

EMC TEST REPORT

No. 151201631SHA-002

Applicant : KID GALAXY INC
150 Dow Street Tower 2, Unit 425B, Manchester, New
Hampshire 03101 U.S.A

Manufacturer : KID GALAXY INC
150 Dow Street Tower 2, Unit 425B, Manchester, New
Hampshire 03101 U.S.A

Product Name : R/C Stunt Car

Type/Model : 10307

TEST RESULT : PASS

SUMMARY

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

47CFR Part 15 (2015): Radio Frequency Devices (Subpart B)

ANSI C63.4 (2014): American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

Date of issue: February 17, 2016

Prepared by:



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Reviewed by:



Daniel Zhao (*Reviewer*)



Description of Test Facility

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1. General Information

1.1 Applicant Information

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Hampshire 03101 U.S.A
Name of contact : Irene Ngai
Tel : 800- 816-1135
Fax : /
Manufacturer : KID GALAXY INC
150 Dow Street Tower 2, Unit 425B, Manchester, New
Hampshire 03101 U.S.A

1.2 Identification of the EUT

Equipment : R/C Stunt Car
Type/model : 10307
Description of EUT : The EUT has only one model. We tested it and listed the
receiver result in this report.
Rating : 4.8V DC 700mAh
Port identification : /
Category of EUT : Class B
EUT type : Table top Floor standing
Sample received date : 2015.12.31
Sample Identification : *0151231-48-002*
No
Date of test : 2015.12.31 ~ 2016.01.07

2. Test Specification

2.1 Instrument list

| Equipment | Type | Manu. | Internal no. | Valid until date |
|-----------------------|------------|-------------------|--------------|------------------|
| Test Receiver | ESIB 26 | R&S | EC 3045 | 2016-10-18 |
| Test Receiver | ESCI 7 | R&S | EC4501 | 2017-1-12 |
| Bilog Antenna | CBL 6112D | TESEQ | EC 4206 | 2016-5-13 |
| Horn antenna | HF 906 | R&S | EC 3049 | 2016-5-10 |
| Pre-amplifier | Pre-amp 18 | R&S | EC 3222 | 2016-4-9 |
| Semi-anechoic chamber | - | Albatross project | EC 3048 | 2016-5-18 |
| Shielded room | - | Zhongyu | EC 2839 | 2017-1-7 |

2.2 Test Standard

47CFR Part 15: 2015

ANSI C63.4: 2014

2.3 Mode of operation during the test / Test peripherals used

Within this test report, EUT was tested under all available operation modes, and we verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Mode1: Normally working;

Test Peripherals:

| Product | Manufacture | Model No. | Serial No. | Power Cord | FCC Approved |
|---------|-------------|-----------|------------|------------|--------------|
| NA | NA | NA | NA | NA | NA |



2.4 Test Summary

This report applies to tested sample only. This report shall not be reproduced in part without written approval of Intertek Testing Service Shanghai Limited.

| TEST ITEM | FCC REFERANCE | RESULT |
|-------------------------------|---------------|--------|
| Power line conducted emission | 15.107 | NA |
| Radiated emission | 15.109 | Pass |

3. Radiated emission

Test result: PASS

3.1 Radiated emission limits

3.1.1 Limits for radiated disturbance of class A device

| Frequency (MHz) | Permitted limit in dB μ V/m (Quasi-peak) of Measurement Distance 10m |
|-----------------|--|
| 30 – 88 | 39 |
| 88 – 216 | 43.5 |
| 216 – 960 | 46.4 |
| Above 960 | 49.5 |

Note: for the measurement distance other than 3m and 10m, the limit is varied according to 20dB/10 decades.

