




# TEST REPORT

Report No. .... : **CHTEW20070145** Report Verification :   
Project No..... : **SHT2007059001EW**  
FCC ID..... : **SIP-5581-V**  
Applicant's name..... : **MegaGain International Ltd.**  
Address..... : Rm 904-905, Greenfield Tower, Concordia Plaza,1 Science Museum Road, T.S.T. East. Kowloon. HongKong  
Manufacturer..... : MegaGain International Ltd.  
Address..... : Rm 904-905, Greenfield Tower, Concordia Plaza,1 Science Museum Road, T.S.T. East. Kowloon. HongKong  
Test item description ..... : **MARVEL 5.5" SPIDERMAN RC VEHICLE DELUXE CONTROLLER**  
Trade Mark ..... : -  
Model/Type reference..... : 5788-W  
Listed Model(s) ..... : -  
Standard ..... : **FCC CFR Title 47 Part 15 Subpart C Section 15.249**  
Date of receipt of test sample..... : Jul. 15, 2020  
Date of testing..... : Jul. 16, 2020- Jul. 16, 2020  
Date of issue..... : Jul. 17, 2020  
Result..... : **PASS**

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Testing Laboratory Name ..... : **Shenzhen Huatongwei International Inspection Co., Ltd.**  
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*The test report merely correspond to the test sample.*

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## 1. TEST STANDARDS AND REPORT VERSION

### 1.1. Test Standards

The tests were performed according to following standards:

[FCC Rules Part 15.249](#): Operation within the bands 902-928 MHz, 2400-2483.5 MHz, 5725-5875 MHz, and 24.0-24.25 GHz.

[ANSI C63.10-2013](#): American National Standard for Testing Unlicensed Wireless Devices.

### 1.2. Report version information

Revision No.	Date of issue	Description
N/A	2020-07-17	Original

## 2. TEST DESCRIPTION

Test Item	Section in CFR 47	Result	Test Engineer
Antenna requirement	15.203	PASS	Jiongsheng Feng
AC Power Line Conducted Emissions	15.207	N/A	N/A
20dB Occupied Bandwidth	15.215/15.249	PASS	Jiongsheng Feng
Field strength of the Fundamental signal	15.249(a)	PASS	Jiongsheng Feng
Spurious Emissions	15.249(a)15.205/15.209	PASS	Pan Xie
Band edge Emissions	15.249(d)15.205/15.209	PASS	Pan Xie

Remark: The measurement uncertainty is not included in the test result.

### 3. SUMMARY

#### 3.1. Client Information

Applicant:	MegaGain International Ltd.
Address:	Rm 904-905, Greenfield Tower, Concordia Plaza,1 Science Museum Road, T.S.T. East. Kowloon. HongKong
Manufacturer:	MegaGain International Ltd.
Address:	Rm 904-905, Greenfield Tower, Concordia Plaza,1 Science Museum Road, T.S.T. East. Kowloon. HongKong

#### 3.2. Product Description

Name of EUT:	MARVEL 5.5" SPIDERMAN RC VEHICLE DELUXE CONTROLLER
Trade Mark:	-
Model No.:	5788-W
Listed Model(s):	-
Power supply:	1.5V*3
Adapter information:	-
Hardware Version:	V1
Software Version:	V1
<b>RF Specification</b>	
Operation frequency:	2420~2462MHz
Channel number:	1MHz
Modulation Type:	GFSK
Antenna type:	Monopole Antenna
Antenna gain:	0dBi

#### 3.3. Testing Laboratory Information

Laboratory Name	Shenzhen Huatongwei International Inspection Co., Ltd.	
Laboratory Location	1/F, Bldg 3, Hongfa Hi-tech Industrial Park, Genyu Road, Tianliao, Gongming, Shenzhen, China	
Qualifications	Type	Accreditation Number
	CNAS	L1225
	A2LA	3902.01
	FCC	762235
	Canada	5377A

## 4. TEST CONFIGURATION

### 4.1. Test frequency list

According to section 15.31(m), regards to the operating frequency range over 10 MHz, must select three channels which were tested. The Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, please see the below blue front.

Channel	Frequency (MHz)	Remark
00	2420	CH <sub>L</sub>
01	2421	
⋮	⋮	
19	2440	CH <sub>M</sub>
⋮	⋮	
41	2461	
42	2462	CH <sub>H</sub>

### 4.2. Test mode

For RF test items
The engineering test program was provided and enabled to make EUT continuous transmit.
For Radiated spurious emissions test item:
The engineering test program was provided and enabled to make EUT continuous transmit. The EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data Recorded in the report.

### 4.3. Support unit used in test configuration and system

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

The following peripheral devices and interface cables were connected during the measurement:

Whether support unit is used?					
No					
Item	Equipement	Trade Name	Model No.	FCC ID	Power cord
1					
2					

#### 4.4. Testing environmental condition

Type	Requirement	Actual
Temperature:	15~35°C	25°C
Relative Humidity:	25~75%	50%
Air Pressure:	860~1060mbar	1000mbar

#### 4.5. Measurement uncertainty

Test Item	Measurement Uncertainty
AC Conducted Emission (150kHz~30MHz)	3.02 dB
Radiated Emission (30MHz~1000MHz)	4.90 dB
Radiated Emissions (1GHz~25GHz)	4.96 dB
Peak Output Power	0.51 dB
Power Spectral Density	0.51 dB
Conducted Spurious Emission	0.51 dB
6dB Bandwidth	70 Hz

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of  $k=1.96$ .

