

Shanghai Xiaojia Data & Technology Co.,LTD

RF TEST REPORT

Report Type:

FCC Part 15.247 & ISED RSS-247 RF report

Model:

G10, G20, G30

REPORT NUMBER:

2402B0409SHA-002

ISSUE DATE:

March 25, 2024

DOCUMENT CONTROL NUMBER:

TTRF15.247-02 V1 © 2018 Intertek





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Report no.: 2402B0409SHA-001

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Suzhou City, Jiangsu Province, 215415, China

FCC ID: 2BEYJ-ISWARD001

SUMMARY:

The equipment complies with the requirements according to the following standard(s) or Specification:

47CFR Part 15 (2021): Radio Frequency Devices (Subpart C)

ANSI C63.10 (2020): American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

RSS-247 Issue 3 (August 2023): Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices

RSS-Gen Issue 5 (February 2021) Amendment 2: General Requirements for Compliance of Radio Apparatus

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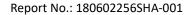
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Revision History

Report No.	Version	Description	Issued Date
2402B0409SHA-001	Rev. 01	Initial issue of report	March 25, 2024



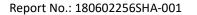


Measurement result summary

TEST ITEM	FCC REFERANCE	IC REFERANCE	RESULT
Minimum 6dB Bandwidth	15.247(a)(2)	RSS-247 Issue 3 Clause 5.2	Pass
Maximum conducted output power and e.i.r.p.	15.247(b)(3)	RSS-247 Issue 3 Clause 5.4	Pass
Power spectrum density	15.247(e)	RSS-247 Issue 3 Clause 5.2	Pass
Emission outside the frequency band	15.247(d)	RSS-247 Issue 3 Clause 5.5	Pass
Radiated Emissions in restricted frequency bands	15.247(d), 15.205&15.209	RSS-Gen Issue 5 Clause 8.9&8.10	Pass
Power line conducted emission	15.207(a)	RSS-Gen Issue 5 Clause 8.8	NA
Occupied bandwidth	-	RSS-Gen Issue 5 Clause 6.6	Tested
Antenna requirement	15.203	-	Pass

Notes:

- 1: NA =Not Applicable
- 2: Determination of the test conclusion is based on IEC Guide 115 in consideration of measurement uncertainty.
- 3: Additions, Deviations and Exclusions from Standards: None.





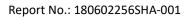
1 GENERAL INFORMATION

1.1 Description of Equipment Under Test (EUT)

Product name:	Robotic lawnmower	
Type/Model:	G10, G20, G30	
Description of EUT:	The robotic lawnmower is powered by a lithium battery and can also be charged by the charging station, the robotic lawnmower is equipped with certified module including BLE module, FCC ID: 2ADXE-HY-40R204PC, IC: 23267-HY40R204PC. Wi-Fi module, FCC ID: 2ACOE-WG217, IC: 20742-WG2175ES. LTE module, FCC ID: XMR201606EC21A, IC: 10224A-201611EC21A. LORA module and GNSS module. model G20 is identical with model G10 except model name, G30 is identical with G10 except model name, the size and location of the cutter head. After review, model G10 was selected to perform all tests.	
Brand name:	iSward	
Rating:	Charging station: 100-240 V; 50/60 Hz Robot: 25.2 VDC; 6A	
Category of EUT:	Class B	
EUT type:	☐ Table top ⊠ Floor standing	
Software Version:	/	
Hardware Version:	/	
Sample identification number:	A240220-24-001	
Sample received date:	February 23, 2024	
Date of test:	February 23, 2024– March 25, 2024	

1.2 Technical Specification

Frequency Range:	902MHz ~ 928MHz
Support Standards:	LORA
Type of Modulation:	CSS
Channel Number:	24
Channel Separation:	1MHz
Antenna Information:	Antenna: 0.5dBi, PCB antenna

