

FCC TEST REPORT  
for  
A&H Design Group, Ltd.

THE COUPLES RABBIT

Model No.: TRC-021BLK, TRC-021PUR, TRC-021HP

FCC ID: 2AG2K-TRC-021RX

Prepared for : A&H Design Group, Ltd.  
Address : Suite 608, Tower One, Harbour Centre 1 Hok Cheung  
Street, Hung Hom, Kowloon, Hong Kong

Prepared by : Shenzhen Accurate Technology Co., Ltd.  
Address : 1/F., Building A, Changyuan New Material Port, Science &  
Industry Park, Nanshan District, Shenzhen, Guangdong,  
P.R. China.

Tel: +86-755-26503290  
Fax: +86-755-26503396

Report No. : ATE20180994  
Date of Test : June 16, 2018--June 22, 2018  
Date of Report : June 23, 2018

## TABLE OF CONTENTS

Description	Page
Test Report	
<b>1. TEST RESULTS SUMMARY .....</b>	<b>4</b>
<b>2. GENERAL INFORMATION.....</b>	<b>5</b>
2.1. Description of Device (EUT) .....	5
2.2. Test mode description.....	5
2.3. Accessory and Auxiliary Equipment .....	5
2.4. Model difference declaration.....	6
2.5. Description of Test Facility .....	6
2.6. Measurement Uncertainty .....	6
<b>3. MEASURING DEVICE AND TEST EQUIPMENT .....</b>	<b>7</b>
3.1. For Radiated Emission Measurement .....	7
3.2. The Equipment Used to Measure Conducted Disturbance (L.I.S.N).....	8
<b>4. POWER LINE CONDUCTED MEASUREMENT .....</b>	<b>9</b>
4.1. Block Diagram of Test Setup .....	9
4.2. Power Line Conducted Emission Measurement Limits .....	9
4.3. Configuration of EUT on Measurement.....	9
4.4. Operating Condition of EUT .....	9
4.5. DATA SAMPLE .....	10
4.6. Measurement Uncertainty .....	10
4.7. Test Procedure.....	10
4.8. Power Line Conducted Emission Measurement Results .....	11
<b>5. RADIATED EMISSION MEASUREMENT .....</b>	<b>14</b>
5.1. Block Diagram of Test.....	14
5.2. Radiated Emission Limit (Class B).....	16
5.3. Manufacturer .....	16
5.4. Operating Condition of EUT .....	16
5.5. DATA SAMPLE .....	17
5.6. Test Procedure.....	17
5.7. Radiated Emission Noise Measurement Result .....	18

## Test Report

Applicant : A&H Design Group, Ltd.  
Address : Suite 608, Tower One, Harbour Centre 1 Hok Cheung Street, Hung Hom, Kowloon, Hong Kong  
Manufacturer : TOPARC Technology (Shenzhen) Co., Ltd.  
Address : 1/2F, 12 Building, Lianchuang Park, Bulan Road, Buji Town, Longgang District, Shenzhen City, Guangdong Province, P.R. China 518114  
Product : THE COUPLES RABBIT  
Model No. : TRC-021BLK, TRC-021PUR, TRC-021HP

Trade name : 


Measurement Procedure Used:


### FCC Rules and Regulations Part 15 Subpart B Class B ANSI C63.4: 2014

The device described above is tested by Shenzhen 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 B Class B limits both radiated and conducted emissions. The measurement results are contained in this test report and Shenzhen 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 Shenzhen Accurate Technology Co., Ltd.

Date of Test : June 16, 2018--June 22, 2018  
Date of Report : June 23, 2018

Prepared by :   
(Timming Engineer)

Approved & Authorized Signer :   
( Sean Liu, Manager)

## 1. TEST RESULTS SUMMARY

Test Items	Test Standard	Test Results
Power Line Conducted Emission	FCC Part 15 Subpart B	Pass
Radiated Emission	FCC Part 15 Subpart B	Pass

## 2. GENERAL INFORMATION

### 2.1. Description of Device (EUT)

Product : THE COUPLES RABBIT

Model No. : TRC-021BLK, TRC-021PUR, TRC-021HP

Rating : DC 5V(powered by Charge port)  
or DC 3.7V(powered by battery)

Trade Name : n.a

Modulation: : ASK

RX Frequency : 433.92MHz

Applicant : A&H Design Group, Ltd.  
Address : Suite 608, Tower One, Harbour Centre1 Hok  
Cheung Street, Hung Hom ,Kowloon, Hong Kong

Manufacturer : TOPARC Technology(Shenzhen) Co.,Ltd.  
Address : 1/2F, 12 Building, Lianchuang Park, Bulan Road,  
Buji Town, Longgang District, Shenzhen City,  
Guangdong Province, P.R. China 518114

Date of sample receiver : June 08, 2018

Date of Test : June 16, 2018--June 22, 2018

### 2.2. Test mode description

Test mode : 1. 433.92MHz RX 2. Charging

### 2.3. Accessory and Auxiliary Equipment

1. AC/DC Power Adapter: Model: MX12X6-0502000VU  
(provided by laboratory) INPUT: 100-240V~50/60Hz 0.35A  
OUTPUT: 5V/1A

2. Wireless remote control vibrator: Model: TRC-021BLK  
(provided by manufacturer) TX frequency: 433.92MHz

## 2.4. Model difference declaration

TRC-021BLK, TRC-021PUR, TRC-021HP are identical in PCB motherboard, driver IC, RF module and Enclosure except the color of the product is different.

## 2.5. Description of Test Facility

EMC Lab : Recognition of accreditation by Federal Communications Commission (FCC)  
The Designation Number is CN1189  
The Registration Number is 708358

Listed by Innovation, Science and Economic Development Canada (ISED)  
The Registration Number is 5077A-2

Accredited by China National Accreditation Service for Conformity Assessment (CNAS)  
The Registration Number is CNAS L3193

Accredited by American Association for Laboratory Accreditation (A2LA)  
The Certificate Number is 4297.01

Name of Firm : Shenzhen Accurate Technology Co., Ltd.  
Site Location : 1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China

