Nemko USA, Inc.
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Phone (760) 444-3500 Fax (760) 444-3005

CERTIFICATION TEST REPORT

Applicant:	INDYME SOLUTIONS, INC. 8295 AERO PLACE San Diego, CA 92123
Equipment Under Test (EUT):	WIRELESS CALL BOXES
Model:	CB911, CB914, CB975, CB940, CB942A, CB960
FCC ID: IC:	J69TYPEA2 1809A-TYPEA2
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:	ANDREAS GILLMEIER, EMC/RF Test Engineer
Date: Report Number: Project Number: Nex Number: Total Number of Pages:	NOVEMBER 14, 2012 2012 11224472 FCC 10228220 224472 27

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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.

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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 is 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:	CB911, CB914, CB975, CB940, CB942A, CB960
Specifications:	FCC Part 15 Subpart C, 15.247 IC RSS-210 Issue 8 December 2010 IC RSS 210 (Issue 8, December 2010) Annex 8
Date Received in Laboratory:	NOVEMBER 6, 2012
Compliance Status:	Complies
Exclusions:	None
Non-compliances:	None

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1.2 Report Release History:

REVISION	DATE	COMMENTS
-	November 14, 2012	Prepared By: Andreas Gillmeier
-	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.

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TESTED BY: _____ Date: December 6, 2012
Andreas Gillmeier, EMC Test Engineer

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

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Section 2: Equipment Under Test

2.1 Product Identification

DEVICE	MANUFACTURER MODEL # SERIAL #	POWER CABLE
EUT - Wireless Call Boxes	Indyme Solutions, Inc. Model: CB942A Serial #: None	Internal Battery, 3V Lithium, Duracell 2/3A (CR123A)
Support – Access Point	Indyme Solutions, Inc. Model: CB951 Serial #: None	1.8m, unshielded, 20AWG, 2-wire, DC Jack
Support – Access Point Power Supply	CUI Inc. Model: 3A-161WU12 (12VDC) Serial #: None	Wall Mount Power Supply
Support – Communications Hub	Indyme Solutions, Inc. Model: Connect LX Serial #: None	1m, unshielded, 2-wire, 18AWG, DC Jack
Support – Communications Hub Power Supply	EPS Inc. Model: F10603-C Serial #: N41-7A0009-03754	1.8m, unshielded, 3-wire, IEC connector
Support – Notebook Computer	Dell Model: PP3H SN: 12467199205	90cm, shielded, 2-wire, DC Jack
Support – Notebook Computer Power Supply	Dell Model: DA90PS2-00 SN #: CN-OUU572-48661-86C-9433	1m, unshielded, 3-wire, 18AWG, IEC Connector

Connection	I/O Cable
Communications Hub to Access Point	3m, CAT5e, unshielded, 24AWG Ethernet Cable

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2.2 Theory of Operation

The CB911, CB914, CB975, CB940, CB942A, CB960 are Wireless Call Boxes. Their function is to alert an operator that there is somebody that requires assistance is waiting. Feedback to the user is giving 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:	918.1 – 923.0 MHz in the 902-928 MHz Band
Number of Operating Freq.:	50
Rated Power:	0.017 W
Modulation:	FSK
Antenna Connector:	Soldered to circuit board
Power Source:	3.3 V Battery

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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 ^{o}C
Humidity range	26 - 65 %
Pressure range	86 - 106 kPa
Power supply range	+/- 1% of rated voltages

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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
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.

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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.

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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	NA*	
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 b1	A8.4	Peak Output Power	Y	Pass
15.209 a 15.247c	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	Y	Pass

* Battery powered device.
Model CB942 was tested as representative sample.

Testing was started at 30 MHz as there are no RF signals generated below this frequency.
Refer to the test results section for further details.

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Appendix A: Test Results

Power Line Conducted Emissions

15.207(a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency of emission (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15–0.5	66 to 56*	56 to 46*
0.5–5	56	46
5–30	60	50

*Decreases with the logarithm of the frequency.

Test Conditions:

Sample Number:	CB942A	Temperature:	
Date:		Humidity:	
Modification State:	Low ,Mid and High Channel	Tester:	Andreas Gillmeier
		Laboratory:	Nemko SR2

Test Results: Not tested, battery powered

Test Parameters

Peak RBW: 100kHz VBW: 100kHz
Quasi-Peak: RBW 9kHz, VBW 30 kHz
Average: RBW 9kHz, VBW 30 kHz
Quasi-Peak Limit Blue Line, Average Limit Green Line

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:	CB942A	Temperature:	20°C
Date:	11/6/2013	Humidity:	31 %
Modification State:	Low /High Channels	Tester:	Andreas Gillmeier
		Laboratory:	Nemko GP1

