TECHNICAL REPORT

Report No.:	FCC1907010
File reference No.:	2019-07-09
Applicant:	King of Fans, Inc.
Product:	56” Harbor Isle
Model No:	56-HARB
Trademark:	Home Decorators Collection
Test Standards:	FCC Part 15 Subpart B
Test result:	It is herewith confirmed and found to comply with the requirements set up by ANSI C63.4&FCC Part 15 regulations for the evaluation of electromagnetic compatibility

Approved By

Jack Chung

Jack Chung

Manager

Dated: July 09, 2019

Results appearing herein relate only to the sample tested
The technical reports is issued errors and omissions exempt and is subject to withdrawal at

SHENZHEN TIMEWAY TESTING LABORATORIES

Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le Village, Nanshan District, Shenzhen, China

Tel (755) 83448688, Fax (755) 83442996, E-Mail:info@timeway-lab.com

Special Statement:

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19.

The testing quality system of our laboratory meet with ISO/IEC-17025 requirements, which is approved by CNAS. This approval result is accepted by MRA of APLAC.

Our test facility is recognized, certified, or accredited by the following organizations:

CNAS-LAB Code: L2292

The EMC Laboratory has been assessed and in compliance with CNAS-CL01 accreditation criteria for testing Laboratories (identical to ISO/IEC 17025:2005 General Requirements) for the Competence of testing Laboratories.

FCC-Registration No.: 744189

The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 744189.

Industry Canada (IC) —Registration No.:5205A-2

The EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 5205A-2.

A2LA (Certification Number:5013.01)

The EMC Laboratory has been accredited by the American Association for Laboratory Accreditation (A2LA). Certification Number:5013.01

Test Report Conclusion

Content

1.0 General Details

1.1 Test Lab Details

Name :	SHENZHEN TIMEWAY TESTING LABORATORIES.
Address:	Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le Village, Nanshan District, Shenzhen, China
Telephone:	(755) 83448688
Fax:	(755) 83442996

Site on File with the Federal Communications Commission – United Sates
Registration Number: 744189
For 3m Anechoic Chamber

1.2 Applicant Details

Applicant:	King of Fans, Inc.
Address:	1951 N.W. 22nd Street, Fort Lauderdale, FL33311, USA
Telephone:	954-484-7500
Fax:	954-784-7602

1.3 Description of EUT

Product:	56” Harbor Isle
Manufacturer:	Chienluen Industries (zhongshan) Ltd..
Address:	Da Che Industrial Area,Nanlang Town, Zhongshan,Guangdong China 528451
Trademark:	Home Decorators Collection
Model Number:	56-HARB

Rating: Input 120V, 60Hz, w/o light 0.6A, w/o light 72W; Output: w/light: 0.77A, w/light: 92W
Rx Frequency: 304MHz

1.4 Submitted Sample: 2 Samples

1.5 Test Duration: 2019-07-05 to 2019-07-08

1.6 Test Uncertainty
Conducted Emissions Uncertainty =3.6dB
Radiated Emissions below 1GHz Uncertainty =4.7dB
Radiated Emissions above 1GHz Uncertainty =6.0dB

1.7 Test Engineer
The sample tested by Terry Tang

Print Name: Terry Tang

2.0 List of Measurement Equipment

2.1 Conducted Emission Test

Name	Model No.	Serial No.	Manufacturer	Calibration Date	Calibration Cycle
EMI Test Receiver	ESH3	860905/006	RS	2019.06.21	1Year
Spectrum Analyzer	ESA-L1500A	US37451154	HP	2019.06.21	1Year
PULSE LIMITER	ESH3-Z2	100281	RS	2019.06.21	1Year
LISN	ESH3-Z5	100294	RS	2019.06.21	1Year
LISN	ESH3-Z5	100253	RS	2019.06.21	1Year
LISN	NNB42	00012	SCHAFFNER	2019.01.08	1Year

2.2 Radiated electromagnetic disturbance test

Name	Model No.	Serial No.	Manufacturer	Calibration Date	Calibration Cycle
EMI Test Receiver	ESPI 3	100379	RS	2019.06.21	1Year
Amplifier	BBV9743	#218	Schwarzbeck	2019.06.21	1Year
Amplifier	8449B	3008A00160	HP	2019.06.21	1Year
Bilog Antenna	VULB9163	1139	Schwarzbeck	2019.07.04	1Year
Horn Antenna	BBHA 9120D	9120D-631	RS	2018.07.09	1Year
Spectrum	E4407B	MY50441392	Agilent	2019.03.27	1Year

2.3 Auxiliary Equipment

Name	Model No.	Serial No.	Manufacturer	Calibration Date	Calibration Cycle
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3.0 Technical Details

3.1 Investigations Requested

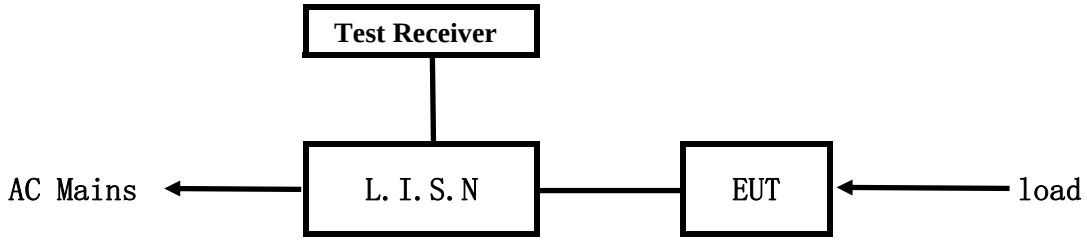
Perform Electromagnetic Interference [EMI] tests for FCC Requirement.

3.2 Test Standards

FCC Part 15 Subpart B

4.0 Conducted Power line Test

4.1 Schematics of the test



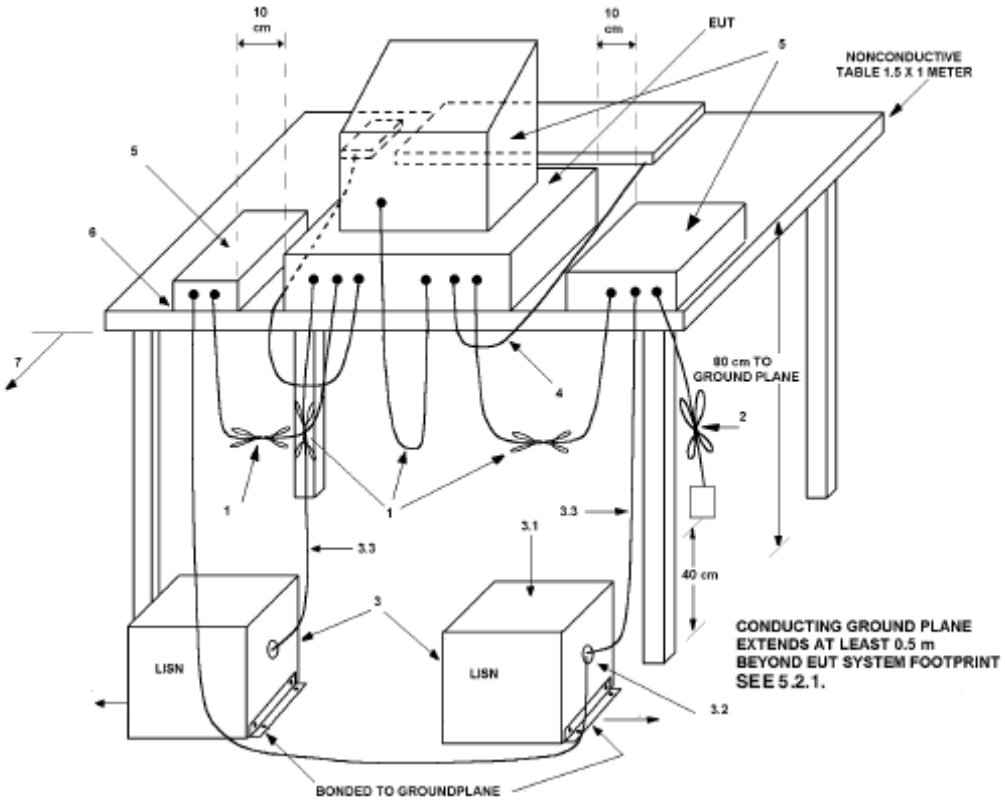
EUT: Equipment Under Test

4.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.4-2014.The Frequency spectrum From 0.15MHz to 30MHz was investigated. The LISN used was 50ohm/50uH as specified by section 5.1 of ANSI C63.4 –2014.Cables and peripherals were moved to find the maximum emission levels for each frequency.

Actual Working Voltage and Frequency: 120V~, 60Hz

Block diagram of Test setup



4.3 Power line conducted Emission Limit

Frequency(MHz)	Class A Limits dB(μV)		Class B Limits dB(μV)	
	Quasi-peak Level	Average Level	Quasi-peak Level	Average Level
0.15 ～ 0.50	79.00	66.00	66.00～56.00*	56.00～46.00*
0.50 ～ 5.00	76.00	60.00	56.00	46.00
5.00 ～ 30.00	73.00	60.00	60.00	50.00

Notes: 1. *decreasing linearly with logarithm of frequency.

2. The tighter limit shall apply at the transition frequencies

4.4 Test Results

The frequency spectrum from 0.15MHz to 30MHz was investigated. All reading are quasi-peak values with a resolution bandwidth of 9kHz.

