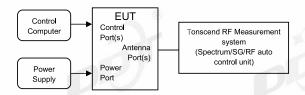


9. Number of Hopping Channel

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.

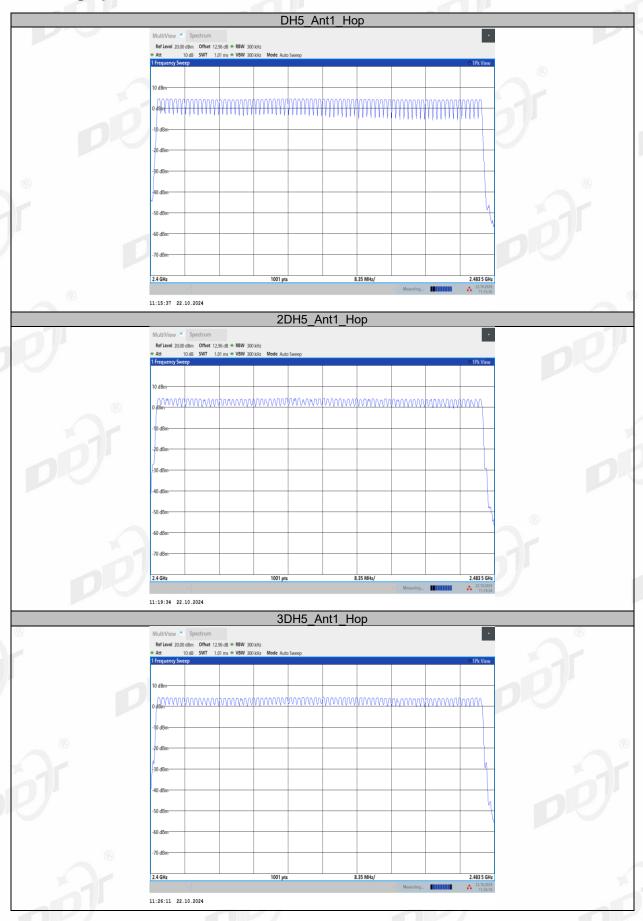
Span: The frequency band of operation

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.

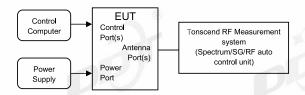
Test Engineer:	Zoe	Test Site:	RF Measurement System 4#
Ambient Condition:	23.6℃,50.0%RH	Test Date:	2024.10.22-2024.10.22
Test Power Supply:	battery	Sample Number:	S24082315-004

	(36)		(34)		(56)
Test Mode	Antenna	Frequency [MHz]	Result [Num]	Limit [Num]	Verdict
DH5	Ant1	Нор	79	≥15	PASS
2DH5	Ant1	Нор	79	≥15	PASS
3DH5	Ant1	Нор	79	≥15	PASS



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.

Test Engineer:	Zoe	Test Site:	RF Measurement System 4#
Ambient Condition:	23.6℃,50.0%RH	Test Date:	2024.10.22-2024.10.22
Test Power Supply:	battery	Sample Number:	S24082315-004

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



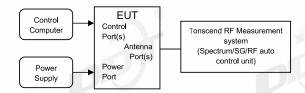






11.RF Conducted Spurious Emissions

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

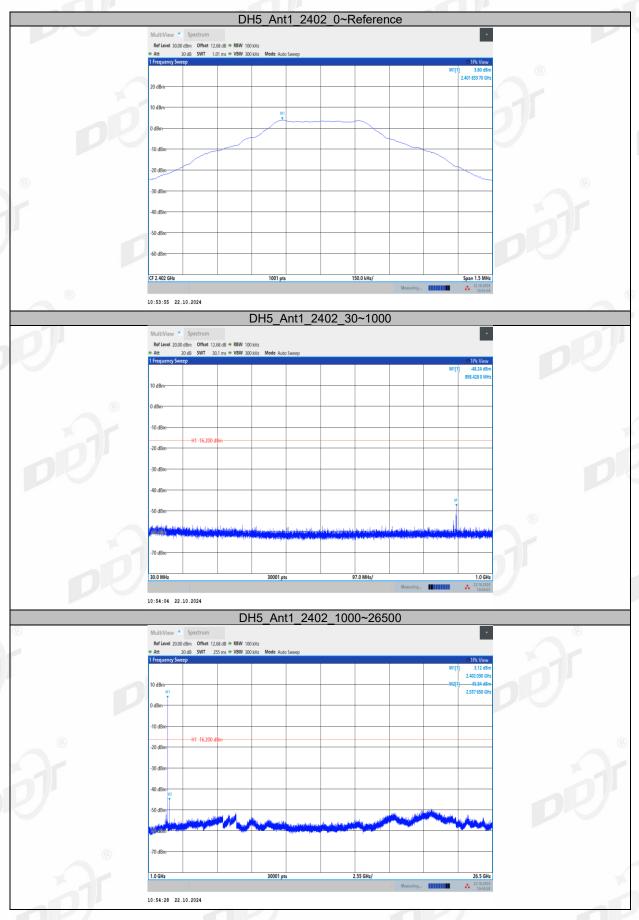
≥Span/RBW

Detector Mode: Peak
Sweep time: Auto
Trace mode Max hold

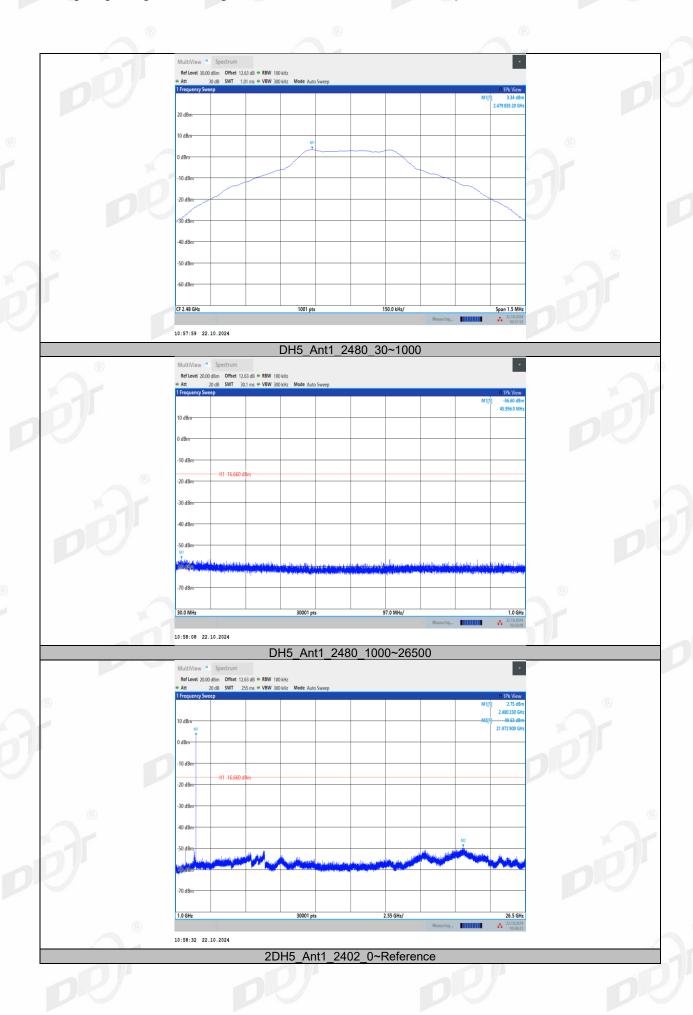
Allow the trace to stabilize, use the peak marker function to determine the maximum amplitude of all unwanted emissions outside of the authorized frequency band

