FCC RADIO TEST REPORT

The device described below is tested by Dongguan Nore Testing Center Co., Ltd. to determine the maximum emission levels emanating from the device, the severe levels which the device can endure and E.U.T.'s performance criterion. The test results, data evaluation, test procedures, and equipment of configurations shown in this report were made in accordance with the procedures in ANSI C63.10(2013).

Applicant	:	Iasus Concepts Limited
Address	:	Flat 907A, 9/Fl., Shiu Fat Industrial Building, 139-141 Wai Yip St., Kwun Tong, Kowloon, Hong Kong
Manufacturer / Factory	:	Dongguan chang 'an yaosu electronic business department
Address	:	Room 808, fuyuan business center, no. 1, lane 13, xin 'an maiyuan road, chang 'an town, dongguan city
E.U.T.	:	Stealth Rekon Headset
Model No.	:	IA-NT4-BASIC-BT, IA-RK-Basic-BT (For model difference refer to section 1.1)
Brand Name	:	IASUS Concepts
FCC ID	:	2ASIJIANT4SR
Measurement Standard	:	FCC PART 15.247
Date of Receiver	:	October 12, 2019
Date of Test	:	October 13, 2019 to November 12, 2019
Date of Report	:	November 12, 2019

This Test Report is Issued Under the Authority of :

Prepared by	Approved & Authorized Signer
Evan Yang / Engineer	Iori Fan / Authorized Signatory

This test report is for the customer shown above and their specific product only. This report applies to above tested sample only and shall not be reproduced in part without written approval of Dongguan Nore Testing Center Co., Ltd.

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Revision History of This Test Report

Report Number	Description	Issued Date
NTC1910190FV00	Initial Issue	2019-11-17

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test

Product Name	:	Stealth Rekon Headset
Model Name	:	IA-NT4-BASIC-BT, IA-RK- Basic-BT
Model difference	:	We hereby state that these models are identical in interior structure, electrical circuits and components, just model name is different. Therefore only model IA-NT4-BASIC-BT is for tests.
E.U.T. Type	:	Class B
Rating	:	DC 5V from USB Port DC 3.7V from built-in battery

Technical Specification:

BT Function

Version	:	V5.0 (BR/EDR + BLE)
Frequency Range	:	2402-2480MHz
Modulation Type	:	GFSK for BLE GFSK, π/4-DQPSK, 8DPSK for BR/EDR
Number of Channel	:	40 for BLE 79 for BR/EDR
Channel Space	:	2MHz for BLE 1MHz for BR/EDR
Antenna Type	:	PCB Antenna
Antenna Gain	:	0.54dBi (Declaration by manufacturer)

Note: This report is applicable to BLE function.

Bluetooth (BLE) Channel List

Channel	Frequency MHz	Channel	Frequency MHz	Channel	Frequency MHz	Channel	Frequency MHz
1	2402	11	2422	21	2442	31	2462
2	2404	12	2424	22	2444	32	2464
3	2406	13	2426	23	2446	33	2466
4	2408	14	2428	24	2448	34	2468
5	2410	15	2430	25	2450	35	2470
6	2412	16	2432	26	2452	36	2472
7	2414	17	2434	27	2454	37	2474
8	2416	18	2436	28	2456	38	2476
9	2418	19	2438	29	2458	39	2478
10	2420	20	2440	30	2460	40	2480

Note: According to section 15.31(m), regards to the operating frequency range over 10MHz, the Lowest, Middle, and the Highest frequency of channel were selected to perform the test. The selected frequency see below:

Channel	Frequency (MHz)
1	2402
20	2440
40	2480

1.2 Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for FCC ID: 2ASIJIANT4SR filing to comply with Section 15.247 of the FCC Part 15, Subpart C Rule.

1.3 Test Methodology

Both AC mains line-conducted and radiated emission measurements were performed according to the procedures in ANSI C63.10 (2013). Radiated emission measurement was performed in semi-anechoic chamber and conducted emission measurement was performed in shield room. For radiated emission measurement, preliminary scans were performed in the semi-anechoic chamber only to determine the worst case modes. All radiated tests were performed at an antenna to EUT distance of 3 meters. All other measurements were made in accordance with the procedures in 47 CFR Part 2.

1.4 Equipment Modifications

Not available for this EUT intended for grant.

1.5 Support Device

Description	Manufacturer	Model	S/N
AC/DC Adapter	SAMSUNG	ETA-U90CBC	RT4F629wS/B-E

Note: The adapter is used for conducted emission tests

1.6 Test Facility and Location

Site Description

EMC Lab	:	Listed by CNAS, August 13, 2018 The certificate is valid until August 13, 2024 The Laboratory has been assessed and proved to be in compliance with CNAS/CL01 The Certificate Registration Number is L5795. Listed by A2LA, November 01, 2017 The certificate is valid until December 31, 2019 The Laboratory has been assessed and proved to be in compliance with ISO17025 The Certificate Registration Number is 4429.01 Listed by FCC, November 06, 2017 The Designation Number is CN1214 Test Firm Registration Number: 907417 Listed by Industry Canada, June 08, 2017 The Certificate Registration Number. Is 46405-9743
Name of Firm	:	Dongguan Nore Testing Center Co., Ltd. (Dongguan NTC Co., Ltd.)
Site Location	:	Building D, Gaosheng Science and Technology Park, Hongtu Road, Nancheng District, Dongguan City, Guangdong Province, China

1.7 Summary of Test Results

FCC Rules	Description Of Test	Uncertainty	Result
§15.207 (a)	AC Power Line Conducted Emission	±1.06dB	Compliant
§15.247(b)(3)	Max. Conducted Output Power	±1.06dB	Compliant
§15.247(a)(2)	6dB Bandwidth	±1.42 x10^{-4}%	Compliant
§15.247(e)	Power Spectral Density	±1.06dB	Compliant
§15.247(d)	Band Edge	±1.70dB	Compliant
§15.247(d)	Conducted Spurious Emissions	±1.70dB	Compliant
§15.247(d),§15.209, §15.205	Radiated Spurious Emissions and Restricted Bands	±3.70dB	Compliant
§15.203	Antenna Requirement	N/A	Compliant

2. SYSTEM TEST CONFIGURATION

2.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.2 Special Accessories

Not available for this EUT intended for grant.

2.3 Description of test modes

The EUT has been tested under continuous operating condition (The duty cycle >98%). Test program used to control the EUT staying in continuous transmitting mode. The Lowest, Middle and highest channel were chosen for testing, and modulation type GFSK was tested, but only the worst case data is shown in this report.

Test Item	Software	Description
Conducted RF Testing and Radiated testing	InstallBlueSuite_2_6_2_632	Set the EUT to different modulation and channel

Output power setting table:

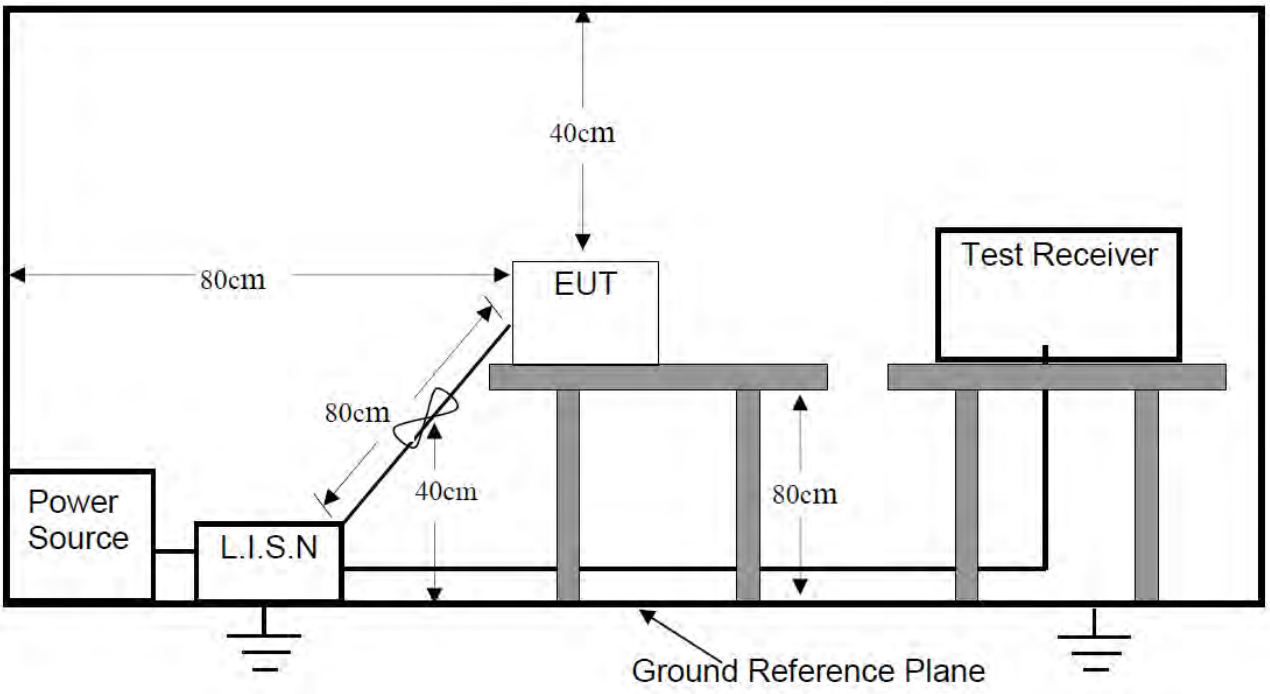
Test Mode	Set Tx Output Power	Data rate
GFSK	6dBm	1M

2.4 EUT Exercise

The EUT was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements.

