

# TEST REPORT

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To:	NEW BRIGHT INDUSTRIAL CO., LTD.		To:	-			
Attn:	Eric Kwok		Attn:	-			
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Folder No.:	NBT-	15JU	102MTHS-B-B				
Factory name:	NEW BRIG	HT IN	DUSTRIAL CO., LT	D.			
Location:	9/F., NEW BRIGHT BUILDING, 11 S	HON	G KONG.	WLOON BAY, KOWLOON,			
Product:			nitter & Receiver .: GF32UM-2				
			Sample No:	HK150608/040			
			Test date:	June 09, 2015 to June 12, 2015			
			Test Requested:	FCC Part 15 - 2012			
	0		Test Method:	ANSI C63.4 – 2009			
			FCC ID:	G6DGF32UM-2			
The resuls (	given in this report are related to the test	ed sp	ecimen of the des	cribed electrical apparatus.			
CONCLUSION:	The submitted sample was found to CC	MPLY	with requirement	of FCC Part 15 Subpart C.			
	Authorized	Signat	ure:				
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Reviewed by: Ke Date: June 17, 2			ved by: Steven Tsar	ıg			
Jaic. Julie 17, 2	-010	Date: June 17, 2015					

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TEST REPORT No: (5215)160-1168
Test Result Summary

Duty Cycle Correction During 100msec

**EMISSION TEST** Test requirement: FCC Part 15 - 2012 Test Result **Test Condition** Test Method **Pass** Failed **ANSI C63.4** Radiated Emission Test,  $\boxtimes$ 9kHz to 40GHz Frequency range of Fundamental Emission ANSI C63.4  $\boxtimes$  $\boxtimes$ 26dB Bandwidth of Fundamental Emission ANSI C63.4

ANSI C63.4

# Report Revision & Sample Re-submit History:

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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	21-JAN-2015	20-JAN-2016
SPECTRUM ANALYZER	R&S	R3127	111000909	26-MAR-2015	25-MAR-2016
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	12-MAY-2015	11-MAY-2016
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: TOY Transmitter & Receiver

Model Number: GF32UM-2

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

Rating: 3.2Vd.c. ("Internal rechargeable battery" x 1)

# **Description of EUT Operation:**

The Equipment Under Test (EUT) is a **NEW BRIGHT INDUSTRIAL CO., LTD.** of Remote Control Transceiver. It is a 1 switch transceiver and operating at 2406MHz to 2472MHz. 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 74 channels and below is the frequency list (MHz):

ch.no	freq.										
1	2406	13	2418	25	2430	37	2442	49	2454	61	2466
2	2407	14	2419	26	2431	38	2443	50	2455	62	2467
3	2408	15	2420	27	2432	39	2444	51	2456	63	2468
4	2409	16	2421	28	2433	40	2445	52	2457	64	2469
5	2410	17	2422	29	2434	41	2446	53	2458	65	2470
6	2411	18	2423	30	2435	42	2447	54	2459	66	2471
7	2412	19	2424	31	2436	43	2448	55	2460	67	2472
8	2413	20	2425	32	2437	44	2449	56	2461		
9	2414	21	2426	33	2438	45	2450	57	2462		
10	2415	22	2427	34	2439	46	2451	58	2463		
11	2416	23	2428	35	2440	47	2452	59	2464		
12	2417	24	2429	36	2441	48	2453	60	2465		·

The transmitter has different control:

1. ON/OFF Switch - power control

#### **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.





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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):

2015-06-12

Temperature:

49.0 °C

Humidity:

75.0 %

Atmospheric Pressure: 100.2 kPa
Mode of Operation: Transmission mode

Tested Voltage: 3.2Vd.c. ("Internal rechargeable battery" x 1)

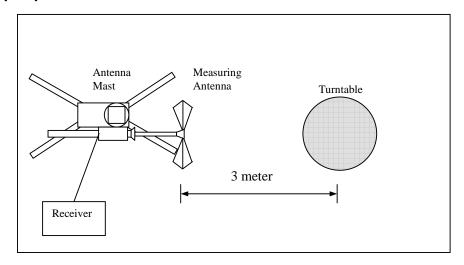
#### **Test Procedure:**

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**





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)
2406.00	Н	0.0	-20.0	84.2	114.0	-29.8	**64.2	94.0	-29.8
2406.00	V	0.0	-20.0	86.0	114.0	-28.0	**66.0	94.0	-28.0

# 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)
2443.00	Н	0.0	-20.0	85.9	114.0	-28.1	**65.9	94.0	-28.1
2443.00	V	0.0	-20.0	87.0	114.0	-27.0	**67.0	94.0	-27.0

# 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)
2472.00	Н	0.0	-20.0	86.7	114.0	-27.3	**66.7	94.0	-27.3
2472.00	V	0.0	-20.0	86.3	114.0	-27.7	**66.3	94.0	-27.7

<sup>#</sup> 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.

