

APPLICATION CERTIFICATION  
On Behalf of  
Carewell Electric Technology (Zhongshan) Co., Ltd.

REMOTE CONTROL  
Model No.: FAN-59T

FCC ID: 2AAZPFAN59T

Prepared for : Carewell Electric Technology (Zhongshan) Co., Ltd.  
Address : Torch Development Zone, No.2, Ouya Road, Zhongshan,  
Guangdong, China

Prepared by : ACCURATE TECHNOLOGY CO., LTD  
Address : F1, Bldg. A, Changyuan New Material Port, Keyuan Rd.  
Science & Industry Park, Nanshan, Shenzhen, Guangdong  
P.R. China

Tel: (0755) 26503290

Fax: (0755) 26503396

Report Number : ATE20162174  
Date of Test : October 22, 2016  
Date of Report : October 26, 2016

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## Test Report Certification

Applicant : Carewell Electric Technology (Zhongshan) Co., Ltd.  
Manufacturer : Carewell Electric Technology (Zhongshan) Co., Ltd.  
EUT Description : REMOTE CONTROL  
(A) MODEL NO.: FAN-59T  
(B) SERIAL NO.: N/A  
(C) POWER SUPPLY: AC 120V; 60Hz

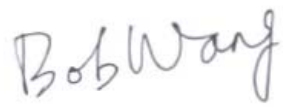
Measurement Procedure Used:


### **FCC Rules and Regulations Part 15 Subpart C Section 15.231a ANSI C63.10-2013**

The device described above is tested by ACCURATE TECHNOLOGY CO., LTD to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C Section 15.231a. The measurement results are contained in this test report and ACCURATE TECHNOLOGY CO., LTD is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of ACCURATE TECHNOLOGY CO., LTD.

Date of Test : October 22, 2016  
Date of Report : October 26, 2016

Prepared by :   
(Bob Wang, Engineer)

Approved & Authorized Signer :   
( Sean Liu, Manager)

## 1. GENERAL INFORMATION

### 1.1. Description of Device (EUT)

EUT	: REMOTE CONTROL
Model Number	: FAN-59T
Power Supply	: AC 120V; 60HZ
Modulation:	: ASK
Operation Frequency	: 315MHz
Applicant	: Carewell Electric Technology (Zhongshan) Co., Ltd.
Address	: Torch Development Zone, No.2, Ouya Road, Zhongshan, Guangdong, China
Manufacturer	: Carewell Electric Technology (Zhongshan) Co., Ltd.
Address	: Torch Development Zone, No.2, Ouya Road, Zhongshan, Guangdong, China
Date of sample received	: October 12, 2016
Date of Test	: October 22, 2016

## 1.2. Description of Test Facility

EMC Lab : Accredited by TUV Rheinland Shenzhen

Listed by FCC  
The Registration Number is 752051

Listed by Industry Canada  
The Registration Number is 5077A-2

Accredited by China National Accreditation Committee  
for Laboratories  
The Certificate Registration Number is L3193

Name of Firm : ACCURATE TECHNOLOGY CO., LTD

Site Location : F1, Bldg. A, Changyuan New Material Port, Keyuan Rd.  
Science & Industry Park, Nanshan, Shenzhen, Guangdong  
P.R. China

## 1.3. Measurement Uncertainty

Conducted Emission Expanded Uncertainty = 2.23dB, k=2

Radiated emission expanded uncertainty = 3.08dB, k=2  
(9kHz-30MHz)

Radiated emission expanded uncertainty = 4.42dB, k=2  
(30MHz-1000MHz)

Radiated emission expanded uncertainty = 4.06dB, k=2  
(Above 1GHz)

## 2. MEASURING DEVICE AND TEST EQUIPMENT

**Table 1: List of Test and Measurement Equipment**

Kind of equipment	Manufacturer	Type	S/N	Calibrated dates	Cal. Interval
EMI Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan. 09, 2016	One Year
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	Jan. 09, 2016	One Year
Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan. 09, 2016	One Year
Pre-Amplifier	Rohde&Schwarz	CBLU118354 0-01	3791	Jan. 09, 2016	One Year
Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan. 14, 2016	One Year
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan. 14, 2016	One Year
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan. 14, 2016	One Year
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1067	Jan. 14, 2016	One Year
LISN	Rohde&Schwarz	ESH3-Z5	100305	Jan. 09, 2016	One Year
LISN	Schwarzbeck	NSLK8126	8126431	Jan. 09, 2016	One Year
Highpass Filter	Wainwright Instruments	WHKX3.6/18 G-10SS	N/A	Jan. 09, 2016	One Year
Band Reject Filter	Wainwright Instruments	WRCG2400/2 485-2375/2510 -60/11SS	N/A	Jan. 09, 2016	One Year

### 3. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
Section 15.207	Conducted Emission	Compliant
Section 15.231(b)	Radiated Emission	Compliant
Section 15.231(c)	20dB Bandwidth	Compliant
Section 15.231(a)(1)	Release Time Measurement	Compliant
Section 15.203	Antenna Requirement	Compliant

The product is a manually operated transmitter.

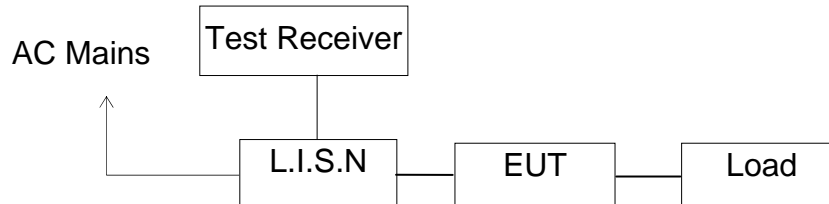
Section 15.231 (a) (2), (3), (4) and (5) are not applicable.

All normal using modes of the normal function were tested but only the worst test data of the worst mode is recorded by this report.



## 4. POWER LINE CONDUCTED MEASUREMENT

### 4.1. Block Diagram of Test Setup



(EUT: Fitness Watch)

### 4.2. Power Line Conducted Emission Measurement Limits

Frequency (MHz)	Limit dB(μV)	
	Quasi-peak Level	Average Level
0.15 - 0.50	66.0 – 56.0 *	56.0 – 46.0 *
0.50 - 5.00	56.0	46.0
5.00 - 30.00	60.0	50.0

NOTE1: The lower limit shall apply at the transition frequencies.  
NOTE2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.

### 4.3. Configuration of EUT on Measurement

The following equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner, which tends to maximize its emission characteristics in a normal application.

### 4.4. Operating Condition of EUT

4.4.1. Setup the EUT and simulator as shown as Section 5.1.

4.4.2. Turn on the power of all equipment.

4.4.3. Let the EUT work in test mode and measure it.

#### 4.5. Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10 on Conducted Emission Measurement.

The bandwidth of test receiver (R & S ESCS30) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

#### 4.6. Power Line Conducted Emission Measurement Results

**PASS.**

The frequency range from 150kHz to 30MHz is checked.

Test mode : On								
AC 120V; 60Hz								
<b>MEASUREMENT RESULT: "2174-2_fin"</b>								
2016-10-22 16:02								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.150000	28.10	10.3	66	37.9	QP	L1	GND	
0.360000	25.80	11.2	59	32.9	QP	L1	GND	
0.844000	25.40	11.6	56	30.6	QP	L1	GND	
1.310000	27.20	11.6	56	28.8	QP	L1	GND	
6.234500	12.40	11.8	60	47.6	QP	L1	GND	
10.752500	10.70	11.9	60	49.3	QP	L1	GND	
<b>MEASUREMENT RESULT: "2174-2_fin2"</b>								
2016-10-22 16:02								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.150000	23.50	10.3	56	32.5	AV	L1	GND	
0.358000	20.80	11.2	49	28.0	AV	L1	GND	
0.776000	21.30	11.5	46	24.7	AV	L1	GND	
1.260000	22.10	11.6	46	23.9	AV	L1	GND	
1.688000	19.80	11.6	46	26.2	AV	L1	GND	
6.248000	7.50	11.8	50	42.5	AV	L1	GND	

**MEASUREMENT RESULT: "2174-4\_fin"**

2016-10-22 16:08

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	28.10	10.3	66	37.9	QP	N	GND
0.260000	27.00	10.9	61	34.4	QP	N	GND
0.512000	25.30	11.5	56	30.7	QP	N	GND
0.852000	25.70	11.6	56	30.3	QP	N	GND
1.268000	27.00	11.6	56	29.0	QP	N	GND
10.302500	10.80	11.9	60	49.2	QP	N	GND

**MEASUREMENT RESULT: "2174-4\_fin2"**

2016-10-22 16:08

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	23.50	10.3	56	32.5	AV	N	GND
0.240000	22.40	10.8	52	29.7	AV	N	GND
0.548000	20.20	11.5	46	25.8	AV	N	GND
0.776000	21.50	11.5	46	24.5	AV	N	GND
1.226000	21.80	11.6	46	24.2	AV	N	GND
5.226500	7.80	11.8	50	42.2	AV	N	GND

Emissions attenuated more than 20 dB below the permissible value are not reported.