A: Conducted Emission on Live Terminal (150kHz to 30MHz)

EUT Operating Environment

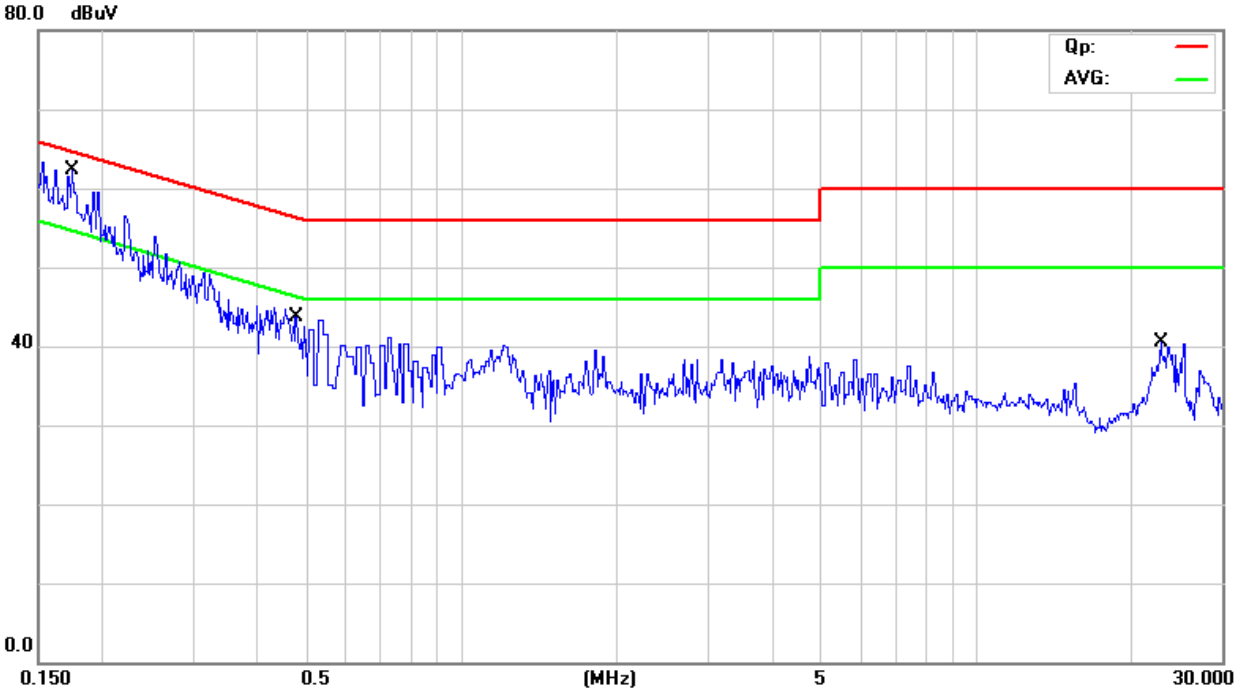
Temperature: 26℃ Humidity: 65%RH Atmospheric Pressure: 101 kPa

EUT set Condition: Receiving Mode

Equipment Level: Class B

Results: PASS

Please refer to following diagram for individual



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1741	42.80	9.77	52.57	64.76	-12.19	QP	
2		0.1741	10.50	9.77	20.27	54.76	-34.49	AVG	
3		0.4741	21.80	9.77	31.57	56.44	-24.87	QP	
4		0.4741	6.60	9.77	16.37	46.44	-30.07	AVG	
5		22.8367	19.30	10.86	30.16	60.00	-29.84	QP	
6		22.8367	10.30	10.86	21.16	50.00	-28.84	AVG	

B: Conducted Emission on Neutral Terminal (150kHz to 30MHz)

EUT Operating Environment

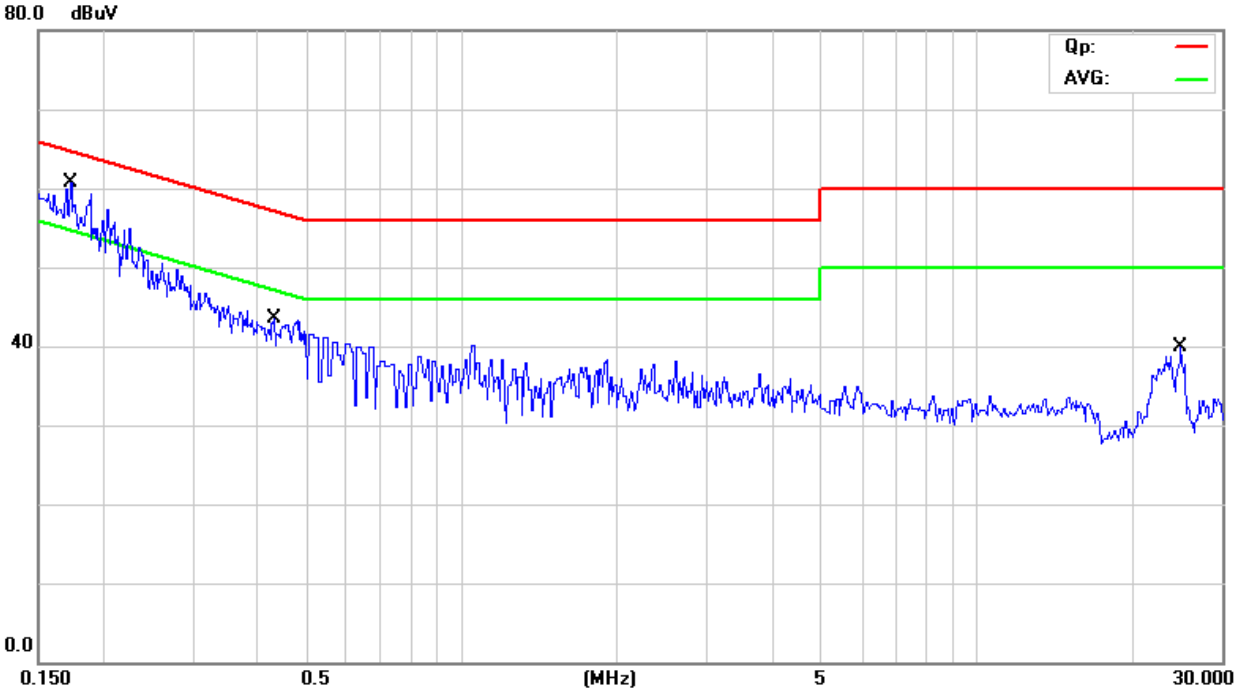
Temperature: 26℃ Humidity: 65%RH Atmospheric Pressure: 101 kPa

EUT set Condition: Receiving Mode

Equipment Level: Class B

Results: Pass

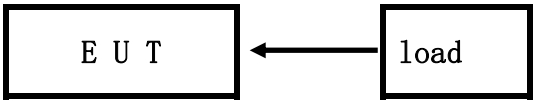
Please refer to following diagram for individual



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1734	42.20	9.77	51.97	64.80	-12.83	QP	
2		0.1734	12.10	9.77	21.87	54.80	-32.93	AVG	
3		0.4300	24.90	9.77	34.67	57.25	-22.58	QP	
4		0.4300	9.70	9.77	19.47	47.25	-27.78	AVG	
5		24.9490	20.30	10.99	31.29	60.00	-28.71	QP	
6		24.9490	6.90	10.99	17.89	50.00	-32.11	AVG	

5.0 Radiated Disturbance Test

5.1 Schematics of the test

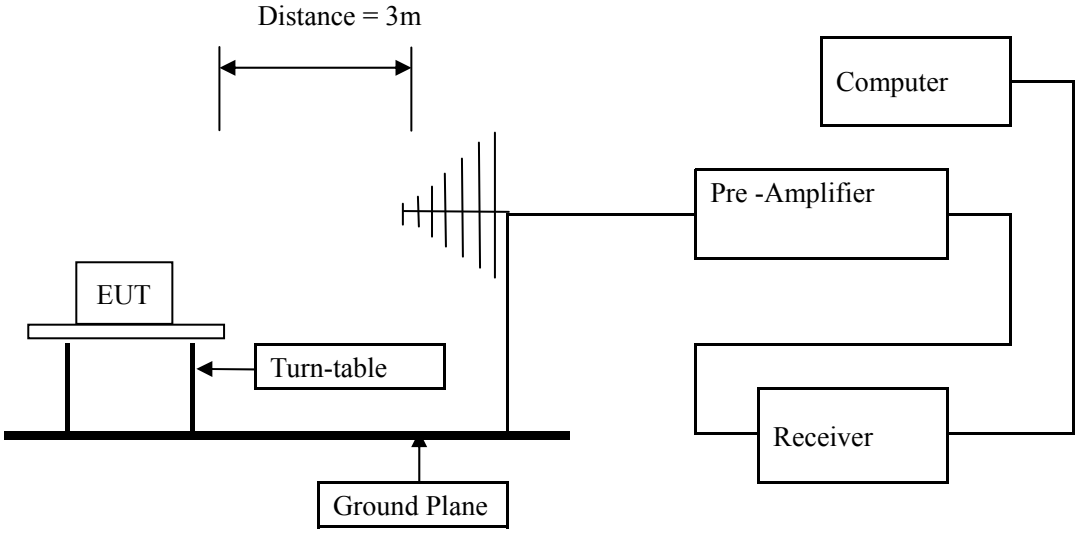


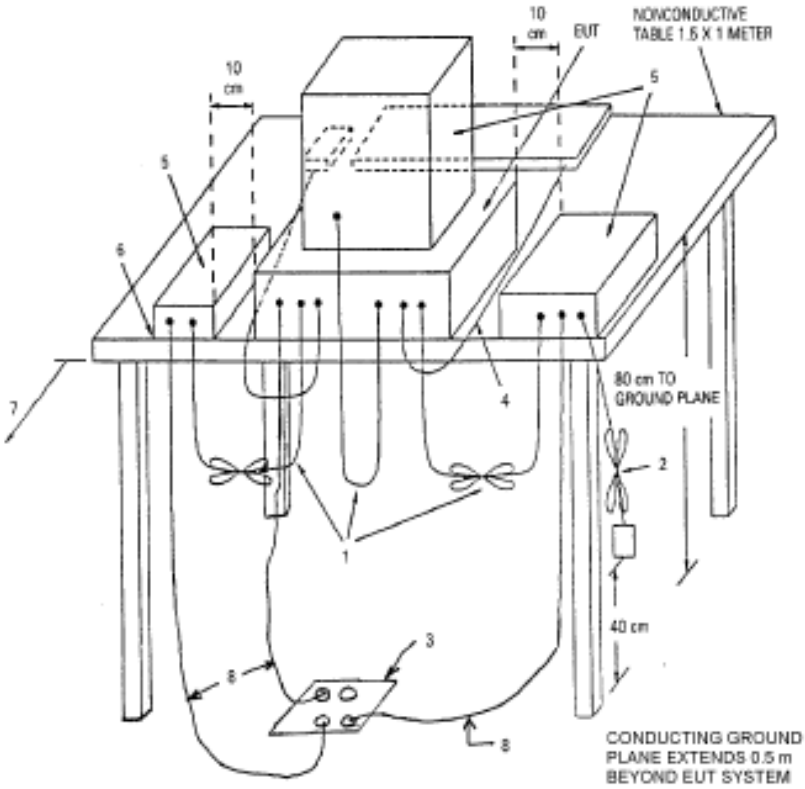
5.2 Test Method and test Procedure:

The EUT was tested according to ANSI C63.4 –2014; The frequency spectrum from 30MHz to 6GHz was investigated. All reading from 30MHz to 1GHz are quasi-peak values with a resolution bandwidth of 120kHz. For measurement above 1GHz, peak values with RBW=VBW=1MHz and PK detector. AV value with RBW=1MHz, VBW=10Hz and PK

Actual Working Voltage and Frequency: 120V~, 60Hz

Block diagram of Test setup





5.3 Radiated Emission Limit

Frequency Range (MHz)	Distance (m)	Field strength (dB μ V/m)
30-88	3	40.00
88-216	3	43.50
216-960	3	46.00
Above 960	3	54.00

Note: The lower limit shall apply at the transition frequencies

5.4 Test result

The frequency spectrum from 30MHz to 6GHz was investigated. All reading from 30MHz to 1GHz are quasi-peak values with a resolution bandwidth of 120kHz. For measurement above 1GHz, peak values with RBW=VBW=1MHz and PK detector. AV value with RBW=1MHz, VBW=10Hz and PK. Measurements were made at 3 meters.

