

TIMCO ENGINEERING INC.

849 NW State Road 45
Newberry, Florida 32669
<http://www.timcoengr.com>
888.472.2424 F 352.472.2030 email: tei@timcoengr.com

FCC PART 15 SUB PART C

Applicant	PLANET TOYS (HK) LTD.
Address	1107 CHINACHEM GOLDEN PLAZA 77 MODY ROAD, TSIMSHATSUI EAST
	KOWLOON HONG KONG
FCC ID	SZ23155T27
Product Description	26.96-27.28MHz WIRELESS R/C TOY- TX
Date Sample Received	5/7/2007
Date Tested	5/11/2007
Tested By	NAM NGUYEN
Approved By	MARIO DE ARANZETA
Report Number	1069UT7TestReport.doc
Total Pages	6
Test Results	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL

APPLICANT: PLANET TOYS (HK) LTD.
FCC ID: SZ23155T27
REPORT #: P\PLANET_SZ2\1069UT7\1069UT7TestReport.doc

COVER SHEET

TIMCO ENGINEERING INC.

849 NW State Road 45
Newberry, Florida 32669
<http://www.timcoengr.com>
888.472.2424 F 352.472.2030 email: tei@timcoengr.com

TABLE OF CONTENTS LIST

APPLICANT: PLANET TOYS (HK) LTD.

FCC ID: SZ23155T27

TEST REPORT CONTAINING:

PAGE 1.....TEST EQUIPMENT LIST
PAGE 2.....TEST PROCEDURE
PAGE 3.....RADIATION INTERFERENCE TEST DATA
PAGE 4.....OCCUPIED BANDWIDTH
PAGE 5.....OCCUPIED BANDWIDTH PLOT
PAGE 6.....TEST SET UP PHOTO

APPLICANT: PLANET TOYS (HK) LTD.

FCC ID: SZ23155T27

REPORT #: P\PLANET_SZ2\1069UT7\1069UT7TestReport.doc

TABLE OF CONTENTS

TIMCO ENGINEERING INC.

849 NW State Road 45
Newberry, Florida 32669
<http://www.timcoengr.com>
888.472.2424 F 352.472.2030 email: tei@timcoengr.com

EMC Equipment List

Device	Manufacturer	Model	Serial Number	Cal/Char Date	Due Date
3/10-Meter OATS	TEI	N/A	N/A	Listed 3/20/07	3/19/10
3-Meter OATS	TEI	N/A	N/A	Listed 1/11/06	1/10/09
Antenna: Biconnical	Eaton	94455-1	1057	CAL 12/12/05	12/12/07
Antenna: Biconnical	Eaton	94455-1	1096	CAL 10/11/06	10/11/08
Antenna: Biconnical	Electro-Metrics	BIA-25	1171	CAL 4/29/05	4/29/07
Antenna: Passive Loop	EMC Test Systems	EMCO 6512	9706-1211	CAL 4/27/06	4/27/08
Antenna: Active Loop	ETS-Lindgren	6502	00062529	CAL 3/30/06	3/30/08
Analyzer Tan Tower Quasi-Peak Adapter	HP	85650A	3303A01690	CAL 12/8/05	12/8/07
Analyzer TAN Tower RF Preselector	HP	85685A	3221A01400	CAL 12/7/05	12/7/08
Analyzer Tan Tower Spectrum Analyzer	HP	8568B Opt 462	3138A07786 31442A20661	CAL 12/7/05	12/7/08
LISN	Electro-Metrics	ANS-25/2	2604	CAL 10/5/06	10/5/08
LISN	Electro-Metrics	EM-7820	2682	CAL 4/28/05	4/28/07
Antenna: Log-Periodic	Eaton	96005	1243	CAL 12/14/05	12/14/07

APPLICANT: PLANET TOYS (HK) LTD.

FCC ID: SZ23155T27

REPORT #: P\PLANET_SZ2\1069UT7\1069UT7TestReport.doc

TIMCO ENGINEERING INC.

849 NW State Road 45
Newberry, Florida 32669
<http://www.timcoengr.com>
888.472.2424 F 352.472.2030 email: tei@timcoengr.com

TEST PROCEDURE

GENERAL: This report shall NOT be reproduced except in full without the written approval of TIMCO ENGINEERING, INC.

