

12.4. Test result

Test Engineer:	Zhang Xiaoye	Test Site:	RF Measurement System 3#
Ambient Condition:	24.9°C,55.6%RH	Test Date:	2026.6.13-2026.6.13
Test Power Supply:	DC 12V	Sample Number:	S26042735-004

Test Mode	Antenna	Frequency [MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor [dB]
DH5	Ant1	2402	2.89	3.75	77.07	1.13
		2441	2.89	3.75	77.07	1.13
		2480	2.89	3.75	77.07	1.13
2DH5	Ant1	2402	2.90	3.75	77.33	1.12
		2441	2.90	3.75	77.33	1.12
		2480	2.90	3.76	77.13	1.13
3DH5	Ant1	2402	2.90	3.76	77.13	1.13
		2441	2.90	3.76	77.13	1.13
		2480	2.90	3.75	77.33	1.12

12.5. Test graphs







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

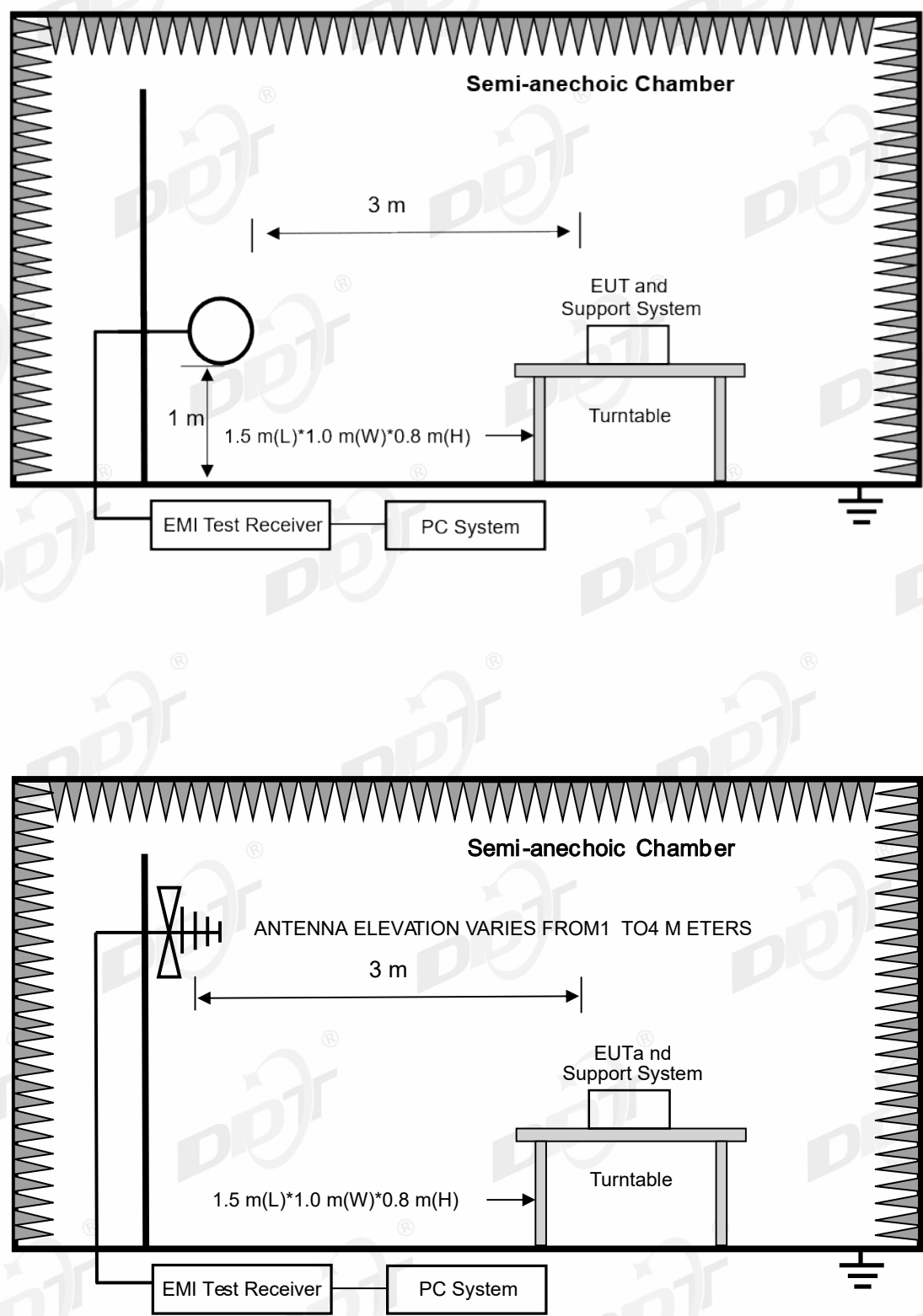
Below 1GHz:

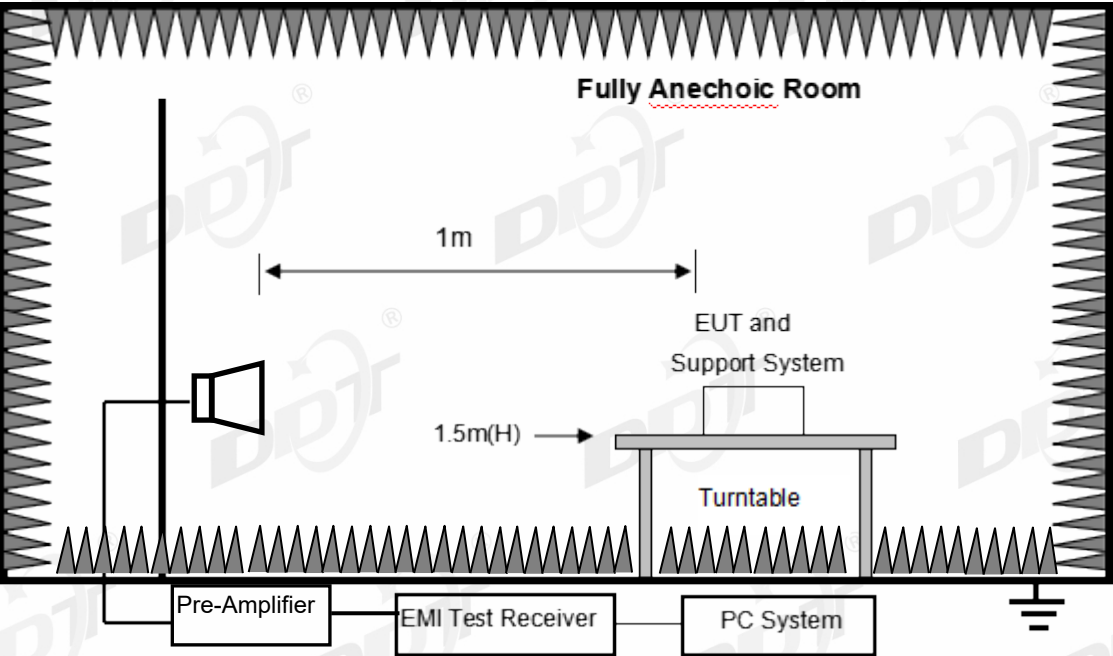
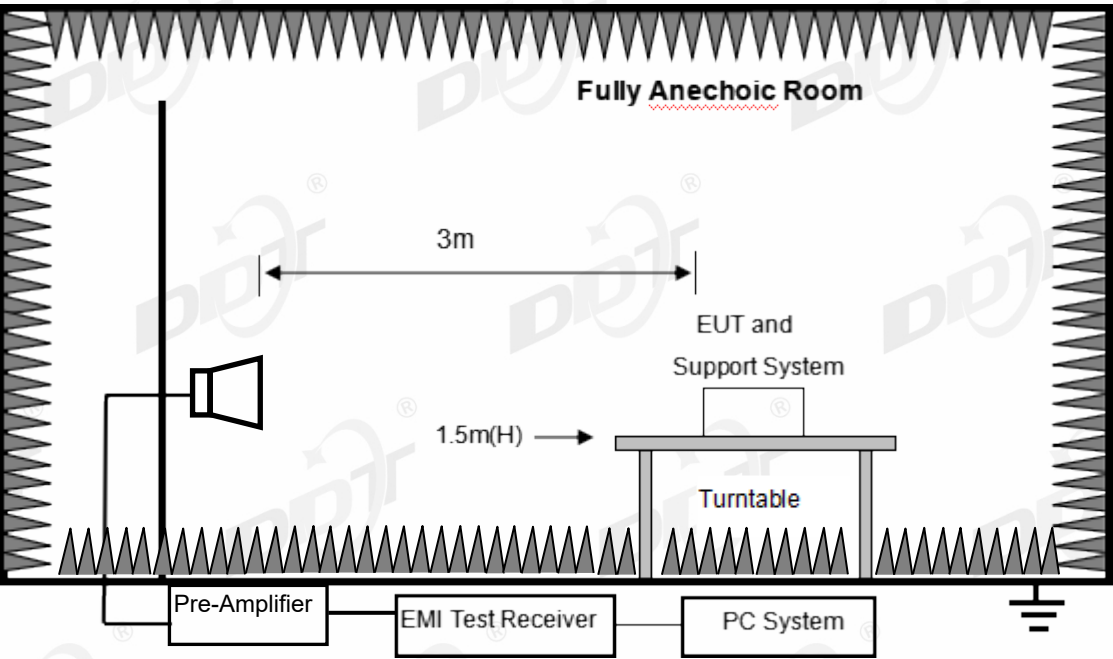
Equipment	Manufacturer	Model No.	Serial No.	Cal Due To	Cal. Interval
RF cable	Zhongke Junchuang	JCTB510-NJW-NJW-0.6M	DDT-ZC04595	2026/10/10	1 Year
RF cable	Zhongke Junchuang	Z805UF-NJ-NJ-3M	DDT-ZC05590	2026/10/10	1 Year
RF cable	Zhongke Junchuang	Z805UF-NJ-NJ-10M	DDT-ZC05591	2026/10/10	1 Year
Radiation disturbance fully automated test software	Tonscend	JS32-RE (V5.0.0)	DDT-ZC02739	/	/
Pre-amplifier	SONOMA	310N	DDT-ZC01969	2026/07/06	1 Year
EMI TEST RECEIVER	R&S	ESU26	DDT-ZC01909	2027/02/27	1 Year
Trilog Broadband Antenna	Schwarzbeck	VULB 9163	DDT-ZC02050	2026/07/25	1 Year
Active Loop Antenna	Schwarzbeck	FMZB1519	DDT-ZC00524	2026/08/18	1 Year

