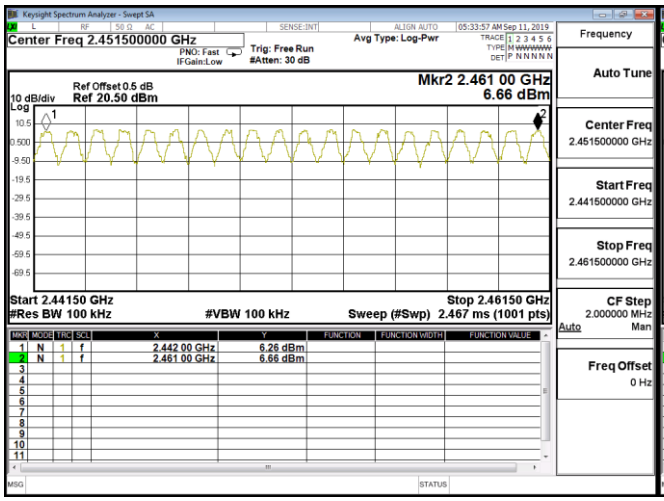
2402-2421MHz



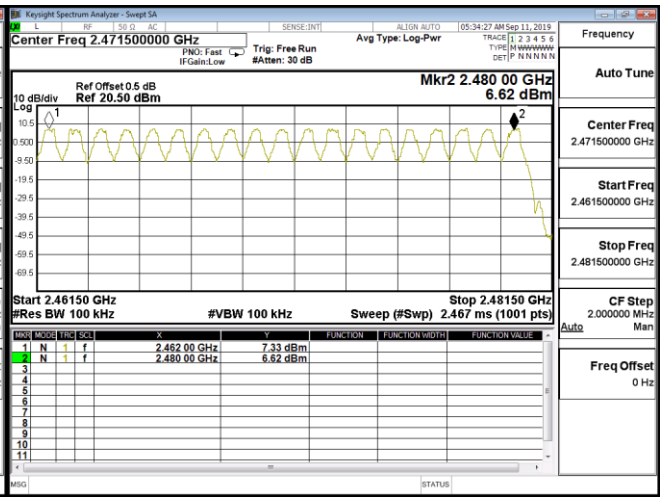
2422-2441MHz



2442-2461MHz



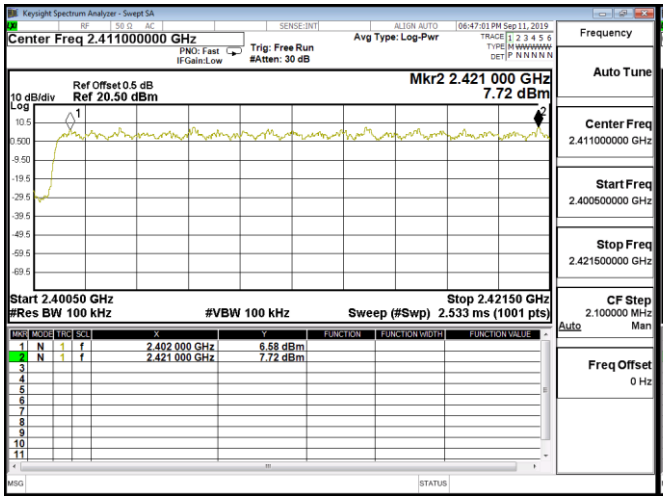
2462-2480MHz



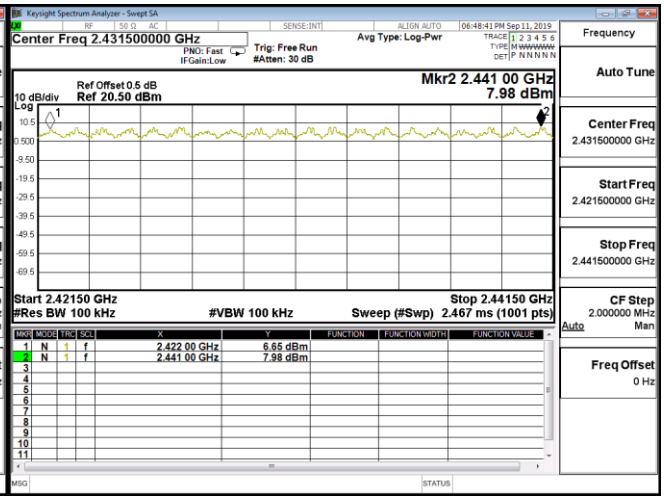
Product : Bluetooth Headset
Test Item : Channel Number
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit - 2Mbps (π/4DQPSK)