3. AC POWER LINE CONDUCTED EMISSIONS TEST

3.1 Test SET-UP (Block Diagram of Configuration)



3.2 Test Condition

Test Requirement: FCC Part 15.207

Frequency Range: 150KHz ~ 30MHz

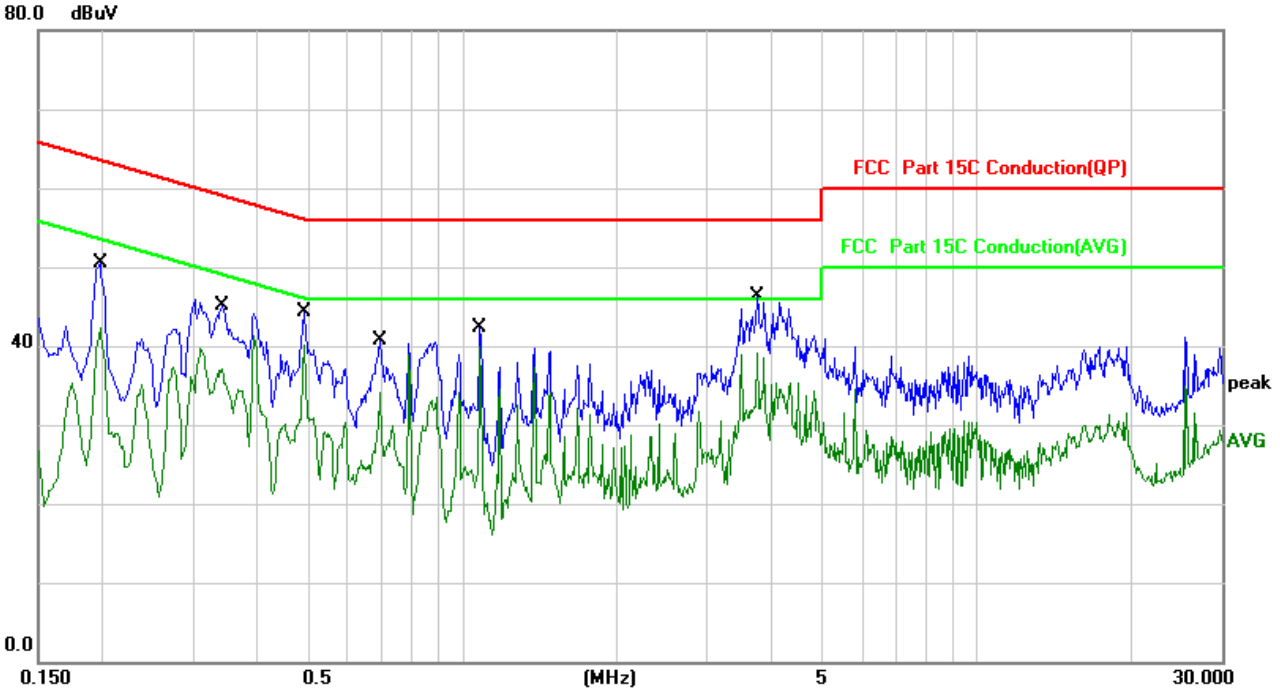
Detector: QP, AVG

Operation Mode: BT Communication

3.3 Measurement Results

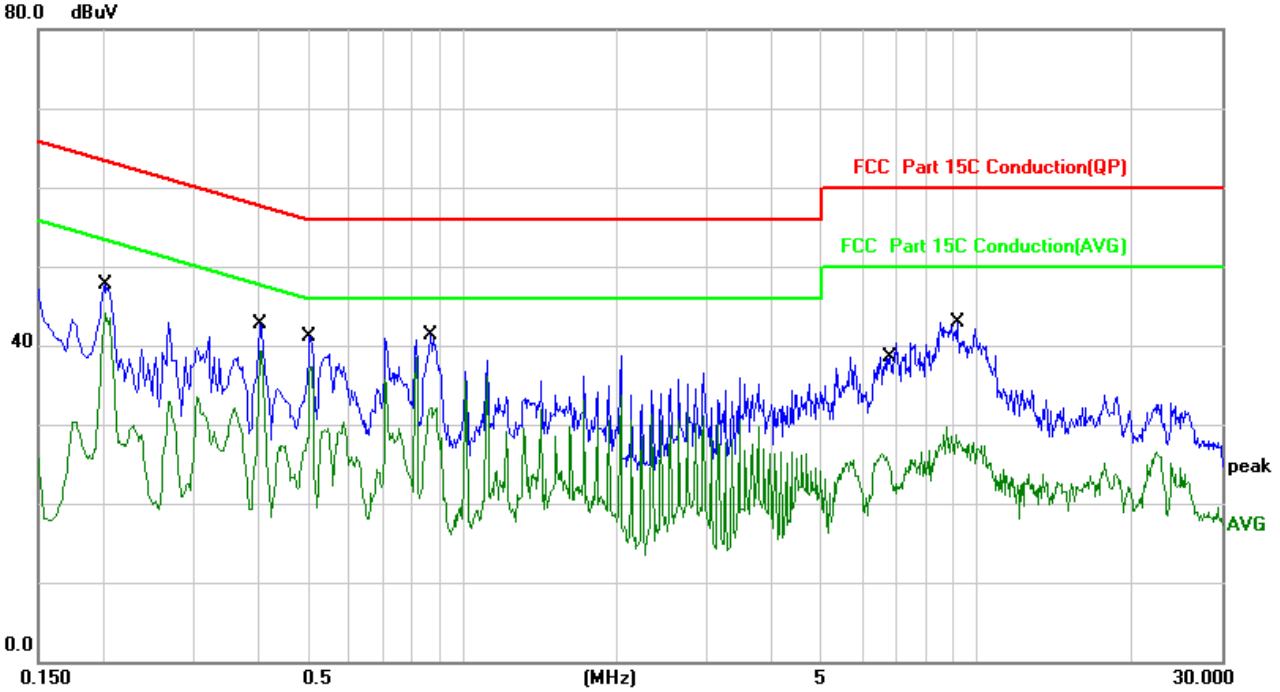
Please refer to following plots of the worst case

E.U.T:	Stealth Rekon Headset	Phase:	Line
Model No.:	IA-NT4-BASIC-BT	Temperature:	25 ℃
Test Mode:	Charging	Humidity:	64 %
Test Voltage:	AC 120V/60Hz	Test By:	Sance
Test Results:	PASS		



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1975	6.26	44.27	50.53	63.71	-13.18	QP	P	
2	0.1975	6.26	35.96	42.22	53.71	-11.49	AVG	P	
3	0.3407	6.25	38.86	45.11	59.18	-14.07	QP	P	
4	0.3407	6.25	30.93	37.18	49.18	-12.00	AVG	P	
5	0.4914	6.27	38.10	44.37	56.14	-11.77	QP	P	
6	0.4914	6.27	33.81	40.08	46.14	-6.06	AVG	P	
7	0.6897	6.35	34.43	40.78	56.00	-15.22	QP	P	
8	0.6897	6.35	27.67	34.02	46.00	-11.98	AVG	P	
9	1.0823	6.34	35.93	42.27	56.00	-13.73	QP	P	
10	1.0823	6.34	33.58	39.92	46.00	-6.08	AVG	P	
11	3.7395	6.28	40.04	46.32	56.00	-9.68	QP	P	
12	3.7395	6.28	32.79	39.07	46.00	-6.93	AVG	P	

E.U.T:	Stealth Rekon Headset	Phase:	Neutral
Model No.:	IA-NT4-BASIC-BT	Temperature:	25 ℃
Test Mode:	Charging	Humidity:	64 %
Test Voltage:	AC 120V/60Hz	Test By:	Sance
Test Results:	PASS		



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.2028	6.26	41.41	47.67	63.49	-15.82	QP	P	
2	0.2028	6.26	37.85	44.11	53.49	-9.38	AVG	P	
3	0.4040	6.24	36.41	42.65	57.77	-15.12	QP	P	
4	0.4040	6.24	33.03	39.27	47.77	-8.50	AVG	P	
5	0.5045	6.27	34.80	41.07	56.00	-14.93	QP	P	
6	0.5045	6.27	31.08	37.35	46.00	-8.65	AVG	P	
7	0.8663	6.34	34.87	41.21	56.00	-14.79	QP	P	
8	0.8663	6.34	25.75	32.09	46.00	-13.91	AVG	P	
9	6.6977	6.31	33.90	40.21	60.00	-19.79	QP	P	
10	6.6977	6.31	19.52	25.83	50.00	-24.17	AVG	P	
11	9.1072	6.30	36.60	42.90	60.00	-17.10	QP	P	
12	9.1072	6.30	22.32	28.62	50.00	-21.38	AVG	P	

4. MAX. CONDUCTED OUTPUT POWER

4.1 Measurement Procedure

Maximum Conducted Output power at Antenna Terminals, FCC Rules 15.247(b)(3):

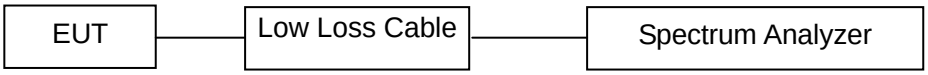
One of the following procedures may be used to determine the maximum peak conducted output power of a DTS EUT.

The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall utilize a fast-responding diode detector.

4.2 Limit

For systems using digital modulation in the 2400-2483.5MHz bands: 1 Watt.

4.3 Test SET-UP (Block Diagram of Configuration)



4.4 Measurement Results

Modulation:	GFSK		
RBW:	1MHz	VBW:	3MHz
Spectrum Detector:	PK	Test By:	Sance
Temperature:	24 ℃	Humidity:	50 %
Test Result:	PASS	Test Date:	Nov 12, 2019

Channel	Test Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (W)	Limit (dBm/W)
Low	2402	5.44	0.0035	30/1
Middle	2440	6.50	0.0045	30/1
High	2480	6.01	0.0040	30/1
The signal of duty cycle is ≥98%				

5. 6DB BANDWIDTH

5.1 Measurement Procedure

DTS 6dB Channel Bandwidth, FCC Rule 15.247(a)(2):

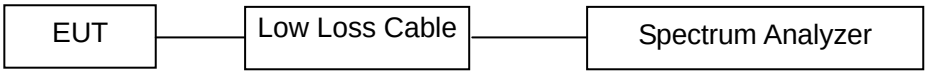
The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer was set as below according to FCC KDB558074(v03r05):

1. For 6dB bandwidth, Set the RBW = 100KHz.
2. Set the VBW ≥ 3 x RBW
3. Detector = peak.
4. Sweep time = auto couple.
5. Trace mode = max hold.
6. Allow trace to fully stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

5.2 Limit

Systems using digital modulation techniques may operate in the 2400-2483.5MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