Test Results: EUT complies

- The EUT was placed 3m from the receiving antenna to allow a representative signal to fill the display
- The Spectrum Analyzer RES BW was set to 10 kHz VBW = 30kHz
- 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.
- Span is wide enough to capture the channel transmission
- Sweep is auto
- Detector is Peak
- Trace is Max Hold
- 99% bandwidth: Used Spectrum Analyser's programmed function.
- 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 67.6 kHz (low channel).
- Observed maximum 20 dB BW is 57.4 kHz (high channel).
- 918.1 MHz – (67.6/2) kHz = 918.066 MHz (within the frequency band)
- 923.0 MHz + (57.4/2) kHz = 923.029 MHz (within the frequency band)

Frequency	20dB Bandwidth	99% Bandwidth
918.1 MHz	67.6 kHz	62.9 kHz
923.0 MHz	57.4 kHz	65.0 kHz

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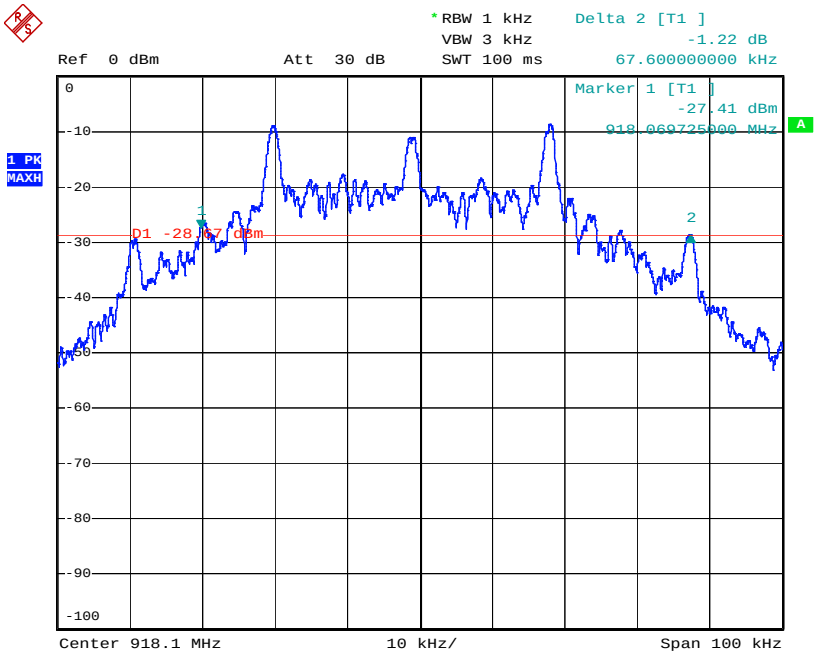
20dB Bandwidth

Low Channel



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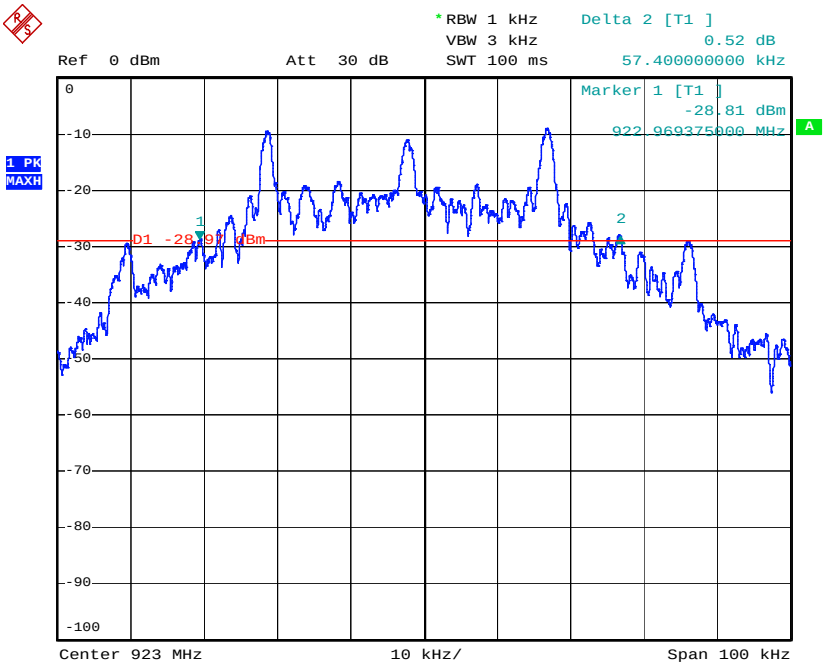
High Channel



