



CERTIFICATION TEST REPORT

Applicant:	INDYME SOLUTIONS, INC. 8295 AERO PLACE San Diego, CA 92123
Equipment Under Test (EUT):	WIRELESS CALL BOX
Model:	CB961
FCC ID:	J69CB961
IC:	1809A-CB961
In Accordance With:	FCC Part 15 Subpart C, 15.247 IC RSS-210 Issue 8 December 2010 IC RSS-Gen Issue 3 December 2010
Authorized By:	Nemko USA Inc. 2210 Faraday Street, Suite 150 Carlsbad, CA 92008
Tested By:	<u>MARK PHILLIPS</u> , EMC/RF Test Engineer
Date:	NOVEMBER 16, 2012
Report Number:	2012 11224476 EMC
Project Number:	10228221
Nex Number:	224476
Total Number of Pages:	34



1. Applicant Affirmation

Steve Deal representing Indyme Solutions, Inc. hereby affirms:

- a) That he/she has reviewed and concurs that the test shown in this report are reflective of the operational characteristics of the device for which certification is sought;
- b) That the device in this test report will be representative of production units;
- c) That all changes (in hardware and software/firmware) to the subject device will be reviewed.
- d) That any changes impacting the attributes, functionality or operational characteristics documented in this report will be communicated to the body responsible for approving (certifying) the subject equipment.

Steve Deal, CEO

Date: December 6, 2012

8295 Aero Place
San Diego, CA 92123
Address

858-707-8525
Telephone number

Regulatory.contact@indyme.com
Email address of official

NOTE—This affirmation must be signed by the responsible party before it is submitted to a regulatory body for approval.

Section 1. Summary of Test Results

1.1 General

All measurements are traceable to national standards

These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15; Subpart C and RSS-210, Issue 8 December 2010. Radiated tests were conducted in accordance with ANSI C63.4-2003. Radiated emissions are made in the 10m anechoic chamber. A description of the test facility is on file with the FCC and IC.

The assessment summary is as follows:

Apparatus Assessed:	CB961
Specifications:	FCC Part 15 Subpart C, 15.247 IC RSS-210 Issue 8 December 2010
Date Received in Laboratory:	NOVEMBER 6, 2012 TO NOVEMBER 15, 2012
Compliance Status:	Complies
Exclusions:	None
Non-compliances:	None



1.2 Report Release History:

REVISION	DATE	COMMENTS
-	NOVEMBER 16, 2012	Prepared By: MARK PHILLIPS
-	DECEMBER 6, 2012	Initial Release: Alan Laudani

Note that the results contained in this report relate only to the items tested and were obtained in the period between the date of initial receipt of samples and the date of issue of the report.

This test report has been completed in accordance with the requirements of ISO/IEC 17025.

Nemko USA Inc. authorizes the applicant to reproduce this report provided it is reproduced in its entirety and for use by the company's employees only.

Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. Nemko USA Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

TESTED BY:  Date: DECEMBER 6, 2012
MARK PHILLIPS, EMC Test Engineer


REVIEWED BY:  Date: December 6, 2012
Alan Laudani, EMC Engineer



TABLE OF CONTENTS

1.	Applicant Affirmation.....	2
Section 1.	Summary of Test Results.....	3
1.1	General	3
1.2	Report Release History:.....	4
Section 2:	Equipment Under Test	6
2.1	Product Identification	6
2.2	Theory of Operation	6
2.3	Technical Specifications of the EUT	7
Section 3:	Test Conditions	7
3.1	Specifications	7
3.3	Test Environment.....	8
3.4	Test Equipment.....	8
Section 4:	Observations	9
4.1	Modifications Performed During Assessment.....	9
4.2	Record Of Technical Judgments	9
4.3	EUT Parameters Affecting Compliance.....	9
4.4	Deviations From Laboratory Test Procedures.....	9
4.5	Test Deleted	9
4.6	Additional Observations.....	9
Section 5:	Results Summary	10
5.1	Test Results	10
Appendix A:	Test Results	11
20 dB/ 99%	Bandwidth.....	11
Frequency hopping systems operating in the 902-928 MHz band		13
Channel Separation		16
Frequency Plan		17
Number of Hopping Channels.....		18
Radiated Emissions within Restricted Bands.....		19
Radiated Emissions 30 MHz to 1000 MHz		20
Bandedge Measurements		21
Peak Output Power		22
Receiver Spurious Emissions		23



Section 2: Equipment Under Test

2.1 Product Identification

DEVICE	MANUFACTURER MODEL # SERIAL #	POWER CABLE
EUT - Wireless Call Box	Indyme Solutions, Inc. Model: CB961 Serial #: None	Internal Batteries, 2ea. 3V Lithium Duracell 2/3A (CR123A)

Connection	I/O Cable
RM15 remote switch	36 inch cable - 22 gauge 2 wire.