5.3 Test SET-UP (Block Diagram of Configuration)

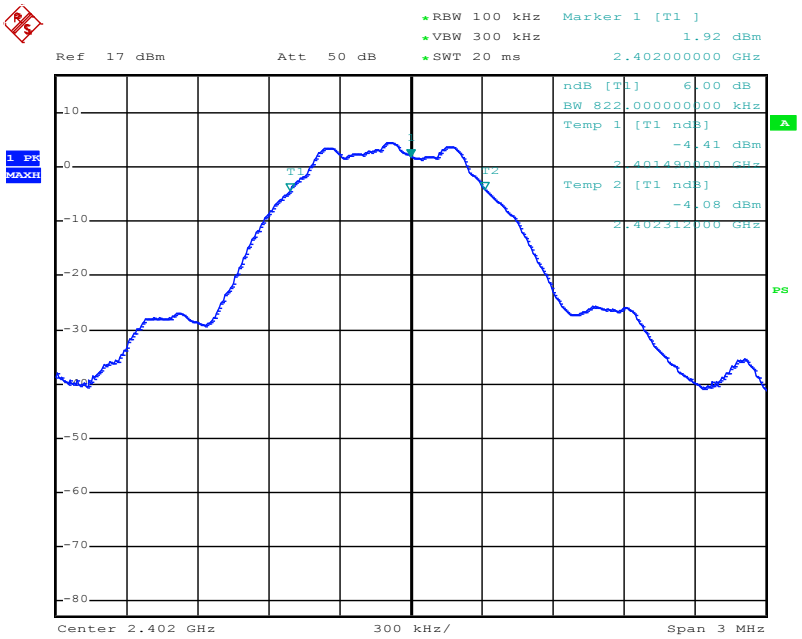


5.4 Measurement Results

RBW:	100kHz	VBW:	300kHz
Spectrum Detector:	PK	Test By:	Sance
Temperature:	24 ℃	Humidity:	50 %
Test Result:	PASS	Test Date:	Nov 12, 2019

Channel	Test Frequency (MHz)	6dB Bandwidth (kHz)	Limit (kHz)
Low	2402	822.0	>500
Middle	2440	702.0	>500
High	2480	708.0	>500

Low Channel



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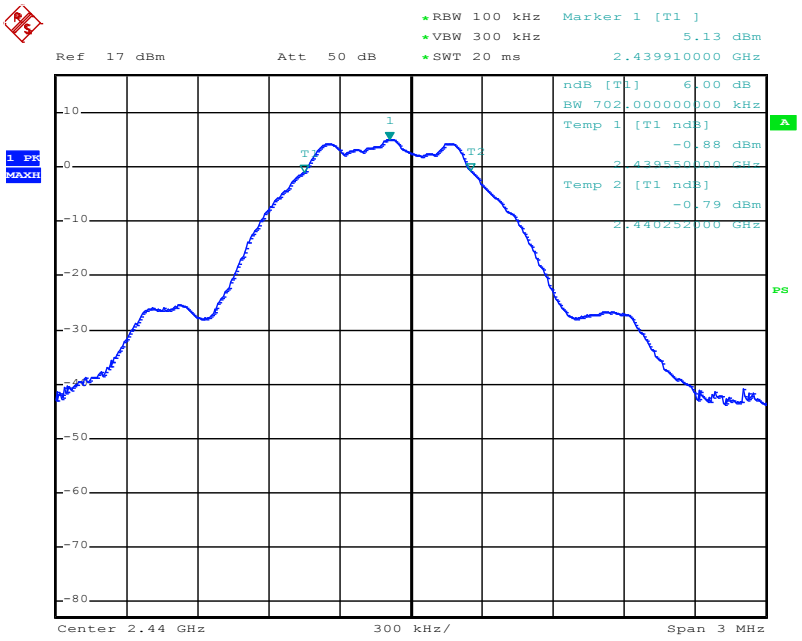
Middle Channel



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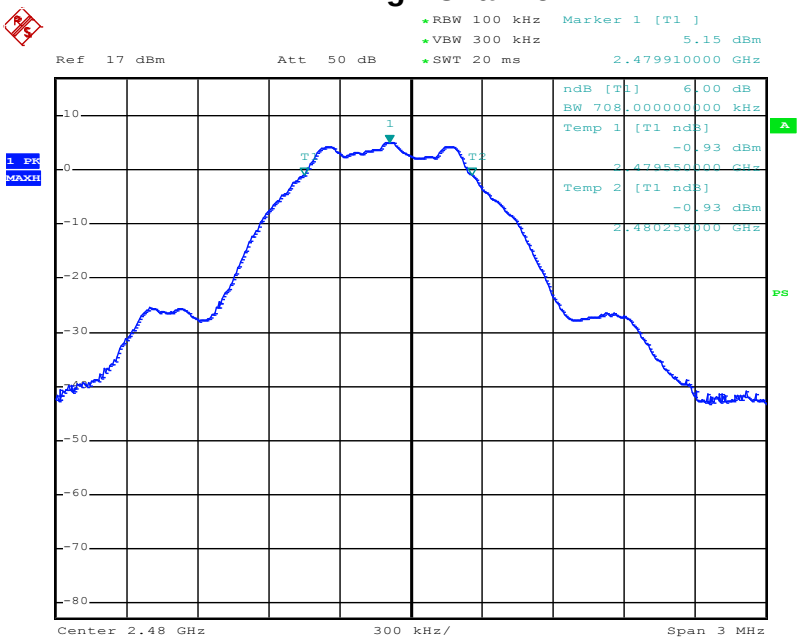
High Channel



Date: 12.NOV.2019 09:08:23

6. POWER SPECTRAL DENSITY

6.1 Measurement Procedure

The power spectral density, FCC Rule 15.247(e):

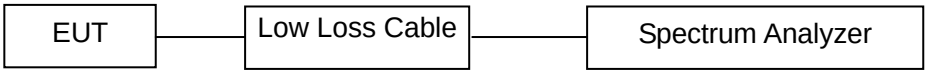
The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer was set as below according to FCC KDB558074 (v05):

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS bandwidth.
3. Set the RBW to: 3 kHz≤RBW≤100KHz
4. Set the VBW ≥ 3 x RBW.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level within the RBW.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

6.2 Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3 kHz band during any time interval of continuous transmission.

6.3 Test SET-UP (Block Diagram of Configuration)

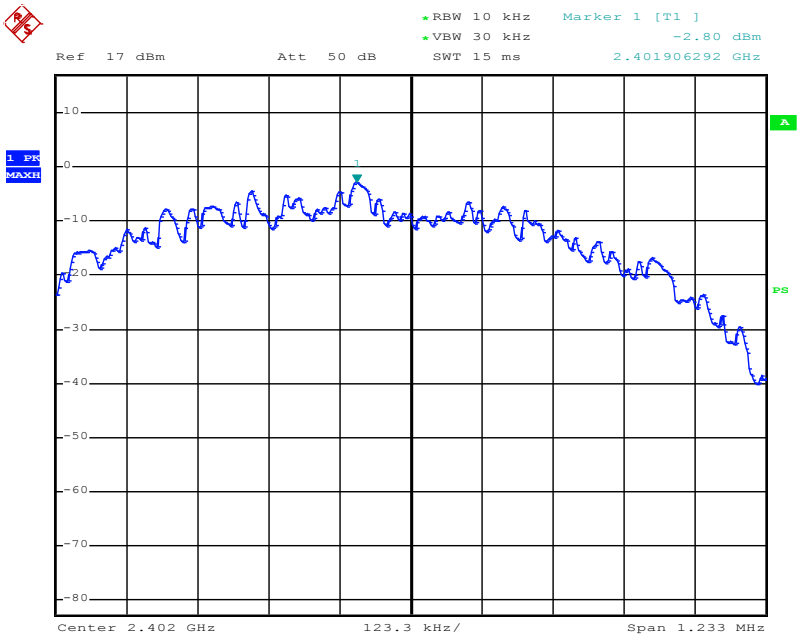


6.4 Measurement Results

Temperature:	24 ℃	Humidity:	50 %
Test By:	Sance	Test Date:	Sep. 25, 2019
Test Result:	PASS		

Channel	Test Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)
Low	2402	-2.80	8
Middle	2440	-1.90	8
High	2480	-1.75	8

Low Channel



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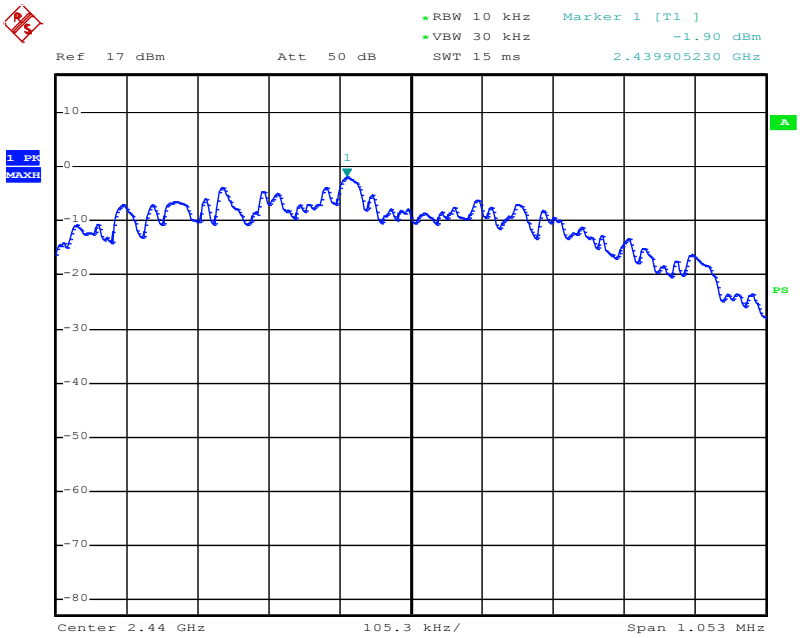
Middle Channel



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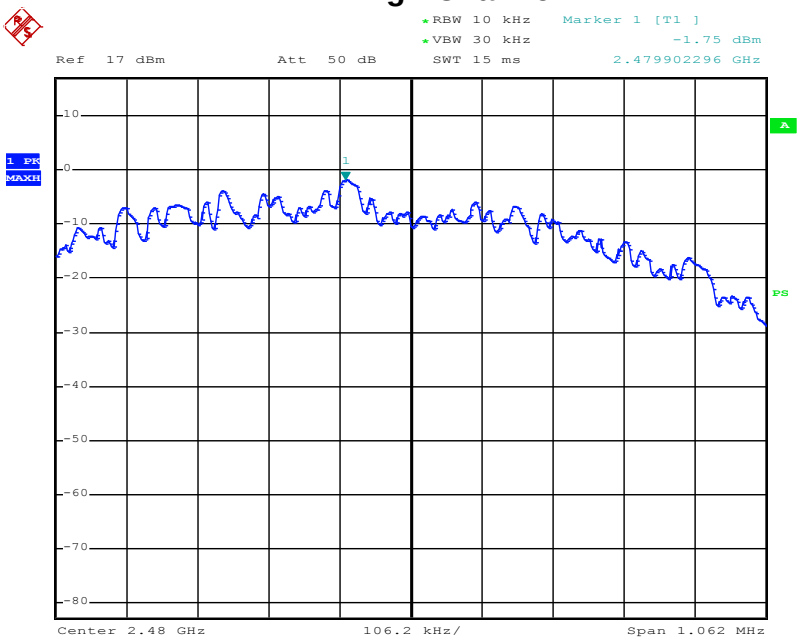
High Channel



Date: 12.NOV.2019 09:28:54

7. BAND EDGE AND

7.1 Measurement Procedure

The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer was set as below.

