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**Applicant** : Kidz Toyz, Inc

280 N, Bedford Rd. Suite 203, Mt. Kisco, NY 10549, USA

**Supplier / Manufacturer:** Kidz Toyz, Inc

280 N, Bedford Rd. Suite 203, Mt. Kisco, NY 10549, USA

**Description of Sample(s) :** Submitted sample(s) said to be

Product: 1000ft Walkie Talkies

Brand Name: N/A Model No.: #22254

FCC ID: 2AI7A22254

**Date Samples Received** : 2017-04-13

**Date Tested** : 2017-04-14 to 2017-04-15

**Investigation Requested :** Perform ElectroMagnetic Interference measurement in accordance

with FCC 47CFR [Codes of Federal Regulations] Part 15: 2015 and

ANSI C63.10: 2013 for FCC Certification.

**Conclusions**: The submitted product COMPLIED with the requirements of Federal

Communications Commission [FCC] Rules and Regulations Part 15. The tests were performed in accordance with the standards described

above and on Section 2.2 in this Test Report.

Remarks : ---



ElectroMagnetic Compatibility Department
For and on behalf of
STC (Dongguan) Company Limited



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### 1.0 General Details

### 1.1 Equipment Under Test [EUT]

**Description of Sample(s)** 

Product: 1000ft Walkie Talkies Manufacturer: Kidz Toyz, Inc

280 N, Bedford Rd. Suite 203, Mt. Kisco, NY 10549, USA

Brand Name: N/A Model Number: #22254

Rating: 9Vd.c("6F22" battery x 1)

### 1.1.1 Description of EUT Operation

The Equipment Under Test (EUT) is a 1000ft Walkie Talkies. Operating at 49.86MHz. Test was conducted under Tx mode.

#### 1.2 Date of Order

2017-04-13

### 1.3 Submitted Sample(s):

1 Sample

### 1.4 Test Duration

2017-04-14 to 2017-04-15

### 1.5 Country of Origin

China



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### **<u>2.0</u>** Technical Details

### 2.1 Investigations Requested

Perform Electromagnetic Interference measurements in accordance with FCC 47CFR [Codes of Federal Regulations] Part 15: 2015 Regulations and ANSI C63.10: 2013 for FCC Certification. The device was realized by test software.

### 2.2 Test Standards and Results Summary Tables

EMISSION Results Summary							
Test Condition	Test Condition Test Requirement Test Method Class / Test Result						
			Severity	Pass	Failed	N/A	
Field Strength of Fundamental & Harmonics Emissions	FCC 47CFR 15.235	ANSI C63.10: 2013	N/A	$\boxtimes$			
Radiated Emissions	FCC 47CFR 15.209	ANSI C63.10: 2013	N/A	$\boxtimes$			
Antenna requirement	FCC 47CFR 15.203	N/A	N/A	$\boxtimes$			

Note: N/A - Not Applicable



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3.0 Test Results

3.1 Emission

3.1.1 Radiated Emissions (30 – 1000MHz)

Test Requirement: FCC 47CFR 15.235 Test Method: ANSI C63.10:2013

Test Date: 2017-04-15 Mode of Operation: Tx mode

#### **Test Method:**

For emission measurements at or below 1 GHz, the sample was placed 0.8m above the ground plane of semi-anechoic Chamber\*. For emission measurements above 1 GHz, the sample was placed 1.5m above the ground plane of semi-anechoic Chamber\*. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages.

\* Semi-anechoic chamber located on the STC (Dongguan) Company Ltd. 68 Fumin Nan Road, Dalang, Dongguan, Guangdong, PRC with a metal ground plane filed with the FCC pursuant to section 2.948 of the FCC rules, with Registration Number: 629686.



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### **Spectrum Analyzer Setting:**

9KHz – 30MHz (Pk & Av) RBW: 10kHz

VBW: 30kHz Sweep: Auto

Span: Fully capture the emissions being measured

Trace: Max. hold

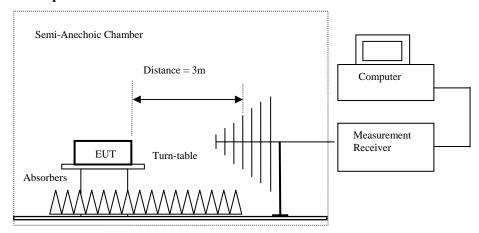
30MHz - 1GHz (QP) RBW: 120kHz

VBW: 120kHz Sweep: Auto

Span: Fully capture the emissions being measured

Trace: Max. hold

### **Test Setup:**



Ground Plane

- Absorbers placed on top of the ground plane are for measurements above 1000MHz only.
- Measurements between 30MHz to 1000MHz made with Bi-log antennas, above 1000MHz horn antennas are used, 9kHz to 30MHz loop antennas are used.