The spectral diagrams in appendix I.

## 5. THE FIELD STRENGTH OF RADIATION EMISSION

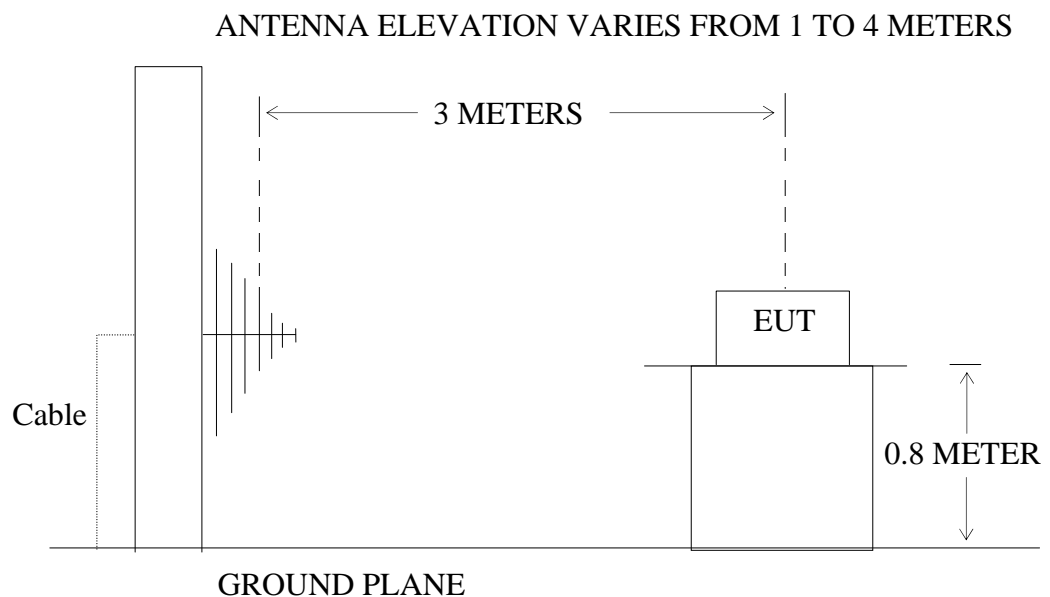
### 5.1. Block Diagram of Test Setup

#### 5.1.1. Block diagram of connection between the EUT and simulators



(EUT: REMOTE CONTROL)

#### 5.1.2. Semi-Anechoic Chamber Test Setup Diagram



(EUT: REMOTE CONTROL)

## 5.2.The Field Strength of Radiation Emission Measurement Limits

### 5.2.1.Radiation Emission Measurement Limits According to FCC Part 15 Section 15.231(b)

Frequency Range of Fundamental [MHz]	Field Strength of Fundamental Emission [Average] [μV/m]	Field Strength of Spurious Emission [Average] [μV/m]
40.66-40.70	2250	225
70-130	1250	125
130-174	1250-3750	125-375
174-260	3750	375
260-470	3750-12500	375-1250
Above 470	12500	1250

Where F is the frequency in MHz, the formulas for calculating the maximum permitted fundamental field strengths are as follows: for the band 130-174 MHz,  $\mu\text{V/m}$  at 3 meters =  $56.81818(F) - 6136.3636$ ; for the band 260-470 MHz,  $\mu\text{V/m}$  at 3 meters =  $41.6667(F) - 7083.3333$ . The maximum permitted unwanted emission level is 20 dB below the maximum permitted fundamental level.

### 5.2.2.Restricted Band Radiation Emission Measurement Limits According to FCC part 15 Section 15.205 and Section15.209.

## 5.3.Configuration of EUT on Measurement

The following equipment is installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

### 5.3.1. REMOTE CONTROL (EUT)

Model Number : FAN-59T  
Serial Number : N/A  
Manufacturer : Carewell Electric Technology (Zhongshan) Co., Ltd.

## 5.4.Operating Condition of EUT

5.4.1.Setup the EUT and simulator as shown as Section 4.1.

5.4.2.Turn on the power of all equipment.

5.4.3. Let the EUT work in TX mode measure it.

### 5.5. Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground (Below 1GHz). The EUT and its simulators are placed on a turntable, which is 1.5 meter high above ground (Above 1GHz). The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bi-log antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the EUT location must be manipulated according to ANSI C63.10:2013 on radiated emission measurement. The EUT was tested in 3 orthogonal planes.

The bandwidth of test receiver is set at 120 kHz in 30-1000 MHz, and 1 MHz in 1000-4000 MHz.

The frequency range from 30 MHz to 4000 MHz is checked.

## 5.6.The Field Strength of Radiation Emission Measurement Results

**PASS.**

The frequency range 30MHz to 4000MHz is investigated.

EUT:

REMOTE CONTROL

Model No.:

FAN-59T

Power Supply:

AC 120V; 60HZ

Test Mode:

TX

Test Engineer:

Frank

Frequency (MHz)	Reading (dB $\mu$ V/m)	Factor Corr.	Average Factor	Result(dB $\mu$ V/m)		Limit(dB $\mu$ V/m)		Margin(dB)		Polarization
	PEAK	(dB)	(dB)	AV	PEAK	AV	PEAK	AV	PEAK	
<b>315</b>	<b>83.69</b>	<b>-16.96</b>	<b>-14.75</b>	<b>51.98</b>	<b>66.73</b>	<b>75.62</b>	<b>95.62</b>	<b>-23.64</b>	<b>-28.89</b>	Horizontal
630	61.94	-10.29	-14.75	36.90	51.65	55.62	75.62	-18.72	-23.97	
945	50.85	-5.52	-14.75	30.58	45.33	55.62	75.62	-25.04	-30.29	
37.8297	37.90	-18.43	---	---	19.47	---	40.00	---	-20.53 (QP)	
51.3556	36.07	-20.86	---	---	15.21	---	40.00	---	-24.79 (QP)	
89.4715	36.30	-21.64	---	---	14.66	---	43.50	---	-28.84 (QP)	
1260	61.96	-9.08	-14.75	38.13	52.88	55.62	75.62	-17.49	-22.74	
1575	59.79	-8.36	-14.75	36.68	51.43	55.62	75.62	-18.94	-24.19	
1890	46.70	-7.21	-14.75	24.74	39.49	55.62	75.62	-30.88	-36.13	
2205	50.55	-6.21	-14.75	29.59	44.34	55.62	75.62	-26.03	-31.28	
1140.080	44.08	-9.30	---	---	34.78	---	74.00	---	-39.22	
2862.157	42.92	-4.13	---	---	38.79	---	74.00	---	-35.21	
<b>315</b>	<b>81.83</b>	<b>-16.96</b>	<b>-14.75</b>	<b>50.12</b>	<b>64.87</b>	<b>75.62</b>	<b>95.62</b>	<b>-25.50</b>	<b>-30.75</b>	Vertical
630	63.80	-10.29	-14.75	38.76	53.51	55.62	75.62	-16.86	-22.11	
945	52.69	-5.52	-14.75	32.42	47.17	55.62	75.62	-23.20	-28.45	
37.1709	40.19	-18.18	---	---	22.01	---	40.00	---	-17.99 (QP)	
52.2659	46.42	-21.04	---	---	25.38	---	40.00	---	-14.62 (QP)	
120.6118	37.39	-21.14	---	---	16.25	---	43.50	---	-27.25 (QP)	
1260	61.77	-9.08	-14.75	37.94	52.69	55.62	75.62	-17.68	-22.93	
1575	54.99	-8.36	-14.75	31.88	46.63	55.62	75.62	-23.74	-28.99	
2205	50.72	-6.21	-14.75	29.76	44.51	55.62	75.62	-25.86	-31.11	
1087.281	43.77	-9.41	---	---	34.36	---	74.00	---	-39.64	

1944.984	43.44	-6.96	---	---	36.48	---	74.00	---	-37.52	
2684.302	44.38	-4.71	---	---	39.67	---	74.00	---	-34.33	

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss – Amplifier Gain

3. FCC Limit for Average Measurement =  $41.6667(315) - 7083.3333 = 6041.6772 \mu\text{V/m} = 75.62 \mu\text{V/m}$
4. The spectral diagrams in appendix I display the measurement of peak values.
5. Average value= PK value + Average Factor (duty factor)
6. If the peak-detected amplitude can be shown to comply with the average limit, then it is not necessary to perform a separate average measurement.
7. The EUT is tested radiation emission in three axes(X,Y,Z). The worst emissions are reported in three axes.
8. Pulse Desensitization Correction Factor

