

# FCC Test Report (Part 15 Subpart C)

FCC ID: 2BPY2-SAFEBCS1

## Client Information:

\*Applicant: WEHEAR INNOVATIONS PRIVATE LIMITED

\*Applicant add.: 805, SUPATH APARTMENT, VIJAY CHAR RASTA, NAVRANGPURA AHMEDABAD, GUJARAT,  
380009

\*Manufacturer: WEHEAR INNOVATIONS PRIVATE LIMITED

\*Manufacturer add.: 805, SUPATH APARTMENT, VIJAY CHAR RASTA, NAVRANGPURA AHMEDABAD, GUJARAT,  
380009

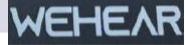
## Product Information:

Sampling Details.....: The below Test Item provided by applicant

\*Product Name: Bone Conduction Headphone

\*Model No.: SAFE BC S1

\*Derivative model No.: OpenNova, OpenNova Pro

\*Brand Name: 

## Applied Standard:

FCC PART 15 Subpart C:2013 section 15.247

## Laboratory Details:

AA Electro Magnetic Test Laboratory Private Limited

Plot No174, Udyog Vihar-Phase4, Sector18, Gurgaon, Haryana, India

Date of Receipt: Apr. 09, 2025

Date of Test: Apr. 25 ~ Jun. 12, 2025

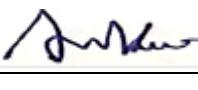
Date of Issue: Jul. 18, 2025

Test Result: In Compliance/Pass

Declaration of Conformity: Declaration of conformity of the results is based as per the standard limits

**Disclaimer:** The \* Information are provided by Manufacturer and it is verified through the Request form and Marking Label, AA Electro Magnetic Test Laboratory is not responsible for the above information accuracy. This device described above has been tested by AA Electro Magnetic Test Laboratory Private Limited, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

\*This test report must not be used by the client to claim product endorsement by any agency of the U.S. government.

Prepared By: (+ signature) Ankur Kumar 

Reviewed & Approved by: (+ signature)

Dr. Lenin Raja (Authorized Representative) (/ lenin83/)

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## 2 Test Summary

### 2.1 Compliance with FCC Part 15 subpart C

Test	Test Requirement	Standard Paragraph	Result
Antenna Requirement	FCC Part 15 C	Section 15.247©	<b>PASS</b>
Conduction Emissions	FCC Part 15 C	Section 15.207(a)	<b>PASS</b>
Radiated Emissions	FCC Part 15 C	Section 15.247(d)	<b>PASS</b>
Bandwidth Test	FCC Part 15 C	Section 15.247(a)	<b>PASS</b>
Carrier Frequencies Separated	FCC Part 15 C	Section 15.247(a)(1)	<b>PASS</b>
Hopping Channel Number	FCC Part 15 C	Section 15.247(a)(1) (iii)	<b>PASS</b>
Dwell Time	FCC Part 15 C	Section 15.247(a)(1) (iii)	<b>PASS</b>
Maximum Peak Output Power	FCC Part 15 C	Section 15.247(b)	<b>PASS</b>
Band edge	FCC Part 15 C	Section 15.247(d)	<b>PASS</b>
Conducted Spurious Emissions	FCC Part 15 C	Section 15.247(d)	<b>PASS</b>
<b>Note:</b> N/A is an abbreviation for Not Applicable.			
<b>Model description:</b> N/A			
(1)	Reference to the FCC Public Notice KDB558074		
(2)	Reference to ANSI C63.10		

## 2.2 Test Location

All tests were performed at:

AA Electro Magnetic Test Laboratory Private Limited

Plot No 174, Udyog Vihar - Phase 4, Sector 18, Gurgaon, Haryana, India

Tel.: +91-0124-4235350

## 2.3 Measurement Uncertainty

All measurements involve certain levels of uncertainties, The following measurements uncertainty Levels have estimated based on ANSI C63.4:2009, the maximum value of the uncertainty as below

No.	Item	Uncertainty
1	Conducted Emission Test	2.83dB
2	Radiated Emission Test	3.78dB

### 3 Test Facility

**ILAC / NABL Accreditation No.: TC-8597**

Three 3m Semi-Anechoic Chamber, 1 full-Anechoic chamber and 2 Shielding Rooms of AA Electro Magnetic Test Laboratory Private Limited have been registered by National Accreditation Board for Testing and Calibration Laboratories (NABL).

**ILAC –A2LA Accreditation No.: 5593.01**

Three 3m Semi-Anechoic Chamber, 1 full-Anechoic chamber and 2 Shielding Rooms of AA Electro Magnetic Test Laboratory Private Limited have been registered American Association of Laboratory Accreditation ( A2LA.)

**FCC- Recognition No.: 137777**

Three 3m Semi-Anechoic Chamber, 1 full-Anechoic chamber and 2 Shielding Rooms of AA Electro Magnetic Test Laboratory Private Limited have been registered by Federal Communications Commission (FCC).

**ISED Recognition No.: 26046**

Three 3m Semi-Anechoic Chamber, 1 full-Anechoic chamber and 2 Shielding Rooms of AA Electro Magnetic Test Laboratory Private Limited have been registered by Institute for Social and Economic Development.( ISED)

**VCCI- Registration No: 4053**

Three 3m Semi-Anechoic Chamber, 1 full-Anechoic chamber and 2 Shielding Rooms of AA Electro Magnetic Test Laboratory Private Limited have been registered by Voluntary Control Council for Interference.(VCCI)

**TEC Designation No.: IND063**

Three 3m Semi-Anechoic Chamber, 1 full-Anechoic chamber and 2 Shielding Rooms of AA Electro Magnetic Test Laboratory Private Limited have been registered by Telecommunication Engineering (TEC) Center.

**BIS Recognition No: 816586**

BIS recognized as per CRS scheme for IT electronics, LED control gears, Lamp, Inverter / UPS are recognized as per LRS 2020.

#### 3.1 Deviation from standard

None

#### 3.2 Abnormalities from standard conditions

None

## 4 General Information

### 4.1 General Description of EUT

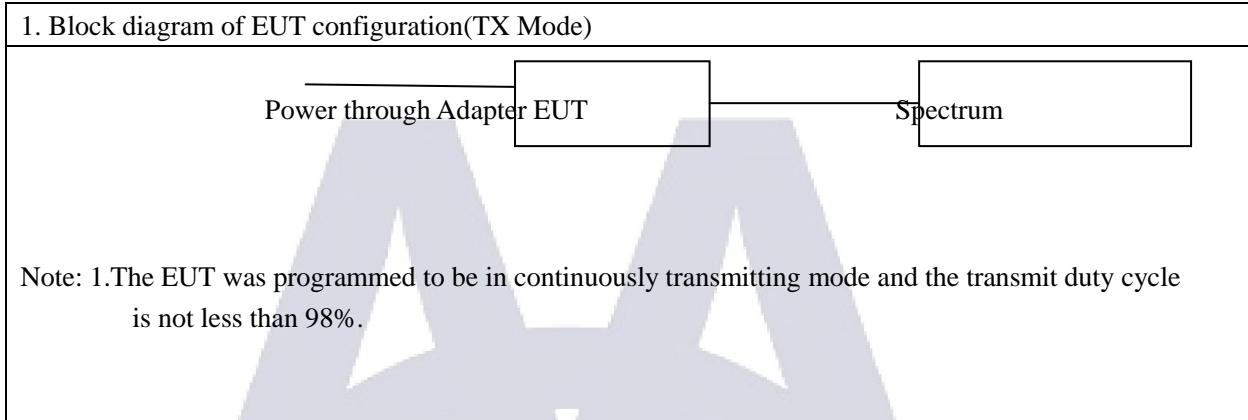
*Manufacturer:	WEHEAR INNOVATIONS PRIVATE LIMITED
*Manufacturer Address:	805, SUPATH APARTMENT, VIJAY CHAR RASTA, NAVRANGPURA AHMEDABAD, GUJARAT, 380009
*EUT Name:	Bone Conduction Headphone
*Model No:	SAFE BC S1
*Brand Name:	<b>WEHEAR</b>
*Derivative model No.:	OpenNova, OpenNova Pro
*Serial No:	AOXCPSHG025X1131
Operation frequency:	2402 MHz to 2480 MHz
Number Of Channel:	79
Modulation Technology:	GFSK, $\pi/4$ -DQPSK, 8DPSK(1/2Mbps)
*Antenna Gain:	1.8dBi
*H/W No.:	HV02
*S/W No.:	SV02
*Power Supply Range:	EUT Input: DC5VDC,230mAh (Powered through Adapter) Input of Adapter :100~285VAC, 50/60 Hz, Output of Adapter: DC5V, 2.4Amp. (Max:12W)
Condition of Sample on receipt:	Good
Note:	1 .For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual. 2. Antenna gain and antenna type provided by manufacturer.
Opinions and Interpretations:	See the specific Note / Annexure if any in the whole /full report/NA

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

## 4.2 Description of Test conditions

- (1) EUT was tested in normal configuration (Please See following Block diagram)



- (2) E.U.T. test conditions:

15.31(e): For intentional radiators, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage. For battery operated equipment, the equipment tests shall be performed using a new battery.

- (3) Test frequencies:

According to the 15.31(m) Measurements on intentional radiators or receivers, other than TV broadcast receivers, shall be performed and. If required reported for each band in which the device can be operated with the device operating at the number of frequencies in each band specified in the following table:

Frequency range over which device operates	Number of frequencies	Location in the range of operation
1 MHz or less	1	Middle
1 to 10 MHz	2	1 near top and 1 near bottom
More than 10 MHz	3	1 near top, 1 near middle and 1 near bottom

- (4) Frequency range of radiated measurements:

According to the 15.33, the test range will be up to the tenth harmonic of the highest fundamental frequency.

- (5) Pre-test the EUT in all transmitting mode at the lowest (2402 MHz), middle (2441 MHz) and highest (2480 MHz) channel with different data packet and conducted to determine the worst-case mode, only the worst-case results(1Mbps/2Mbps/3Mbps) are recorded in this report.

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### 4.3 Test Peripheral List

No.	Equipment	Manufacturer	EMC Compliance	Model No.	Serial No.	Power cord	signal cable
1	Laptop	DELL	N/A	Latitude 3490	5M2Z1W2	2m unshielded	N/A

### 4.4 EUT Peripheral List

No.	Equipment	Manufacturer	EMC Compliance	Model No.	Serial No.	Power cord	signal cable
1.	Adapter	Jiangxi Jian Aohai Technology Co.,Ltd	N/A	MDY-11-ER	N/A	N/A	N/A

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## 5 Equipments List for All Test Items

No	Test Equipment	Manufacturer	Model No	Serial No	Cal. Due Date
1	Spectrum Analyser	R&S	FSP	-	2026/01/10
2	Loop antenna	DAZE Beijing	ZN30900C	18052	2026/09/15
3	Hi power horn antenna	DAZE Beijing	ZN30700	18012	2026/09/10
4	MXA Signal Analyzer	KEYSIGHT	N9020A	MY53290443	2025/07/27
5	Horn antenna	DAZE Beijing	ZN30703	18005	2026/09/10
6	Pre-Amplifier	KELIANDA	LNA-0009295	-	2026/01/10
7	Pre-Amplifier	HP	8447FOPTH64	-	2026/01/10
8	Biconical Antenna	DAZE Beijing	ZN30505C	17038	2026/09/10
9	EMI- Test RECEIVER	Rohde and Schwarz	ESIB26	509371	2027/06/10
10	LISN	Kyoritsu	KNW-407	8-1789-5	2026/01/10
11	Network – LISN	Schwarzbeck	NNBM8125	81251314	2026/01/10
12	Network – LISN	Schwarzbeck	NNBM8125	81251315	2026/01/10
13	PULSE LIMITER	Rohde and Schwarz	ESH3-Z2	100681	-
14	50Ω Coaxial Switch	DAIWA	1565157	-	-
15	50Ω Coaxial Switch	-	-	-	-

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16	USB RF Power Sensor	DARE!!	RPR3006W	18I00043SNO0 2	2026/01/12
17	USB RF Power Sensor	DARE!!	RPR3006W	18I00043SNO0 4	2026/01/12
18	Signal Generator	KEYSIGHT	N5181A	512071	2026/01/10
19	RF Vector Signal Generator	KEYSIGHT	N5182B	512094	2026/01/10
20	Spectrum analyzer	ROHDE & SCHWARZ	FSV40-N	101385	2026/04/28
21	Radio Communication Tester	ROHDE & SCHWARZ	CMW 500	124589	2025/09/08
22	Signal Generator	R&S	SMP 02	837017/004	2025/09/07
23	DC Regulated Power Supply	Metravi	RPS-3005	669076	2025/12/11
24	Climatic Chamber (Environmental Chamber)	SUNRISE SCIENTIFIC INSTRUMENTS	-	-	2025/11/05
25	Attenuators	HP	8494B	1510A04625	2026/03/21
26	Attenuators	AGILENT	8495B	MY42140429	2026/03/21

## 6 Test Result

### 6.1 Antenna Requirement

#### 6.1.1 Standard requirement

15.203 requirement: For intentional device, according to 15.203: 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.

15.247(c) (1)(i) requirement: (i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

#### 6.1.2 EUT Antenna

The antenna is a FPC Antenna with Cable which is connected to the board using a N-type to U.FL cable which is connected to the board via U.FL connector. Antenna gain is maximum 1.8dBi from 2.4GHz to 2.5 GHz

## 6.2 Conduction Emissions Measurement

### 6.2.1 Applied procedures / Limit

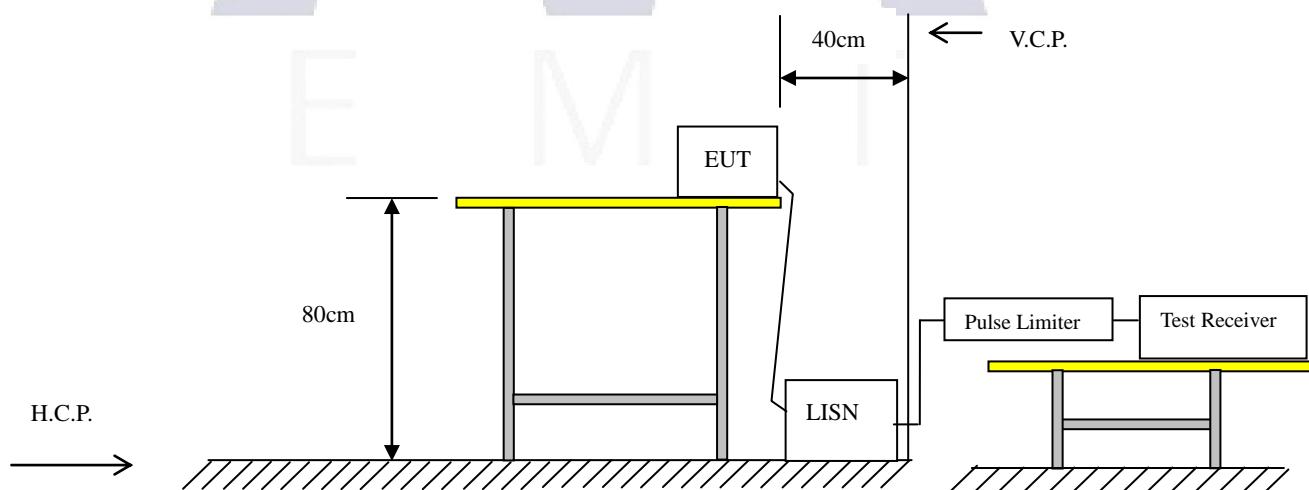
Frequency of Emission (MHz)	Conducted Limit (dB $\mu$ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56 *	56 to 46 *
0.5-5	56	46
5-30	60	50

Note: Decreases with the logarithm of the frequency.

### 6.2.2 Test procedure

EUT was placed upon a wooden test table 0.8m above the horizontal metal reference plane and 0.4m from the Vertical ground plane, and it was connected to an AMN. The closest distance between the boundary of the EUT and the surface of the AMN is 0.8m. All peripherals were connected to another AMN, and placed at a distance of 10cm from each other. A spectrum and receiver was connected to the RF output port of the AMN. Both average and quasi-peak value were detected.

### 6.2.3 Test setup



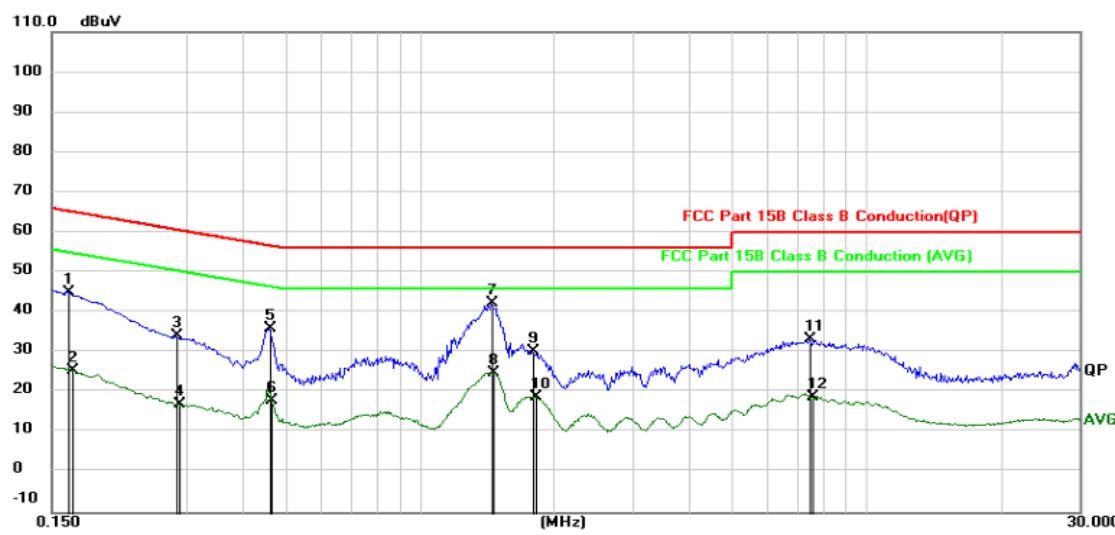
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### 6.2.4 Test results

EUT:	Bone Conduction Headphone		Model Name. :	SAFE BC S1		
Temperature:	25.8 °C		Relative Humidity:	52%		
Pressure:	1010hPa		Test Date :	2025-04-10		
Test Mode:	TX CH00 (1Mbps worst case)		Phase :	Line		
<b>Test Voltage :</b>	110VAC,60Hz					

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over
			Level	Factor	ment		
		MHz	dBuV	dB	dBuV	dBuV	dB
1		0.1635	33.00	12.02	45.02	65.28	-20.26
2		0.1659	13.66	12.04	25.70	55.16	-29.46
3		0.2850	23.82	10.37	34.19	60.67	-26.48
4		0.2895	6.62	10.43	17.05	50.54	-33.49
5		0.4605	24.97	10.96	35.93	56.68	-20.75
6		0.4661	7.13	10.96	18.09	46.58	-28.49
7	*	1.4460	31.24	11.00	42.24	56.00	-13.76
8		1.4595	13.98	11.00	24.98	46.00	-21.02
9		1.7880	19.31	11.00	30.31	56.00	-25.69
10		1.8105	8.00	11.00	19.00	46.00	-27.00
11		7.4760	21.97	11.28	33.25	60.00	-26.75
12		7.5435	7.65	11.29	18.94	50.00	-31.06

Remark: Factor = LISN factor + Cable Loss + Pulse limiter factor.

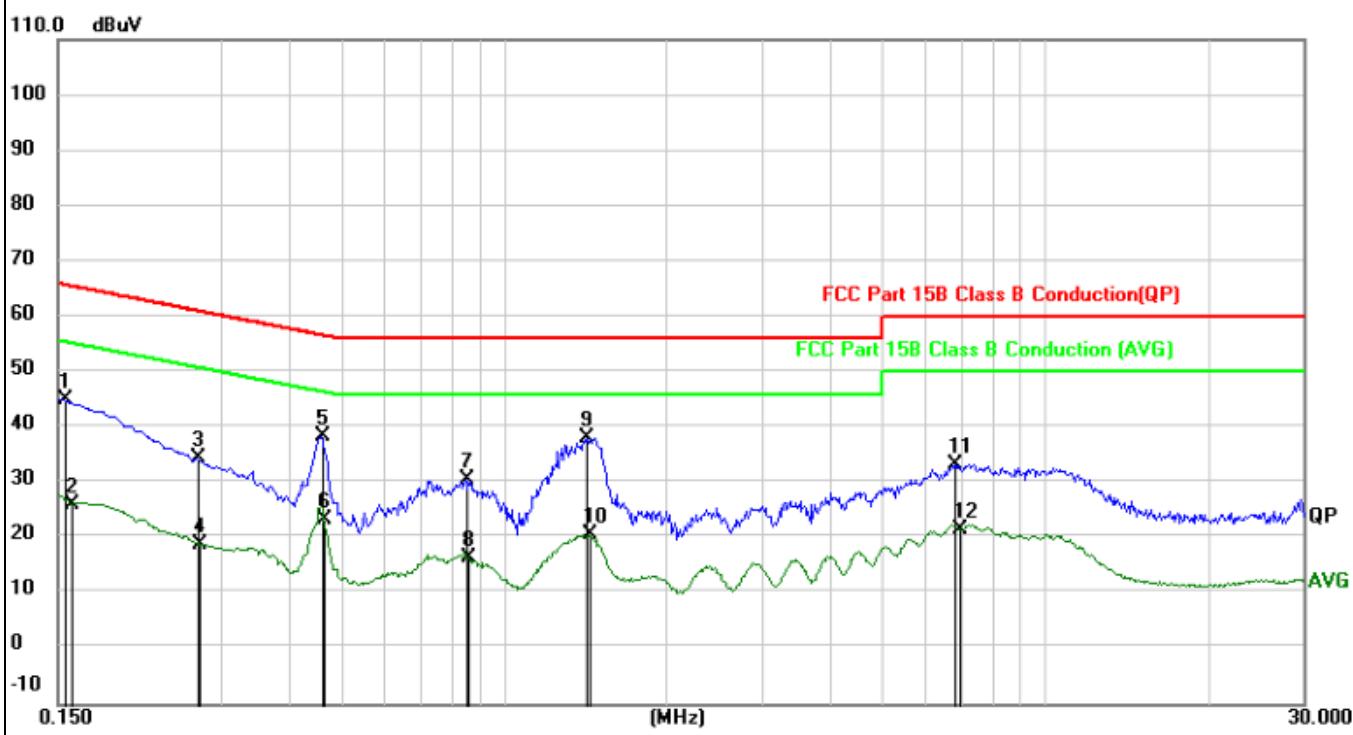


Report No.: AAEMT/RF/250409-01-01

EUT:	Bone Conduction Headphone		Model Name. :	SAFE BC S1		
Temperature:	25.8 °C		Relative Humidity:	52%		
Pressure:	1010hPa		Test Date :	2025-04-10		
Test Mode:	TX CH00 (1Mbps worst case)		Phase :	Neutral		
<b>Test Voltage :</b>	110VAC,60Hz					

No.	Mk.	Freq.	Reading	Correct Factor	Measure-	Limit	Over
			Level		ment		
		MHz	dBuV	dB	dBuV	dBuV	dB
1		0.1545	33.24	11.78	45.02	65.75	-20.73
2		0.1590	14.47	11.80	26.27	55.51	-29.24
3		0.2714	24.36	10.13	34.49	61.07	-26.58
4		0.2730	8.96	10.13	19.09	51.02	-31.93
5		0.4605	27.79	10.78	38.57	56.68	-18.11
6		0.4650	12.57	10.78	23.35	46.60	-23.25
7		0.8520	19.64	10.87	30.51	56.00	-25.49
8		0.8610	5.59	10.87	16.46	46.00	-29.54
9 *		1.4190	27.31	10.90	38.21	56.00	-17.79
10		1.4370	9.71	10.90	20.61	46.00	-25.39
11		6.8325	22.44	10.98	33.42	60.00	-26.58
12		6.9405	10.76	10.98	21.74	50.00	-28.26

Remark: Factor = LISN factor + Cable Loss + Pulse limiter factor.



## 6.3 Radiated Emissions Measurement

### 6.3.1 Applied procedures / Limit

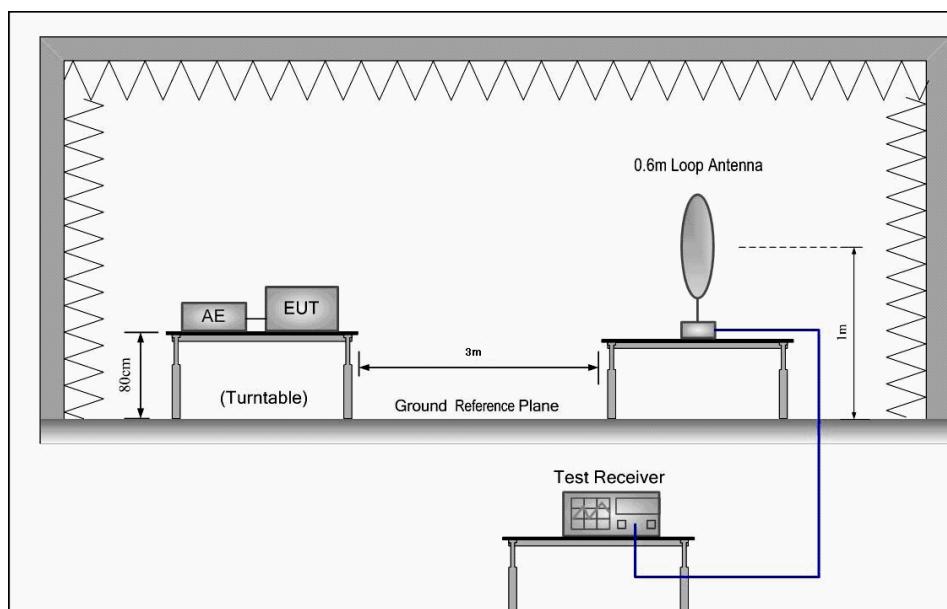
15.247(d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Frequency of Emission (MHz)	Field Strength		Measurement Distance (meters)
	$\mu\text{V/m}$	$\text{dB}\mu\text{V/m}$	
0.009-0.49	2400/F(kHz)		300
0.49-1.705	24000/F(kHz)		30
1.705-30	30		30
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

### 6.3.2 Test setup

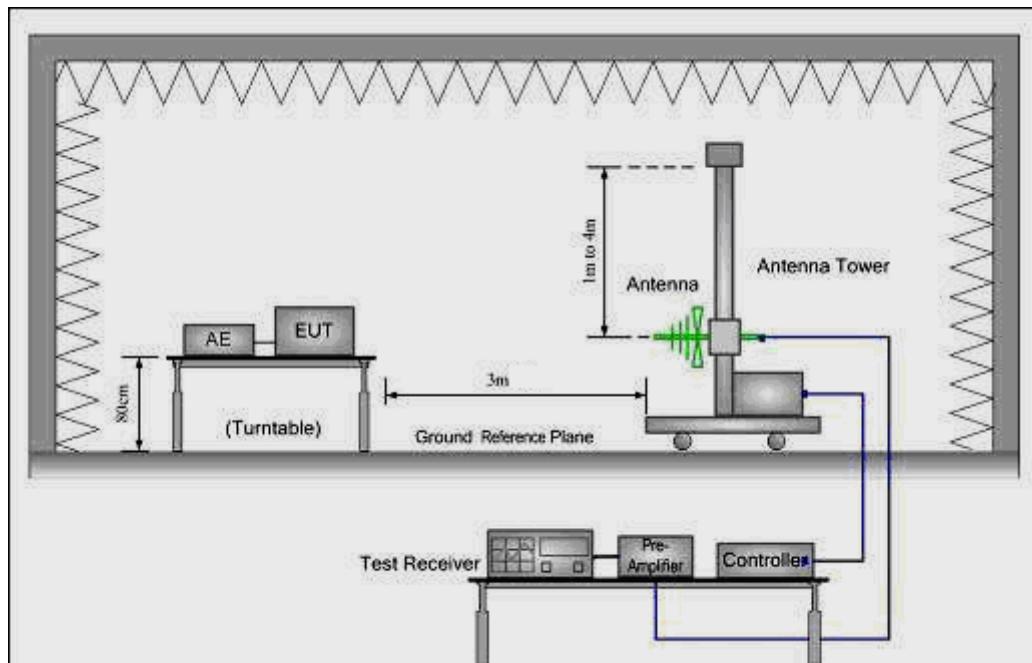
#### Test Configuration:

- 9 kHz to 30 MHz emissions:

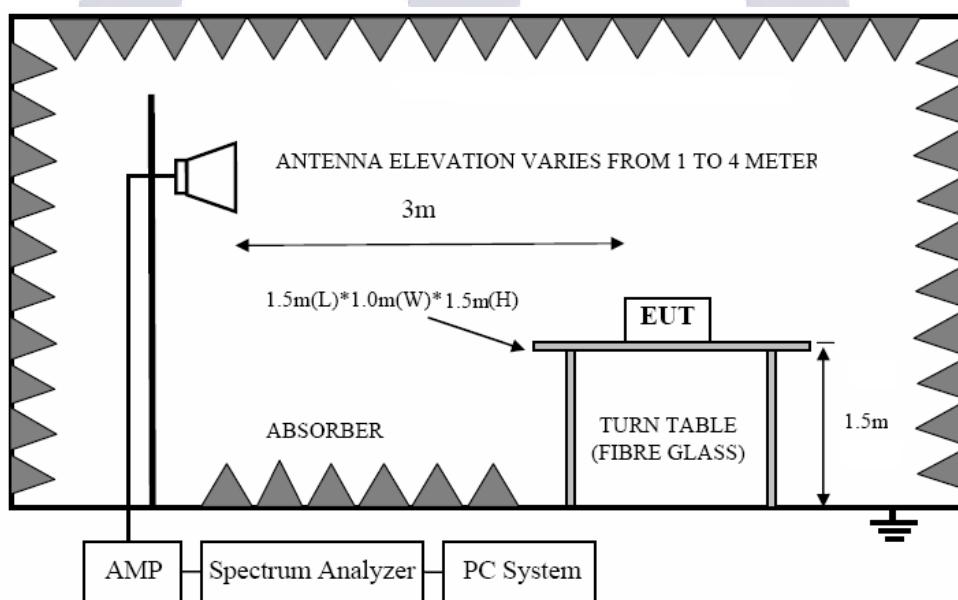


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## 2) 30 MHz to 1 GHz emissions:



## 3) 1 GHz to 25 GHz emissions:



### 6.3.3 Test procedure

EUT was placed upon a wooden test table which was placed on the turn table 0.8m above the horizontal metal ground plane, and operating in the mode as mentioned above. A receiving antenna was placed 3m away from the EUT. During testing, turn around the turn table and move the antenna from 1m to 4m to find the maximum field-strength reading. All peripherals were placed at a distance of 10cm between each other. Both horizontal and Vertical antenna polarities were tested. The worst case emissions were reported.

For measurement at frequency above 1GHz

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

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### 6.3.4 Test Result

#### Radiated Emissions Test Data Below 30MHz

EUT:	Bone Conduction Headphone	Model Name. :	SAFE BC S1
Temperature:	25.4 °C	Relative Humidity:	53%
Pressure:	1010hPa	Test Date :	2025-04-09
Test Mode :	TX	Test Voltage :	110V AC, 60Hz
Measurement Distance	3 m	Frequency Range	9KHz to 30MHz
RBW/VBW	9KHz~150KHz/RB 200Hz for QP, 150KHz~30MHz/RB 9KHz for QP		

No emission found between lowest internal used/generated frequencies to 30MHz.

Report No.: AAEMT/RF/250409-01-01

**Radiated Emissions Test Data Below 1GHz**

EUT:	Bone Conduction Headphone	Model Name. :	SAFE BC S1
Temperature:	25.4 °C	Relative Humidity:	53%
Pressure:	1010hPa	Test Date :	2025-04-09
Test Mode :	TX (1Mbps) CH00 (worst case)	Test Voltage :	110V AC, 60Hz
Measurement Distance	3 m	Frequency Range	30MHz to 1GHz
RBW/VBW	100KHz / 300KHz for spectrum, RBW=120KHz for receiver.		



Report No.: AAEMT/RF/250409-01-01

Test at Channel 00 (2.402 GHz) in transmitting status

30 MHz~1 GHz Spurious Emissions .Quasi-Peak Measurement

**Vertical:**

Peak scan

 Level (dB $\mu$ V/m)

**Quasi-peak measurement**

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over
			Level	Factor	ment		
		MHz	dBuV	dB	dBuV/m	dB	Detector
1		239.5200	48.55	-11.04	37.51	46.00	-8.49 QP
2		335.5500	35.82	-8.16	27.66	46.00	-18.34 QP
3		431.5800	45.27	-5.43	39.84	46.00	-6.16 QP
4	*	624.6100	43.26	-0.87	42.39	46.00	-3.61 QP
5		798.2400	37.05	0.99	38.04	46.00	-7.96 QP
6		928.2200	35.10	2.83	37.93	46.00	-8.07 QP

Note: \*\* means the worst case

Measurement Level = Reading Level + Factor

Factor= Ant Factor + Cable Loss - Pre-amplifier

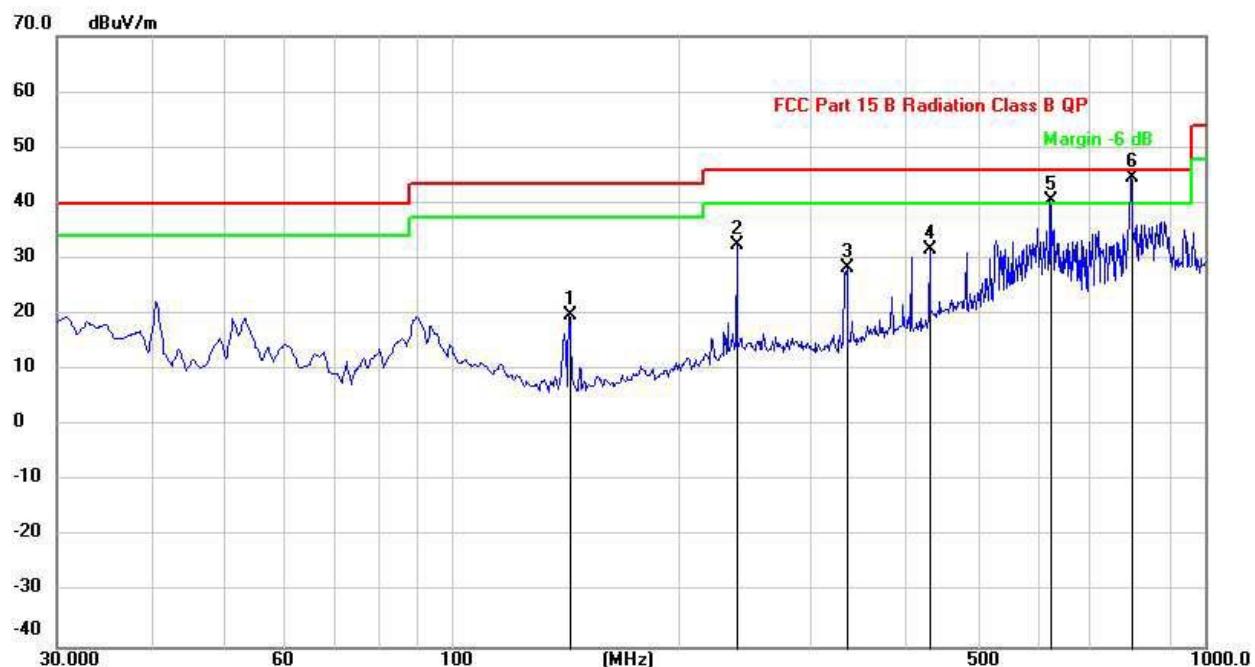
Report No.: AAEMT/RF/250409-01-01

Test at Channel 00 (2.402 GHz) in transmitting status

30 MHz~1 GHz Spurious Emissions .Quasi-Peak Measurement

**Horizontal:**

Peak scan

 Level (dB $\mu$ V/m)

**Quasi-peak measurement**

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	
			Level	Factor	ment			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		143.4900	33.99	-14.15	19.84	43.50	-23.66	QP
2		239.5200	41.52	-9.04	32.48	46.00	-13.52	QP
3		335.5500	34.56	-6.16	28.40	46.00	-17.60	QP
4		431.5800	35.11	-3.43	31.68	46.00	-14.32	QP
5	!	624.6100	39.28	1.13	40.41	46.00	-5.59	QP
6	*	798.2400	41.64	2.99	44.63	46.00	-1.37	QP

Note: \*\* means the worst case

Measurement Level = Reading Level + Factor

Factor= Ant Factor + Cable Loss - Pre-amplifier

**Radiated Emissions Test Data Above 1GHz**

EUT:	Bone Conduction Headphone		Model Name. :	SAFE BC S1
Temperature:	25.4 °C		Relative Humidity:	53%
Pressure:	1010hPa		Test Date :	2025-04-09
Test Mode :	TX 1Mbps		Test Voltage :	110V AC, 60Hz
Measurement Distance	3 m		Frequency Range	1GHz to 25GHz
RBW/VBW	Spurious emission: 1MHz/1MHz for Peak, 1MHz/10Hz for Average. Non-restricted band: 100KHz/300KHz for Peak.			

**(a) Antenna polarization: Horizontal**

Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
4804	54.70	5.06	59.76	74	-14.24	PEAK
4804	40.46	5.06	45.52	54	-8.48	AVERAGE
7206	47.31	7.03	54.34	74	-19.66	PEAK
7206	33.12	7.03	40.15	54	-13.85	AVERAGE
9608	47.09	10.63	57.72	74	-16.28	PEAK
9608	33.62	10.63	44.25	54	-9.75	AVERAGE

**(b) Antenna polarization: Vertical**

Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
4804	52.64	5.06	57.70	74	-16.30	PEAK
4804	42.87	5.06	47.93	54	-6.07	AVERAGE
7206	48.15	7.03	55.18	74	-18.82	PEAK
7206	35.59	7.03	42.62	54	-11.38	AVERAGE
9608	44.78	10.63	55.41	74	-18.59	PEAK
9608	33.67	10.63	44.30	54	-9.70	AVERAGE

Note:

**10~25GHz at least have 20dB margin. No recording in the test report.**

Measurement Level = Reading Level + Factor

Remark: Factor = Antenna Factor + Cable Loss–Pre-amplifier

Lowest channel: 2402 MHz

Data rate: 1Mbps

Report No.: AAEMT/RF/250409-01-01

**(a) Antenna polarization: Horizontal**

Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
4882	53.54	5.06	58.60	74	-15.40	PEAK
4882	40.82	5.06	45.88	54	-8.12	AVERAGE
7323	44.93	7.03	51.96	74	-22.04	PEAK
7323	33.67	7.03	40.70	54	-13.30	AVERAGE
9764	44.89	10.63	55.52	74	-18.48	PEAK
9764	33.41	10.63	44.04	54	-9.96	AVERAGE

**(b) Antenna polarization: Vertical**

Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
4882	53.91	5.06	58.97	74	-15.03	PEAK
4882	42.72	5.06	47.78	54	-6.22	AVERAGE
7323	46.53	7.03	53.56	74	-20.44	PEAK
7323	35.55	7.03	42.58	54	-11.42	AVERAGE
9764	45.18	10.63	55.81	74	-18.19	PEAK
9764	32.08	10.63	42.71	54	-11.29	AVERAGE

Note:

**10~25GHz at least have 20dB margin. No recording in the test report.**

Measurement Level = Reading Level + Factor

Remark: Factor = Antenna Factor + Cable Loss–Pre-amplifier

Middle Channel: 2441 MHz

Data rate: 1Mbps

Report No.: AAEMT/RF/250409-01-01

**(a) Antenna polarization: Horizontal**

Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
4960	53.36	5.06	58.42	74	-15.58	PEAK
4960	39.88	5.06	44.94	54	-9.06	AVERAGE
7440	45.94	7.03	52.97	74	-21.03	PEAK
7440	34.41	7.03	41.44	54	-12.56	AVERAGE
9920	42.93	10.63	53.56	74	-20.44	PEAK
9920	32.56	10.63	43.19	54	-10.81	AVERAGE

**(b) Antenna polarization: Vertical**

Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
4960	53.92	5.06	58.98	74	-15.02	PEAK
4960	39.16	5.06	44.22	54	-9.78	AVERAGE
7440	44.40	7.03	51.43	74	-22.57	PEAK
7440	33.33	7.03	40.36	54	-13.64	AVERAGE
9920	43.81	10.63	54.44	74	-19.56	PEAK
9920	33.72	10.63	44.35	54	-9.65	AVERAGE

Note:

**10~25GHz at least have 20dB margin. No recording in the test report.**

Measurement Level = Reading Level + Factor

Remark: Factor = Antenna Factor + Cable Loss–Pre-amplifier

Highest Channel: 2480 MHz

Data rate: 1Mbps

Report No.: AAEMT/RF/250409-01-01

EUT:	Bone Conduction Headphone		Model Name. :	SAFE BC S1
Temperature:	25.4 °C		Relative Humidity:	53%
Pressure:	1010hPa		Test Date :	2025-04-09
Test Mode :	TX 2Mbps		Test Voltage :	110V AC, 60Hz
Measurement Distance	3 m		Frequency Range	1GHz to 25GHz
RBW/VBW	Spurious emission: 1MHz/1MHz for Peak, 1MHz/10Hz for Average. Non-restricted band: 100KHz/300KHz for Peak.			