## 2.6. Measurement Uncertainty

Conducted Emission Expanded Uncertainty = 2.23dB, k=2

Power Disturbance Expanded Uncertainty = 2.92 dB, k=2

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

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

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

### 3. MEASURING DEVICE AND TEST EQUIPMENT

#### 3.1. For Radiated Emission Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan.06, 2018	1 Year
2.	Spectrum Analyzer	Rohde&Schwarz	FSV40	101495	Jan.06, 2018	1 Year
3.	Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan.06, 2018	1 Year
4.	Test Receiver	Rohde& Schwarz	ESPI	100396/003	Jan.06, 2018	1 Year
5.	Test Receiver	Rohde& Schwarz	ESPI	101526/003	Jan.06, 2018	1 Year
6.	Test Receiver	Rohde& Schwarz	ESR	101817	Jan.06, 2018	1 Year
7.	Bilog Antenna	Schwarzbeck	VULB9163	9163-194	Jan.06, 2018	1 Year
8.	Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan.06, 2018	1 Year
9.	Log.-Per.Antenna	Schwarzbeck	VUSLP 9111B	9111B-074	Jan.06, 2018	1 Year
10.	Biconical Broad Band Antenna	Schwarzbeck	VHBB 9124+BBA 9106	9124-617	Jan.06, 2018	1 Year
11.	Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan.06, 2018	1 Year
12.	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan.06, 2018	1 Year
13.	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1067	Jan.06, 2018	1 Year
14.	Vertical Active Monopole Antenna	Schwarzbeck	VAMP 9243	9243-370	Jan.06, 2018	1 Year
15.	RF Switching Unit+PreAMP	Compliance Direction	RSU-M2	38322	Jan.06, 2018	1 Year
16.	Pre-Amplifier	Agilent	8447D	294A10619	Jan.06, 2018	1 Year
17.	Pre-Amplifier	Rohde&Schwarz	CBLU11835 40-01	3791	Jan.06, 2018	1 Year
18.	50 Coaxial Switch	Anritsu Corp	MP59B	6200237248	Jan.06, 2018	1 Year
19.	50 Coaxial Switch	Anritsu Corp	MP59B	6200506474	Jan.06, 2018	1 Year
20.	RF Coaxial Cable	Schwarzbeck	N-5m	No.1	Jan.06, 2018	1 Year
21.	RF Coaxial Cable	Schwarzbeck	N-1m	No.6	Jan.06, 2018	1 Year
22.	RF Coaxial Cable	Schwarzbeck	N-1m	No.7	Jan.06, 2018	1 Year
23.	RF Coaxial Cable	SUHNER	N-3m	No.8	Jan.06, 2018	1 Year
24.	RF Coaxial Cable	RESENBERGER	N-3.5m	No.9	Jan.06, 2018	1 Year
25.	RF Coaxial Cable	SUHNER	N-6m	No.10	Jan.06, 2018	1 Year
26.	RF Coaxial Cable	RESENBERGER	N-12m	No.11	Jan.06, 2018	1 Year
27.	RF Coaxial Cable	RESENBERGER	N-0.5m	No.12	Jan.06, 2018	1 Year
28.	RF Coaxial Cable	SUHNER	N-2m	No.13	Jan.06, 2018	1 Year
29.	RF Coaxial Cable	SUHNER	N-0.5m	No.15	Jan.06, 2018	1 Year
30.	RF Coaxial Cable	SUHNER	N-2m	No.16	Jan.06, 2018	1 Year
31.	RF Coaxial Cable	RESENBERGER	N-6m	No.17	Jan.06, 2018	1 Year

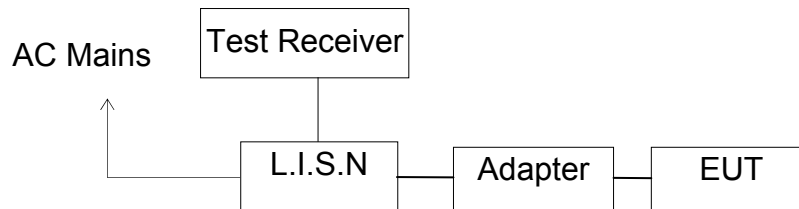
### 3.2.The Equipment Used to Measure Conducted Disturbance (L.I.S.N)

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESCS30	100307	Jan.06, 2018	1 Year
2.	Test Receiver	Rohde & Schwarz	ESPI3	100396/003	Jan.06, 2018	1 Year
3.	Test Receiver	Rohde & Schwarz	ESPI3	101526/003	Jan.06, 2018	1 Year
4.	L.I.S.N.	Schwarzbeck	NLSK8126	8126431	Jan.06, 2018	1 Year
5.	L.I.S.N.	Rohde & Schwarz	ESH3-Z5	100305	Jan.06, 2018	1 Year
6.	L.I.S.N.	Rohde & Schwarz	ESH3-Z5	100310	Jan.06, 2018	1 Year
7.	L.I.S.N.	Rohde & Schwarz	ESH3-Z6	100132	Jan.06, 2018	1 Year
8.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100305	Jan.06, 2018	1 Year
9.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100312	Jan.06, 2018	1 Year
10.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100815	Jan.06, 2018	1 Year
11.	50Ω Coaxial Switch	Anritsu Corp	MP59B	6200283936	Jan.06, 2018	1 Year
12.	50Ω Coaxial Switch	Anritsu Corp	MP59B	6200283933	Jan.06, 2018	1 Year
13.	50Ω Coaxial Switch	Anritsu Corp	MP59B	6200506474	Jan.06, 2018	1 Year
14.	VOLTAGE PROBE	Schwarzbeck	TK9416	N/A	Jan.06, 2018	1 Year
15.	RF CURRENT PROBE	Rohde & Schwarz	EZ-17	100048	Jan.06, 2018	1 Year
16.	8-Wire Impedance Stabilisation Network	Schwarzbeck	CAT5 8158	8158-0035	Jan.06, 2018	1 Year
17.	RF Coaxial Cable	SUHNER	N-2m	No.2	Jan.06, 2018	1 Year
18.	RF Coaxial Cable	SUHNER	N-2m	No.3	Jan.06, 2018	1 Year
19.	RF Coaxial Cable	SUHNER	N-2m	No.14	Jan.06, 2018	1 Year



## 4. POWER LINE CONDUCTED MEASUREMENT

### 4.1. Block Diagram of Test Setup



(EUT: THE COUPLES RABBIT)

### 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 4.1.

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.DATA SAMPLE

Frequency (MHz)	Quasi Peak Level (dB $\mu$ V)	Average Level (dB $\mu$ V)	Transducer value (dB)	Quasi Peak Result (dB $\mu$ V)	Average Result (dB $\mu$ V)	Quasi Peak Limit (dB $\mu$ V)	Average Limit (dB $\mu$ V)	Quasi Peak Margin (dB)	Average Margin (dB)	Remark (Pass/Fail)
X.XX	29.4	18.3	11.1	40.5	29.4	56.0	56.0	15.5	16.6	Pass

Transducer value = Insertion loss of LISN + Cable Loss

Result = Quasi-peak Level/Average Level + Transducer value

Limit = Limit stated in standard

Calculation Formula:

Margin = Limit – Reading level value – Transducer value

#### 4.6.Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, and LISN.

The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement at ATC is +2.23dB.

#### 4.7.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 C63.4: 2014 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.

## 4.8.Power Line Conducted Emission Measurement Results

**PASS.**

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

Test Mode: Charging(120V/60Hz)								
<b>MEASUREMENT RESULT: "F-0990-3_fin"</b>								
2018-6-21 17:16								
Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE	
0.150000	41.60	10.8	66	24.4	QP	L1	GND	
0.452000	27.70	11.0	57	29.1	QP	L1	GND	
1.690000	24.30	11.2	56	31.7	QP	L1	GND	
2.125000	23.50	11.3	56	32.5	QP	L1	GND	
12.260000	19.60	11.6	60	40.4	QP	L1	GND	
18.415000	22.00	11.7	60	38.0	QP	L1	GND	
<b>MEASUREMENT RESULT: "F-0990-3_fin2"</b>								
2018-6-21 17:16								
Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE	
0.150000	36.30	10.8	56	19.7	AV	L1	GND	
0.776000	20.60	11.1	46	25.4	AV	L1	GND	
1.588000	18.60	11.2	46	27.4	AV	L1	GND	
2.270000	14.90	11.3	46	31.1	AV	L1	GND	
11.765000	9.80	11.6	50	40.2	AV	L1	GND	
18.690000	9.50	11.7	50	40.5	AV	L1	GND	
<b>MEASUREMENT RESULT: "F-0990-2_fin"</b>								
2018-6-21 11:50								
Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE	
0.150000	41.40	10.8	66	24.6	QP	N	GND	
0.828000	25.70	11.1	56	30.3	QP	N	GND	
1.670000	25.00	11.2	56	31.0	QP	N	GND	
3.735000	22.50	11.4	56	33.5	QP	N	GND	
5.320000	20.00	11.4	60	40.0	QP	N	GND	
18.640000	23.60	11.7	60	36.4	QP	N	GND	
<b>MEASUREMENT RESULT: "F-0990-2_fin2"</b>								
2018-6-21 11:50								
Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE	
0.150000	36.00	10.8	56	20.0	AV	N	GND	
0.776000	21.00	11.1	46	25.0	AV	N	GND	
1.704000	19.20	11.2	46	26.8	AV	N	GND	
2.125000	18.10	11.3	46	27.9	AV	N	GND	
6.645000	9.50	11.5	50	40.5	AV	N	GND	
18.325000	12.80	11.7	50	37.2	AV	N	GND	

Emissions attenuated more than 20 dB below the permissible value are not reported. We tested high and low voltage and recorded the worst mode data.