Above 1GHz:

Equipment	Manufacturer	Model No.	Serial No.	Cal Due To	Cal. Interval
Band Reject Filter Group	Tonscend	JS0806-F	DDT-ZC05733	/	/
Hochgewinn-Hornantenne	SCHWARZBECK	BBHA 9120 D	DDT-ZC05922	2027/01/06	1 Year
Broadband Preamplifier	HPX	BP-01G-18G	DDT-ZC05923	2027/01/06	1 Year
Pre-amplifier	COM-POWER	PAM-840A	DDT-ZC01693	2027/03/05	1 Year
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	DDT-ZC00506	2027/03/04	1 Year
Signal & Spectrum analyzer	R&S	FSV40-N	DDT-ZC04979	2026/07/04	1 Year
SPECTRUM ANALYZER	R&S	FSU26	DDT-ZC00236	2026/07/06	1 Year
RF Cable	Tonscend	7+1+1+0.5+0.5m	DDT-ZC05978	2027/01/29	1 Year
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	DDT-ZC00506	2027/03/04	1 Year
PSA Series Spectrum Analyzer	Agilent	E4447A	DDT-ZC00517	2027/02/27	1 Year
RF cable	Zhongke Junchuang	JCT40P-2.92J-2.92J-1M	DDT-ZC03802	2026/10/10	1 Year
Radiation disturbance fully automated test software	Tonscend	JS-RE&RSE (V5.0.0)	DDT-ZC06466	/	/
Micro-Tronics filters	REBES	BRM50702	DDT-ZC03242	/	/

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
10.495-0.505	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	
		uV/m	dBuV/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 dBuV/m (Peak) 54.0 dBuV/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:

$$\text{Limit}_{3\text{m}}(\text{dBuV/m}) = \text{Limit}_{30\text{m}}(\text{dBuV/m}) + 40\text{Log}(30\text{m}/3\text{m})$$

(3) Limit for this EUT

The emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, and the emissions appearing within RSS-Gen section 8.10 Restricted frequency bands shall not exceed the limits shown in RSS-Gen section 8.9, all the other emissions shall be at least 20 dB below the fundamental emissions or comply with 15.209 limits and RSS-Gen section 8.9 limits.

14.4. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	Description	other
HP 66 6 th Gen Core Edition 15.6-inch iaptop	HP	HP ProBook450 G10	Test computer	/
DC Power Source	Varied	RU-150-30050	DC stabilized power supply	/

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 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 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 clause 4.1.5.2.2 procedure for average measure.

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

(9) 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.

(10) For 30 MHz ~ 25 GHz: (Scan with GFSK, $\pi/4$ -DQPSK and 8DPSK, the worst case is record and reported)

(11) 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 worst mode.

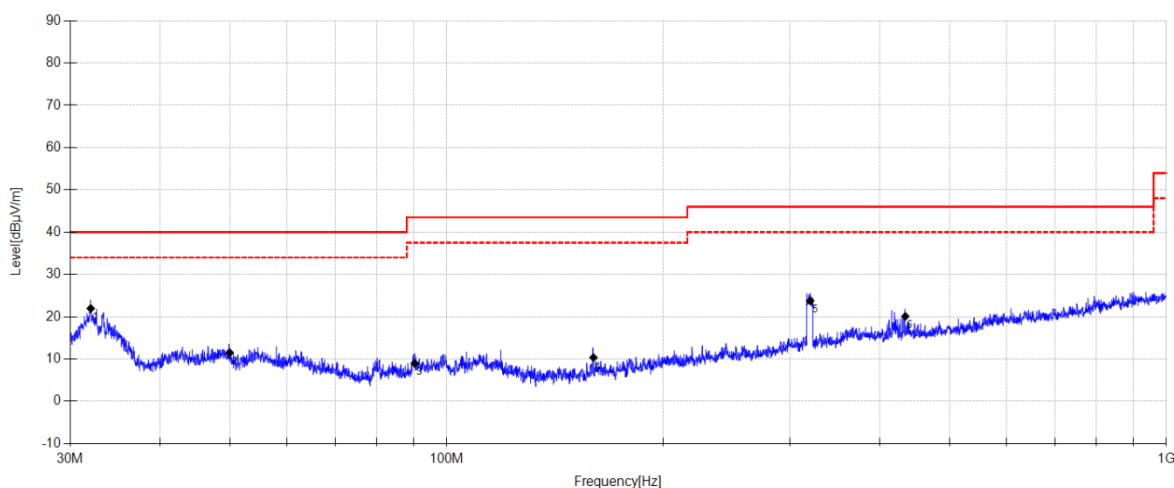
14.6. Test result

PASS. (See below detailed test result)

14.7. Test data

TR-4-E-009 Radiated Emission Test Result

Test Date: 2026-06-11 **Tested By:** Cao Jie
EUT: RADIO **Model Number:** HA1029A
Test Mode: TX DH5 2441MHz Mode **Power Supply:** DC 12V
Condition: Temp:20.6°C;Humi:55.9% **Test Site:** DDT 3M Chamber 3#
File Path: d:\ts\2026 report data\Q26042735-1E\FCC BELOW 1G\1
Memo: Sample Number:S26042735-003



Final Data List								
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	32.021	39.55	-17.59	21.96	40.00	18.04	QP	Horizontal
2	49.946	26.39	-14.91	11.48	40.00	28.52	QP	Horizontal
3	90.327	27.33	-18.38	8.95	43.50	34.55	QP	Horizontal
4	159.955	29.42	-19.09	10.33	43.50	33.17	QP	Horizontal
5	320.010	36.62	-12.85	23.77	46.00	22.23	QP	Horizontal
6	433.833	30.68	-10.60	20.08	46.00	25.92	QP	Horizontal

Note:

1.Result Level = Read Level + Factor

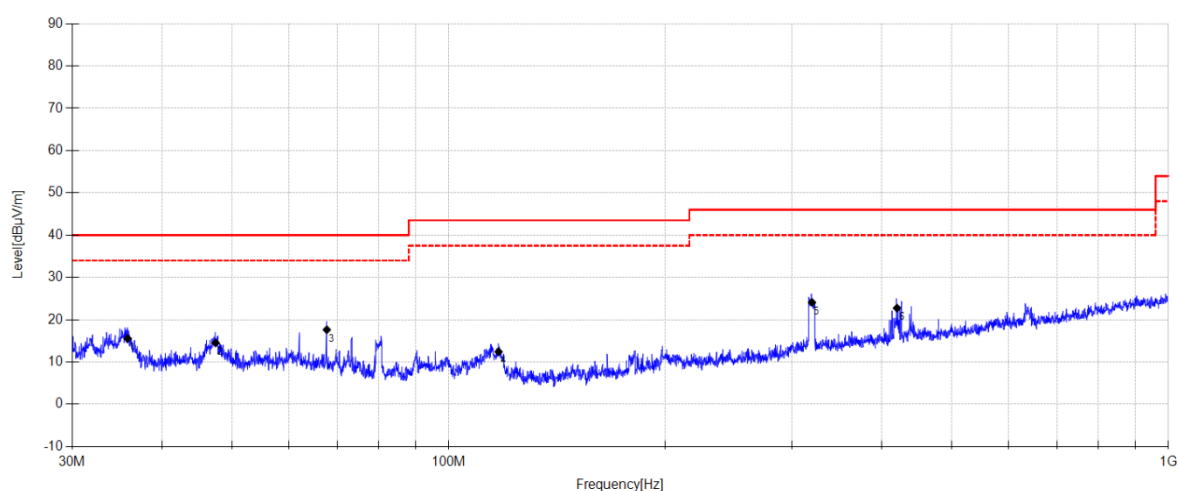
2.Factor = Antenna Factor + Cable Loss

3.If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.