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

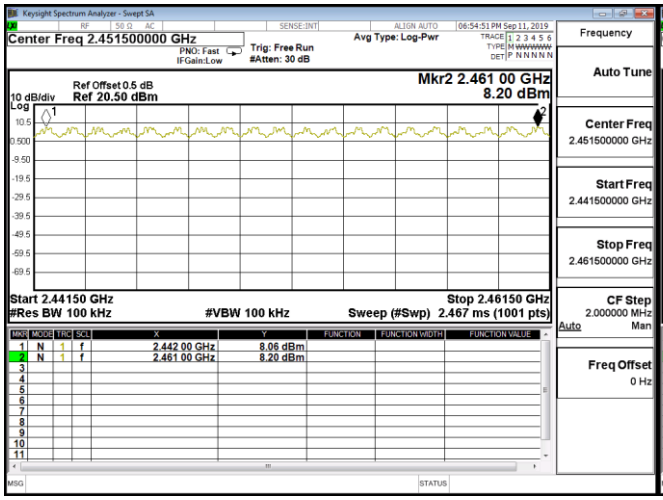
2402-2421MHz



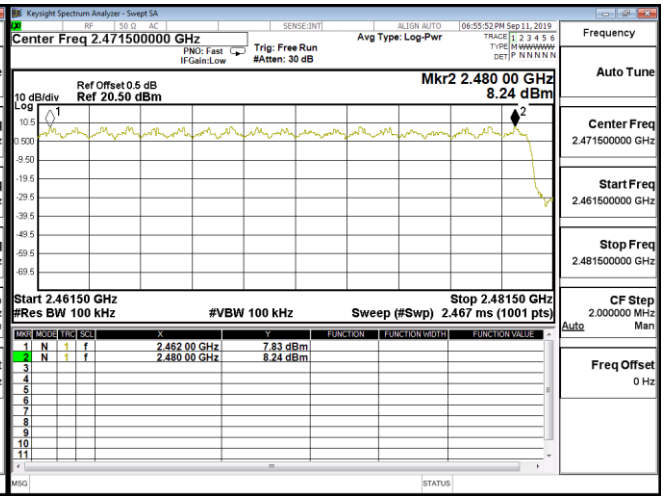
2422-2441MHz



2442-2461MHz



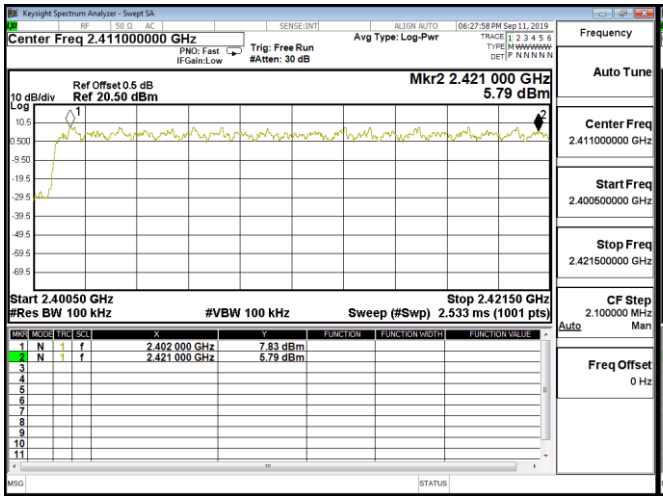
2462-2480MHz



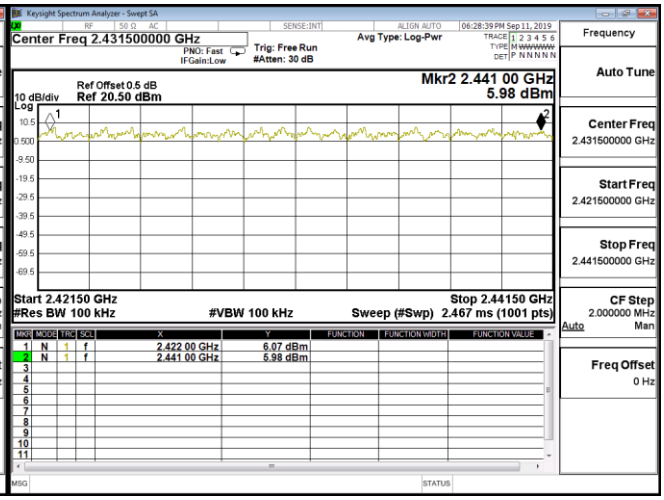
Product : Bluetooth Headset
Test Item : Channel Number
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit - 3Mbps (8DPSK)