## (a) Antenna polarization: Horizontal

Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
4804	52.97	5.06	58.03	74	-15.97	PEAK
4804	42.15	5.06	47.21	54	-6.79	AVERAGE
7206	46.06	7.03	53.09	74	-20.91	PEAK
7206	35.08	7.03	42.11	54	-11.89	AVERAGE
9608	45.13	10.63	55.76	74	-18.24	PEAK
9608	34.50	10.63	45.13	54	-8.87	AVERAGE

## (b) Antenna polarization: Vertical

Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
4804	53.36	5.06	58.42	74	-15.58	PEAK
4804	40.86	5.06	45.92	54	-8.08	AVERAGE
7206	45.01	7.03	52.04	74	-21.96	PEAK
7206	33.81	7.03	40.84	54	-13.16	AVERAGE
9608	43.43	10.63	54.06	74	-19.94	PEAK
9608	31.97	10.63	42.60	54	-11.40	AVERAGE

Note:

**10~25GHz at least have 20dB margin. No recording in the test report.**

Measurement Level = Reading Level + Factor

Remark: Factor = Antenna Factor + Cable Loss–Pre-amplifier

Lowest Channel: 2402 MHz

Data rate: 2Mbps

Report No.: AAEMT/RF/250409-01-01

## (a) Antenna polarization: Horizontal

Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
4882	53.72	5.06	58.78	74	-15.22	PEAK
4882	43.80	5.06	48.86	54	-5.14	AVERAGE
7323	46.18	7.03	53.21	74	-20.79	PEAK
7323	33.58	7.03	40.61	54	-13.39	AVERAGE
9764	44.51	10.63	55.14	74	-18.86	PEAK
9764	31.86	10.63	42.49	54	-11.51	AVERAGE

## (b) Antenna polarization: Vertical

Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
4882	52.40	5.06	57.46	74	-16.54	PEAK
4882	43.70	5.06	48.76	54	-5.24	AVERAGE
7323	47.51	7.03	54.54	74	-19.46	PEAK
7323	36.03	7.03	43.06	54	-10.94	AVERAGE
9764	46.27	10.63	56.90	74	-17.10	PEAK
9764	32.66	10.63	43.29	54	-10.71	AVERAGE

Note:

**10~25GHz at least have 20dB margin. No recording in the test report.**

Measurement Level = Reading Level + Factor

Remark: Factor = Antenna Factor + Cable Loss–Pre-amplifier

Middle Channel: 2441 MHz

Data rate: 2Mbps

Report No.: AAEMT/RF/250409-01-01

## (a) Antenna polarization: Horizontal

Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
4960	54.58	5.06	59.64	74	-14.36	PEAK
4960	43.49	5.06	48.55	54	-5.45	AVERAGE
7440	45.93	7.03	52.96	74	-21.04	PEAK
7440	37.15	7.03	44.18	54	-9.82	AVERAGE
9920	42.37	10.63	53.00	74	-21.00	PEAK
9920	32.33	10.63	42.96	54	-11.04	AVERAGE

## (b) Antenna polarization: Vertical

Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
4960	54.26	5.06	59.32	74	-14.68	PEAK
4960	40.15	5.06	45.21	54	-8.79	AVERAGE
7440	45.75	7.03	52.78	74	-21.22	PEAK
7440	35.00	7.03	42.03	54	-11.97	AVERAGE
9920	45.10	10.63	55.73	74	-18.27	PEAK
9920	34.92	10.63	45.55	54	-8.45	AVERAGE

Note:

**10~25GHz at least have 20dB margin. No recording in the test report.**

Measurement Level = Reading Level + Factor

Remark: Factor = Antenna Factor + Cable Loss–Pre-amplifier

Highest channel: 2480 MHz

Data rate: 2Mbps

### 6.3.5 TEST RESULTS (Restricted Bands Requirements)

EUT:	Bone Conduction Headphone		Model Name. :	SAFE BC S1	
Temperature:	25.4 °C		Relative Humidity:	53%	
Pressure:	1010hPa		Test Date :	2025-04-09	
Test Mode :	TX(1Mbps,2Mbps)		Test Voltage :	110V AC, 60Hz	
Note:	1. The transmitter was setup to transmit at the lowest channel. Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was setup to transmit at the highest channel. Then the field strength was measured at 2483.5-2500 MHz. 3. The data of 2390MHz and 2483.5MHz was the worst.				

Test Mode	Ant.Pol. H/V	Freq. (MHz)	Reading		Ant/CF CF(dB)	Act		Limit	
			Peak (dBuv)	AV (dBuv)		Peak (dBuv/m)	AV (dBuv/m)	Peak (dBuv/m)	AV (dBuv/m)
Data rate 1Mbps	V	2390	43.64	32.69	-5.79	37.85	26.90	74	54
	H	2390	42.81	34.49	-5.79	37.02	28.70	74	54
	V	2483.5	44.09	33.04	-4.98	39.11	28.06	74	54
	H	2483.5	43.67	34.18	-4.98	38.69	29.20	74	54
Data rate 2Mbps	V	2390	46.79	32.68	-5.79	41.00	26.89	74	54
	H	2390	45.00	34.96	-5.79	39.21	29.17	74	54
	V	2483.5	45.72	33.85	-4.98	40.74	28.87	74	54
	H	2483.5	45.14	33.22	-4.98	40.16	28.24	74	54

**Remark:**

- (1) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode.
- (2) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna
- (3) Corr.Factor = Antenna Factor + Cable Loss – Pre-amplifier.

## 6.4 BANDWIDTH TEST

### 6.4.1 Applied procedures / Limit

For frequency hopping system operating in the 2400-2483.5MHz, If the 20dB bandwidth of hopping channel is greater than 25kHz, two-thirds 20dBbandwidth of hopping channel shell be a minimum limit for the hopping channel separation.

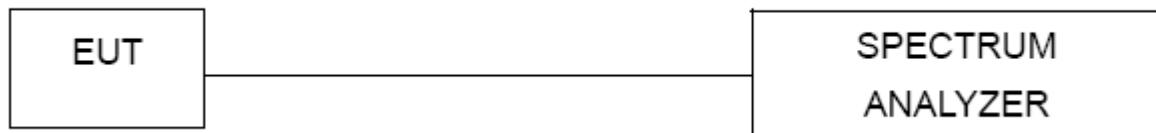
### 6.4.2 Test procedure

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel  
 $RBW \geq 1\%$  of the 20 dB bandwidth,  $VBW \geq RBW$ , Sweep = auto, Detector function = peak  
Trace = max hold

### 6.4.3 Deviation from standard

No deviation.

### 6.4.4 Test setup



Report No.: AAEMT/RF/250409-01-01

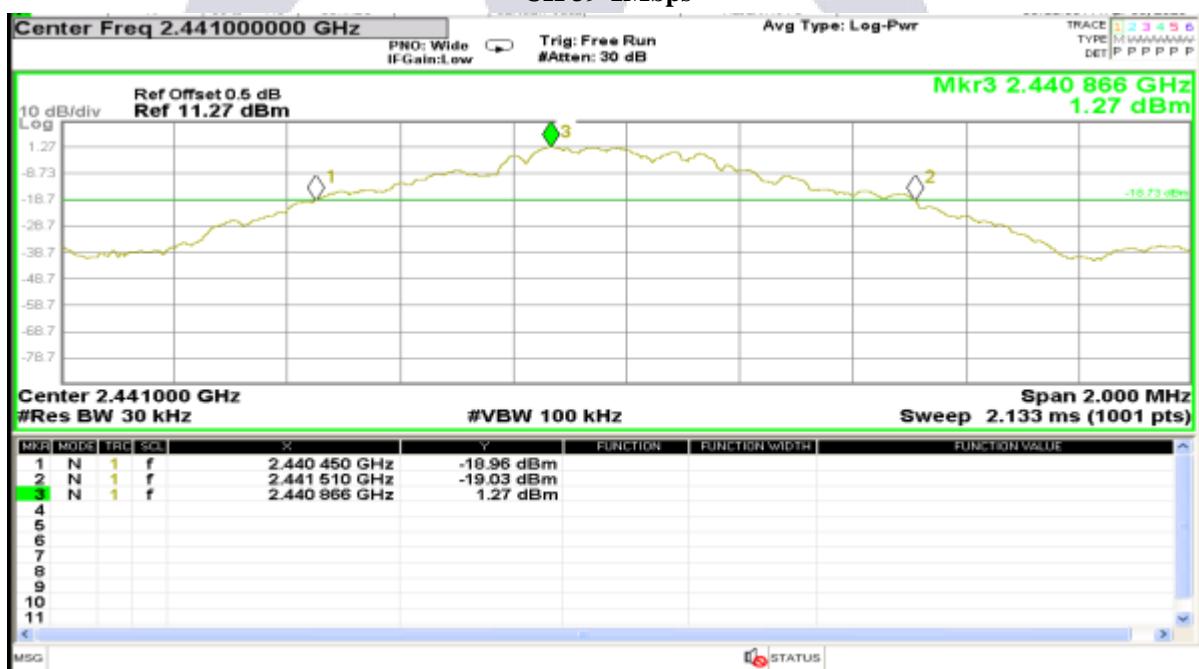
### 6.4.5 Test results

EUT:	Bone Conduction Headphone		Model Name. :	SAFE BC S1
Temperature:	25.3 °C		Relative Humidity:	56%
Pressure:	1010 hPa		Test Power :	110V AC, 60Hz
Test Mode :	TX 1Mbps/ 2Mbps			

Channel		Channel frequency (MHz)	20dB bandwidth (KHz)	Limit (MHz)	Conclusion
1Mbps	Low	2402	1058	N/A	Pass
	Middle	2441	1060	N/A	Pass
	High	2480	1062	N/A	Pass
2Mbps	Low	2402	1267.7	N/A	Pass
	Middle	2441	1332.9	N/A	Pass
	High	2480	1302.5	N/A	Pass

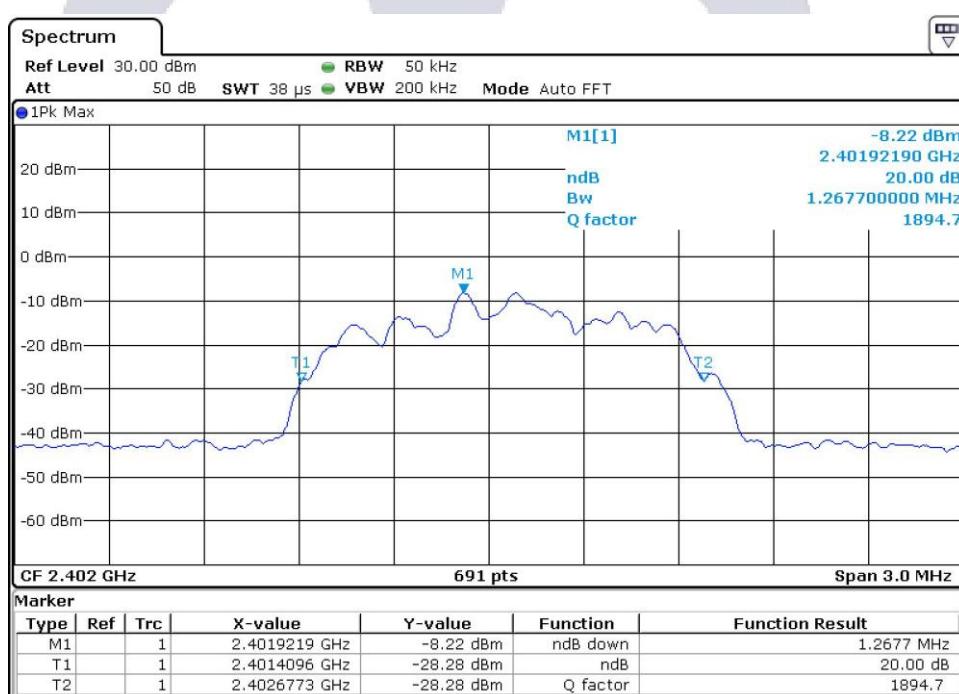
Report No.: AAEMT/RF/250409-01-01

**CH00-1Mbps**

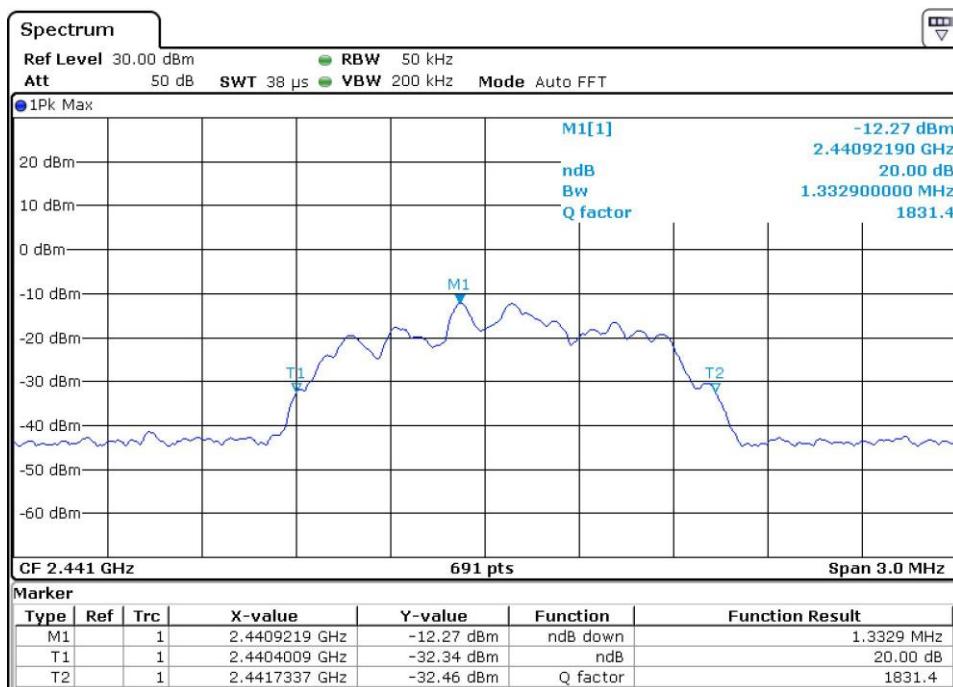
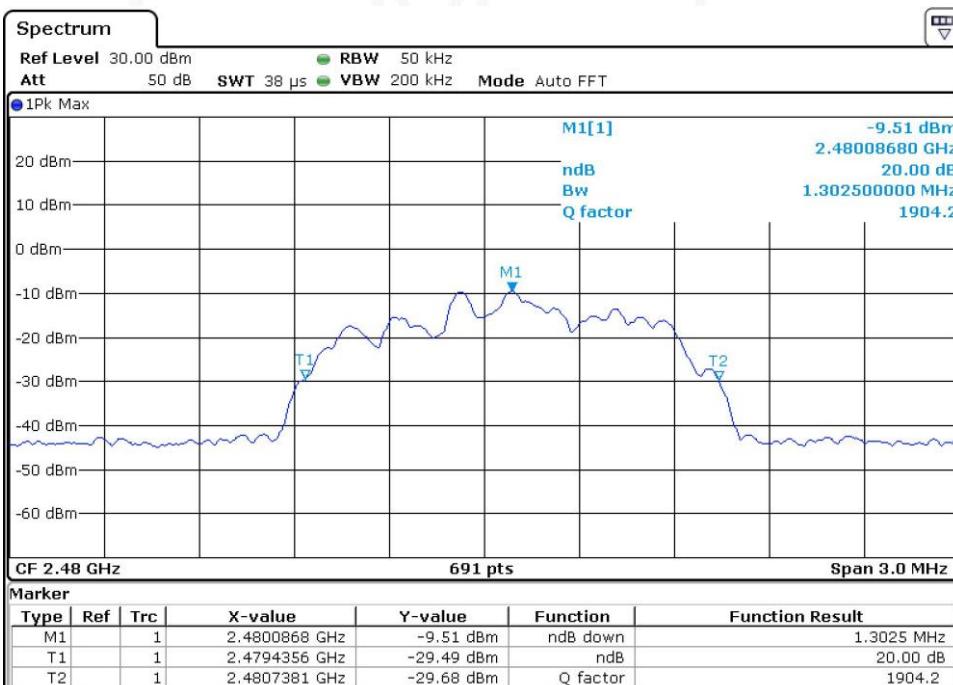
**CH 39-1Mbps**


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**CH 78-1Mbps**

**CH 00-2Mbps**


Report No.: AAEMT/RF/250409-01-01

**CH 39-2Mbps**

**CH 78-2Mbps**


## 6.5 Carrier Frequencies Separated

### 6.5.1 Applied procedures / Limit

15.247(a) (1) 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. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

### 6.5.2 Test procedure

- (1) Connected the antenna port to the Spectrum Analyzer, set the Spectrum Analyzer as Span = wide enough to capture the peaks of two adjacent channels, Resolution (or IF) Bandwidth (RBW)  $\geq$  1% of the span, Video (or Average) Bandwidth (VBW)  $\geq$  RBW Sweep = auto, Detector function = peak, Trace = max hold
- (2) The EUT should be transmitting at its maximum data rate. Use the marker-delta function to determine the separation between the peaks of the adjacent channels.
- (3) The above procedure shall be repeated at the lowest, the middle, and the highest frequency of the stated frequency range with modulated mode. also shall be performed at different modes of operation.

### 6.5.3 Deviation from standard

No deviation.