RADIATION INTERFERENCE: The test procedure used was ANSI C63.4-2003 using a spectrum analyzer with a pre-selector. The bandwidth of the spectrum analyzer was 100 kHz with an appropriate sweep speed. The analyzer was calibrated in dB above a microvolt at the output of the antenna. The resolution bandwidth was 100 kHz and the video bandwidth was 300 kHz. The ambient temperature of the DUT was 25°C with a humidity of 76%.

FORMULA OF CONVERSION FACTORS: The field strength at 3m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of dBuV) to the antenna correction factor supplied by the antenna manufacturer. The antenna correction factors are stated in terms of dB. The gain of the preselector was accounted for in the spectrum analyzer meter reading.

Example:

Freq (MHz)	METER READING	+	CL	+	ACF	=	FS
33	20 dBuV	+	1.02	+	10.36 dB	=	30.36 dBuV/m @ 3m

ANSI STANDARD C63.4-2003 10.1.7 MEASUREMENT PROCEDURES: The unit under test was placed on a table 80 cm high and with dimensions of 1m by 1.5m. The table used for radiated measurements is capable of continuous rotation. The DUT was tested up to the 10th harmonic with any emissions being found reported.

When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and vertical planes.

The situation was similar for the conducted measurement except that the table did not rotate. The DUT was setup as described in ANSI C63.4-2003 with the DUT 40 cm from the vertical ground wall.

APPLICANT: PLANET TOYS (HK) LTD.
FCC ID: SZ23155T27
REPORT #: P\PLANET_SZ2\1069UT7\1069UT7TestReport.doc

TIMCO ENGINEERING INC.

849 NW State Road 45
Newberry, Florida 32669
<http://www.timcoengr.com>
888.472.2424 F 352.472.2030 email: tei@timcoengr.com

APPLICANT: PLANET TOYS (HK) LTD.

FCC ID: SZ23155T27

NAME OF TEST: RADIATION INTERFERENCE

RULES PART NO.: 15.227

REQUIREMENTS: CARRIER FREQUENCY WILL NOT EXCEED 80 dBuV/m AT 3M.
OUT-OF-BAND EMISSIONS SHALL NOT EXCEED:

30 - 88 MHz	40.0 dBuV/M MEASURED AT 3 METERS
88 - 216 MHz	43.5 dBuV/M
216 - 960 MHz	46.0 dBuV/m
ABOVE 960 MHz	54.0 dBuV/m

TEST DATA:

Emission Frequency MHz	Meter Reading dBuV	Ant. Polarity	Coax Loss dB	Correction Factor dB	Field Strength dBuV/m	Margin dB
27.20	38.4	H	0.40	34.15	72.95	7.05
27.20	44.3	V	0.40	34.15	78.85	1.15
54.40	8.3	H	0.51	11.20	20.01	19.99
54.40	12.8	V	0.51	11.72	25.03	14.97
81.60	4.2	H	0.60	6.79	11.59	28.41
81.61	11.8	V	0.60	7.05	19.45	20.55
108.80	4.1	H	0.66	12.36	17.12	26.38
108.80	10.5	V	0.66	12.56	23.72	19.78
136.03	4.1	V	0.69	12.96	17.75	25.75
217.60	4.9	H	0.94	11.60	17.44	28.56
217.60	5.9	V	0.94	11.32	18.16	27.84
242.70	4.4	H	0.99	12.14	17.53	28.47
246.05	5.8	V	0.99	12.26	19.05	26.95
272.16	4.1	V	1.04	13.36	18.50	27.50
272.16	4.3	H	1.04	13.56	18.90	27.10

SAMPLE CALCULATION: FSdBuV/m = MR (dBuV) + ACFdB.

All measurements below 30 MHz were taken using an EMC Test Systems Loop Antenna.

PERFORMED BY: NAM NGUYEN

DATE: 5/7/2007

APPLICANT: PLANET TOYS (HK) LTD.

FCC ID: SZ23155T27

REPORT #: P\PLANET_SZ2\1069UT7\1069UT7TestReport.doc

TIMCO ENGINEERING INC.

849 NW State Road 45
Newberry, Florida 32669
<http://www.timcoengr.com>
888.472.2424 F 352.472.2030 email: tei@timcoengr.com

APPLICANT: PLANET TOYS (HK) LTD.

FCC ID: SZ23155T27

NAME OF TEST: Occupied Bandwidth

RULES PART NO.: 15.227

REQUIREMENTS: The field strength of any emissions appearing outside of 26.96 and 27.28MHz shall be attenuated to the general limits of 15.209.

TEST DATA:

THE GRAPH ON THE NEXT PAGE REPRESENTS THE EMISSIONS TAKEN FOR THE DEVICE.

METHOD OF MEASUREMENT: A small sample of the transmitter output was fed into the spectrum analyzer and the attached plot was taken. The vertical scale is set to 10 dB per division.

PERFORMED BY: NAM NGUYEN

DATE: May 11, 2007

APPLICANT: PLANET TOYS (HK) LTD.

FCC ID: SZ23155T27

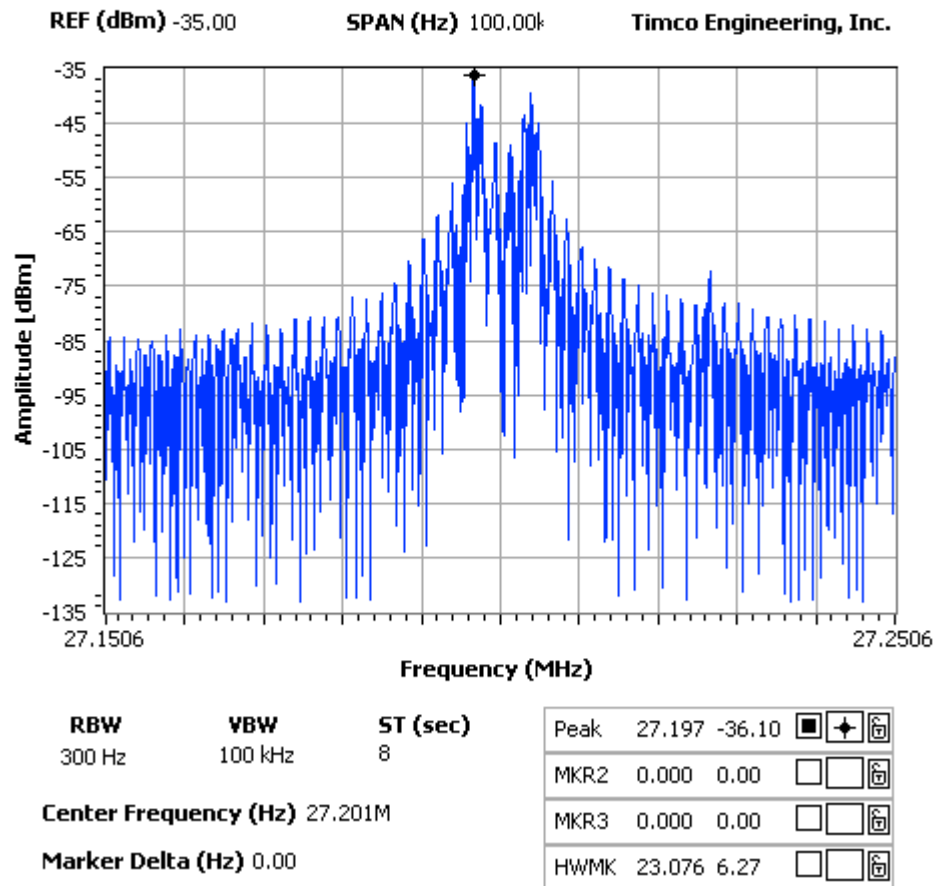
REPORT #: P\PLANET_SZ2\1069UT7\1069UT7TestReport.doc

TIMCO ENGINEERING INC.