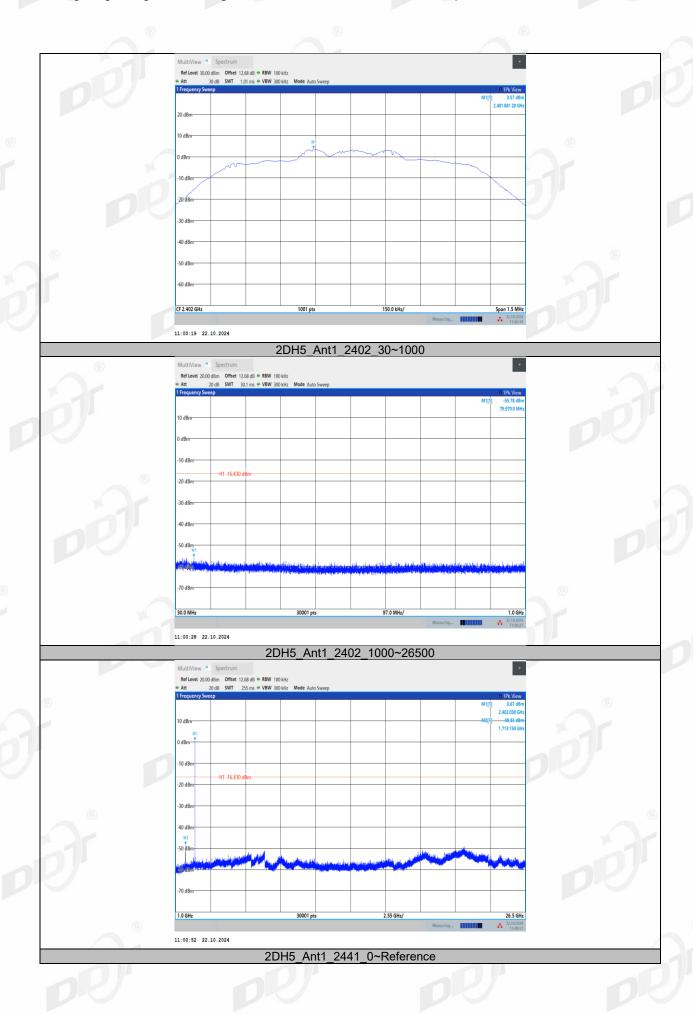
Test Engineer:	Zoe	Test Site:	RF Measurement System 4#
Ambient Condition:	23.6℃,50.0%RH	Test Date:	2024.10.22-2024.10.22
Test Power Supply:	battery	Sample Number:	S24082315-004

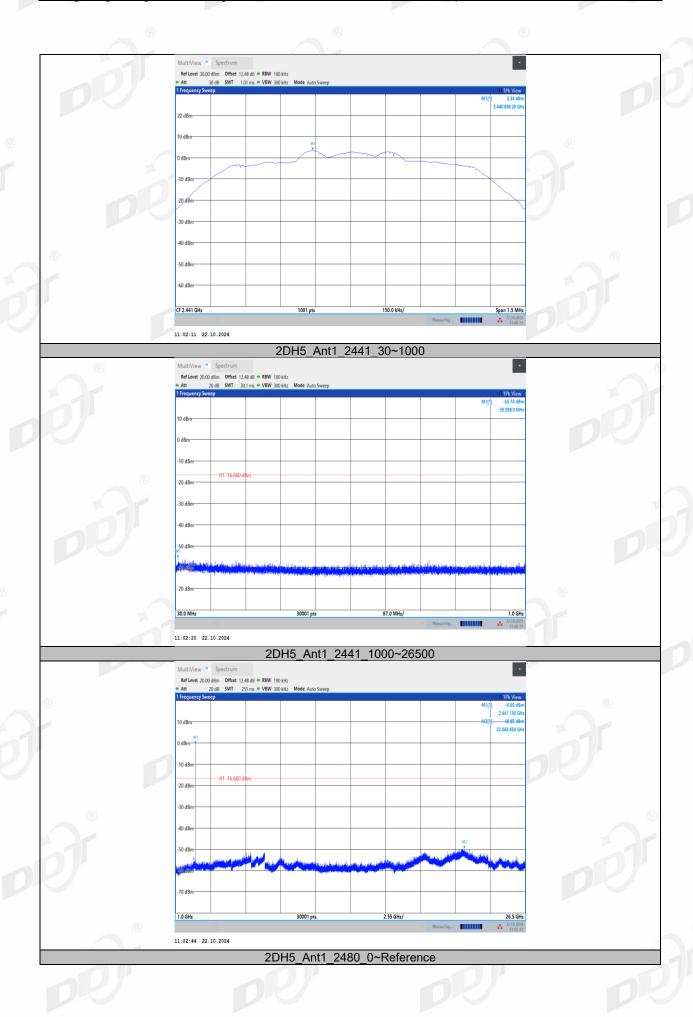
Mode	Freq. (MHz)	Verdict	
	Hopping off 2402	Pass	
GFSK	Hopping off 2441	Pass	
	Hopping off 2480	Pass	
	Hopping off 2402	Pass	
®π/4-DQPSK	Hopping off 2441	® Pass ®	
	Hopping off 2480	Pass	
	Hopping off 2402	Pass	
8DPSK	Hopping off 2441	Pass	
	Hopping off 2480	Pass	