2.2 Theory of Operation

The CB961 is a Wireless Call Box. Its function is to alert an operator that there is someone waiting for assistance. Feedback to the user is given via a flashing light according to the message received from an access point. The EUT was exercised by continuously transmitting or receiving in a test mode.

The EUT's performance during test was evaluated against the performance criterion specified by applicable test standards. Performance results are detailed in the test results section of this report.



2.3 Technical Specifications of the EUT

Manufacturer:	Indyme Solutions, Inc.
Operating Frequency:	918.100 – 923.000 MHz in the 902-928 MHz Band
Number of Operating Frequencies:	50
Output Power:	107.7 dBuV/m @ 3m; 0.013 W
Modulation:	FSK
Antenna Data:	Internal Dipole on circuit board
Antenna Connector:	None
Power Source:	3V Battery (2ea. Lithium CR123A)

Section 3: Test Conditions

3.1 Specifications

The apparatus was assessed against the following specifications:

FCC Part 15 Subpart C, 15.247

Operation within the bands 902-928 MHz, 2400-2483.5 MHz, 5725-5850 MHz and 24.0-24.25 GHz bands.

IC RSS-210 Issue 8 December 2010

Low-power Licence-exempt Radio-communication Devices (All Frequency Bands): Category I Equipment. Annex 8 - Frequency Hopping and Digital Modulation Systems Operating in the Bands 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz

IC RSS-Gen Issue 3 December 2010

General Requirements and Information for the Certification of Radio-communication Equipment

3.3 Test Environment

All tests were performed under the following environmental conditions:

Temperature range	15.6 – 23.3 °C
Humidity range	26 - 65 %
Pressure range	86 - 106 kPa
Power supply range	+/- 1% of rated voltages

3.4 Test Equipment

Nemko ID	Device	Manufacturer	Model	Serial Number	Cal Date	Cal Due Date
110	Antenna, LPA	Electrometrics	LPA-25	1217	4/1/2011	4/1/2013
128	Antenna, Bicon	EMCO	3104	2882	3/21/2011	3/21/2013
317	Preamplifier	HP	8449A	2749A00167	6/11/2012	6/11/2013
752	Antenna, DRWG	EMCO	3115	4943	12/2/2010	12/2/2012
835	Spectrum Analyzer	Rohde & Schwarz	RHDFSEK	829058/005	9/6/2012	9/6/2013
901	pre amp	Sonoma	310 N	130607	10/27/2011	12/27/2012*
911	Spectrum Analyzer	Agilent	E4440A	US41421266	10/27/2011	12/27/2012*
E1017	AC Power Supply	Elgar	CW2501P	0239A00001	12/15/2011	12/15/2012

*extended calibration

Registration of the 10m anechoic chamber is on file with the Federal Communications Commission and with Industry Canada under Site Number 2040B-3.



Section 4: Observations

4.1 Modifications Performed During Assessment

No modifications were performed during assessment.

4.2 Record Of Technical Judgments

No technical judgements were made during the assessment.

4.3 EUT Parameters Affecting Compliance

The user of the apparatus could not alter parameters that would affect compliance.

4.4 Deviations From Laboratory Test Procedures

No deviations from Laboratory Test Procedure

4.5 Test Deleted

No Tests were deleted from this assessment.

4.6 Additional Observations

There were no additional observations made during this assessment.



Section 5: Results Summary

This section contains the following:

Test Results

The column headed "Required" indicates whether the associated clauses were invoked for the apparatus under test. The following abbreviations are used:

- N No: not applicable / not relevant
Y Yes: Mandatory i.e. the apparatus shall conform to these test.
N/T Not Tested, mandatory but not assessed. (See section 4.4 Test deleted)

The results contained in this section are representative of the operation of the apparatus as originally submitted.

5.1 Test Results

Part 15	RSS-210	Test Description	Required	Result
15.207 (a)	RSS-Gen 7.2.2	Conducted Emission Limit	Y	Pass
15.247 a1i	A8.1(c)	20dB & 99% Bandwidth	Y	Pass
12.247a1	A8.1(c)	Channel Separation Average time of occupancy	Y	Pass
15.247a1i	A8.1(c)	Number of Hopping Channels	Y	Pass
15.247 b2	A8.4	Peak Output Power	Y	Pass
15.209 a 15.247d	A8.5	Radiated Emissions within Restricted Bands	Y	Pass
15.247c	A8.5	Bandedge	Y	Pass
15.109	RSS-GEN 4.10	Receiver Spurious Emissions	NA	Pass

Appendix A: Test Results

20 dB/ 99% Bandwidth

Clause 15.247(a)(1)(i)

(i) For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500kHz.