Test result

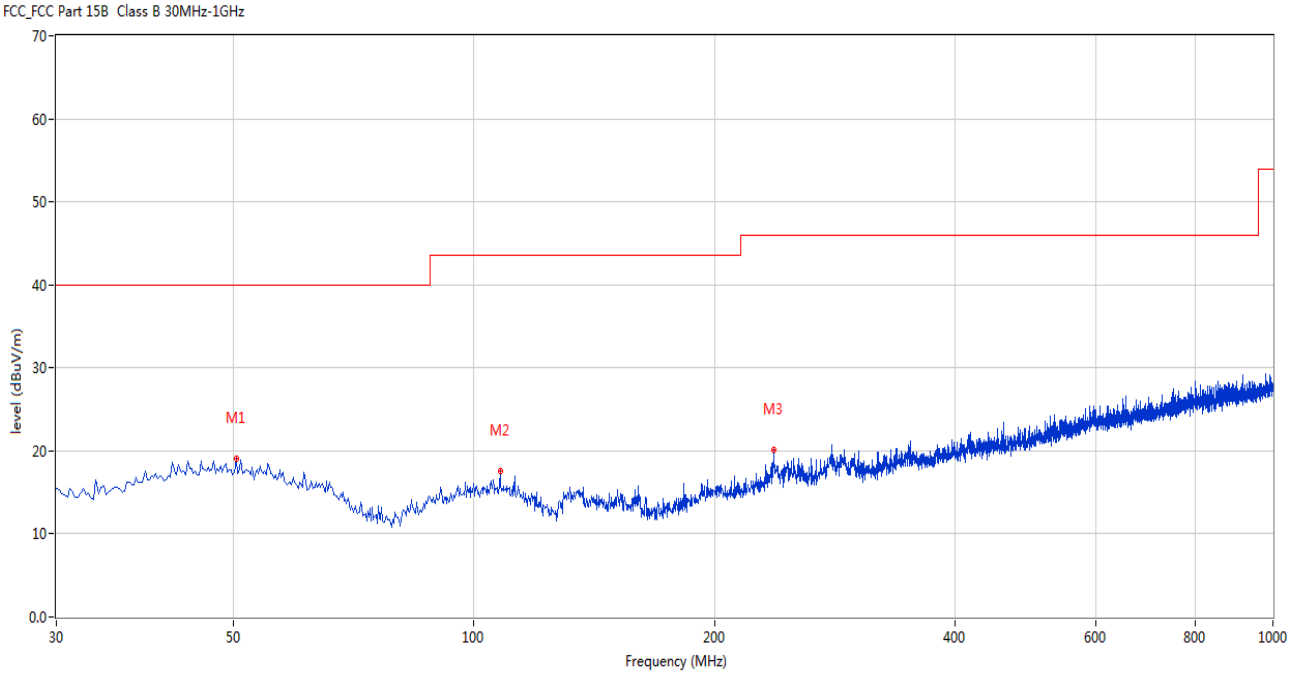
General Radiated Emission Data and Harmonics Radiated Emission Data

Radiated Emission In Horizontal/ In Vertical (30MHz----1000MHz)

EUT set Condition:	**Receiving Mode**
Equipment Level:	**Class B**
Results:	**Pass**

Test Figure:

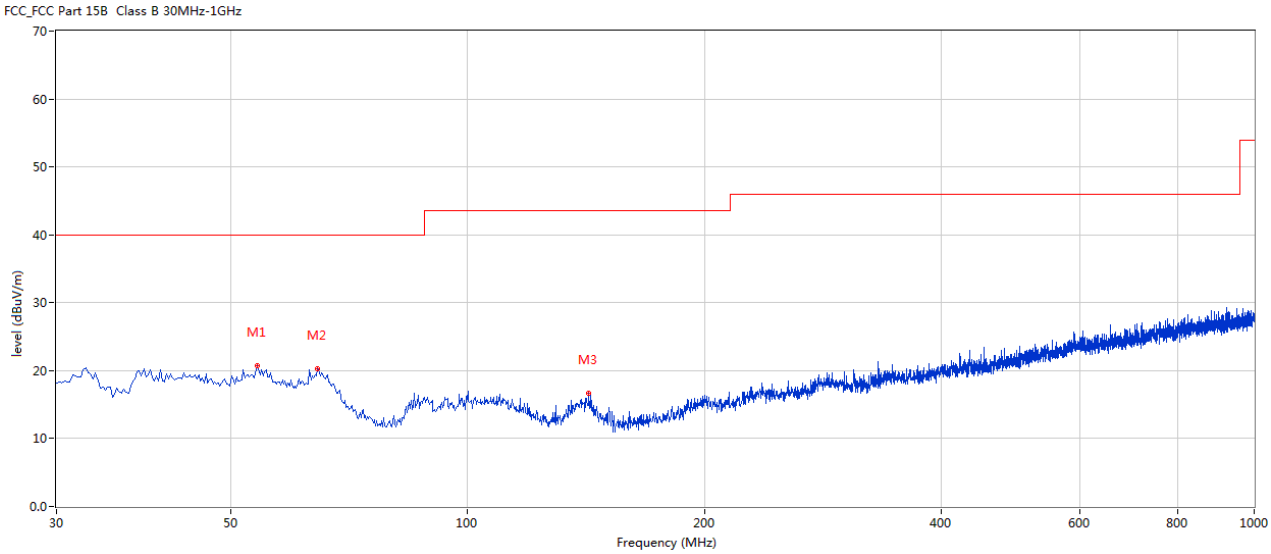
H



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	50.365	19.05	-11.39	40.0	-20.95	Peak	80.00	100	H	Pass
2	107.823	17.64	-13.41	43.5	-25.86	Peak	19.00	100	H	Pass
3	237.043	20.10	-12.37	46.0	-25.90	Peak	162.00	100	H	Pass

Test Figure:

V



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	54.001	20.73	-11.54	40.0	-19.27	Peak	0.00	200	V	Pass
2	64.426	20.21	-13.43	40.0	-19.79	Peak	279.00	100	V	Pass
3	142.492	16.66	-17.32	43.5	-26.84	Peak	234.00	100	V	Pass

Radiated Disturbance (1000MHz----6000MHz)

EUT Operating Environment

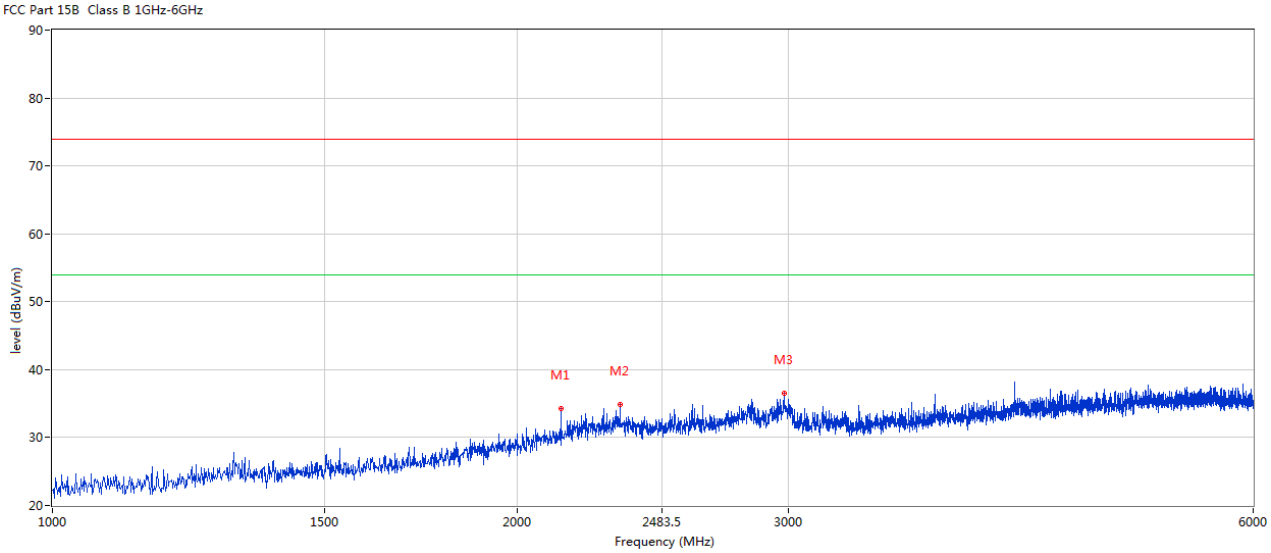
Temperature: 25℃ Humidity: 75%RH Atmospheric Pressure: 101 kPa

EUT set Condition: Receiving Mode

Equipment Level: Class B

Results: Pass

Please refer to following diagram for individual



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2135.966	34.21	-3.89	74.0	-39.79	Peak	0.00	100	H	Pass
2	2333.417	34.89	-3.32	74.0	-39.11	Peak	18.00	100	H	Pass
3	2979.505	36.50	-2.65	74.0	-37.50	Peak	0.00	100	H	Pass