The spectral diagrams are attached as below.

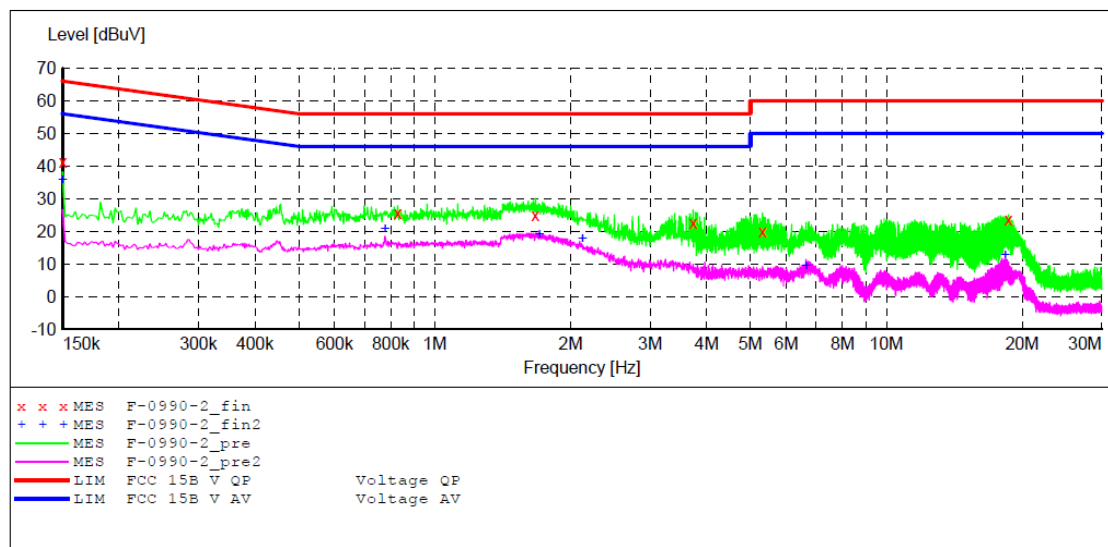
# ACCURATE TECHNOLOGY CO.,LTD

## CONDUCTED EMISSION STANDARD FCC PART 15I

EUT: THE COUPLES RABBIT M/N:TRC-021BLK  
Manufacturer: TOPARC Technology (Shenzhen) Co.,Ltd.  
Operating Condition: Charging  
Test Site: 2#Shielding Room  
Operator: Frank  
Test Specification: N 120V/60Hz  
Comment: Report NO.:ATE20180994  
Start of Test: 2018-6-21 / 11:49:39

### 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 NSLK8126 2008  
Average



### MEASUREMENT RESULT: "F-0990-2\_fin"

2018-6-21 11:50

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.150000	41.40	10.8	66	24.6	QP	N	GND
0.828000	25.70	11.1	56	30.3	QP	N	GND
1.670000	25.00	11.2	56	31.0	QP	N	GND
3.735000	22.50	11.4	56	33.5	QP	N	GND
5.320000	20.00	11.4	60	40.0	QP	N	GND
18.640000	23.60	11.7	60	36.4	QP	N	GND

### MEASUREMENT RESULT: "F-0990-2\_fin2"

2018-6-21 11:50

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.150000	36.00	10.8	56	20.0	AV	N	GND
0.776000	21.00	11.1	46	25.0	AV	N	GND
1.704000	19.20	11.2	46	26.8	AV	N	GND
2.125000	18.10	11.3	46	27.9	AV	N	GND
6.645000	9.50	11.5	50	40.5	AV	N	GND
18.325000	12.80	11.7	50	37.2	AV	N	GND

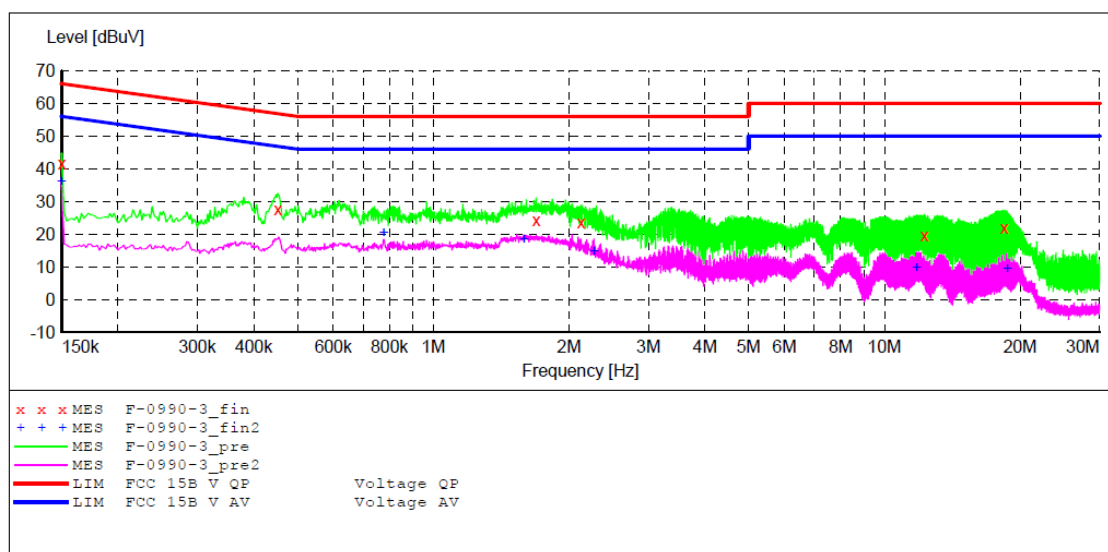
# ACCURATE TECHNOLOGY CO., LTD

## CONDUCTED EMISSION STANDARD FCC PART 15

EUT: THE COUPLES RABBIT M/N:TRC-021BLK  
Manufacturer: TOPARC Technology (Shenzhen) Co.,Ltd.  
Operating Condition: Charging  
Test Site: 2#Shielding Room  
Operator: Frank  
Test Specification: L 120V/60Hz  
Comment: Report NO.:ATE20180994  
Start of Test: 2018-6-21 / 17:14:29

### 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 NSLK8126 2008  
Average



### MEASUREMENT RESULT: "F-0990-3\_fin"

2018-6-21 17:16

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.150000	41.60	10.8	66	24.4	QP	L1	GND
0.452000	27.70	11.0	57	29.1	QP	L1	GND
1.690000	24.30	11.2	56	31.7	QP	L1	GND
2.125000	23.50	11.3	56	32.5	QP	L1	GND
12.260000	19.60	11.6	60	40.4	QP	L1	GND
18.415000	22.00	11.7	60	38.0	QP	L1	GND