MEASUREMENT PROCEDURE REF
1. Set the RBW = 100 kHz.
2. Set the VBW ≥ 300 kHz.
3. Detector = peak.
4. Sweep time = auto couple.
5. Trace mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

MEASUREMENT PROCEDURE OOBE
1. Set RBW = 100 kHz.
2. Set VBW ≥ 300 kHz.
3. Detector = peak.
4. Sweep = auto couple.
5. Trace Mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum amplitude level.

7.2 Limit

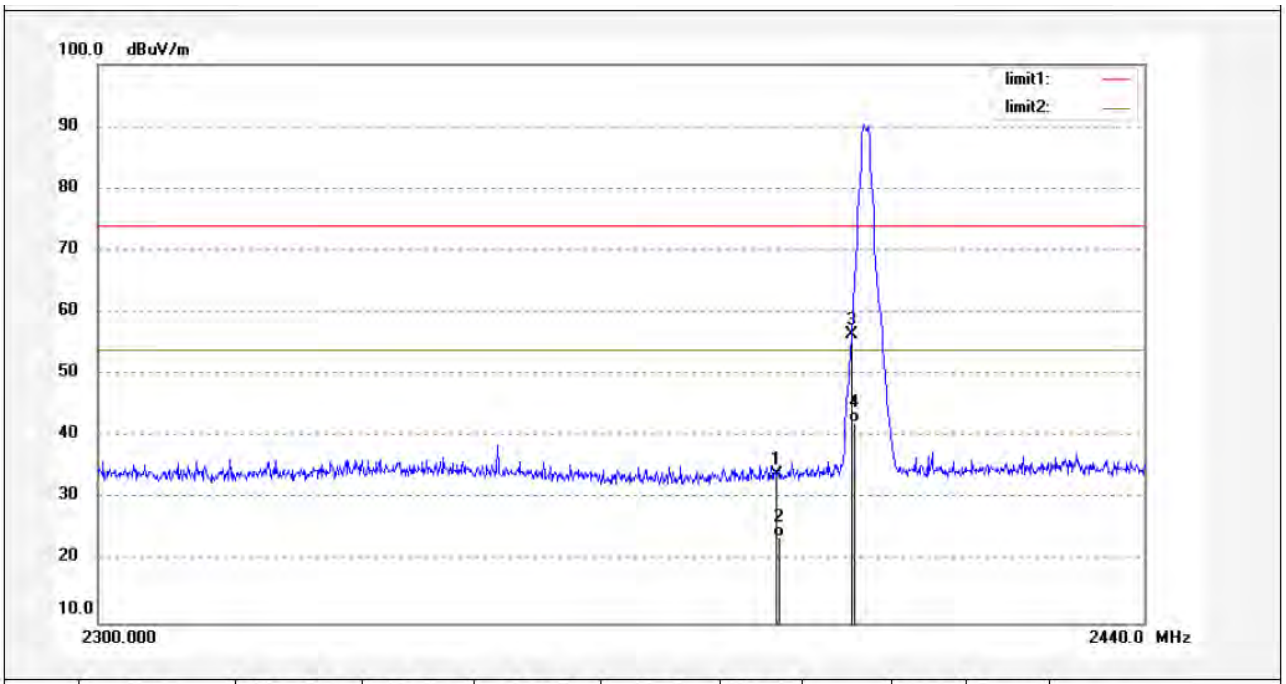
In any 100KHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100KHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

7.3 Measurement Results

Please see below test table and plots.

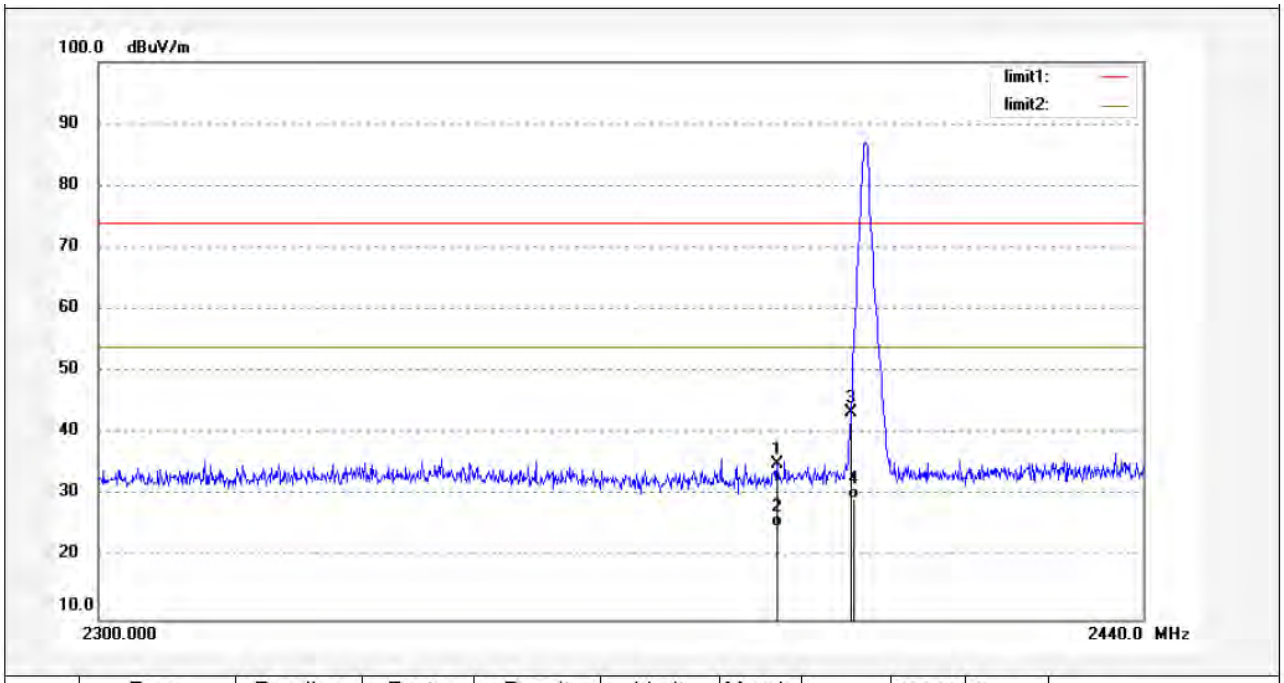
For Radiated restricted band:

Temperature:	25 ℃	Humidity:	64 %
Test By:	Sance	Test Date:	October 29, 2019
Measured Distance:	3m	Test Result:	PASS
Test Mode:	TX 2402MHz	Ant. Polarization:	Horizontal



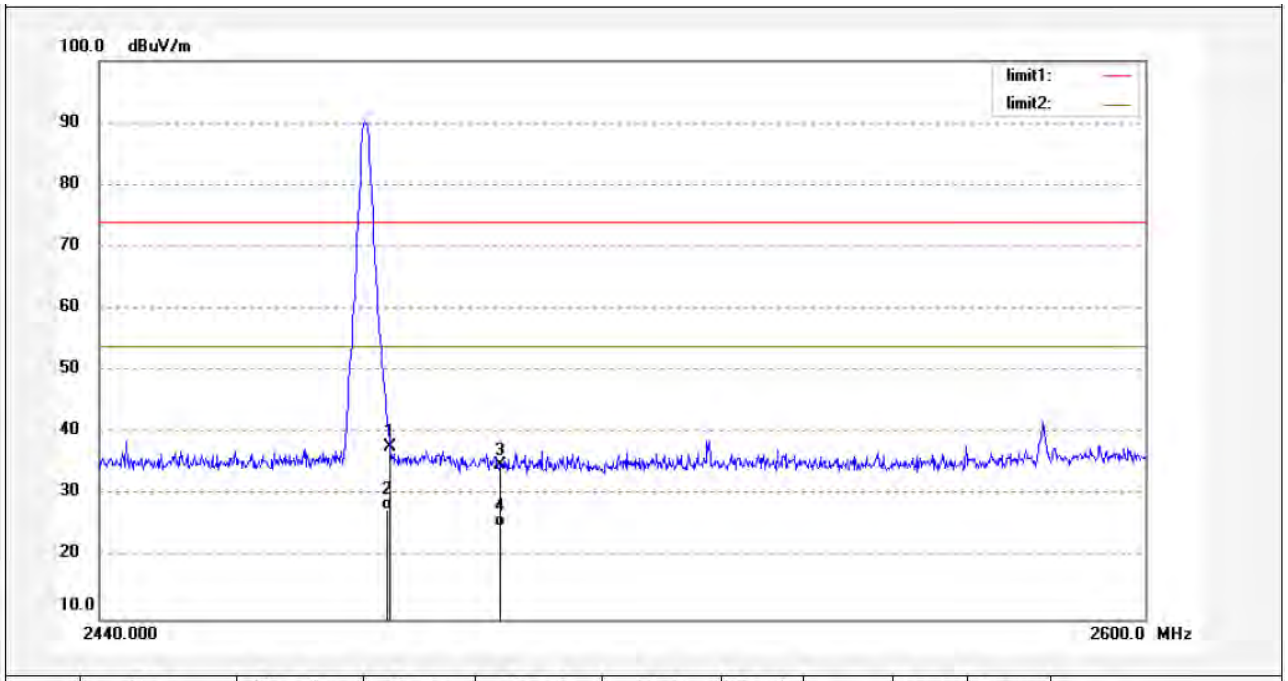
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	40.18	-6.32	33.86	74.00	-40.14	peak	200	125	
2	2390.000	30.12	-6.32	23.80	54.00	-30.20	AVG	200	196	
3	2400.000	62.68	-6.27	56.41	74.00	-17.59	peak	200	215	
4	2400.000	48.67	-6.27	42.40	54.00	-11.60	AVG	200	302	

Temperature:	25 ℃	Humidity:	64 %
Test By:	Sance	Test Date:	October 29, 2019
Measured Distance:	3m	Test Result:	PASS
Test Mode:	TX 2402MHz	Ant. Polarization:	Vertical