RBW = 1MHz Receiver setting:

VBW = 1MHz

<sup>\*\*</sup>Duty Cycle Correction = 20Log(0.08) = -21.9dB.



# **Radiated Emissions (Spurious Emission)**

Test Requirement: FCC Part 15 Section 15.249

Test Method: ANSI C63.4

Test Date(s): 2015-06-12

Temperature: 29.0 °C

Humidity: 75.0 %

Atmospheric Pressure: 100.2 kPa

Mode of Operation: Transmission mode

Tested Voltage: 3.2Vd.c. ("Internal rechargeable battery" x 1)

#### **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)
4812.00	Н	5.9	-20.0	59.1	74.0	-14.9	**39.1	54.0	-14.9
7218.00	Н	12.7	-20.0	70.8	74.0	-3.2	**50.8	54.0	-3.2
9624.00	Н	16.4	-20.0	57.5	74.0	-16.5	**37.5	54.0	-16.5
12030.00	Н	18.4	-20.0	50.3	74.0	-23.7	**30.3	54.0	-23.7
14436.00	Н	23.2	-20.0	61.2	74.0	-12.8	**41.2	54.0	-12.8
16842.00	Н	22.0	-20.0	60.8	74.0	-13.2	**40.8	54.0	-13.2
19248.00	Н	46.3	-20.0	63.8	74.0	-10.2	**43.8	54.0	-10.2
21654.00	Н	47.1	-20.0	62.9	74.0	-11.1	**42.9	54.0	-11.1
24060.00	Н	47.5	-20.0	63.3	74.0	-10.7	**43.3	54.0	-10.7
26466.00	Н	48.5	-20.0	64.0	74.0	-10.0	**44.0	54.0	-10.0

<sup>#</sup> 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 = 1MHz

VBW = 1MHz

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<sup>\*\*</sup>Duty Cycle Correction = 20Log(0.08) = -21.9dB.



#### **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)
4812.00	V	5.9	-20.0	60.9	74.0	-13.1	**40.9	54.0	-13.1
7218.00	V	12.7	-20.0	70.6	74.0	-3.4	**50.6	54.0	-3.4
9624.00	V	16.4	-20.0	55.9	74.0	-18.1	**35.9	54.0	-18.1
12030.00	V	18.4	-20.0	51.9	74.0	-22.1	**31.9	54.0	-22.1
14436.00	V	23.2	-20.0	61.5	74.0	-12.5	**41.5	54.0	-12.5
16842.00	V	22.0	-20.0	61.2	74.0	-12.8	**41.2	54.0	-12.8
19248.00	V	46.3	-20.0	64.1	74.0	-9.9	**44.1	54.0	-9.9
21654.00	V	47.1	-20.0	64.0	74.0	-10.0	**44.0	54.0	-10.0
24060.00	V	47.5	-20.0	63.2	74.0	-10.8	**43.2	54.0	-10.8
26466.00	V	48.5	-20.0	65.2	74.0	-8.8	**45.2	54.0	-8.8

<sup>#</sup> 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(0.08) = -21.9dB.

Therefore, -20dB is taken.

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 1MHz

VBW = 1MHz



#### **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)
4886.00	Н	5.9	-20.0	60.7	74.0	-13.3	**40.7	54.0	-13.3
7329.00	Η	12.7	-20.0	69.0	74.0	-5.0	**49.0	54.0	-5.0
9772.00	Ι	16.4	-20.0	59.2	74.0	-14.8	**39.2	54.0	-14.8
12215.00	Н	18.6	-20.0	49.9	74.0	-24.1	**29.9	54.0	-24.1
14658.00	Ι	25.0	-20.0	60.7	74.0	-13.3	**40.7	54.0	-13.3
17101.00	Н	27.2	-20.0	60.7	74.0	-13.3	**40.7	54.0	-13.3
19544.00	Н	46.5	-20.0	62.0	74.0	-12.0	**42.0	54.0	-12.0
21987.00	Ι	46.9	-20.0	63.0	74.0	-11.0	**43.0	54.0	-11.0
24430.00	Н	48.0	-20.0	63.4	74.0	-10.6	**43.4	54.0	-10.6
26873.00	Н	48.3	-20.0	64.1	74.0	-9.9	**44.1	54.0	-9.9