### MEASUREMENT RESULT: "F-0990-3\_fin2"

2018-6-21 17:16

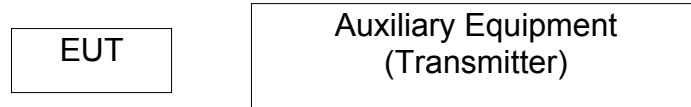
Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.150000	36.30	10.8	56	19.7	AV	L1	GND
0.776000	20.60	11.1	46	25.4	AV	L1	GND
1.588000	18.60	11.2	46	27.4	AV	L1	GND
2.270000	14.90	11.3	46	31.1	AV	L1	GND
11.765000	9.80	11.6	50	40.2	AV	L1	GND
18.690000	9.50	11.7	50	40.5	AV	L1	GND

## 5. RADIATED EMISSION MEASUREMENT

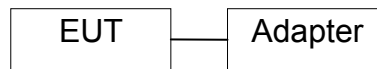
### 5.1. Block Diagram of Test

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

Test mode 1:



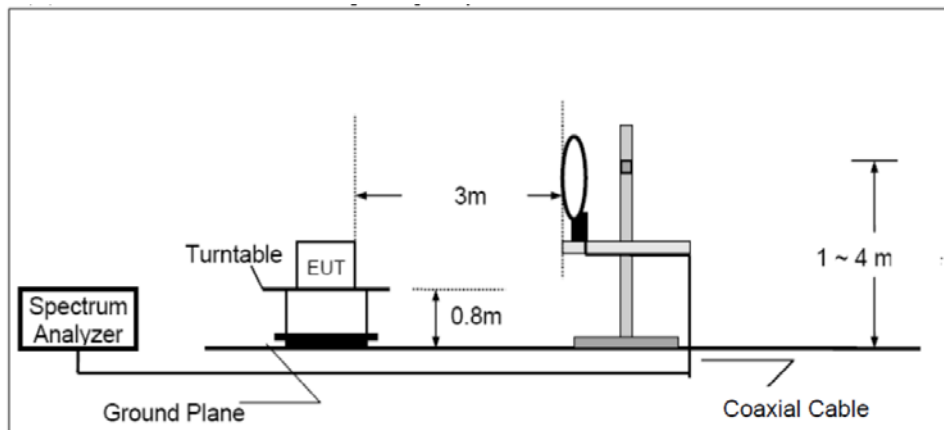
Test mode 2:



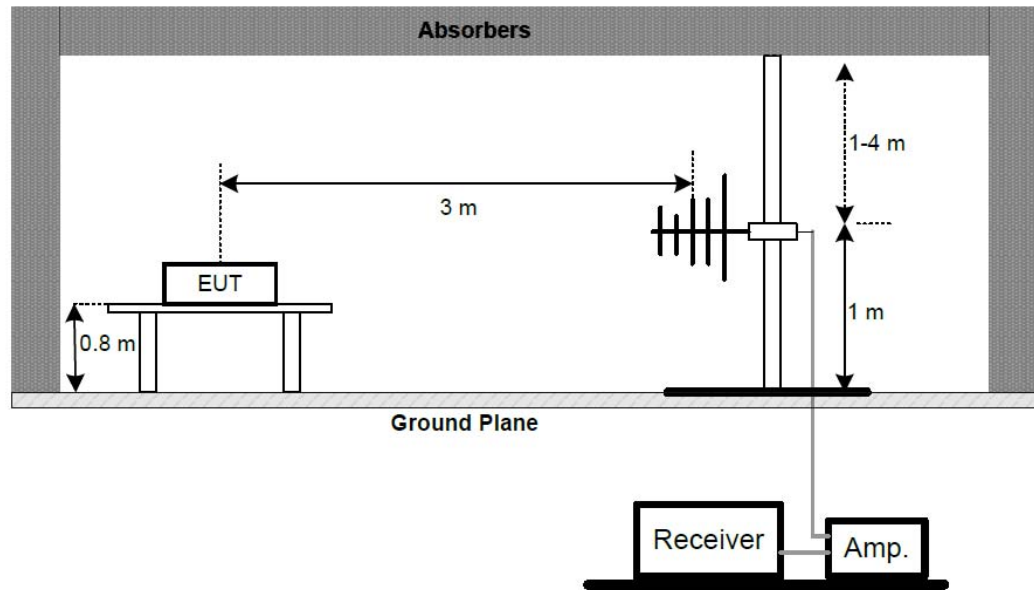
(EUT: THE COUPLES RABBIT)

#### 5.1.2. Block diagram of test setup (In chamber)

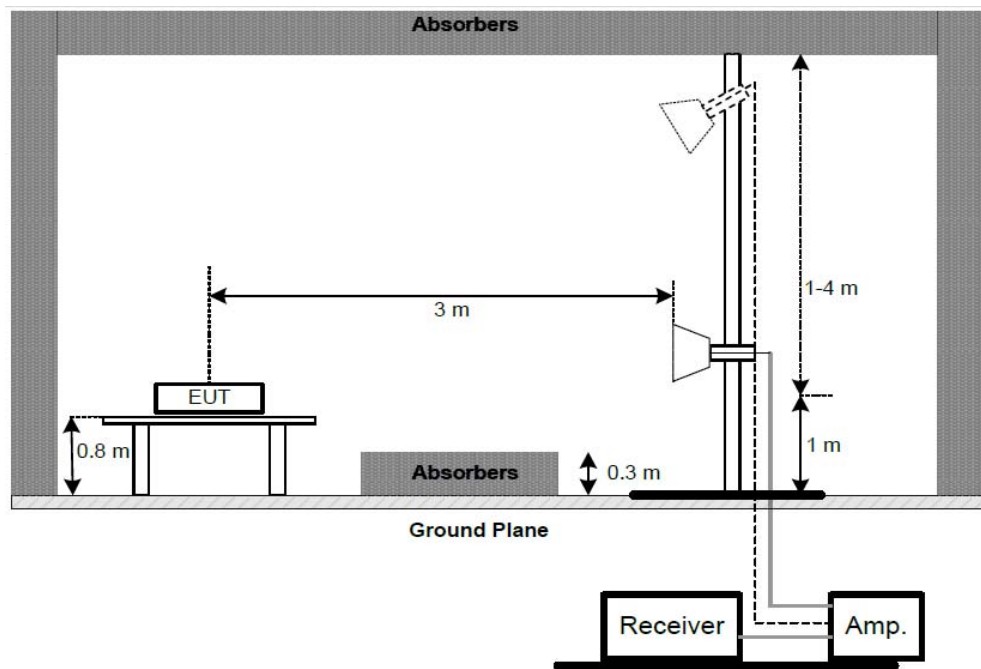
(A) Radiated Emission Test Set-Up, Frequency below 30MHz



(B) Radiated Emission Test Set-Up, Frequency below 1GHz



Above 1GHz:



## 5.2. Radiated Emission Limit (Class B)

All emanations from a class B device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified below:

Frequency MHz	Distance Meters	Field Strengths Limit	
		$\mu\text{V/m}$	$\text{dB}(\mu\text{V/m})$
30-88	3	100	40.0
88-216	3	150	43.5
216-960	3	200	46.0
Above 960	3	500	54.0
Remark: (1) Emission level $\text{dB}(\mu\text{V}) = 20 \log \text{Emission level } \mu\text{V/m}$ . (2) The smaller limit shall apply at the cross point between two frequency bands. (3) Distance is the distance in meters between the measuring instrument antenna and the closest point of any part of the device or system.			