### 6.5.4 Test setup



Report No.: AAEMT/RF/250409-01-01

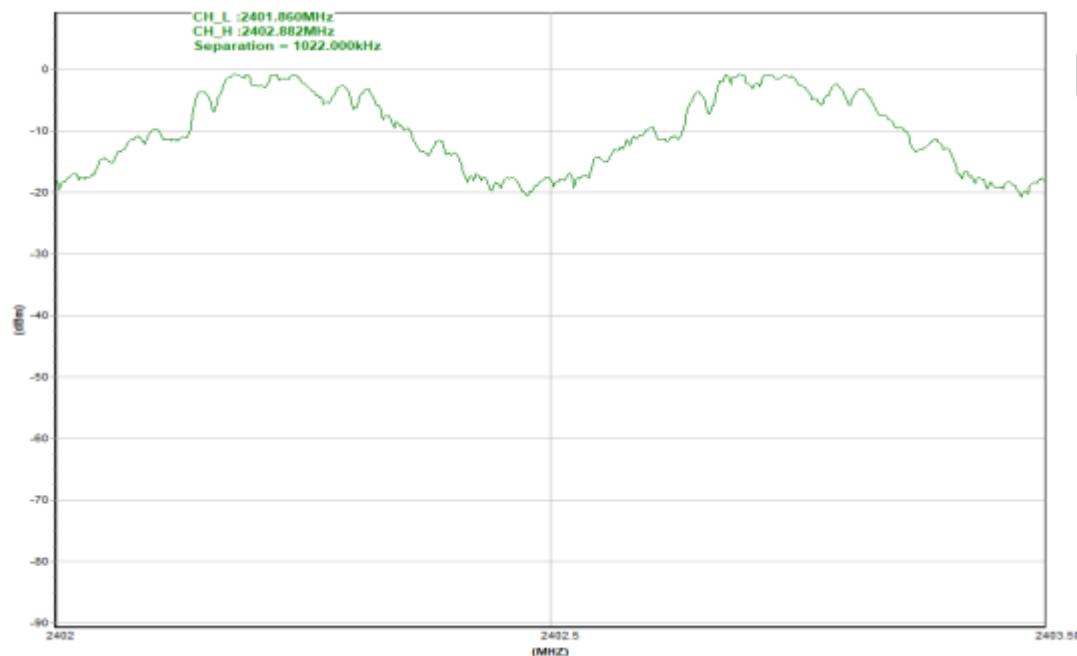
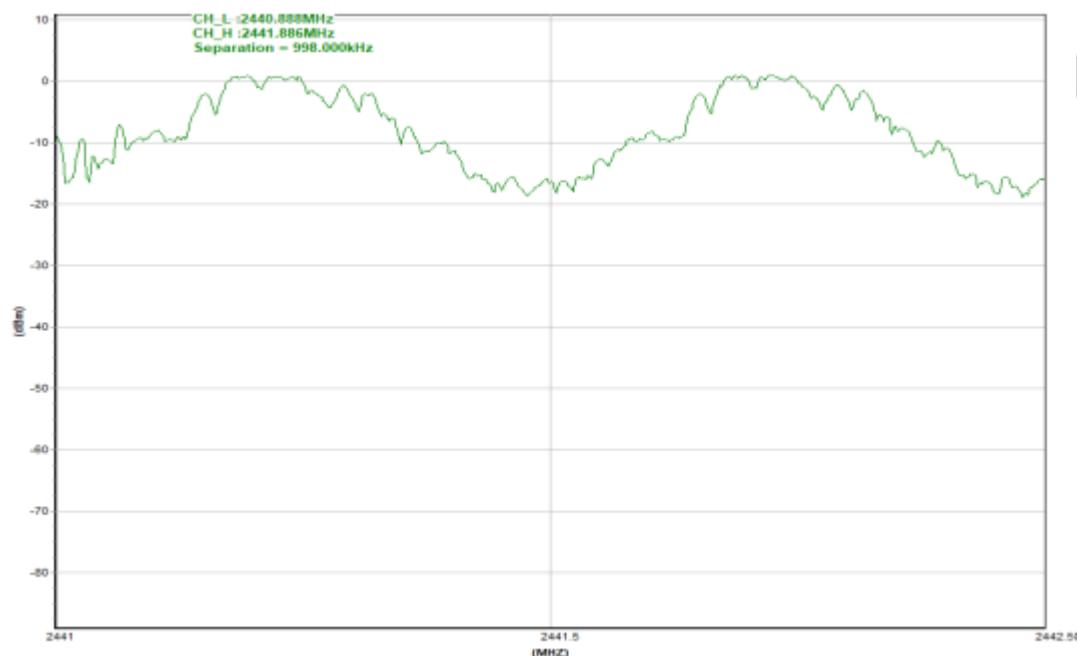
### 6.5.5 Test results

EUT:	Bone Conduction Headphone		Model Name. :	SAFE BC S1
Temperature:	25.6 °C		Relative Humidity:	56%
Pressure:	1010 hPa		Test Power :	110V AC, 60Hz
Test Mode :	TX 1Mbps/ 2Mbps			

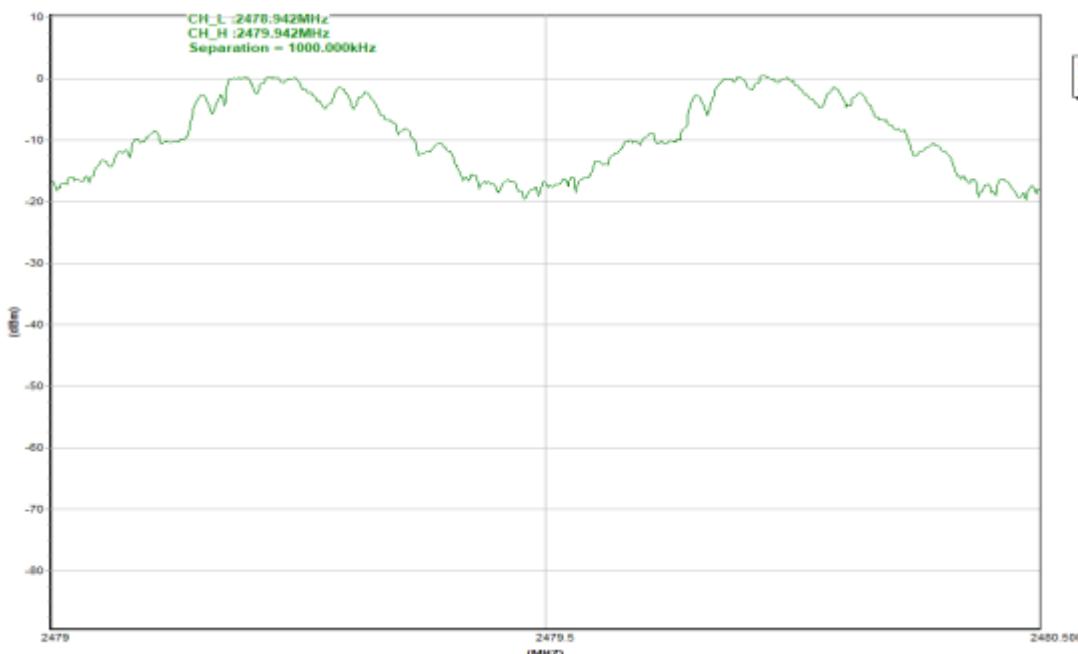
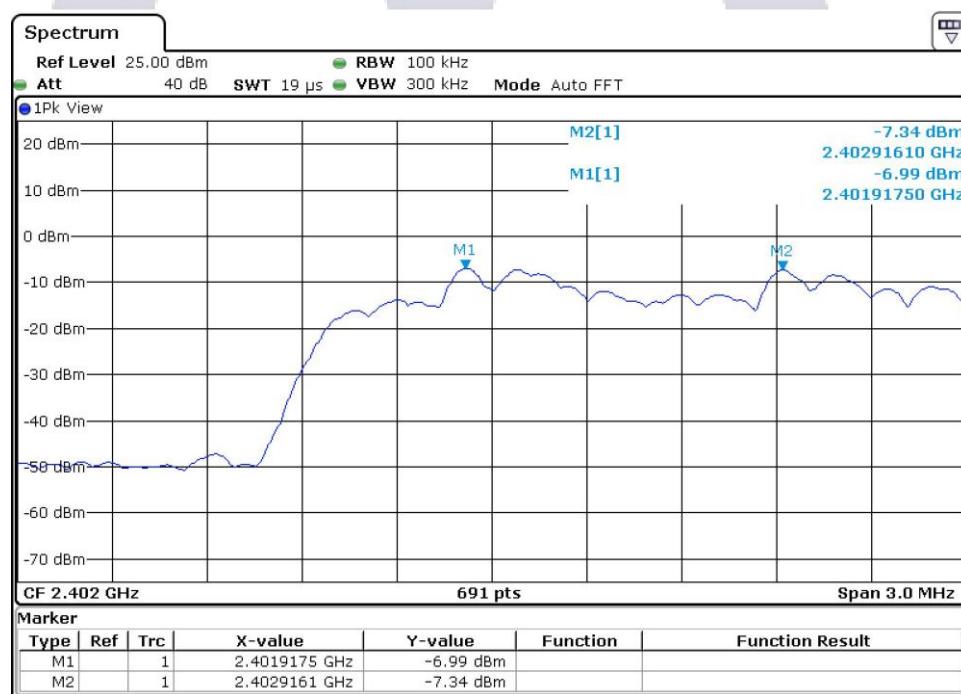
Channel		Channel frequency (MHz)	Channel Separation (MHz)	Conclusion
1Mbps	Low	2402	1.022	Pass
	Middle	2441	0.998	Pass
	Highest	2480	1.000	Pass
2Mbps	Low	2402	0.998	Pass
	Middle	2441	0.998	Pass
	Highest	2480	0.994	Pass

**Ch. Separation >2/3(20dB bandwidth)**

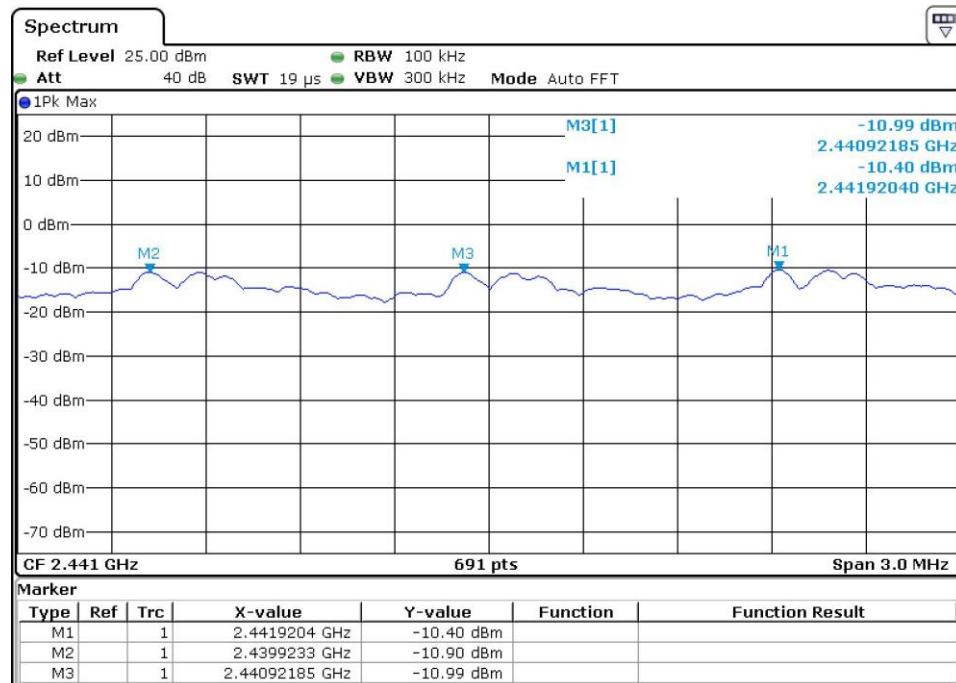
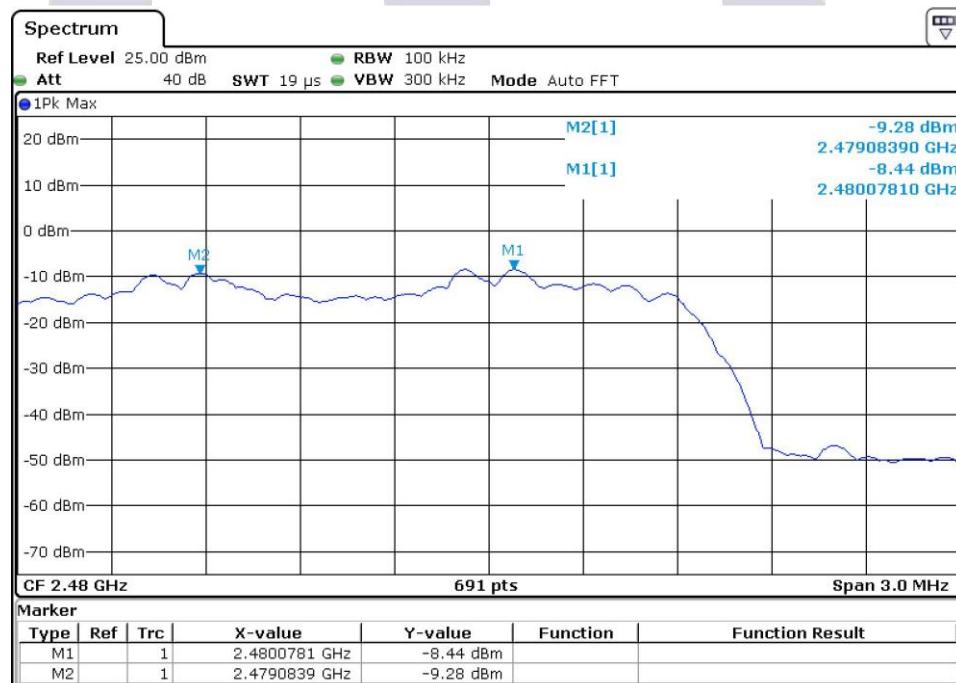
Report No.: AAEMT/RF/250409-01-01

**CH 00-1Mbps**

**CH 39-1Mbps**


Report No.: AAEMT/RF/250409-01-01

**CH 78-1Mbps**

**CH 00-2Mbps**


Report No.: AAEMT/RF/250409-01-01

**CH 39-2Mbps**

**CH 78-2Mbps**


## 6.6 Hopping Channel Number

### 6.6.1 Applied procedures / Limit

15.247(a) (1) (iii) Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. 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. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

### 6.6.2 Test procedure

- (1) Connected the antenna port to the Spectrum Analyzer , set the Spectrum Analyzer as  
Span = the frequency band of operation, RBW  $\geq$  1% of the span, VBW  $\geq$  RBW Sweep = auto  
Detector function = peak, Trace = max hold
- (2) The EUT should be have its hopping function enabled. Maxhold and record hopping channels It may prove necessary to break the span up to sections, in order to clearly show all of the hopping frequencies.

### 6.6.3 Deviation from standard

No deviation.

### 6.6.4 Test setup

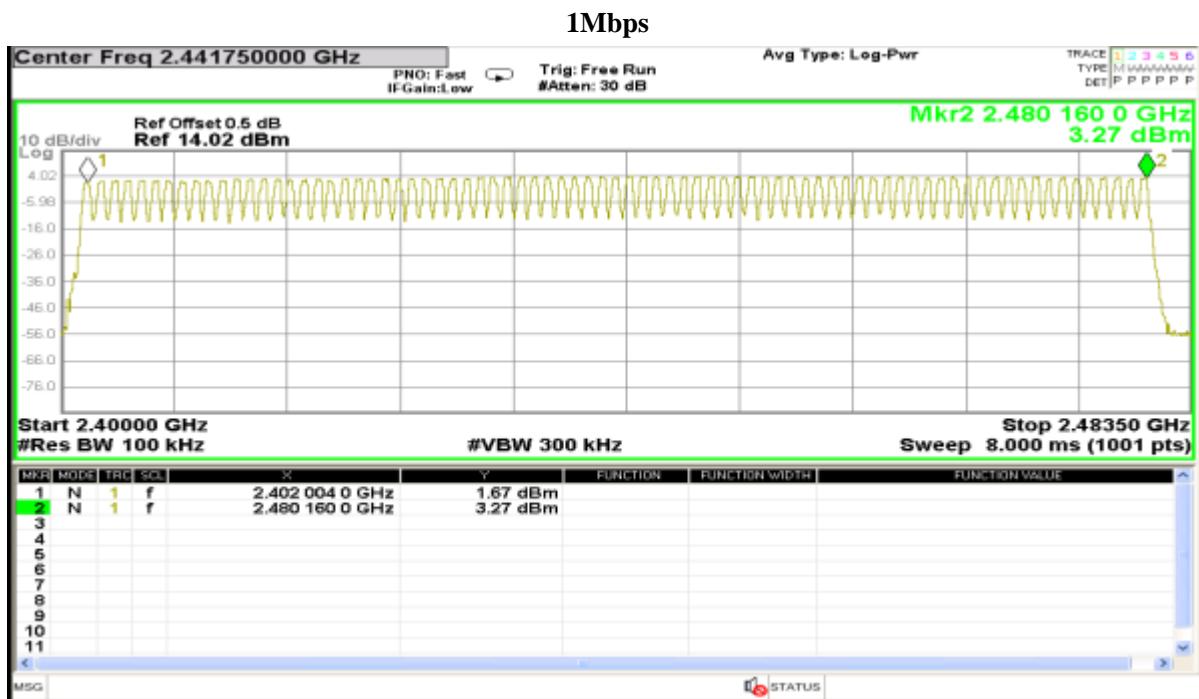
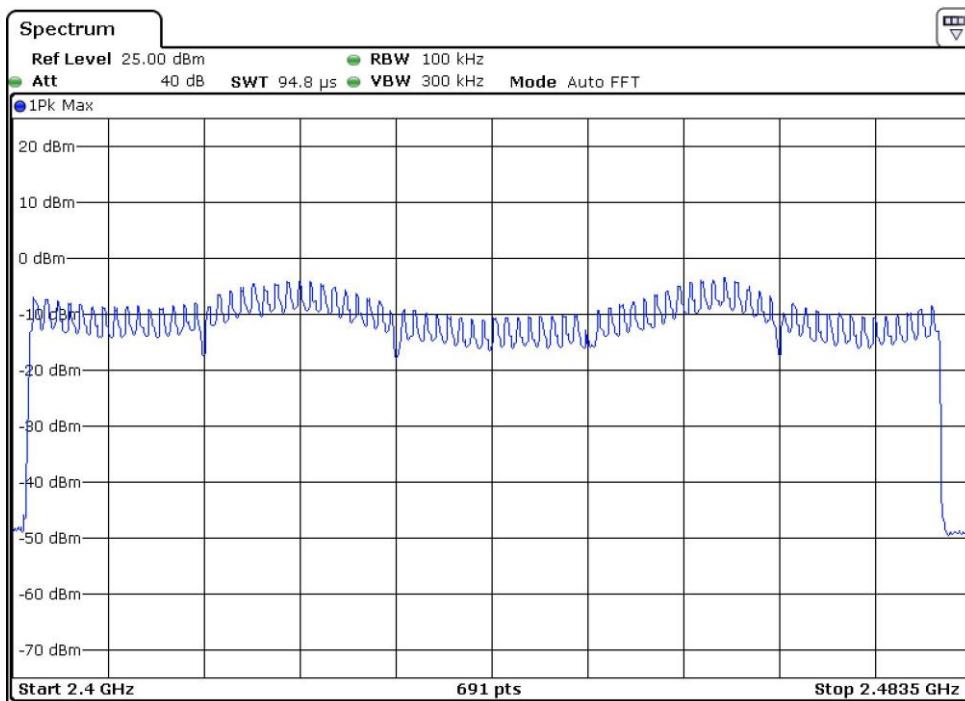


### 6.6.5 Test result

Hopping Channel Number result		
Operating Mode: 1Mbps/ 2Mbps Mode		Test date:2025-05-27
Result	Limit	Conclusion
79	>15	Pass

Report No.: AAEMT/RF/250409-01-01

EUT:	Bone Conduction Headphone		Model Name. :	SAFE BC S1
Temperature:	25.4 °C		Relative Humidity:	55%
Pressure:	1010 hPa		Test Power :	110V AC, 60Hz
Test Mode :	TX 1Mbps/ 2Mbps			


**2Mbps**


## 6.7 Dwell time

### 6.7.1 Applied procedures / Limit

15.247(a) (1) (iii) Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. 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. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

### 6.7.2 Test procedure

- (1) Place the EUT on the table in the chamber or connect the antenna port of the EUT to spectrum analyzer and set it in transmitting mode.
- (2) Set RBW of spectrum analyzer to 1MHz,  $VBW \geq RBW$
- (3) Use a video trigger with the trigger level set to enable triggering only on full pulses.
- (4) Sweep Time is more than once pulse time.
- (5) Set the center frequency on any frequency would be measure and set the frequency span to zero span.
- (6) Measure the maximum time duration of one single pulse.
- (7) Set the EUT for DH5, DH3 and DH1 packet transmitting.
- (8) Measure the maximum time duration of one single pulse.
- (9) A Period Time =  $79*0.4=31.6$  S

DH1 Time Slot: Reading \* (1600/2)\*31.6/79

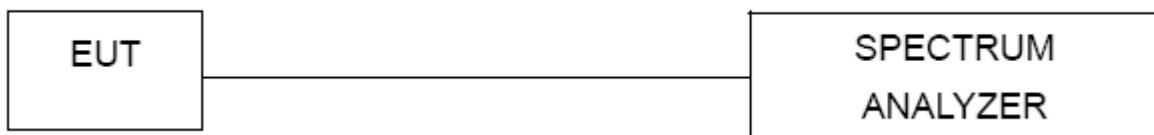
DH3 Time Slot: Reading \* (1600/4)\*31.6/79

DH5 Time Slot: Reading \* (1600/6)\*31.6/79

### 6.7.3 Deviation from standard

No deviation.