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### Limits for Field Strength of Fundamental & Harmonics Emissions [FCC 47CFR 15.235]:

Frequency Range of	Field Strength of	Field Strength of
Fundamental	Fundamental Emission	Harmonics Emission
	[Peak]	[Average]
[MHz]	$[\mu V/m]$	$[\mu V/m]$
49.82-49.90	100,000	10,000

Results of Tx mode(30MHz-1GHz): PASS

Field Strength of Fundamental Emissions								
			Peak Value					
Frequency	Frequency Measured Correction Field Field Limit @3m E-Field							
Level @3m Factor Strength Strength Po					Polarity			
MHz $dB\mu V$ $dB/m$ $dB\mu V/m$ $\mu V/m$ $\mu V/m$								
49.86	48.5	9.2	57.7	767.4	100,000	Vertical		
49.86	25.3	9.8	35.1	56.9	100,000	Horizontal		

Field Strength of Fundamental Emissions									
	Average								
Frequency	Frequency Measured Correction Field Field Limit @3m E-Field								
	Level @3m Factor Strength Strength Polarity								
MHz	MHz $dB\mu V$ $dB/m$ $dB\mu V/m$ $\mu V/m$ $\mu V/m$								
49.86	47.6	9.2	56.8	691.8	10,000	Vertical			
49.86	24.9	9.8	34.7	54.3	10,000	Horizontal			

According to FCC 47CFR15.35, the limit on the radio frequency emissions as measured using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit for the frequency being investigated unless a different peak emission limit is otherwise specified in the rules.

### Remarks:

Correction Factor includes Antenna Factor and Cable Attenuation.



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## Limits for Radiated Emissions [FCC 47 CFR 15.209]:

Frequency Range	Quasi-Peak Limits
[MHz]	$[\mu V/m]$
30-88	100
88-216	150
216-960	200
Above960	500

The emission limits shown in the above table are based on measurement employing a CISPR quasi-peak detector and above 1000MHz are based on measurements employing an average detector.

### Results of TX mode (9kHz - 30MHz): PASS

Emissions detected are more than 20 dB below the limit line(s).

#### Results of TX mode (30MHz - 1GHz): PASS

# Horizontal dBµV/m Limit 80 70 60 50 40 30 20 10 0 30.0 100.0 1000.0 MHz

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Results of TX mode (30MHz - 1GHz): PASS

Radiated Emissions								
	Quasi-Peak							
Frequency	Measured	Correction	Field	Field	Limit @3m	E-Field		
	Level @3m	Factor	Strength	Strength		Polarity		
MHz	$dB\mu V$	dB/m	dBμV/m	μV/m	μV/m	_		
299.20	20.2	15.6	35.8	61.7	200	Horizontal		



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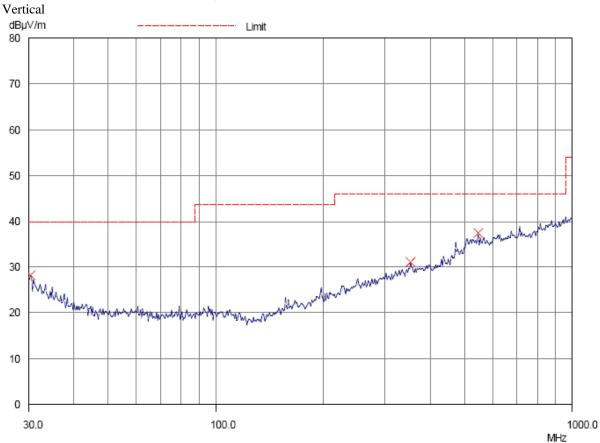
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#### Limits for Radiated Emissions [FCC 47 CFR 15.209]:

Frequency Range [MHz]	Quasi-Peak Limits [μV/m]
30-88	100
88-216	150
216-960	200
Above960	500

The emission limits shown in the above table are based on measurement employing a CISPR quasi-peak detector and above 1000MHz are based on measurements employing an average detector.

### Results of TX mode (30MHz - 1GHz): PASS





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Results of TX mode (30MHz - 1GHz): PASS