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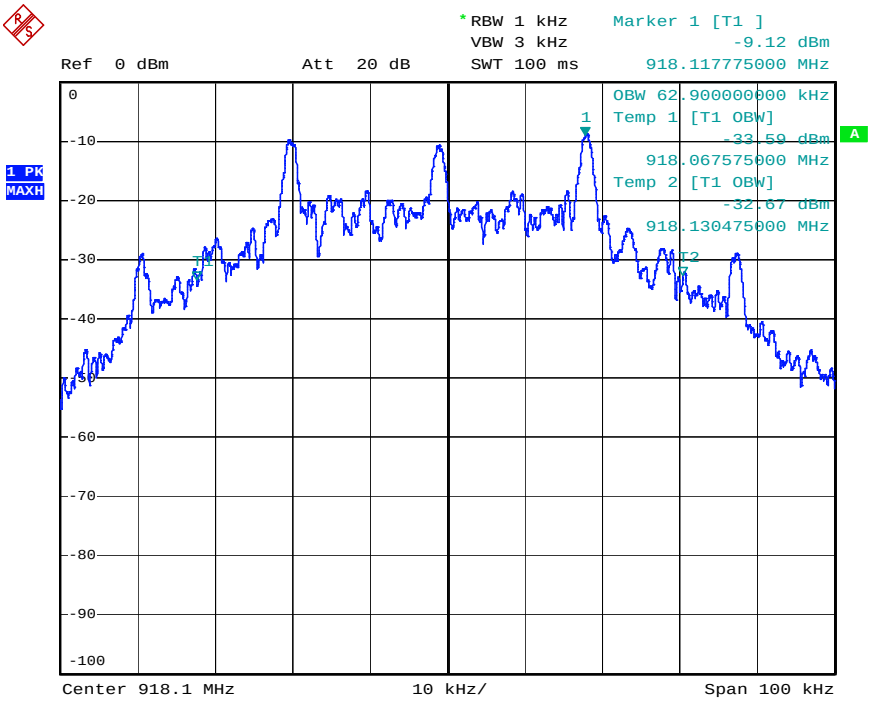
99% Bandwidth

Low Channel



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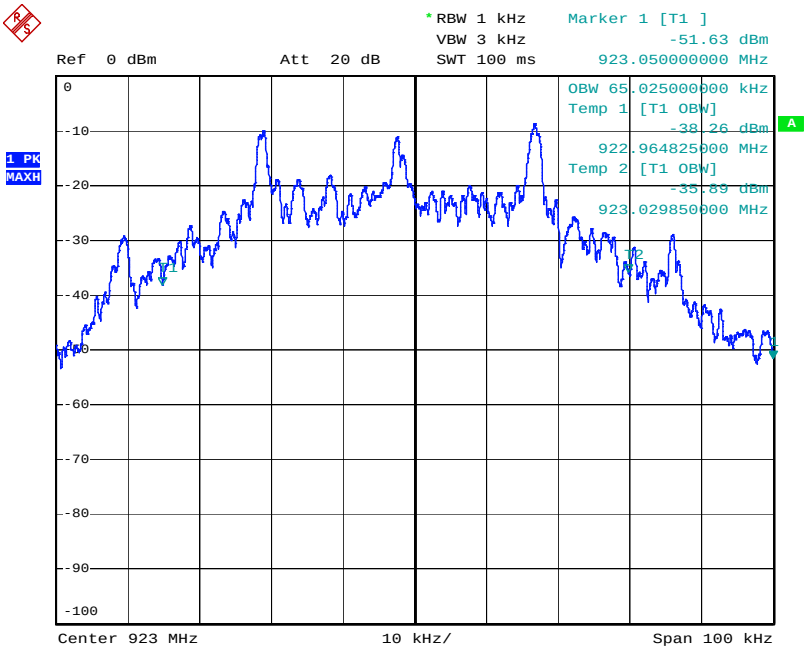
High Channel



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Frequency hopping systems operating in the 902-928 MHz band

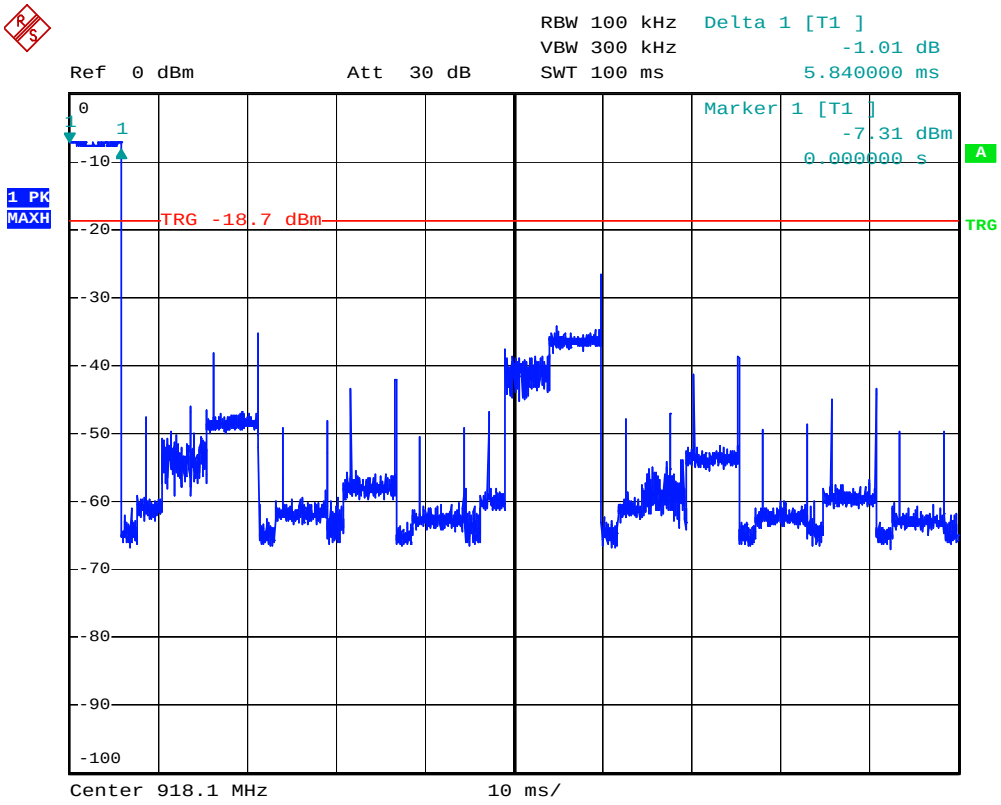
Clause 15.247(a)(1)(i) For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within 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:	CB942A	Temperature:	20°C
Date:	11/6/2012	Humidity:	31 %
Modification State:	Mid Channel	Tester:	Andreas Gillmeier
		Laboratory:	Nemko

Test Results:

Channel width (on state) is 5.84 milli-seconds

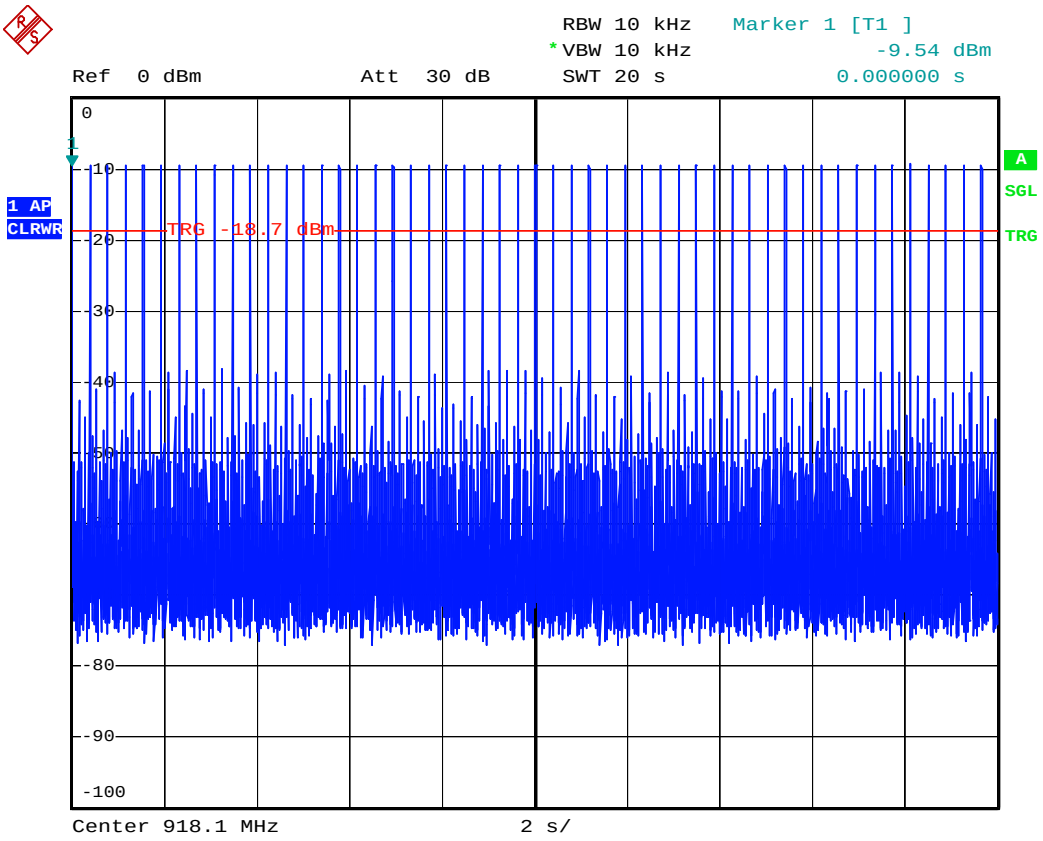


Date: 6.NOV.2012 10:19:55

Time of Occupancy

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.

51 occurrences in 20 seconds x 5.84 ms = 298 ms which is less than 400 ms
EUT complies.



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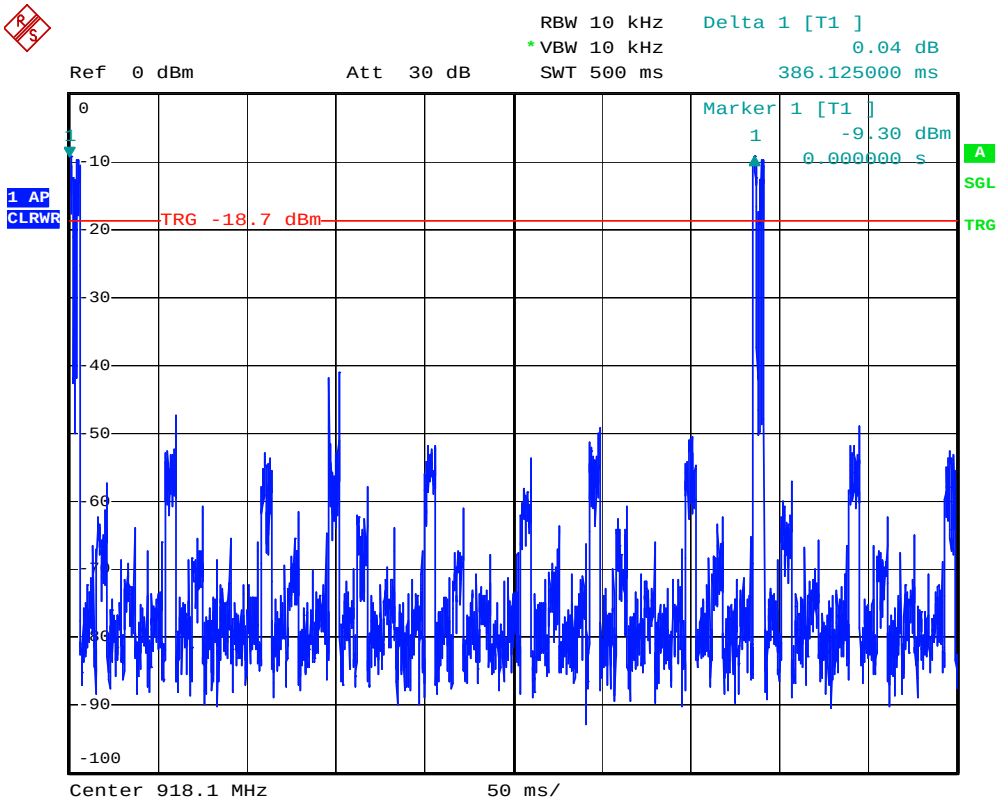
Duty Cycle Factor Calculation

This plot shows repetition rate is greater than 100 ms.



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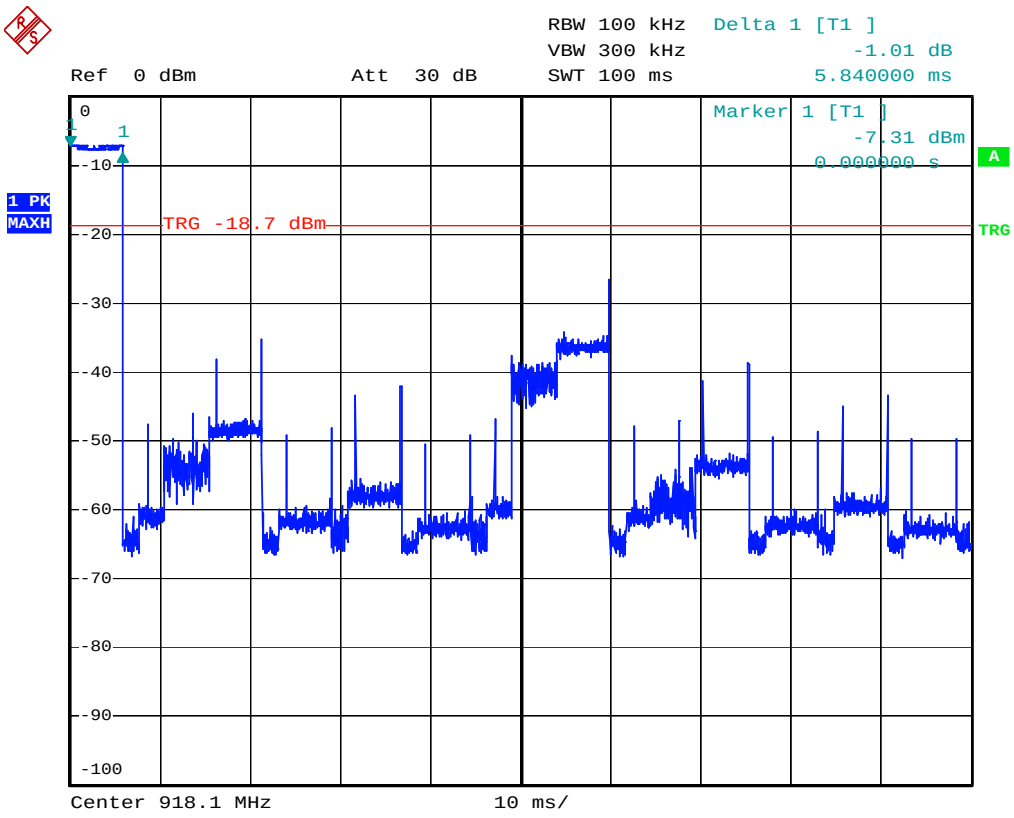
This plot shows On-time of 5.84 ms
Display line is video trigger used to capture fast moving channel emission.



Date: 6.NOV.2012 10:19:55

Since there is an emission for each channel 5.84 ms in 386 ms, one could conclude that a duty cycle exists 5.84 per 100 ms or 5.8%.

Duty cycle factor is 20 x Log(duty cycle) = 20 x log (.0584) = -24.7 dB.

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.

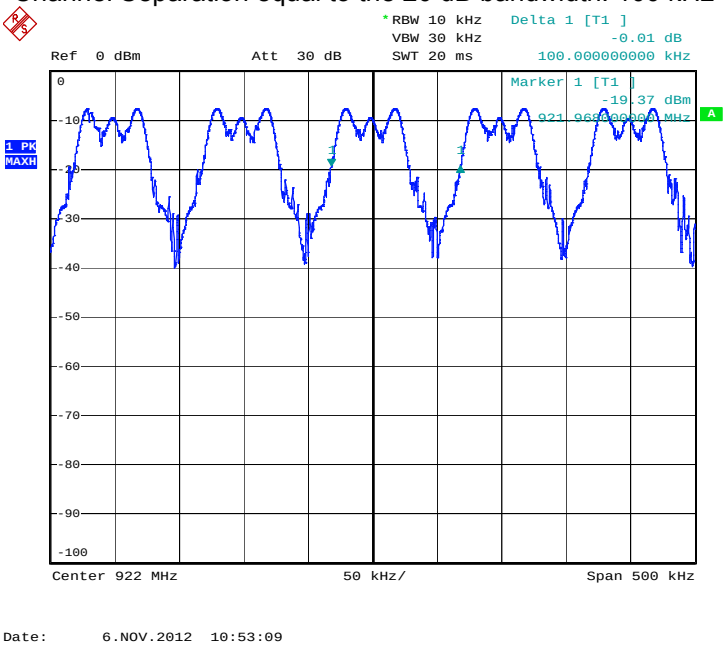
Test Conditions:

Sample Number:	CB942A	Temperature:	20°C
Date:	11/6/2012	Humidity:	31 %
Modification State:	hopping	Tester:	Andreas Gillmeier
		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: 100 kHz



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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.

Test Conditions:

Sample Number:	CB942A	Temperature:	
Date:	12/2/2012	Humidity:	
Modification State:	hopping	Tester:	Andreas Gillmeier
		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					

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Number of Hopping Channels

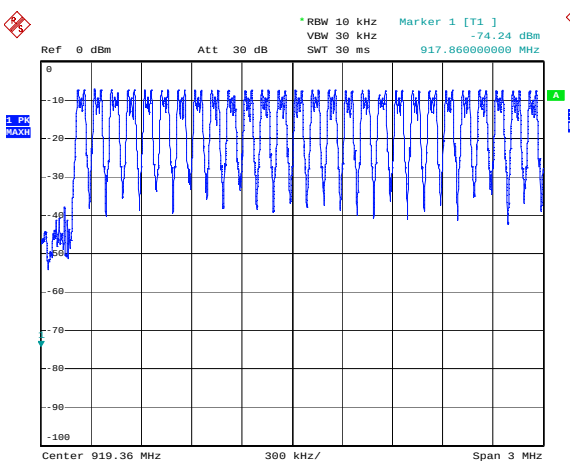
Clause 15.247(a)(1)(i) For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within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

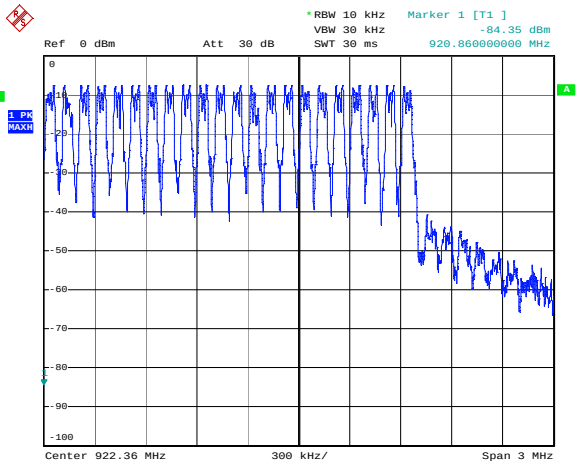
Test Conditions:

Sample Number:	CB942A	Temperature:	20°C
Date:	11/6/2012	Humidity:	31 %
Modification State:	hopping	Tester:	Andreas Gillmeier
		Laboratory:	Nemko

Test Results: 50 Channels, EUT complies.

- This is a conducted test
- The Spectrum Analyzer RES BW was set to 10 kHz to discriminate channels.





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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:	CB942A	Temperature:	21°C
Date:	11/7/2012	Humidity:	61%
Modification State:	Low Channel	Tester:	Andreas Gillmeier
		Laboratory:	10m chamber

Test Results:

See Table Below.

Additional Observations:

The Spectrum was searched from 30 MHz to the 10th Harmonic.
Three orthogonal axes were tried to maximize emissions. Worst case was used in measurements presented. A new battery was installed initially and replaced every 20 minutes of test time.
Measurements below 1GHz were performed at 3m with a Quasi-Peak detector while Peak detector was 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.

Math example:
CR/SL Dif = Limit – Corrected Reading. Pass if result is negative.
Max of Vertical or Horizontal measured + Antenna Factor + Cable Loss – preamplifier (if used). – Duty Cycle Factor

At 3672.4 MHz: 43.3 = 58.0 + 31.25 + 10.6 – 31.9 –24.7
43.3 – 54 = -10.7
Model tested was renamed CB942A after test occurred.

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Radiated Emissions Data

Job # :	10228220	Date :	11/07/12	Page	1 of 1
NEX#:	224472	Time :	1pm		
		Staff :	AG		
Client Name :	Indyme Solutions, Inc.			EUT Voltage :	3V DC
EUT Name :	Wireless Call Box			EUT Frequency :	
EUT Model # :	CB942			Phase:	
EUT Serial # :	N/A				
EUT Config. :	TX test mode modulated fixed frequency 918.1				
	Worst case output power measured for Spurious			Distance < 1000 MHz:	3 m
	Limit for non-restricted band -20 dBc			Distance > 1000 MHz:	3 m
Specification :	RSS 210, FCC 15.247				
Loop Ant. #:	NA				
Bicon Ant.#:	NA	Temp. (°C) :	21		
Log Ant.#:	110_3m	Humidity (%) :	61		
DRG Ant. #	752	Spec Analyzer #:	911		
Cable LF#:	SAC_10m	Analyzer Display #:	911		
Cable HF#:	WCC	Quasi-Peak Detector #:	911		
Preamp LF#:	902	Duty Cycle (%):	5.84		
Preamp HF#	317				

Quasi-Peak	RBW:	120 kHz
	Video Bandwidth	300 kHz
Peak	RBW:	1 MHz
	Video Bandwidth	3 MHz
Average = Peak + Duty Cycle Factor		
DCF = 20 x log(duty cyle)		

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
902.0	27.2		Q	scan	100	27.2	25.2	46.0	-20.8	Pass	noise floor
928.0	28.0		Q	scan	100	28.0	26.2	46.0	-19.8	Pass	noise floor
1836.200	50.8	49.4	P	1	130	50.8	53.8	88.8	-35.0	Pass	V: y; H: z
1836.200	50.8	49.4	A	1	130	50.8	29.1	68.8	-39.7	Pass	V: y; H: z
2754.300	52.9	52.3	P	228	144	52.9	59.1	74.0	-14.9	Pass	V: z; H: x
2754.300	52.9	52.3	A	228	144	52.9	34.5	54.0	-19.5	Pass	V: z; H: x
3672.400	57.5	58.0	P	7	129	58.0	68.0	74.0	-6.0	Pass	V: z; H: x
3672.400	57.5	58.0	A	7	129	58.0	43.3	54.0	-10.7	Pass	V: z; H: x
4590.500	43.9	45.3	P	221	122	45.3	56.7	74.0	-17.3	Pass	V: x; H: z
4590.500	43.9	45.3	A	221	122	45.3	32.1	54.0	-21.9	Pass	V: x; H: z
5508.600	47.9	47.2	P	180	116	47.9	63.4	88.8	-25.4	Pass	V: y; H: z
5508.600	47.9	47.2	A	180	116	47.9	38.7	68.8	-30.1	Pass	V: y; H: z
6426.700	low	39.3	P	347	100	39.3	56.1	88.8	-32.7	Pass	V: z; H: z
6426.700	low	39.3	A	347	100	39.3	31.4	68.8	-37.4	Pass	V: z; H: z
923.000	71.4	78.7	P	180	100	78.7	108.4				vert on long side, LED right
1846.000	50.7	39.1	P	1	130	50.7	53.7	88.4	-34.7	Pass	V: y; H: z
1846.000	50.7	39.1	A	1	130	50.7	29.0	68.4	-39.4	Pass	V: y; H: z
2769.000	52.2	52.3	P	225	144	52.3	58.5	74.0	-15.5	Pass	V: z; H: x
2769.000	52.2	52.3	A	225	144	52.3	33.9	54.0	-20.1	Pass	V: z; H: x
3692.000	57.1	57.6	P	7	131	57.6	67.6	74.0	-6.4	Pass	V: z; H: x
3692.000	57.1	57.6	A	7	131	57.6	42.9	54.0	-11.1	Pass	V: z; H: x
4615.000	43.3	45.1	P	223	122	45.1	56.6	74.0	-17.4	Pass	V: x; H: z
4615.000	43.3	45.1	A	223	122	45.1	31.9	54.0	-22.1	Pass	V: x; H: z
5538.000	low	46.5	P	180	114	46.5	62.0	88.4	-26.4	Pass	V: y; H: z
5538.000	low	46.5	A	180	114	46.5	37.3	68.4	-31.1	Pass	V: y; H: z
6461.000	low	39.2	P	340	100	39.2	56.0	88.4	-32.4	Pass	V: z; H: z
6461.000	low	39.2	A	340	100	39.2	31.3	68.4	-37.1	Pass	V: z; H: z

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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:	CB942A	Temperature:	22°C
Date:	11/6/2012	Humidity:	42%
Modification State:	Low/ High Channels	Tester:	Andreas Gillmeier
		Laboratory:	10m chamber

Test Results: EUT complies.

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 to125.23 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

10^((dBuV/m-120)/20) = Volts/m
Field Strength in Volts/m = 5.5 x Square Root (Power in W*G)/3m
Power in Watts = (Field Strength x 3/5.5*1.34)^2

108.8 dBuV/m = 0.28 V/m
Field Strength of 0.28 V/m = 0.023 W.

Channel	Frequency	Peak Field Strength dBuV/m	Peak Output Power dBm	Calculated Output Power (W)
Low	918.1 MHz	108.8	12.3	0.017
High	923.0 MHz	108.4	11.9	0.015

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NEX#:	224472	Time :	1pm		
		Staff :	AG		
Client Name :	Indyme Solutions, Inc.			EUT Voltage :	3V DC
EUT Name :	Wireless Call Box			EUT Frequency :	
EUT Model # :	CB942			Phase:	
EUT Serial # :	N/A				
EUT Config. :	TX test mode: modulated, not-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 (%) :	42		
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 (%):	5.84		
Preamp HF#	NA				

Quasi-Peak	RBW:	120 kHz
	Video Bandwidth	300 kHz
Peak	RBW:	1 MHz
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Average = Peak + Duty Cycle Factor		
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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
918.100	72.0	78.5	P	24.0	100.0	78.5	108.1	125.23	-17.1	Pass	flat on table, LED right
918.100	71.5	79.2	P	191.0	100.0	79.2	108.8	125.23	-16.4	Pass	vert on long side, LED right
918.100	77.7	69.2	P	135.0	100.0	77.7	107.3	125.23	-17.9	Pass	vert on short side, LED up
923.000	71.8	78.5	P	30.0	100.0	78.5	108.2	125.23	-17.0	Pass	flat on table, LED right
923.000	71.4	78.7	P	180.0	100.0	78.7	108.4	125.23	-16.8	Pass	vert on long side, LED right
923.000	77.7	69.2	P	190.0	104.0	77.7	107.4	125.23	-17.8	Pass	vert on short side, LED up

Model tested was renamed CB942A after test occurred

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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:	CB942A	Temperature:	21°C
Date:	11/6/2012	Humidity:	61%
Modification State:	Mid Channel	Tester:	Andreas Gillmeier
		Laboratory:	10m chamber

Test Results: Compliant

Additional Observations:

- The Spectrum was searched from 30MHz to 5000 MHz.
- EUT operated on “test receive mode”.
- No other emissions within 20 dB of the limit were detected.