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)
4886.00	V	5.9	-20.0	57.3	74.0	-16.7	**37.3	54.0	-16.7
7329.00	V	12.7	-20.0	70.4	74.0	-3.6	**50.4	54.0	-3.6
9772.00	V	16.4	-20.0	53.9	74.0	-20.1	**33.9	54.0	-20.1
12215.00	V	18.6	-20.0	52.2	74.0	-21.8	**32.2	54.0	-21.8
14658.00	V	25.0	-20.0	61.6	74.0	-12.4	**41.6	54.0	-12.4
17101.00	V	27.2	-20.0	60.8	74.0	-13.2	**40.8	54.0	-13.2
19544.00	V	46.5	-20.0	62.0	74.0	-12.0	**42.0	54.0	-12.0
21987.00	V	46.9	-20.0	62.7	74.0	-11.3	**42.7	54.0	-11.3
24430.00	V	48.0	-20.0	62.1	74.0	-11.9	**42.1	54.0	-11.9
26873.00	V	48.3	-20.0	64.9	74.0	-9.1	**44.9	54.0	-9.1

<sup>#</sup> 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 = 1MHz VBW = 1MHz

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<sup>\*\*</sup>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)
4944.00	Н	5.9	-20.0	60.3	74.0	-13.7	**40.3	54.0	-13.7
7416.00	Η	13.3	-20.0	72.5	74.0	-1.5	**52.5	54.0	-1.5
9888.00	Н	16.4	-20.0	58.6	74.0	-15.4	**38.6	54.0	-15.4
12360.00	Н	18.6	-20.0	50.3	74.0	-23.7	**30.3	54.0	-23.7
14832.00	Н	25.0	-20.0	62.9	74.0	-11.1	**42.9	54.0	-11.1
17304.00	Н	27.2	-20.0	63.0	74.0	-11.0	**43.0	54.0	-11.0
19776.00	Н	46.6	-20.0	63.8	74.0	-10.2	**43.8	54.0	-10.2
22248.00	Н	47.0	-20.0	63.2	74.0	-10.8	**43.2	54.0	-10.8
24720.00	Н	48.1	-20.0	64.5	74.0	-9.5	**44.5	54.0	-9.5
27192.00	Н	48.5	-20.0	63.0	74.0	-11.0	**43.0	54.0	-11.0

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)
4944.00	V	5.9	-20.0	60.5	74.0	-13.5	**40.5	54.0	-13.5
7416.00	V	13.3	-20.0	73.5	74.0	-0.5	**53.5	54.0	-0.5
9888.00	V	16.4	-20.0	54.7	74.0	-19.3	**34.7	54.0	-19.3
12360.00	V	18.6	-20.0	50.9	74.0	-23.1	**30.9	54.0	-23.1
14832.00	V	25.0	-20.0	61.9	74.0	-12.1	**41.9	54.0	-12.1
17304.00	V	27.2	-20.0	64.1	74.0	-9.9	**44.1	54.0	-9.9
19776.00	V	46.6	-20.0	64.1	74.0	-9.9	**44.1	54.0	-9.9
22248.00	V	47.0	-20.0	63.0	74.0	-11.0	**43.0	54.0	-11.0
24720.00	٧	48.1	-20.0	64.4	74.0	-9.6	**44.4	54.0	-9.6
27192.00	V	48.5	-20.0	64.6	74.0	-9.4	**44.6	54.0	-9.4

<sup>#</sup> 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 = 1MHz

= 1MHz

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<sup>\*\*</sup>Duty Cycle Correction = 20Log(0.08) = -21.9dB.