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

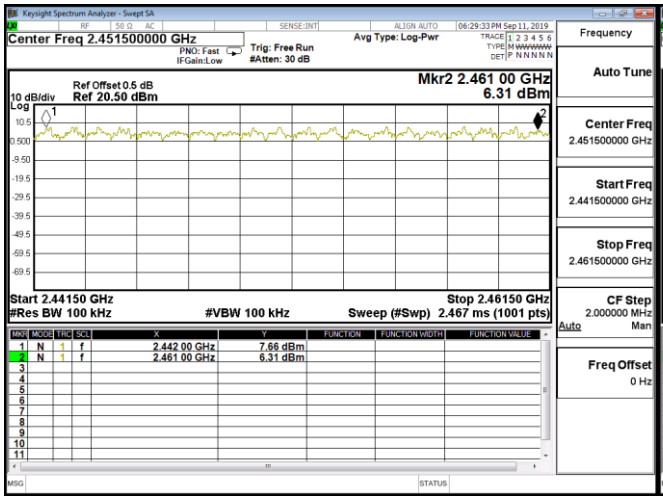
2402-2421MHz



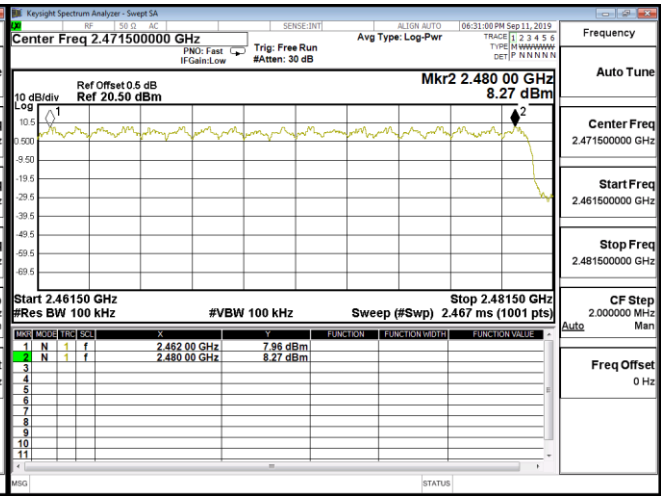
2422-2441MHz



2442-2461MHz

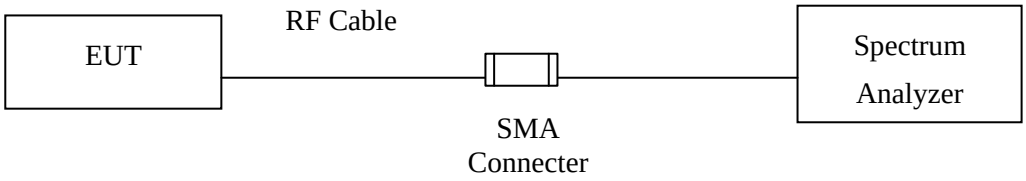


2462-2480MHz



8. Channel Separation

8.1. Test Setup



8.2. Limit

The 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 C63.10: 2013; According to RSS-247 Issue 2, 5.1(b) (Feb, 2017).

8.4. Uncertainty

± 283Hz

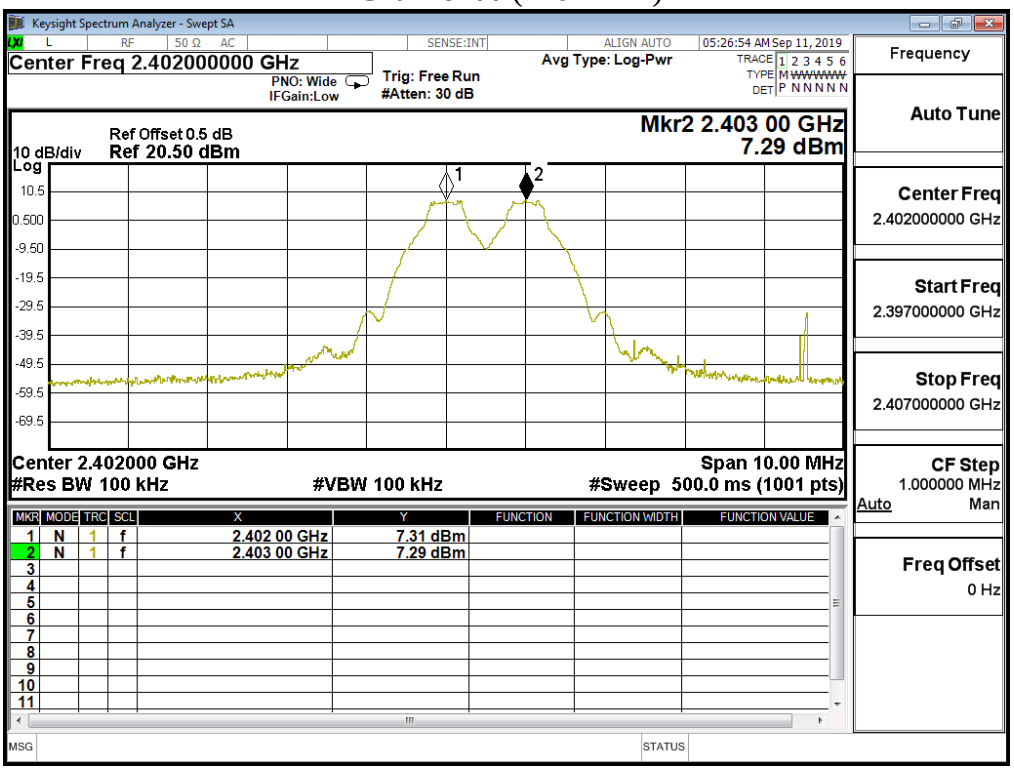
8.5. Test Result of Channel Separation

Product : Bluetooth Headset
Test Item : Channel Separation
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit - 1Mbps (GFSK)