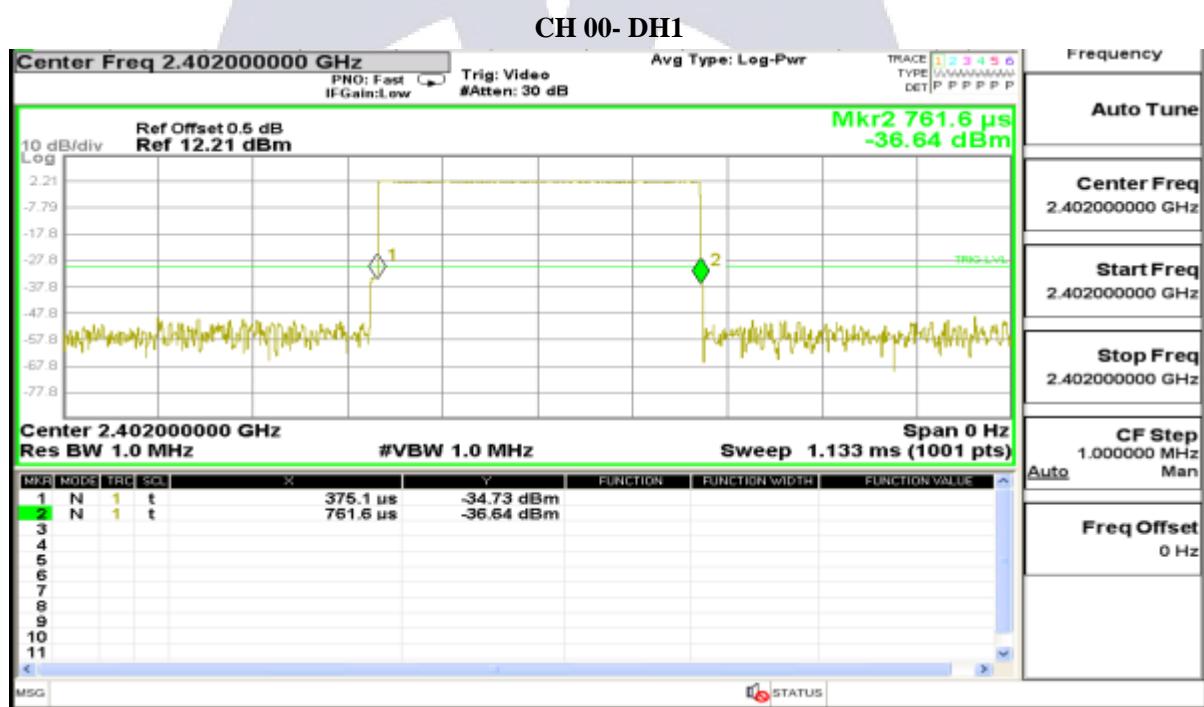
### 6.7.4 Test setup



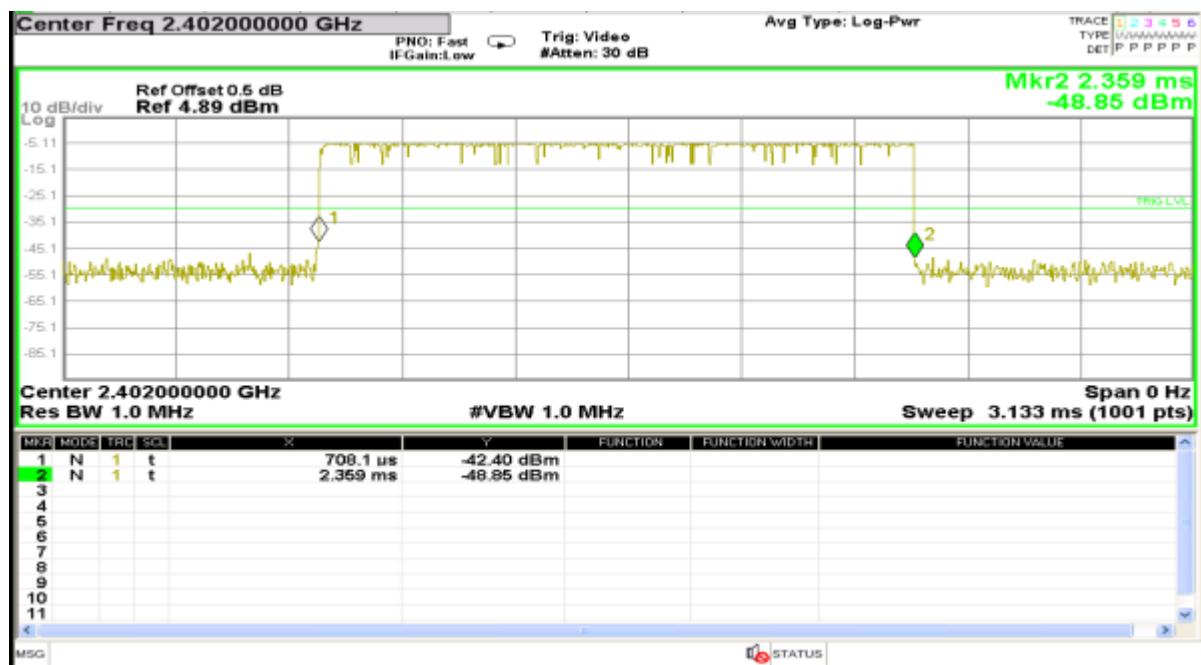
### 6.7.5 Test result

EUT:	Bone Conduction Headphone	Model Name. :	SAFE BC S1
Temperature:	25.4 °C	Relative Humidity:	55%
Pressure:	1010 hPa	Test Power :	110V AC, 60Hz
Test Mode :	CH00-DH1/DH3/DH5 (1Mbps Mode)		

Data Packet	Frequency	Pulse Duration (ms)	Dwell Time (ms)	Limits (s)
DH1	2402 MHz	0.387	122.521	0.4000
DH3	2402 MHz	1.651	250.998	0.4000
DH5	2402 MHz	2.896	309.872	0.4000



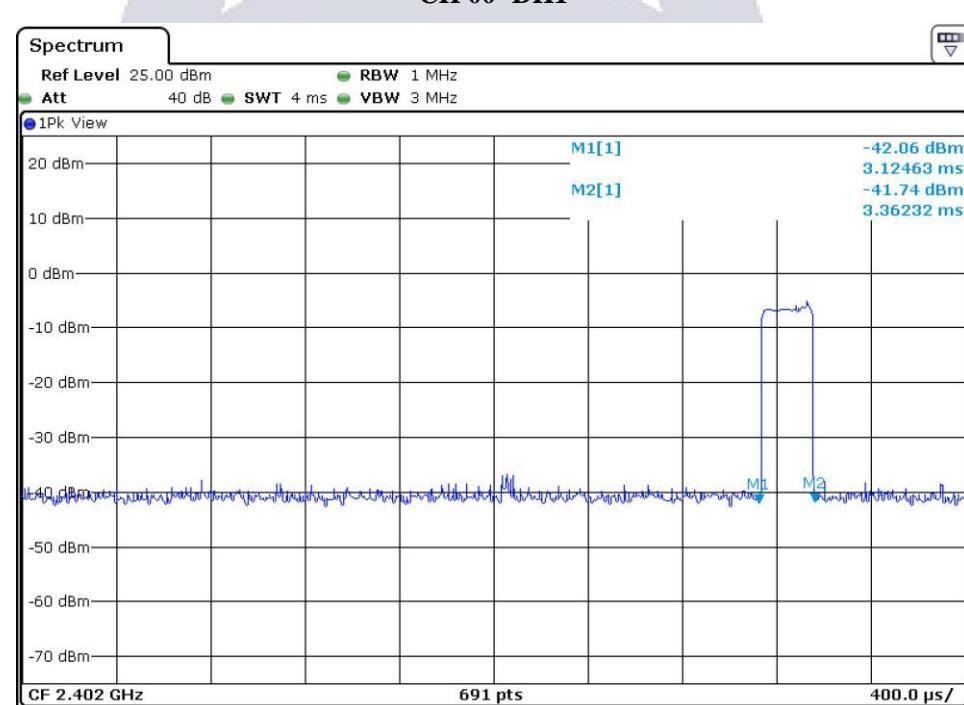
Report No.: AAEMT/RF/250409-01-01

**CH 00- DH3**

**CH 00- DH5**

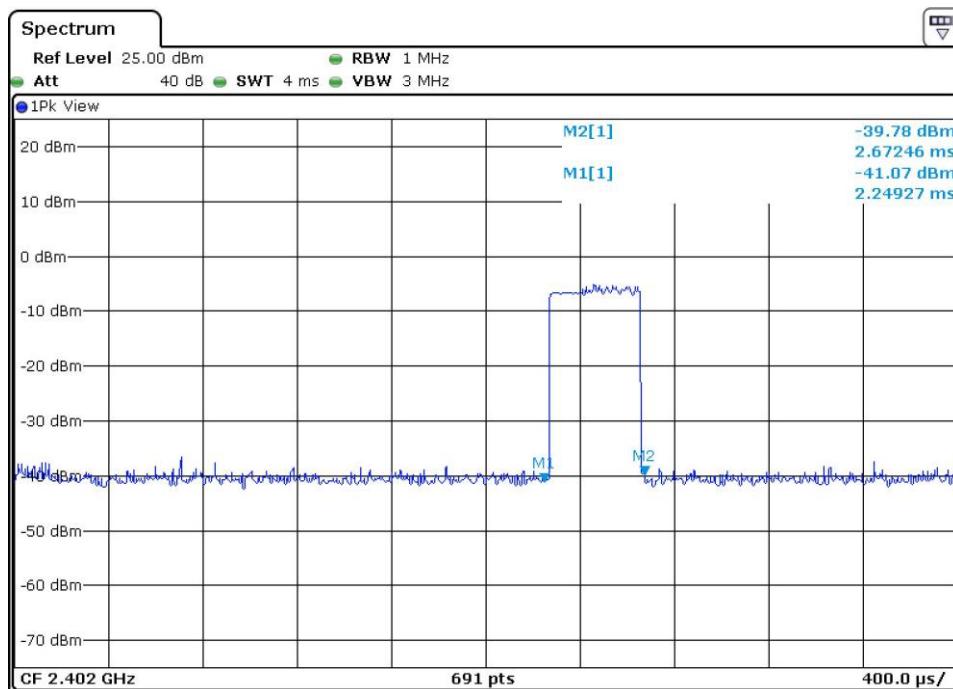
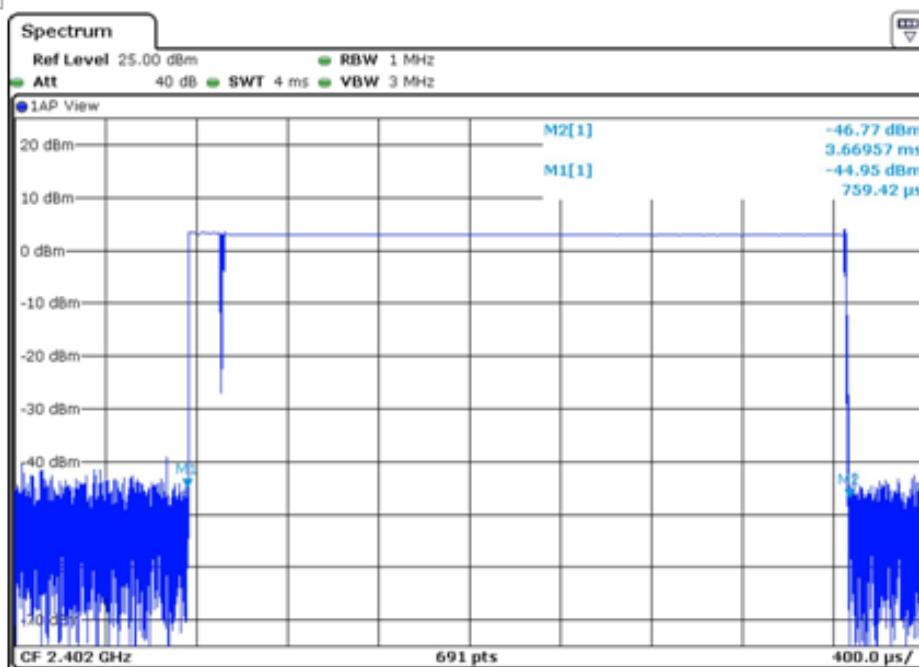

Report No.: AAEMT/RF/250409-01-01

EUT:	Bone Conduction Headphone		Model Name. :	SAFE BC S1
Temperature:	25.4 °C		Relative Humidity:	55%
Pressure:	1010 hPa		Test Power :	110V AC, 60Hz
Test Mode :	CH00-2DH1/2DH3/2DH5 (2Mbps Mode)			

Data Packet	Frequency	Pulse Duration (ms)	Dwell Time (ms)	Limits (s)
2DH1	2402 MHz	0.23769	76.0608	0.4000
2DH3	2402 MHz	0.42319	67.7104	0.4000
2DH5	2402 MHz	2.91015	310.416	0.4000



Report No.: AAEMT/RF/250409-01-01

**CH 00- DH3**

**CH 00- DH5**


## 6.8 Maximum Peak Output Power

### 6.8.1 Applied procedures / Limit

15.247(a) (1) 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. Alternatively, frequency hopping systems operating in the 2400–2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

15.247(b) (1) For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.

### 6.8.2 Test procedure

- (1) Connected the antenna port to the Spectrum Analyzer, set the Spectrum Analyzer as Span = approximately 5 times the 20 dB bandwidth, centered on a hopping channel RBW > the 20 dB bandwidth of the emission being measured,  $VBW \geq RBW$ , Sweep = auto Detector function = peak, Trace = max hold
- (2) The EUT should be transmitting at its maximum data rate. Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. The indicated level is the peak output power.
- (3) The above procedure shall be repeated at the lowest, the middle, and the highest frequency of the stated frequency range with modulated mode. Also shall be performed at different modes of operation.

### 6.8.3 Deviation from standard

No deviation.

### 6.8.4 Test setup



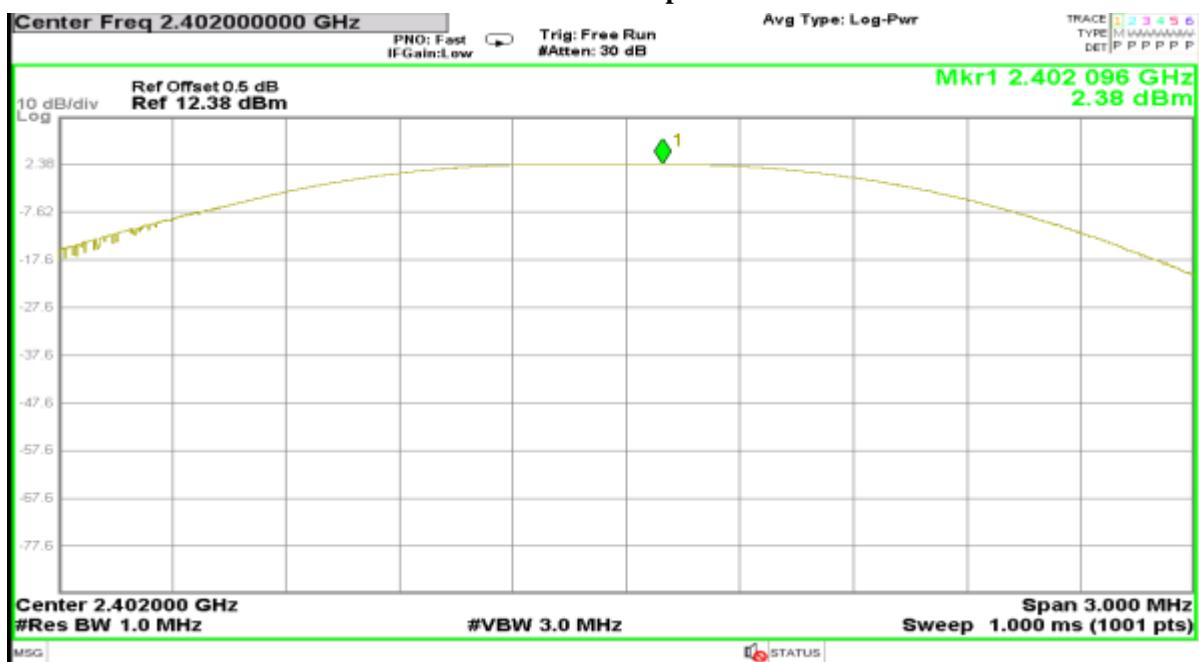
### 6.8.5 Test results

EUT:	Bone Conduction Headphone		Model Name. :	SAFE BC S1
Temperature:	25.4 °C		Relative Humidity:	55%
Pressure:	1010 hPa		Test Power :	110V AC, 60Hz
Test Mode :	TX 1Mbps/ 2Mbps			