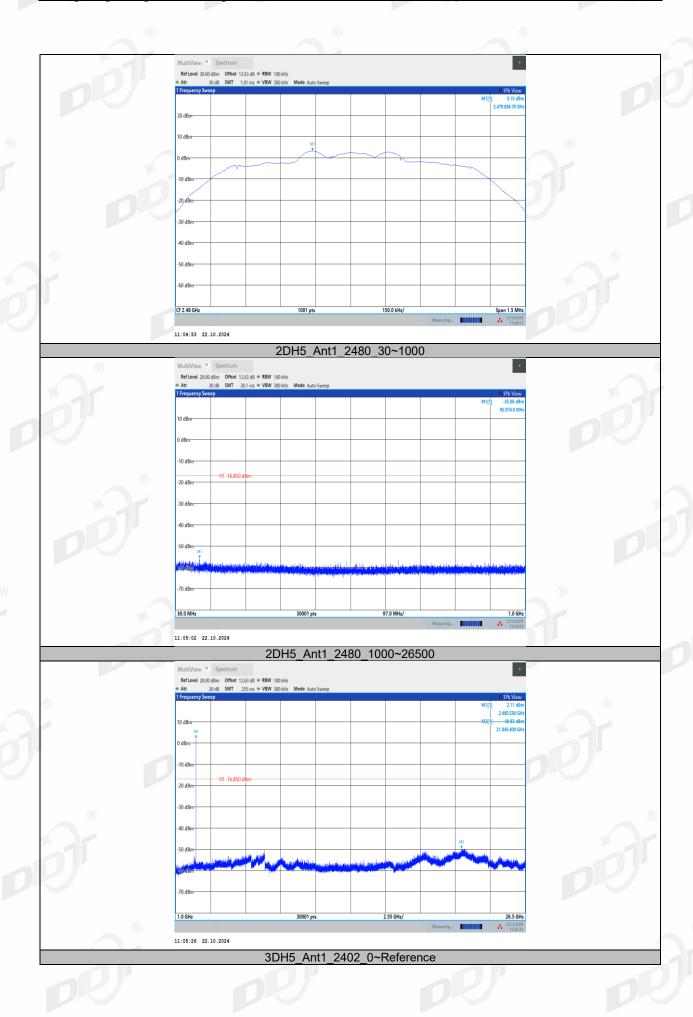


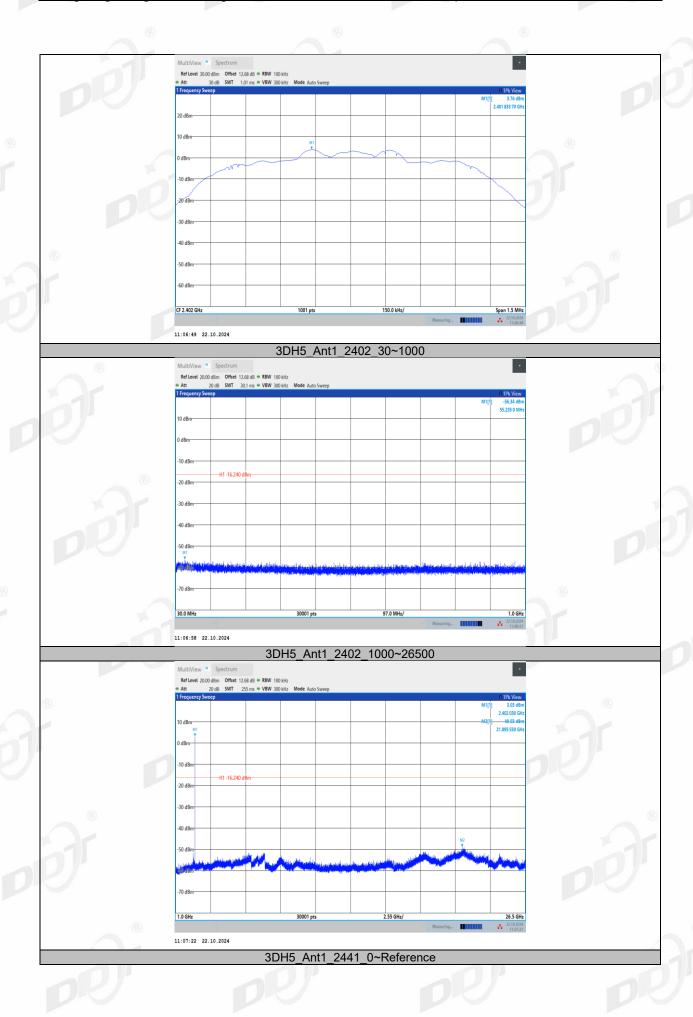


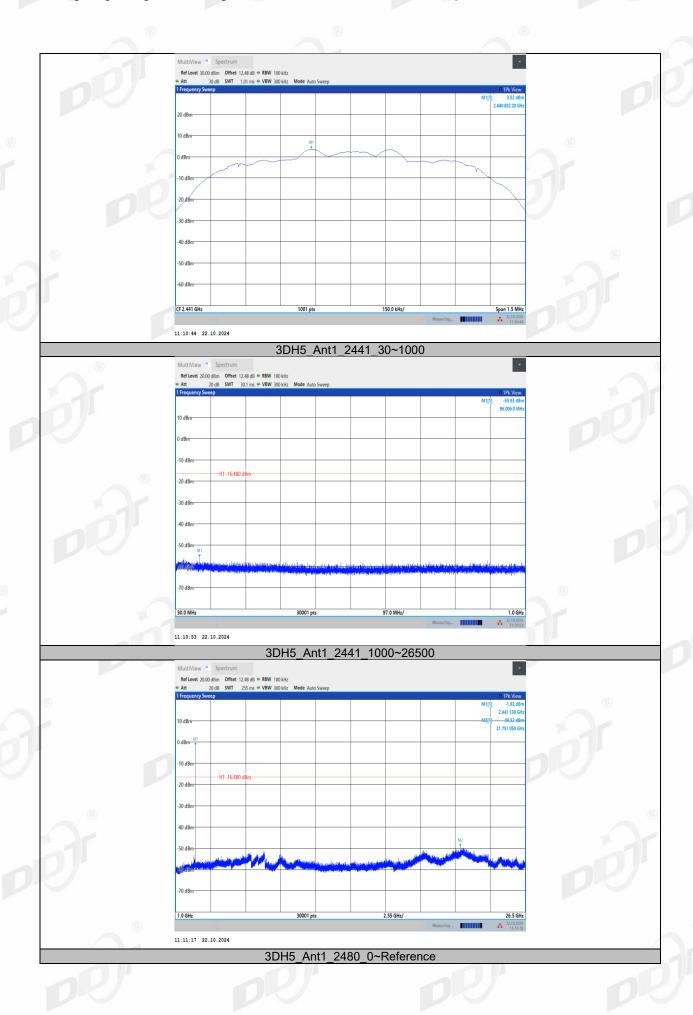


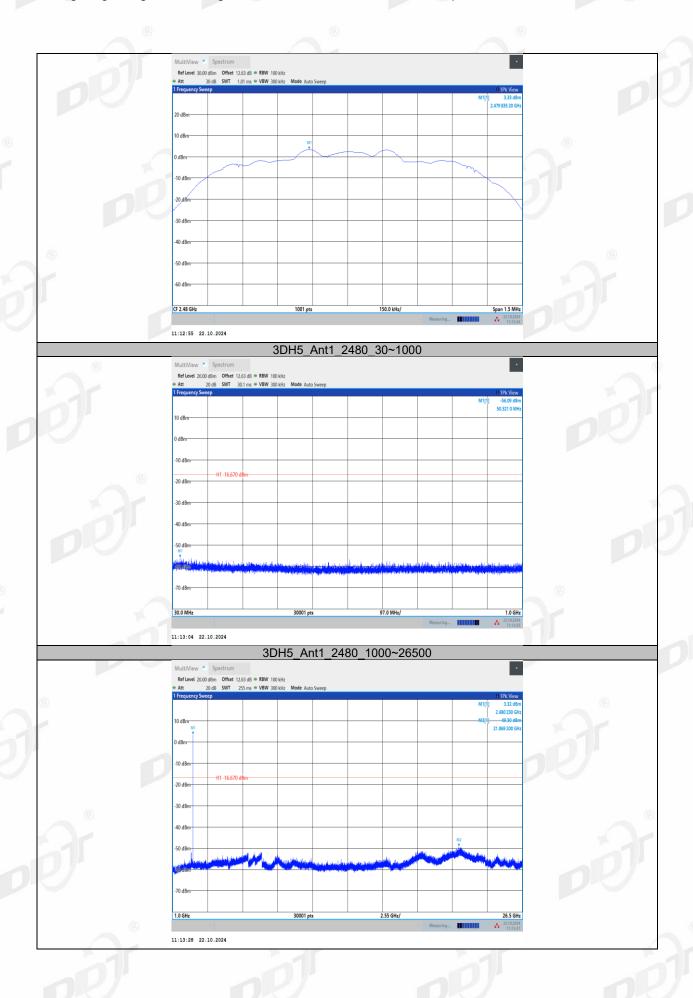






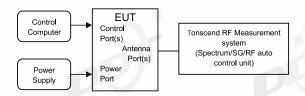






12. Duty cycle

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.

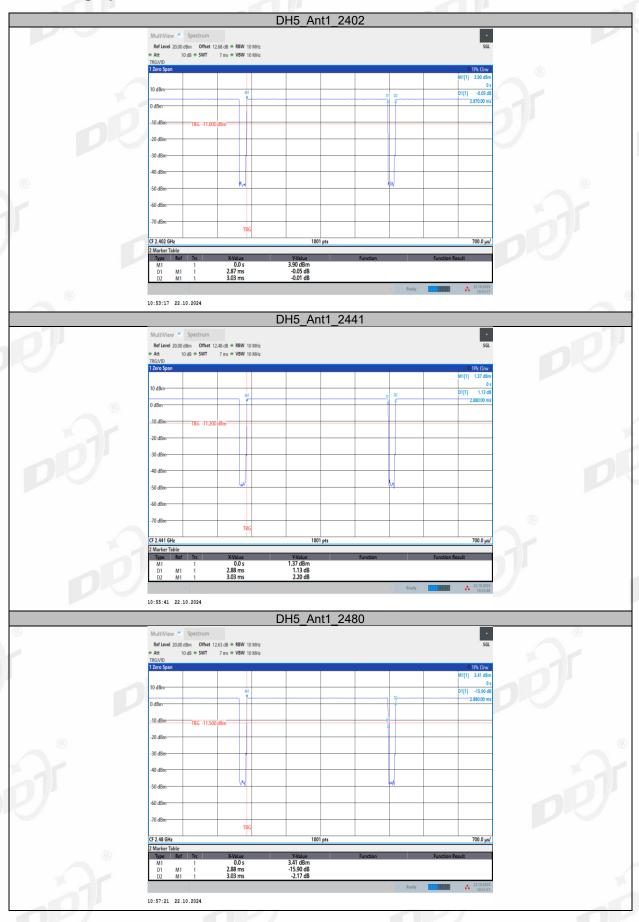
Resolution BW: 10 MHz. Video BW: 10 MHz. Span: Zero span. Detector: Peak.