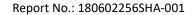




1.3 Description of Test Facility

Name:	Intertek Testing Services Shanghai
Address:	Building 86, No. 1198 Qinzhou Road(North), Shanghai 200233, P.R. China
Telephone:	86 21 61278200
Telefax:	86 21 54262353

	ne test facility is cognized,	CNAS Accreditation Lab Registration No. CNAS L0139
ac	ertified, or ccredited by these ganizations:	FCC Accredited Lab Designation Number: CN0175
OI.	gamzations.	IC Registration Lab CAB identifier.: CN0014
		VCCI Registration Lab Registration No.: R-14243, G-10845, C-14723, T-12252
		A2LA Accreditation Lab Certificate Number: 3309.02





2 TEST SPECIFICATIONS

2.1 Standards or specification

47CFR Part 15 (2021) ANSI C63.10 (2020) KDB 558074 (v05r02) RSS-247 Issue 3 (August 2023) RSS-Gen Issue 5 (February 2021) Amendment 2

2.2 Mode of operation during the test

The lowest, middle and highest channel were tested as representatives.

Frequency Band (MHz)		902MHz ~ 928MHz	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	903.125	13	916.125
2	904.125	14	917.125
3	905.125	15	918.125
4	906.125	16	919.125
5	907.125	17	920.125
6	908.125	18	921.125
7	909.125	19	922.125
8	910.125	20	923.125
9	911.125	21	924.125
10	912.125	22	925.125
11	914.125	23	926.125
12	915.125	23	927.125

Data rate VS Power:

The test setting software is offered by the manufactory. The pre-scan for the conducted power with all rates in each modulation and bands was used, and the worst case was found and used in all test cases.

Test software and Power Setting parameter			
Test Software SSCOM V5.13.1			
Working Mode	902MHz ~ 928MHz		
Test Channel	903.125MHz 915.125MHz 927.125MHz		
Power setting	PWR M	PWR M	PWR M





While testing transmitting mode of EUT, the internal modulation and continuously transmission was applied.

Radiated test mode: EUT transmitted signal with antenna;

Conducted test mode: EUT transmitted signal from RF port connected to SPA directly;

2.3 Test software list

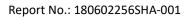
Test Items	Software	Manufacturer	Version
Conducted emission	ESxS-K1	R&S	V2.1.0
Radiated emission	ES-K1	R&S	V1.71

2.4 Test peripherals list

Item No.	Name	Band and Model	Description	
1	Laptop computer	DELL 5480	-	
2	RF cable	/	0.2m length; 0.5dB loss	

2.5 Test environment condition:

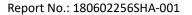
Test items	Temperature	Humidity	
Minimum 6dB Bandwidth			
Maximum conducted output power and e.i.r.p.			
Power spectrum density	26°C	51% RH	
Emission outside the frequency band			
Occupied bandwidth			
Radiated Emissions in restricted frequency bands	24°C	53% RH	
Power line conducted emission	/	/	