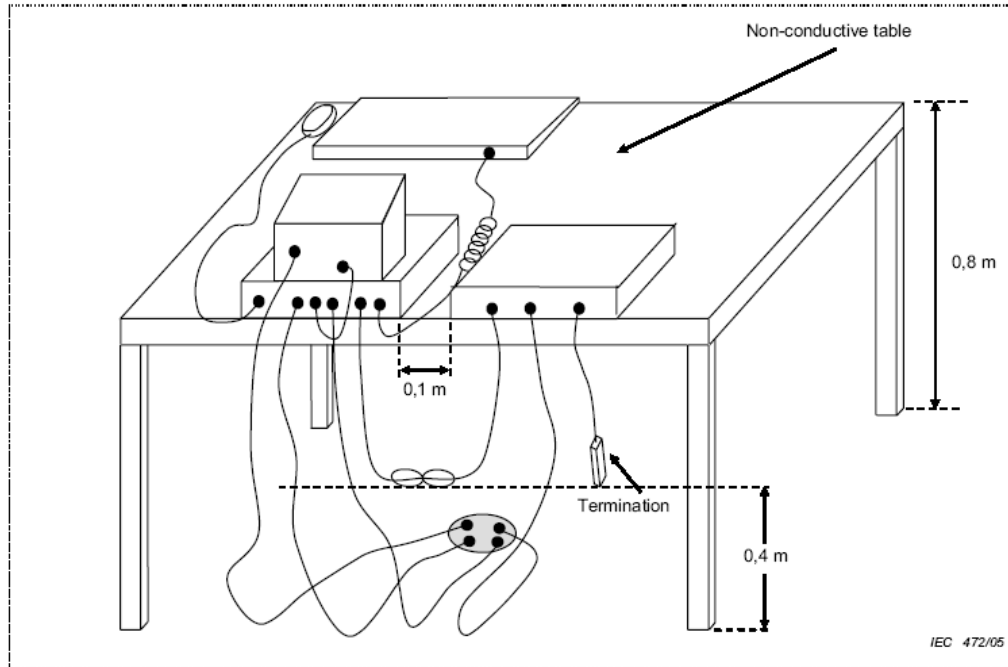
3.1.2 Limits for radiated disturbance of class B device

| Frequency (MHz) | Permitted limit in dB μ V/m (Quasi-peak) of Measurement Distance 3m |
|-----------------|---|
| 30 – 88 | 40.0 |
| 88 – 216 | 43.5 |
| 216 – 960 | 46.0 |
| Above 960 | 54.0 |

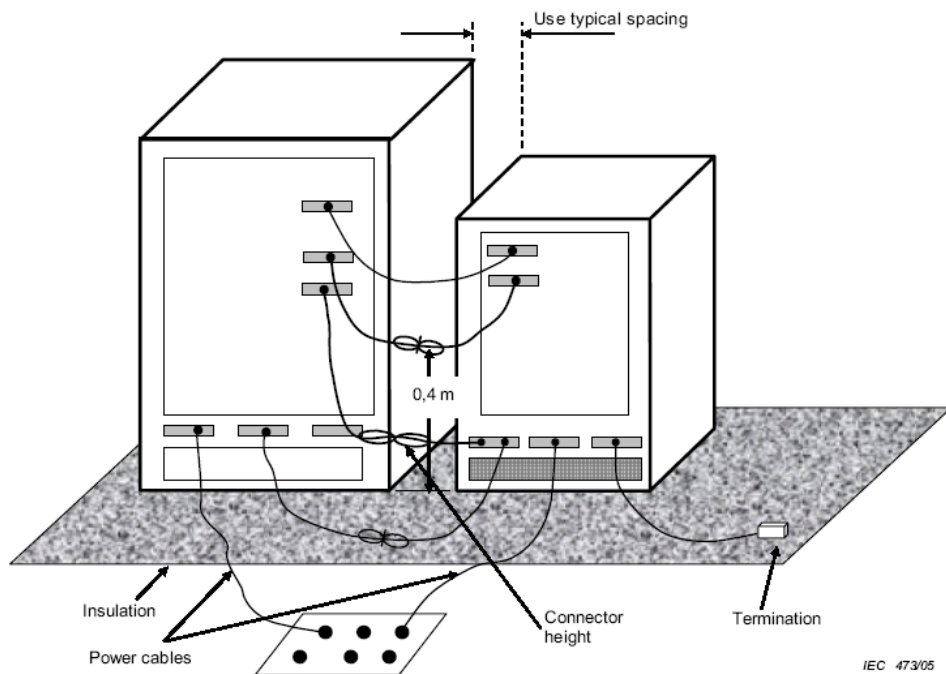
Note: for the measurement distance other than 3m and 10m, the limit is varied according to 20dB/10 decades.

3.2 Block diagram and test set up

For table top equipment



For floor standing equipment



3.3 Test Setup and Test Procedure

The measurement was performed in a semi-anechoic chamber. While testing for spurious emission higher than 1GHz, the pre-amplifier (and high pass filter if necessary) is equipped just at the output terminal of the antenna.

The distance from EUT to receiving antenna is **3 meter**.

Measurement was performed according to clause 4 and clause 5 of ANSI 63.4.

Test procedure was according to clause 8.3 of ANSI 63.4.

EUT arrangement and operate condition were according to clause 6 and clause 8 of ANSI 63.4.

The radiated emission was measured using the test receiver with the resolutions bandwidth set as:

RBW = 100kHz, VBW = 300kHz (30MHz~1GHz)

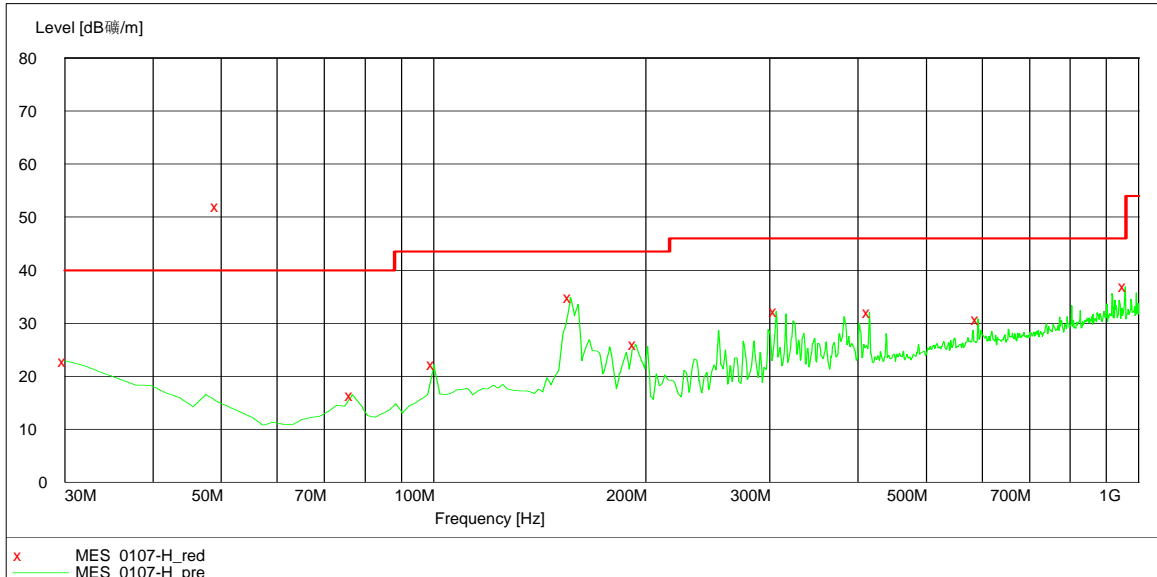
RBW = 1MHz, VBW = 3MHz (>1GHz for PK)

RBW = 1MHz, VBW = 10Hz (>1GHz for AV)

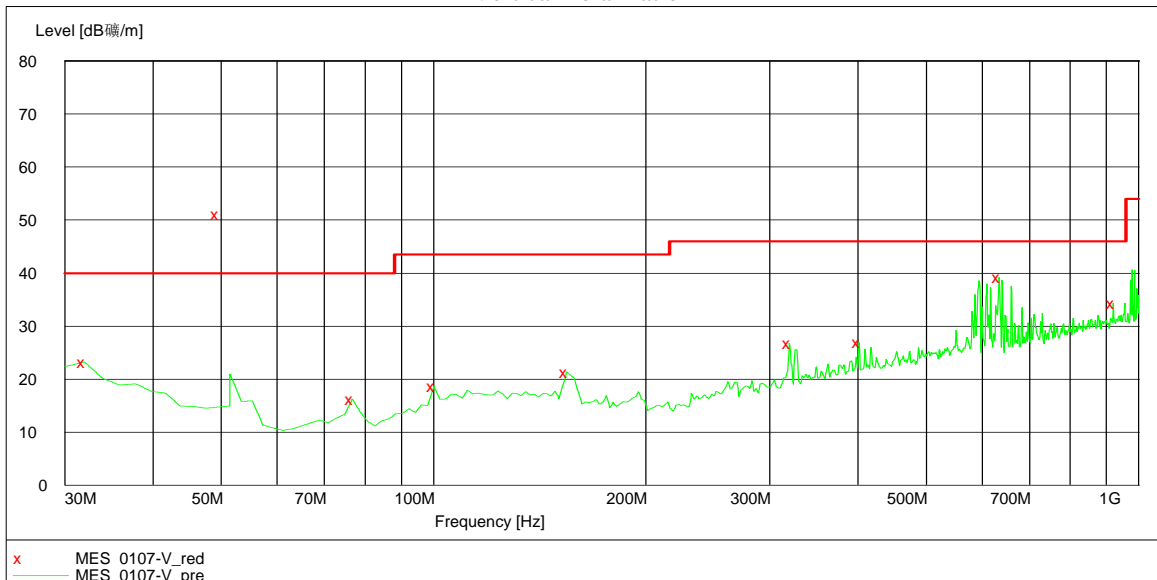
3.4 Test protocol

Temperature : 25 °C
 Relative Humidity : 55 %

Horizontal Polarization



Vertical Polarization



Test data:

| Polarization | Frequency (MHz) | Emission level (dB μ V/m) | Limits (dB μ V/m) | Margin (dB μ V/m) | Detector |
|--------------|-----------------|-------------------------------|-----------------------|-----------------------|----------|
| H | 30.00 | 22.9 | 40.0 | 17.1 | PK |
| | 76.65 | 16.5 | 40.0 | 23.5 | PK |
| | 99.98 | 22.2 | 43.5 | 21.3 | PK |
| | 156.35 | 34.8 | 43.5 | 8.7 | PK |
| | 193.29 | 26.0 | 43.5 | 17.5 | PK |
| | 306.03 | 32.2 | 46.0 | 13.8 | PK |
| | 414.89 | 32.0 | 46.0 | 14.0 | PK |
| | 591.78 | 30.8 | 46.0 | 15.2 | PK |
| V | 957.23 | 36.9 | 46.0 | 9.1 | PK |
| | 31.94 | 23.2 | 40.0 | 16.8 | PK |
| | 76.65 | 16.2 | 40.0 | 23.8 | PK |
| | 99.98 | 18.7 | 43.5 | 24.8 | PK |
| | 154.41 | 21.4 | 43.5 | 22.1 | PK |
| | 319.64 | 26.8 | 46.0 | 19.2 | PK |
| | 401.28 | 26.9 | 46.0 | 19.1 | PK |
| | 634.55 | 39.2 | 46.0 | 6.8 | PK |
| 920.30 | 34.4 | 46.0 | 11.6 | PK | |

4. Power line conducted emission

Test result: NA

4.1 Limits

4.1.1 Limits for conducted disturbance voltage at the mains ports of class A device

| Frequency range (MHz) | Limits dB(μ V) | |
|--------------------------|---------------------|---------|
| | Quasi-peak | Average |
| 0.15 ~ 0.5 | 79 | 66 |
| 0.5 ~ 30 | 73 | 60 |

Note: If the limit for the measurement with the average detector is met when using a receiver with a quasi-peak detector, the equipment under test shall be deemed to meet both limits and the measurement using the receiver with an average detector need not be carried out.

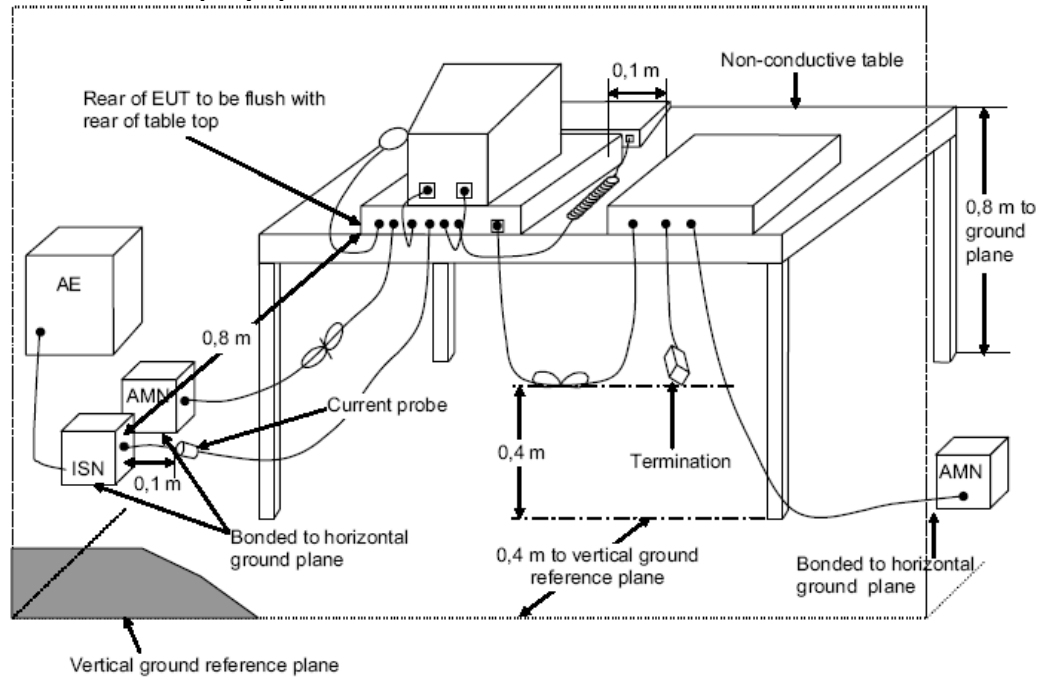
4.1.2 Limits for conducted disturbance voltage at the mains ports of class B device

| Frequency range (MHz) | Limits dB(μ V) | |
|--------------------------|---------------------|-----------|
| | Quasi-peak | Average |
| 0.15 ~ 0.5 | 66 ~ 56 * | 56 ~ 46 * |
| 0.5 ~ 5 | 56 | 46 |
| 5 ~ 30 | 60 | 50 |

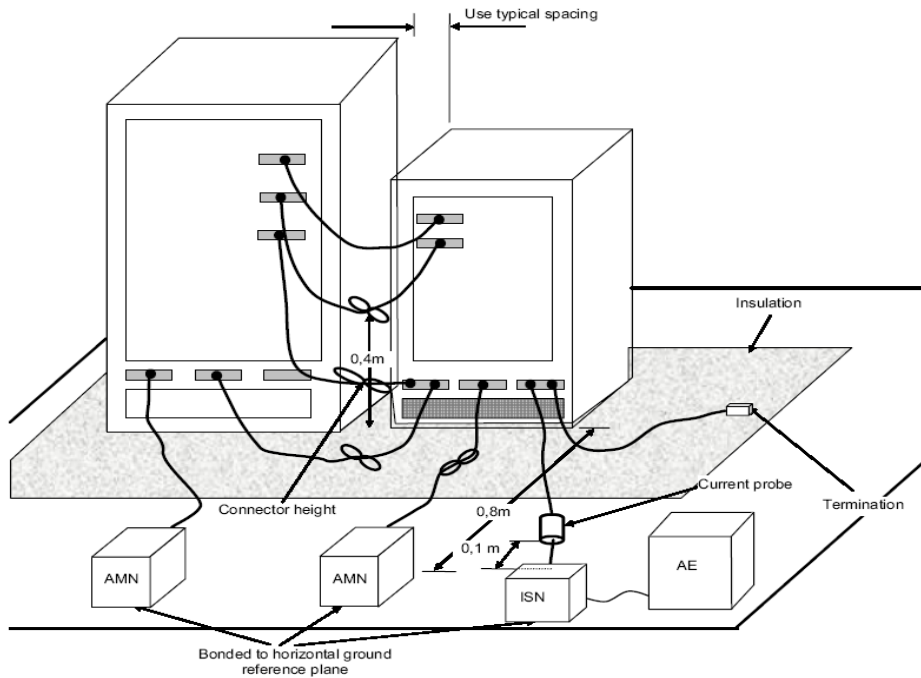
Note: 1. * Means the limit decreasing linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz
 2. If the limit for the measurement with the average detector is met when using a receiver with a quasi-peak detector, the equipment under test shall be deemed to meet both limits and the measurement using the receiver with an average detector need not be carried out.

4.2 Test setup

For table top equipment



For floor standing equipment



4.3 Test Setup and Test Procedure

Measurement was performed in shielded room, and instruments used were following clause 4 and clause 5 of ANSI 63.4.

Detailed test procedure was following clause 7.2 of ANSI 63.4.

EUT arrangement and operation conditions were according to clause 6 and clause 7 of ANSI 63.4.

Frequency range 150kHz – 30MHz was checked and EMI receiver measurement bandwidth was set to 9 kHz.

4.4 Test protocol

Temperature : °C
 Relative Humidity : %

Test Data:

| Frequency (MHz) | Quasi-peak | | | Average | | |
|-----------------|--------------|--------------|-------------|--------------|--------------|-------------|
| | level dB(μV) | Limit dB(μV) | Margin (dB) | level dB(μV) | limit dB(μV) | Margin (dB) |
| - | - | - | - | - | - | - |
| - | - | - | - | - | - | - |
| - | - | - | - | - | - | - |
| - | - | - | - | - | - | - |
| - | - | - | - | - | - | - |
| - | - | - | - | - | - | - |

Appendix I: Photograph of equipment under test