Pulse Width (PW) = 0.58ms

$2/PW = 2/0.58\text{ms} = 3.45\text{kHz}$

RBW (100 kHz) > 2/PW (3.45kHz)

Therefore PDCF is not needed



## 6. 20DB OCCUPIED BANDWIDTH

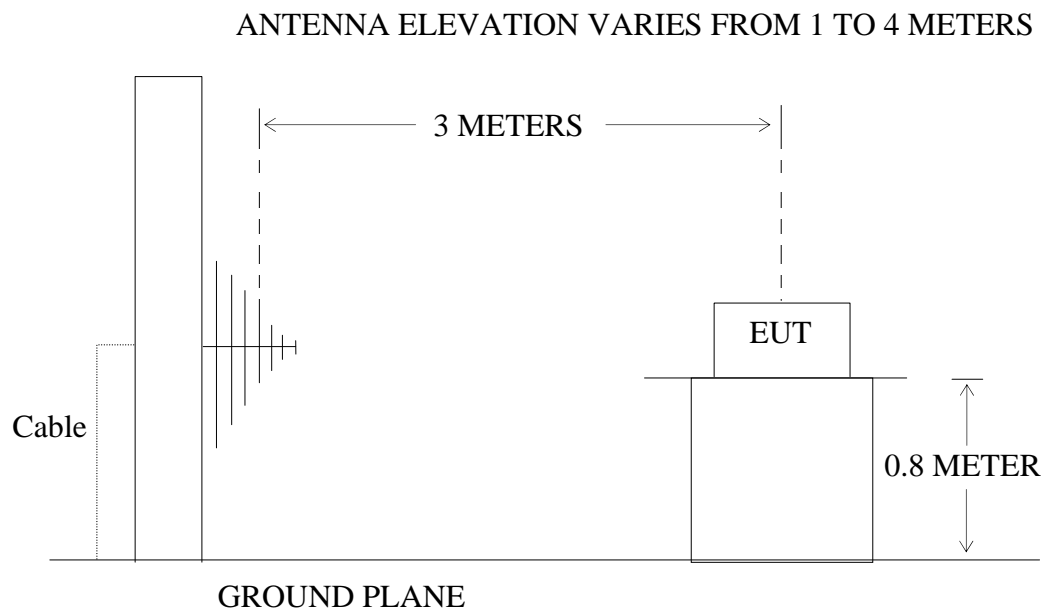
### 6.1. Block Diagram of Test Setup

#### 6.1.1. Block diagram of connection between the EUT and simulators



(EUT: REMOTE CONTROL)

#### 6.1.2. Semi-Anechoic Chamber Test Setup Diagram



(EUT: REMOTE CONTROL)

### 6.2. The Bandwidth of Emission Limit According To FCC Part 15 Section

#### 15.231(c)

The bandwidth of emission shall be no wider than 0.25% of the center frequency. Therefore, the bandwidth of the emission limit is  $315 \text{ MHz} \times 0.25\% = 787.5 \text{ kHz}$ . Bandwidth is determined at the two points 20 dB down from the top of modulated carrier.

### 6.3.EUT Configuration on Measurement

The following equipment are installed on the bandwidth of emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

#### 6.3.1.REMOTE CONTROL (EUT)

Model Number : FAN-59T  
Serial Number : N/A  
Manufacturer : Carewell Electric Technology (Zhongshan) Co., Ltd.

### 6.4.Operating Condition of EUT

6.4.1.Setup the EUT and simulator as shown as Section 5.1.

6.4.2.Turn on the power of all equipment.

6.4.3.Let the EUT work in TX mode measure it.

### 6.5.Test Procedure

6.5.1.Set SPA Center Frequency = Fundamental frequency, RBW = 10 kHz, VBW = 30 kHz, Span = 1MHz.

6.5.2.Set SPA Max hold, Mark peak, -20 dB.

### 6.6.Measurement Result

**The EUT does meet the FCC requirement.**

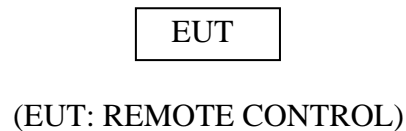
-20 dB bandwidth =46 kHz <787.5 kHz.

The spectral diagrams in appendix I.

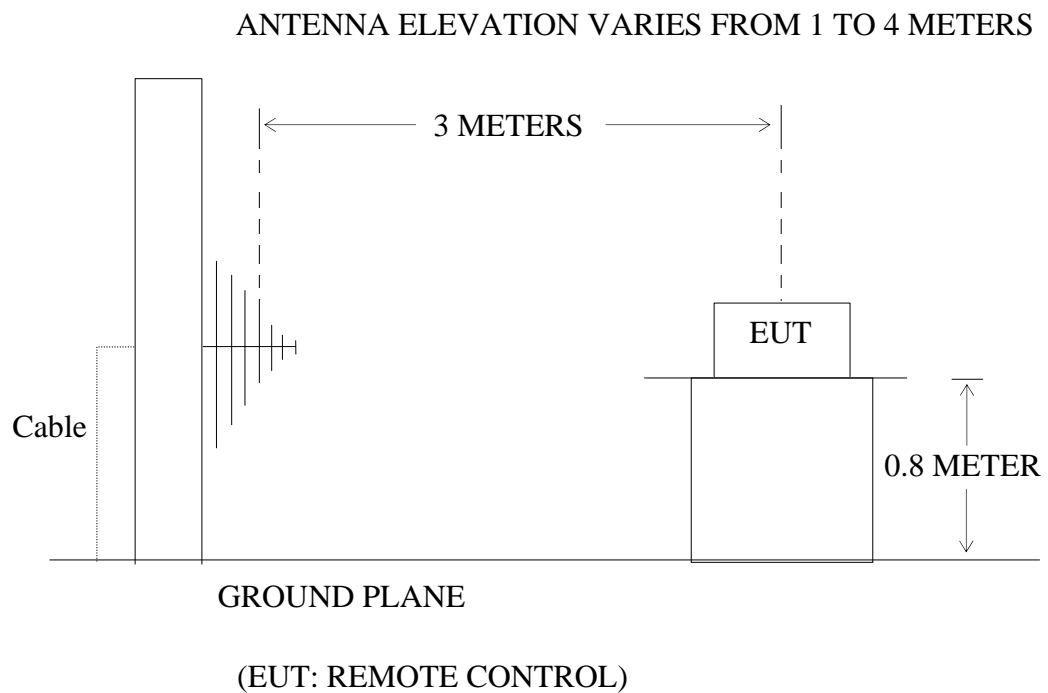
## 7. RELEASE TIME MEASUREMENT

### 7.1. Block Diagram of Test Setup

#### 7.1.1. Block diagram of connection between the EUT and simulators



#### 7.1.2. Semi-Anechoic Chamber Test Setup Diagram



### 7.2. Release Time Measurement According To FCC Part 15 Section 15.231(a)

Section 15.231(a) (1) A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.

### 7.3.EUT Configuration on Measurement

The following equipment are installed on Release Time Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

#### 7.3.1. REMOTE CONTROL (EUT)

Model Number : FAN-59T  
Serial Number : N/A  
Manufacturer : Carewell Electric Technology (Zhongshan) Co., Ltd.

### 7.4.Operating Condition of EUT

7.4.1.Setup the EUT and simulator as shown as Section 6.1.

7.4.2.Turn on the power of all equipment.

7.4.3.Let the EUT work in TX mode measure it.

### 7.5.Test Procedure

7.5.1.Set SPA Center Frequency = Fundamental frequency, RBW = 100 kHz, VBW = 300 kHz, Span = 0 Hz. Sweep time = 10 s.

7.5.2.Set EUT as normal operation and press Transmitter button.

7.5.3.Set SPA View. Delta Mark time.

### 7.6. Measurement Result

**The release time less than 5 seconds.**

Release Time = 2.5975s

The spectral diagrams in appendix I.

