



**CTS (NINGBO) TESTING SERVICE TECHNOLOGY  
INTERNATIONAL**

**OPERATE ACCORDING TO ISO/IEC 17025**

# **RF TEST REPORT**

**TEST REPORT NUMBER : CGZ3181121-02393-ER**



**CTS (Ningbo) Testing Service Technology Co., Ltd.**

**F1.1 & 8 West, Bldg. B, No. 66, Qingyi Rd., Hi-Tech Zone, Ningbo, Zhejiang, China**



# RF TEST REPORT

<b>Report Reference No.</b> .....	CGZ3181121-02393-ER
<b>Date of issue</b> .....	14 December 2018
<b>Testing Laboratory Name</b> .....	<b>CTS (Ningbo) Testing Service Technology Co., Ltd.</b>
<b>Address</b> .....	GZ test site: A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China.
<b>Testing location/ procedure</b> .....	Full application of Harmonised standards <input checked="" type="checkbox"/> Partial application of Harmonised standards <input type="checkbox"/> Other standard testing method <input type="checkbox"/>
<b>Applicant's name</b> .....	Shenzhen Aglare Lighting Co., Ltd.
<b>Address</b> .....	Factory 4, Supply and Marketing Cooperative Park Guanlan Avenue, Guanlan Town Longhua New District, Shenzhen City, Guangdong, China
<b>Test specification:</b>	
<b>Standard</b> .....	<b>ETSI EN 300 220-2 V 3.2.1, ETSI EN 300 220-2 V 3.2.1</b>
<b>Test Report Form No.</b> .....	CTSEMC-1.0
<b>TRF Originator</b> .....	CTS (Ningbo) Testing Service Technology Co., Ltd.
<b>Master TRF</b> .....	Dated 2009-01
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<b>Test item description</b> .....	RGB led floodlight
<b>Trade Mark</b> .....	Aglare
<b>Manufacturer</b> .....	Shenzhen Aglare Lighting Co., Ltd.
<b>Model/Type reference</b> .....	AT-243
<b>Ratings/Frequency</b> .....	Transmitter: DC 12V by Battery Receiver: AC 230V/50Hz
<b>Result</b> .....	<b>PASSED</b>

**Compiled by:**

*Kate*

Kate zhang / File administrators

**Supervised by:**

*Duke*

Duke yang / Technique principal

**Approved by:**

*Vincent Yao*

Vincent yao / Manager

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## RF -- TEST REPORT

<b>Test Report No. : CGZ3181121-02393-ER</b>	<u>14 December 2018</u> Date of issue
--	--

Type / Model.....	AT-243
EUT.....	RGB led floodlight
<b>Applicant</b> .....	Shenzhen Aglare Lighting Co., Ltd.
Address.....	Factory 4, Supply and Marketing Cooperative Park Guanlan Avenue, Guanlan Town Longhua New District, Shenzhen City, Guangdong, China
Telephone.....	+86-755-88868631
Fax.....	+86-755-27659398
Contact.....	Cheng Jun
<b>Manufacturer</b> .....	Shenzhen Aglare Lighting Co., Ltd.
Address.....	Factory 4, Supply and Marketing Cooperative Park Guanlan Avenue, Guanlan Town Longhua New District, Shenzhen City, Guangdong, China
Telephone.....	+86-755-88868631
Fax.....	+86-755-27659398
Contact.....	Cheng Jun
<b>Factory</b> .....	Shenzhen Aglare Lighting Co., Ltd.
Address.....	Factory 4, Supply and Marketing Cooperative Park Guanlan Avenue, Guanlan Town Longhua New District, Shenzhen City, Guangdong, China
Telephone.....	+86-755-88868631
Fax.....	+86-755-27659398
Contact.....	Cheng Jun

The test report merely corresponds to the test sample.  
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## 1 TEST STANDARDS

The tests were performed according to following standards:

<b>ETSI EN 300 220-2 V 3.2.1</b>
Short Range Devices (SRD) operating in the frequency range 25 MHz to 1000 MHz; Part 1: Technical characteristics and methods of measurement
<b>, ETSI EN 300 220-2 V 3.2.1</b>
Short Range Devices (SRD) operating in the frequency range 25 MHz to 1000 MHz; Part 2: Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU for non specific radio equipment

## 2 SUMMARY

### 2.1 GENERAL REMARKS

Date of receipt of test sample	21 November 2018
Testing commenced on	21 November ~14 December 2018
Testing concluded on	14 December 2018

### 2.2 FINAL ASSESSMENT

The RF requirements pertaining to the technical standards and tested operation modes are

- fulfilled.
- **not** fulfilled.

The equipment under test

- fulfils the RF requirements cited on page 1.
- **does not** fulfil the RF requirements cited on page 1.

### 3 EQUIPMENT UNDER TEST

#### 3.1 Power supply system utilised

Power supply voltage:  Transmitter: DC 12V by Battery  
 Receiver: AC 230V/50Hz  
 Other (Specified blank below)

#### 3.2 Short description of the Equipment under Test (EUT)

Description	:	RGB led floodlight
Model Number	:	AT-243
Operation frequency	:	433.92 MHz
Transmit Modulation	:	FSK
Adaptive /Non-Adaptive Equipment	:	Non-Adaptive Equipment
Antenna	:	Internal Antenna
Antenna Assembly Gain:	:	0dBi (maximum)
Number of tested samples:	:	1
Serial number:	:	Prototype

#### 3.3 EUT operation mode

The equipment under test was operated during the measurement under the following conditions:

– TX and RX

**Operating Mode:** TX and RX

Emissions tests.....: According to **ETSI EN 300 220-2 V 3.2.1, ETSI EN 300 220-2 V 3.2.1** searching for the highest disturbance.

#### 3.4 EUT configuration

(The CDF filled by the applicant can be viewed at the test laboratory.)

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



## 4 TEST ENVIRONMENT

### 4.1 Address of the test laboratory

GZ test site: A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

### 4.2 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15~35 ° C
Humidity:	25~75 %
AtmosphDuke pressure:	86~106 kPa

### 4.3 Definitions of symbols used in this test report

- - The black square indicates that the listed condition, standard or equipment is applicable for this report.
- - The empty square indicates that the listed condition, standard or equipment is **not** applicable for this report.