Radiated Disturbance (1000MHz----6000MHz)

EUT Operating Environment

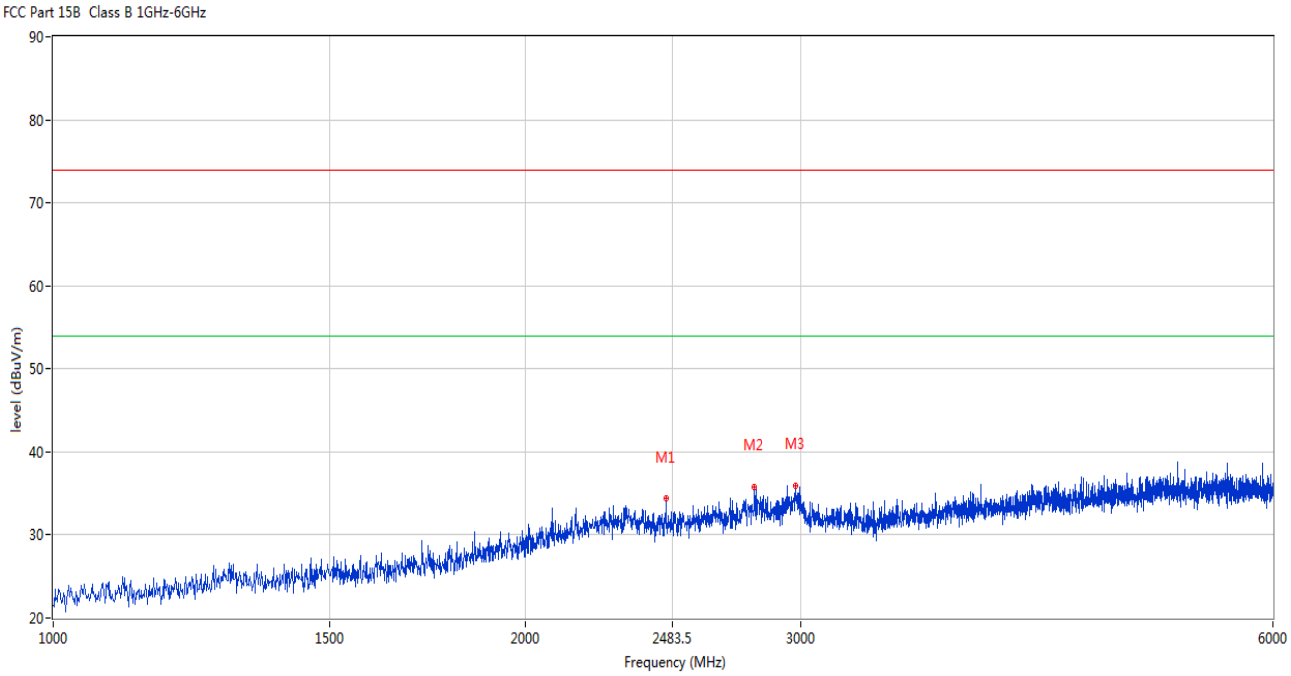
Temperature:25℃ Humidity: 75%RH Atmospheric Pressure: 101 kPa

EUT set Condition: Receiving Mode

Equipment Level: Class B

Results: Pass

Please refer to following diagram for individual



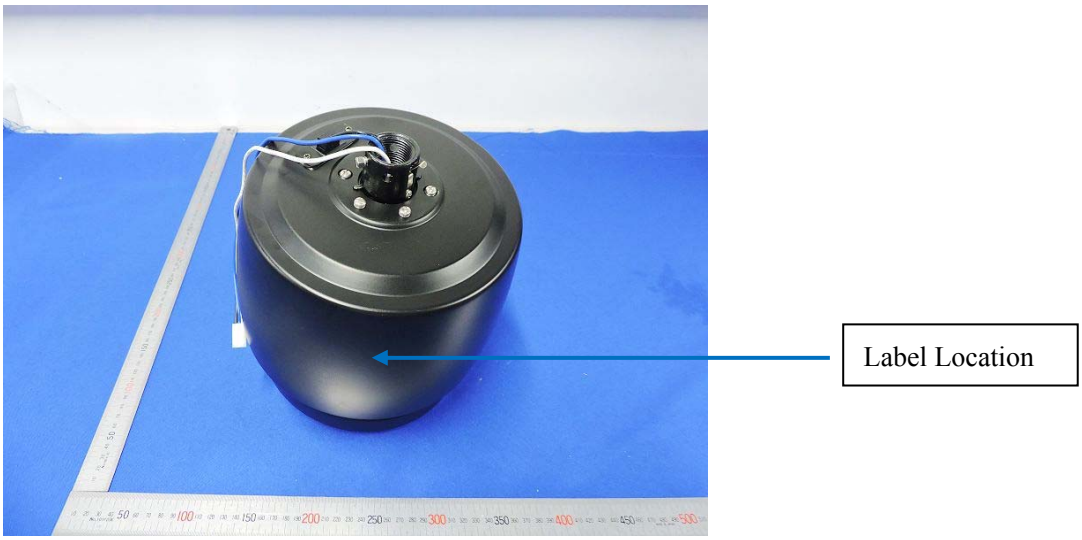
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2460.885	34.40	-3.57	74.0	-39.60	Peak	360.00	100	V	Pass
2	2802.049	35.82	-2.70	74.0	-38.18	Peak	360.00	100	V	Pass
3	2974.506	35.97	-2.65	74.0	-38.03	Peak	360.00	100	V	Pass

6.0 FCC Label

FCC ID: RGB-56HARBD

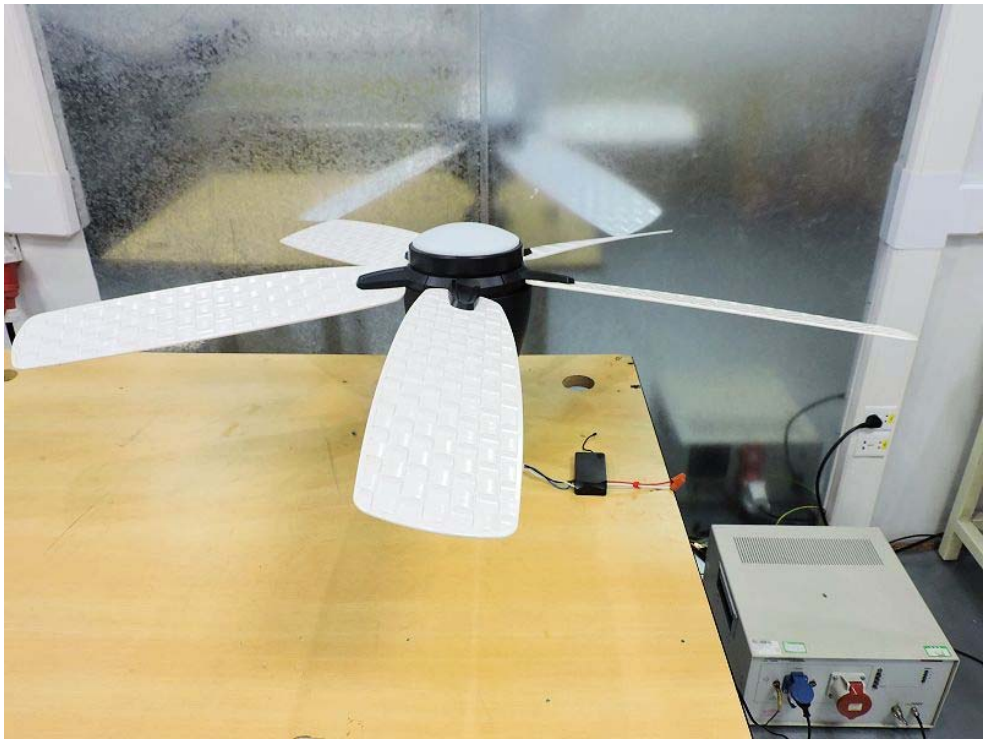
This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The label must not be a stick-on paper label. The label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