## 8. AVERAGE FACTOR MEASUREMENT

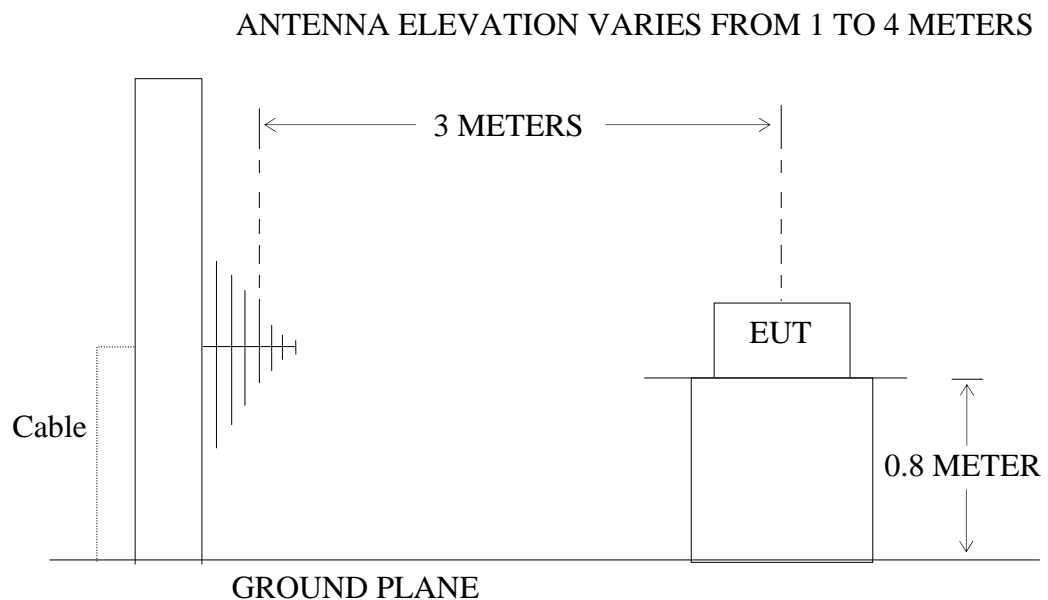
### 8.1. Block Diagram of Test Setup

#### 8.1.1. Block diagram of connection between the EUT and simulators



(EUT: REMOTE CONTROL)

#### 8.1.2. Semi-Anechoic Chamber Test Setup Diagram



### 8.2. Average factor Measurement according to ANSI C63.10-2013

**ANSI C63.10-2013 Section 7.5** Unless otherwise specified, when the radiated emission limits are expressed in terms of the average value of the emission, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 s (100 ms). In cases where the pulse train exceeds 0.1 s, the measured field strength shall be determined during a 0.1 s interval.<sup>64</sup> The following procedure is an example of how the average value may be determined. The average field strength may be found by measuring the peak pulse amplitude (in log equivalent units) and determining the duty cycle correction factor (in dB) associated with the pulse modulation as shown in Equation (10):

**Average factor in dB = 20 log (duty cycle)**

### 8.3.EUT Configuration on Measurement

The following equipment are installed on average factor Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

#### 8.3.1. REMOTE CONTROL

Model Number : FAN-59T  
Serial Number : N/A  
Manufacturer : Carewell Electric Technology (Zhongshan) Co., Ltd.

### 8.4.Operating Condition of EUT

8.4.1.Setup the EUT and simulator as shown as Section 7.1.

8.4.2.Turn on the power of all equipment.

8.4.3.Let the EUT work in TX mode measure it.

### 8.5.Test Procedure

8.5.1.The time period over which the duty cycle is measured is 100 milliseconds, or the repetition cycle, whichever is a shorter time frame. The worst case (highest percentage on) duty cycle is used for the calculation.

8.5.2.Set SPA Center Frequency = Fundamental frequency, RBW = 100 kHz, VBW = 300 kHz, Span = 0 Hz.

8.5.3.Set EUT as normal operation.

8.5.4.Set SPA View. Delta Mark time.

### 8.6. Measurement Result

**The duty cycle is simply the on time divided by the period:**

The duration of one cycle = 100.00ms

Effective period of the cycle =  $(0.58 \times 8) + (1.16 \times 9) + (1.6 \times 2)$  ms = 18.28 ms

DC =  $18.28 \text{ ms} / 100.00 \text{ ms} = 0.183$

**Therefore, the average factor is found by  $20 \log 0.183 = -14.75 \text{ dB}$**

The spectral diagrams in appendix I.

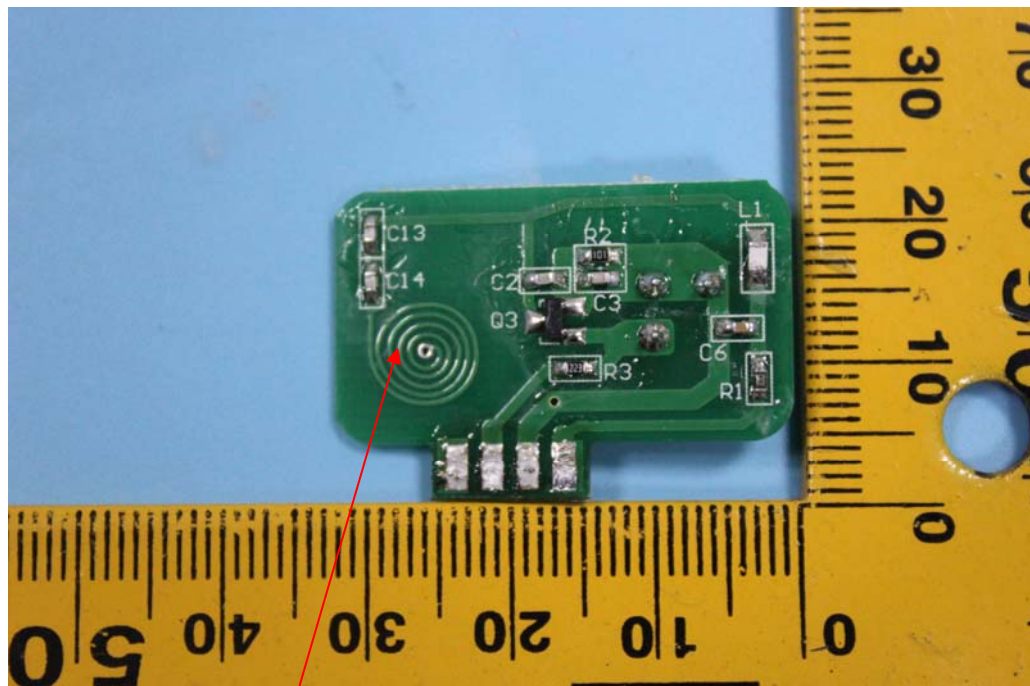
## 9. ANTENNA REQUIREMENT

### 9.1.The Requirement

According to 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.

### 9.2.Antenna Construction

Device is equipped with permanent attached antenna, which isn't displaced by other antenna. The Antenna gain of EUT is 0dBi. Therefore, the equipment complies with the antenna requirement of Section 15.203.



Antenna

# APPENDIX I

## (Test Curves)



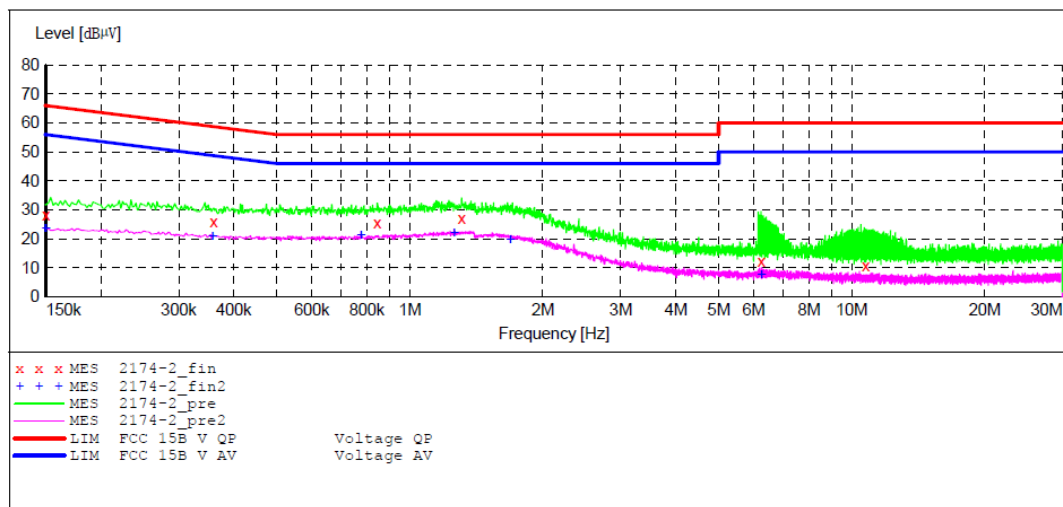
ACCURATE TECHNOLOGY CO., LTD

## CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: REMOTE CONTROL M/N:FAN-59T  
Manufacturer: Carewell  
Operating Condition: ON  
Test Site: 2#Shielding Room  
Operator: Frank  
Test Specification: L 120V/60Hz  
Comment: Report NO.: ATE20162174  
Start of Test: 2016-10-22 / 16:00:06

### SCAN TABLE: "V 150K-30MHz fin"

Short Description: \_SUB\_STD\_VTERM2 1.70  
Start Stop Step Detector Meas. IF Transducer  
Frequency Frequency Width Time Bandw.  
150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz LISN (ESH3-Z5)  
Average



### MEASUREMENT RESULT: "2174-2\_fin"

2016-10-22 16:02

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	28.10	10.3	66	37.9	QP	L1	GND
0.360000	25.80	11.2	59	32.9	QP	L1	GND
0.844000	25.40	11.6	56	30.6	QP	L1	GND
1.310000	27.20	11.6	56	28.8	QP	L1	GND
6.234500	12.40	11.8	60	47.6	QP	L1	GND
10.752500	10.70	11.9	60	49.3	QP	L1	GND