	Radiated Emissions							
			Quasi-Peak					
Frequency	Measured	Correction	Field	Field	Limit @3m	E-Field		
	Level @3m	Factor	Strength	Strength		Polarity		
MHz	$dB\mu V$	dB/m	dBμV/m	μV/m	μV/m			
149.60	17.3	9.4	26.7	21.6	150	Vertical		
199.40	18.9	12.0	30.9	35.1	150	Vertical		
249.30	18.2	14.1	32.3	41.2	200	Vertical		
299.20	17.0	15.7	32.7	43.2	200	Vertical		
349.00	22.2	17.0	39.2	91.2	200	Vertical		
398.90	19.5	17.4	36.9	70.0	200	Vertical		
448.70	19.0	19.4	38.4	83.2	200	Vertical		
498.60	21.0	21.1	42.1	127.4	200	Vertical		
149.50	15.4	10.2	25.6	19.1	150	Vertical		
548.50	21.3	21.5	42.8	138.0	200	Vertical		
598.3	17.7	22.0	39.7	96.6	200	Vertical		
648.2	19.0	22.0	41.0	112.2	200	Vertical		
698	19.1	23.0	42.1	127.4	200	Vertical		
747.9	17.9	23.5	41.4	117.5	200	Vertical		
797.8	18.3	24.7	43.0	141.3	200	Vertical		
847.6	17.4	25.7	43.1	142.9	200	Vertical		

#### Remarks:

No further spurious emissions found between lowest internal frequency and 30MHz.

Correction Factor includes Antenna Factor and Cable Attenuation.

 $Calculated\ measurement\ uncertainty:\ (9kHz\ -30MHz):\ 3.3dB$ 

(30MHz - 1GHz): 4.6dB

Emissions in the vertical and horizontal polarizations have been investigated and the worst-case test results are recorded in this report.



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3.1.2 Antenna Requirement

Test Requirements: § 15.203

### **Test Specification:**

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

#### **Test Results:**

This is Monoploe antenna. The antenna gain =0dBi. User is unable to remove or changed the Antenna.



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#### 3.2 20dB Bandwidth of Fundamental Emission

Test Requirement: FCC 47 CFR 15.235

Test Method: ANSI C63.10: 2013 (Section 13.1.7)

Test Date: 2017-04-15 Mode of Operation: Tx mode

#### **Test Method:**

The bandwidth is measured at an amplitude level reduced from the reference level by a specified ratio. The reference level is the level of the highest amplitude signal observed from the transmitter at the fundamental frequency. Once the reference level is established, the equipment is conditioned with typical modulating signal to produce the worst-case (i.e. the widest) bandwidth.

### **Test Setup:**

As Test Setup of clause 3.1.1 in this test report.

#### **Spectrum Analyzer Setting:**

RBW: 3kHz VBW: 10kHz Sweep: Auto Trace: Max. hold



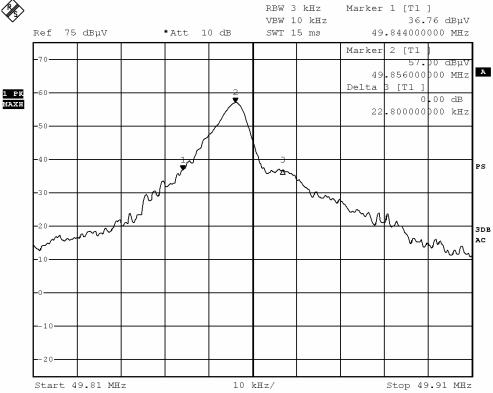
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### Limits for 20dB Bandwidth of Fundamental Emission:

Fl(MHz)	Fh(MHz)	Permitted frequency range(MHz)	Result
49.844	49.856	49.82-49.90	Compliant

## 20dB Bandwidth of Fundamental Emission



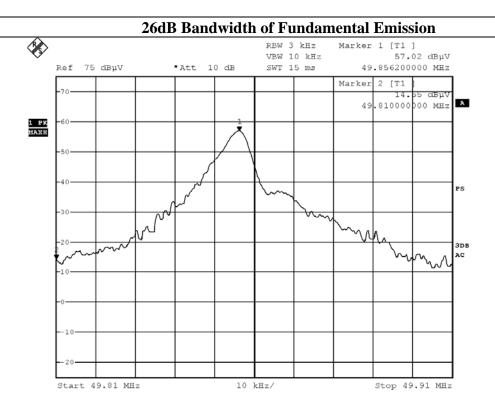


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#### Limits for 26dB Bandwidth of Fundamental Emission:

The field strength of any emissions appearing between the band edges and up to 10 kHz above and below the band edges shall be attenuated at least 26 dB below the level of the unmodulated carrier or to the general limits in §15.209, whichever permits the higher emission levels.