Test Conditions:

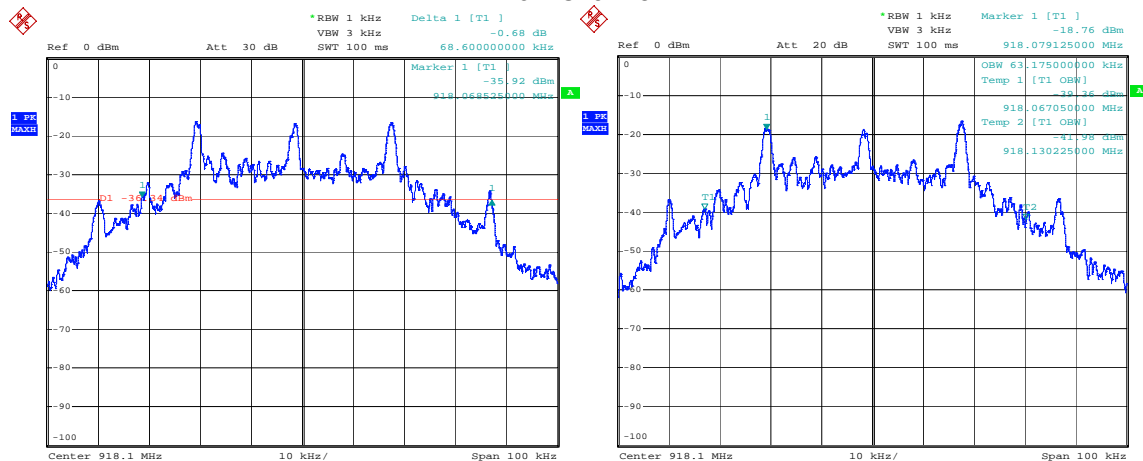
Sample Number:	CB961	Temperature:	20°C
Date:	11/6/2012	Humidity:	31 %
Modification State:	Lo/High Channels	Tester:	Mark Phillips
		Laboratory:	Nemko 10m chamber

Test Results: EUT complies

- The EUT was placed <1m from the receiving antenna to allow a representative signal to fill the display > 30dB from the noise floor.
- The Spectrum Analyzer RES BW was set to 100 kHz.
- For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier.
- A PEAK output reading was taken, a DISPLAY line was drawn 20 dB lower than PEAK level.
- The 20 dB bandwidth was determined from where the channel output spectrum intersected the display line.
- Bandwidth measurements were first taken with short duty cycle mode.
- Bandwidth measurements were repeated for long duty cycle mode.
- Span is wide enough to capture the channel transmission
- RBW is 1% of the span
- VBW is 3X RBW
- Sweep is auto
- Detector is Peak
- Trace is Max Hold
- 99% bandwidth: Used Spectrum Analyzer's programmed function. 63.2 kHz
- 20 dB bandwidth: A peak output max hold reading was taken, a display line was drawn 20 dB lower than peak level. The 20 dB bandwidth was determined from where the channel output spectrum intersected the display line.
- Observed maximum 20 dB BW is 68.6 kHz (low channel).
- Observed maximum 20 dB BW is 68.2 kHz (high channel).
- $918.1 \text{ MHz} - (68.6/2) \text{ kHz} = 918.066 \text{ MHz}$ (within the frequency band)
- $923.0 \text{ MHz} + (68.2/2) \text{ kHz} = 923.034 \text{ MHz}$ (within the frequency band)

	Low Channel	High Channel
20dB	68.6 kHz	68.2 kHz
99%	63.2 kHz	63.2 kHz

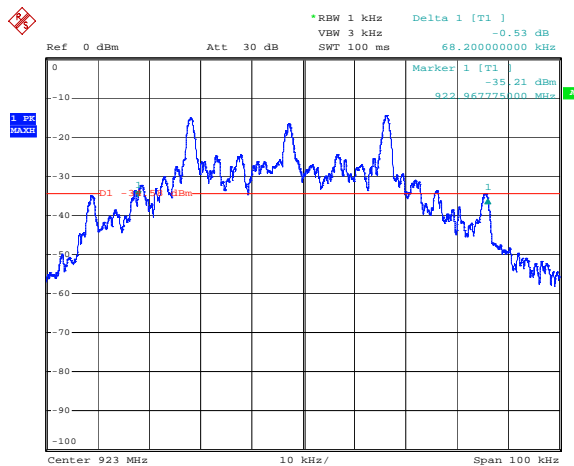
Low Channel



Date: 6.NOV.2012 18:57:20

Date: 6.NOV.2012 19:03:20

High Channel



Date: 6.NOV.2012 19:16:40

Frequency hopping systems operating in the 902-928 MHz band

Clause 15.247(a)(1)(i) For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.