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

Test Engineer:	Zoe	Test Site:	RF Measurement System 4#
Ambient Condition:	23.6℃,50.0%RH	Test Date:	2024.10.22-2024.10.22
Test Power Supply:	battery	Sample Number:	S24082315-004

Test Mode	Antenna	Frequency [MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
		2402	2.87	3.03	94.72	0.24
DH5	Ant1	2441	2.88	3.03	95.05	0.22
		2480	2.88	3.03	95.05	0.22
		2402	2.88	3.23	89.16	0.50
2DH5	Ant1	2441	2.89	3.23	89.47	0.48
8		2480	2.89	3.24	89.20	0.50
		2402	2.88	3.45	83.48	0.78
3DH5	Ant1	2441	2.89	3.46	83.53	0.78
1.		2480	2.89	3.46	83.53	0.78







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

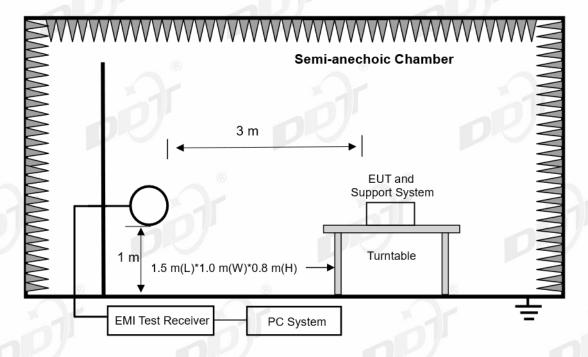
The antenna used for this product as Antenna information described in section 2.1 of the report, and there is no other antenna than that furnished by the responsible party shall be used with the device.

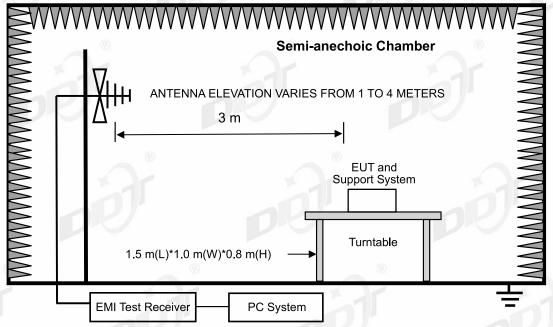
14.Radiated Emission

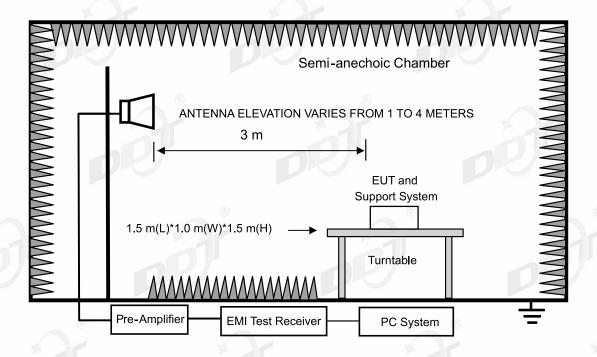
14.1. Test equipment

Equipment	Manufacturer	Model No.	Serial No.	Cal Due To
Trilog Broadband Antenna	Schwarzbeck	VULB 9163	DDT-ZC02050	2025/07/11
Hochgewinn- Hornantenne	SCHWARZBEC K	BBHA 9120 D	DDT-ZC02129	2025/09/18
RF cable	Yuhu Technology	JCTB810-NJ-NJ- 9M	DDT-ZC02538	2025/03/31
EMI TEST RECEIVER	R&S	ESU26	DDT-ZC01909	2025/03/31
PSA Series Spectrum Analyzer	Agilent	E4447A	DDT-ZC00517	2025/03/31
Pre-amplifier	COM-POWER	PAM-118A	DDT-ZC01293	2025/08/25
Active Loop Antenna	Schwarzbeck	FMZB1519	DDT-ZC00524	2025/09/11
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	DDT-ZC00506	2025/04/26
RF cable	Yuhu Technology	ZT26S-SMAJ- SMAJ-1M	DDT-ZC02037	2025/03/31
RF Cable	N/A	W13.02 AP1-X2	DDT-ZC04023	2025/03/31
Micro-Tronics filters	REBES	BRM50702	DDT-ZC03242	
High pass filter	Micro-Tronics	HPM50102	DDT-ZC00561	2025/04/22
High Pass filter	Xi'an Xingbo	XBLBQ-GTA67	DDT-ZC02179	2025/04/22
RF Cable	N/A	W24.02 HL-562	DDT-ZC04022	2025/03/31
High pass filter	Micro-Tronics	HPM50108	DDT-ZC00560	2025/04/22
RF cable	Zhongke Junchuang	JCT26S-NJ-NJ- 1.5M	DDT-ZC02762	2025/03/31
Pre-amplifier	COM-POWER	PAM-840A	DDT-ZC01693	2025/03/31
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
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	9 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	9 149.9-150.05	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	201	aD/	201

1Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz 2Above 38.6

(2) FCC 15.209 Limit

FREQUENCY	DISTANCE	FIELD STRENGTHS LIMIT	
MHz	Meters	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:

Limit3m(dBuV/m) = Limit30m(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 limits.

14.4. Assistant equipment used for test

	Assistant equipment	Manufacturer	Model number	Description	other
(R)	/	/ (8)	/	® /	1

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	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.

- (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, p/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: 2024-10-19 Tested By: Zhong Nan

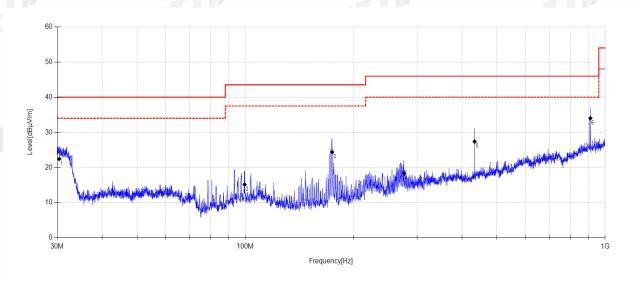
EUT: SOLAR RECHARGEABLE ROCK SPEAKER WITH LED LIGHTS Model Number: GLOW STONE™ LINK

Test Mode: BT Mode Power Supply: DC 5V

Condition: Temp:23°C;Humi:59.5% Test Site: DDT 3# Chamber

File Path: d:\ts\2024 report data\Q24082315\FCC BELOW1G\20241019-040047_H

Memo: Sample Number:S24082315-003 Power Setting:8



Data L	ist								
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable Loss [dB]	Result [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	30.402	37.18	10.34	3.76	22.43	40.00	17.57	QP	Horizontal
2	99.574	28.25	11.30	4.22	15.17	43.50	28.33	QP	Horizontal
3	174.363	38.91	9.20	4.62	24.39	43.50	19.11	QP	Horizontal
4	276.001	28.72	12.48	5.11	18.33	46.00	27.67	QP	Horizontal
5	433.833	34.51	15.91	5.75	27.40	46.00	18.60	QP	Horizontal
6	909.684	33.78	21.43	7.23	34.02	46.00	11.98	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.