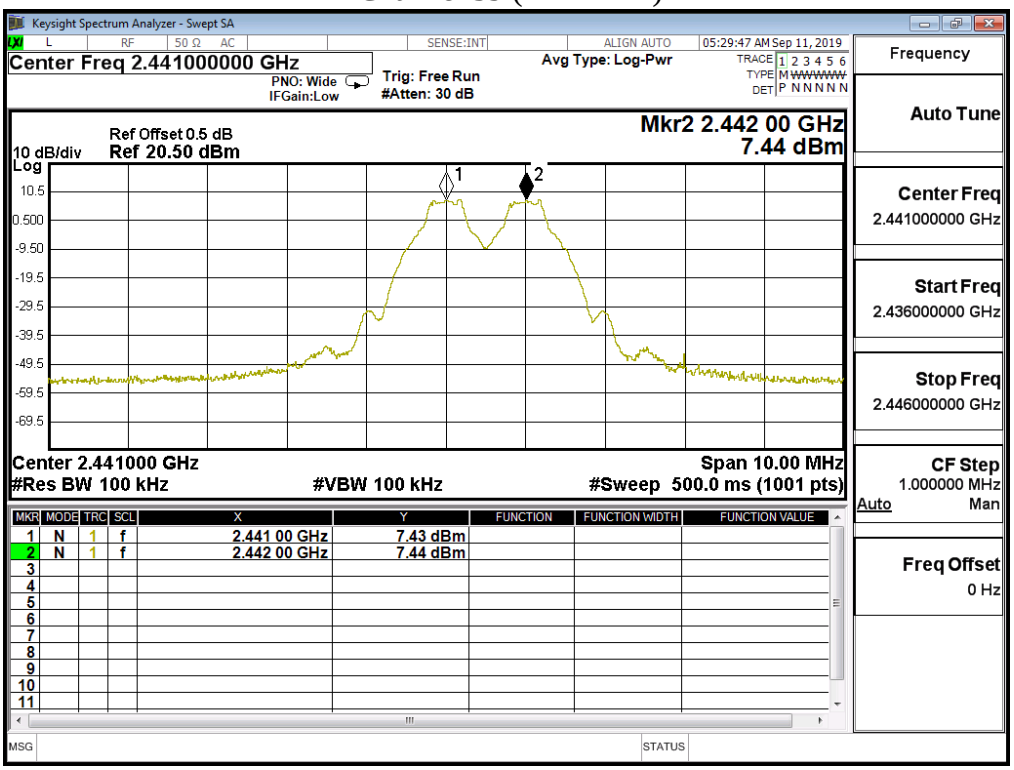
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Limit (kHz)	Limit of (2/3)*20dB Bandwidth (kHz)	Result
00	2402	1000	>25 kHz	644.0	Pass
39	2441	1000	>25 kHz	644.0	Pass
78	2480	1000	>25 kHz	642.0	Pass

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

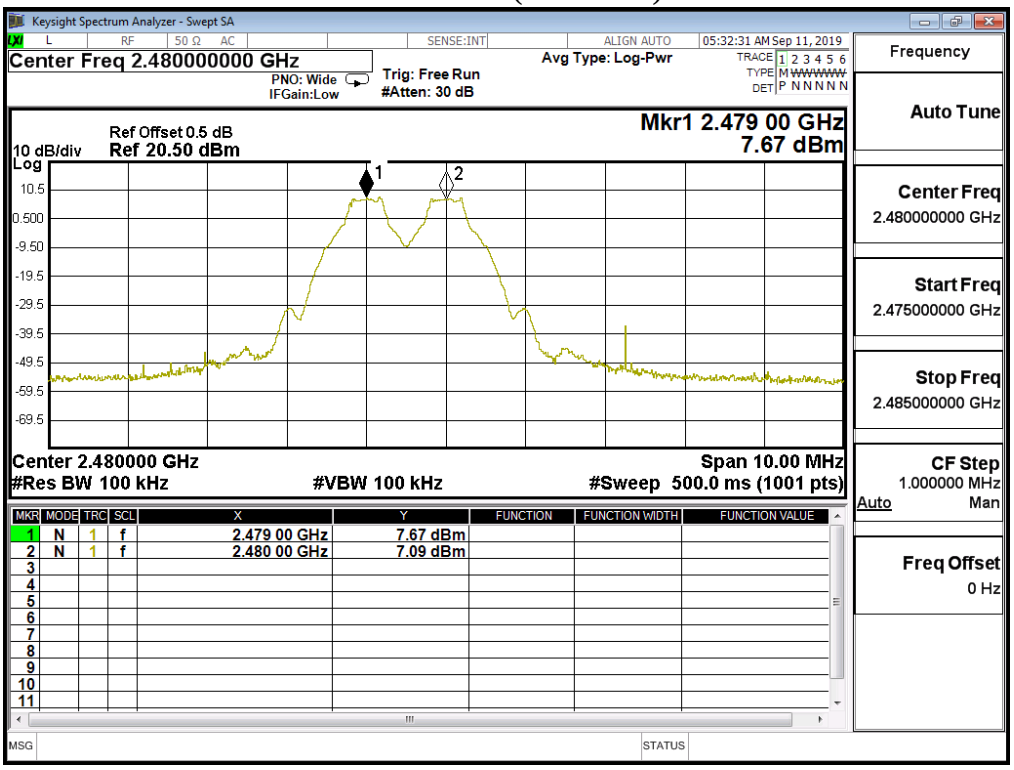
Channel 00 (2402MHz)



Channel 39 (2441MHz)



Channel 78 (2480MHz)