### MEASUREMENT RESULT: "2174-2\_fin2"

2016-10-22 16:02

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	23.50	10.3	56	32.5	AV	L1	GND
0.358000	20.80	11.2	49	28.0	AV	L1	GND
0.776000	21.30	11.5	46	24.7	AV	L1	GND
1.260000	22.10	11.6	46	23.9	AV	L1	GND
1.688000	19.80	11.6	46	26.2	AV	L1	GND
6.248000	7.50	11.8	50	42.5	AV	L1	GND

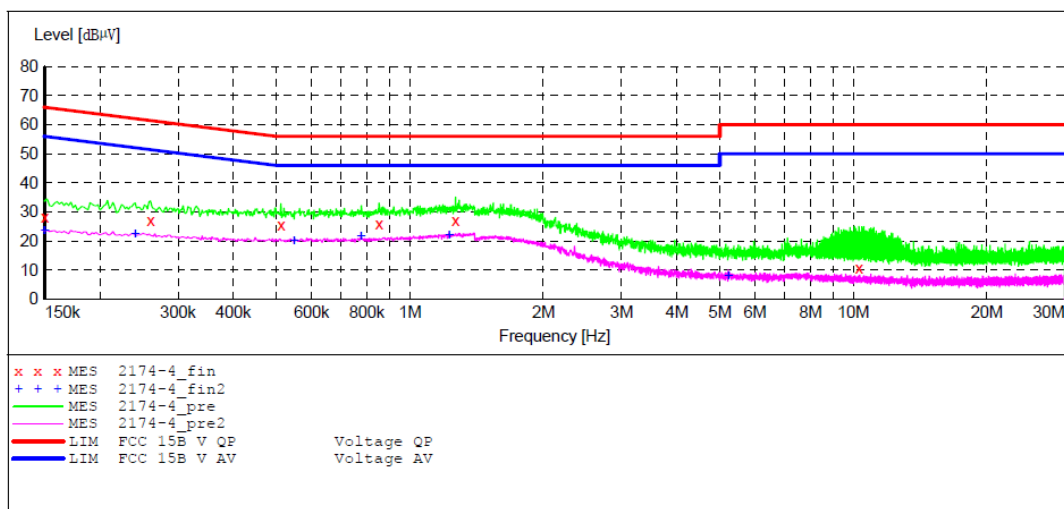
ACCURATE TECHNOLOGY CO., LTD

## CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: REMOTE CONTROL M/N:FAN-59T  
Manufacturer: Carewell  
Operating Condition: ON  
Test Site: 2#Shielding Room  
Operator: Frank  
Test Specification: N 120V/60Hz  
Comment: Report NO.: ATE20162174  
Start of Test: 2016-10-22 / 16:05:57

### SCAN TABLE: "V 150K-30MHz fin"

Short Description: \_SUB\_STD\_VTERM2 1.70  
Start Stop Step Detector Meas. IF Transducer  
Frequency Frequency Width Time Bandw.  
150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz LISN(ESH3-Z5)  
Average



### MEASUREMENT RESULT: "2174-4\_fin"

2016-10-22 16:08

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	28.10	10.3	66	37.9	QP	N	GND
0.260000	27.00	10.9	61	34.4	QP	N	GND
0.512000	25.30	11.5	56	30.7	QP	N	GND
0.852000	25.70	11.6	56	30.3	QP	N	GND
1.268000	27.00	11.6	56	29.0	QP	N	GND
10.302500	10.80	11.9	60	49.2	QP	N	GND

### MEASUREMENT RESULT: "2174-4\_fin2"

2016-10-22 16:08

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	23.50	10.3	56	32.5	AV	N	GND
0.240000	22.40	10.8	52	29.7	AV	N	GND
0.548000	20.20	11.5	46	25.8	AV	N	GND
0.776000	21.50	11.5	46	24.5	AV	N	GND
1.226000	21.80	11.6	46	24.2	AV	N	GND
5.226500	7.80	11.8	50	42.2	AV	N	GND



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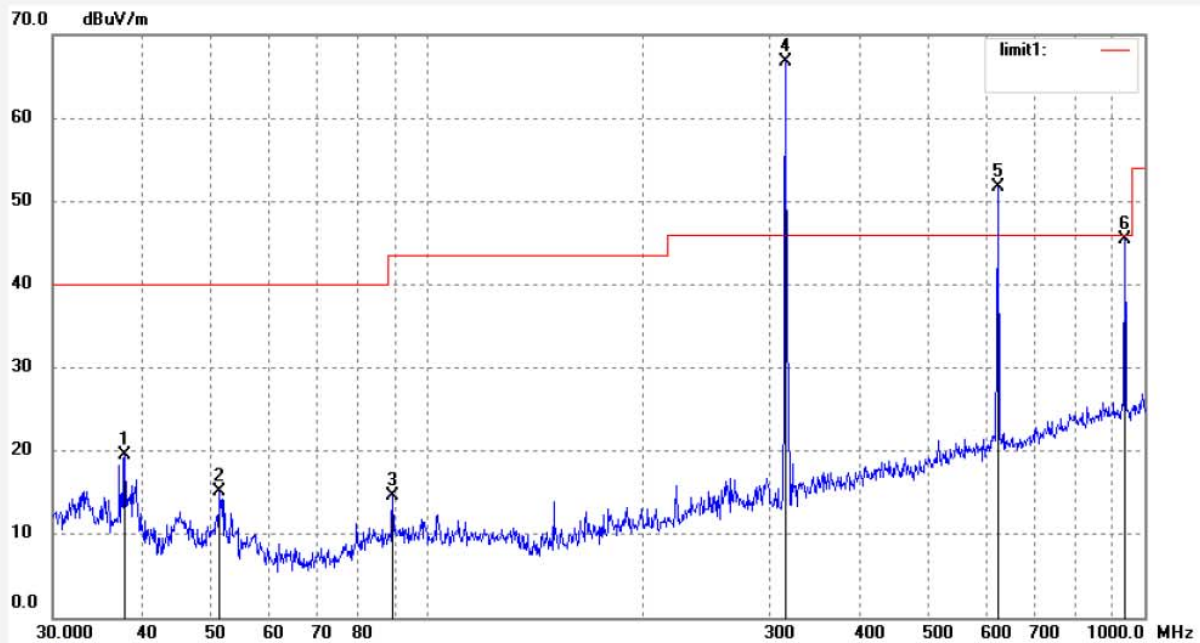
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber  
Tel:+86-0755-26503290  
Fax:+86-0755-26503396

Job No.: Frank #3043  
Standard: FCC Class B 3M Radiated  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 25 C / 55 %  
EUT: REMOTE CONTROL  
Mode: TX  
Model: FAN-59T  
Manufacturer: Carewell

Polarization: Horizontal  
Power Source: AC 120V/60Hz  
Date: 2016/10/22  
Time: 10:39:22  
Engineer Signature: Frank  
Distance: 3m

Note: Report NO.:ATE20162174



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	37.8297	37.90	-18.43	19.47	40.00	-20.53	QP			
2	51.3556	36.07	-20.86	15.21	40.00	-24.79	QP			
3	89.4715	36.30	-21.64	14.66	43.50	-28.84	QP			
4	315.0000	83.69	-16.96	66.73	95.62	-28.89	peak			
5	630.0000	61.94	-10.29	51.65	75.62	-23.97	peak			
6	945.0000	50.85	-5.52	45.33	75.62	-30.29	peak			



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber  
Tel:+86-0755-26503290  
Fax:+86-0755-26503396