2.6 Instrument list

Cond	Conducted Emission							
Used		Manufacturer	Туре	Internal no.	Due date			
~	Test Receiver	R&S	ESR7	EC 6194	2025-02-27			
•	A.M.N.	R&S	ESH2-Z5	EC 3119	2024-11-19			
•	Attenuator	Hua Xiang	Ts5-10db-6g	EC 6194-1	2024-12-07			
~	Shielded room	Zhongyu	-	EC 2838	2025-01-11			
Radia								
<mark>Used</mark>		Manufacturer	Type	Internal no.	Due date			
~	Test Receiver	R&S	ESIB 26	EC 3045	2024-08-22			
~	Active loop antenna	Schwarzbeck	FMZB1519	EC 5345	2024-09-24			
•	Bilog Antenna	TESEQ	CBL 6112B	EC 6411	2024-09-12			
•	Pre-amplifier	Tonscend	tap01018050	EC 6432-1	2024-12-07			
•	Horn antenna	Tonscend	bha9120d	EC 6432-2	2025-02-15			
•	Horn antenna	TOYO	HAP18-26W	EC 4792-3	2026-09-12			
	Horn antenna	ETS	3116c	EC 5955	2024-07-22			
•	Semi-anechoic chamber	Albatross project	-	EC 3048	2025-01-11			
RF te	st							
Used	Equipment	Manufacturer	Туре	Internal no.	Due date			
	PXA Signal Analyzer	Keysight	N9030A	EC 5338	2025-03-07			
	Vector Signal Generator	Agilent	N5182B	EC 5175	2025-03-07			
	Universal Radio Communication Tester	R&S	CMW500	EC5944	2025-03-07			
	MXG Analog Signal Generator	Agilent	N5181A	EC 5338-2	2025-03-07			
	Mobile Test System	Litepoint	Iqxel	EC 5176	2025-01-11			
	Test Receiver	R&S	ESCI 7	EC 4501	2025-03-09			
	Climate chamber	GWS	MT3065	EC 6021	2025-03-06			
•	Spectrum Analyzer	Keysight	N9030B	EC 6078	2024-06-15			
	Universal Radio Communication Tester	R&S	CMW500	EC 6209	2025-01-30			
	ional instrument							
Used		Manufacturer	Type	Internal no.	Due date			
~	Thermo-Hygrograph	Testo	175h1	EC 6640	2024-08-28			
•	Thermo-Hygrograph	Testo	175h1	EC 6641	2024-08-28			
•	Pressure meter	YM3	Shanghai Mengde	EC 4620	2024-08-16			

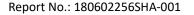




2.7 Measurement uncertainty

The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Test item	Measurement uncertainty
Maximum peak output power	± 0.74dB
Power spectrum density	± 0.74dB
Radiated Emissions in restricted frequency bands below 1GHz	± 4.90dB
Radiated Emissions in restricted frequency bands above 1GHz	± 5.02dB
Emission outside the frequency band	± 2.89dB
Power line conducted emission	± 3.19dB
Occupied bandwidth	± 0.84 × 10-7





3 Minimum 6dB bandwidth

Test result: Pass

3.1 Limit

For systems using digital modulation techniques that may operate in the 902 - 928 MHz, 2400 - 2483.5 MHz and 5725 - 5850 MHz bands, the minimum 6 dB bandwidth shall be at least 500 kHz.

3.2 Measurement Procedure

The minimum 6dB bandwidth is measured using the Spectrum Analyzer according to DTS test procedure of "KDB558074 D01 DTS Meas Guidance" (clause 8.2) for compliance requirements.

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) \geq 3 × RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

3.3 Test Configuration



3.4 Test Results of Minimum 6dB bandwidth

Please refer to Appendix A



4 Maximum conducted output power and e.i.r.p.

Test result: Pass

4.1 Limit

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 W. (The e.i.r.p. shall not exceed 4 W)

If the transmitting antenna of directional gain greater than 6dBi is used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi. If there have a beam forming type, the limit should be the minimum of 30dBm and 30+ (6 –antenna gain-beam forming gain).

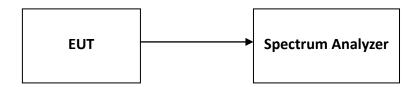
4.2 Measurement Procedure

The EUT was tested according to DTS test procedure of "KDB558074 D01 DTS Meas Guidance" (clause 9.1.1) for compliance requirements.

- a) Set the RBW ≥ DTS bandwidth.
- b) Set VBW $\geq 3 \times RBW$.
- c) Set span \geq 3 x RBW
- d) Sweep time = auto couple.
- e) Detector = peak.
- f) Trace mode = max hold.
- g) Allow trace to fully stabilize.
- h) Use peak marker function to determine the peak amplitude level.



4.3 Test Configuration



4.4 Test Results of Maximum conducted output power

Please refer to Appendix A



5 Power spectrum density

Test result: Pass

5.1 Limit

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

If the transmitting antenna of directional gain greater than 6dBi is used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi. If there have a beam forming type, the limit should be the minimum of 8dBm/MHz and 8+ (6—antenna gain-beam forming gain).

