

TEST REPORT

To:	JAKKS PACIFIC (H.K) LIMITED		To:	-					
Attn:	Horace Chau / Kin Yiu / Jessica Ho		Attn:	-					
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Folder No.:									
Factory name:	ROOTLA	ND P	LASTIC FACTORY						
Location:									
Product:			– RC HULK SMASI lo.: 87374TX	1					
			Sample No:	(5215)078-0471					
	The state of the s		Test date:	March 19, 2015					
	OT III ON VENGERS SSEMBLE		Test Requested:	FCC Part 15 - 2012					
		To the second	Test Method:	ANSI C63.4 - 2009					
			FCC ID:	OTA87374TX					
The results	given in this report are related to the tes	ted sp	ecimen of the des	scribed electrical apparatus.					
CONCLUSION:	The submitted sample was found to CC	MPLY	with requirement	of FCC Part 15 Subpart C.					
	Authorized	Signa	ture:						
	Carp		For (ais					
Reviewed by: Ko	eith Yeung	Appro	Approved by: Steven Tsang						

BUREAU VERITAS HONG KONG LIMITED – Kowloon Bay Office 1/F Pacific Trade Centre, 2 Kai Hing Road, Kowloon Bay, Kowloon,HONG KONG Tel: +852 2331 0888 Fax: +852 2331 0889 www.cps.bureauveritas.com

Date: March 31, 2015

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Date: March 31, 2015



Test Result Summary

EMISSION TEST											
Test requirement: FCC Part 15 - 2012											
Test Condition	Test Method	Test	Result								
Test Condition	i est Metriod	Pass	Failed								
Radiated Emission Test,	ANSI C63.4										
9kHz to 24GHz											
Frequency range of Fundamental Emission	ANSI C63.4	\boxtimes									
26dB Bandwidth of Fundamental Emission	ANSI C63.4	\boxtimes									
Duty Cycle Correction During 100msec	ANSI C63.4	\boxtimes									

Report Revision & Sample Re-submit History:



Location of the test laboratory

Radiated and Conducted emissions measurements are investigated and taken pursuant to the procedures of ANSI C63.4 – 2009. An Open Area Test Site and Full Anechoic Chamber (FCC Listed Site, Registration No. 642151) are set up for investigation and located at:

BUREAU VERITAS HONG KONG LIMITED, EMC CENTRE

No. 2106-2107, 21/F., Westin Centre, 26 Hung To Road, Kwun Tong, Kowloon, Hong Kong

List of measuring equipment

Radiated Emission

EQUIPMENT	MANUFACTURER	MODEL NO.	SERIAL NO.	LAST CALIBRATION	CALIBRATION DUE
EMI TEST RECEIVER	R&S	ESCI	100379	21-JAN-2015	20-JAN-2016
SPECTRUM ANALYZER	R&S	R3127	111000909	27-MAR-2014	26-MAR-2015
LOOP ANTENNA	ETS LINDGREN	6502	00102266	28-SEP-2014	27-SEP-2015
BILOG ANTENNA	SCHAFFNER	CBL6112D	25229	02-JAN-2015	02-JAN-2016
HORN ANTENNA	SCHWARZBECK	BBHA9120D	9120D-692	27-DEC-2014	26-DEC-2015
OPEN AREA TEST SITE	BVCPS	N/A	N/A	07-JUL-2014	06-JUL-2015
ANECHOIC CHAMBER	ALBATROSS	M-CDC	80374004499B	05-FEB-2014	03-FEB-2016
COAXIAL CABLE	HUBER + SUHNER	RG223	N/A	23-DEC-2014	22-DEC-2015
COAXIAL CABLE	HUBER + SUHNER	RG214	N/A	23-DEC-2014	22-DEC-2015
Signal Analyzer 40GHz	Rohde & Schwarz	FSV 40	100977	13-MAY-2014	12-MAY-2015
Wideband Horn Antenna 18 to 40GHz	STEATITE	QWH-SL-18-40-K-SG	12688	02-SEP-2014	01-SEP-2015
High frequency RF cable Rohde & Schwarz		N/A	N/A	15-SEP-2014	14-SEP-2015

Measurement Uncertainty

Measurement	Frequency	Uncertainty
	9kHz to 30MHz	4.2dB
Radiated emissions	30MHz to 1GHz	5.0dB
Radiated emissions	1GHz to 18GHz	4.9dB
	18GHz to 40GHz	4.8dB

Remarks:-

N/A: Not Applicable or Not Available

The measurement instrumentation uncertainty would be taking into consideration on each of the test result



Equipment Under Test [EUT] Description of Sample:

Model Name: XPV/ MARVEL - RC HULK SMASH

Model Number: 87374TX

Additional Model Name: -Additional Model Number: -Additional Model information: --

Rating: 3Vd.c. ("AA" size battery x 2)

Description of EUT Operation:

The Equipment Under Test (EUT) is a **JAKKS PACIFIC (H.K) LIMITED / ARBOR TOYS COMPANY LIMITED** of Remote Control Transmitter. It is a 1 switch, 1 stick and 1 button transmitter and operating at 2408MHz to 2442MHz. The lowest, middle and highest frequencies were tested and the results are shown in the report. The EUT transmit while buttons is being pressed or sticks are being pushed or pulled, Modulation by IC, and type is GFSK. There are total 4 channels and below is the frequency list:

С	h.no	freq.	ch.no	freq.	ch.no	freq.	ch.no	freq.
	1	2408MHz	2	2416MHz	3	2426MHz	4	2442MHz

The transmitter has different control:

- 1. ON/OFF Switch power control
- 2. Left Stick control forward and rotate
- 3. Right button control the arms

Antenna Requirement (Section 15.203)

The EUT is use of a permanently antenna. The antenna consists of 3cm long wire antenna. It is soldered on the PCB. The antenna is not replaceable or user serviceable. The requirements of S15.203 are met. There are no deviations or exceptions to the specifications.

Photo of Antenna



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Test Results

Radiated Emissions (Fundamental)

Test Requirement: FCC Part 15 Section 15.249

Test Method: ANSI C63.4

Test Date(s): 2015-03-19

Temperature: 23.0 °C

Temperature: 23.0 °C Humidity: 72.0 % Atmospheric Pressure: 100.7 kPa

Mode of Operation: Transmission mode

Tested Voltage: 3Vd.c. ("AA" size battery x 2)

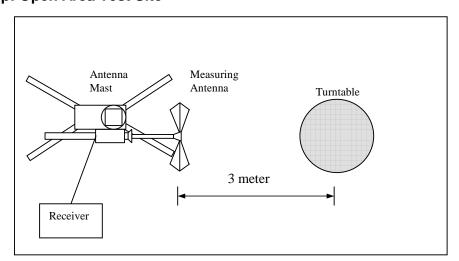
Test Procedure:

Radiated emissions measurements are investigated and taken pursuant to the procedures of ANSI C63.4 – 2009.

The equipment under test (EUT) was placed on a non-conductive turntable with dimensions of 1.5m x 1m and 0.8m high above the ground. 3m from the EUT, a broadband antenna mounting on the mast received the signal strength. 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, For battery operated equipment, the equipment tests shall be perform using new battery. The turntable was rotated to maximize the emission level. The antenna was then moving along the mast from 1m up to 4m until no more higher value was found. Both horizontal and vertical polarization of the antenna were placed and investigated.

Location: The Roof, Westin Centre, 26 Hung To Road, Kwun Tong, Kowloon, Hong Kong

Test Setup: Open Area Test Site



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Limits for Field Strength of Fundamental Emissions [FCC 47CFR 15.249]:

Frequency Range of	Field Strength of	Field Strength of
Fundamental	Fundamental Emission	Harmonics Emission
	(Average)	(Average)
[MHz]	[mV/m]	[µV/m]
2400-2483.5	50	500

Measurement Data

Test Result of (Transmission mode, Lowest frequency): PASS

Frequency (MHz)	Polarity (H/V)	Antenna Factor & Cable Loss (dB/m)	Duty- cycle correction (dB)	Field Strength at 3m – Peak (dBµV/m)	Limit at 3m – Peak (dBµV/m)	Margin - Peak (dB)	Field Strength at 3m – Average (dBµV/m)	Limit at 3m – Average (dBµV/m)	Margin - Average (dB)
2408.21	Н	0.0	-20.0	84.1	114.0	-29.9	**64.1	94.0	-29.9
2408.21	V	0.0	-20.0	87.3	114.0	-26.7	**67.3	94.0	-26.7

Test Result of (Transmission mode, Middle frequency): PASS

Frequency (MHz)	Polarity (H/V)	Antenna Factor & Cable Loss (dB/m)	Duty- cycle correction (dB)	Field Strength at 3m – Peak (dBµV/m)	Limit at 3m – Peak (dBµV/m)	Margin - Peak (dB)	Field Strength at 3m – Average (dBµV/m)	Limit at 3m – Average (dBµV/m)	Margin - Average (dB)
2426.21	Н	0.0	-20.0	86.9	114.0	-27.1	**66.9	94.0	-27.1
2426.21	V	0.0	-20.0	88.8	114.0	-25.2	**68.8	94.0	-25.2

Test Result of (Transmission mode, Highest frequency): PASS

Frequency (MHz)	Polarity (H/V)	Antenna Factor & Cable Loss (dB/m)	Duty- cycle correction (dB)	Field Strength at 3m – Peak (dBµV/m)	Limit at 3m – Peak (dBµV/m)	Margin - Peak (dB)	Field Strength at 3m – Average (dBµV/m)	Limit at 3m – Average (dBµV/m)	Margin - Average (dB)
2442.21	Н	0.0	-20.0	89.4	114.0	-24.6	**69.4	94.0	-24.6
2442.21	V	0.0	-20.0	88.9	114.0	-25.1	**68.9	94.0	-25.1

[#] For pulse modulated devices and using measuring equipment employing a peak detection mode, properly adjusted for such factor as pulse desensitisation.

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 1MHz VBW = 1MHz

as pulse desensitisation.

**Duty Cycle Correction = 20Log(0.08) = -21.9dB.

^{**}Therefore, -20dB is taken.



Radiated Emissions (Spurious Emission)

Test Requirement: FCC Part 15 Section 15.249

Test Method: **ANSI C63.4** 2015-03-19 Test Date(s): 23.0 °C Temperature: Humidity: 72.0 % Atmospheric Pressure: 100.7 kPa

Mode of Operation: Transmission mode

3Vd.c. ("AA" size battery x 2) Tested Voltage:

Measurement Data

Test Result of (Transmission mode, Lowest frequency): PASS

Frequency (MHz)	Polarity (H/V)	Antenna Factor & Cable Loss (dB/m)	Duty- cycle correction (dB)	Field Strength at 3m – Peak (dBµV/m)	Limit at 3m – Peak (dBµV/m)	Margin - Peak (dB)	Field Strength at 3m – Average (dBµV/m)	Limit at 3m – Average (dBµV/m)	Margin - Average (dB)
4816.42	Н	5.9	-20.0	63.5	74.0	-10.5	**43.5	54.0	-10.5
7224.63	Н	12.7	-20.0	61.5	74.0	-12.5	**41.5	54.0	-12.5
9632.84	Н	16.4	-20.0	51.9	74.0	-22.1	**31.9	54.0	-22.1
12041.05	Н	18.4	-20.0	53.1	74.0	-20.9	**33.1	54.0	-20.9
14449.26	Н	23.2	-20.0	60.6	74.0	-13.4	**40.6	54.0	-13.4
16857.47	Н	22.0	-20.0	61.1	74.0	-12.9	**41.1	54.0	-12.9
19265.68	Н	46.3	-20.0	63.0	74.0	-11.0	**43.0	54.0	-11.0
21673.89	Н	47.1	-20.0	62.3	74.0	-11.7	**42.3	54.0	-11.7
24082.10	Н	47.5	-20.0	62.3	74.0	-11.7	**42.3	54.0	-11.7
26490.31	Н	48.5	-20.0	63.4	74.0	-10.6	**43.4	54.0	-10.6

[#] For pulse modulated devices and using measuring equipment employing a peak detection mode, properly adjusted for such factor as pulse desensitisation.

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 1MHz

VBW =

^{**}Duty Cycle Correction = 20Log(0.08) = -21.9dB.

^{**}Therefore, -20dB is taken.



Measurement Data

Test Result of (Transmission mode, Lowest frequency): PASS

Frequency (MHz)	Polarity (H/V)	Antenna Factor & Cable Loss (dB/m)	Duty- cycle correction (dB)	Field Strength at 3m – Peak (dBµV/m)	Limit at 3m – Peak (dBµV/m)	Margin - Peak (dB)	Field Strength at 3m – Average (dBµV/m)	Limit at 3m – Average (dBµV/m)	Margin - Average (dB)
4816.42	V	5.9	-20.0	60.8	74.0	-13.2	**40.8	54.0	-13.2
7224.63	V	12.7	-20.0	59.4	74.0	-14.6	**39.4	54.0	-14.6
9632.84	V	16.4	-20.0	51.4	74.0	-22.6	**31.4	54.0	-22.6
12041.05	V	18.4	-20.0	54.0	74.0	-20.0	**34.0	54.0	-20.0
14449.26	V	23.2	-20.0	61.4	74.0	-12.6	**41.4	54.0	-12.6
16857.47	V	22.0	-20.0	62.3	74.0	-11.7	**42.3	54.0	-11.7
19265.68	V	46.3	-20.0	62.1	74.0	-11.9	**42.1	54.0	-11.9
21673.89	V	47.1	-20.0	60.8	74.0	-13.2	**40.8	54.0	-13.2
24082.10	V	47.5	-20.0	60.6	74.0	-13.4	**40.6	54.0	-13.4
26490.31	V	48.5	-20.0	62.9	74.0	-11.1	**42.9	54.0	-11.1

[#] For pulse modulated devices and using measuring equipment employing a peak detection mode, properly adjusted for such factor as pulse desensitisation.

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 1MHz

VBW = 1MHz

^{**}Duty Cycle Correction = 20Log(0.08) = -21.9dB.

^{**}Therefore, -20dB is taken.



Measurement Data

Test Result of (Transmission mode, Middle frequency): PASS

Frequency (MHz)	Polarity (H/V)	Antenna Factor & Cable Loss (dB/m)	Duty- cycle correction (dB)	Field Strength at 3m – Peak (dBµV/m)	Limit at 3m – Peak (dBµV/m)	Margin - Peak (dB)	Field Strength at 3m – Average (dBµV/m)	Limit at 3m – Average (dBµV/m)	Margin - Average (dB)
4852.42	Н	5.9	-20.0	62.6	74.0	-11.4	**42.6	54.0	-11.4
7278.63	Н	12.7	-20.0	61.8	74.0	-12.2	**41.8	54.0	-12.2
9704.84	Н	16.4	-20.0	50.3	74.0	-23.7	**30.3	54.0	-23.7
12131.05	Н	18.6	-20.0	51.3	74.0	-22.7	**31.3	54.0	-22.7
14557.26	Н	23.5	-20.0	60.8	74.0	-13.2	**40.8	54.0	-13.2
16983.47	Н	23.7	-20.0	61.5	74.0	-12.5	**41.5	54.0	-12.5
19409.68	Н	46.4	-20.0	61.9	74.0	-12.1	**41.9	54.0	-12.1
21835.89	Н	47.0	-20.0	61.3	74.0	-12.7	**41.3	54.0	-12.7
24262.10	Н	47.7	-20.0	62.6	74.0	-11.4	**42.6	54.0	-11.4
26688.31	Н	48.7	-20.0	61.5	74.0	-12.5	**41.5	54.0	-12.5

Frequency (MHz)	Polarity (H/V)	Antenna Factor & Cable Loss (dB/m)	Duty- cycle correction (dB)	Field Strength at 3m – Peak (dBµV/m)	Limit at 3m – Peak (dBµV/m)	Margin - Peak (dB)	Field Strength at 3m – Average (dBµV/m)	Limit at 3m – Average (dBµV/m)	Margin - Average (dB)
4852.42	V	5.9	-20.0	61.0	74.0	-13.0	**41.0	54.0	-13.0
7278.63	V	12.7	-20.0	59.4	74.0	-14.6	**39.4	54.0	-14.6
9704.84	V	16.4	-20.0	51.2	74.0	-22.8	**31.2	54.0	-22.8
12131.05	V	18.6	-20.0	55.7	74.0	-18.3	**35.7	54.0	-18.3
14557.26	V	23.5	-20.0	61.4	74.0	-12.6	**41.4	54.0	-12.6
16983.47	V	23.7	-20.0	62.7	74.0	-11.3	**42.7	54.0	-11.3
19409.68	V	46.4	-20.0	64.0	74.0	-10.0	**44.0	54.0	-10.0
21835.89	V	47.0	-20.0	62.8	74.0	-11.2	**42.8	54.0	-11.2
24262.10	V	47.7	-20.0	63.7	74.0	-10.3	**43.7	54.0	-10.3
26688.31	V	48.7	-20.0	63.6	74.0	-10.4	**43.6	54.0	-10.4

[#] For pulse modulated devices and using measuring equipment employing a peak detection mode, properly adjusted for such factor as pulse desensitisation.

**Therefore, -20dB is taken.

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 1MHzVBW

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^{**}Duty Cycle Correction = 20Log(0.08) = -21.9dB.



Measurement Data Test Result of (Transmission mode, Highest frequency): PASS

Frequency (MHz)	Polarity (H/V)	Antenna Factor & Cable Loss (dB/m)	Duty- cycle correction (dB)	Field Strength at 3m – Peak (dBµV/m)	Limit at 3m – Peak (dBµV/m)	Margin - Peak (dB)	Field Strength at 3m – Average (dBµV/m)	Limit at 3m – Average (dBµV/m)	Margin - Average (dB)
4884.42	Н	5.9	-20.0	61.7	74.0	-12.3	**41.7	54.0	-12.3
7326.63	Н	12.7	-20.0	59.7	74.0	-14.3	**39.7	54.0	-14.3
9768.84	Н	16.4	-20.0	51.2	74.0	-22.8	**31.2	54.0	-22.8
12211.05	Н	18.6	-20.0	56.3	74.0	-17.7	**36.3	54.0	-17.7
14653.26	Н	25.0	-20.0	60.7	74.0	-13.3	**40.7	54.0	-13.3
17095.47	Н	27.2	-20.0	60.8	74.0	-13.2	**40.8	54.0	-13.2
19537.68	Н	46.5	-20.0	61.9	74.0	-12.1	**41.9	54.0	-12.1
21979.89	Н	46.9	-20.0	60.1	74.0	-13.9	**40.1	54.0	-13.9
24422.10	Н	48.0	-20.0	62.9	74.0	-11.1	**42.9	54.0	-11.1
26864.31	Н	48.3	-20.0	62.6	74.0	-11.4	**42.6	54.0	-11.4

[#] For pulse modulated devices and using measuring equipment employing a peak detection mode, properly adjusted for such factor as pulse desensitisation.

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 1MHz

VBW = 1MHz

^{**}Duty Cycle Correction = 20Log(0.08) = -21.9dB.

^{**}Therefore, -20dB is taken.



Measurement Data Test Result of (Transmission mode, Highest frequency): PASS

Frequency (MHz)	Polarity (H/V)	Antenna Factor & Cable Loss (dB/m)	Duty- cycle correction (dB)	Field Strength at 3m – Peak (dBµV/m)	Limit at 3m – Peak (dBµV/m)	Margin - Peak (dB)	Field Strength at 3m – Average (dBµV/m)	Limit at 3m – Average (dBµV/m)	Margin - Average (dB)
4884.42	V	5.9	-20.0	58.9	74.0	-15.1	**38.9	54.0	-15.1
7326.63	V	12.7	-20.0	57.9	74.0	-16.1	**37.9	54.0	-16.1
9768.84	V	16.4	-20.0	51.3	74.0	-22.7	**31.3	54.0	-22.7
12211.05	V	18.6	-20.0	55.4	74.0	-18.6	**35.4	54.0	-18.6
14653.26	V	25.0	-20.0	62.0	74.0	-12.0	**42.0	54.0	-12.0
17095.47	V	27.2	-20.0	62.4	74.0	-11.6	**42.4	54.0	-11.6
19537.68	V	46.5	-20.0	63.3	74.0	-10.7	**43.3	54.0	-10.7
21979.89	V	46.9	-20.0	62.7	74.0	-11.3	**42.7	54.0	-11.3
24422.10	V	48.0	-20.0	63.7	74.0	-10.3	**43.7	54.0	-10.3
26864.31	V	48.3	-20.0	62.4	74.0	-11.6	**42.4	54.0	-11.6

[#] For pulse modulated devices and using measuring equipment employing a peak detection mode, properly adjusted for such factor as pulse desensitisation.

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 1MHz

VBW = 1MHz

^{**}Duty Cycle Correction = 20Log(0.08) = -21.9dB.

^{**}Therefore, -20dB is taken.



Radiated Emissions (30MHz - 2.4GHz)

Test Requirement: FCC Part 15 Section 15.209

Test Method:

Test Date(s):

Temperature:

Humidity:

ANSI C63.4

2015-03-19

23.0 °C

72.0 %

Atmospheric Pressure:

Mode of Operation:

ANSI C63.4

100.7 kPa

On mode

Tested Voltage: 3Vd.c. ("AA" size battery x 2)

Limits for Radiated Emissions [FCC 47 CFR 15.209]:

Frequency Range	Quasi-Peak Limits	Measurement Distance
[MHz]	[μV/m]	m
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above960	500	3

Measurement Data

Test Result of (On mode): PASS

Detection mode: Quasi-Peak

Frequency	Polarity (H/V)	Field Strength	Limit	Margin (dB)	
Emissions detected are more than 20 dB below the limit line(s) in					
9kHz to 30MHz					

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 200Hz

VBW = 200Hz



Measurement Data

Test Result of (On mode): PASS

Detection mode: Quasi-Peak

Frequency (MHz)	Polarity (H/V)	Field Strength at 3m (dBµV/m)	Limit at 3m (dBµV/m)	Margin (dB)
121.40	Н	23.2	43.5	-20.3
147.86	Н	24.5	43.5	-19.0
223.52	Н	23.7	46.0	-22.3
321.32	Н	23.0	46.0	-23.0
447.68	Н	25.1	46.0	-20.9
557.24	Н	26.1	46.0	-19.9

Frequency (MHz)	Polarity (H/V)	Field Strength at 3m (dB _µ V/m)	Limit at 3m (dBµV/m)	Margin (dB)
121.40	V	23.1	43.5	-20.4
147.86	V	24.8	43.5	-18.7
223.52	V	23.9	46.0	-22.1
321.32	V	22.7	46.0	-23.3
447.68	V	25.3	46.0	-20.7
557.24	V	26.8	46.0	-19.2

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 120KHz

VBW = 120KHz

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Frequency range of Fundamental Emission

Test Requirement: FCC 47 CFR 15.249

Test Method: ANSI C63.4:2009 (Section 13.1.7)

Test Date(s): 2015-03-19
Temperature: 23.0 °C
Humidity: 72.0 %
Atmospheric Pressure: 100.7 kPa
Mode of Operation: On mode

Tested Voltage: 3Vd.c. ("AA" size battery x 2)

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.

Limits for Frequency range of Fundamental Emission:

	5: : a::aa:::0:::a: = ::::00:0::
Frequency	FCC Limits
[MHz]	[MHz]
2407.60 - 2443.15	2400 – 2483.5

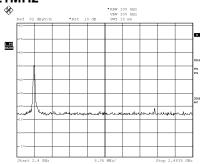
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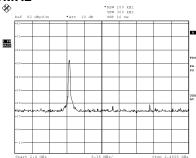
Measurement Data:

Test Result of Frequency Range of Fundamental Emission: PASS

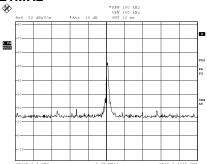
Lowest Frequency - 2408.21MHz



Middle Frequency - 2426.21MHz



Highest Frequency - 2442.21MHz

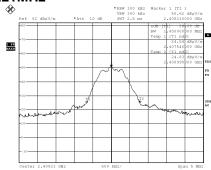




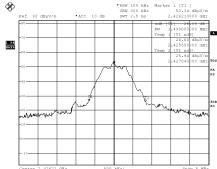
Measurement Data:

Test Result of 26dB Bandwidth of Fundamental Emission: PASS

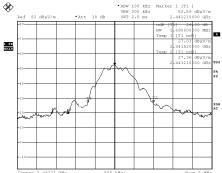
Lowest Frequency – 2408.21MHz



Middle Frequency - 2426.21MHz



Highest Frequency - 2442.21MHz



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Duty Cycle Correction During 100msec:

Each function key sends a different series of characters, but each packet period ($\underline{100}$ msec) never exceeds a series of 20 pulses ($\underline{0.4}$ msec). Assuming any combination of short and long pulses maybe obtained due to encoding the worst case transmit duty cycle would be considered $\underline{20*0.4}$ per $\underline{100}$ msec = $\underline{8}\%$ duty cycle.

Remarks:

Duty Cycle Correction = 20Log(0.08) = -21.9dB Therefore, -20dB is taken

The following figure show the characteristics of the pulse train for one of these functions.



Center 2.42621 GHz

Measurement Data:

Figure A [Pulse Train] REW 1 MHz Delta 1 [T1] VBW 3 MHz 400.000000 µs Ref 82 dBµV/m *Att 10 dB SWT 100 ms 400.00000 µs 80 Marker 1 [T1] 59.17 dBµV/m 9.200 000 ms TDS TDS AC

10 ms/



Photographs of EUT

Front View of the product



Top View of the product



Side View of the product



Battery compartment



Rear View of the product



Bottom View of the product



Side View of the product



Battery Cover



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Photographs of EUT

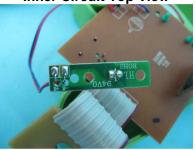
Internal View of the product



Inner Circuit Top View



Inner Circuit Top View



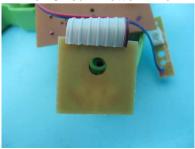
Inner Circuit Top View



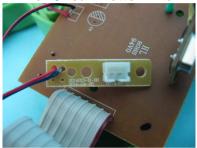
Internal View of the product



Inner Circuit Bottom View



Inner Circuit Bottom View



Inner Circuit Bottom View



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Photographs of EUT

Internal View of the product



Internal View of the product



Antenna





Measurement of Radiated Emission Test Set Up



***** End of Report *****