FCC CERTIFICATION TEST REPORT

Applicant	:	PEAG, LLC dba JLab Audio
Address of Applicant	:	5927 LANDAU CT, Carlsbad, CA 92008, United States
Manufacturer	:	GuangDong Simpreal Intelligent Technology Co., Ltd
Address of Manufacturer	:	Room 2408, JiaHong ZhenXing DaSha, DongGuan Avenue #13, DongCheng District, DongGuan City, GuangDong Province, P.R. China
Equipment under Test	:	JBuds Lux Wireless Headset
Model No.	:	JBuds Lux ANC
FCC ID	:	2AHYV-JBLUX
Test Standard(s)	:	FCC Rules and Regulations Part 15 Subpart C, ANSI C63.10:2013
Report No.	:	DDT-RE23111529-2E01
Issue Date	:	2024/04/09
Issue By	:	Guangdong Dongdian Testing Service Co., Ltd. Unit 2, Building 1, No. 17, Zongbu 2nd Road, Songshan Lake Park, Dongguan, Guangdong, China, 523808

REPORT

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Test Report Declare

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Manufacturer	:	GuangDong Simpreal Intelligent Technology Co., Ltd
Address of Manufacturer	:	Room 2408, JiaHong ZhenXing DaSha, DongGuan Avenue #13, DongCheng District, DongGuan City, GuangDong Province, P.R. China

Test Standard Used:

FCC Rules and Regulations Part 15 Subpart C,
ANSI C63.10:2013

We Declare:

The equipment described above is tested by Guangdong Dongdian Testing Service Co., Ltd. and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and Guangdong Dongdian Testing Service Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

Report No.:	DDT-RE23111529-2E01		
Date of Receipt:	2024/02/04	**Date of Test:**	2024/02/04~2024/04/09

Prepared By:

Ziqin Chen

Ziqin Chen/Engineer

Approved By:

Damon Hu

Damon Hu/EMC Manager

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Guangdong Dongdian Testing Service Co., Ltd.

Revision History

Rev.	Revisions	Issue Date	Revised By
---	Initial issue	2024/04/09	

1. Summary of Test Results

No.	Test Parameter	Clause No.	Condition	Result
1	Maximum Peak Output Power	FCC Part 15: 15.247(b)(1)	/	Pass
2	20 dB Bandwidth	FCC Part 15: 15.247(a)(1)	/	Pass
3	99% Bandwidth	ANSI C63.10:2013	/	Pass
4	Carrier Frequency Separation	FCC Part 15: 15.247(a)(1)	/	Pass
5	Number of Hopping Channel	FCC Part 15: 15.247(a)(1)(iii)	/	Pass
6	Dwell Time	FCC Part 15: 15.247(a)(1)(iii)	/	Pass
7	RF Conducted Spurious Emissions	FCC Part 15: 15.247(d)	/	Pass
8	Radiated Emission	FCC Part 15: 15.205, FCC Part 15: 15.209, FCC Part 15: 15.247(d)	/	Pass
9	Band Edge Compliance	FCC Part 15: 15.205, FCC Part 15: 15.209, FCC Part 15: 15.247(d)	/	Pass
10	Power Line Conducted Emissions	FCC Part 15: 15.207(a)	/	Pass
11	Antenna Requirement	FCC Part 15: 15.203	/	Pass
Note: N/A is an abbreviation for Not Applicable, and means this item is not applicable for this device or no need to test according to standard.				

2. General Test Information

2.1. Description of EUT

EUT Name	:	JBuds Lux Wireless Headset
Model Number	:	JBuds Lux ANC
Difference of model number	:	/
EUT Function Description	:	Please reference user manual of this device
Power Supply	:	DC 5V by an external adapter or DC 3.7V built-in lithium battery
Hardware Version	:	V08
Software Version	:	V01.17

Note: This EUT support Bluetooth BR/EDR/LE, this report only for Bluetooth BR/EDR.

Radio Specification	:	Bluetooth BR/EDR
Operation Frequency	:	2402 MHz-2480 MHz
Modulation	:	GFSK, π/4-DQPSK, 8DPSK

Antenna information		
Antenna Type	:	FPC
Max Antenna Gain(dBi)	:	1.97 dBi

Channel information					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	27	2429	54	2456
1	2403	28	2430	55	2457
2	2404	29	2431	56	2458
3	2405	30	2432	57	2459
4	2406	31	2433	58	2460
5	2407	32	2434	59	2461
6	2408	33	2435	60	2462
7	2409	34	2436	61	2463
8	2410	35	2437	62	2464
9	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		

Note: The above EUT information is declared by manufacturer and for more detailed features description please refer to the manufacturer's specifications or User's Manual. The above Antenna information is declared by manufacturer and for more detailed features description please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

"☒" means to be chosen or applicable; "□" means don't to be chosen or not applicable; This note applies to entire report.

2.2. Accessories of EUT

Accessories	Manufacturer	Model number	Description
/	/	/	/

2.3. Block diagram of EUT configuration for test

Configuration diagram


2.4. Decision of final test mode

According pre-test, the worst test modes were reported as below:

Test software: FCC_assist.exe

The test software was used to control EUT work in Continuous Tx mode, and select test channel, wireless mode as below table.

The pathloss of external cable: 0.5 dB (According to the manufacturer's claims)

Tested mode, channel, information			
Mode	Setting Tx Power	Channel	Frequency (MHz)
GFSK hopping on Tx mode	2	CH0 to CH78	2402 to 2480
π/4-DQPSK hopping on Tx mode	2	CH0 to CH78	2402 to 2480
8DPSK hopping on Tx mode	2	CH0 to CH78	2402 to 2480
	2	CH0	2402

GFSK hopping off Tx mode	2	CH39	2441
	2	CH78	2480
π/4-DQPSK hopping off Tx mode	2	CH0	2402
	2	CH39	2441
	2	CH78	2480
8DPSK hopping off Tx mode	2	CH0	2402
	2	CH39	2441
	2	CH78	2480
Worst-case data rates were: GFSK mode: DH5, π/4-DQPSK mode: 2DH5, 8DPSK mode: 3DH5			

2.5. Deviations of test standard

No deviation.

2.6. Test environment conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature range:	+15℃ to +35 ℃
Humidity range:	20% to 75%
Pressure range:	86 kPa to106 kPa

Note: The specific temperature and humidity information of each test item refers to the temperature and humidity record in the corresponding test data.

2.7. Test laboratory

Guangdong Dongdian Testing Service Co., Ltd.

Add.: Unit 2, Building 1, No. 17, Zongbu 2nd Road, Songshan Lake Park, Dongguan, Guangdong, China, 523808.

Tel.: +86-0769-38826678, http://www.dgddt.com, Email: ddt@dgddt.com.

CNAS Accreditation No. L6451; A2LA Accreditation Number: 3870.01

FCC Designation Number: CN1182, Test Firm Registration Number: 540522

Innovation, Science and Economic Development Canada Site Registration Number: 10288A

Conformity Assessment Body identifier: CN0048

VCCI facility registration number: C-20087, T-20088, R-20123, R-20155, G-20118

2.8. Measurement uncertainty

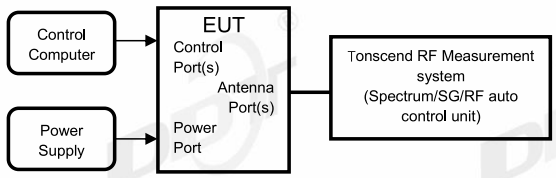
Test Item	Uncertainty
Bandwidth	1.1%
Peak Output Power (Conducted) (Spectrum analyzer)	0.86 dB (10 MHz ≤ f < 3.6 GHz);
	1.38 dB (3.6 GHz ≤ f < 8 GHz)
Peak Output Power (Conducted) (Power Sensor)	0.74 dB
Power Spectral Density	0.74 dB (10 MHz ≤ f < 3.6 GHz);
	1.38 dB (3.6 GHz ≤ f < 8 GHz)
Frequencies Stability	6.7×10^{-8} (Antenna couple method)
	5.5×10^{-8} (Conducted method)
Conducted spurious emissions	0.86 dB (10 MHz ≤ f < 3.6 GHz);
	1.40 dB (3.6 GHz ≤ f < 8 GHz)
	1.66 dB (8 GHz ≤ f < 26.5 GHz)
Uncertainty for radio frequency (RBW < 20 kHz)	3×10^{-8}
Temperature	0.4 ℃
Humidity	2 %
Uncertainty for Radiation Emission test (9 kHz – 30 MHz)	3.44 dB
Uncertainty for Radiation Emission test (30 MHz - 1 GHz)	4.70 dB (Antenna Polarize: V)
	4.84 dB (Antenna Polarize: H)
Uncertainty for Radiation Emission test (1 GHz - 40 GHz)	4.10 dB (1 - 6 GHz)
	4.40 dB (6 GHz - 18 GHz)
	3.54 dB (18 GHz - 26 GHz)
	4.30 dB (26 GHz - 40 GHz)
Uncertainty for Power line conduction emission test	3.34dB (150KHz-30MHz)
	3.72dB (9KHz-150KHz)
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

3. Equipment Used During Conductive Test

Equipment	Manufacturer	Model No.	Serial Number	Due Date
☒ RF Connected Test (RF Measurement System 2#)				
SPECTRUM ANALYZER	R&S	FSU26	201124	2024/07/11
Power Sensor	R&S	NRP-Z22	101254	2024/07/11
Test Software	Tonscend	JS1120-3	Ver.3.2.22	N/A

4. 20 dB Bandwidth

4.1. Block diagram of test setup



4.2. Limits

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in § 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

4.3. Test procedure

(1) The test according to ANSI C63.10-2013 clause 6.9.2.
(2) Connect EUT's antenna output to spectrum analyzer by RF cable, the path loss was compensated to the results
(3) Set the EUT as maximum power setting and enable the EUT transmit continuously
(4) Use the following spectrum analyzer settings for the 20 dB bandwidth measurement:

RBW:	1% to 5% of the OBW
VBW:	approximately three times RBW
Span:	between 2 times and 5 times the OBW
Detector Mode:	Peak
Sweep time:	Auto
Trace mode:	Max hold

(5) Measure and record the results in the report.

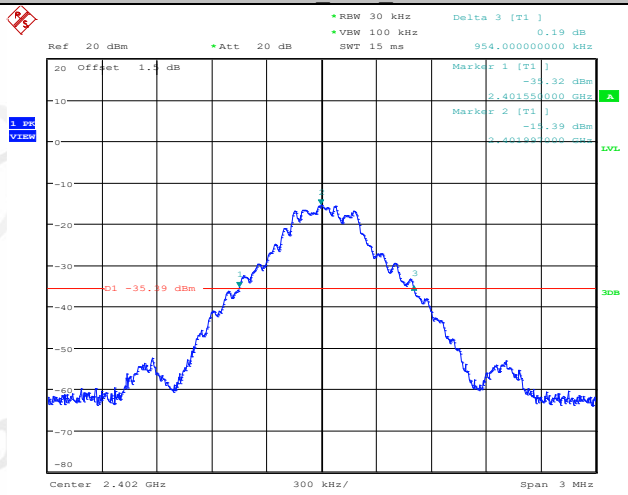
4.4. Test result

Test Engineer:	Zora Zhang	Test Site:	RF Measurement System 2#
Ambient Condition:	23.1℃,48.2%RH	Test Date:	2024.04.02-2024.04.02
Test Power Supply:	Battery	Sample Number:	S23111529-04

Test Mode	Antenna	Frequency [MHz]	20dB EBW[MHz]
DH5	Ant1	2402	0.95
		2441	0.95
		2480	0.95
2DH5	Ant1	2402	1.28
		2441	1.29
		2480	1.28
3DH5	Ant1	2402	1.30
		2441	1.30
		2480	1.30

4.5. Test graphs

DH5_Ant1_2402



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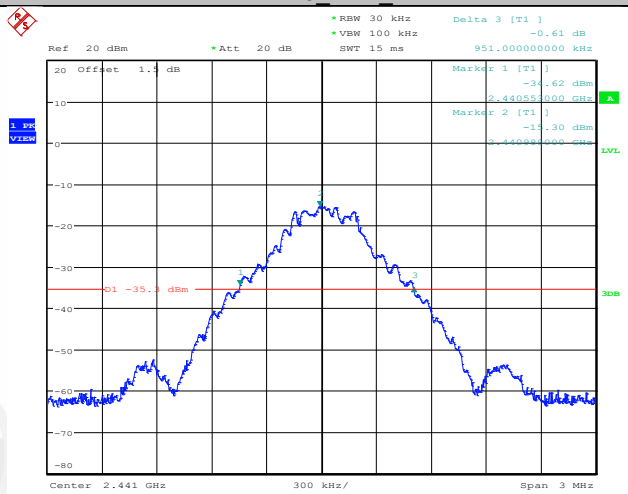
DH5_Ant1_2441



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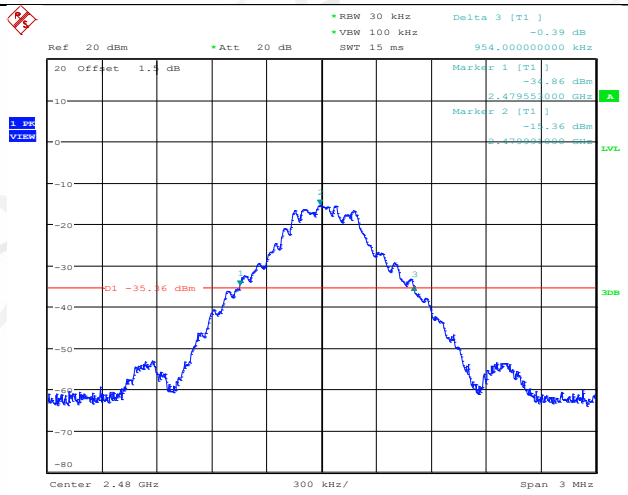
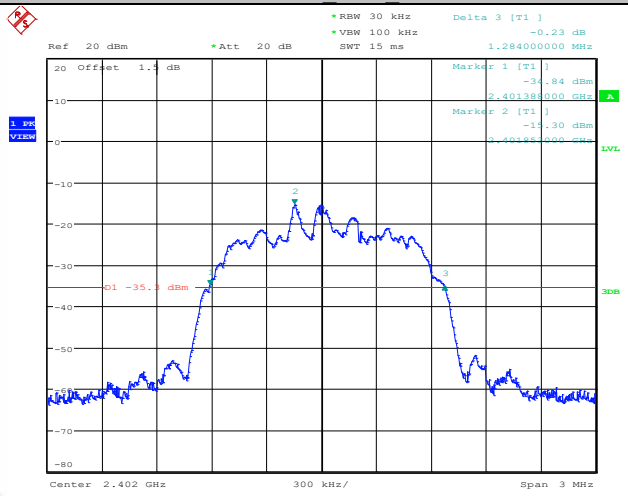
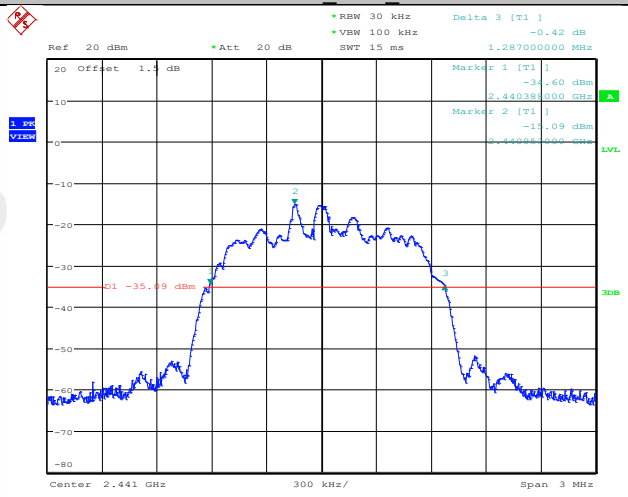
DH5_Ant1_2480



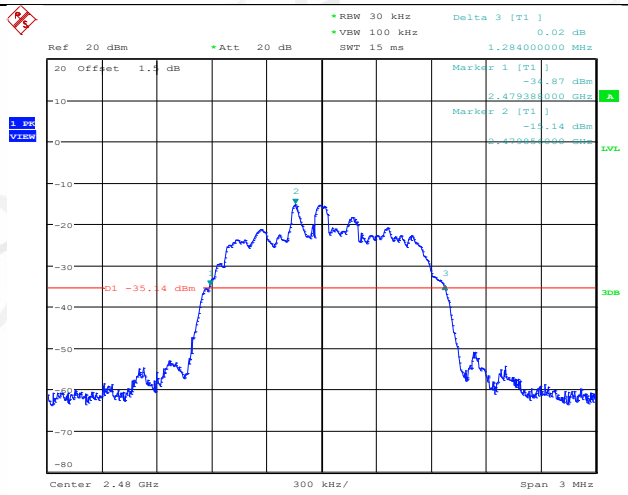
2DH5_Ant1_2402



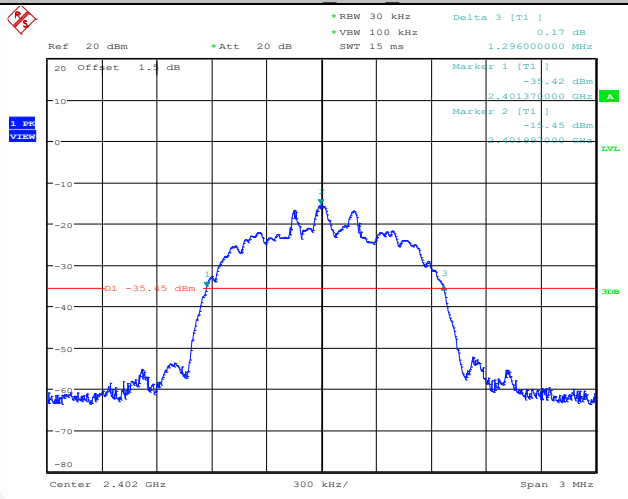
2DH5_Ant1_2441



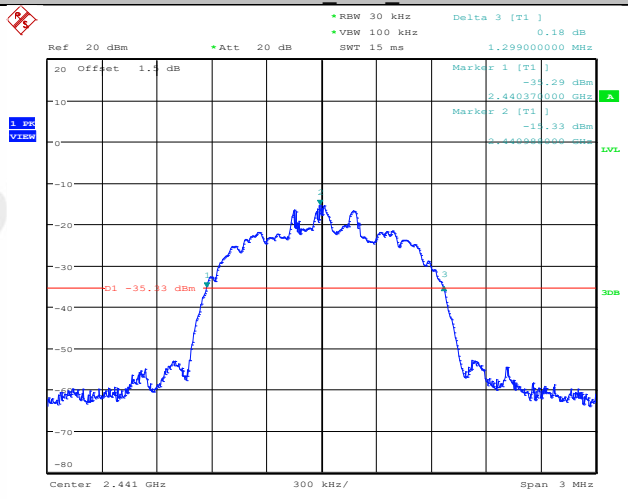
2DH5_Ant1_2480



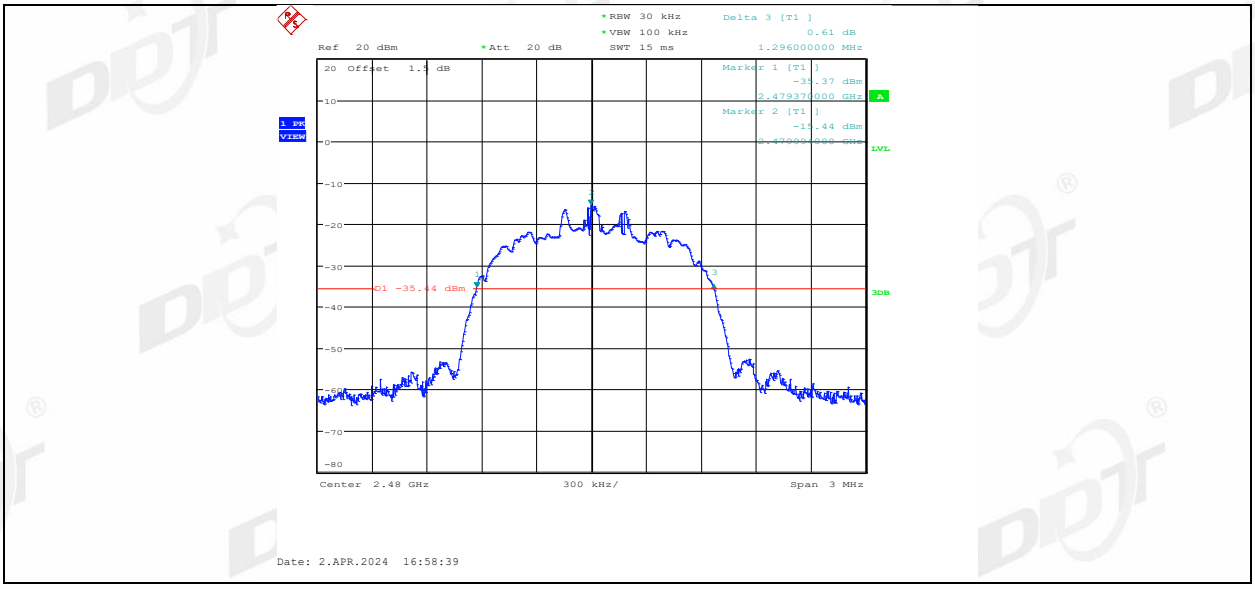
3DH5_Ant1_2402



3DH5_Ant1_2441

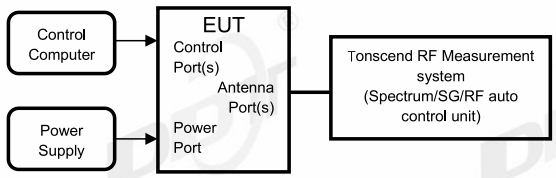


3DH5_Ant1_2480


RBW 30 kHz
VBW 100 kHz
SWT 15 ms
Delta 3 [T1]
0.61 dB
1.296000000 MHz
Ref 20 dBm
Att 20 dB
20 Offset 1.5 dB
Marker 1 [T1]
-35.37 dBm
2.479370000 GHz
Marker 2 [T1]
-15.44 dBm
2.479000000 GHz
1 PK VIEW
A
LVL
3DB
D1 -35.44 dBm
Center 2.48 GHz
300 kHz/
Span 3 MHz
Date: 2.APR.2024 16:58:39

5. 99% Bandwidth

5.1. Block diagram of test setup



5.2. Limits

Just for Report.

5.3. Test procedure

(1) The test according to ANSI C63.10-2013 clause 6.9.3.
(2) Connect EUT's antenna output to spectrum analyzer by RF cable, the path loss was compensated to the results
(3) Set the EUT as maximum power setting and enable the EUT transmit continuously
(4) Use the following spectrum analyzer settings for the 99% bandwidth measurement:

RBW:	1% to 5% of the OBW
VBW:	approximately three times RBW
Span:	between 1.5 times and 5.0 times the OBW
Detector Mode:	Peak
Sweep time:	Auto
Trace mode:	Max hold

(5) Measure and record the results in the report.

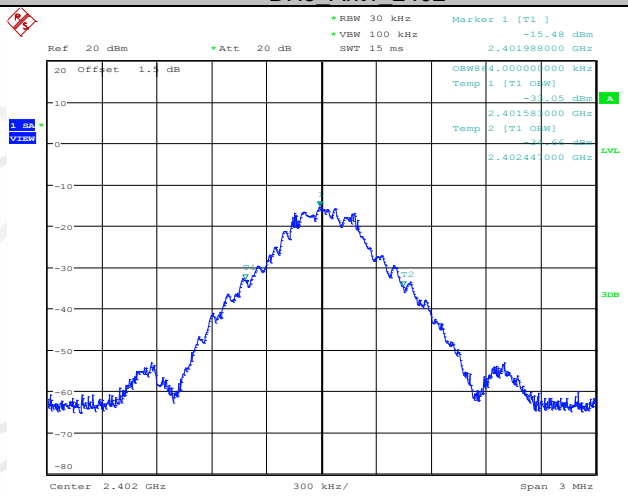
5.4. Test result

Test Engineer:	Zora Zhang	Test Site:	RF Measurement System 2#
Ambient Condition:	23.1℃,48.2%RH	Test Date:	2024.04.02-2024.04.02
Test Power Supply:	Battery	Sample Number:	S23111529-04

Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL[MHz]	FH[MHz]
DH5	Ant1	2402	0.864	2401.5830	2402.4470
		2441	0.87	2440.5800	2441.4500
		2480	0.87	2479.5800	2480.4500
2DH5	Ant1	2402	1.176	2401.4270	2402.6030
		2441	1.176	2440.4270	2441.6030
		2480	1.173	2479.4300	2480.6030
3DH5	Ant1	2402	1.179	2401.4300	2402.6090
		2441	1.176	2440.4300	2441.6060
		2480	1.179	2479.4300	2480.6090

5.5. Test graphs

DH5_Ant1_2402



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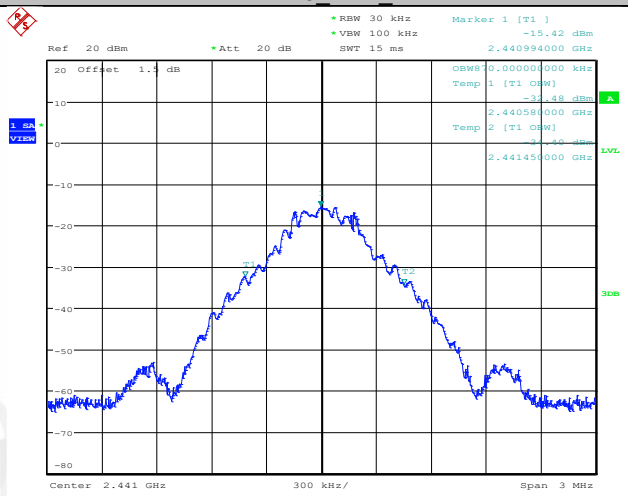
DH5_Ant1_2441



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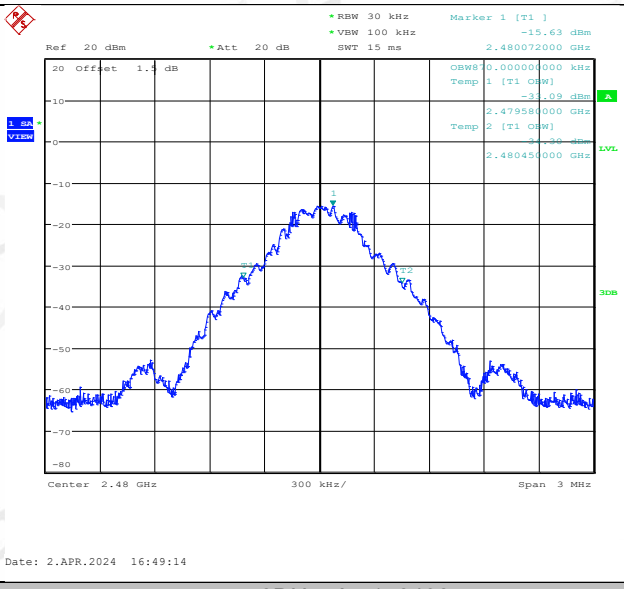
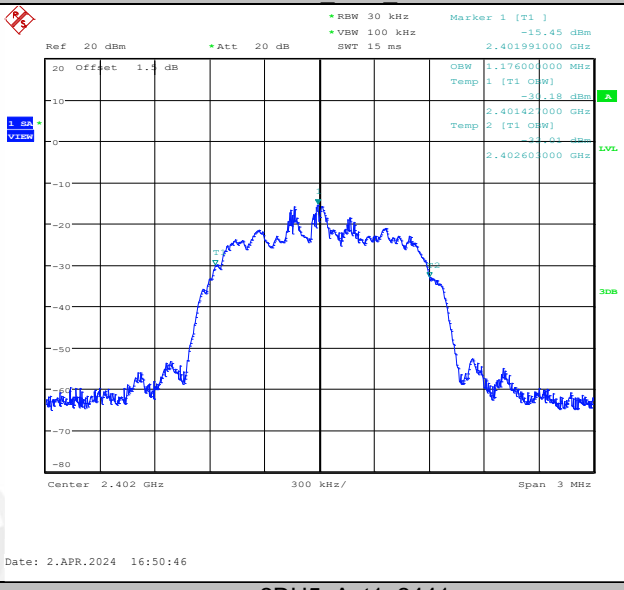


2DH5_Ant1_2402



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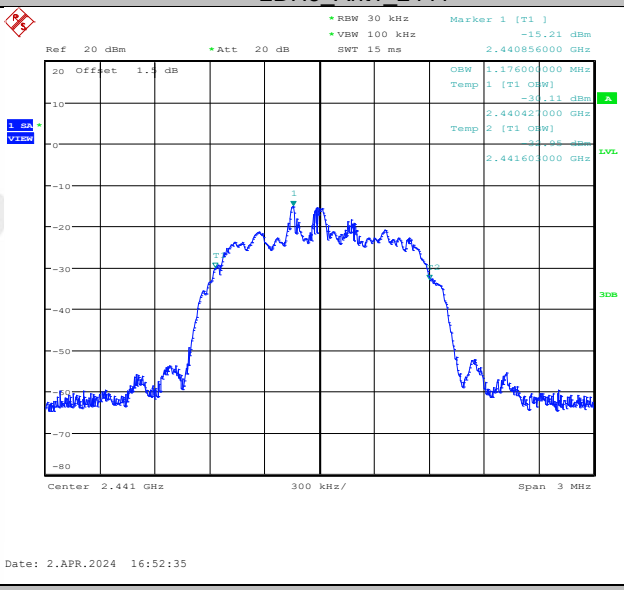