## 5.3. Manufacturer

The following equipments are 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. THE COUPLES RABBIT (EUT)

Model Number: TRC-021BLK

Manufacturer: TOPARC Technology(Shenzhen) Co.,Ltd.

## 5.4. Operating Condition of EUT

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

5.4.2. Turn on the power of all equipment.

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



### 5.5.DATA SAMPLE

Frequency (MHz)	Reading (dB $\mu$ v)	Factor (dB/m)	Result (dB $\mu$ v/m)	Limit (dB $\mu$ v/m)	Margin (dB)	Remark
X.XX	49.83	-22.03	27.80	43.50	-15.70	QP

Frequency(MHz) = Emission frequency in MHz

Reading(dB $\mu$ v) = Uncorrected Analyzer/Receiver reading

Factor (dB/m)= Antenna factor + Cable Loss – Amplifier gain

Result(dB $\mu$ v/m) = Reading + Factor

Limit (dB $\mu$ v/m)= Limit stated in standard

Margin (dB) = Result(dB $\mu$ v/m) - Limit (dB $\mu$ v/m)

Calculation Formula:

Margin(dB) = Result (dB $\mu$ v/m)–Limit(dB $\mu$ v/m)

Result(dB $\mu$ v/m)= Reading(dB $\mu$ v)+ Factor(dB/m)

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7dB means the emission is 7dB below the limit.

### 5.6.Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. 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 bilog 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 interface cables must be manipulated according to ANSI C63.4: 2014 on radiated emission measurement.

The bandwidth of the EMI test receiver (R&S ESCS30) is set at 120kHz.

The frequency range from 9kHz to 5000MHz is checked.

## 5.7. Radiated Emission Noise Measurement Result

**PASS.**

The frequency range from 9kHz to 5GHz is investigated.

The radiation emissions from 9kHz-30MHz is not reported, because the test values lower than the limits of 20dB.

The spectral diagrams are attached as below.

Below 1GHz



**ACCURATE TECHNOLOGY CO., LTD.**

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

Site: 1# Chamber

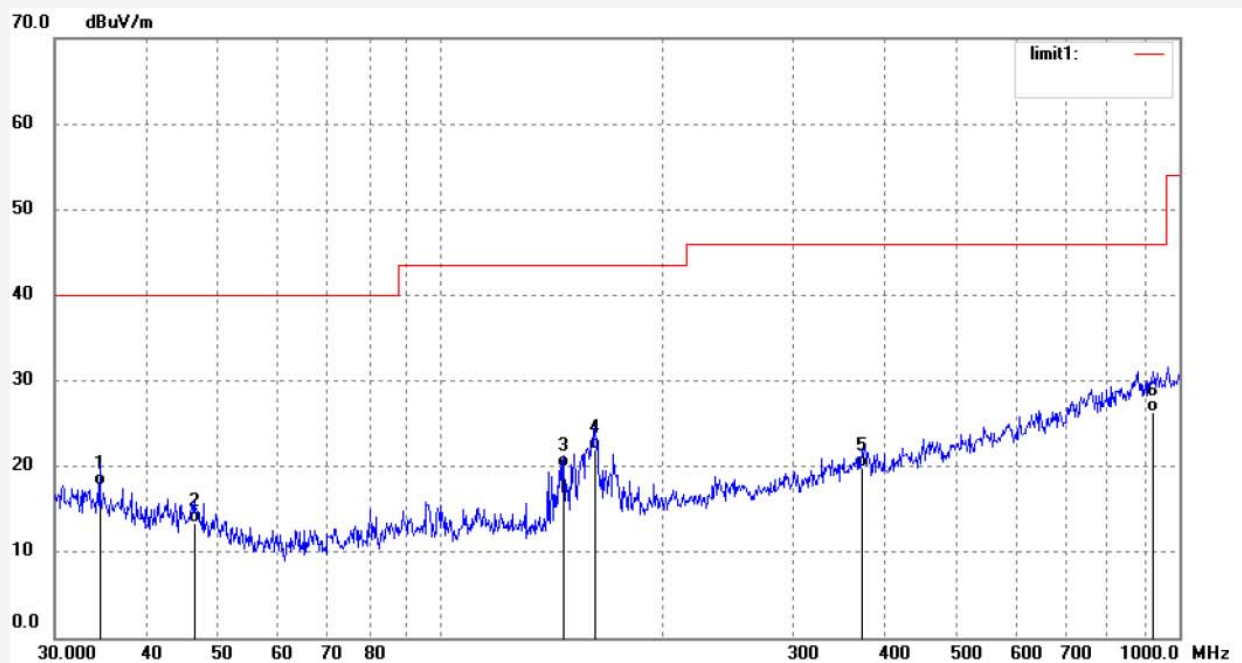
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: frank2018 #773  
Standard: FCC Class B 3M Radiated  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 25 C / 55 %  
EUT: THE COUPLES RABBIT  
Mode: Charging  
Model: TRC-021BLK  
Manufacturer: TOPARC Technology (Shenzhen) Co.,Ltd.

Polarization: Horizontal  
Power Source: AC 120V/60Hz  
Date: 18/06/22/  
Time: 9/22/12  
Engineer Signature:  
Distance:

Note: Report NO.:ATE20180994

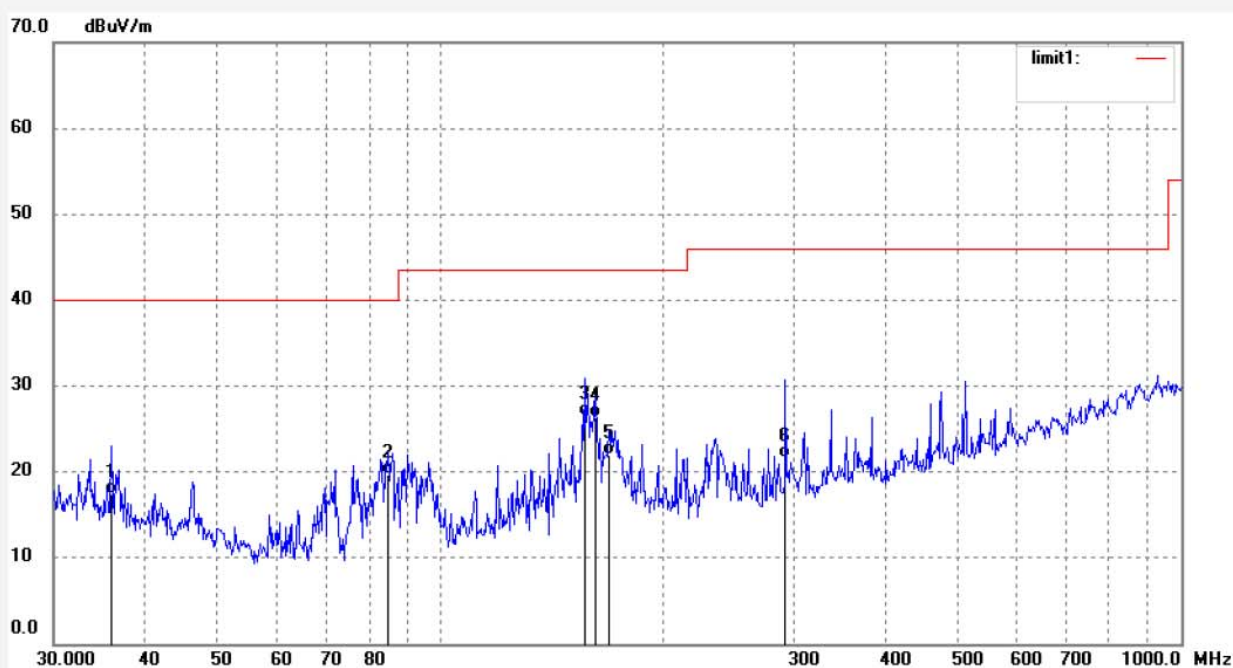


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	34.5270	35.15	-17.43	17.72	40.00	-22.28	QP	200	197	
2	46.3806	33.15	-19.75	13.40	40.00	-26.60	QP	200	203	
3	146.8392	42.15	-22.28	19.87	43.50	-23.63	QP	200	119	
4	162.0197	43.12	-21.13	21.99	43.50	-21.51	QP	200	46	
5	371.2678	34.15	-14.22	19.93	46.00	-26.07	QP	200	246	
6	922.3667	30.16	-3.83	26.33	46.00	-19.67	QP	200	150	