Test Date: 2024-10-19 Tested By: Zhong Nan

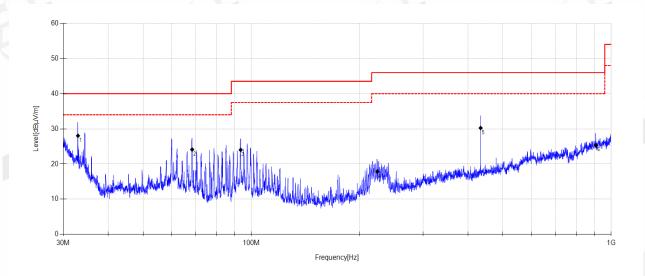
EUT: SOLAR RECHARGEABLE ROCK SPEAKER WITH LED LIGHTS Model Number: GLOW STONE™ LINK

Test Mode: BT Mode Power Supply: DC 5V

Condition: Temp:23°C;Humi:59.5% Test Site: DDT 3# Chamber

File Path: d:\ts\2024 report data\Q24082315\FCC BELOW1G\20241019-040138_V

Memo: Sample Number:S24082315-003 Power Setting:8



Data L	ist								
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable Loss [dB]	Result [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	32.978	42.22	10.88	3.78	28.04	40.00	11.96	QP	Vertical
2	68.476	38.51	10.34	4.01	24.12	40.00	15.88	QP	Vertical
3	93.419	38.84	9.64	4.17	24.02	43.50	19.48	QP	Vertical
4	223.957	29.93	11.24	4.87	17.87	46.00	28.13	QP	Vertical
5	433.833	37.35	15.91	5.75	30.24	46.00	15.76	QP	Vertical
6	907.772	24.95	21.62	7.22	25.37	46.00	20.63	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.

Test Date: 2024-10-19 Tested By: Zhong Nan

EUT: SOLAR RECHARGEABLE ROCK SPEAKER WITH LED LIGHTS Model Number: GLOW STONE™ LINK

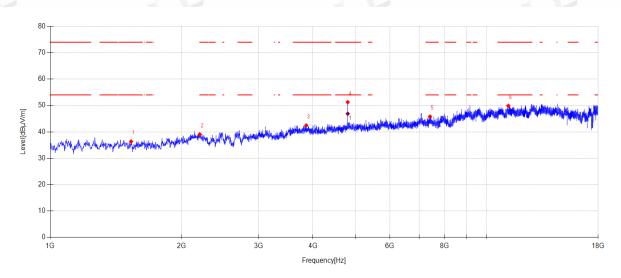
Test Mode: DH5 TX 2402MHz Mode Power Supply: DC 5V

Condition: Temp:23°C;Humi:59.5% Test Site: DDT 3# Chamber

File Path: d:\ts\2024 report data\Q24082315\FCC ABOVE1G\1

Memo: Sample Number:S24082315-003 Power Setting:8

Test Graph



Data	List		3			®				
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	1532.100	45.01	25.05	3.79	-37.51	36.34	74.00	37.66	PK	Horizontal
2	2200.200	44.96	27.80	4.72	-38.43	39.05	74.00	34.95	PK	Horizontal
3	3859.400	46.05	30.96	5.07	-39.65	42.43	74.00	31.57	PK	Horizontal
4	4804.600	52.73	32.62	5.53	-39.62	51.26	74.00	22.74	PK	Horizontal
5	7415.800	43.09	36.67	6.66	-40.63	45.79	74.00	28.21	PK	Horizontal
6	11206.800	41.62	39.20	8.26	-39.21	49.87	74.00	24.13	PK	Horizontal

Data	List					7/1			
NO ·	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	4804.030	48.35	32.62	5.53	46.88	54.00	7.12	AV	Horizontal

- 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.

Test Date: 2024-10-19 Tested By: Zhong Nan

EUT: SOLAR RECHARGEABLE ROCK SPEAKER WITH LED LIGHTS Model Number: GLOW STONE™ LINK

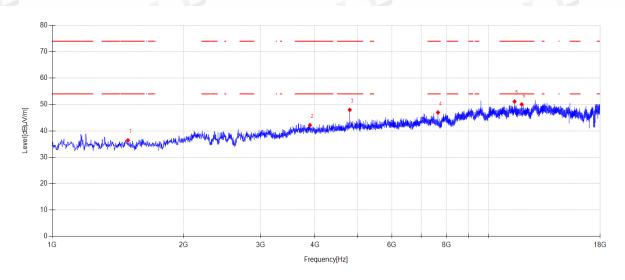
Test Mode: DH5 TX 2402MHz Mode Power Supply: DC 5V

Condition: Temp:23°C;Humi:59.5% Test Site: DDT 3# Chamber

File Path: d:\ts\2024 report data\Q24082315\FCC ABOVE1G\2

Memo: Sample Number:S24082315-003 Power Setting:8

Test Graph



Data	List		3			®				
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	1491.300	44.68	25.47	3.72	-37.45	36.42	74.00	37.58	PK	Vertical
2	3895.100	45.59	31.17	5.07	-39.65	42.18	74.00	31.82	PK	Vertical
3	4804.600	49.45	32.62	5.53	-39.62	47.98	74.00	26.02	PK	Vertical
4	7652.100	43.99	36.60	6.79	-40.41	46.97	74.00	27.03	PK	Vertical
5	11458.400	42.92	39.24	8.42	-39.46	51.12	74.00	22.88	PK	Vertical
6	11900.400	42.34	38.90	8.70	-39.90	50.04	74.00	23.96	PK	Vertical

- 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.

Test Date: 2024-10-19 Tested By: Zhong Nan

EUT: SOLAR RECHARGEABLE ROCK SPEAKER WITH LED LIGHTS Model Number: GLOW STONE™ LINK

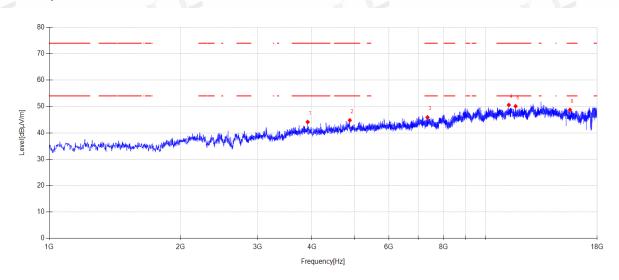
Test Mode: DH5 TX 2441MHz Mode Power Supply: DC 5V

Condition: Temp:23°C;Humi:59.5% Test Site: DDT 3# Chamber

File Path: d:\ts\2024 report data\Q24082315\FCC ABOVE1G\3

Memo: Sample Number:S24082315-003 Power Setting:8

Test Graph



Data	List		3								
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	3910.400	47.52	31.18	5.07	-39.66	44.11	74.00	29.89	PK	Horizontal	
2	4882.800	45.52	33.28	5.58	-39.61	44.77	74.00	29.23	PK	Horizontal	
3	7354.600	43.15	36.79	6.63	-40.68	45.89	74.00	28.11	PK	Horizontal	
4	11295.200	42.34	39.20	8.32	-39.30	50.56	74.00	23.44	PK	Horizontal	
5	11706.600	42.22	38.99	8.58	-39.71	50.08	74.00	23.92	PK	Horizontal	
6	15591.100	39.63	38.62	9.88	-39.40	48.73	74.00	25.27	PK	Horizontal	

- 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.