4.Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2026-06-11 **Tested By:** Cao Jie
EUT: RADIO **Model Number:** HA1029A
Test Mode: TX DH5 2441MHz Mode **Power Supply:** DC 12V
Condition: Temp:20.6°C;Humi:55.9% **Test Site:** DDT 3M Chamber 3#
File Path: d:\ts\2026 report data\Q26042735-1E\FCC BELOW 1G\2
Memo: Sample Number:S26042735-003



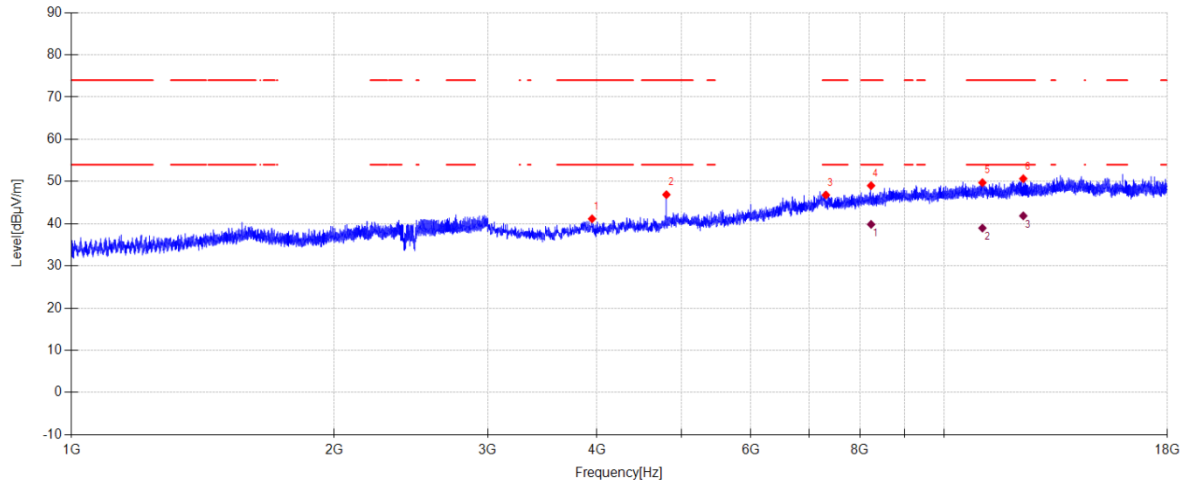
Final Data List								
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	35.798	32.23	-16.66	15.57	40.00	24.43	QP	Vertical
2	47.454	29.55	-15.03	14.52	40.00	25.48	QP	Vertical
3	67.712	35.21	-17.58	17.63	40.00	22.37	QP	Vertical
4	117.328	30.24	-17.82	12.42	43.50	31.08	QP	Vertical
5	319.786	36.96	-12.87	24.09	46.00	21.91	QP	Vertical
6	419.769	33.51	-10.77	22.74	46.00	23.26	QP	Vertical

Note:

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

TR-4-E-009 Radiated Emission Test Result

Test Date: 2026-06-10 **Tested By:** Cao Jie
Test Mode: TX DH5 2402MHz Mode **Power Supply:** Battery
Condition: Temp:24.5°C;Humi:48.0% **Test Site:** 4# Fully Anechoic Room
File Path: d:\ts\2026 report date\Q26042735-1E\FCC ABOVE 1G BT\27
Memo: Sample Number:S26042735-003 Power Setting:NA



Suspected Data List

NO.	Freq. [MHz]	Reading [dBV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	3948.000	49.75	31.70	-40.29	41.16	74.00	32.84	PK	Horizontal
2	4803.000	54.09	33.21	-40.42	46.88	74.00	27.12	PK	Horizontal
3	7315.500	48.27	37.61	-39.07	46.81	74.00	27.19	PK	Horizontal
4	8241.000	49.32	37.90	-38.20	49.02	74.00	24.98	PK	Horizontal
5	11053.500	45.27	39.70	-35.24	49.73	74.00	24.27	PK	Horizontal
6	12310.500	45.85	39.79	-34.97	50.67	74.00	23.33	PK	Horizontal

Final Data List

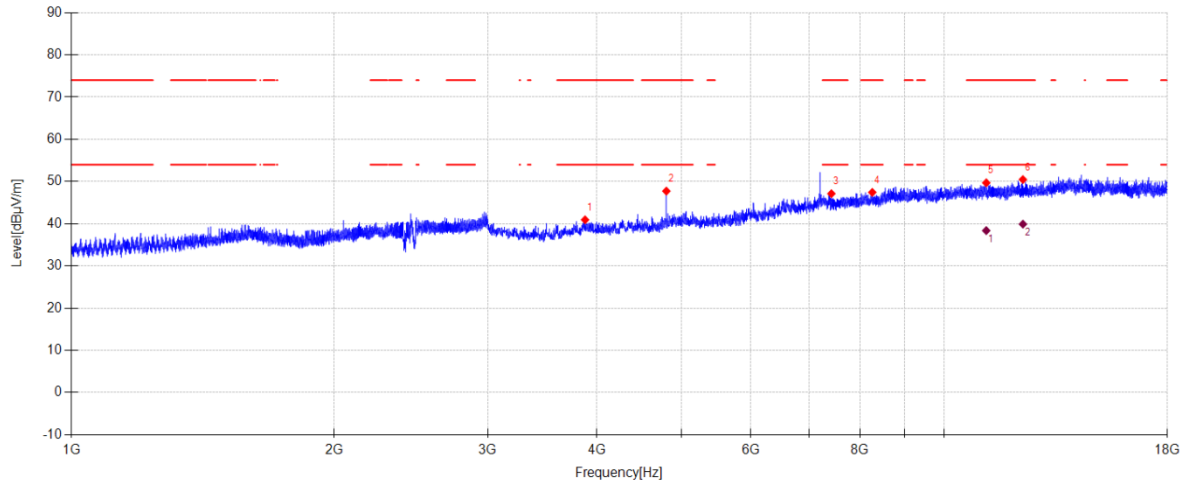
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	8241.000	40.14	37.90	-38.20	39.84	54.00	14.16	AV	Horizontal
2	11053.500	34.50	39.70	-35.24	38.96	54.00	15.04	AV	Horizontal
3	12310.500	37.04	39.79	-34.97	41.86	54.00	12.14	AV	Horizontal

Note:

1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2026-06-10 **Tested By:** Cao Jie
Test Mode: TX DH5 2402MHz Mode **Power Supply:** DC 12V
Condition: Temp:24.5°C;Humi:48.0% **Test Site:** 4# Fully Anechoic Room
File Path: d:\ts\2026 report date\Q26042735-1E\FCC ABOVE 1G BT\28
Memo: Sample Number:S26042735-003 Power Setting:NA

**Suspected Data List**

NO.	Freq. [MHz]	Reading [dBV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	3876.000	49.48	31.55	-40.10	40.93	74.00	33.07	PK	Vertical
2	4803.000	54.94	33.21	-40.42	47.73	74.00	26.27	PK	Vertical
3	7422.000	48.86	37.16	-38.90	47.12	74.00	26.88	PK	Vertical
4	8266.500	47.67	37.93	-38.17	47.43	74.00	26.57	PK	Vertical
5	11166.000	45.25	39.83	-35.39	49.69	74.00	24.31	PK	Vertical
6	12298.500	45.65	39.80	-34.98	50.47	74.00	23.53	PK	Vertical

Final Data List

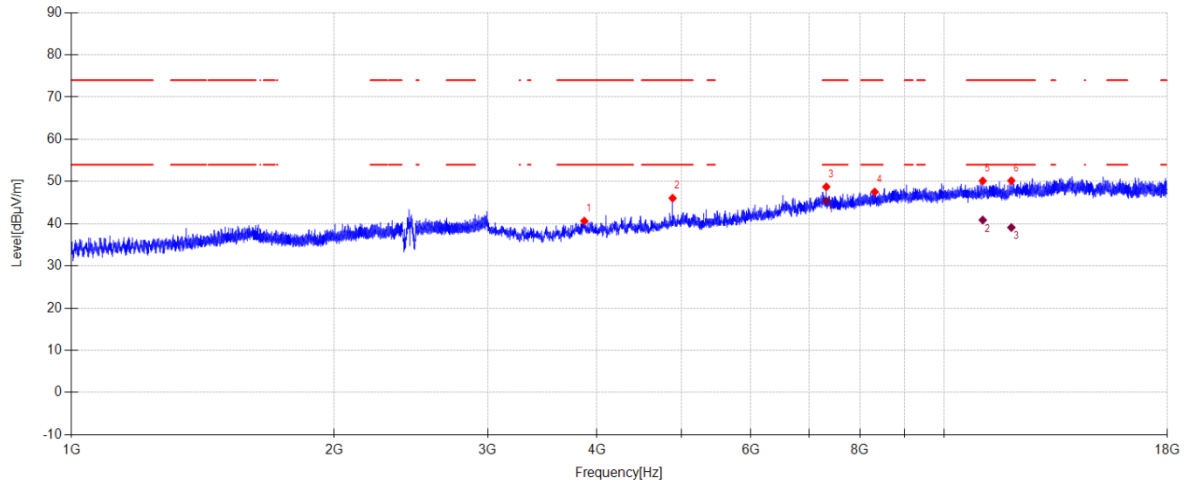
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	11166.000	33.93	39.83	-35.39	38.37	54.00	15.63	AV	Vertical
2	12298.500	35.08	39.80	-34.98	39.90	54.00	14.10	AV	Vertical

Note:

1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2026-06-10 **Tested By:** Cao Jie
Test Mode: TX DH5 2441MHz Mode **Power Supply:** DC 12V
Condition: Temp:24.5°C;Humi:48.0% **Test Site:** 4# Fully Anechoic Room
File Path: d:\ts\2026 report date\Q26042735-1E\FCC ABOVE 1G BT\29
Memo: Sample Number:S26042735-003 Power Setting:NA

**Suspected Data List**

NO.	Freq. [MHz]	Reading [dBV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	3868.500	49.21	31.54	-40.12	40.63	74.00	33.37	PK	Horizontal
2	4882.500	52.98	33.47	-40.40	46.05	74.00	27.95	PK	Horizontal
3	7323.000	50.23	37.56	-39.06	48.73	74.00	25.27	PK	Horizontal
4	8319.000	47.76	38.00	-38.22	47.54	74.00	26.46	PK	Horizontal
5	11062.500	45.69	39.70	-35.25	50.14	74.00	23.86	PK	Horizontal
6	11929.500	45.20	39.66	-34.67	50.19	74.00	23.81	PK	Horizontal