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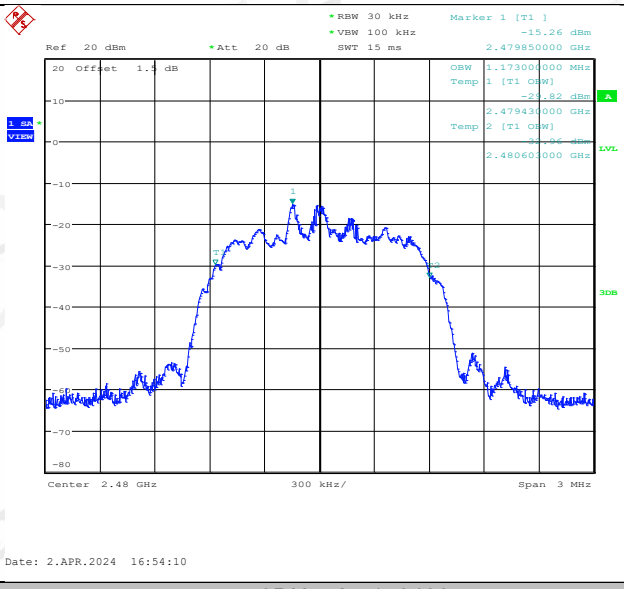
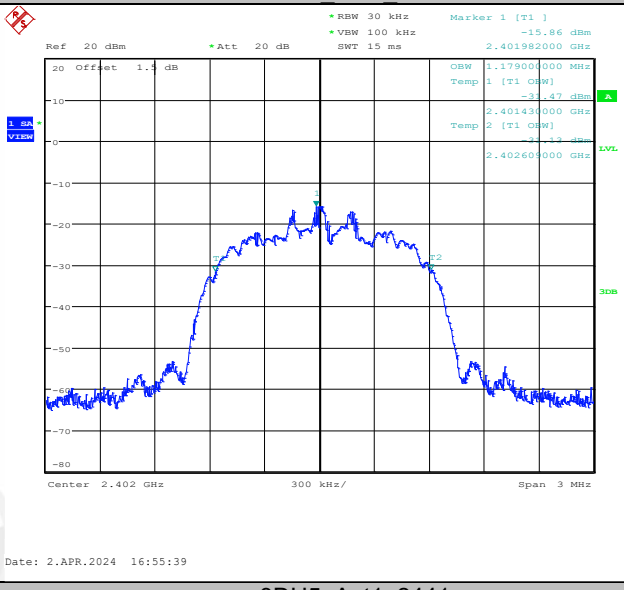
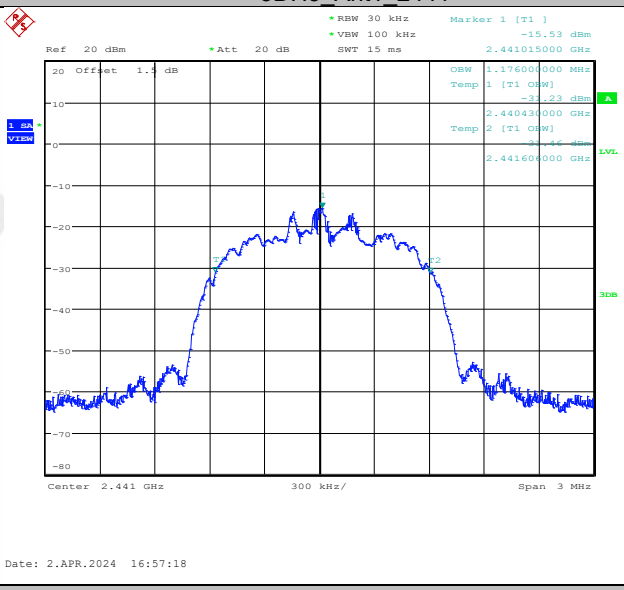


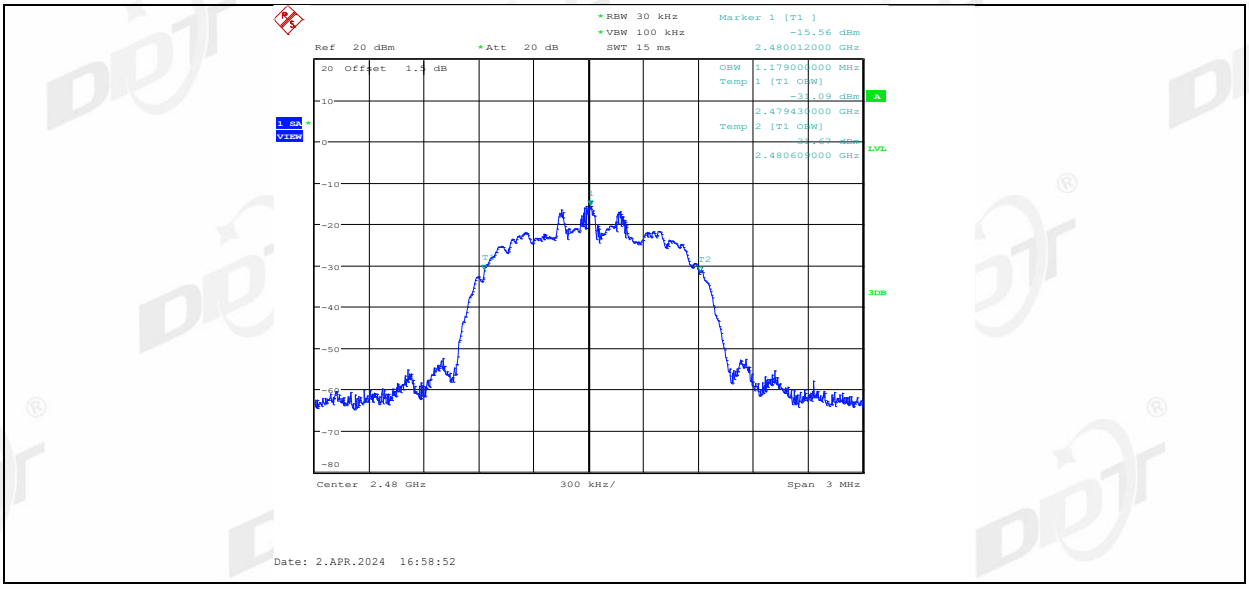
3DH5_Ant1_2402



3DH5_Ant1_2441

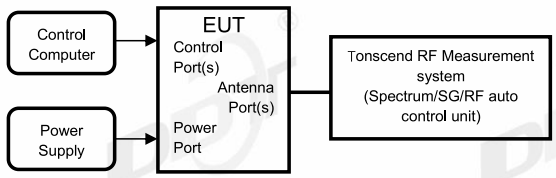


3DH5_Ant1_2480


RBW 30 kHz
VBW 100 kHz
SWT 15 ms
Marker 1 [T1]
-15.56 dBm
2.480012000 GHz
Ref 20 dBm
Att 20 dB
20 Offset 1.5 dB
OBW 1.179000000 MHz
Temp 1 [T1 OBW]
-31.09 dBm
2.479430000 GHz
Temp 2 [T1 OBW]
-31.67 dBm
2.480609000 GHz
1 SA VIEW
A
LVL
3DB
Center 2.48 GHz
300 kHz/
Span 3 MHz
Date: 2.APR.2024 16:58:52

6. Maximum Peak Output Power

6.1. Block diagram of test setup



6.2. Limits

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: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts, the e.i.r.p shall not exceed 4W.

6.3. Test procedure

(1) The test according to ANSI C63.10-2013 clause 7.8.5.
(2) Connect EUT's antenna output to spectrum analyzer by RF cable, the path loss was compensated to the results.
(3) Set the EUT as maximum power setting and enable the EUT transmit continuously.
(4) Use the following spectrum analyzer settings for the maximum peak output power measurement:

RBW:	> 20 dB bandwidth of the emission being measured.
VBW:	VBW ≥ RBW.
Span:	Approximately five times the 20 dB bandwidth, centered on a hopping channel.
Detector Mode:	Peak
Sweep time:	Auto
Trace mode:	Max hold

(5) Use the marker-to-peak function to set the marker to the peak of the emission and record the results in the report.

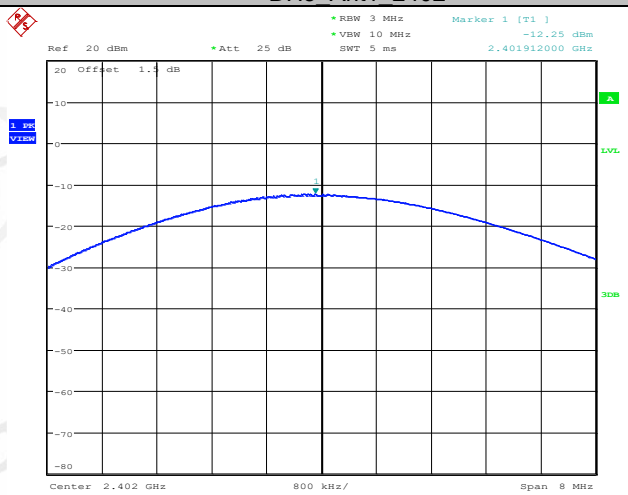
6.4. Test result

Test Engineer:	Zora Zhang	Test Site:	RF Measurement System 2#
Ambient Condition:	23.1℃,48.2%RH	Test Date:	2024.04.02-2024.04.02
Test Power Supply:	Battery	Sample Number:	S23111529-04

Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	EIRP[dBm]	EIRP Limit[dBm]	Verdict
DH5	Ant1	2402	-12.25	≤20.97	-10.28	≤36	PASS
		2441	-11.95	≤20.97	-9.98	≤36	PASS
		2480	-12.08	≤20.97	-10.11	≤36	PASS
2DH5	Ant1	2402	-11.76	≤20.97	-9.79	≤36	PASS
		2441	-11.48	≤20.97	-9.51	≤36	PASS
		2480	-11.64	≤20.97	-9.67	≤36	PASS
3DH5	Ant1	2402	-11.49	≤20.97	-9.52	≤36	PASS
		2441	-11.23	≤20.97	-9.26	≤36	PASS
		2480	-11.31	≤20.97	-9.34	≤36	PASS

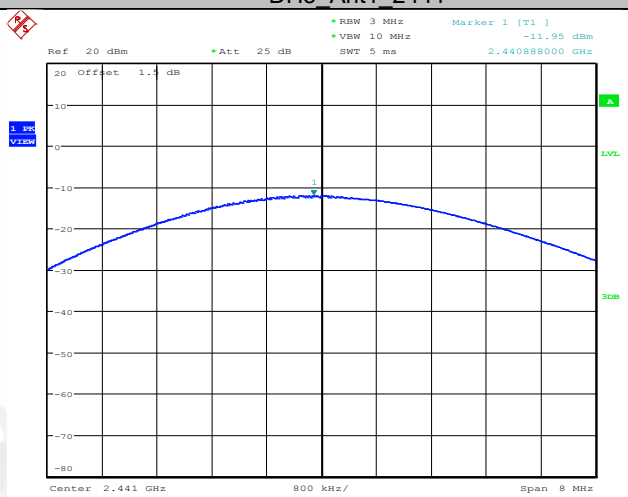
6.5. Test graphs

DH5_Ant1_2402



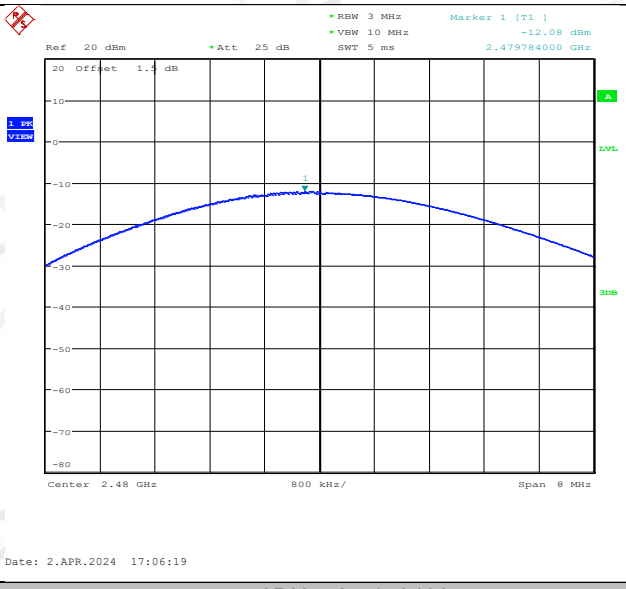
Date: 2.APR.2024 17:05:41

DH5_Ant1_2441

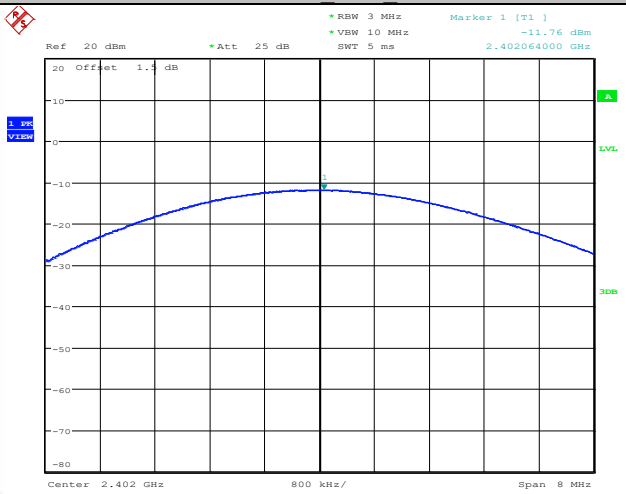


Date: 2.APR.2024 17:06:09

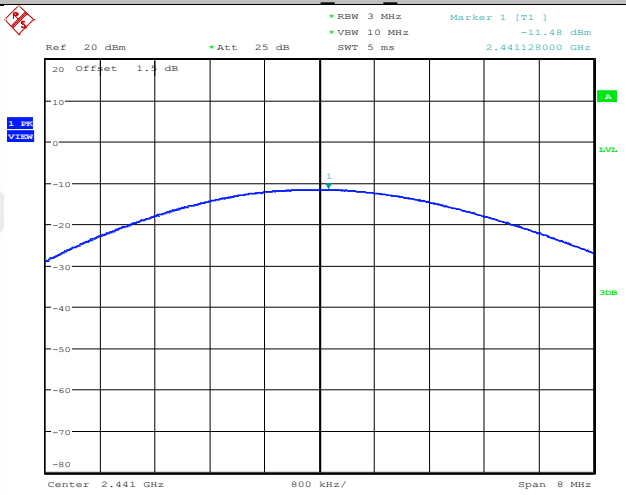
DH5_Ant1_2480



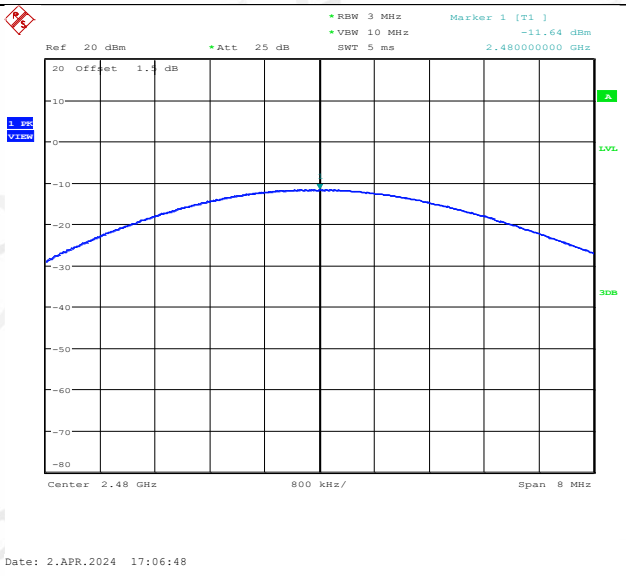
2DH5_Ant1_2402



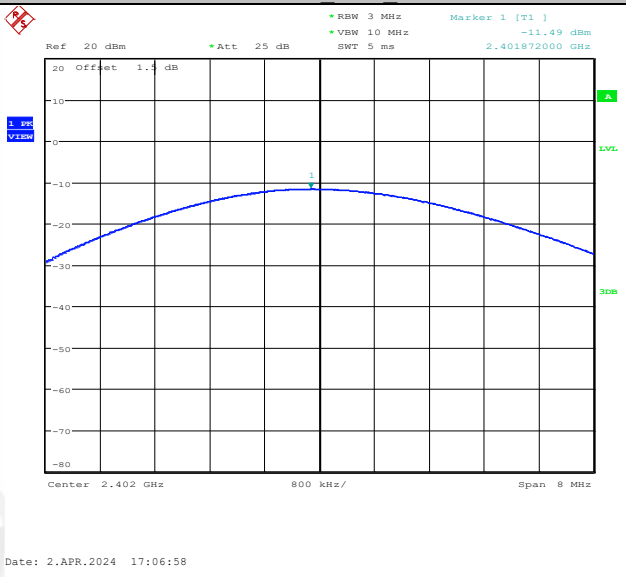
2DH5_Ant1_2441



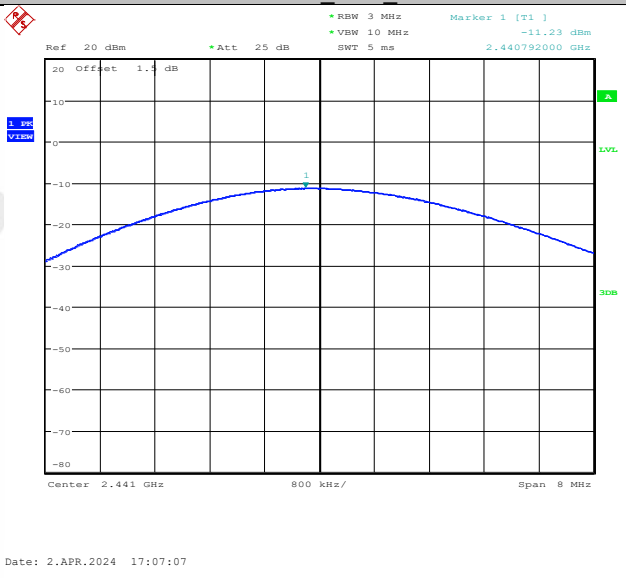
2DH5_Ant1_2480



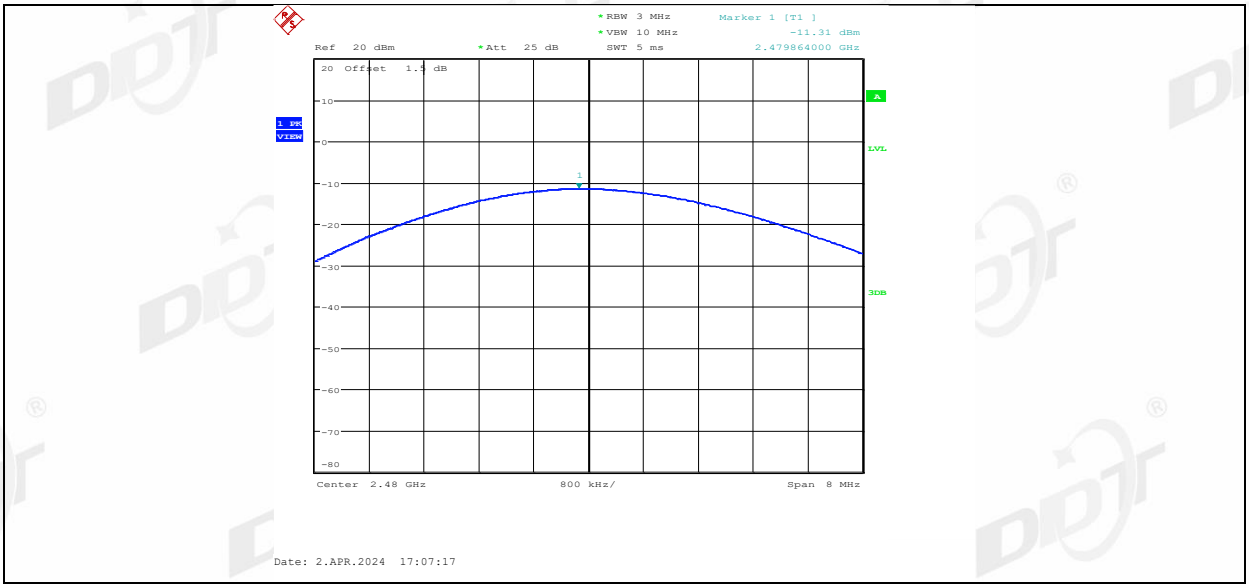
3DH5_Ant1_2402



3DH5_Ant1_2441

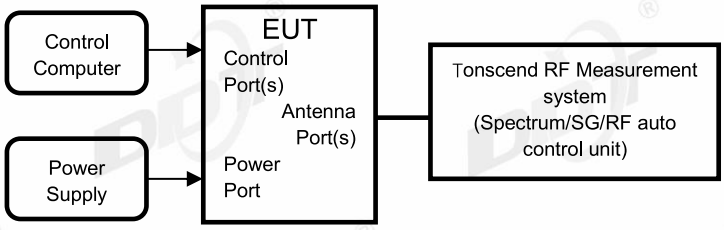


3DH5_Ant1_2480


RBW 3 MHz
VBW 10 MHz
SWT 5 ms
Marker 1 [T1]
-11.31 dBm
2.479864000 GHz
Ref 20 dBm
Att 25 dB
20 Offset 1.5 dB
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK VIEW
A
LVL
3DB
Center 2.48 GHz
800 kHz/
Span 8 MHz
Date: 2.APR.2024 17:07:17

7. Carrier Frequency Separation

7.1. Block diagram of test setup



7.2. Limits

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.

7.3. Test procedure

(1) The test according to ANSI C63.10-2013 clause 7.8.2.
(2) Connect EUT's antenna output to spectrum analyzer by RF cable, the path loss was compensated to the results.
(3) Set the EUT as maximum power setting and enable the EUT transmit continuously.
(4) Use the following spectrum analyzer settings for the maximum peak output power measurement:

RBW:	approximately 30% of the channel spacing
VBW:	VBW ≥ RBW.
Span:	Wide enough to capture the peaks of two adjacent channels.
Detector Mode:	Peak
Sweep time:	Auto
Trace mode:	Max hold

(5) Use the marker-delta function to determine the separation between the peaks of the adjacent channels and record the results in the report.

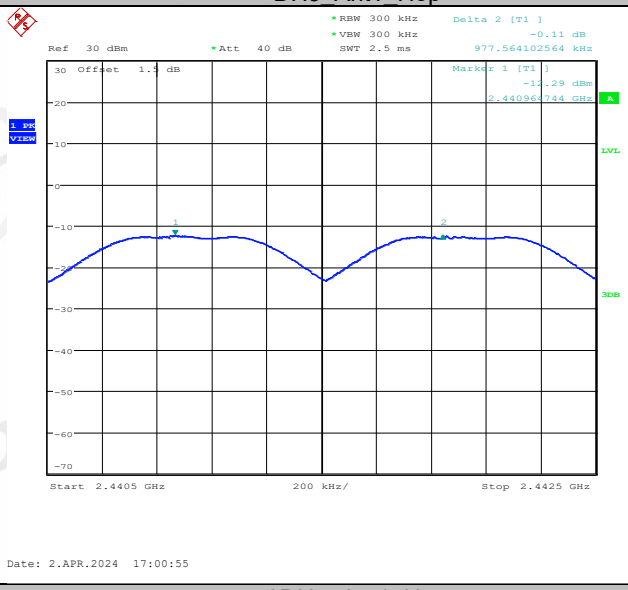
7.4. Test result

Test Engineer:	Zora Zhang	Test Site:	RF Measurement System 2#
Ambient Condition:	23.1℃,48.2%RH	Test Date:	2024.04.02-2024.04.02
Test Power Supply:	Battery	Sample Number:	S23111529-04

Test Mode	Antenna	Frequency [MHz]	Result [MHz]	Limit [MHz]	Verdict
DH5	Ant1	Hop	0.978	≥0.950	PASS
2DH5	Ant1	Hop	1.01	≥0.860	PASS
3DH5	Ant1	Hop	1.006	≥0.867	PASS

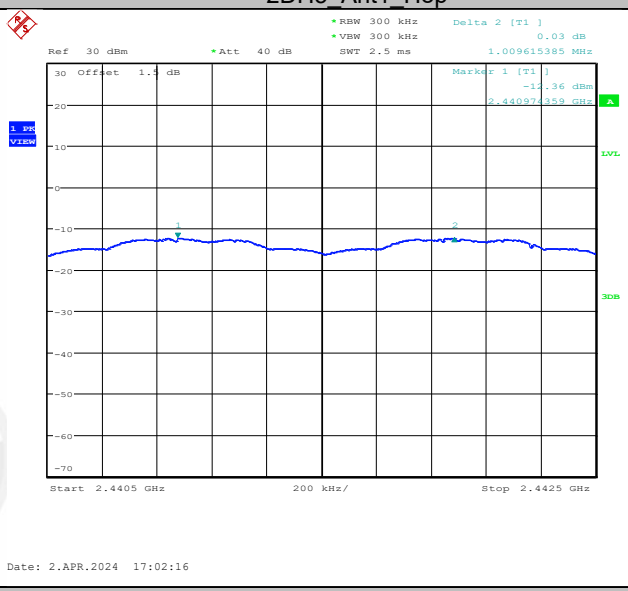
7.5. Test graphs

DH5_Ant1_Hop



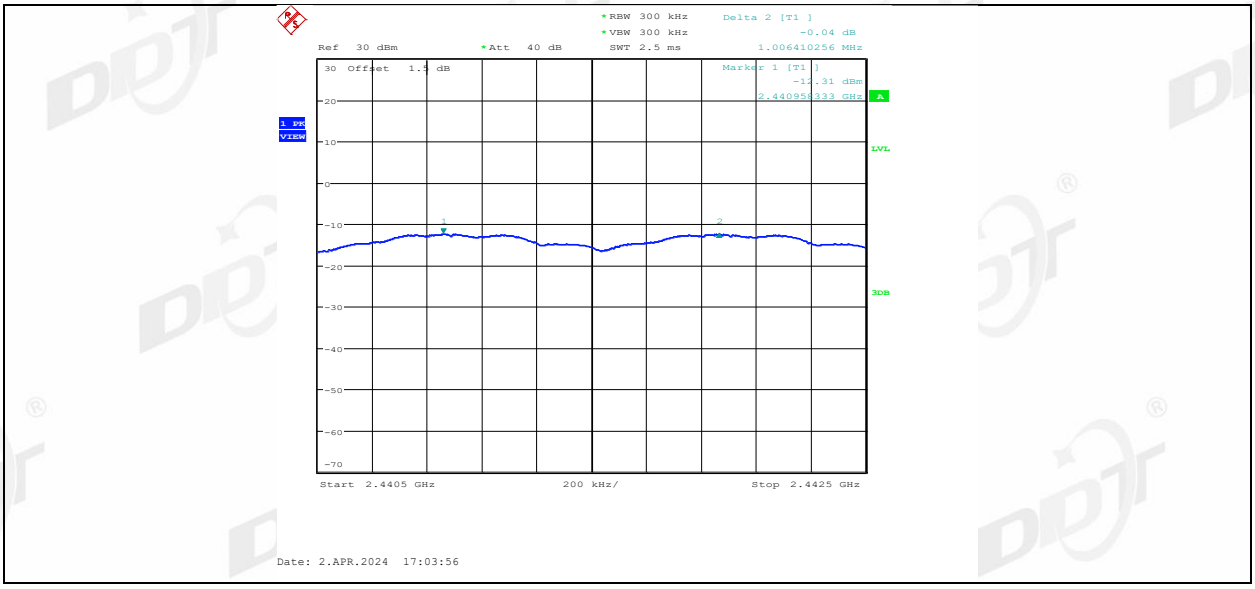
Date: 2.APR.2024 17:00:55

2DH5_Ant1_Hop



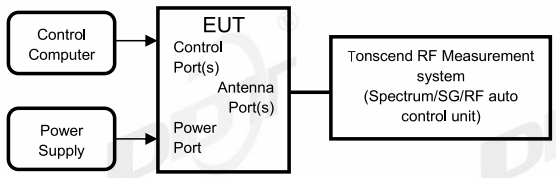
Date: 2.APR.2024 17:02:16

3DH5_Ant1_Hop


RBW 300 kHz
VBW 300 kHz
SWT 2.5 ms
Delta 2 [T1]
-0.04 dB
1.006410256 MHz
Ref 30 dBm
Att 40 dB
30 Offset 1.5 dB
Marker 1 [T1]
-12.31 dBm
2.440958333 GHz
1 PK VIEW
LVL
3DB
Start 2.4405 GHz
200 kHz/
Stop 2.4425 GHz
Date: 2.APR.2024 17:03:56

8. Dwell Time

8.1. Block diagram of test setup



8.2. Limits

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.

8.3. Test procedure

(1) The test according to ANSI C63.10-2013 clause 7.8.4.
(2) Connect EUT's antenna output to spectrum analyzer by RF cable, the path loss was compensated to the results.
(3) Set the EUT as maximum power setting and enable the EUT transmit continuously.
(4) Use the following spectrum analyzer settings for the maximum peak output power measurement:

RBW:	≤ channel spacing and where possible RBW should be set >>1 / T
VBW:	VBW ≥ RBW.
Span:	Zero span, centered on a hopping channel.
Detector Mode:	Peak
Sweep time:	Auto
Trace mode:	Clear Write.

(5) The test period: T= 0.4 Second/Channel x 79 Channel = 31.6 s
(6) Measure the hopping number and on time of each pulse with spectrum analyzer in zero span set, and calculate dwell time with formula Dwell time = total hops *pulse's on time.
(7) Measure and record the results in the report.