#### 4.4 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 "Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements" and is documented in the CTS quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Measurement Uncertainty	
RF Frequency	$\pm 1 \times 10^{-8}$
RF Power, Conducted	$\pm 0.55\text{dB}$
Maximum Frequency Deviation: _ Within 300Hz and 6KHz of Audio Frequency _ Within 6KHz and 25KHz of Audio Frequency	$\pm 3\%$ $\pm 2\text{dB}$
Adjacent channel power	$\pm 2\text{dB}$
Conducted Emission of Transmitter, Valid Up to 12.75GHz	$\pm 3\text{dB}$
Conducted Emissions of Receivers	$\pm 2\text{dB}$
Radiated Emission of Transmitter, Valid Up to 12.75GHz	$\pm 4\text{dB}$
Radiated Emissions of Receivers	$\pm 4\text{dB}$

1. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of  $k=2$ .
2. The actual EUT tested items in this test report, only applies to this "measurement uncertainty" in part / all of the corresponding data.

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## 4.5 Test Description and Results

Basic Standard	Test Type	Result
<b>EN 300 220-2 Clause 4.2</b> All equipment conformance requirements	4.2.1 Operating frequency	Pass
	4.2.2 Unwanted emissions in the spurious domain	Pass
<b>EN 300 220-2 Clause 4.3</b> Transmitters conformance requirements	4.3.1 Effective Radiated Power	Pass
	4.3.2 Maximum e.r.p. spectral density	Not applicable
	4.3.3 Duty Cycle	Pass
	4.3.4 Occupied Bandwidth	Pass
	4.3.5 Tx Out of Band Emissions	Not applicable
	4.3.6 Transient power	Pass
	4.3.7 Adjacent Channel Power	Pass
	4.3.8 TX behaviour under Low Voltage Conditions	Pass
	4.3.9 Adaptive Power Control	Not applicable
	4.3.10 FHSS equipment	Not applicable
	4.3.11 Short term behaviour	Not applicable
<b>EN 300 220-2 Clause 4.4</b> Receivers conformance requirements	4.4.1 RX sensitivity	Not applicable
	4.4.2 Blocking	Pass
<b>EN 300 220-2 Clause 4.5</b> Polite spectrum access conformance requirement	Clear Channel Assessment threshold Polite spectrum access timing parameters Adaptive Frequency Agility	Not applicable
<b>Note:</b> 1. According to the EN 300 220-2 V3.2.1 Annex B table B.1, the EUT is belong to band I and the clauses 4.3.2, 4.3.5, 4.3.9, 4.3.10, 4.3.11, 4.4.1, 4.5 are not applicable.		

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## 5 TEST CONDITIONS AND RESULTS

### 5.1 Operating frequency

For test instruments and accessories used see section 6 part 6.1.

#### 5.1.1 Limits

The manufacturer may declare either one or more operating frequencies and operating channels. Operating channel(s) shall be entirely within operational frequency bands allowed by EN 300220-2 V3.2.1 annexes B, C or any NRI.

#### 5.1.2 Test Procedure reference clause 5.1.2 of ETSI EN 300 220-2 V 3.2.1

#### 5.1.3 Test Results for normal test conditions

Test Temp.	Test Voltage (V dc)	Frequency (MHz)	Limit (MHz)
25°C	12.00	433.92	433.050~434.790
<b>Test Result:PASS</b>			

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## 5.2 Unwanted emissions in the spurious domain

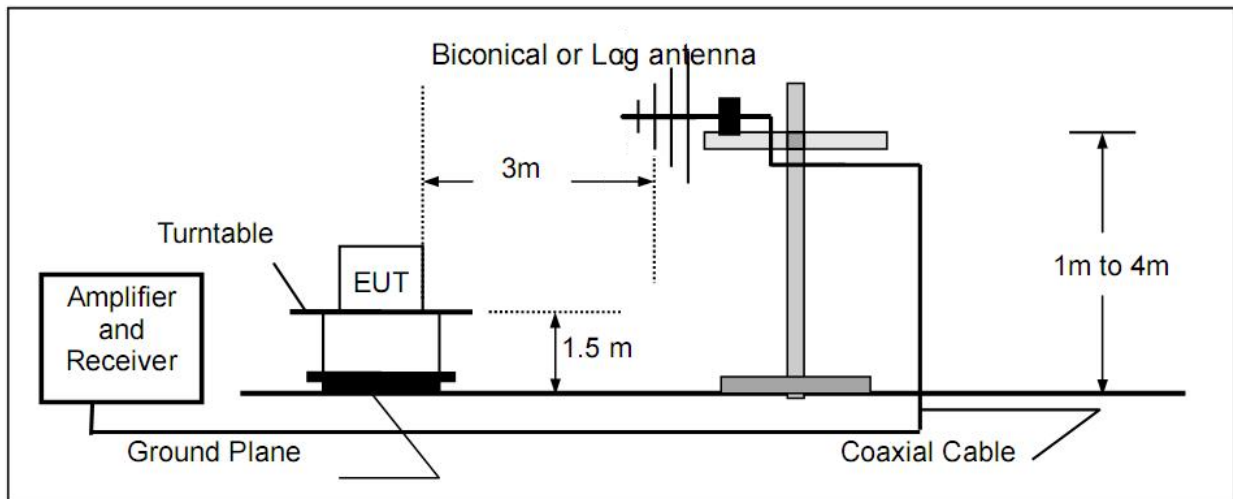
For test instruments and accessories used see section 6 part 6.1.

### 5.2.1 Limits

State \ Frequency	47 MHz to 74 MHz 87,5 MHz to 118 MHz 174 MHz to 230 MHz 470 MHz to 790 MHz	Other Frequencies Below 1000 MHz	Frequencies Above 1 000 MHz
TX mode	-54 dBm	-36 dBm	-30 dBm
RX and all other modes	-57 dBm	-57 dBm	-47 dBm