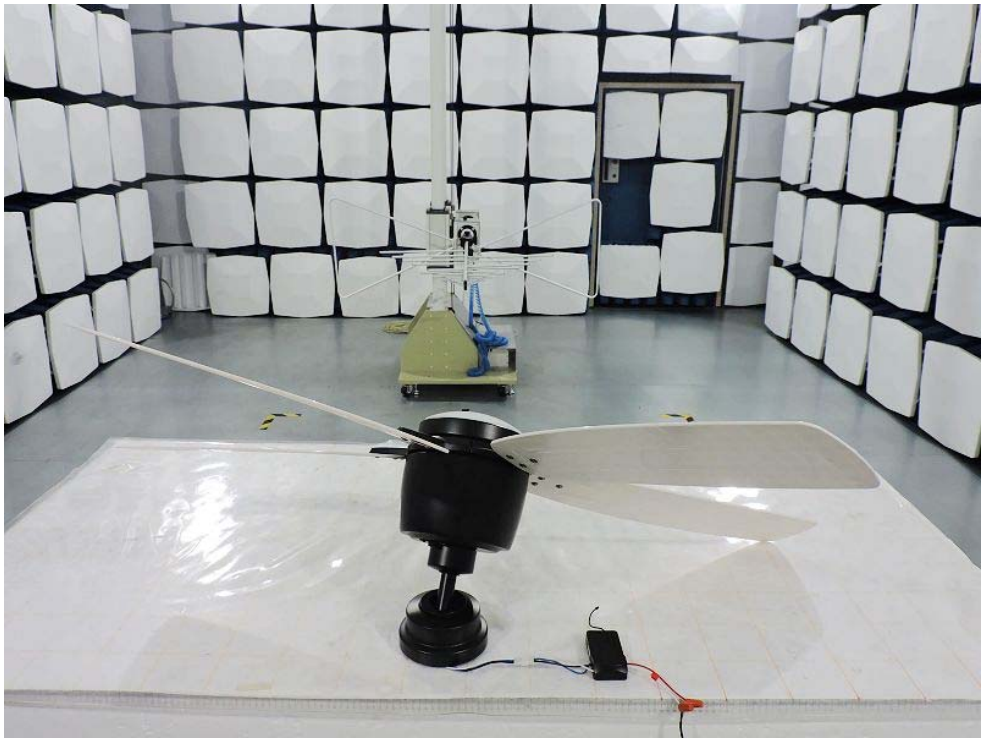


7.0 Photo of testing

7.1 Conducted test View--



7.2 Radiated emission test view--



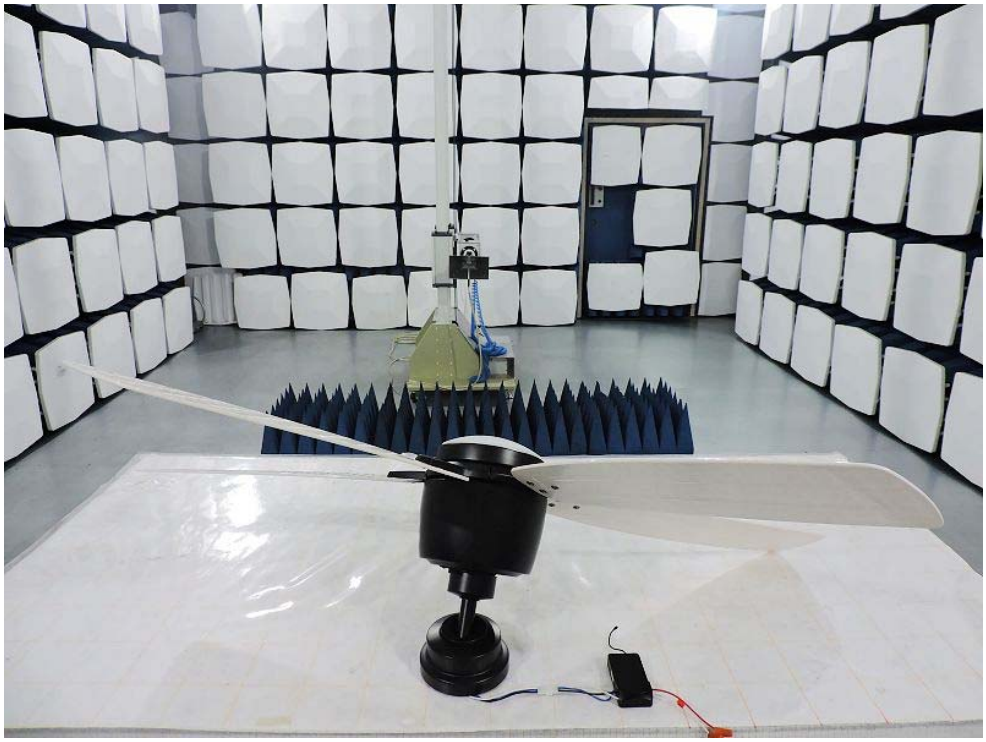
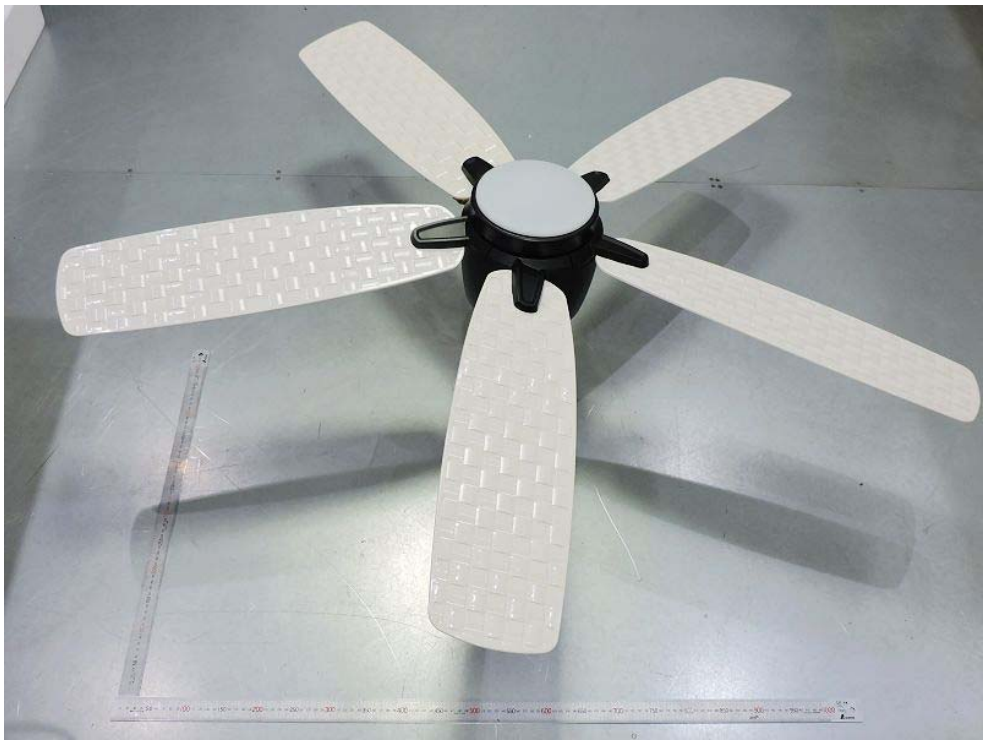


Photo for the EUT



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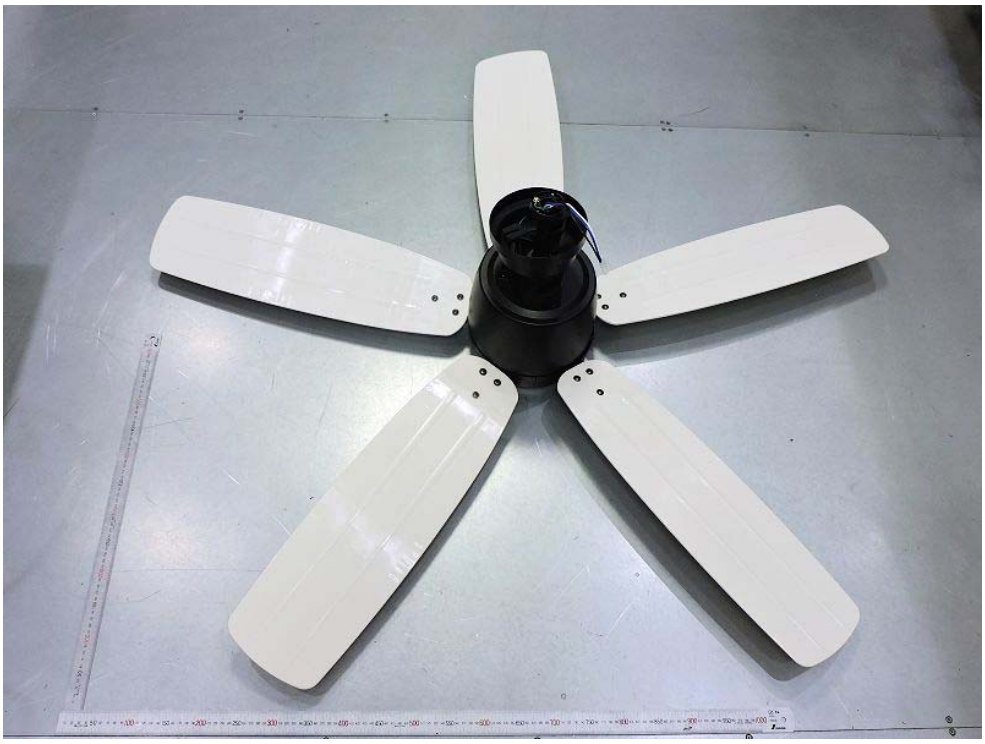

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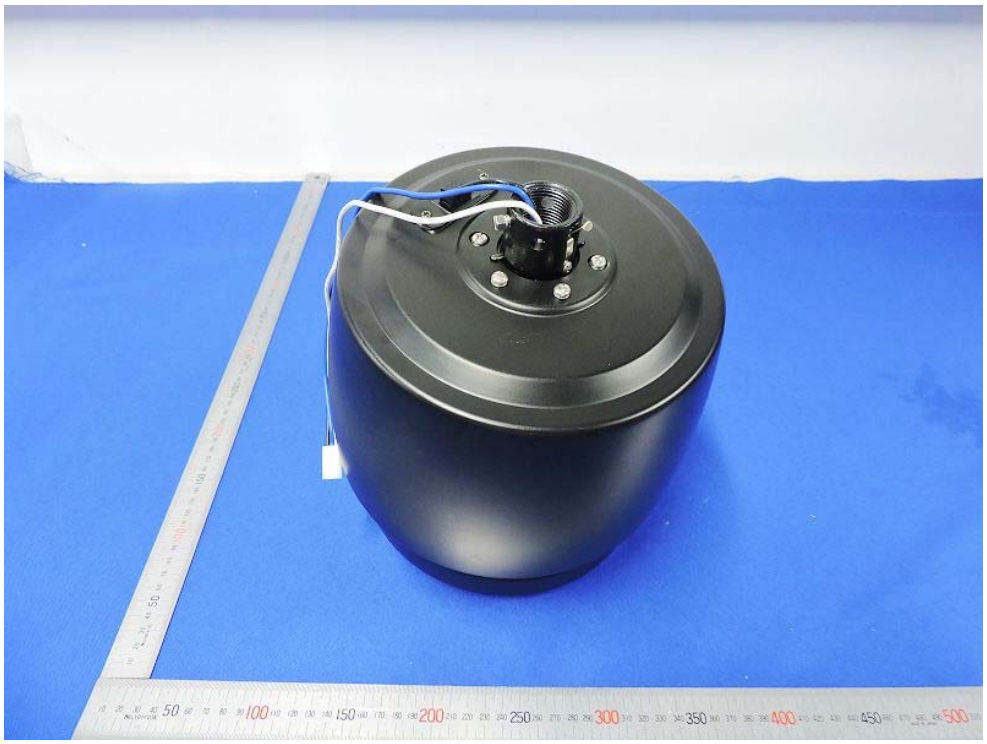

