

# FCC Test Report

|              |                          |
|--------------|--------------------------|
| Product Name | LeanOrder detectionShelf |
| Model No.    | 01 , 02                  |
| FCC ID.      | 2ANAA-LODSHELF01         |

|           |  |
|-----------|--|
| Applicant | Intellion AG                                     |
| Address   | Schuppisstrasse 10, 9016 St. Gallen, Switzerland |

|                 |                     |
|-----------------|---------------------|
| Date of Receipt | Aug 09, 2017        |
| Issued Date     | Apr 20, 2018        |
| Report No.      | 1780164R-RFUSP23V00 |
| Report Version  | V1.0                |



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.

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## Test Report

Issued Date: Apr 20, 2018

Report No.: 1780164R-RFUSP23V00



|                     |   |
|---------------------|---|
| Product Name        | LeanOrder detectionShelf  |
| Applicant           | Intellion AG  |
| Address             | Schuppisstrasse 10, 9016 St. Gallen, Switzerland                                |
| Manufacturer        | Identec Solutions AG  |
| Model No.           | 01 , 02   |
| FCC ID.             | 2ANAA-LODSHELF01  |
| EUT Rated Voltage   | DC 9V   |
| EUT Test Voltage    | DC 9V   |
| Trade Name          | Intellion   |
| Applicable Standard | FCC CFR Title 47 Part 15 Subpart C: 2017<br>ANSI C63.4: 2014, ANSI C63.10: 2013 |
| Test Result         | Complied  |

Documented By :

(Adm. Specialist / April Chen)

Tested By :

(Engineer / Boris Hsu)

Approved By :

(Director / Vincent Lin)

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Attachment 1: EUT Test Photographs

Attachment 2: EUT Detailed Photographs

## 1. GENERAL INFORMATION

### 1.1. EUT Description

|                    |                                   |
|--------------------|-----------------------------------|
| Product Name       | LeanOrder detectionShelf          |
| Trade Name         | Intellion                         |
| Model No.          | 01 , 02                           |
| FCC ID.            | 2ANAA-LODSHELF01                  |
| Frequency Range    | 912.80-920.15MHz                  |
| Channel Number     | 50                                |
| Type of Modulation | FHSS                              |
| Antenna Type       | Integrated Antenna                |
| Channel Control    | Auto                              |
| Antenna Gain       | Refer to the table "Antenna List" |

#### Antenna List

| No. | Manufacturer   | Part No. | Antenna Type | Peak Gain           |
|-----|----------------|----------|--------------|---------------------|
| 1   | IB-Lenhardt AG | N/A      | Integrated   | 2.85 dBi for 920MHz |

Note:

1. The antenna of EUT conforms to FCC 15.203.
2. Only the higher gain antenna was tested and recorded in this report.

## Center Frequency of Each Channel:

| Channel     | Frequency  | Channel     | Frequency  | Channel     | Frequency  | Channel     | Frequency  |
|-------------|------------|-------------|------------|-------------|------------|-------------|------------|
| Channel 01: | 912.80 MHz | Channel 14: | 914.75 MHz | Channel 27: | 916.70 MHz | Channel 40: | 918.65 MHz |
| Channel 02: | 912.95 MHz | Channel 15: | 914.90 MHz | Channel 28: | 916.85 MHz | Channel 41: | 918.80 MHz |
| Channel 03: | 913.10 MHz | Channel 16: | 915.05 MHz | Channel 29: | 917.00 MHz | Channel 42: | 918.95 MHz |
| Channel 04: | 913.25 MHz | Channel 17: | 915.20 MHz | Channel 30: | 917.15 MHz | Channel 43: | 919.10 MHz |
| Channel 05: | 913.40 MHz | Channel 18: | 915.35 MHz | Channel 31: | 917.30 MHz | Channel 44: | 919.25 MHz |
| Channel 06: | 913.55 MHz | Channel 19: | 915.50 MHz | Channel 32: | 917.45 MHz | Channel 45: | 919.40 MHz |
| Channel 07: | 913.70 MHz | Channel 20: | 915.65 MHz | Channel 33: | 917.60 MHz | Channel 46: | 919.55 MHz |
| Channel 08: | 913.85 MHz | Channel 21: | 915.80 MHz | Channel 34: | 917.75 MHz | Channel 47: | 919.70 MHz |
| Channel 09: | 914.00 MHz | Channel 22: | 915.95 MHz | Channel 35: | 917.90 MHz | Channel 48: | 919.85 MHz |
| Channel 10: | 914.15 MHz | Channel 23: | 916.10 MHz | Channel 36: | 918.05 MHz | Channel 49: | 920.00 MHz |
| Channel 11: | 914.30 MHz | Channel 24: | 916.25 MHz | Channel 37: | 918.20MHz  | Channel 50: | 920.15 MHz |
| Channel 12: | 914.45 MHz | Channel 25: | 916.40 MHz | Channel 38: | 918.35 MHz |             |            |
| Channel 13: | 914.60 MHz | Channel 26: | 916.55 MHz | Channel 39: | 918.50 MHz |             |            |

## Note:

1. The EUT is a LeanOrder detectionShelf with a built-in 912.80-920.15MHz FHSS transceiver.
2. The EUT is including two type for different dimension and antenna number.
3. These tests were conducted on a sample for the purpose of demonstrating compliance of 902-928MHz transmitter with Part 15 Subpart C Paragraph 15.247 for spread spectrum devices.
4. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
5. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.

|           |   |
|-----------|---|
| Test Mode | Mode 1: Transmit(130x80)-Port 1<br>Mode 1: Transmit(130x80)-Port 2<br>Mode 1: Transmit(130x80)-Port 4<br>Mode 1: Transmit(130x80)-Port 5<br>Mode 1: Transmit(130x80)-Port 6<br>Mode 2: Transmit(100x60)-Port 1<br>Mode 2: Transmit(100x60)-Port 2<br>Mode 2: Transmit(100x60)-Port 3<br>Mode 2: Transmit(100x60)-Port 4 |
|-----------|---|

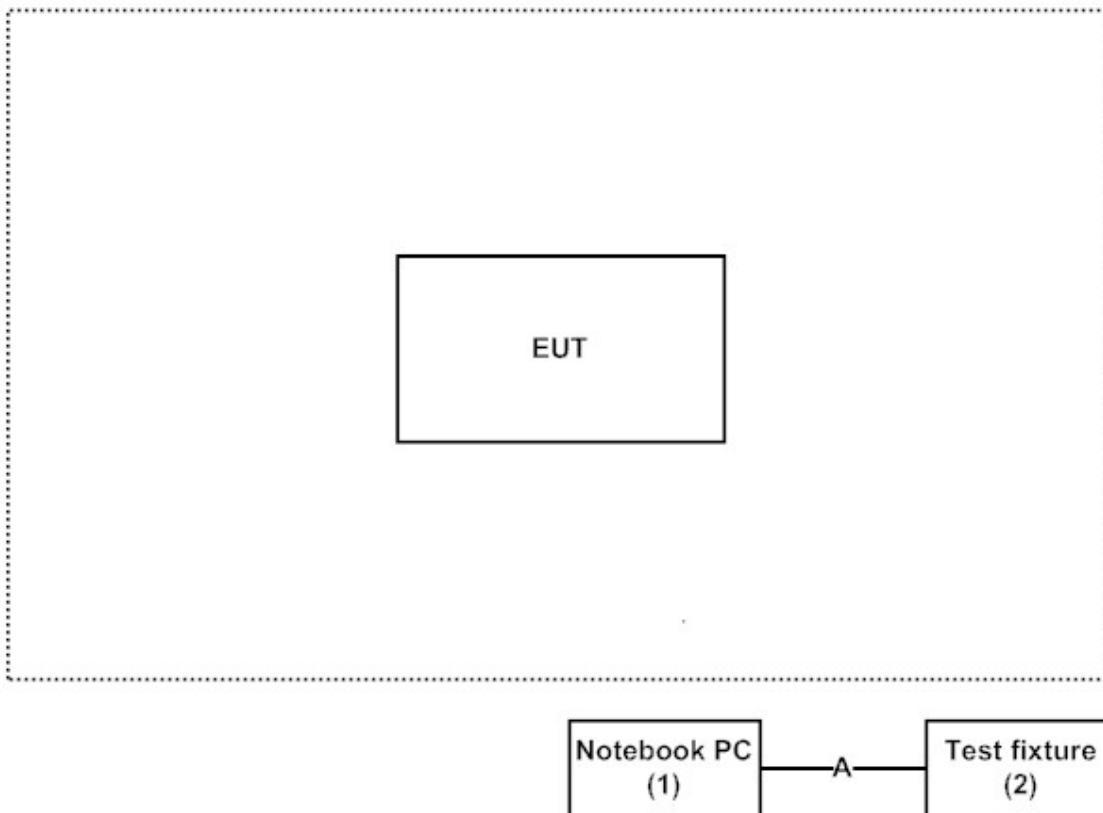
### 1.3. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

| Product        | Manufacturer | Model No.      | Serial No. | Power Cord         |
|----------------|--------------|----------------|------------|--------------------|
| 1. Notebook PC | DELL         | Latitude E5440 | B6TYTZ1    | Non-Shielded, 0.8m |
| 2 Test fixture | N/A          | N/A            | N/A        | N/A                |

| Signal Cable Type | Signal cable Description |
|-------------------|--------------------------|
| A. LAN Cable      | Non-shielded, 4.7m       |

### 1.4. Configuration of Tested System



### 1.5. EUT Exercise Software

1. Setup the EUT as shown in Section 1.4.
2. Execute software “ Gen 3 Tag Certification v1.0.0.23480” on the notebook PC, Wireless control the EUT.
3. Configure the test mode, the test channel, and the data rate.
4. Press “OK” to start the continuous Transmit.
5. Verify that the EUT works properly.

## 1.6. Test Facility

Ambient conditions in the laboratory:

| Items                      | Required (IEC 68-1) | Actual   |
|----------------------------|---------------------|----------|
| Temperature (°C)           | 15-35               | 20-35    |
| Humidity (%RH)             | 25-75               | 30-65    |
| Barometric pressure (mbar) | 860-1060            | 950-1000 |

The related certificate for our laboratories about the test site and management system can be downloaded from DEKRA Testing and Certification Co., Ltd. Web Site:

<http://www.dekra.com.tw/chinese/about/certificates.aspx?bval=5>

The address and introduction of DEKRA Testing and Certification Co., Ltd. laboratories can be founded in our Web site: <http://www.dekra.com.tw>

Site Description: Accredited by TAF  
Accredited Number: 3023

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E-Mail : [info.tw@dekra.com](mailto:info.tw@dekra.com)

FCC Accreditation Number: TW3023

## 1.7. List of Test Equipment

### For Conducted measurements /CB3/SR8

|   | Equipment           | Manufacturer | Model No. | Serial No.   | Cali. Date | Due. Date  |
|---|---------------------|--------------|-----------|--------------|------------|------------|
|   | Temperature Chamber | WIT GROUP    | TH-1S-B   | EQ-201-00146 | 2018/2/12  | 2019/2/11  |
| X | Spectrum Analyzer   | Agilent      | N9010A    | MY48030495   | 2017/10/13 | 2018/10/12 |
| X | Power Meter         | Anritsu      | ML2495A   | 6K00003357   | 2017/8/7   | 2018/8/6   |
| X | Pulse power sensor  | Anritsu      | MA2411B   | 0846193      | 2017/8/7   | 2018/8/6   |
| X | EMI Test Receiver   | R&S          | ESCS 30   | 100369       | 2017/11/7  | 2018/11/6  |
| X | LISN                | R&S          | ESH3-Z5   | 836679/017   | 2018/2/9   | 2019/2/8   |
| X | LISN                | R&S          | ENV216    | 100097       | 2018/2/9   | 2019/2/8   |
| X | Coaxial Cable       | DEKRA        | RG 400    | LC018-RG     | 2017/6/22  | 2018/6/21  |

### For Radiated measurements /Site3/CB8

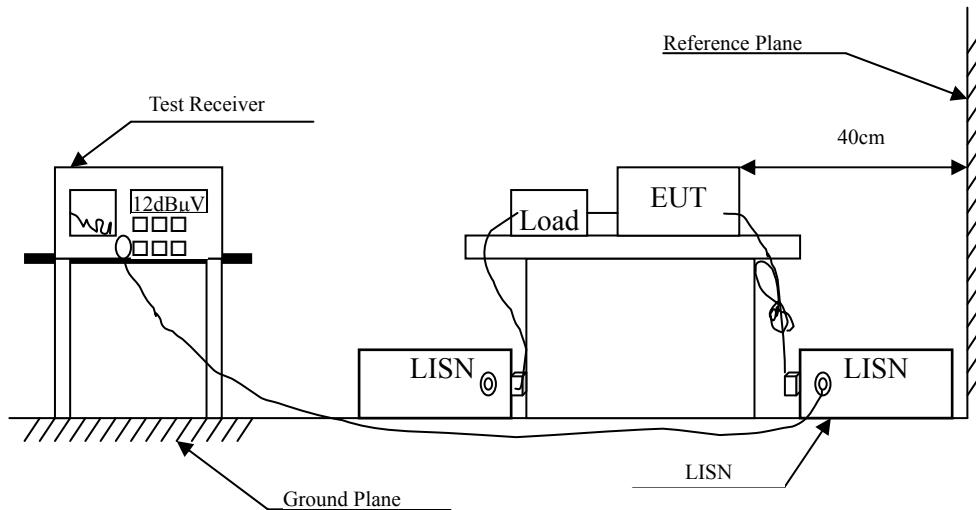
|   | Equipment         | Manufacturer       | Model No.   | Serial No.      | Cali. Date | Due. Date  |
|---|-------------------|--------------------|-------------|-----------------|------------|------------|
| X | Spectrum Analyzer | R&S                | FSP40       | 100170          | 2018/3/12  | 2019/3/11  |
| X | Loop Antenna      | Teseq              | HLA6121     | 37133           | 2017/10/13 | 2018/10/12 |
| X | Bilog Antenna     | Schaffner Chase    | CBL6112B    | 2707            | 2017/06/25 | 2018/06/24 |
| X | Coaxial Cable     | DEKRA              | RG 214      | LC003-RG        | 2017/06/15 | 2018/06/14 |
| X | Pre-Amplifier     | Jet-Power          | JPA-10M1G33 | 170101000330010 | 2017/07/19 | 2018/07/18 |
| X | Horn Antenna      | ETS-Lindgren       | 3117        | 00135205        | 2017/04/28 | 2018/04/27 |
| X | Pre-Amplifier     | EMCI               | EMC012630SE | 980210          | 2017/02/24 | 2018/02/23 |
| X | Coaxial Cable     | QuieTek            | SF-106      | LC035/37/41-SF  | 2017/6/21  | 2018/6/20  |
| X | Horn Antenna      | ETS-Lindgren       | 3117        | 00135205        | 2017/04/28 | 2018/04/27 |
| X | Pre-Amplifier     | EMCI               | EMC012630SE | 980210          | 2017/02/24 | 2018/02/23 |
|   | Amplifier + Cable | EMCI               | EMC184045SE | 980370          | 2018/03/21 | 2019/03/20 |
|   | Horn Antenna      | Com-Power          | AH-840      | 101043          | 2018/01/09 | 2019/01/08 |
| X | Filter            | MicroTRON          | BRM50701    | 019             | 2017/11/21 | 2018/11/20 |
| X | Filter            | Microwave Circuits | N0257881    | 36681           | 2018/1/22  | 2019/1/21  |

Note:

1. All equipments are calibrated every one year.
2. The test instruments marked with "X" are used to measure the final test results.
3. Test Software version :QuieTek EMI 2.0 V2.1.113.

## 2. Conducted Emission

### 2.1. Test Setup



### 2.2. Limits

| FCC Part 15 Subpart C Paragraph 15.207 (dB $\mu$ V) Limit |        |       |
|---|--------|-------|
| Frequency<br>MHz  | Limits |       |
|   | QP     | AV    |
| 0.15 - 0.50   | 66-56  | 56-46 |
| 0.50-5.0  | 56     | 46    |
| 5.0 - 30  | 60     | 50    |

Remarks: In the above table, the tighter limit applies at the band edges.

### 2.3. Test Procedure

The EUT and Peripherals are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all the interface cables must be changed according to ANSI C63.4: 2014 on conducted measurement.

Conducted emissions were invested over the frequency range from 0.15MHz to 3 MHz using a receiver bandwidth of 9kHz.

The EUT was setup to ANSI C63.4, 2014; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

### 2.4. Uncertainty

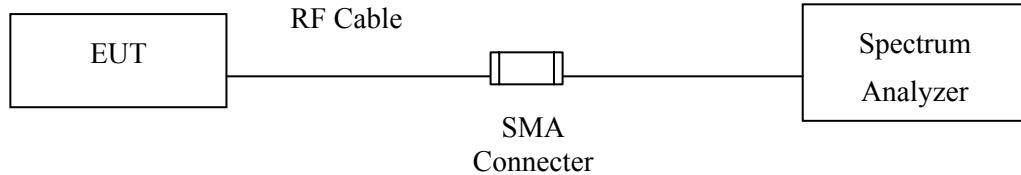
± 2.26 dB

## 2.5. Test Result of Conducted Emission

Owing to the DC operation of EUT, this test item is not performed.

### 3. Occupied Bandwidth

#### 3.1. Test Setup



#### 3.2. Limits

According to FCC Section 15.247(a)(1)(i), the maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.

#### 3.3. Test Procedure

The EUT was setup to ANSI C63.4, 2014; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

#### 3.4. Uncertainty

± 283Hz

### 3.5. Test Result of Occupied Bandwidth

Product : LeanOrder detectionShelf  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit(130x80)-Port 1

| Channel No. | Frequency (MHz) | Measurement Level (kHz) | Required Limit (kHz) | Result |
|-------------|-----------------|-------------------------|----------------------|--------|
| 01          | 912.8           | 313                     | <500                 | PASS   |
| 25          | 916.55          | 312                     | <500                 | PASS   |
| 49          | 920.15          | 311                     | <500                 | PASS   |

Figure Channel 01:

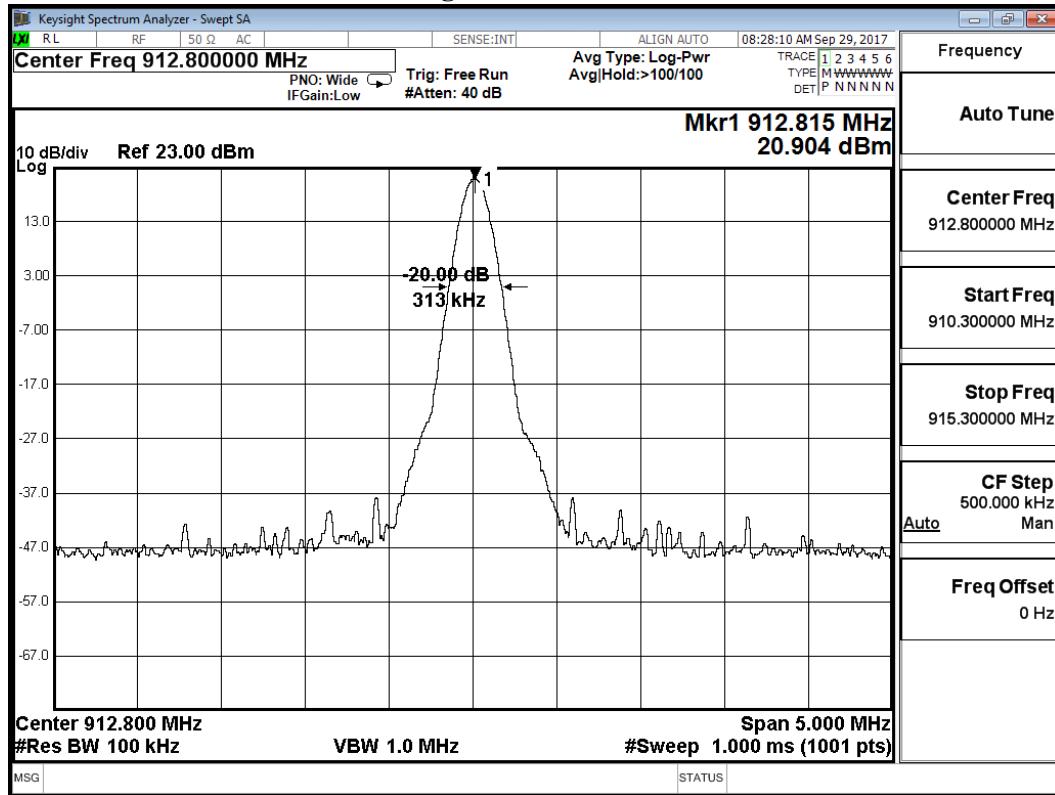


Figure Channel 25:

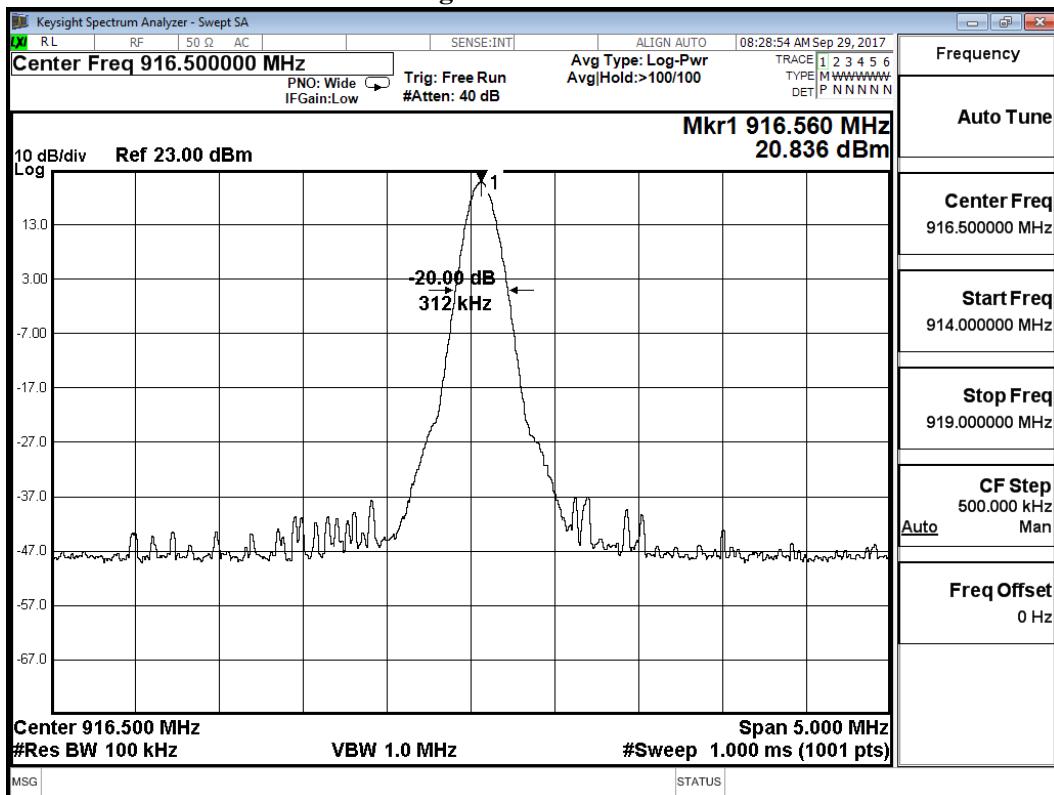
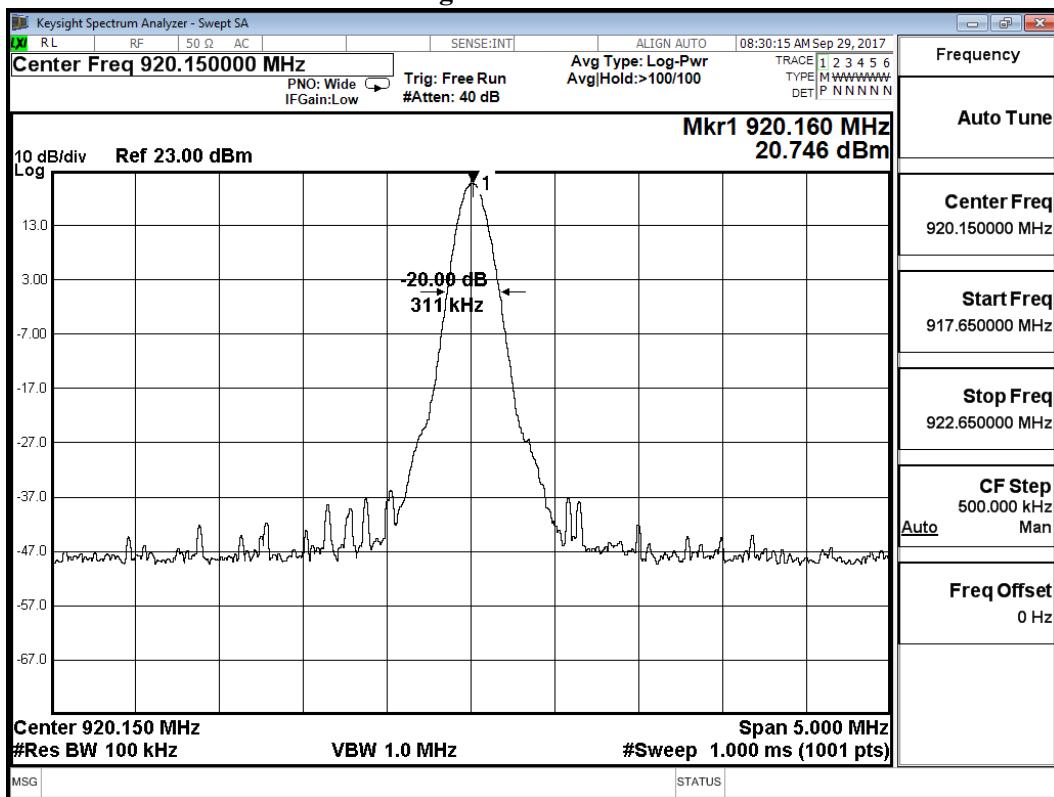
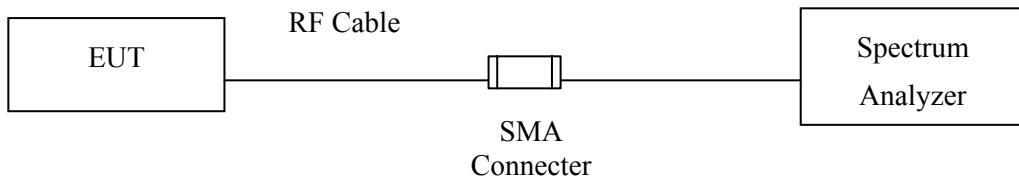


Figure Channel 49:



#### 4. Channel Number

##### 4.1. Test Setup



##### 4.2. Limit

According to FCC Section 15.247(a)(1)(i) For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies.

##### 4.3. Test Procedure

The EUT was setup to ANSI C63.4, 2014; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

##### 4.4. Uncertainty

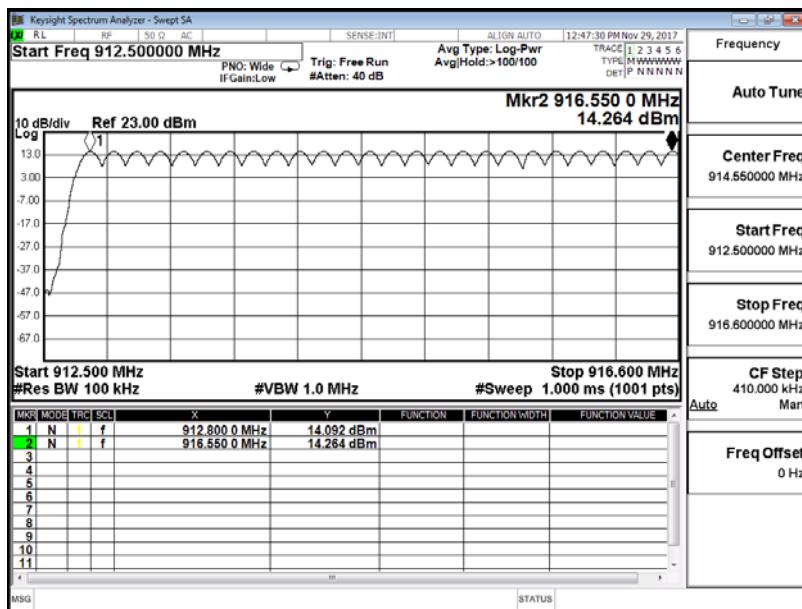
N/A

#### 4.5. Test Result of Channel Number

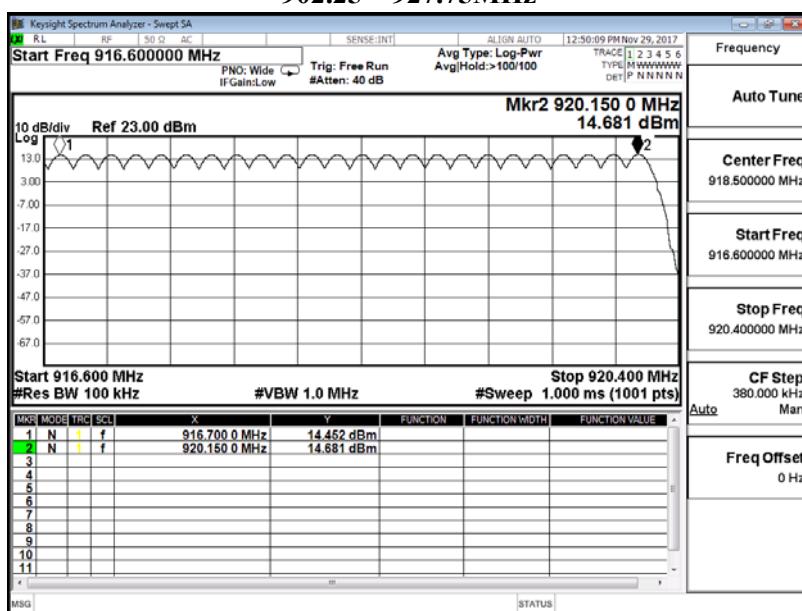
Product : LeanOrder detectionShelf  
 Test Item : Channel Number  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit(130x80)-Port 1

| Frequency Range (MHz) | Measurement (Hopping Channel) | Required Limit (Hopping Channel) | Result |
|-----------------------|-------------------------------|----------------------------------|--------|
| 902.25 ~ 927.75       | 50                            | >25                              | Pass   |

902.25 ~ 927.75MHz

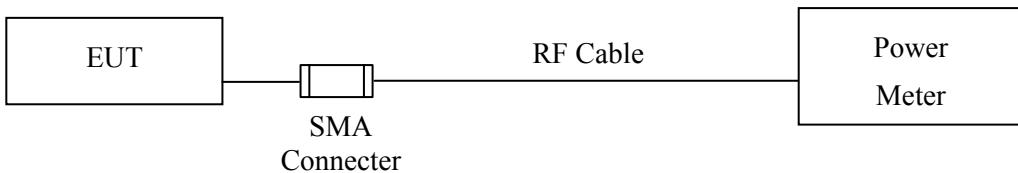


902.25 ~ 927.75MHz



## 5. Peak Power Output

### 5.1. Test Setup



### 5.2. Limit

According to FCC Section 15.247(b)(2). For frequency hopping systems operating in the 902-928 MHz band: 1 watt for systems employing at least 50 hopping channels; and, 0.25 watts for systems employing less than 50 hopping channels, but at least 25 hopping channels.

### 5.3. Test Procedure

The EUT was setup to ANSI C63.4, 2014; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

### 5.4. Uncertainty

± 1.19 dB

## 5.5. Test Result of Peak Power Output

Product : LeanOrder detectionShelf  
Test Item : Peak Power Output  
Test Site : No.3 OATS  
Test Mode : Mode 1: Transmit(130x80)-Port 1

| Channel No. | Frequency<br>(MHz) | Measurement<br>(dBm) | Required Limit | Result |
|-------------|--------------------|----------------------|----------------|--------|
| Channel 01  | 912.8              | 20.85                | 1 Watt= 30 dBm | Pass   |
| Channel 26  | 916.55             | 20.74                | 1 Watt= 30 dBm | Pass   |
| Channel 50  | 920.15             | 20.59                | 1 Watt= 30 dBm | Pass   |

Note: Peak Power Output Value =Reading value on power meter + cable loss

Product : LeanOrder detectionShelf  
Test Item : Peak Power Output  
Test Site : No.3 OATS  
Test Mode : Mode 1: Transmit(130x80)-Port 2

| Channel No. | Frequency<br>(MHz) | Measurement<br>(dBm) | Required Limit | Result |
|-------------|--------------------|----------------------|----------------|--------|
| Channel 01  | 912.8              | 20.71                | 1 Watt= 30 dBm | Pass   |
| Channel 26  | 916.55             | 20.72                | 1 Watt= 30 dBm | Pass   |
| Channel 50  | 920.15             | 20.66                | 1 Watt= 30 dBm | Pass   |

Note: Peak Power Output Value =Reading value on power meter + cable loss

Product : LeanOrder detectionShelf  
Test Item : Peak Power Output  
Test Site : No.3 OATS  
Test Mode : Mode 1: Transmit(130x80)-Port 4

| Channel No. | Frequency<br>(MHz) | Measurement<br>(dBm) | Required Limit | Result |
|-------------|--------------------|----------------------|----------------|--------|
| Channel 01  | 912.8              | 20.73                | 1 Watt= 30 dBm | Pass   |
| Channel 26  | 916.55             | 20.72                | 1 Watt= 30 dBm | Pass   |
| Channel 50  | 920.15             | 18.39                | 1 Watt= 30 dBm | Pass   |

Note: Peak Power Output Value =Reading value on power meter + cable loss

Product : LeanOrder detectionShelf  
Test Item : Peak Power Output  
Test Site : No.3 OATS  
Test Mode : Mode 1: Transmit(130x80)-Port 5

| Channel No. | Frequency<br>(MHz) | Measurement<br>(dBm) | Required Limit | Result |
|-------------|--------------------|----------------------|----------------|--------|
| Channel 01  | 912.8              | 18.47                | 1 Watt= 30 dBm | Pass   |
| Channel 26  | 916.55             | 17.37                | 1 Watt= 30 dBm | Pass   |
| Channel 50  | 920.15             | 20.21                | 1 Watt= 30 dBm | Pass   |

Note: Peak Power Output Value =Reading value on power meter + cable loss

Product : LeanOrder detectionShelf  
Test Item : Peak Power Output  
Test Site : No.3 OATS  
Test Mode : Mode 1: Transmit(130x80)-Port 6

| Channel No. | Frequency<br>(MHz) | Measurement<br>(dBm) | Required Limit | Result |
|-------------|--------------------|----------------------|----------------|--------|
| Channel 01  | 912.8              | 20.79                | 1 Watt= 30 dBm | Pass   |
| Channel 26  | 916.55             | 20.71                | 1 Watt= 30 dBm | Pass   |
| Channel 50  | 920.15             | 20.83                | 1 Watt= 30 dBm | Pass   |

Note: Peak Power Output Value =Reading value on power meter + cable loss

Product : LeanOrder detectionShelf  
Test Item : Peak Power Output  
Test Site : No.3 OATS  
Test Mode : Mode 2: Transmit(100x60)-Port 1

| Channel No. | Frequency<br>(MHz) | Measurement<br>(dBm) | Required Limit | Result |
|-------------|--------------------|----------------------|----------------|--------|
| Channel 01  | 912.8              | 20.85                | 1 Watt= 30 dBm | Pass   |
| Channel 26  | 916.55             | 20.74                | 1 Watt= 30 dBm | Pass   |
| Channel 50  | 920.15             | 20.59                | 1 Watt= 30 dBm | Pass   |

Note: Peak Power Output Value =Reading value on power meter + cable loss

Product : LeanOrder detectionShelf  
Test Item : Peak Power Output  
Test Site : No.3 OATS  
Test Mode : Mode 2: Transmit(100x60)-Port 2

| Channel No. | Frequency<br>(MHz) | Measurement<br>(dBm) | Required Limit | Result |
|-------------|--------------------|----------------------|----------------|--------|
| Channel 01  | 912.8              | 20.71                | 1 Watt= 30 dBm | Pass   |
| Channel 26  | 916.55             | 20.72                | 1 Watt= 30 dBm | Pass   |
| Channel 50  | 920.15             | 20.66                | 1 Watt= 30 dBm | Pass   |

Note: Peak Power Output Value =Reading value on power meter + cable loss

Product : LeanOrder detectionShelf  
Test Item : Peak Power Output  
Test Site : No.3 OATS  
Test Mode : Mode 2: Transmit(100x60)-Port 3

| Channel No. | Frequency<br>(MHz) | Measurement<br>(dBm) | Required Limit | Result |
|-------------|--------------------|----------------------|----------------|--------|
| Channel 01  | 912.8              | 20.70                | 1 Watt= 30 dBm | Pass   |
| Channel 26  | 916.55             | 20.66                | 1 Watt= 30 dBm | Pass   |
| Channel 50  | 920.15             | 20.69                | 1 Watt= 30 dBm | Pass   |

Note: Peak Power Output Value =Reading value on power meter + cable loss

Product : LeanOrder detectionShelf  
Test Item : Peak Power Output  
Test Site : No.3 OATS  
Test Mode : Mode 2: Transmit(100x60)-Port 4

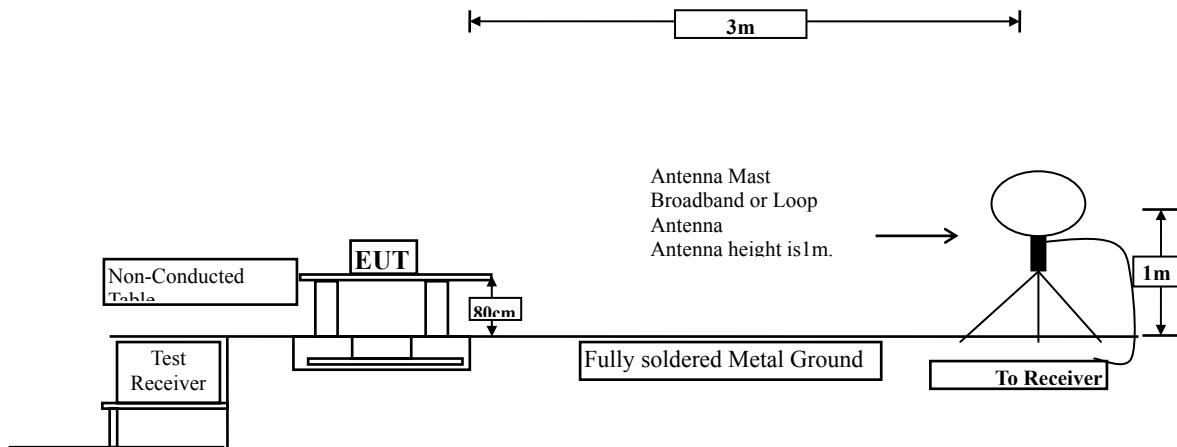
| Channel No. | Frequency<br>(MHz) | Measurement<br>(dBm) | Required Limit | Result |
|-------------|--------------------|----------------------|----------------|--------|
| Channel 01  | 912.8              | 20.73                | 1 Watt= 30 dBm | Pass   |
| Channel 26  | 916.55             | 20.72                | 1 Watt= 30 dBm | Pass   |
| Channel 50  | 920.15             | 18.39                | 1 Watt= 30 dBm | Pass   |

Note: Peak Power Output Value =Reading value on power meter + cable loss

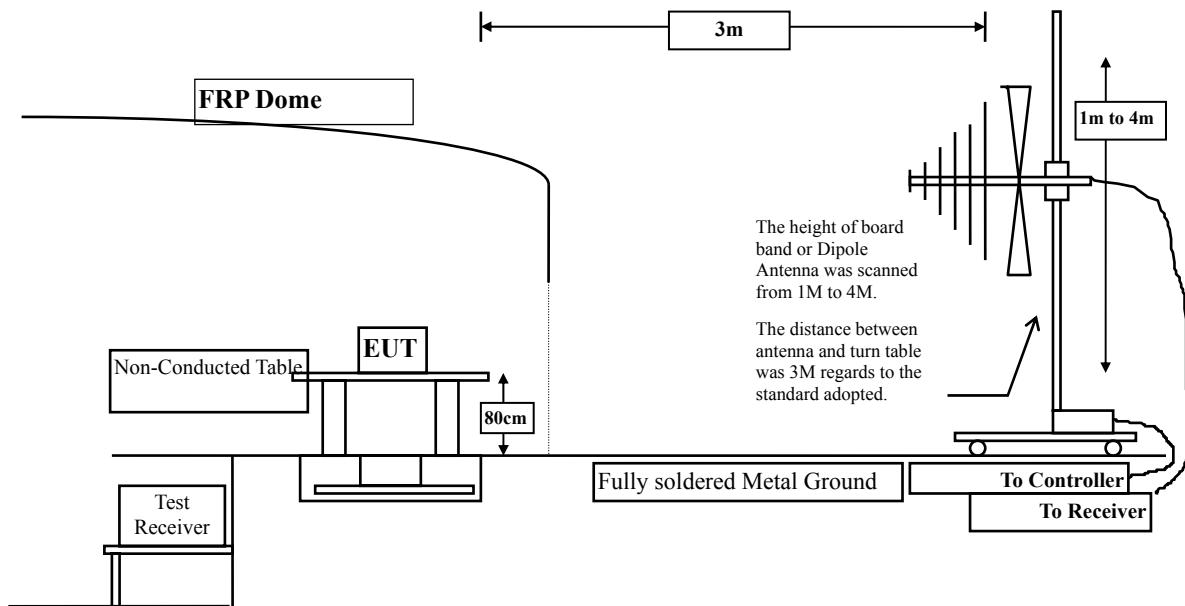
## 6. Radiated Emission

### 6.1. Test Setup

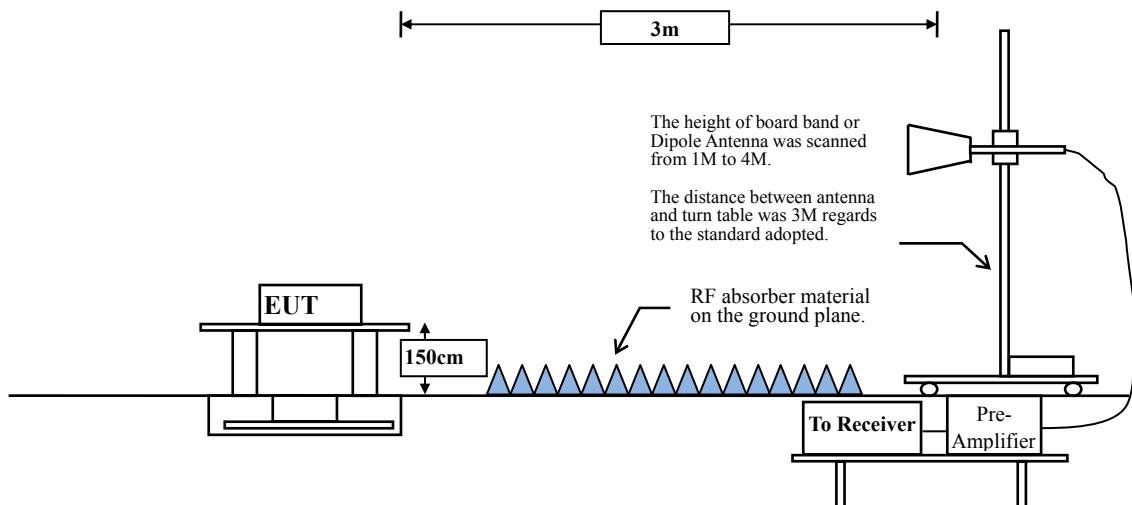
Under 30MHz



Below 1GHz



Above 1GHz



## 6.2. Limits

### ➤ General Radiated Emission Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

| FCC Part 15 Subpart C Paragraph 15.209 Limits |          |                 |
|---|----------|-----------------|
| Frequency<br>MHz                              | uV/m @3m | dB $\mu$ V/m@3m |
| 30-88   | 100      | 40              |
| 88-216  | 150      | 43.5            |
| 216-960                                       | 200      | 46              |
| Above 960                                     | 500      | 54              |

- Remarks:
1. RF Voltage (dB $\mu$ V) =  $20 \log_{10}$  RF Voltage (uV)
  2. In the Above Table, the tighter limit applies at the band edges.
  3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

### 6.3. Test Procedure

The EUT was setup according to ANSI C63.10, 2013 ; tested to FHSS test procedure of FCC Public Notice DA 00-705and tested compliance to FCC 47CFR 15.247 requirements.

Measuring the frequency range below 1GHz, the EUT is placed on a turn table which is 0.8 meter above ground,when measuring the frequency range above 1GHz, the EUT is placed on a turn table which is 1.5 meter above ground.

The turn table is rotated 360 degrees to determine the position of the maximum emission level.

The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned between 1 meter and 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10: 2013 on radiated measurement.

The resolution bandwidth below 3 MHz setting on the field strength meter is 9kHz and 3 MHz~1GHz is 120kHz and above 1GHz is 1MHz.

Radiated emission measurements below 3 MHz are made using Loop Antenna and 3 MHz~1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.

The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna.

The worst radiated emission is measured in the Open Area Test Site on the Final Measurement.

The measurement frequency range form 9kHz - 10th Harmonic of fundamental was investigated.

### 6.4. Uncertainty

± 4.08 dB above 1GHz

± 4.22 dB below 1GHz

## 6.5. Test Result of Radiated Emission

Product : LeanOrder detectionShelf  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/17  
 Test Mode : Mode 1: Transmit(130x80)-Port 1(912.8MHz)

| Frequency<br>MHz                 | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|----------------------------------|-------------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal Peak Detector:</b> |                         |                                |                                      |              |                       |
| 1825.600                         |                         |                                |                                      |              |                       |
| 1825.600                         | -15.102                 | 69.647                         | 54.545                               | -19.455      | 74.000                |
| 2738.400                         | -11.750                 | 64.924                         | 53.174                               | -20.826      | 74.000                |
| 3651.200                         | -12.029                 | 54.516                         | 42.488                               | -31.512      | 74.000                |
| 4564.000                         | -11.207                 | 55.874                         | 44.668                               | -29.332      | 74.000                |
| 5476.800                         | -8.944                  | 52.639                         | 43.696                               | -30.304      | 74.000                |
| 6389.600                         | -6.730                  | 52.344                         | 45.614                               | -28.386      | 74.000                |
| 7302.400                         | -3.885                  | 51.377                         | 47.491                               | -26.509      | 74.000                |
| 8215.200                         | 0.243                   | 47.468                         | 47.711                               | -26.289      | 74.000                |
| 9128.000                         | -2.521                  | 51.651                         | 49.129                               | -24.871      | 74.000                |
| <b>Average Detector:</b>         |                         |                                |                                      |              |                       |
| 1825.600                         | -15.102                 | 55.230                         | 40.128                               | -13.872      | 54.000                |
| <b>Vertical Peak Detector:</b>   |                         |                                |                                      |              |                       |
| 1825.600                         | -13.473                 | 65.215                         | 51.742                               | -22.258      | 74.000                |
| 2738.400                         | -11.912                 | 62.943                         | 51.032                               | -22.968      | 74.000                |
| 3651.200                         | -11.142                 | 51.917                         | 40.776                               | -33.224      | 74.000                |
| 4564.000                         | -7.576                  | 52.461                         | 44.885                               | -29.115      | 74.000                |
| 5476.800                         | -7.364                  | 50.482                         | 43.119                               | -30.881      | 74.000                |
| 6389.600                         | -5.267                  | 50.227                         | 44.960                               | -29.040      | 74.000                |
| 7302.400                         | -3.070                  | 50.986                         | 47.915                               | -26.085      | 74.000                |
| 8215.200                         | -0.159                  | 49.510                         | 49.351                               | -24.649      | 74.000                |
| 9128.000                         | -2.513                  | 51.796                         | 49.283                               | -24.717      | 74.000                |
| <b>Average Detector:</b>         |                         |                                |                                      |              |                       |
| --                               |                         |                                |                                      |              |                       |

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/17  
 Test Mode : Mode 1: Transmit(130x80)-Port 1(916.55MHz)

| Frequency<br>MHz             | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|------------------------------|-------------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal</b>            |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b>        |                         |                                |                                      |              |                       |
| 1833.100                     | -15.069                 | 69.764                         | 54.695                               | -19.305      | 74.000                |
| 2749.650                     | -11.672                 | 64.480                         | 52.809                               | -21.191      | 74.000                |
| 3666.200                     | -12.216                 | 56.304                         | 44.089                               | -29.911      | 74.000                |
| 4582.750                     | -11.236                 | 59.857                         | 48.622                               | -25.378      | 74.000                |
| 5499.300                     | -8.724                  | 54.386                         | 45.662                               | -28.338      | 74.000                |
| 6415.850                     | -6.570                  | 52.101                         | 45.532                               | -28.468      | 74.000                |
| 7332.400                     | -3.860                  | 52.766                         | 48.905                               | -25.095      | 74.000                |
| 8248.950                     | -0.025                  | 48.429                         | 48.404                               | -25.596      | 74.000                |
| 9165.500                     | -2.403                  | 51.738                         | 49.334                               | -24.666      | 74.000                |
| <b>Average<br/>Detector:</b> |                         |                                |                                      |              |                       |
| 1833.100                     | -15.069                 | 56.233                         | 41.164                               | -12.836      | 54.000                |
| <b>Vertical</b>              |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b>        |                         |                                |                                      |              |                       |
| 1833.100                     | -13.565                 | 66.154                         | 52.589                               | -21.411      | 74.000                |
| 2749.650                     | -11.842                 | 60.900                         | 49.059                               | -24.941      | 74.000                |
| 3666.200                     | -11.231                 | 54.331                         | 43.101                               | -30.899      | 74.000                |
| 4582.750                     | -7.499                  | 57.357                         | 49.859                               | -24.141      | 74.000                |
| 5499.300                     | -7.261                  | 51.790                         | 44.529                               | -29.471      | 74.000                |
| 6415.850                     | -5.168                  | 51.167                         | 45.999                               | -28.001      | 74.000                |
| 7332.400                     | -2.943                  | 51.536                         | 48.593                               | -25.407      | 74.000                |
| 8248.950                     | -0.045                  | 49.770                         | 49.724                               | -24.276      | 74.000                |
| 9165.500                     | -2.514                  | 51.975                         | 49.461                               | -24.539      | 74.000                |
| <b>Average<br/>Detector:</b> |                         |                                |                                      |              |                       |
| --                           |                         |                                |                                      |              |                       |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/17  
 Test Mode : Mode 1: Transmit(130x80)-Port 1(920.15MHz)

| Frequency<br>MHz             | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|------------------------------|-------------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal</b>            |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b>        |                         |                                |                                      |              |                       |
| 1840.300                     | -15.038                 | 69.993                         | 54.955                               | -19.045      | 74.000                |
| 2760.450                     | -11.596                 | 65.389                         | 53.793                               | -20.207      | 74.000                |
| 3680.600                     | -12.396                 | 56.394                         | 43.998                               | -30.002      | 74.000                |
| 4600.750                     | -11.238                 | 58.384                         | 47.146                               | -26.854      | 74.000                |
| 5520.900                     | -8.819                  | 53.426                         | 44.607                               | -29.393      | 74.000                |
| 6441.050                     | -6.524                  | 52.678                         | 46.155                               | -27.845      | 74.000                |
| 7361.200                     | -3.868                  | 52.518                         | 48.650                               | -25.350      | 74.000                |
| 8281.350                     | 0.124                   | 48.955                         | 49.079                               | -24.921      | 74.000                |
| 9201.500                     | -2.344                  | 52.705                         | 50.361                               | -23.639      | 74.000                |
| <b>Average<br/>Detector:</b> |                         |                                |                                      |              |                       |
| 1840.300                     | -15.038                 | 56.303                         | 41.265                               | -12.735      | 54.000                |
| <b>Vertical</b>              |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b>        |                         |                                |                                      |              |                       |
| 1840.300                     | -13.654                 | 64.962                         | 51.308                               | -22.692      | 74.000                |
| 2760.450                     | -11.773                 | 61.298                         | 49.525                               | -24.475      | 74.000                |
| 3680.600                     | -11.317                 | 54.303                         | 42.986                               | -31.014      | 74.000                |
| 4600.750                     | -7.415                  | 54.060                         | 46.645                               | -27.355      | 74.000                |
| 5520.900                     | -7.352                  | 52.055                         | 44.703                               | -29.297      | 74.000                |
| 6441.050                     | -5.215                  | 51.414                         | 46.200                               | -27.800      | 74.000                |
| 7361.200                     | -2.838                  | 52.233                         | 49.395                               | -24.605      | 74.000                |
| 8281.350                     | 0.000                   | 50.125                         | 50.124                               | -23.876      | 74.000                |
| 9201.500                     | -2.528                  | 53.242                         | 50.714                               | -23.286      | 74.000                |
| <b>Average<br/>Detector:</b> |                         |                                |                                      |              |                       |
| --                           |                         |                                |                                      |              |                       |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/17  
 Test Mode : Mode 1: Transmit(130x80)-Port 2 (912.8MHz)

| Frequency<br>MHz      | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-----------------------|-------------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal</b>     |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b> |                         |                                |                                      |              |                       |
| 1825.600              | -15.102                 | 70.535                         | 55.433                               | -18.567      | 74.000                |
| 2738.400              | -11.750                 | 66.688                         | 54.938                               | -19.062      | 74.000                |
| 3651.200              | -12.029                 | 57.979                         | 45.951                               | -28.049      | 74.000                |
| 4564.000              | -11.207                 | 59.284                         | 48.078                               | -25.922      | 74.000                |
| 5476.800              | -8.944                  | 53.489                         | 44.546                               | -29.454      | 74.000                |
| 6389.600              | -6.730                  | 52.440                         | 45.710                               | -28.290      | 74.000                |
| 7302.400              | -3.885                  | 51.518                         | 47.632                               | -26.368      | 74.000                |
| 8215.200              | 0.243                   | 48.857                         | 49.100                               | -24.900      | 74.000                |
| 9128.000              | -2.521                  | 52.429                         | 49.907                               | -24.093      | 74.000                |
| <b>Average</b>        |                         |                                |                                      |              |                       |
| <b>Detector:</b>      |                         |                                |                                      |              |                       |
| 1825.600              | -15.102                 | 58.359                         | 43.257                               | -10.743      | 54.000                |
| 2738.400              | -11.750                 | 52.653                         | 40.903                               | -13.097      | 54.000                |
| <b>Vertical</b>       |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b> |                         |                                |                                      |              |                       |
| 1825.600              | -13.473                 | 65.055                         | 51.582                               | -22.418      | 74.000                |
| 2738.400              | -11.912                 | 65.771                         | 53.860                               | -20.140      | 74.000                |
| 3651.200              | -11.142                 | 54.818                         | 43.677                               | -30.323      | 74.000                |
| 4564.000              | -7.576                  | 55.170                         | 47.594                               | -26.406      | 74.000                |
| 5476.800              | -7.364                  | 51.356                         | 43.993                               | -30.007      | 74.000                |
| 6389.600              | -5.267                  | 50.640                         | 45.373                               | -28.627      | 74.000                |
| 7302.400              | -3.070                  | 51.404                         | 48.333                               | -25.667      | 74.000                |
| 8215.200              | -0.159                  | 49.821                         | 49.662                               | -24.338      | 74.000                |
| 9128.000              | -2.513                  | 52.207                         | 49.694                               | -24.306      | 74.000                |
| <b>Average</b>        |                         |                                |                                      |              |                       |
| <b>Detector:</b>      |                         |                                |                                      |              |                       |

Note:

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/17  
 Test Mode : Mode 1: Transmit(130x80)-Port 2 (916.55MHz)

| Frequency<br>MHz      | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-----------------------|-------------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal</b>     |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b> |                         |                                |                                      |              |                       |
| 1833.100              | -15.069                 | 72.720                         | 57.651                               | -16.349      | 74.000                |
| 2749.650              | -11.672                 | 67.547                         | 55.876                               | -18.124      | 74.000                |
| 3666.200              | -12.216                 | 61.427                         | 49.212                               | -24.788      | 74.000                |
| 4582.750              | -11.236                 | 67.906                         | 56.671                               | -17.329      | 74.000                |
| 5499.300              | -8.724                  | 64.767                         | 56.043                               | -17.957      | 74.000                |
| 6415.850              | -6.570                  | 55.416                         | 48.847                               | -25.153      | 74.000                |
| 7332.400              | -3.860                  | 52.281                         | 48.420                               | -25.580      | 74.000                |
| 8248.950              | -0.025                  | 48.529                         | 48.504                               | -25.496      | 74.000                |
| 9165.500              | -2.403                  | 52.090                         | 49.686                               | -24.314      | 74.000                |
| <b>Average</b>        |                         |                                |                                      |              |                       |
| <b>Detector:</b>      |                         |                                |                                      |              |                       |
| 1833.100              | -15.069                 | 60.253                         | 45.184                               | -8.816       | 54.000                |
| 2749.650              | -11.672                 | 53.267                         | 41.596                               | -12.404      | 54.000                |
| 4582.750              | -11.236                 | 50.141                         | 38.906                               | -15.094      | 54.000                |
| 5499.300              | -8.724                  | 43.930                         | 35.206                               | -18.794      | 54.000                |
| <b>Vertical</b>       |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b> |                         |                                |                                      |              |                       |
| 1833.100              | -13.565                 | 68.228                         | 54.663                               | -19.337      | 74.000                |
| 2749.650              | -11.842                 | 65.526                         | 53.685                               | -20.315      | 74.000                |
| 3666.200              | -11.231                 | 59.800                         | 48.570                               | -25.430      | 74.000                |
| 4582.750              | -7.499                  | 65.142                         | 57.644                               | -16.356      | 74.000                |
| 5499.300              | -7.261                  | 57.481                         | 50.220                               | -23.780      | 74.000                |
| 6415.850              | -5.168                  | 52.545                         | 47.377                               | -26.623      | 74.000                |
| 7332.400              | -2.943                  | 52.774                         | 49.831                               | -24.169      | 74.000                |
| 8248.950              | -0.045                  | 49.866                         | 49.820                               | -24.180      | 74.000                |
| 9165.500              | -2.514                  | 52.273                         | 49.759                               | -24.241      | 74.000                |
| <b>Average</b>        |                         |                                |                                      |              |                       |
| <b>Detector:</b>      |                         |                                |                                      |              |                       |
| 1833.100              | -13.565                 | 55.885                         | 42.320                               | -11.680      | 54.000                |
| 4582.750              | -7.499                  | 47.948                         | 40.450                               | -13.550      | 54.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/17  
 Test Mode : Mode 1: Transmit(130x80)-Port 2 (920.15MHz)

| Frequency<br>MHz      | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-----------------------|-------------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal</b>     |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b> |                         |                                |                                      |              |                       |
| 1840.300              | -15.038                 | 72.538                         | 57.500                               | -16.500      | 74.000                |
| 2760.450              | -11.596                 | 67.081                         | 55.485                               | -18.515      | 74.000                |
| 3680.600              | -12.396                 | 63.271                         | 50.875                               | -23.125      | 74.000                |
| 4600.750              | -11.238                 | 68.282                         | 57.044                               | -16.956      | 74.000                |
| 5520.900              | -8.819                  | 64.666                         | 55.847                               | -18.153      | 74.000                |
| 6441.050              | -6.524                  | 56.746                         | 50.223                               | -23.777      | 74.000                |
| 7361.200              | -3.868                  | 52.910                         | 49.042                               | -24.958      | 74.000                |
| 8281.350              | 0.124                   | 48.803                         | 48.927                               | -25.073      | 74.000                |
| 9201.500              | -2.344                  | 52.750                         | 50.406                               | -23.594      | 74.000                |
| <b>Average</b>        |                         |                                |                                      |              |                       |
| <b>Detector:</b>      |                         |                                |                                      |              |                       |
| 1840.300              | -15.038                 | 60.304                         | 45.266                               | -8.734       | 54.000                |
| 2760.450              | -11.596                 | 52.481                         | 40.885                               | -13.115      | 54.000                |
| 4600.750              | -11.238                 | 50.531                         | 39.293                               | -14.707      | 54.000                |
| 5520.900              | -8.819                  | 47.087                         | 38.268                               | -15.732      | 54.000                |
| <b>Vertical</b>       |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b> |                         |                                |                                      |              |                       |
| 1840.300              | -13.654                 | 67.645                         | 53.991                               | -20.009      | 74.000                |
| 2760.450              | -11.773                 | 64.898                         | 53.125                               | -20.875      | 74.000                |
| 3680.600              | -11.317                 | 60.944                         | 49.627                               | -24.373      | 74.000                |
| 4600.750              | -7.415                  | 65.556                         | 58.141                               | -15.859      | 74.000                |
| 5520.900              | -7.352                  | 58.619                         | 51.267                               | -22.733      | 74.000                |
| 6441.050              | -5.215                  | 53.251                         | 48.037                               | -25.963      | 74.000                |
| 7361.200              | -2.838                  | 52.647                         | 49.809                               | -24.191      | 74.000                |
| 8281.350              | 0.000                   | 49.980                         | 49.979                               | -24.021      | 74.000                |
| 9201.500              | -2.528                  | 52.862                         | 50.334                               | -23.666      | 74.000                |
| <b>Average</b>        |                         |                                |                                      |              |                       |
| <b>Detector:</b>      |                         |                                |                                      |              |                       |
| 4600.750              | -7.415                  | 47.944                         | 40.529                               | -13.471      | 54.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/17  
 Test Mode : Mode 1: Transmit(130x80)-Port 4 (912.8MHz)

| Frequency<br>MHz                 | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|----------------------------------|-------------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal Peak Detector:</b> |                         |                                |                                      |              |                       |
| <b>5476.800</b>                  |                         |                                |                                      |              |                       |
| 1825.600                         | -15.102                 | 70.411                         | 55.309                               | -18.691      | 74.000                |
| 2738.400                         | -11.750                 | 73.814                         | 62.064                               | -11.936      | 74.000                |
| 3651.200                         | -12.029                 | 67.332                         | 55.304                               | -18.696      | 74.000                |
| 4564.000                         | -11.207                 | 79.823                         | 68.617                               | -5.383       | 74.000                |
| 5476.800                         | -8.944                  | 73.235                         | 64.292                               | -9.708       | 74.000                |
| 6389.600                         | -6.730                  | 57.453                         | 50.723                               | -23.277      | 74.000                |
| 7302.400                         | -3.885                  | 50.201                         | 46.315                               | -27.685      | 74.000                |
| 8215.200                         | 0.243                   | 48.711                         | 48.954                               | -25.046      | 74.000                |
| 9128.000                         | -2.521                  | 47.840                         | 45.318                               | -28.682      | 74.000                |
| <b>Average Detector:</b>         |                         |                                |                                      |              |                       |
| <b>5476.800</b>                  |                         |                                |                                      |              |                       |
| 1825.600                         | -15.102                 | 62.366                         | 47.264                               | -6.736       | 54.000                |
| 2738.400                         | -11.750                 | 56.659                         | 44.909                               | -9.091       | 54.000                |
| 3651.200                         | -12.029                 | 52.227                         | 40.199                               | -13.801      | 54.000                |
| 4564.000                         | -11.207                 | 56.758                         | 45.552                               | -8.448       | 54.000                |
| 5476.800                         | -8.944                  | 56.782                         | 47.839                               | -6.161       | 54.000                |
| <b>Vertical Peak Detector:</b>   |                         |                                |                                      |              |                       |
| <b>5476.800</b>                  |                         |                                |                                      |              |                       |
| 1825.600                         | -13.473                 | 64.114                         | 50.641                               | -23.359      | 74.000                |
| 2738.400                         | -11.912                 | 70.191                         | 58.280                               | -15.720      | 74.000                |
| 3651.200                         | -11.142                 | 67.793                         | 56.652                               | -17.348      | 74.000                |
| 4564.000                         | -7.576                  | 78.389                         | 70.813                               | -3.187       | 74.000                |
| 5476.800                         | -7.364                  | 68.989                         | 61.626                               | -12.374      | 74.000                |
| 6389.600                         | -5.267                  | 56.253                         | 50.986                               | -23.014      | 74.000                |
| 7302.400                         | -3.070                  | 49.272                         | 46.201                               | -27.799      | 74.000                |
| 8215.200                         | -0.159                  | 47.630                         | 47.471                               | -26.529      | 74.000                |
| 9128.000                         | -2.513                  | 47.262                         | 44.749                               | -29.251      | 74.000                |
| <b>Average Detector:</b>         |                         |                                |                                      |              |                       |
| <b>5476.900</b>                  |                         |                                |                                      |              |                       |
| 2738.500                         | -11.911                 | 54.339                         | 42.429                               | -11.571      | 54.000                |
| 3651.300                         | -11.142                 | 51.867                         | 40.725                               | -13.275      | 54.000                |
| 4564.100                         | -7.575                  | 56.869                         | 49.294                               | -4.706       | 54.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/17  
 Test Mode : Mode 1: Transmit(130x80)-Port 4 (916.55MHz)

| Frequency<br>MHz      | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-----------------------|-------------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal</b>     |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b> |                         |                                |                                      |              |                       |
| 1833.100              | -15.069                 | 73.629                         | 58.560                               | -15.440      | 74.000                |
| 2749.650              | -11.672                 | 77.016                         | 65.345                               | -8.655       | 74.000                |
| 3666.200              | -12.216                 | 72.241                         | 60.026                               | -13.974      | 74.000                |
| 4582.750              | -11.236                 | 82.930                         | 71.695                               | -2.305       | 74.000                |
| 5499.300              | -8.724                  | 76.505                         | 67.781                               | -6.219       | 74.000                |
| 6415.850              | -6.570                  | 58.322                         | 51.753                               | -22.247      | 74.000                |
| 7332.400              | -3.860                  | 47.906                         | 44.045                               | -29.955      | 74.000                |
| 8248.950              | -0.025                  | 48.804                         | 48.779                               | -25.221      | 74.000                |
| 9165.500              | -2.403                  | 45.982                         | 43.578                               | -30.422      | 74.000                |
| <b>Average</b>        |                         |                                |                                      |              |                       |
| <b>Detector:</b>      |                         |                                |                                      |              |                       |
| 1833.100              | -15.069                 | 59.440                         | 44.371                               | -9.629       | 54.000                |
| 2749.650              | -11.672                 | 59.485                         | 47.814                               | -6.186       | 54.000                |
| 3666.200              | -12.216                 | 56.674                         | 44.459                               | -9.541       | 54.000                |
| 4582.750              | -11.236                 | 61.428                         | 50.193                               | -3.807       | 54.000                |
| 5499.300              | -8.724                  | 57.494                         | 48.770                               | -5.230       | 54.000                |
| <b>Vertical</b>       |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b> |                         |                                |                                      |              |                       |
| 1833.100              | -13.565                 | 70.251                         | 56.686                               | -17.314      | 74.000                |
| 2749.650              | -11.842                 | 74.162                         | 62.321                               | -11.679      | 74.000                |
| 3666.200              | -11.231                 | 68.455                         | 57.225                               | -16.775      | 74.000                |
| 4582.750              | -7.499                  | 80.797                         | 73.299                               | -0.701       | 74.000                |
| 5499.300              | -7.261                  | 71.533                         | 64.272                               | -9.728       | 74.000                |
| 6415.850              | -5.168                  | 57.071                         | 51.903                               | -22.097      | 74.000                |
| 7332.400              | -2.943                  | 49.023                         | 46.080                               | -27.920      | 74.000                |
| 8248.950              | -0.045                  | 48.416                         | 48.370                               | -25.630      | 74.000                |
| 9165.500              | -2.514                  | 46.061                         | 43.547                               | -30.453      | 74.000                |
| <b>Average</b>        |                         |                                |                                      |              |                       |
| <b>Detector:</b>      |                         |                                |                                      |              |                       |
| 1833.100              | -13.565                 | 57.242                         | 43.677                               | -10.323      | 54.000                |
| 2749.650              | -11.842                 | 57.457                         | 45.616                               | -8.384       | 54.000                |
| 3666.200              | -11.231                 | 53.577                         | 42.347                               | -11.653      | 54.000                |
| 4582.750              | -7.499                  | 59.182                         | 51.684                               | -2.316       | 54.000                |
| 5499.300              | -7.261                  | 53.411                         | 46.150                               | -7.850       | 54.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/17  
 Test Mode : Mode 1: Transmit(130x80)-Port 4 (920.15MHz)

| Frequency<br>MHz                 | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|----------------------------------|-------------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal Peak Detector:</b> |                         |                                |                                      |              |                       |
|                                  |                         |                                |                                      |              |                       |
| 1840.300                         | -15.038                 | 78.002                         | 62.964                               | -11.036      | 74.000                |
| 2760.450                         | -11.596                 | 83.589                         | 71.993                               | -2.007       | 74.000                |
| 3680.600                         | -12.396                 | 73.425                         | 61.029                               | -12.971      | 74.000                |
| 4600.750                         | -11.238                 | 84.780                         | 73.542                               | -0.458       | 74.000                |
| 5520.900                         | -8.819                  | 75.150                         | 66.331                               | -7.669       | 74.000                |
| 6441.050                         | -6.524                  | 63.014                         | 56.491                               | -17.509      | 74.000                |
| 7361.200                         | -3.868                  | 51.695                         | 47.827                               | -26.173      | 74.000                |
| 8281.350                         | 0.124                   | 55.230                         | 55.354                               | -18.646      | 74.000                |
| 9201.500                         | -2.344                  | 48.642                         | 46.298                               | -27.702      | 74.000                |
| <b>Average Detector:</b>         |                         |                                |                                      |              |                       |
|                                  |                         |                                |                                      |              |                       |
| 1840.300                         | -15.038                 | 66.477                         | 51.439                               | -2.561       | 54.000                |
| 2760.450                         | -11.596                 | 65.179                         | 53.583                               | -0.417       | 54.000                |
| 3680.600                         | -12.396                 | 56.816                         | 44.420                               | -9.580       | 54.000                |
| 4600.750                         | -11.238                 | 63.897                         | 52.659                               | -1.341       | 54.000                |
| 5520.900                         | -8.819                  | 59.311                         | 50.492                               | -3.508       | 54.000                |
| 6441.050                         | -6.524                  | 48.803                         | 42.280                               | -11.720      | 54.000                |
| <b>Vertical Peak Detector:</b>   |                         |                                |                                      |              |                       |
|                                  |                         |                                |                                      |              |                       |
| 1840.300                         | -13.654                 | 72.703                         | 59.049                               | -14.951      | 74.000                |
| 2760.450                         | -11.773                 | 78.657                         | 66.884                               | -7.116       | 74.000                |
| 3680.600                         | -11.317                 | 69.373                         | 58.056                               | -15.944      | 74.000                |
| 4600.750                         | -7.415                  | 80.862                         | 73.447                               | -0.553       | 74.000                |
| 5520.900                         | -7.352                  | 67.954                         | 60.602                               | -13.398      | 74.000                |
| 6441.050                         | -5.215                  | 58.385                         | 53.171                               | -20.829      | 74.000                |
| 7361.200                         | -2.838                  | 49.638                         | 46.800                               | -27.200      | 74.000                |
| 8281.350                         | 0.000                   | 48.604                         | 48.603                               | -25.397      | 74.000                |
| 9201.500                         | -2.528                  | 44.564                         | 42.036                               | -31.964      | 74.000                |
| <b>Average Detector:</b>         |                         |                                |                                      |              |                       |
|                                  |                         |                                |                                      |              |                       |
| 1840.300                         | -13.654                 | 58.201                         | 44.547                               | -9.453       | 54.000                |
| 2760.450                         | -11.773                 | 59.304                         | 47.531                               | -6.469       | 54.000                |
| 3680.600                         | -11.317                 | 56.351                         | 45.034                               | -8.966       | 54.000                |
| 4600.750                         | -7.415                  | 58.188                         | 50.773                               | -3.227       | 54.000                |
| 5520.900                         | -7.352                  | 51.144                         | 43.792                               | -10.208      | 54.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/17  
 Test Mode : Mode 1: Transmit(130x80)-Port 5 (912.8MHz)

| Frequency<br>MHz                 | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|----------------------------------|-------------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal Peak Detector:</b> |                         |                                |                                      |              |                       |
|                                  |                         |                                |                                      |              |                       |
| 1825.600                         | -15.102                 | 73.835                         | 58.733                               | -15.267      | 74.000                |
| 2738.400                         | -11.750                 | 80.007                         | 68.257                               | -5.743       | 74.000                |
| 3651.200                         | -12.029                 | 71.166                         | 59.138                               | -14.862      | 74.000                |
| 4564.000                         | -11.207                 | 84.380                         | 73.174                               | -0.826       | 74.000                |
| 5476.800                         | -8.944                  | 76.390                         | 67.447                               | -6.553       | 74.000                |
| 6389.600                         | -6.730                  | 61.744                         | 55.014                               | -18.986      | 74.000                |
| 7302.400                         | -3.885                  | 49.709                         | 45.823                               | -28.177      | 74.000                |
| 8215.200                         | 0.243                   | 50.865                         | 51.108                               | -22.892      | 74.000                |
| 9128.000                         | -2.521                  | 46.958                         | 44.436                               | -29.564      | 74.000                |
| <b>Average Detector:</b>         |                         |                                |                                      |              |                       |
|                                  |                         |                                |                                      |              |                       |
| 1825.600                         | -15.102                 | 61.785                         | 46.683                               | -7.317       | 54.000                |
| 2738.400                         | -11.750                 | 59.175                         | 47.425                               | -6.575       | 54.000                |
| 3651.200                         | -12.029                 | 53.736                         | 41.708                               | -12.292      | 54.000                |
| 4564.000                         | -11.207                 | 60.045                         | 48.839                               | -5.161       | 54.000                |
| 5476.800                         | -8.944                  | 57.079                         | 48.136                               | -5.864       | 54.000                |
| 6389.600                         | -6.730                  | 47.374                         | 40.644                               | -13.356      | 54.000                |
| <b>Vertical Peak Detector:</b>   |                         |                                |                                      |              |                       |
|                                  |                         |                                |                                      |              |                       |
| 1825.600                         | -13.473                 | 70.422                         | 56.949                               | -17.051      | 74.000                |
| 2738.400                         | -11.912                 | 81.245                         | 69.334                               | -4.666       | 74.000                |
| 3651.200                         | -11.142                 | 65.629                         | 54.488                               | -19.512      | 74.000                |
| 4564.000                         | -7.576                  | 80.485                         | 72.909                               | -1.091       | 74.000                |
| 5476.800                         | -7.364                  | 68.608                         | 61.245                               | -12.755      | 74.000                |
| 6389.600                         | -5.267                  | 58.440                         | 53.173                               | -20.827      | 74.000                |
| 7302.400                         | -3.070                  | 51.389                         | 48.318                               | -25.682      | 74.000                |
| 8215.200                         | -0.159                  | 51.588                         | 51.429                               | -22.571      | 74.000                |
| 9128.000                         | -2.513                  | 46.476                         | 43.963                               | -30.037      | 74.000                |
| <b>Average Detector:</b>         |                         |                                |                                      |              |                       |
|                                  |                         |                                |                                      |              |                       |
| 1825.600                         | -13.473                 | 60.369                         | 46.896                               | -7.104       | 54.000                |
| 2738.400                         | -11.912                 | 62.858                         | 50.947                               | -3.053       | 54.000                |
| 3651.200                         | -11.142                 | 52.325                         | 41.184                               | -12.816      | 54.000                |
| 4564.000                         | -7.576                  | 58.717                         | 51.141                               | -2.859       | 54.000                |
| 5476.800                         | -7.364                  | 53.856                         | 46.493                               | -7.507       | 54.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/17  
 Test Mode : Mode 1: Transmit(130x80)-Port 5 (916.55MHz)

| Frequency<br>MHz                 | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|----------------------------------|-------------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal Peak Detector:</b> |                         |                                |                                      |              |                       |
|                                  |                         |                                |                                      |              |                       |
| 1833.100                         | -15.069                 | 73.012                         | 57.943                               | -16.057      | 74.000                |
| 2749.650                         | -11.672                 | 76.165                         | 64.494                               | -9.506       | 74.000                |
| 3666.200                         | -12.216                 | 70.901                         | 58.686                               | -15.314      | 74.000                |
| 4582.750                         | -11.236                 | 78.650                         | 67.415                               | -6.585       | 74.000                |
| 5499.300                         | -8.724                  | 77.357                         | 68.633                               | -5.367       | 74.000                |
| 6415.850                         | -6.570                  | 60.350                         | 53.781                               | -20.219      | 74.000                |
| 7332.400                         | -3.860                  | 48.519                         | 44.658                               | -29.342      | 74.000                |
| 8248.950                         | -0.025                  | 50.072                         | 50.047                               | -23.953      | 74.000                |
| 9166.500                         | -2.403                  | 47.306                         | 44.902                               | -29.098      | 74.000                |
| <b>Average Detector:</b>         |                         |                                |                                      |              |                       |
|                                  |                         |                                |                                      |              |                       |
| 1833.100                         | -15.069                 | 60.298                         | 45.229                               | -8.771       | 54.000                |
| 2749.650                         | -11.672                 | 59.493                         | 47.822                               | -6.178       | 54.000                |
| 3666.200                         | -12.216                 | 52.343                         | 40.128                               | -13.872      | 54.000                |
| 4582.750                         | -11.236                 | 56.143                         | 44.908                               | -9.092       | 54.000                |
| 5499.300                         | -8.724                  | 59.254                         | 50.530                               | -3.470       | 54.000                |
| <b>Vertical Peak Detector:</b>   |                         |                                |                                      |              |                       |
|                                  |                         |                                |                                      |              |                       |
| 1833.100                         | -13.565                 | 63.338                         | 49.773                               | -24.227      | 74.000                |
| 2749.650                         | -11.842                 | 73.551                         | 61.710                               | -12.290      | 74.000                |
| 3666.200                         | -11.231                 | 70.146                         | 58.916                               | -15.084      | 74.000                |
| 4582.750                         | -7.499                  | 78.964                         | 71.466                               | -2.534       | 74.000                |
| 5499.300                         | -7.261                  | 69.922                         | 62.661                               | -11.339      | 74.000                |
| 6415.850                         | -5.168                  | 60.043                         | 54.875                               | -19.125      | 74.000                |
| 7332.400                         | -2.943                  | 49.234                         | 46.291                               | -27.709      | 74.000                |
| 8248.950                         | -0.045                  | 48.824                         | 48.778                               | -25.222      | 74.000                |
| 9165.500                         | -2.514                  | 46.584                         | 44.070                               | -29.930      | 74.000                |
| <b>Average Detector:</b>         |                         |                                |                                      |              |                       |
|                                  |                         |                                |                                      |              |                       |
| 2749.650                         | -11.842                 | 54.224                         | 42.383                               | -11.617      | 54.000                |
| 3666.200                         | -11.231                 | 52.179                         | 40.949                               | -13.051      | 54.000                |
| 4582.750                         | -7.499                  | 57.292                         | 49.794                               | -4.206       | 54.000                |
| 5499.300                         | -7.261                  | 52.332                         | 45.071                               | -8.929       | 54.000                |
| 6415.850                         | -5.168                  | 46.417                         | 41.249                               | -12.751      | 54.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/17  
 Test Mode : Mode 1: Transmit(130x80)-Port 5 (920.15MHz)

| Frequency<br>MHz      | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-----------------------|-------------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal</b>     |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b> |                         |                                |                                      |              |                       |
| 1840.300              | -15.038                 | 74.619                         | 59.581                               | -14.419      | 74.000                |
| 2760.450              | -11.596                 | 82.528                         | 70.932                               | -3.068       | 74.000                |
| 3680.600              | -12.396                 | 70.997                         | 58.601                               | -15.399      | 74.000                |
| 4600.750              | -11.238                 | 82.602                         | 71.364                               | -2.636       | 74.000                |
| 5520.900              | -8.819                  | 77.167                         | 68.348                               | -5.652       | 74.000                |
| 6441.050              | -6.524                  | 65.683                         | 59.160                               | -14.840      | 74.000                |
| 7361.200              | -3.868                  | 56.521                         | 52.653                               | -21.347      | 74.000                |
| 8281.350              | 0.124                   | 54.536                         | 54.660                               | -19.340      | 74.000                |
| 9201.500              | -2.344                  | 49.685                         | 47.341                               | -26.659      | 74.000                |
| <b>Average</b>        |                         |                                |                                      |              |                       |
| <b>Detector:</b>      |                         |                                |                                      |              |                       |
| 1840.300              | -15.038                 | 65.439                         | 50.401                               | -3.599       | 54.000                |
| 2760.450              | -11.596                 | 62.754                         | 51.158                               | -2.842       | 54.000                |
| 3680.600              | -12.396                 | 56.633                         | 44.237                               | -9.763       | 54.000                |
| 4600.750              | -11.238                 | 62.142                         | 50.904                               | -3.096       | 54.000                |
| 5520.900              | -8.819                  | 57.702                         | 48.883                               | -5.117       | 54.000                |
| 6441.050              | -6.524                  | 49.661                         | 43.138                               | -10.862      | 54.000                |
| 8281.350              | 0.124                   | 42.903                         | 43.027                               | -10.973      | 54.000                |
| <b>Vertical</b>       |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b> |                         |                                |                                      |              |                       |
| 1840.300              | -13.654                 | 66.552                         | 52.898                               | -21.102      | 74.000                |
| 2760.450              | -11.773                 | 80.105                         | 68.332                               | -5.668       | 74.000                |
| 3680.600              | -11.317                 | 70.371                         | 59.054                               | -14.946      | 74.000                |
| 4600.750              | -7.415                  | 80.935                         | 73.520                               | -0.480       | 74.000                |
| 5520.900              | -7.352                  | 68.979                         | 61.627                               | -12.373      | 74.000                |
| 6441.050              | -5.215                  | 63.863                         | 58.649                               | -15.351      | 74.000                |
| 7361.200              | -2.838                  | 52.302                         | 49.464                               | -24.536      | 74.000                |
| 8281.350              | 0.000                   | 53.333                         | 53.332                               | -20.668      | 74.000                |
| 9201.500              | -2.528                  | 46.979                         | 44.451                               | -29.549      | 74.000                |
| <b>Average</b>        |                         |                                |                                      |              |                       |
| <b>Detector:</b>      |                         |                                |                                      |              |                       |
| 2760.450              | -11.773                 | 60.559                         | 48.786                               | -5.214       | 54.000                |
| 3680.600              | -11.317                 | 54.597                         | 43.280                               | -10.720      | 54.000                |
| 4600.750              | -7.415                  | 60.887                         | 53.472                               | -0.528       | 54.000                |
| 5520.900              | -7.352                  | 52.429                         | 45.077                               | -8.923       | 54.000                |
| 6441.050              | -5.215                  | 49.546                         | 44.332                               | -9.668       | 54.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/17  
 Test Mode : Mode 1: Transmit(130x80)-Port 6 (912.8MHz)

| Frequency<br>MHz                 | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|----------------------------------|-------------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal Peak Detector:</b> |                         |                                |                                      |              |                       |
| 1825.600                         |                         |                                |                                      |              |                       |
| 1825.600                         | -15.102                 | 71.955                         | 56.853                               | -17.147      | 74.000                |
| 2738.400                         | -11.750                 | 60.834                         | 49.084                               | -24.916      | 74.000                |
| 3651.200                         | -12.029                 | 53.841                         | 41.813                               | -32.187      | 74.000                |
| 4564.000                         | -11.207                 | 61.448                         | 50.242                               | -23.758      | 74.000                |
| 5476.800                         | -8.944                  | 55.844                         | 46.901                               | -27.099      | 74.000                |
| 6389.600                         | -6.730                  | 53.370                         | 46.640                               | -27.360      | 74.000                |
| 7302.400                         | -3.885                  | 52.252                         | 48.366                               | -25.634      | 74.000                |
| 8215.200                         | 0.243                   | 47.711                         | 47.954                               | -26.046      | 74.000                |
| 9128.000                         | -2.521                  | 51.484                         | 48.962                               | -25.038      | 74.000                |
| <b>Average Detector:</b>         |                         |                                |                                      |              |                       |
| 1825.600                         | -15.102                 | 61.393                         | 46.291                               | -7.709       | 54.000                |
| <b>Vertical Peak Detector:</b>   |                         |                                |                                      |              |                       |
| 1825.600                         | -13.473                 | 66.007                         | 52.534                               | -21.466      | 74.000                |
| 2738.400                         | -11.912                 | 59.843                         | 47.932                               | -26.068      | 74.000                |
| 3651.200                         | -11.142                 | 54.420                         | 43.279                               | -30.721      | 74.000                |
| 4561.000                         | -7.589                  | 56.124                         | 48.536                               | -25.464      | 74.000                |
| 5476.800                         | -7.364                  | 52.682                         | 45.319                               | -28.681      | 74.000                |
| 6389.600                         | -5.267                  | 50.884                         | 45.617                               | -28.383      | 74.000                |
| 7302.400                         | -3.070                  | 49.983                         | 46.912                               | -27.088      | 74.000                |
| 8215.200                         | -0.159                  | 48.248                         | 48.089                               | -25.911      | 74.000                |
| 9128.000                         | -2.513                  | 51.408                         | 48.895                               | -25.105      | 74.000                |
| <b>Average Detector:</b>         |                         |                                |                                      |              |                       |
| --                               |                         |                                |                                      |              |                       |

**Note:**

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/17  
 Test Mode : Mode 1: Transmit(130x80)-Port 6 (916.55MHz)

| Frequency<br>MHz             | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|------------------------------|-------------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal</b>            |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b>        |                         |                                |                                      |              |                       |
| 1833.100                     | -15.069                 | 68.137                         | 53.068                               | -20.932      | 74.000                |
| 2749.890                     | -11.669                 | 58.901                         | 47.231                               | -26.769      | 74.000                |
| 3666.200                     | -12.216                 | 57.762                         | 45.547                               | -28.453      | 74.000                |
| 4582.750                     | -11.236                 | 60.409                         | 49.174                               | -24.826      | 74.000                |
| 5499.300                     | -8.724                  | 54.292                         | 45.568                               | -28.432      | 74.000                |
| 6415.850                     | -6.570                  | 50.233                         | 43.664                               | -30.336      | 74.000                |
| 7332.400                     | -3.860                  | 50.275                         | 46.414                               | -27.586      | 74.000                |
| 8248.950                     | -0.025                  | 48.500                         | 48.475                               | -25.525      | 74.000                |
| 9165.500                     | -2.403                  | 51.054                         | 48.650                               | -25.350      | 74.000                |
| <b>Average<br/>Detector:</b> |                         |                                |                                      |              |                       |
| --                           | --                      | --                             | --                                   | --           | --                    |
| <b>Vertical</b>              |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b>        |                         |                                |                                      |              |                       |
| 1833.100                     | -13.565                 | 65.136                         | 51.571                               | -22.429      | 74.000                |
| 2749.650                     | -11.842                 | 55.384                         | 43.543                               | -30.457      | 74.000                |
| 3666.200                     | -11.231                 | 56.333                         | 45.103                               | -28.897      | 74.000                |
| 4582.750                     | -7.499                  | 53.897                         | 46.399                               | -27.601      | 74.000                |
| 5499.300                     | -7.261                  | 52.646                         | 45.385                               | -28.615      | 74.000                |
| 6415.850                     | -5.168                  | 50.602                         | 45.434                               | -28.566      | 74.000                |
| 7332.400                     | -2.943                  | 50.847                         | 47.904                               | -26.096      | 74.000                |
| 8248.950                     | -0.045                  | 48.822                         | 48.776                               | -25.224      | 74.000                |
| 9165.500                     | -2.514                  | 50.990                         | 48.476                               | -25.524      | 74.000                |
| <b>Average<br/>Detector:</b> |                         |                                |                                      |              |                       |
| --                           | --                      | --                             | --                                   | --           | --                    |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/17  
 Test Mode : Mode 1: Transmit(130x80)-Port 6 (920.15MHz)

| Frequency<br>MHz             | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|------------------------------|-------------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal</b>            |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b>        |                         |                                |                                      |              |                       |
| 1840.300                     | -15.038                 | 67.693                         | 52.655                               | -21.345      | 74.000                |
| 2760.450                     | -11.596                 | 57.877                         | 46.281                               | -27.719      | 74.000                |
| 3680.600                     | -12.396                 | 57.440                         | 45.044                               | -28.956      | 74.000                |
| 4600.750                     | -11.238                 | 60.320                         | 49.082                               | -24.918      | 74.000                |
| 5520.900                     | -8.819                  | 53.947                         | 45.128                               | -28.872      | 74.000                |
| 6441.050                     | -6.524                  | 52.195                         | 45.672                               | -28.328      | 74.000                |
| 7361.200                     | -3.868                  | 51.770                         | 47.902                               | -26.098      | 74.000                |
| 8281.350                     | 0.124                   | 47.975                         | 48.099                               | -25.901      | 74.000                |
| 9201.500                     | -2.344                  | 52.357                         | 50.013                               | -23.987      | 74.000                |
| <b>Average<br/>Detector:</b> |                         |                                |                                      |              |                       |
| --                           | --                      | --                             | --                                   | --           | --                    |
| <b>Vertical</b>              |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b>        |                         |                                |                                      |              |                       |
| 1840.300                     | -13.654                 | 65.522                         | 51.868                               | -22.132      | 74.000                |
| 2760.450                     | -11.773                 | 57.062                         | 45.289                               | -28.711      | 74.000                |
| 3680.600                     | -11.317                 | 53.567                         | 42.250                               | -31.750      | 74.000                |
| 4600.750                     | -7.415                  | 51.882                         | 44.467                               | -29.533      | 74.000                |
| 5520.900                     | -7.352                  | 52.647                         | 45.295                               | -28.705      | 74.000                |
| 6441.050                     | -5.215                  | 51.692                         | 46.478                               | -27.522      | 74.000                |
| 7361.200                     | -2.838                  | 51.982                         | 49.144                               | -24.856      | 74.000                |
| 8281.350                     | 0.000                   | 49.627                         | 49.626                               | -24.374      | 74.000                |
| 9201.500                     | -2.528                  | 52.053                         | 49.525                               | -24.475      | 74.000                |
| <b>Average<br/>Detector:</b> |                         |                                |                                      |              |                       |
| --                           | --                      | --                             | --                                   | --           | --                    |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/17  
 Test Mode : Mode 2: Transmit(100x60)-Port 1 (912.8MHz)

| Frequency<br>MHz                 | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|----------------------------------|-------------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal Peak Detector:</b> |                         |                                |                                      |              |                       |
| 1825.600                         |                         |                                |                                      |              |                       |
| 2738.400                         | -15.102                 | 79.544                         | 64.442                               | -9.558       | 74.000                |
| 3651.200                         | -11.750                 | 84.844                         | 73.094                               | -0.906       | 74.000                |
| 4564.000                         | -12.029                 | 75.848                         | 63.820                               | -10.180      | 74.000                |
| 5476.800                         | -11.207                 | 81.550                         | 70.344                               | -3.656       | 74.000                |
| 6389.600                         | -8.944                  | 71.868                         | 62.925                               | -11.075      | 74.000                |
| 7302.400                         | -6.730                  | 64.895                         | 58.165                               | -15.835      | 74.000                |
| 8215.200                         | -3.885                  | 56.385                         | 52.499                               | -21.501      | 74.000                |
| 9128.000                         | 0.243                   | 49.022                         | 49.265                               | -24.735      | 74.000                |
| 9128.000                         | -2.521                  | 50.749                         | 48.227                               | -25.773      | 74.000                |
| <b>Average Detector:</b>         |                         |                                |                                      |              |                       |
| 1825.600                         | -11.750                 | 63.571                         | 48.469                               | -5.531       | 54.000                |
| 2738.400                         | -12.029                 | 61.909                         | 50.159                               | -3.841       | 54.000                |
| 3651.200                         | -11.207                 | 57.355                         | 45.327                               | -8.673       | 54.000                |
| 4564.000                         | -8.944                  | 58.607                         | 47.401                               | -6.599       | 54.000                |
| 5476.800                         | -6.730                  | 54.212                         | 45.269                               | -8.731       | 54.000                |
| 6389.600                         | -3.885                  | 49.801                         | 43.071                               | -10.929      | 54.000                |
| <b>Vertical Peak Detector:</b>   |                         |                                |                                      |              |                       |
| 1825.600                         | -11.912                 | 69.511                         | 56.038                               | -17.962      | 74.000                |
| 2738.400                         | -11.142                 | 80.326                         | 68.415                               | -5.585       | 74.000                |
| 3651.200                         | -7.576                  | 72.552                         | 61.411                               | -12.589      | 74.000                |
| 4564.000                         | -13.473                 | 79.369                         | 71.793                               | -2.207       | 74.000                |
| 5476.800                         | -5.267                  | 70.465                         | 63.102                               | -10.898      | 74.000                |
| 6389.600                         | -3.070                  | 64.554                         | 59.287                               | -14.713      | 74.000                |
| 7302.400                         | -0.159                  | 52.109                         | 55.748                               | -18.252      | 74.000                |
| 8215.200                         | -2.513                  | 51.498                         | 51.950                               | -22.050      | 74.000                |
| 9128.000                         | -11.740                 | 48.985                         | 42.260                               | -25.015      | 74.000                |
| <b>Average Detector:</b>         |                         |                                |                                      |              |                       |
| 1825.600                         | -11.912                 | 59.440                         | 45.967                               | -8.033       | 54.000                |
| 2738.400                         | -11.142                 | 58.693                         | 46.782                               | -7.218       | 54.000                |
| 3651.200                         | -7.576                  | 55.904                         | 44.763                               | -9.237       | 54.000                |
| 4564.000                         | -5.267                  | 58.236                         | 50.660                               | -3.340       | 54.000                |
| 5476.800                         | -3.070                  | 52.543                         | 45.180                               | -8.820       | 54.000                |
| 6389.600                         | -2.513                  | 49.401                         | 44.134                               | -9.866       | 54.000                |
| 7302.400                         | -11.740                 | 45.331                         |                                      |              |                       |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/17  
 Test Mode : Mode 2: Transmit(100x60)-Port 1 (916.55MHz)

| Frequency<br>MHz                 | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|----------------------------------|-------------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal Peak Detector:</b> |                         |                                |                                      |              |                       |
|                                  |                         |                                |                                      |              |                       |
| 1833.100                         | -15.069                 | 80.984                         | 65.915                               | -8.085       | 74.000                |
| 2749.650                         | -11.672                 | 78.746                         | 67.075                               | -6.925       | 74.000                |
| 3666.200                         | -12.216                 | 74.938                         | 62.723                               | -11.277      | 74.000                |
| 4582.750                         | -11.236                 | 84.247                         | 73.012                               | -0.988       | 74.000                |
| 5499.300                         | -8.724                  | 74.373                         | 65.649                               | -8.351       | 74.000                |
| 6415.850                         | -6.570                  | 64.487                         | 57.918                               | -16.082      | 74.000                |
| 7332.400                         | -3.860                  | 58.098                         | 54.237                               | -19.763      | 74.000                |
| 8248.950                         | -0.025                  | 53.664                         | 53.639                               | -20.361      | 74.000                |
| 9165.500                         | -2.403                  | 52.998                         | 50.594                               | -23.406      | 74.000                |
| <b>Average Detector:</b>         |                         |                                |                                      |              |                       |
|                                  |                         |                                |                                      |              |                       |
| 1833.100                         | -15.069                 | 68.645                         | 53.576                               | -0.424       | 54.000                |
| 2749.650                         | -11.672                 | 60.867                         | 49.196                               | -4.804       | 54.000                |
| 3666.200                         | -12.216                 | 58.102                         | 45.887                               | -8.113       | 54.000                |
| 4582.750                         | -11.236                 | 62.096                         | 50.861                               | -3.139       | 54.000                |
| 5499.300                         | -8.724                  | 56.659                         | 47.935                               | -6.065       | 54.000                |
| 6415.850                         | -6.570                  | 49.835                         | 43.266                               | -10.734      | 54.000                |
| 7332.400                         | -3.860                  | 44.883                         | 41.022                               | -12.978      | 54.000                |
| <b>Vertical Peak Detector:</b>   |                         |                                |                                      |              |                       |
|                                  |                         |                                |                                      |              |                       |
| 1833.100                         | -13.565                 | 71.488                         | 57.923                               | -16.077      | 74.000                |
| 2749.650                         | -11.842                 | 75.361                         | 63.520                               | -10.480      | 74.000                |
| 3666.200                         | -11.231                 | 75.346                         | 64.116                               | -9.884       | 74.000                |
| 4582.750                         | -7.499                  | 78.464                         | 70.966                               | -3.034       | 74.000                |
| 5499.300                         | -7.261                  | 69.945                         | 62.684                               | -11.316      | 74.000                |
| 6415.850                         | -5.168                  | 65.931                         | 60.763                               | -13.237      | 74.000                |
| 7332.400                         | -2.943                  | 57.586                         | 54.643                               | -19.357      | 74.000                |
| 8248.950                         | -0.045                  | 51.552                         | 51.506                               | -22.494      | 74.000                |
| 9165.500                         | -2.514                  | 49.185                         | 46.671                               | -27.329      | 74.000                |
| <b>Average Detector:</b>         |                         |                                |                                      |              |                       |
|                                  |                         |                                |                                      |              |                       |
| 1833.100                         | -13.565                 | 60.498                         | 46.933                               | -7.067       | 54.000                |
| 2749.650                         | -11.842                 | 57.836                         | 45.995                               | -8.005       | 54.000                |
| 3666.200                         | -11.231                 | 57.056                         | 45.826                               | -8.174       | 54.000                |
| 4582.750                         | -7.499                  | 58.989                         | 51.491                               | -2.509       | 54.000                |
| 5499.300                         | -7.261                  | 54.379                         | 47.118                               | -6.882       | 54.000                |
| 6415.850                         | -5.168                  | 50.920                         | 45.752                               | -8.248       | 54.000                |
| 7332.400                         | -2.943                  | 45.270                         | 42.327                               | -11.673      | 54.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/17  
 Test Mode : Mode 2: Transmit(100x60)-Port 1 (920.15MHz)

| Frequency<br>MHz      | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB  | Limit<br>dB $\mu$ V/m |
|-----------------------|-------------------------|--------------------------------|--------------------------------------|---------------|-----------------------|
| <b>Horizontal</b>     |                         |                                |                                      |               |                       |
| <b>Peak Detector:</b> |                         |                                |                                      |               |                       |
| 1840.300              | -15.038                 | 77.433                         | 62.395                               | -11.605       | 74.000                |
| 2760.450              | -11.596                 | 72.767                         | 61.171                               | -12.829       | 74.000                |
| 3680.600              | -12.396                 | 72.421                         | 60.025                               | -13.975       | 74.000                |
| 4600.750              | <b>-11.238</b>          | <b>80.014</b>                  | <b>68.776</b>                        | <b>-5.224</b> | <b>74.000</b>         |
| 5520.900              | -8.819                  | 73.577                         | 64.758                               | -9.242        | 74.000                |
| 6441.050              | -6.524                  | 64.585                         | 58.062                               | -15.938       | 74.000                |
| 7361.200              | -3.868                  | 54.541                         | 50.673                               | -23.327       | 74.000                |
| 8281.350              | 0.124                   | 49.401                         | 49.525                               | -24.475       | 74.000                |
| 9201.500              | -2.344                  | 46.790                         | 44.446                               | -29.554       | 74.000                |
| <b>Average</b>        |                         |                                |                                      |               |                       |
| <b>Detector:</b>      |                         |                                |                                      |               |                       |
| 1840.300              | -15.038                 | 66.822                         | 51.784                               | -2.216        | 54.000                |
| 2760.450              | -11.596                 | 57.745                         | 46.149                               | -7.851        | 54.000                |
| 3680.600              | -12.396                 | 57.174                         | 44.778                               | -9.222        | 54.000                |
| 4600.750              | <b>-11.238</b>          | <b>59.858</b>                  | <b>48.620</b>                        | <b>-5.380</b> | <b>54.000</b>         |
| 5520.900              | -8.819                  | 55.845                         | 47.026                               | -6.974        | 54.000                |
| 6441.050              | -6.524                  | 49.108                         | 42.585                               | -11.415       | 54.000                |
| <b>Vertical</b>       |                         |                                |                                      |               |                       |
| <b>Peak Detector:</b> |                         |                                |                                      |               |                       |
| 1840.300              | -13.654                 | 70.170                         | 56.516                               | -17.484       | 74.000                |
| 2760.450              | -11.773                 | 70.262                         | 58.489                               | -15.511       | 74.000                |
| 3680.600              | -11.317                 | 72.948                         | 61.631                               | -12.369       | 74.000                |
| 4600.750              | <b>-7.415</b>           | <b>78.654</b>                  | <b>71.239</b>                        | <b>-2.761</b> | <b>74.000</b>         |
| 5520.900              | -7.352                  | 70.061                         | 62.709                               | -11.291       | 74.000                |
| 6441.050              | -5.215                  | 61.234                         | 56.020                               | -17.980       | 74.000                |
| 7361.200              | -2.838                  | 56.266                         | 53.428                               | -20.572       | 74.000                |
| 8281.350              | 0.000                   | 50.557                         | 50.556                               | -23.444       | 74.000                |
| 9201.500              | -2.528                  | 50.424                         | 47.896                               | -26.104       | 74.000                |
| <b>Average</b>        |                         |                                |                                      |               |                       |
| <b>Detector:</b>      |                         |                                |                                      |               |                       |
| 1840.300              | -13.654                 | 58.990                         | 45.336                               | -8.664        | 54.000                |
| 2760.450              | -11.773                 | 55.918                         | 44.145                               | -9.855        | 54.000                |
| 3680.600              | -11.317                 | 56.904                         | 45.587                               | -8.413        | 54.000                |
| 4600.750              | <b>-7.415</b>           | <b>58.660</b>                  | <b>51.245</b>                        | <b>-2.755</b> | <b>54.000</b>         |
| 5520.900              | -7.352                  | 53.007                         | 45.655                               | -8.345        | 54.000                |
| 6441.050              | -5.215                  | 47.387                         | 42.173                               | -11.827       | 54.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/17  
 Test Mode : Mode 2: Transmit(100x60)-Port 2 (912.8MHz)

| Frequency<br>MHz                 | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|----------------------------------|-------------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal Peak Detector:</b> |                         |                                |                                      |              |                       |
| <b>5476.800</b>                  |                         |                                |                                      |              |                       |
| 1825.600                         | -15.102                 | 79.192                         | 64.090                               | -9.910       | 74.000                |
| 2738.400                         | -11.750                 | 77.135                         | 65.385                               | -8.615       | 74.000                |
| 3651.200                         | -12.029                 | 73.079                         | 61.051                               | -12.949      | 74.000                |
| 4564.000                         | -11.207                 | 81.712                         | 70.506                               | -3.494       | 74.000                |
| 5476.800                         | -8.944                  | 75.877                         | 66.934                               | -7.066       | 74.000                |
| 6389.600                         | -6.730                  | 66.081                         | 59.351                               | -14.649      | 74.000                |
| 7302.400                         | -3.885                  | 56.136                         | 52.250                               | -21.750      | 74.000                |
| 8215.200                         | 0.243                   | 52.299                         | 52.542                               | -21.458      | 74.000                |
| 9128.000                         | -2.521                  | 48.727                         | 46.205                               | -27.795      | 74.000                |
| <b>Average Detector:</b>         |                         |                                |                                      |              |                       |
| <b>5476.800</b>                  |                         |                                |                                      |              |                       |
| 1825.600                         | -15.102                 | 66.742                         | 51.640                               | -2.360       | 54.000                |
| 2738.400                         | -11.750                 | 58.318                         | 46.568                               | -7.432       | 54.000                |
| 3651.200                         | -12.029                 | 57.156                         | 45.128                               | -8.872       | 54.000                |
| 4564.000                         | -11.207                 | 61.942                         | 50.736                               | -3.264       | 54.000                |
| 5476.800                         | -8.944                  | 56.744                         | 47.801                               | -6.199       | 54.000                |
| 6389.600                         | -6.730                  | 51.274                         | 44.544                               | -9.456       | 54.000                |
| <b>Vertical Peak Detector:</b>   |                         |                                |                                      |              |                       |
| <b>5476.800</b>                  |                         |                                |                                      |              |                       |
| 1825.600                         | -13.473                 | 75.111                         | 61.638                               | -12.362      | 74.000                |
| 2738.400                         | -11.912                 | 73.368                         | 61.457                               | -12.543      | 74.000                |
| 3651.200                         | -11.142                 | 72.336                         | 61.195                               | -12.805      | 74.000                |
| 4564.000                         | -7.576                  | 78.132                         | 70.556                               | -3.444       | 74.000                |
| 5476.800                         | -7.364                  | 72.843                         | 65.480                               | -8.520       | 74.000                |
| 6389.600                         | -5.267                  | 64.535                         | 59.268                               | -14.732      | 74.000                |
| 7302.400                         | -3.070                  | 56.439                         | 53.368                               | -20.632      | 74.000                |
| 8215.200                         | -0.159                  | 52.921                         | 52.762                               | -21.238      | 74.000                |
| 9128.000                         | -2.513                  | 47.253                         | 44.740                               | -29.260      | 74.000                |
| <b>Average Detector:</b>         |                         |                                |                                      |              |                       |
| <b>5476.800</b>                  |                         |                                |                                      |              |                       |
| 1825.600                         | -13.473                 | 62.035                         | 48.562                               | -5.438       | 54.000                |
| 2738.400                         | -11.912                 | 54.894                         | 42.983                               | -11.017      | 54.000                |
| 3651.200                         | -11.142                 | 55.732                         | 44.591                               | -9.409       | 54.000                |
| 4564.000                         | -7.576                  | 58.341                         | 50.765                               | -3.235       | 54.000                |
| 5476.800                         | -7.364                  | 54.781                         | 47.418                               | -6.582       | 54.000                |
| 6389.600                         | -5.267                  | 51.535                         | 46.268                               | -7.732       | 54.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/17  
 Test Mode : Mode 2: Transmit(100x60)-Port 2 (916.55MHz)

| Frequency<br>MHz      | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-----------------------|-------------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal</b>     |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b> |                         |                                |                                      |              |                       |
| 1833.100              | -15.069                 | 77.507                         | 62.438                               | -11.562      | 74.000                |
| 2749.650              | -11.672                 | 72.629                         | 60.958                               | -13.042      | 74.000                |
| 3666.200              | -12.216                 | 70.680                         | 58.465                               | -15.535      | 74.000                |
| 4582.750              | -11.236                 | 80.427                         | 69.192                               | -4.808       | 74.000                |
| 5499.300              | -8.724                  | 71.688                         | 62.964                               | -11.036      | 74.000                |
| 6415.850              | -6.570                  | 62.237                         | 55.668                               | -18.332      | 74.000                |
| 7332.400              | -3.860                  | 52.810                         | 48.949                               | -25.051      | 74.000                |
| 8248.950              | -0.025                  | 47.853                         | 47.828                               | -26.172      | 74.000                |
| 9165.500              | -2.403                  | 48.465                         | 46.061                               | -27.939      | 74.000                |
| <b>Average</b>        |                         |                                |                                      |              |                       |
| <b>Detector:</b>      |                         |                                |                                      |              |                       |
| 1833.100              | -15.069                 | 65.353                         | 50.284                               | -3.716       | 54.000                |
| 2749.650              | -11.672                 | 55.312                         | 43.641                               | -10.359      | 54.000                |
| 3666.200              | -12.216                 | 54.226                         | 42.011                               | -11.989      | 54.000                |
| 4582.750              | -11.236                 | 58.866                         | 47.631                               | -6.369       | 54.000                |
| 5499.300              | -8.724                  | 53.698                         | 44.974                               | -9.026       | 54.000                |
| 6415.850              | -6.570                  | 50.893                         | 44.324                               | -9.676       | 54.000                |
| <b>Vertical</b>       |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b> |                         |                                |                                      |              |                       |
| 1833.100              | -13.565                 | 72.957                         | 59.392                               | -14.608      | 74.000                |
| 2749.650              | -11.842                 | 68.409                         | 56.568                               | -17.432      | 74.000                |
| 3666.200              | -11.231                 | 72.928                         | 61.698                               | -12.302      | 74.000                |
| 4582.750              | -7.499                  | 77.013                         | 69.515                               | -4.485       | 74.000                |
| 5499.300              | -7.261                  | 69.279                         | 62.018                               | -11.982      | 74.000                |
| 6415.850              | -5.168                  | 60.600                         | 55.432                               | -18.568      | 74.000                |
| 7332.400              | -2.943                  | 52.561                         | 49.618                               | -24.382      | 74.000                |
| 8248.950              | -0.045                  | 49.247                         | 49.201                               | -24.799      | 74.000                |
| 9165.500              | -2.514                  | 46.550                         | 44.036                               | -29.964      | 74.000                |
| <b>Average</b>        |                         |                                |                                      |              |                       |
| <b>Detector:</b>      |                         |                                |                                      |              |                       |
| 1833.100              | -13.565                 | 60.975                         | 47.410                               | -6.590       | 54.000                |
| 2749.650              | -11.842                 | 53.590                         | 41.749                               | -12.251      | 54.000                |
| 3666.200              | -11.231                 | 55.041                         | 43.811                               | -10.189      | 54.000                |
| 4582.750              | -7.499                  | 56.648                         | 49.150                               | -4.850       | 54.000                |
| 5499.300              | -7.261                  | 52.913                         | 45.652                               | -8.348       | 54.000                |
| 6415.850              | -5.168                  | 47.815                         | 42.647                               | -11.353      | 54.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/17  
 Test Mode : Mode 2: Transmit(100x60)-Port 2 (920.15MHz)

| Frequency<br>MHz      | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB   | Limit<br>dB $\mu$ V/m |
|-----------------------|-------------------------|--------------------------------|--------------------------------------|----------------|-----------------------|
| <b>Horizontal</b>     |                         |                                |                                      |                |                       |
| <b>Peak Detector:</b> |                         |                                |                                      |                |                       |
| 1840.300              | -15.038                 | 75.353                         | 60.315                               | -13.685        | 74.000                |
| 2760.450              | -11.596                 | 70.119                         | 58.523                               | -15.477        | 74.000                |
| 3680.600              | -12.396                 | 70.616                         | 58.220                               | -15.780        | 74.000                |
| 4600.750              | <b>-11.238</b>          | <b>74.880</b>                  | <b>63.642</b>                        | <b>-10.358</b> | <b>74.000</b>         |
| 5520.900              | -8.819                  | 68.102                         | 59.283                               | -14.717        | 74.000                |
| 6441.050              | -6.524                  | 57.514                         | 50.991                               | -23.009        | 74.000                |
| 7361.200              | -3.868                  | 50.129                         | 46.261                               | -27.739        | 74.000                |
| 8281.350              | 0.124                   | 47.811                         | 47.935                               | -26.065        | 74.000                |
| 9201.500              | -2.344                  | 47.038                         | 44.694                               | -29.306        | 74.000                |
| <b>Average</b>        |                         |                                |                                      |                |                       |
| <b>Detector:</b>      |                         |                                |                                      |                |                       |
| 1840.300              | -15.038                 | 65.926                         | 50.888                               | -3.112         | 54.000                |
| 2760.450              | -11.596                 | 53.284                         | 41.688                               | -12.312        | 54.000                |
| 3680.600              | -12.396                 | 54.901                         | 42.505                               | -11.495        | 54.000                |
| 4600.750              | <b>-11.238</b>          | <b>56.071</b>                  | <b>44.833</b>                        | <b>-9.167</b>  | <b>54.000</b>         |
| 5520.900              | -8.819                  | 53.988                         | 45.169                               | -8.831         | 54.000                |
| <b>Vertical</b>       |                         |                                |                                      |                |                       |
| <b>Peak Detector:</b> |                         |                                |                                      |                |                       |
| 1840.300              | -13.654                 | 69.675                         | 56.021                               | -17.979        | 74.000                |
| 2760.450              | -11.773                 | 67.986                         | 56.213                               | -17.787        | 74.000                |
| 3680.600              | -11.317                 | 69.307                         | 57.990                               | -16.010        | 74.000                |
| 4600.750              | <b>-7.415</b>           | <b>73.483</b>                  | <b>66.068</b>                        | <b>-7.932</b>  | <b>74.000</b>         |
| 5520.900              | -7.352                  | 64.583                         | 57.231                               | -16.769        | 74.000                |
| 6441.050              | -5.215                  | 54.168                         | 48.954                               | -25.046        | 74.000                |
| 7361.200              | -2.838                  | 50.713                         | 47.875                               | -26.125        | 74.000                |
| 8281.350              | 0.000                   | 49.099                         | 49.098                               | -24.902        | 74.000                |
| 9201.500              | -2.528                  | 48.201                         | 45.673                               | -28.327        | 74.000                |
| <b>Average</b>        |                         |                                |                                      |                |                       |
| <b>Detector:</b>      |                         |                                |                                      |                |                       |
| 1840.300              | -13.654                 | 58.162                         | 44.508                               | -9.492         | 54.000                |
| 2760.450              | -11.773                 | 55.043                         | 43.270                               | -10.730        | 54.000                |
| 3680.600              | -11.317                 | 54.368                         | 43.051                               | -10.949        | 54.000                |
| 4600.750              | <b>-7.415</b>           | <b>54.300</b>                  | <b>46.885</b>                        | <b>-7.115</b>  | <b>54.000</b>         |
| 5520.900              | -7.352                  | 52.709                         | 45.357                               | -8.643         | 54.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/17  
 Test Mode : Mode 2: Transmit(100x60)-Port 3 (912.8MHz)

| Frequency<br>MHz                 | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|----------------------------------|-------------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal Peak Detector:</b> |                         |                                |                                      |              |                       |
| <b>--</b>                        |                         |                                |                                      |              |                       |
| 1825.600                         | -15.102                 | 63.284                         | 48.182                               | -25.818      | 74.000                |
| 2738.400                         | -11.750                 | 58.159                         | 46.409                               | -27.591      | 74.000                |
| 3651.200                         | -12.029                 | 49.792                         | 37.764                               | -36.236      | 74.000                |
| 4564.000                         | -11.207                 | 50.286                         | 39.080                               | -34.920      | 74.000                |
| 5476.800                         | -8.944                  | 47.064                         | 38.121                               | -35.879      | 74.000                |
| 6389.600                         | -6.730                  | 46.742                         | 40.012                               | -33.988      | 74.000                |
| 7302.400                         | -3.885                  | 45.634                         | 41.748                               | -32.252      | 74.000                |
| 8215.200                         | 0.243                   | 45.349                         | 45.592                               | -28.408      | 74.000                |
| 9128.000                         | -2.521                  | 44.852                         | 42.330                               | -31.670      | 74.000                |
| <b>Average Detector:</b>         |                         |                                |                                      |              |                       |
| <b>--</b>                        |                         |                                |                                      |              |                       |
| <b>Vertical Peak Detector:</b>   |                         |                                |                                      |              |                       |
| <b>--</b>                        |                         |                                |                                      |              |                       |
| 1825.600                         | -13.473                 | 63.276                         | 49.803                               | -24.197      | 74.000                |
| 2738.400                         | -11.912                 | 60.545                         | 48.634                               | -25.366      | 74.000                |
| 3651.200                         | -11.142                 | 51.919                         | 40.778                               | -33.222      | 74.000                |
| 4564.000                         | -7.576                  | 50.162                         | 42.586                               | -31.414      | 74.000                |
| 5476.800                         | -7.364                  | 49.975                         | 42.612                               | -31.388      | 74.000                |
| 6389.600                         | -5.267                  | 48.885                         | 43.618                               | -30.382      | 74.000                |
| 7302.400                         | -3.070                  | 48.811                         | 45.740                               | -28.260      | 74.000                |
| 8215.200                         | -0.159                  | 48.446                         | 48.287                               | -25.713      | 74.000                |
| 9128.000                         | -2.513                  | 47.996                         | 45.483                               | -28.517      | 74.000                |

**Average  
Detector:**

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**Note:**

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/17  
 Test Mode : Mode 2: Transmit(100x60)-Port 3 (916.55MHz)

| Frequency<br>MHz             | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|------------------------------|-------------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal</b>            |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b>        |                         |                                |                                      |              |                       |
| 1833.100                     | -15.069                 | 62.856                         | 47.787                               | -26.213      | 74.000                |
| 2749.650                     | -11.672                 | 58.070                         | 46.399                               | -27.601      | 74.000                |
| 3666.200                     | -12.216                 | 53.538                         | 41.323                               | -32.677      | 74.000                |
| 4582.750                     | -11.236                 | 52.690                         | 41.455                               | -32.545      | 74.000                |
| 5499.300                     | -8.724                  | 49.383                         | 40.659                               | -33.341      | 74.000                |
| 6415.850                     | -6.570                  | 49.169                         | 42.600                               | -31.400      | 74.000                |
| 7332.400                     | -3.860                  | 48.943                         | 45.082                               | -28.918      | 74.000                |
| 8248.950                     | -0.025                  | 47.432                         | 47.407                               | -26.593      | 74.000                |
| 9165.500                     | -2.403                  | 48.660                         | 46.256                               | -27.744      | 74.000                |
| <b>Average<br/>Detector:</b> |                         |                                |                                      |              |                       |
| --                           | --                      | --                             | --                                   | --           | --                    |
| <b>Vertical</b>              |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b>        |                         |                                |                                      |              |                       |
| 1833.100                     | -13.565                 | 60.344                         | 46.779                               | -27.221      | 74.000                |
| 2749.650                     | -11.842                 | 60.089                         | 48.248                               | -25.752      | 74.000                |
| 3666.200                     | -11.231                 | 53.430                         | 42.200                               | -31.800      | 74.000                |
| 4582.750                     | -7.499                  | 51.458                         | 43.960                               | -30.040      | 74.000                |
| 5499.300                     | -7.261                  | 49.669                         | 42.408                               | -31.592      | 74.000                |
| 6415.850                     | -5.168                  | 49.479                         | 44.311                               | -29.689      | 74.000                |
| 7332.400                     | -2.943                  | 47.763                         | 44.820                               | -29.180      | 74.000                |
| 8248.950                     | -0.045                  | 47.547                         | 47.501                               | -26.499      | 74.000                |
| 9165.500                     | -2.514                  | 47.858                         | 45.344                               | -28.656      | 74.000                |
| <b>Average<br/>Detector:</b> |                         |                                |                                      |              |                       |
| --                           | --                      | --                             | --                                   | --           | --                    |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/17  
 Test Mode : Mode 2: Transmit(100x60)-Port 3 (920.15MHz)

| Frequency<br>MHz             | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|------------------------------|-------------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal</b>            |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b>        |                         |                                |                                      |              |                       |
| 1840.300                     | -15.038                 | 64.950                         | 49.912                               | -24.088      | 74.000                |
| 2760.450                     | -11.596                 | 63.755                         | 52.159                               | -21.841      | 74.000                |
| 3680.600                     | -12.396                 | 52.846                         | 40.450                               | -33.550      | 74.000                |
| 4600.750                     | -11.238                 | 52.041                         | 40.803                               | -33.197      | 74.000                |
| 5520.900                     | -8.819                  | 51.862                         | 43.043                               | -30.957      | 74.000                |
| 6441.050                     | -6.524                  | 49.235                         | 42.712                               | -31.288      | 74.000                |
| 7361.200                     | -3.868                  | 47.703                         | 43.835                               | -30.165      | 74.000                |
| 8281.350                     | 0.124                   | 47.338                         | 47.462                               | -26.538      | 74.000                |
| 9201.500                     | -2.344                  | 48.876                         | 46.532                               | -27.468      | 74.000                |
| <b>Average<br/>Detector:</b> |                         |                                |                                      |              |                       |
| --                           | --                      | --                             | --                                   | --           | --                    |
| <b>Vertical</b>              |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b>        |                         |                                |                                      |              |                       |
| 1840.300                     | -13.654                 | 61.079                         | 47.425                               | -26.575      | 74.000                |
| 2760.450                     | -11.773                 | 60.830                         | 49.057                               | -24.943      | 74.000                |
| 3680.600                     | -11.317                 | 54.587                         | 43.270                               | -30.730      | 74.000                |
| 4600.750                     | -7.415                  | 50.450                         | 43.035                               | -30.965      | 74.000                |
| 5520.900                     | -7.352                  | 49.638                         | 42.286                               | -31.714      | 74.000                |
| 6441.050                     | -5.215                  | 49.820                         | 44.606                               | -29.394      | 74.000                |
| 7361.200                     | -2.838                  | 48.350                         | 45.512                               | -28.488      | 74.000                |
| 8281.350                     | 0.000                   | 48.666                         | 48.665                               | -25.335      | 74.000                |
| 9201.500                     | -2.528                  | 48.916                         | 46.388                               | -27.612      | 74.000                |
| <b>Average<br/>Detector:</b> |                         |                                |                                      |              |                       |
| --                           | --                      | --                             | --                                   | --           | --                    |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/17  
 Test Mode : Mode 2: Transmit(100x60)-Port 4 (912.8MHz)

| Frequency<br>MHz                 | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|----------------------------------|-------------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal Peak Detector:</b> |                         |                                |                                      |              |                       |
| <b>Average Detector:</b>         |                         |                                |                                      |              |                       |
| 1825.600                         | -15.102                 | 64.440                         | 49.338                               | -24.662      | 74.000                |
| 2738.400                         | -11.750                 | 60.374                         | 48.624                               | -25.376      | 74.000                |
| 3651.200                         | -12.029                 | 52.882                         | 40.854                               | -33.146      | 74.000                |
| 4564.000                         | -11.207                 | 54.738                         | 43.532                               | -30.468      | 74.000                |
| 5476.800                         | -8.944                  | 51.665                         | 42.722                               | -31.278      | 74.000                |
| 6389.600                         | -6.730                  | 47.681                         | 40.951                               | -33.049      | 74.000                |
| 7302.400                         | -3.885                  | 46.337                         | 42.451                               | -31.549      | 74.000                |
| 8215.200                         | 0.243                   | 46.216                         | 46.459                               | -27.541      | 74.000                |
| 9128.000                         | -2.521                  | 46.728                         | 44.206                               | -29.794      | 74.000                |
| <b>Vertical Peak Detector:</b>   |                         |                                |                                      |              |                       |
| 1825.600                         | -13.473                 | 62.485                         | 49.012                               | -24.988      | 74.000                |
| 2738.400                         | -11.912                 | 61.099                         | 49.188                               | -24.812      | 74.000                |
| 3651.200                         | -11.142                 | 54.224                         | 43.083                               | -30.917      | 74.000                |
| 4564.000                         | -7.576                  | 49.741                         | 42.165                               | -31.835      | 74.000                |
| 5476.800                         | -7.364                  | 49.640                         | 42.277                               | -31.723      | 74.000                |
| 6389.600                         | -5.267                  | 47.083                         | 41.816                               | -32.184      | 74.000                |
| 7302.400                         | -3.070                  | 46.076                         | 43.005                               | -30.995      | 74.000                |
| 8215.200                         | -0.159                  | 46.827                         | 46.668                               | -27.332      | 74.000                |
| 9128.000                         | -2.513                  | 46.464                         | 43.951                               | -30.049      | 74.000                |

**Average  
Detector:**

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Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/17  
 Test Mode : Mode 2: Transmit(100x60)-Port 4 (916.55MHz)

| Frequency<br>MHz             | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|------------------------------|-------------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal</b>            |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b>        |                         |                                |                                      |              |                       |
| 1833.100                     | -15.069                 | 65.434                         | 50.365                               | -23.635      | 74.000                |
| 2749.650                     | -11.672                 | 62.167                         | 50.496                               | -23.504      | 74.000                |
| 3666.200                     | -12.216                 | 57.369                         | 45.154                               | -28.846      | 74.000                |
| 4582.750                     | -11.236                 | 57.231                         | 45.996                               | -28.004      | 74.000                |
| 5499.300                     | -8.724                  | 50.265                         | 41.541                               | -32.459      | 74.000                |
| 6415.850                     | -6.570                  | 47.894                         | 41.325                               | -32.675      | 74.000                |
| 7332.400                     | -3.860                  | 46.724                         | 42.863                               | -31.137      | 74.000                |
| 8248.950                     | -0.025                  | 46.749                         | 46.724                               | -27.276      | 74.000                |
| 9165.500                     | -2.403                  | 46.325                         | 43.921                               | -30.079      | 74.000                |
| <b>Average<br/>Detector:</b> |                         |                                |                                      |              |                       |
| --                           |                         |                                |                                      |              |                       |
| <b>Vertical</b>              |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b>        |                         |                                |                                      |              |                       |
| 1833.100                     | -13.565                 | 60.841                         | 47.276                               | -26.724      | 74.000                |
| 2749.650                     | -11.842                 | 56.524                         | 44.683                               | -29.317      | 74.000                |
| 3666.200                     | -11.231                 | 55.094                         | 43.864                               | -30.136      | 74.000                |
| 4582.750                     | -7.499                  | 52.428                         | 44.930                               | -29.070      | 74.000                |
| 5499.300                     | -7.261                  | 48.521                         | 41.260                               | -32.740      | 74.000                |
| 6415.850                     | -5.168                  | 46.993                         | 41.825                               | -32.175      | 74.000                |
| 7332.400                     | -2.943                  | 45.803                         | 42.860                               | -31.140      | 74.000                |
| 8248.950                     | -0.045                  | 45.611                         | 45.565                               | -28.435      | 74.000                |
| 9165.500                     | -2.514                  | 46.319                         | 43.805                               | -30.195      | 74.000                |
| <b>Average<br/>Detector:</b> |                         |                                |                                      |              |                       |
| --                           |                         |                                |                                      |              |                       |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/17  
 Test Mode : Mode 2: Transmit(100x60)-Port 4 (920.15MHz)

| Frequency<br>MHz             | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|------------------------------|-------------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal</b>            |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b>        |                         |                                |                                      |              |                       |
| 1840.300                     | -15.038                 | 63.570                         | 48.532                               | -25.468      | 74.000                |
| 2760.450                     | -11.773                 | 57.372                         | 45.599                               | -28.401      | 74.000                |
| 3680.600                     | -11.317                 | 52.000                         | 40.683                               | -33.317      | 74.000                |
| 4600.750                     | -7.415                  | 53.126                         | 45.711                               | -28.289      | 74.000                |
| 5520.900                     | -7.352                  | 48.231                         | 40.879                               | -33.121      | 74.000                |
| 6441.050                     | -5.215                  | 47.930                         | 42.716                               | -31.284      | 74.000                |
| 7361.200                     | -2.838                  | 47.341                         | 44.503                               | -29.497      | 74.000                |
| 8281.350                     | 0.000                   | 46.591                         | 46.590                               | -27.410      | 74.000                |
| 9201.500                     | -2.528                  | 46.206                         | 43.678                               | -30.322      | 74.000                |
| <b>Average<br/>Detector:</b> |                         |                                |                                      |              |                       |
| --                           | --                      | --                             | --                                   | --           | --                    |
| <b>Vertical</b>              |                         |                                |                                      |              |                       |
| <b>Peak Detector:</b>        |                         |                                |                                      |              |                       |
| 1840.300                     | -13.654                 | 62.688                         | 49.034                               | -24.966      | 74.000                |
| 2760.450                     | -11.773                 | 58.002                         | 46.229                               | -27.771      | 74.000                |
| 3680.600                     | -11.317                 | 51.773                         | 40.456                               | -33.544      | 74.000                |
| 4600.750                     | -7.415                  | 51.409                         | 43.994                               | -30.006      | 74.000                |
| 5520.900                     | -7.352                  | 51.634                         | 44.282                               | -29.718      | 74.000                |
| 6441.050                     | -5.215                  | 47.532                         | 42.318                               | -31.682      | 74.000                |
| 7361.200                     | -2.838                  | 48.204                         | 45.366                               | -28.634      | 74.000                |
| 8281.350                     | 0.000                   | 45.268                         | 45.267                               | -28.733      | 74.000                |
| 9201.500                     | -2.528                  | 47.236                         | 44.708                               | -29.292      | 74.000                |
| <b>Average<br/>Detector:</b> |                         |                                |                                      |              |                       |
| --                           | --                      | --                             | --                                   | --           | --                    |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/19  
 Test Mode : Mode 1: Transmit(130x80)-Port 1 (912.8MHz)

| Frequency<br>MHz  | Correct<br>Factor | Reading<br>dB $\mu$ V | Measurement<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-------------------|-------------------|-----------------------|-----------------------------|--------------|-----------------------|
|                   | dB                | Level                 | Level                       |              |                       |
| <b>Horizontal</b> |                   |                       |                             |              |                       |
| 43.990            | -1.706            | 32.421                | 30.715                      | -9.285       | 40.000                |
| 149.696           | -11.743           | 37.196                | 25.453                      | -18.047      | 43.500                |
| 393.750           | 1.065             | 31.077                | 32.142                      | -13.858      | 46.000                |
| 519.663           | 3.280             | 28.428                | 31.708                      | -14.292      | 46.000                |
| 749.728           | 6.871             | 32.079                | 38.950                      | -7.050       | 46.000                |
| 937.821           | 8.130             | 28.237                | 36.367                      | -9.633       | 46.000                |
| <b>Vertical</b>   |                   |                       |                             |              |                       |
| 121.715           | -7.375            | 36.811                | 29.435                      | -14.065      | 43.500                |
| 219.647           | -0.163            | 32.302                | 32.138                      | -13.862      | 46.000                |
| 396.859           | 0.489             | 29.611                | 30.100                      | -15.900      | 46.000                |
| 749.728           | 5.081             | 30.554                | 35.635                      | -10.365      | 46.000                |
| 815.016           | 6.360             | 28.238                | 34.597                      | -11.403      | 46.000                |
| 986.010           | 9.272             | 28.765                | 38.037                      | -15.963      | 54.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/19  
 Test Mode : Mode 1: Transmit(130x80)-Port 1 (916.55MHz)

| Frequency<br>MHz  | Correct<br>Factor | Reading<br>dB $\mu$ V | Measurement           | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-------------------|-------------------|-----------------------|-----------------------|--------------|-----------------------|
|                   |                   |                       | Level<br>dB $\mu$ V/m |              |                       |
| <b>Horizontal</b> |                   |                       |                       |              |                       |
| 79.744            | -8.244            | 36.180                | 27.936                | -12.064      | 40.000                |
| 392.196           | 0.963             | 28.238                | 29.201                | -16.799      | 46.000                |
| 533.654           | 3.930             | 26.759                | 30.690                | -15.310      | 46.000                |
| 633.141           | 6.682             | 25.452                | 32.134                | -13.866      | 46.000                |
| 717.083           | 6.241             | 27.075                | 33.316                | -12.684      | 46.000                |
| 964.247           | 8.431             | 26.430                | 34.861                | -19.139      | 54.000                |
| <b>Vertical</b>   |                   |                       |                       |              |                       |
| 149.696           | -5.501            | 34.808                | 29.307                | -14.193      | 43.500                |
| 191.667           | -1.150            | 33.636                | 32.486                | -11.014      | 43.500                |
| 417.067           | 0.792             | 27.256                | 28.048                | -17.952      | 46.000                |
| 611.378           | 3.742             | 26.470                | 30.211                | -15.789      | 46.000                |
| 815.016           | 6.360             | 27.167                | 33.526                | -12.474      | 46.000                |
| 959.583           | 9.142             | 27.469                | 36.611                | -9.389       | 46.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/19  
 Test Mode : Mode 1: Transmit(130x80)-Port 1 (920.15MHz)

| Frequency<br>MHz  | Correct<br>Factor | Reading<br>Level<br>dBµV | Measurement<br>Level<br>dBµV/m | Margin<br>dB | Limit<br>dBµV/m |
|-------------------|-------------------|--------------------------|--------------------------------|--------------|-----------------|
|                   | dB                |                          |                                |              |                 |
| <b>Horizontal</b> |                   |                          |                                |              |                 |
| 39.327            | 3.591             | 29.800                   | 33.391                         | -6.609       | 40.000          |
| 260.064           | -5.482            | 31.668                   | 26.186                         | -19.814      | 46.000          |
| 396.859           | 1.277             | 30.761                   | 32.038                         | -13.962      | 46.000          |
| 547.644           | 4.596             | 27.591                   | 32.187                         | -13.813      | 46.000          |
| 634.696           | 6.669             | 29.234                   | 35.903                         | -10.097      | 46.000          |
| 819.679           | 7.788             | 28.765                   | 36.553                         | -9.447       | 46.000          |
| <b>Vertical</b>   |                   |                          |                                |              |                 |
| 140.369           | -4.993            | 33.533                   | 28.540                         | -14.960      | 43.500          |
| 199.439           | -0.008            | 30.344                   | 30.336                         | -13.164      | 43.500          |
| 396.859           | 0.489             | 29.800                   | 30.289                         | -15.711      | 46.000          |
| 519.663           | 1.616             | 26.702                   | 28.318                         | -17.682      | 46.000          |
| 738.846           | 4.901             | 26.984                   | 31.885                         | -14.115      | 46.000          |
| 961.138           | 9.144             | 25.819                   | 34.963                         | -19.037      | 54.000          |

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/19  
 Test Mode : Mode 1: Transmit(130x80)-Port 2 (912.8MHz)

| Frequency<br>MHz  | Correct<br>Factor | Reading<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-------------------|-------------------|-----------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal</b> |                   |                       |                                      |              |                       |
| 39.327            | 3.591             | 28.988                | 32.579                               | -7.421       | 40.000                |
| 101.506           | -3.217            | 29.134                | 25.917                               | -17.583      | 43.500                |
| 337.788           | -2.735            | 28.206                | 25.471                               | -20.529      | 46.000                |
| 415.513           | 1.632             | 27.711                | 29.343                               | -16.657      | 46.000                |
| 724.856           | 6.396             | 27.928                | 34.325                               | -11.675      | 46.000                |
| 967.356           | 8.468             | 25.882                | 34.350                               | -19.650      | 54.000                |
| <b>Vertical</b>   |                   |                       |                                      |              |                       |
| 81.298            | -9.384            | 38.637                | 29.253                               | -10.747      | 40.000                |
| 230.529           | -0.314            | 30.724                | 30.411                               | -15.589      | 46.000                |
| 395.304           | 0.382             | 29.932                | 30.314                               | -15.686      | 46.000                |
| 606.715           | 3.715             | 28.689                | 32.404                               | -13.596      | 46.000                |
| 805.689           | 6.085             | 27.293                | 33.378                               | -12.622      | 46.000                |
| 967.356           | 9.178             | 27.590                | 36.768                               | -17.232      | 54.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/19  
 Test Mode : Mode 1: Transmit(130x80)-Port 2 (916.55MHz)

| Frequency<br>MHz  | Correct<br>Factor | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-------------------|-------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
|                   | dB                |                                |                                      |              |                       |
| <b>Horizontal</b> |                   |                                |                                      |              |                       |
| 101.506           | -3.217            | 28.583                         | 25.366                               | -18.134      | 43.500                |
| 371.987           | -0.415            | 27.469                         | 27.054                               | -18.946      | 46.000                |
| 608.269           | 6.948             | 28.614                         | 35.561                               | -10.439      | 46.000                |
| 701.538           | 5.947             | 26.191                         | 32.138                               | -13.862      | 46.000                |
| 790.144           | 7.616             | 27.845                         | 35.460                               | -10.540      | 46.000                |
| 953.365           | 8.302             | 26.231                         | 34.533                               | -11.467      | 46.000                |
| <b>Vertical</b>   |                   |                                |                                      |              |                       |
| 197.885           | -0.212            | 32.761                         | 32.549                               | -10.951      | 43.500                |
| 395.304           | 0.382             | 28.659                         | 29.041                               | -16.959      | 46.000                |
| 575.625           | 3.065             | 32.779                         | 35.844                               | -10.156      | 46.000                |
| 749.728           | 5.081             | 30.153                         | 35.234                               | -10.766      | 46.000                |
| 897.404           | 8.798             | 27.641                         | 36.439                               | -9.561       | 46.000                |
| 978.237           | 9.238             | 28.552                         | 37.790                               | -16.210      | 54.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/19  
 Test Mode : Mode 1: Transmit(130x80)-Port 2 (920.15MHz)

| Frequency<br>MHz  | Correct<br>Factor | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-------------------|-------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
|                   | dB                | dB $\mu$ V                     | dB $\mu$ V/m                         | dB           | dB $\mu$ V/m          |
| <b>Horizontal</b> |                   |                                |                                      |              |                       |
| 36.218            | 4.144             | 29.840                         | 33.984                               | -6.016       | 40.000                |
| 101.506           | -3.217            | 30.024                         | 26.807                               | -16.693      | 43.500                |
| 395.304           | 1.176             | 30.217                         | 31.393                               | -14.607      | 46.000                |
| 598.942           | 6.986             | 28.125                         | 35.111                               | -10.889      | 46.000                |
| 790.144           | 7.616             | 26.606                         | 34.221                               | -11.779      | 46.000                |
| 950.256           | 8.273             | 28.125                         | 36.398                               | -9.602       | 46.000                |
| <b>Vertical</b>   |                   |                                |                                      |              |                       |
| 143.478           | -5.124            | 34.007                         | 28.883                               | -14.617      | 43.500                |
| 205.657           | 0.040             | 30.616                         | 30.656                               | -12.844      | 43.500                |
| 418.622           | 0.805             | 27.076                         | 27.881                               | -18.119      | 46.000                |
| 616.042           | 3.781             | 27.555                         | 31.336                               | -14.664      | 46.000                |
| 835.224           | 6.957             | 25.626                         | 32.583                               | -13.417      | 46.000                |
| 990.673           | 9.295             | 26.271                         | 35.566                               | -18.434      | 54.000                |

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/19  
 Test Mode : Mode 1: Transmit(130x80)-Port 4 (912.8MHz)

| Frequency<br>MHz  | Correct<br>Factor | Reading<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-------------------|-------------------|-----------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal</b> |                   |                       |                                      |              |                       |
| 34.663            | 4.359             | 28.238                | 32.597                               | -7.403       | 40.000                |
| 199.439           | -9.488            | 30.128                | 20.640                               | -22.860      | 43.500                |
| 396.859           | 1.277             | 28.915                | 30.192                               | -15.808      | 46.000                |
| 542.981           | 4.379             | 26.983                | 31.363                               | -14.637      | 46.000                |
| 818.125           | 7.786             | 24.667                | 32.453                               | -13.547      | 46.000                |
| 967.356           | 8.468             | 24.906                | 33.374                               | -20.626      | 54.000                |
| <b>Vertical</b>   |                   |                       |                                      |              |                       |
| 99.952            | -2.846            | 29.501                | 26.655                               | -16.845      | 43.500                |
| 219.647           | -0.163            | 32.893                | 32.729                               | -13.271      | 46.000                |
| 384.423           | -0.414            | 31.406                | 30.992                               | -15.008      | 46.000                |
| 586.506           | 3.333             | 28.286                | 31.619                               | -14.381      | 46.000                |
| 797.917           | 5.876             | 27.961                | 33.837                               | -12.163      | 46.000                |
| 922.276           | 8.973             | 27.761                | 36.734                               | -9.266       | 46.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/19  
 Test Mode : Mode 1: Transmit(130x80)-Port 4 (916.55MHz)

| Frequency<br>MHz  | Correct<br>Factor | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-------------------|-------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
|                   | dB                |                                |                                      |              |                       |
| <b>Horizontal</b> |                   |                                |                                      |              |                       |
| 39.327            | 3.591             | 29.234                         | 32.825                               | -7.175       | 40.000                |
| 107.724           | -5.310            | 30.554                         | 25.243                               | -18.257      | 43.500                |
| 384.423           | 0.432             | 32.874                         | 33.306                               | -12.694      | 46.000                |
| 602.051           | 7.017             | 28.582                         | 35.600                               | -10.400      | 46.000                |
| 830.561           | 7.769             | 28.157                         | 35.927                               | -10.073      | 46.000                |
| 959.583           | 8.375             | 28.286                         | 36.661                               | -9.339       | 46.000                |
| <b>Vertical</b>   |                   |                                |                                      |              |                       |
| 99.952            | -2.846            | 26.606                         | 23.760                               | -19.740      | 43.500                |
| 207.212           | 0.022             | 27.166                         | 27.188                               | -16.312      | 43.500                |
| 432.612           | 0.852             | 26.606                         | 27.458                               | -18.542      | 46.000                |
| 612.933           | 3.762             | 25.407                         | 29.169                               | -16.831      | 46.000                |
| 790.144           | 5.746             | 26.371                         | 32.116                               | -13.884      | 46.000                |
| 976.683           | 9.234             | 25.986                         | 35.220                               | -18.780      | 54.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/19  
 Test Mode : Mode 1: Transmit(130x80)-Port 4 (920.15MHz)

| Frequency<br>MHz  | Correct<br>Factor | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-------------------|-------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
|                   | dB                |                                |                                      |              |                       |
| <b>Horizontal</b> |                   |                                |                                      |              |                       |
| 33.109            | 4.338             | 29.061                         | 33.399                               | -6.601       | 40.000                |
| 149.696           | -11.743           | 34.831                         | 23.088                               | -20.412      | 43.500                |
| 392.196           | 0.963             | 27.021                         | 27.984                               | -18.016      | 46.000                |
| 594.279           | 6.781             | 26.431                         | 33.212                               | -12.788      | 46.000                |
| 790.144           | 7.616             | 25.296                         | 32.911                               | -13.089      | 46.000                |
| 953.365           | 8.302             | 26.088                         | 34.390                               | -11.610      | 46.000                |
| <b>Vertical</b>   |                   |                                |                                      |              |                       |
| 106.170           | -4.252            | 28.582                         | 24.330                               | -19.170      | 43.500                |
| 199.439           | -0.008            | 29.446                         | 29.438                               | -14.062      | 43.500                |
| 403.077           | 0.742             | 26.702                         | 27.444                               | -18.556      | 46.000                |
| 575.625           | 3.065             | 30.902                         | 33.967                               | -12.033      | 46.000                |
| 864.760           | 7.840             | 28.884                         | 36.724                               | -9.276       | 46.000                |
| 933.157           | 9.020             | 26.891                         | 35.911                               | -10.089      | 46.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/19  
 Test Mode : Mode 1: Transmit(130x80)-Port 5 (912.8MHz)

| Frequency<br>MHz  | Correct<br>Factor | Reading<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-------------------|-------------------|-----------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal</b> |                   |                       |                                      |              |                       |
| 39.327            | 3.591             | 28.505                | 32.096                               | -7.904       | 40.000                |
| 281.827           | -5.389            | 28.505                | 23.116                               | -22.884      | 46.000                |
| 487.019           | 2.248             | 28.349                | 30.596                               | -15.404      | 46.000                |
| 622.260           | 6.802             | 26.606                | 33.408                               | -12.592      | 46.000                |
| 746.619           | 6.812             | 26.797                | 33.609                               | -12.391      | 46.000                |
| 951.811           | 8.292             | 28.044                | 36.336                               | -9.664       | 46.000                |
| <b>Vertical</b>   |                   |                       |                                      |              |                       |
| 81.298            | -9.384            | 39.523                | 30.139                               | -9.861       | 40.000                |
| 141.923           | -5.031            | 35.361                | 30.330                               | -13.170      | 43.500                |
| 218.093           | -0.135            | 32.471                | 32.336                               | -13.664      | 46.000                |
| 445.048           | 0.888             | 27.503                | 28.391                               | -17.609      | 46.000                |
| 864.760           | 7.840             | 35.339                | 43.179                               | -2.821       | 46.000                |
| 937.821           | 8.130             | 28.237                | 36.367                               | -9.633       | 46.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/19  
 Test Mode : Mode 1: Transmit(130x80)-Port 5 (916.55MHz)

| Frequency<br>MHz  | Correct<br>Factor | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-------------------|-------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
|                   | dB                |                                |                                      |              |                       |
| <b>Horizontal</b> |                   |                                |                                      |              |                       |
| 50.208            | -10.283           | 36.970                         | 26.687                               | -13.313      | 40.000                |
| 121.715           | -9.600            | 39.221                         | 29.621                               | -13.879      | 43.500                |
| 418.622           | 1.661             | 31.882                         | 33.543                               | -12.457      | 46.000                |
| 631.587           | 6.702             | 29.473                         | 36.175                               | -9.825       | 46.000                |
| 807.244           | 7.795             | 28.884                         | 36.679                               | -9.321       | 46.000                |
| 987.564           | 8.705             | 28.613                         | 37.318                               | -16.682      | 54.000                |
| <b>Vertical</b>   |                   |                                |                                      |              |                       |
| 47.099            | -9.186            | 38.017                         | 28.831                               | -11.169      | 40.000                |
| 218.093           | -0.135            | 28.076                         | 27.941                               | -18.059      | 46.000                |
| 250.737           | -0.669            | 27.590                         | 26.921                               | -19.079      | 46.000                |
| 421.731           | 0.804             | 27.468                         | 28.272                               | -17.728      | 46.000                |
| 480.801           | 1.025             | 34.378                         | 35.403                               | -10.597      | 46.000                |
| 788.590           | 5.720             | 27.795                         | 33.514                               | -12.486      | 46.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/19  
 Test Mode : Mode 1: Transmit(130x80)-Port 5 (920.15MHz)

| Frequency<br>MHz  | Correct<br>Factor | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-------------------|-------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
|                   | dB                |                                |                                      |              |                       |
| <b>Horizontal</b> |                   |                                |                                      |              |                       |
| 79.744            | -8.244            | 37.775                         | 29.531                               | -10.469      | 40.000                |
| 384.423           | 0.432             | 31.775                         | 32.207                               | -13.793      | 46.000                |
| 532.099           | 3.853             | 26.759                         | 30.612                               | -15.388      | 46.000                |
| 620.705           | 6.815             | 27.878                         | 34.692                               | -11.308      | 46.000                |
| 824.343           | 7.776             | 26.759                         | 34.535                               | -11.465      | 46.000                |
| 951.811           | 8.292             | 26.371                         | 34.663                               | -11.337      | 46.000                |
| <b>Vertical</b>   |                   |                                |                                      |              |                       |
| 73.526            | -10.282           | 40.593                         | 30.312                               | -9.688       | 40.000                |
| 204.103           | 0.060             | 29.446                         | 29.506                               | -13.994      | 43.500                |
| 516.554           | 1.535             | 29.840                         | 31.375                               | -14.625      | 46.000                |
| 763.718           | 5.311             | 28.396                         | 33.707                               | -12.293      | 46.000                |
| 903.622           | 8.891             | 27.590                         | 36.481                               | -9.519       | 46.000                |
| 981.346           | 9.257             | 26.231                         | 35.488                               | -18.512      | 54.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/19  
 Test Mode : Mode 1: Transmit(130x80)-Port 6 (912.8MHz)

| Frequency<br>MHz  | Correct<br>Factor | Reading<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-------------------|-------------------|-----------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal</b> |                   |                       |                                      |              |                       |
| 68.862            | -8.510            | 41.546                | 33.036                               | -6.964       | 40.000                |
| 384.423           | 0.432             | 34.401                | 34.833                               | -11.167      | 46.000                |
| 429.503           | 1.747             | 29.638                | 31.385                               | -14.615      | 46.000                |
| 609.824           | 6.935             | 28.735                | 35.671                               | -10.329      | 46.000                |
| 799.471           | 7.796             | 28.660                | 36.455                               | -9.545       | 46.000                |
| 930.048           | 8.042             | 28.840                | 36.882                               | -9.118       | 46.000                |
| <b>Vertical</b>   |                   |                       |                                      |              |                       |
| 121.715           | -7.375            | 36.667                | 29.291                               | -14.209      | 43.500                |
| 208.766           | 0.000             | 29.262                | 29.262                               | -14.238      | 43.500                |
| 395.304           | 0.382             | 33.142                | 33.524                               | -12.476      | 46.000                |
| 546.090           | 2.298             | 26.796                | 29.094                               | -16.906      | 46.000                |
| 644.022           | 3.943             | 26.272                | 30.215                               | -15.785      | 46.000                |
| 780.817           | 5.581             | 27.845                | 33.427                               | -12.573      | 46.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/19  
 Test Mode : Mode 1: Transmit(130x80)-Port 6 (916.55MHz)

| Frequency<br>MHz  | Correct<br>Factor | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit        |
|-------------------|-------------------|--------------------------------|--------------------------------------|--------------|--------------|
|                   |                   |                                |                                      |              | dB $\mu$ V/m |
| <b>Horizontal</b> |                   |                                |                                      |              |              |
| 87.516            | -8.559            | 42.724                         | 34.165                               | -5.835       | 40.000       |
| 396.859           | 1.277             | 34.282                         | 35.559                               | -10.441      | 46.000       |
| 589.615           | 6.561             | 28.349                         | 34.910                               | -11.090      | 46.000       |
| 797.917           | 7.762             | 28.427                         | 36.190                               | -9.810       | 46.000       |
| 897.404           | 7.703             | 27.469                         | 35.172                               | -10.828      | 46.000       |
| 970.465           | 8.509             | 28.735                         | 37.243                               | -16.757      | 54.000       |
| <b>Vertical</b>   |                   |                                |                                      |              |              |
| 81.298            | -9.384            | 41.350                         | 31.966                               | -8.034       | 40.000       |
| 353.333           | -2.700            | 28.285                         | 25.585                               | -20.415      | 46.000       |
| 516.554           | 1.535             | 27.416                         | 28.951                               | -17.049      | 46.000       |
| 738.846           | 4.901             | 28.765                         | 33.666                               | -12.334      | 46.000       |
| 819.679           | 6.501             | 27.021                         | 33.522                               | -12.478      | 46.000       |
| 993.782           | 9.296             | 27.076                         | 36.372                               | -17.628      | 54.000       |

#### Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/19  
 Test Mode : Mode 1: Transmit(130x80)-Port 6 (920.15MHz)

| Frequency<br>MHz  | Correct<br>Factor | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-------------------|-------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
|                   | dB                |                                |                                      |              |                       |
| <b>Horizontal</b> |                   |                                |                                      |              |                       |
| 45.545            | -3.817            | 35.700                         | 31.882                               | -8.118       | 40.000                |
| 121.715           | -9.600            | 40.295                         | 30.695                               | -12.805      | 43.500                |
| 371.987           | -0.415            | 30.306                         | 29.891                               | -16.109      | 46.000                |
| 546.090           | 4.519             | 29.061                         | 33.580                               | -12.420      | 46.000                |
| 768.381           | 7.200             | 30.700                         | 37.900                               | -8.100       | 46.000                |
| 911.394           | 7.838             | 28.044                         | 35.881                               | -10.119      | 46.000                |
| <b>Vertical</b>   |                   |                                |                                      |              |                       |
| 43.990            | -7.201            | 40.028                         | 32.826                               | -7.174       | 40.000                |
| 260.064           | -1.784            | 33.187                         | 31.404                               | -14.596      | 46.000                |
| 449.712           | 0.912             | 29.500                         | 30.412                               | -15.588      | 46.000                |
| 606.715           | 3.715             | 28.043                         | 31.758                               | -14.242      | 46.000                |
| 807.244           | 6.126             | 28.583                         | 34.709                               | -11.291      | 46.000                |
| 959.583           | 9.142             | 28.659                         | 37.801                               | -8.199       | 46.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/19  
 Test Mode : Mode 2: Transmit(100x60)-Port 1 (912.8MHz)

| Frequency<br>MHz  | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-------------------|-------------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal</b> |                         |                                |                                      |              |                       |
| 89.071            | -8.632                  | 40.574                         | 31.942                               | -11.558      | 43.500                |
| 260.064           | -5.482                  | 33.866                         | 28.384                               | -17.616      | 46.000                |
| 382.869           | 0.322                   | 33.032                         | 33.354                               | -12.646      | 46.000                |
| 449.712           | 1.926                   | 30.880                         | 32.805                               | -13.195      | 46.000                |
| 810.353           | 7.798                   | 28.810                         | 36.608                               | -9.392       | 46.000                |
| 919.167           | 7.917                   | 28.475                         | 36.391                               | -9.609       | 46.000                |
| <b>Vertical</b>   |                         |                                |                                      |              |                       |
| 43.990            | -7.201                  | 40.028                         | 32.826                               | -7.174       | 40.000                |
| 191.667           | -1.150                  | 36.899                         | 35.749                               | -7.751       | 43.500                |
| 396.859           | 0.489                   | 35.713                         | 36.202                               | -9.798       | 46.000                |
| 546.090           | 2.298                   | 29.839                         | 32.137                               | -13.863      | 46.000                |
| 768.381           | 5.378                   | 30.844                         | 36.222                               | -9.778       | 46.000                |
| 975.128           | 9.220                   | 28.884                         | 38.104                               | -15.896      | 54.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/19  
 Test Mode : Mode 2: Transmit(100x60)-Port 1 (916.55MHz)

| Frequency<br>MHz  | Correct<br>Factor | Reading<br>dB $\mu$ V | Measurement           | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-------------------|-------------------|-----------------------|-----------------------|--------------|-----------------------|
|                   |                   |                       | Level<br>dB $\mu$ V/m |              |                       |
| <b>Horizontal</b> |                   |                       |                       |              |                       |
| 65.753            | -9.723            | 35.993                | 26.269                | -13.731      | 40.000                |
| 344.006           | -2.323            | 27.328                | 25.005                | -20.995      | 46.000                |
| 426.394           | 1.722             | 26.606                | 28.328                | -17.672      | 46.000                |
| 510.337           | 2.840             | 26.890                | 29.730                | -16.270      | 46.000                |
| 620.705           | 6.815             | 25.776                | 32.590                | -13.410      | 46.000                |
| 715.529           | 6.206             | 27.292                | 33.498                | -12.502      | 46.000                |
| <b>Vertical</b>   |                   |                       |                       |              |                       |
| 87.516            | -7.217            | 37.759                | 30.542                | -9.458       | 40.000                |
| 214.984           | -0.085            | 29.932                | 29.847                | -13.653      | 43.500                |
| 389.087           | -0.079            | 32.684                | 32.605                | -13.395      | 46.000                |
| 595.833           | 3.582             | 27.257                | 30.838                | -15.162      | 46.000                |
| 699.984           | 4.239             | 27.075                | 31.314                | -14.686      | 46.000                |
| 917.612           | 8.958             | 27.256                | 36.214                | -9.786       | 46.000                |

#### Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/19  
 Test Mode : Mode 2: Transmit(100x60)-Port 1 (920.15MHz)

| Frequency<br>MHz  | Correct<br>Factor | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-------------------|-------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
|                   | dB                |                                |                                      |              |                       |
| <b>Horizontal</b> |                   |                                |                                      |              |                       |
| 40.881            | 2.311             | 29.090                         | 31.401                               | -8.599       | 40.000                |
| 121.715           | -9.600            | 37.938                         | 28.338                               | -15.162      | 43.500                |
| 260.064           | -5.482            | 31.101                         | 25.619                               | -20.381      | 46.000                |
| 384.423           | 0.432             | 30.616                         | 31.048                               | -14.952      | 46.000                |
| 519.663           | 3.280             | 27.293                         | 30.573                               | -15.427      | 46.000                |
| 639.359           | 6.621             | 26.431                         | 33.052                               | -12.948      | 46.000                |
| <b>Vertical</b>   |                   |                                |                                      |              |                       |
| 200.994           | 0.081             | 28.158                         | 28.239                               | -15.261      | 43.500                |
| 384.423           | -0.414            | 29.706                         | 29.292                               | -16.708      | 46.000                |
| 519.663           | 1.616             | 27.928                         | 29.544                               | -16.456      | 46.000                |
| 640.913           | 3.930             | 27.556                         | 31.486                               | -14.514      | 46.000                |
| 808.798           | 6.177             | 26.702                         | 32.879                               | -13.121      | 46.000                |
| 925.385           | 8.987             | 26.271                         | 35.258                               | -10.742      | 46.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/19  
 Test Mode : Mode 2: Transmit(100x60)-Port 2 (912.8MHz)

| Frequency<br>MHz  | Correct<br>Factor | Reading<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-------------------|-------------------|-----------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal</b> |                   |                       |                                      |              |                       |
| 68.862            | -8.510            | 39.253                | 30.743                               | -9.257       | 40.000                |
| 385.978           | 0.531             | 30.517                | 31.049                               | -14.951      | 46.000                |
| 398.413           | 1.386             | 31.807                | 33.194                               | -12.806      | 46.000                |
| 588.061           | 6.495             | 27.167                | 33.661                               | -12.339      | 46.000                |
| 745.064           | 6.778             | 27.962                | 34.739                               | -11.261      | 46.000                |
| 967.356           | 8.468             | 27.076                | 35.544                               | -18.456      | 54.000                |
| <b>Vertical</b>   |                   |                       |                                      |              |                       |
| 68.862            | -10.912           | 40.889                | 29.977                               | -10.023      | 40.000                |
| 197.885           | -0.212            | 29.867                | 29.655                               | -13.845      | 43.500                |
| 389.087           | -0.079            | 31.406                | 31.327                               | -14.673      | 46.000                |
| 588.061           | 3.388             | 28.044                | 31.432                               | -14.568      | 46.000                |
| 759.054           | 5.227             | 28.885                | 34.112                               | -11.888      | 46.000                |
| 961.138           | 9.144             | 28.506                | 37.650                               | -16.350      | 54.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/19  
 Test Mode : Mode 2: Transmit(100x60)-Port 2 (916.55MHz)

| Frequency<br>MHz  | Correct<br>Factor | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-------------------|-------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
|                   | dB                |                                |                                      |              |                       |
| <b>Horizontal</b> |                   |                                |                                      |              |                       |
| 76.635            | -8.186            | 34.664                         | 26.478                               | -13.522      | 40.000                |
| 260.064           | -5.482            | 32.471                         | 26.989                               | -19.011      | 46.000                |
| 448.157           | 1.912             | 27.845                         | 29.757                               | -16.243      | 46.000                |
| 636.250           | 6.657             | 27.794                         | 34.451                               | -11.549      | 46.000                |
| 752.837           | 6.926             | 27.203                         | 34.129                               | -11.871      | 46.000                |
| 984.455           | 8.671             | 27.556                         | 36.227                               | -17.773      | 54.000                |
| <b>Vertical</b>   |                   |                                |                                      |              |                       |
| 87.516            | -7.217            | 35.828                         | 28.611                               | -11.389      | 40.000                |
| 199.439           | -0.008            | 28.238                         | 28.230                               | -15.270      | 43.500                |
| 247.628           | -0.530            | 25.734                         | 25.203                               | -20.797      | 46.000                |
| 353.333           | -2.700            | 26.331                         | 23.631                               | -22.369      | 46.000                |
| 516.554           | 1.535             | 23.535                         | 25.070                               | -20.930      | 46.000                |
| 752.837           | 5.128             | 25.408                         | 30.536                               | -15.464      | 46.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/19  
 Test Mode : Mode 2: Transmit(100x60)-Port 2 (920.15MHz)

| Frequency<br>MHz  | Correct<br>Factor | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-------------------|-------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
|                   | dB                |                                |                                      |              |                       |
| <b>Horizontal</b> |                   |                                |                                      |              |                       |
| 246.074           | -5.828            | 30.760                         | 24.932                               | -21.068      | 46.000                |
| 491.683           | 2.292             | 28.988                         | 31.279                               | -14.721      | 46.000                |
| 710.865           | 6.124             | 28.158                         | 34.282                               | -11.718      | 46.000                |
| 808.798           | 7.799             | 27.256                         | 35.055                               | -10.945      | 46.000                |
| 945.593           | 8.217             | 28.396                         | 36.613                               | -9.387       | 46.000                |
| 986.010           | 8.688             | 27.590                         | 36.278                               | -17.722      | 54.000                |
| <b>Vertical</b>   |                   |                                |                                      |              |                       |
| 43.990            | -7.201            | 37.603                         | 30.401                               | -9.599       | 40.000                |
| 121.715           | -7.375            | 37.695                         | 30.319                               | -13.181      | 43.500                |
| 244.519           | -0.497            | 30.517                         | 30.020                               | -15.980      | 46.000                |
| 395.304           | 0.382             | 31.538                         | 31.920                               | -14.080      | 46.000                |
| 672.003           | 4.088             | 32.920                         | 37.008                               | -8.992       | 46.000                |
| 925.385           | 8.987             | 26.663                         | 35.650                               | -10.350      | 46.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/19  
 Test Mode : Mode 2: Transmit(100x60)-Port 3 (912.8MHz)

| Frequency<br>MHz  | Correct<br>Factor | Reading<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-------------------|-------------------|-----------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal</b> |                   |                       |                                      |              |                       |
| 71.971            | -8.098            | 41.102                | 33.004                               | -6.996       | 40.000                |
| 260.064           | -5.482            | 32.471                | 26.989                               | -19.011      | 46.000                |
| 443.494           | 1.861             | 29.445                | 31.306                               | -14.694      | 46.000                |
| 602.051           | 7.017             | 28.735                | 35.753                               | -10.247      | 46.000                |
| 780.817           | 7.432             | 27.879                | 35.311                               | -10.689      | 46.000                |
| 970.465           | 8.509             | 27.994                | 36.502                               | -17.498      | 54.000                |
| <b>Vertical</b>   |                   |                       |                                      |              |                       |
| 79.744            | -9.815            | 37.510                | 27.695                               | -12.305      | 40.000                |
| 194.776           | -0.684            | 31.077                | 30.393                               | -13.107      | 43.500                |
| 382.869           | -0.538            | 32.893                | 32.355                               | -13.645      | 46.000                |
| 754.391           | 5.162             | 28.810                | 33.972                               | -12.028      | 46.000                |
| 811.907           | 6.267             | 28.396                | 34.663                               | -11.337      | 46.000                |
| 908.285           | 8.915             | 28.396                | 37.311                               | -8.689       | 46.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/19  
 Test Mode : Mode 2: Transmit(100x60)-Port 3 (916.55MHz)

| Frequency<br>MHz  | Correct<br>Factor | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-------------------|-------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
|                   | dB                |                                |                                      |              |                       |
| <b>Horizontal</b> |                   |                                |                                      |              |                       |
| 68.862            | -8.510            | 39.244                         | 30.734                               | -9.266       | 40.000                |
| 396.859           | 1.277             | 29.018                         | 30.295                               | -15.705      | 46.000                |
| 532.099           | 3.853             | 27.469                         | 31.322                               | -14.678      | 46.000                |
| 713.974           | 6.185             | 27.328                         | 33.513                               | -12.487      | 46.000                |
| 864.760           | 7.748             | 30.579                         | 38.327                               | -7.673       | 46.000                |
| 933.157           | 8.071             | 27.257                         | 35.328                               | -10.672      | 46.000                |
| <b>Vertical</b>   |                   |                                |                                      |              |                       |
| 47.099            | -9.186            | 38.043                         | 28.857                               | -11.143      | 40.000                |
| 121.715           | -7.375            | 39.199                         | 31.823                               | -11.677      | 43.500                |
| 218.093           | -0.135            | 30.217                         | 30.082                               | -15.918      | 46.000                |
| 387.532           | -0.193            | 30.518                         | 30.325                               | -15.675      | 46.000                |
| 539.872           | 2.142             | 27.416                         | 29.558                               | -16.442      | 46.000                |
| 633.141           | 3.878             | 26.130                         | 30.008                               | -15.992      | 46.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/19  
 Test Mode : Mode 2: Transmit(100x60)-Port 3 (920.15MHz)

| Frequency<br>MHz  | Correct<br>Factor | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-------------------|-------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
|                   | dB                |                                |                                      |              |                       |
| <b>Horizontal</b> |                   |                                |                                      |              |                       |
| 43.990            | -1.706            | 32.636                         | 30.930                               | -9.070       | 40.000                |
| 256.955           | -5.502            | 29.933                         | 24.431                               | -21.569      | 46.000                |
| 381.314           | 0.223             | 27.555                         | 27.778                               | -18.222      | 46.000                |
| 427.949           | 1.737             | 26.371                         | 28.108                               | -17.892      | 46.000                |
| 672.003           | 6.239             | 31.483                         | 37.722                               | -8.278       | 46.000                |
| 804.135           | 7.802             | 26.272                         | 34.074                               | -11.926      | 46.000                |
| <b>Vertical</b>   |                   |                                |                                      |              |                       |
| 85.962            | -7.762            | 34.935                         | 27.173                               | -12.827      | 40.000                |
| 205.657           | 0.040             | 27.928                         | 27.968                               | -15.532      | 43.500                |
| 260.064           | -1.784            | 31.985                         | 30.202                               | -15.798      | 46.000                |
| 480.801           | 1.025             | 31.516                         | 32.541                               | -13.459      | 46.000                |
| 745.064           | 5.008             | 25.924                         | 30.931                               | -15.069      | 46.000                |
| 939.375           | 9.054             | 27.845                         | 36.899                               | -9.101       | 46.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/19  
 Test Mode : Mode 2: Transmit(100x60)-Port 4 (912.8MHz)

| Frequency<br>MHz  | Correct<br>Factor<br>dB | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-------------------|-------------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
| <b>Horizontal</b> |                         |                                |                                      |              |                       |
| 121.715           | -9.600                  | 36.408                         | 26.808                               | -16.692      | 43.500                |
| 532.099           | 3.853                   | 25.923                         | 29.776                               | -16.224      | 46.000                |
| 696.875           | 5.953                   | 25.251                         | 31.204                               | -14.796      | 46.000                |
| 766.827           | 7.176                   | 26.089                         | 33.265                               | -12.735      | 46.000                |
| 852.324           | 7.745                   | 26.028                         | 33.773                               | -12.227      | 46.000                |
| 972.019           | 8.531                   | 26.606                         | 35.137                               | -18.863      | 54.000                |
| <b>Vertical</b>   |                         |                                |                                      |              |                       |
| 121.715           | -7.375                  | 39.343                         | 31.967                               | -11.533      | 43.500                |
| 204.103           | 0.060                   | 28.659                         | 28.719                               | -14.781      | 43.500                |
| 633.141           | 3.878                   | 27.928                         | 31.806                               | -14.194      | 46.000                |
| 763.718           | 5.311                   | 28.659                         | 33.970                               | -12.030      | 46.000                |
| 827.452           | 6.724                   | 28.582                         | 35.307                               | -10.693      | 46.000                |
| 959.583           | 9.142                   | 27.642                         | 36.784                               | -9.216       | 46.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/19  
 Test Mode : Mode 2: Transmit(100x60)-Port 4 (916.55MHz)

| Frequency<br>MHz  | Correct<br>Factor | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-------------------|-------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
|                   | dB                |                                |                                      |              |                       |
| <b>Horizontal</b> |                   |                                |                                      |              |                       |
| 45.545            | -3.817            | 34.906                         | 31.088                               | -8.912       | 40.000                |
| 87.516            | -8.559            | 37.443                         | 28.884                               | -11.116      | 40.000                |
| 286.490           | -5.374            | 31.571                         | 26.197                               | -19.803      | 46.000                |
| 724.856           | 6.396             | 28.914                         | 35.311                               | -10.689      | 46.000                |
| 811.907           | 7.794             | 28.583                         | 36.377                               | -9.623       | 46.000                |
| 909.840           | 7.819             | 29.305                         | 37.124                               | -8.876       | 46.000                |
| <b>Vertical</b>   |                   |                                |                                      |              |                       |
| 121.715           | -7.375            | 39.343                         | 31.967                               | -11.533      | 43.500                |
| 396.859           | 0.489             | 33.663                         | 34.152                               | -11.848      | 46.000                |
| 651.795           | 3.982             | 28.286                         | 32.268                               | -13.732      | 46.000                |
| 741.955           | 4.949             | 28.076                         | 33.024                               | -12.976      | 46.000                |
| 897.404           | 8.798             | 28.735                         | 37.533                               | -8.467       | 46.000                |
| 972.019           | 9.211             | 27.328                         | 36.539                               | -17.461      | 54.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : LeanOrder detectionShelf  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Date : 2018/04/19  
 Test Mode : Mode 2: Transmit(100x60)-Port 4 (920.15MHz)

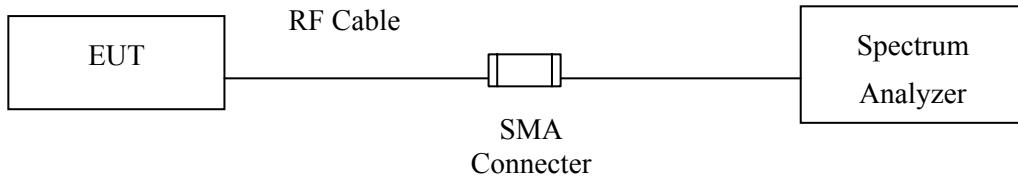
| Frequency<br>MHz  | Correct<br>Factor | Reading<br>Level<br>dB $\mu$ V | Measurement<br>Level<br>dB $\mu$ V/m | Margin<br>dB | Limit<br>dB $\mu$ V/m |
|-------------------|-------------------|--------------------------------|--------------------------------------|--------------|-----------------------|
|                   | dB                |                                |                                      |              |                       |
| <b>Horizontal</b> |                   |                                |                                      |              |                       |
| 107.724           | -5.310            | 31.647                         | 26.336                               | -17.164      | 43.500                |
| 269.391           | -5.447            | 30.089                         | 24.642                               | -21.358      | 46.000                |
| 382.869           | 0.322             | 29.134                         | 29.456                               | -16.544      | 46.000                |
| 499.455           | 2.373             | 26.470                         | 28.843                               | -17.157      | 46.000                |
| 815.016           | 7.791             | 26.890                         | 34.681                               | -11.319      | 46.000                |
| 989.119           | 8.722             | 26.758                         | 35.480                               | -18.520      | 54.000                |
| <b>Vertical</b>   |                   |                                |                                      |              |                       |
| 193.221           | -0.915            | 26.470                         | 25.554                               | -17.946      | 43.500                |
| 340.897           | -3.595            | 25.986                         | 22.391                               | -23.609      | 46.000                |
| 362.660           | -2.004            | 25.451                         | 23.448                               | -22.552      | 46.000                |
| 511.891           | 1.410             | 27.293                         | 28.703                               | -17.297      | 46.000                |
| 560.080           | 2.659             | 26.606                         | 29.265                               | -16.735      | 46.000                |
| 925.385           | 8.987             | 26.567                         | 35.554                               | -10.446      | 46.000                |

## Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss -Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

## 7. RF Antenna Conducted Test

### 7.1. Test Setup



### 7.2. Limits

According to FCC Section 15.247(d). In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

### 7.3. Test Procedure

The EUT was setup to ANSI C63.4, 2014; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

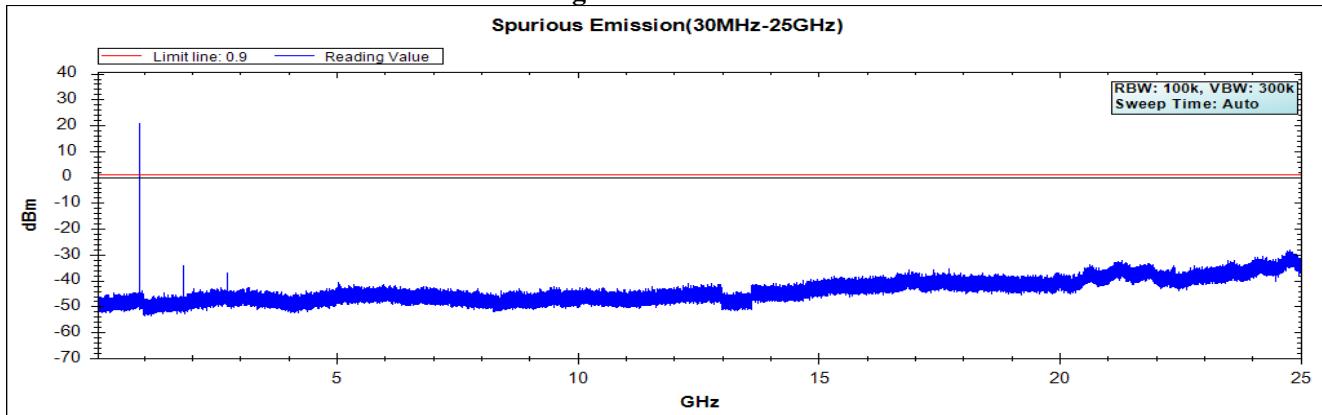
### 7.4. Uncertainty

± 1.20dB

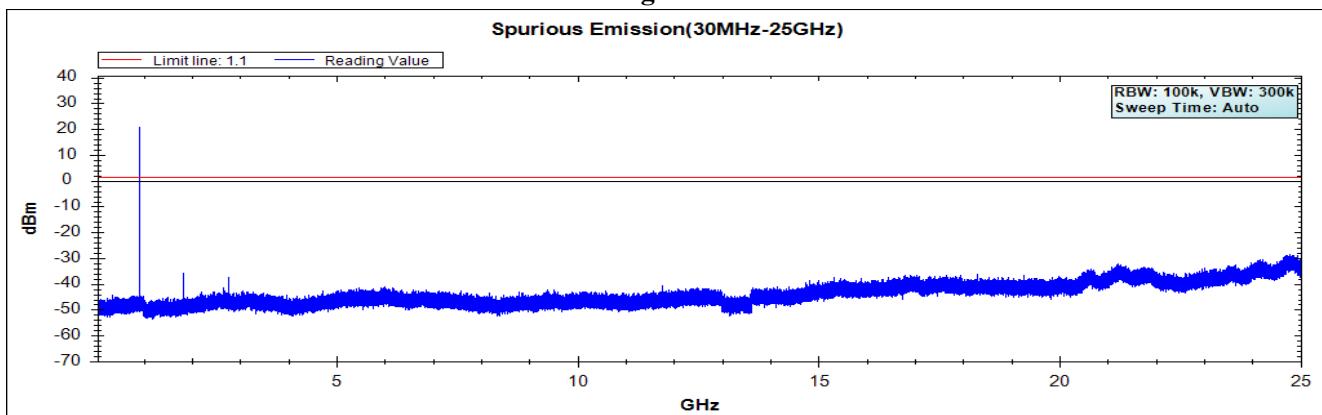
## 7.5. Test Result of RF Antenna Conducted Test

Product : LeanOrder detectionShelf  
 Test Item : RF Antenna Conducted Test  
 Test Site : No.3 OATS  
 Test Date : 2017/10/13  
 Test Mode : Mode 1: Transmit(130x80)-Port 1

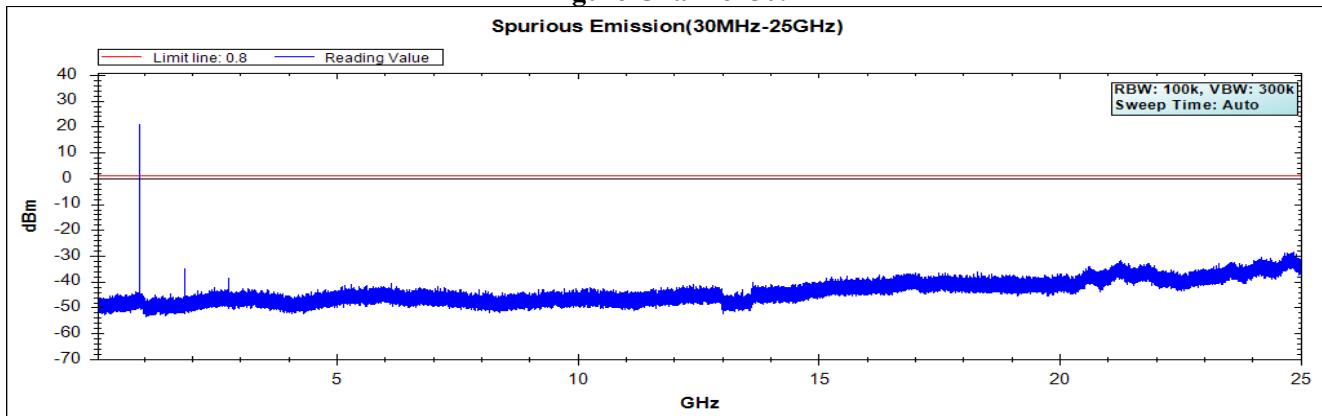
**Figure Channel 01:**



**Figure Channel 26:**



**Figure Channel 50:**

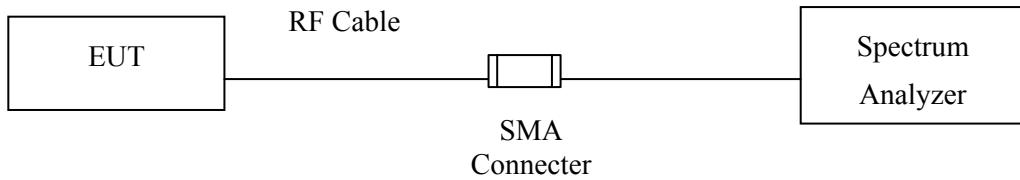


Note: The above test pattern is synthesized by multiple of the frequency range.