### 5.2.2 Test Procedure reference clause 5.9.3.3 of ETSI EN 300 220-2 V 3.2.1

### 5.2.3 Test Setup

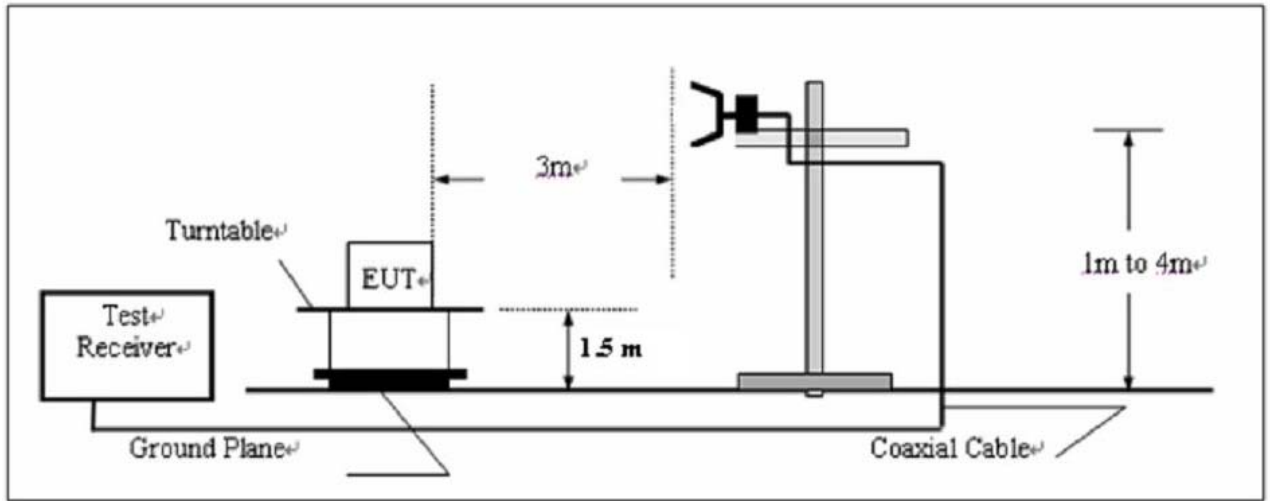


Radiated Below 1GHz

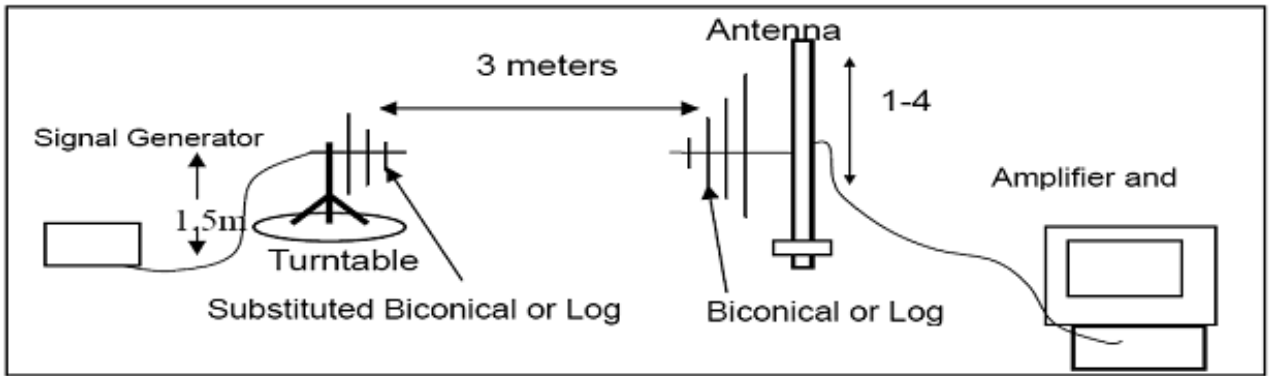
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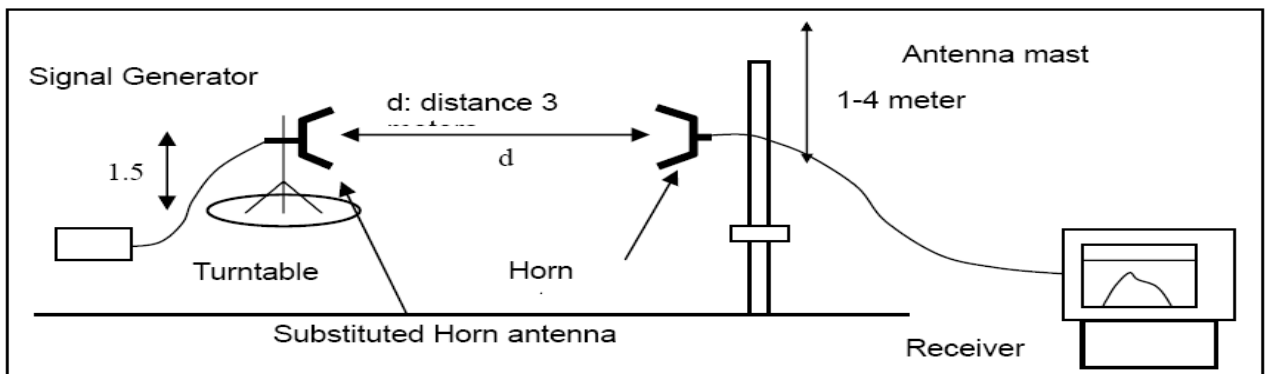
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**Radiated Below 1GHz**



**Substitution Method :(Radiated Emission) Radiated Below 1GHz**



**Substitution Method :(Radiated Emission) Radiated Above 1GHz**

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## 5.2.4 Test Results

TX Mode				
Frequency (MHz)	Antenna Polarization	Emission Level (dBm)	Limit (dBm)	Margin (dB)
868.0800	Horizontal	-37.46	-36.00	1.46
1302.0052	Horizontal	-37.84	-30.00	1.84
1735.6236	Horizontal	-39.69	-30.00	9.69
2170.4170	Horizontal	-35.53	-30.00	5.53
2604.0354	Horizontal	-35.26	-30.00	5.26
3037.6538	Horizontal	-35.72	-30.00	5.72
3471.2721	Horizontal	-35.36	-30.00	5.36
868.0800	Vertical	-32.70	-36.00	2.70
1302.0052	Vertical	-33.48	-30.00	3.48
1735.6236	Vertical	-35.43	-30.00	5.43
2170.4170	Vertical	-32.99	-30.00	2.99
2604.0354	Vertical	-33.65	-30.00	3.65
3037.6538	Vertical	-34.09	-30.00	4.09
3471.2721	Vertical	-35.86	-30.00	5.86
Other(25-1000MHz)	H/V	--	-36/-54	--
Other(1000-6000MHz)	H/V	--	-30	--