Test Date: 2024-10-19 Tested By: Zhong Nan

EUT: SOLAR RECHARGEABLE ROCK SPEAKER WITH LED LIGHTS Model Number: GLOW STONE™ LINK

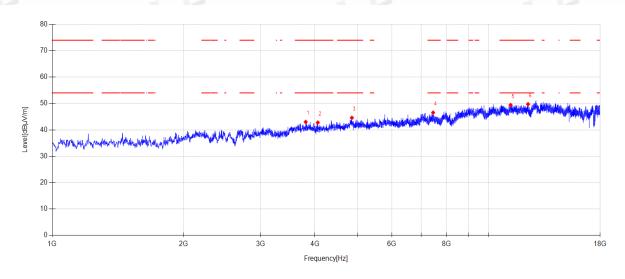
Test Mode: DH5 TX 2441MHz Mode Power Supply: DC 5V

Condition: Temp:23°C;Humi:59.5% Test Site: DDT 3# Chamber

File Path: d:\ts\2024 report data\Q24082315\FCC ABOVE1G\4

Memo: Sample Number:S24082315-003 Power Setting:8

Test Graph



Data	List		3								
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	3808.400	46.82	30.73	5.08	-39.63	43.00	74.00	31.00	PK	Vertical	
2	4060.000	46.33	31.02	5.09	-39.68	42.76	74.00	31.24	PK	Vertical	
3	4859.000	44.94	33.66	5.57	-39.61	44.56	74.00	29.44	PK	Vertical	
4	7458.300	43.88	36.58	6.68	-40.59	46.55	74.00	27.45	PK	Vertical	
5	11222.100	41.15	39.20	8.27	-39.22	49.40	74.00	24.60	PK	Vertical	
6	12305.000	41.44	39.30	8.92	-39.94	49.72	74.00	24.28	PK	Vertical	

- 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.

Test Date: 2024-10-19 Tested By: Zhong Nan

EUT: SOLAR RECHARGEABLE ROCK SPEAKER WITH LED LIGHTS Model Number: GLOW STONE™ LINK

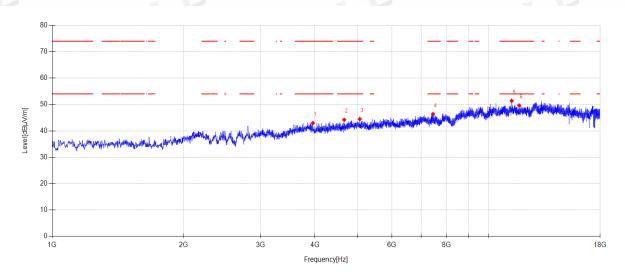
Test Mode: DH5 TX 2480MHz Mode Power Supply: DC 5V

Condition: Temp:23°C;Humi:59.5% Test Site: DDT 3# Chamber

File Path: d:\ts\2024 report data\Q24082315\FCC ABOVE1G\5

Memo: Sample Number:S24082315-003 Power Setting:8

Test Graph



Data	List		3								
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	3954.600	46.50	31.08	5.06	-39.67	42.97	74.00	31.03	PK	Horizontal	
2	4665.200	46.32	32.06	5.45	-39.63	44.20	74.00	29.80	PK	Horizontal	
3	5064.700	45.06	33.33	5.68	-39.60	44.47	74.00	29.53	PK	Horizontal	
4	7453.200	43.66	36.59	6.68	-40.59	46.34	74.00	27.66	PK	Horizontal	
5	11290.100	43.15	39.20	8.31	-39.29	51.37	74.00	22.63	PK	Horizontal	
6	11735.500	41.82	38.96	8.59	-39.74	49.63	74.00	24.37	PK	Horizontal	

- 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.

Test Date: 2024-10-19 Tested By: Zhong Nan

EUT: SOLAR RECHARGEABLE ROCK SPEAKER WITH LED LIGHTS Model Number: GLOW STONE™ LINK

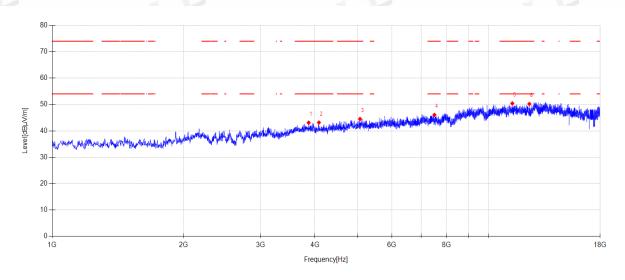
Test Mode: DH5 TX 2480MHz Mode Power Supply: DC 5V

Condition: Temp:23°C;Humi:59.5% Test Site: DDT 3# Chamber

File Path: d:\ts\2024 report data\Q24082315\FCC ABOVE1G\6

Memo: Sample Number:S24082315-003 Power Setting:8

Test Graph



Data	List		3								
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	3867.900	46.65	31.01	5.07	-39.65	43.08	74.00	30.92	PK	Vertical	
2	4083.800	46.65	31.07	5.10	-39.67	43.15	74.00	30.85	PK	Vertical	
3	5071.500	45.06	33.34	5.69	-39.60	44.49	74.00	29.51	PK	Vertical	
4	7509.300	43.40	36.48	6.71	-40.54	46.05	74.00	27.95	PK	Vertical	
5	11324.100	42.18	39.22	8.33	-39.32	50.41	74.00	23.59	PK	Vertical	
6	12390.000	41.87	39.30	8.96	-39.92	50.21	74.00	23.79	PK	Vertical	

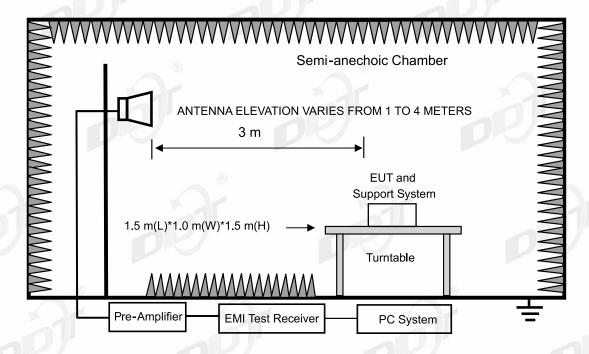
- 1. Level = Reading + Cable loss + Antenna Factor + AMP
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

15.Band Edge Compliance

15.1. Test equipment

Equipment	Manufacturer	Model No.	Serial No.	Cal Due To
Active Loop Antenna	Schwarzbeck	FMZB1519	DDT-ZC00524	2025/09/11
High pass filter	Micro-Tronics	HPM50108	DDT-ZC00560	2025/04/22
Trilog Broadband Antenna	Schwarzbeck	VULB 9163	DDT-ZC02050	2025/07/11
Hochgewinn- Hornantenne	SCHWARZBEC K	BBHA 9120 D	DDT-ZC02129	2025/09/18
EMI TEST RECEIVER	R&S	ESU26	@DDT-ZC01909	2025/03/31
RF cable	Yuhu Technology	ZT26S-SMAJ- SMAJ-1M	DDT-ZC02037	2025/03/31
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	DDT-ZC00506	2025/04/26
RF Cable	N/A	W24.02 HL-562	DDT-ZC04022	2025/03/31
High Pass filter	Xi'an Xingbo	XBLBQ-GTA67	DDT-ZC02179	2025/04/22
Micro-Tronics filters	REBES	BRM50716	DDT-ZC03240	1
Pre-amplifier	COM-POWER	PAM-840A	DDT-ZC01693	2025/03/31
RF cable	Zhongke Junchuang	JCT26S-NJ-NJ- 1.5M	DDT-ZC02762	2025/03/31
Micro-Tronics filters	REBES	BRM50702	DDT-ZC03242	1
PSA Series Spectrum Analyzer	Agilent	E4447A	DDT-ZC00517	2025/03/31
Pre-amplifier	COM-POWER	PAM-118A	DDT-ZC01293	2025/08/25
RF cable	Yuhu Technology	JCTB810-NJ-NJ- 9M	DDT-ZC02538	2025/03/31
High pass filter	Micro-Tronics	HPM50102	DDT-ZC00561	2025/04/22
RF Cable	N/A	W13.02 AP1-X2	DDT-ZC04023	2025/03/31
6	\	(6)		(8)

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
/	® /	/ @	/	(R) /

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. According to the results of the radiated Emission test, it can be judged that the vertical direction is the Worst case

15.6. Test result

PASS. (See below detailed test result)