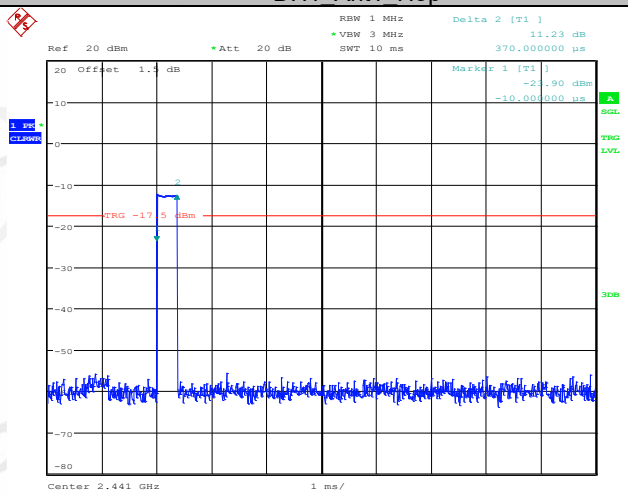
8.4. Test result

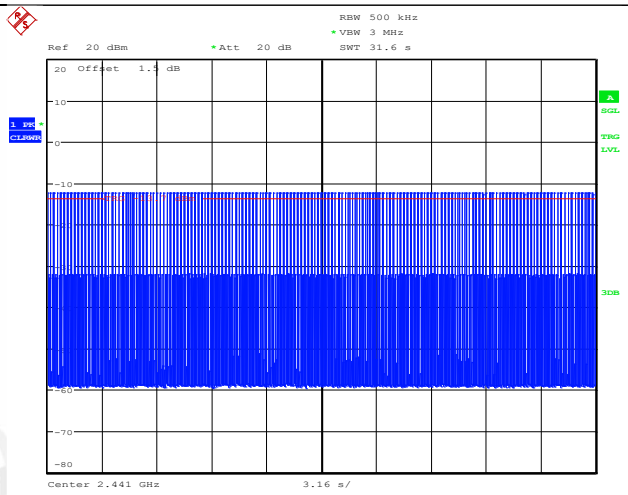
Test Engineer:	Zora Zhang	Test Site:	RF Measurement System 2#
Ambient Condition:	23.1℃,48.2%RH	Test Date:	2024.04.02-2024.04.02
Test Power Supply:	Battery	Sample Number:	S23111529-04

Test Mode	Antenna	Frequency [MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.370	317	0.117	≤0.4	PASS
DH3	Ant1	Hop	1.620	150	0.243	≤0.4	PASS
DH5	Ant1	Hop	2.880	102	0.294	≤0.4	PASS
2DH1	Ant1	Hop	0.370	318	0.118	≤0.4	PASS
2DH3	Ant1	Hop	1.630	153	0.249	≤0.4	PASS
2DH5	Ant1	Hop	2.880	100	0.288	≤0.4	PASS
3DH1	Ant1	Hop	0.370	316	0.117	≤0.4	PASS
3DH3	Ant1	Hop	1.630	149	0.243	≤0.4	PASS
3DH5	Ant1	Hop	2.890	107	0.309	≤0.4	PASS

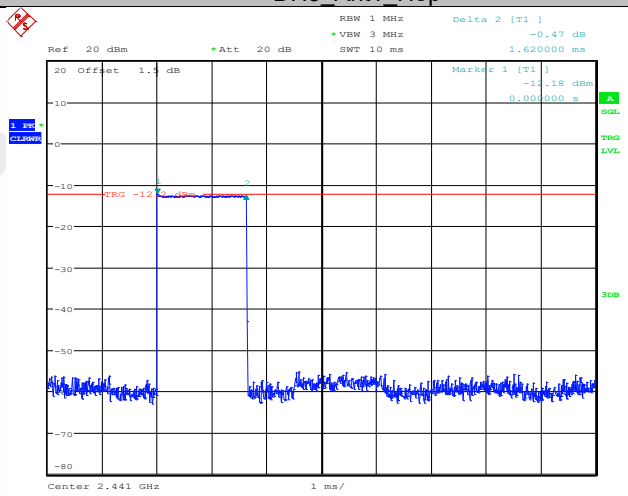
8.5. Test graphs

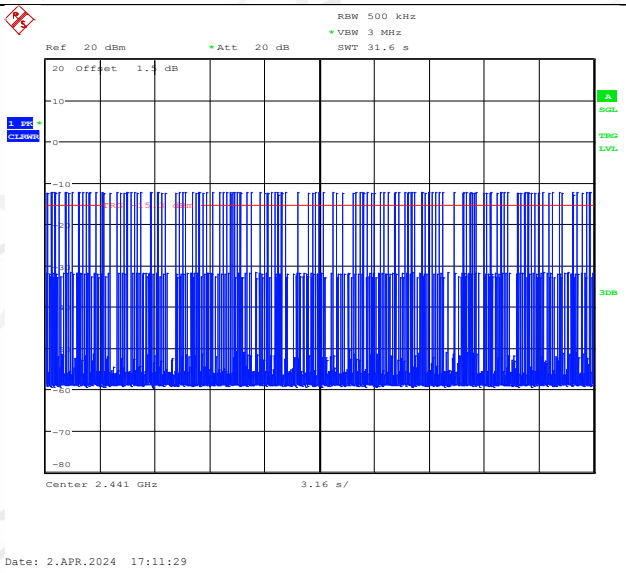
DH1_Ant1_Hop



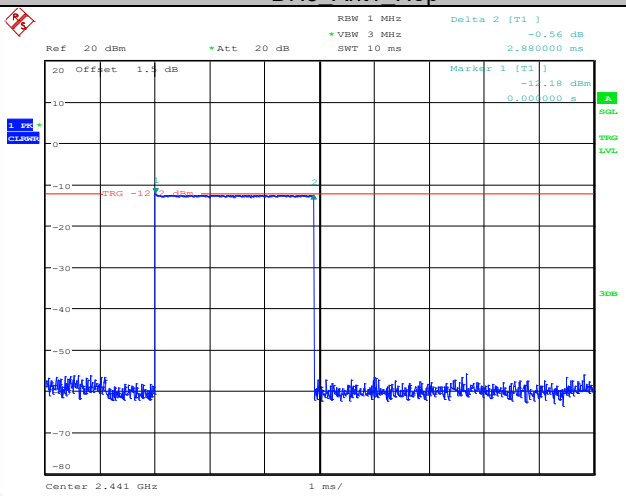


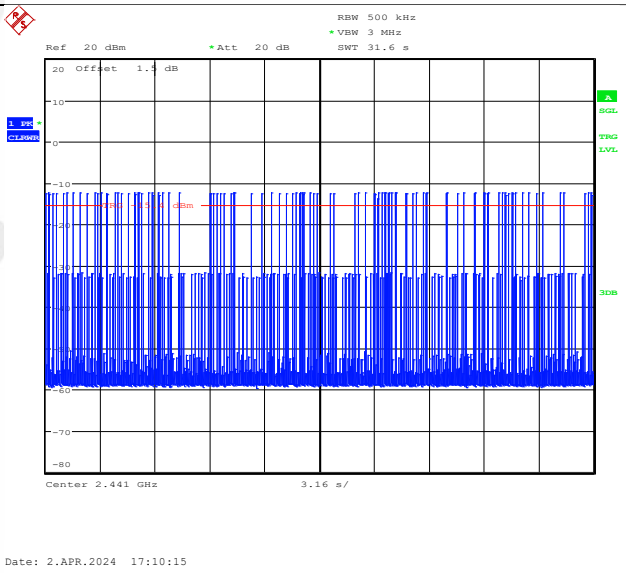
DH3_Ant1_Hop



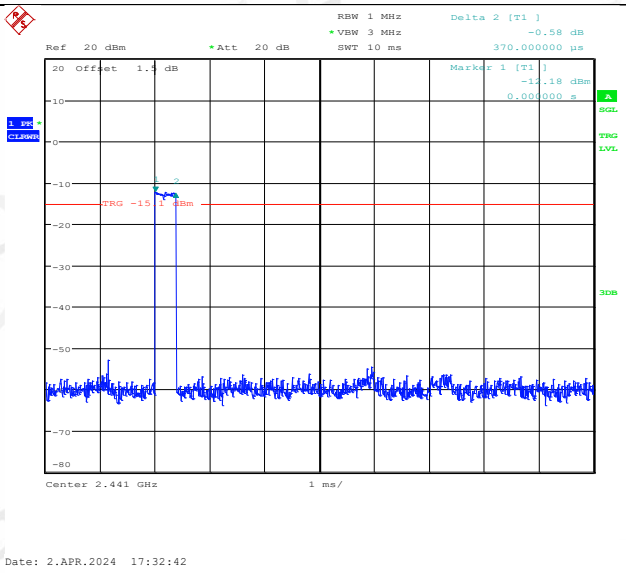


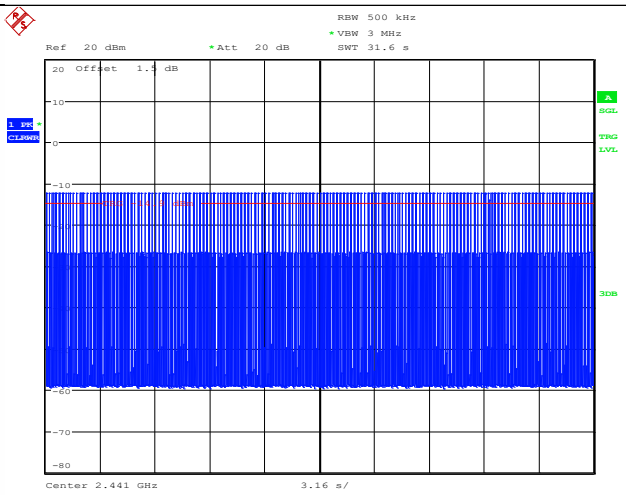
DH5_Ant1_Hop



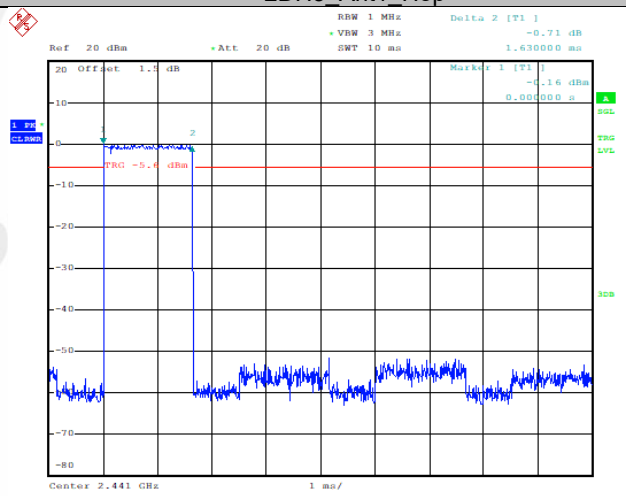


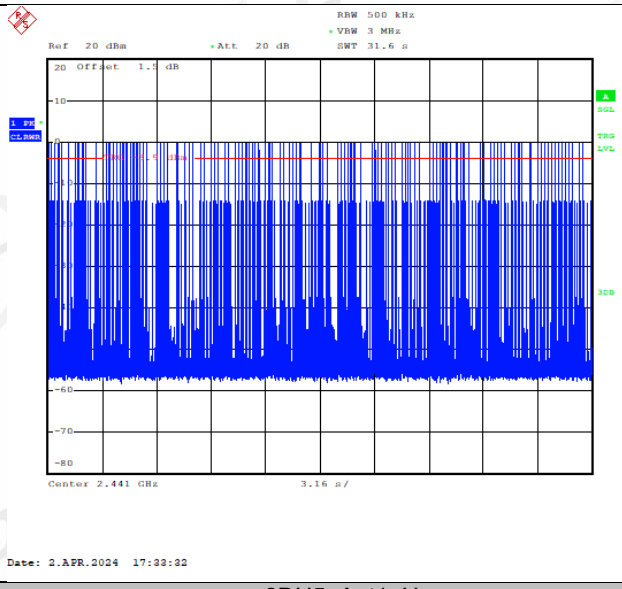
2DH1_Ant1_Hop



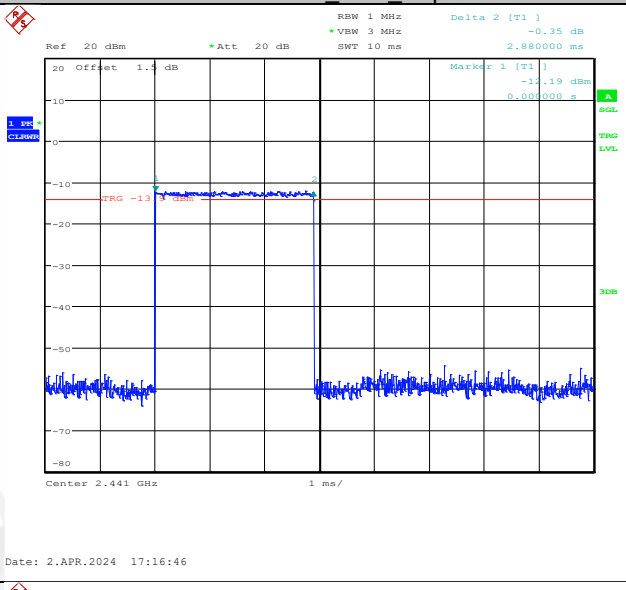


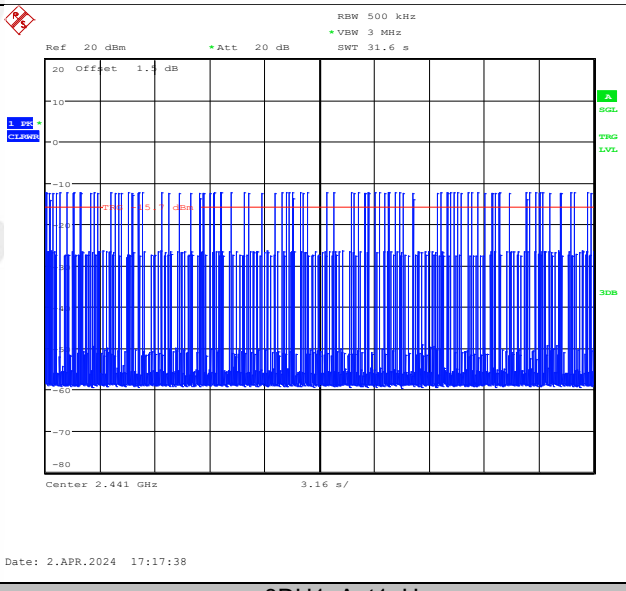
2DH3_Ant1_Hop



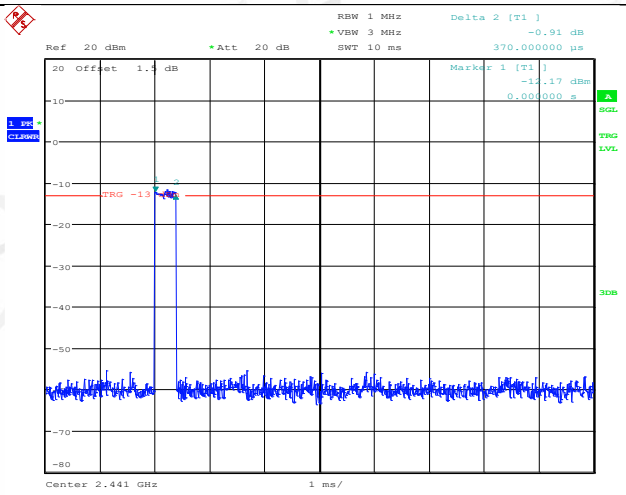


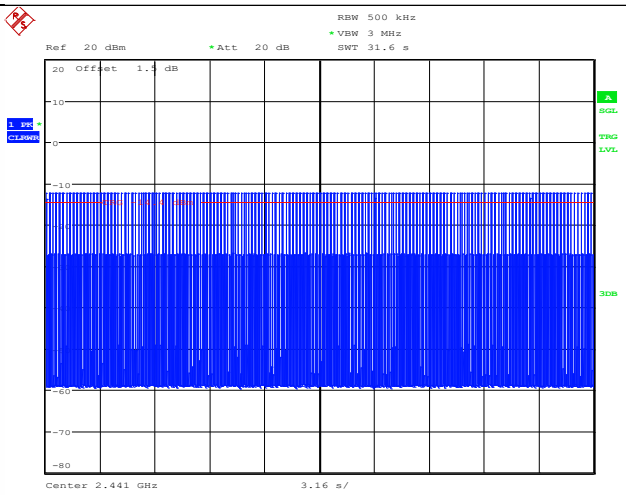
2DH5_Ant1_Hop



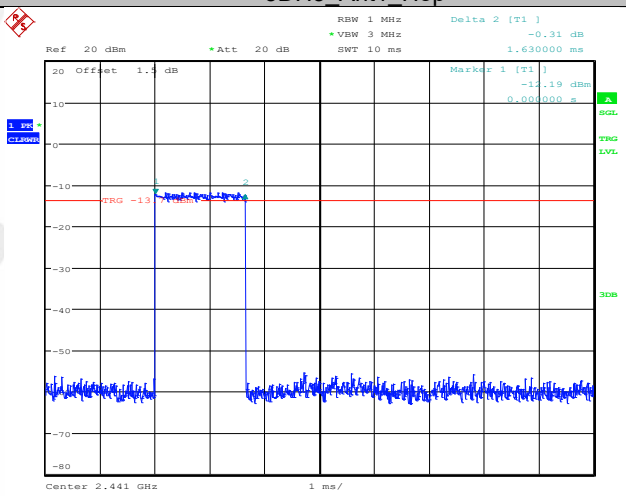


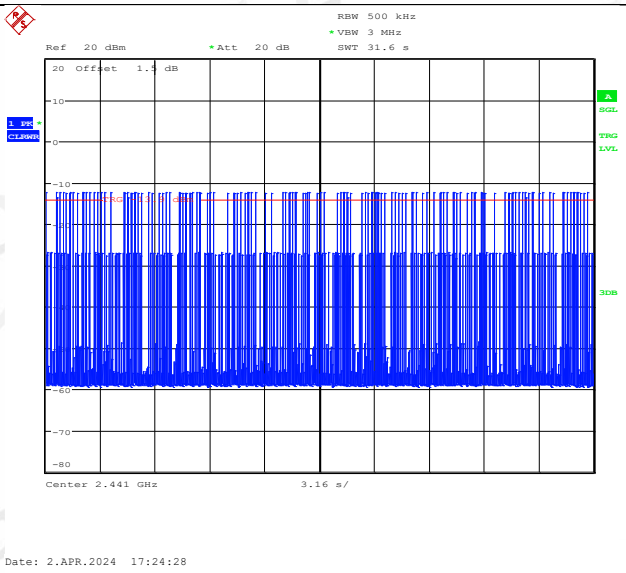
3DH1_Ant1_Hop





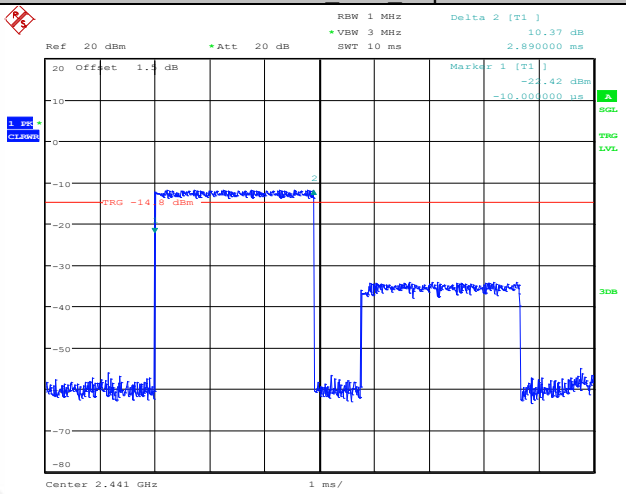
3DH3_Ant1_Hop



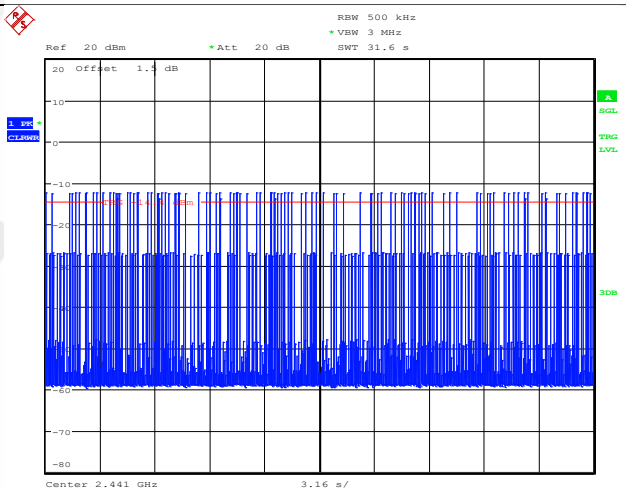


Date: 2.APR.2024 17:24:28

3DH5_Ant1_Hop



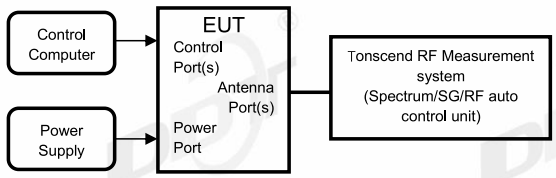
Date: 2.APR.2024 17:22:17



Date: 2.APR.2024 17:23:00

9. Number of Hopping Channel

9.1. Block diagram of test setup



9.2. Limits

Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels.

9.3. Test procedure

(1) The test according to ANSI C63.10-2013 clause 7.8.3.
(2) Connect EUT's antenna output to spectrum analyzer by RF cable, the path loss was compensated to the results.
(3) Set the EUT as maximum power setting and enable the EUT transmit continuously.
(4) Use the following spectrum analyzer settings for the maximum peak output power measurement:

RBW:	RBW to less than 30% of the channel spacing or the 20 dB bandwidth, whichever is smaller.
VBW:	VBW ≥ RBW.
Span:	The frequency band of operation
Detector Mode:	Peak
Sweep time:	Auto
Trace mode:	Max hold

(5) Measure the hopping number and record the results in the report.
(6) Measure and record the results in the report.

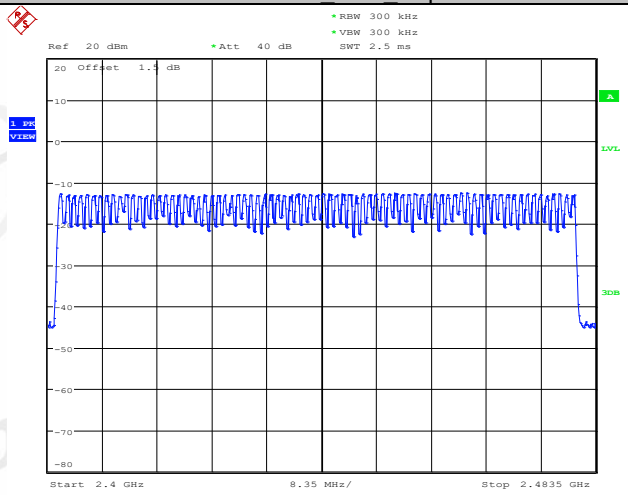
9.4. Test result

Test Engineer:	Zora Zhang	Test Site:	RF Measurement System 2#
Ambient Condition:	23.1℃,48.2%RH	Test Date:	2024.04.02-2024.04.02
Test Power Supply:	Battery	Sample Number:	S23111529-04

Test Mode	Antenna	Frequency [MHz]	Result [Num]	Limit [Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

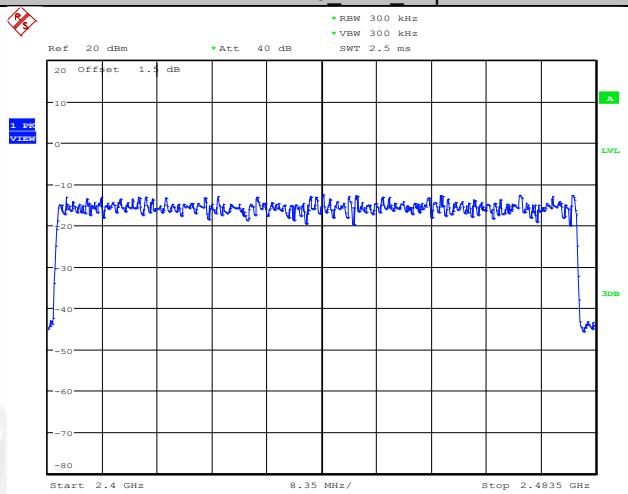
9.5. Test graphs

DH5_Ant1_Hop



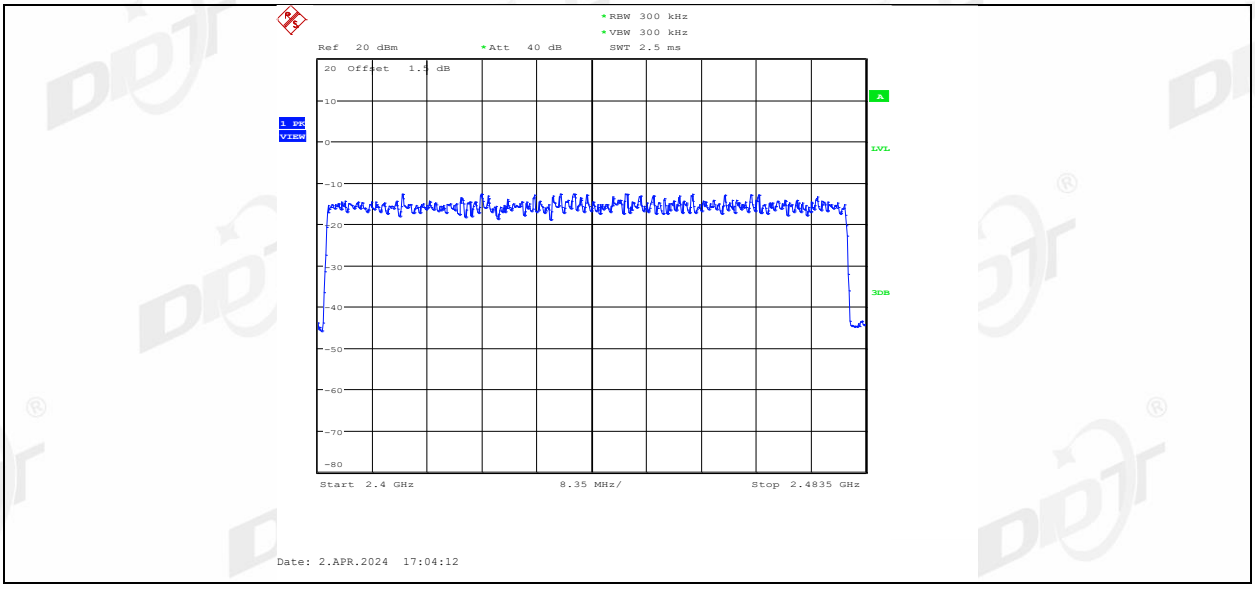
Date: 2.APR.2024 17:01:15

2DH5_Ant1_Hop



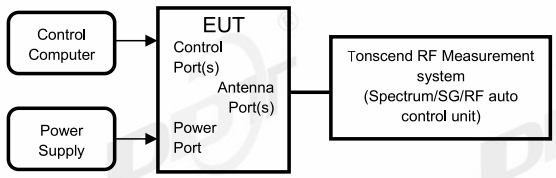
Date: 2.APR.2024 17:02:31

3DH5_Ant1_Hop


RBW 300 kHz
VBW 300 kHz
Ref 20 dBm
Att 40 dB
SWT 2.5 ms
Offset 1.5 dB
1 PK
VIEW
A
LVL
3DB
Start 2.4 GHz
8.35 MHz/
Stop 2.4835 GHz
Date: 2.APR.2024 17:04:12

10. Band Edge Compliance (Conducted Method)

10.1. Block diagram of test setup



10.2. Limit

All restriction band should comply with 15.209, other emission should be at least 20dB below the fundamental.

10.3. Test procedure

(1) Connect EUT's antenna output to spectrum analyzer by RF cable.
(2) Establish a reference level by using the following procedure:

RBW:	100 kHz
VBW:	300 kHz
Span	Encompass frequency range to be measured
Detector Mode:	Peak
Sweep time:	Auto
Trace mode	Max hold

(3) Allow the trace to stabilize, use the peak marker function to determine the maximum peak power level to establish the reference level.
(4) Then mark the maximum amplitude of all unwanted emissions outside of the authorized frequency band.

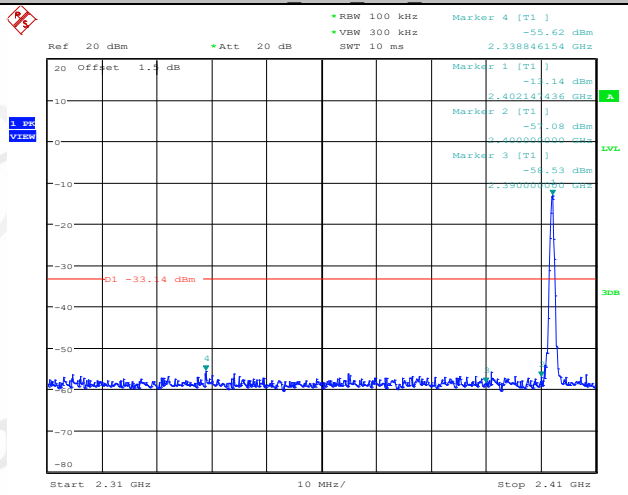
10.4. Test result

Test Engineer:	Zora Zhang	Test Site:	RF Measurement System 2#
Ambient Condition:	23.1℃,48.2%RH	Test Date:	2024.04.02-2024.04.02
Test Power Supply:	Battery	Sample Number:	S23111529-04

Mode	Freq. (MHz)	Verdict
GFSK	Hopping off 2402	Pass
	Hopping off 2480	Pass
	Hopping on	Pass
π/4-DQPSK	Hopping off 2402	Pass
	Hopping off 2480	Pass
	Hopping on	Pass
8DPSK	Hopping off 2402	Pass
	Hopping off 2480	Pass
	Hopping on	Pass

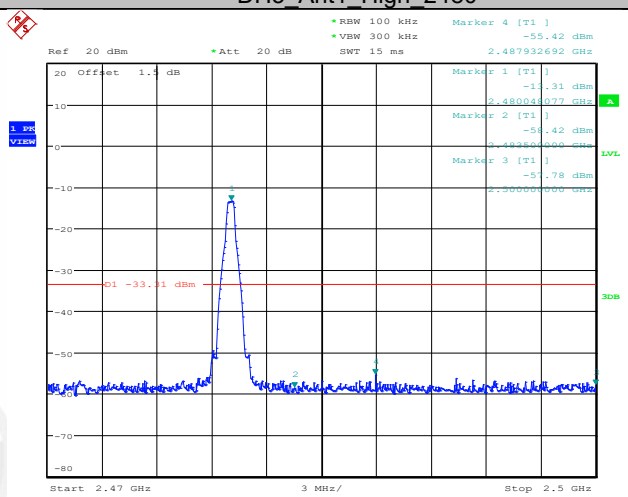
10.5. Test graphs

DH5_Ant1_Low_2402



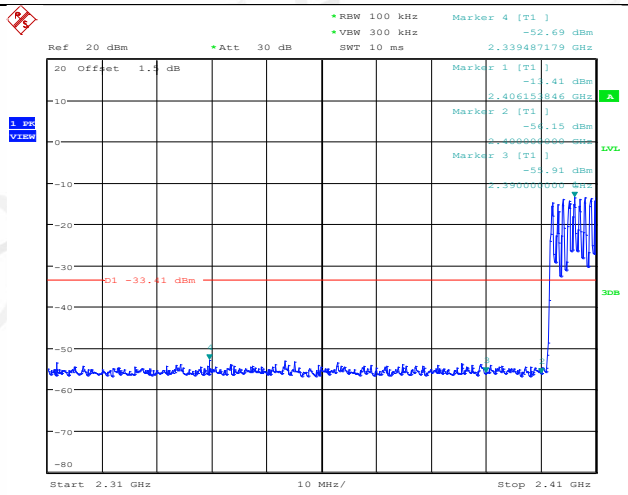
Date: 2.APR.2024 16:46:06

DH5_Ant1_High_2480

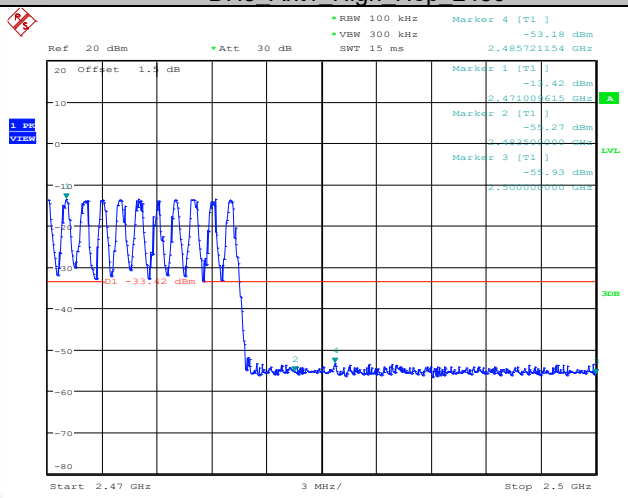


Date: 2.APR.2024 16:49:24

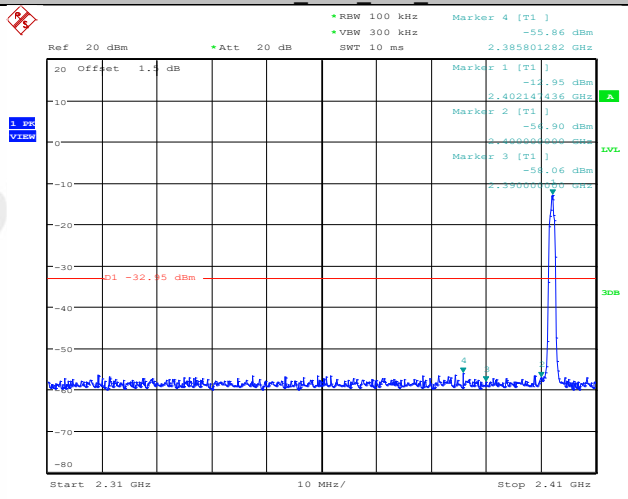
DH5_Ant1_Low_Hop_2402



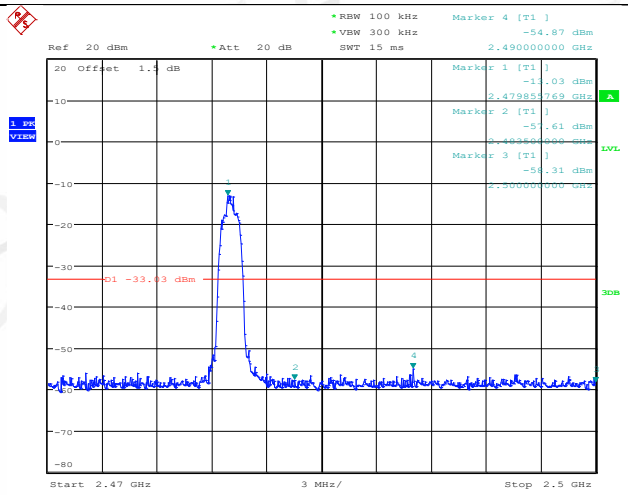
DH5_Ant1_High_Hop_2480



2DH5_Ant1_Low_2402



2DH5_Ant1_High_2480



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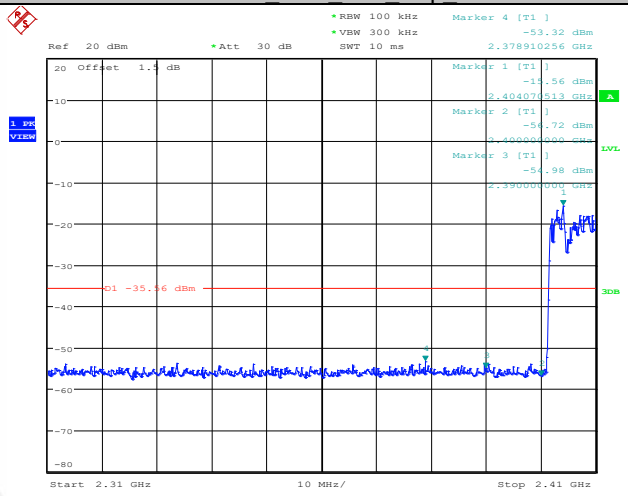

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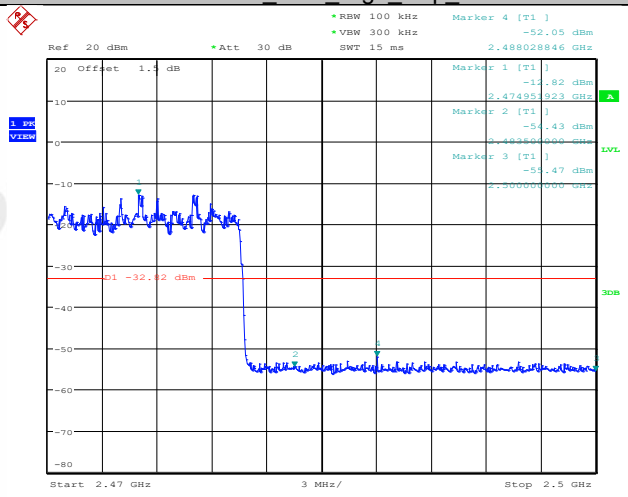

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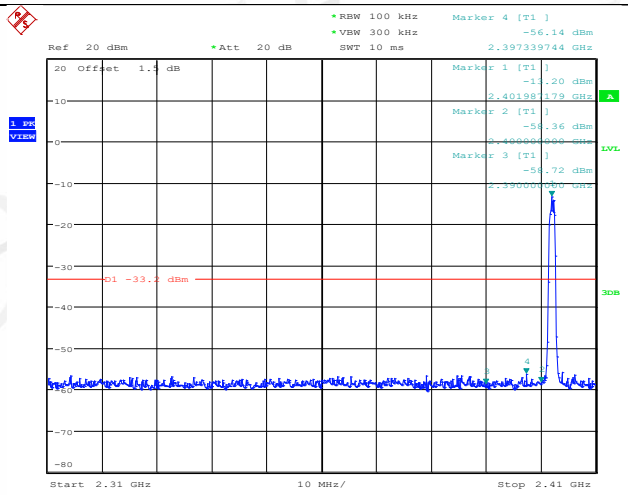

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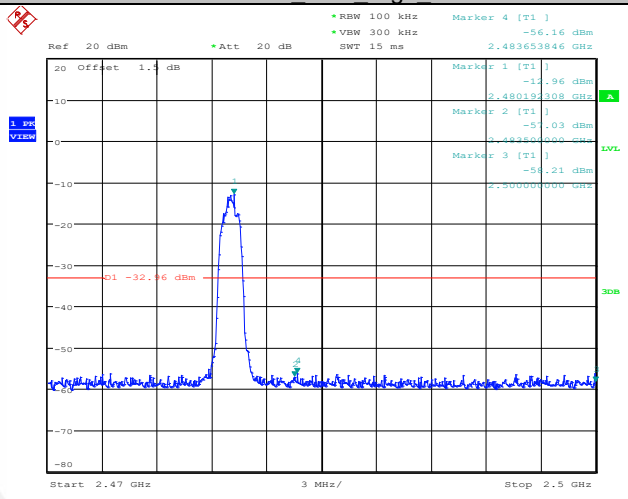

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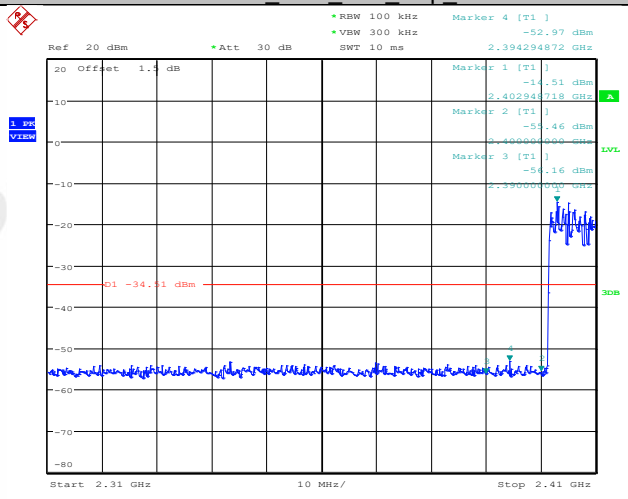
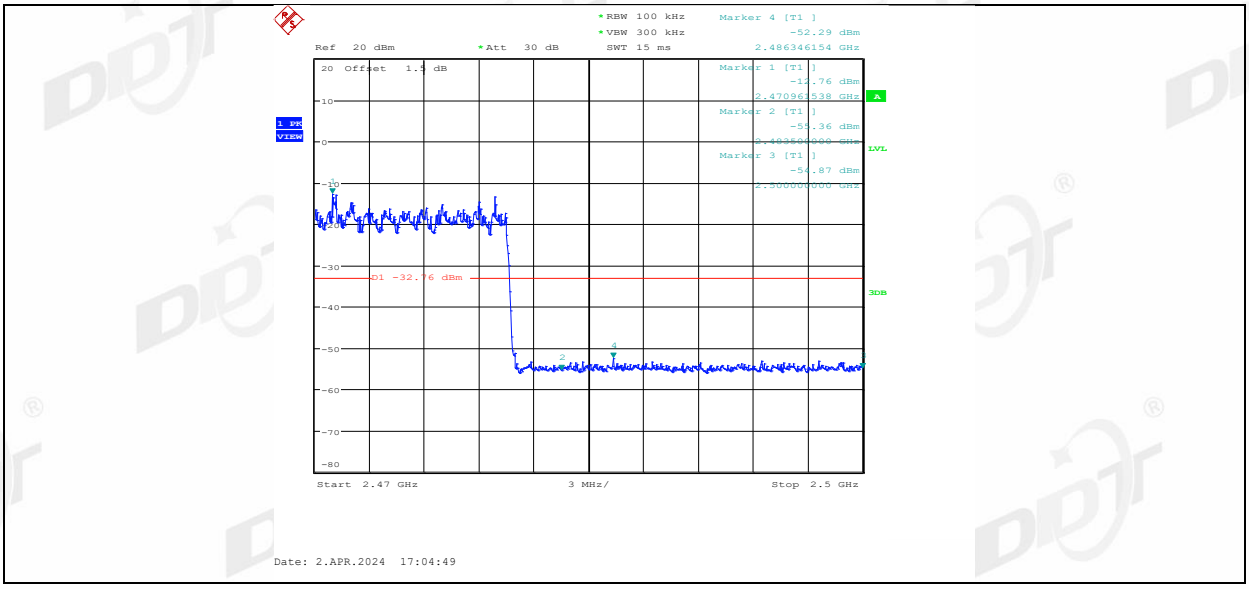
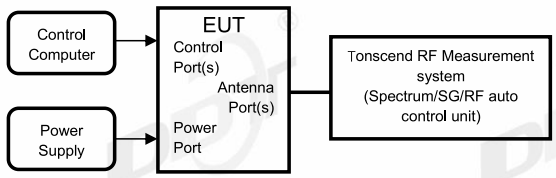


3DH5_Ant1_High_Hop_2480


RBW 100 kHz
VBW 300 kHz
SWT 15 ms
Marker 4 [T1]
-52.29 dBm
2.486346154 GHz
Ref 20 dBm
Att 30 dB
20 Offset 1.5 dB
Marker 1 [T1]
-12.76 dBm
2.470961538 GHz
Marker 2 [T1]
-55.36 dBm
2.483500000 GHz
Marker 3 [T1]
-54.87 dBm
2.500000000 GHz
D1 -32.76 dBm
Start 2.47 GHz
3 MHz/
Stop 2.5 GHz
Date: 2.APR.2024 17:04:49

11. RF Conducted Spurious Emissions

11.1. Block diagram of test setup



11.2. Limits

In any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in 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.

11.3. Test procedure

(1) Connect EUT's antenna output to spectrum analyzer by RF cable.
(2) Establish a reference level by using the following procedure:

Center frequency	Test frequency
RBW:	100 kHz
VBW:	300 kHz
Span	Wide enough to capture the peak level of the in-band emission
Detector Mode:	Peak
Sweep time:	Auto
Trace mode	Max hold

(3) Allow the trace to stabilize, use the peak marker function to determine the maximum peak power level to establish the reference level.
(4) Set the spectrum analyzer as follows:

RBW:	100 kHz
VBW:	300 kHz
Span	Encompass frequency range to be measured
Number of measurement points	≥Span/RBW
Detector Mode:	Peak
Sweep time:	Auto
Trace mode	Max hold

Allow the trace to stabilize, use the peak marker function to determine the maximum amplitude of all unwanted emissions outside of the authorized frequency band

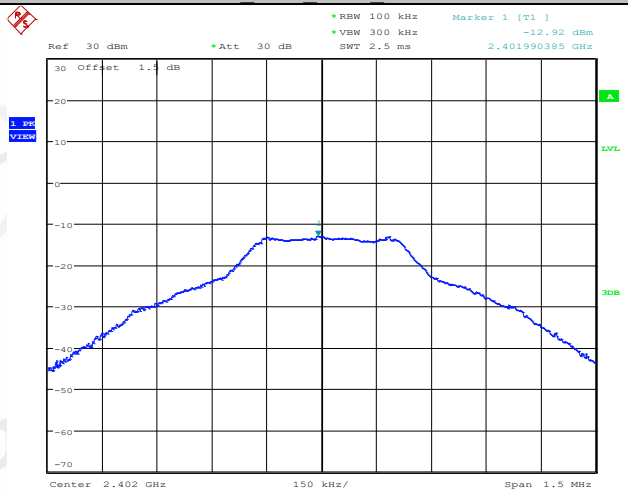
11.4. Test result

Test Engineer:	Zora Zhang	Test Site:	RF Measurement System 2#
Ambient Condition:	23.1℃,48.2%RH	Test Date:	2024.04.02-2024.04.02
Test Power Supply:	Battery	Sample Number:	S23111529-04

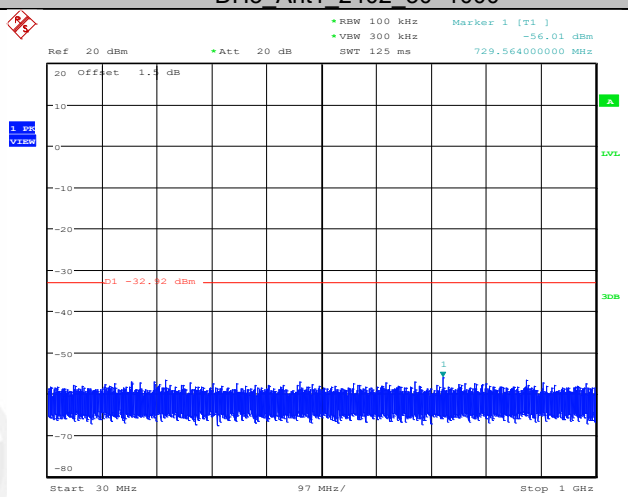
Mode	Freq. (MHz)	Verdict
GFSK	Hopping off 2402	Pass
	Hopping off 2441	Pass
	Hopping off 2480	Pass
π/4-DQPSK	Hopping off 2402	Pass
	Hopping off 2441	Pass
	Hopping off 2480	Pass
8DPSK	Hopping off 2402	Pass
	Hopping off 2441	Pass
	Hopping off 2480	Pass

11.5. Test graphs

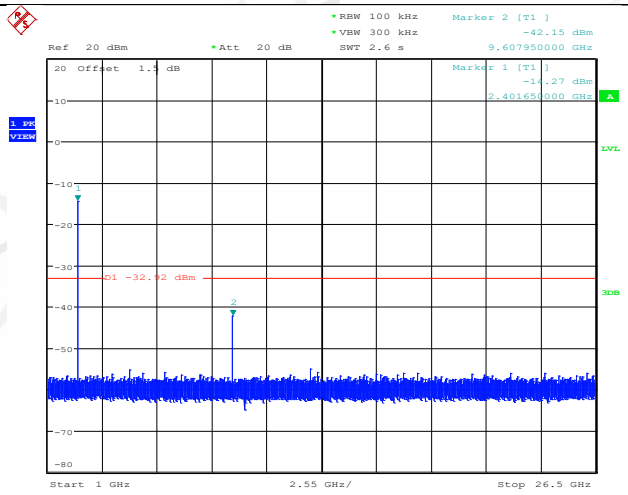
DH5_Ant1_2402_0~Reference



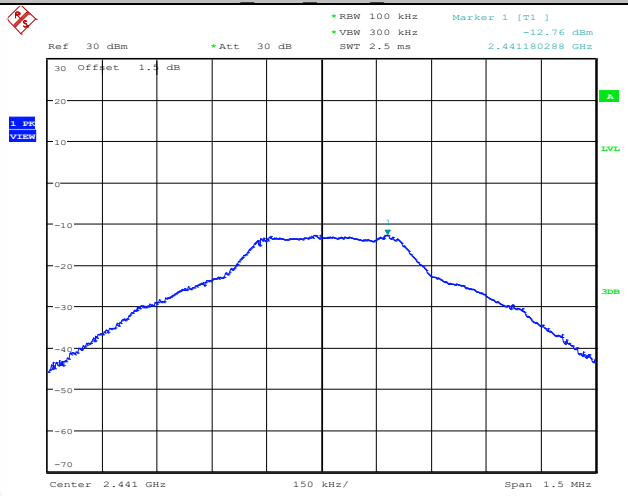
DH5_Ant1_2402_30~1000



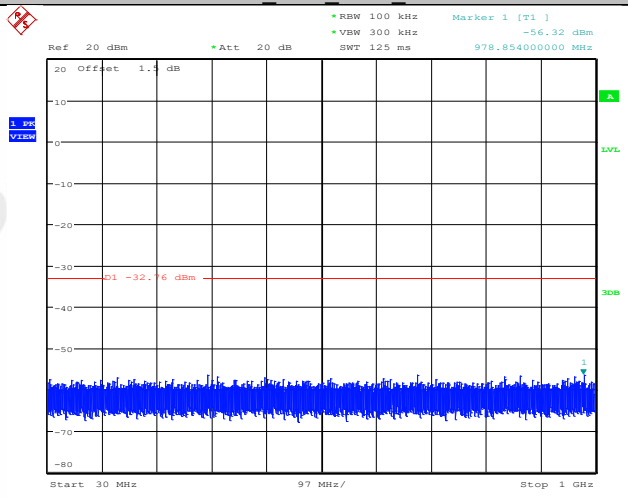
DH5_Ant1_2402_1000~26500



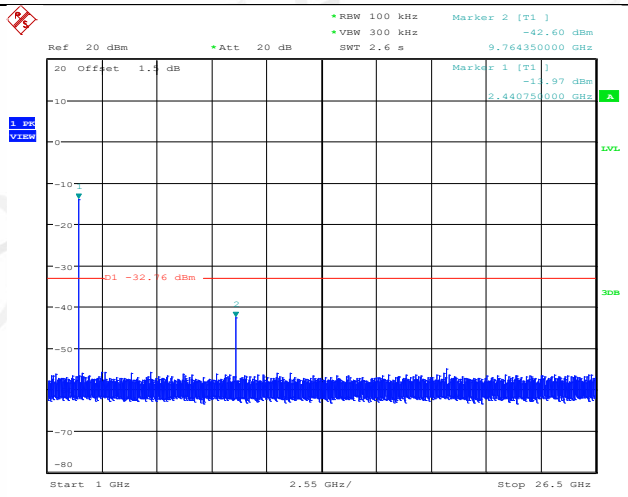
DH5_Ant1_2441_0~Reference



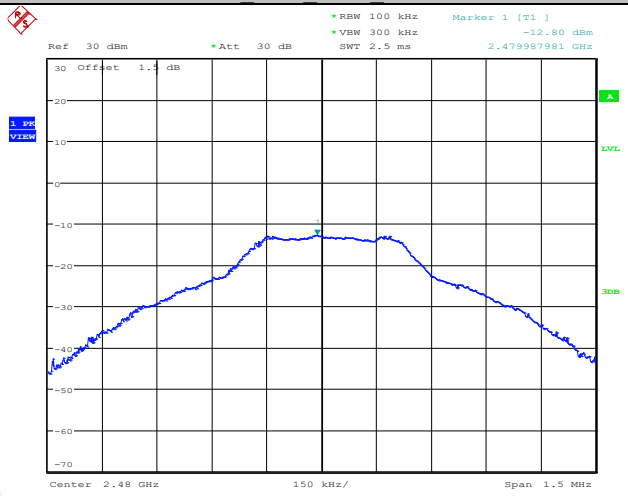
DH5_Ant1_2441_30~1000



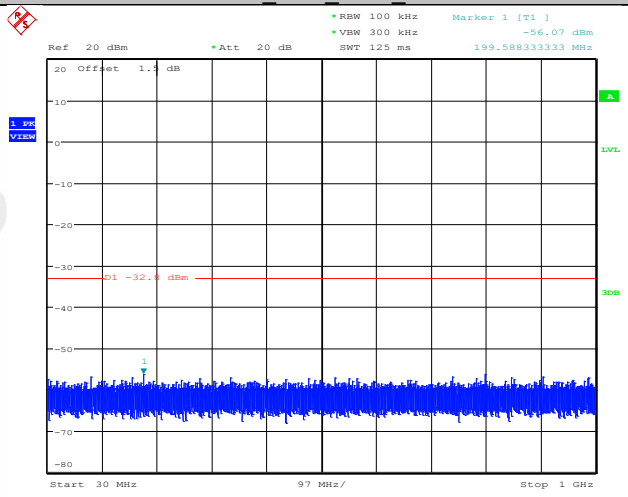
DH5_Ant1_2441_1000~26500



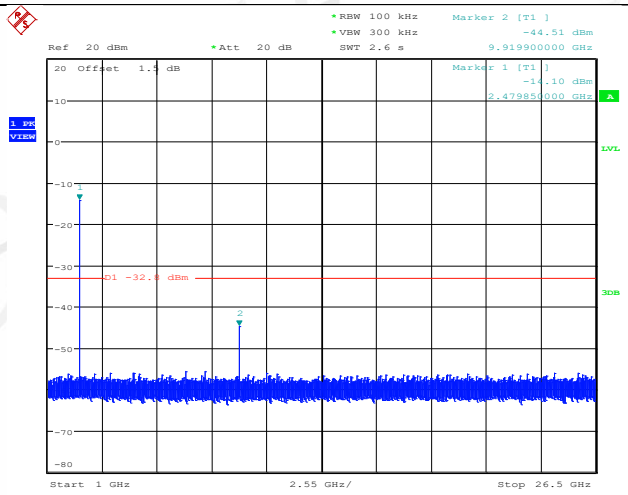
DH5_Ant1_2480_0~Reference



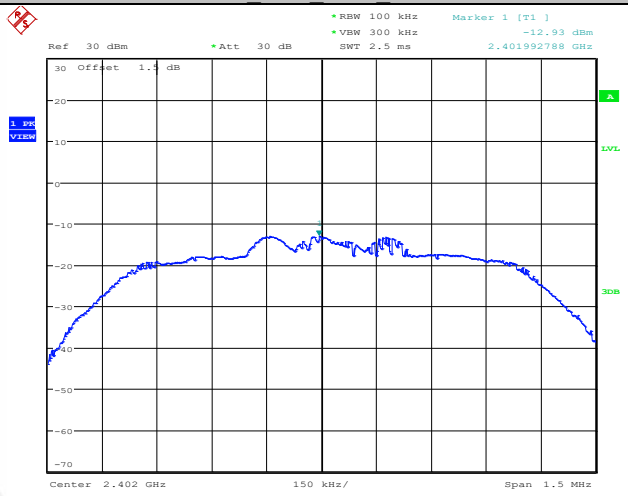
DH5_Ant1_2480_30~1000



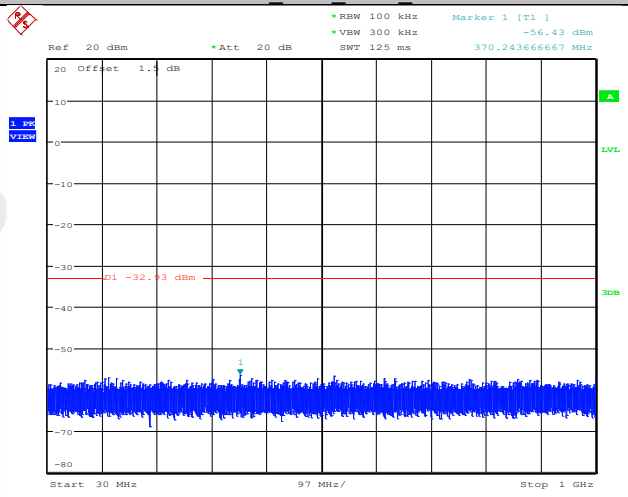
DH5_Ant1_2480_1000~26500



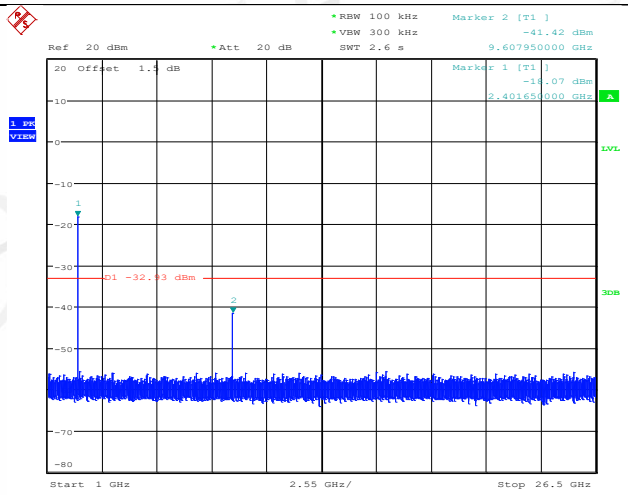
2DH5_Ant1_2402_0~Reference



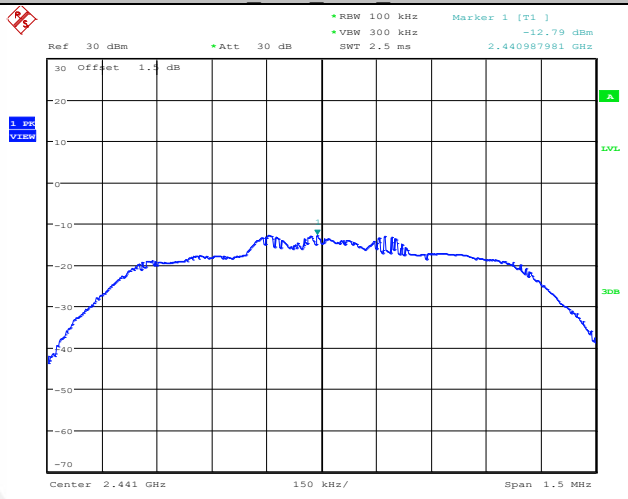
2DH5_Ant1_2402_30~1000



2DH5_Ant1_2402_1000~26500



2DH5_Ant1_2441_0~Reference



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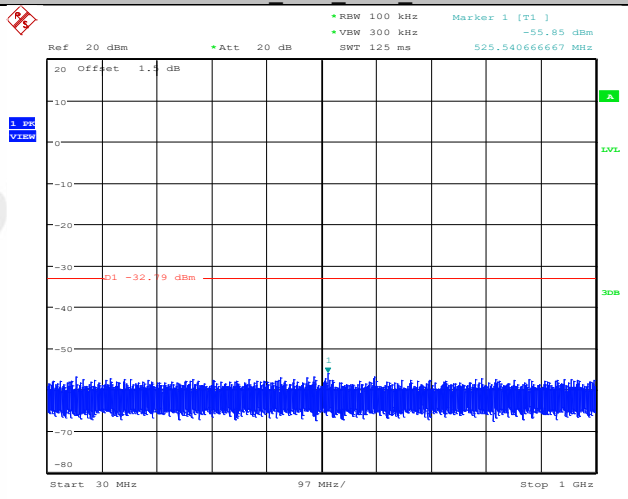
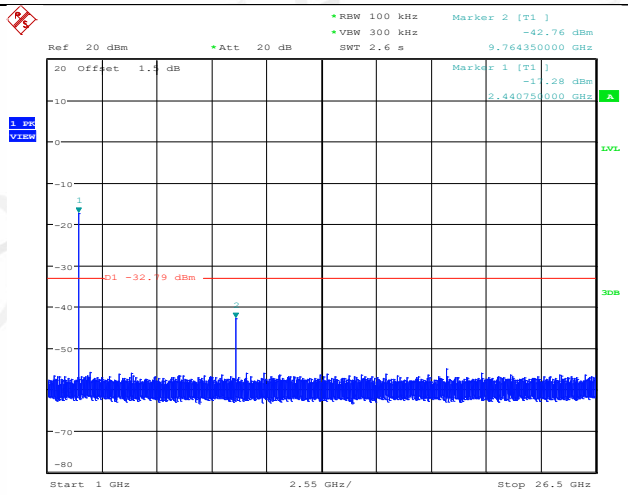
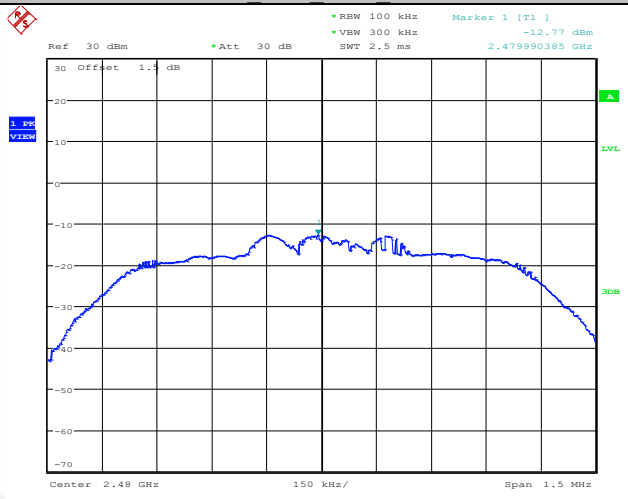


2DH5_Ant1_2441_1000~26500



2DH5_Ant1_2480_0~Reference



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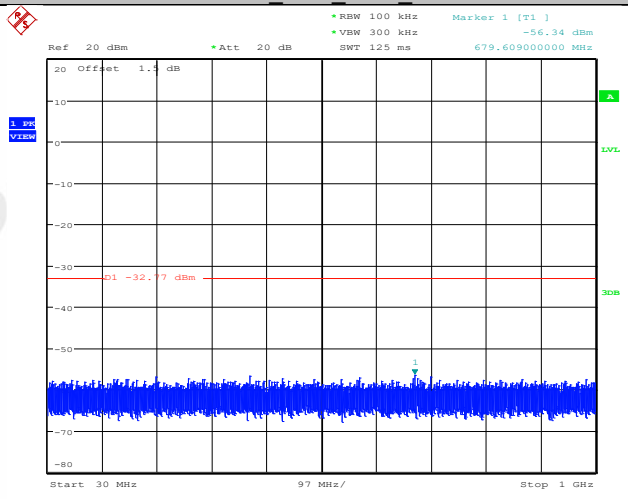
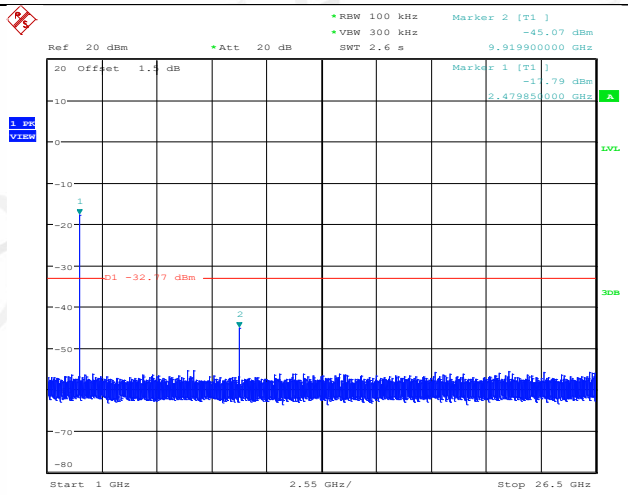
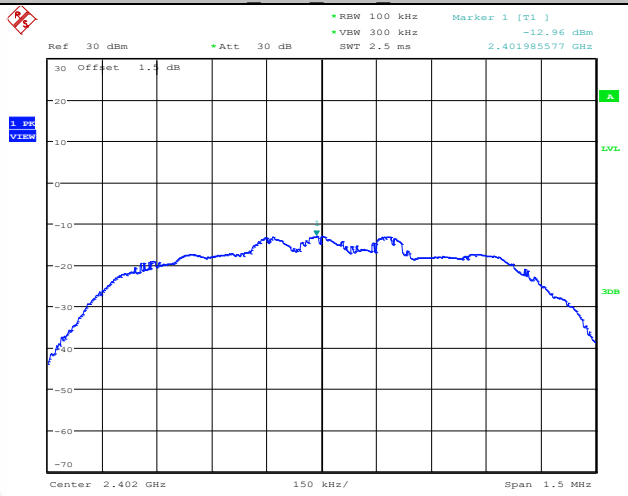


2DH5_Ant1_2480_1000~26500



3DH5_Ant1_2402_0~Reference



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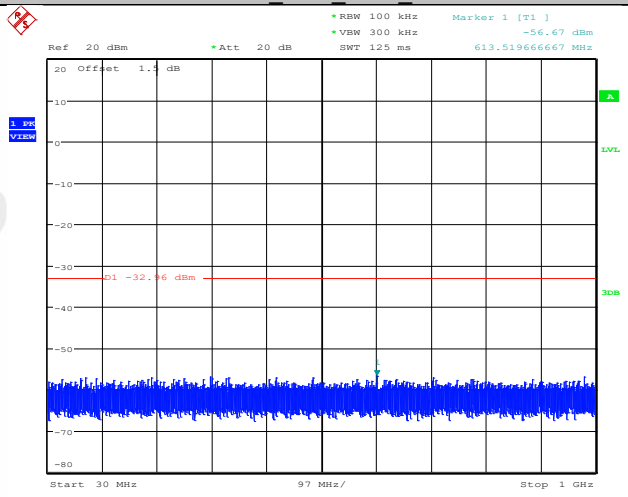
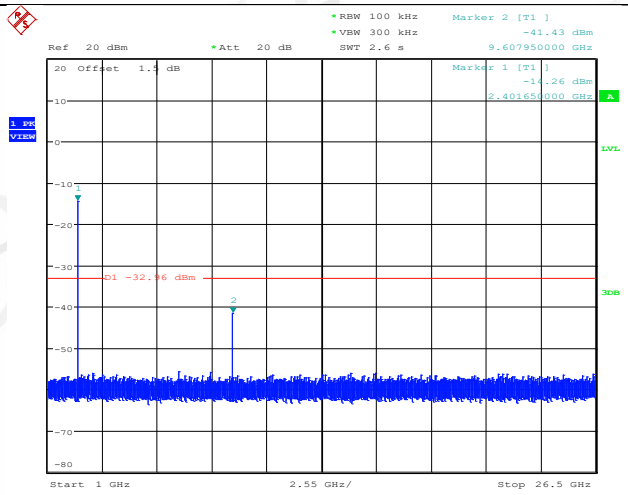


3DH5_Ant1_2402_1000~26500



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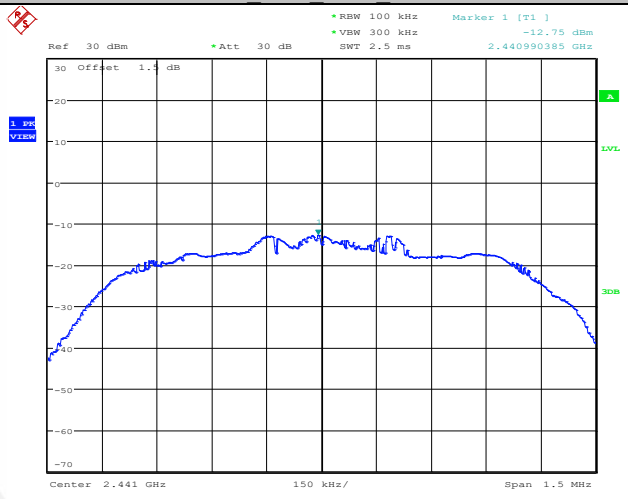

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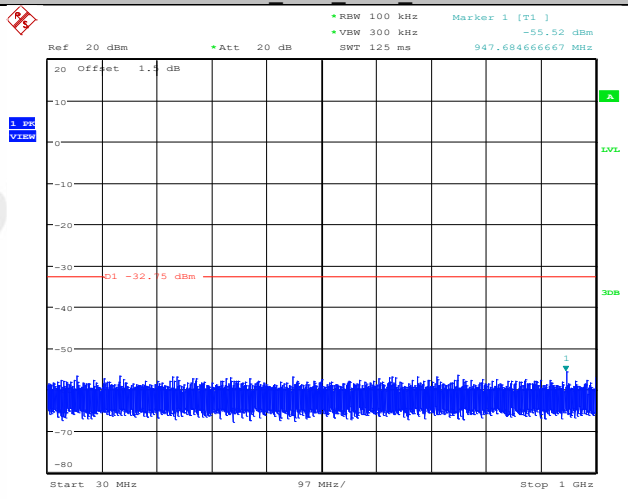
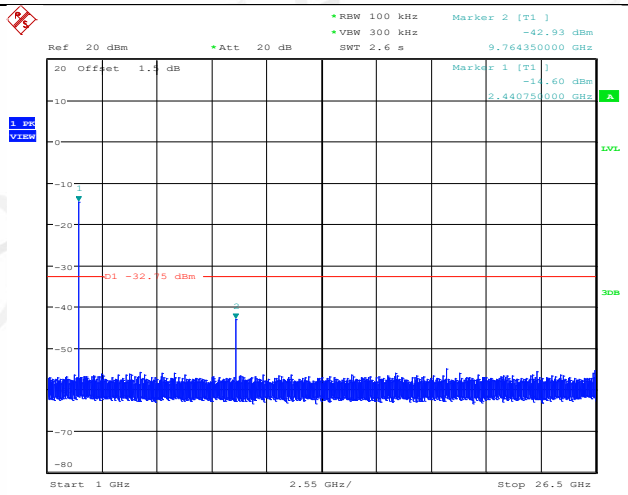
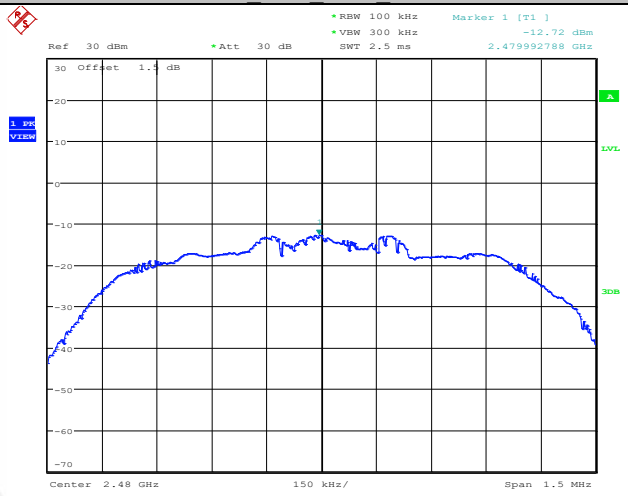


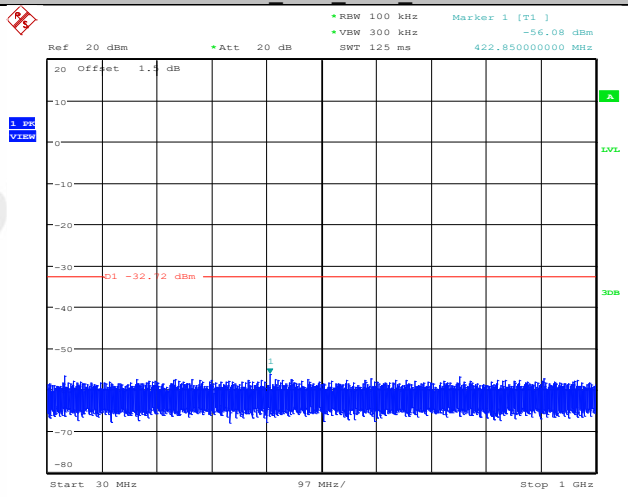
3DH5_Ant1_2441_1000~26500



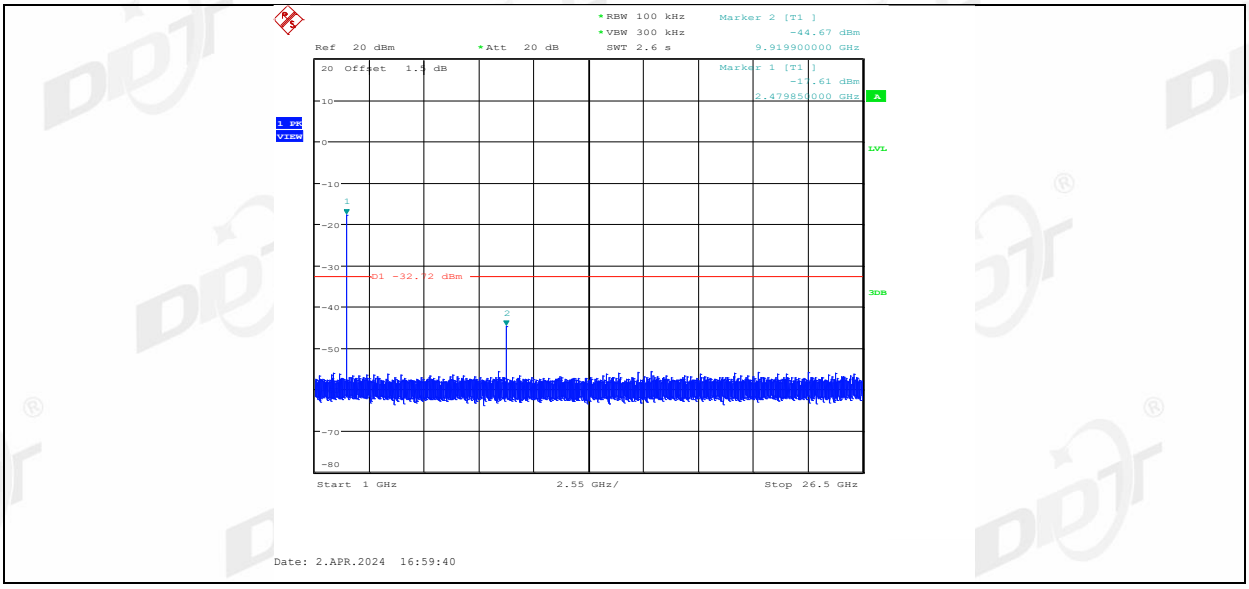
3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~1000

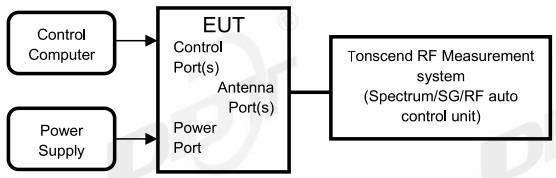


3DH5_Ant1_2480_1000~26500


RBW 100 kHz
VBW 300 kHz
SWT 2.6 s
Marker 2 [T1]
-44.67 dBm
9.919900000 GHz
Marker 1 [T1]
-17.61 dBm
2.479850000 GHz
Ref 20 dBm
Att 20 dB
20 Offset 1.5 dB
1 PK VIEW
LVL
3DB
D1 -32.72 dBm
Start 1 GHz
2.55 GHz/
Stop 26.5 GHz
Date: 2.APR.2024 16:59:40

12. Duty cycle

12.1. Block diagram of test setup



12.2. Limit

Just for Report.

12.3. Test procedure

(1) Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, The cable loss and attenuator loss have been put into spectrum analyzer as amplitude offset.
set the Spectrum Analyzer as below:
Centre Frequency: The centre frequency of the middle hopping channel.
Resolution BW: 10 MHz.
Video BW: 10 MHz.
Span: Zero span.
Detector: Peak.
Trace Mode: Clear Write.
Sweep: Video Trigger

(2) When the trace is complete, measure the sending time of 1 burst and the duty cycle of 1 burst cycle.

(3) Calculate dwell time follow below formula:
Duty cycle= Pulse's on time / Burst cycle

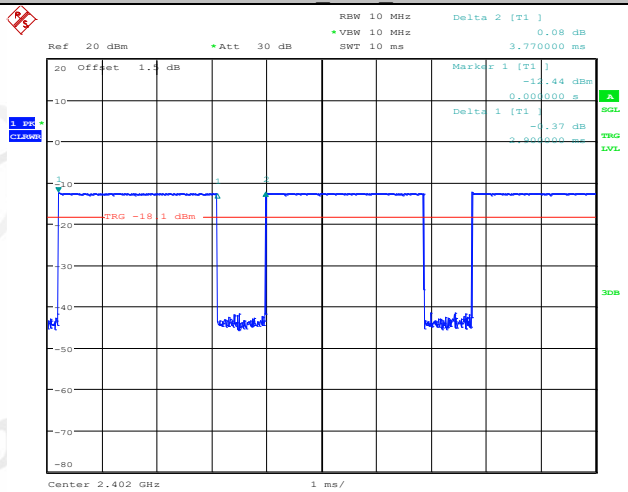
12.4. Test result

Test Engineer:	Zora Zhang	Test Site:	RF Measurement System 2#
Ambient Condition:	23.1℃,48.2%RH	Test Date:	2024.04.02-2024.04.02
Test Power Supply:	Battery	Sample Number:	S23111529-04

Test Mode	Antenna	Frequency [MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
DH5	Ant1	2402	2.90	3.77	76.92	1.14
		2441	2.90	3.76	77.13	1.13
		2480	2.90	3.76	77.13	1.13
2DH5	Ant1	2402	2.90	3.76	77.13	1.13
		2441	2.90	3.76	77.13	1.13
		2480	2.91	3.77	77.19	1.12
3DH5	Ant1	2402	2.91	3.76	77.39	1.11
		2441	2.91	3.77	77.19	1.12
		2480	2.90	3.76	77.13	1.13

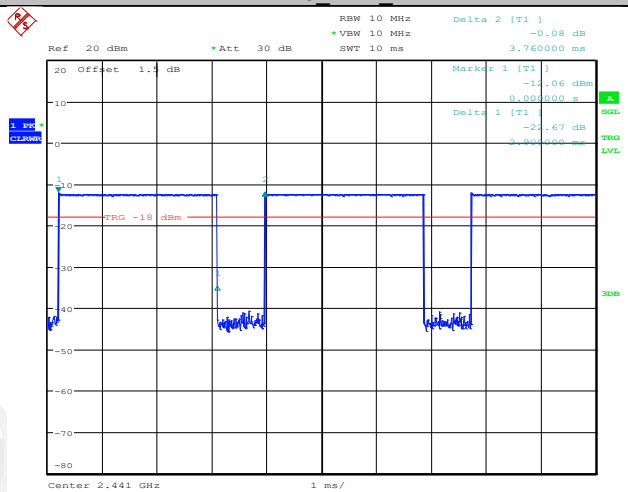
12.5. Test graphs

DH5_Ant1_2402



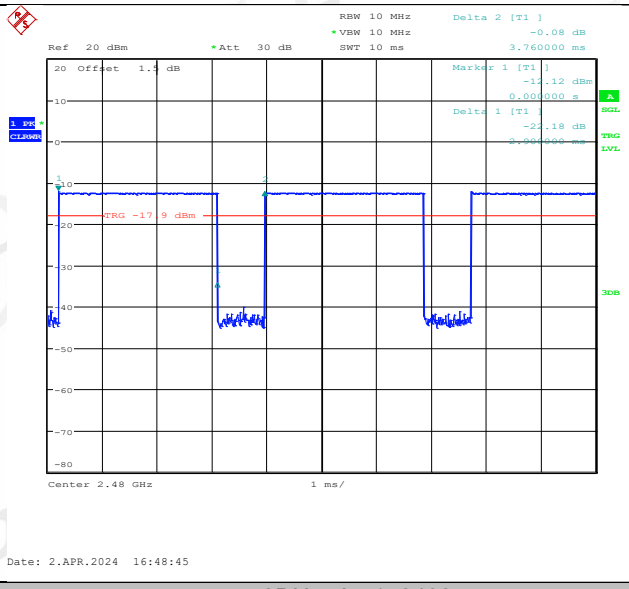
Date: 2.APR.2024 16:45:27

DH5_Ant1_2441

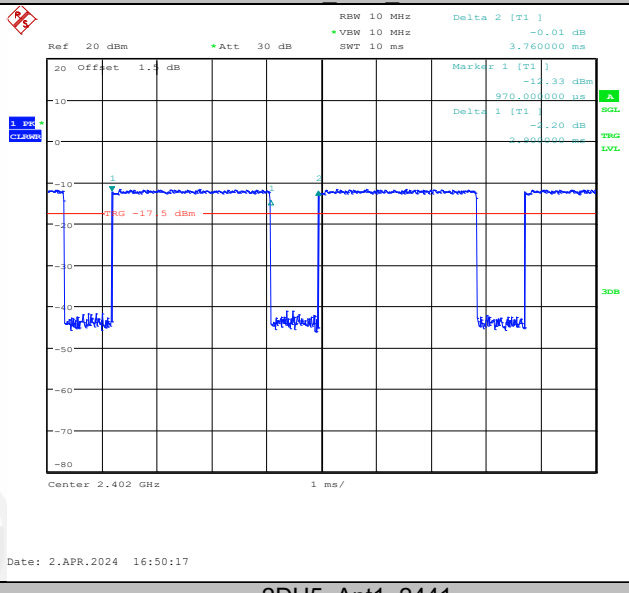


Date: 2.APR.2024 16:47:23

DH5_Ant1_2480



2DH5_Ant1_2402



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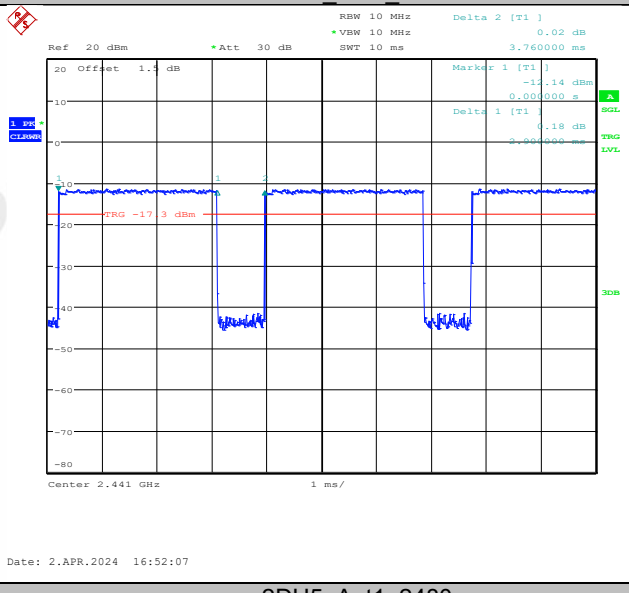

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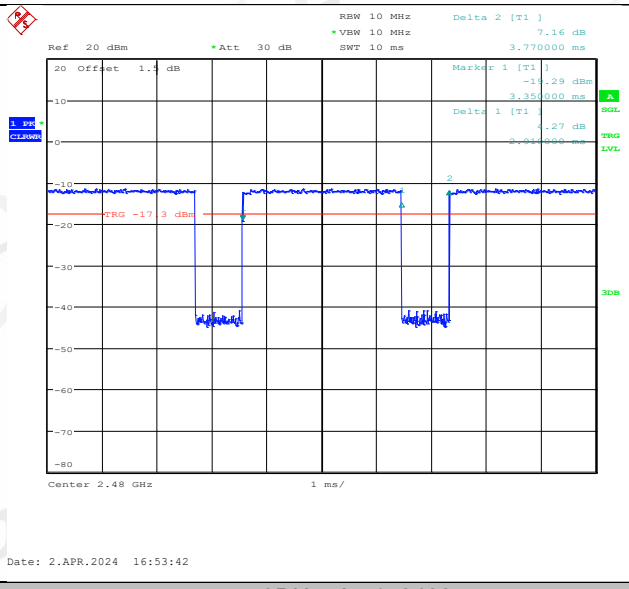
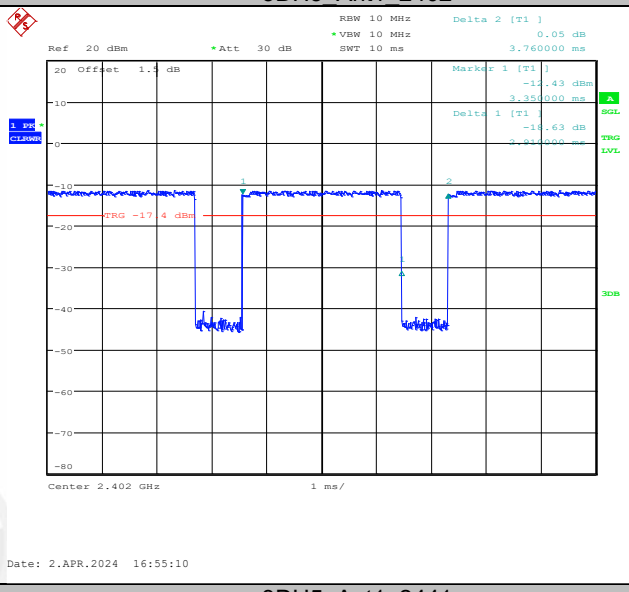
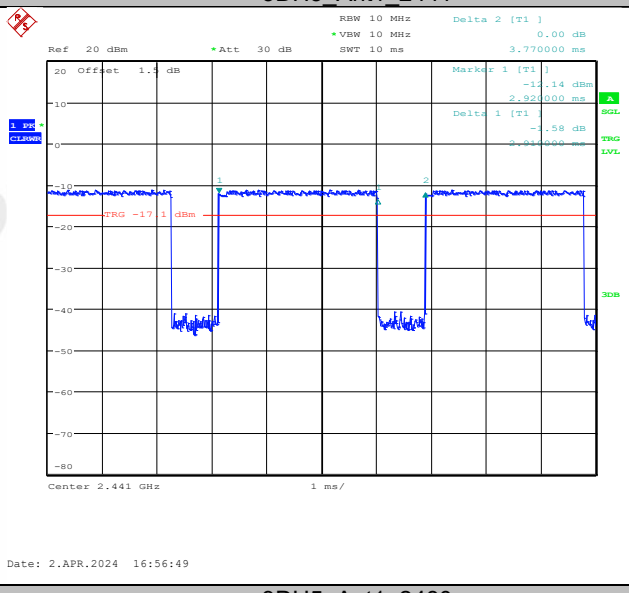


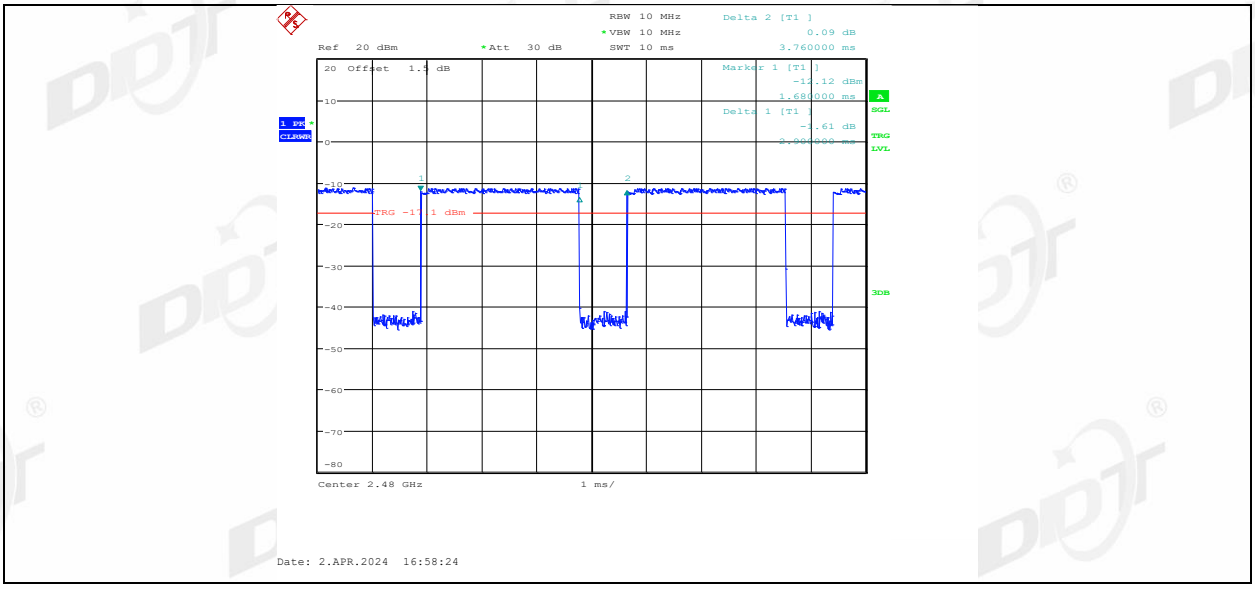
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480


RBW 10 MHz
VBW 10 MHz
SWT 10 ms
Delta 2 [T1]
0.09 dB
3.760000 ms
Ref 20 dBm
Att 30 dB
20 Offset 1.5 dB
Marker 1 [T1]
-12.12 dBm
1.680000 ms
Delta 1 [T1]
-1.61 dB
2.080000 ms
TRG -17.1 dBm
Center 2.48 GHz
1 ms/
Date: 2.APR.2024 16:58:24

13. Antenna Requirements

13.1. Limit

For intentional device, according to FCC 47 CFR Section 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. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

13.2. Result

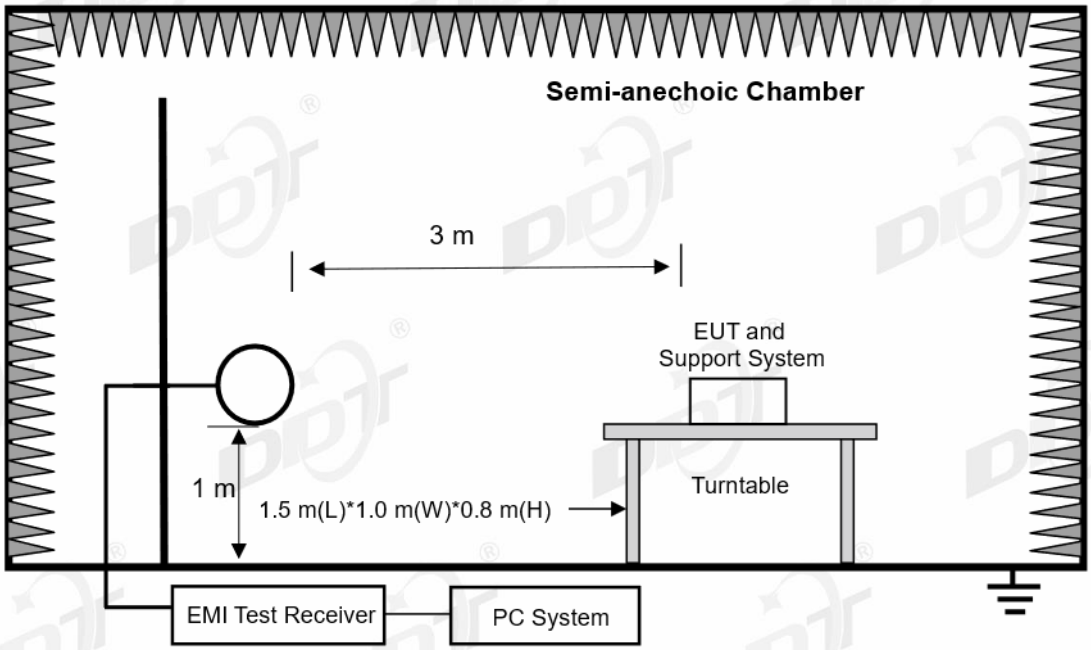
The antenna used for this product as Antenna information described in section 2.1 of the report, and there is no other antenna than that furnished by the responsible party shall be used with the device.

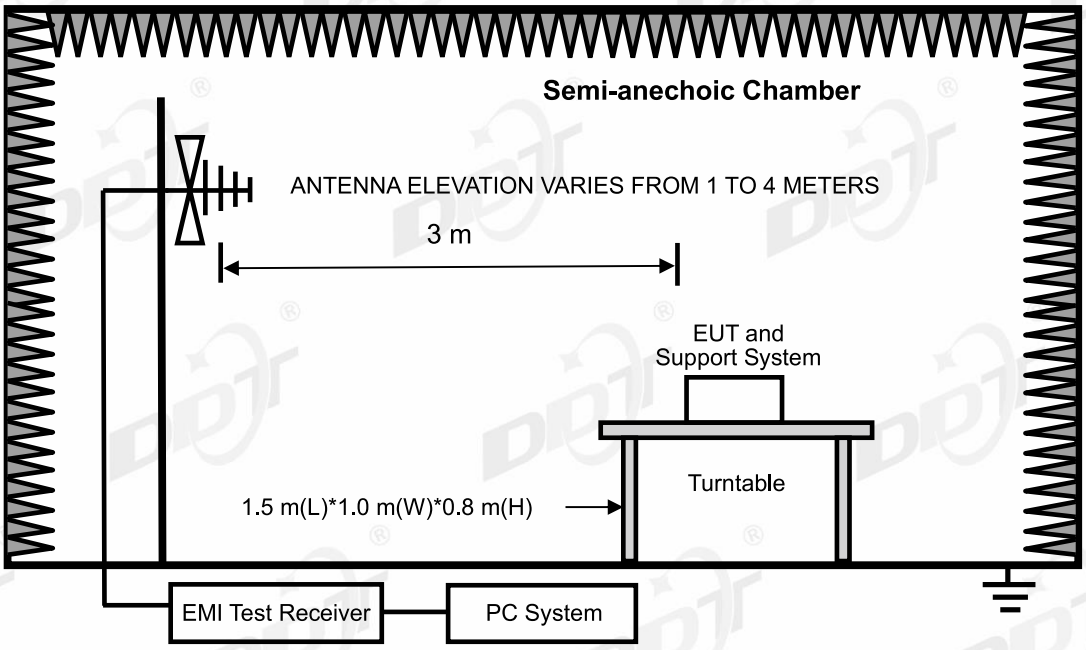
14.Radiated Emission

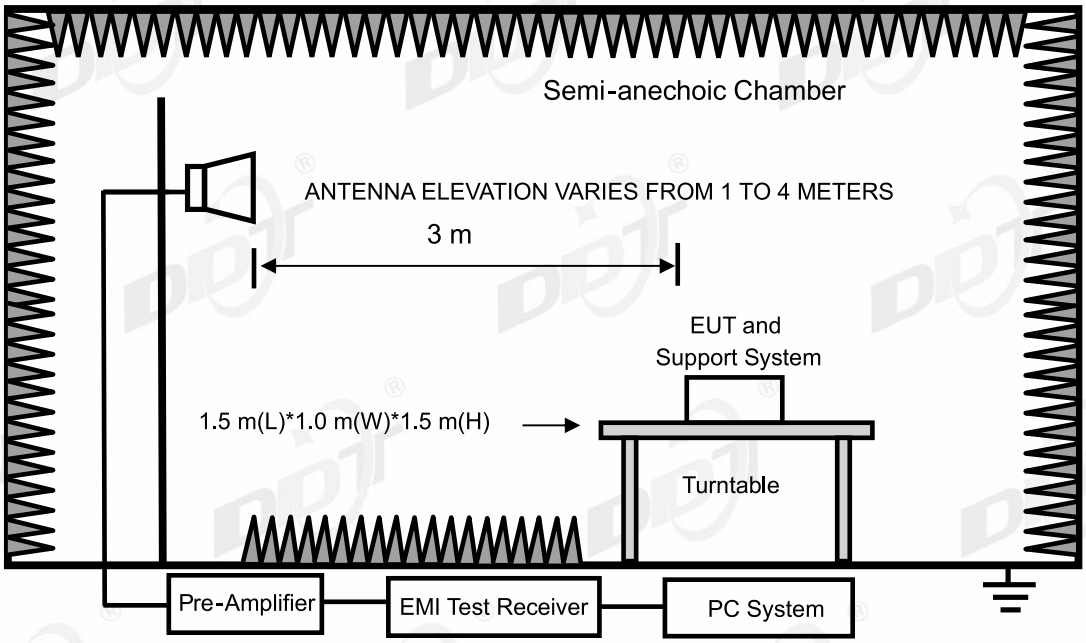
14.1. Test equipment

Equipment	Manufacturer	Model No.	Serial No.	Cal Due To
RF cable	Yuhu Technology	JCTB810-NJ-NJ-9M	DDT-ZC02538	2024/04/22
Pre-amplifier	COM-POWER	PAM-118A	DDT-ZC01293	2024/07/14
High Pass filter	XIANXINGBO	XBLBQ-GTA67	DDT-ZC02179	2024/05/14
RF cable	Zhongke Junchuang	JCT26S-NJ-NJ-1.5M	DDT-ZC02762	2024/04/20
Micro-Tronics filters	REBES	BRM50702	DDT-ZC03242	/
RF cable	Yuhu Technology	ZT26S-SMAJ-SMAJ-1M	DDT-ZC02037	2024/04/22
PSA Series Spectrum Analyzer	Agilent	E4447A	DDT-ZC00517	2024/04/22
Trilog Broadband Antenna	Schwarzbeck	VULB 9163	DDT-ZC02050	2024/07/11
EMI TEST RECEIVER	R&S	ESU26	DDT-ZC01909	2024/04/22
ELECTRIC AND MAGNETIC FIELD ANALYZER	Narda	EHP-200A	DDT-ZC01401	2024/09/20
High pass filter	Micro-Tronics	HPM50108	DDT-ZC00560	2024/05/14
High pass filter	Micro-Tronics	HPM50102	DDT-ZC00561	2024/05/14
Pre-amplifier	COM-POWER	PAM-840A	DDT-ZC01693	2024/04/26
Active Loop Antenna	Schwarzbeck	FMZB1519	DDT-ZC00524	2025/09/10
RF Cable	N/A	W13.02 AP1-X2	DDT-ZC04023	2024/04/20
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	DDT-ZC00506	2024/04/25
Hochgewinn-Hornantenne	Schwarzbeck Mess-Elektronik	BBHA 9120 D	DDT-ZC02129	2025/09/17
RF Cable	N/A	W24.02 HL-562	DDT-ZC04022	2024/04/20
Micro-Tronics filters	REBES	BRM50716	DDT-ZC03240	/

14.2. Block diagram of test setup







14.3. Limits

(1) FCC 15.205 Restricted frequency band

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
[1]0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.1772&4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.2072&4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	([2])
13.36-13.41			

1Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz

2Above 38.6

(2) FCC 15.209 Limit

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		mV/m	dB(mV)/m
0.009 ~ 0.490	300	2400/F(kHz)	67.6-20log(F)
0.490 ~ 1.705	30	24000/F(kHz)	87.6-20log(F)
1.705 ~ 30.0	30	30	29.54
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 dB(mV)/m (Peak) 54.0 dB(mV)/m (Average)	

Note:

(1) The emission limits shown in the above table are based on measurements employing a CISPR QP detector except for the frequency bands 9 - 90 kHz, 110 - 490 kHz and above 1000 MHz, radiated emissions limits in these three bands are based on measurements employing an average detector.

(2) At frequencies below 30 MHz, measurement may be performed at a distance closer than that specified, and the limit at closer measurement distance can be extrapolated by below formula:

$$Limit_{3m}(dBuV/m) = Limit_{30m}(dBuV/m) + 40Log(30m/3m)$$

(3) Limit for this EUT

The emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20 dB below the fundamental emissions or comply with 15.209 limit.

14.4. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	Description	other
Laptop	Lenovo	00425-00000-00002-AA135	Fixed frequency computer	N/A

14.5. Test procedure

(1) EUT was placed on a non-metallic table, 80 cm above the ground plane inside a semi-anechoic chamber for below 1G and 150 cm above the ground plane inside a fully-anechoic chamber for above 1G.

(2) Test antenna was located 3 m from the EUT on an adjustable mast, and the antenna used as below table.

Test frequency range	Test antenna used	Test antenna distance
9 kHz - 30 MHz	Active Loop antenna	3 m
30 MHz - 1 GHz	Trilog Broadband Antenna	3 m

1 GHz - 18 GHz	Double Ridged Horn Antenna(1 GHz-18 GHz)	3 m
18 GHz - 40 GHz	Horn Antenna(18 GHz-40 GHz)	1 m

According ANSI C63.10:2013 clause 6.4.6 and 6.5.3, for measurements below 30 MHz, Antenna was located 3 m from EUT, the loop antenna was positioned in three antenna orientations (parallel, perpendicular, and round-parallel), for each measurement antenna alignment, the EUT shall be rotated through 0° to 360° on a turntable, and the lowest height of the magnetic antenna shall be 1 m above the ground. For measurement above 30MHz, the trilog Broadband Antenna or Horn Antenna was located 3m from EUT, Measurements were made with the antenna positioned in both the horizontal and vertical planes of Polarization, and the measurement antenna was varied from 1 m to 4 m. in height above the reference ground plane to obtain the maximum signal strength.

(3) Below pre-scan procedure was first performed in order to find prominent frequency spectrum radiated emissions from 9 kHz to 25 GHz:

(a) Scanning the peak frequency spectrum with the antenna specified in step (3), and the EUT was rotated 360 degree, the antenna height was varied from 1 m to 4 m (Except loop antenna, it's fixed 1 m above ground.)

(b) Change work frequency or channel of device if practicable.

(c) Change modulation type of device if practicable.

(d) Change power supply range from 85% to 115% of the rated supply voltage

(e) Rotated EUT though three orthogonal axes to determine the attitude of EUT arrangement produces highest emissions.

Spectrum frequency from 9 kHz to 25 GHz (tenth harmonic of fundamental frequency) was investigated, and no any obvious emission were detected from 18 GHz to 25 GHz, so below final test was performed with frequency range from 9 kHz to 18 GHz.

(4) For final emissions measurements at each frequency of interest, the EUT was rotated and the antenna height was varied between 1 m and 4 m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipment and all of the interface cables were changed according to ANSI C63.10:2013 on Radiated Emission test.

(5) The emissions from 9 kHz to 1 GHz were measured based on CISPR QP detector except for the frequency bands 9 - 90 kHz, 110 - 490 kHz, for emissions from 9 kHz - 90 kHz,110 kHz - 490 kHz and above 1 GHz were measured based on average detector, for emissions above 1 GHz, peak emissions also be measured and need comply with Peak limit.

(6) The emissions from 9 kHz to 1 GHz, QP or average values were measured with EMI receiver with below RBW.

Frequency band	RBW
9 kHz - 150 kHz	200 Hz
150 kHz - 30 MHz	9 kHz
30 MHz - 1 GHz	120 kHz

(7) For emissions above 1GHz, both Peak and Average level were measured with Spectrum Analyzer, and the RBW is set at 1 MHz, VBW is set at 3 MHz for Peak measure; According ANSI C63.10:2013 clause 4.1.4.2.2 procedure for average measure.

(8) For portable device, X axis, Y axis, Z axis are tested, and worse setup is reported.

14.6. Test result

PASS. (See below detailed test result)

All the emissions except fundamental emission from 9 kHz to 25 GHz were comply with 15.209 limits.

Note1: According exploratory test, the emission levels are 20 dB below the limit detected from 9 kHz to 30 MHz and 18 GHz to 25 GHz, so the final test was performed with frequency range from 30 MHz to 18 GHz and recorded in below.

Note2: 30 MHz ~ 25 GHz: (Scan with GFSK, π/4-DQPSK and 8DPSK, the worst case is 8DPSK Mode)

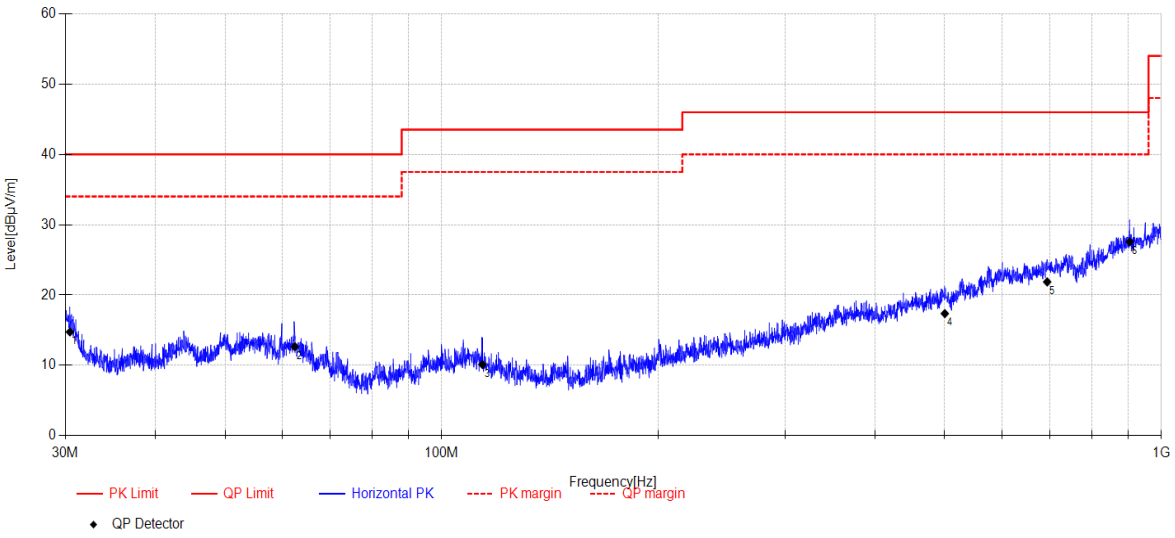
Note3: For emissions below 1 GHz, according exploratory explorer test, when change Tx mode and channel, have no distinct influence on emissions level, so for emissions below 1 GHz, the final test was only performed with EUT working in 8DPSK, Tx 2441 MHz mode.

Note4: For emissions above 1 GHz. If peak results comply with AV limit, AV Result is deemed to comply with AV limit.

14.7. Test data

TR-4-E-009 Radiated Emission Test Result

Test Date:	2024-03-21	**Tested By**:	Junchang Du
EUT:	JBuds Lux ANC Wireless Headset	**Model Number**:	JBuds Lux ANC
Test Mode:	BT TX	**Power Supply**:	Battery
Condition:	Temp:23.4°C;Humi:62.3%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q23111529-2E JBuds Lux ANC\FCC BELOW 1G\20240321-012323_H		
Memo:	Sample Number:S24012615-002 Power Setting:NA		



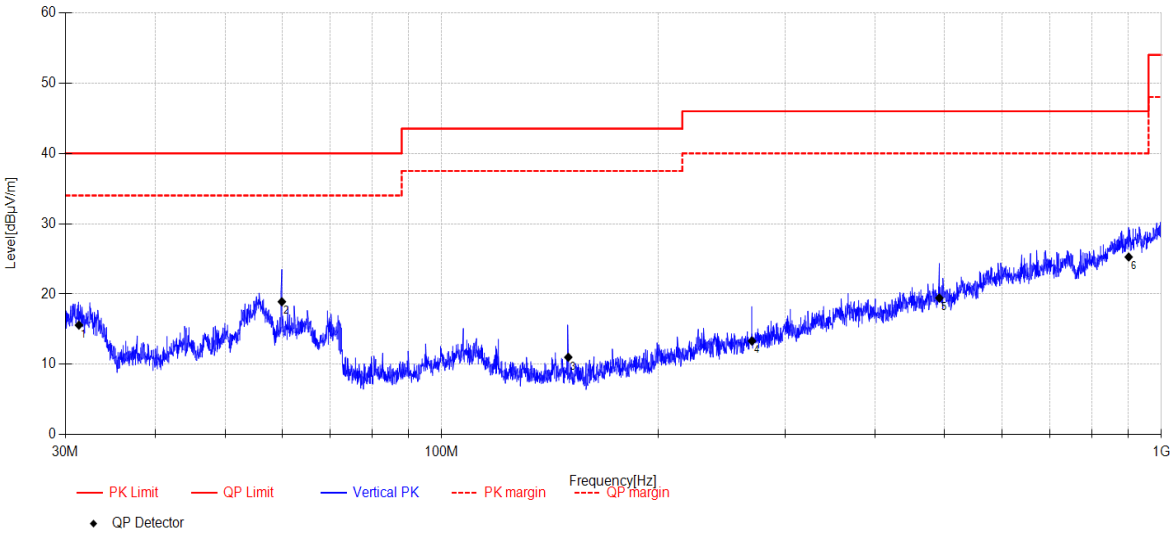
Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable Loss [dB]	AMP [dB]	Result [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	30.45	30.93	10.34	4.48	-30.99	14.76	40.00	25.24	QP	Horizontal
2	62.51	25.91	12.60	4.77	-30.62	12.66	40.00	27.34	QP	Horizontal
3	113.92	24.92	10.93	5.14	-30.86	10.13	43.50	33.37	QP	Horizontal
4	500.19	23.26	17.08	6.93	-29.90	17.37	46.00	28.63	QP	Horizontal
5	693.98	24.38	19.66	7.73	-29.90	21.87	46.00	24.13	QP	Horizontal
6	903.96	26.27	21.90	8.35	-28.96	27.56	46.00	18.44	QP	Horizontal

Note:
1. Result Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:	2024-03-21	**Tested By**:	Junchang Du
EUT:	JBuds Lux ANC Wireless Headset	**Model Number**:	JBuds Lux ANC
Test Mode:	BT TX	**Power Supply**:	Battery
Condition:	Temp:23.4°C;Humi:62.3%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q23111529-2E JBuds Lux ANC\FCC BELOW 1G\20240321-012421_V		
Memo:	Sample Number:S24012615-002 Power Setting:NA		



Data List

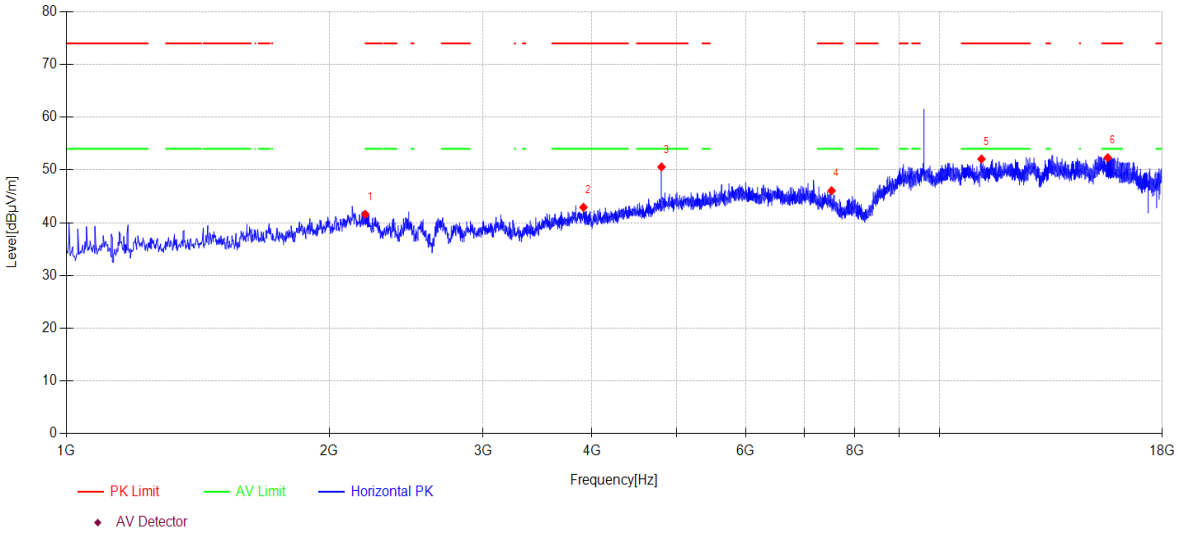
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable Loss [dB]	AMP [dB]	Result [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	31.33	31.78	10.30	4.49	-30.98	15.59	40.00	24.41	QP	Vertical
2	59.98	31.99	12.79	4.76	-30.63	18.91	40.00	21.09	QP	Vertical
3	149.96	28.33	8.12	5.32	-30.75	11.02	43.50	32.48	QP	Vertical
4	269.88	25.22	12.48	6.02	-30.39	13.33	46.00	32.67	QP	Vertical
5	491.50	26.13	16.32	6.91	-29.92	19.44	46.00	26.56	QP	Vertical
6	900.80	24.02	21.90	8.34	-28.99	25.27	46.00	20.73	QP	Vertical

Note:
1. Result Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:	2024-04-03	**Tested By**:	Junchang Du
EUT:	JBuds Lux ANC Wireless Headset	**Model Number**:	JBuds Lux ANC
Test Mode:	DH5 TX 2402MHz	**Power Supply**:	Battery
Condition:	Temp:23.4°C;Humi:62.3%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q23111529-2E JBuds Lux ANC\FCC ABOVE 1G\91		
Memo:	Sample Number:S24012615-002 Power Setting:2		

Test Graph



Data List

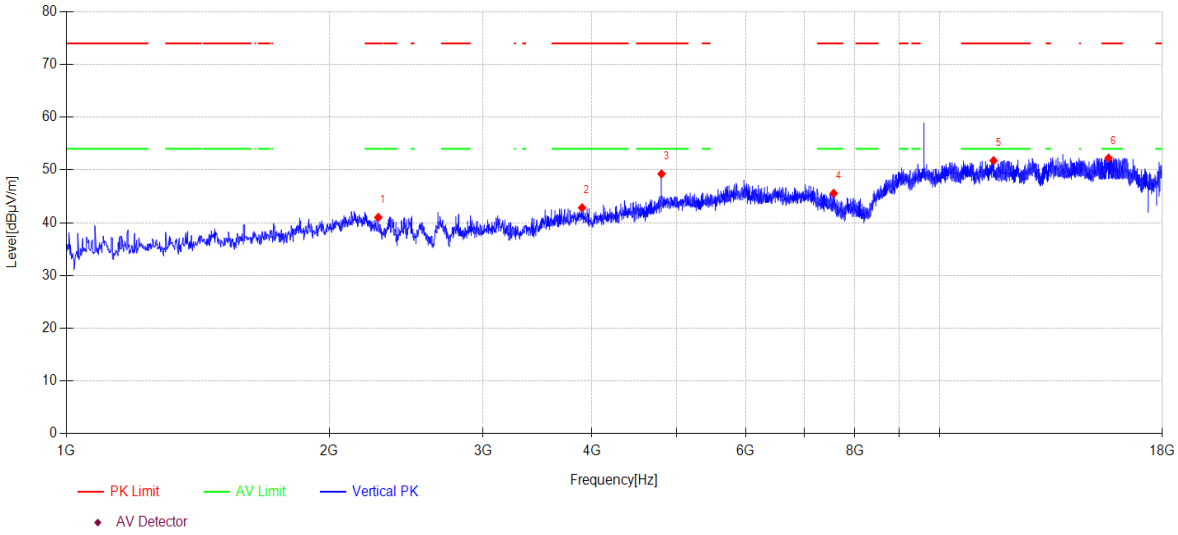
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	2200.200	45.40	27.80	5.98	-37.58	41.60	74.00	32.40	PK	Horizontal
2	3910.400	46.31	31.18	5.83	-40.40	42.92	74.00	31.08	PK	Horizontal
3	4804.600	50.62	32.62	7.48	-40.15	50.57	74.00	23.43	PK	Horizontal
4	7524.600	43.98	36.45	7.65	-42.01	46.07	74.00	27.93	PK	Horizontal
5	11172.800	42.21	39.23	9.80	-39.17	52.07	74.00	21.93	PK	Horizontal
6	15587.700	38.80	38.62	14.01	-39.11	52.32	74.00	21.68	PK	Horizontal

Note:
1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:	2024-04-03	**Tested By**:	Junchang Du
EUT:	JBuds Lux ANC Wireless Headset	**Model Number**:	JBuds Lux ANC
Test Mode:	DH5 TX 2402MHz	**Power Supply**:	Battery
Condition:	Temp:23.4°C;Humi:62.3%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q23111529-2E JBuds Lux ANC\FCC ABOVE 1G\92		
Memo:	Sample Number:S24012615-002 Power Setting:2		

Test Graph



Data List

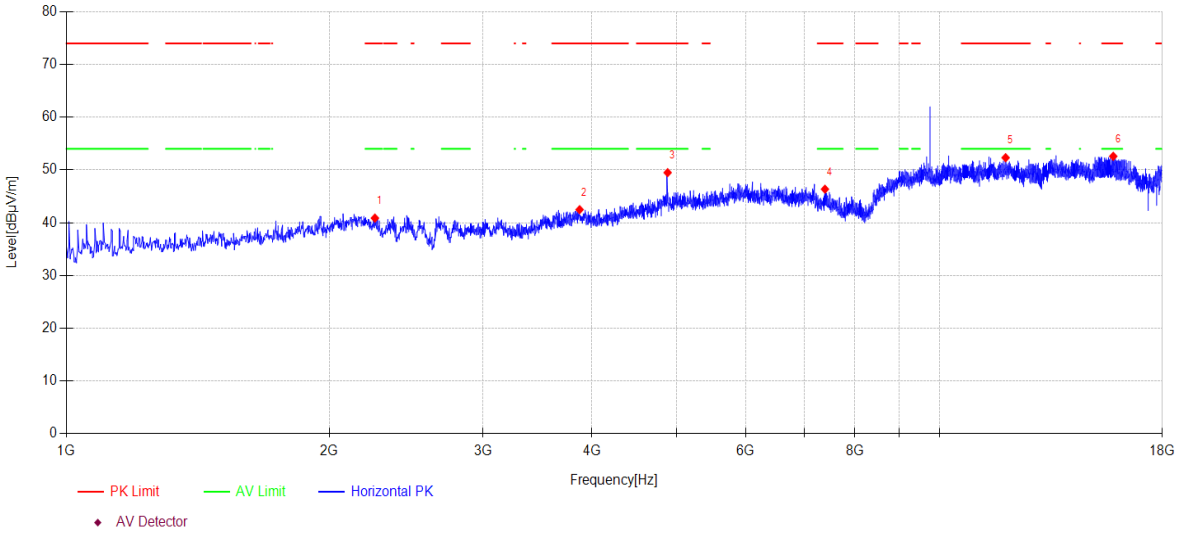
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	2276.700	45.82	27.03	5.95	-37.79	41.01	74.00	32.99	PK	Vertical
2	3896.800	46.21	31.18	5.83	-40.39	42.83	74.00	31.17	PK	Vertical
3	4804.600	49.30	32.62	7.48	-40.15	49.25	74.00	24.75	PK	Vertical
4	7567.100	43.61	36.43	7.65	-42.12	45.57	74.00	28.43	PK	Vertical
5	11534.900	41.86	39.13	10.13	-39.34	51.78	74.00	22.22	PK	Vertical
6	15620.000	38.64	38.58	14.16	-39.13	52.25	74.00	21.75	PK	Vertical

Note:
1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:	2024-04-03	**Tested By**:	Junchang Du
EUT:	JBuds Lux ANC Wireless Headset	**Model Number**:	JBuds Lux ANC
Test Mode:	DH5 TX 2441MHz	**Power Supply**:	Battery
Condition:	Temp:23.4°C;Humi:62.3%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q23111529-2E JBuds Lux ANC\FCC ABOVE 1G\93		
Memo:	Sample Number:S24012615-002 Power Setting:2		

Test Graph



Data List

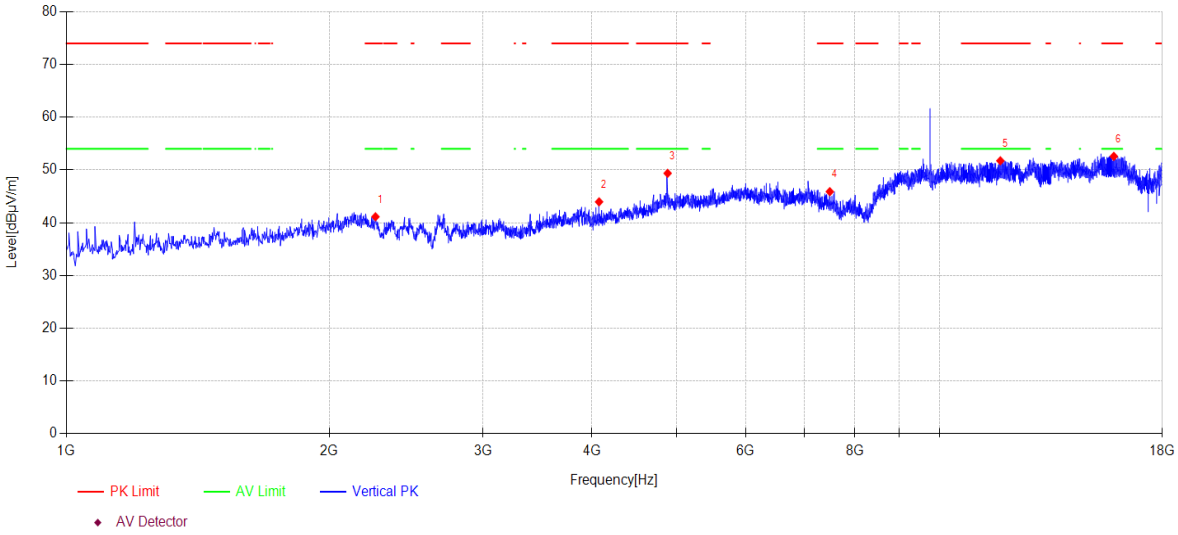
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	2256.300	45.42	27.24	5.96	-37.74	40.88	74.00	33.12	PK	Horizontal
2	3871.300	46.00	31.03	5.82	-40.37	42.48	74.00	31.52	PK	Horizontal
3	4882.800	48.70	33.28	7.63	-40.12	49.49	74.00	24.51	PK	Horizontal
4	7393.700	43.69	36.71	7.64	-41.68	46.36	74.00	27.64	PK	Horizontal
5	11905.500	42.46	38.92	10.46	-39.52	52.32	74.00	21.68	PK	Horizontal
6	15813.800	38.53	38.27	15.04	-39.25	52.59	74.00	21.41	PK	Horizontal