Test Conditions:

Sample Number:	CB961	Temperature:	20°C
Date:	3-21-2011	Humidity:	31 %
Modification State:	All Channels, hopping	Tester:	Mark Phillips
		Laboratory:	Nemko

Test Results:

The EUT was placed <1m from the receiving antenna to allow a representative signal to fill the display > 30dB from the noise floor. The Spectrum Analyzer RES BW was set to 100 kHz. The test sample was set to hopping mode and the frequency span was set zero. The sweep was set to 20 seconds.

Duty Cycle Factor Calculation

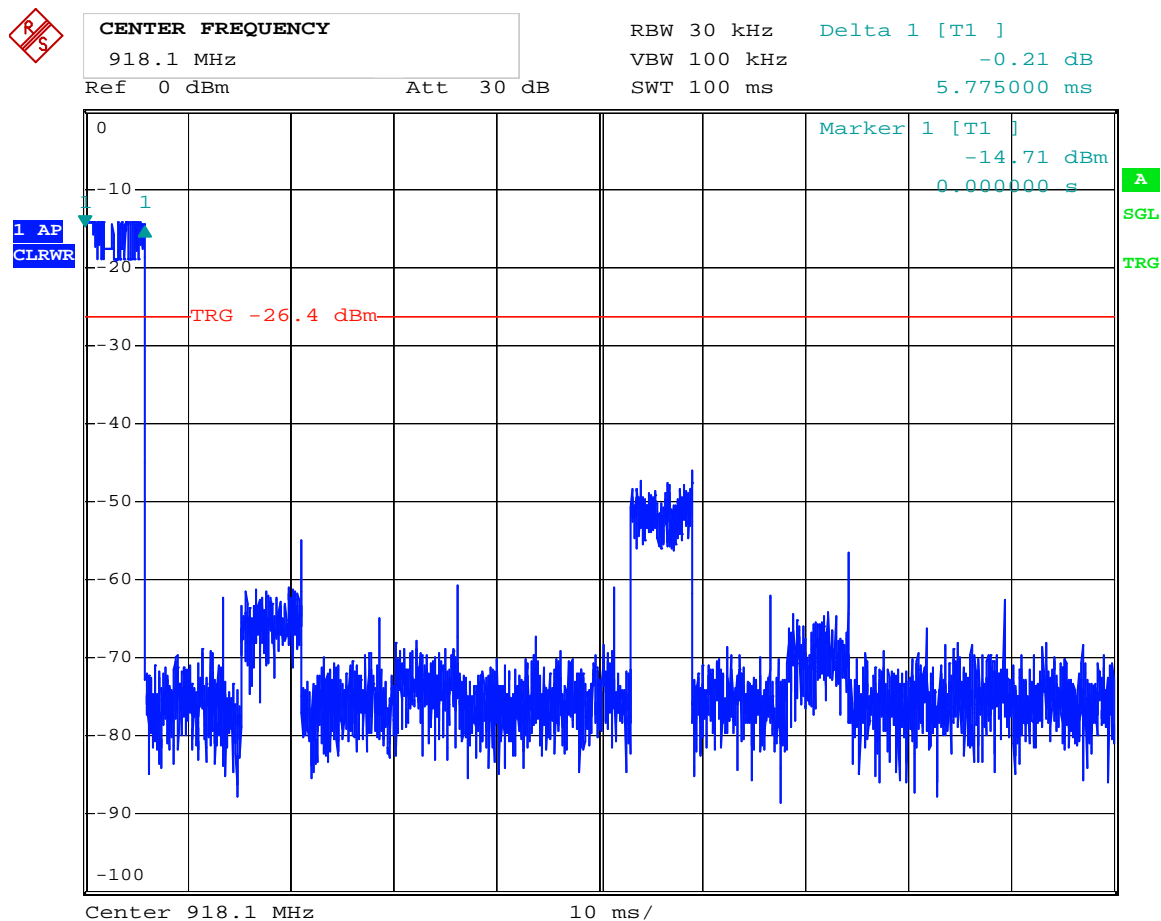
5.8 ms on in 100 ms,

Time of Occupancy

53 times on in 20 sec

$53 \times 0.0058 = 0.307$ seconds, complies.