15.7. Test data

TR-4-E-009 Radiated Emission Test Result

Test Date: 2024-10-19 Tested By: Zhong Nan

EUT: SOLAR RECHARGEABLE ROCK SPEAKER WITH LED LIGHTS Model Number: GLOW STONE™ LINK

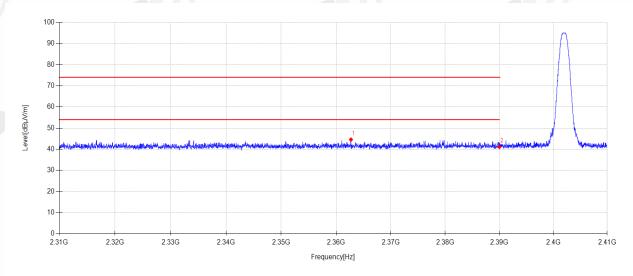
Test Mode: DH5 TX 2402MHz Mode Power Supply: DC 5V

Condition: Temp:23°C;Humi:59.5% Test Site: DDT 3# Chamber

File Path: d:\ts\2024 report data\Q24082315\FCC ABOVE1G\9

Memo: Sample Number:S24082315-003 Power Setting:8

Test Graph



Data	List				-	4				
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	2362.720	13.86	27.15	3.55	0.00	44.56	74.00	29.44	PK	Vertical
2	2390.000	10.24	27.26	3.57	0.00	41.07	74.00	32.93	PK	Vertical

- 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.

Test Date: 2024-10-19 Tested By: Zhong Nan

EUT: SOLAR RECHARGEABLE ROCK SPEAKER WITH LED LIGHTS Model Number: GLOW STONE™ LINK

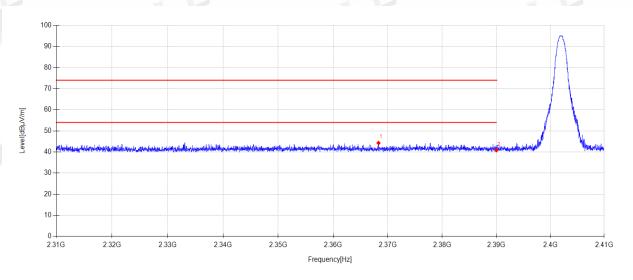
Test Mode: 2DH5 TX 2402MHz Mode Power Supply: DC 5V

Condition: Temp:23°C;Humi:59.5% Test Site: DDT 3# Chamber

File Path: d:\ts\2024 report data\Q24082315\FCC ABOVE1G\10

Memo: Sample Number:S24082315-003 Power Setting:8

Test Graph



Data	Data List					(8)		8		
NO ·	Freq. Reading Factor lo		Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Detector Polarit			
1	2368.310	13.51	27.17	3.56	0.00	44.24	74.00	29.76	PK	Vertical
2	2390.000	10.01	27.26	3.57	0.00	40.84	74.00	33.16	PK	Vertical

- 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.

Test Date: 2024-10-19 Tested By: Zhong Nan

EUT: SOLAR RECHARGEABLE ROCK SPEAKER WITH LED LIGHTS Model Number: GLOW STONE™ LINK

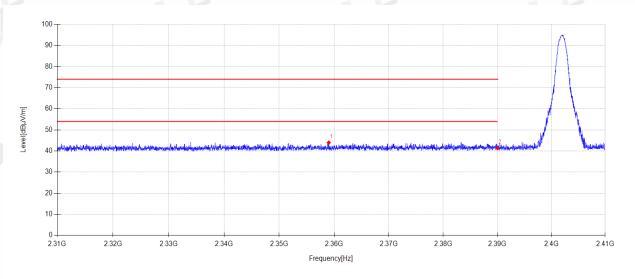
Test Mode: 3DH5 TX 2402MHz Mode Power Supply: DC 5V

Condition: Temp:23°C;Humi:59.5% Test Site: DDT 3# Chamber

File Path: d:\ts\2024 report data\Q24082315\FCC ABOVE1G\11

Memo: Sample Number:S24082315-003 Power Setting:8

Test Graph



Data	Data List					(8)				
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	2359.030	13.25	27.14	3.55	0.00	43.94	74.00	30.06	PK	Vertical
2	2390.000	10.51	27.26	3.57	0.00	41.34	74.00	32.66	PK	Vertical

- 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.

Test Date: 2024-10-19 Tested By: Zhong Nan

EUT: SOLAR RECHARGEABLE ROCK SPEAKER WITH LED LIGHTS Model Number: GLOW STONE™ LINK

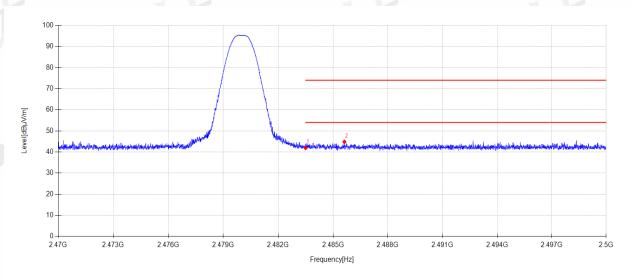
Test Mode: DH5 TX 2480MHz Mode Power Supply: DC 5V

Condition: Temp:23°C;Humi:59.5% Test Site: DDT 3# Chamber

File Path: d:\ts\2024 report data\Q24082315\FCC ABOVE1G\8

Memo: Sample Number:S24082315-003 Power Setting:8

Test Graph



Data	Data List ®				8						
NO	Freq. Reading Factor lo		Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit Margin Detector Polar			Polarity		
1	2483.500	10.75	27.53	3.62	0.00	41.90	74.00	32.10	PK	Vertical	
2	2485.624	13.64	27.54	3.62	0.00	44.80	74.00	29.20	PK	Vertical	

- 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.

Test Date: 2024-10-19 Tested By: Zhong Nan

EUT: SOLAR RECHARGEABLE ROCK SPEAKER WITH LED LIGHTS Model Number: GLOW STONE™ LINK

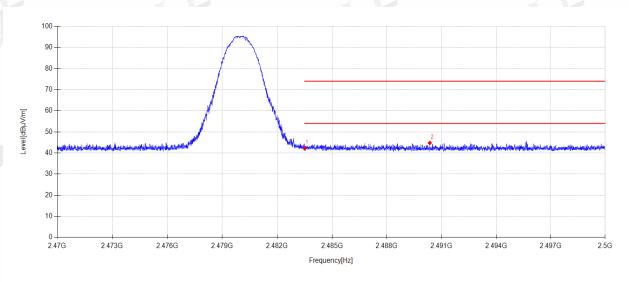
Test Mode: 2DH5 TX 2480MHz Mode Power Supply: DC 5V

Condition: Temp:23°C;Humi:59.5% Test Site: DDT 3# Chamber

File Path: d:\ts\2024 report data\Q24082315\FCC ABOVE1G\12

Memo: Sample Number:S24082315-003 Power Setting:8

Test Graph



Data	a List		3		(8)						
NO	O Freq. Reading Antenna Cable [MHz] [dΒμV/m] Factor loss [dB] [dB]				AMP Level Limit [dB] [dBµV/m] [dBµV/m]			Detector Polar			
1	2483.500	11.06	27.53	3.62	0.00	42.21	74.00	31.79	PK	Vertical	
2	2490.361	13.59	27.56	3.62	0.00	44.77	74.00	29.23	PK	Vertical	

- 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.

Test Date: 2024-10-19 Tested By: Zhong Nan

EUT: SOLAR RECHARGEABLE ROCK SPEAKER WITH LED LIGHTS Model Number: GLOW STONE™ LINK

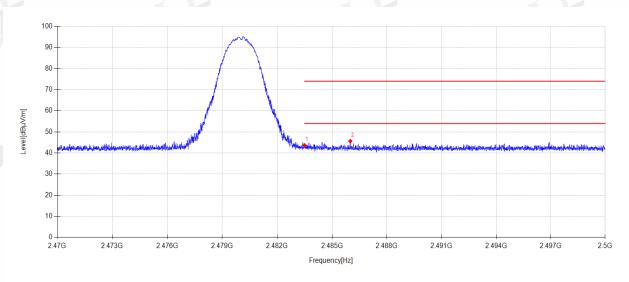
Test Mode: 3DH5 TX 2480MHz Mode Power Supply: DC 5V

Condition: Temp:23°C;Humi:59.5% Test Site: DDT 3# Chamber

File Path: d:\ts\2024 report data\Q24082315\FCC ABOVE1G\13

Memo: Sample Number:S24082315-003 Power Setting:8

Test Graph



Data	Data List				8				8		
NO	Freq. Reading Factor lo		Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Detector Polari				
1	2483.500	12.45	27.53	3.62	0.00	43.60	74.00	30.40	PK	Vertical	
2	2486.002	14.45	27.54	3.62	0.00	45.61	74.00	28.39	PK	Vertical	

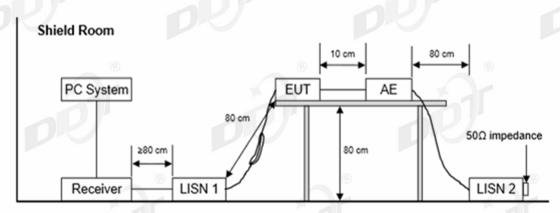
- 1. Level = Reading + Cable loss + Antenna Factor + AMP
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

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-ZC02056	2025/07/08
EMI Test Receiver	R&S	ESCI/E3	DDT-ZC01297	2025/07/08
Δ-shaped artificial power network	SCHWARZBEC K	PVDC 8301	DDT-ZC03939	2025/03/31
Condected Radiated Software	Audix	E3	DDT-ZC00562	1
RF Cable	Yuhu Technology	Z806-NJ-NJ-6M	DDT-ZC02004	2025/07/08
Three-phase artificial power network	SCHWARZBEC K	NSLK 8163	DDT-ZC01572	2025/07/08
Pulse Limiter SCHWARZBEO		VTSD 9561	DDT-ZC02128	2025/07/08
Two Line V-Network	R&S	ENV216	DDT-ZC02059	2025/07/08

16.2. Block diagram of test setup



16.3. Limits

Frequency	Quasi-Peak Level dB(uV)	Average Level dB(uV)
9 150 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
AC Adapter	HUAWEI	HW-100400U01	Input: 100-240V~ 50/60Hz, Output: 5V/2A or 9V/2A or 10V/4A	N/A

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

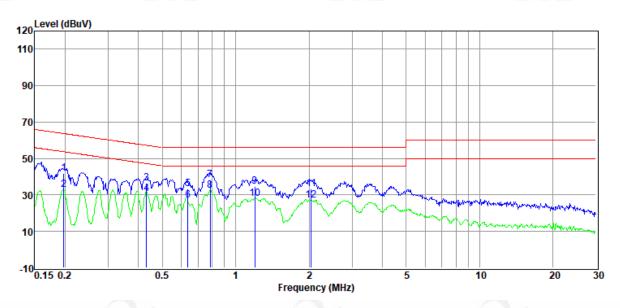
Test Site : DDT 6# Shield Room D:\2024 Report Date\Q24082315-2E\1108 CE.EM6

Test Date : 2024-11-08 Tested By : Zhong Nan

EUT : SOLAR RECHARGEABLE ROCK SPEAKER Model Number: GLOW STONE™ LINK

Power Supply : AC 120V/60Hz Test Mode : BT mode

Memo :



Item	Freq.	Read Level	LISN Factor	Cable Loss	Pulse Limiter Factor	Result Level	Limit Line	Over Limit	Detector	Phase
(Mark)	(MHz)	(dBµV)	(dB)	(dB)	(dB)	(dBµV)	(dBµV)	(dB)		
1	0.20	21.95	9.77	0.06	9.83	41.61	63.71	-22.10	QP	LINE
2	0.20	13.38	9.77	0.06	9.83	33.04	53.71	-20.67	Average	LINE
3	0.43	16.90	9.76	0.10	9.83	36.59	57.24	-20.65	QP	LINE
4	0.43	11.14	9.76	0.10	9.83	30.83	47.24	-16.41	Average	LINE
5	0.64	13.79	9.75	0.08	9.83	33.45	56.00	-22.55	QP	LINE
6	0.64	7.60	9.75	0.08	9.83	27.26	46.00	-18.74	Average	LINE
7	0.79	18.74	9.75	0.05	9.84	38.38	56.00	-17.62	QP	LINE
8	0.79	12.66	9.75	0.05	9.84	32.30	46.00	-13.70	Average	LINE
9	1.20	14.81	9.74	0.12	9.84	34.51	56.00	-21.49	QP	LINE
10	1.20	8.42	9.74	0.12	9.84	28.12	46.00	-17.88	Average	LINE
11	2.04	13.62	9.75	0.11	9.84	33.32	56.00	-22.68	QP	LINE
12	2.04	7.60	9.75	0.11	9.84	27.30	46.00	-18.70	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.

WITH LED LIGHTS

TR-4-E-010 Conducted Emission Test Result

: DDT 6# Shield Room D:\2024 Report Date\Q24082315-2E\1108 CE.EM6 **Test Site**

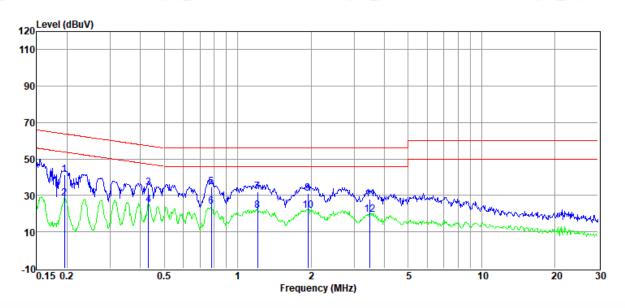
Test Date : 2024-11-08 **Tested By** : Zhong Nan

SOLAR RECHARGEABLE ROCK SPEAKER Model Number: EUT GLOW STONE™ LINK

Power Supply : AC 120V/60Hz **Test Mode** : BT mode

Condition : Temp:21.8°C,Humi:52.9% LISN : 2024 ENV216 3#/NEUTRAL

Memo



Item	Freq.	Read Level	LISN Factor	Cable Loss	Pulse Limiter Factor	Result Level	Limit Line	Over Limit	Detector	Phase
(Mark)	(MHz)	(dBµV)	(dB)	(dB)	(dB)	(dBµV)	(dBµV)	(dB)		
1	0.20	21.60	9.76	0.06	9.83	41.25	63.80	-22.55	QP	NEUTRAL
2	0.20	8.84	9.76	0.06	9.83	28.49	53.80	-25.31	Average	NEUTRAL
3	0.43	14.36	9.77	0.10	9.83	34.06	57.24	-23.18	QP	NEUTRAL
4	0.43	5.17	9.77	0.10	9.83	24.87	47.24	-22.37	Average	NEUTRAL
5	0.78	14.84	9.75	0.05	9.84	34.48	56.00	-21.52	QP	NEUTRAL
6	0.78	4.32	9.75	0.05	9.84	23.96	46.00	-22.04	Average	NEUTRAL
7	1.21	12.26	9.76	0.12	9.84	31.98	56.00	-24.02	QP	NEUTRAL
8	1.21	1.85	9.76	0.12	9.84	21.57	46.00	-24.43	Average	NEUTRAL
9	1.94	11.60	9.77	0.11	9.84	31.32	56.00	-24.68	QP	NEUTRAL
10	1.94	1.84	9.77	0.11	9.84	21.56	46.00	-24.44	Average	NEUTRAL
11	3.49	8.44	9.78	0.10	9.85	28.17	56.00	-27.83	QP	NEUTRAL
12	3.49	-0.25	9.78	0.10	9.85	19.48	46.00	-26.52	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.

18. Photos of the EUT

Please refer to DDT-Q24082315-2E appendix I

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