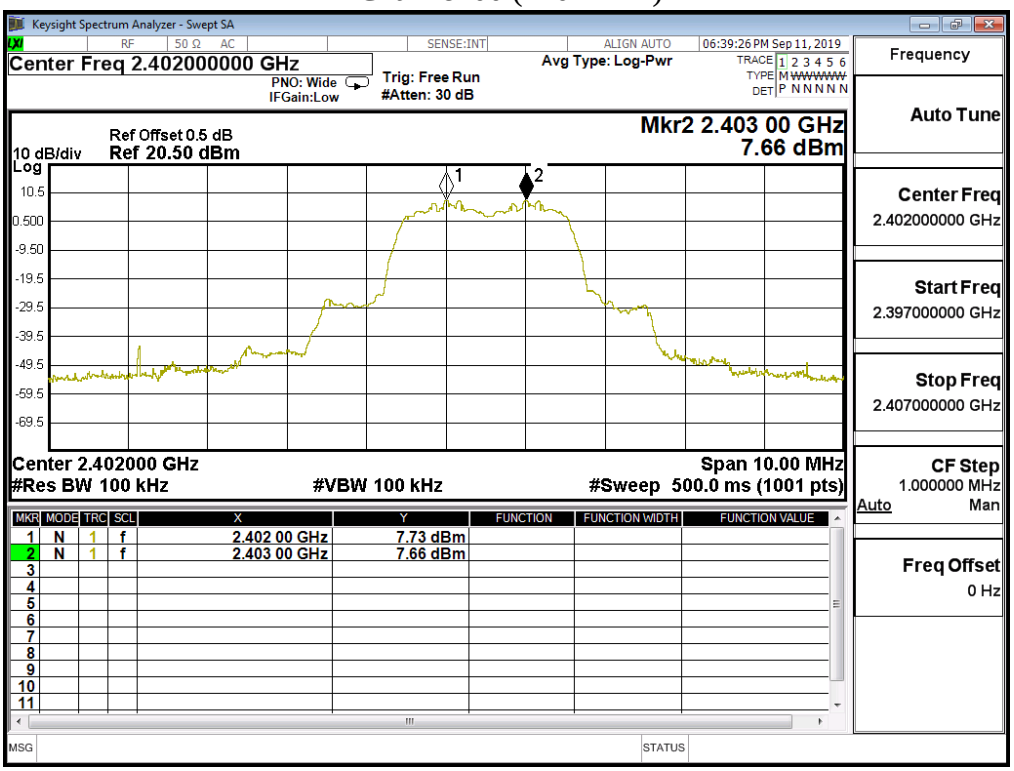


Product : Bluetooth Headset
Test Item : Channel Separation
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit - 2Mbps (π/4DQPSK)

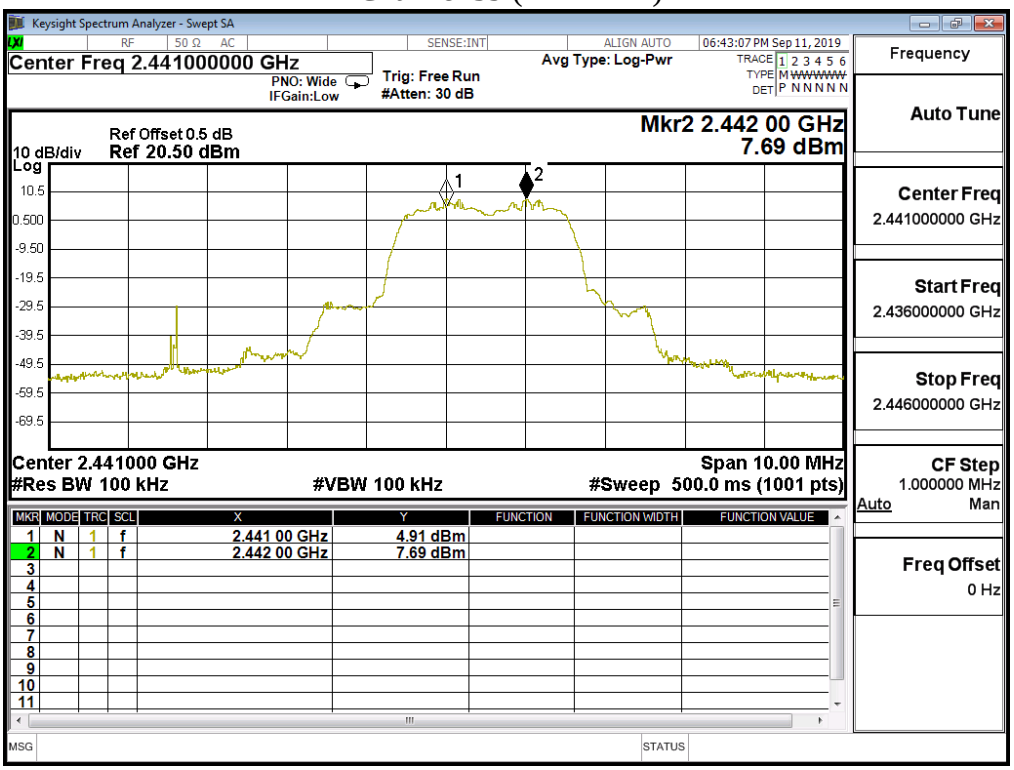
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Limit (kHz)	Limit of (2/3)*20dB Bandwidth (kHz)	Result
00	2402	1000	>25 kHz	894.0	Pass
39	2441	1000	>25 kHz	892.0	Pass
78	2480	1000	>25 kHz	894.0	Pass