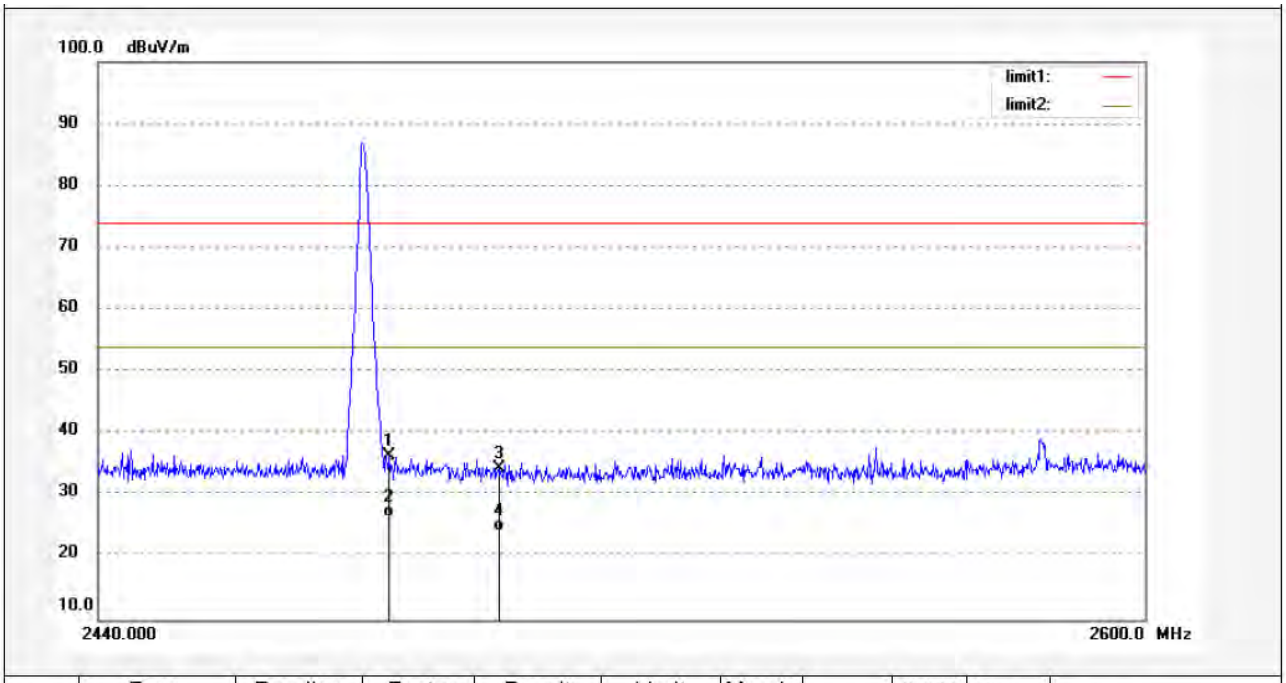
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	41.32	-6.32	35.00	74.00	-39.00	peak	150	102	
2	2390.000	31.32	-6.32	25.00	54.00	-29.00	AVG	150	163	
3	2400.000	49.69	-6.27	43.42	74.00	-30.58	peak	150	202	
4	2400.000	35.67	-6.27	29.40	54.00	-24.60	AVG	150	296	

Temperature:	25 ℃	Humidity:	64 %
Test By:	Sance	Test Date:	October 29, 2019
Measured Distance:	3m	Test Result:	PASS
Test Mode:	TX 2480MHz	Ant. Polarization:	Horizontal



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.450	43.64	-5.89	37.75	74.00	-36.25	peak	200	136	
2	2483.500	33.65	-5.89	27.76	54.00	-26.24	AVG	200	186	
3	2500.000	40.73	-5.81	34.92	74.00	-39.08	peak	200	245	
4	2500.000	30.71	-5.81	24.90	54.00	-29.10	AVG	200	325	

Temperature:	25 ℃	Humidity:	64 %
Test By:	Sance	Test Date:	October 29, 2019
Measured Distance:	3m	Test Result:	PASS
Test Mode:	TX 2480MHz	Ant. Polarization:	Vertical

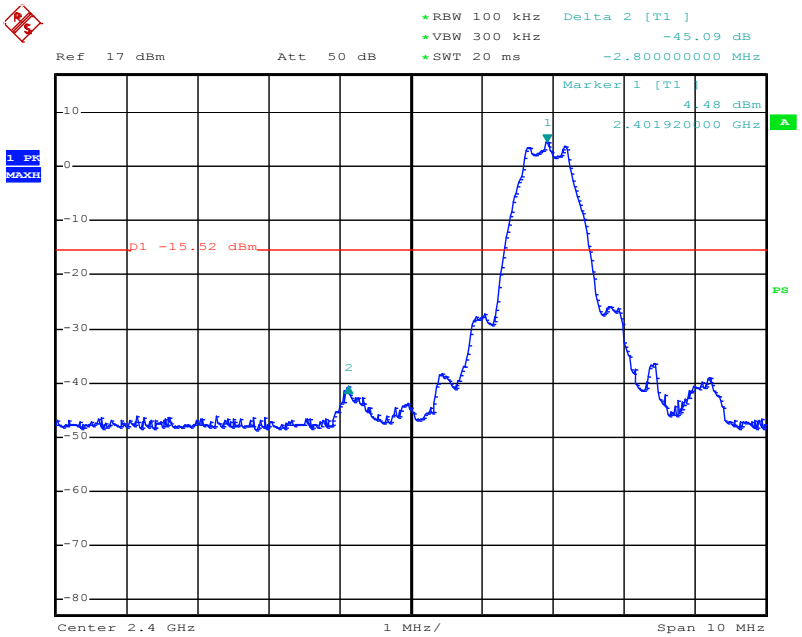


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	42.41	-5.89	36.52	74.00	-37.48	peak	150	125	
2	2483.500	32.49	-5.89	26.60	54.00	-27.40	AVG	150	186	
3	2500.000	40.12	-5.81	34.31	74.00	-39.69	peak	150	215	
4	2500.000	30.21	-5.81	24.40	54.00	-29.60	AVG	150	386	

Note: (1) Result= Reading + Factor
(2) Factor= Antenna Gain + Cable Loss – Amplifier Gain
(3) Horn antenna used for the emission over 1000MHz.

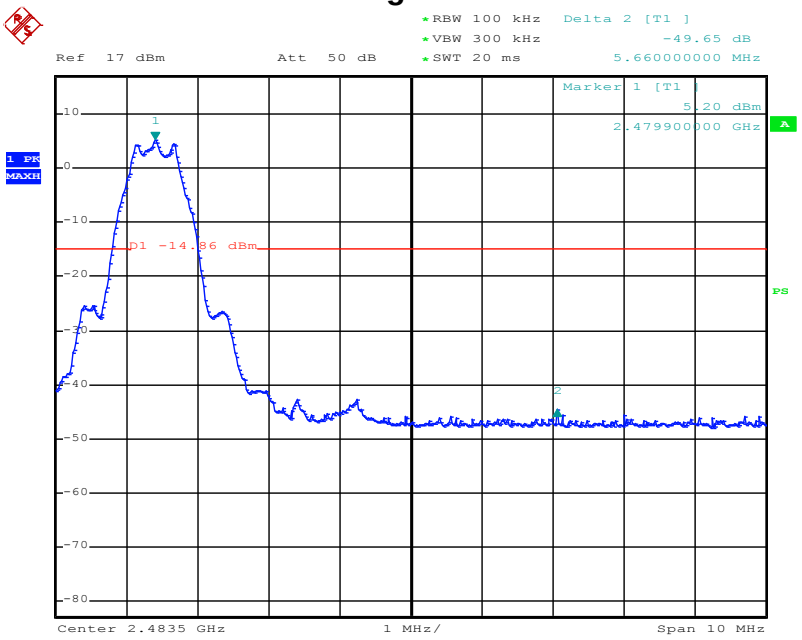
For RF Conducted restricted band:

Low Channel



Date: 12.NOV.2019 09:16:09

High Channel



Date: 12.NOV.2019 09:13:45

8. CONDUCTED SPURIOUS EMISSIONS

8.1 Measurement Procedure

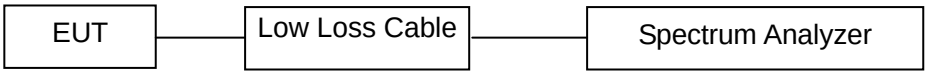
Out of Band Conducted Spurious Emissions, FCC Rule 15.247(d):

The transmitter output is connected to spectrum analyzer. All spurious emission and up tp the tenth harmonic was measured and they were found to be at least 20dB below the highest level of the desired power in the passband.

8.2 Limit

In any 100KHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100KHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

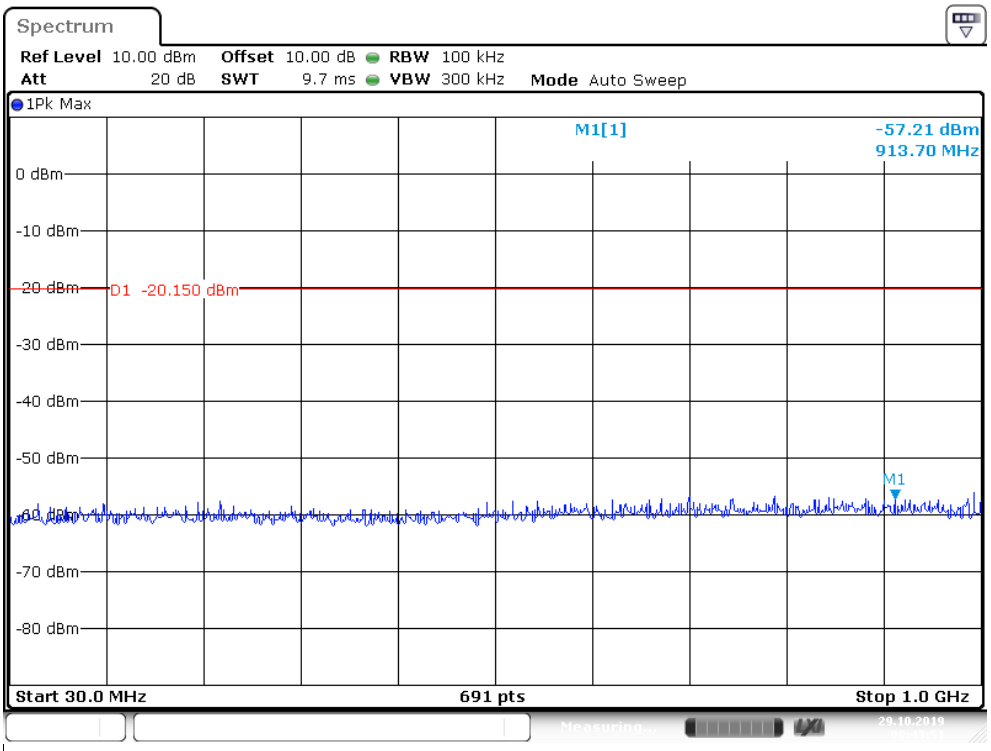
8.3 Test SET-UP (Block Diagram of Configuration)