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RX Mode-Below 1GHz								
Frequency	Reading Level	Antenna	S.G.	Cable Loss	Ant.Gain	Emission Level	Limit	Margin
(MHz)	(dBuv)	Polarization	(dBm)	(dB)	(dBi)	(dBm)	(dBm)	(dB)
86.53	29.85	V	-63.16	0.04	0.84	-62.36	-57.00	5.36
238.43	31.10	V	-69.58	0.11	6.60	-63.09	-57.00	6.09
316.82	28.63	V	-71.42	0.21	6.22	-65.40	-57.00	8.40
385.47	28.84	V	-70.40	0.29	6.45	-64.23	-57.00	7.23
475.84	28.14	V	-71.82	0.39	6.85	-65.36	-57.00	8.36
831.36	30.22	V	-69.21	0.66	6.37	-63.50	-57.00	6.50
Other(25-1000MHz)	--	V	--	--	--	--	-57.00	--
\								
136.90	30.15	H	-62.63	0.05	0.00	-62.68	-57.00	5.68
333.91	29.03	H	-69.26	0.23	5.98	-63.50	-57.00	6.50
398.17	30.14	H	-69.15	0.30	6.56	-62.90	-57.00	5.90
565.41	28.96	H	-71.49	0.47	6.85	-65.11	-57.00	8.11
615.68	28.37	H	-71.78	0.50	6.70	-65.58	-57.00	8.58
819.44	28.74	H	-70.64	0.65	6.83	-64.46	-57.00	7.46
Other(25-1000MHz)	--	H	--	--	--	--	-57.00	--

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RX Mode-Above 1GHz								
Frequency	Reading Level	Antenna	S.G.	Cable Loss	Ant.Gain	Emission Level	Limit	Margin
(MHz)	(dBuv)	Polarization	(dBm)	(dB)	(dBi)	(dBm)	(dBm)	(dB)
1829.33	32.25	V	-66.70	1.25	7.11	-60.85	-47.00	13.85
3123.75	32.53	V	-65.88	1.81	7.64	-60.06	-47.00	13.06
--	--	V	--	--	--	--	--	--
--	--	V	--	--	--	--	--	--
--	--	V	--	--	--	--	--	--
Other(1-6GHz)	--	V	--	--	--	--	-47	--
\								
1782.60	30.98	H	-67.92	1.23	6.93	-62.22	-47.00	15.22
3427.41	32.00	H	-68.19	1.90	8.24	-61.84	-47.00	14.84
--	--	H	--	--	--	--	--	--
--	--	H	--	--	--	--	--	--
--	--	H	--	--	--	--	--	--
Other(1-6GHz)	--	H	--	--	--	--	-47	--

Remark: 1) Measuring frequencies from 25MHz to the 6GHz.  
2) The emission more than 20dB below the limit is not measured.

### 5.3 Effective Radiated Power

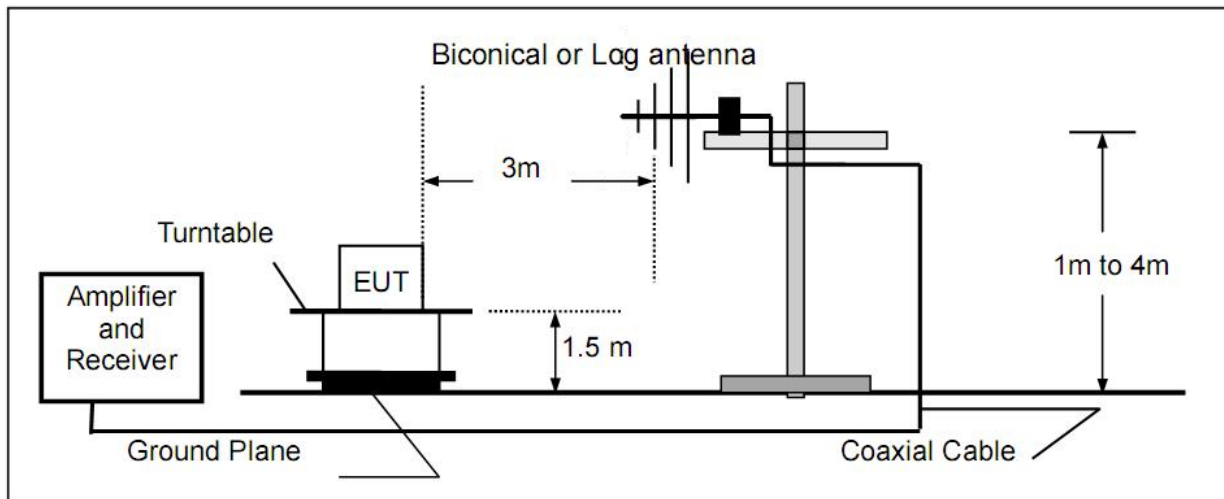
For test instruments and accessories used see section 6 part 6.1.

#### 5.3.1 Limits

Frequency Bands (MHz)	Maximum Effective Radiated Power, e.r.p.	Channel Access and Occupation Rules (e.g. Duty cycle or LBT + AFA)	Maximum Occupied Bandwidth	Other Usage Restrictions
433.050~434.790	10 mW	10 %	The whole band	
433.050~434.790	1 mW e.r.p. -13 dBm/10 kHz PSD for bandwidth modulation larger than 250 kHz	No requirement	The whole band	Audio and video Applications are excluded.
434.040~434.790	10 mW	No requirement	≤25 kHz	Audio and video applications are excluded.

#### 5.3.2 Test Procedure reference clause 5.2.2.2.2 of ETSI EN 300 220-2 V 3.2.1

#### 5.3.3 Test Setup



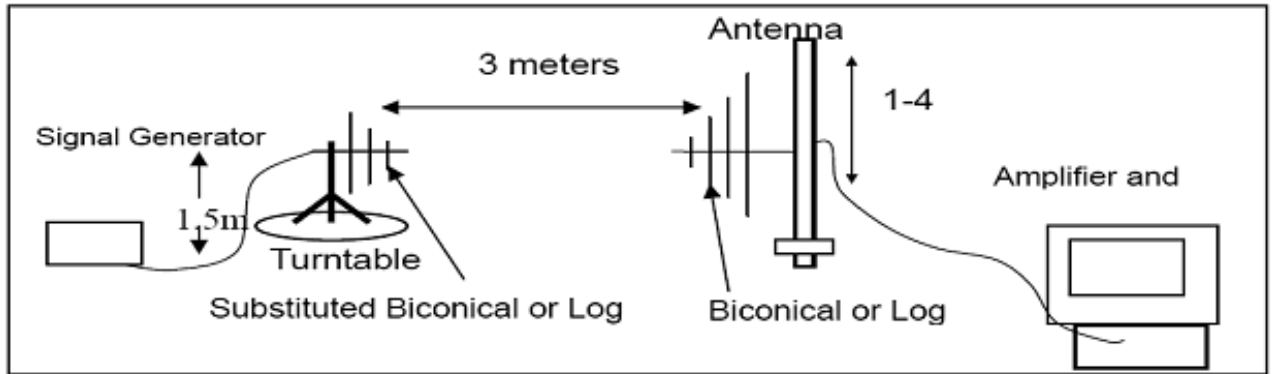
Radiated Below 1GHz

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**Substitution Method :(Radiated Emission) Radiated Below 1GHz**