849 NW State Road 45
Newberry, Florida 32669
<http://www.timcoengr.com>
888.472.2424 F 352.472.2030 email: tei@timcoengr.com

NOTES:

PLANET TOYS (HK) LTD. - FCC ID: SZ23155T27
OCCUPIED BANDWIDTH PLOT



APPLICANT: PLANET TOYS (HK) LTD.
FCC ID: SZ23155T27
REPORT #: P\PLANET_SZ2\1069UT7\1069UT7TestReport.doc

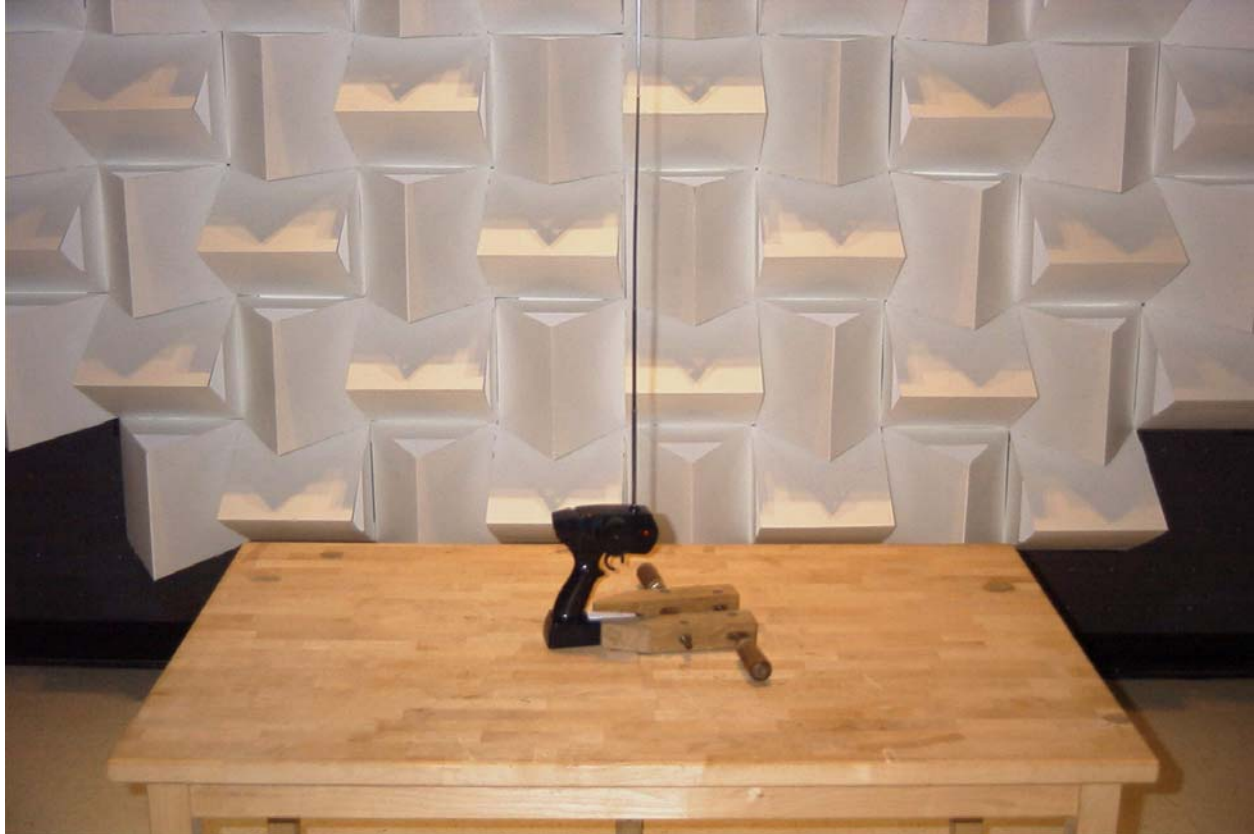
TIMCO ENGINEERING INC.

849 NW State Road 45

Newberry, Florida 32669

<http://www.timcoengr.com>

888.472.2424 F 352.472.2030 email: tei@timcoengr.com



APPLICANT: PLANET TOYS (HK) LTD.

FCC ID: SZ23155T27

REPORT #: P\PLANET_SZ2\1069UT7\1069UT7TestReport.doc