Job No.: Frank #3047

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: REMOTE CONTROL

Mode: TX

Model: FAN-59T

Manufacturer: Carewell

Polarization: Vertical

Power Source: AC 120V/60Hz

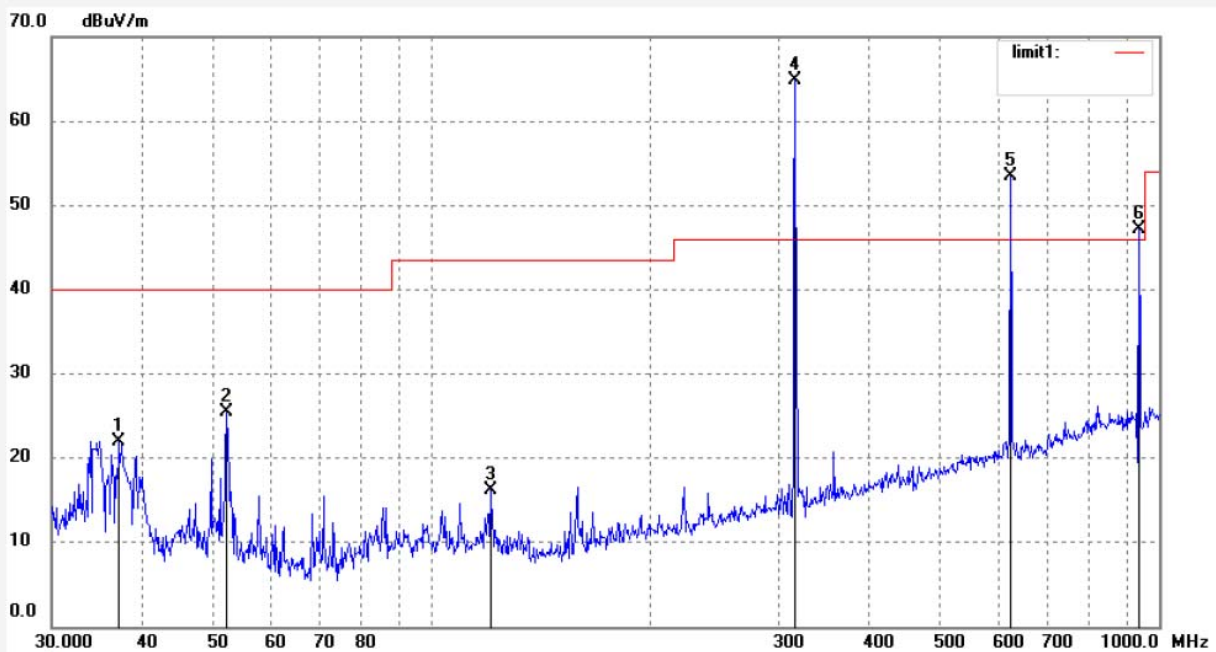
Date: 2016/10/22

Time: 10:40:31

Engineer Signature: Frank

Distance: 3m

Note: Report NO.:ATE20162174



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	37.1709	40.19	-18.18	22.01	40.00	-17.99	QP			
2	52.2659	46.42	-21.04	25.38	40.00	-14.62	QP			
3	120.6118	37.39	-21.14	16.25	43.50	-27.25	QP			
4	315.0000	81.83	-16.96	64.87	95.62	-30.75	peak			
5	630.0000	63.80	-10.29	53.51	75.62	-22.11	peak			
6	945.0000	52.69	-5.52	47.17	75.62	-28.45	peak			





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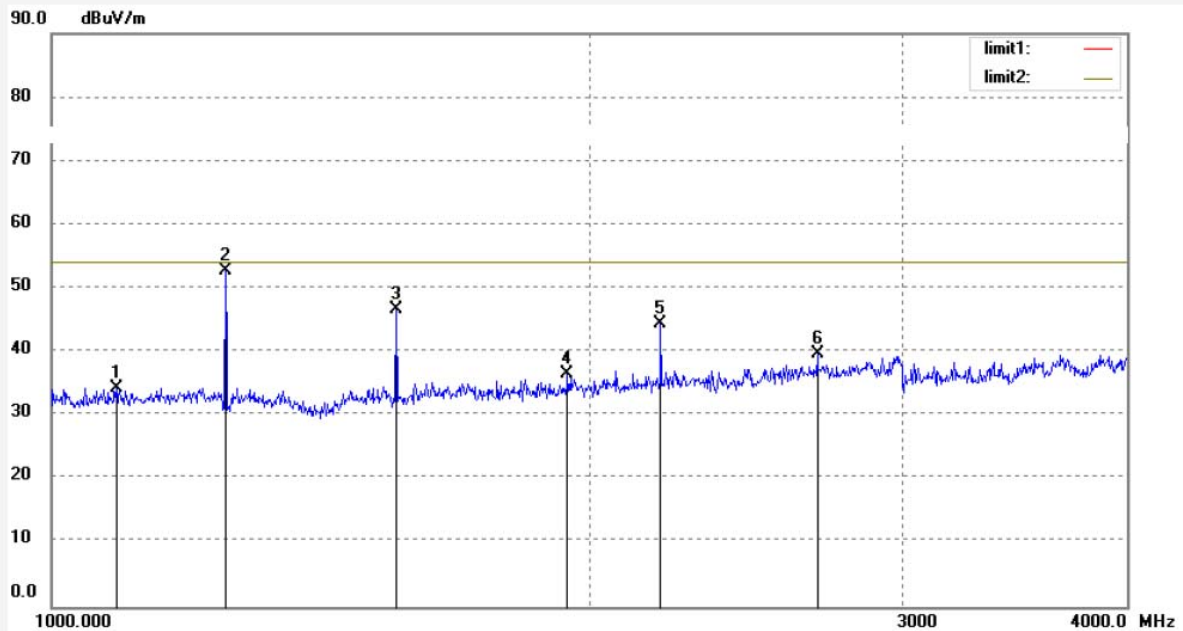
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber  
Tel:+86-0755-26503290  
Fax:+86-0755-26503396

Job No.: Frank #3048  
Standard: FCC PK  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 25 C / 55 %  
EUT: REMOTE CONTROL  
Mode: TX  
Model: FAN-59T  
Manufacturer: Carewell

Polarization: Vertical  
Power Source: AC 120V/60Hz  
Date: 2016/10/22  
Time: 10:43:19  
Engineer Signature: Frank  
Distance: 3m

Note: Report NO.:ATE20162174



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	1087.281	43.77	-9.41	34.36	74.00	-39.64	peak			
2	1260.000	61.77	-9.08	52.69	75.62	-22.93	peak			
3	1575.000	54.99	-8.36	46.63	75.62	-28.99	peak			
4	1944.984	43.44	-6.96	36.48	74.00	-37.52	peak			
5	2205.000	50.72	-6.21	44.51	75.62	-31.11	peak			
6	2684.302	44.38	-4.71	39.67	74.00	-34.33	peak			



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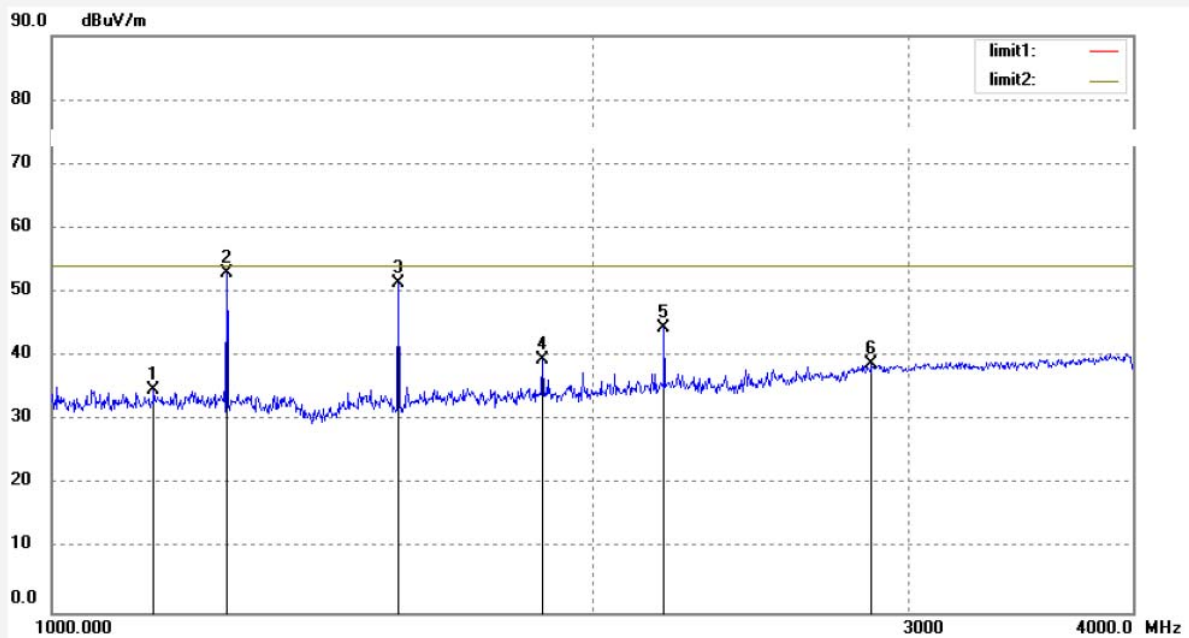
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber  
Tel:+86-0755-26503290  
Fax:+86-0755-26503396