**5.3.4 Test Results for normal test conditions**

TEST CONDITIONS		Transmitter Power (dBm)				
		Temp (25)°C	Temp (-20)°C		Temp (55)°C	
CHANNEL	VOL	DC 12.0V	DC 10.8V	DC 13.2V	DC 10.8V	DC 13.2V
	POWER					
433.92MHz	EIRP	-2.25	-2.41	-2.33	-2.41	-2.38
Limit		0dBm				
Measurement uncertainty		+ 0.28dB / - 0.30dB				

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### 5.4 Duty Cycle

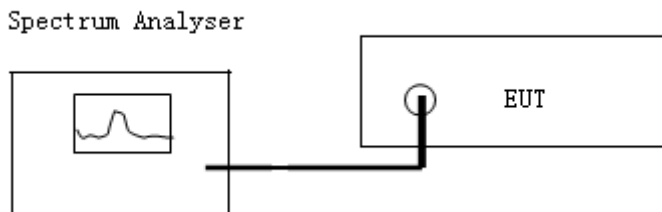
For test instruments and accessories used see section 6 part 6.1.

#### 5.4.1 Limits

Frequency Bands (MHz)	Maximum Effective Radiated Power, e.r.p.	Channel Access and Occupation Rules (e.g. Duty cycle or LBT + AFA)	Maximum Occupied Bandwidth	Other Usage Restrictions
433.050~434.790	10 mW	10 %	The whole band	
433.050~434.790	1 mW e.r.p. -13 dBm/10 kHz PSD for bandwidth modulation larger than 250 kHz	No requirement	The whole band	Audio and video Applications are excluded.
434.040~434.790	10 mW	No requirement	≤25 kHz	Audio and video applications are excluded.

#### 5.4.2 Test Procedure reference clause 5.5.2.2 of ETSI EN 300 220-2 V 3.2.1

#### 5.4.3 Test Setup



#### 5.4.4 Test result

Note: Since the duty cycle limit is up to 100% for the device, it is deemed to comply without testing.

**Conclusion: PASS**

### 5.5 Occupied Bandwidth

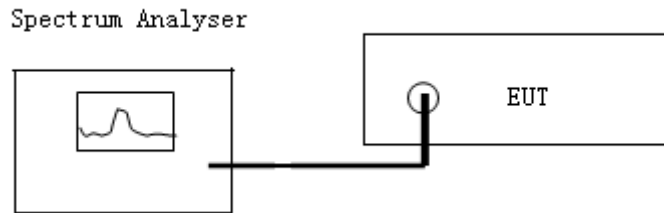
For test instruments and accessories used see section 6 part 6.1.

#### 5.5.1 Test Limit

Frequency Bands (MHz)	Maximum Effective Radiated Power, e.r.p.	Channel Access and Occupation Rules (e.g. Duty cycle or LBT + AFA)	Maximum Occupied Bandwidth	Other Usage Restrictions
433.050~434.790	10 mW	10 %	The whole band	
433.050~434.790	1 mW e.r.p. -13 dBm/10 kHz PSD for bandwidth modulation larger than 250 kHz	No requirement	The whole band	Audio and video applications
434.040~434.790	10 mW	No requirement	≤25 kHz	Audio and video applications are excluded.

#### 5.5.2 Test Procedure reference clause 5.6.3.4 of ETSI EN 300 220-2 V 3.2.1

#### 5.5.3 Test Setup:



#### 5.5.4 Test result

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TEST CONDITION		Frequency Range	
		Low Frequency	High Frequency
Temperature	Voltage	MHz	MHz
25°C	DC 12.0V	433.91127	433.92465
-20°C	DC 10.8V	433.91125	433.92464
	DC 13.2V	433.91124	433.92465
55°C	DC 10.8V	433.91125	433.92464
	DC 13.2V	433.91127	433.92465
Measured frequencies (lowest and Highest)		433.91124	433.92465
Limit		FL > 433.05MHz	FH < 434.79MHz

**Conclusion: PASS**

## 5.6 Transient Power

For test instruments and accessories used see section 6 part 6.1.

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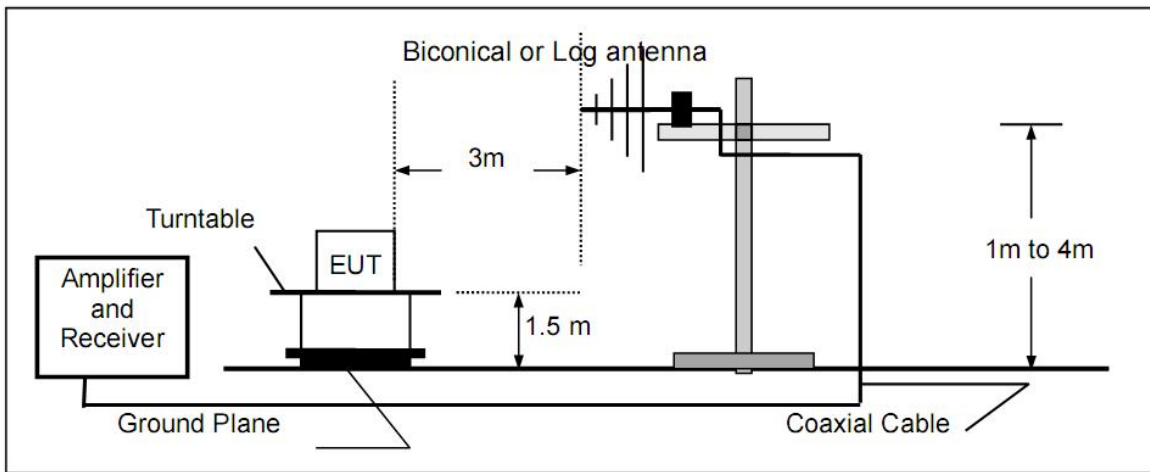
5.6.1 Test Limit