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### Appendix A

**List of Measurement Equipment** 

EQP NO.	DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	LAST CAL	DUE CAL
EMD004	LISN	ROHDE & SCHWARZ	ESH3-Z5	100102	2017-04-14	2018-04-14
EMD022	EMI Test Receiver	ROHDE & SCHWARZ	ESCS30	100314	2017-04-15	2018-04-15
EMD035	EMI Test Receiver	ROHDE & SCHWARZ	ESCI	100441	2017-04-14	2018-04-14
EMD036	EMI Test Receiver	ROHDE & SCHWARZ	ESIB 26	100388	2017-04-15	2018-04-15
EMD041	TWO-LINE V- NETWORK	ROHDE & SCHWARZ	ENV216	100261	2017-04-14	2018-04-14
EMD061	Biconilog Antenna	ETS.LINDGREN	3142C	00060439	2016.12.30	2018.12.30
EMD062	Double-Ridged Waveguide (1GHz – 18GHz)	ETS.LINDGREN	3117	00075933	2014.11.15	2017.11.15
EMD084	MULTI-DVICE CONTROLLER	ETS.LINDGREN	2090	00060107	N/A	N/A
EMD088	Video Contol Unit	ETS.LINDGREN	Y21953A	2601073	N/A	N/A
EMD093	Monitor	ViewSonic	VA9036	Q8X064201876	N/A	N/A
EMD102	Intelligent Frequency	Ainuo Instrument Co., Ltd	AN97005SS	79707454	N/A	N/A
EMD103	Intelligent Frequency	Ainuo Instrument Co., Ltd	AN97005SS	79707455	N/A	N/A
EMD105	FACT-3 EMC Chamber	ETS.LINDGREN	FACT-3	3803	N/A	N/A
EMD106	Shielding Room #1	ETS.LINDGREN	RFD-100	3802	N/A	N/A
EMD111	Power meter	ROHDE & SCHWARZ	NRVD	102051	2017-04-14	2018-4-14
	100V Insertion Unit	ROHDE & SCHWARZ	URV5-Z4	100464	2017-04-14	2018-4-14
EMD113	Pre-Amplifier	ROHDE & SCHWARZ	N/A	1129588	2017-04-14	2018-4-14
EMD124	Loop Antenna	ETS-Lindgren	6502	00104905	2016.05.23	2017.05.23
EMD131	Standard Gain Horn Antenna (18GHz – 26.5GHz)	Chengdu AINFO lnc.	JXTXLB-42- 15-C-KF	J2021100721001	2015.06.27	2017.06.27
RE01	RF cable	N/A	N/A	N/A	2016-9-28	2018-9-27
RE02	RF cable	N/A	N/A	N/A	2016-9-28	2018-9-27

### Remarks:-

N/A Not Applicable or Not Available



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### Appendix B

### **Photographs of EUT**

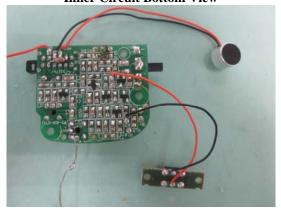
Front View of the product



Inside View of the product



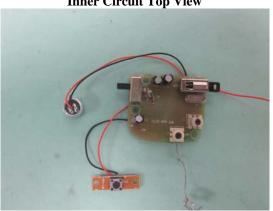
**Inner Circuit Bottom View** 



Rear View of the product



**Inner Circuit Top View** 



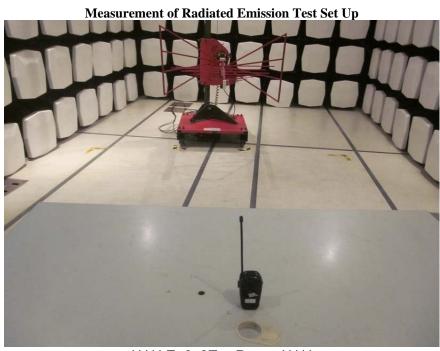
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Photographs of EUT

Measurement of Radiated Emission Test Set Up



\*\*\*\*\* End of Test Report \*\*\*\*\*

## STC (Dongguan) Company Limited

## **Conditions of Issuance of Test Reports**

- 1. All samples and goods are accepted by The STC (Dongguan) Company Limited (the "Company") solely for testing and reporting in accordance with the following terms and conditions. The Company provides its services on the basis that such terms and conditions constitute express agreement between the Company and any person, firm or company requesting its services (the "Clients").
- 2. Any report issued by the Company as a result of this application for testing service (the "Report") shall be issued in confidence to the Clients and the Report will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, show or send it, or a certified copy thereof prepared by the Company to his customer, supplier or other persons directly concerned. The Company will not, without the consent of the Clients, enter into any discussion or correspondence with any third party concerning the contents of the Report, unless required by the relevant governmental authorities, laws or court orders.
- 3. The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.
- 4. The Report refers only to the sample tested and does not apply to the bulk, unless the sampling has been carried out by the Company and is stated as such in the Report.
- 5. In the event of the improper use the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.
- 6. Sample submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.
- 7. The Company will not be liable for or accept responsibility for any loss or damage howsoever arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.
- 8. Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.
- 9. Subject to the variable length of retention time for test data and report stored hereinto as to otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of this test report for a period of three years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after the retention period. Under no circumstances shall we be liable for damages of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.
- 10. Issuance records of the Report are available on the internet at dgstc@dgstc.org. Further enquiry of validity or verification of the Reports should be addressed to the Company.