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FCC REPORT

Application No.: SZEM1405002162RF(SGS SZ No.:SZTY1405000311EM)

Applicant: SHANTOU CITY DAYE PLASTIC TOYS CO.LTD

Manufacturer: DAYE

Buyer: SAKAR INTERNATIONAL

Supplier: DAYE Importer: SAKAR

Product Name: WALKIES TALKES

Model No.(EUT): 19346n

FCC ID: 2ACFM19346N

Standards: 47 CFR Part 15, Subpart C (2014)

Date of Receipt: 2014-05-09

Date of Test: 2014-05-16 to 2014-05-21

Date of Issue: 2015-05-15

Test Result: PASS *

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Jack Zhang EMC Laboratory Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. All test results in this report can be traceable to National or International Standards.



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2 Test Summary

Test Item	Test Requirement	Test method	Result
Radiated Emission	47 CFR Part 15, Subpart C Section 15.235	ANSI C63.10 (2009)	PASS
Occupied Bandwidth	47 CFR Part 15, Subpart C Section 15.235	ANSI C63.10 (2009)	PASS



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4 General Information

4.1 Client Information

Applicant:	SHANTOU CITY DAYE PLASTIC TOYS CO.LTD
Address of Applicant:	CHENHAI BAISHA INDUSTRY ARSAS

4.2 General Description of EUT

Product Name:	WALKIES TALKES
Model No.:	19346n
Sample Type:	Portable production
Operation Frequency:	49.860MHz
Modulation Type:	AM
EUT Function:	WALKIES TALKES
Antenna Type:	Dedicated
Country of Origin:	CHINA
Country of Destination:	US
Request Age Grading:	5+
Power Supply:	DC 6.0V(4*1.5"LR44"button batteries)=6.0V
Test Voltage:	DC 6.0V new batteries

4.3 Test Environment and Mode

Operating Environment:	Operating Environment:				
Temperature:	23.0 °C				
Humidity:	54 RH				
Atmospheric Pressure:	1005mbar				
Test mode:	Test mode:				
Transmitting mode:	Keep the EUT in transmitting mode				



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4.4 Description of Support Units

The EUT has been tested independent unit.

4.5 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch E&E Lab,

No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, Guangdong, China. 518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.





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4.6 Test Facility

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

CNAS (No. CNAS L2929)

CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

VCCI

The 10m Semi-anechoic chamber and Shielded Room (7.5m x 4.0m x 3.0m) of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-823, R-4188, T-1153 and C-2383 respectively.

• FCC – Registration No.: 556682

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen 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.: 556682.

• Industry Canada (IC)

Two 3m Semi-anechoic chambers of SGS-CSTC Standards Technical Services Co., Ltd. have been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-1 & 4620C-2.

4.7 Deviation from Standards

None.

4.8 Abnormalities from Standard Conditions

None.

4.9 Other Information Requested by the Customer

None.





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4.10 Equipment List

RE in Chamber							
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Due date (yyyy-mm-dd)		
1	3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEL0017	2014-06-10		
2	EMI Test Receiver	Rohde & Schwarz	ESIB26	SEL0023	2015-05-16		
3	EMI Test software	AUDIX	E3	SEL0050	N/A		
4	Coaxial cable	SGS	N/A	SEL0027	2014-05-29		
5	Coaxial cable	SGS	N/A	SEL0189	2014-05-29		
6	Coaxial cable	SGS	N/A	SEL0121	2014-05-29		
7	Coaxial cable	SGS	N/A	SEL0178	2014-05-29		
8	BiConiLog Antenna (26-3000MHz)	ETS-LINDGREN	3142C	SEL0015	2014-10-24		
9	Double-ridged horn (1-18GHz)	ETS-LINDGREN	3117	SEL0006	2014-10-24		
10	Pre-amplifier (0.1-1300MHz)	Agilent Technologies	8447D	SEL0053	2015-05-16		
11	Pre-Amplifier (0.1-26.5GHz)	Compliance Directions Systems Inc.	PAP-0126	SEL0168	2014-10-24		
12	Barometer	ChangChun	DYM3	SEL0088	2015-05-16		
13	DC Power Supply	Zhao Xin	RXN-305D	SEL0117	2014-10-24		
14	Humidity/ Temperature Indicator	Shanhai Qixiang	ZJ1-2B	SEL0103	2014-10-24		
15	Signal Generator	Rohde & Schwarz	SMY01	SEL0155	2014-10-24		
16	Signal Generator (10M-27GHz)	Rohde & Schwarz	SMR27	SEL0067	2015-05-16		
17	Loop Antenna	Beijing Daze	ZN30401	SEL0203	2014-06-04		

Note: The calibration interval is one year, all the instruments are valid.

