





TEST REPORT No: (5213)246-0738

TEST REPORT

To:	ASIAN EXPRESS HOLDING LTD.	To:	-
Attn:	Bob Cheng	Attn:	-
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Fax:	61675805-2633	Fax:	-
E-mail:	bob@icl.net.cn	E-mail:	-
Folder No.:	--		
Factory name:	--		
Location:	--		
Product:	RENEGADE 40 MPH TRUCK Model No.: 15066-PPL		
(Please see the Exhibition – External Photo)	Sample No:	(5213)246-0738	
	Test date:	September 12, 2013	
	Test Requested:	FCC Part 15 - 2012	
	Test Method:	ANSI C63.4 - 2009	
	FCC ID:	VLEPL15066-PPL	
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: Steven Tsang	
Date: September 25, 2013		Date: September 25, 2013	

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This report is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. Our report is limited to the test samples identified herein. The results set forth in this report are not necessarily indicative or representative of the statistical quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof. You shall have thirty days from receipt of this report to request additional testing of the samples or to notify us of any errors or omissions relating to our report, provided, however, such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



**TEST REPORT No: (5213)246-0738**  
**Test Result Summary**

EMISSION TEST			
Test requirement: FCC Part 15 - 2012			
Test Condition	Test Method	Test Result	
		Pass	Failed
*Conducted Emission Test, (Section 15.107) 0.15MHz to 30MHz	ANSI C63.4	N/A	
Radiated Emission Test, (Section 15.209) 9kHz to 27GHz	ANSI C63.4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Radiated Emission Test, (Section 15.249) Spurious Emission	ANSI C63.4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Frequency range of Fundamental Emission	ANSI C63.4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Duty Cycle Correction During 100msec	ANSI C63.4	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Remarks:-**

N/A : Not Applicable or Not Available

\* It is a battery operated product, therefore, Conducted Emission Test is not applicable.



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### 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	29-JAN-2013	28-JAN-2014
SPECTRUM ANALYZER	R&S	R3127	111000909	30-JAN-2013	29-JAN-2014
LOOP ANTENNA	ETS LINDGREN	6502	00102266	13-AUG-2013	12-AUG-2014
BILOG ANTENNA	SCHAFFNER	CBL6112D	25229	11-SEP-2013	10-SEP-2014
HORN ANTENNA	SCHWARZBECK	BBHA9120D	9120D-692	13-SEP-2013	12-SEP-2014
PYRAMIDAL STANDARD GAIN HORN ANTENNA	ETS-LINDGREN	3160-09	00130130	24-JAN-2012	23-JAN-2014
OPEN AREA TEST SITE	BVCPS	N/A	N/A	09-JUL-2013	08-JUL-2014
ANECHOIC CHAMBER	ALBATROSS	M-CDC	80374004499B	06-FEB-2013	05-FEB-2014
COAXIAL CABLE	SUHNER	N/A	N/A	08-NOV-2012	07-NOV-2013
COAXIAL CABLE	HUBER + SUHNER	RG214	N/A	25-SEP-2012	24-SEP-2013

#### 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: (5213)246-0738

### Equipment Under Test [EUT]

#### Description of Sample:

Model Name: RENEGADE 40 MPH TRUCK  
Model Number: 15066-PPL  
Additional Model Name: --  
Additional Model Number: --  
Additional Model information: --  
Rating: 6Vd.c. ("AA" size battery x 4)

#### Description of EUT Operation:

The Equipment Under Test (EUT) is a **ASIAN EXPRESS HOLDINGS LIMITED** of Remote Control Transmitter. It is a 1 knob, 1 trigger and 5 buttons transmitter and operating at 2413MHz to 2457MHz. The lowest, middle and highest frequencies were tested and the worst 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 40 channels and below is the frequency list :

2413	2414	2415	2417	2418	2419	2420	2421	2422	2423
2425	2426	2427	2428	2429	2430	2431	2432	2433	2434
2435	2436	2437	2438	2439	2441	2443	2444	2445	2446
2447	2449	2450	2451	2452	2453	2454	2455	2456	2457

The transmitter has different control:

1. ON / OFF button – Power control
2. Control knob – Left and right turning control
3. Trigger – Forward and Backward control
4. ST. TRIM button 1– Adjust the left and right trim control
5. ST. TRIM button 2– Adjust the left and right trim control
6. TH. TRIM button 1 – Adjust the forward and backward trim control
7. TH. TRIM button 2 – Adjust the forward and backward trim control

#### Antenna Requirement (Section 15.203)

The EUT is use of a permanently antenna. It is soldered on the PCB. The antenna consists of 15cm 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

(Please see the Exhibition – Internal Photo)

## TEST REPORT No: (5213)246-0738

### Radiated Emissions (Fundamental)

Test Requirement: FCC Part 15 Section 15.249  
Test Method: ANSI C63.4  
Test Date(s): 2013-09-12  
Temperature: 30.0 °C  
Humidity: 79.0 %  
Atmospheric Pressure: 100.2 kPa  
Mode of Operation: Transmission mode  
Tested Voltage: 6Vd.c. ("AA" size battery x 4)

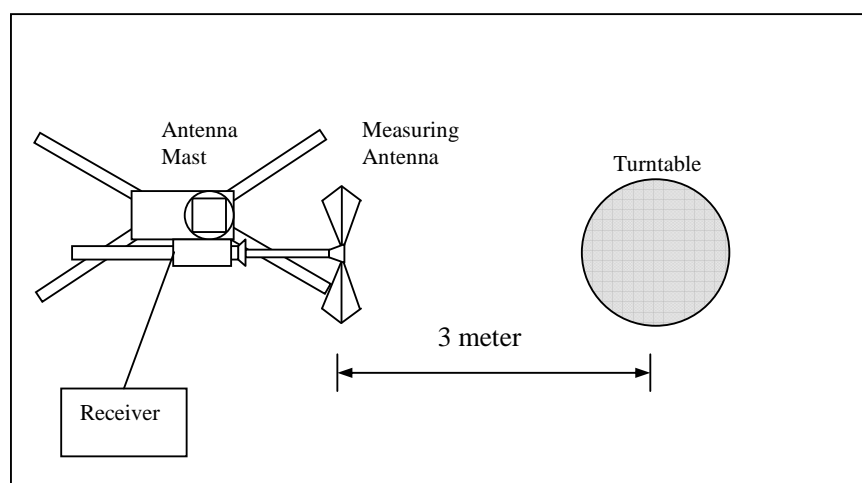
### Test Procedure:

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 performed 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 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)
2413.00	H	-2.7	-20.0	101.1	114.0	-12.9	**81.1	94.0	-12.9
2413.00	V	-2.7	-20.0	102.0	114.0	-12.0	**82.0	94.0	-12.0

#### 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)
2435.00	H	-2.7	-20.0	104.9	114.0	-9.1	**84.9	94.0	-9.1
2435.00	V	-2.7	-20.0	107.2	114.0	-6.8	**87.2	94.0	-6.8

#### 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)
2457.00	H	-2.7	-20.0	105.6	114.0	-8.4	**85.6	94.0	-8.4
2457.00	V	-2.7	-20.0	106.6	114.0	-7.4	**86.6	94.0	-7.4

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

\*\*Duty Cycle Correction =  $20\log(0.004) = -47.9\text{dB}$ .

\*\*Therefore, -20dB is taken.

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 1MHz  
VBW = 1MHz



## TEST REPORT No: (5213)246-0738

### Radiated Emissions (Spurious Emission)

Test Requirement: FCC Part 15 Section 15.249  
 Test Method: ANSI C63.4  
 Test Date(s): 2013-09-12  
 Temperature: 30.0 °C  
 Humidity: 79.0 %  
 Atmospheric Pressure: 100.2 kPa  
 Mode of Operation: Transmission mode  
 Tested Voltage: 6Vd.c. ("AA" size battery x 4)

### 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)
4826.00	H	6.3	-20.0	60.7	74.0	-13.3	**40.7	54.0	-13.3
7239.00	H	13.5	-20.0	61.3	74.0	-12.7	**41.3	54.0	-12.7
9652.00	H	13.2	-20.0	61.6	74.0	-12.4	**41.6	54.0	-12.4
12065.00	H	18.5	-20.0	60.7	74.0	-13.3	**40.7	54.0	-13.3
14478.00	H	19.2	-20.0	61.1	74.0	-12.9	**41.1	54.0	-12.9
16891.00	H	25.4	-20.0	61.2	74.0	-12.8	**41.2	54.0	-12.8
19304.00	H	27.3	-20.0	62.1	74.0	-11.9	**42.1	54.0	-11.9
21717.00	H	29.3	-20.0	61.4	74.0	-12.6	**41.4	54.0	-12.6
24130.00	H	32.1	-20.0	62.0	74.0	-12.0	**42.0	54.0	-12.0
26543.00	H	33.9	-20.0	62.5	74.0	-11.5	**42.5	54.0	-11.5

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

\*\*Duty Cycle Correction =  $20\log(0.004) = -47.9\text{dB}$ .

\*\*Therefore, -20dB is taken.

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 1MHz

VBW = 1MHz





## TEST REPORT No: (5213)246-0738

### 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)
4826.00	V	6.3	-20.0	60.9	74.0	-13.1	**40.9	54.0	-13.1
7239.00	V	13.5	-20.0	61.0	74.0	-13.0	**41.0	54.0	-13.0
9652.00	V	13.2	-20.0	61.7	74.0	-12.3	**41.7	54.0	-12.3
12065.00	V	18.5	-20.0	60.3	74.0	-13.7	**40.3	54.0	-13.7
14478.00	V	19.2	-20.0	61.7	74.0	-12.3	**41.7	54.0	-12.3
16891.00	V	25.4	-20.0	62.6	74.0	-11.4	**42.6	54.0	-11.4
19304.00	V	27.3	-20.0	62.4	74.0	-11.6	**42.4	54.0	-11.6
21717.00	V	29.3	-20.0	62.2	74.0	-11.8	**42.2	54.0	-11.8
24130.00	V	32.1	-20.0	62.6	74.0	-11.4	**42.6	54.0	-11.4
26543.00	V	33.9	-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.

\*\*Duty Cycle Correction =  $20\log(0.004) = -47.9\text{dB}$ .

\*\*Therefore, -20dB is taken.

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 1MHz  
VBW = 1MHz



## TEST REPORT No: (5213)246-0738

### 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)
4870.00	H	6.3	-20.0	60.8	74.0	-13.2	**40.8	54.0	-13.2
7305.00	H	13.5	-20.0	61.3	74.0	-12.7	**41.3	54.0	-12.7
9740.00	H	13.2	-20.0	61.4	74.0	-12.6	**41.4	54.0	-12.6
12175.00	H	18.5	-20.0	60.4	74.0	-13.6	**40.4	54.0	-13.6
14610.00	H	19.2	-20.0	60.2	74.0	-13.8	**40.2	54.0	-13.8
17045.00	H	25.4	-20.0	61.6	74.0	-12.4	**41.6	54.0	-12.4
19480.00	H	27.3	-20.0	61.3	74.0	-12.7	**41.3	54.0	-12.7
21915.00	H	29.3	-20.0	62.7	74.0	-11.3	**42.7	54.0	-11.3
24350.00	H	32.1	-20.0	62.2	74.0	-11.8	**42.2	54.0	-11.8
26785.00	H	33.9	-20.0	62.3	74.0	-11.7	**42.3	54.0	-11.7

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)
4870.00	V	6.3	-20.0	60.0	74.0	-14.0	**40.0	54.0	-14.0
7305.00	V	13.5	-20.0	61.0	74.0	-13.0	**41.0	54.0	-13.0
9740.00	V	13.2	-20.0	61.2	74.0	-12.8	**41.2	54.0	-12.8
12175.00	V	18.5	-20.0	60.2	74.0	-13.8	**40.2	54.0	-13.8
14610.00	V	19.2	-20.0	60.7	74.0	-13.3	**40.7	54.0	-13.3
17045.00	V	25.4	-20.0	62.3	74.0	-11.7	**42.3	54.0	-11.7
19480.00	V	27.3	-20.0	62.1	74.0	-11.9	**42.1	54.0	-11.9
21915.00	V	29.3	-20.0	62.4	74.0	-11.6	**42.4	54.0	-11.6
24350.00	V	32.1	-20.0	61.5	74.0	-12.5	**41.5	54.0	-12.5
26785.00	V	33.9	-20.0	61.6	74.0	-12.4	**41.6	54.0	-12.4

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

\*\*Duty Cycle Correction =  $20\log(0.004) = -47.9\text{dB}$ .

\*\*Therefore, -20dB is taken.

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 1MHz

VBW = 1MHz

# TEST REPORT No: (5213)246-0738

## 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)
4914.00	H	6.3	-20.0	60.2	74.0	-13.8	**40.2	54.0	-13.8
7371.00	H	13.5	-20.0	60.2	74.0	-13.8	**40.2	54.0	-13.8
9828.00	H	13.2	-20.0	62.0	74.0	-12.0	**42.0	54.0	-12.0
12285.00	H	18.5	-20.0	61.9	74.0	-12.1	**41.9	54.0	-12.1
14742.00	H	19.2	-20.0	62.2	74.0	-11.8	**42.2	54.0	-11.8
17199.00	H	26.2	-20.0	62.2	74.0	-11.8	**42.2	54.0	-11.8
19656.00	H	27.3	-20.0	62.1	74.0	-11.9	**42.1	54.0	-11.9
22113.00	H	29.3	-20.0	62.7	74.0	-11.3	**42.7	54.0	-11.3
24570.00	H	32.1	-20.0	63.1	74.0	-10.9	**43.1	54.0	-10.9
27027.00	H	33.9	-20.0	63.2	74.0	-10.8	**43.2	54.0	-10.8

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)
4914.00	V	6.3	-20.0	61.8	74.0	-12.2	**41.8	54.0	-12.2
7371.00	V	13.5	-20.0	60.5	74.0	-13.5	**40.5	54.0	-13.5
9828.00	V	13.2	-20.0	61.2	74.0	-12.8	**41.2	54.0	-12.8
12285.00	V	18.5	-20.0	61.5	74.0	-12.5	**41.5	54.0	-12.5
14742.00	V	19.2	-20.0	61.9	74.0	-12.1	**41.9	54.0	-12.1
17199.00	V	26.2	-20.0	61.9	74.0	-12.1	**41.9	54.0	-12.1
19656.00	V	27.3	-20.0	61.9	74.0	-12.1	**41.9	54.0	-12.1
22113.00	V	29.3	-20.0	62.9	74.0	-11.1	**42.9	54.0	-11.1
24570.00	V	32.1	-20.0	63.4	74.0	-10.6	**43.4	54.0	-10.6
27027.00	V	33.9	-20.0	63.7	74.0	-10.3	**43.7	54.0	-10.3

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

\*\*Duty Cycle Correction =  $20\log(0.004) = -47.9\text{dB}$ .

\*\*Therefore, -20dB is taken.

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 1MHz

VBW = 1MHz



## TEST REPORT No: (5213)246-0738

### Radiated Emissions (30MHz – 27GHz)

Test Requirement: FCC Part 15 Section 15.209  
Test Method: ANSI C63.4  
Test Date(s): 2013-09-12  
Temperature: 30.0 °C  
Humidity: 79.0 %  
Atmospheric Pressure: 100.2 kPa  
Mode of Operation: On mode  
Tested Voltage: 6Vd.c. ("AA" size battery x 4)

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

Frequency Range [MHz]	Quasi-Peak Limits [μV/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
Above 960	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

**TEST REPORT No: (5213)246-0738**

**Measurement Data**

**Test Result of (On mode): PASS**

**Detection mode: Quasi-Peak**

Frequency (MHz)	Polarity (H/V)	Field Strength at 3m (dB $\mu$ V/m)	Limit at 3m (dB $\mu$ V/m)	Margin (dB)
48.92	H	27.1	40.0	-12.9
140.60	H	20.5	43.5	-23.0
199.20	H	20.7	43.5	-22.8
283.56	H	22.6	46.0	-23.4
402.36	H	26.2	46.0	-19.8
571.40	H	29.1	46.0	-16.9

Frequency (MHz)	Polarity (H/V)	Field Strength at 3m (dB $\mu$ V/m)	Limit at 3m (dB $\mu$ V/m)	Margin (dB)
48.92	V	27.3	40.0	-12.7
140.60	V	21.2	43.5	-22.3
199.20	V	21.8	43.5	-21.7
283.56	V	23.0	46.0	-23.0
402.36	V	26.5	46.0	-19.5
571.40	V	29.2	46.0	-16.8

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 120KHz  
VBW = 120KHz



## TEST REPORT No: (5213)246-0738

### 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): 2013-09-12  
Temperature: 30.0 °C  
Humidity: 79.0 %  
Atmospheric Pressure: 100.2 kPa  
Mode of Operation: Transmission mode  
Tested Voltage: 6Vd.c. ("AA" size battery x 4)

#### 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:

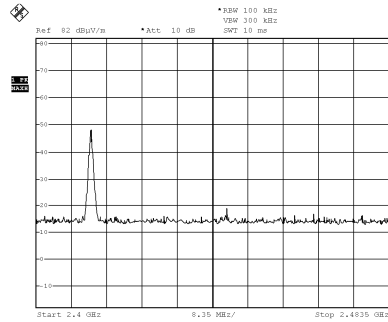
Frequency [MHz]	FCC Limits [MHz]
2413.00 – 2457.00	2400 – 2483.5

## TEST REPORT No: (5213)246-0738

### Measurement Data :

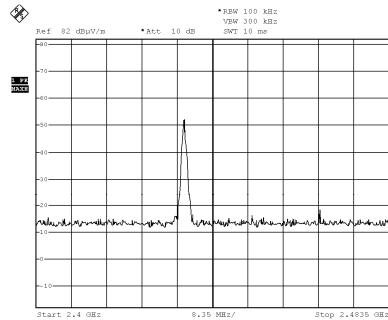
Test Result of Frequency Range of Fundamental Emission: **PASS**

#### Lowest Frequency – 2413.00MHz



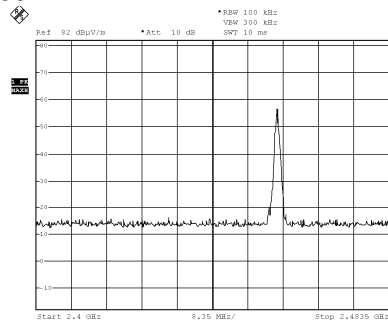
Date: 12.SEP.2013 10:40:47

#### Middle Frequency – 2435.00MHz



Date: 12.SEP.2013 10:48:10

#### Highest Frequency – 2457.00MHz



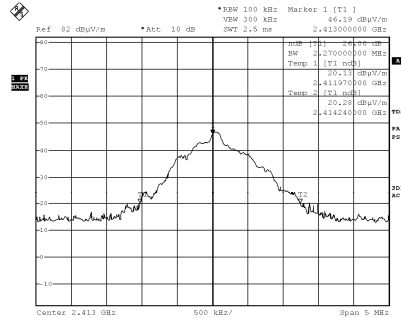
Date: 12.SEP.2013 10:45:24

## TEST REPORT No: (5213)246-0738

### Measurement Data :

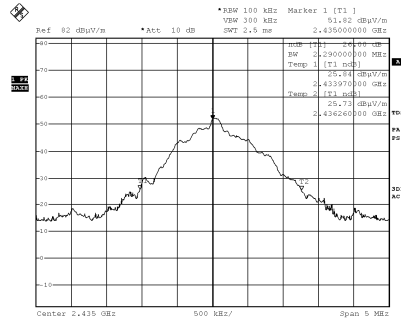
**Test Result of 26dB Bandwidth of Fundamental Emission: PASS**