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

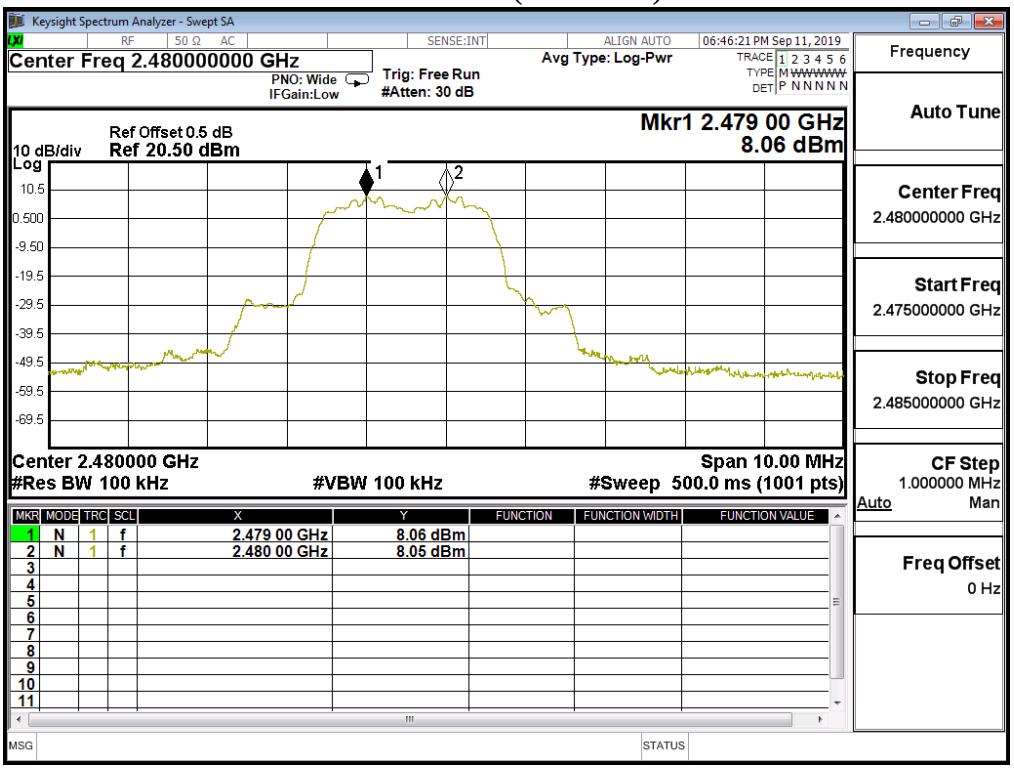
Channel 00 (2402MHz)



Channel 39 (2441MHz)



Channel 78 (2480MHz)

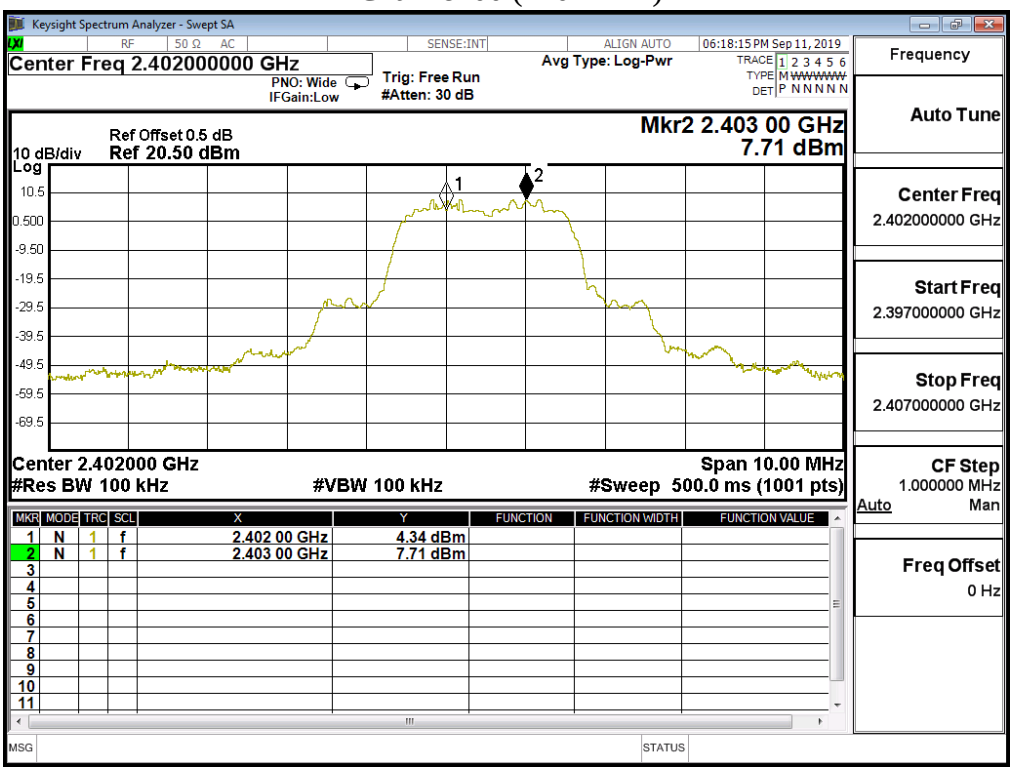


Product : Bluetooth Headset
Test Item : Channel Separation
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit - 3Mbps (8DPSK)