Note:
1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:	2024-04-03	**Tested By**:	Junchang Du
EUT:	JBuds Lux ANC Wireless Headset	**Model Number**:	JBuds Lux ANC
Test Mode:	DH5 TX 2441MHz	**Power Supply**:	Battery
Condition:	Temp:23.4°C;Humi:62.3%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q23111529-2E JBuds Lux ANC\FCC ABOVE 1G\94		
Memo:	Sample Number:S24012615-002 Power Setting:2		

Test Graph



Data List

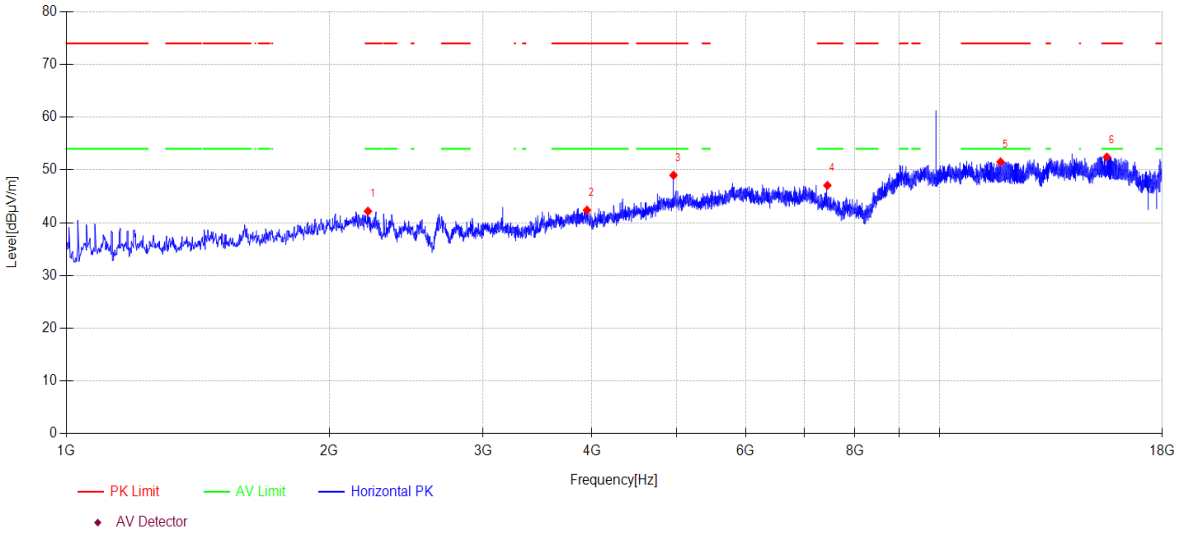
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	2259.700	45.71	27.20	5.96	-37.74	41.13	74.00	32.87	PK	Vertical
2	4075.300	47.33	31.05	6.00	-40.42	43.96	74.00	30.04	PK	Vertical
3	4882.800	48.58	33.28	7.63	-40.12	49.37	74.00	24.63	PK	Vertical
4	7488.900	43.65	36.52	7.64	-41.92	45.89	74.00	28.11	PK	Vertical
5	11742.300	41.91	38.96	10.31	-39.44	51.74	74.00	22.26	PK	Vertical
6	15837.600	38.48	38.22	15.14	-39.26	52.58	74.00	21.42	PK	Vertical

Note:
1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:	2024-04-03	**Tested By**:	Junchang Du
EUT:	JBuds Lux ANC Wireless Headset	**Model Number**:	JBuds Lux ANC
Test Mode:	DH5 TX 2480MHz	**Power Supply**:	Battery
Condition:	Temp:23.4°C;Humi:62.3%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q23111529-2E JBuds Lux ANC\FCC ABOVE 1G\95		
Memo:	Sample Number:S24012615-002 Power Setting:2		

Test Graph



Data List

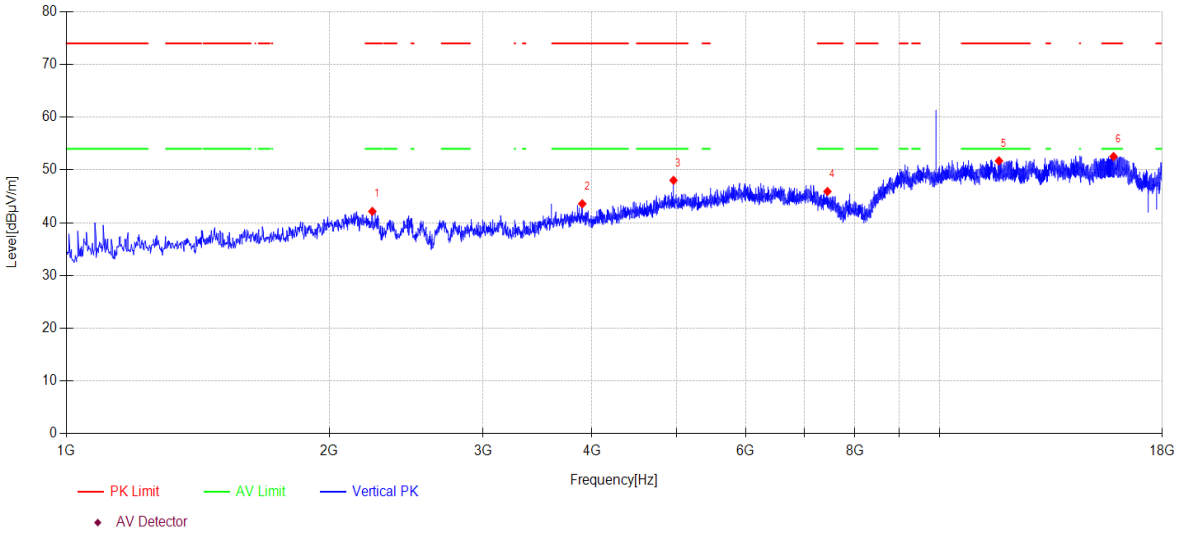
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	2215.500	46.17	27.65	5.98	-37.62	42.18	74.00	31.82	PK	Horizontal
2	3947.800	45.86	31.10	5.84	-40.42	42.38	74.00	31.62	PK	Horizontal
3	4959.300	48.19	33.12	7.79	-40.10	49.00	74.00	25.00	PK	Horizontal
4	7441.300	44.61	36.62	7.64	-41.80	47.07	74.00	26.93	PK	Horizontal
5	11747.400	41.70	38.95	10.32	-39.44	51.53	74.00	22.47	PK	Horizontal
6	15550.300	38.99	38.70	13.84	-39.09	52.44	74.00	21.56	PK	Horizontal

Note:
1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:	2024-04-03	**Tested By**:	Junchang Du
EUT:	JBuds Lux ANC Wireless Headset	**Model Number**:	JBuds Lux ANC
Test Mode:	DH5 TX 2480MHz	**Power Supply**:	Battery
Condition:	Temp:23.4°C;Humi:62.3%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q23111529-2E JBuds Lux ANC\FCC ABOVE 1G\96		
Memo:	Sample Number:S24012615-002 Power Setting:2		

Test Graph



Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	2241.000	46.49	27.39	5.96	-37.69	42.15	74.00	31.85	PK	Vertical
2	3898.500	46.96	31.19	5.83	-40.39	43.59	74.00	30.41	PK	Vertical
3	4959.300	47.22	33.12	7.79	-40.10	48.03	74.00	25.97	PK	Vertical
4	7443.000	43.49	36.61	7.64	-41.81	45.93	74.00	28.07	PK	Vertical
5	11699.800	41.87	39.00	10.27	-39.42	51.72	74.00	22.28	PK	Vertical
6	15825.700	38.47	38.25	15.09	-39.26	52.55	74.00	21.45	PK	Vertical

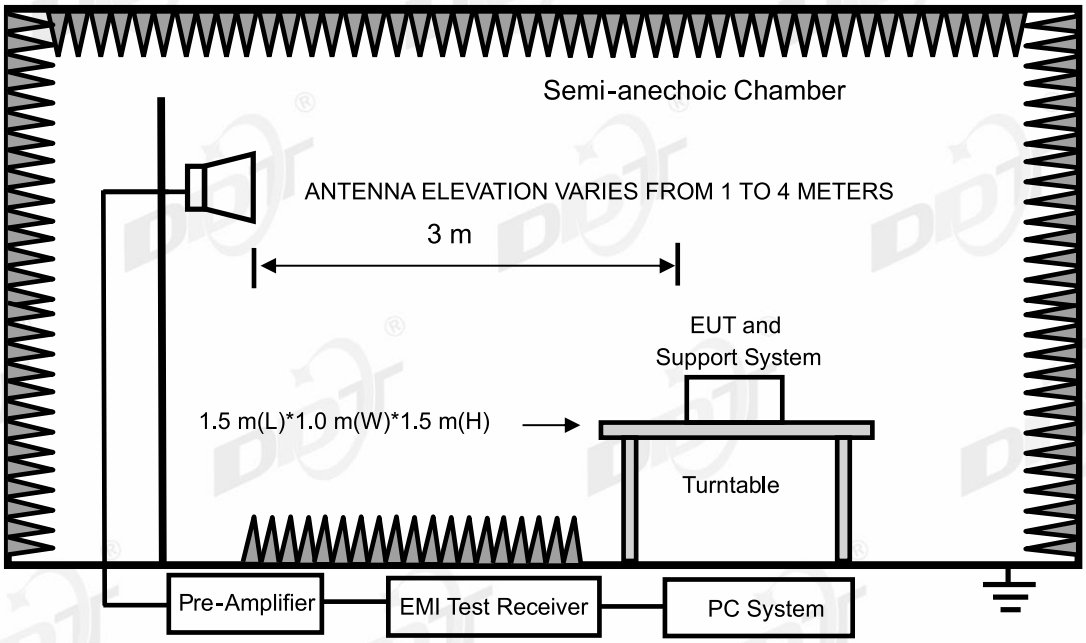
Note:
1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

15.Band Edge Compliance

15.1. Test equipment

Equipment	Manufacturer	Model No.	Serial No.	Cal Due To
RF cable	Zhongke Junchuang	JCT26S-NJ-NJ-1.5M	DDT-ZC02762	2024/04/20
RF Cable	N/A	W13.02 AP1-X2	DDT-ZC04023	2024/04/20
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	DDT-ZC00506	2024/04/25
Micro-Tronics filters	REBES	BRM50716	DDT-ZC03240	/
Pre-amplifier	COM-POWER	PAM-840A	DDT-ZC01693	2024/04/26
High pass filter	Micro-Tronics	HPM50108	DDT-ZC00560	2024/05/14
Micro-Tronics filters	REBES	BRM50702	DDT-ZC03242	/
Active Loop Antenna	Schwarzbeck	FMZB1519	DDT-ZC00524	2025/09/10
ELECTRIC AND MAGNETIC FIELD ANALYZER	Narda	EHP-200A	DDT-ZC01401	2024/09/20
PSA Series Spectrum Analyzer	Agilent	E4447A	DDT-ZC00517	2024/04/22
RF cable	Yuhu Technology	ZT26S-SMAJ-SMAJ-1M	DDT-ZC02037	2024/04/22
Pre-amplifier	COM-POWER	PAM-118A	DDT-ZC01293	2024/07/14
High Pass filter	XIANXINGBO	XBLBQ-GTA67	DDT-ZC02179	2024/05/14
EMI TEST RECEIVER	R&S	ESU26	DDT-ZC01909	2024/04/22
Hochgewinn-Hornantenne	Schwarzbeck Mess-Elektronik	BBHA 9120 D	DDT-ZC02129	2025/09/17
RF Cable	N/A	W24.02 HL-562	DDT-ZC04022	2024/04/20
Trilog Broadband Antenna	Schwarzbeck	VULB 9163	DDT-ZC02050	2024/07/11
High pass filter	Micro-Tronics	HPM50102	DDT-ZC00561	2024/05/14
RF cable	Yuhu Technology	JCTB810-NJ-NJ-9M	DDT-ZC02538	2024/04/22

15.2. Block diagram of test setup



15.3. Limits

All restriction band should comply with 15.209 limits, other emission should be at least 20 dB below the fundamental.

15.4. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	Description	other
Laptop	Lenovo	00425-00000-00002-AA135	Fixed frequency computer	N/A

15.5. Test procedure

Same with Radiated Emission except change investigated frequency range.

Remark: All restriction band have been tested, and only the worst case is shown in report.

15.6. Test result

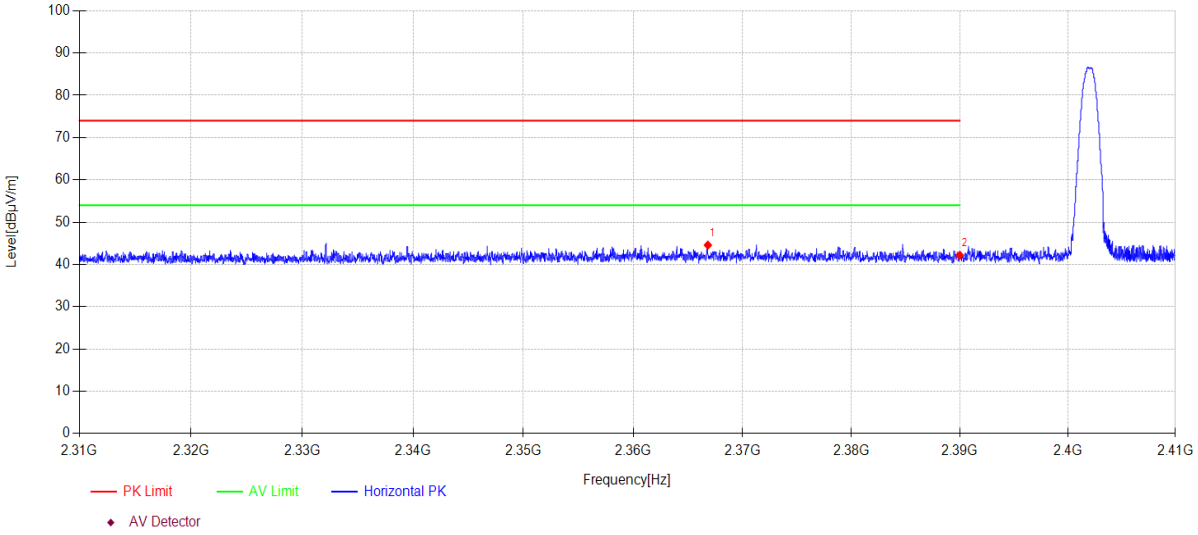
PASS. (See below detailed test result)

15.7. Test data

TR-4-E-009 Radiated Emission Test Result

Test Date:	2024-04-03	**Tested By**:	Junchang Du
EUT:	JBuds Lux ANC Wireless Headset	**Model Number**:	JBuds Lux ANC
Test Mode:	DH5 TX 2402MHz	**Power Supply**:	Battery
Condition:	Temp:23.4°C;Humi:62.3%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q23111529-2E JBuds Lux ANC\FCC ABOVE 1G\97		
Memo:	Sample Number:S24012615-002 Power Setting:2		

Test Graph



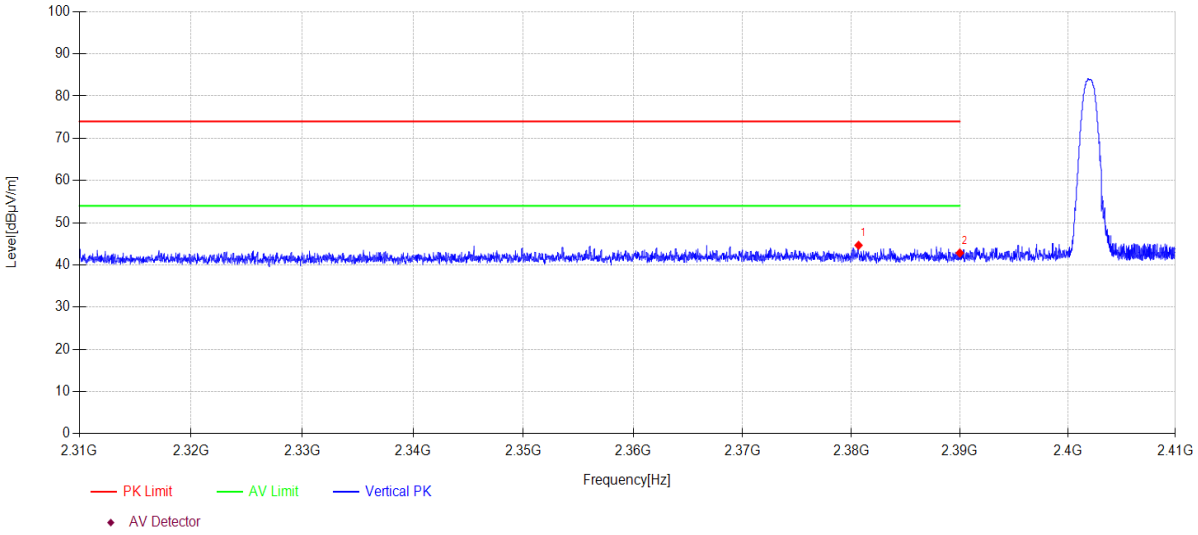
Data List										
NO.	**Freq. [MHz]**	**Reading [dBµV/m]**	**Antenna Factor [dB]**	**Cable loss [dB]**	**AMP [dB]**	**Level [dBµV/m]**	**Limit [dBµV/m]**	**Margin [dB]**	**Detector**	**Polarity**
1	2366.830	13.55	27.17	3.85	0.00	44.57	74.00	29.43	PK	Horizontal
2	2390.000	11.03	27.26	3.87	0.00	42.16	74.00	31.84	PK	Horizontal

Note:
1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:	2024-04-03	**Tested By**:	Junchang Du
EUT:	JBuds Lux ANC Wireless Headset	**Model Number**:	JBuds Lux ANC
Test Mode:	DH5 TX 2402MHz	**Power Supply**:	Battery
Condition:	Temp:23.4°C;Humi:62.3%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q23111529-2E JBuds Lux ANC\FCC ABOVE 1G\98		
Memo:	Sample Number:S24012615-002 Power Setting:2		

Test Graph



Data List

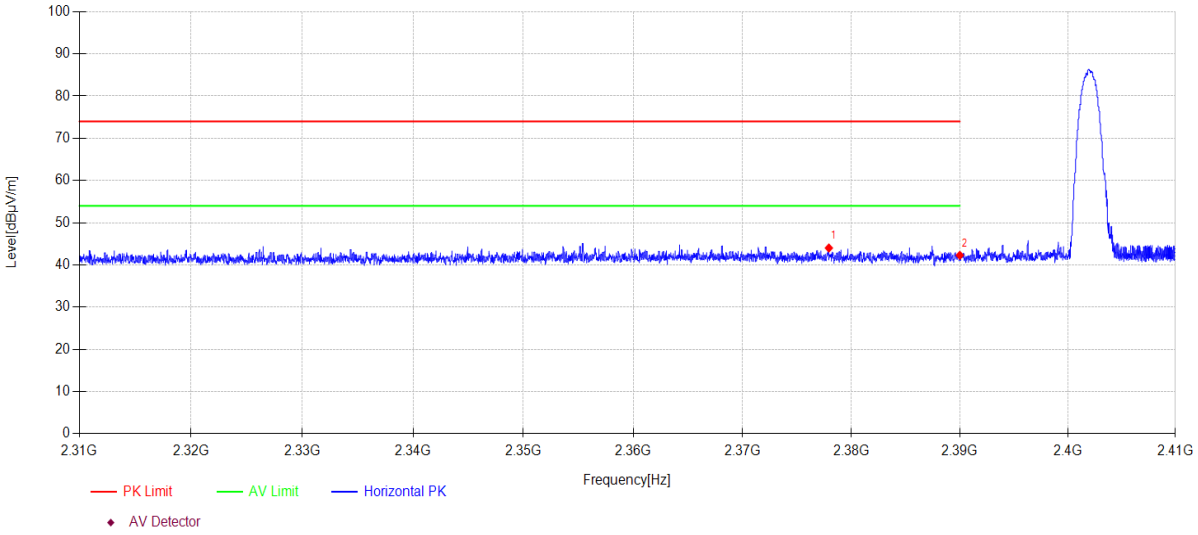
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	2380.660	13.57	27.22	3.86	0.00	44.65	74.00	29.35	PK	Vertical
2	2390.000	11.69	27.26	3.87	0.00	42.82	74.00	31.18	PK	Vertical

Note:
1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:	2024-04-03	**Tested By**:	Junchang Du
EUT:	JBuds Lux ANC Wireless Headset	**Model Number**:	JBuds Lux ANC
Test Mode:	2DH5 TX 2402MHz	**Power Supply**:	Battery
Condition:	Temp:23.4°C;Humi:62.3%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q23111529-2E JBuds Lux ANC\FCC ABOVE 1G\99		
Memo:	Sample Number:S24012615-002 Power Setting:2		

Test Graph



Data List

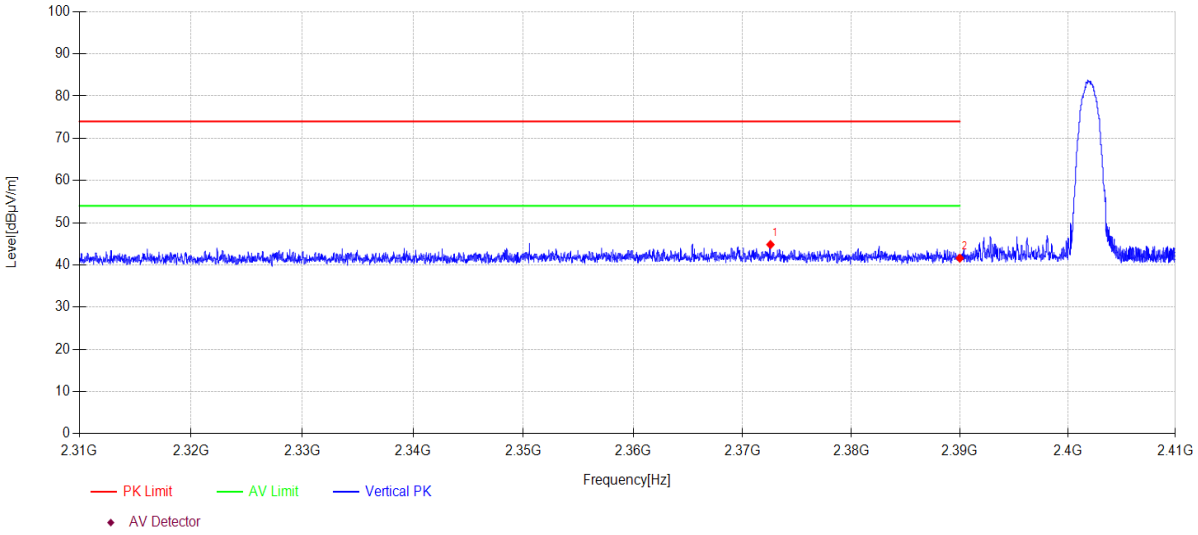
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	2377.930	12.95	27.21	3.86	0.00	44.02	74.00	29.98	PK	Horizontal
2	2390.000	11.16	27.26	3.87	0.00	42.29	74.00	31.71	PK	Horizontal

Note:
1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:	2024-04-03	**Tested By**:	Junchang Du
EUT:	JBuds Lux ANC Wireless Headset	**Model Number**:	JBuds Lux ANC
Test Mode:	2DH5 TX 2402MHz	**Power Supply**:	Battery
Condition:	Temp:23.4°C;Humi:62.3%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q23111529-2E JBuds Lux ANC\FCC ABOVE 1G\100		
Memo:	Sample Number:S24012615-002 Power Setting:2		

Test Graph



Data List

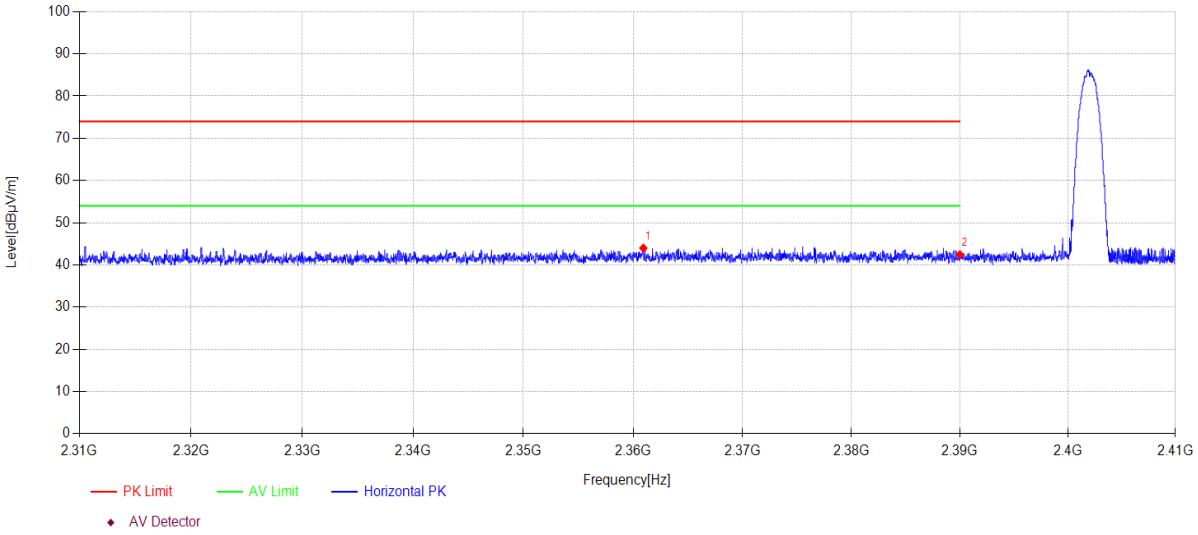
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	2372.560	13.78	27.19	3.85	0.00	44.82	74.00	29.18	PK	Vertical
2	2390.000	10.48	27.26	3.87	0.00	41.61	74.00	32.39	PK	Vertical

Note:
1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:	2024-04-03	**Tested By**:	Junchang Du
EUT:	JBuds Lux ANC Wireless Headset	**Model Number**:	JBuds Lux ANC
Test Mode:	3DH5 TX 2402MHz	**Power Supply**:	Battery
Condition:	Temp:23.4°C;Humi:62.3%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q23111529-2E JBuds Lux ANC\FCC ABOVE 1G\101		
Memo:	Sample Number:S24012615-002 Power Setting:2		

Test Graph



Data List

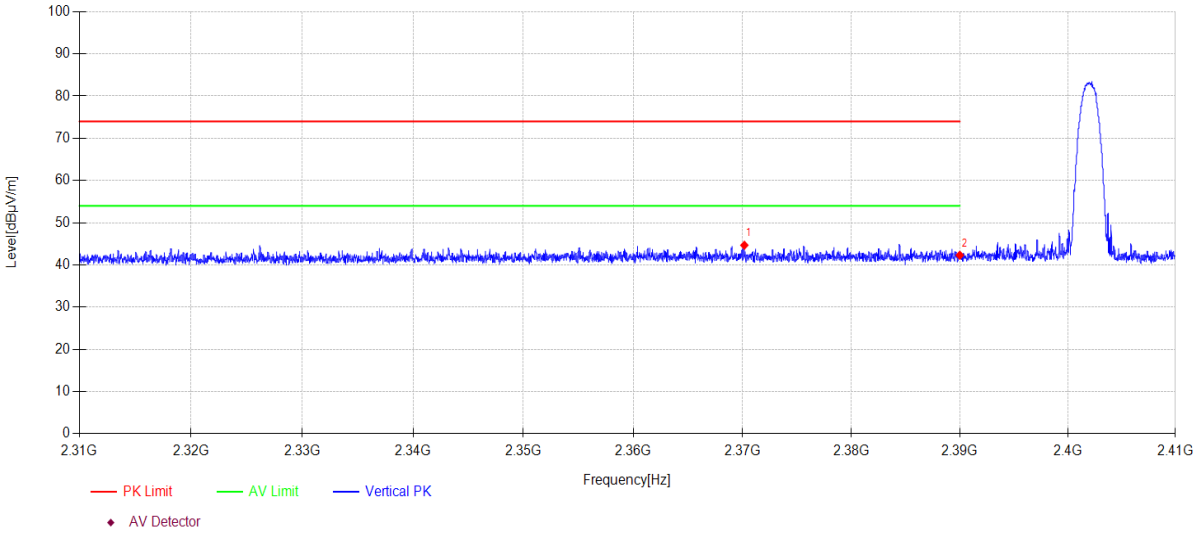
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	2360.930	13.01	27.14	3.84	0.00	43.99	74.00	30.01	PK	Horizontal
2	2390.000	11.30	27.26	3.87	0.00	42.43	74.00	31.57	PK	Horizontal