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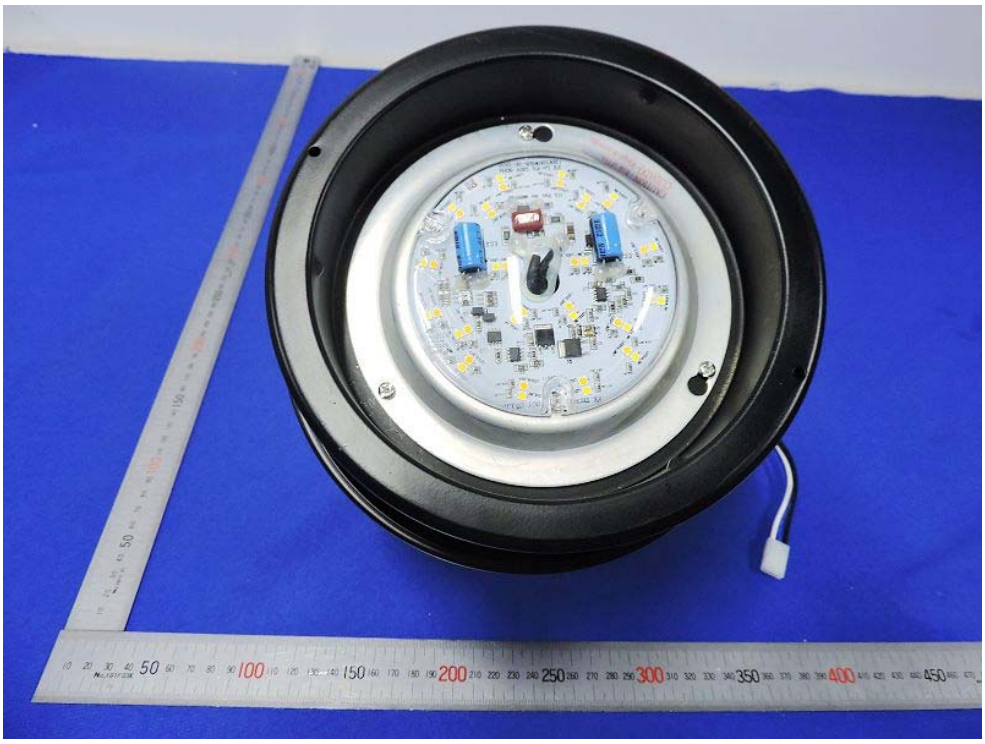

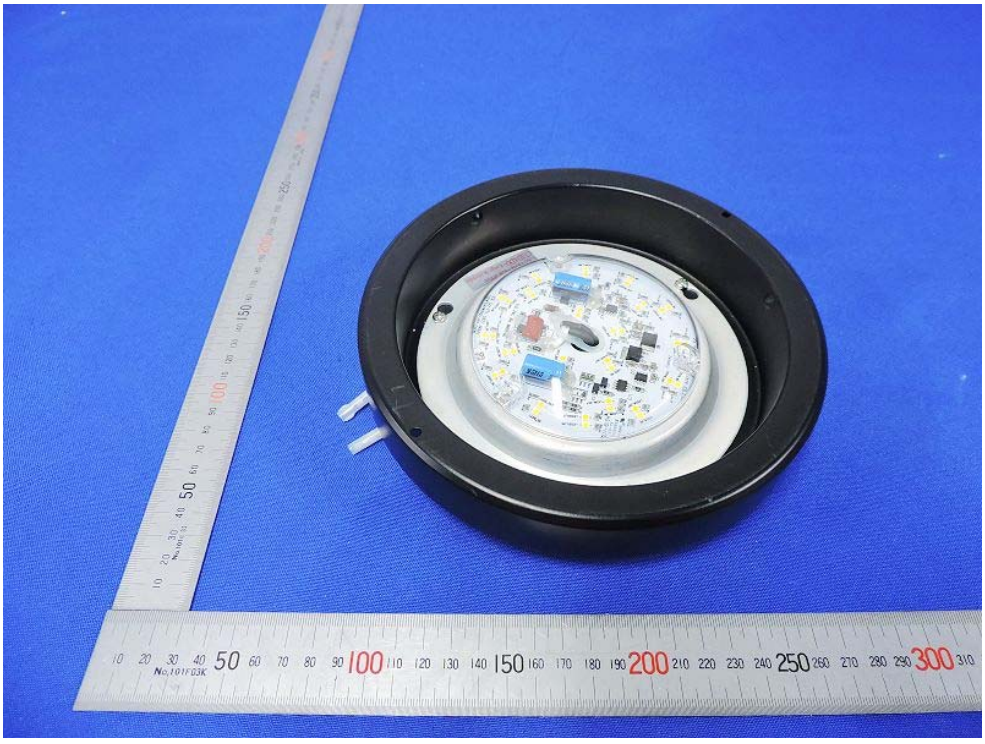

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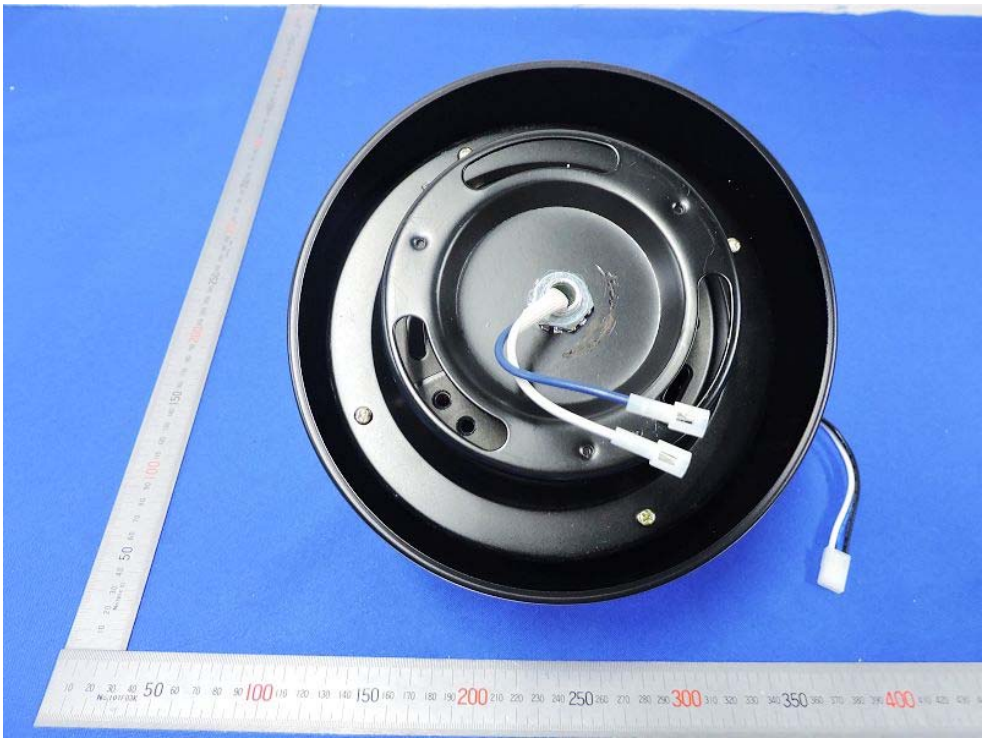

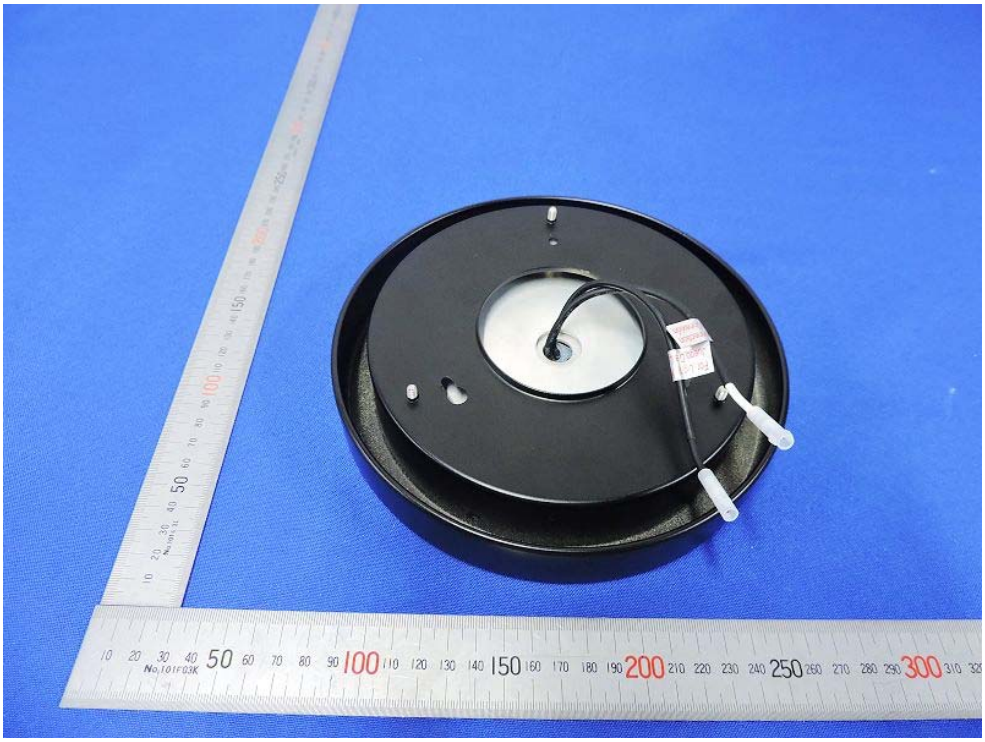

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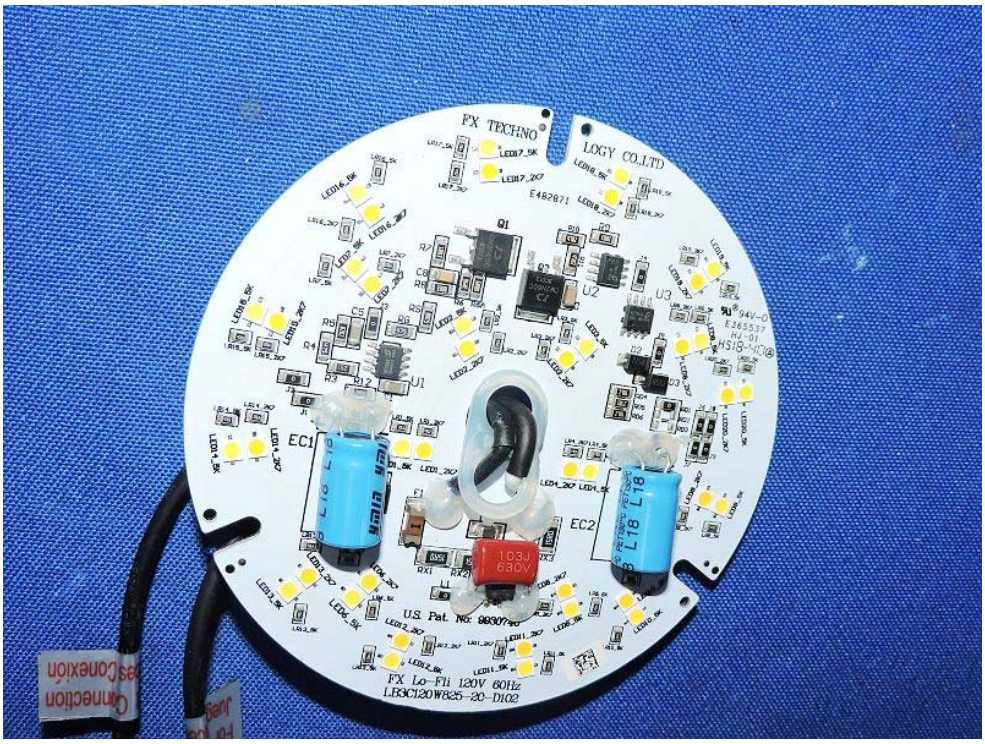