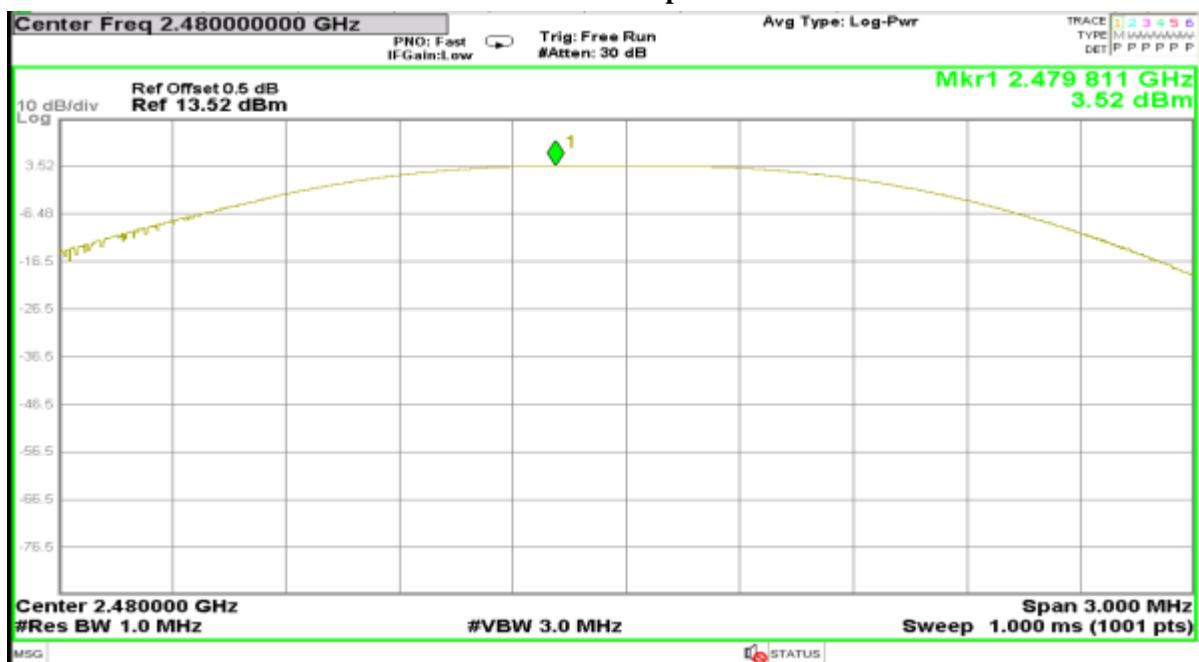
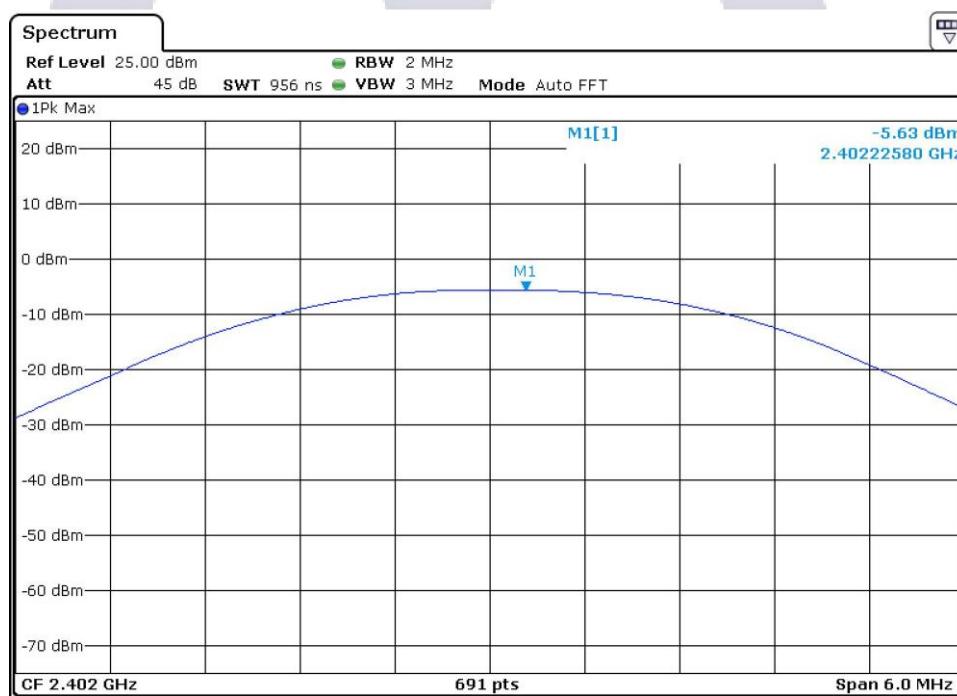
Note: All the data rates have been tested and the worst-case as the table below.

Test Mode	Frequency	Peak Output Power (dBm)	Limit (dBm)	Result
Data rate 1Mbps	2402 MHz	2.38	21	Pass
	2441 MHz	4.28	21	Pass
	2480 MHz	3.52	21	Pass
Data rate 2Mbps	2402 MHz	-5.63	21	Pass
	2441 MHz	-9.06	21	Pass
	2480 MHz	-6.76	21	Pass
Cable loss = 1.0 dBm				

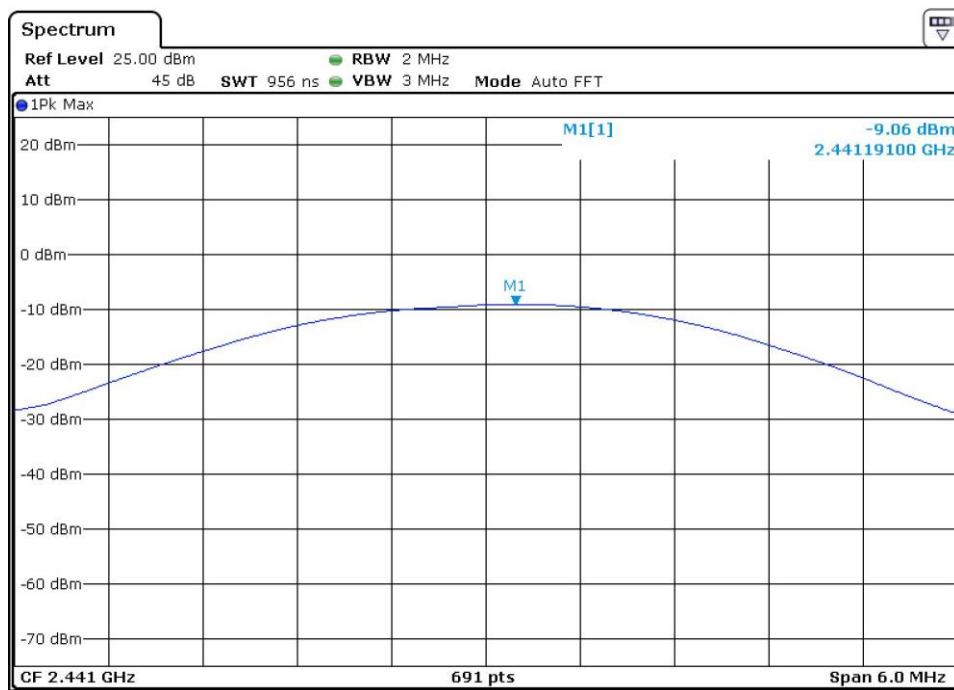
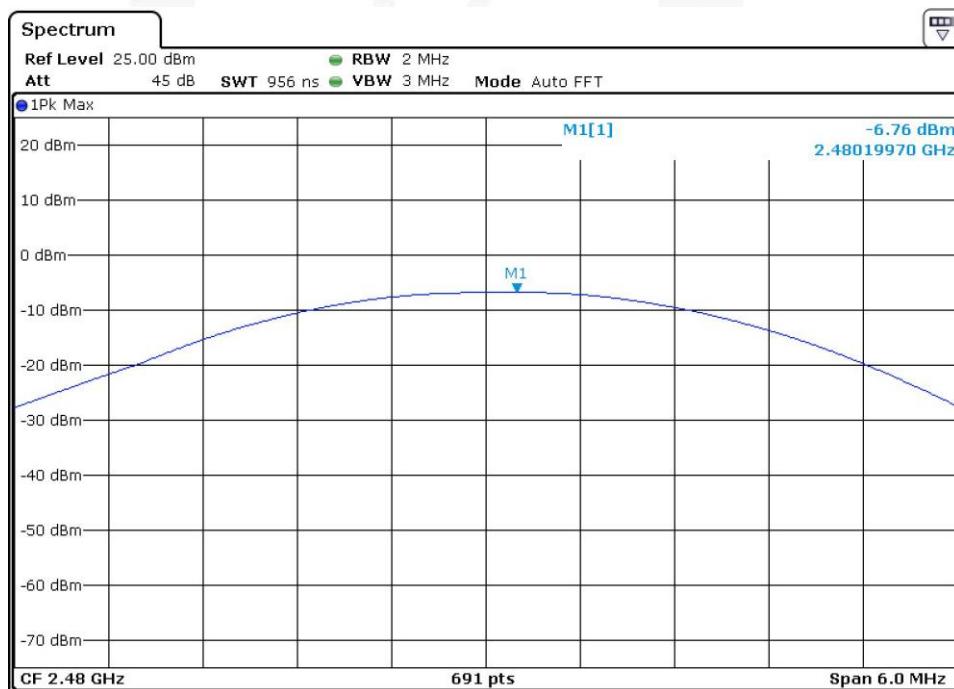
Report No.: AAEMT/RF/250409-01-01

**CH 00-1Mbps**

**CH 39-1Mbps**


Report No.: AAEMT/RF/250409-01-01

**CH 78-1Mbps**

**CH 00-2Mbps**


Report No.: AAEMT/RF/250409-01-01

**CH 39-2Mbps**

**CH 78-2Mbps**


## 6.9 Band edge

### 6.9.1 Applied procedures / Limit

15.247(d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

### 6.9.2 Test procedure

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- Span = wide enough to capture the peak level of the emission operating on the channel closest to the bandedge, as well as any modulation products which fall outside of the authorized band of operation, RBW  $\geq 1\%$  of the span, VBW  $\geq$  RBW, Sweep = auto, Detector function = peak, Trace = max hold

### 6.9.3 Deviation from standard

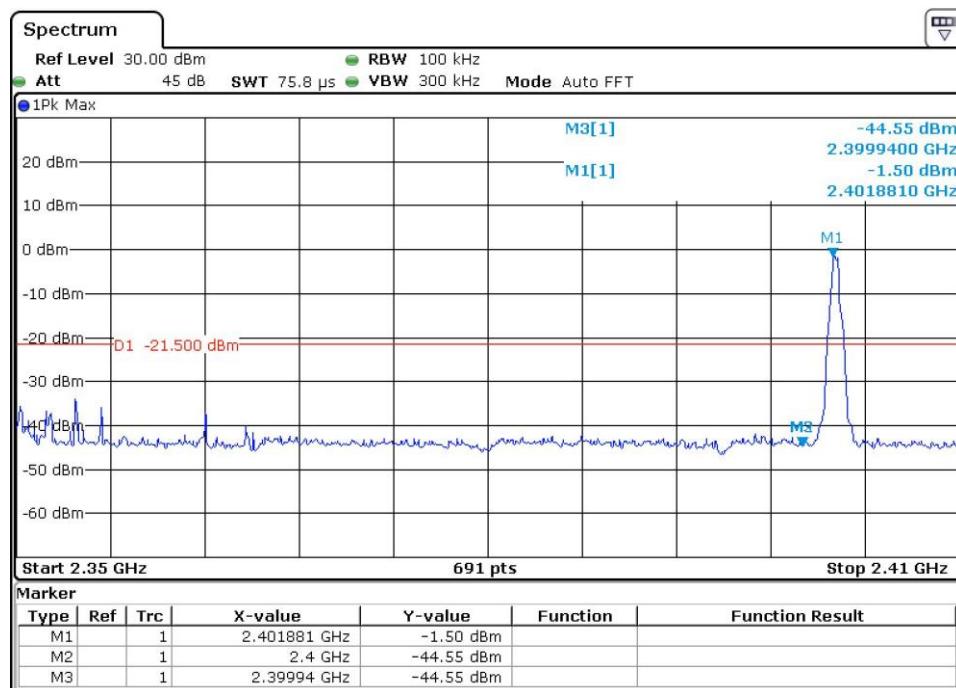
No deviation.

### 6.9.4 Test setup

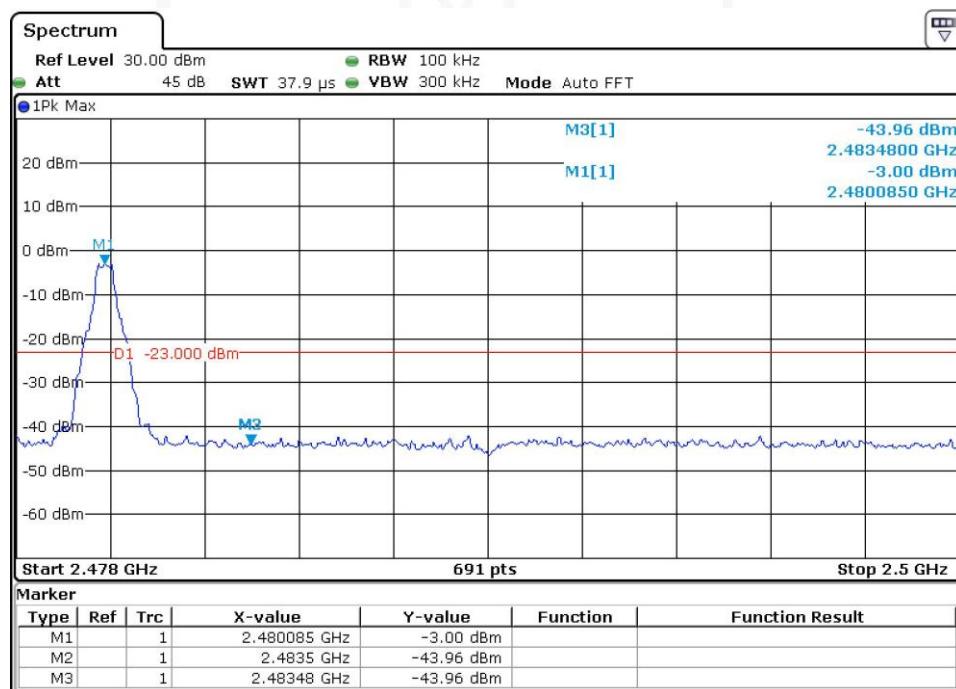


### 6.9.5 Test results

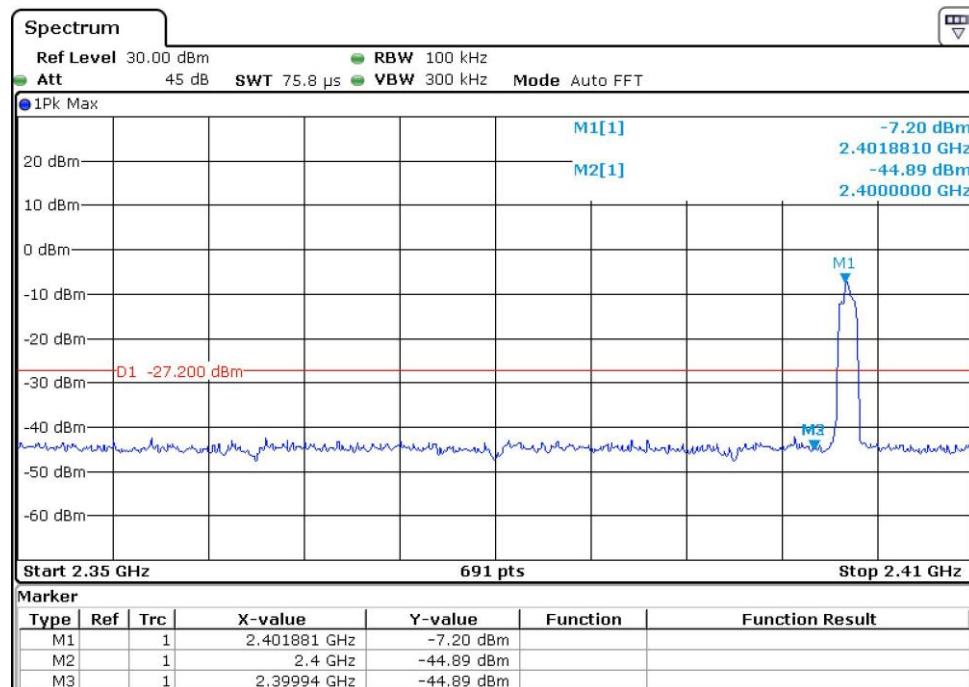
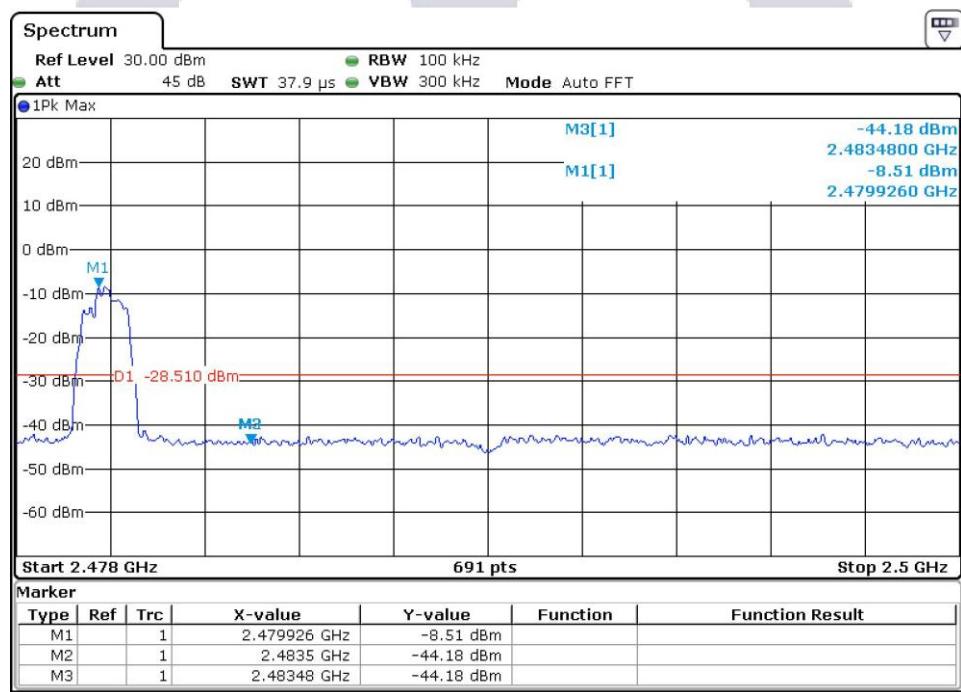
#### CH00 (Lower) Data rate 1Mbps



#### CH 78 (Upper) Data rate 1Mbps



Report No.: AAEMT/RF/250409-01-01

**CH00 (Lower) Data rate 2Mbps**

**CH 78 (Upper) Data rate 2Mbps**


## 6.10 Conducted Spurious Emissions

### 6.10.1 Applied procedures / Limit

15.247(d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

### 6.10.2 Test procedure

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. Span = wide enough to capture the peak level of the in-band emission and all spurious emissions (e.g., harmonics) from the lowest frequency generated in the EUT up through the 10<sup>th</sup> harmonic. Typically, several plots are required to cover this entire span. RBW = 100 kHz  
VBW  $\geq$  RBW, Sweep = auto, Detector function = peak, Trace = max hold  
Sweep points  $\geq$  investigated frequency range/RBW.

### 6.10.3 Deviation from standard

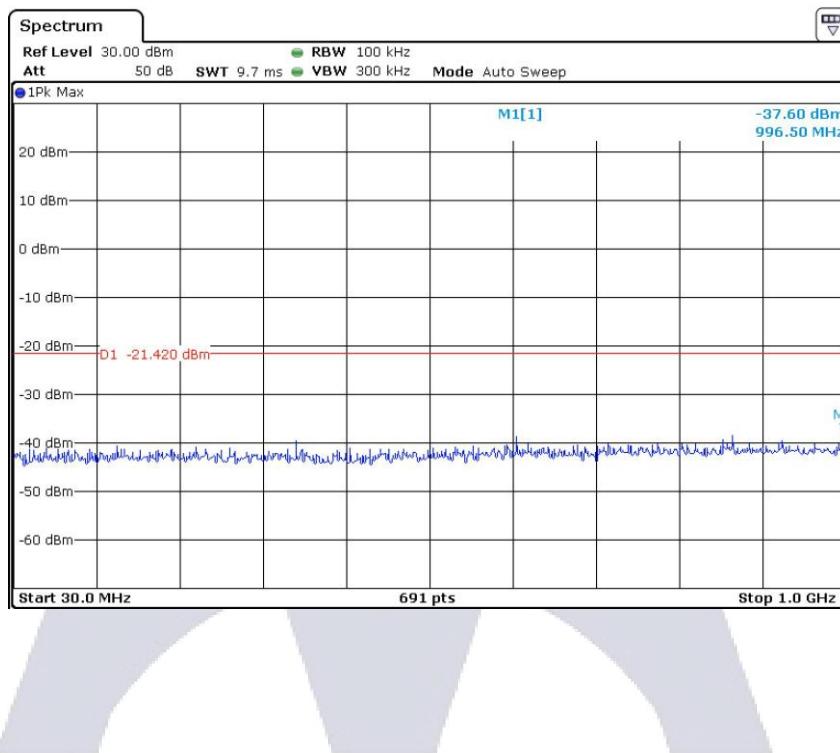
No deviation.