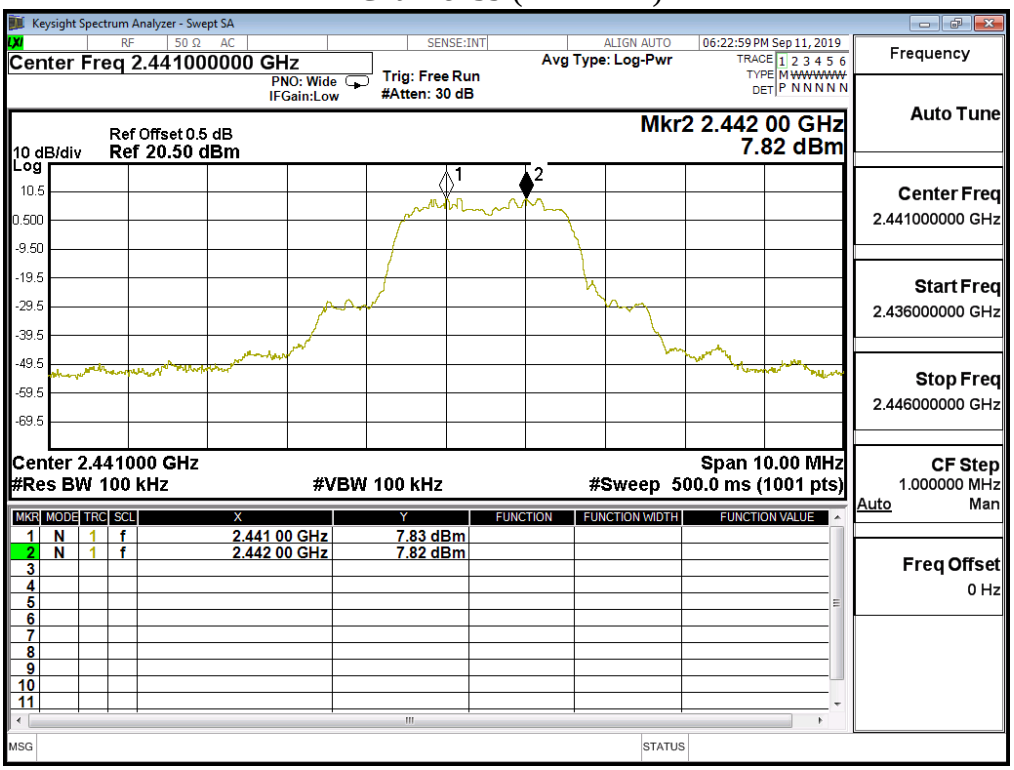
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Limit (kHz)	Limit of (2/3)*20dB Bandwidth (kHz)	Result
00	2402	1000	>25 kHz	876.0	Pass
39	2441	1000	>25 kHz	878.0	Pass
78	2480	1000	>25 kHz	876.0	Pass

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

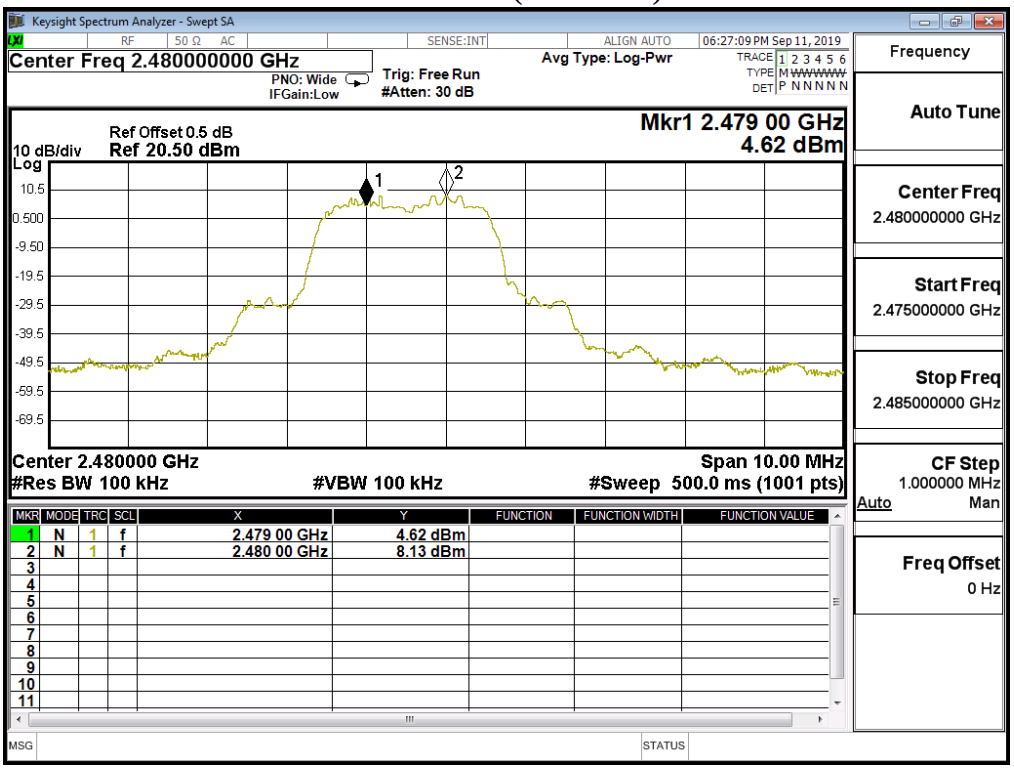
Channel 00 (2402MHz)