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5 Test Result & Measurement Data

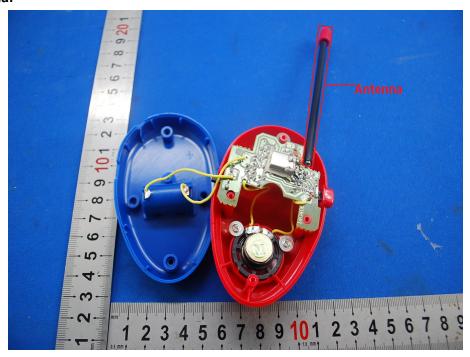
5.1 Antenna Requirement

Standard requirement: 47 CFR Part 15C Section 15.203

15.203 requirement:

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, 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.

EUT Antenna:



The antenna is a dedicated antenna that attached to the main PCB permanently using a screw, it can be replaced by the user when it is broken.



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5.2 Radiated Emissions

Test Requirement:	47 CFR Part 15C Section 15.235								
Test Method:	ANS	SI C63.10: 2009							
Test Site:	Mea	Measurement Distance: 3m (Semi-Anechoic Chamber)							
Receiver Setup:		Frequency		Detector	RBW	VB'	W	Remark	
	(0.009MHz-0.090MH	Z	Peak	10kHz	30k	Hz	Peak	
	(0.009MHz-0.090MH	Z	Average	10kHz	30k	Hz	Average	
	().090MHz-0.110MH	Z	Quasi-peak	10kHz	30k	Hz	Quasi-peak	
	().110MHz-0.490MH	Z	Peak	10kHz	30k	Hz	Peak	
	().110MHz-0.490MH	Z	Average	10kHz	30k	Hz	Average	
		0.490MHz -30MHz		Quasi-peak	10kHz	30k	Hz	Quasi-peak	
		30MHz-1GHz		Quasi-peak	100 kHz	300k	кНz	Quasi-peak	
		Above 1GHz		Peak	1MHz	ЗМІ	Hz	Peak	
		Above IGHZ		Peak	1MHz	10H	Ηz	Average	
Limit: (Spurious Emissions)		Frequency Field streng (microvolt/me			Limit (dBuV/m)	Re	emark Measurem distance (
	0.0	09MHz-0.490MHz	2	2400/F(kHz)	-		- 300		
	0.4	90MHz-1.705MHz	2	4000/F(kHz)	-		-	30	
	1	.705MHz-30MHz		30	-		- 30		
		30MHz-88MHz		100	40.0	Quas	si-pea	k 3	
		88MHz-216MHz		150	43.5	Quas	si-pea	k 3	
	2	216MHz-960MHz		200	46.0	Quas	Quasi-peak 3		
		960MHz-1GHz		500	54.0	Quas	si-pea	k 3	
		Above 1GHz		500	54.0	Ave	erage	3	
	Note: 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total						mit		
Limit:	Car	peak emission le rier frequency will n							
Limit: (Field strength of	oar			/m A i 3m. BuV/m @3	-		 Remark	-	
the fundamental		Frequency	Lilliit (dt	80	111)		rage Value		
signal)		49.860MHz	•		100			eak Value	1



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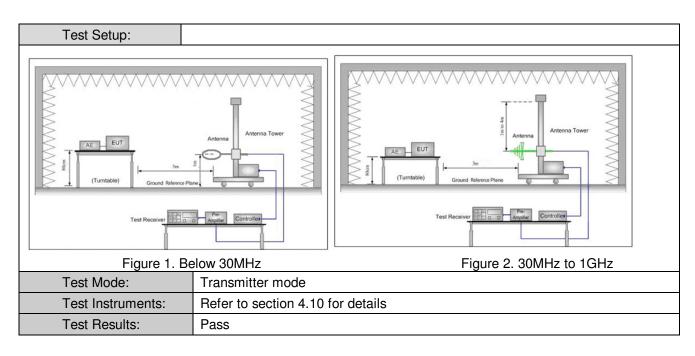
Test Procedure:

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- g. The radiation measurements are performed in X, Y, Z axis positioning. And found the X axis positioning which it is worse case, only the test worst case mode is recorded in the report.