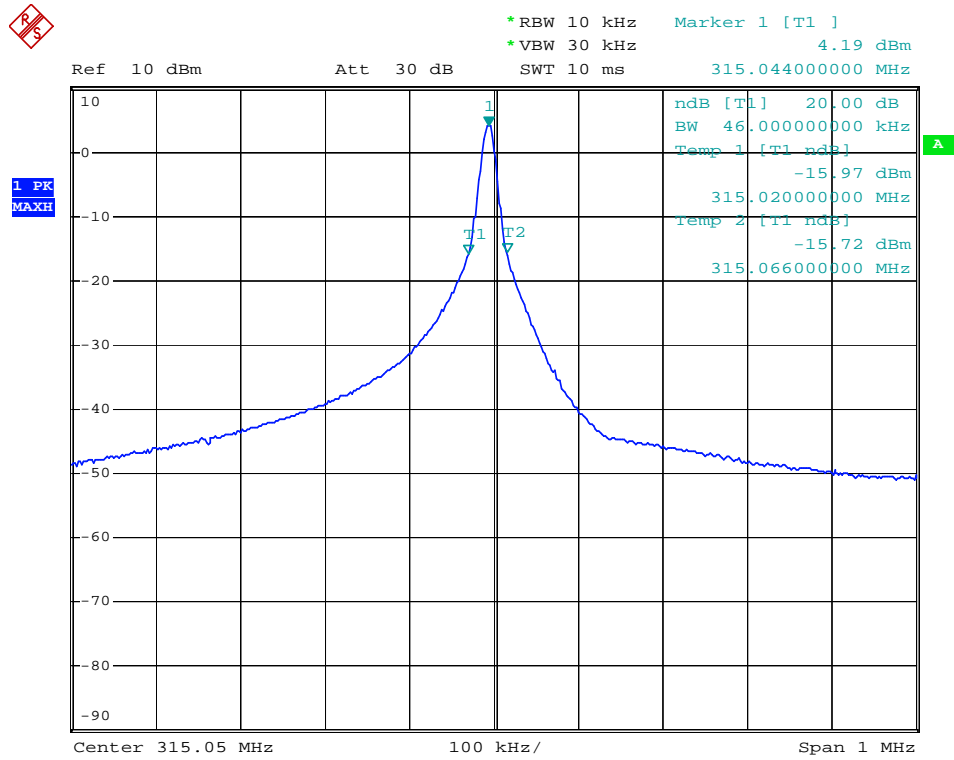
Job No.: Frank #3050  
Standard: FCC PK  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 25 C / 55 %  
EUT: REMOTE CONTROL  
Mode: TX  
Model: FAN-59T  
Manufacturer: Carewell

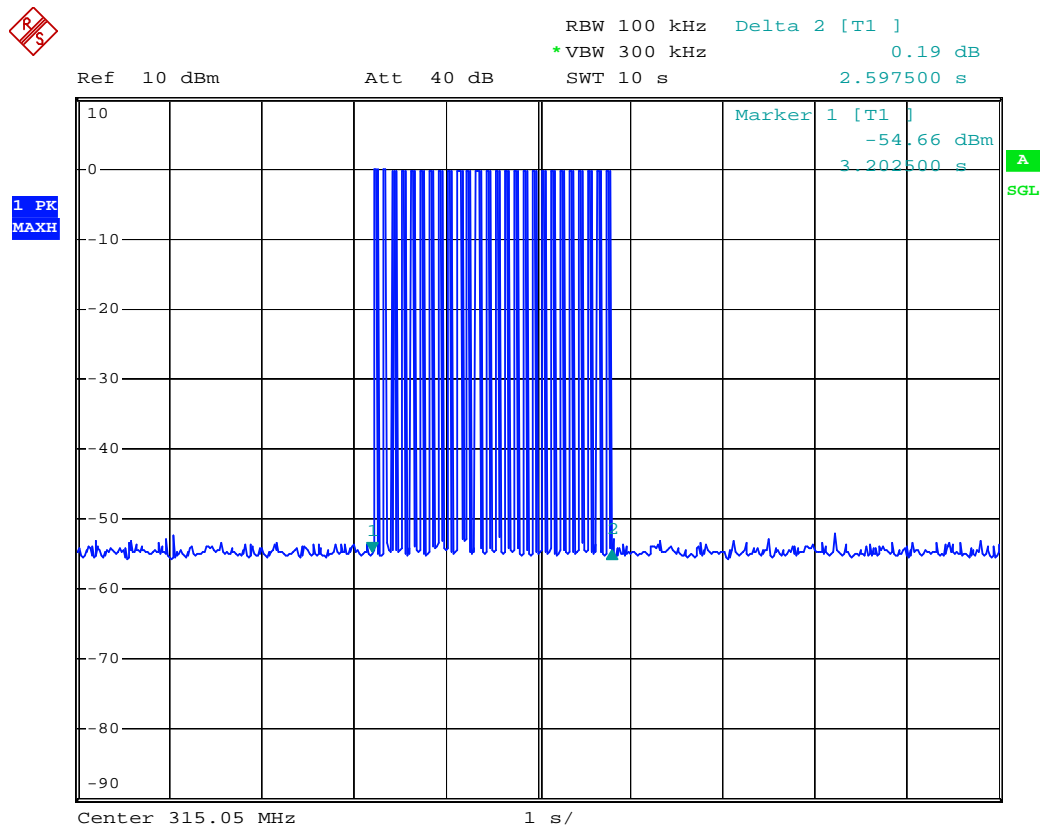
Polarization: Horizontal  
Power Source: AC 120V/60Hz  
Date: 2016/10/22  
Time: 10:45:07  
Engineer Signature: Frank  
Distance: 3m

Note: Report NO.:ATE20162174



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	1140.080	44.08	-9.30	34.78	74.00	-39.22	peak			
2	1260.000	61.96	-9.08	52.88	75.62	-22.74	peak			
3	1575.000	59.79	-8.36	51.43	75.62	-24.19	peak			
4	1890.000	46.70	-7.21	39.49	75.62	-36.13	peak			
5	2205.000	50.55	-6.21	44.34	75.62	-31.28	peak			
6	2862.157	42.92	-4.13	38.79	74.00	-35.21	peak			