Channel 39 (2441MHz)

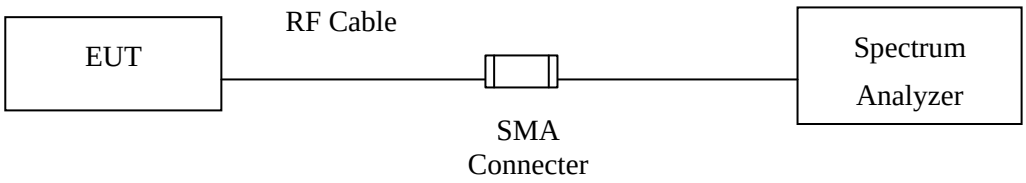


Channel 78 (2480MHz)



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 C63.10: 2013; According to RSS-247 Issue 2, 5.1(d) (Feb, 2017).

9.4. Uncertainty

± 25msec

9.5. Test Result of Dwell Time

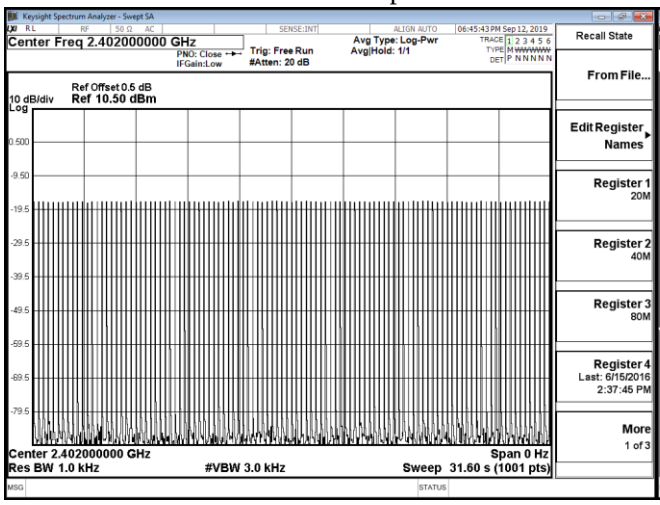
Product : Bluetooth Headset
Test Item : Dwell Time
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit - 1Mbps (GFSK) (Channel 00,39,78 –DH5)

Frequency (MHz)	Time slot length (ms)	Hopping of Number	Sweep time (ms)	Dwell Time (ms)	Limit (ms)	Result
2402	2.880	106	31600	305.280	400	Pass
2441	2.880	107	31600	308.160	400	Pass
2480	2.880	106	31600	305.280	400	Pass

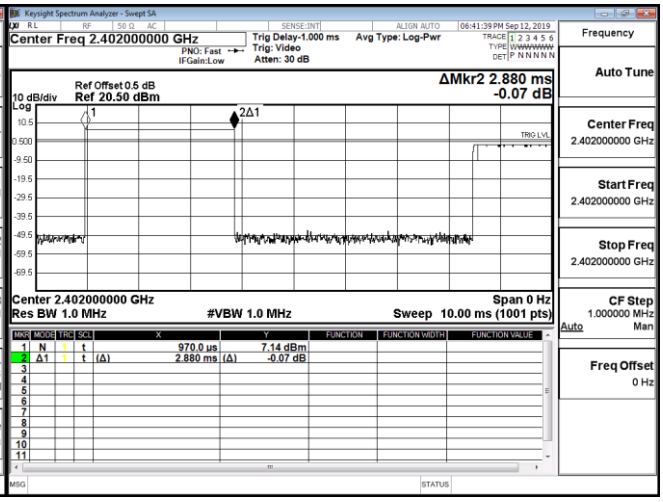
Dwell time = Time slot length*Hopping of number

Sweep time= 79 CHannel * 0.4

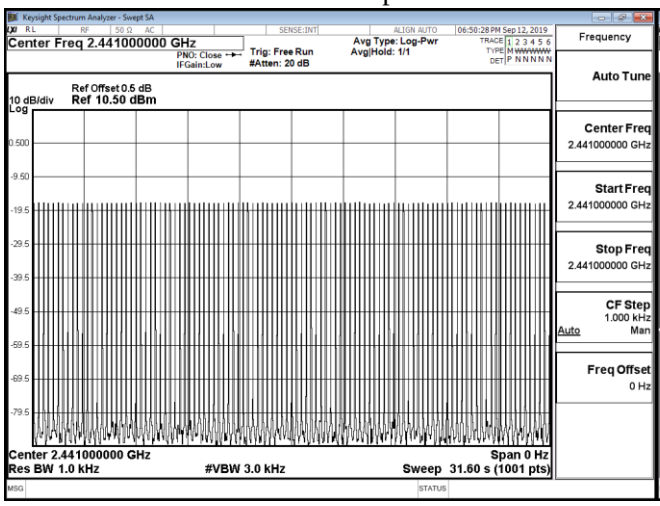
CH 00 Time Interval between hops



CH 00 Transmission Time



CH39 Time Interval between hops



CH 39Transmission Time