Final Data List

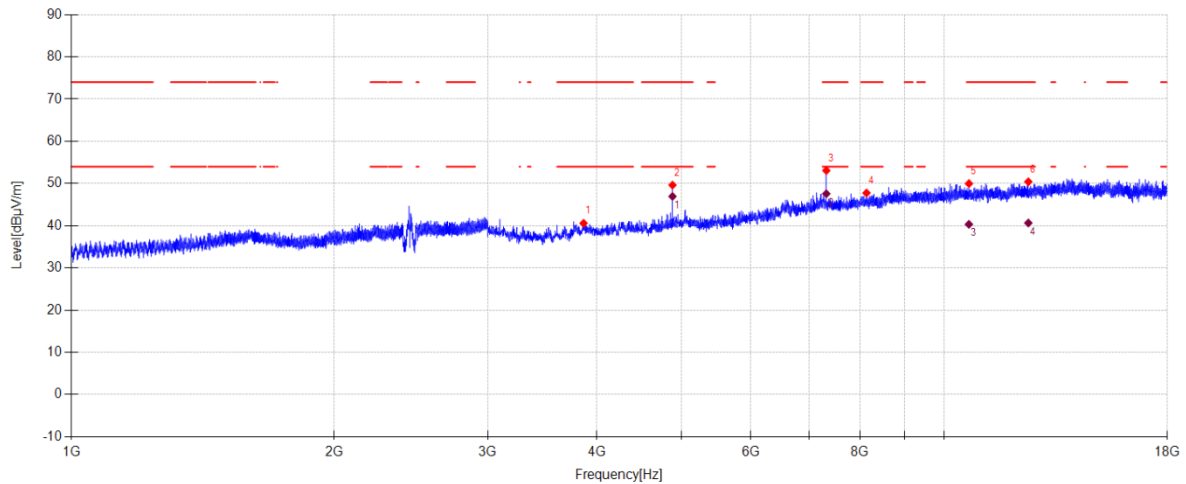
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	7323.000	46.88	37.56	-39.06	45.38	54.00	8.62	AV	Horizontal
2	11062.500	36.43	39.70	-35.25	40.88	54.00	13.12	AV	Horizontal
3	11929.500	34.12	39.66	-34.67	39.11	54.00	14.89	AV	Horizontal

Note:

1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2026-06-10 **Tested By:** Cao Jie
Test Mode: TX DH5 2441MHz Mode **Power Supply:** DC 12V
Condition: Temp:24.5°C;Humi:48.0% **Test Site:** 4# Fully Anechoic Room
File Path: d:\ts\2026 report date\Q26042735-1E\FCC ABOVE 1G BT\30
Memo: Sample Number:S26042735-003 Power Setting:NA

**Suspected Data List**

NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	3861.000	49.20	31.52	-40.14	40.58	74.00	33.42	PK	Vertical
2	4881.000	56.56	33.46	-40.40	49.62	74.00	24.38	PK	Vertical
3	7323.000	54.57	37.56	-39.06	53.07	74.00	20.93	PK	Vertical
4	8142.000	48.25	37.90	-38.39	47.76	74.00	26.24	PK	Vertical
5	10666.500	45.95	39.93	-35.90	49.98	74.00	24.02	PK	Vertical
6	12475.500	45.55	39.78	-34.92	50.41	74.00	23.59	PK	Vertical

Final Data List

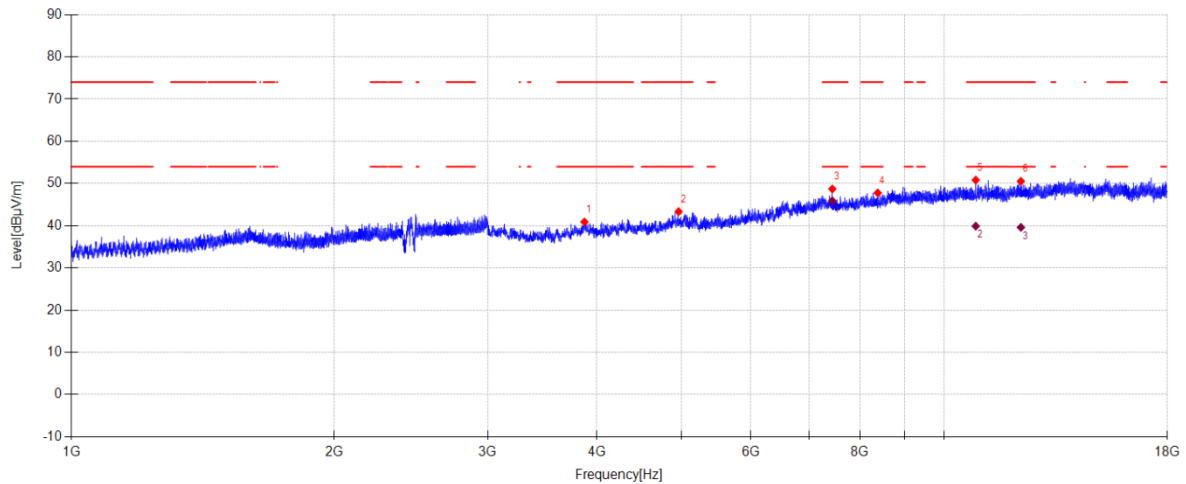
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	4881.000	53.89	33.46	-40.40	46.95	54.00	7.05	AV	Vertical
2	7323.032	49.08	37.56	-39.06	47.58	54.00	6.42	AV	Vertical
3	10666.500	36.30	39.93	-35.90	40.33	54.00	13.67	AV	Vertical
4	12475.500	35.79	39.78	-34.92	40.65	54.00	13.35	AV	Vertical

Note:

1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2026-06-10 **Tested By:** Cao Jie
Test Mode: TX DH5 2480MHz Mode **Power Supply:** DC 12V
Condition: Temp:24.5°C;Humi:48.0% **Test Site:** 4# Fully Anechoic Room
File Path: d:\ts\2026 report date\Q26042735-1E\FCC ABOVE 1G BT\31
Memo: Sample Number:S26042735-003 Power Setting:NA

**Suspected Data List**

NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	3870.000	49.48	31.54	-40.12	40.90	74.00	33.10	PK	Horizontal
2	4960.500	50.12	33.74	-40.52	43.34	74.00	30.66	PK	Horizontal
3	7440.000	50.52	37.12	-38.92	48.72	74.00	25.28	PK	Horizontal
4	8386.500	48.20	38.07	-38.50	47.77	74.00	26.23	PK	Horizontal
5	10860.000	46.50	39.94	-35.61	50.83	74.00	23.17	PK	Horizontal
6	12234.000	45.64	39.87	-34.97	50.54	74.00	23.46	PK	Horizontal

Final Data List

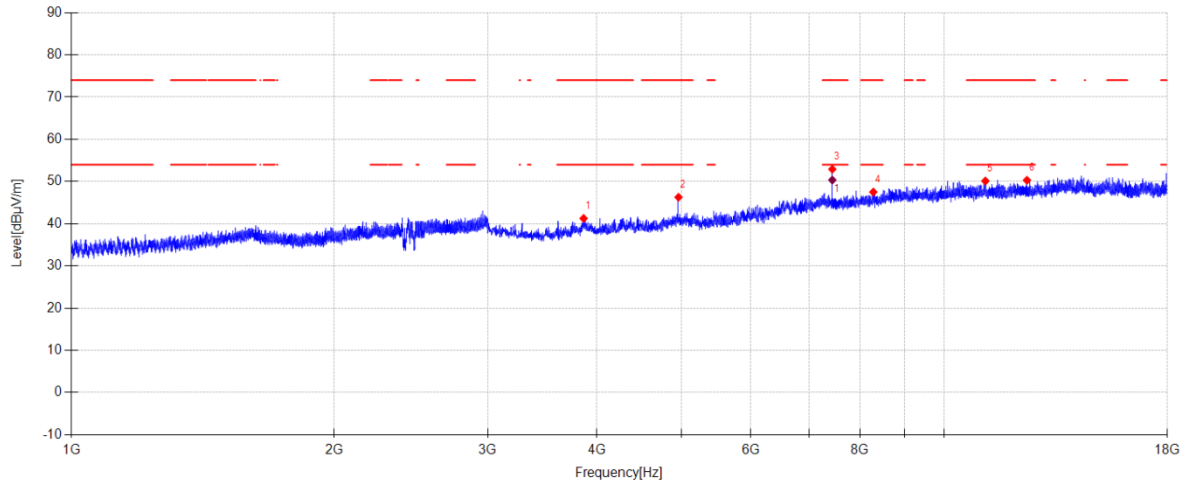
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	7440.000	47.70	37.12	-38.92	45.90	54.00	8.10	AV	Horizontal
2	10860.000	35.57	39.94	-35.61	39.90	54.00	14.10	AV	Horizontal
3	12234.000	34.71	39.87	-34.97	39.61	54.00	14.39	AV	Horizontal

Note:

1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2026-06-10 **Tested By:** Cao Jie
Test Mode: TX DH5 2480MHz Mode **Power Supply:** DC 12V
Condition: Temp:24.5°C;Humi:48.0% **Test Site:** 4# Fully Anechoic Room
File Path: d:\ts\2026 report date\Q26042735-1E\FCC ABOVE 1G BT\32
Memo: Sample Number:S26042735-003 Power Setting:NA



Suspected Data List

NO.	Freq. [MHz]	Reading [dBV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	3861.000	49.87	31.52	-40.14	41.25	74.00	32.75	PK	Vertical
2	4959.000	53.05	33.74	-40.51	46.28	74.00	27.72	PK	Vertical
3	7440.000	54.72	37.12	-38.92	52.92	74.00	21.08	PK	Vertical
4	8289.000	47.68	37.98	-38.15	47.51	74.00	26.49	PK	Vertical
5	11140.500	45.70	39.78	-35.36	50.12	74.00	23.88	PK	Vertical
6	12430.500	45.45	39.73	-34.89	50.29	74.00	23.71	PK	Vertical

Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	7440.040	52.15	37.12	-38.92	50.35	54.00	3.65	AV	Vertical

Note:

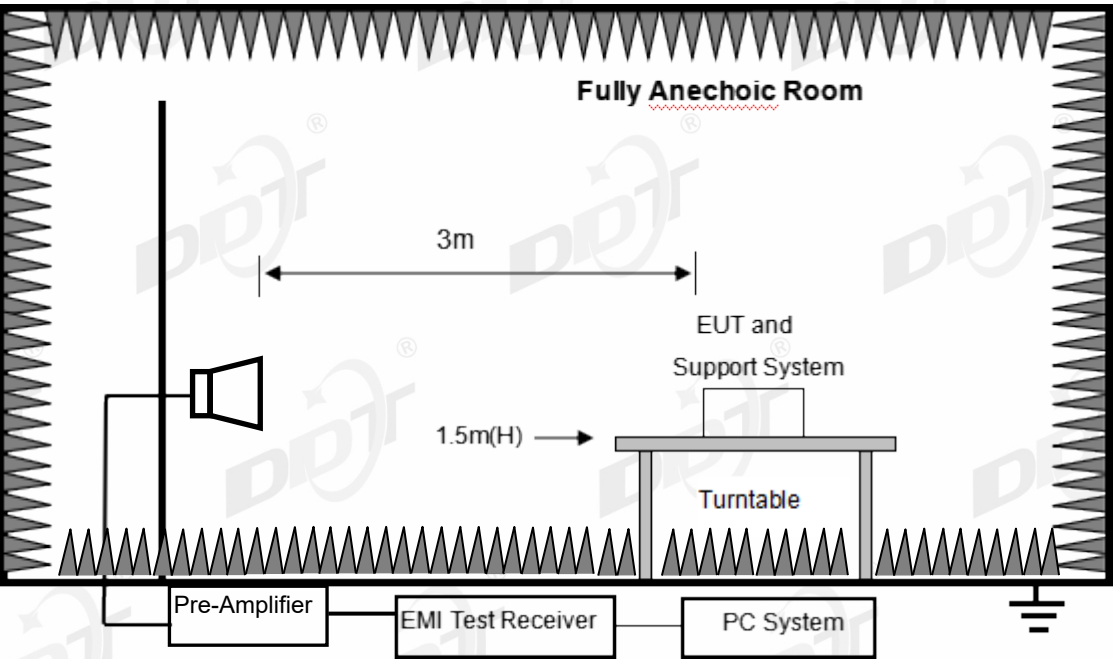
1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

15. Band Edge Compliance

15.1. Test equipment

Equipment	Manufacturer	Model No.	Serial No.	Cal Due To	Cal. Interval
Band Reject Filter Group	Tonscend	JS0806-F	DDT-ZC05733	/	/
Hochgewinn-Hornantenne	SCHWARZBECK	BBHA 9120 D	DDT-ZC05922	2027/01/06	1 Year
Broadband Preamplifier	HPX	BP-01G-18G	DDT-ZC05923	2027/01/06	1 Year
Pre-amplifier	COM-POWER	PAM-840A	DDT-ZC01693	2027/03/05	1 Year
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	DDT-ZC00506	2027/03/04	1 Year
Signal & Spectrum analyzer	R&S	FSV40-N	DDT-ZC04979	2026/07/04	1 Year
SPECTRUM ANALYZER	R&S	FSU26	DDT-ZC00236	2026/07/06	1 Year
RF Cable	Tonscend	7+1+1+0.5+0.5m	DDT-ZC05978	2027/01/29	1 Year
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	DDT-ZC00506	2027/03/04	1 Year
PSA Series Spectrum Analyzer	Agilent	E4447A	DDT-ZC00517	2027/02/27	1 Year
RF cable	Zhongke Junchuang	JCT40P-2.92J-2.92J-1M	DDT-ZC03802	2026/10/10	1 Year
Radiation disturbance fully automated test software	Tonscend	JS-RE&RSE (V5.0.0)	DDT-ZC06466	/	/

15.2. Block diagram of test setup



15.3. Limits

All restriction band should comply with 15.209 and RSS-Gen section 8.9 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
HP 66 6 th Gen Core Edition 15.6-inch iaptop	HP	HP ProBook450 G10	Test computer	/
DC Power Source	Varied	RU-150-30050	DC stabilized power supply	/

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

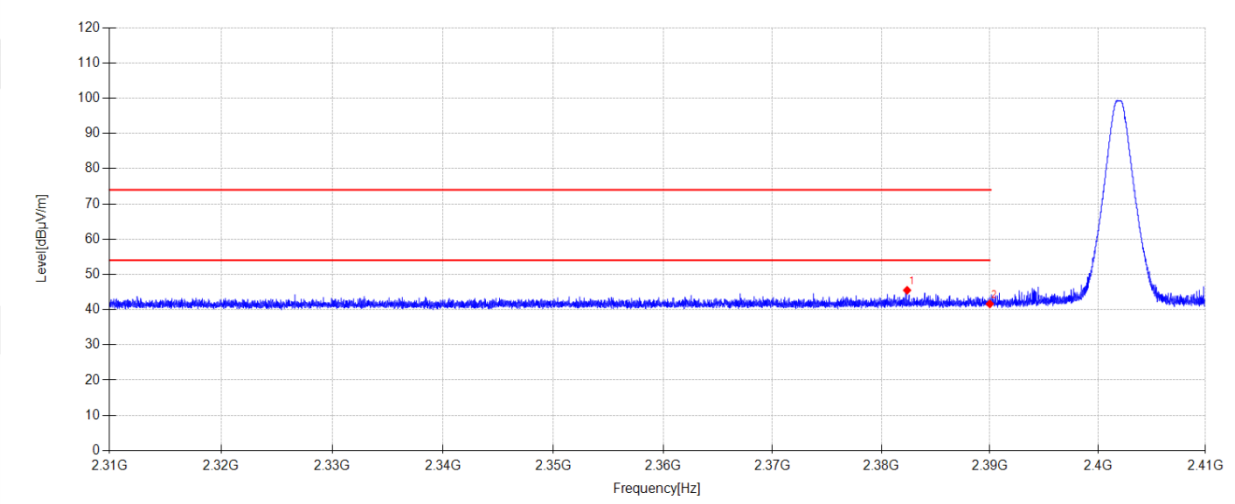
Test Date: 2026-06-10 Tested By: Cao Jie

Test Mode: TX DH5 2402MHz Mode Power Supply: DC 12V

Condition: Temp:24.5°C;Humi:48.0% Test Site: 4# Fully Anechoic Room

File Path: d:\ts\2026 report date\Q26042735-1E\FCC ABOVE 1G BT\33

Memo: Sample Number:S26042735-003 Power Setting:NA



Suspected Data List									
NO.	Freq. [MHz]	Reading [dBV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2382.370	45.99	28.16	-28.65	45.50	74.00	28.50	PK	Horizontal
2	2390.000	42.08	28.18	-28.63	41.63	74.00	32.37	PK	Horizontal

Note:

1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2026-06-10

Tested By:

Cao Jie

Test Mode:

TX DH5 2402MHz Mode

Power Supply:

DC 12V

Condition:

Temp:24.5°C;Humi:48.0%

Test Site:

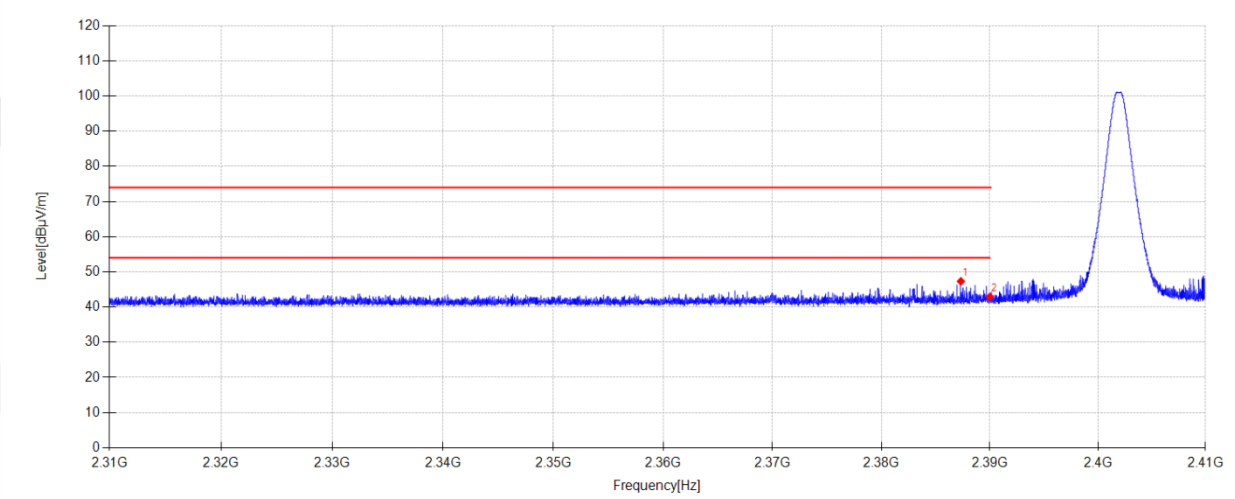
4# Fully Anechoic Room

File Path:

d:\ts\2026 report date\Q26042735-1E\FCC ABOVE 1G BT\34

Memo:

Sample Number:S26042735-003 Power Setting:NA



Suspected Data List									
NO.	Freq. [MHz]	Reading [dBV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2387.330	47.79	28.17	-28.64	47.32	74.00	26.68	PK	Vertical
2	2390.000	43.36	28.18	-28.63	42.91	74.00	31.09	PK	Vertical

Note:

1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2026-06-10

Tested By:

Cao Jie

Test Mode:

TX DH5 2480MHz Mode

Power Supply:

DC 12V

Condition:

Temp:24.5°C;Humi:48.0%

Test Site:

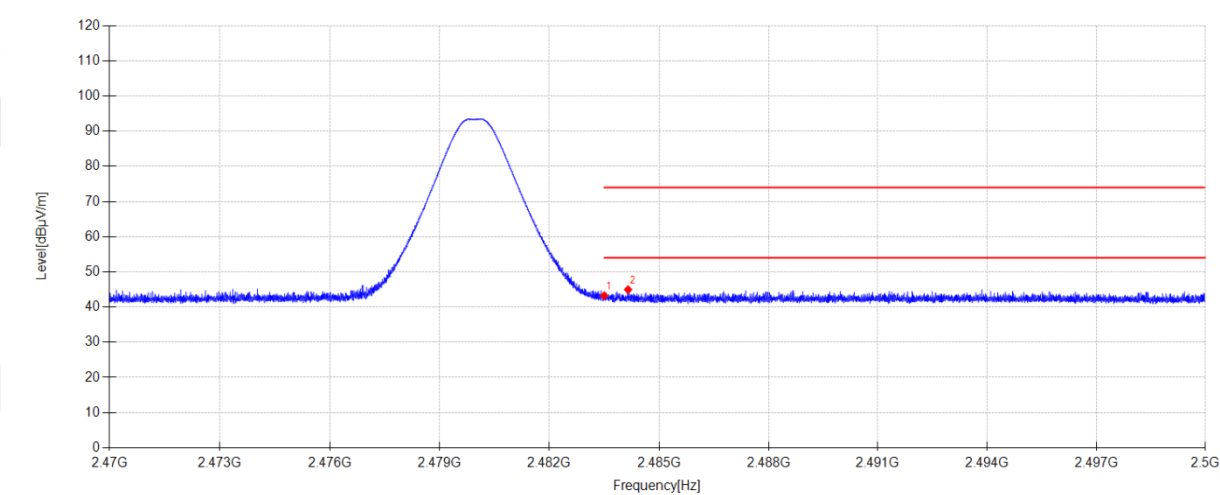
4# Fully Anechoic Room

File Path:

d:\ts\2026 report date\Q26042735-1E\FCC ABOVE 1G BT\35

Memo:

Sample Number:S26042735-003 Power Setting:NA



Suspected Data List									
NO.	Freq. [MHz]	Reading [dBV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2483.500	43.36	28.60	-28.72	43.24	74.00	30.76	PK	Horizontal
2	2484.154	45.08	28.60	-28.72	44.96	74.00	29.04	PK	Horizontal

Note:

1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2026-06-10

Tested By:

Cao Jie

Test Mode:

TX DH5 2480MHz Mode

Power Supply:

DC 12V

Condition:

Temp:24.5°C;Humi:48.0%

Test Site:

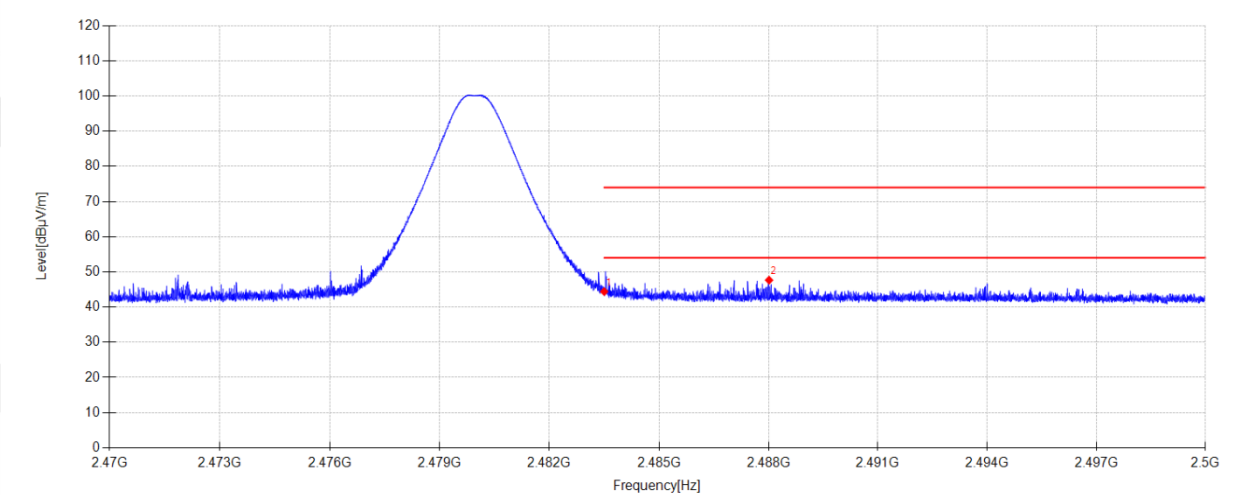
4# Fully Anechoic Room

File Path:

d:\ts\2026 report date\Q26042735-1E\FCC ABOVE 1G BT\36

Memo:

Sample Number:S26042735-003 Power Setting:NA



Suspected Data List									
NO.	Freq. [MHz]	Reading [dBV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2483.500	44.53	28.60	-28.72	44.41	74.00	29.59	PK	Vertical
2	2488.015	47.75	28.63	-28.72	47.66	74.00	26.34	PK	Vertical

Note:

1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2026-06-10

Tested By:

Cao Jie

Test Mode:

TX 2DH5 2480MHz Mode

Power Supply:

DC 12V

Condition:

Temp:24.5°C;Humi:48.0%

Test Site:

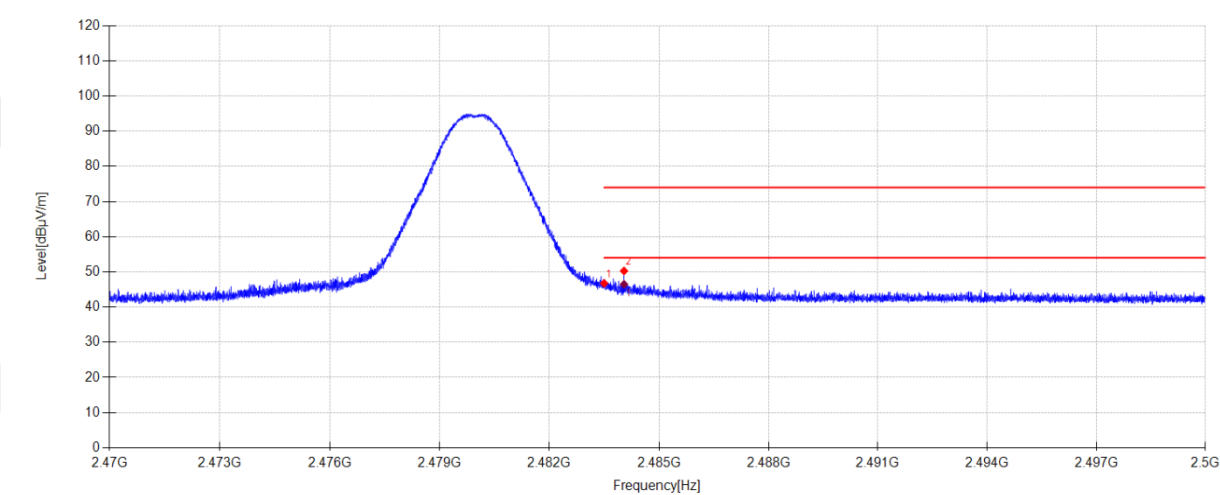
4# Fully Anechoic Room

File Path:

d:\ts\2026 report date\Q26042735-1E\FCC ABOVE 1G BT\37

Memo:

Sample Number:S26042735-003 Power Setting:NA



Suspected Data List									
NO.	Freq. [MHz]	Reading [dBV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2483.500	46.86	28.60	-28.72	46.74	74.00	27.26	PK	Horizontal
2	2484.043	50.39	28.60	-28.72	50.27	74.00	23.73	PK	Horizontal

Final Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2484.043	46.59	28.60	-28.72	46.47	54.00	7.53	AV	Horizontal

Note:

1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2026-06-10

Tested By:

Cao Jie

Test Mode:

TX 2DH5 2480MHz Mode

Power Supply:

DC 12V

Condition:

Temp:24.5°C;Humi:48.0%

Test Site:

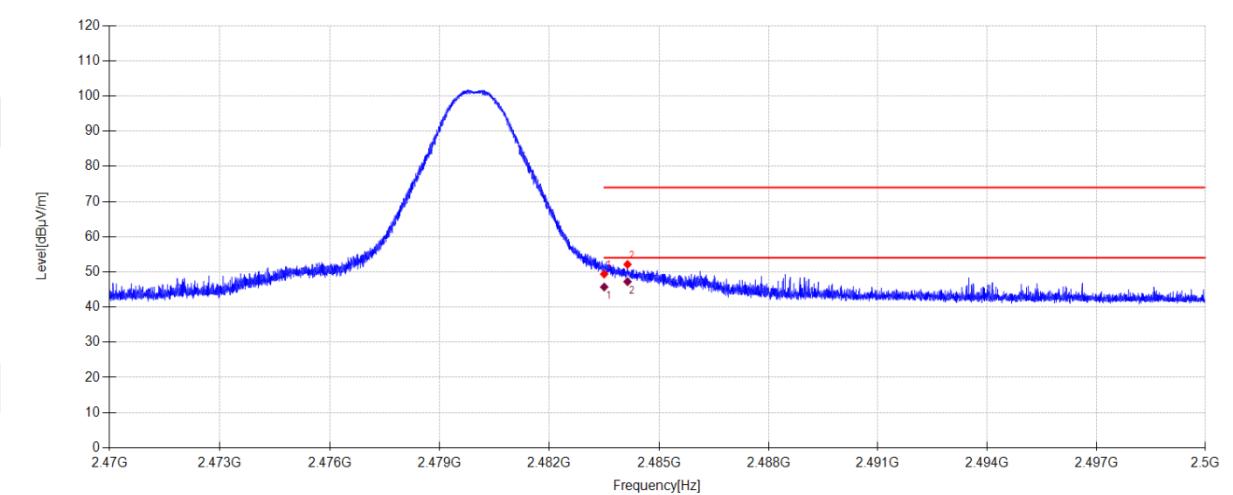
4# Fully Anechoic Room

File Path:

d:\ts\2026 report date\Q26042735-1E\FCC ABOVE 1G BT\38

Memo:

Sample Number:S26042735-003 Power Setting:NA



Suspected Data List									
NO.	Freq. [MHz]	Reading [dBV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2483.500	49.49	28.60	-28.72	49.37	74.00	24.63	PK	Vertical
2	2484.139	52.25	28.60	-28.72	52.13	74.00	21.87	PK	Vertical

Final Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2483.500	45.82	28.60	-28.72	45.70	54.00	8.30	AV	Vertical
2	2484.139	47.34	28.60	-28.72	47.22	54.00	6.78	AV	Vertical

Note:

1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2026-06-10

Tested By:

Cao Jie

Test Mode:

TX 3DH5 2480MHz Mode

Power Supply:

DC 12V

Condition:

Temp:24.5°C;Humi:48.0%

Test Site:

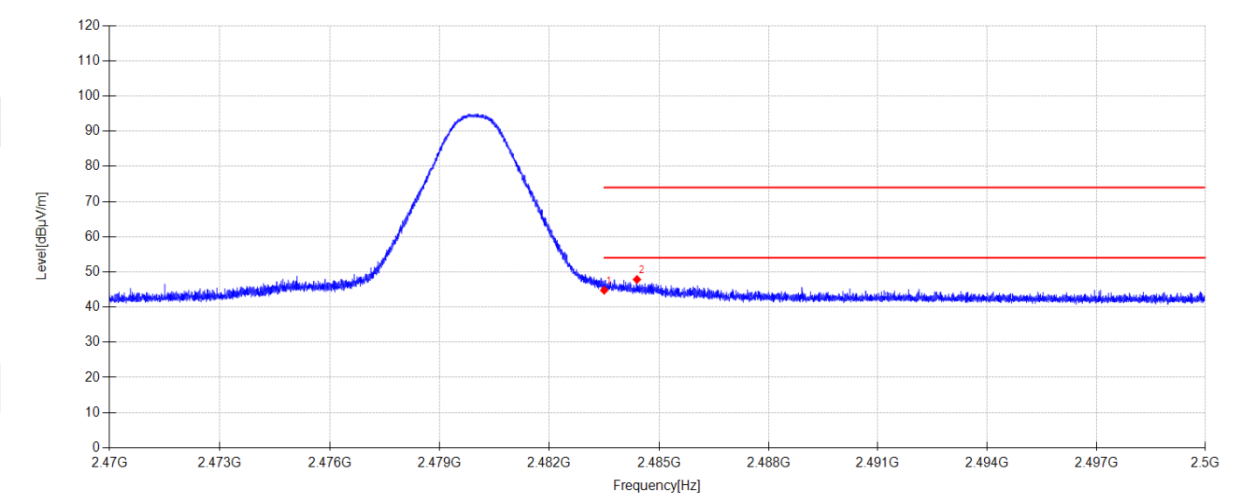
4# Fully Anechoic Room

File Path:

d:\ts\2026 report date\Q26042735-1E\FCC ABOVE 1G BT\39

Memo:

Sample Number:S26042735-003 Power Setting:NA



Suspected Data List									
NO.	Freq. [MHz]	Reading [dBV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2483.500	44.91	28.60	-28.72	44.79	74.00	29.21	PK	Horizontal
2	2484.397	47.95	28.61	-28.72	47.84	74.00	26.16	PK	Horizontal

Note:

1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2026-06-10

Tested By:

Cao Jie

Test Mode:

TX 3DH5 2480MHz Mode

Power Supply:

DC 12V

Condition:

Temp:24.5°C;Humi:48.0%

Test Site:

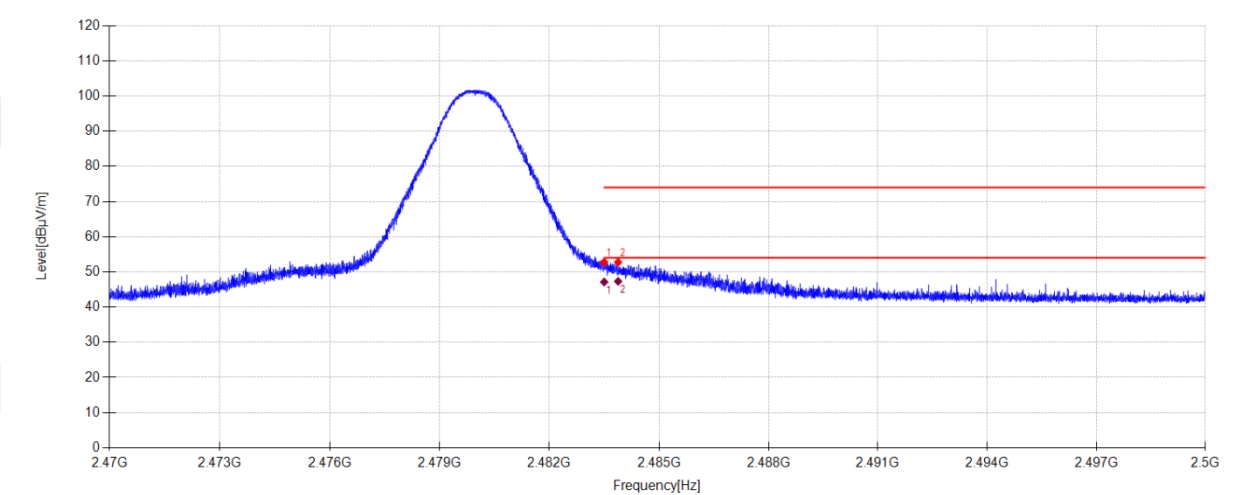
4# Fully Anechoic Room

File Path:

d:\ts\2026 report date\Q26042735-1E\FCC ABOVE 1G BT\40

Memo:

Sample Number:S26042735-003 Power Setting:NA



Suspected Data List									
NO.	Freq. [MHz]	Reading [dBV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2483.500	52.88	28.60	-28.72	52.76	74.00	21.24	PK	Vertical
2	2483.881	52.87	28.60	-28.72	52.75	74.00	21.25	PK	Vertical

Final Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2483.500	47.25	28.60	-28.72	47.13	54.00	6.87	AV	Vertical
2	2483.881	47.43	28.60	-28.72	47.31	54.00	6.69	AV	Vertical

Note:

1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2026-06-10

Tested By:

Cao Jie

Test Mode:

TX 3DH5 2402MHz Mode

Power Supply:

DC 12V

Condition:

Temp:24.5°C;Humi:48.0%

Test Site:

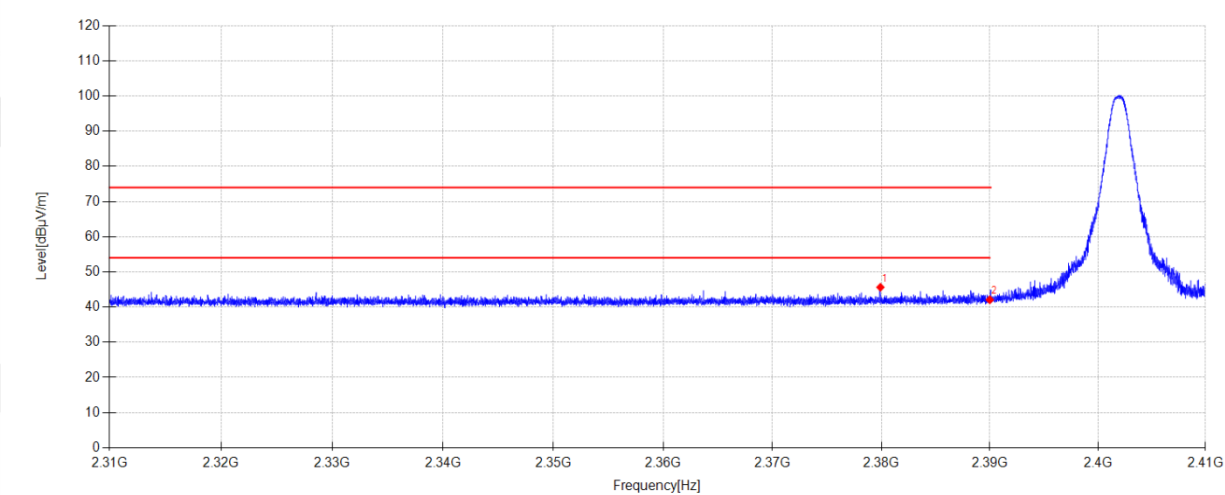
4# Fully Anechoic Room

File Path:

d:\ts\2026 report date\Q26042735-1E\FCC ABOVE 1G BT\41

Memo:

Sample Number:S26042735-003 Power Setting:NA



Suspected Data List									
NO.	Freq. [MHz]	Reading [dBV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2379.910	46.13	28.16	-28.66	45.63	74.00	28.37	PK	Horizontal
2	2390.000	42.52	28.18	-28.63	42.07	74.00	31.93	PK	Horizontal

Note:

1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2026-06-10

Tested By:

Cao Jie

Test Mode:

TX 3DH5 2402MHz Mode

Power Supply:

DC 12V

Condition:

Temp:24.5°C;Humi:48.0%

Test Site:

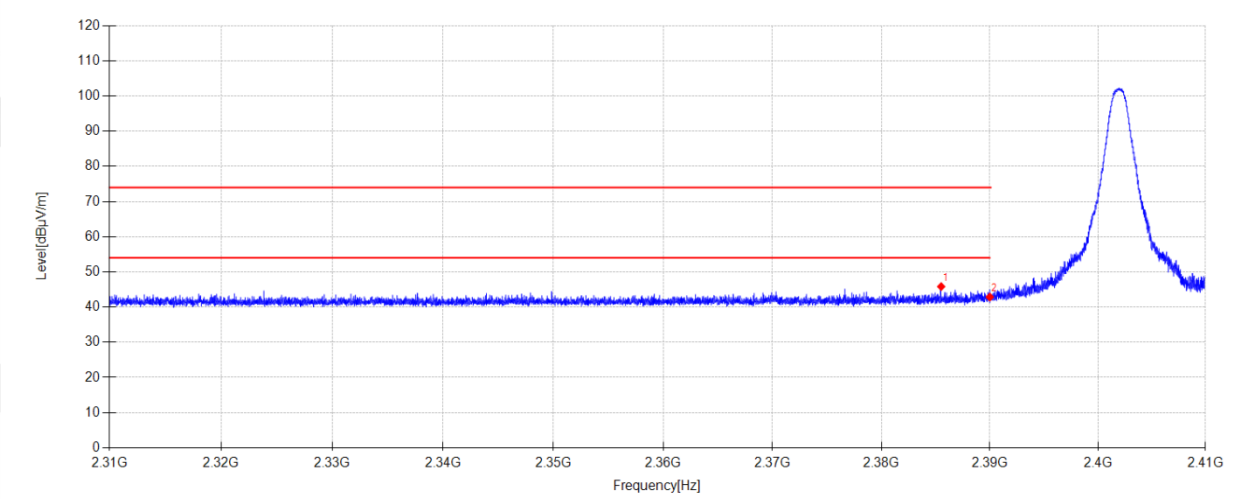
4# Fully Anechoic Room

File Path:

d:\ts\2026 report date\Q26042735-1E\FCC ABOVE 1G BT\42

Memo:

Sample Number:S26042735-003 Power Setting:NA



Suspected Data List									
NO.	Freq. [MHz]	Reading [dBV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2385.510	46.30	28.17	-28.64	45.83	74.00	28.17	PK	Vertical
2	2390.000	43.31	28.18	-28.63	42.86	74.00	31.14	PK	Vertical

Note:

1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2026-06-10

Tested By:

Cao Jie

Test Mode:

TX 2DH5 2402MHz Mode

Power Supply:

DC 12V

Condition:

Temp:24.5°C;Humi:48.0%

Test Site:

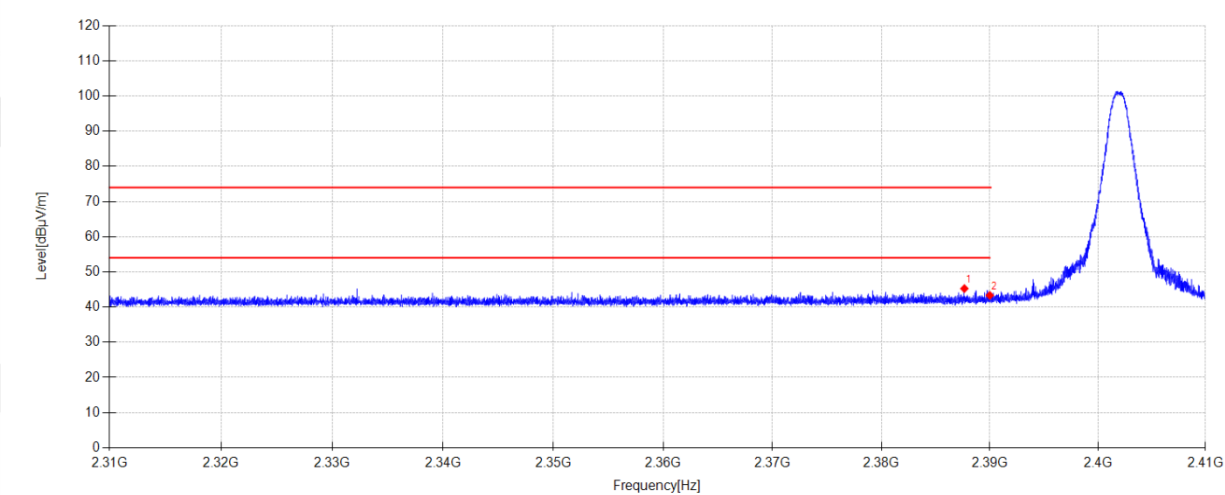
4# Fully Anechoic Room

File Path:

d:\ts\2026 report date\Q26042735-1E\FCC ABOVE 1G BT\43

Memo:

Sample Number:S26042735-003 Power Setting:NA



Suspected Data List									
NO.	Freq. [MHz]	Reading [dBV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2387.650	45.72	28.18	-28.64	45.26	74.00	28.74	PK	Horizontal
2	2390.000	43.78	28.18	-28.63	43.33	74.00	30.67	PK	Horizontal

Note:

1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2026-06-10

Tested By:

Cao Jie

Test Mode:

TX 2DH5 2402MHz Mode

Power Supply:

DC 12V

Condition:

Temp:24.5°C;Humi:48.0%

Test Site:

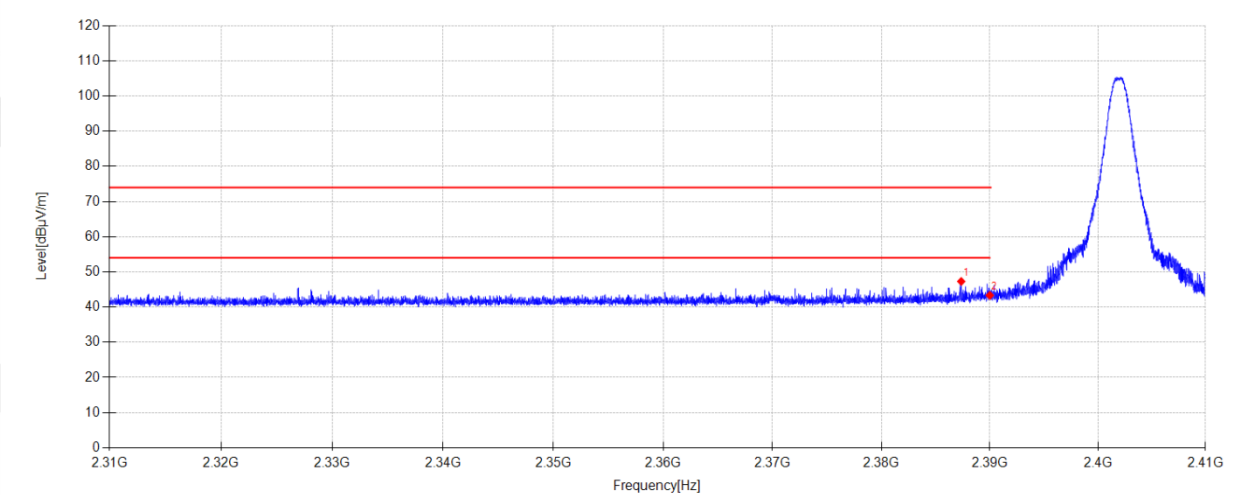
4# Fully Anechoic Room

File Path:

d:\ts\2026 report date\Q26042735-1E\FCC ABOVE 1G BT\44

Memo:

Sample Number:S26042735-003 Power Setting:NA



Suspected Data List									
NO.	Freq. [MHz]	Reading [dBV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2387.360	47.76	28.17	-28.64	47.29	74.00	26.71	PK	Vertical
2	2390.000	43.79	28.18	-28.63	43.34	74.00	30.66	PK	Vertical

Note:

1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

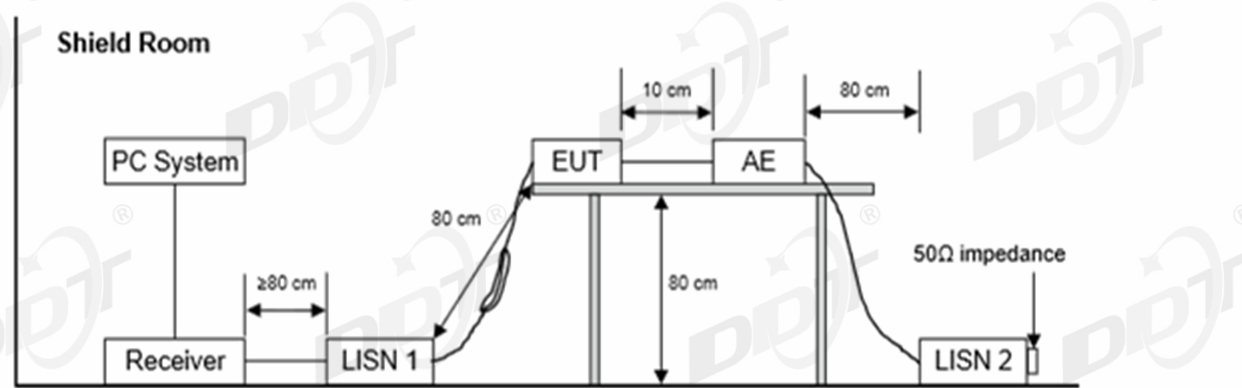
2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

16. Power Line Conducted Emissions

16.1. Test equipment

Equipment	Manufacturer	Model No.	Serial No.	Cal Due To
/	/	/	/	/

16.2. Block diagram of test setup



16.3. Limits

Frequency	Quasi-Peak Level dB(uV)	Average Level dB(uV)
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
/	/	/	/	/

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

Not applicable. Because the product is DC powered.

18. Photos of the EUT

Please refer to DDT-Q26042735-2E appendix I

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