# Radiated Emissions (9kHz - 40GHz)

Test Requirement: FCC Part 15 Section 15.209

Test Method:

ANSI C63.4

Test Date(s):

2015-06-12

Temperature:

29.0 °C

Humidity:

75.0 %

Atmospheric Pressure:

Mode of Operation:

On mode

Tested Voltage: 3.2Vd.c. ("Internal rechargeable battery" x 1)

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)
42.56	Н	26.3	40.0	-13.7
265.60	Н	23.9	46.0	-22.1
311.76	Н	24.4	46.0	-21.6
436.60	Н	27.8	46.0	-18.2
558.32	Н	31.2	46.0	-14.8
672.04	Н	31.5	46.0	-14.5

Frequency (MHz)	Polarity (H/V)	Field Strength at 3m (dBµV/m)	Limit at 3m (dBµV/m)	Margin (dB)
42.56	V	26.0	40.0	-14.0
265.60	V	24.1	46.0	-21.9
311.76	V	24.8	46.0	-21.2
436.60	V	28.0	46.0	-18.0
558.32	V	31.0	46.0	-15.0
672.04	V	31.1	46.0	-14.9

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 120KHz

VBW = 120KHz



### 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): 2015-06-12
Temperature: 29.0 °C
Humidity: 75.0 %
Atmospheric Pressure: 100.2 kPa

Mode of Operation: Transmission mode

Tested Voltage: 3.2Vd.c. ("Internal rechargeable battery" x 1)

#### 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	FCC Limits
[MHz]	[MHz]
2403.700 – 2472.900	2400.00 - 2483.50

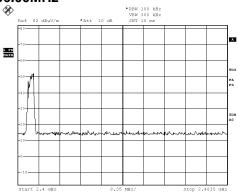
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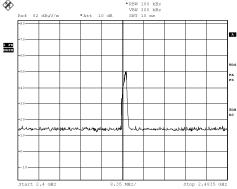
**Measurement Data:** 

Test Result of Frequency Range of Fundamental Emission: PASS

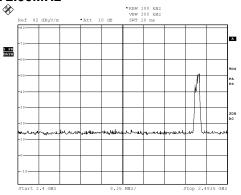
### Lowest Frequency - 2406.00MHz



# Middle Frequency - 2443.00MHz



### Highest Frequency - 2472.00MHz



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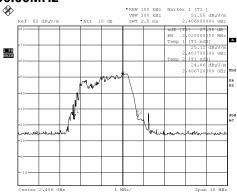
This report is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. Our report is limited to the test samples identified herein. The results set forth in this 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 examples of a positive of any agrees or opicious relation to our except of this proper 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



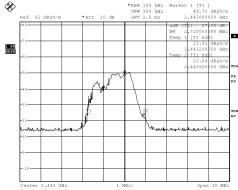
TEST REPORT No: (5215)160-1168 Measurement Data :

Test Result of 26dB Bandwidth of Fundamental Emission: PASS

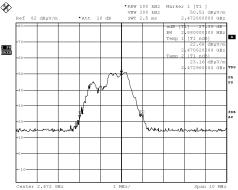
### Lowest Frequency - 2406.00MHz



# Middle Frequency - 2443.00MHz



# Highest Frequency - 2472.00MHz



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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 4 pulses (2msec). Assuming any combination of short and long pulses maybe obtained due to encoding the worst case transmit duty cycle would be considered 4\*2 per 100msec = 8% duty cycle.

#### Remarks:

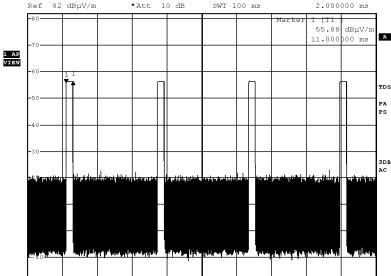
Duty Cycle Correction = 20Log(0.08) = -21.9dB Therefore, -20dB is taken

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



#### **Measurement Data:**

#### Figure A [Pulse Train] Delta 1 [T1 ] RBW 1 MHz VBW 3 MHz \*Att 10 dB 82 dBµV/m SWT 100 ms 55.88





# **Photographs of EUT**

Front View of the product



**Top View of the product** 



Side View of the product



**Internal Rechargeable Battery** 



Rear View of the product



**Bottom View of the product** 



Side View of the product



**USB Cable** 



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# **Photographs of EUT**

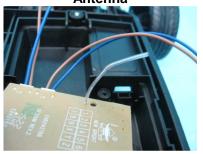
### **Internal View of the product**



**Inner Circuit Top View** 



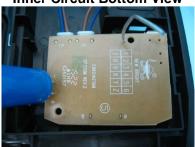
**Antenna** 



### **Internal View of the product**



**Inner Circuit Bottom View** 





Measurement of Radiated Emission Test Set Up



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