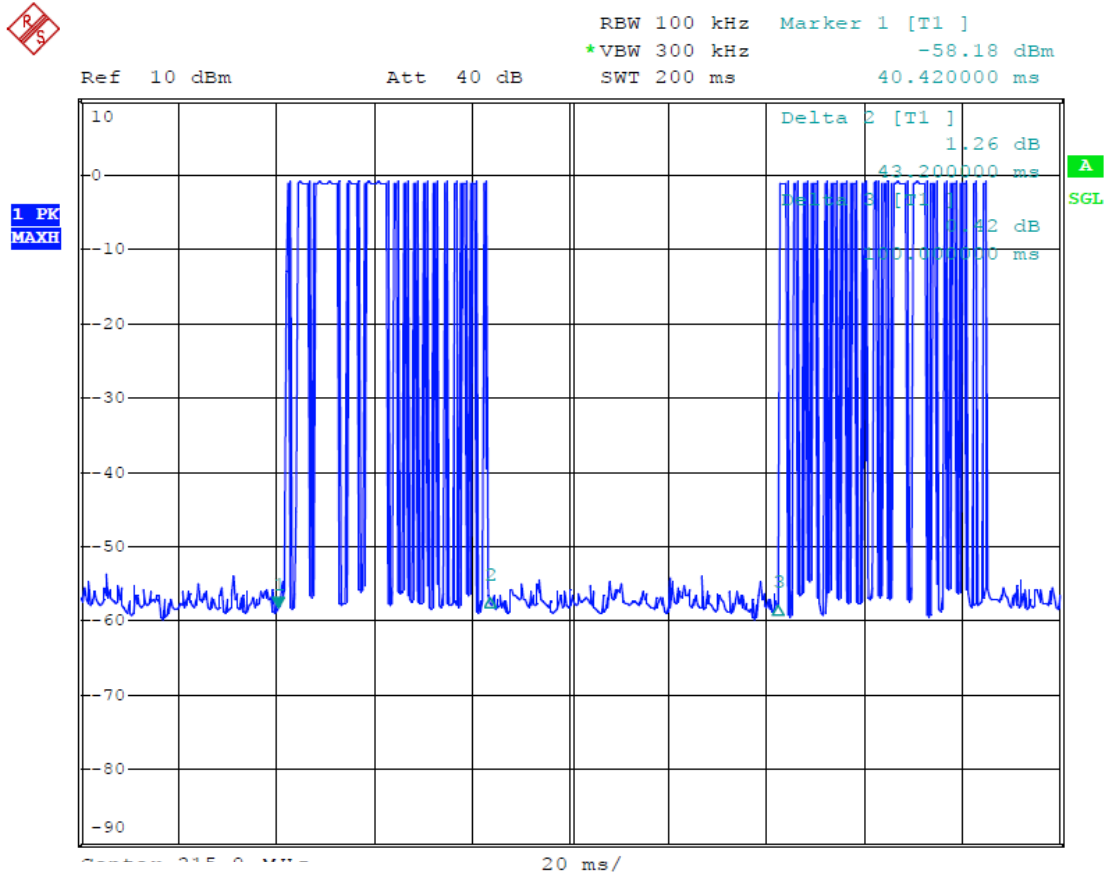


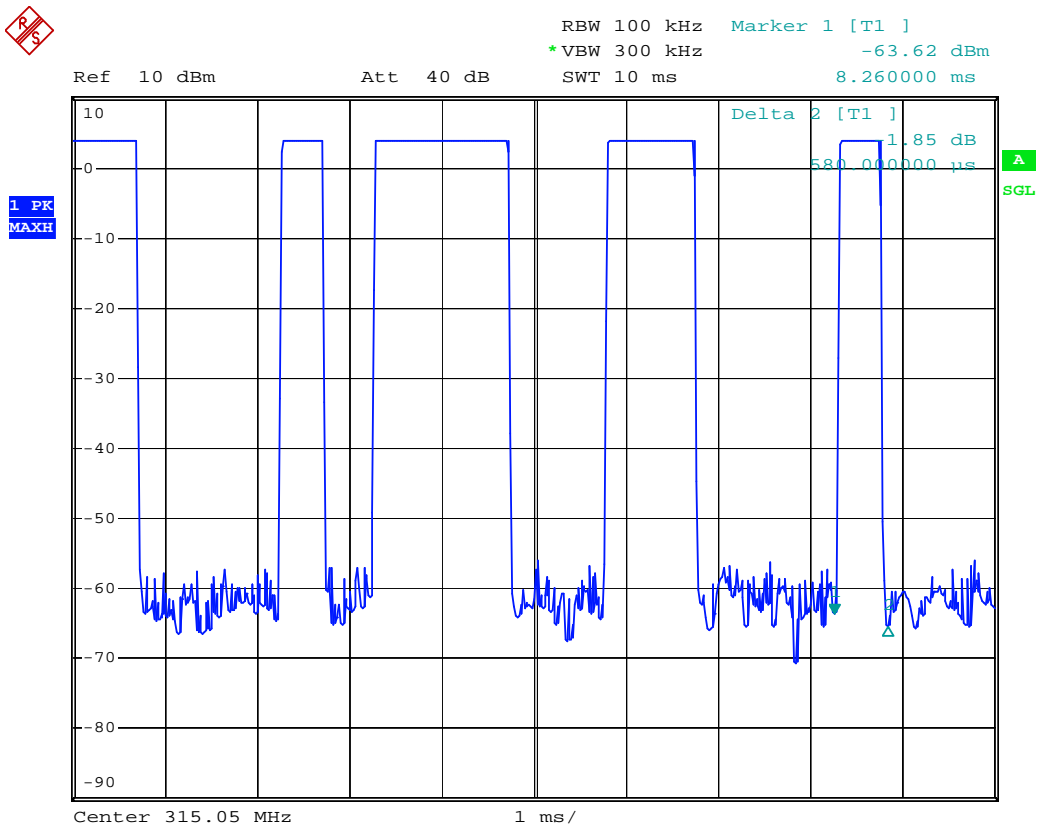


Release Time = 2.5975s

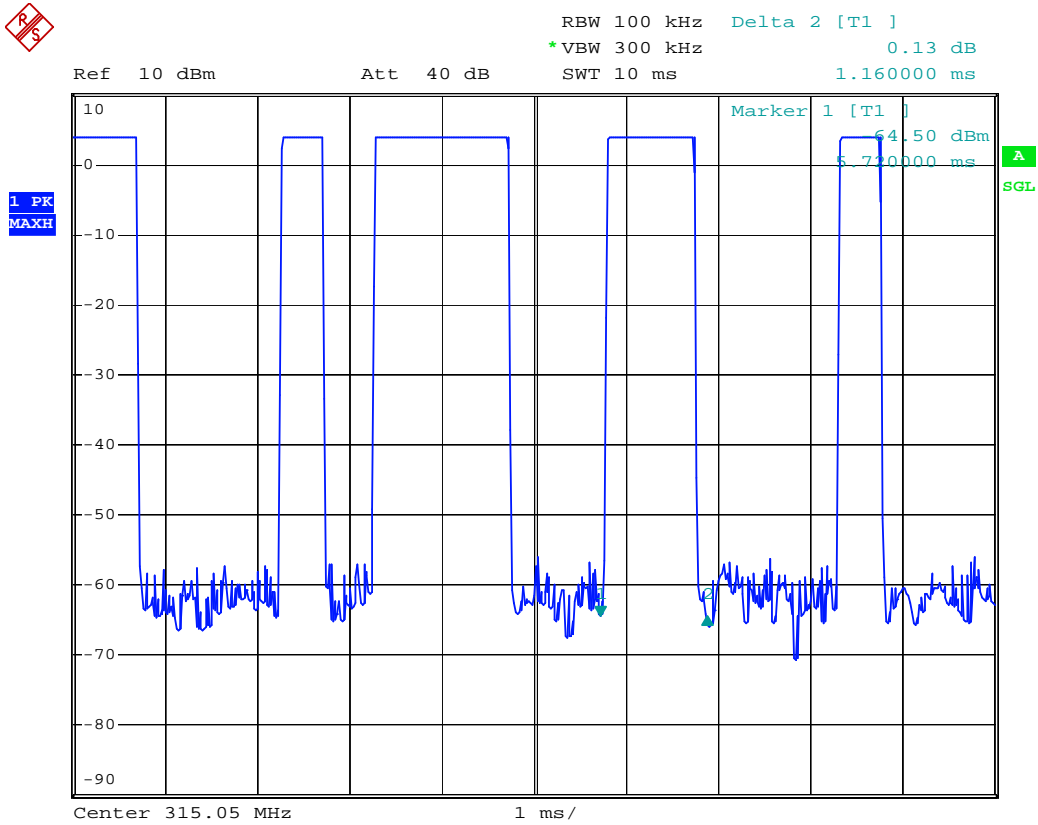


The graph shows the pattern of coding during the signal transmission.  
The duration of one cycle = 100.00 ms.

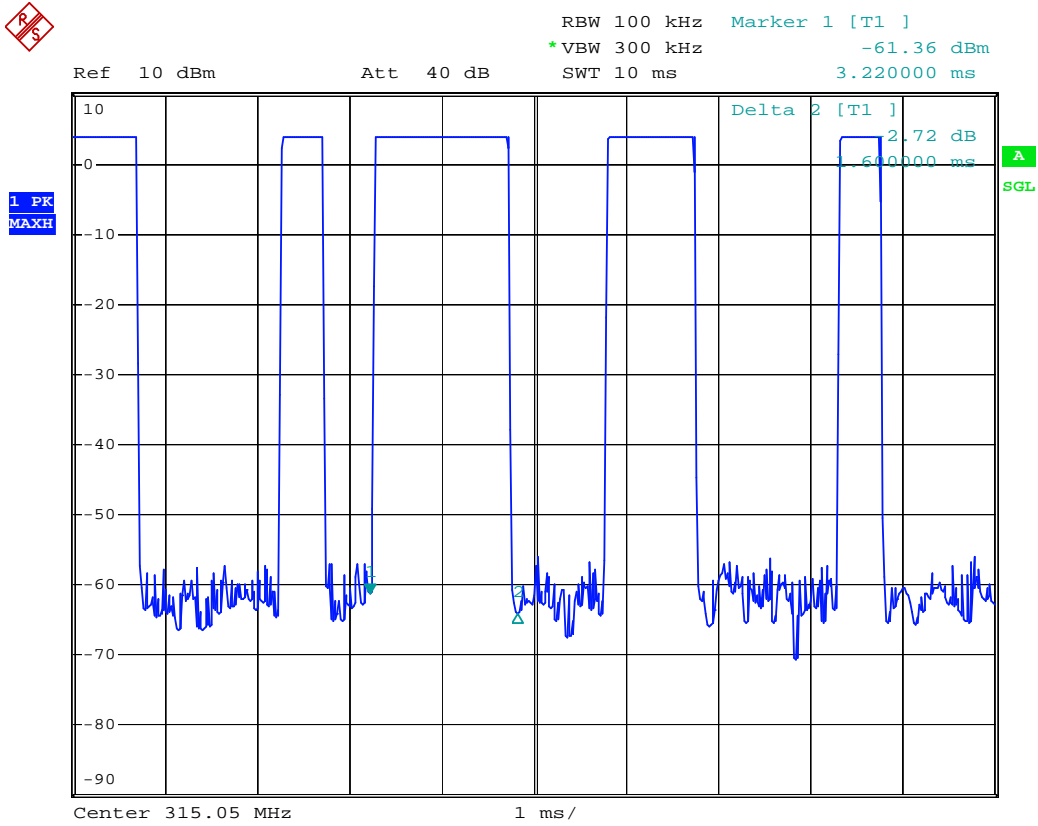




The graph shows the duration of 'on' signal. From marker 1 to marker 2, duration is 0.58ms.



The graph shows the duration of 'on' signal. From marker 1 to marker 2, duration is 1.16ms.



The graph shows the duration of 'on' signal. From marker 1 to marker 2, duration is 1.60ms.