5.8 ms on in 100 ms



Date: 6.NOV.2012 17:42:46

Note: "video triggering" used to catch fast acting channel emission.

53 times on in 20 Seconds



RBW 10 kHz

VBW 30 kHz

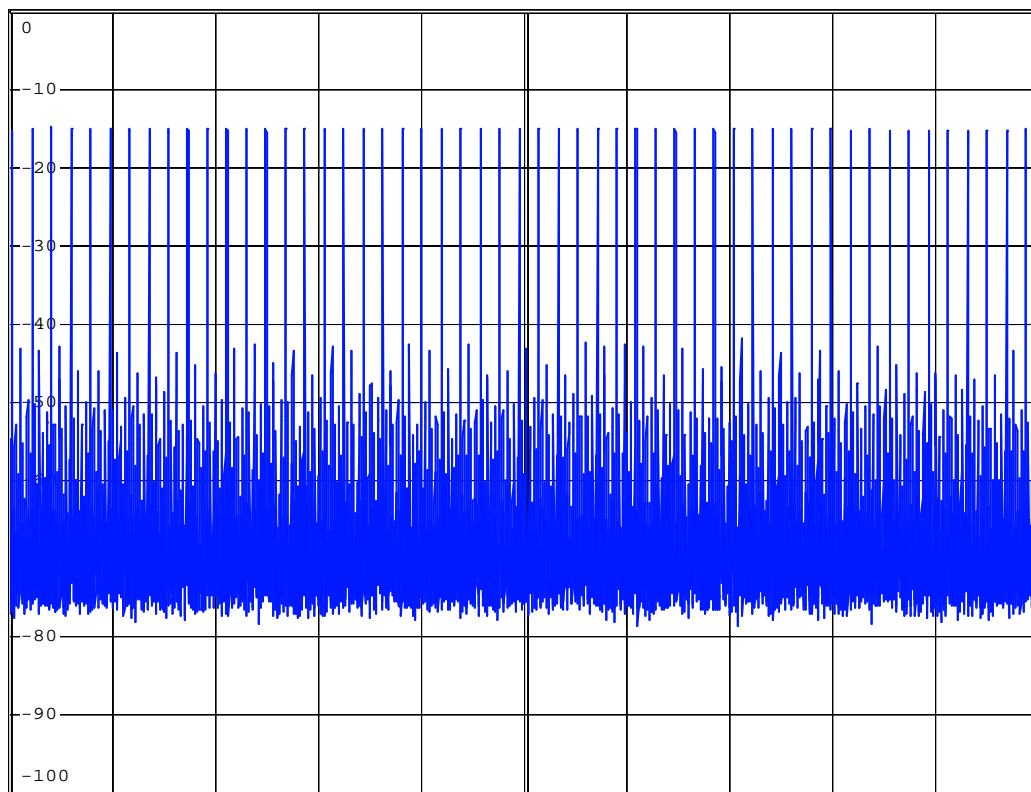
SWT 20 s

Ref 0 dBm

Att 30 dB

1 AP
CLRWR

A
SGL



Center 918.1 MHz

2 s/

Date: 6.NOV.2012 17:59:40

Channel Separation

Clause 15.247(a)(1) Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

www.nemko.com

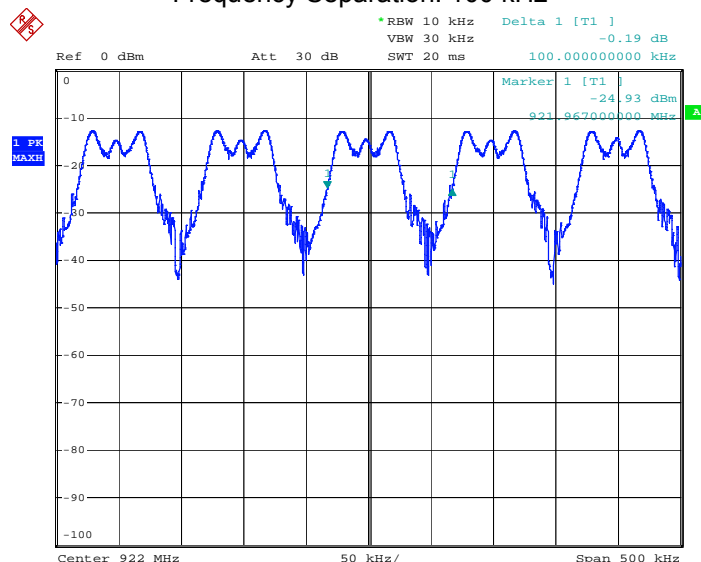
Test Conditions:

Sample Number:	CB961	Temperature:	20°C
Date:	11/6/2012	Humidity:	31 %
Modification State:	All Channels, hopping	Tester:	Mark Phillips
		Laboratory:	Nemko

Test Results: EUT Complies

- The Spectrum Analyzer RES BW was set to 10 kHz.
- Detector was peak, max hold.
- The test sample was set to hopping mode and the frequency span was set to a value to capture two or more hopping channels.
- Marker delta shows frequency separation.
- Channel Separation equal to the 20 dB bandwidth: 68.6 kHz

Frequency Separation: 100 kHz



Date: 6.NOV.2012 18:40:00

Frequency Plan

Clause 15.247(a)(1) Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

www.nemko.com

Test Conditions:

Sample Number:	CB961	Temperature:	20°C
Date:	11/28/2012	Humidity:	31 %
Modification State:	All Channels, hopping	Tester:	A. Laudani
		Laboratory:	Nemko

Test Results:

The Frequency Plan is discussed in the Technical Description exhibit and was reviewed by this test engineer and was found to comply.

- 50 channels: channel 1 at 918.1 to channel 50 at 923.0 MHz
- Psuedo-Random Hopping Sequence:

918.1	921.0	918.9	921.8	919.7	922.6	920.5	918.4	921.3	919.2	922.1
920.0	922.9	920.8	918.7	921.6	919.5	922.4	920.3	918.2	921.1	919.0
921.9	919.8	922.7	920.6	918.5	921.4	919.3	922.2	920.1	923.0	920.9
918.8	921.7	919.6	922.5	920.4	918.3	921.2	919.1	922.0	919.9	922.8
920.7	918.6	921.5	919.4	922.3	920.2					

Number of Hopping Channels

Clause 15.247(a)(1)(i) For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.

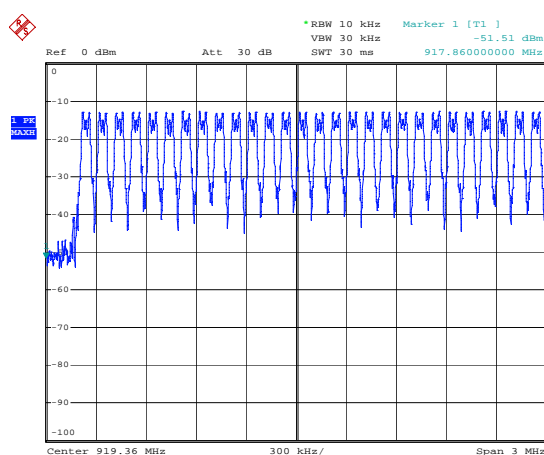
Test Conditions:

Sample Number:	CB961	Temperature:	20°C
Date:	11/6/2012	Humidity:	31 %
Modification State:	All Channels, hopping	Tester:	Mark Phillips
		Laboratory:	Nemko

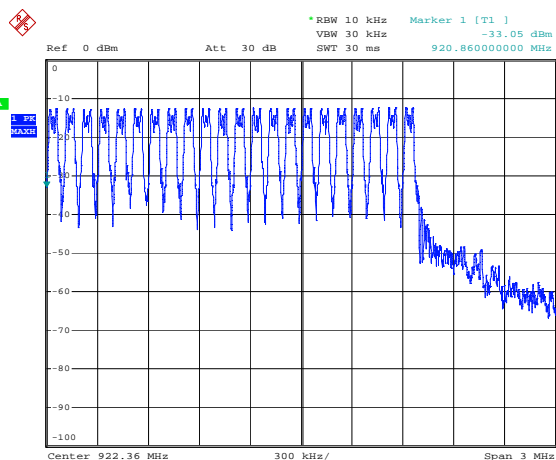
Test Results: 25 Channels, EUT complies.

- The Spectrum Analyzer RES BW was set to 10 kHz to discriminate channels.

At least 50 hopping channels – 50 counted



Date: 6.NOV.2012 18:29:21



Date: 6.NOV.2012 18:32:48

Radiated Emissions within Restricted Bands

Clause 15.209(a) Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (uV/meter)	Measurement Distance (meter)
0.009-0.490	2400/F (kHz)	300
0.490-1.705	24000/F (kHz)	30
1.705-30.0	30	3
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

15.247 (d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Sec. 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Sec. 15.205(a) must also comply with the radiated emission limits specified in Sec. 15.209(a) (see Sec. 15.205(c)).

Test Conditions:

Sample Number:	CB961	Temperature:	22°C
Date:	11/6/2012	Humidity:	56 %
Modification State:	Lo/High Channels	Tester:	Mark Phillips
		Laboratory:	SOATS

Test Results:

See Table Below.