(1)

#### 4.6. Equipments Used during the Test

● Conducted Emission						
Used	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
●	Shielded Room	Albatross projects	N/A	N/A	2018/09/28	2023/09/27
●	EMI Test Receiver	R&S	ESCI	101247	2018/10/27	2020/10/25
●	Artificial Mains	SCHWARZBECK	NNLK 8121	573	2018/10/27	2020/10/22
●	Pulse Limiter	R&S	ESH3-Z2	100499	2018/10/27	2020/10/22
●	RF Connection Cable	HUBER+SUHNER	EF400	N/A	2018/11/15	2020/10/22
●	Test Software	R&S	ES-K1	N/A	N/A	N/A

● Radiated Emission-6th test site						
Used	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
●	Semi-Anechoic Chamber	Albatross projects	SAC-3m-02	N/A	2018/09/30	2021/09/29
●	EMI Test Receiver	R&S	ESCI	100900	2018/10/28	2020/10/25
●	Loop Antenna	R&S	HFH2-Z2	100020	2017/11/20	2021/04/01
●	Ultra-Broadband Antenna	SCHWARZBECK	VULB9163	546	2017/04/05	2021/04/03
●	Pre-Amplifier	SCHWARZBECK	BBV 9742	N/A	2018/11/15	2020/11/13
●	RF Connection Cable	HUBER+SUHNER	N/A	N/A	2018/09/28	2020/08/20
●	RF Connection Cable	HUBER+SUHNER	SUCOFLEX104	501184/4	2018/09/28	2021/05/26
●	Test Software	R&S	ES-K1	N/A	N/A	N/A
●	Turntable	Maturo Germany	TT2.0-1T	N/A	N/A	2021/09/29
●	Antenna Mast	Maturo Germany	CAM-4.0-P-12	N/A	N/A	2020/10/25

● Radiated emission-7th test site						
Used	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
●	Semi-Anechoic Chamber	Albatross projects	SAC-3m-01	N/A	2018/09/30	2021/09/26
●	Spectrum Analyzer	R&S	FSP40	100597	2018/10/27	2020/10/25
●	Horn Antenna	SCHWARZBECK	9120D	1011	2017/03/27	2023/03/31
●	Pre-amplifier	BONN	BLWA0160-2M	1811887	2018/11/14	2021/10/10
●	Pre-amplifier	CD	PAP-0102	12004	2018/11/14	2021/10/11
●	Broadband Pre-amplifier	SCHWARZBECK	BBV 9718	9718-248	2019/04/26	2020/11/13
●	RF Connection Cable	HUBER+SUHNER	RE-7-FH	N/A	2018/11/15	2021/05/22
●	RF Connection Cable	HUBER+SUHNER	RE-7-FL	N/A	2018/11/15	2021/05/17
●	Test Software	Audix	E3	N/A	N/A	2021/05/17
●	Turntable	Maturo Germany	TT2.0-1T	N/A	N/A	2021/05/17
●	Antenna Mast	Maturo Germany	CAM-4.0-P-12	N/A	N/A	2021/05/17

● RF Conducted Method						
Used	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
●	Signal and spectrum Analyzer	R&S	FSV40	100048	2019/10/26	2020/10/25
●	Spectrum Analyzer	Agilent	N9020A	MY50510187	2019/10/26	2020/10/25
●	Power Meter	Anritsu	ML249A	N/A	2019/10/26	2020/10/25



## 5. TEST CONDITIONS AND RESULTS

### 5.1. Antenna requirement

#### Requirement

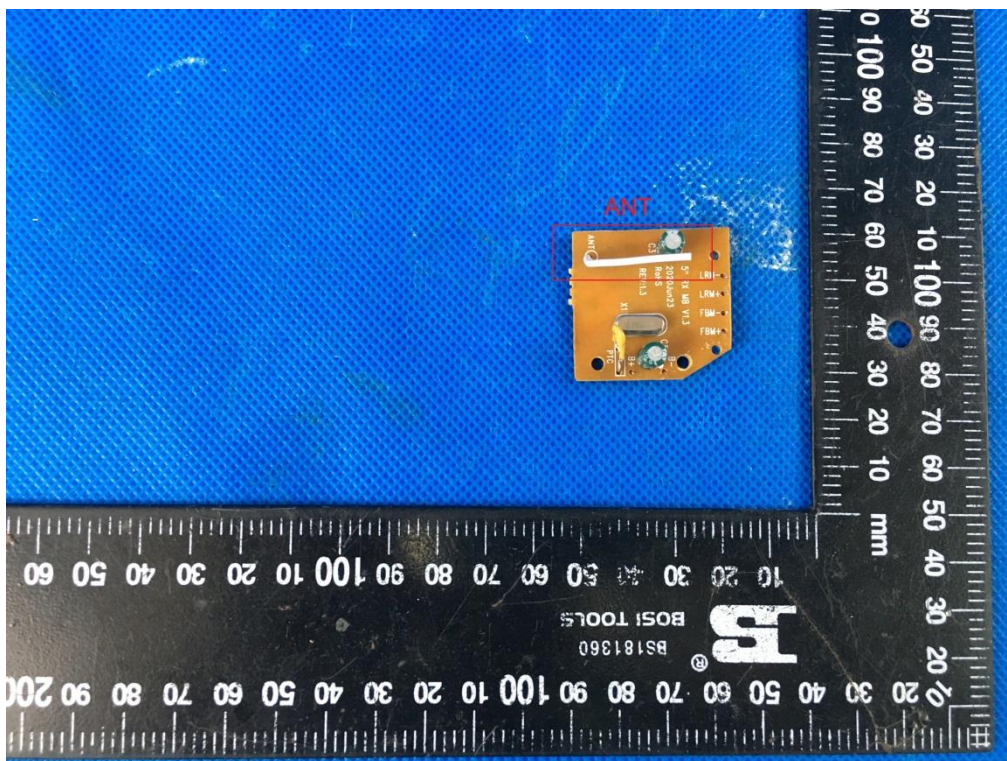
##### **FCC CFR Title 47 Part 15 Subpart C Section 15.203:**

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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

#### TEST RESULTS

**Passed**       **Not Applicable**

The antenna type is a Monopole Antenna, the directional gain of the antenna less than 6 dBi, please refer to the below antenna photo