Absolute Offset From Centre Frequency	RBW <sub>REF</sub>	Peak Power Limit Applicable at Measurement Points
≤ 400 kHz	1 kHz	0 dBm
> 400 kHz	1 kHz	-27 dBm

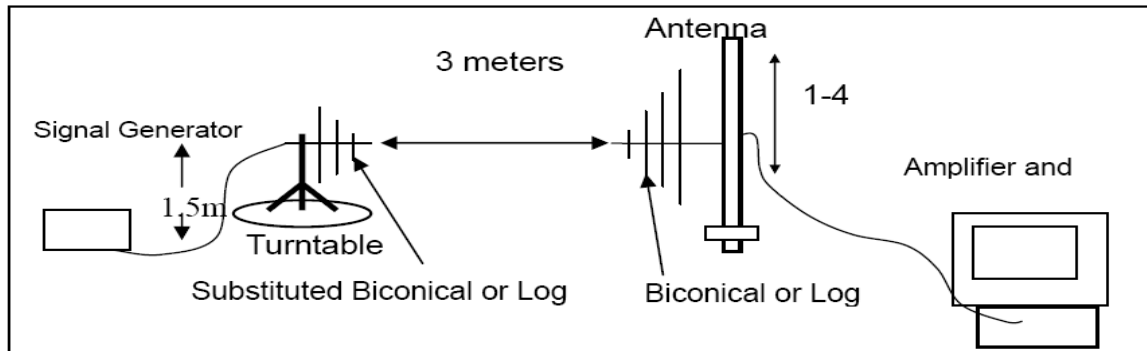
5.6.2 Test Procedure reference clause 5.10.3.2 of ETSI EN 300 220-2 V 3.2.1

5.6.3 Test Setup:

RADIATED BELOW 1GHZ



SUBSTITUTION METHOD: (RADIATED EMISSIONS)



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**5.6.4 Test result**

Frequency (MHz)	Level (dBm)	Limit (dBm)
f -12.5kHz	-34.52	0
f +12.5kHz	-34.63	0
-0,5 x OCW - 400 kHz	-42.57	-27
0,5 x OCW + 400 kHz	-42.80	-27
-0,5 x OCW -1 200 kHz	-51.49	-27
0,5 x OCW + 1 200 kHz	-50.22	-27

**Conclusion: PASS**

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### 5.7 Adjacent Channel Power

For test instruments and accessories used see section 6 part 6.1.

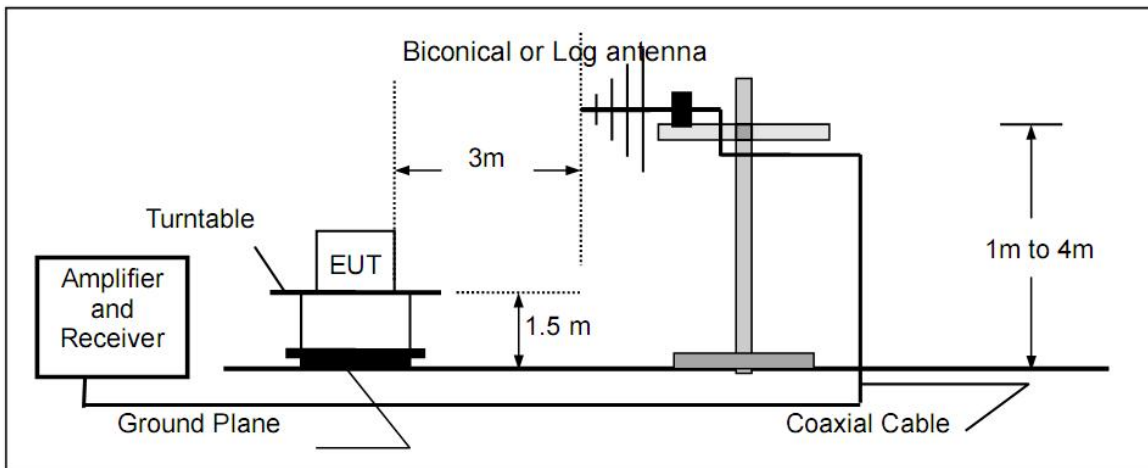
#### 5.7.1 Test Limit

		Adjacent Channel Power Integrated Over 0,7 x OCW	Alternate Adjacent Channel Power Integrated Over 0,7 x OCW
OCW < 20 kHz	Normal test conditions	-20 dBm	-20 dBm
	Extreme test conditions	-15 dBm	-20 dBm
OCW ≥ 20 kHz	Normal test conditions	-37 dBm	-40 dBm
	Extreme test conditions	-32 dBm	-37 dBm

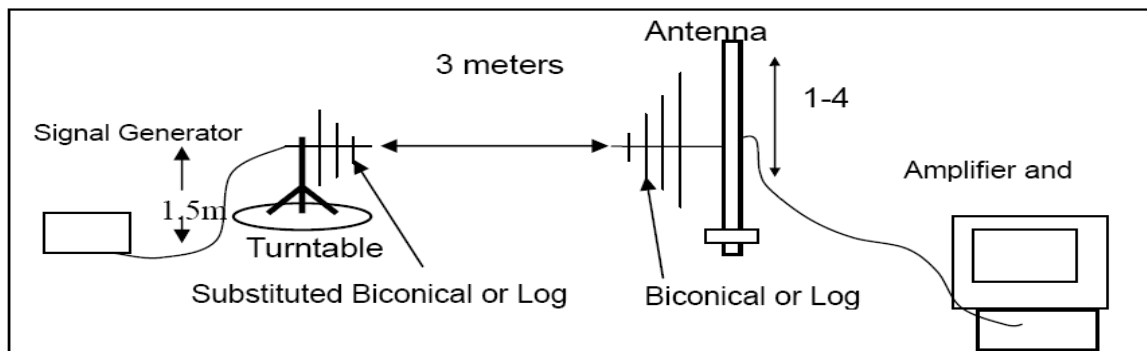
#### 5.7.2 Test Procedure reference clause 5.11.3.4 of ETSI EN 300 220-2 V 3.2.1