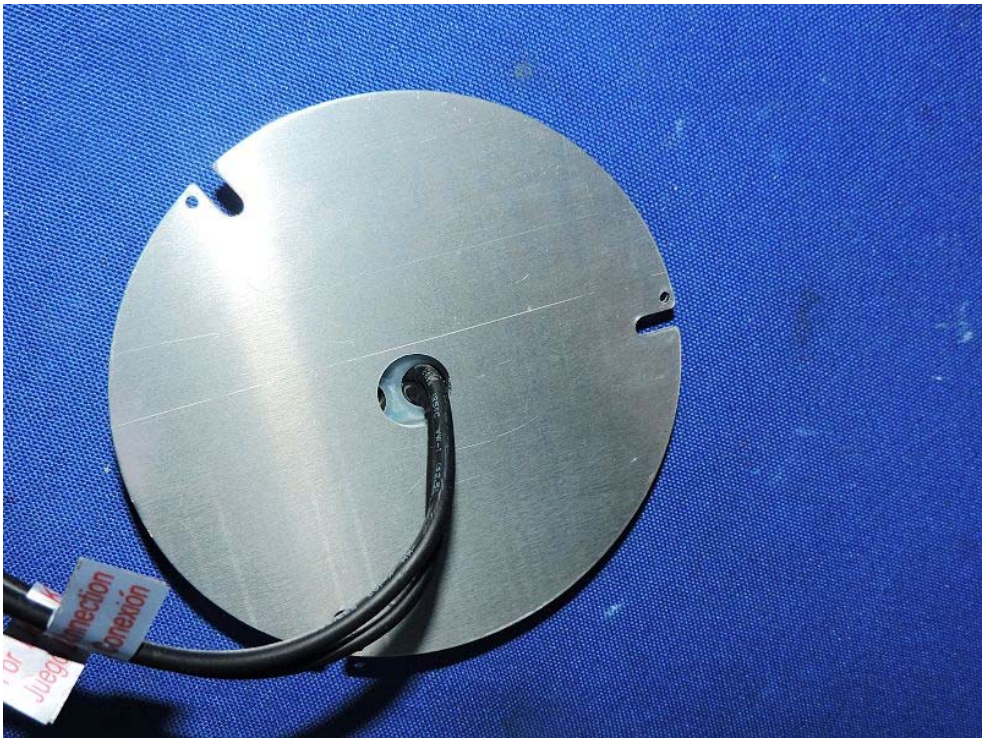

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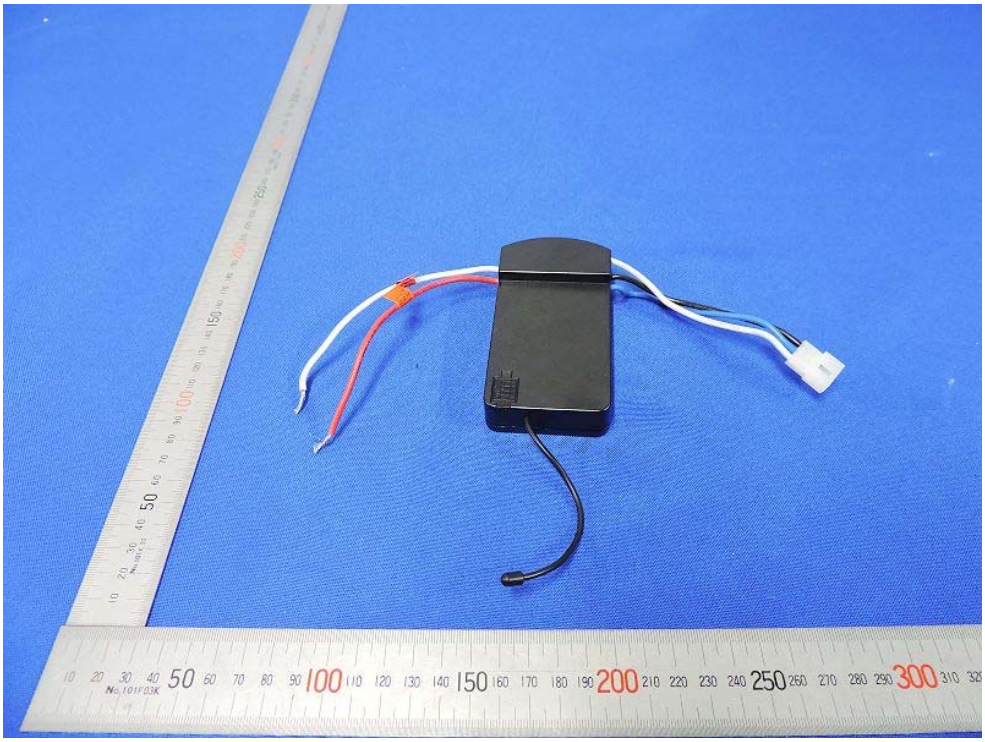

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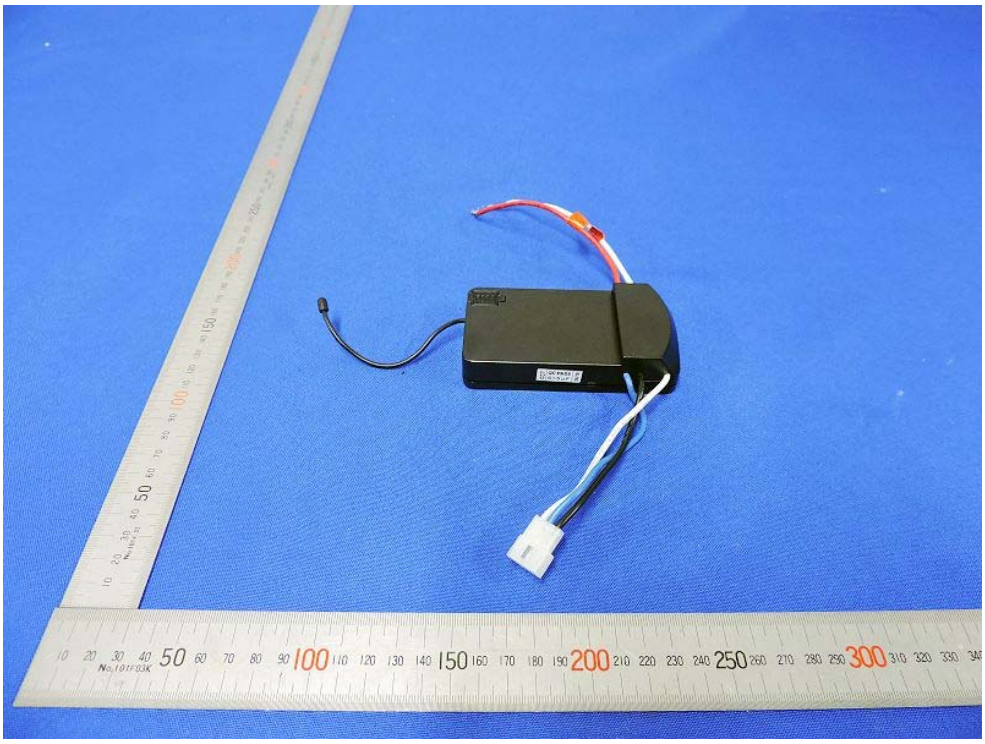