## 5.2. AC Power Conducted Emissions

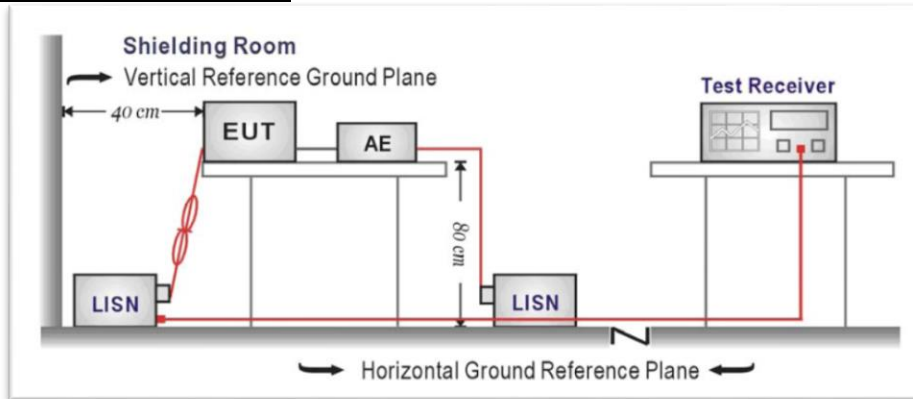
### LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.207:

Frequency range (MHz)	Limit (dBuV)	
	Quasi-peak	Average
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.

### TEST CONFIGURATION



### TEST PROCEDURE

1. The EUT was setup according to ANSI C63.10:2013
2. The EUT was placed on a plat form of nominal size, 1 m by 1.5 m, raised 10 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 10 cm from any other grounded conducting surface.
3. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50ohm / 50uH coupling impedance for the measuring equipment.
4. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)
5. Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.
6. The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.
7. Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.
8. During the above scans, the emissions were maximized by cable manipulation.

### TEST MODE:

Please refer to the clause 3.3

### TEST RESULTS

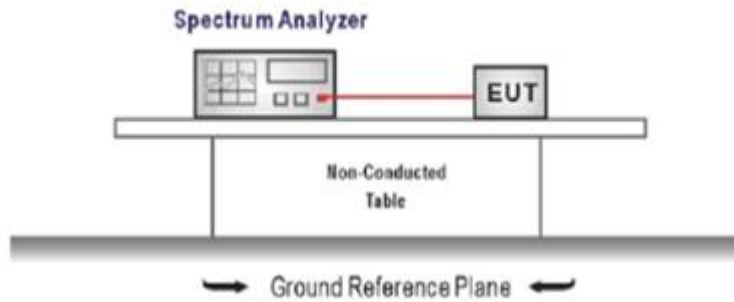
Passed       Not Applicable

### 5.3. 20 dB Occupied Bandwidth

#### Limit

Operation frequency range 2400MHz~2483.5MHz.

#### TEST CONFIGURATION



#### TEST PROCEDURE

1. The transmitter output was connected to the spectrum analyzer through an attenuator, the path loss was compensated to the results for each measurement.
2. Set to the maximum power setting and enable the EUT transmit continuously
3. Use the following spectrum analyzer settings:  
Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel  
RBW  $\geq$  1% of the 20 dB bandwidth, VBW  $\geq$  RBW  
Sweep = auto, Detector function = peak, Trace = max hold
4. Measure and record the results in the test report.

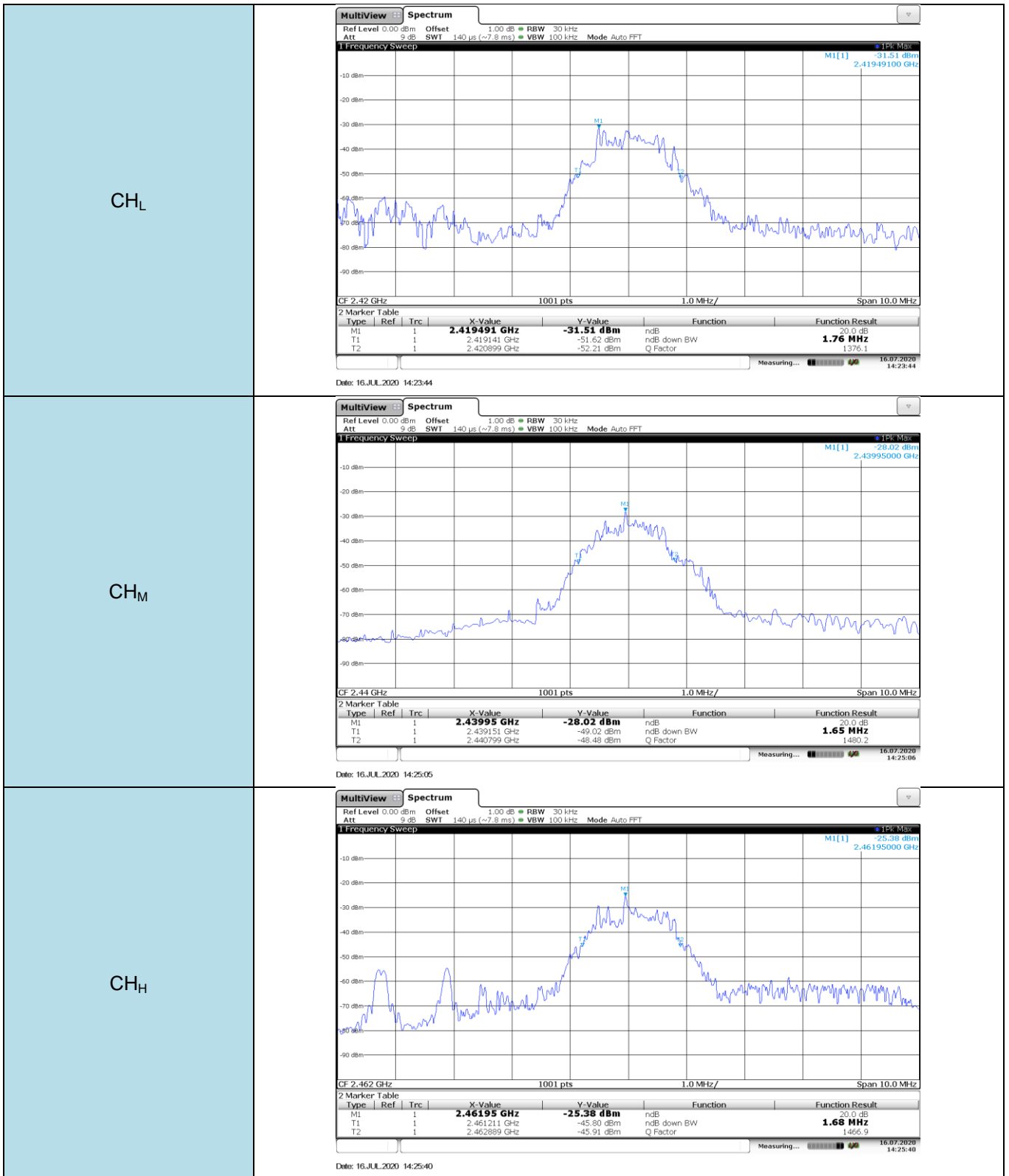
#### TEST MODE:

Please refer to the clause 3.3

#### TEST RESULTS

Passed       Not Applicable

Test Channel	20dB Bandwidth (MHz)	Limit (MHz)	Result
CH <sub>L</sub>	1.76	-	Pass
CH <sub>M</sub>	1.65	-	Pass
CH <sub>H</sub>	1.68	-	Pass



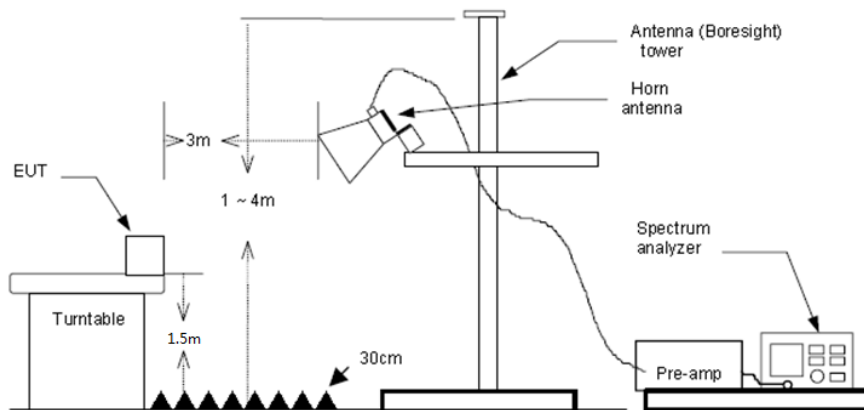
### 5.4. Radiated field strength of the fundamental signal

#### LIMIT

Fundamental frequency	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)
902-928 MHz	50 (94dBuV/m @3m)	500 (54dBuV/m @3m)
2400-2483.5 MHz	50 (94dBuV/m @3m)	500 (54dBuV/m @3m)
5725-5875 MHz	50 (94dBuV/m @3m)	500 (54dBuV/m @3m)
24.0-24.25 GHz	250 (108dBuV/m @3m)	2500 (68dBuV/m @3m)

Frequencies above 1000 MHz, the field strength limits are based on average limits

#### TEST CONFIGURATION



#### TEST PROCEDURE

1. The EUT was setup and tested according to ANSI C63.10:2013 requirements.
2. The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
3. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
4. The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10:2013 on radiated measurement.
5. The receiver set as follow:  
 RBW=3MHz, VBW=3MHz Peak detector for Peak value.  
 RBW=3MHz, VBW=3MHz RMS detector for Average value.

#### TEST MODE:

Please refer to the clause 3.3

#### TEST RESULTS

Passed       Not Applicable

Channel:2420							
CH <sub>L</sub>							
Frequency (MHz)	Reading (dBuV/m)	Factor[dB]	Level (dBuV/m)	Limit Line (dBuV/m)	Margin(dB)	Polarization	Test value
2420	56.48	-2.40	54.08	94.00	39.92	Vertical	Average
2420	58.69	-2.40	56.29	114.00	57.71	Vertical	Peak
2420	60.12	-2.40	57.72	114.00	56.28	Horizontal	Peak
2420	55.26	-2.40	52.86	94.00	41.14	Horizontal	Average

Channel:2440							
CH <sub>M</sub>							
Frequency (MHz)	Reading (dBuV/m)	Factor[dB]	Level (dBuV/m)	Limit Line (dBuV/m)	Margin(dB)	Polarization	Test value
2440	56.55	-2.29	54.26	114.00	59.74	Vertical	Peak
2440	52.48	-2.29	50.19	94.00	43.81	Vertical	Average
2440	60.61	-2.29	58.32	114.00	55.68	Horizontal	Peak
2440	56.12	-2.29	53.83	94.00	40.17	Horizontal	Average

Channel:2462							
CH <sub>H</sub>							
Frequency (MHz)	Reading (dBuV/m)	Factor[dB]	Level (dBuV/m)	Limit Line (dBuV/m)	Margin(dB)	Polarization	Test value
2462	55.48	-2.18	53.30	94.00	40.70	Vertical	Average
2462	59.34	-2.18	57.16	114.00	56.84	Vertical	Peak
2462	58.65	-2.18	56.47	94.00	37.53	Horizontal	Average
2462	62.65	-2.18	60.47	114.00	53.53	Horizontal	Peak

Remark:

1. Final Level = Receiver Read level + Factor
2. Factor = Antenna Factor + Cable Loss – Preamplifier Factor

### 5.5. Radiated Spurious Emissions and Bandedge Emission

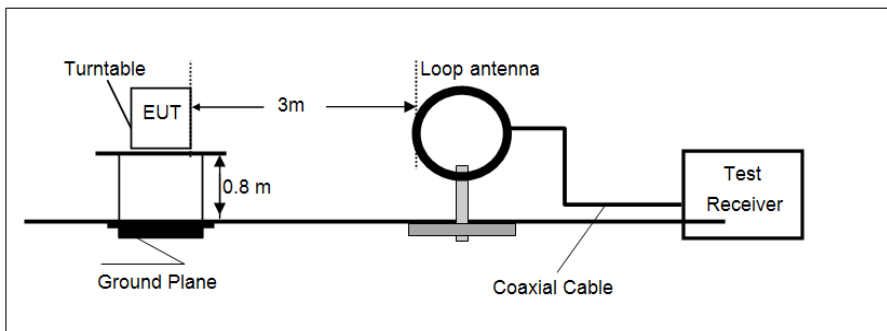
#### LIMIT

#### FCC CFR Title 47 Part 15 Subpart C Section 15.209

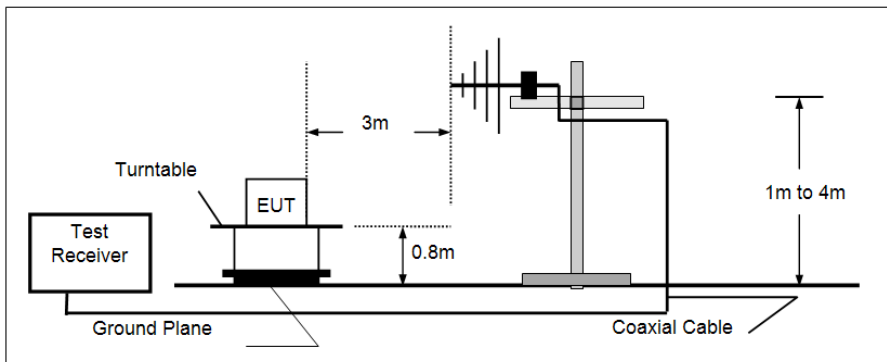
Frequency	Limit (dBuV/m @3m)	Value
30MHz~88MHz	40.00	Quasi-peak
88MHz~216MHz	43.50	Quasi-peak
216MHz~960MHz	46.00	Quasi-peak
960MHz~1GHz	54.00	Quasi-peak
Above 1GHz	54.00	Average
	74.00	Peak

#### TEST CONFIGURATION

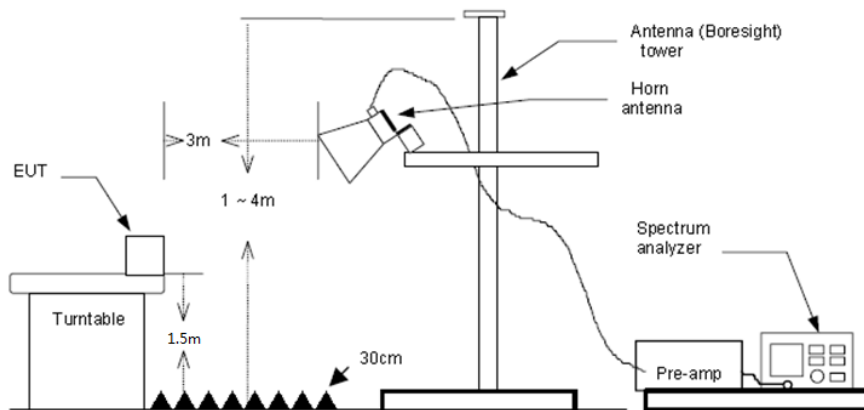
- 9 kHz ~ 30 MHz



- 30 MHz ~ 1 GHz



- Above 1 GHz



**TEST PROCEDURE**

1. The EUT was setup and tested according to ANSI C63.10:2013 requirements.
2. The EUT is placed on a turn table which is 0.8 meter above ground for below 1 GHz, and 1.5 m for above 1 GHz. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
3. The EUT was set 3 meters from the receiving antenna, which was mounted on the top of a variable height antenna tower.
4. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines.
5. Set to the maximum power setting and enable the EUT transmit continuously.
6. Use the following spectrum analyzer settings
  - (1) Span shall wide enough to fully capture the emission being measured;
  - (2) Below 1 GHz:  
RBW=120 kHz, VBW=300 kHz, Sweep=auto, Detector function=peak, Trace=max hold;  
If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
  - (3) From 1 GHz to 10<sup>th</sup> harmonic:  
RBW=1MHz, VBW=3MHz Peak detector for Peak value.  
RBW=1MHz, VBW=3MHz RMS detector for Average value.

**TEST MODE:**

Please refer to the clause 3.3

**TEST RESULTS**

**Passed**       **Not Applicable**

Note:

- 1) Above 1GHz Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
- 2) The emission levels of other frequencies are very lower than the limit and not show in test report.

**Radiated Spurious Emissions****■ 9 kHz ~ 30 MHz**

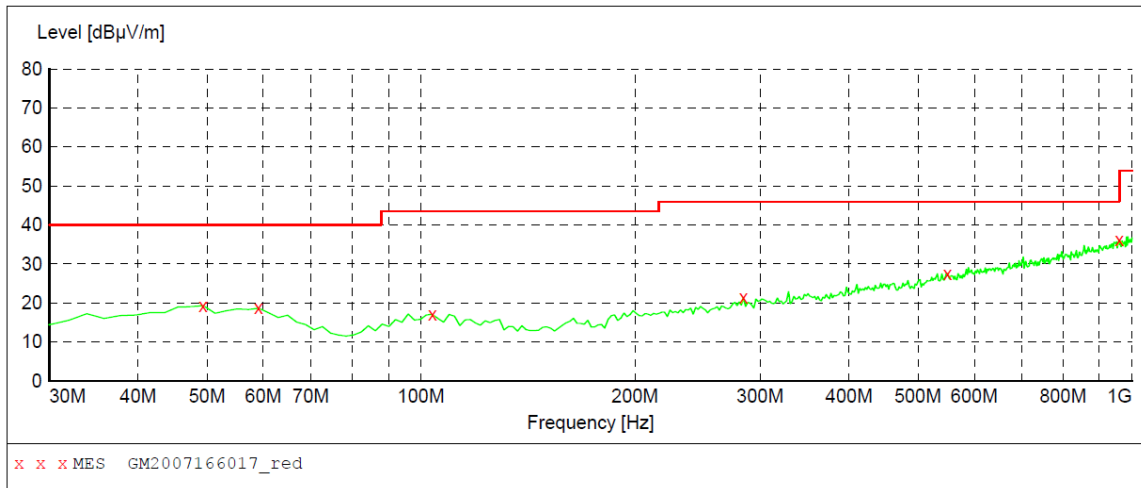
The EUT was pre-scanned the frequency band (9 kHz ~ 30 MHz), found the radiated level lower than the limit, so don't show on the report.



■ 30 MHz ~ 1 GHz

Polarization:

Vertical



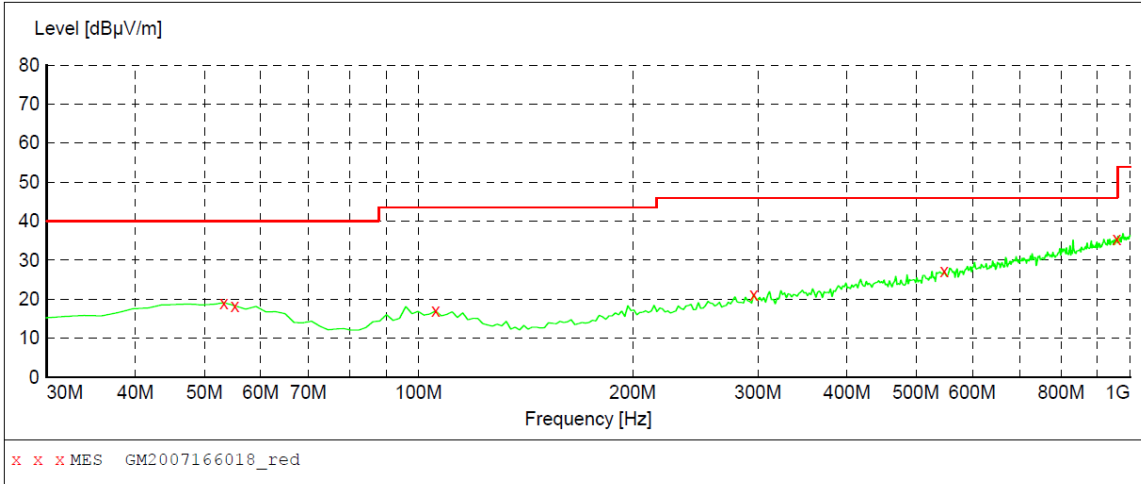
**MEASUREMENT RESULT: "GM2007166017\_red"**

7/16/2020 11:50AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
49.400000	19.30	-8.7	40.0	20.7	QP	100.0	360.00	VERTICAL
59.100000	18.70	-8.9	40.0	21.3	QP	100.0	0.00	VERTICAL
103.720000	17.10	-9.9	43.5	26.4	QP	100.0	0.00	VERTICAL
284.140000	21.40	-6.8	46.0	24.6	QP	100.0	22.00	VERTICAL
549.920000	27.60	0.5	46.0	18.4	QP	100.0	6.00	VERTICAL
959.260000	36.10	8.9	46.0	9.9	QP	100.0	324.00	VERTICAL

Polarization:

Horizontal



**MEASUREMENT RESULT: "GM2007166018\_red"**

7/16/2020 11:55AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
53.280000	19.10	-8.3	40.0	20.9	QP	100.0	144.00	HORIZONTAL
55.220000	18.30	-8.1	40.0	21.7	QP	100.0	359.00	HORIZONTAL
105.660000	17.00	-10.1	43.5	26.5	QP	100.0	242.00	HORIZONTAL
295.780000	21.30	-6.3	46.0	24.7	QP	100.0	104.00	HORIZONTAL
547.980000	27.20	0.4	46.0	18.8	QP	100.0	13.00	HORIZONTAL
957.320000	35.60	8.9	46.0	10.4	QP	100.0	104.00	HORIZONTAL

■ 1 GHz ~25 GHz

Channel:2420							Polarization: Horizontal			
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark	
1	1232.12	35.29	25.79	5.20	36.57	29.71	74.00	-44.29	Peak	
2	3834.51	32.26	29.74	9.88	36.93	34.95	74.00	-39.05	Peak	
3	5462.30	30.56	31.75	11.99	35.39	38.91	74.00	-35.09	Peak	
4	8042.90	31.34	37.19	14.28	33.31	49.50	74.00	-24.50	Peak	

Channel:2420							Polarization: Vertical			
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark	
1	1219.64	36.14	25.72	5.16	36.62	30.40	74.00	-43.60	Peak	
2	3534.54	34.30	29.24	9.71	36.75	36.50	74.00	-37.50	Peak	
3	5060.69	31.66	32.20	11.48	35.41	39.93	74.00	-34.07	Peak	
4	8042.90	31.85	37.19	14.28	33.31	50.01	74.00	-23.99	Peak	

Channel:2440							Polarization: Horizontal			
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark	
1	1107.19	36.98	25.40	4.98	36.88	30.48	74.00	-43.52	Peak	
2	3634.91	32.81	29.40	9.99	37.00	35.20	74.00	-38.80	Peak	
3	5112.49	31.28	32.15	11.44	35.47	39.40	74.00	-34.60	Peak	
4	8022.46	31.15	37.14	14.29	33.31	49.27	74.00	-24.73	Peak	

Channel:2440							Polarization: Vertical			
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark	
1	1283.34	34.49	25.97	5.37	36.36	29.47	74.00	-44.53	Peak	
2	3616.45	31.82	29.40	10.05	36.98	34.29	74.00	-39.71	Peak	
3	5164.81	30.76	31.91	11.48	35.44	38.71	74.00	-35.29	Peak	
4	8125.22	31.41	37.10	14.36	33.36	49.51	74.00	-24.49	Peak	