Additional Observations:

- The Spectrum was searched from 30 MHz to the 10th Harmonic.
- The EUT was measured on three orthogonal axes. Worst case was used in measurements presented.
- A new battery was installed initially and replaced every 20 minutes of test time.
- There are no emissions found that apply to the restricted bands defined in FCC Part 15 Subpart C, 15.205.
- Measurements below 1GHz were performed at 3m with a Quasi-Peak detector while Peak and Average detectors were used above 1GHz.
- As the emission is pulsing, a duty cycle factor was introduced to spurious harmonics. See calculation in section on Time of Occupancy.
- Emissions shown below are based on transmitter circuitry. No other emissions within 20 dB of the limits from 30 MHz to 10 GHz were found.

Radiated Emissions 30 MHz to 1000 MHz

Math: Corrected Reading =

Max of Vertical or Horizontal measured + Antenna Factor + Cable Loss – preamplifier (if used). – Duty Cycle Factor

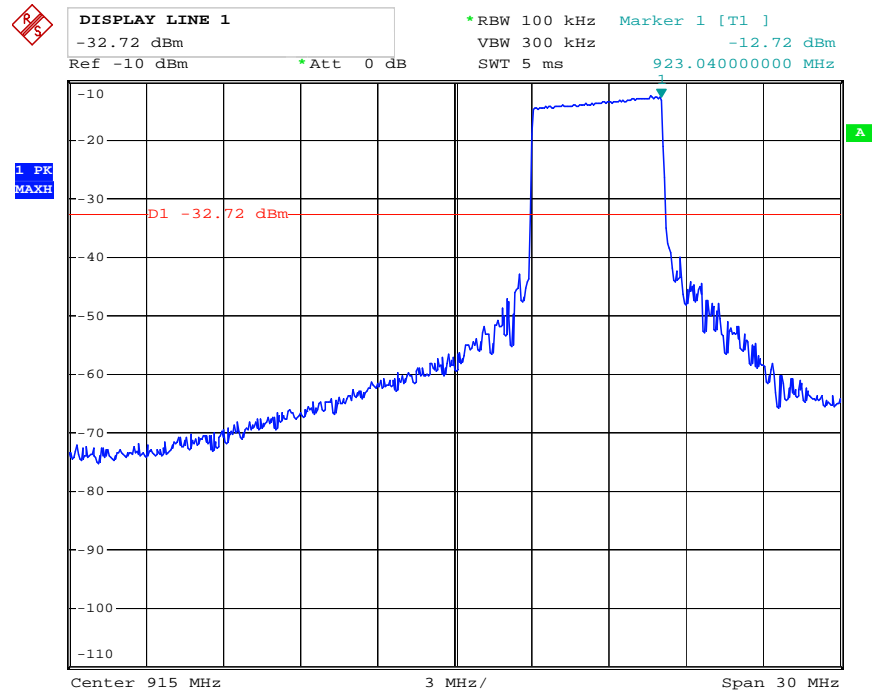
At 923.000 MHz: 107.3 = 77.7 + 24.5 + 6.1 – 28.0

CR/SL Dif = Limit – Corrected Reading. Pass if result is negative.