### Lowest Frequency – 2413.00MHz



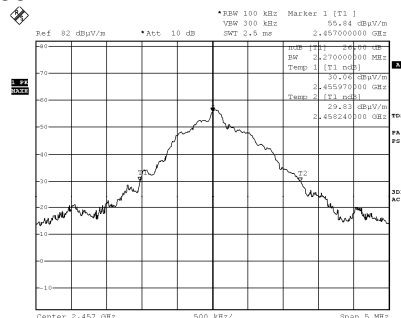
Date: 12.SEP.2013 10:42:33

### Middle Frequency – 2435.00MHz



Date: 12.SEP.2013 10:47:50

### Highest Frequency – 2457.00MHz



Date: 12.SEP.2013 10:46:28





## TEST REPORT No: (5213)246-0738

### Duty Cycle Correction During 100msec:

Each function key sends a different series of characters, but each packet period (100msec) never exceeds a series of 2 pulses (0.2msec). Assuming any combination of short and long pulses maybe obtained due to encoding the worst case transmit duty cycle would be considered  $0.2 \times 2$  per 100msec = 0.4% duty cycle.

Remarks:

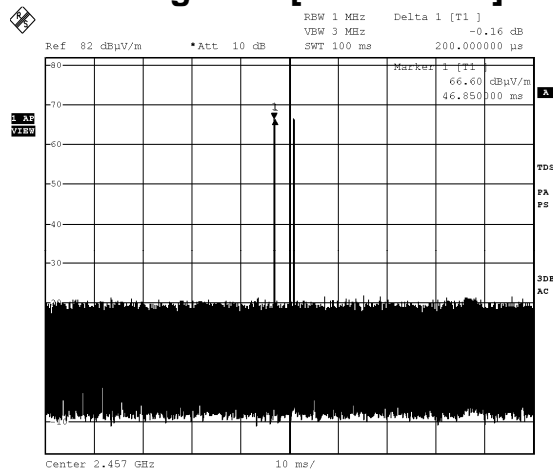
Duty Cycle Correction =  $20\text{Log}(0.004) = -47.9\text{dB}$   
Therefore -20dB is taken

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

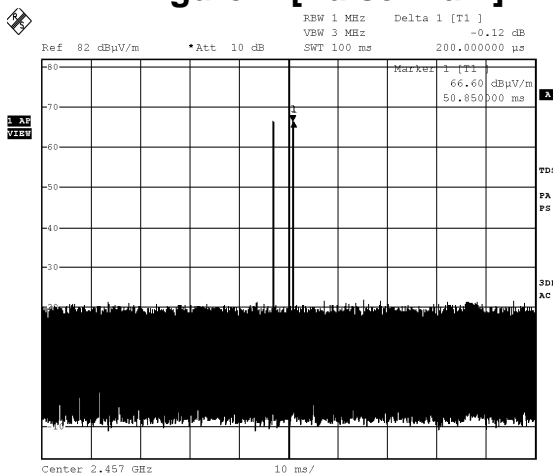
**TEST REPORT No: (5213)246-0738**

**Measurement Data :**

**Figure A [Pulse Train]**



**Figure B [Pulse Train]**





**TEST REPORT No: (5213)246-0738**

## **Photographs of EUT**

**(Please see the Exhibition – External Photo & internal Photo)**

## **Measurement of Radiated Emission Test Set Up**

**(Please see the Exhibition – Test Setup Photo)**

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