#### 5.7.3 Test Setup:

##### RADIATED BELOW 1GHZ



##### SUBSTITUTION METHOD: (RADIATED EMISSIONS)



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## 5.7.4 Test result

## Normal Voltage and Normal temperature (12.0Vdc, 25°C)

Reference BW	Offset from centre frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)
0,7 x OCW	+OCW	-27.13	-20	7.13
0,7 x OCW	-OCW	-26.41	-20	6.41
0,7 x OCW	+2 x OCW	-35.39	-20	15.39
0,7 x OCW	-2 x OCW	-36.22	-20	16.22

## Lowest Voltage and Highest temperature (10.8Vdc, 55°C)

Reference BW	Offset from centre frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)
0,7 x OCW	+OCW	-28.23	-15	13.23
0,7 x OCW	-OCW	-27.65	-15	12.65
0,7 x OCW	+2 x OCW	-34.51	-20	14.51
0,7 x OCW	-2 x OCW	-37.14	-20	17.14

## Highest Voltage and Highest temperature (13.2Vdc, 55°C)

Reference BW	Offset from centre frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)
0,7 x OCW	+OCW	-27.36	-15	12.36
0,7 x OCW	-OCW	-25.49	-15	10.49
0,7 x OCW	+2 x OCW	-33.48	-20	13.48
0,7 x OCW	-2 x OCW	-34.19	-20	14.19

## Lowest Voltage and Lowest temperature (10.8Vdc, -20°C)

Reference BW	Offset from centre frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)
0,7 x OCW	+OCW	-30.16	-15	15.16
0,7 x OCW	-OCW	-29.21	-15	14.21
0,7 x OCW	+2 x OCW	-35.61	-20	15.61
0,7 x OCW	-2 x OCW	-34.73	-20	14.73

## High Voltage and Low temperature (13.2Vdc, -20°C)

Reference BW	Offset from centre frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)
0,7 x OCW	+OCW	-28.51	-15	13.51
0,7 x OCW	-OCW	-30.16	-15	15.16
0,7 x OCW	+2 x OCW	-37.25	-20	17.25
0,7 x OCW	-2 x OCW	-34.35	-20	14.35

**Conclusion: PASS**

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### 5.8 TX behaviour under Low Voltage Conditions

For test instruments and accessories used see section 6 part 6.1.

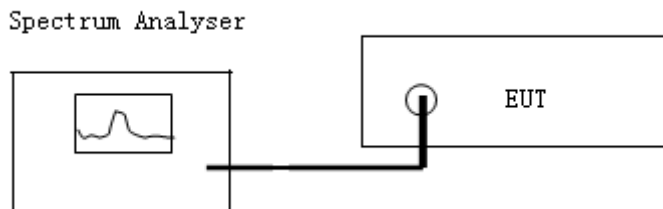
#### 5.8.1 Test Limit

The equipment shall either:

- a) remain in the Operating Channel OC without exceeding any applicable limits (e.g. Duty Cycle); or
  - b) reduce its effective radiated power below the Spurious Emission limits without exceeding any applicable limits (e.g. Duty Cycle); or
  - c) shut down, (ceasing function);
- as the voltage falls below the manufacturers declared operating voltage.

#### 5.8.2 Test Procedure reference clause 5.12.3.2 of ETSI EN 300 220-2 V 3.2.1

#### 5.8.3 Test Setup:



#### 5.8.4 Test result

Test conditions		Test results(MHz)	Error(kHz)	Results
$T_{nom}=25\text{ }^{\circ}\text{C}$	$V_{nom} = 12.00\text{V}$	433.9218	1.8	Pass
$T_{nom}=25\text{ }^{\circ}\text{C}$	$V_{ext} = 10.80\text{V}$	433.9218	1.8	Pass
End point	$V_{ext} = 2.10\text{ V}$	—	—	—

### 5.9 Blocking

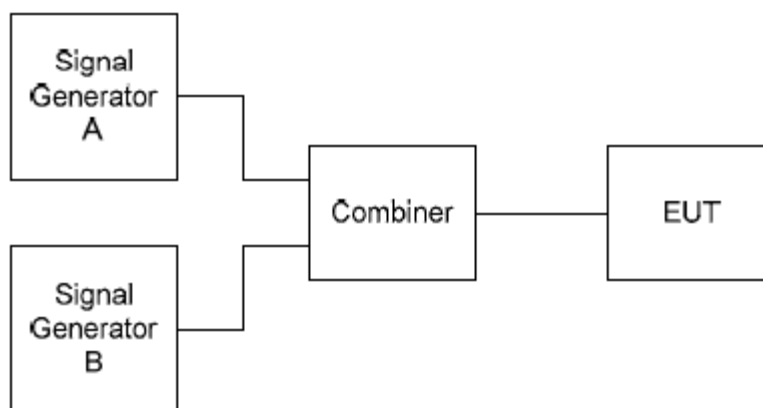
For test instruments and accessories used see section 6 part 6.1.

#### 5.9.1 Test Limit

Requirement	Limits
	Receiver category 3
Blocking at $\pm 2$ MHz from OC edge $f_{high}$ and $f_{low}$	$\geq -80$ dBm
Blocking at $\pm 10$ MHz from OC edge $f_{high}$ and $f_{low}$	$\geq -60$ dBm
Blocking at $\pm 5\%$ of Centre Frequency or 15 MHz, whichever is the greater	$\geq -60$ dBm

#### 5.9.2 Test Procedure reference clause 5.18.6.4 of ETSI EN 300 220-2 V 3.2.1

#### 5.9.3 Test Setup:



#### 5.9.4 Test result

Receiver Class	Frequency Offset (MHz)	Test Frequency (Signal generator B)	Blocking Level (Signal generator B at the EUT antenna connector)	Limit (dBm)
3	+2	431.78375MHz	-52.74	-80
	-2	435.79675MHz	-51.85	-80
	+10	423.78375MHz	-30.74	-60
	-10	443.79675MHz	-32.48	-60
	+5%	455.47950MHz	-27.52	-60
	-5%	412.10050MHz	-28.38	-60

Note: The OCW=12.5kHz.