Radiated Emissions Data											
Job # :	10228221		Date :	11/06/12		Page	1		of	1	
NEX#:	224476		Time :	8:00pm							
			Staff :	MP							
Client Name :	Indyme Solutions, Inc.					EUT Voltage :	3V DC				
EUT Name :	Wireless Call Box					EUT Frequency :					
EUT Model # :	CB961					Phase:					
EUT Serial # :	N/A										
EUT Config. :	TX test mode modulated non-hopping										
						Distance < 1000 MHz:	3 m				
						Distance > 1000 MHz:	3 m				
Specification :	RSS 210, FCC 15.247										
Loop Ant. #:	NA										
Bicon Ant. #:	NA					Temp. (°C) :	22				
Log Ant. #:	110_3m					Humidity (%) :	56				
DRG Ant. #	752					Spec Analyzer #:	911				
Cable LF#:	SAC_10m					Analyzer Display #:	911				
Cable HF#:	WCC					Quasi-Peak Detector #:	911				
Preamp LF#:	NA					Duty Cycle (%) :	5.80				
Preamp HF#	317										
Measurements below 1 GHz are Quasi-Peak values, unless otherwise stated. Measurements above 1 GHz are Average values, unless otherwise stated.											
Meas. Freq. (MHz)	Meter Reading Vertical	Meter Reading Horizontal	Det.	EUT Side DEG	Ant. Height cm	Max. Reading (dBµV)	Corrected Reading (dBµV)	Spec. limit (dBµV)	CR/SL Diff. (dB)	Pass Fail	Comment
											100kHz RBW/300kHz VBW:
918.100	69.8	77.1	P	348	100	77.1	106.7	125.26	-18.6	Pass	Upright
918.100	74.5	76.9	P	191	100	76.9	106.5	125.26	-18.8	Pass	Laying Flat
920.600	70.8	77.7	P	354	100	77.7	107.3	125.26	-18.0	Pass	Upright
920.600	74.1	77.1	P	183	100	77.1	106.7	125.26	-18.6	Pass	Laying Flat
923.000	73.9	78.0	P	329	100	78.0	107.7	125.26	-17.5	Pass	Upright
923.000	74.2	73.8	P	180	100	74.2	103.9	125.26	-21.3	Pass	Laying Flat
1836.200	50.7	47.6	P	354	116	50.7	51.8	86.7	-34.9	Pass	Low limit: -20 dBc
1836.200	50.7	47.6	A			50.7	27.1	66.7	-39.6	Pass	
1841.200	50.6	46.9	P	359	114	50.6	51.7	87.3	-35.6	Pass	Middle limit: -20 dBc
1841.200	50.6	46.9	A			50.6	27.0	67.3	-40.3	Pass	
1846.000	50.4	47.2	P	12	115	50.4	51.5	87.7	-36.2	Pass	High limit: -20 dBc
1846.000	50.4	47.2	A			50.4	26.8	67.7	-40.9	Pass	

Bandedge Measurements

Display Line D1 is 20 dBc
Hopping Mode



Date: 13.NOV.2012 16:33:09

Hopping Mode

Display Line D1 is 20 dBc

Peak Output Power

Clause 15.247(b)(2) For frequency hopping systems operating in the 902-928 MHz band: 1 watt for systems employing at least 50 hopping channels; and, 0.25 watts for systems employing less than 50 hopping channels, but at least 25 hopping channels, as permitted under paragraph (a)(1)(i) of this section.

Test Conditions:

Sample Number:	CB961	Temperature:	22°C
Date:	11/6/2012	Humidity:	56 %
Modification State:	Lo/High Channels	Tester:	Mark Phillips
		Laboratory:	Nemko

Test Results: EUT complies. Data table on page 20.

Radiated Peak Output Power:

- The power supply was varied +/- 15% of nominal during assessment, no variance of output power was observed.
- All measurements were performed using a peak detector. Max hold.
- RBW > OBW; VBW>RBW.
- 1 W at 3m equivalent to 125.23 dBuV/m

(Client had no provision for conducted output power, integral antenna, no antenna port.)

From operation description: Antenna gain: 1.282 dBi max

This converts to $10^{(1.282/10)} = 1.34 = G$

Test Results:

Channel	Frequency	Peak Field Strength dBuV/m	Peak Output Power dBm	Calculated Output Power (W)
Low	918.1 MHz	106.7	10.2	
High	923.0 MHz	107.7	11.1	0.013

$$10^{((\text{dBuV/m}-120)/20)} = \text{Volts/m}$$

$$\text{Field Strength in Volts/m} = [5.5 \times \text{Square Root (Power in W)} \times \text{Square Root (Antenna Gain)}] / 3\text{m}$$

$$\text{Power in Watts} = [(\text{Field Strength} \times 3) / (5.5 \times \sqrt{1.34})]^2$$

$$107.7 \text{ dBuV/m} = 0.243 \text{ V/m}$$

$$\text{Power in Watts} = [(\text{Field Strength} \times 3) / (5.5 \times \sqrt{1.34})]^2$$

$$\text{Field Strength of } 0.243 \text{ V/m} = 0.0131 \text{ W}$$

Receiver Spurious Emissions

The following receiver spurious emission limits shall be complied with:
(a) If a radiated measurement is made, all spurious emissions shall comply with the limits of Table 1.

Table 1 - Spurious Emission Limits for Receivers

Spurious Frequency (MHz)	Field Strength (microvolt/m at 3 meters)
30-88	100
88-216	150
216-960	200
Above 960	500

Test Conditions:

Sample Number:	CB961	Temperature:	22°C
Date:	11/6/2012	Humidity:	56 %
Modification State:	Receive	Tester:	Mark Phillips
		Laboratory:	10m chamber

Test Results:

See attached test result.

Additional Observations:

- The Spectrum was searched from 30MHz to 5000 MHz.
- EUT operated on "test receive mode".
- Below 1GHz measurements are measured using CISPR quasi-peak detector while above 1GHz are measured using average detector with 1MHz RBW.
- No other emissions within 20 dB of the limit were detected.