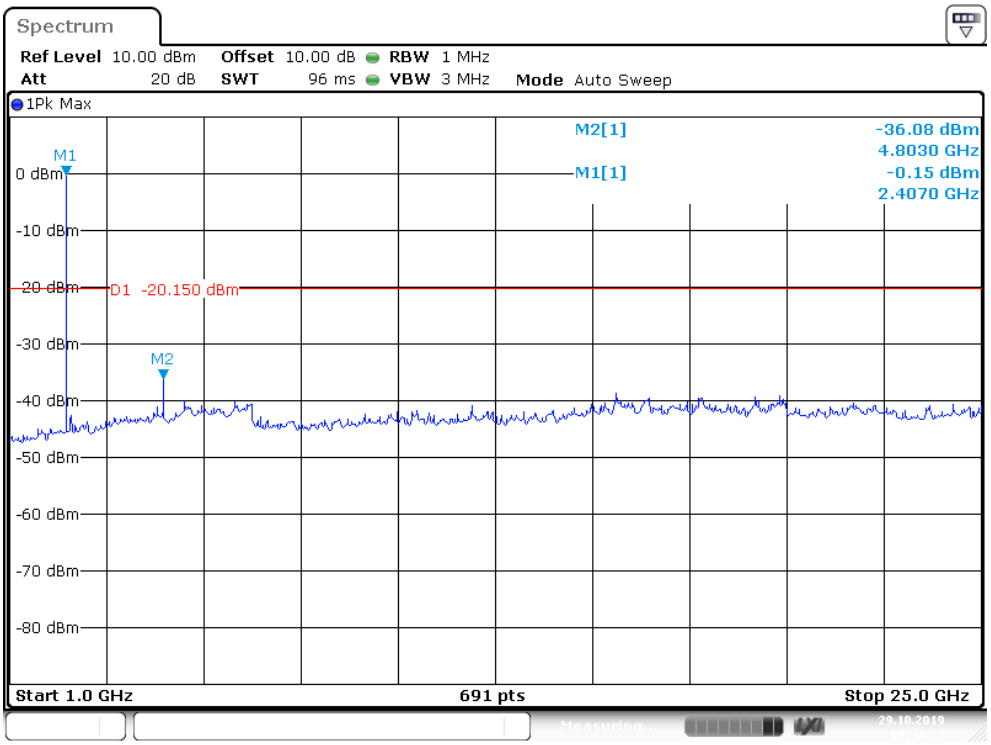
8.4 Measurement Results

Please refer to following plots

Low Channel

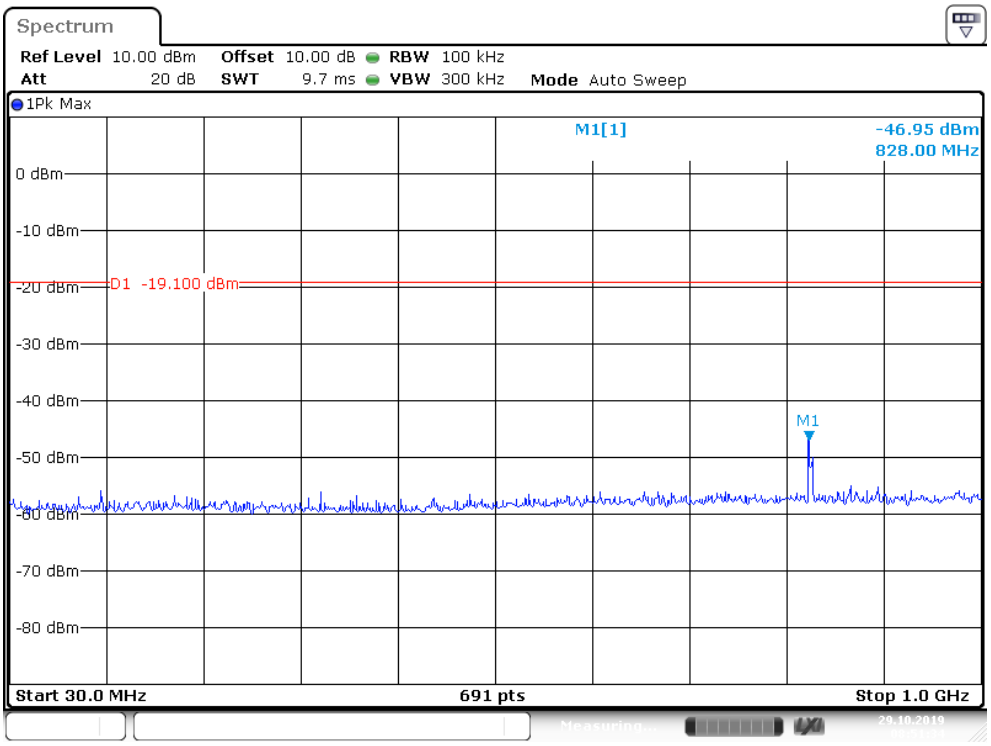


Date: 29.OCT.2019 08:43:52

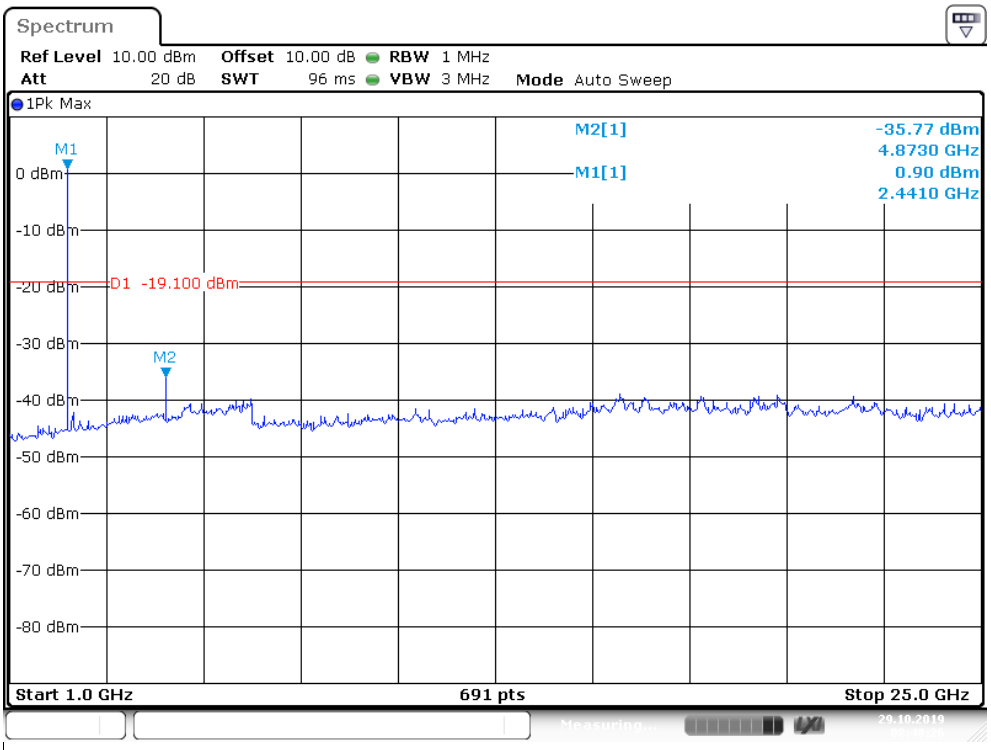


Date: 29.OCT.2019 08:42:35

Middle Channel

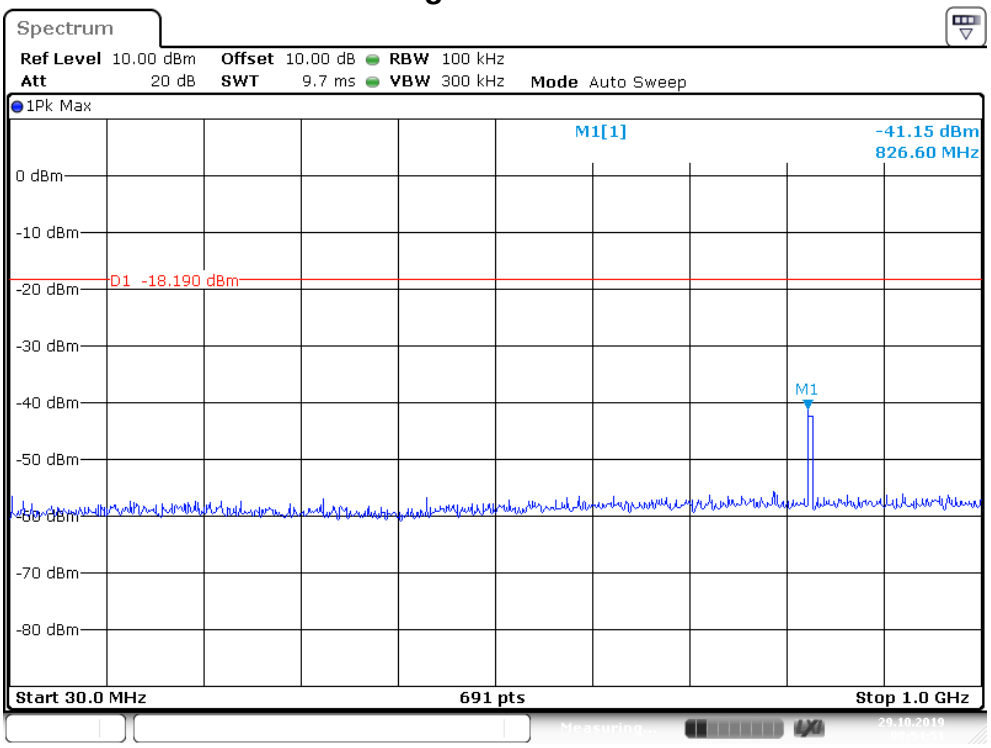


Date: 29.OCT.2019 08:51:34

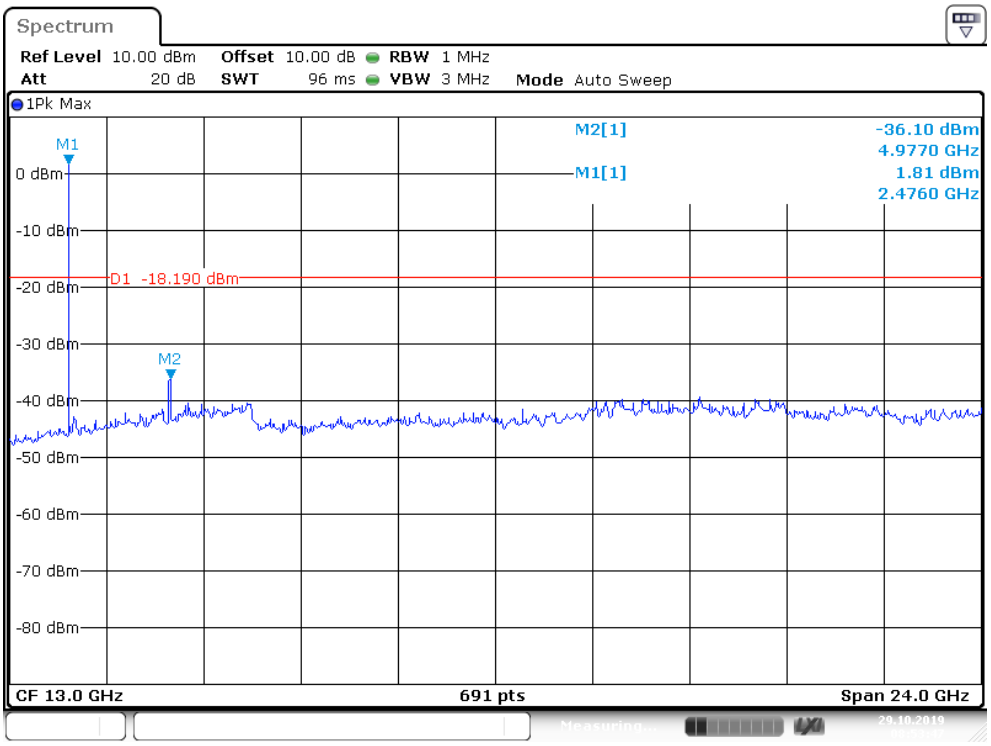


Date: 29.OCT.2019 08:48:26

High Channel



Date: 29.OCT.2019 08:54:52



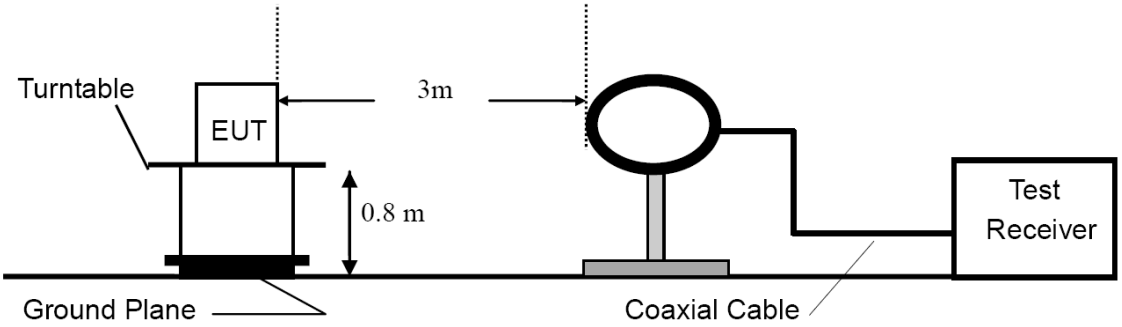
Date: 29.OCT.2019 08:53:47

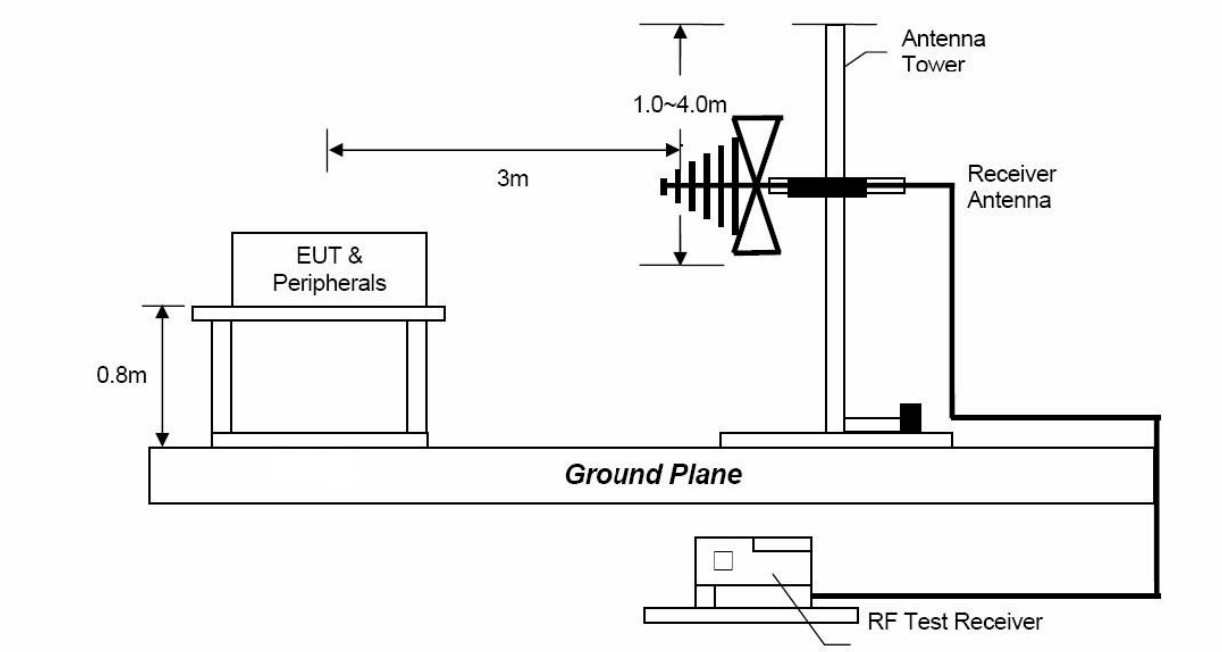
Note: Sweep points=30001pts

9. RADIATED SPURIOUS EMISSIONS

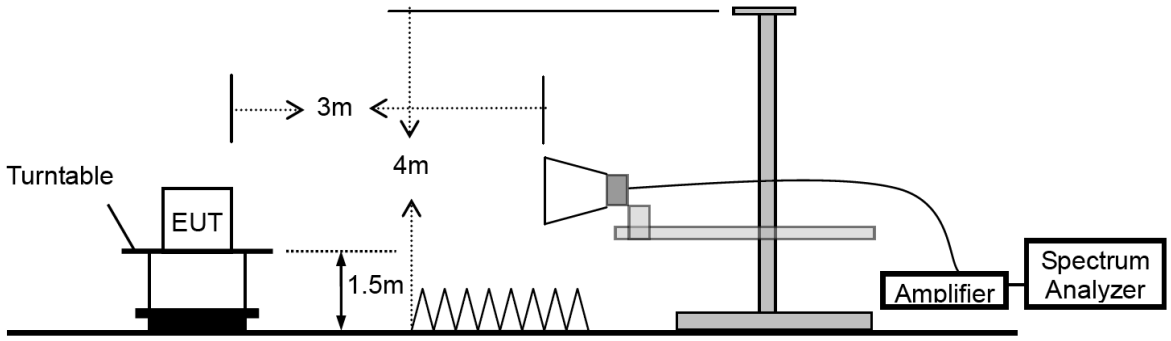
9.1 Test SET-UP (Block Diagram of Configuration)

9.1.1 Radiated Emission Test Set-Up, Frequency below 30MHz





9.1.2 Radiated Emission Test Set-Up, Frequency above 1GHz



9.2 Measurement Procedure

a. Blow 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi- anechoic chamber room.
b. For the radiated emission test above 1GHz:
   The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter full anechoic chamber room. The table was rotated 360 degrees to determine the position of the highest radiation. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
c. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
d. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. The test-receiver system was set to peak detect function and specified bandwidth with maximum hold mode.
f. A Quasi-peak measurement was then made for that frequency point for below 1GHz test. PK and AV for above 1GHz emission test.

During the radiated emission test, the spectrum analyzer was set with the following configurations:

Frequency Band (MHz)	Level	Resolution Bandwidth	Video Bandwidth
30 to 1000	QP	120 kHz	300 kHz
Above 1000	Peak	1 MHz	3 MHz
	Average	1 MHz	10 Hz

9.3 Limit

Frequency range MHz	Distance Meters	Field Strengths Limit (15.209) μV/m
0.009 ~ 0.490	300	2400/F(kHz)
0.490 ~ 1.705	30	24000/F(kHz)
1.705 ~ 30	30	30
30 ~ 88	3	100
88 ~ 216	3	150
216 ~ 960	3	200
Above 960	3	500

Remark : (1) Emission level (dB)μV = 20 log Emission level μV/m

(2) The smaller limit shall apply at the cross point between two frequency bands.

(3) As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

(4) The frequency range scanned is from the lowest radio frequency signal generated in the device which is greater than 9 kHz to the tenth harmonic of the highest fundamental frequency or 40 GHz, whichever is lower.

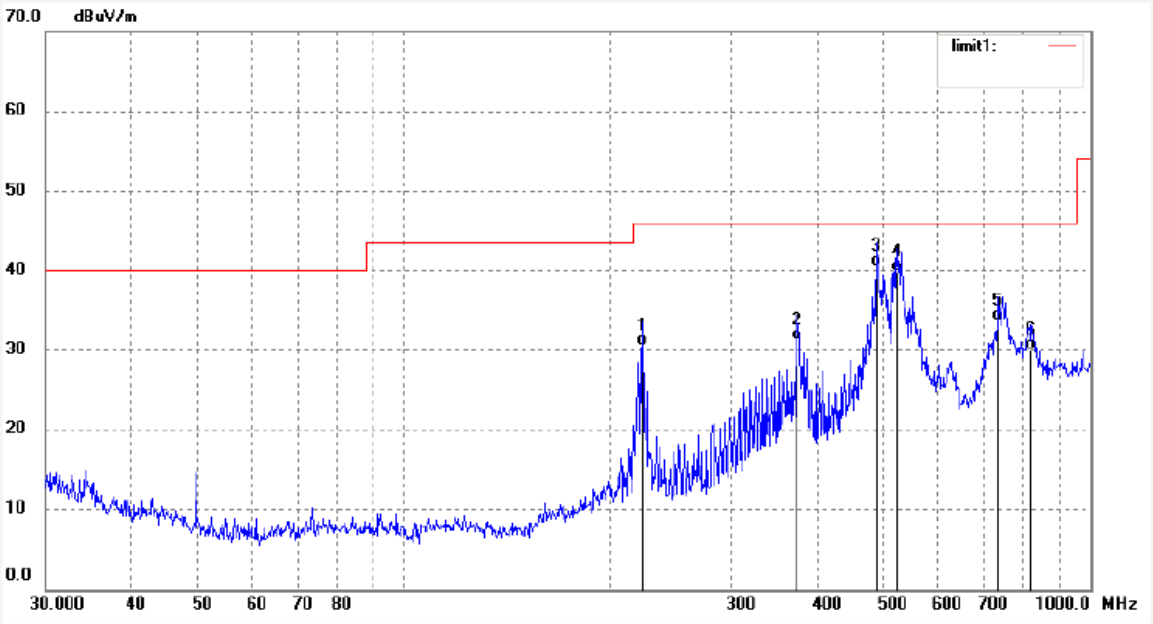
(5) §15.247(d) specifies that emissions which fall in the restricted bands, as defined in §15.205 comply with radiated emission limits specified in §15.209.