**Conclusion: PASS**

## 6 USED TEST EQUIPMENT

6.1						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Validity	Cal. Period
1	Signal analyzer	ROHDE & SCHWARZ	FSIQ26	100311	2019/10/19	1 Year
2	Biconical Antenna	ROHDE & SCHWARZ	HK116	100221	2019/10/22	1 Year
3	Log per Antenna	ROHDE & SCHWARZ	HL223	100226	2019/03/19	1 Year
4	Log per Antenna	ROHDE & SCHWARZ	HL050	100186	2019/03/19	1 Year
5	Temperature Chamber	GW	GDS-150	1016	2019/03/19	1 Year
6	Pre-Amplifier	EMC	EMC330	980113	2019/10/19	1 Year
7	Pre-Amplifier	EMC	EMC012645	980114	2019/10/19	1 Year
8	Power meter	ROHDE & SCHWARZ	NRVS	842856/049	2019/10/19	1 Year

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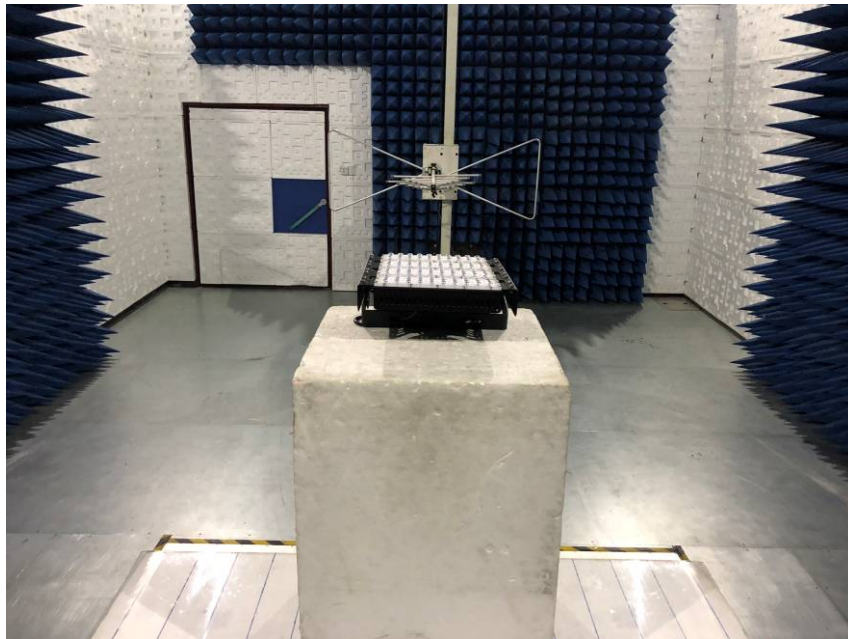
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## 7 TEST PHOTOGRAPHS

### 7.1. Photo of radiated emission measurement (R.E. Electric field)



TX



RX

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## 8 External Photos of the EUT



TX External view 1

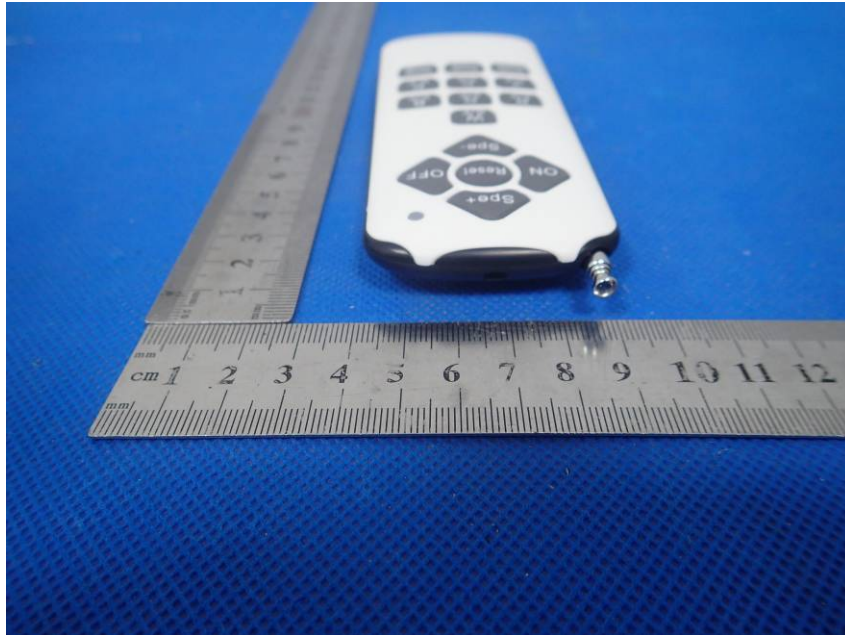


TX External view 2

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TX External view 3



TX External view 4

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TX External view 5



TX External view 6

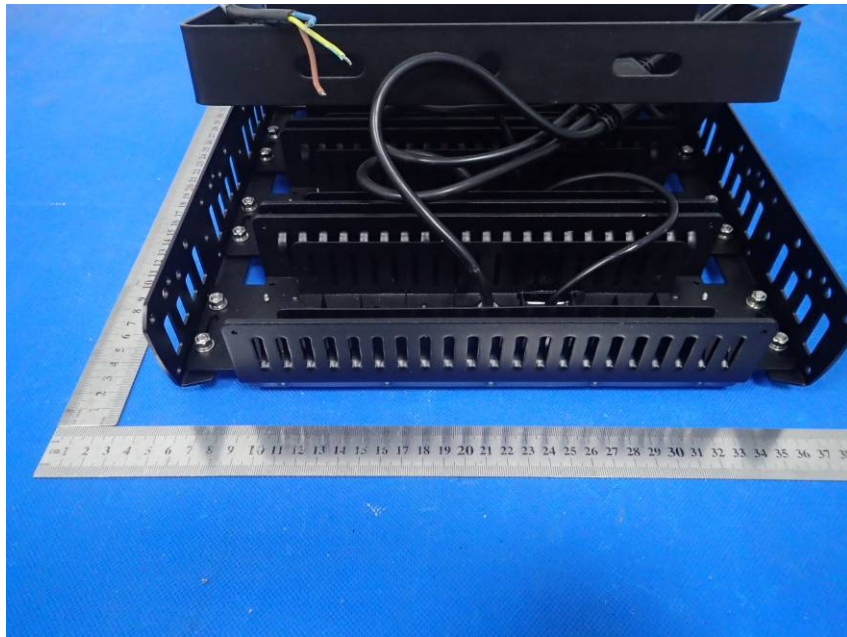
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RX External view 1



RX External view 2

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RX External view 3



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RX External view 6

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## 9 Manufacturer/ Approval holder Declaration

The following identical model(s):

**AT247, T246, AT245, AT244, AT242, AT241, AT240, MFR-400**

Belong to the tested device:

Product description: **RGB led floodlight**  
Model name: **AT-243**