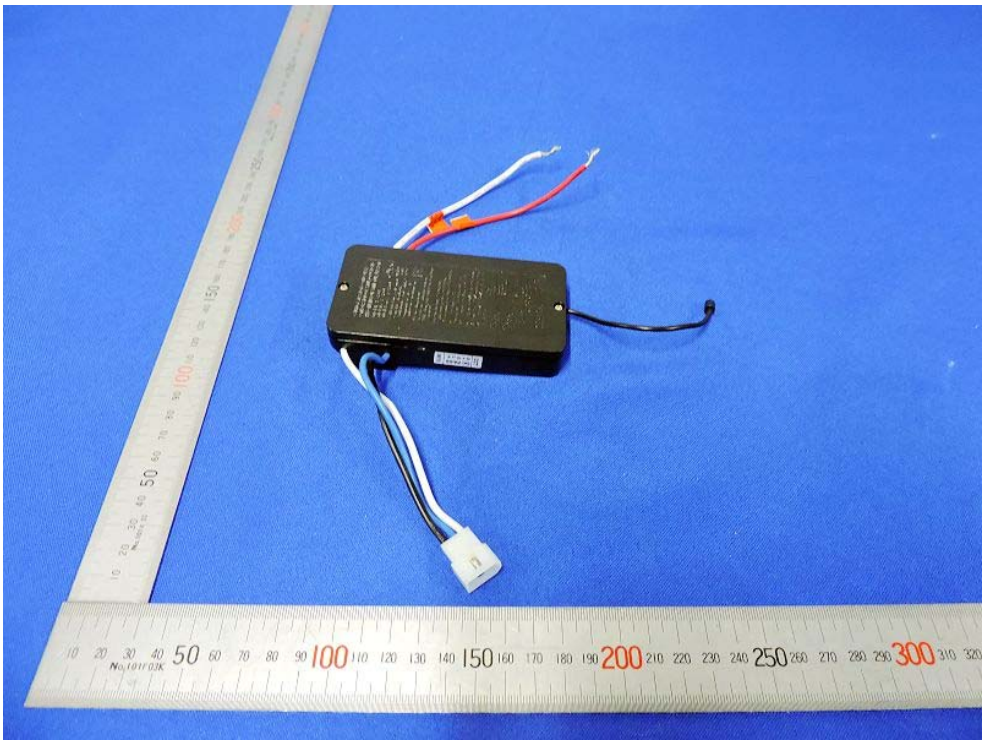

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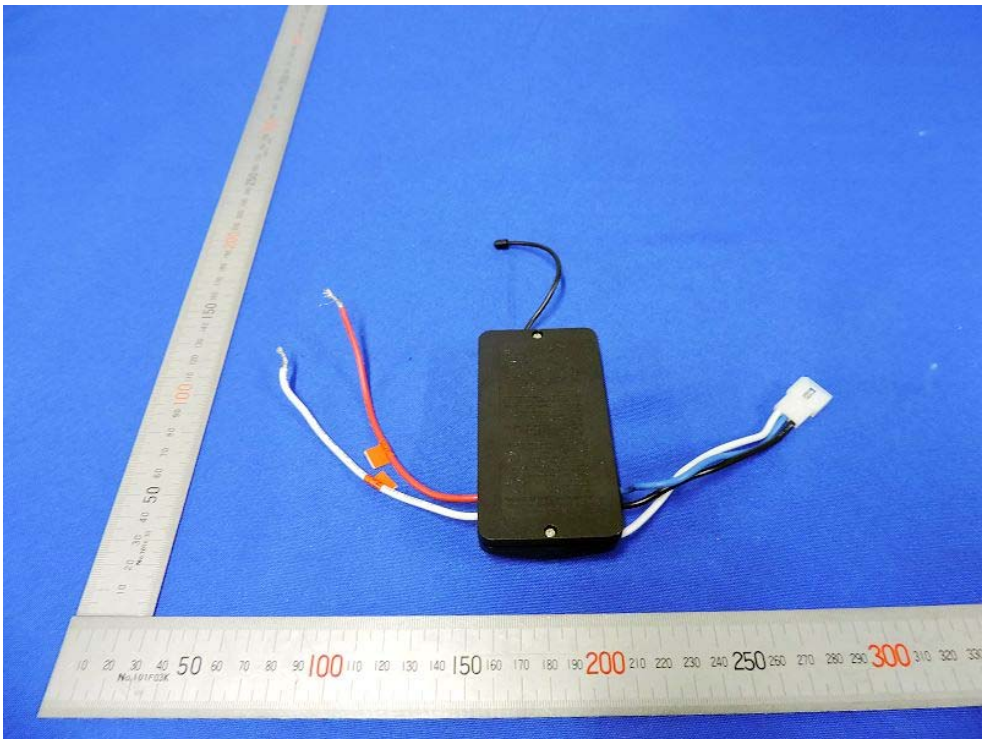

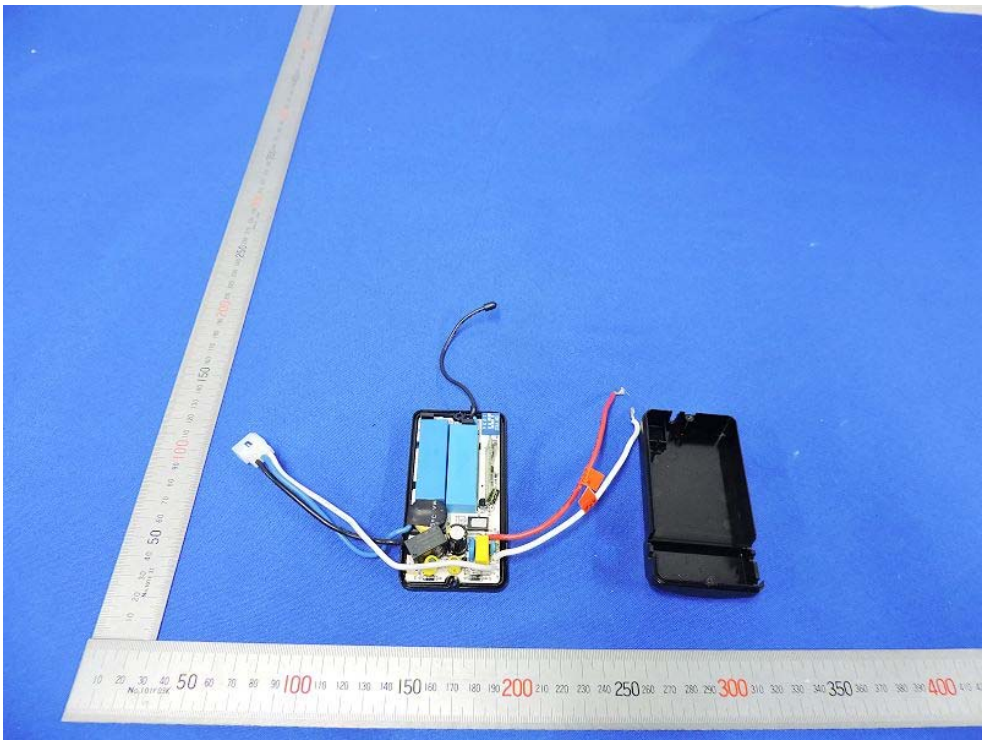

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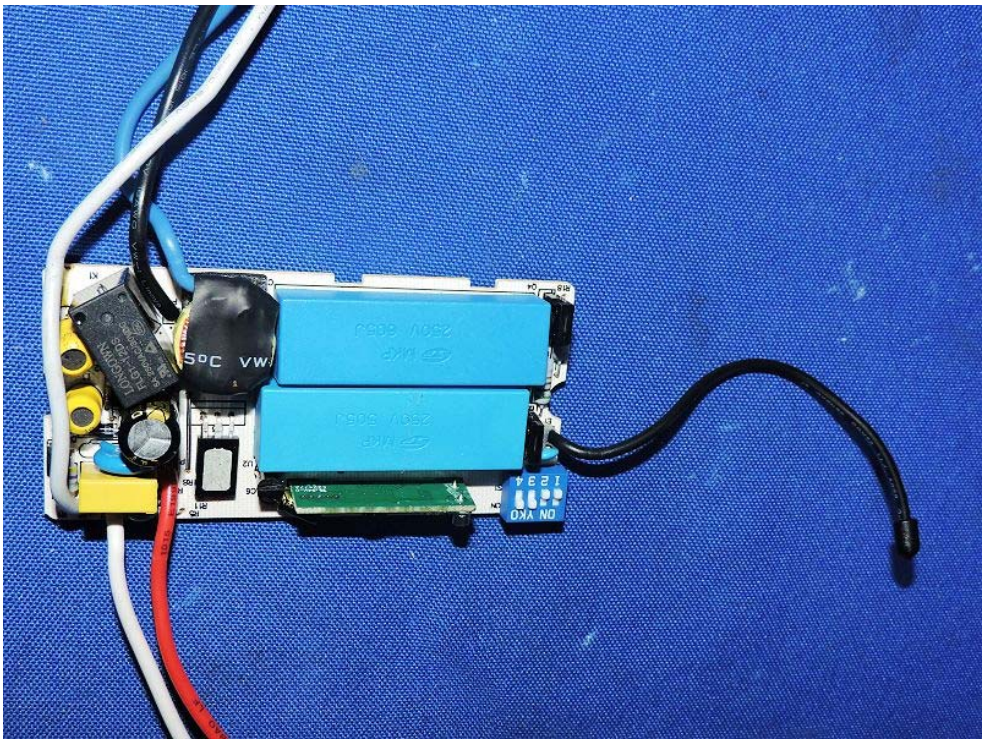

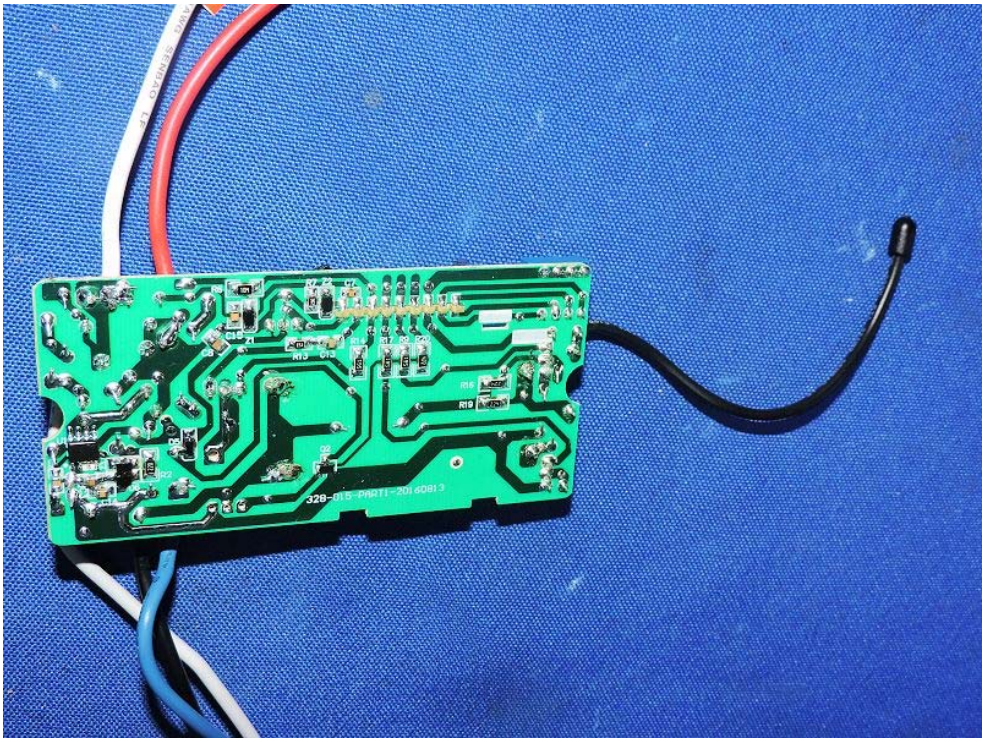

-End of the report-