5.2 Measurement Procedure

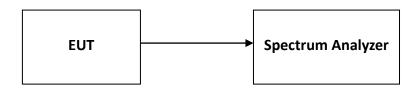
The power output was tested according to DTS test procedure of "KDB558074 D01 DTS Meas Guidance" (clause 10.2) for compliance requirements.

- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span to 1.5 times the DTS bandwidth.
- c) Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- d) Set the VBW $\geq 3 \times RBW$.
- e) Detector = peak.
- f) Sweep time = auto couple.
- g) Trace mode = max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum amplitude level within the RBW.
- j) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.





5.3 Test Configuration



5.4 Test Results of Power spectrum density

Please refer to Appendix A



6 Emission outside the frequency band

Test result: Pass

6.1 Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

6.2 Measurement Procedure

The EUT was tested according to DTS test procedure of "KDB558074 D01 DTS Meas Guidance" (clause 11.0) for compliance requirements.

Reference level measurement

Establish a reference level by using the following procedure:

- a) Set instrument center frequency to DTS channel center frequency.
- b) Set the span to \geq 1.5 times the DTS bandwidth.
- c) Set the RBW = 100 kHz.
- d) Set the VBW \geq 3 x RBW.
- e) Detector = peak.
- f) Sweep time = auto couple.
- g) Trace mode = max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum PSD level.

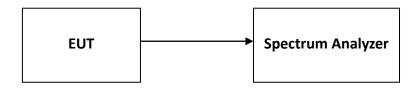
Emission level measurement

- a) Set the center frequency and span to encompass frequency range to be measured.
- b) Set the RBW = 100 kHz.
- c) Set the VBW \geq 3 x RBW.
- d) Detector = peak.
- e) Sweep time = auto couple.
- f) Trace mode = max hold.
- g) Allow trace to fully stabilize.
- h) Use the peak marker function to determine the maximum amplitude level.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) are attenuated by at least the minimum requirements specified in 11.1 a) or 11.1 b). Report the three highest emissions relative to the limit.



6.3 Test Configuration



6.4 The results of Emission outside the frequency band

Please refer to Appendix A



7 Radiated Emissions in restricted frequency bands

Test result: Pass

7.1 Limit

The radiated emissions which fall in the restricted bands, must also comply with the radiated emission limits specified showed as below:

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

7.2 Measurement Procedure

For Radiated emission below 30MHz:

- a) The EUT was placed on the top of a rotating table 0.1 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b) The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c) Both X and Y axes of the antenna are set to make the measurement.
- d) For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e) The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

For Radiated emission above 30MHz:

a) The EUT was placed on the top of a rotating table 0.1 meters (for 30MHz ~ 1GHz) / 1.5 meters (for



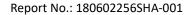
TEST REPORT

above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

- b) The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c) The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d) For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e) The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f) The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

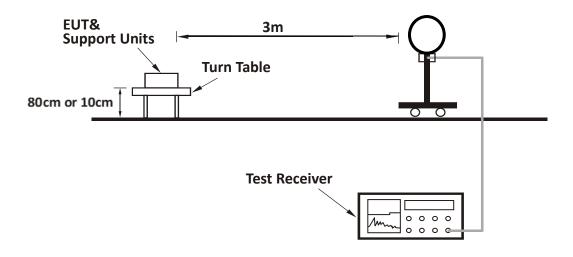
- 1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
- 2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
- 3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 3 x RBW (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz.
- 4. All modes of operation were investigated and the worst-case emissions are reported



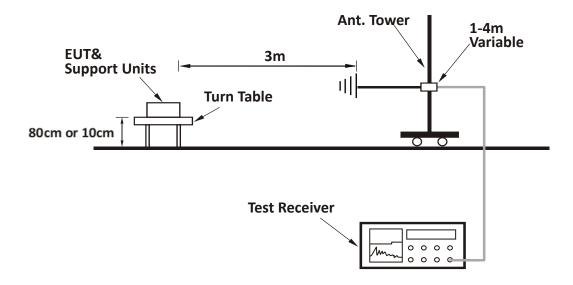


7.3 Test Configuration

For Radiated emission below 30MHz:



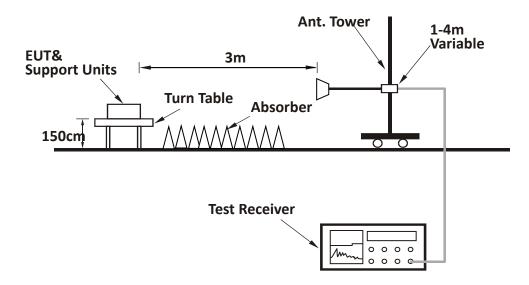
For Radiated emission 30MHz to 1GHz:







For Radiated emission above 1GHz:



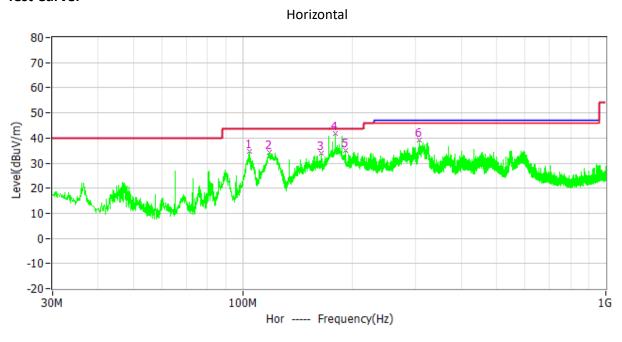


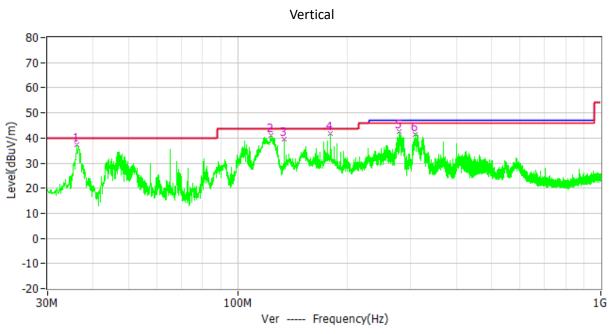


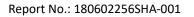
7.4 Test Results of Radiated Emissions

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

Test Curve:









Test data below 1GHz:

Antenna	Frequency (MHz)	Corrected Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
Н	104.39	34.6	43.5	8.9	PK
Н	118.46	34.3	43.5	9.2	PK
Н	165.12	34.0	43.5	9.5	PK
Н	180.44	41.8	43.5	1.7	PK
Н	192.18	35.0	43.5	8.5	PK
Н	307.12	39.2	46.0	6.8	PK
V	36.21	37.4	40.0	2.6	PK
V	123.70	40.9	43.5	2.6	PK
V	134.37	39.4	43.5	4.1	PK
V	180.45	41.9	43.5	1.6	PK
V	278.13	42.4	46.0	3.6	PK
V	308.68	41.6	46.0	4.4	PK





Test result above 1GHz:

The emission was conducted from 1GHz to 25GHz:

СН	Antenna	Frequency (MHz)	Correct Factor (dB/m)	Corrected Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	Н	1806.25	58.70	-5.0	74.00	15.30	PK
	Н	1806.25	39.60	-5.0	54.00	14.40	AV
١.	V	1806.25	53.40	-5.0	74.00	20.60	PK
L	Н	6321.875	52.30	6.3	74.00	21.70	PK
	V	6321.875	54.20	6.3	74.00	19.80	PK
	V	6321.875	37.50	6.3	54.00	16.50	AV
	Н	1830.25	57.40	-4.7	74.00	16.60	PK
	Н	1830.25	38.70	-4.7	54.00	15.30	AV
М	V	1830.25	51.00	-4.7	74.00	23.00	PK
	Н	6405.875	48.70	6.3	74.00	25.30	PK
	V	6405.875	46.80	6.3	74.00	27.20	PK
	Н	1854.25	55.10	-4.5	74.00	18.90	PK
	Н	1854.25	36.90	-4.5	54.00	17.10	AV
Н	V	1854.25	49.20	-4.5	74.00	24.80	PK
	Н	6489.875	51.20	6.3	74.00	22.80	PK
	V	6489.875	48.90	6.3	74.00	25.10	PK

Remark: 1. Correct Factor = Antenna Factor + Cable Loss (+ Amplifier, for higher than 1GHz), the value was added to Original Receiver Reading by the software automatically.

- 2. Corrected Reading = Original Receiver Reading + Correct Factor
- 3. Margin = Limit Corrected Reading
- 4. If the PK Corrected Reading is lower than AV limit, the AV test can be elided.

Example: Assuming Antenna Factor = 30.20dB/m, Cable Loss = 2.00dB,

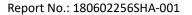
Gain of Preamplifier = 32.00dB, Original Receiver Reading = 10.00dBuV,

Limit = 40.00dBuV/m.

Then Correct Factor = 30.20 + 2.00 - 32.00 = 0.20dB/m;

Corrected Reading = 10dBuV + 0.20dB/m = 10.20dBuV/m;

Margin = 40.00dBuV/m - 10.20dBuV/m = 29.80dB.





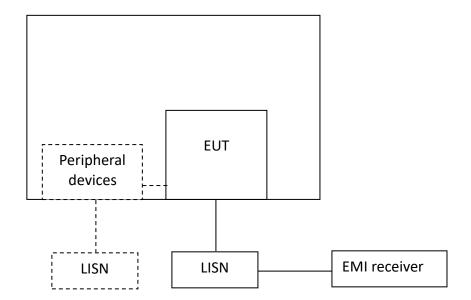
8 Power line conducted emission

Test result: NA

8.1 Limit

Frequency of Emission (MHz)	Conducted Limit (dBuV)				
Trequency of Emission (Wills)	QP	AV			
0.15-0.5	66 to 56*	56 to 46 *			
0.5-5	56	46			
5-30	60	50			
* Decreases with the logarithm of the frequency.					

8.2 Test Configuration







8.3 Measurement Procedure

Measured levels of ac power-line conducted emission shall be the emission voltages from the voltage probe, where permitted, or across the 50 Ω LISN port (to which the EUT is connected), where permitted, terminated into a 50 Ω measuring instrument. All emission voltage and current measurements shall be made on each current-carrying conductor at the plug end of the EUT power cord by the use of mating plugs and receptacles on the LISN, if used. Equipment shall be tested with power cords that are normally supplied or recommended by the manufacturer and that have electrical and shielding characteristics that are the same as those cords normally supplied or recommended by the manufacturer. For those measurements using a LISN, the 50 Ω measuring port is terminated by a measuring instrument having 50 Ω input impedance. All other ports are terminated in 50 Ω loads.

Tabletop devices shall be placed on a platform of nominal size 1 m by 1.5 m, raised 80 cm above the reference ground plane. The vertical conducting plane or wall of an RF-shielded (screened) room shall be located 40 cm to the rear of the EUT. Floor-standing devices shall be placed either directly on the reference ground-plane or on insulating material as described in ANSI C63.4. All other surfaces of tabletop or floor-standing EUTs shall be at least 80 cm from any other grounded conducting surface, including the case or cases of one or more LISNs.

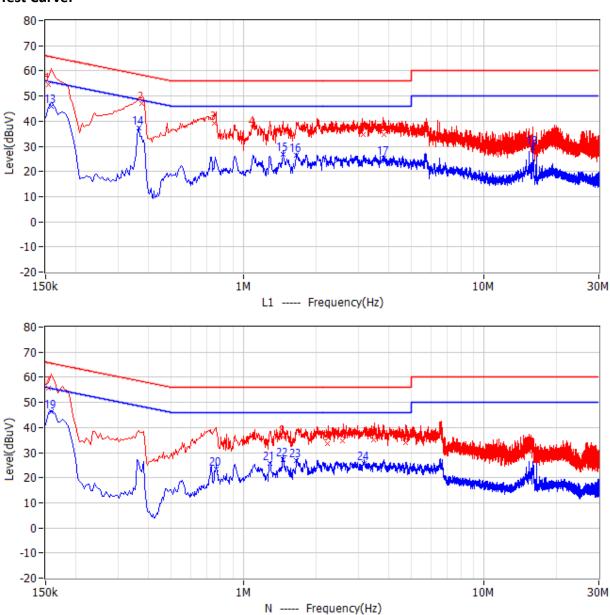
The bandwidth of the test receiver is set at 9 kHz.

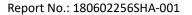




8.4 Test Results of Power line conducted emission

Test Curve:



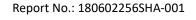




No.	Frequency	Limit	Level	Delta	Reading	Factor	Detector	Phase
140.		dBuV	dBuV	dB	dBuV	dB	Detecto.	Tilasc
1	154.500kHz	65.8	54.7	-11.1	48.5	6.2	QP	L1
2	375.000kHz	58.4	47.1	-11.3	40.9	6.2	QP	L1
3	757.500kHz	56.0	39.1	-16.9	32.9	6.2	QP	L1
4	1.091MHz	56.0	37.3	-18.7	31.1	6.2	QP	L1
5	3.129MHz	56.0	34.8	-21.2	28.5	6.3	QP	L1
6	3.836MHz	56.0	34.6	-21.4	28.3	6.3	QP	L1
7	154.500kHz	65.8	55.8	-10.0	49.6	6.2	QP	N
8	1.460MHz	56.0	36.2	-19.8	30.0	6.2	QP	N
9	2.229MHz	56.0	33.6	-22.4	27.4	6.2	QP	N
10	2.585MHz	56.0	34.6	-21.4	28.4	6.2	QP	N
11	3.480MHz	56.0	35.1	-20.9	28.8	6.3	QP	N
12	4.704MHz	56.0	33.9	-22.1	27.6	6.3	QP	N
13	159.000kHz	55.5	45.8	-9.7	39.6	6.2	CAV	L1
14	366.000kHz	48.6	37.4	-11.2	31.2	6.2	CAV	L1
15	1.460MHz	46.0	26.7	-19.3	20.5	6.2	CAV	L1
16	1.662MHz	46.0	26.6	-19.4	20.4	6.2	CAV	L1
17	3.822MHz	46.0	25.4	-20.6	19.1	6.3	CAV	L1
18	15.963MHz	50.0	29.6	-20.4	22.6	7.0	CAV	L1
19	159.000kHz	55.5	46.3	-9.2	40.1	6.2	CAV	N
20	766.500kHz	46.0	23.6	-22.4	17.4	6.2	CAV	Ν
21	1.284MHz	46.0	25.6	-20.4	19.4	6.2	CAV	N
22	1.460MHz	46.0	27.1	-18.9	20.9	6.2	CAV	N
23	1.662MHz	46.0	26.9	-19.1	20.7	6.2	CAV	N
24	3.161MHz	46.0	25.7	-20.3	19.4	6.3	CAV	N

Remark: 1. Factor = LISN Factor + Cable Loss, the value was added to Original Receiver Reading by the software automatically.

- 2. Level = Reading value + Factor
- 3. Delta = level limit
- 4. If the PK Corrected Reading is lower than AV limit, the AV test can be elided.





9 Occupied Bandwidth

Test result: Tested

9.1 Limit

None

9.2 Measurement Procedure

The occupied bandwidth per RSS-Gen was measured using the Spectrum Analyzer.

The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts.

The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the occupied bandwidth (OBW) and video bandwidth (VBW) shall be approximately 3x RBW.

9.3 Test Configuration



9.4 The results of Occupied Bandwidth

Please refer to Appendix A





10 Antenna requirement

Requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

Result:

EUT uses permanently attached antenna to the intentional radiator, so it can comply with the provisions of this section.