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Measurement Data

Intentional emission

Test Frequency	Peak (d	Peak (dBμV/m)		Margin (dB)	
(MHz)	Vertical	Horizontal	(dBμV/m)	Vertical	Horizontal
49.860	66.24	55.90	100.0	33.76	44.1

Test Frequency	Average (dBμV/m)			gin (dB)	
(MHz)	Vertical	Horizontal	(dBμV/m)	Vertical	Horizontal	
49.860	63.92	52.81	80.0	16.08	27.19	

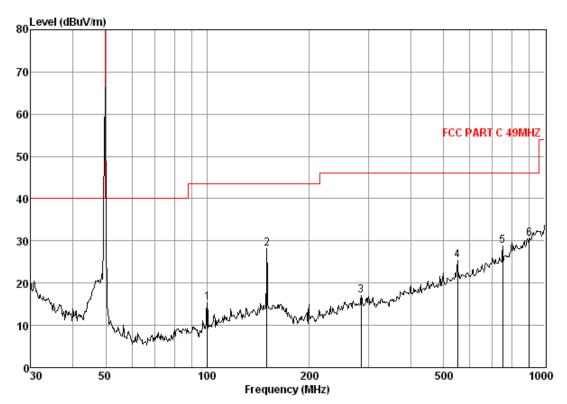


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Other emissions (QP value)

Vertical



Condition: FCC PART C 49MHZ 3m 3142C VERTICAL

Job No. : 2162RF Mode : TX

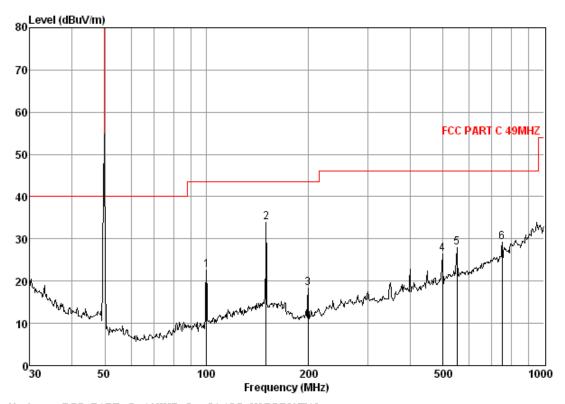
	Freq			Preamp Factor	Read Level		Over Limit
_	MHz	dB	dB/m	dB	dBuV	$\overline{\text{dBuV/m}}$	dB
1 2 3 4 5	99. 88 150. 01 285. 98 550. 95 750. 11 900. 15	1.20 1.32 1.84 2.65 3.06 3.60	6.70 9.30 9.23 14.80 17.30 20.20	27. 20 26. 91 26. 44 27. 61 27. 35 26. 78	34. 76 44. 35 32. 35 35. 52 35. 75 33. 49	28. 06 16. 98 25. 36 28. 76	-29.02 -20.64



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Horizontal



Condition: FCC PART C 49MHZ 3m 3142C HORIZONTAL

Job No. : 2162RF

	Freq		Antenna Factor	Preamp Factor	Read Level	Level	Over Limit
	MHz	dB	dB/m	dB	dBuV	$\overline{\text{dBuV/m}}$	dB
1 2 3 4 5 6	99. 88 150. 01 199. 99 499. 42 550. 95 750. 11	1.20 1.32 1.40 2.60 2.65 3.06	6.70 9.30 6.70 13.40 14.80 17.30	27. 20 26. 91 26. 70 27. 70 27. 61 27. 35	41. 82 50. 17 37. 00 38. 23 38. 21 36. 26	33. 88 18. 40 26. 53 28. 05	-20. 98 -9. 62 -25. 10 -19. 47 -17. 95 -16. 73

Remark:

- 1) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:
 - Final Test Level = Receiver Reading + Antenna Factor + Cable Factor Preamplifier Factor
- 2) The disturbance below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.



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5.3 Occupied Bandwidth

Test Requirement:	47 CFR Part 15C Section 15.235				
Test Method:	ANSI C63.10: 2009				
Limit::	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 un-modulated carrier or to the general limits in Section 15.209, whichever permits the higher emission levels.				
Test Setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane				
Test Mode:	Transmitter mode				
Instruments Used:	Refer to section 4.10 for details				
Test Results:	Pass				





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Test plot as follows:

