
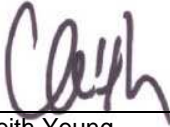





**BUREAU
VERITAS**

TEST REPORT No: (5216)117-0329

TEST REPORT

To:	SILVERLIT TOYS MANUFACTORY LTD.	To:	-
Attn:	Nelson Ng	Attn:	-
Address:	Floor 17 th , World Trade Centre, 280 Gloucester Road, Causeway Bay, Hong Kong	Address:	-
Fax:	29162932	Fax:	-
E-mail:	nelson@silverlit.com	E-mail:	-
Folder No.:	--		
Factory name:	--		
Location:	--		
Product:	2.4G SKY FURY Model No.: 84749		
	Sample No:	(5216)117-0329	
	Date of Receipt:	April 21, 2016	
	Test date:	May 25, 2016 to June 20, 2016	
	Test Requested:	FCC Part 15 - 2015	
	Test Method:	ANSI C63.10 - 2013	
	FCC ID:	OYK-TX0002G4-1601	
The results given in this report are related to the tested specimen of the described electrical apparatus.			
CONCLUSION: The submitted sample was found to <u>COMPLY</u> with requirement of FCC Part 15 Subpart C.			
Authorized Signature:			
			
Reviewed by: Keith Yeung	Approved by: Law Man Kit		
Date: July 04, 2016	Date: July 04, 2016		



TEST REPORT No: (5216)117-0329
Test Result Summary

EMISSION TEST			
Test requirement: FCC Part 15 - 2015			
Test Condition	Test Method	Test Result	
		Pass	Failed
Radiated Emission Test, 9kHz to 40GHz	ANSI C63.10	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Frequency range of Fundamental Emission	ANSI C63.10	<input checked="" type="checkbox"/>	<input type="checkbox"/>
26dB Bandwidth of Fundamental Emission	ANSI C63.10	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Duty Cycle Correction During 100msec	ANSI C63.10	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Report Revision & Sample Re-submit History:

Sample first submission date: May 25, 2016
 Sample second submission date: June 10, 2016
 Sample third submission date: June 17, 2016



TEST REPORT No: (5216)117-0329

Location of the test laboratory

Radiated and Conducted emissions measurements are investigated and taken pursuant to the procedures of ANSI C63.10 – 2013. An Open Area Test Site and Full Anechoic Chamber 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.	CAL. DATE	CAL. DUE DATE
EMI TEST RECEIVER	R&S	ESCI	100379	23-FEB-2016	22-FEB-2017
SIGNAL ANALYZER 40GHZ	R&S	FSV 40	100977	30-JUN-2015	29-JUN-2016
BILOG ANTENNA	SCHAFFNER	CBL6112D	25229	27-FEB-2016	26-FEB-2018
OPEN AREA TEST SITE	BVCPS	N/A	N/A	18-JUN-2016	17-JUN-2017
ANECHOIC CHAMBER	ALBATROSS	M-CDC	80374004499B	11-MAY-2016	10-MAY-2017
BICONICAL ANTENNA	R&S	HK116	100179	14-APR-2016	13-APR-2018
LOG-PERIODIC DIPOLE ARRAY ANTENNA	R&S	HL223	832369/001	07-APR-2016	06-APR-2018
LOOP ANTENNA	ETS-LINDGREN	6502	00102266	06-NOV-2015	05-NOV-2017
HORN ANTENNA (1-18GHZ)	SCHWARZBECK	BBHA9120D	9120D-692	05-NOV-2016	04-NOV-2018
HORN ANTENNA (7.5 – 18GHZ)	SCHWARZBECK	HWRD 750	00015	17-JUN-2016	16-JUN-2018
WIDEBAND HORN ANTENNA	STEATITE	QWH-SL-18-40- K-SG	12688	03-SEP-2015	02-SEP-2017
COAXIAL CABLE	SUHNER	N/A	N/A	07-JAN-2016	06-JAN-2017
COAXIAL CABLE	HUBER + SUHNER	RG214	N/A	05-OCT-2015	04-OCT-2016

Measurement Uncertainty

MEASUREMENT	FREQUENCY	UNCERTAINTY
Radiated emissions	9kHz to 30MHz	4.2dB
	30MHz to 200MHz	4.5dB
	200MHZ to 1GHz	5.6dB
	1GHz to 18GHz	4.7dB
	18GHz to 40GHz	5.2dB

Remarks:-

N/A : Not Applicable or Not Available

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

TEST REPORT No: (5216)117-0329

Equipment Under Test [EUT]

Description of Sample:

Model Name: 2.4G SKY FURY
 Model Number: 84749
 Additional Model Name: --
 Additional Model Number: --
 Additional Model information: --
 Rating: 4.5Vd.c. ("AAA" size battery x 3)

Description of EUT Operation:

The Equipment Under Test (EUT) is a **SILVERLIT TOYS MANUFACTORY LTD.** of Remote Control Transmitter. It is a 1 switch, 1 knob and 2 sticks transmitter and operating at 2402MHz to 2480MHz. The lowest, middle and highest frequencies were tested and the results are shown in the report. The EUT transmit while corresponding remote controller sticks are being pushed or pulled, Modulation by IC, and type is GFSK.

There are total 64 channels and below is the frequency list (MHz) :

ch	freq.	ch	freq.	ch	freq.	ch	freq.	ch	freq.	ch	freq.	ch	freq.	ch	freq.
1	2402	11	2412	21	2422	31	2432	41	2442	51	2452	61	2462	71	2472
2	2403	12	2413	22	2423	32	2433	42	2443	52	2453	62	2463	72	2473
3	2404	13	2414	23	2424	33	2434	43	2444	53	2454	63	2464	73	2474
4	2405	14	2415	24	2425	34	2435	44	2445	54	2455	64	2465	74	2475
5	2406	15	2416	25	2426	35	2436	45	2446	55	2456	65	2466	75	2476
6	2407	16	2417	26	2427	36	2437	46	2447	56	2457	66	2467	76	2477
7	2408	17	2418	27	2428	37	2438	47	2448	57	2458	67	2468	77	2478
8	2409	18	2419	28	2429	38	2439	48	2449	58	2459	68	2469	78	2479
9	2410	19	2420	29	2430	39	2440	49	2450	59	2460	69	2470	79	2480
10	2411	20	2421	30	2431	40	2441	50	2451	60	2461	70	2471		

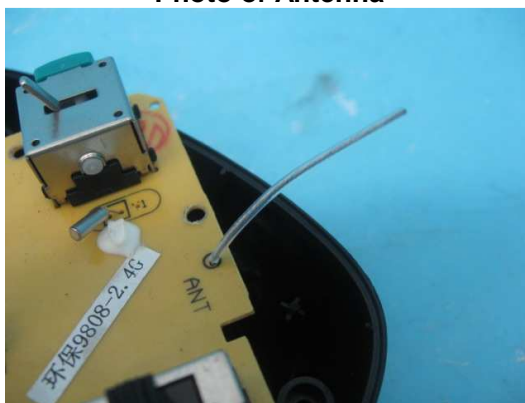
The transmitter has different control:

1. ON/OFF Switch – control power on/off
2. Knob – trimming the helicopter
3. Left stick – control upward and downward
4. Right stick – control direction

Antenna Requirement (Section 15.203)

The EUT is use of a permanently antenna. It is soldered on the PCB. The antenna consists of 3.5cm long wire 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



TEST REPORT No: (5216)117-0329

Test Results

Radiated Emissions (Fundamental)

Test Requirement: FCC Part 15 Section 15.249
 Test Method: ANSI C63.10
 Test Date(s): 2016-06-20
 Temperature: 32.0 °C
 Humidity: 75.0 %
 Atmospheric Pressure: 99.1 kPa
 Mode of Operation: Transmission mode
 Tested Voltage: 4.5Vd.c. ("AAA" size battery x 3)

Test Procedure:

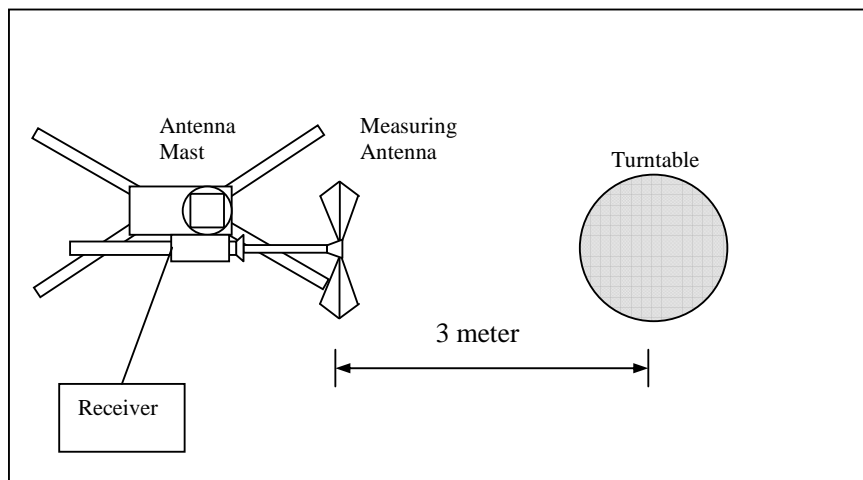
Radiated emissions measurements are investigated and taken pursuant to the procedures of ANSI C63.10 – 2013.

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 for measurement frequency below 1GHz and 1.5m high above the ground for measurement frequency above 1GHz. 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.

For below 30MHz, a loop antenna with its vertical plane is place 3m from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. And the centre of the loop shall be 1m above the ground.

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

Test Setup: Open Area Test Site





TEST REPORT No: (5216)117-0329

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

Frequency Range of Fundamental [MHz]	Field Strength of Fundamental Emission (Average) [mV/m]	Field Strength of Harmonics Emission (Average) [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)
2402.00	H	-3.5	-17.8	78.9	114.0	-35.1	**61.1	94.0	-32.9
2402.00	V	-3.5	-17.8	78.1	114.0	-35.9	**60.3	94.0	-33.7

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)
2440.00	H	-3.5	-17.8	79.8	114.0	-34.2	**62.0	94.0	-32.0
2440.00	V	-3.5	-17.8	79.1	114.0	-34.9	**61.3	94.0	-32.7

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)
2480.00	H	-3.5	-17.8	80.4	114.0	-33.6	**62.6	94.0	-31.4
2480.00	V	-3.5	-17.8	79.4	114.0	-34.6	**61.6	94.0	-32.4

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

**Duty Cycle Correction = 20Log(0.128) = -17.8dB.

Note: Field Strength includes Antenna Factor, Cable Loss and Gain of pre-amplifier.

Receiver setting: RBW = 1MHz
VBW = 1MHz



TEST REPORT No: (5216)117-0329

Radiated Emissions (Spurious Emission)

Test Requirement: FCC Part 15 Section 15.249
 Test Method: ANSI C63.10
 Test Date(s): 2016-06-20
 Temperature: 32.0 °C
 Humidity: 75.0 %
 Atmospheric Pressure: 99.1 kPa
 Mode of Operation: Transmission mode
 Tested Voltage: 4.5Vd.c. ("AAA" size battery x 3)

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)
2400.00	H	-3.5	-17.8	62.0	74.0	-12.0	**44.2	54.0	-9.8
4804.00	H	1.6	-17.8	56.4	74.0	-17.6	**38.6	54.0	-15.4
7206.00	H	10.7	-17.8	56.6	74.0	-17.4	**38.8	54.0	-15.2
9608.00	H	15.5	-17.8	50.3	74.0	-23.7	**32.5	54.0	-21.5
12010.00	H	18.0	-17.8	53.0	74.0	-21.0	**35.2	54.0	-18.8
14412.00	H	24.0	-17.8	58.1	74.0	-15.9	**40.3	54.0	-13.7
16814.00	H	19.1	-17.8	58.4	74.0	-15.6	**40.6	54.0	-13.4
19216.00	H	46.5	-17.8	58.9	74.0	-15.1	**41.1	54.0	-12.9
21618.00	H	46.8	-17.8	59.1	74.0	-14.9	**41.3	54.0	-12.7
24020.00	H	47.6	-17.8	58.3	74.0	-15.7	**40.5	54.0	-13.5
26422.00	H	48.6	-17.8	61.1	74.0	-12.9	**43.3	54.0	-10.7

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

**Duty Cycle Correction = $20\log(0.128) = -17.8\text{dB}$.

Note: Field Strength includes Antenna Factor, Cable Loss and Gain of pre-amplifier.

Receiver setting: RBW = 1MHz
VBW = 1MHz



TEST REPORT No: (5216)117-0329

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 (dB μ V/m)	Limit at 3m – Peak (dB μ V/m)	Margin - Peak (dB)	Field Strength at 3m – Average (dB μ V/m)	Limit at 3m – Average (dB μ V/m)	Margin - Average (dB)
2400.00	V	-3.5	-17.8	61.8	74.0	-12.2	**44.0	54.0	-10.0
4804.00	V	1.6	-17.8	53.5	74.0	-20.5	**35.7	54.0	-18.3
7206.00	V	10.7	-17.8	57.2	74.0	-16.8	**39.4	54.0	-14.6
9608.00	V	15.5	-17.8	51.4	74.0	-22.6	**33.6	54.0	-20.4
12010.00	V	18.0	-17.8	52.0	74.0	-22.0	**34.2	54.0	-19.8
14412.00	V	24.0	-17.8	56.5	74.0	-17.5	**38.7	54.0	-15.3
16814.00	V	19.1	-17.8	58.3	74.0	-15.7	**40.5	54.0	-13.5
19216.00	V	46.5	-17.8	59.1	74.0	-14.9	**41.3	54.0	-12.7
21618.00	V	46.8	-17.8	58.0	74.0	-16.0	**40.2	54.0	-13.8
24020.00	V	47.6	-17.8	57.9	74.0	-16.1	**40.1	54.0	-13.9
26422.00	V	48.6	-17.8	60.1	74.0	-13.9	**42.3	54.0	-11.7

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

**Duty Cycle Correction = $20\text{Log}(0.128) = -17.8\text{dB}$.

Note: Field Strength includes Antenna Factor, Cable Loss and Gain of pre-amplifier.

Receiver setting: RBW = 1MHz
VBW = 1MHz

TEST REPORT No: (5216)117-0329

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 (dB μ V/m)	Limit at 3m – Peak (dB μ V/m)	Margin - Peak (dB)	Field Strength at 3m – Average (dB μ V/m)	Limit at 3m – Average (dB μ V/m)	Margin - Average (dB)
4880.00	H	1.6	-17.8	56.2	74.0	-17.8	**38.4	54.0	-15.6
7320.00	H	10.7	-17.8	54.5	74.0	-19.5	**36.7	54.0	-17.3
9760.00	H	15.8	-17.8	50.5	74.0	-23.5	**32.7	54.0	-21.3
12200.00	H	17.9	-17.8	53.9	74.0	-20.1	**36.1	54.0	-17.9
14640.00	H	25.2	-17.8	56.9	74.0	-17.1	**39.1	54.0	-14.9
17080.00	H	22.1	-17.8	59.9	74.0	-14.1	**42.1	54.0	-11.9
19520.00	H	46.5	-17.8	59.8	74.0	-14.2	**42.0	54.0	-12.0
21960.00	H	47.1	-17.8	58.4	74.0	-15.6	**40.6	54.0	-13.4
24400.00	H	47.8	-17.8	58.9	74.0	-15.1	**41.1	54.0	-12.9
26840.00	H	48.6	-17.8	60.4	74.0	-13.6	**42.6	54.0	-11.4

Frequency (MHz)	Polarity (H/V)	Antenna Factor & Cable Loss (dB/m)	Duty-cycle correction (dB)	Field Strength at 3m – Peak (dB μ V/m)	Limit at 3m – Peak (dB μ V/m)	Margin - Peak (dB)	Field Strength at 3m – Average (dB μ V/m)	Limit at 3m – Average (dB μ V/m)	Margin - Average (dB)
4880.00	V	1.6	-17.8	53.2	74.0	-20.8	**35.4	54.0	-18.6
7320.00	V	10.7	-17.8	55.0	74.0	-19.0	**37.2	54.0	-16.8
9760.00	V	15.8	-17.8	50.8	74.0	-23.2	**33.0	54.0	-21.0
12200.00	V	17.9	-17.8	54.1	74.0	-19.9	**36.3	54.0	-17.7
14640.00	V	25.2	-17.8	57.8	74.0	-16.2	**40.0	54.0	-14.0
17080.00	V	22.1	-17.8	60.6	74.0	-13.4	**42.8	54.0	-11.2
19520.00	V	46.5	-17.8	59.3	74.0	-14.7	**41.5	54.0	-12.5
21960.00	V	47.1	-17.8	58.5	74.0	-15.5	**40.7	54.0	-13.3
24400.00	V	47.8	-17.8	57.8	74.0	-16.2	**40.0	54.0	-14.0
26840.00	V	48.6	-17.8	59.8	74.0	-14.2	**42.0	54.0	-12.0

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

**Duty Cycle Correction = $20\log(0.128) = -17.8\text{dB}$.

Note: Field Strength includes Antenna Factor, Cable Loss and Gain of pre-amplifier.

Receiver setting: RBW = 1MHz
VBW = 1MHz



TEST REPORT No: (5216)117-0329

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 (dB μ V/m)	Limit at 3m – Peak (dB μ V/m)	Margin - Peak (dB)	Field Strength at 3m – Average (dB μ V/m)	Limit at 3m – Average (dB μ V/m)	Margin - Average (dB)
2483.50	H	-3.5	-17.8	67.8	74.0	-6.2	**50.0	54.0	-4.0
4960.00	H	1.7	-17.8	57.2	74.0	-16.8	**39.4	54.0	-14.6
7440.00	H	10.7	-17.8	55.9	74.0	-18.1	**38.1	54.0	-15.9
9920.00	H	15.9	-17.8	51.3	74.0	-22.7	**33.5	54.0	-20.5
12400.00	H	17.6	-17.8	54.3	74.0	-19.7	**36.5	54.0	-17.5
14880.00	H	24.6	-17.8	57.6	74.0	-16.4	**39.8	54.0	-14.2
17360.00	H	23.5	-17.8	60.5	74.0	-13.5	**42.7	54.0	-11.3
19840.00	H	46.6	-17.8	60.3	74.0	-13.7	**42.5	54.0	-11.5
22320.00	H	47.5	-17.8	57.6	74.0	-16.4	**39.8	54.0	-14.2
24800.00	H	47.9	-17.8	59.8	74.0	-14.2	**42.0	54.0	-12.0
27280.00	H	48.7	-17.8	59.6	74.0	-14.4	**41.8	54.0	-12.2

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

**Duty Cycle Correction = $20\text{Log}(0.128) = -17.8\text{dB}$.

Note: Field Strength includes Antenna Factor, Cable Loss and Gain of pre-amplifier.

Receiver setting: RBW = 1MHz
VBW = 1MHz



TEST REPORT No: (5216)117-0329

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 (dB μ V/m)	Limit at 3m – Peak (dB μ V/m)	Margin - Peak (dB)	Field Strength at 3m – Average (dB μ V/m)	Limit at 3m – Average (dB μ V/m)	Margin - Average (dB)
2483.50	V	-3.5	-17.8	68.0	74.0	-6.0	**50.2	54.0	-3.8
4960.00	V	1.7	-17.8	54.4	74.0	-19.6	**36.6	54.0	-17.4
7440.00	V	10.7	-17.8	55.8	74.0	-18.2	**38.0	54.0	-16.0
9920.00	V	15.9	-17.8	50.7	74.0	-23.3	**32.9	54.0	-21.1
12400.00	V	17.6	-17.8	53.3	74.0	-20.7	**35.5	54.0	-18.5
14880.00	V	24.6	-17.8	58.0	74.0	-16.0	**40.2	54.0	-13.8
17360.00	V	23.5	-17.8	59.2	74.0	-14.8	**41.4	54.0	-12.6
19840.00	V	46.6	-17.8	58.7	74.0	-15.3	**40.9	54.0	-13.1
22320.00	V	47.5	-17.8	57.4	74.0	-16.6	**39.6	54.0	-14.4
24800.00	V	47.9	-17.8	59.4	74.0	-14.6	**41.6	54.0	-12.4
27280.00	V	48.7	-17.8	58.2	74.0	-15.8	**40.4	54.0	-13.6

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

**Duty Cycle Correction = 20Log(0.128) = -17.8dB.

Note: Field Strength includes Antenna Factor, Cable Loss and Gain of pre-amplifier.

Receiver setting: RBW = 1MHz
VBW = 1MHz



TEST REPORT No: (5216)117-0329

Radiated Emissions (9kHz – 40GHz)

Test Requirement: FCC Part 15 Section 15.209
 Test Method: ANSI C63.10
 Test Date(s): 2016-06-07
 Temperature: 31.0 °C
 Humidity: 72.0 %
 Atmospheric Pressure: 99.6 kPa
 Mode of Operation: On mode
 Tested Voltage: 4.5Vd.c. ("AAA" size battery x 3)

Limits for Radiated Emissions [FCC 47 CFR 15.209]:

Frequency Range [MHz]	Quasi-Peak Limits [μ V/m]	Measurement Distance 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



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Measurement Data

Test Result of (On mode): PASS

Detection mode: Quasi-Peak

Frequency (MHz)	Polarity (H/V)	Field Strength at 3m (dB μ V/m)	Limit at 3m (dB μ V/m)	Margin (dB)
38.56	H	25.2	40.0	-14.8
150.24	H	23.0	43.5	-20.5
222.68	H	23.5	46.0	-22.5
396.46	H	28.1	46.0	-17.9
452.12	H	32.3	46.0	-13.7
498.56	H	35.7	46.0	-10.3

Frequency (MHz)	Polarity (H/V)	Field Strength at 3m (dB μ V/m)	Limit at 3m (dB μ V/m)	Margin (dB)
38.56	V	25.7	40.0	-14.3
150.24	V	22.7	43.5	-20.8
222.68	V	23.8	46.0	-22.2
396.46	V	28.0	46.0	-18.0
452.12	V	32.6	46.0	-13.4
498.56	V	35.3	46.0	-10.7

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 C63.10 Clause 6.10
Test Date(s): 2016-06-20
Temperature: 32.0 °C
Humidity: 75.0 %
Atmospheric Pressure: 99.1 kPa
Mode of Operation: Transmission mode
Tested Voltage: 4.5Vd.c. ("AAA" size battery x 3)

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:

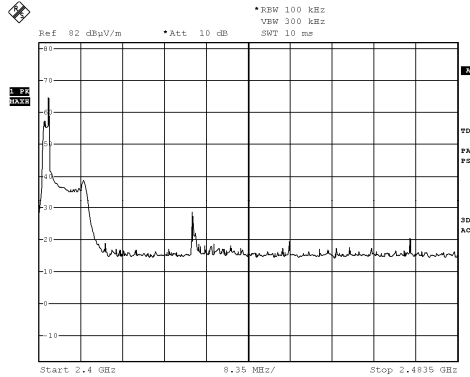
Frequency [MHz]	FCC Limits [MHz]
2400.660 – 2480.340	2400.00 – 2483.50

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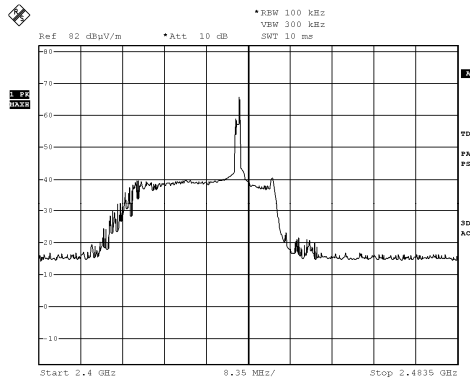
Measurement Data :

Test Result of Frequency Range of Fundamental Emission: PASS

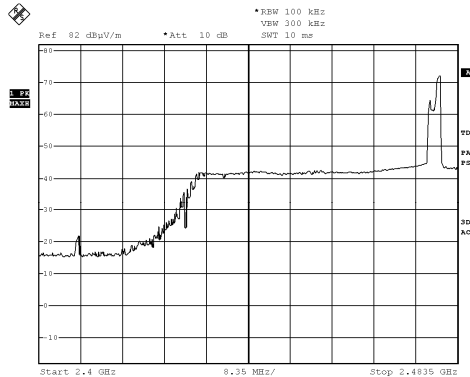
Lowest Frequency – 2402.00MHz



Middle Frequency – 2440.00MHz



Highest Frequency – 2480.00MHz



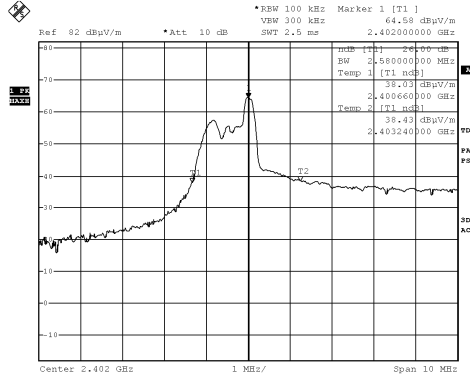


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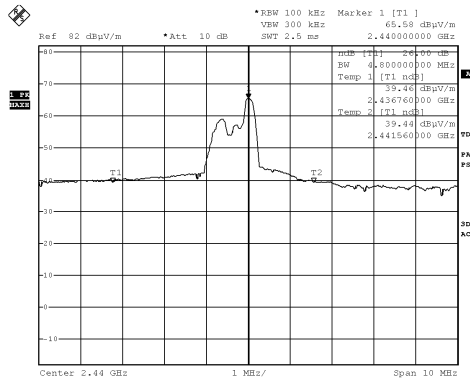
TEST REPORT No: (5216)117-0329
Measurement Data :

Test Result of 26dB Bandwidth of Fundamental Emission: PASS

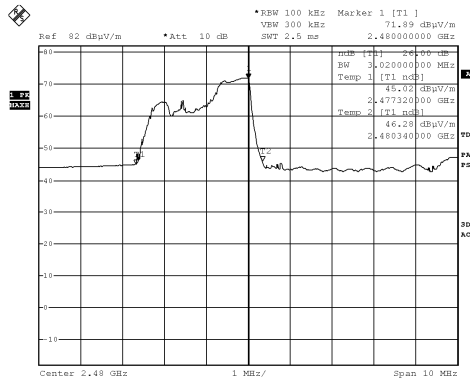
Lowest Frequency – 2402.00MHz



Middle Frequency – 2440.00MHz



Highest Frequency – 2480.00MHz





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Duty Cycle Correction During 100msec:

Each function key sends a different series of characters, but each packet period (100msec) never exceeds a series of 8 pulses (1.6 msec). Assuming any combination of short and long pulses may be obtained due to encoding the worst case transmit duty cycle would be considered 8×1.6 per 100msec = 12.8% duty cycle.

Remarks:

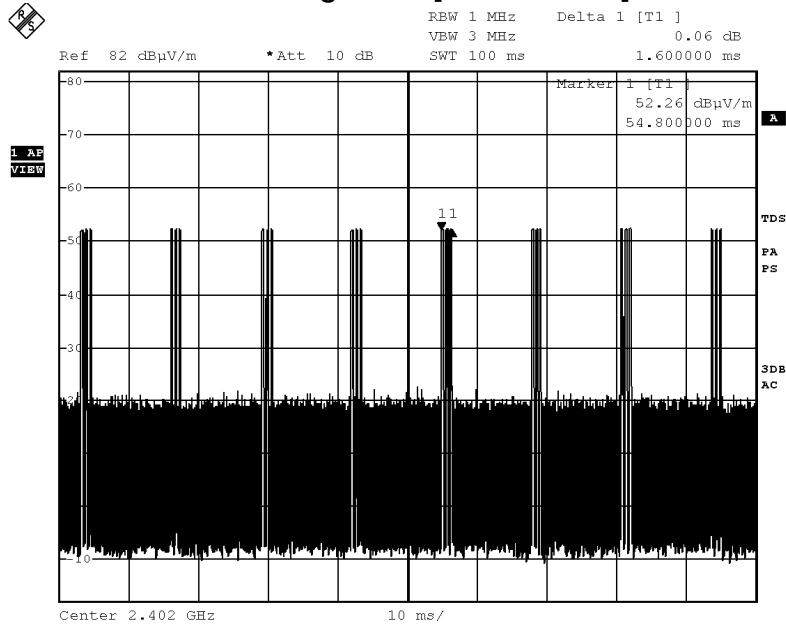
Duty Cycle Correction = $20\text{Log}(0.128) = -17.8\text{dB}$

The following figures [Figure A] show the characteristics of the pulse train for one of these functions.

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Measurement Data :

Figure A [Pulse Train]



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Photographs of EUT

Front View of the product



Rear View of the product



Top View of the product



Bottom View of the product



Side View of the product



Side View of the product



Battery compartment



Battery Cover



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Photographs of EUT

Internal View of the product



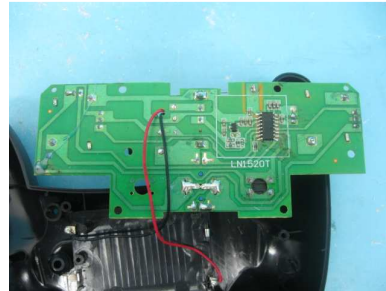
Internal View of the product



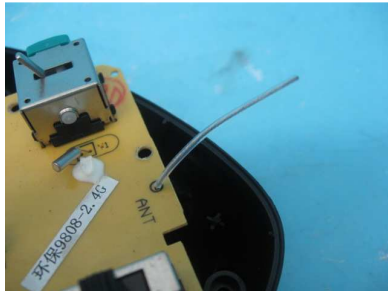
Inner Circuit Top View



Inner Circuit Bottom View



Antenna



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Measurement of Radiated Emission Test Set Up



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