## **Technical Information**

|                   | Applicant                |  | Manufacturer                              |
|-------------------|--------------------------|--|---|
| Name:             | Bosch Security Systems   | Name:  | Bosch Security Systems Inc. China Factory |
| Address:          | 130 Perinton Parkway     | Address:   | Mei Chi Industrial Area, Blk B            |
| City, State, Zip: | Fairport, New York 14450 | City, State, Zip: Qian Shan Zhuhai, Guangdong 51 |   |
|                   |                          |  | China                                     |

Test Specifications: FCC Part 15, Subpart C Paragraph 15.247, FCC Part 15, Subpart B Paragraph 15 (a) Industry Canada RSS-210 Issue 7 Annex 8, and RSS-Gen Issue 2

Test Procedure: ANSI C63.4: 2003

## **Test Sample Description**

| Test Sample:        | wLSN Mini Do                                  | or/Window Contact      |  |
|---------------------|---|------------------------|--|
| Brandname:          | Bosch   |                        |  |
| Model Number:       | ISW-BMC1-M82Y                                 |                        |  |
| FCC ID:             | T3XBMC1-M82Y                                  |                        |  |
| Туре:               | Frequency Hopping Spread Spectrum Transceiver |                        |  |
| Power Requirements: |   | CR2 3V Lithium Battery |  |
| Frequency of Op     | eration:                                      | 902 MHz to 928 MHz     |  |

## **Tests Performed**

| FCC             | Industry Canada         | Test Method   |
|-----------------|-------------------------|---|
| 15.247(a)(1)    | RSS-210 Annex 8 A8.1(2) | Carrier Frequency Separation / Number of<br>hopping frequencies                       |
| 15.247(a)(1)    | RSS-210 Annex 8 A8.1(2) | 20 dB Bandwidth   |
| 15.247(a)(1)(i) | RSS-210 Annex 8 A8.1(3) | Occupancy Time  |
| 15.247(b)(2)    | RSS-210 Annex 8 A8.4(1) | Output Power  |
| 15.247 (d)      | RSS-210 Annex 8 A8.5    | Transmitter Spurious Radiated Emissions,<br>Restricted Bands / Band edge Measurements |
| 15.109(a)       | RSS-Gen Paragraph 6     | Receiver Spurious Radiated Emissions  |
| 15.35           | RSS-Gen Paragraph 4.5   | Duty Cycle Determination  |

#### TESTS RESULTS

### **DETERMINATION OF FIELD STRENGTH LIMITS**

- 15.203: The intentional radiator is designed to ensure that no antenna other than that furnished by the applicant can be used with the device. The antenna is permanently soldered in place to the PCB.
- 15.204: The antenna used is not commercially available. It is a custom designed circularly polarized Omni-directional antenna with 1dBi gain.
- 15.247(a)(1): The frequency hopping system has hopping channel carrier frequencies separated by 100 kHz, which is less than the 20 dB bandwidth of the hopping channel.
- 15.247(a)(1)(i):The frequency hopping system operated in the 902-928 MHz band and uses 59 frequencies. The maximum 20 dB bandwidth of the hopping channel is less then 250 kHz, Measured 43.8 kHz. The average time of occupancy on any frequency is 0.021 seconds within a 20 second period.
- 15.247(b)(3): The device operates in the 902-928 MHz band. The maximum peak output power measured to be 30.0 mWatts and did not exceed 1 watt.
- 15.247(b)(3): The system operating under the provisions of this section is operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines. The maximum Output Power was measured to be 30.0 mWatts.
- 15.247 (d): In any 100 kHz bandwidth outside the frequency band in which the Spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator is at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power. All emissions, which fell within the restricted bands specified in 15.205(a), were measured and found to be in compliance with the limits specified in 15.209(a).
- 15.109 (a): The field strength of spurious radiated emissions generated by the receiver did not exceed the class B limits specified.

15.247(a): Description of pseudorandom hopping sequence -

The following describes the hopping sequence used by the "Hub" or central point in the network for Beacon announcements as well as the hopping sequence used by the individual points for sending status updates to the Hub.

#### Frequency Announcements (Beacon) Hopping

• Using 59 frequencies channels (all system frequencies)

- Frequency channels are numbered from 0 to 58 (for 59 overall channels)
- Frequency 0 and 1 are adjacent, etc.

The Beacon hop pattern is generated uniquely for each system as follows:

We start with a set of groups

Group  $0 = \{0, 1, 2, 3, ..., 9\}$ Group  $1 = \{10, 11, ..., 19\}$ Group  $2 = \{20, 21, ..., 29\}$ Group  $3 = \{30, 31, ..., 39\}$ Group  $4 = \{40, 41, ..., 49\}$ Group  $5 = \{50, ..., 58\}$  Note one less than others!

We randomly shuffle the elements within each group Example: Shuffled G0 = { 2541763809 } Shuffled G1 = { 19181215141017161113 } Shuffled G2 = { 26212422292528232027 } Shuffled G3 = { 3833139323036343735 } Shuffled G4 = { 47454948424346414044 } Shuffled G5 = { 51585657525505354 }

Then we pick from one of 60 group permutations that keep the groups as least 2 apart so the frequencies in the hop pattern will be as least 5 channels apart (this translates into 500 KHz apart with our system):

Example: using the following group order: { G1, G5, G3, G0, G2, G4 } Shuffled G1 = { 19 18 12 15 14 10 17 16 11 13 } Shuffled G5 = { 51 58 56 57 52 55 50 53 54 XX } Shuffled G3 = { 38 33 31 39 32 30 36 34 37 35 } Shuffled G0 = { 2 5 4 1 7 6 3 8 0 9 } Shuffled G2 = { 26 21 24 22 29 25 28 23 20 27 } Shuffled G4 = { 47 45 49 48 42 43 46 41 40 44 }

We read the elements by columns to form the overall hop pattern {19,51,38,2,26,47, 18,58,33,5,21,45, 12,56,31,4,24,49, ...

Each base station uses a value generated from its unique serial number to seed the random number generator used in the above operations.

A Node wishing to join a network will pick one of the original groups at random and sample frequencies until it hears a Beacon. The Beacon will contain timing information and the seed so the Node can also calculate the hopping pattern being used and synchronize in time with the Base Station.

#### **Network Operations Application Slot hopping**

- Using 59 frequencies channels (all system frequencies)
- Frequency channels are numbered from 0 to 58 (for 59 overall channels)
- Frequency 0 and 1 are adjacent, etc.

The App Slot hop pattern is generated uniquely for each system as follows: We use 8 groups of size 7 and keep 00, 22, 44 on the side: Group 0 = { 01,02,03,04,05,06,07 } 7 elements Group 1 = { 08,09,10,11,12,13,14 } 7 elements Group 2 = { 15,16,17,18,19,20,21 } 7 elements Group 3 = { 23,24,25,26,27,28,29 } 7 elements Group 4 = { 30,31,32,33,34,35,36 } 7 elements Group 5 = { 37,38,39,40,41,42,43 } 7 elements Group 6 = { 45,46,47,48,49,50,51 } 7 elements Group 7 = { 52,53,54,55,56,57,58 } 7 elements

We randomly shuffle the elements within each group. Example:

- Group 0 = { 03, 05, 02, 04, 07, 01, 06 } 00
- Group 3 = { 29, 25, 27, 24, 26, 28, 23 } 22
- Group 6 = { 50, 46, 48, 51, 49, 45, 48 } 44
- Group 1 = { 11, 14, 10, 08, 13, 09, 12 }
- Group 4 = { 30, 33, 35, 31, 34, 36, 32 }
- Group 7 = { 58, 52, 55, 54, 53, 57, 56 }
- Group 2 = { 20, 16, 17, 21, 19, 18, 22 }
- Group 5 = { 40, 43, 39, 42, 41, 37, 38 }

Now we read the pattern column by column and add the extras at the end: • 03,29,50,11,30,58,20,40,05,25,46,14,33,52,16,42,02,...,22,38,00,22,44

The app slot hop pattern uses all system 59 frequencies:

- Every frame (every second) we move in the pattern a total of 12 hops
- We finish the whole pattern in almost 5 seconds (5x12=60)
- Every 5 seconds the pattern shifts by one to the left!

This approach ensures that more than one application slot (of the same type) is used in a second or from second to second, the frequencies used are at least 500 KHz apart. As well, all frequencies are utilized equally when the network is very busy.

#### 15.247(a): Equal hopping Frequency Use

A beacon is transmitted only once on each frequency, every 20 seconds Beacon is transmitted for 118.3 ms under maximum communication load in the Security system, each frequency is used by a maximum of 4 application slots in every 20 second interval.

The duration of different application slots are: Alarm = 31.1 ms Back channel = 155.4 ms Supervision = 28.6 ms Maximum usage occurs when alarm, back channel and 2 supervision slots are used (243.7 ms) each frequency is used for a maximum of 362 ms (including Beacon) 15.247(a): Receiver Input Bandwidth The receiver deviation is controlled by a register setting in the RFIC, the deviation setting is 30 KHz and the Tx deviation is  $\pm 4.95$  KHz.

- 15.247(a): System Receiver Hopping Capability Upon power up the nodes will listen for beacons from the base station device. Once a beacon is heard the device uses information in the beacon message to compute the base stations hopping pattern and current system time. The nodes will then hop in synchronization with the base station, periodically receiving beacon messages in order to maintain synchronization.
- 15.247(g): Frequency Hopping Description The system consisting of the base station and the nodes meets the requirements of a true frequency hopping system in the following ways:
  1. At power up the nodes synchronize to the base station hop pattern and continually hop in sync with the base station at the system hopping rate.
  2. All devices in the system are changing frequency at the system hopping rate even when there is no data being transmitted, this allows all devices to distribute there transmissions equally over all of the frequencies whether the data is short period bursts or continuous.
  15.247(h): Frequency Coordination
  - All nodes in a system synchronize to and follow the same hopping pattern as the base station that they are synchronized to. Base stations from different systems independently generate their hopping pattern using only a random generator that uses that base stations serial number as the initial seed value. There is no coordination of hopping between nodes in the same system or base stations in different systems for the purpose of unfairly occupying the available spectrum.

### Spectrum Analyzer Desensitization Considerations

Due to the nature of the emissions being measured, care was taken to ensure that the resolution bandwidth of the spectrum analyzer was adequate to provide accurate measurements. FCC specified bandwidths of 100 kHz and 1 MHz were utilized below and above 1 GHz, respectively.

#### **General Notes**

- 1. All readings were taken utilizing a peak and/or Average detector function at a test distance of 3 meters.
- 2. All measurements were made with fully charged batteries installed in the unit.
- 3. The frequency range was scanned from 30 MHz to 10.0 GHz. All emissions not reported were more than 20dB below the specified limit.
- 4. The device has no provisions for external accessories.
- 5. The unit tunes over the frequency range of: 915.5 to 921.5 MHz. The unit was tested at the following frequencies: 915.5 MHz, 918.5 MHz & 921.3 MHz.
- 6. The Receiver was tested per "ANSI STANDARD C63.4-2003 12.1.1.2. The receiver was programmed for normal receiver mode. A CW signal was transmitted to stabilize the local oscillator.

#### **Modifications:**

Radio Frequency cans were added to the Radio Frequency portion of the PCB and a software change was utilized to lower the RF IC power output.

#### **Certification and Signatures**

We certify that this report is a true representation of the results obtained from the tests of the equipment stated. We further certify that the measurements shown in this report were made in accordance with the procedures indicated and vouch for the qualifications of all Retlif Testing Laboratories personnel taking them.

Donald C. Lerner EMC Test Engineer

Nicholas Dragotta EMC Laboratory Supervisor

#### **Non-Warranty Provision**

The testing services have been performed, findings obtained and reports prepared in accordance with generally accepted laboratory principles and practices. This warranty is in lieu of all others, either expressed or implied.

#### Non-Endorsement

This test report contains only findings and results arrived at after employing the specific test procedures and standards listed herein. It is not intended to constitute a recommendation, endorsement or certification of the product or material tested. This test report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government.

Retlif Testing Laboratories, Report R-11965-5, Bosch Security Systems, FCC ID: T3XBMC1-M82Y Page 6 of 49

## **Equipment List**

## FCC Part 15, Subpart C, 15.247 (a)(1) Number of Hopping Frequency and Carrier Separation

| EN   | Туре                | Manufacturer    | Description     | Model No. | Cal Date   | Due Date   |
|------|---------------------|-----------------|-----------------|-----------|------------|------------|
| 067  | Open Area Test Site | Retlif          | 3/10 Meter      | RNY       | 9/12/2006  | 9/12/2009  |
| 141  | Spectrum Analyzer   | Hewlett Packard | 100 Hz - 40 GHz | 8566B     | 4/27/2007  | 4/27/2008  |
| 141B | Quasi-Peak Adaptor  | Hewlett Packard | 100 Hz - 1 GHz  | 85650A    | 4/27/2007  | 4/27/2008  |
| 512  | Graphics Plotter    | Hewlett Packard | N/A             | 7470A     | 10/18/2006 | 10/18/2007 |

# FCC Part 15, Subpart C, Paragraph 15.247.(a)(1) Occupied Bandwidth

| EN   | Туре                | Manufacturer    | Description     | Model No. | Cal Date   | Due Date   |
|------|---------------------|-----------------|-----------------|-----------|------------|------------|
| 067  | Open Area Test Site | Retlif          | 3/10 Meter      | RNY       | 9/12/2006  | 9/12/2009  |
| 141  | Spectrum Analyzer   | Hewlett Packard | 100 Hz - 40 GHz | 8566B     | 4/27/2007  | 4/27/2008  |
| 141B | Quasi-Peak Adaptor  | Hewlett Packard | 100 Hz - 1 GHz  | 85650A    | 4/27/2007  | 4/27/2008  |
| 512  | Graphics Plotter    | Hewlett Packard | N/A             | 7470A     | 10/18/2006 | 10/18/2007 |

# FCC Part 15, Subpart C, 15.247(a)(1)(i), Occupancy Time and Duty cycle

| EN   | Туре                | Manufacturer    | Description     | Model No. | Cal Date   | Due Date   |
|------|---------------------|-----------------|-----------------|-----------|------------|------------|
| 067  | Open Area Test Site | Retlif          | 3/10 Meter      | RNY       | 9/12/2006  | 9/12/2009  |
| 141  | Spectrum Analyzer   | Hewlett Packard | 100 Hz - 40 GHz | 8566B     | 4/27/2007  | 4/27/2008  |
| 141B | Quasi-Peak Adaptor  | Hewlett Packard | 100 Hz - 1 GHz  | 85650A    | 4/27/2007  | 4/27/2008  |
| 512  | Graphics Plotter    | Hewlett Packard | N/A             | 7470A     | 10/18/2006 | 10/18/2007 |

## FCC Part 15, Subpart C, Radiated Emissions, Fundamental Power Output

| EN   | Туре                    | Manufacturer    | Description          | Model No.    | Cal Date   | Due Date   |
|------|-------------------------|-----------------|----------------------|--------------|------------|------------|
| 067  | Open Area Test Site     | Retlif          | 3/10 Meter           | RNY          | 9/12/2006  | 9/12/2009  |
| 133  | Broadband Pre-Amplifier | Electro-Metrics | 10 kHz - 1 GHz, 26dB | BPA-1000     | 6/27/2006  | 6/27/2007  |
| 141  | Spectrum Analyzer       | Hewlett Packard | 100 Hz - 40 GHz      | 8566B        | 4/27/2007  | 4/27/2008  |
| 141B | Quasi-Peak Adaptor      | Hewlett Packard | 100 Hz - 1 GHz       | 85650A       | 4/27/2007  | 4/27/2008  |
| 206B | 6.0 dB Attenuator       | Texscan         | 0 - 1.0 GHz          | FP-50 - 6 dB | 6/27/2006  | 6/27/2007  |
| 512  | Graphics Plotter        | Hewlett Packard | N/A                  | 7470A        | 10/18/2006 | 10/18/2007 |
| 617  | Interference Analyzer   | Electro-Metrics | 10 kHz - 1 GHz       | EMC-30       | 3/30/2007  | 3/30/2008  |
| 767  | Biconilog               | EMCO            | 26 - 2000 MHz        | 3142B        | 10/12/2006 | 10/12/2007 |

## FCC Part 15, Subpart C, 15.247(d) Band Edge Measurements, 902 to 928 MHz Band

| EN   | Туре                | Manufacturer    | Description     | Model No. | Cal Date   | Due Date   |
|------|---------------------|-----------------|-----------------|-----------|------------|------------|
| 067  | Open Area Test Site | Retlif          | 3/10 Meter      | RNY       | 9/12/2006  | 9/12/2009  |
| 141  | Spectrum Analyzer   | Hewlett Packard | 100 Hz - 40 GHz | 8566B     | 4/27/2007  | 4/27/2008  |
| 141B | Quasi-Peak Adaptor  | Hewlett Packard | 100 Hz - 1 GHz  | 85650A    | 4/27/2007  | 4/27/2008  |
| 512  | Graphics Plotter    | Hewlett Packard | N/A             | 7470A     | 10/18/2006 | 10/18/2007 |

# FCC Part 15 Subpart C, Radiated Harmonic Emissions

| EN   | Туре                    | Manufacturer      | Description          | Model No.    | Cal Date   | Due Date   |
|------|-------------------------|-------------------|----------------------|--------------|------------|------------|
| 032F | H.P. Filter             | Microlab/FXR      | 2 GHz                | HD-20N       | 9/22/2006  | 9/22/2007  |
| 032H | H.P. Filter             | Microlab/FXR      | 4 GHz                | HD-40N       | 2/20/2007  | 2/20/2008  |
| 032J | H.P. Filter             | Microlab/FXR      | 6 GHz                | HD-60N       | 3/13/2007  | 3/13/2008  |
| 067  | Open Area Test Site     | Retlif            | 3/10 Meter           | RNY          | 9/12/2006  | 9/12/2009  |
| 1049 | H.P. Filter             | Microlab/FXR      | 1 GHz                | HD-10N       | 9/22/2006  | 9/22/2007  |
| 128  | Double Ridged Guide     | Electro-Mechanics | 1 GHz - 18 GHz       | 3105         | 3/27/2007  | 3/27/2008  |
| 133  | Broadband Pre-Amplifier | Electro-Metrics   | 10 kHz - 1 GHz, 26dB | BPA-1000     | 6/27/2007  | 6/27/2008  |
| 141  | Spectrum Analyzer       | Hewlett Packard   | 100 Hz - 40 GHz      | 8566B        | 4/27/2007  | 4/27/2008  |
| 141A | Graphics Plotter        | Hewlett Packard   | N/A                  | 7470A        | 3/12/2007  | 3/12/2008  |
| 206B | 6.0 dB Attenuator       | Texscan           | 0 - 1.0 GHz          | FP-50 - 6 dB | 6/27/2007  | 6/27/2008  |
| 379F | H.P. Filter             | Microlab/FXR      | 500 MHz              | HA-05N       | 9/22/2006  | 9/22/2007  |
| 543  | Preamplifier            | Hewlett Packard   | 1.0 GHz - 26.5 GHz   | 8449B        | 9/9/2005   | 9/9/2007   |
| 767  | Biconilog               | EMCO              | 26 - 2000 MHz        | 3142B        | 10/12/2006 | 10/12/2007 |

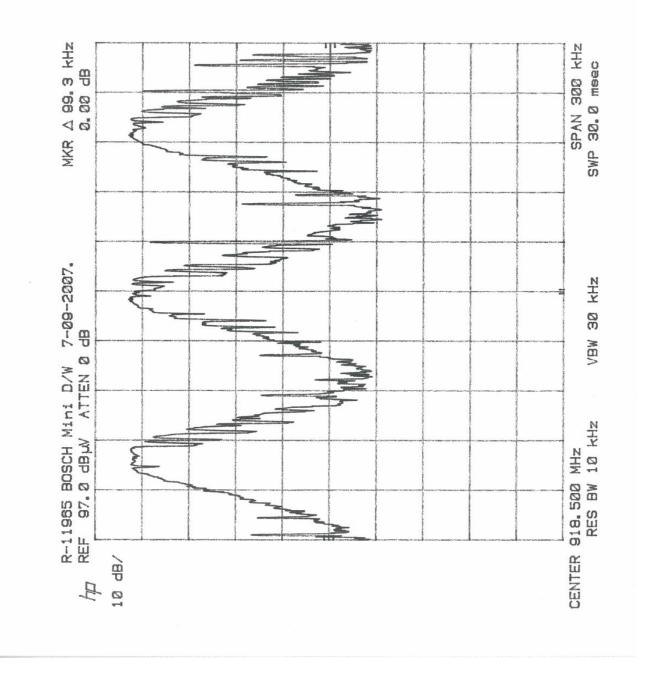
## FCC Part 15 Subpart C, Transmitter Spurious Radiated Emissions

| EN   | Туре                    | Manufacturer      | Description          | Model No.    | Cal Date   | Due Date   |
|------|-------------------------|-------------------|----------------------|--------------|------------|------------|
| 032F | H.P. Filter             | Microlab/FXR      | 2 GHz                | HD-20N       | 9/22/2006  | 9/22/2007  |
| 032H | H.P. Filter             | Microlab/FXR      | 4 GHz                | HD-40N       | 2/20/2007  | 2/20/2008  |
| 032J | H.P. Filter             | Microlab/FXR      | 6 GHz                | HD-60N       | 3/13/2007  | 3/13/2008  |
| 067  | Open Area Test Site     | Retlif            | 3/10 Meter           | RNY          | 9/12/2006  | 9/12/2009  |
| 1049 | H.P. Filter             | Microlab/FXR      | 1 GHz                | HD-10N       | 9/22/2006  | 9/22/2007  |
| 128  | Double Ridged Guide     | Electro-Mechanics | 1 GHz - 18 GHz       | 3105         | 3/27/2007  | 3/27/2008  |
| 133  | Broadband Pre-Amplifier | Electro-Metrics   | 10 kHz - 1 GHz, 26dB | BPA-1000     | 6/27/2007  | 6/27/2008  |
| 141  | Spectrum Analyzer       | Hewlett Packard   | 100 Hz - 40 GHz      | 8566B        | 4/27/2007  | 4/27/2008  |
| 141A | Graphics Plotter        | Hewlett Packard   | N/A                  | 7470A        | 3/12/2007  | 3/12/2008  |
| 206B | 6.0 dB Attenuator       | Texscan           | 0 - 1.0 GHz          | FP-50 - 6 dB | 6/27/2007  | 6/27/2008  |
| 379F | H.P. Filter             | Microlab/FXR      | 500 MHz              | HA-05N       | 9/22/2006  | 9/22/2007  |
| 543  | Preamplifier            | Hewlett Packard   | 1.0 GHz - 26.5 GHz   | 8449B        | 9/9/2005   | 9/9/2007   |
| 762  | AM/FM Signal Generator  | Marconi Instru.   | 10 kHz - 1.2 GHz     | 2023         | 7/24/2007  | 7/24/2008  |
| 767  | Biconilog               | EMCO              | 26 - 2000 MHz        | 3142B        | 10/12/2006 | 10/12/2007 |
| 826  | 10 DB Atten. (50 ohm)   | Narda             | DC - 10 GHz, 1W      | 774-10       | 5/21/2007  | 5/21/2008  |

# FCC Part 15 Subpart B, Class B, Radiated Emissions, 30 MHz to 5 GHz

| EN   | Туре                    | Manufacturer      | Description          | Model No.    | Cal Date   | Due Date   |
|------|-------------------------|-------------------|----------------------|--------------|------------|------------|
| 067  | Open Area Test Site     | Retlif            | 3/10 Meter           | RNY          | 9/12/2006  | 9/12/2009  |
| 128  | Double Ridged Guide     | Electro-Mechanics | 1 GHz - 18 GHz       | 3105         | 3/27/2007  | 3/27/2008  |
| 133  | Broadband Pre-Amplifier | Electro-Metrics   | 10 kHz - 1 GHz, 26dB | BPA-1000     | 6/27/2007  | 6/27/2008  |
| 141  | Spectrum Analyzer       | Hewlett Packard   | 100 Hz - 40 GHz      | 8566B        | 4/27/2007  | 4/27/2008  |
| 141A | Graphics Plotter        | Hewlett Packard   | N/A                  | 7470A        | 3/12/2007  | 3/12/2008  |
| 206B | 6.0 dB Attenuator       | Texscan           | 0 - 1.0 GHz          | FP-50 - 6 dB | 6/27/2007  | 6/27/2008  |
| 512  | Graphics Plotter        | Hewlett Packard   | N/A                  | 7470A        | 10/18/2006 | 10/18/2007 |
| 523  | Biconilog               | Electro-Mechanics | 26 - 2000 MHz        | 3142B        | 11/10/2006 | 11/10/2007 |
| 543  | Preamplifier            | Hewlett Packard   | 1.0 GHz - 26.5 GHz   | 8449B        | 9/9/2005   | 9/9/2007   |
| 574  | AM/FM Signal Generator  | Marconi Instru.   | 9 kHz - 2.4 GHz      | 2024         | 7/25/2006  | 7/25/2007  |
| 617  | Interference Analyzer   | Electro-Metrics   | 10 kHz - 1 GHz       | EMC-30       | 6/13/2007  | 6/13/2008  |
| 1049 | H.P. Filter             | Microlab/FXR      | 1 GHz                | HD-10N       | 9/22/2006  | 9/22/2007  |

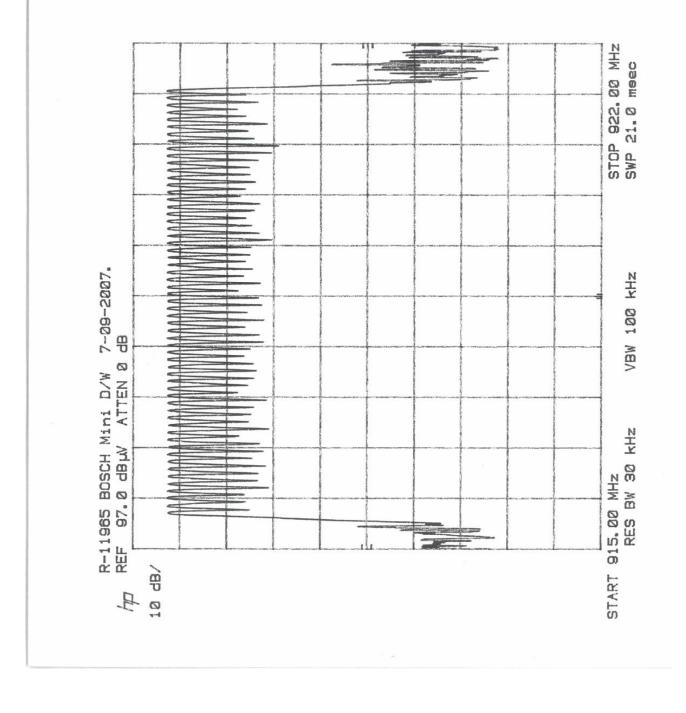
FCC Part 15, Subpart C, 15.247 (a)(1) Carrier Frequency Separation and Number of Hopping Frequency 902 – 928 MHz Band Test Data



 FCC Part 15, Subpart C, 15.247(a) (1)Hopping Channel Carrier Separation, 902 to 928 MHz Band
 Note: Hopping channel carrier frequency meets the required minimum separation of 25 kHz (Measured carrier separation =99.3kHz)
 FCC ID:T3XBMC1-M82Y

| Bosch Security System.          |            |   |  |  |
|---------------------------------|------------|---|--|--|
| wLSN Mini Door / Window Contact |            |   |  |  |
| ISW-BMC1-M82Y                   |            |   |  |  |
|                                 | Tech: R.S. | Sheet 1 of 2  |  |  |
|                                 | wL         | wLSN Mini Door / Win<br>ISW-BMC1-M82Y<br>Tech: R.S. |  |  |

Retlif Testing Laboratories, Report R-11965-5, Bosch Security Systems, FCC ID: T3XBMC1-M82Y Page 10 of 49



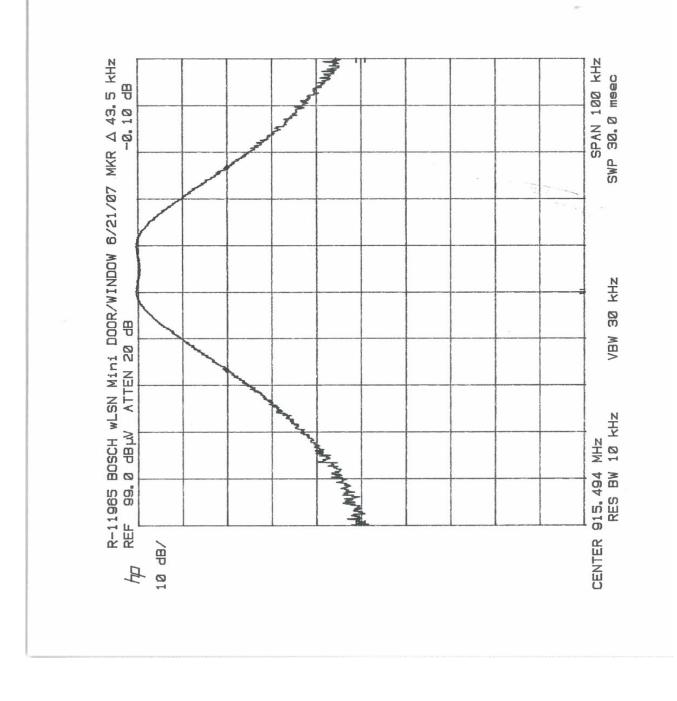
#### FCC Part 15, Subpart C, 15.247(a) (1) Number of Hopping Frequency, 902 to 928 MHz Band

**Note:** EUT uses 59 hopping frequencies which meets the 50 minimum hopping frequencies required by the 20dB bandwidth if less than 250 kHz(measured BW = 43.8 kHz).

FCC ID:T3XBMC1-M82Y

| Customer        | Bos | Bosch Security System.          |              |  |  |  |  |
|-----------------|-----|---------------------------------|--------------|--|--|--|--|
| Test Sample     | wL  | wLSN Mini Door / Window Contact |              |  |  |  |  |
| Model Number    | ISV | V-BMC1-M82Y                     |              |  |  |  |  |
| Date: 7-09-2007 |     | Tech: R.S.                      | Sheet 2 of 2 |  |  |  |  |
|                 |     | <u> </u>                        | 1 0 11005    |  |  |  |  |

Retlif Testing Laboratories, Report R-11965-5, Bosch Security Systems, FCC ID: T3XBMC1-M82Y Page 11 of 49 FCC Part 15, Subpart C, 15.247 (a)(1) Occupied Bandwidth, 902 - 928 MHz Test Data



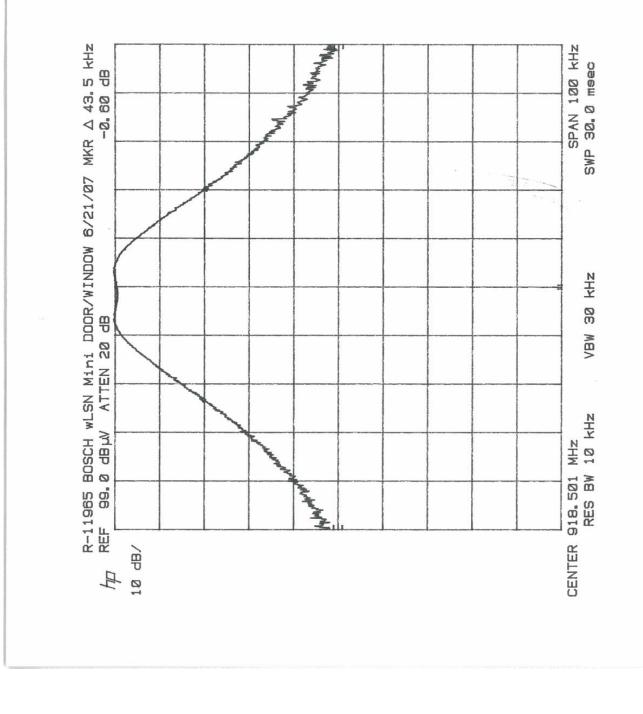
## FCC Part 15, Subpart C, 15.247(a) (1) Occupied Bandwidth, 902 to 928 MHz Band

Note: The maximum 20 dB bandwidth of the hopping channel is less then 250 kHz. 20dB bandwidth measured at 43.5 kHz

**Note:** EUT transmitting on channel 00 at 915.5 MHz. **FCC ID:**T3XBMC1-M82Y

| Customer        | В                          | osch Security System.   |  |  |  |  |
|-----------------|----------------------------|-------------------------|--|--|--|--|
| Test Sample     | ple wLSN Mini Door / Windo |                         |  |  |  |  |
| Model Number    | 15                         | SW-BMC1-M82Y            |  |  |  |  |
| Date: 6-21-2007 |                            | Tech: R.S. Sheet 1 of 3 |  |  |  |  |
| D = (I + I + I) |                            | Laborate Da             |  |  |  |  |

Retlif Testing Laboratories, Report R-11965-5, Bosch Security Systems, FCC ID: T3XBMC1-M82Y Page 13 of 49



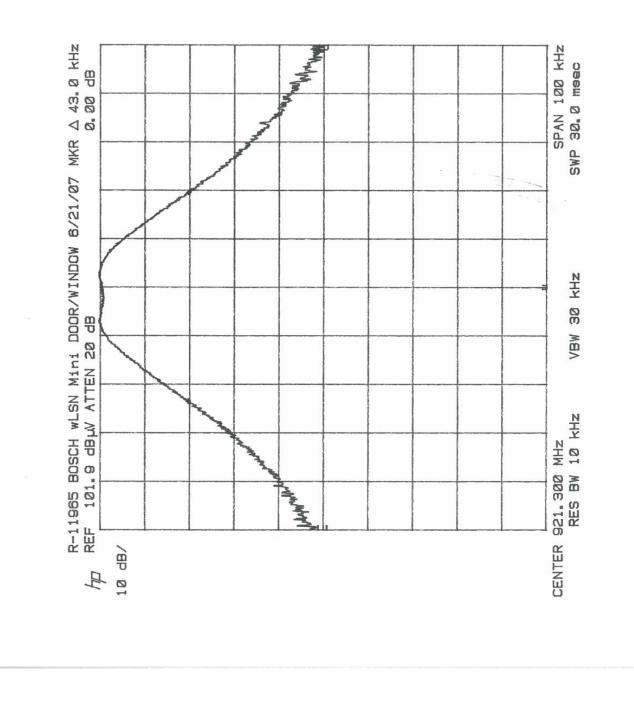
### FCC Part 15, Subpart C, 15.247(a) (1) Occupied Bandwidth, 902 to 928 MHz Band

Note: The maximum 20 dB bandwidth of the hopping channel is less then 250 kHz. 20dB bandwidth measured at 43.5 kHz

**Note:** EUT transmitting on channel 30 at 918.5 MHz. **FCC ID:**T3XBMC1-M82Y

| Bos | Bosch Security System.          |                                       |  |  |  |
|-----|---------------------------------|---------------------------------------|--|--|--|
| wL  | wLSN Mini Door / Window Contact |                                       |  |  |  |
| ISV | V-BMC1-M82Y                     |                                       |  |  |  |
|     | Tech: R.S.                      | Sheet 2 of 3                          |  |  |  |
|     | wL                              | wLSN Mini Door / Win<br>ISW-BMC1-M82Y |  |  |  |

Retlif Testing Laboratories, Report R-11965-5, Bosch Security Systems, FCC ID: T3XBMC1-M82Y Page 14 of 49



### FCC Part 15, Subpart C, 15.247(a) (1) Occupied Bandwidth, 902 to 928 MHz Band

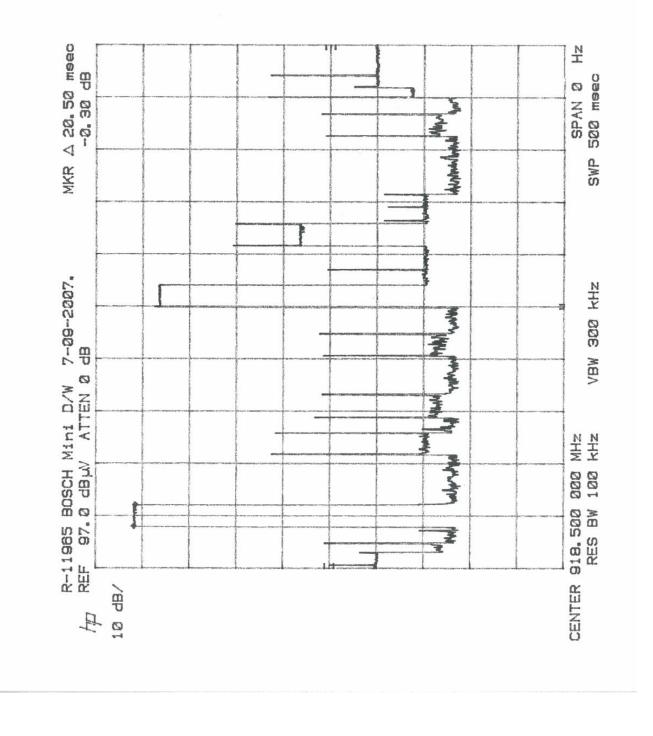
Note: The maximum 20 dB bandwidth of the hopping channel is less then 250 kHz. 20dB bandwidth measured at 43.0 kHz

**Note:** EUT transmitting on channel 58 at 921.3 MHz. **FCC ID:**T3XBMC1-M82Y

| Customer        | Bos | Bosch Security System.          |              |  |  |
|-----------------|-----|---------------------------------|--------------|--|--|
| Test Sample     | wL  | wLSN Mini Door / Window Contact |              |  |  |
| Model Number    | ISV | V-BMC1-M82Y                     |              |  |  |
| Date: 6-20-2007 |     | Tech: R.S.                      | Sheet 3 of 3 |  |  |

Retlif Testing Laboratories, Report R-11965-5, Bosch Security Systems, FCC ID: T3XBMC1-M82Y Page 15 of 49

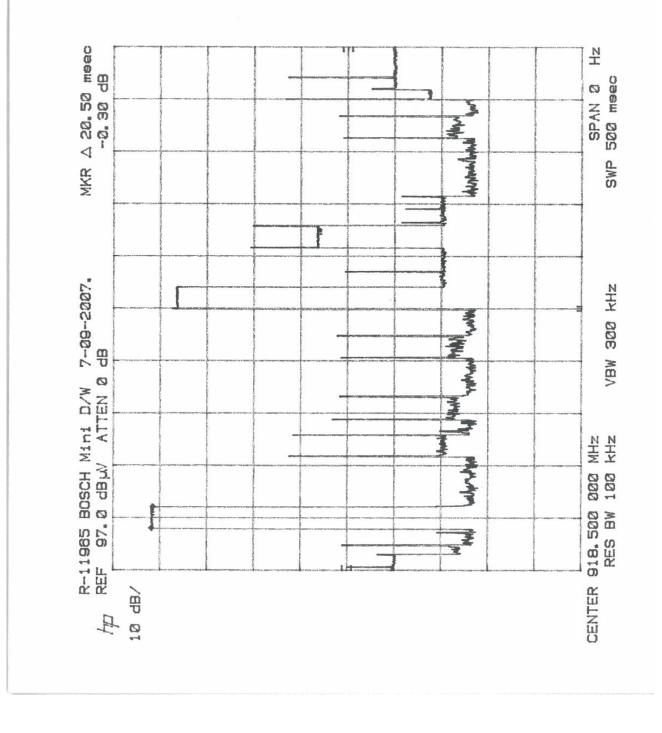
# FCC Part 15, Subpart C, 15.247 (a)(1)(i) Occupancy Time 902 - 928 MHz Test Data



FCC Part 15, Subpart C, 15.247( a)(1)(i) Occupancy Time, 902 to 928 MHz Band Note: The measured occupancy time does not exceed the 0.4 seconds (Measured time =20.5mSec.) FCC ID:T3XBMC1-M82Y

| Customer        | Bo  | sch Security System.            |              |  |  |  |
|-----------------|-----|---------------------------------|--------------|--|--|--|
| Test Sample     | wL  | wLSN Mini Door / Window Contact |              |  |  |  |
| Model Number    | ISV | ISW-BMC1-M82Y                   |              |  |  |  |
| Date: 7-09-2007 |     | Tech: R.S.                      | Sheet 1 of 1 |  |  |  |

Retlif Testing Laboratories, Report R-11965-5, Bosch Security Systems, FCC ID: T3XBMC1-M82Y Page 17 of 49 FCC Part 15, Subpart C, 15.247 (a)(1)(i) Duty Cycle 902 - 928 MHz Test Data



#### Test Method: FCC Part 15.35, Duty Cycle Determination.

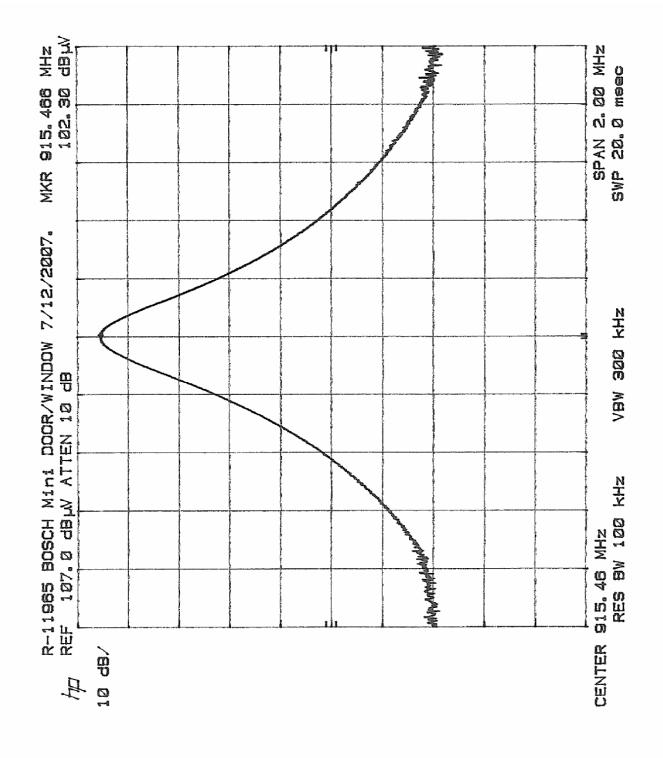
Notes: Duty cycle = (20.5 mSec / 100) = 0.205 = 20.5%= 20 log 0.205 = -13.7 dBFCC ID:T3XBMC1-M82Y

| Customer        | Bos | Bosch Security System.          |              |  |  |  |  |  |
|-----------------|-----|---------------------------------|--------------|--|--|--|--|--|
| Test Sample     | wL  | wLSN Mini Door / Window Contact |              |  |  |  |  |  |
| Model Number    | ISV | V-BMC1-M82Y                     |              |  |  |  |  |  |
| Date: 7-09-2007 |     | Tech: R.S.                      | Sheet 1 of 1 |  |  |  |  |  |
|                 |     |                                 |              |  |  |  |  |  |

Retlif Testing Laboratories, Report R-11965-5, Bosch Security Systems, FCC ID: T3XBMC1-M82Y Page 19 of 49 FCC Part 15, Subpart C Radiated Emissions, Fundamental Power Output Paragraph 15.247(b) (2) Test Data

| Test Metho                            | d:         | FCC P    | art 15, Subpart (          | C Radiated Emiss   | sions, Fundam     | ental Power Ou       | tput.              |                 |           |     |  |
|---------------------------------------|------------|----------|----------------------------|--------------------|-------------------|----------------------|--------------------|-----------------|-----------|-----|--|
| Customer:                             |            | Bosch    | Security System            |                    |                   | Job No               | <b>R</b> -11965-   | 5               |           |     |  |
| Test Sample                           | e:         | wLSN     | Mini Door / Wi             | ndow Contact       |                   | Paragrap             | <b>h</b> 15.247(b) | (2)             |           |     |  |
| Model No.:                            |            | ISW-B    | MC1-M82Y                   |                    |                   | FCC ID               | : T3XBMC           |                 |           |     |  |
| <b>Operating</b> N                    | Mode:      | Contin   | uously transmitt           | ing a 915.5 MHz    | z, 918.4 MHz a    | and 921.3 MHz        | signal.            |                 |           |     |  |
| Technician:                           |            | R. Soo   | doo                        | -                  |                   | Date                 | e: July 12, 2      | 2007.           |           |     |  |
| Notes:                                | Test Dista | nce: 3 N | Aeters                     | Temp :23.4°C       | Humidity :5       | 9%                   |                    |                 |           |     |  |
|                                       | Detector:  | Peak     |                            |                    | 2                 |                      |                    |                 |           |     |  |
|                                       | Anten      |          | EUT                        | Meter              | Correction        | Corrected            | Converted          | Converted       | Peak      |     |  |
| Test Freq.                            | Pol./He    |          | Orientation                | Reading            | Factor            | Reading              | Reading            | Reading         | Limit     |     |  |
| MHz                                   | (V/H) / M  | 0        | X / Y / Z                  | dBuV               | dB                | dBuV/m               | V/m                | milliWatts      | Watts     |     |  |
| 915.5                                 | V / 1.     |          | X                          | 92.4               | 9.6               | 102.0                | 0.13               | 4.8             | 1.0       |     |  |
| / / / / / /                           | V / 1.     |          | Y                          | 85.9               | 9.6               | 95.5                 | 0.06               | 1.1             |           |     |  |
|                                       | V / 1.     |          | Z                          | 98.6               | 9.6               | 108.2                | 0.26               | 19.8            |           |     |  |
|                                       | H / 1.     |          | X                          | 94.3               | 9.6               | 103.9                | 0.16               | 7.4             |           |     |  |
| :<br>                                 | H / 2.     |          | Y                          | 92.6               | 9.6               | 102.2                | 0.13               | 5.0             |           |     |  |
| 915.5                                 | H / 1.     |          | Z                          | 83.9               | 9.6               | 93.5                 | 0.05               | 0.7             |           |     |  |
| 710.0                                 |            | 0        | 2                          | 0017               | 210               | 75.5                 | 0.02               | 0.7             |           |     |  |
| 918.4                                 | V / 1.     | 4        | X                          | 91.3               | 9.6               | 100.9                | 0.11               | 3.7             |           |     |  |
|                                       | V / 1.     |          | Y                          | 89.5               | 9.6               | 99.1                 | 0.09               | 2.4             |           |     |  |
|                                       | V / 1.     |          | Z                          | 100.4              | 9.6               | 110.0                | 0.32               | 30.0            |           |     |  |
| · · · · · · · · · · · · · · · · · · · | H / 2.     |          | X                          | 93.0               | 9.6               | 102.6                | 0.13               | 5.5             |           |     |  |
|                                       | H / 1.     |          | Y                          | 94.3               | 9.6               | 103.9                | 0.16               | 7.4             |           |     |  |
| 918.4                                 | H / 1.     |          | Z                          | 81.9               | 9.6               | 91.5                 | 0.04               | 0.4             |           |     |  |
|                                       |            | -        |                            |                    |                   | ,                    |                    |                 |           |     |  |
| 921.3                                 | V / 1.2    |          | .2 X                       | 90.7               | 9.6               | 100.3                | 0.10               | 3.2             |           |     |  |
|                                       |            | V / 1.0  |                            |                    | Y                 | 86.2                 | 9.6                |                 | 0.06      | 1.1 |  |
|                                       | V / 1.     | 0        | Z                          | 97.6               | 9.6               | 107.2                | 0.23               | 15.7            |           |     |  |
|                                       | H / 1.     |          | Х                          | 92.8               | 9.6               | 102.4                | 0.13               | 5.2             |           |     |  |
|                                       | H / 2.     | 3        | Y                          | 91.6               | 9.6               | 101.2                | 0.11               | 4.0             |           |     |  |
| 921.3                                 | H / 1.     | 3        | Z                          | 83.3               | 9.6               | 92.9                 | 0.04               | 0.6             | 1.0       |     |  |
|                                       |            |          |                            |                    |                   |                      |                    |                 |           |     |  |
|                                       |            |          |                            |                    |                   |                      |                    |                 |           |     |  |
|                                       |            |          |                            |                    |                   |                      |                    |                 | . <u></u> |     |  |
|                                       |            |          |                            |                    |                   |                      |                    |                 |           |     |  |
|                                       |            |          |                            |                    |                   |                      |                    |                 |           |     |  |
|                                       |            |          |                            |                    |                   |                      |                    |                 |           |     |  |
|                                       |            |          |                            |                    |                   |                      |                    |                 |           |     |  |
|                                       |            |          |                            |                    |                   |                      |                    |                 |           |     |  |
|                                       |            |          |                            |                    |                   |                      |                    |                 |           |     |  |
|                                       |            |          |                            |                    |                   |                      |                    |                 |           |     |  |
|                                       |            |          |                            |                    |                   |                      |                    |                 |           |     |  |
|                                       |            |          |                            |                    |                   |                      |                    |                 |           |     |  |
|                                       |            |          |                            |                    |                   |                      |                    |                 |           |     |  |
|                                       |            |          |                            | indicated above.   |                   |                      |                    |                 |           |     |  |
|                                       |            |          |                            | d to convert the f | field strength in | n dB $\mu$ V into V/ | m and V/m to       | Watts respectiv | vely.     |     |  |
|                                       |            |          | V/m-120) / 20)             |                    |                   |                      |                    |                 |           |     |  |
|                                       | Power = (  | V/m x 3  | <b>B)<sup>2</sup> / 30</b> |                    |                   |                      |                    |                 |           |     |  |

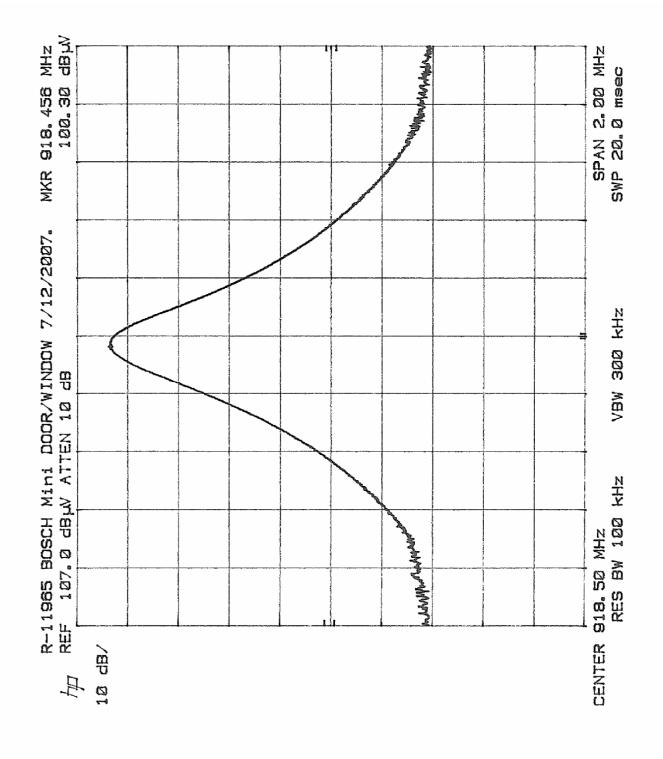
Page 1 of 1



FCC Part 15, Subpart C Radiated Emissions, Fundamental Power Output,Para.15.247(b)(2) Note: EUT transmitting on channel 00 at 915.5 MHz. FCC ID:T3XBMC1-M82Y

| Customer             | Bo  | Bosch Security System.          |              |  |  |  |
|----------------------|-----|---------------------------------|--------------|--|--|--|
| Test Sample          | wL  | wLSN Mini Door / Window Contact |              |  |  |  |
| Model Number         | ISV | W-BMC1-M82Y                     | _            |  |  |  |
| Date: July 12, 2007. |     | Tech: R.S.                      | Sheet 1 of 3 |  |  |  |

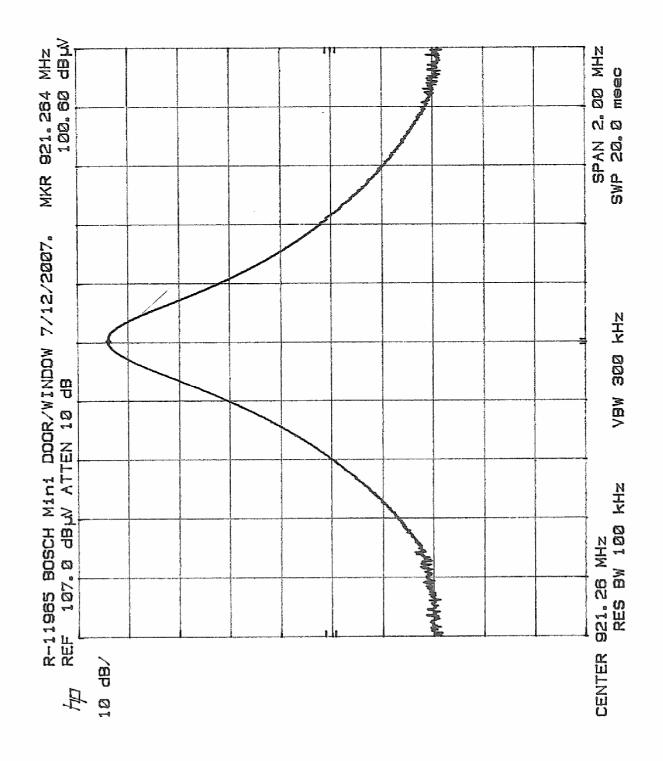
Retlif Testing Laboratories, Report R-11965-5, Bosch Security Systems, FCC ID: T3XBMC1-M82Y Page 22 of 49



FCC Part 15, Subpart C Radiated Emissions, Fundamental Power Output,Para.15.247(b)(2) Note: EUT transmitting on channel 30 at 918.4 MHz. FCC ID:T3XBMC1-M82Y

| Customer             | Bo  | Bosch Security System.          |              |  |  |  |
|----------------------|-----|---------------------------------|--------------|--|--|--|
| Test Sample          | wL  | wLSN Mini Door / Window Contact |              |  |  |  |
| Model Number         | ISV | W-BMC1-M82Y                     | _            |  |  |  |
| Date: July 12, 2007. |     | Tech: R.S.                      | Sheet 2 of 3 |  |  |  |

Retlif Testing Laboratories, Report R-11965-5, Bosch Security Systems, FCC ID: T3XBMC1-M82Y Page 23 of 49



FCC Part 15, Subpart C Radiated Emissions, Fundamental Power Output,Para.15.247(b)(2) Note: EUT transmitting on channel 58 at 921.3 MHz. FCC ID:T3XBMC1-M82Y

| Customer           | Bo  | Bosch Security System.     |              |  |  |  |
|--------------------|-----|----------------------------|--------------|--|--|--|
| Test Sample        | wL  | wLSN Mini Door / Window Co |              |  |  |  |
| Model Number       | ISV | W-BMC1-M82Y                |              |  |  |  |
| Date: July 12, 200 | 7.  | Tech: R.S.                 | Sheet 3 of 3 |  |  |  |

Retlif Testing Laboratories, Report R-11965-5, Bosch Security Systems, FCC ID: T3XBMC1-M82Y Page 24 of 49 FCC Part 15 Subpart C, Transmitter Spurious Radiated Emissions, Paragraph 15.247(d) Test Data

| Test  | Metho   | d:      | FCC P        | art 15 Subpar   | t C, Spuriou   | us Case Radi        | ated Emi     | ssions, Parag     | raph 15.247( | d)    |      |
|-------|---------|---------|--------------|---|----------------|---------------------|--------------|-------------------|--------------|-------|------|
| Cust  | omer:   |         |              | Bosch Security System. Job No.: R-11965-5             |                |                     |              |                   |              |       |      |
| Test  | Sampl   | e:      | wLSN         | wLSN Mini Door / Window Contact FCC ID.: T3XBMC1-M28Y |                |                     |              |                   |              |       |      |
| Mode  | el No.: |         | ISW-B        | MC1-M82Y  |                |                     |              | Serial No.:       | N/A          |       |      |
| Oper  | ating M | /lode:  | Continu      | uously Transm   | itting on cha  | nnel 00, a 91       | 5.5 MHz s    | signal.           |              |       |      |
| Tech  | nician  |         |              | R. Soodoo Date: August 15, 20                         |                |                     |              |                   |              |       |      |
| Note  | s:      | Test I  | Distance     | : 3 Meters  |                |                     | Ten          | np: 29.2°C        | Humidity:    | 53%   |      |
|       |         | Detec   | tor: Peal    | k   |                |                     |              |                   |              |       |      |
|       |         | Ant     | enna         | EUT   | Meter          | Correction          | Corr         | ected             | Converted    | Pe    | ak   |
| Frequ | Jency   | Pos     | sition       | Orientation   | Readings       | Factor              | Rea          | ading             | Reading      | Lin   | nit  |
| М     | Hz      | (V/H) / | Meters       | Degrees   | dBuV           | dB                  | dB           | uV/m              | uV/m         | uV    | ′/m  |
| 20    | 00      |         |              |   |                |                     |              |                   |              | 24.00 | 22.0 |
| 30    | .00     |         |              |   |                |                     |              |                   |              | 3162  | 22.8 |
|       | <br>    |         |              |   |                |                     |              |                   |              |       |      |
|       |         |         |              |   |                |                     |              |                   |              |       |      |
|       |         |         |              |   |                |                     |              |                   |              |       |      |
|       |         |         |              |   |                |                     |              |                   |              |       |      |
|       |         |         |              |   |                |                     |              |                   |              |       |      |
|       |         |         |              |   |                |                     |              |                   |              |       |      |
|       |         |         | Noo          |   | boorwood o     | t the energi        | fied too     | t distance        |              |       |      |
|       |         |         | no ei        | missions ol   | oserved a      | t the speci         | fied tes     | a distance        |              | i     |      |
|       |         |         |              |   |                |                     |              |                   |              |       |      |
|       |         |         |              |   |                |                     |              |                   |              |       |      |
|       |         |         |              |   |                |                     |              |                   |              |       |      |
|       |         |         |              |   |                |                     |              |                   |              |       |      |
|       |         |         |              |   |                |                     |              |                   |              |       |      |
|       |         |         |              |   |                |                     |              |                   |              | İ     |      |
|       |         |         |              |   |                |                     |              |                   |              |       |      |
|       |         |         |              |   |                |                     |              |                   |              | !     |      |
|       |         |         |              |   |                |                     |              |                   |              |       |      |
|       |         |         |              |   |                |                     |              |                   |              |       |      |
|       | <br>    |         |              |   |                |                     |              |                   |              |       |      |
|       |         |         |              |   |                |                     |              |                   |              |       |      |
|       |         |         |              |   |                |                     |              |                   |              |       |      |
|       |         |         |              |   |                |                     |              |                   |              |       |      |
| 100   | 00.0    |         |              |   |                |                     |              |                   |              | 3162  | 22.8 |
|       |         | The fre |              | nge was scanned                                       | from 30 MHz to | 10 GHz              |              |                   |              |       |      |
|       |         |         |              | served from the E                                     |                |                     | limits.      |                   |              |       |      |
|       |         | Emissio | ons not rec  | orded were more                                       | than 20dB und  | er the specified li | imit.        |                   |              |       |      |
|       |         | The lim | it used is 2 | 20dB less than the                                    | e measured fun | damental frequer    | ncy as speci | fied in paragraph | 15.247(d)    |       |      |
|       |         |         |              |   |                |                     |              |                   |              |       |      |

Page 1 of 3

| Test Metho  | d:       | FCC P          | art 15 Subpar  | t C, Spuriou      | us Case Radi         | ated Emi  | ssions, Pa              | aragi | raph 15.247(c        | l)    |           |
|-------------|----------|----------------|--|-------------------|----------------------|-----------|-------------------------|-------|----------------------|-------|-----------|
| Customer:   |          |                | Bosch Security System. Job No.: R-11965-5  |                   |                      |           |                         |       |                      |       |           |
| Test Sampl  | e:       | wLSN           | Mini Door / Wi   | ndow Conta        | ct                   |           | FCC                     | ID.:  | T3XBMC1-N            | 128Y  |           |
| Model No.:  |          | ISW-B          | ISW-BMC1-M82Y Serial No.: N/A  |                   |                      |           |                         |       |                      |       |           |
| Operating I | Node:    | Continu        | uously Transm  | itting on cha     | nnel 30, a 918       | 8.4 MHz s | signal.                 |       |                      |       |           |
| Technician  |          | R. Soo         | doo  |                   |                      |           | Da                      | ate:  | August 15, 2         | 2007. |           |
| Notes:      | Test [   | Distance       | : 3 Meters   |                   |                      | Ten       | np: 29.2°C              |       | Humidity: 5          | 3%    |           |
|             | Detec    | tor: Peal      | k  |                   |                      |           | -                       |       | -                    |       |           |
| Frequency   |          | enna<br>sition | EUT<br>Orientation   | Meter<br>Readings | Correction<br>Factor |           | ected<br>ading          | (     | Converted<br>Reading |       | ak<br>nit |
| MHz         | (V/H) /  | Meters         | Degrees  | dBµV              | dB                   |           | μV/m                    |       | uV/m                 | u\    | //m       |
|             |          |                | )  |                   |                      |           |                         |       |                      |       |           |
| 30.00       |          |                |  |                   |                      |           |                         |       |                      | 316   | 22.8      |
|             |          |                |  |                   |                      |           |                         |       |                      |       |           |
|             |          |                |  |                   |                      |           |                         |       |                      |       |           |
|             |          |                |  |                   |                      |           |                         |       |                      |       |           |
|             |          |                |  |                   |                      |           |                         |       |                      |       |           |
| !           |          |                |  |                   |                      |           |                         |       |                      |       |           |
|             |          |                |  |                   |                      |           |                         |       |                      |       |           |
|             |          |                |  |                   |                      |           |                         |       |                      |       |           |
|             |          | No             | missions o   | beerved           | at the spec          | ified to  | et distan               |       |                      |       |           |
| I           |          |                | 1115510115 0   |                   | at the spec          |           | si uistai               |       |                      |       |           |
|             |          |                |  |                   |                      |           |                         |       |                      |       |           |
|             |          |                |  |                   |                      |           |                         |       |                      |       |           |
|             |          |                |  |                   |                      |           |                         |       |                      |       |           |
| I           |          |                |  |                   |                      |           |                         |       |                      |       |           |
| I           |          |                |  |                   |                      |           |                         |       |                      |       |           |
|             |          |                |  |                   |                      |           |                         |       |                      |       |           |
|             |          |                |  |                   |                      |           |                         |       |                      |       |           |
|             |          |                |  |                   |                      |           |                         |       |                      |       |           |
|             |          |                |  |                   |                      |           |                         |       |                      |       |           |
|             |          |                |  |                   |                      |           |                         |       |                      |       |           |
|             |          |                |  |                   |                      |           |                         |       |                      |       |           |
| 40000.0     |          |                |  |                   |                      |           |                         |       |                      | 0.10  |           |
| 10000.0     |          |                |  |                   |                      |           |                         |       |                      | 316   | 22.8      |
|             | The fre  | quencv rar     | nge was scanned  | from 30 MHz to    | 10 GHz.              |           |                         |       |                      | 1     |           |
|             | The em   | issions ob     | served from the E  | UT do not exce    | ed the specified     |           |                         |       |                      |       |           |
|             |          |                | corded were more   |                   |                      |           | the state of the second |       | F 047(-1)            |       |           |
|             | i ne lim | IT USED IS 2   | is 20dB less than the measured fundamental frequency as specified in paragraph 15.247(d) |                   |                      |           |                         |       |                      |       |           |
| Page 2 of   |          |                |  |                   |                      |           |                         |       |                      |       |           |

Page 2 of 3

| Test          | Metho   | d:       | FCC P        | art 15 Subpar      | t C, Spuriou   | us Case Radi                          | ated Emi     | ssions, Parag     | raph 15.247( | d)       |      |
|---------------|---------|----------|--------------|--------------------|----------------|---------------------------------------|--------------|-------------------|--------------|----------|------|
| Cust          | omer:   |          |              | Security Syste     |                |                                       |              | Job No.:          | R-11965-5    |          |      |
| Test          | Sampl   | e:       |              | Mini Door / Wi     |                | ct                                    |              | FCC ID.:          | T3XBMC1-     | M28Y     |      |
| Mode          | el No.: |          |              | MC1-M82Y           |                |                                       |              | Serial No.:       |              |          |      |
| Oper          | ating M | Node:    | Continu      | uously Transm      | itting on cha  | nnel 58, a 92                         | 1.3 MHz s    | signal.           |              |          |      |
| Tech          | nician  |          | R. Soo       | doo                |                | · · · · · · · · · · · · · · · · · · · |              | Date:             | August 15, 2 | 2007.    |      |
| Notes         | s:      | Test D   | Distance     | : 3 Meters         |                |                                       | Ten          | np: 29.2°C        | Humidity:    | 53%      |      |
|               |         | Detec    | tor: Peal    | k                  |                |                                       |              |                   | -            |          |      |
|               |         | Ant      | enna         | EUT                | Meter          | Correction                            | Corr         | ected             | Converted    | Pe       | ak   |
| Frequency Pos |         | sition   | Orientation  | Readings           | Factor         | Rea                                   | ading        | Reading           | Lir          | nit      |      |
| M             | Hz      | (V/H) /  | Meters       | Degrees            | dBµV           | dB                                    | dB           | µV/m              | uV/m         | u∨       | //m  |
|               |         |          |              |                    |                |                                       |              |                   |              |          |      |
| 30            | .00     |          |              |                    |                |                                       |              |                   |              | 3162     | 22.8 |
|               |         |          |              |                    |                |                                       |              |                   |              |          | 1    |
|               |         |          |              |                    |                |                                       |              |                   |              |          |      |
|               |         |          |              |                    |                |                                       |              |                   |              |          |      |
|               |         |          |              |                    |                |                                       |              |                   |              |          |      |
|               |         |          |              |                    |                |                                       |              |                   |              |          | 1    |
|               |         |          |              |                    |                |                                       |              |                   |              |          |      |
|               |         |          | 🕂 No         | emissions          | observed       | l at the spe                          | cified t     | est distanc       | e            |          |      |
|               |         |          |              |                    |                |                                       |              |                   |              |          |      |
|               |         |          |              |                    |                |                                       |              |                   |              |          |      |
|               |         |          |              |                    |                |                                       |              |                   |              |          |      |
|               |         |          |              |                    |                |                                       |              |                   |              |          |      |
|               |         |          |              |                    |                |                                       |              |                   |              |          | 1    |
|               |         |          |              |                    |                |                                       |              |                   |              |          |      |
|               |         |          |              |                    |                |                                       |              |                   |              |          |      |
|               |         |          |              |                    |                |                                       |              |                   |              |          |      |
|               |         |          |              |                    |                |                                       |              |                   |              |          |      |
|               |         |          |              |                    |                |                                       |              |                   |              |          |      |
|               |         |          |              |                    |                |                                       |              |                   |              |          |      |
|               | <br>    |          |              |                    |                |                                       |              |                   |              |          |      |
|               | ı<br>   |          |              |                    |                |                                       |              |                   |              |          |      |
|               |         |          |              |                    |                |                                       |              |                   |              |          |      |
|               |         |          |              |                    |                |                                       |              |                   |              |          |      |
|               |         |          |              |                    |                |                                       |              |                   |              | <u> </u> |      |
| 100           |         |          |              |                    |                |                                       |              |                   |              | 2160     | 22.0 |
| 100           | 00.0    |          |              |                    |                |                                       |              |                   |              | 3162     | 22.0 |
|               |         | The fre  | quency rar   | nge was scanned    | from 30 MHz to | 0 10 GHz.                             | 1            | I                 |              |          |      |
|               |         | The em   | nissions ob  | served from the E  | UT do not exce | ed the specified                      |              |                   |              |          |      |
|               |         |          |              | corded were more   |                |                                       |              | fied in paragraph | 15 247(d)    |          |      |
|               |         | i ne iim | nt used is 2 | LOUD less than the | e measured tub | uamental frequer                      | icy as speci | neu in paragraph  | 15.247(U)    |          |      |
|               |         |          |              |                    |                |                                       |              |                   |              |          |      |

Page 3 of 3

FCC Part 15 Subpart C, Radiated Emissions, Harmonics Paragraphs 15.247(d). EUT transmitting at the Fundamental signal of 915.5 MHz

| Test Method | d:             | FCC Pa                           | rt 15 Subpart C                               | , Radiated Em       | issions, Harmo  | onics Emission      | S.                 |         |      |  |  |
|-------------|----------------|----------------------------------|---|---------------------|-----------------|---------------------|--------------------|---------|------|--|--|
| Customer:   |                |                                  | Security System                               |                     |                 | R-11965-5           |                    |         |      |  |  |
| Test Sample |                |                                  | 1ini Door / Wind                              |                     |                 |                     |                    |         |      |  |  |
| Model No.:  |                |                                  | IC1-M82Y                                      | FCC ID:             | T3XBMC1-M82     | Y                   |                    |         |      |  |  |
| Operating N |                |                                  | Continuously transmitting a 915.5 MHz signal. |                     |                 |                     |                    |         |      |  |  |
| Technician: |                | R. Soodoo Date: August 15, 2007. |   |                     |                 |                     |                    |         |      |  |  |
|             | Test Dista     |                                  |   |                     |                 | Duto.               | / laguet 10, 2007  | •       |      |  |  |
|             |                |                                  | nless otherwise                               | specified           |                 |                     |                    |         |      |  |  |
|             | Anten          |                                  | EUT   | Meter               | Correction      | Corrected           | Converted          | Do      | ak   |  |  |
| Test Freq.  | Pol./He        |                                  | Orientation                                   | Reading             | Factor          | Reading             | Reading            |         | nit  |  |  |
| MHz (V/H)/  |                | -                                | X/Y/Z   | dBµV                | dB              | dBµV/m              | uV/m               |         | //m  |  |  |
|             | · /            |                                  |   |                     |                 |                     |                    |         |      |  |  |
| 1831.0      | V / 1<br>V / 1 |                                  | X<br>Y  | <u>54.3</u><br>49.6 | 2.3<br>2.3      | <u>56.6</u><br>51.9 | 676.1              | 501     | 18.0 |  |  |
|             | V/1            |                                  | Z   | 61.9                | 2.3             |                     | 393.6              |         |      |  |  |
|             | U/1<br>H/1     |                                  | <u> </u>                                      | 53.4                | 2.3             | 64.2                | 1621.8             |         |      |  |  |
|             |                |                                  | X<br>Y  | 53.4<br>58.2        | 2.3             | 55.7                | 609.5<br>1059.3    |         |      |  |  |
| 1831.0      | H/1<br>H/1     |                                  | Y<br>Z  | <u> </u>            | 2.3             | 60.5                |                    | 501     | 100  |  |  |
| 1031.0      | Π/1            | .5                               | ۷   | 40.0                | 2.3             | 50.3                | 327.3              | 501     | 10.0 |  |  |
| 2746.5      | V / 1          | 1                                | Х   | 51.0                | 5.2             | 56.2                | 645.7              | 500     |      |  |  |
| 2740.5      | V / 1          |                                  | Y   | 55.1                | 5.2             | 60.3                | 1035.1             | 500     | 1    |  |  |
| <u> </u>    | V / 1          |                                  | Z   | 56.8                | 5.2             | 62.0                | 1258.9             |         | <br> |  |  |
|             | H/1            |                                  | <u> </u>                                      | 51.8                | 5.2             | 57.0                | 707.9              |         | <br> |  |  |
|             | H/1            |                                  | Y   | 54.5                | 5.2             | 59.7                | 966.1              |         | <br> |  |  |
| 2746.5      | H/2            |                                  | Z   | 53.0                | 5.2             | 58.2                | 812.8              | 500     | 0.0  |  |  |
| 2140.0      | 1172           |                                  | 2   | 00.0                | 0.2             | 50.2                | 012.0              | 000     | /0.0 |  |  |
| 3662.0      | V / 1          | .0                               | Х   | 47.1                | 10.0            | 57.1                | 716.1              | 500     | 0.0  |  |  |
|             | V / 1          |                                  | Ý   | 49.5                | 10.0            | 59.5                | 944.1              |         |      |  |  |
|             | V / 1          |                                  | Z   | 48.1                | 10.0            | 58.1                | 803.5              |         |      |  |  |
|             | H/2            |                                  | Х   | 47.3                | 10.0            | 57.3                | 732.8              |         |      |  |  |
|             | H/1            |                                  | Ŷ   | 47.8                | 10.0            | 57.8                | 776.2              |         |      |  |  |
| 3662.0      | H/2            |                                  | Z   | 48.2                | 10.0            | 58.2                | 812.8              | 500     | 0.0  |  |  |
|             |                |                                  |   |                     |                 |                     |                    |         |      |  |  |
| 4577.5      | V / 2          | .3                               | Х   | 46.6                | 13.6            | 60.2                | 1023.3             | 500     | 0.0  |  |  |
|             | V / 1          |                                  | Y   | 49.3                | 13.6            | 62.9                | 1396.4             |         |      |  |  |
|             | V / 1          |                                  | Z   | 49.2                | 13.6            | 62.8                | 1380.4             |         |      |  |  |
| i<br>I      | H/1            | .9                               | Х   | 46.6                | 13.6            | 60.2                | 1023.3             |         |      |  |  |
| i<br>I      | H/1            |                                  | Y   | 46.5                | 13.6            | 60.1                | 1011.6             |         |      |  |  |
| 4577.5      | H/1            |                                  | Z   | 53.0                | 13.6            | 66.6                | 2138.0             | 500     | 0.0  |  |  |
|             |                |                                  |   |                     |                 |                     |                    |         |      |  |  |
| 5493.0      | V / 1          | .6                               | Х   | 45.2                | 17.1            | 62.3                | 1303.2             | 501     | 18.0 |  |  |
|             | V / 2          | .0                               | Y   | 47.2                | 17.1            | 64.3                | 1640.6             |         |      |  |  |
|             | V / 1          | .0                               | Z   | 44.8                | 17.1            | 61.9                | 1244.5             |         |      |  |  |
|             | H/1            | .3                               | Х   | 46.0                | 17.1            | 63.1                | 1428.9             |         |      |  |  |
|             | H/1            | .4                               | Y   | 45.2                | 17.1            | 62.3                | 1303.2             |         |      |  |  |
| 5493.0      | H/1            | .5                               | Z   | 48.6                | 17.1            | 65.7                | 1927.5             | 501     | 18.0 |  |  |
|             | The frequ      | iency ra                         | nge was scanne                                | ed from 30 MH       | lz to 10.0 GHz. | All emissions       | not recorded we    | ere mor | e    |  |  |
|             | than 20 d      | B below                          | the specified li                              | mit. Emission       | s from the EUT  | do not excee        | d the specified li | mits.   |      |  |  |
|             | *= Noise       | Floor M                          | easurements (m                                | ninimum sensi       | tivity).        |                     |                    |         |      |  |  |

| Test Metho  | d:        | FCC Pa   | rt 15 Subpart C   | , Radiated Em                            | issions, Harmo | nics Emission | S.                 |       |            |
|-------------|-----------|----------|-------------------|--|----------------|---------------|--------------------|-------|------------|
| Customer:   |           |          | Security System   |  |                | R-11965-5     |                    |       |            |
| Test Sampl  | e:        |          | 1ini Door / Wind  | L. L |                |               |                    |       |            |
| Model No.:  |           | ISW-BM   | 1C1-M82Y          |  | FCC ID:        | T3XBMC1-M82   | (                  |       |            |
| Operating N | Node:     | Continu  | ously transmittir | ng a 915.5 MH                            | z signal.      |               |                    |       |            |
| Technician  |           | R. Sooc  |                   | 9  |                | Date:         | August 15, 2007    | ,     |            |
| Notes:      | Test Dist |          |                   |  |                |               |                    | •     |            |
|             |           |          | nless otherwise   | specified                                |                |               |                    |       |            |
|             | Ante      |          | EUT               | Meter                                    | Correction     | Corrected     | Converted          | Pe    | ak         |
|             |           | leight   | Orientation       | Reading                                  | Factor         | Reading       | Reading            | -     | nit        |
| MHz (V/H)-  |           |          | X / Y / Z         | dBµV                                     | dB             | dBµV/m        | uV/m               | uV    |            |
| 6408.5      | V /       |          | X                 | 42.2                                     | 19.9           | 62.1          | *1273.5            | 501   |            |
|             | V /       |          | Y                 | 42.2                                     | 19.9           | 62.1          | *1273.5            | 001   | 10.0       |
| i           | V /       |          | Z                 | 42.2                                     | 19.9           | 62.1          | *1273.5            |       | 1          |
| i           | Η/        |          | X                 | 41.3                                     | 19.9           | 61.2          | *1148.2            |       |            |
|             | H/        |          | Y                 | 41.3                                     | 19.9           | 61.2          | *1148.2            |       | . <u> </u> |
| 6408.5      | Η/        |          | Z                 | 41.3                                     | 19.9           | 61.2          | *1148.2            | 501   | 18.0       |
|             |           |          |                   |  |                |               |                    |       |            |
| 7324.0      | V /       | 1.0      | Х                 | 43.0                                     | 21.3           | 64.3          | *1640.6            | 500   | 0.0        |
|             | V /       | 1.0      | Y                 | 43.0                                     | 21.3           | 64.3          | *1640.6            |       |            |
|             | V /       | 1.0      | Z                 | 43.0                                     | 21.3           | 64.3          | *1640.6            |       |            |
|             | Η/        | 1.0      | Х                 | 43.0                                     | 21.3           | 64.3          | *1640.6            |       |            |
|             | Η/        |          | Y                 | 43.0                                     | 21.3           | 64.3          | *1640.6            |       |            |
| 7324.0      | Η/        | 1.0      | Z                 | 43.0                                     | 21.3           | 64.3          | *1640.6            | 500   | 0.0        |
|             |           |          |                   |  |                |               |                    |       |            |
| 8239.5      | V /       |          | X                 | 42.5                                     | 23.6           | 66.1          | *2018.4            | 500   | 0.0        |
| I           | V /       |          | Y                 | 42.5                                     | 23.6           | 66.1          | *2018.4            |       |            |
|             | V /       |          | Z                 | 42.5                                     | 23.6           | 66.1          | *2018.4            |       |            |
|             | Η/        |          | X<br>Y            | 42.7                                     | 23.6           | 63.6          | *2065.4            |       |            |
|             | H/        |          | Y<br>Z            | 42.7<br>42.7                             | 23.6           | 63.6<br>63.6  | *2065.4<br>*2065.4 | 500   |            |
| 8239.5      | Η/        | 1.0      | ۷.                | 42.7                                     | 23.6           | 03.0          | 2005.4             | 500   | 0.0        |
| 9155.0      | V /       | 10       | Х                 | 42.1                                     | 25.5           | 67.6          | *2398.8            | 500   | 0.0        |
|             | V /       |          | Y                 | 42.1                                     | 25.5           | 67.6          | *2398.8            | 000   | 0.0        |
| I           | V /       |          | Z                 | 42.1                                     | 25.5           | 67.6          | *2398.8            |       | 1          |
| <u> </u>    | H/        |          | X                 | 42.0                                     | 25.5           | 67.5          | *2371.4            |       |            |
| I           | H/        |          | Y                 | 42.0                                     | 25.5           | 67.5          | *2371.4            |       | <u> </u>   |
| 9155.0      | Η/        |          | Z                 | 42.0                                     | 25.5           | 67.5          | *2371.4            | 500   | 0.0        |
|             |           |          |                   |  |                |               |                    |       |            |
|             |           |          |                   |  |                |               |                    |       |            |
|             |           |          |                   |  |                |               |                    |       |            |
|             |           |          |                   |  |                |               |                    |       |            |
|             |           |          |                   |  |                |               |                    |       |            |
|             |           |          |                   |  |                |               |                    |       |            |
|             |           |          |                   |  |                |               |                    |       |            |
|             |           |          | <b>v</b>          |  |                |               | not recorded we    |       | e          |
|             |           |          |                   |  |                | do not exceed | the specified lin  | nits. |            |
|             | *=Noise   | Floor Me | easurements (N    | linimum syste                            | m sensitivity) |               |                    |       |            |

| Test Metho                | d:             | FCC | Part 15 Subpa      | art C, Radiat      | ed Emissions         | , Harmonics          | Emissions       | s.       |                          |           |   |
|---------------------------|----------------|-----|--------------------|--------------------|----------------------|----------------------|-----------------|----------|--------------------------|-----------|---|
| Customer:                 |                |     | h Security Sys     |                    |                      |                      | R-119           | 65-5     |                          |           |   |
| Test Sampl                | e:             |     | N Mini Door / V    |                    | tact                 |                      |                 |          |                          |           |   |
| Model No.:                | -              |     | BMC1-M82Y          |                    |                      | F                    |                 | ТЗХВ     | MC1-M82Y                 |           |   |
| Operating N               | Node:          |     | inuously transr    | nitting a 915      | .5 MHz signa         |                      |                 | -        |                          |           |   |
| Technician                |                |     | podoo              | U                  | 0                    |                      | Date: /         | Augus    | st 15, 2007.             |           |   |
| Notes:                    |                |     | 3 Meters           |                    |                      | Dutv C               | ycle: 20.5%     |          |                          |           |   |
|                           |                |     | age, unless oth    | erwise spec        | ified                |                      | vcle Corre      |          | -13.8dB                  |           |   |
|                           |                |     |                    |                    |                      | Duty cycle           |                 |          |                          |           |   |
| Test Freq. Ante<br>Pol./I |                |     | EUT<br>Orientation | Average<br>Reading | Correction<br>Factor | Correction<br>Factor | Correc<br>Readi |          | Converted<br>Reading     | A۱<br>Lir | /g.<br>nit                                    |
| MHz (V/H                  |                | )-  | X / Y / Z          | dBµV               | dB                   | dB                   | dBµV/           | /m       | uV/m                     | uV        | ′/m   |
| 1831.0                    | V / 1          | .6  | Х                  | 53.1               | 2.3                  | -13.8                | 41.6            | 6        | 120.2                    | 501       | 1.8   |
|                           | V / 1          |     | Y                  | 45.1               | 2.3                  | -13.8                | 33.6            | 6        | 47.9                     |           |   |
|                           | V / 1          |     | Z                  | 57.7               | 2.3                  | -13.8                | 46.2            | 2        | 204.2                    |           |   |
|                           | H/1            |     | Х                  | 51.8               | 2.3                  | -13.8                | 40.3            |          | 103.5                    |           |   |
|                           | H/1            |     | Y                  | 50.8               | 2.3                  | -13.8                | 39.3            |          | 92.3                     |           |   |
| 1831.0                    | H/1            | .5  | Z                  | 42.0               | 2.3                  | -13.8                | 30.5            | 5        | 33.5                     | 501       | 1.8   |
| 2746.5                    | V / 1          | 1   | Х                  | 47.3               | 5.2                  | 40.0                 | 00.7            | 7        | 00.4                     | FO        | 0.0   |
| 2740.5                    | V/1<br>V/1     |     | X<br>Y             | 53.4               | 5.2                  | -13.8                | 38.7            |          | 86.1                     | 50        | 0.0   |
| I                         | V/1<br>V/1     |     | Z                  | 55.7               | 5.2                  | -13.8<br>-13.8       | 44.8            |          | 173.8<br>226.5           |           | <br>  |
|                           | U / 1          |     | <u> </u>           | 47.7               | 5.2                  | -13.8                | 39.1            |          | <u>    226.5</u><br>90.2 |           | <br>  |
|                           | H/1            |     | A<br>Y             | 52.6               | 5.2                  | -13.8                | 44.0            |          | 90.2<br>158.5            |           | <br>  |
| 2746.5                    | H/2            |     | Z                  | 50.4               | 5.2                  | -13.8                | 44.0            |          | 123.0                    | 50        | 0.0   |
| 2140.0                    | 11/2           | .0  | ۲                  | 00.4               | 0.2                  | 10.0                 | 41.0            | )        | 125.0                    | 50        | 0.0   |
| 3662.0                    | V / 1          | .0  | Х                  | 39.0               | 10.0                 | -13.8                | 35.2            | 2        | 57.5                     | 50        | 0.0   |
|                           | V / 1          |     | Ŷ                  | 43.5               | 10.0                 | -13.8                | 39.7            |          | 96.6                     |           |   |
| i                         | V / 1          |     | Z                  | 43.4               | 10.0                 | -13.8                | 39.6            |          | 95.5                     |           |   |
| İ                         | H/2            | .3  | Х                  | 40.1               | 10.0                 | -13.8                | 36.3            | 3        | 65.3                     |           |   |
|                           | H/1            | .0  | Y                  | 40.7               | 10.0                 | -13.8                | 36.9            | 9        | 70.0                     |           |   |
| 3662.0                    | H/2            | .3  | Z                  | 42.2               | 10.0                 | -13.8                | 38.4            | 1        | 83.2                     | 50        | 0.0   |
|                           |                |     |                    |                    |                      |                      |                 |          |                          |           |   |
| 4577.5                    | V / 2          |     | Х                  | 40.0               | 13.6                 | -13.8                | 39.8            | 3        | 97.7                     | 50        | 0.0   |
|                           | V / 1          |     | Y                  | 45.1               | 13.6                 | -13.8                | 44.9            |          | 175.8                    |           |   |
|                           | V / 1          |     | Z                  | 45.1               | 13.6                 | -13.8                | 44.9            |          | 175.8                    |           | <u> </u>                                      |
|                           | H/1            |     | X                  | 41.3               | 13.6                 | -13.8                | 41.1            |          | 113.5                    |           |   |
|                           | H/1            |     | Y                  | 40.4               | 13.6                 | -13.8                | 40.2            |          | 102.3                    |           |   |
| 4577.5                    | H/1            | .4  | Z                  | 52.2               | 13.6                 | -13.8                | 52.0            | )        | 398.1                    | 50        | 0.0   |
| 5493.0                    | V / 1          | 6   | Х                  | 37.7               | 17.1                 | -13.8                | 41.0            | <u>۱</u> | 112.2                    | 501       | 1.8   |
| J <del>1</del> 33.0       | V/1<br>V/2     |     | A<br>Y             | 40.3               | 17.1                 | -13.8                | 41.0            |          | 112.2                    | 501       | 1.0   |
|                           | V / 2<br>V / 1 |     | Z                  | 36.0               | 17.1                 | -13.8                | 39.3            |          | 92.3                     |           | <u>                                      </u> |
|                           | H/1            |     | X                  | 37.6               | 17.1                 | -13.8                | 40.9            |          | 92.3<br>110.9            |           | I   |
|                           | H/1            |     | Y                  | 38.5               | 17.1                 | -13.8                | 40.8            |          | 123.0                    |           | I   |
| 5493.0                    | H/1            |     | Z                  | 44.7               | 17.1                 | -13.8                | 41.0            |          | 251.2                    | 501       | 1.8   |
| 0.0010                    |                |     | range was sc       |                    |                      |                      |                 |          |                          |           |   |
|                           |                |     | elow the specif    |                    |                      |                      |                 |          |                          |           |   |
|                           |                |     | Measurements       |                    |                      |                      |                 | V        | -peemea min              |           |   |
|                           |                |     |                    |                    | - ,                  |                      |                 |          |                          |           |   |

| Test Metho | od:              | FCC     | Part 15 Subpa      | art C, Radiate     | d Emissions,         | Harmonics E                        | missions.            |                      |               |
|------------|------------------|---------|--------------------|--------------------|----------------------|------------------------------------|----------------------|----------------------|---------------|
| Customer:  |                  |         | h Security Sys     |                    |                      |                                    |                      | 965-5                |               |
| Test Samp  | le:              | wLS     | N Mini Door / V    | Vindow Conta       | act                  | •                                  | ľ                    |                      |               |
| Model No.: |                  |         | BMC1-M82Y          |                    |                      | FC                                 | CID: T3XE            | BMC1-M82Y            |               |
| Operating  |                  |         | inuously transr    | nitting a 915      | 5 MHz signal         |                                    |                      |                      |               |
| Technician |                  |         | podoo              | intering a 510.    |                      |                                    | Date: Augu           | st 15, 2007.         |               |
| Notes:     |                  |         | 3 Meters           |                    |                      | Duty Cyc                           |                      | 131 10, 2007.        |               |
| NOLES.     |                  |         |                    | onvice checi       | fied                 |                                    | le Correctior        | . 12 0dD             |               |
|            | Delector         | . Avera | age, unless oth    | ierwise speci      |                      |                                    |                      | I IS.OUD             |               |
| Test Freq. | Anten<br>Pol./He |         | EUT<br>Orientation | Average<br>Reading | Correction<br>Factor | Duty cycle<br>Correction<br>Factor | Corrected<br>Reading | Converted<br>Reading | Avg.<br>Limit |
| MHz        | (V/H             | )-      | X / Y / Z          | dBµV               | dB                   | dB                                 | dBµV/m               | uV/m                 | uV/m          |
| 6408.5     | V / 1            | .0      | Х                  | 31.6               | 19.9                 | -13.8                              | 37.7                 | *76.7                | 5011.8        |
|            | V / 1            |         | Y                  | 31.6               | 19.9                 | -13.8                              | 37.7                 | *76.7                |               |
| ĺ          | V / 1            | .0      | Z                  | 31.6               | 19.9                 | -13.8                              | 37.7                 | *76.7                | İ             |
| i          | H/1              | .0      | Х                  | 32.2               | 19.9                 | -13.8                              | 38.3                 | *82.2                |               |
| i          | H/1              |         | Y                  | 32.2               | 19.9                 | -13.8                              | 38.3                 | *82.2                |               |
| 6408.5     | H/1              |         | Z                  | 32.2               | 19.9                 | -13.8                              | 38.3                 | *82.2                | 5011.8        |
|            |                  |         |                    |                    |                      |                                    |                      |                      |               |
| 7324.0     | V / 1            | .0      | Х                  | 31.9               | 21.3                 | -13.8                              | 39.4                 | *93.3                | 500.0         |
|            | V / 1            |         | Y                  | 31.9               | 21.3                 | -13.8                              | 39.4                 | *93.3                |               |
| I          | V/1              |         | Z                  | 31.9               | 21.3                 | -13.8                              | 39.4                 | *93.3                |               |
| I          | H/1              |         | Х                  | 31.9               | 21.3                 | -13.8                              | 39.4                 | *93.3                |               |
| I          | H/1              |         | Y                  | 31.9               | 21.3                 | -13.8                              | 39.4                 | *93.3                |               |
| 7324.0     | H/1              |         | Z                  | 31.9               | 21.3                 | -13.8                              | 39.4                 | *93.3                | 500.0         |
|            |                  |         |                    |                    |                      |                                    |                      |                      |               |
| 8239.5     | V / 1            | .0      | Х                  | 33.2               | 23.6                 | -13.8                              | 43.0                 | *141.3               | 500.0         |
|            | V / 1            | .0      | Y                  | 33.2               | 23.6                 | -13.8                              | 43.0                 | *141.3               |               |
|            | V / 1            |         | Z                  | 33.2               | 23.6                 | -13.8                              | 43.0                 | *141.3               |               |
| i          | H/1              | .0      | Х                  | 32.8               | 23.6                 | -13.8                              | 42.6                 | *134.9               |               |
| i          | H/1              |         | Y                  | 32.8               | 23.6                 | -13.8                              | 42.6                 | *134.9               |               |
| 8239.5     | H / 1            | .0      | Z                  | 32.8               | 23.6                 | -13.8                              | 42.6                 | *134.9               | 500.0         |
|            |                  |         |                    |                    |                      |                                    |                      |                      |               |
| 9155.0     | V / 1            | .0      | Х                  | 33.1               | 25.5                 | -13.8                              | 44.8                 | *173.8               | 500.0         |
|            | V / 1            | .0      | Y                  | 33.1               | 25.5                 | -13.8                              | 44.8                 | *173.8               |               |
|            | V / 1            | .0      | Z                  | 33.1               | 25.5                 | -13.8                              | 44.8                 | *173.8               |               |
|            | H/1              | .0      | Х                  | 33.2               | 25.5                 | -13.8                              | 44.9                 | *175.8               |               |
| ĺ          | H/1              | .0      | Y                  | 33.2               | 25.5                 | -13.8                              | 44.9                 | *175.8               |               |
| 9155.0     | H/1              |         | Z                  | 33.2               | 25.5                 | -13.8                              | 44.9                 | *175.8               | 500.0         |
|            |                  |         |                    |                    |                      |                                    |                      |                      |               |
|            | The free         |         |                    | oppod from (       |                      |                                    | iopione net r        |                      |               |
|            |                  |         | range was sc       |                    |                      |                                    |                      |                      |               |
|            |                  |         | elow the specif    |                    |                      |                                    | DI EXCEED THE        | specified limit      | s.            |
|            | =INOISE          | r100ľ   | Measurements       | s ( iviinimum      | system sensit        | ivity)                             |                      |                      |               |

FCC Part 15 Subpart C, Radiated Emissions, Harmonics Paragraphs 15.247(d). EUT transmitting at the Fundamental signal of 918.4 MHz

| <b>Test Method</b> | d:                 | FCC Pa  | rt 15 Subpart C   | , Radiated Em | issions, Harmo | nics Emission | S.                  |     |      |  |  |
|--------------------|--------------------|---------|---|---------------|----------------|---------------|---------------------|-----|------|--|--|
| Customer:          |                    | Bosch S | Security System   |               | Job No.        | R-11965-5     |                     |     |      |  |  |
| Test Sample        | e:                 | wLSN M  | 1ini Door / Wind  | ow Contact    | ·              |               |                     |     |      |  |  |
| Model No.:         |                    | ISW-BM  | IC1-M82Y  | FCC ID:       | T3XBMC1-M82    | Y             |                     |     |      |  |  |
| Operating N        |                    |         |   | ng a 918.4 MH | z signal.      |               |                     |     |      |  |  |
| Technician:        |                    |         | Continuously transmitting a 918.4 MHz signal.<br>R. Soodoo Date: August 15, 2007. |               |                |               |                     |     |      |  |  |
|                    | Test Dista         |         |   |               |                | Dutoi         |                     | ·   |      |  |  |
|                    |                    |         | nless otherwise   | specified     |                |               |                     |     |      |  |  |
|                    | Anter              |         | EUT   | Meter         | Correction     | Corrected     | Converted           | Po  | ak   |  |  |
| Test Freq.         | Pol./He            |         | Orientation   | Reading       | Factor         | Reading       | Reading             |     | nit  |  |  |
| MHz (V/H)          |                    | -       | X/Y/Z   | dBµV          | dB             | dBµV/m        | uV/m                |     | /m   |  |  |
| 1836.8             | ( v/1)//v<br>V / 1 |         | Χ/1/2   | 51.3          | 2.3            | 53.6          | 478.6               | 501 |      |  |  |
| 1030.0             | V / 1<br>V / 2     |         | X<br>Y  | 48.8          | 2.3            | 51.1          | 358.9               | 501 | 10.0 |  |  |
| I                  | V / 1              |         | Z   | 61.7          | 2.3            | 64.0          | 1584.9              |     |      |  |  |
|                    | H/1                |         | <u> </u>  | 51.3          | 2.3            | 53.6          | 478.6               |     |      |  |  |
| I                  | H/1                |         | Y   | 58.5          | 2.3            | 60.8          | 1096.5              |     |      |  |  |
| 1836.8             | H/1                |         | Z   | 45.5          | 2.3            | 47.8          | 245.5               | 501 | 18.0 |  |  |
| 1000.0             | 11/1               |         | <u>د</u>  | -10.0         | 2.0            | +1.0          | 2-10.0              | 001 | .0.0 |  |  |
| 2755.2             | V / 1.0            |         | Х   | 57.9          | 5.2            | 63.1          | 1428.9              | 500 | 0.0  |  |  |
|                    | V / 1.0            |         | Y   | 54.1          | 5.2            | 59.3          | 922.6               | 000 |      |  |  |
|                    | V / 1              |         | Z   | 57.3          | 5.2            | 62.5          | 1333.5              |     |      |  |  |
| I                  | H/1                |         | X   | 53.2          | 5.2            | 58.4          | 831.8               |     |      |  |  |
| <u> </u>           | H/1                |         | Y   | 56.3          | 5.2            | 61.5          | 1188.5              |     |      |  |  |
| 2755.2             | H/1                |         | Z   | 55.3          | 5.2            | 60.5          | 1059.3              | 500 | 0.0  |  |  |
|                    |                    |         |   |               |                |               |                     |     |      |  |  |
| 3673.6             | V / 1              | .0      | Х   | 47.9          | 10.0           | 57.9          | 785.2               | 500 | 0.0  |  |  |
|                    | V / 1              | .9      | Y   | 48.9          | 10.0           | 58.9          | 881.0               |     |      |  |  |
|                    | V / 2              | 2.2     | Z   | 49.0          | 10.0           | 59.0          | 891.3               |     |      |  |  |
|                    | H/2                | 2.3     | Х   | 47.8          | 10.0           | 57.8          | 776.2               |     |      |  |  |
|                    | H/1                | 0.1     | Y   | 47.7          | 10.0           | 57.7          | 767.4               |     |      |  |  |
| 3673.6             | H/2                | 2.2     | Z   | 49.2          | 10.0           | 59.2          | 912.0               | 500 | 0.0  |  |  |
|                    |                    |         |   |               |                |               |                     |     |      |  |  |
| 4592.0             | V / 1              |         | X   | 45.1          | 13.6           | 58.7          | 861.0               | 500 | 0.0  |  |  |
|                    | V / 1              |         | Y   | 46.3          | 13.6           | 59.9          | 988.6               |     |      |  |  |
|                    | V / 1              |         | Z   | 44.1          | 13.6           | 57.7          | 767.4               |     |      |  |  |
|                    | H/1                |         | X   | 44.1          | 13.6           | 57.7          | 767.4               |     |      |  |  |
| 4500.0             | H/1                |         | Y   | 44.3          | 13.6           | 57.9          | 785.2               |     |      |  |  |
| 4592.0             | H / 1              | 1.0     | Z   | 48.1          | 13.6           | 61.7          | 1216.2              | 500 | 0.0  |  |  |
| 5510.4             | V / 1              | .0      | Х   | 44.4          | 17.1           | 61.5          | 1188.5              | 501 | 18.0 |  |  |
|                    | V / 1              |         | Y   | 45.3          | 17.1           | 62.4          | 1318.3              |     |      |  |  |
|                    | V / 1              |         | Z   | 45.6          | 17.1           | 62.7          | 1364.6              |     |      |  |  |
|                    | H/1                |         | X   | 44.7          | 17.1           | 61.8          | 1230.3              |     |      |  |  |
|                    | H/1                |         | Y   | 44.0          | 17.1           | 61.1          | 1135.0              |     |      |  |  |
| 5510.4             | H/1                |         | Z   | 44.9          | 17.1           | 62.0          | 1258.9              | 501 | 18.0 |  |  |
|                    |                    |         |   |               |                |               | not recorded we     |     |      |  |  |
|                    |                    |         |   |               |                |               | d the specified lin |     | -    |  |  |
|                    |                    |         | easurements (m  |               |                |               |                     |     |      |  |  |

| Test Metho  | d:         | FCC Pa    | rt 15 Subpart C   | , Radiated Em | issions, Harmo  | nics Emissions | 5.                   |        |          |
|-------------|------------|-----------|---|---------------|-----------------|----------------|----------------------|--------|----------|
| Customer:   |            |           | Security System   |               |                 |                | R-11965-5            |        |          |
| Test Sampl  | e:         | WLSN N    | /ini Door / Wind  | ow Contact    |                 |                |                      |        |          |
| Model No.:  |            | ISW-BM    | IC1-M82Y  |               | FCC ID:         | T3XBMC1-M82    | Y                    |        |          |
| Operating I | Mode:      | Continu   | ously transmittir   | ng a 918.4 MH | lz signal.      |                |                      |        |          |
| Technician  |            | R. Sood   |   | 5             | <u> </u>        | Date:          | August 15, 2007      |        |          |
| Notes:      | Test Dist  |           |   |               |                 |                | <b>0</b> ,           |        |          |
|             | Detector   | : Peak. u | nless otherwise   | specified     |                 |                |                      |        |          |
|             | Ante       | ,         | EUT   | Meter         | Correction      | Corrected      | Converted            | Pea    | ak       |
| Test Freq.  |            | leight    | Orientation   | Reading       | Factor          | Reading        | Reading              | Lin    |          |
| MHz         | (V/H)-I    | Veters    | X/Y/Z   | dBµV          | dB              | dBµV/m         | uV/m                 | uV/    | /m       |
| 6408.5      | V/         |           | X   | 42.2          | 19.9            | 62.1           | *1273.5              | 5011   |          |
|             | V /        |           | Y   | 42.2          | 19.9            | 62.1           | *1273.5              |        | 0.0      |
| İ           | V /        |           | Z   | 42.2          | 19.9            | 62.1           | *1273.5              | i      |          |
|             | Η/         |           | Х   | 41.3          | 19.9            | 61.2           | *1148.2              | İİ     |          |
|             | Η/         | 1.0       | Y   | 41.3          | 19.9            | 61.2           | *1148.2              | İ      |          |
| 6408.5      | Η/         |           | Z   | 41.3          | 19.9            | 61.2           | *1148.2              | 5011   | 8.0      |
|             |            |           |   |               |                 |                |                      |        |          |
| 7324.0      | V / 1.0    |           | Х   | 43.0          | 21.3            | 64.3           | *1640.6              | 500    | 0.0      |
|             | V / 1.0    |           |   |               | 21.3            | 64.3           | *1640.6              |        |          |
|             | V /        |           | Z   | 43.0          | 21.3            | 64.3           | *1640.6              |        |          |
|             | Η/         |           | Х   | 43.0          | 21.3            | 64.3           | *1640.6              |        |          |
|             | Η/         |           | Y   | 43.0          | 21.3            | 64.3           | *1640.6              |        |          |
| 7324.0      | Η/         | 1.0       | Z   | 43.0          | 21.3            | 64.3           | *1640.6              | 500    | 0.0      |
|             |            |           | X   | 10 5          |                 | 00.4           | *0040.4              | 500    | <u> </u> |
| 8239.5      | V /        |           | X   | 42.5          | 23.6            | 66.1           | *2018.4              | 500    | 0.0      |
|             | V /        |           | Y<br>Z  | 42.5          | 23.6            | 66.1           | *2018.4              |        |          |
| I           | V /<br>H / |           | X   | 42.5<br>42.7  | 23.6<br>23.6    | 66.1<br>63.6   | *2018.4<br>*2065.4   |        |          |
| I           | H/         |           | A<br>Y  | 42.7          | 23.6            | 63.6           | *2065.4              |        |          |
| 8239.5      | H/         |           | Z   | 42.7          | 23.6            | 63.6           | *2065.4              | 500    | 0 0      |
| 0200.0      | 11/        | 1.0       | ۷.  | 42.1          | 23.0            | 03.0           | 2003.4               | 500    | 0.0      |
| 9155.0      | V /        | 1.0       | Х   | 42.1          | 25.5            | 67.6           | *2398.8              | 500    | 0.0      |
|             | V /        |           | Y   | 42.1          | 25.5            | 67.6           | *2398.8              |        |          |
|             |            | 1.0       | Z   | 42.1          | 25.5            | 67.6           | *2398.8              | 1      |          |
|             |            | 1.0       | X   | 42.0          | 25.5            | 67.5           | *2371.4              | 1      |          |
| ĺ           | Η/         | 1.0       | Y   | 42.0          | 25.5            | 67.5           | *2371.4              | İ      |          |
| 9155.0      | Η/         | 1.0       | Z   | 42.0          | 25.5            | 67.5           | *2371.4              | 500    | 0.0      |
|             |            |           |   |               |                 |                |                      |        |          |
|             |            |           |   |               |                 |                |                      |        |          |
|             |            |           |   |               |                 |                |                      |        |          |
|             |            |           |   |               |                 |                |                      |        |          |
|             |            |           |   |               |                 |                |                      |        |          |
|             |            |           |   |               |                 |                |                      |        |          |
|             | The free   |           |   | d from 20 ML  |                 |                | <br>                 |        |          |
|             |            | . ,       | nge was scanne  |               |                 |                |                      |        | 5        |
|             |            |           | the specified lineasurements ( Note: No |               |                 |                | i the specified life | niits. |          |
|             |            |           | ะสอนเซเทยกเร ( พ  | minum syste   | ni sensitivity) |                |                      |        |          |

| Test Method | d:        | FCC   | Part 15 Subpa   | art C, Radiat      | ed Emissions  | , Harmonie           | cs Emissio | ns.   |                  |               |
|-------------|-----------|-------|-----------------|--------------------|---------------|----------------------|------------|-------|------------------|---------------|
| Customer:   |           |       | h Security Sys  |                    |               |                      | Job No.    | R-119 | 965-5            |               |
| Test Sample | e:        |       | N Mini Door / V |                    | tact          |                      |            |       |                  |               |
| Model No.:  |           | ISW-  | BMC1-M82Y       |                    |               |                      | FCC ID:    | T3XB  | MC1-M82Y         |               |
| Operating N | lode:     | Conti | nuously transr  | mitting a 918      | 3.4 MHz signa | l.                   |            |       |                  |               |
| Technician: |           | R. So | podoo           |                    |               |                      | Date:      | Augus | st 15, 2007.     |               |
| Notes:      | Test Dist | ance: | 3 Meters        |                    |               | Duty                 | Cycle:20.5 | 5%    |                  |               |
|             | Detector: | Avera | age, unless oth | nerwise spec       | cified        | •                    | Cycle Cor  |       | -13.8dB          |               |
|             | Anten     |       | EUT             |                    | Correction    | Duty cyc             |            | ected | Converted        | A. (a)        |
| Test Freq.  | Pol./He   |       | Orientation     | Average<br>Reading | Factor        | Correction<br>Factor | DN Poo     | ding  | Reading          | Avg.<br>Limit |
| MHz         | (V/H)     | )-    | X / Y / Z       | dBµV               | dB            | dB                   | dBµ        | V/m   | UV/m             | uV/m          |
| 1836.8      | V/1.      |       | Х               | 48.3               | 2.3           | -13.8                | 36         | 6.8   | 69.2             | 5011.8        |
|             | V / 2.    |       | Y               | 43.5               | 2.3           | -13.8                |            | 2.0   | 39.8             |               |
|             | V/1.      |       | Z               | 53.6               | 2.3           | -13.8                |            | 2.1   | 127.4            |               |
|             | H/1.      |       | Х               | 45.8               | 2.3           | -13.8                |            | 1.3   | 51.9             |               |
|             | H/1.      |       | Y               | 52.8               | 2.3           | -13.8                |            | .3    | 116.1            |               |
| 1836.8      | H/1.      | 5     | Z               | 33.9               | 2.3           | -13.8                | 22         | 2.4   | 13.2             | 5011.8        |
| 2755.2      | V / 1.    | 1     | Х               | 57.1               | 5.2           | -13.8                | 10         | 3.5   | 266.1            | 500.0         |
| 1           | V/1.      |       | Y               | 52.0               | 5.2           | -13.8                |            | 3.4   | 147.9            | 500.0         |
|             | V / 1.    |       | Z               | 55.8               | 5.2           | -13.8                |            | 7.2   | 229.1            | I             |
|             | H / 1.    |       | <u> </u>        | 50.3               | 5.2           | -13.8                |            | .2    | 121.6            | I             |
|             | H/1.      |       | Y               | 54.5               | 5.2           | -13.8                |            | 5.9   | 197.2            | I             |
| 2755.2      | H/1.      |       | Z               | 52.6               | 5.2           | -13.8                |            | 1.0   | 158.5            | 500.0         |
|             |           |       |                 |                    |               |                      |            |       |                  |               |
| 3673.6      | V / 1.    |       | Х               | 40.3               | 10.0          | -13.8                |            | ŝ.5   | 66.8             | 500.0         |
|             | V / 1.    |       | Y               | 43.3               | 10.0          | -13.8                |            | 9.5   | 94.4             |               |
|             | V / 2.    |       | Z               | 42.4               | 10.0          | -13.8                |            | 3.6   | 85.1             |               |
|             | H / 2.    |       | Х               | 39.7               | 10.0          | -13.8                |            | 5.9   | 62.4             |               |
| 0070.0      | H / 1.    |       | Y               | 38.3               | 10.0          | -13.8                |            | 1.5   | 53.1             |               |
| 3673.6      | H/2.      | 2     | Z               | 43.4               | 10.0          | -13.8                | 39         | 9.6   | 95.5             | 500.0         |
| 4592.0      | V / 1.    | 8     | Х               | 33.5               | 13.6          | -13.8                | 33         | 3.3   | 46.2             | 500.0         |
|             | V / 1.    |       | Y               | 39.4               | 13.6          | -13.8                |            | ).2   | 91.2             |               |
|             | V / 1.    |       | Z               | 31.3               | 13.6          | -13.8                | 31         |       | 35.9             |               |
|             | H/1.      | 5     | Х               | 33.1               | 13.6          | -13.8                |            | 2.9   | 44.2             |               |
| l           | H/1.      | 0     | Y               | 30.5               | 13.6          | -13.8                | 30         | ).3   | 32.7             |               |
| 4592.0      | H/1.      | 0     | Z               | 41.4               | 13.6          | -13.8                |            | .2    | 114.8            | 500.0         |
| 5510.4      | V / 1.    | 0     | Х               | 33.2               | 17.1          | -13.8                | 26         | 6.5   | 66.8             | 5011.8        |
|             | V / 1.    |       | Y               | 37.8               | 17.1          | -13.8                | 41         |       | 113.5            | 1             |
|             | V / 1.    |       | Z               | 37.0               | 17.1          | -13.8                |            | ).4   | 104.7            |               |
|             | H / 1.    |       | <u> </u>        | 32.6               | 17.1          | -13.8                |            | 5.9   | 62.4             |               |
|             | H/1.      |       | Y               | 33.1               | 17.1          | -13.8                |            | 6.4   | 66.1             |               |
| 5510.4      | H/1.      |       | Z               | 34.1               | 17.1          | -13.8                |            | 7.4   | 74.1             | 5011.8        |
| · · ·       |           |       |                 |                    |               |                      |            |       | corded were n    |               |
|             |           |       |                 |                    |               |                      |            |       | specified limits |               |
|             |           |       |                 |                    | system sens   |                      |            |       |                  |               |

| Customer:<br>Test Sampl<br>Model No.:<br>Operating M<br>Technician:<br>Notes:<br>Test Freq.<br>MHz<br>6408.5 | e: wL<br>ISV<br>Mode: Co<br>: R.<br>Test Distance  | Erage, unless oth<br>EUT<br>Orientation<br>X/Y/Z  | Vindow Conta<br>mitting a 918.<br>nerwise speci<br>Average<br>Reading | 4 MHz signal.                       | FC<br>Duty Cyc<br>Duty Cyc<br>Duty cycle | Date: Augus   | MC1-M82Y<br>st 15, 2007. |               |
|--|--|---|---|-------------------------------------|--|---|--------------------------|---------------|
| Test Sampl<br>Model No.:<br>Operating M<br>Technician:<br>Notes:<br>Test Freq.<br>MHz                        | e: wL<br>ISV<br>Mode: Co<br>: R.<br>Test Distance<br>Detector: Ave<br>Antenna<br>Pol./Height<br>(V/H)-<br>V / 1.0      | SN Mini Door / V<br>V-BMC1-M82Y<br>ntinuously transr<br>Soodoo<br>e: 3 Meters<br>erage, unless oth<br>EUT<br>Orientation<br>X / Y / Z | Vindow Conta<br>mitting a 918.<br>nerwise speci<br>Average<br>Reading | 4 MHz signal.<br>fied<br>Correction | FC<br>Duty Cyc<br>Duty Cyc<br>Duty cycle | <b>C ID:</b> T3XB<br><b>Date:</b> Augus<br>le:20.5% | MC1-M82Y<br>st 15, 2007. |               |
| Model No.:<br>Operating M<br>Technician:<br>Notes:<br>Test Freq.<br>MHz                                      | ISV<br>Mode: Co<br>Co<br>Test Distance<br>Detector: Ave<br>Antenna<br>Pol./Height<br>(V/H)-<br>V / 1.0                 | V-BMC1-M82Y<br>ntinuously transr<br>Soodoo<br>e: 3 Meters<br>erage, unless oth<br>EUT<br>Orientation<br>X / Y / Z                     | nitting a 918.<br>herwise speci<br>Average<br>Reading                 | 4 MHz signal.<br>fied<br>Correction | Duty Cyc                                 | Date: Augus   | st 15, 2007.             |               |
| Operating M<br>Technician:<br>Notes:<br>Test Freq.<br>MHz  | Mode:     Co       Test Distance     R.       Detector:     Ave       Antenna     Pol./Height       (V/H)-     V / 1.0 | ntinuously transm<br>Soodoo<br>e: 3 Meters<br>erage, unless oth<br>EUT<br>Orientation<br>X/Y/Z  | nerwise speci<br>Average<br>Reading                                   | fied<br>Correction                  | Duty Cyc                                 | Date: Augus   | st 15, 2007.             |               |
| Technician:<br>Notes:<br>Test Freq.<br>MHz   | R.<br>Test Distance<br>Detector: Ave<br>Antenna<br>Pol./Height<br>(V/H)-<br>V / 1.0                                    | Soodoo<br>e: 3 Meters<br>erage, unless oth<br>EUT<br>Orientation<br>X/Y/Z   | nerwise speci<br>Average<br>Reading                                   | fied<br>Correction                  | Duty Cyc<br>Duty Cyc<br>Duty cycle       | le:20.5%  |                          |               |
| Notes:<br>Test Freq.<br>MHz  | Test Distance<br>Detector: Ave<br>Antenna<br>Pol./Height<br>(V/H)-<br>V / 1.0  | e: 3 Meters<br>erage, unless oth<br>EUT<br>Orientation<br>X/Y/Z   | Average<br>Reading  | Correction                          | Duty Cyc<br>Duty Cyc<br>Duty cycle       | le:20.5%  |                          |               |
| Test Freq.<br>MHz  | Detector: Ave<br>Antenna<br>Pol./Height<br>(V/H)-<br>V / 1.0   | Erage, unless oth<br>EUT<br>Orientation<br>X/Y/Z  | Average<br>Reading  | Correction                          | Duty Cyc<br>Duty cycle                   |   | -13.8dB                  |               |
| MHz  | Antenna<br>Pol./Height<br>(V/H)-<br>V / 1.0  | EUT<br>Orientation<br>X/Y/Z   | Average<br>Reading  | Correction                          | Duty cycle                               | le Correction                                       | : -13.80B                |               |
| MHz  | Pol./Height<br>(V/H)-<br>V / 1.0   | Orientation<br>X / Y / Z  | Reading   |                                     |  |   | 1                        |               |
|  | (V/H)-<br>V / 1.0  | X / Y / Z   | <u> </u>  |                                     | Correction                               | Corrected<br>Reading                                | Converted<br>Reading     | Avg.<br>Limit |
|  | V / 1.0  |   |   |                                     | Factor                                   |   |                          |               |
| <u>6408.5</u><br>I   |  |   | dBµV  | dB                                  | dB                                       | dBµV/m  | uV/m                     | uV/m          |
|  | V/10   | X   | 31.6  | 19.9                                | -13.8                                    | 37.7  | *76.7                    | 5011.8        |
| 1  |  | Y   | 31.6  | 19.9                                | -13.8                                    | 37.7  | *76.7                    |               |
|  | V / 1.0  | Z   | 31.6  | 19.9                                | -13.8                                    | 37.7  | *76.7                    |               |
|  | H / 1.0  | X   | 32.2  | 19.9                                | -13.8                                    | 38.3  | *82.2                    |               |
|  | H / 1.0  | Y   | 32.2  | 19.9                                | -13.8                                    | 38.3  | *82.2                    |               |
| 6408.5   | H / 1.0  | Z   | 32.2  | 19.9                                | -13.8                                    | 38.3  | *82.2                    | 5011.8        |
| 7324.0   | V / 1.0  | Х   | 31.9  | 21.3                                | -13.8                                    | 39.4  | *93.3                    | 500.0         |
|  | V / 1.0  | Y   | 31.9  | 21.3                                | -13.8                                    | 39.4  | *93.3                    |               |
|  | V / 1.0  | Z   | 31.9  | 21.3                                | -13.8                                    | 39.4  | *93.3                    |               |
|  | H / 1.0  | Х   | 31.9  | 21.3                                | -13.8                                    | 39.4  | *93.3                    |               |
|  | H / 1.0  | Y   | 31.9  | 21.3                                | -13.8                                    | 39.4  | *93.3                    |               |
| 7324.0   | H / 1.0  | Z   | 31.9  | 21.3                                | -13.8                                    | 39.4  | *93.3                    | 500.0         |
| 8239.5   | V / 1.0  | X   | 33.2  | 23.6                                | -13.8                                    | 43.0  | *141.3                   | 500.0         |
|  | V / 1.0  | Y   | 33.2  | 23.6                                | -13.8                                    | 43.0  | *141.3                   |               |
|  | V / 1.0  | Z   | 33.2  | 23.6                                | -13.8                                    | 43.0  | *141.3                   |               |
|  | H / 1.0  | X   | 32.8  | 23.6                                | -13.8                                    | 42.6  | *134.9                   |               |
|  | H / 1.0  | Y   | 32.8  | 23.6                                | -13.8                                    | 42.6  | *134.9                   |               |
| 8239.5   | H / 1.0  | Z   | 32.8  | 23.6                                | -13.8                                    | 42.6  | *134.9                   | 500.0         |
| 9155.0   | V / 1.0  | X   | 33.1  | 25.5                                | -13.8                                    | 44.8  | *173.8                   | 500.0         |
|  | V / 1.0  | Y   | 33.1  | 25.5                                | -13.8                                    | 44.8  | *173.8                   |               |
|  | V / 1.0  | Z   | 33.1  | 25.5                                | -13.8                                    | 44.8  | *173.8                   |               |
|  | H / 1.0  | Х   | 33.2  | 25.5                                | -13.8                                    | 44.9  | *175.8                   |               |
|  | H / 1.0  | Y   | 33.2  | 25.5                                | -13.8                                    | 44.9  | *175.8                   |               |
| 9155.0   | H / 1.0  | Z   | 33.2  | 25.5                                | -13.8                                    | 44.9  | *175.8                   | 500.0         |
|  | Than 20 dB   | cy range was sc<br>below the specif<br>or Measurement   | ied limit. Em   | issions from t                      | he EUT do no                             |   |                          |               |

FCC Part 15 Subpart C, Radiated Emissions, Harmonics Paragraphs 15.247(d). EUT transmitting at the Fundamental signal of 921.3 MHz

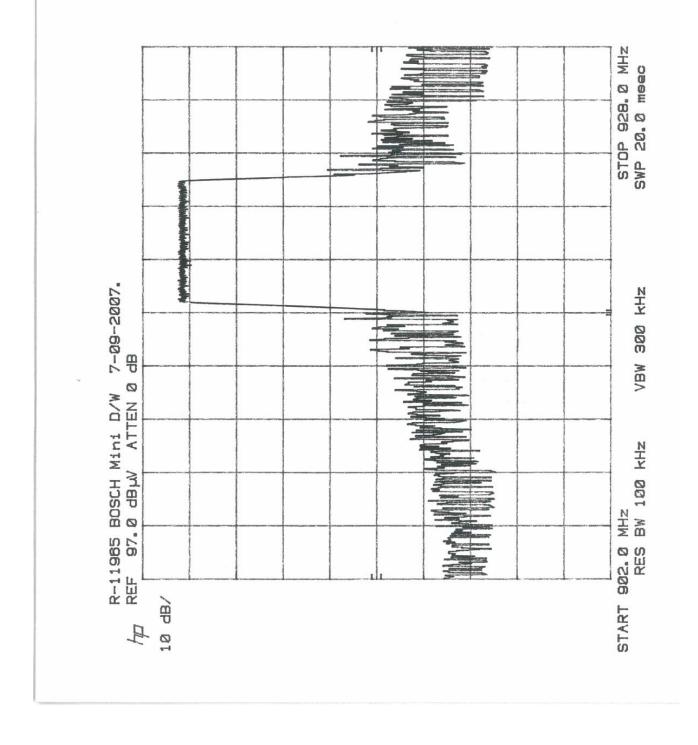
| Test Metho  | d:         | FCC Pa  | rt 15 Subpart C   | , Radiated Em       | issions, Harmo | nics Emissior | IS.                 |     |              |
|-------------|------------|---------|-------------------|---------------------|----------------|---------------|---------------------|-----|--------------|
| Customer:   |            |         | Security System   |                     |                |               | R-11965-5           |     |              |
| Test Sample |            |         | 1ini Door / Wind  |                     |                | I             |                     |     |              |
| Model No.:  |            |         | 1C1-M82Y          |                     |                | FCC ID:       | T3XBMC1-M82         | Y   |              |
| Operating N |            |         | ously transmittir | ng a 921.3 MH       | z signal.      |               |                     |     |              |
| Technician: |            | R. Sood |                   | .9 ~ 0              |                | Date:         | August 15, 2007     |     |              |
|             | Test Dista |         |                   |                     |                | Duto.         | 7 lagaet 10, 2001   | •   |              |
| Notes.      |            |         | nless otherwise   | specified           |                |               |                     |     |              |
|             | Anter      |         | EUT               | Meter               | Correction     | Corrected     | Converted           | Do  | ak           |
| Test Freq.  | Pol./He    |         | Orientation       | Reading             | Factor         | Reading       | Reading             |     | nit          |
| MHz         | (V/H)/N    | -       | X/Y/Z             | dBµV                | dB             | dBµV/m        | uV/m                |     | //m          |
| 1842.6      | V / 1      |         | Χ/1/2             | 61.3                | 2.3            | 63.6          | 1513.6              |     | ////<br>18.0 |
| 1042.0      | V / 1      |         | <u> </u>          | 53.0                | 2.3            | 55.3          | 582.1               | 501 | 10.0<br>I    |
| I           | V / 1      |         | Z                 | 70.5                | 2.3            | 72.8          | 4365.2              |     |              |
|             | H/2        |         | <u> </u>          | 59.1                | 2.3            | 61.4          | 1174.9              | +   | L            |
|             | H/1        |         | <u> </u>          | 61.1                | 2.3            | 63.4          | 1479.1              | +   | l            |
| 1842.6      | H/2        |         | Z                 | 49.0                | 2.3            | 51.3          | 367.3               | 501 | 18.0         |
|             | 11/2       |         | ۷                 | -10.0               | 2.0            | 01.0          | 001.0               | 001 | .0.0         |
| 2763.9      | V / 1      | .3      | Х                 | 56.2                | 5.2            | 61.4          | 1174.9              | 500 | 0.0          |
|             | V / 1      |         | Y                 | 55.3                | 5.2            | 60.5          | 1059.3              |     |              |
|             | V / 1      |         | Z                 | 54.8                | 5.2            | 60.0          | 1000.0              |     |              |
|             | H/2        |         | X                 | 52.4                | 5.2            | 57.6          | 758.6               |     | l            |
|             | H/1        |         | Y                 | 54.3                | 5.2            | 59.5          | 944.1               |     |              |
| 2763.9      | H/1        |         | Z                 | 55.0                | 5.2            | 60.2          | 1023.3              | 500 | 0.0          |
|             |            |         |                   |                     |                |               |                     |     |              |
| 3685.2      | V / 1      | .9      | Х                 | 48.7                | 10.0           | 58.7          | 861.0               | 500 | 0.0          |
|             | V / 2      | 2.3     | Y                 | 46.6                | 10.0           | 56.6          | 676.1               |     |              |
|             | V / 1      | .0      | Z                 | 46.8                | 10.0           | 56.8          | 691.8               |     |              |
|             | H / 1      | 0.1     | Х                 | 46.7                | 10.0           | 56.7          | 683.9               |     |              |
|             | H/1        |         | Y                 | 48.0                | 10.0           | 58.0          | 794.3               |     |              |
| 3685.2      | H/1        | .9      | Z                 | 49.0                | 10.0           | 59.0          | 891.3               | 500 | 0.0          |
| 4606.5      | V / 1      |         | v                 | 44.0                | 13.6           | E0 E          | 941 4               | 500 | 0.0          |
| -000.5      | V / 1      |         | X<br>Y            | <u>44.9</u><br>43.8 | 13.6           | 58.5<br>57.4  | 841.4<br>741.3      | 500 | 0.0          |
|             | V / 1      |         | Z                 | 45.4                | 13.6           | 59.0          | 891.3               | +   |              |
| I           | H/1        |         | X                 | 44.2                | 13.6           | 59.0          | 776.2               |     | L            |
| I           | H/1        |         | ×<br>Y            | 44.2                | 13.6           | 58.1          | 803.5               | +   | l            |
| 4606.5      | H/1        |         | Z                 | 47.4                | 13.6           | 61.0          | 1122.0              | 500 | 0.0          |
|             | , .        |         |                   |                     | 10.0           | 01.0          | 1122.0              |     |              |
| 5527.8      | V / 1      | .6      | Х                 | 44.4                | 17.1           | 61.5          | 1188.5              | 501 | 18.0         |
|             | V / 1      |         | Ý                 | 46.2                | 17.1           | 63.3          | 1462.2              |     |              |
|             | V / 1      |         | Z                 | 44.5                | 17.1           | 61.6          | 1202.3              | 1   |              |
|             | H/1        |         | X                 | 44.7                | 17.1           | 61.8          | 1230.3              |     |              |
|             | H/1        |         | Ý                 | 43.7                | 17.1           | 60.8          | 1096.5              |     |              |
| 5527.8      | H/1        |         | Z                 | 46.2                | 17.1           | 63.3          | 1462.2              | 501 | 18.0         |
|             |            |         | nge was scanne    |                     |                |               | not recorded we     |     |              |
|             |            |         |                   |                     |                |               | d the specified lin |     |              |
|             |            |         | easurements (m    |                     |                |               |                     |     |              |

| Test Metho  | d:         | FCC Pa    | rt 15 Subpart C                       | , Radiated Em | nissions, Harmo | nics Emissions | 5.                 |      |      |
|-------------|------------|-----------|---------------------------------------|---------------|-----------------|----------------|--------------------|------|------|
| Customer:   |            |           | Security System                       |               |                 |                | R-11965-5          |      |      |
| Test Sampl  | e:         | wLSN M    | /ini Door / Wind                      | ow Contact    |                 | •              |                    |      |      |
| Model No.:  |            | ISW-BM    | IC1-M82Y                              |               |                 | FCC ID:        | T3XBMC1-M82        | Y    |      |
| Operating I | Node:      | Continu   | ously transmittir                     | ng a 921.3 MH | Iz signal.      |                |                    |      |      |
| Technician  |            | R. Sood   |                                       | 0             |                 | Date:          | August 15, 2007    |      |      |
| Notes:      | Test Dist  |           |                                       |               | I               |                | <b>0</b> ,         |      |      |
|             | Detector:  | : Peak. u | nless otherwise                       | specified     |                 |                |                    |      |      |
|             | Ante       |           | EUT                                   | Meter         | Correction      | Corrected      | Converted          | Pe   | ak   |
| Test Freq.  | Pol./F     |           | Orientation                           | Reading       | Factor          | Reading        | Reading            | Lin  |      |
| MHz         | (V/H)-N    | Veters    | X/Y/Z                                 | dBµV          | dB              | dBµV/m         | uV/m               |      | /m   |
| 6408.5      | V /        |           | X                                     | 42.2          | 19.9            | 62.1           | *1273.5            | 501  |      |
|             | V /        |           | Y                                     | 42.2          | 19.9            | 62.1           | *1273.5            |      |      |
| İ           | V /        |           | Z                                     | 42.2          | 19.9            | 62.1           | *1273.5            | i    |      |
| İ           | Η/         | 1.0       | Х                                     | 41.3          | 19.9            | 61.2           | *1148.2            | i    |      |
|             | Η/         | 1.0       | Y                                     | 41.3          | 19.9            | 61.2           | *1148.2            |      |      |
| 6408.5      | Η/         |           | Z                                     | 41.3          | 19.9            | 61.2           | *1148.2            | 501  | 18.0 |
|             |            |           |                                       |               |                 |                |                    |      |      |
| 7324.0      | V /        | 1.0       | Х                                     | 43.0          | 21.3            | 64.3           | *1640.6            | 500  | 0.0  |
|             | V /        | 1.0       | Y                                     | 43.0          | 21.3            | 64.3           | *1640.6            |      |      |
|             | V /        |           | Z                                     | 43.0          | 21.3            | 64.3           | *1640.6            |      |      |
|             | Η/         |           | Х                                     | 43.0          | 21.3            | 64.3           | *1640.6            |      |      |
|             | Η/         |           | Y                                     | 43.0          | 21.3            | 64.3           | *1640.6            |      |      |
| 7324.0      | Η/         | 1.0       | Z                                     | 43.0          | 21.3            | 64.3           | *1640.6            | 500  | 0.0  |
| 0000 5      |            | 4.0       | X                                     | 40.5          | 00.0            | 00.4           | *0040.4            | 500  | 0.0  |
| 8239.5      | V /        |           | X                                     | 42.5          | 23.6            | 66.1           | *2018.4            | 500  | 0.0  |
|             | V /        |           | Y<br>Z                                | 42.5          | 23.6            | 66.1           | *2018.4            |      |      |
|             | V /<br>H / |           | X                                     | 42.5<br>42.7  | 23.6<br>23.6    | 66.1<br>63.6   | *2018.4<br>*2065.4 |      |      |
| I           | H/         |           | A<br>Y                                | 42.7          | 23.6            | 63.6           | *2065.4            |      |      |
| 8239.5      | H/         |           | Z                                     | 42.7          | 23.6            | 63.6           | *2065.4            | 500  | 0.0  |
| 0200.0      | 117        | 1.0       | ۲                                     | 72.1          | 20.0            | 00.0           | 2003.4             | 500  | 0.0  |
| 9155.0      | V /        | 1.0       | Х                                     | 42.1          | 25.5            | 67.6           | *2398.8            | 500  | 0.0  |
|             | V /        |           | Y                                     | 42.1          | 25.5            | 67.6           | *2398.8            |      |      |
|             | V /        |           | Z                                     | 42.1          | 25.5            | 67.6           | *2398.8            |      |      |
| ;<br>       | H/         |           | Х                                     | 42.0          | 25.5            | 67.5           | *2371.4            |      |      |
| ĺ           | Η/         | 1.0       | Y                                     | 42.0          | 25.5            | 67.5           | *2371.4            | İ    |      |
| 9155.0      | Η/         | 1.0       | Z                                     | 42.0          | 25.5            | 67.5           | *2371.4            | 500  | 0.0  |
|             |            |           |                                       |               |                 |                |                    |      |      |
|             |            |           |                                       |               |                 |                |                    |      |      |
|             |            |           |                                       |               |                 |                |                    |      |      |
|             |            |           |                                       |               |                 |                |                    |      |      |
|             |            |           |                                       |               |                 |                |                    | -    |      |
|             |            |           |                                       |               |                 |                |                    |      |      |
|             | The free   |           |                                       | d from 00 M   |                 |                |                    |      |      |
|             |            |           | nge was scanne                        |               |                 |                |                    |      | e    |
|             |            |           | the specified line<br>easurements ( N |               |                 |                | i me specified lil | mis. |      |
|             | =INOISE    |           | ะสรมเยกเยกเร ( IV                     | minum syste   | m sensitivity)  |                |                    |      |      |

| Test Metho  | d:               | FCC      | Part 15 Subpa       | art C, Radiat       | ed Emissions         | , Harmonics          | Emission        | s.    |                      |           |     |
|-------------|------------------|----------|---------------------|---------------------|----------------------|----------------------|-----------------|-------|----------------------|-----------|-----|
| Customer:   |                  |          | h Security Sys      |                     |                      |                      |                 | R-119 | 965-5                |           |     |
| Test Sampl  | e:               |          | N Mini Door / V     |                     | tact                 | <b>I</b>             |                 |       |                      |           |     |
| Model No.:  | -                |          | BMC1-M82Y           |                     |                      | F                    | CC ID:          | ТЗХВ  | MC1-M82Y             |           |     |
| Operating I | Node:            | Cont     | inuously transr     | nitting a 921       | .3 MHz signa         |                      |                 |       |                      |           |     |
| Technician  |                  |          | ooboc               | 0                   |                      |                      | Date:           | Augus | st 15, 2007.         |           |     |
| Notes:      | Test Dist        |          | 3 Meters            |                     |                      | Duty C               | ycle:20.59      |       | ,                    |           |     |
|             | Detector         | : Avera  | age, unless oth     | nerwise spec        | ified                |                      | ,<br>ycle Corre |       | : -13.8dB            |           |     |
|             |                  |          |                     |                     |                      | Duty cycle           |                 |       |                      | ۸.        |     |
| Test Freq.  | Anten<br>Pol./He |          | EUT<br>Orientation  | Average<br>Reading  | Correction<br>Factor | Correction<br>Factor | Correo<br>Read  |       | Converted<br>Reading | Av<br>Lir |     |
| MHz         | (V/H             | )-       | X / Y / Z           | dBµV                | dB                   | dB                   | dBµV            | //m   | uV/m                 | uV        | /m  |
| 1842.6      | V / 1            | .5       | Х                   | 59.8                | 2.3                  | -13.8                | 48.             | 3     | 260.0                | 501       | 1.8 |
|             | V / 1            |          | Y                   | 49.3                | 2.3                  | -13.8                | 37.8            | 8     | 77.6                 |           |     |
|             | V / 1            |          | Z                   | 66.5                | 2.3                  | -13.8                | 55.0            | 0     | 562.3                |           |     |
|             | H/2              |          | Х                   | 57.6                | 2.3                  | -13.8                | 46.             |       | 201.8                |           |     |
|             | H / 1            |          | Y                   | 55.9                | 2.3                  | -13.8                | 44.4            |       | 166.0                |           |     |
| 1842.6      | H/2              | .7       | Z                   | 42.3                | 2.3                  | -13.8                | 30.8            | 8     | 34.7                 | 501       | 1.8 |
| 2763.9      | V / 1            | 2        | Х                   | 55.2                | 5.2                  | -13.8                | 46.0            | 6     | 213.8                | 50        | 2.0 |
| 2705.5      | V/1<br>V/1       |          | A<br>Y              | 53.6                | 5.2                  | -13.8                | 46.             |       | 177.8                | 500       | J.U |
|             | V / 1            |          | Z                   | 52.7                | 5.2                  | -13.8                | 44.             |       | 160.3                |           |     |
|             | H/2              |          | X                   | 49.1                | 5.2                  | -13.8                | 40.             |       | 105.9                |           |     |
|             | H/1              |          | Y                   | 51.2                | 5.2                  | -13.8                | 42.0            |       | 134.9                |           |     |
| 2763.9      | H/1              |          | Z                   | 53.1                | 5.2                  | -13.8                | 44.             |       | 167.9                | 50        | 0.0 |
|             |                  |          |                     |                     |                      |                      |                 |       |                      |           |     |
| 3685.2      | V / 1            |          | Х                   | 43.7                | 10.0                 | -13.8                | 39.9            | 9     | 98.9                 | 50        | 0.0 |
|             | V / 2            | .3       | Y                   | 39.5                | 10.0                 | -13.8                | 35.             | 7     | 61.0                 |           |     |
|             | V / 1            |          | Z                   | 38.5                | 10.0                 | -13.8                | 34.             | 7     | 54.3                 |           |     |
|             | H / 1            |          | Х                   | 39.4                | 10.0                 | -13.8                | 35.0            |       | 60.3                 |           |     |
|             | H/1              |          | Y                   | 42.1                | 10.0                 | -13.8                | 38.3            | 3     | 82.2                 |           |     |
| 3685.2      | H / 1            | .9       | Z                   | 43.8                | 10.0                 | -13.8                | 40.0            | 0     | 100.0                | 50        | 0.0 |
| 4606.5      | V / 1            | 0        | Х                   | 34.2                | 13.6                 | -13.8                | 34.0            | 0     | 50.1                 | 50        | 20  |
| 1000.0      | V / 1            |          | Y                   | 30.0                | 13.6                 | -13.8                | 29.8            |       | 30.9                 | - 50      | 5.0 |
|             | V / 1            |          | Z                   | 34.5                | 13.6                 | -13.8                | 34.3            |       | 51.9                 |           |     |
|             | H/1              |          | X                   | 33.4                | 13.6                 | -13.8                | 33.             |       | 45.7                 |           |     |
|             | H/1              |          | Y                   | 33.2                | 13.6                 | -13.8                | 33.0            |       | 44.7                 |           |     |
| 4606.5      | H/1              |          | Z                   | 47.6                | 13.6                 | -13.8                | 47.4            |       | 234.4                | 50        | 0.0 |
| 5507.0      | \//A             | <u> </u> | N N                 | 04.0                | 47.4                 | 40.0                 | 07              | -     | 75.0                 | 504       | 4.0 |
| 5527.8      | V / 1            |          | X                   | 34.2                | 17.1                 | -13.8<br>-13.8       | 37.             |       | 75.0                 | 501       | 1.8 |
|             | V / 1            |          | Y 7                 | 38.6                | 17.1                 | -13.8                | 41.9            |       | 124.5                |           |     |
|             | V / 1<br>H / 1   |          | Z<br>X              | <u>33.7</u><br>32.9 | 17.1                 | -13.8                | 37.0            |       | 70.8                 |           |     |
|             | H/1              |          | X<br>Y              | 32.9                | 17.1<br>17.1         | -13.8                | 36.2            |       | 64.6<br>46.2         |           |     |
| 5527.8      | H/1              |          | ř<br>Z              | 30.0                | 17.1                 | -13.8                | 41.0            |       | 46.2<br>112.2        | 501       | 1.8 |
| 0021.0      |                  |          | ∠<br>∕ range was sc |                     |                      |                      |                 |       |                      |           | 1.0 |
|             |                  |          | elow the specif     |                     |                      |                      |                 |       |                      |           |     |
|             |                  |          | Measurements        |                     |                      |                      |                 |       |                      |           |     |
|             | -110136          |          | measurement         |                     | 5y5tern 36115        | itivity/             |                 |       |                      |           |     |

| Test Metho  | od:      | FCC    | Part 15 Subpa   | rt C, Radiate | d Emissions,   | Harmonics I              | Emissio  | าร.     |                 |      |     |
|-------------|----------|--------|-----------------|---------------|----------------|--------------------------|----------|---------|-----------------|------|-----|
| Customer:   |          |        | h Security Sys  |               |                |                          | b No.    | R-119   | 965-5           |      |     |
| Test Sampl  | le:      |        | N Mini Door / V |               | act            |                          |          |         |                 |      |     |
| Model No.:  |          |        | BMC1-M82Y       |               |                | F                        | CC ID:   | T3XB    | MC1-M82Y        |      |     |
| Operating I |          |        | inuously transr | nitting a 921 | 3 MHz signal   |                          |          | 10/18   |                 |      |     |
| Technician  |          |        | oodoo           | intung a 521. | 5 WI 12 Signal |                          | Date:    | Augus   | st 15, 2007.    |      |     |
|             |          |        | 3 Meters        |               |                | Duty Cy                  |          |         | 51 15, 2007.    |      |     |
| Notes:      |          |        |                 |               | ti a al        |                          |          |         |                 |      |     |
|             | Detector | : Aver | age, unless oth | ierwise speci | fied           |                          |          | ection: | : -13.8dB       |      |     |
| Test Freq.  | Anten    |        | EUT             | Average       | Correction     | Duty cycle<br>Correction |          | ected   | Converted       | Av   | ′g. |
| restrieg.   | Pol./He  | eight  | Orientation     | Reading       | Factor         | Factor                   | Rea      | ding    | Reading         | Lir  | nit |
| MHz         | (V/H     | )-     | X/Y/Z           | dBµV          | dB             | dB                       | dBu      | V/m     | uV/m            | uV/n |     |
| 6408.5      | V/1      | ,      | X               | 31.6          | 19.9           | -13.8                    |          | 7.7     | *76.7           | 501  |     |
|             | V / 1    |        | Y               | 31.6          | 19.9           | -13.8                    |          | <br>7.7 | *76.7           | 001  | 1.0 |
|             | V / 1    |        | Z               | 31.6          | 19.9           | -13.8                    |          | <br>7.7 | *76.7           |      |     |
|             | H/1      |        | X               | 32.2          | 19.9           | -13.8                    |          | 3.3     | *82.2           |      |     |
|             | H/1      |        | Y               | 32.2          | 19.9           | -13.8                    |          | 3.3     | *82.2           |      |     |
| 6408.5      | H/1      |        | Z               | 32.2          | 19.9           | -13.8                    |          | 3.3     | *82.2           | 501  | 1.8 |
| 0.0010      |          | - •    |                 | <u></u>       |                |                          |          |         | 02.2            | 001  |     |
| 7324.0      | V / 1    | .0     | Х               | 31.9          | 21.3           | -13.8                    | 39       | ).4     | *93.3           | 500  | 0.0 |
|             | V / 1    |        | Y               | 31.9          | 21.3           | -13.8                    |          | ).4     | *93.3           |      |     |
|             | V / 1    |        | Z               | 31.9          | 21.3           | -13.8                    |          | ).4     | *93.3           |      |     |
|             | H/1      |        | Х               | 31.9          | 21.3           | -13.8                    |          | ).4     | *93.3           |      |     |
|             | H/1      |        | Y               | 31.9          | 21.3           | -13.8                    |          | ).4     | *93.3           |      |     |
| 7324.0      | H/1      |        | Z               | 31.9          | 21.3           | -13.8                    |          | ).4     | *93.3           | 500  | 0.0 |
|             |          |        |                 |               |                |                          |          |         |                 |      |     |
| 8239.5      | V / 1    | .0     | Х               | 33.2          | 23.6           | -13.8                    | 43       | 3.0     | *141.3          | 500  | 0.0 |
|             | V / 1    | .0     | Y               | 33.2          | 23.6           | -13.8                    | 43       | 3.0     | *141.3          |      |     |
|             | V / 1    | .0     | Z               | 33.2          | 23.6           | -13.8                    | 43       | 3.0     | *141.3          |      |     |
|             | H/1      | .0     | Х               | 32.8          | 23.6           | -13.8                    | 42       | 2.6     | *134.9          |      |     |
|             | H/1      | .0     | Y               | 32.8          | 23.6           | -13.8                    | 42       | 2.6     | *134.9          |      |     |
| 8239.5      | H/1      | .0     | Z               | 32.8          | 23.6           | -13.8                    | 42       | 2.6     | *134.9          | 500  | 0.0 |
|             |          |        |                 |               |                |                          |          |         |                 |      |     |
| 9155.0      | V / 1    | .0     | Х               | 33.1          | 25.5           | -13.8                    | 44       | 1.8     | *173.8          | 500  | 0.0 |
|             | V / 1    | .0     | Y               | 33.1          | 25.5           | -13.8                    | 44       | 1.8     | *173.8          |      |     |
|             | V / 1    |        | Z               | 33.1          | 25.5           | -13.8                    |          | l.8     | *173.8          |      |     |
|             | H/1      |        | Х               | 33.2          | 25.5           | -13.8                    | 44       | 1.9     | *175.8          |      |     |
|             | H/1      |        | Y               | 33.2          | 25.5           | -13.8                    |          | 1.9     | *175.8          |      |     |
| 9155.0      | H/1      | .0     | Z               | 33.2          | 25.5           | -13.8                    | 44       | 1.9     | *175.8          | 500  | ).0 |
|             |          |        |                 |               |                |                          |          |         |                 |      |     |
|             |          |        |                 |               |                |                          |          |         |                 |      |     |
|             |          |        |                 |               |                |                          |          |         |                 |      |     |
|             |          |        |                 |               |                |                          |          |         |                 |      |     |
|             | ·        |        |                 |               |                |                          | <u> </u> |         |                 |      |     |
|             |          |        | / range was sc  |               |                |                          |          |         |                 |      |     |
|             |          |        | elow the specif |               |                |                          | ot exce  | ed the  | specified limit | IS.  |     |
|             | *=Noise  | Floor  | Measurements    | s ( Minimum : | system sensit  | ivity)                   |          |         |                 |      |     |

## FCC Part 15, Subpart C, 15.247(d) Band Edge Measurements 902 - 928 MHz Range Test Data



## FCC Part 15, Subpart C,15.247(d) Band Edge Measurements, 902 to 928 MHz Band Note: The EUT complies with the Band Edge Measurements. FCC ID:T3XBMC1-M82Y

| Customer        | Bo  | Bosch Security System.          |              |  |  |  |  |
|-----------------|-----|---------------------------------|--------------|--|--|--|--|
| Test Sample     | wL  | wLSN Mini Door / Window Contact |              |  |  |  |  |
| Model Number    | ISV | V-BMC1-M82Y                     |              |  |  |  |  |
| Date: 7-09-2007 |     | Tech: R.S.                      | Sheet 1 of 1 |  |  |  |  |

Retlif Testing Laboratories, Report R-11965-5, Bosch Security Systems, FCC ID: T3XBMC1-M82Y Page 45 of 49 FCC Part 15, Subpart B, Class B, Radiated Emissions, 30 MHz to 5.0 GHz, Paragraph 15.109(a) Receiver Test Data

| Test Metho  | d:       | FCC P       | art 15, Subpa        | rt B, Class I  | B, Radiated E       | Emission  | s, 30 MHz | to 5. | 0 GHz, Para:1 | 5.109(a) |
|-------------|----------|-------------|----------------------|----------------|---------------------|-----------|-----------|-------|---------------|----------|
| Customer:   |          | Bosch       | Security Syste       | em.            |                     |           | Job       | No.:  | R-11965-5     |          |
| Test Sampl  | e:       | wLSN I      | Mini Door / Wi       | ndow Contac    | ct                  |           |           |       |               |          |
| Model No.:  |          | ISW-BI      | MC1-M82Y             |                |                     |           | Serial    | No.:  | N/A           |          |
| Operating N | /lode:   | EUT op      | perating on cha      | annel 00( 91   | 5.5MHz), con        | tinuously | receiving | a CW  | signal.       |          |
| Technician  |          | R.Sood      | doo                  | , ,            |                     |           | D         | ate:  | August 15, 20 | 007.     |
| Notes:      | Test D   | Distance    | : 3 Meters           |                |                     |           | Temp: 29  | ).2°C | Humidi        | ty: 53%  |
|             | Detec    | tor: Qua    | asi-Peak Belov       | v 1 GHz, Pea   | ak above 1 Gl       | Hz        |           |       |               | •        |
|             | Ante     | enna        | EUT                  | Meter          | Correction          | Corr      | ected     |       | Converted     |          |
| Frequency   |          | sition      | Orientation          | Readings       | Factor              |           | ading     |       | Reading       | Limit    |
| MHz         | (V/H) /  | Meters      | Degrees              | dBuV           | dB                  | dB        | uV/m      |       | uV/m          | uV/m     |
|             |          |             | -                    |                |                     |           |           |       |               |          |
| 30.0        |          |             |                      |                |                     |           |           |       |               | 100      |
|             |          |             |                      |                |                     |           |           |       |               |          |
|             |          |             |                      |                |                     |           |           |       |               |          |
|             |          |             |                      |                |                     |           |           |       |               |          |
| 88.0        |          |             |                      |                |                     |           |           |       |               | 100      |
| 88.0        |          |             |                      |                |                     |           |           |       |               | 150      |
|             |          |             |                      |                |                     |           |           |       |               |          |
|             |          |             |                      |                |                     |           |           |       |               |          |
|             |          |             |                      |                |                     |           |           |       |               |          |
| 216.0       |          |             |                      |                |                     |           |           |       |               | 150      |
| 216.0       |          |             |                      | ahaamiaa       | l of the one        |           | haat diat |       |               | 200      |
|             |          |             | o emission           | observed       | at the spe          | ecinea    | lest dist | ance  | ,             |          |
| <u> </u>    |          |             |                      |                |                     |           |           |       |               |          |
|             |          |             |                      |                |                     |           |           |       |               |          |
| 960.0       |          |             |                      |                |                     |           |           |       |               | 200      |
| 960.0       |          |             |                      |                |                     |           |           |       |               | 500      |
|             |          |             |                      |                |                     |           |           |       |               |          |
|             |          |             |                      |                |                     |           |           |       |               |          |
|             |          |             |                      |                |                     |           |           |       |               |          |
|             |          |             |                      |                |                     |           |           |       |               |          |
|             |          |             |                      |                |                     |           |           |       |               |          |
|             |          |             |                      |                |                     |           |           |       |               |          |
|             |          |             |                      |                |                     |           |           |       |               |          |
| <u> </u>    |          |             |                      |                |                     |           |           |       |               |          |
|             |          |             |                      |                |                     |           |           |       |               |          |
| 5000.0      |          |             |                      |                |                     |           |           |       |               | 500      |
| 0000.0      | The free | quency rar  | l<br>nge was scanned | from 30 MHz to | 5.0 GHz.            | 1         |           | 1     |               | 000      |
|             | The em   | issions ob  | served from the E    | UT do not exce | ed the specified    |           |           |       |               |          |
|             | Emissio  | ons not rec | corded were more     | than 20dB und  | er the specified li | imit.     |           |       |               |          |
| 5000.0      | The em   | issions ob  | served from the E    | UT do not exce | ed the specified    |           |           |       |               | 500      |
|             |          |             |                      |                |                     |           |           |       |               |          |

| Test Metho  | d:       | FCC P          | Part 15, Subpart B, Class B, Radiated Emissions, 30 MHz to 5.0 GHz, Para:15.109( |                                       |               |           |           |          |              |         |  |  |  |
|-------------|----------|----------------|--|---------------------------------------|---------------|-----------|-----------|----------|--------------|---------|--|--|--|
| Customer:   |          | Bosch          | Security Syste   | em.                                   |               |           | Job       | No.:     | R-11965-5    |         |  |  |  |
| Test Sampl  | e:       | wLSN I         | Mini Door / Wi   | ndow Contac                           | ct            |           |           |          |              |         |  |  |  |
| Model No.:  |          | ISW-BI         | MC1-M82Y   |                                       |               |           | Serial    | No.:     | N/A          |         |  |  |  |
| Operating N | /lode:   | EUT op         | perating on cha  | annel 30( 91                          | 8.5MHz), con  | tinuously | receiving | a CW     | / signal.    |         |  |  |  |
| Technician  |          | R.Sood         | doo  | , , , , , , , , , , , , , , , , , , , |               |           | D         | ate:     | August 15, 2 | 007.    |  |  |  |
| Notes:      | Test D   | Distance       | : 3 Meters   |                                       |               |           | Temp: 29  | ).2°C    | Humidi       | ty: 53% |  |  |  |
|             | Detec    | tor: Qua       | asi-Peak Belov   | v 1 GHz, Pea                          | ak above 1 Gl | Hz        |           |          |              | •       |  |  |  |
|             | Ante     | enna           | EUT  | Meter                                 | Correction    | Corr      | ected     | (        | Converted    |         |  |  |  |
| Frequency   |          | sition         | Orientation  | Readings                              | Factor        |           | ading     |          | Reading      | Limit   |  |  |  |
| MHz         | (V/H) /  | Meters         | Degrees  | dBµV                                  | dB            | dB        | µV/m      |          | uV/m         | uV/m    |  |  |  |
|             |          |                |  |                                       |               |           |           |          |              |         |  |  |  |
| 30.0        |          |                |  |                                       |               |           |           |          |              | 100     |  |  |  |
| I           |          |                |  |                                       |               |           |           |          |              |         |  |  |  |
|             |          |                |  |                                       |               |           |           |          |              |         |  |  |  |
|             |          |                |  |                                       |               |           |           |          |              |         |  |  |  |
| 88.0        |          |                |  |                                       |               |           |           |          |              | 100     |  |  |  |
| 88.0        |          |                |  |                                       |               |           |           |          |              | 150     |  |  |  |
|             |          |                |  |                                       |               |           |           |          |              |         |  |  |  |
| <u> </u>    |          |                |  |                                       |               |           |           |          |              |         |  |  |  |
|             |          |                |  |                                       |               |           |           |          |              |         |  |  |  |
| 216.0       |          | <sup></sup> No | emission o   | bserved                               | at the spec   | cified te | st dista  | nce      |              | 150     |  |  |  |
| 216.0       |          |                |  |                                       |               | 1         |           |          |              | 200     |  |  |  |
|             |          |                |  |                                       |               |           |           |          |              |         |  |  |  |
|             |          |                |  |                                       |               |           |           |          |              |         |  |  |  |
| I           |          |                |  |                                       |               |           |           |          |              |         |  |  |  |
| 960.0       |          |                |  |                                       |               |           |           |          |              | 200     |  |  |  |
| 960.0       |          |                |  |                                       |               |           |           |          |              | 500     |  |  |  |
|             |          |                |  |                                       |               |           |           |          |              |         |  |  |  |
| İ           |          |                |  |                                       |               |           |           |          |              | İ       |  |  |  |
|             |          |                |  |                                       |               |           |           |          |              |         |  |  |  |
|             |          |                |  |                                       |               |           |           |          |              |         |  |  |  |
|             |          |                |  |                                       |               |           |           |          |              |         |  |  |  |
| I           |          |                |  |                                       |               |           |           |          |              |         |  |  |  |
|             |          |                |  |                                       |               |           |           |          |              |         |  |  |  |
|             |          |                |  |                                       |               |           |           |          |              |         |  |  |  |
|             |          |                |  |                                       |               |           |           |          |              |         |  |  |  |
|             |          |                |  |                                       |               |           |           | <u> </u> |              |         |  |  |  |
| 5000.0      | The free |                | nge was scanned  | from 30 MUz to                        | 50CH7         |           |           |          |              | 500     |  |  |  |
|             |          |                | served from the E  |                                       |               | limits.   |           |          |              |         |  |  |  |
|             |          |                | corded were more   |                                       |               |           |           |          |              |         |  |  |  |
|             |          |                |  |                                       |               |           |           |          |              |         |  |  |  |

| Test Metho  | d:      | FCC P    | Part 15, Subpart B, Class B, Radiated Emissions, 30 MHz to 5.0 GHz, Para:15.109(a) |                |               |           |           |      |               |         |     |  |  |
|-------------|---------|----------|--|----------------|---------------|-----------|-----------|------|---------------|---------|-----|--|--|
| Customer:   |         | Bosch    | Security Syste   | em.            |               |           | Job I     | No.: | R-11965-5     |         |     |  |  |
| Test Sampl  | e:      | wLSN I   | Mini Door / Wi   | ndow Conta     | ct            |           |           |      |               |         |     |  |  |
| Model No.:  |         | ISW-BI   | MC1-M82Y   |                |               |           | Serial I  | No.: | N/A           |         |     |  |  |
| Operating N | /lode:  | EUT op   | perating on cha  | annel 58( 92   | 1.3MHz), con  | tinuously | receiving | a CW | / signal.     |         |     |  |  |
| Technician  |         | R.Sood   | doo  |                |               |           | D         | ate: | August 15, 20 | 007.    |     |  |  |
| Notes:      | Test D  | Distance | : 3 Meters   |                |               |           | Temp: 29  | .2°C | Humidi        | ty: 53% | 6   |  |  |
|             | Detec   | tor: Qua | asi-Peak Belov   | v 1 GHz, Pea   | ak above 1 Gl | Hz        |           |      |               |         |     |  |  |
|             | Ant     | enna     | EUT  | Meter          | Correction    | Corr      | ected     | (    | Converted     |         |     |  |  |
| Frequency   |         | sition   | Orientation  | Readings       | Factor        |           | ading     |      | Reading       | Lin     | nit |  |  |
| MHz         | (V/H) / | Meters   | Degrees  | dBµV           | dB            | dB        | µV/m      |      | uV/m          | uV      | /m  |  |  |
|             |         |          |  |                |               |           |           |      |               |         |     |  |  |
| 30.0        |         |          |  |                |               |           |           |      |               | 10      | 0   |  |  |
| I           |         |          |  |                |               |           |           |      |               |         |     |  |  |
|             |         |          |  |                |               |           |           |      |               |         |     |  |  |
|             |         |          |  |                |               |           |           |      |               |         |     |  |  |
| 88.0        |         |          |  |                |               |           |           |      |               | 10      | 0   |  |  |
| 88.0        |         |          |  |                |               |           |           |      |               | 15      |     |  |  |
|             |         |          |  |                |               |           |           |      |               |         |     |  |  |
| I           |         |          |  |                |               |           |           |      |               |         |     |  |  |
|             |         |          |  |                |               |           |           |      |               |         |     |  |  |
| 216.0       |         |          |  |                |               |           |           |      |               | 15      | 0   |  |  |
| 216.0       |         | No       | o emission   | observed       | at the spe    | cified to | est dista | ince |               | 20      |     |  |  |
|             |         |          |  |                |               |           |           |      |               |         |     |  |  |
|             |         |          |  |                |               |           |           |      |               |         |     |  |  |
| I           |         |          |  |                |               |           |           |      |               |         |     |  |  |
| 960.0       |         |          |  |                |               |           |           |      |               | 20      | 0   |  |  |
| 960.0       |         |          |  |                |               |           |           |      |               | <br>50  |     |  |  |
|             |         |          |  |                |               |           |           |      |               |         | •   |  |  |
|             |         |          |  |                |               |           |           |      |               |         |     |  |  |
|             |         |          |  |                |               |           |           |      |               |         |     |  |  |
| I           |         |          |  |                |               |           |           |      |               |         |     |  |  |
|             |         |          |  |                |               |           |           |      |               |         |     |  |  |
| I           |         |          |  |                |               |           |           |      |               |         |     |  |  |
|             |         |          |  |                |               |           |           |      |               |         |     |  |  |
|             |         |          |  |                |               |           |           |      |               |         |     |  |  |
|             |         |          |  |                |               |           |           |      |               |         |     |  |  |
|             |         |          |  |                |               |           |           |      |               |         |     |  |  |
| 5000.0      | The fre |          |  | from 20 MUz to | 50047         |           |           |      |               | 50      | 0   |  |  |
|             |         |          | nge was scanned<br>served from the E   |                |               | limits.   |           |      |               |         |     |  |  |
|             |         |          | corded were more   |                |               |           |           |      |               |         |     |  |  |
|             |         |          |  |                |               |           |           |      |               |         |     |  |  |