### 6.10.4 Test setup

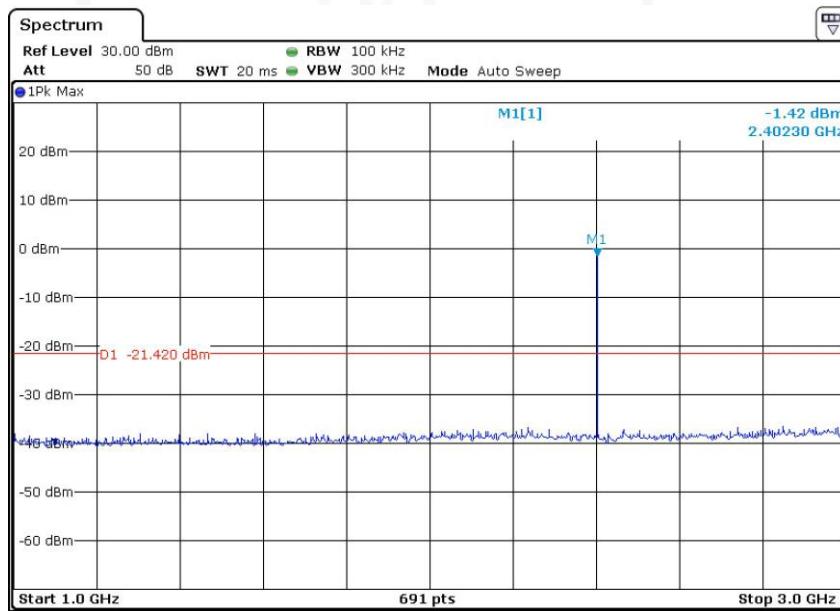


## 6.10.5 Test results

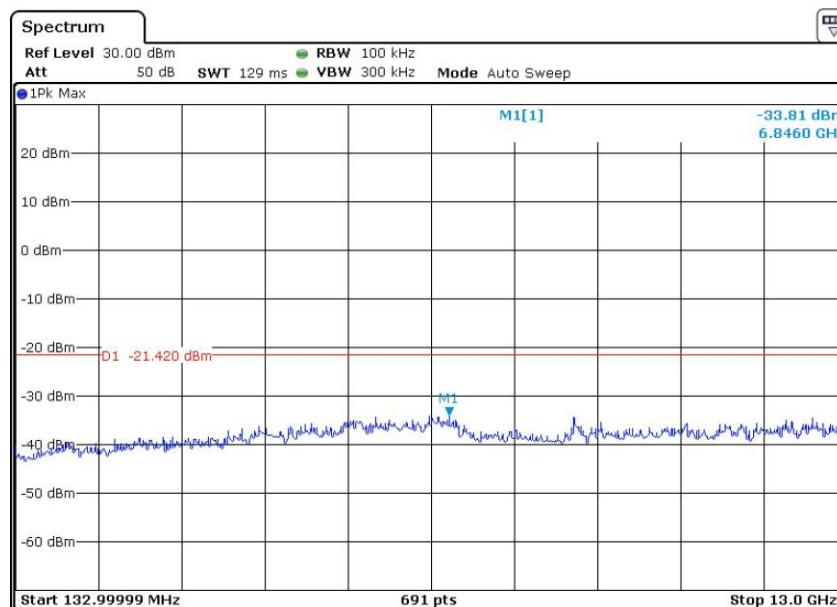
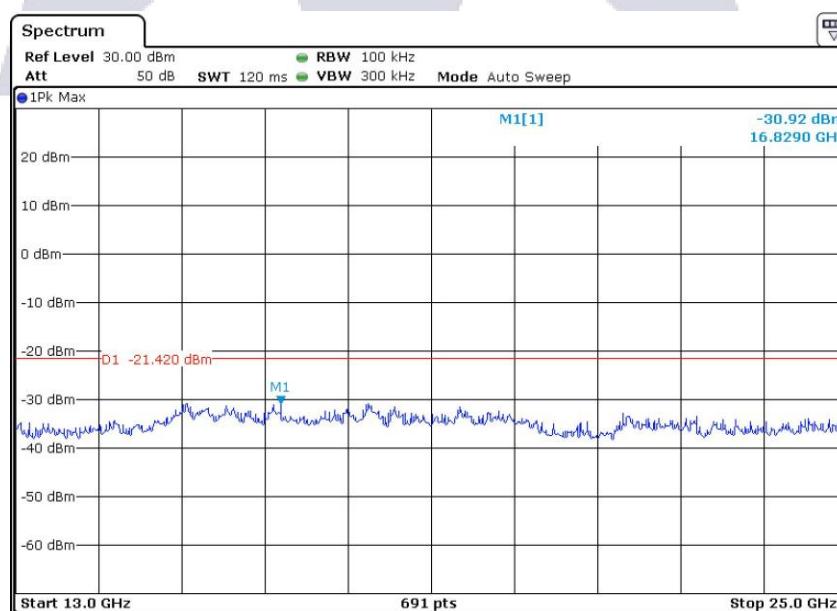
### CH00 Data rate 1Mbps



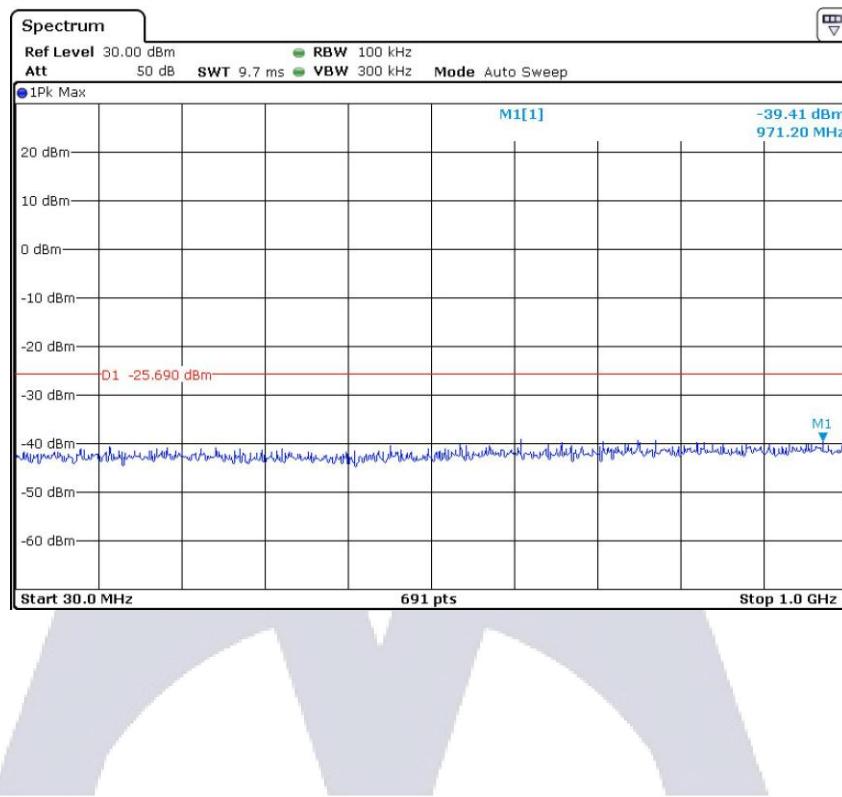
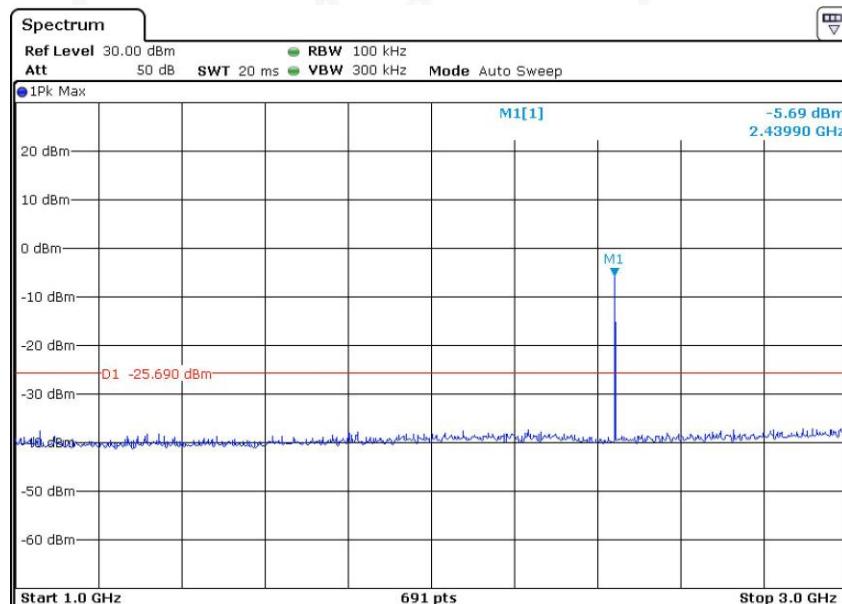
### CH00 Data rate 1Mbps



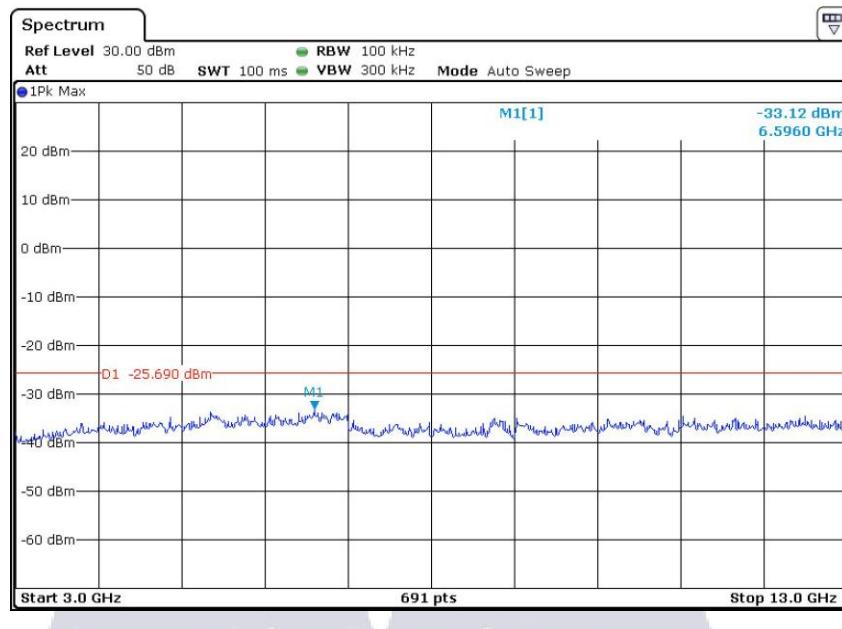
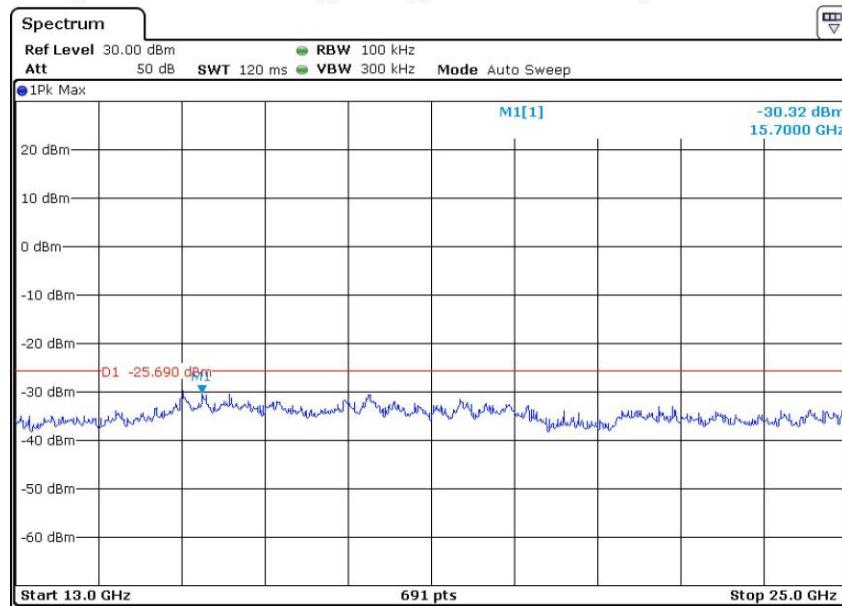
Report No.: AAEMT/RF/250409-01-01

**CH00 Data rate 1Mbps**

**CH00 Data rate 1Mbps**


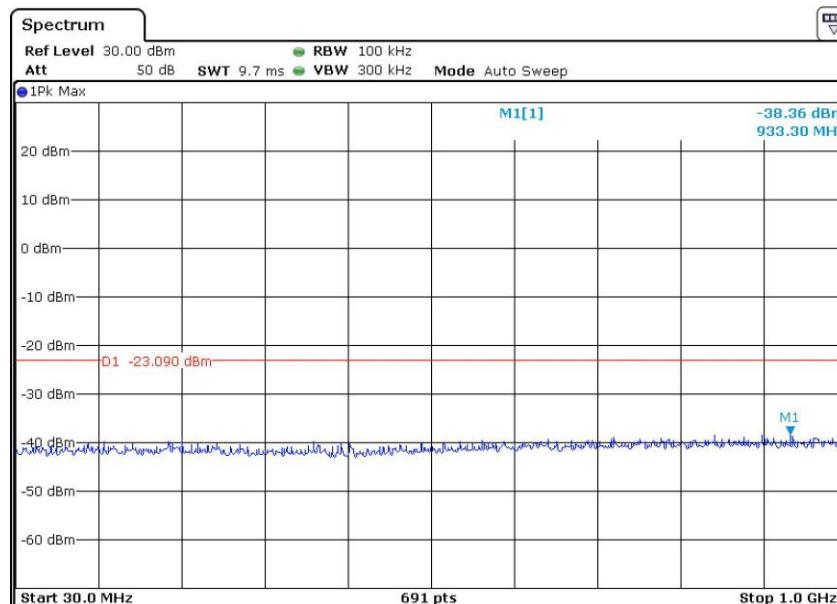
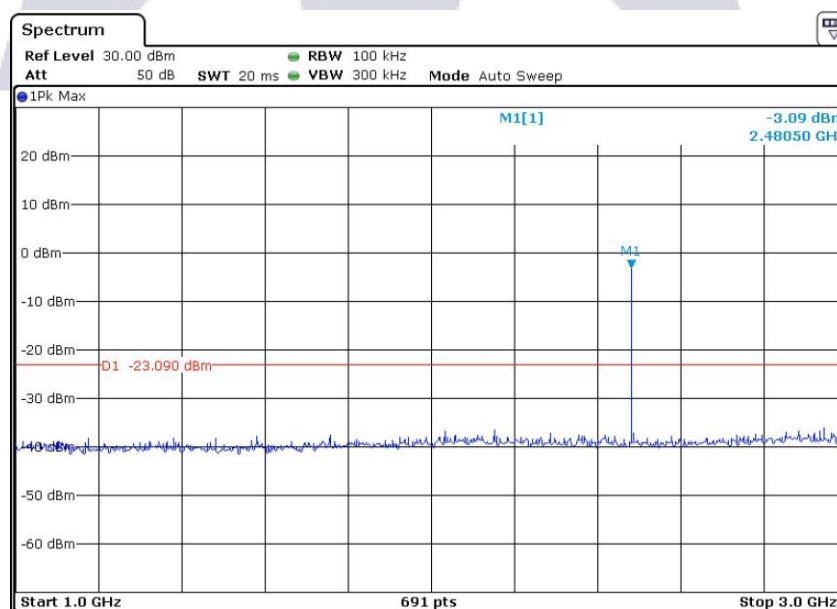
Report No.: AAEMT/RF/250409-01-01

**CH39 Data rate 1Mbps**

**CH39 Data rate 1Mbps**


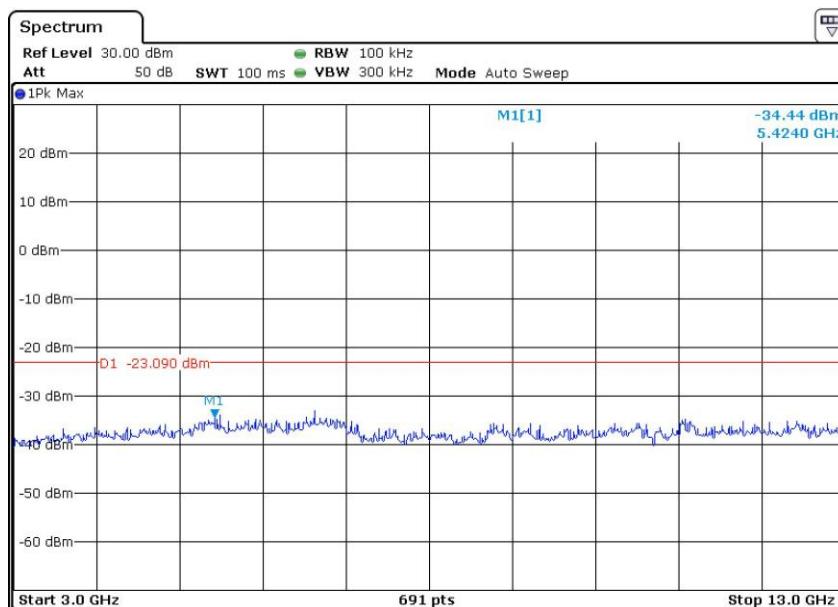
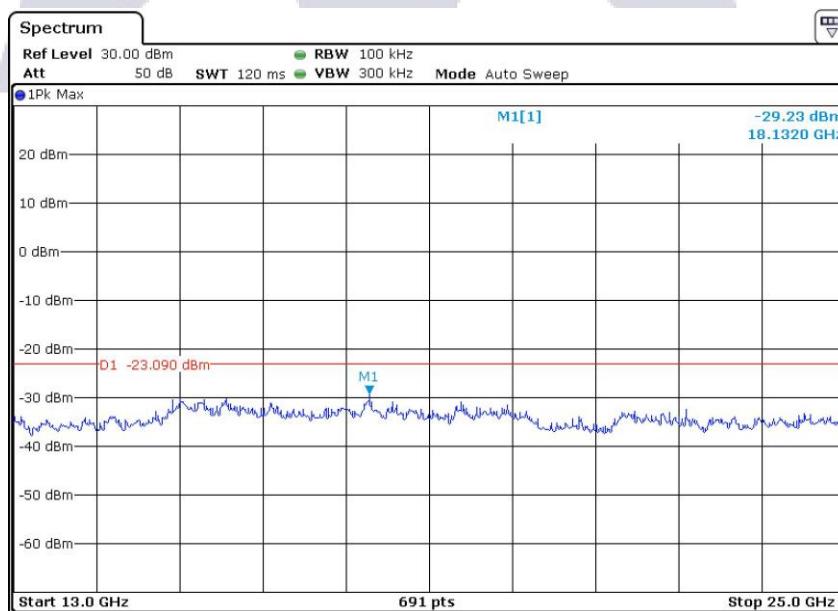
Report No.: AAEMT/RF/250409-01-01

**CH39 Data rate 1Mbps**

**CH39 Data rate 1Mbps**


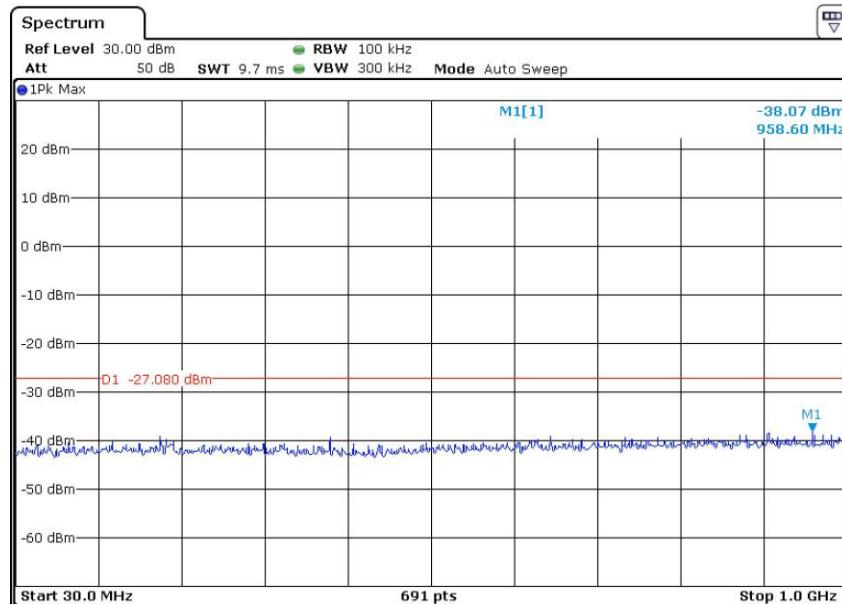
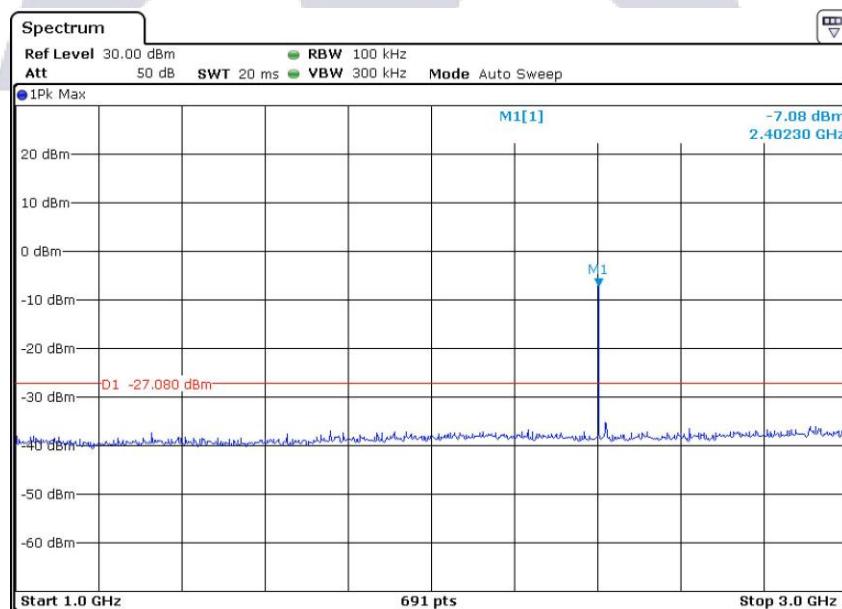
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**CH78 Data rate 1Mbps**

**CH78 Data rate 1Mbps**


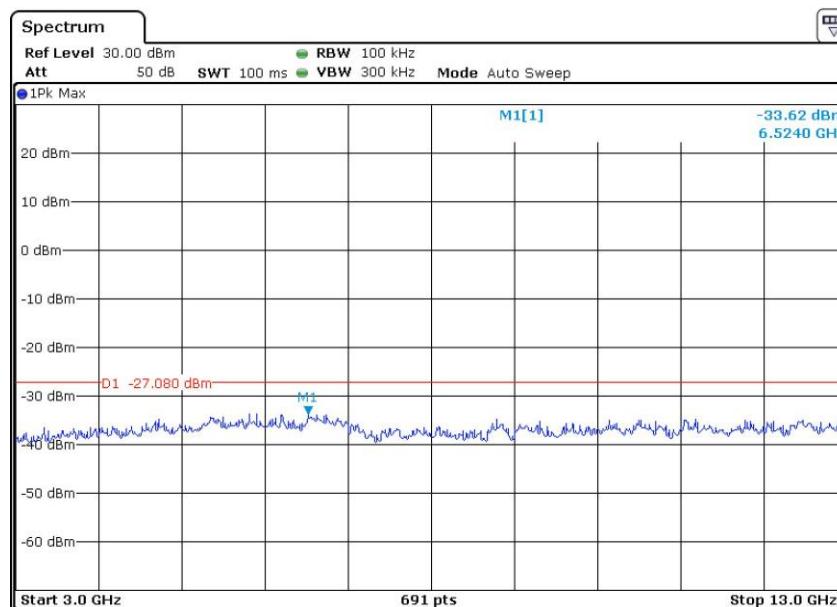
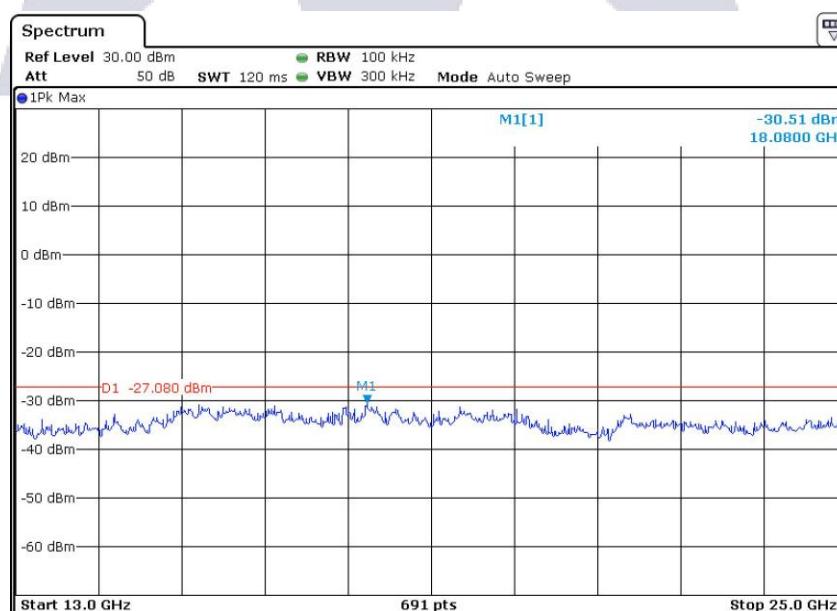
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**CH78 Data rate 1Mbps**

**CH78 Data rate 1Mbps**


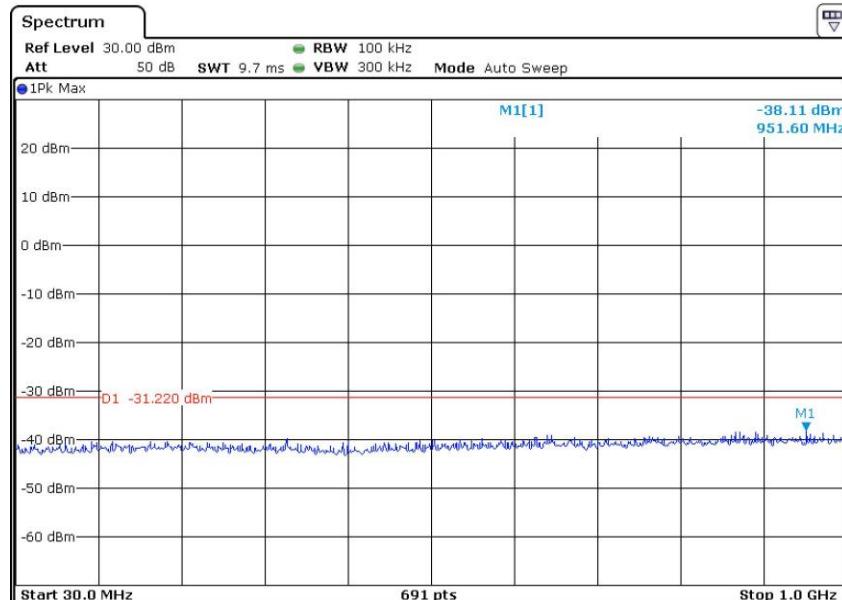
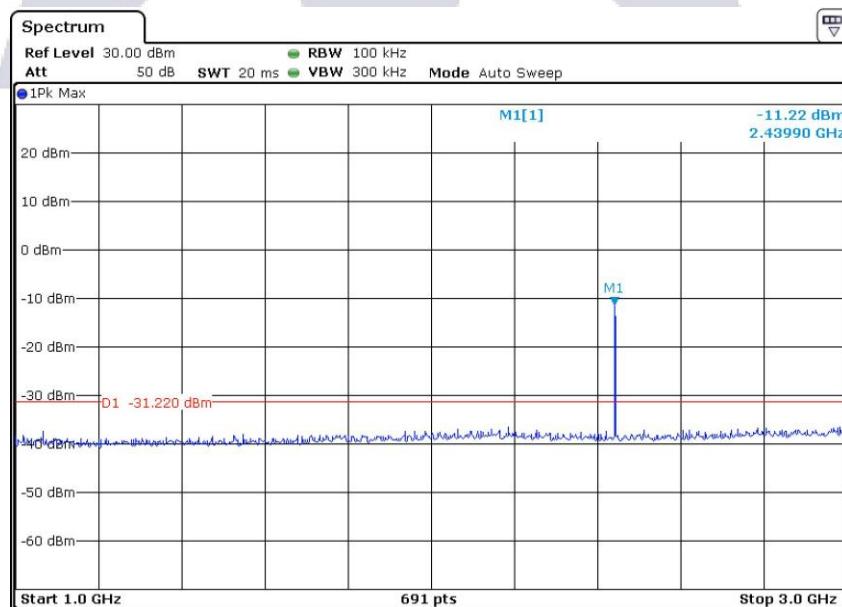
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**CH00 Data rate 2Mbps**

**CH00 Data rate 2Mbps**


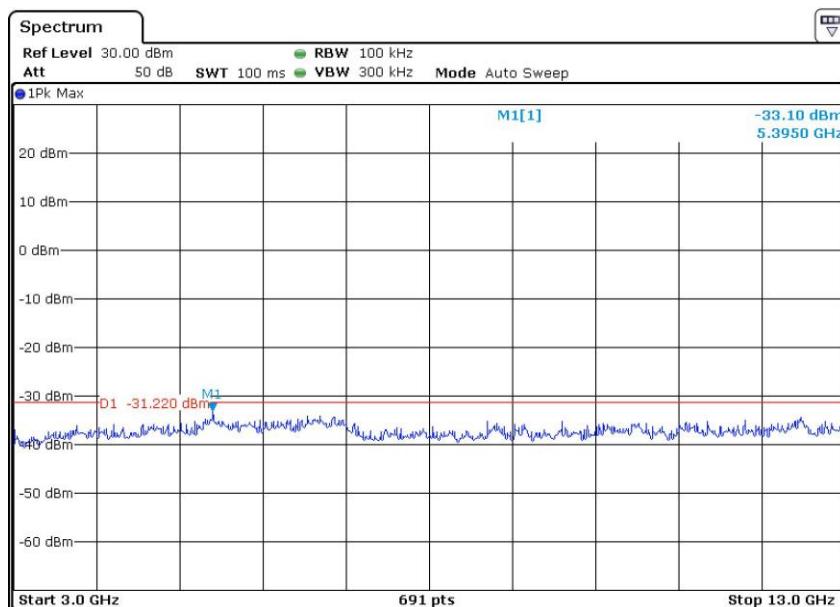
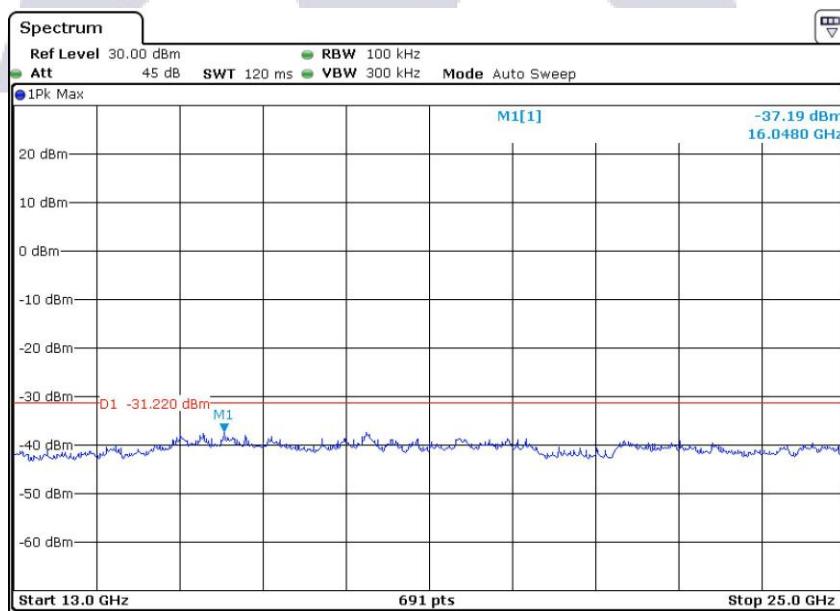
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**CH00 Data rate 2Mbps**


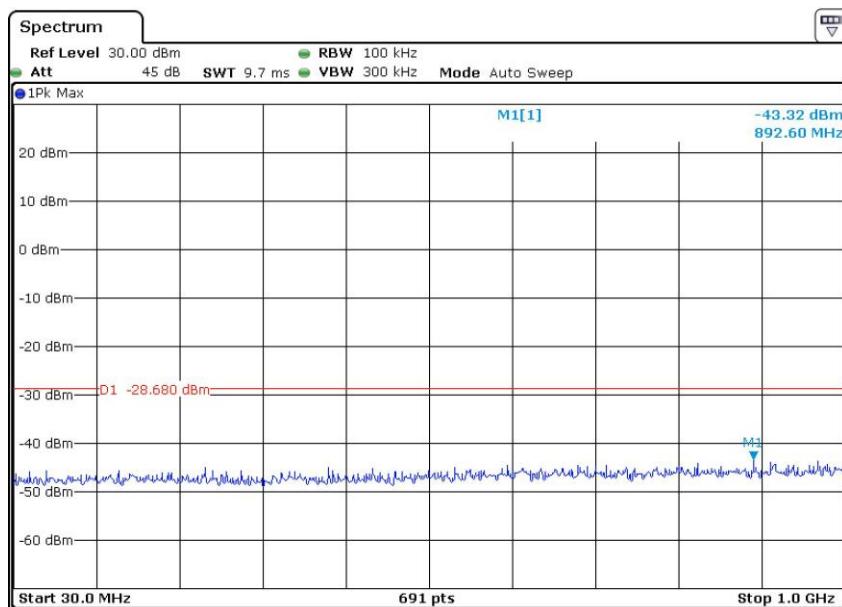
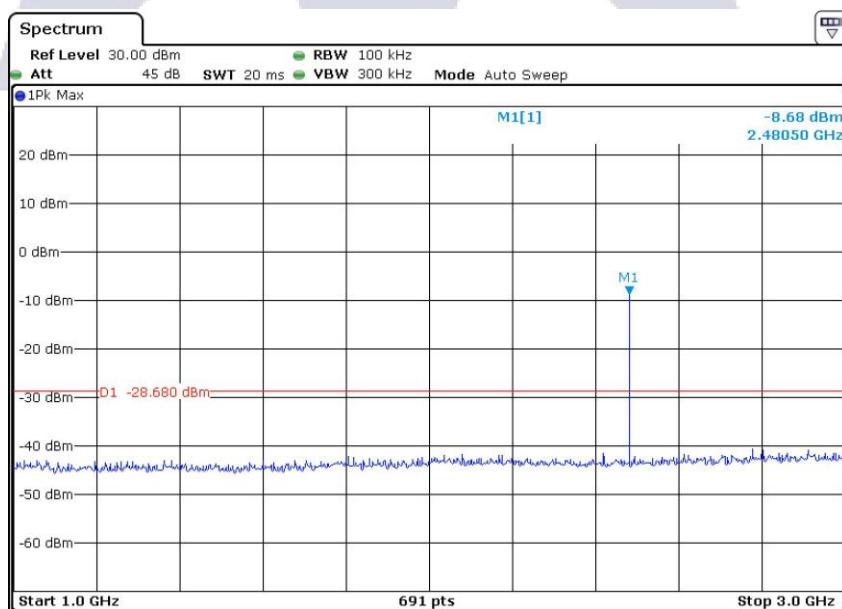
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**CH39 Data rate 2Mbps**

**CH39 Data rate 2Mbps**


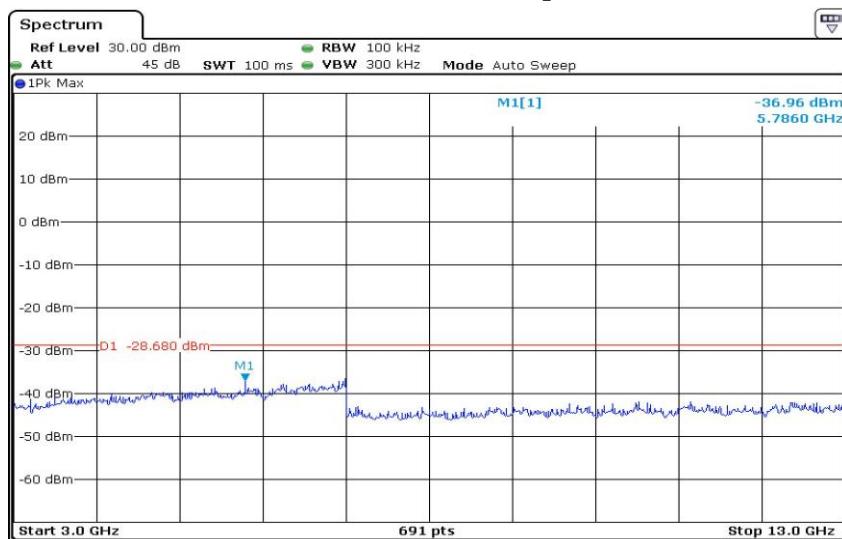
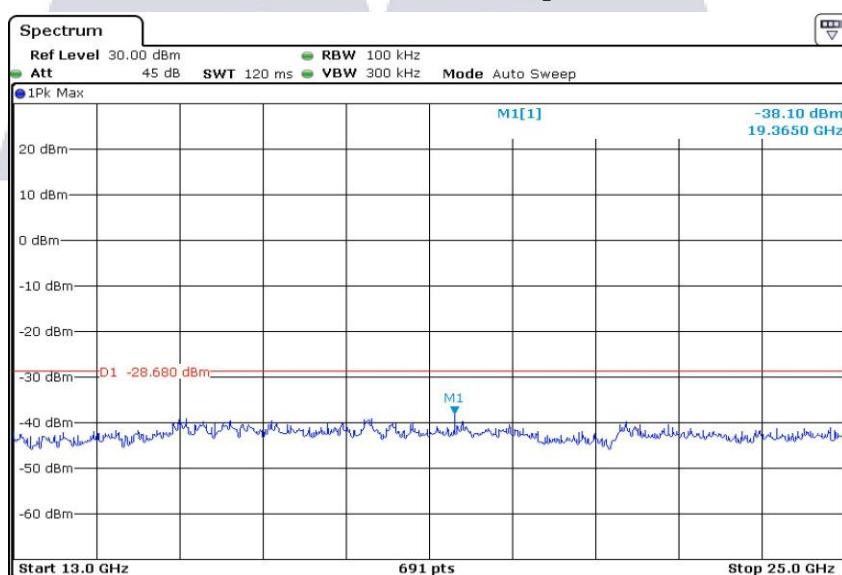
Report No.: AAEMT/RF/250409-01-01

**CH39 Data rate 2Mbps**

**CH39 Data rate 2Mbps**


Report No.: AAEMT/RF/250409-01-01

**CH78 Data rate 2Mbps**

**CH78 Data rate 2Mbps**


Report No.: AAEMT/RF/250409-01-01

**CH78 Data rate 2Mbps**

**CH78 Data rate 2Mbps**

**\*\*End of Report\*\***