9.4 Measurement Results

Please refer to following plots of the worst case: Low channel.

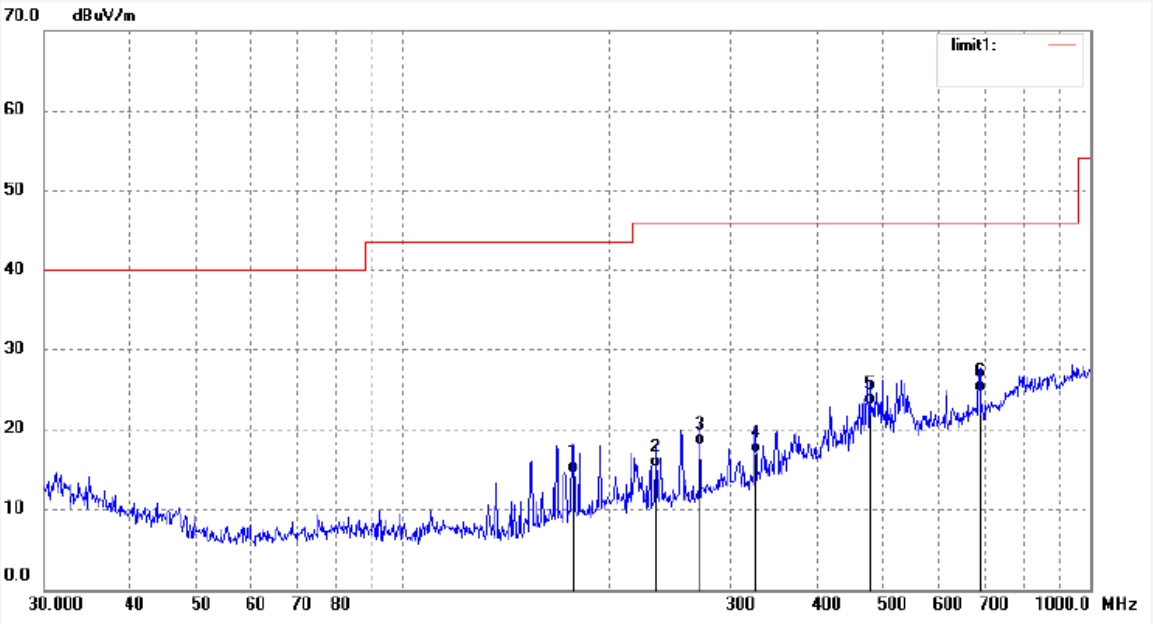
Note: Below 30MHz, the emissions are lower than 20dB below the allowable limit. Therefore, 9kHz-30MHz data were not recorded.

E.U.T:	Stealth Rekon Headset	Polarization:	Horizontal
Model No.:	IA-NT4-BASIC-BT	Temperature:	25 ℃
Test Mode:	TX 2402MHz (GFSK)	Humidity:	64 %
Frequency Range:	30MHz-1GHz	Test By:	Sance
Test Distance:	3m	Test Voltage	DC 3.7V
Test Results:	PASS	Test Date:	November 02, 2019



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	222.2803	55.11	-24.61	30.50	46.00	-15.50	QP	200	126	
2	373.8860	50.91	-19.61	31.30	46.00	-14.70	QP	200	196	
3	488.3263	58.18	-17.58	40.60	46.00	-5.40	QP	200	103	
4	523.8763	56.55	-16.75	39.80	46.00	-6.20	QP	200	215	
5	734.0371	45.92	-12.22	33.70	46.00	-12.30	QP	200	262	
6	818.5062	40.39	-10.29	30.10	46.00	-15.90	QP	200	302	

E.U.T:	Stealth Rekon Headset	Polarization:	Vertical
Model No.:	IA-NT4-BASIC-BT	Temperature:	25 ℃
Test Mode:	TX 2402MHz (GFSK)	Humidity:	64 %
Frequency Range:	30MHz-1GHz	Test By:	Sance
Test Distance:	3m	Test Voltage	DC 3.7V
Test Results:	PASS	Test Date:	November 02, 2019



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	176.8951	41.58	-26.88	14.70	43.50	-28.80	QP	100	123	
2	233.4881	39.86	-24.46	15.40	46.00	-30.60	QP	100	165	
3	270.6161	41.36	-23.26	18.10	46.00	-27.90	QP	100	198	
4	326.0079	38.26	-21.16	17.10	46.00	-28.90	QP	100	215	
5	478.1394	40.93	-17.73	23.20	46.00	-22.80	QP	100	296	
6	691.4763	37.83	-13.13	24.70	46.00	-21.30	QP	100	325	

Modulation:	GFSK		
Frequency Range:	1-25GHz	Test Date:	October 29, 2019
Test Result:	PASS	Temperature:	25 ℃
Measured Distance:	3m	Humidity:	64 %
Test By:	Sance	Test Results:	PASS

Freq. (MHz)	Ant.Pol. (H/V)	Reading Level(dBuV)		Factor (dB/m)	Emission Level (dBuV)		Limit 3m (dBuV/m)		Margin (dB)	
		PK	AV		PK	AV	PK	AV	PK	AV
Operation Mode: TX 2402MHz										
4804	H	58.86	48.80	0.7	59.58	49.50	74.00	54.00	-14.44	-4.50

4804	V	55.28	45.30	0.7	55.98	46.00	74.00	54.00	-18.02	-8.00

Operation Mode: TX 2440MHz										
4880	H	57.68	47.63	1.07	58.75	48.70	74.00	54.00	-15.25	-5.30

4880	V	56.56	46.53	1.07	57.63	47.60	74.00	54.00	-16.37	-6.40

Operation Mode: TX 2480MHz										
4960	H	58.47	48.10	1.50	59.97	49.60	74.00	54.00	-14.03	-4.40

4960	V	56.90	46.90	1.50	58.40	48.40	74.00	54.00	-15.60	-5.60

Other harmonics emissions are lower than 20dB below the allowable limit.

Note: (1) All Readings are Peak Value and AV.
(2) Emission Level= Reading Level + Factor
(3) Factor= Antenna Gain + Cable Loss – Amplifier Gain
(4) Data of measurement within this frequency range shown "---" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits, therefore, than 20 dB below the limit do no reported.
(5) Measurement uncertainty: ±3.7dB.
(6) Horn antenna used for the emission over 1000MHz.

10. ANTENNA APPLICATION

10.1 Antenna requirement

According to of FCC part 15C section 15.203 and 15.240:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.
Systems operating in the 2400-2483.5MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum peak output power of the intentional radiator is reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

10.2 Measurement Results

The antenna is PCB antenna that no antenna other than furnished by the responsible party shall be used with the device, and the best case gain of the antenna is 0.54dBi, So, the antenna is consider meet the requirement.

11. TEST EQUIPMENT LIST

Description	Manufacturer	Model Number	Serial Number	Characteristics	Calibration Date	Calibration Due Date
Test Receiver	Rohde & Schwarz	ESCI7	100837	9KHz~7GHz	Mar. 14, 2019	1 year
Antenna	Schwarzbeck	VULB9162	9162-010	30MHz~7GHz	Mar. 23, 2019	1 year
Spectrum Analyzer	Rohde & Schwarz	FSU26	200409/026	20Hz~26.5GHz	Mar. 14, 2019	1 year
Spectrum Analyzer	Keysight	N9020A	MY54200831	20Hz~26.5GHz	Apr. 24, 2019	1 year
Spectrum Analyzer	Rohde & Schwarz	FSV40	101003	10Hz~40GHz	Apr. 24, 2019	1 year
Horn Antenna	Schwarzbeck	BBHA9170	9170-372	15GHz~40GHz	Mar. 23, 2019	1 year
Pre-Amplifier	EMCI	EMC 184045	980102	18GHz~40GHz	Apr. 24, 2019	1 year
Power Sensor	DARE	RPR3006W	15I00041SNO64	100MHz~6GHz	Mar. 14, 2019	1 year
Communication Tester	Rohde & Schwarz	CMW500	149004	70MHz~6GHz	Mar. 14, 2019	1 year
Horn Antenna	COM-Power	AH-118	071078	500MHz~18GHz	Mar. 23, 2019	1 year
Pre-Amplifier	HP	HP 8449B	3008A00964	1GHz~26.5GHz	Mar. 14, 2019	1 year
Pre-Amplifier	HP	HP 8447D	1145A00203	100KHz~1.3GHz	Mar. 14, 2019	1 year
Loop Antenna	Schwarzbeck	FMZB 1513	1513-272	9KHz~30MHz	Apr. 24, 2019	1 year
Temperature & Humidity Chamber	REMAFEE	SYHR225L	N/A	-40~150℃	Apr. 24, 2019	1 year
DC Source	MY	MY8811	N/A	0~30V	N/A	N/A
Temporary antenna connector	TESCOM	SS402	N/A	9KHz~25GHz	N/A	N/A
Power Meter	Anritsu	ML2495A	1139001	100k-65GHz	Apr. 24, 2019	1 year
Power Sensor	Anritsu	MA2411B	100345	300M-40GHz	Apr. 24, 2019	1 year
Test Software	EZ	EZ_EMC	N/A	N/A	N/A	N/A

Note: The temporary antenna connector is soldered on the PCB board in order to perform conducted tests and this temporary antenna connector is listed in the equipment list.

---END---