Channel:2462							Polarization: Horizontal			
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark	
1	1222.74	35.56	25.74	5.17	36.61	29.86	74.00	-44.14	Peak	
2	3561.64	31.36	29.32	9.87	36.83	33.72	74.00	-40.28	Peak	
3	4908.44	30.79	31.42	11.51	35.22	38.50	74.00	-35.50	Peak	
4	8002.06	30.41	37.10	14.29	33.31	48.49	74.00	-25.51	Peak	

Channel:2462							Polarization: Vertical			
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark	
1	1270.33	35.30	25.94	5.32	36.42	30.14	74.00	-43.86	Peak	
2	4871.10	30.57	31.40	11.51	35.16	38.32	74.00	-35.68	Peak	
3	6662.01	31.38	34.30	13.58	34.52	44.74	74.00	-29.26	Peak	
4	7981.72	30.60	37.03	14.35	33.31	48.67	74.00	-25.33	Peak	

Remark:

1. Final Level = Receiver Read level + Factor
2. Factor = Antenna Factor + Cable Loss – Preamplifier Factor
3. The peak level is lower than average limit(54dBuV/m), this data is the too weak instrument of signal is unable to test.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

**Bandedge Emission**

Channel:2420					Polarization: Horizontal				
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	2310.00	-3.55	27.96	7.30	0.00	31.71	74.00	-42.29	Peak
2	2390.03	-3.54	27.72	7.72	0.00	31.90	74.00	-42.10	Peak
3	2419.59	24.71	27.62	7.78	0.00	60.11	74.00	-13.89	Peak

Channel:2420					Polarization: Vertical				
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	2310.00	33.72	27.96	7.30	37.56	31.42	74.00	-42.58	Peak
2	2390.03	33.73	27.72	7.72	37.45	31.72	74.00	-42.28	Peak
3	2419.59	58.70	27.62	7.78	37.35	56.75	74.00	-17.25	Peak

Channel:2462					Polarization: Horizontal				
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	2461.91	62.65	27.48	7.79	37.27	60.65	74.00	-13.35	Peak
2	2483.49	35.09	27.43	7.80	37.26	33.06	74.00	-40.94	Peak
3	2483.62	40.79	27.43	7.80	37.26	38.76	74.00	-35.24	Peak
4	2500.00	31.43	27.40	7.81	37.26	29.38	74.00	-44.62	Peak

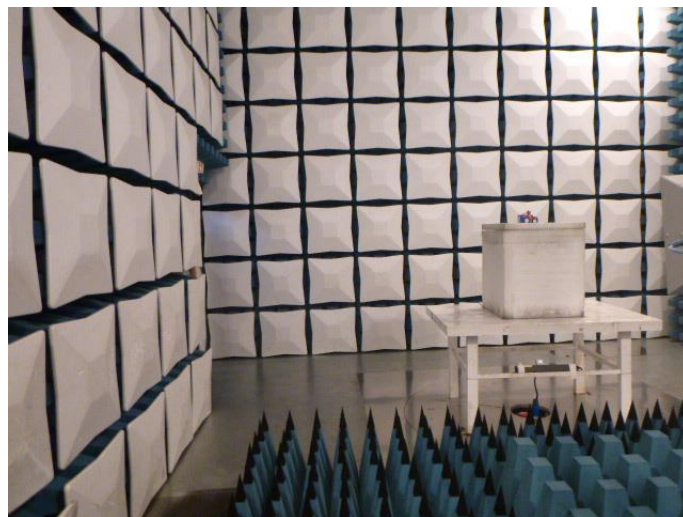
Channel:2462					Polarization: Vertical				
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	2461.57	59.34	27.48	7.79	37.27	57.34	74.00	-16.66	Peak
2	2483.49	33.09	27.43	7.80	37.26	31.06	74.00	-42.94	Peak
3	2500.00	32.36	27.40	7.81	37.26	30.31	74.00	-43.69	Peak

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The peak level is lower than average limit(54dBuV/m), this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.

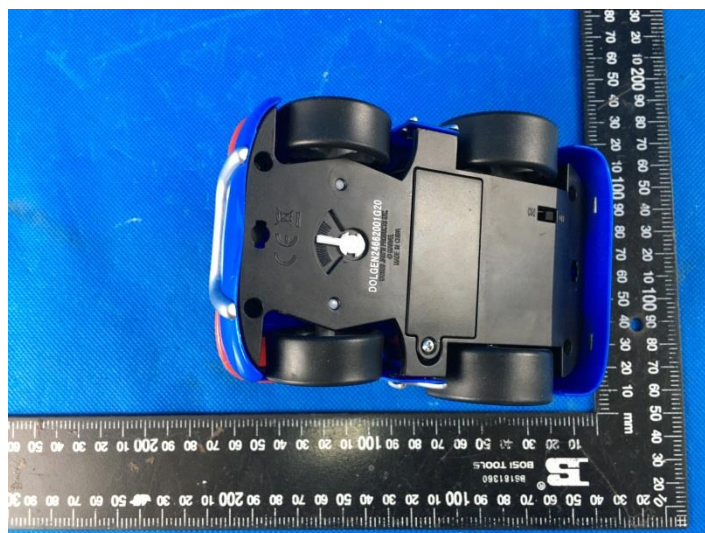
## 6. TEST SETUP PHOTOS OF THE EUT

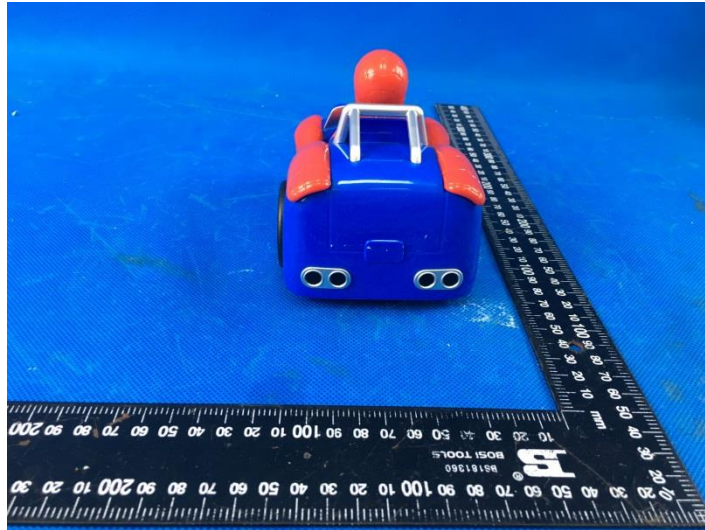
Radiated Emissions



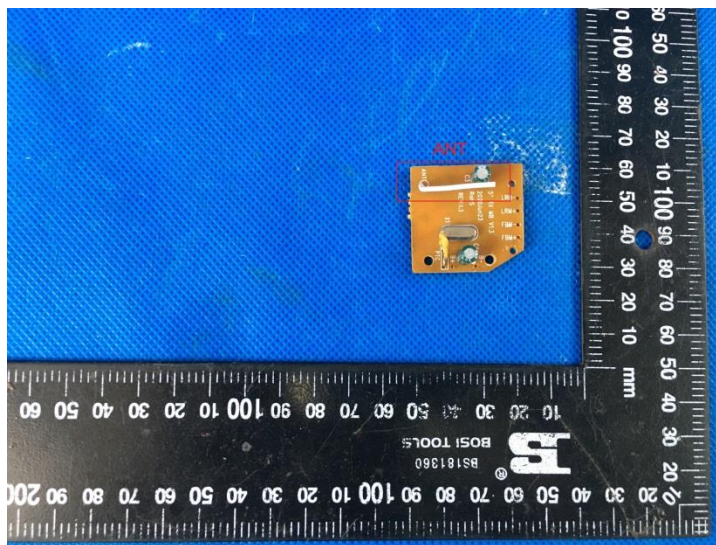
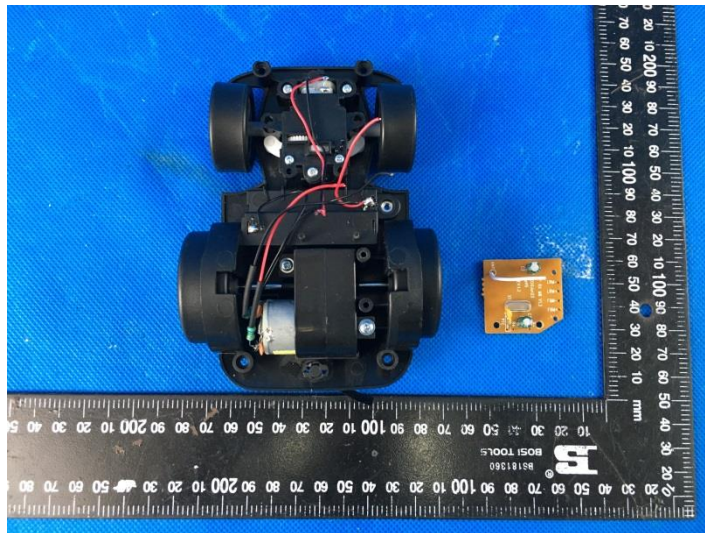
## 7. EXTERNAL AND INTERNAL PHOTOS OF THE EUT

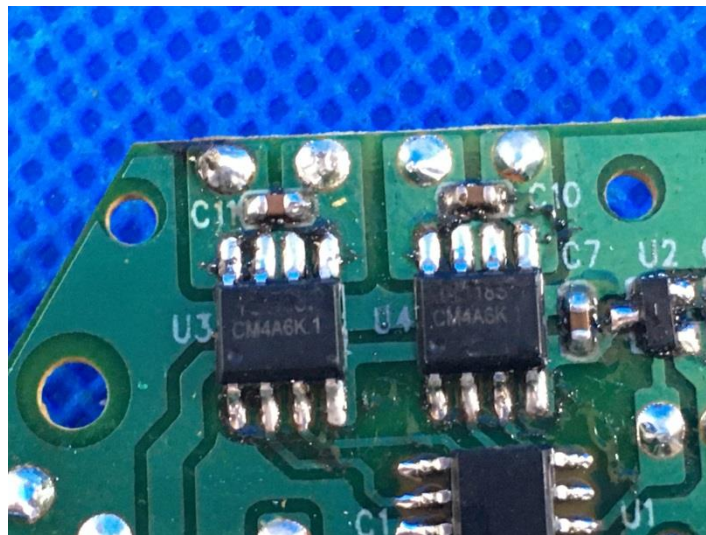
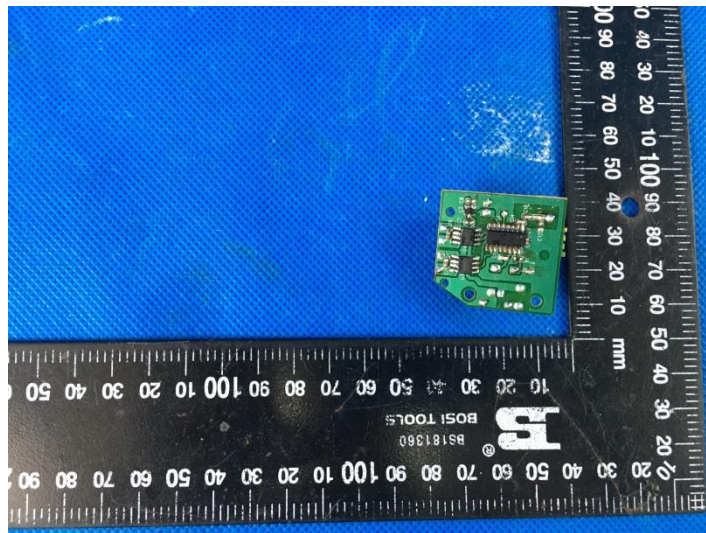
### External Photos





**Internal Photos**





-----End of Report-----