Job No.: frank2018 #774  
Standard: FCC Class B 3M Radiated  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 25 C / 55 %  
EUT: THE COUPLES RABBIT  
Mode: Charging  
Model: TRC-021BLK  
Manufacturer: TOPARC Technology (Shenzhen) Co.,Ltd.

Polarization: Vertical  
Power Source: AC 120V/60Hz  
Date: 18/06/22/  
Time: 9/22/52  
Engineer Signature:  
Distance:

Note: Report NO.:ATE20180994



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	35.8875	35.12	-17.79	17.33	40.00	-22.67	QP	100	156	
2	84.8782	42.12	-22.44	19.68	40.00	-20.32	QP	100	29	
3	156.4259	48.30	-21.73	26.57	43.50	-16.93	QP	100	101	
4	162.0197	47.45	-21.13	26.32	43.50	-17.18	QP	100	133	
5	168.9970	42.34	-20.39	21.95	43.50	-21.55	QP	100	41	
6	292.3643	38.15	-16.45	21.70	46.00	-24.30	QP	100	106	



Job No.: frank2018 #781

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: THE COUPLES RABBIT

Mode: RX 433.92MHz

Model: TRC-021BLK

Manufacturer: TOPARC Technology (Shenzhen) Co.,Ltd.

Polarization: Horizontal

Power Source: DC 3.7V

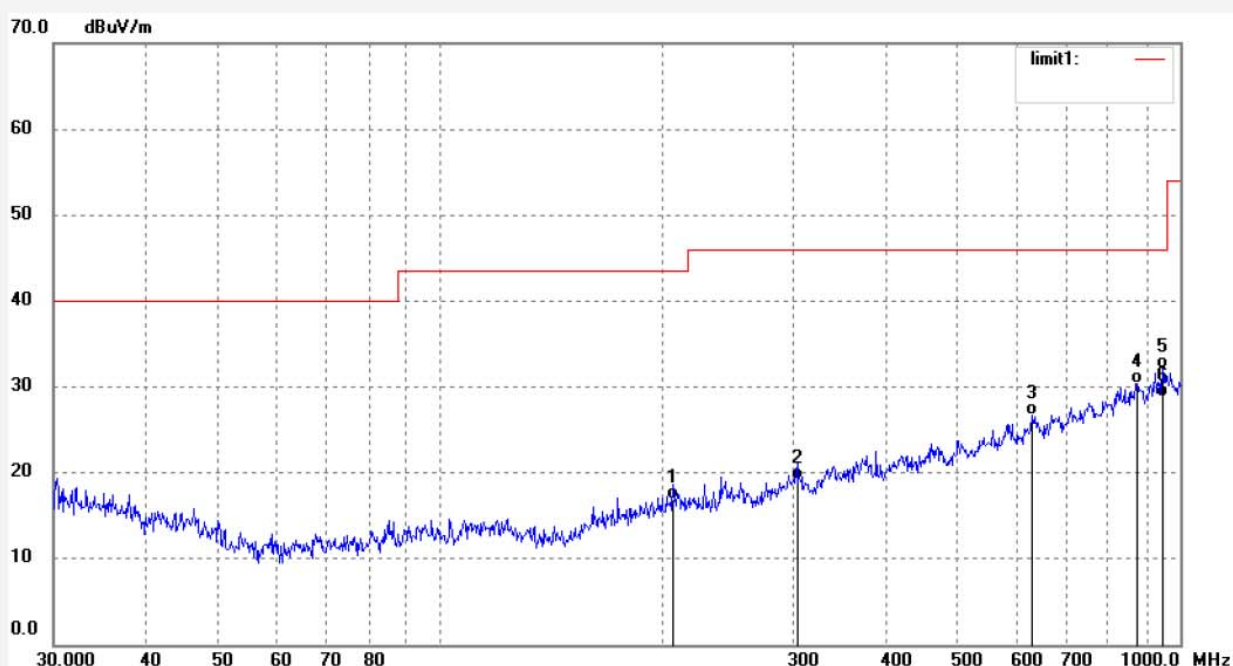
Date: 18/06/22/

Time: 9/28/43

Engineer Signature:

Distance:

Note: Report NO.:ATE20180994



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	206.4701	35.45	-18.51	16.94	43.50	-26.56	QP	200	211	
2	303.8851	35.41	-16.19	19.22	46.00	-26.78	QP	200	56	
3	631.1069	35.98	-9.24	26.74	46.00	-19.26	QP	200	150	
4	875.0131	35.05	-4.61	30.44	46.00	-15.56	QP	200	215	
5	948.6608	35.49	-3.44	32.05	46.00	-13.95	QP	200	46	
6	948.6609	32.15	-3.44	28.71	46.00	-17.29	QP	200	142	

Job No.: frank2018 #782

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: THE COUPLES RABBIT

Mode: RX 433.92MHz

Model: TRC-021BLK

Manufacturer: TOPARC Technology (Shenzhen) Co.,Ltd.

Polarization: Vertical

Power Source: DC 3.7V

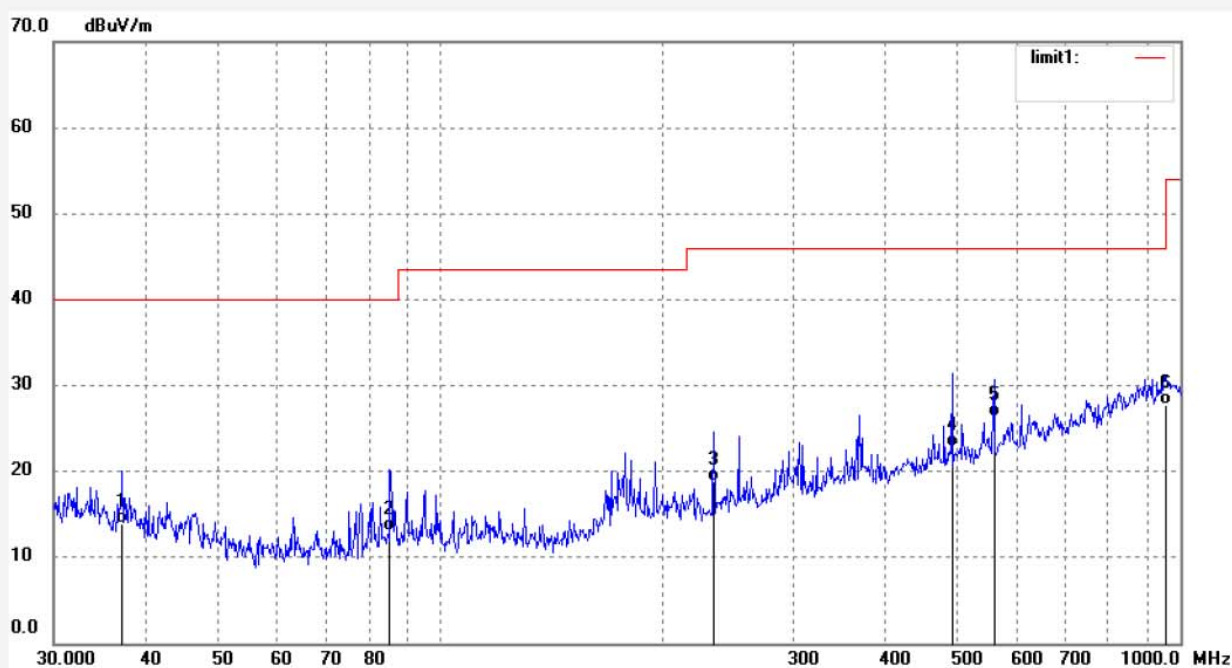
Date: 18/06/22/

Time: 9/26/45

Engineer Signature:

Distance:

Note: Report NO.:ATE20180994



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	32.15	-18.19	13.96	40.00	-26.04	QP	100	56	
2	85.4769	35.45	-22.38	13.07	40.00	-26.93	QP	100	301	
3	234.3097	37.15	-18.29	18.86	46.00	-27.14	QP	100	201	
4	491.7699	35.15	-12.33	22.82	46.00	-23.18	QP	100	264	
5	560.0430	37.15	-10.87	26.28	46.00	-19.72	QP	100	199	
6	955.3509	31.15	-3.35	27.80	46.00	-18.20	QP	100	210	

Above 1GHz


**ACCURATE TECHNOLOGY CO., LTD.**

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

Site: 1# Chamber

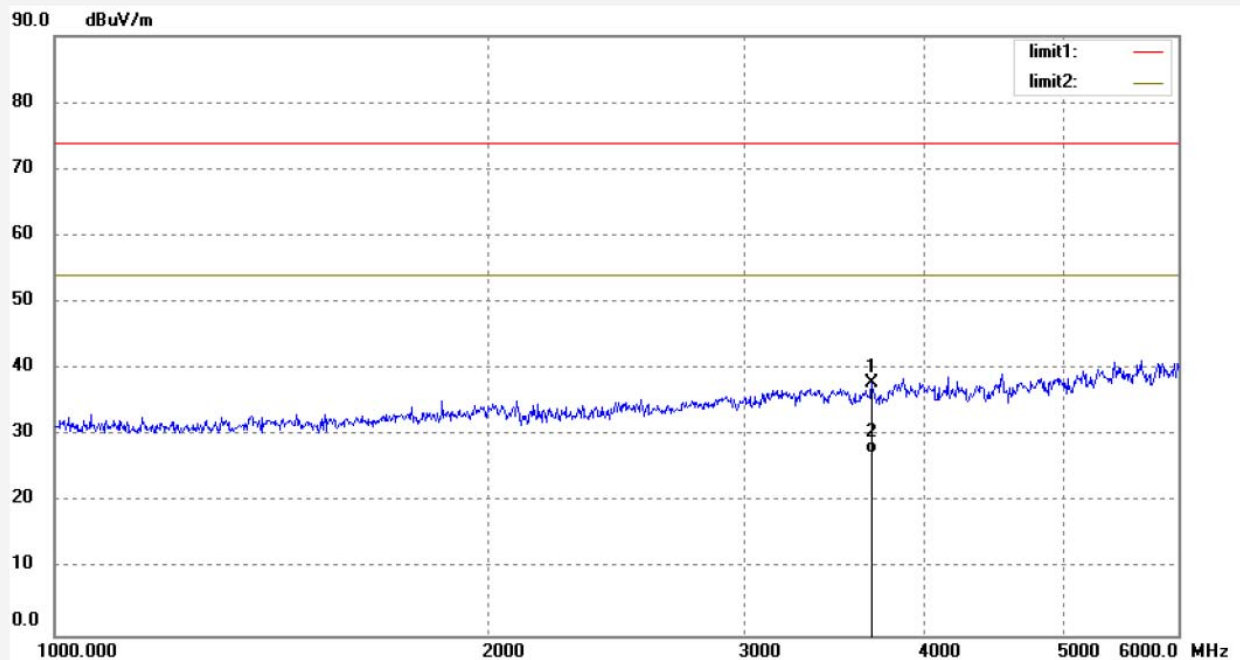
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: frank2018 #783  
Standard: FCC PK  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 25 C / 55 %  
EUT: THE COUPLES RABBIT  
Mode: RX 433.92MHz  
Model: TRC-021BLK  
Manufacturer: TOPARC Technology (Shenzhen) Co.,Ltd.

Polarization: Horizontal  
Power Source: DC 3.7V  
Date: 18/05/26/  
Time: 11/34/20  
Engineer Signature:  
Distance:

Note: Report NO.:ATE20180994



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	3681.284	41.95	-4.07	37.88	74.00	-36.12	peak			
2	3681.284	31.41	-4.07	27.34	54.00	-26.66	AVG			



Job No.: frank2018 #784

Standard: FCC PK

Test item: Radiation Test

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

EUT: THE COUPLES RABBIT

Mode: RX 433.92MHz

Model: TRC-021BLK

Manufacturer: TOPARC Technology (Shenzhen) Co.,Ltd.

Polarization: Vertical

Power Source: DC 3.7V

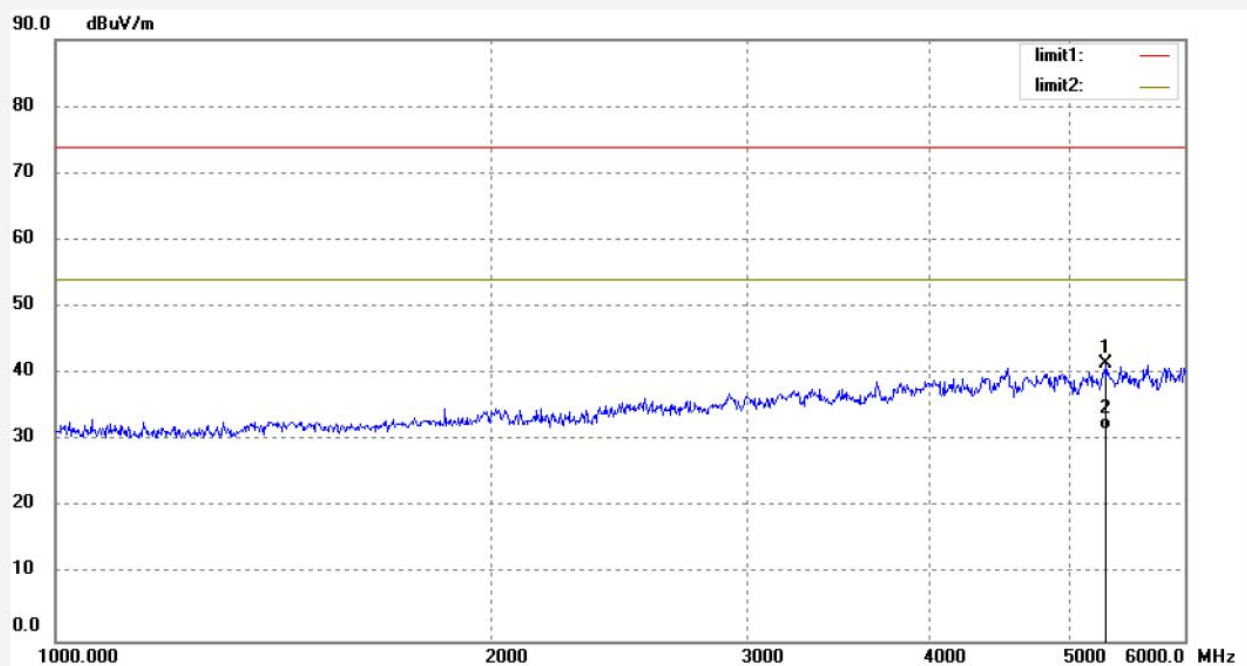
Date: 18/05/26/

Time: 11/34/23

Engineer Signature:

Distance:

Note: Report NO.:ATE20180994



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	5298.278	42.60	-1.13	41.47	74.00	-32.53	peak			
2	5298.278	32.78	-1.13	31.65	54.00	-22.35	AVG			



Job No.: frank2018 #786

Standard: FCC PK

Test item: Radiation Test

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

EUT: THE COUPLES RABBIT

Mode: Charging

Model: TRC-021BLK

Manufacturer: TOPARC Technology (Shenzhen) Co.,Ltd.

Polarization: Horizontal

Power Source: AC 120V/60Hz

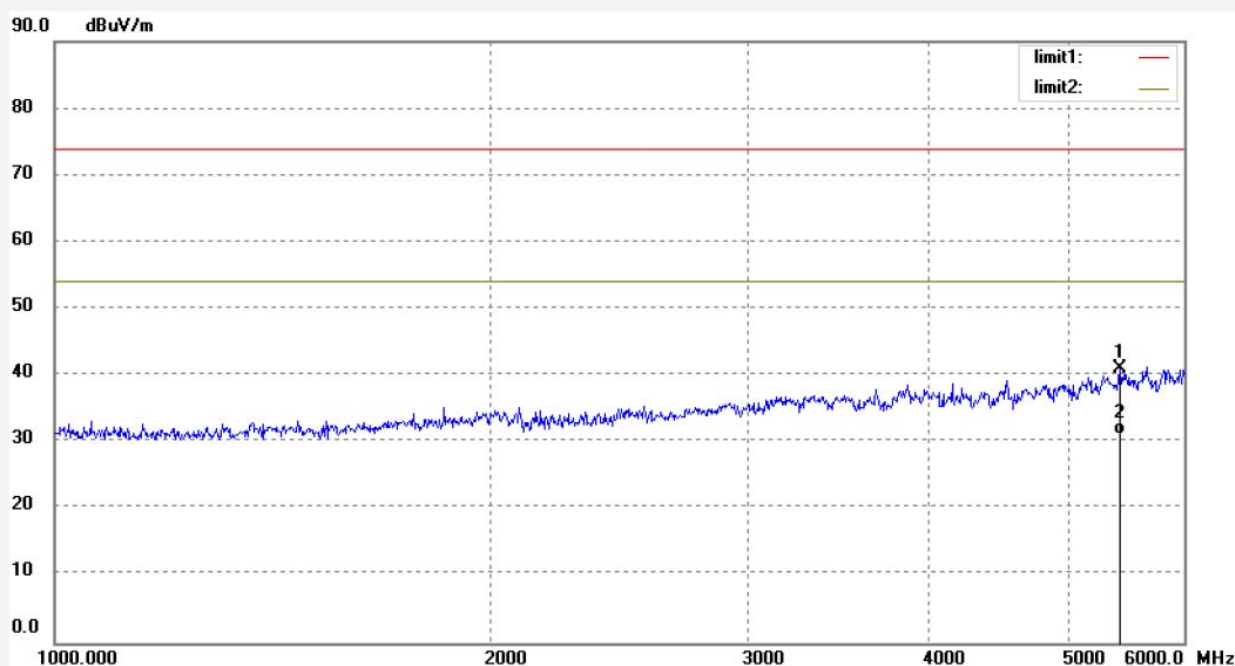
Date: 18/05/26/

Time: 11/34/20

Engineer Signature:

Distance:

Note: Report NO.:ATE20180994



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	5423.901	41.93	-0.93	41.00	74.00	-33.00	peak			
2	5423.901	32.14	-0.93	31.21	54.00	-22.79	AVG			

Job No.: frank2018 #785

Standard: FCC PK

Test item: Radiation Test

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

EUT: THE COUPLES RABBIT

Mode: Charging

Model: TRC-021BLK

Manufacturer: TOPARC Technology (Shenzhen) Co.,Ltd.

Polarization: Vertical

Power Source: AC 120V/60Hz

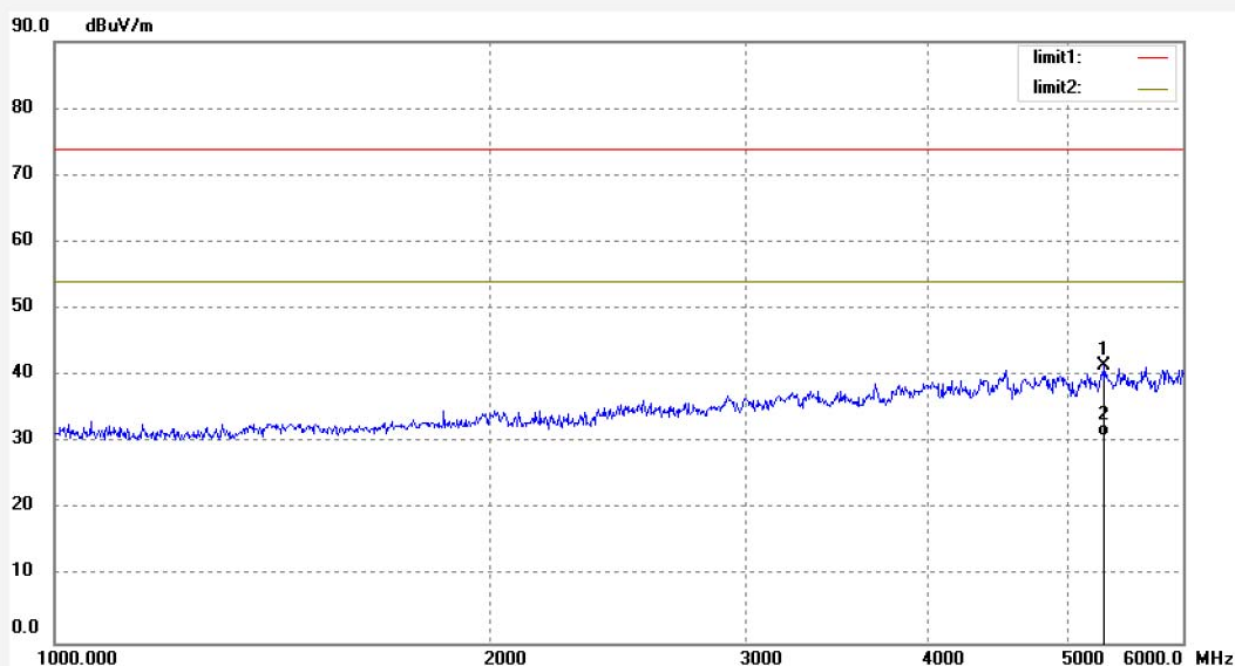
Date: 18/05/26/

Time: 11/34/23

Engineer Signature:

Distance:

Note: Report NO.:ATE20180994



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	5298.278	42.60	-1.13	41.47	74.00	-32.53	peak			
2	5298.278	32.15	-1.13	31.02	54.00	-22.98	AVG			