Note:
1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:	2024-04-03	**Tested By**:	Junchang Du
EUT:	JBuds Lux ANC Wireless Headset	**Model Number**:	JBuds Lux ANC
Test Mode:	3DH5 TX 2402MHz	**Power Supply**:	Battery
Condition:	Temp:23.4°C;Humi:62.3%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q23111529-2E JBuds Lux ANC\FCC ABOVE 1G\102		
Memo:	Sample Number:S24012615-002 Power Setting:2		

Test Graph



Data List

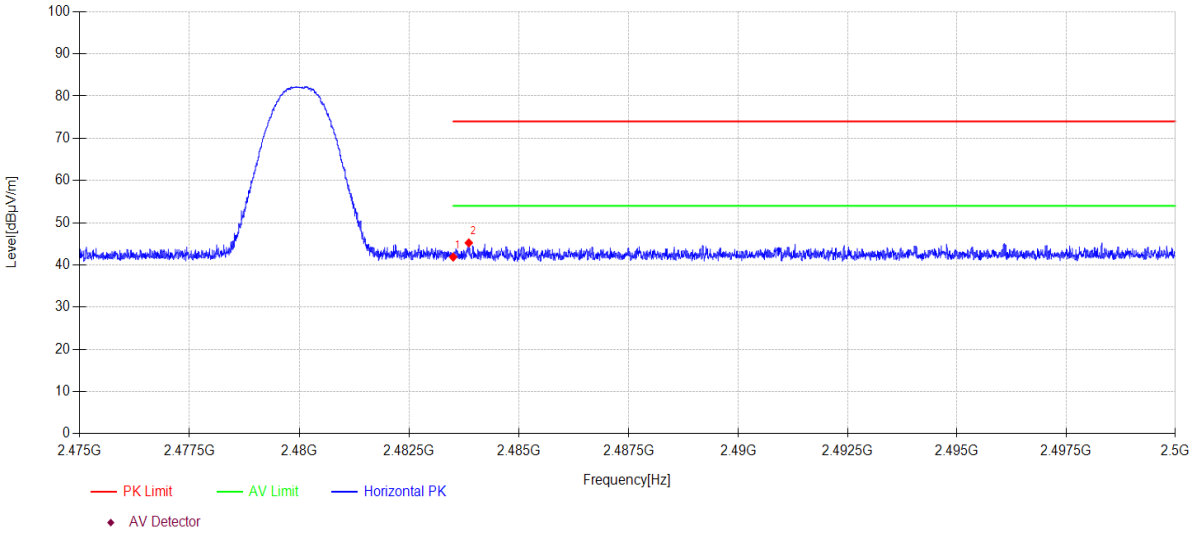
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	2370.170	13.64	27.18	3.85	0.00	44.67	74.00	29.33	PK	Vertical
2	2390.000	11.17	27.26	3.87	0.00	42.30	74.00	31.70	PK	Vertical

Note:
1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:	2024-04-03	**Tested By**:	Junchang Du
EUT:	JBuds Lux ANC Wireless Headset	**Model Number**:	JBuds Lux ANC
Test Mode:	DH5 TX 2480MHz	**Power Supply**:	Battery
Condition:	Temp:23.4°C;Humi:62.3%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q23111529-2E JBuds Lux ANC\FCC ABOVE 1G\103		
Memo:	Sample Number:S24012615-002 Power Setting:2		

Test Graph



Data List

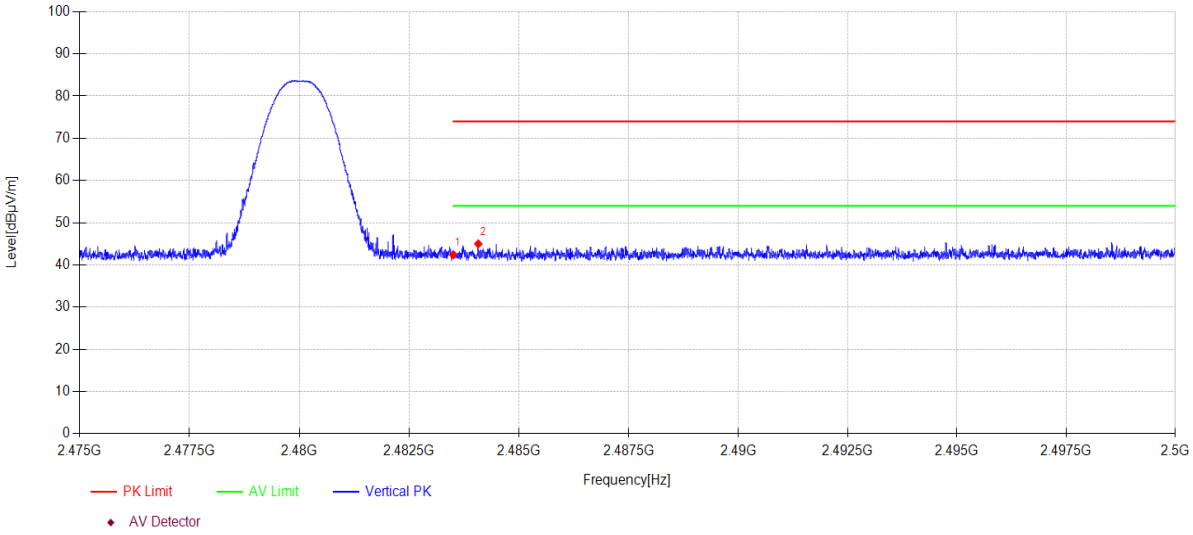
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	2483.500	10.40	27.53	3.94	0.00	41.87	74.00	32.13	PK	Horizontal
2	2483.855	13.75	27.54	3.94	0.00	45.23	74.00	28.77	PK	Horizontal

Note:
1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:	2024-04-03	**Tested By**:	Junchang Du
EUT:	JBuds Lux ANC Wireless Headset	**Model Number**:	JBuds Lux ANC
Test Mode:	DH5 TX 2480MHz	**Power Supply**:	Battery
Condition:	Temp:23.4°C;Humi:62.3%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q23111529-2E JBuds Lux ANC\FCC ABOVE 1G\104		
Memo:	Sample Number:S24012615-002 Power Setting:2		

Test Graph



Data List

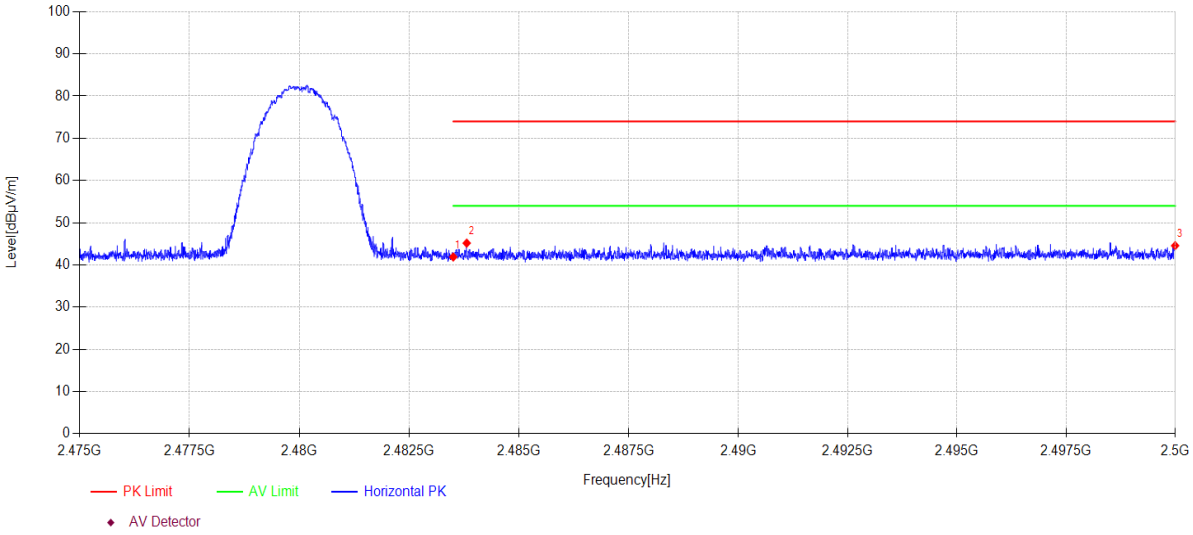
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	2483.500	10.92	27.53	3.94	0.00	42.39	74.00	31.61	PK	Vertical
2	2484.070	13.51	27.54	3.94	0.00	44.99	74.00	29.01	PK	Vertical

Note:
1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:	2024-04-03	**Tested By**:	Junchang Du
EUT:	JBuds Lux ANC Wireless Headset	**Model Number**:	JBuds Lux ANC
Test Mode:	2DH5 TX 2480MHz	**Power Supply**:	Battery
Condition:	Temp:23.4°C;Humi:62.3%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q23111529-2E JBuds Lux ANC\FCC ABOVE 1G\105		
Memo:	Sample Number:S24012615-002 Power Setting:2		

Test Graph



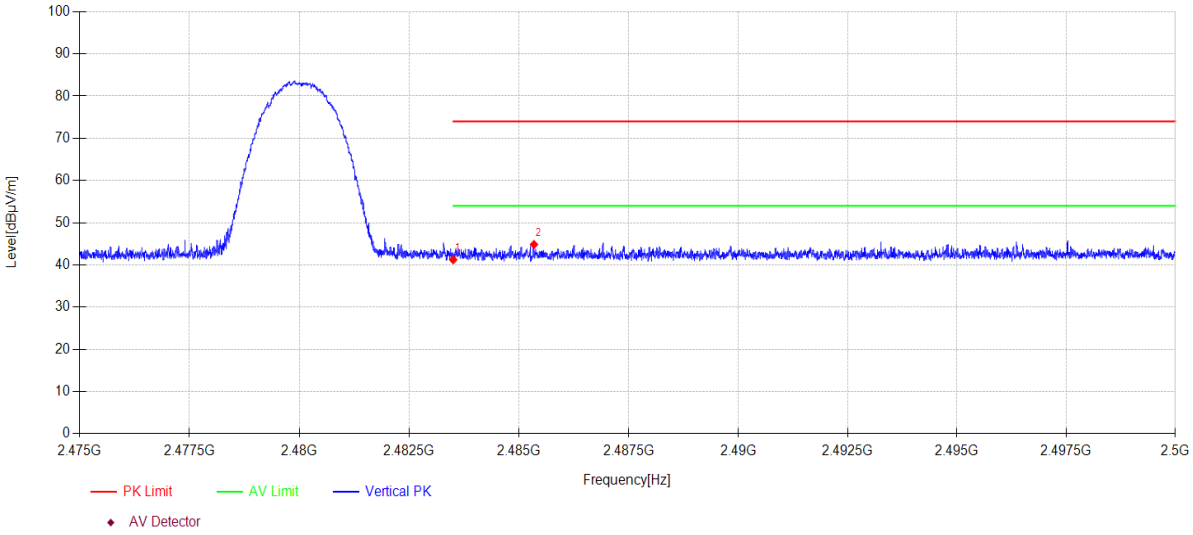
Data List										
NO.	**Freq. [MHz]**	**Reading [dBµV/m]**	**Antenna Factor [dB]**	**Cable loss [dB]**	**AMP [dB]**	**Level [dBµV/m]**	**Limit [dBµV/m]**	**Margin [dB]**	**Detector**	**Polarity**
1	2483.500	10.42	27.53	3.94	0.00	41.89	74.00	32.11	PK	Horizontal
2	2483.808	13.69	27.54	3.94	0.00	45.17	74.00	28.83	PK	Horizontal
3	2499.995	13.01	27.60	3.95	0.00	44.56	74.00	29.44	PK	Horizontal

Note:
1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:	2024-04-03	**Tested By**:	Junchang Du
EUT:	JBuds Lux ANC Wireless Headset	**Model Number**:	JBuds Lux ANC
Test Mode:	2DH5 TX 2480MHz	**Power Supply**:	Battery
Condition:	Temp:23.4°C;Humi:62.3%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q23111529-2E JBuds Lux ANC\FCC ABOVE 1G\106		
Memo:	Sample Number:S24012615-002 Power Setting:2		

Test Graph



Data List

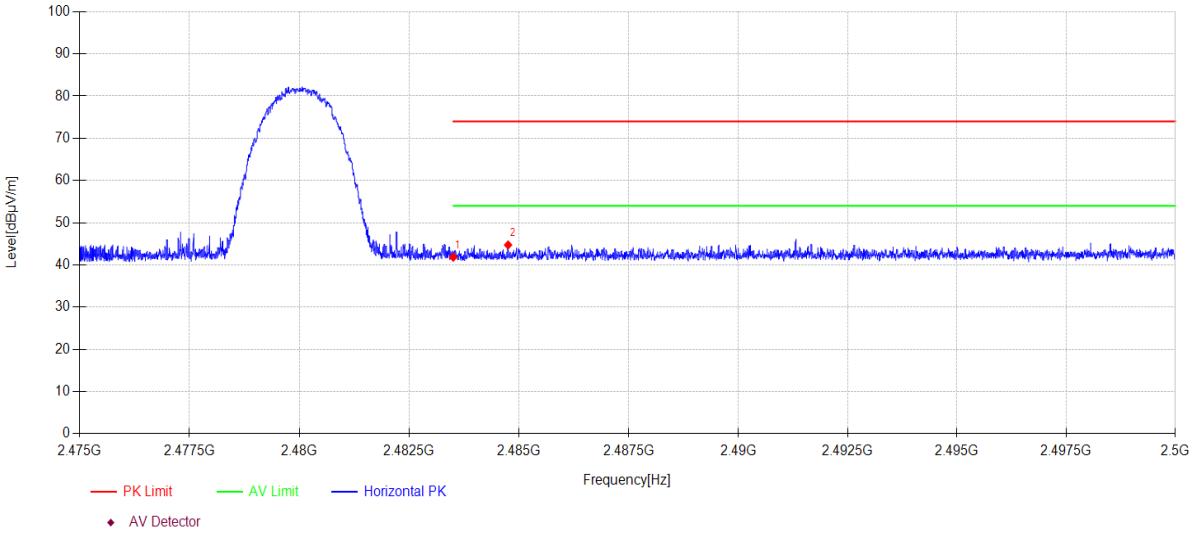
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	2483.500	9.77	27.53	3.94	0.00	41.24	74.00	32.76	PK	Vertical
2	2485.340	13.37	27.54	3.94	0.00	44.85	74.00	29.15	PK	Vertical

Note:
1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:	2024-04-03	**Tested By**:	Junchang Du
EUT:	JBuds Lux ANC Wireless Headset	**Model Number**:	JBuds Lux ANC
Test Mode:	3DH5 TX 2480MHz	**Power Supply**:	Battery
Condition:	Temp:23.4°C;Humi:62.3%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q23111529-2E JBuds Lux ANC\FCC ABOVE 1G\107		
Memo:	Sample Number:S24012615-002 Power Setting:2		

Test Graph



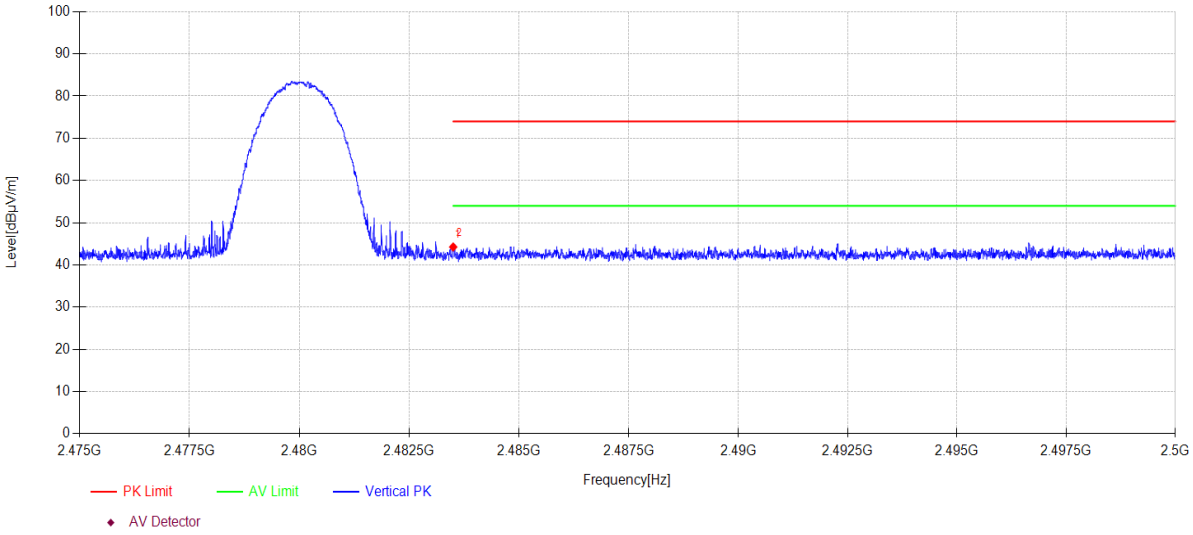
Data List										
NO.	**Freq. [MHz]**	**Reading [dBµV/m]**	**Antenna Factor [dB]**	**Cable loss [dB]**	**AMP [dB]**	**Level [dBµV/m]**	**Limit [dBµV/m]**	**Margin [dB]**	**Detector**	**Polarity**
1	2483.500	10.36	27.53	3.94	0.00	41.83	74.00	32.17	PK	Horizontal
2	2484.750	13.25	27.54	3.94	0.00	44.73	74.00	29.27	PK	Horizontal

Note:
1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:	2024-04-03	**Tested By**:	Junchang Du
EUT:	JBuds Lux ANC Wireless Headset	**Model Number**:	JBuds Lux ANC
Test Mode:	3DH5 TX 2480MHz	**Power Supply**:	Battery
Condition:	Temp:23.4°C;Humi:62.3%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q23111529-2E JBuds Lux ANC\FCC ABOVE 1G\108		
Memo:	Sample Number:S24012615-002 Power Setting:2		

Test Graph



Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	2483.500	12.78	27.53	3.94	0.00	44.25	74.00	29.75	PK	Vertical
2	2483.540	13.28	27.53	3.94	0.00	44.75	74.00	29.25	PK	Vertical

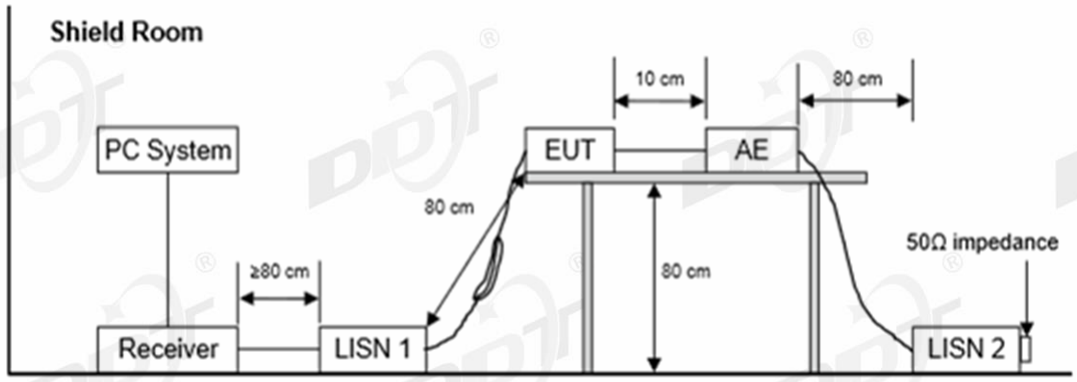
Note:
1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

16.Power Line Conducted Emissions

16.1. Test equipment

Equipment	Manufacturer	Model No.	Serial No.	Cal Due To
Two Line V-Network	R&S	ENV216	DDT-ZC00586	2024/07/11
Copper shaft signal cable	H&S	RG214-5	DDT-ZC01817	2024/04/26
Two Line V-Network	R&S	ENV216	DDT-ZC01247	2024/07/11
EMI Test Receiver	R&S	ESCI	DDT-ZC01972	2024/04/22
Condected Radiated Software	Audix	E3	DDT-ZC00562	/
Pulse Limiter	R&S	KH43101	DDT-ZC00747	2024/05/04

16.2. Block diagram of test setup



16.3. Limits

Frequency	Quasi-Peak Level dB(mV)	Average Level dB(mV)
150 kHz~500 kHz	66 ~ 56*	56 ~ 46*
500 kHz~5 MHz	56	46
5 MHz~30 MHz	60	50

Note 1: * Decreasing linearly with logarithm of frequency.

Note 2: The lower limit shall apply at the transition frequencies.

16.4. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	Description	other
Adapter	SAMSUNG	EP-TA200	Samsung fast charging	Input: 100-240~, 50/60Hz, 0.5A; Output: 9V/1.67A or 5V/2A

16.5. Test procedure

The EUT and Support equipment, if needed, were put placed on a non-metallic table, 80cm above the ground plane.

All support equipment power received from a second LISN.

Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.

The Receiver scanned from 150 kHz to 30 MHz for emissions in each of the test modes.

During the above scans, the emissions were maximized by cable manipulation.

The test mode(s) described in clause 2.4 were scanned during the preliminary test.

After the preliminary scan, we found the test mode producing the highest emission level.

The EUT configuration and worse cable configuration of the above highest emission levels were recorded for reference of the final test.

EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test.

A scan was taken on both power lines, Neutral and Line, recording at least the six highest emissions.

Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.

The test data of the worst-case condition(s) was recorded.
The bandwidth of test receiver is set at 9 kHz.

16.6. Test result

PASS. (See below detailed test result)

Note1: All emissions not reported below are too low against the prescribed limits.

Note2: "-----" means Peak detection; "-----" means Average detection.

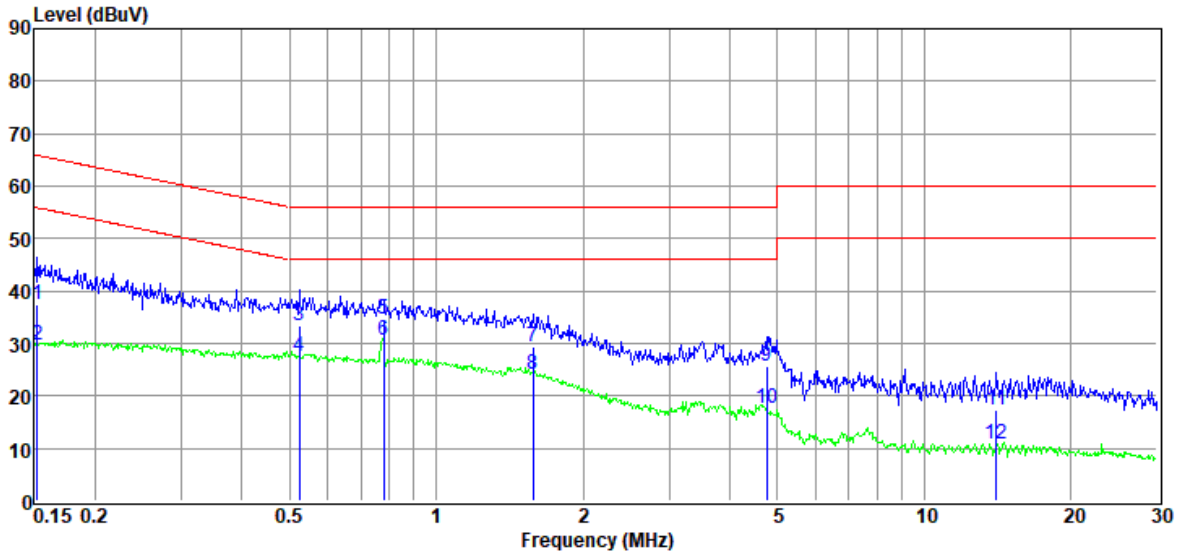
Note3: Pre-test AC conducted emission at both voltage AC 120V/60Hz and AC 240V/50Hz, recorded the worst case.

16.7. Test data

TR-4-E-010 Conducted Emission Test Result

Test Site	: DDT 5# Shield Room	D:\2024 report data\Q23111529-2E\FCC CE.EM6	
Test Date	: 2024-03-26	**Tested By**	: Junchang Du
EUT	: JBuds Lux ANC Wireless Headset	**Model Number**	: JBuds Lux ANC
Power Supply	: AC 120V/60Hz	**Test Mode**	: BT mode
Condition	: Temp:24.5°C,Humi:55.5%	**LISN**	: 2023 ENV216 2#/NEUTRAL
Memo	: S23111529-04		

Data: 2



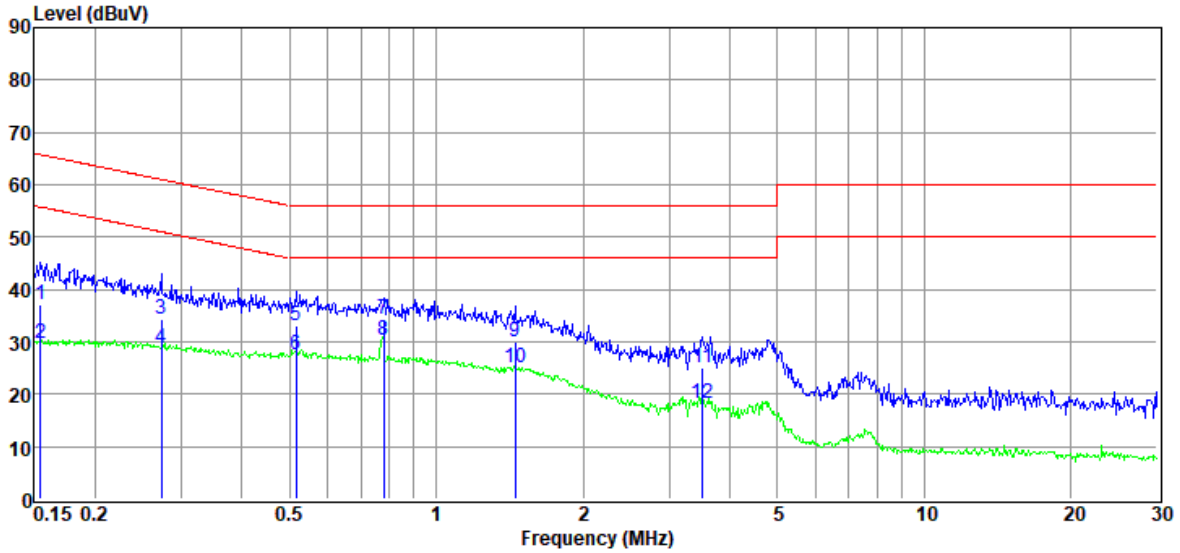
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	LISN Factor (dB)	Cable Loss (dB)	Pulse Limiter Factor (dB)	Result Level (dBµV)	Limit Line (dBµV)	Over Limit (dB)	Detector	Phase
1	0.15	17.03	9.93	0.19	10.15	37.30	65.87	-28.57	QP	NEUTRAL
2	0.15	9.53	9.93	0.19	10.15	29.80	55.87	-26.07	Average	NEUTRAL
3	0.52	13.27	9.98	0.25	10.04	33.54	56.00	-22.46	QP	NEUTRAL
4	0.52	7.36	9.98	0.25	10.04	27.63	46.00	-18.37	Average	NEUTRAL
5	0.78	14.33	9.97	0.28	9.94	34.52	56.00	-21.48	QP	NEUTRAL
6	0.78	10.28	9.97	0.28	9.94	30.47	46.00	-15.53	Average	NEUTRAL
7	1.58	9.25	9.97	0.35	9.78	29.35	56.00	-26.65	QP	NEUTRAL
8	1.58	4.05	9.97	0.35	9.78	24.15	46.00	-21.85	Average	NEUTRAL
9	4.75	5.31	9.99	0.37	9.98	25.65	56.00	-30.35	QP	NEUTRAL
10	4.75	-2.65	9.99	0.37	9.98	17.69	46.00	-28.31	Average	NEUTRAL
11	14.06	-3.11	10.02	0.39	10.12	17.42	60.00	-42.58	QP	NEUTRAL
12	14.06	-9.81	10.02	0.39	10.12	10.72	50.00	-39.28	Average	NEUTRAL

Note: 1. Result Level = Read Level +LISN Factor + Pulse Limiter Factor + Cable loss.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

TR-4-E-010 Conducted Emission Test Result

Test Site	:	DDT 5# Shield Room	D:\2024 report data\Q23111529-2E\FCC CE.EM6		
Test Date	:	2024-03-26	**Tested By**	:	Junchang Du
EUT	:	JBuds Lux ANC Wireless Headset	**Model Number**	:	JBuds Lux ANC
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	BT mode
Condition	:	Temp:24.5°C,Humi:55.5%	**LISN**	:	2023 ENV216 2#/LINE
Memo	:	S23111529-04			

Data: 4



Item (Mark)	Freq. (MHz)	Read Level (dBµV)	LISN Factor (dB)	Cable Loss (dB)	Pulse Limiter Factor (dB)	Result Level (dBµV)	Limit Line (dBµV)	Over Limit (dB)	Detector	Phase
1	0.15	16.80	9.93	0.19	10.15	37.07	65.74	-28.67	QP	LINE
2	0.15	9.53	9.93	0.19	10.15	29.80	55.74	-25.94	Average	LINE
3	0.27	13.89	9.95	0.23	10.12	34.19	61.03	-26.84	QP	LINE
4	0.27	8.46	9.95	0.23	10.12	28.76	51.03	-22.27	Average	LINE
5	0.52	12.76	9.98	0.25	10.04	33.03	56.00	-22.97	QP	LINE
6	0.52	7.24	9.98	0.25	10.04	27.51	46.00	-18.49	Average	LINE
7	0.78	14.27	9.97	0.28	9.94	34.46	56.00	-21.54	QP	LINE
8	0.78	10.14	9.97	0.28	9.94	30.33	46.00	-15.67	Average	LINE
9	1.45	9.99	9.99	0.35	9.80	30.13	56.00	-25.87	QP	LINE
10	1.45	4.86	9.99	0.35	9.80	25.00	46.00	-21.00	Average	LINE
11	3.51	4.91	9.97	0.36	9.89	25.13	56.00	-30.87	QP	LINE
12	3.51	-1.82	9.97	0.36	9.89	18.40	46.00	-27.60	Average	LINE

Note: 1. Result Level = Read Level +LISN Factor + Pulse Limiter Factor + Cable loss.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

18. Photos of the EUT

Please refer to DDT-Q23111529-1E appendix I

----------End Report----------