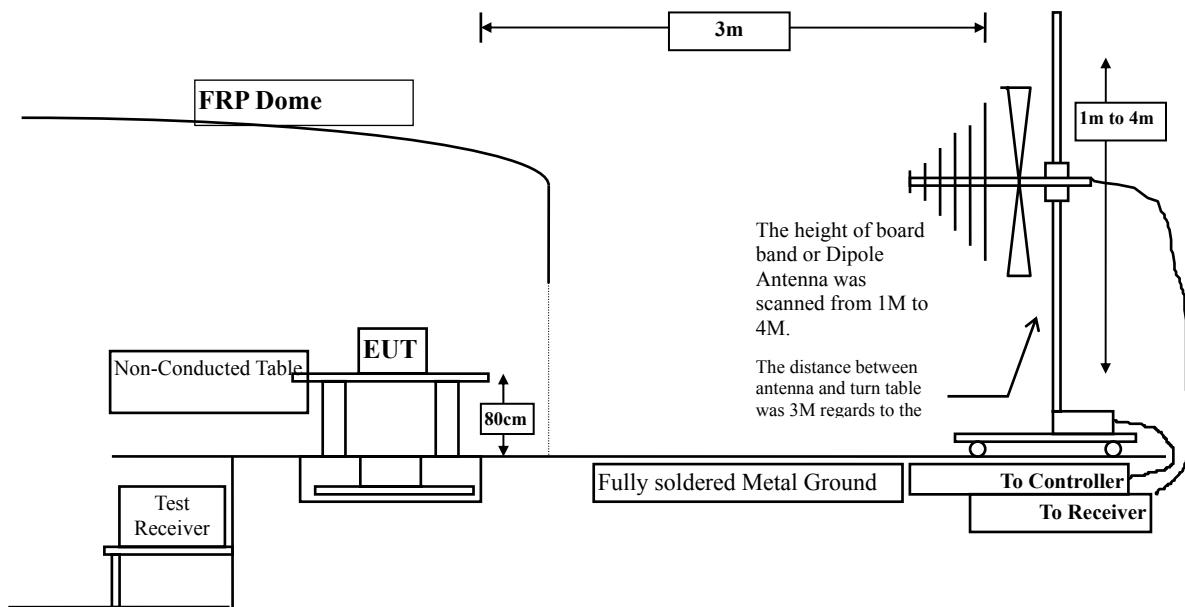
## 8. Band Edge

### 8.1. Test Setup

#### RF Conducted Measurement



#### RF Radiated Measurement



## 8.2. Limit

### ➤ General Radiated Emission Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

| FCC Part 15 Subpart C Paragraph 15.209 Limits |          |                 |
|---|----------|-----------------|
| Frequency<br>MHz                              | uV/m @3m | dB $\mu$ V/m@3m |
| 30-88   | 100      | 40              |
| 88-216  | 150      | 43.5            |
| 216-960                                       | 200      | 46              |
| Above 960                                     | 500      | 54              |

- Remarks:
1. RF Voltage (dB $\mu$ V) = 20 log RF Voltage (uV)
  2. In the Above Table, the tighter limit applies at the band edges.
  3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

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 shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

### 8.3. Test Procedure

The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10: 2013 on radiated measurement.

The bandwidth setting below 1GHz and above 1GHz on the field strength meter is 120 kHz and 1MHz, respectively.

### 8.4. Uncertainty

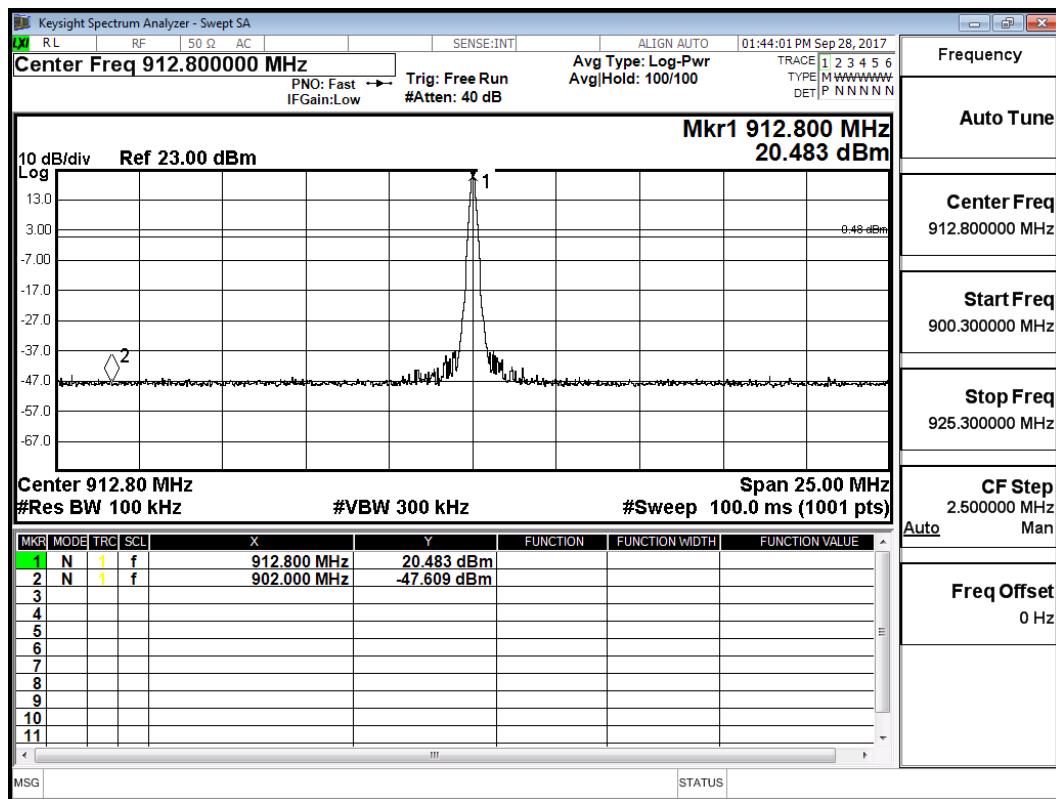
± 4.08 dB above 1GHz

± 4.22 dB below 1GHz

## 8.5. Test Result of Band Edge

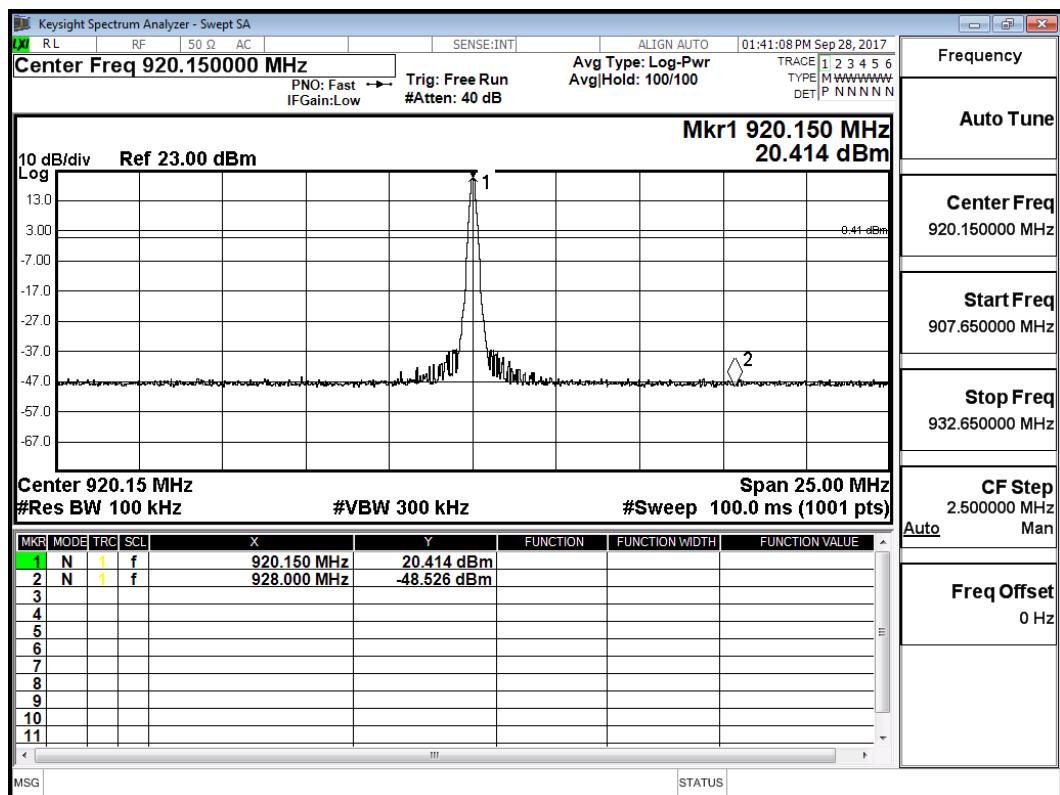
Product : LeanOrder detectionShelf  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit(130x80)-Port 1 (912.8MHz)

| Test Frequency<br>(MHz) | Measurement Level<br>$\Delta$ (dB) | Limit<br>$\Delta$ (dB) | Result |
|-------------------------|------------------------------------|------------------------|--------|
| 912.8                   | 48.092                             | >20                    | PASS   |



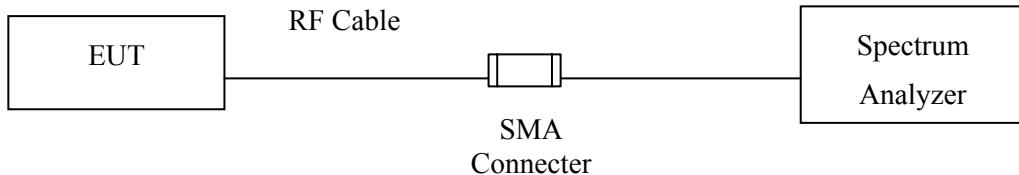
Product : LeanOrder detectionShelf  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit(130x80)-Port 1 (920.15MHz)

| Test Frequency<br>(MHz) | Measurement Level<br>$\Delta$ (dB) | Limit<br>$\Delta$ (dB) | Result |
|-------------------------|------------------------------------|------------------------|--------|
| 920.15                  | 48.94                              | >20                    | PASS   |



## 9. Channel Separation

### 9.1. Test Setup



### 9.2. Limit

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

### 9.3. Test Procedure

The EUT was setup to ANSI C63.4, 2014; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

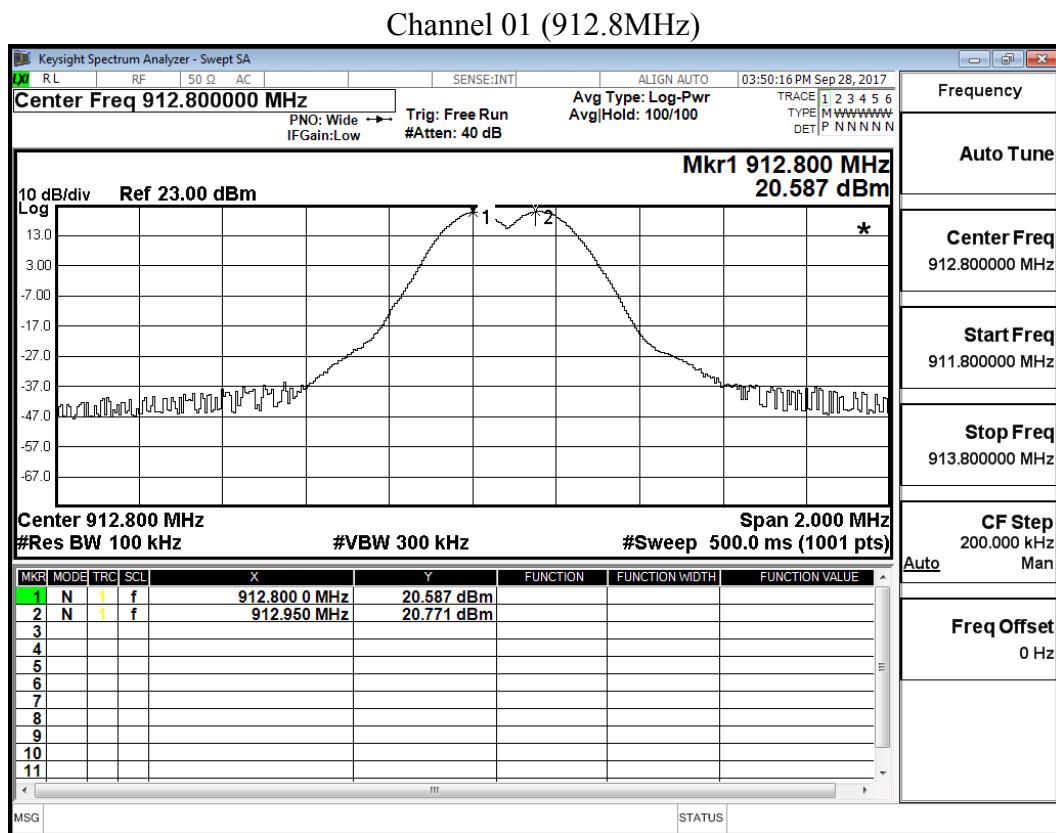
### 9.4. Uncertainty

± 283Hz

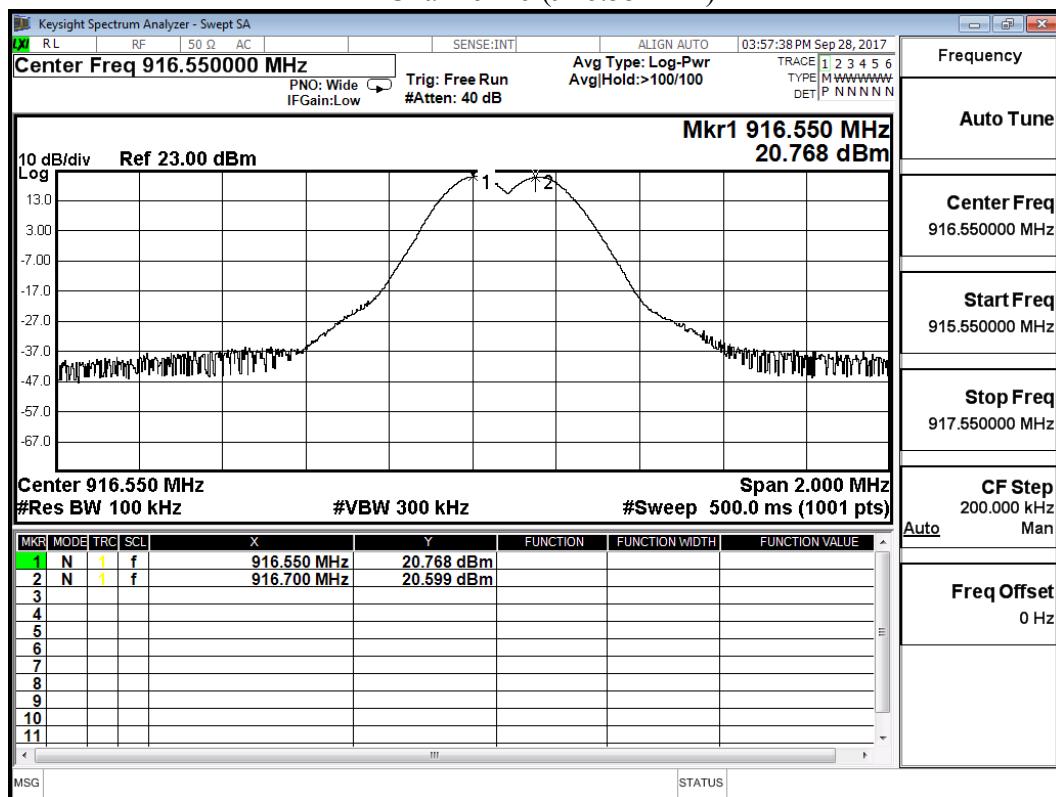
## 9.5. Test Result of Channel Separation

Product : LeanOrder detectionShelf  
 Test Item : Channel Separation  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit(130x80)-Port 1

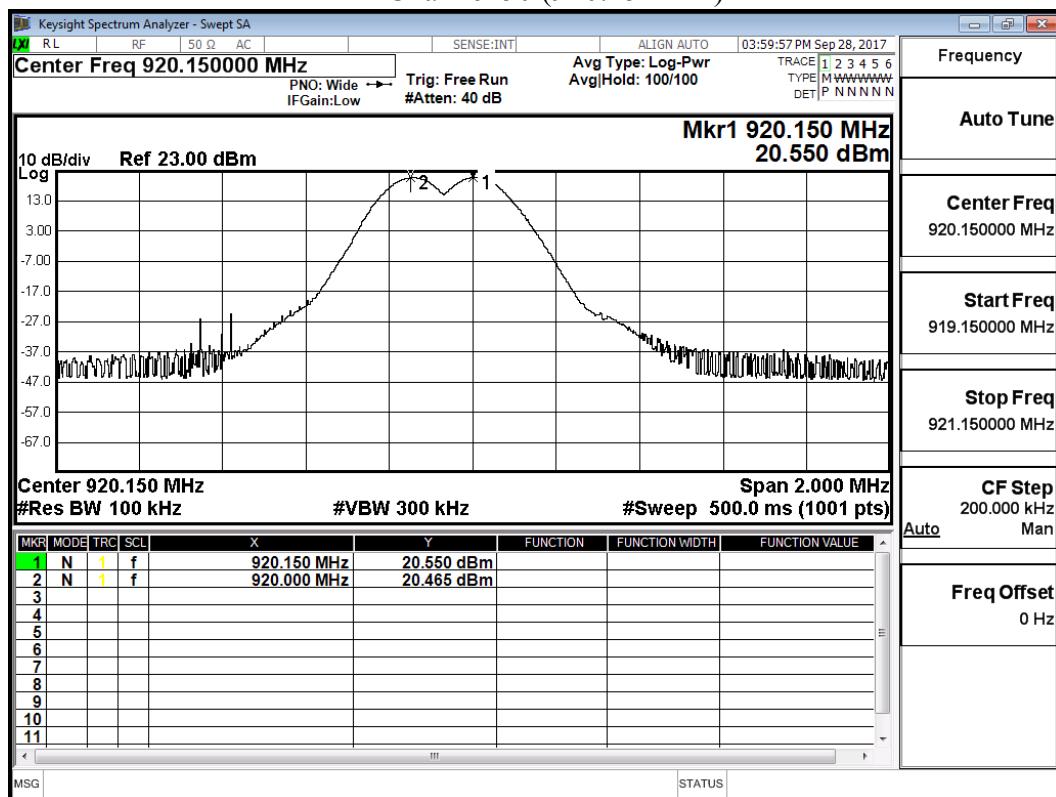
| Channel No. | Frequency (MHz) | Measurement Level (kHz) | Limit (kHz) | Result |
|-------------|-----------------|-------------------------|-------------|--------|
| 01          | 912.8           | 150                     | >25 kHz     | Pass   |
| 26          | 916.55          | 150                     | >25 kHz     | Pass   |
| 50          | 920.15          | 150                     | >25 kHz     | Pass   |



## Channel 26 (916.55MHz)

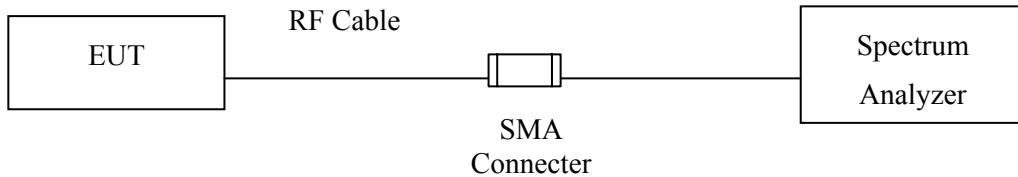


## Channel 50 (920.15 MHz)



## 10. Dwell Time

### 10.1. Test Setup



### 10.2. Limit

According to FCC Section 15.247(a)(1)(i). If the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period.

### 10.3. Test Procedure

The EUT was setup to ANSI C63.4, 2014; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

### 10.4. Uncertainty

± 25msec

## 10.5. Test Result of Dwell Time

Product : LeanOrder detectionShelf  
 Test Item : Dwell Time  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit(130x80)-Port 1

| Frequency (MHz) | Time slot length (s) | Hopping of Number | Sweep time (s) | Dwell Time (s) | Limit (Sec) | Result |
|-----------------|----------------------|-------------------|----------------|----------------|-------------|--------|
| 912.8           | 0.0153               | 4                 | 10             | 0.061          | 0.4         | Pass   |
| 916.55          | 0.0153               | 4                 | 10             | 0.061          | 0.4         | Pass   |
| 920.15          | 0.0153               | 4                 | 10             | 0.061          | 0.4         | Pass   |

Note:

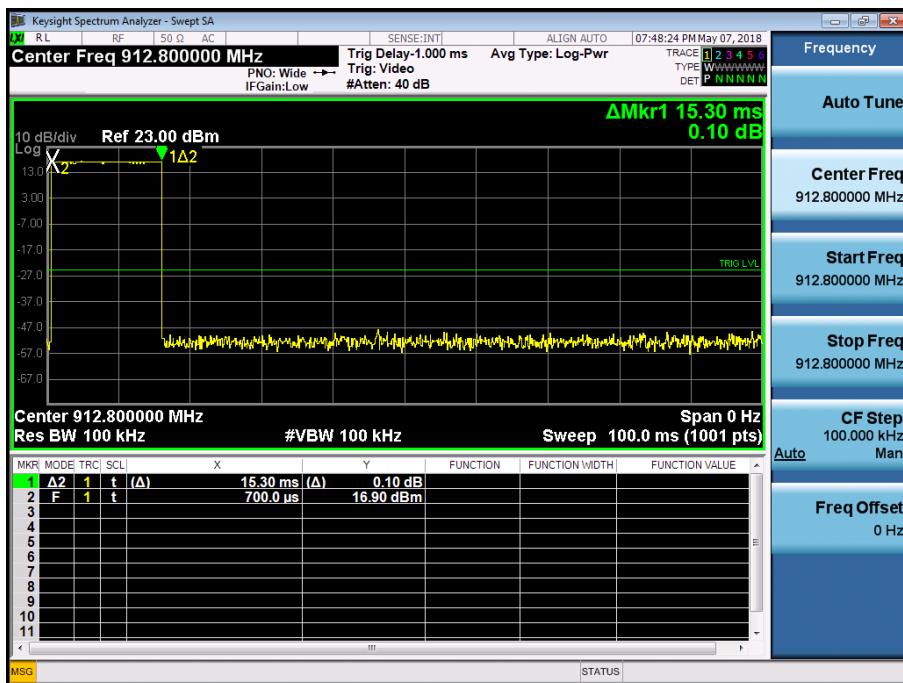
(Number of hops in the period specified in the requirements) = (number of hops on spectrum analyzer) × (period specified in the requirements / analyzer sweep time).

(Number of hops in the period specified in the requirements) = 4 \* (10s / 10s)

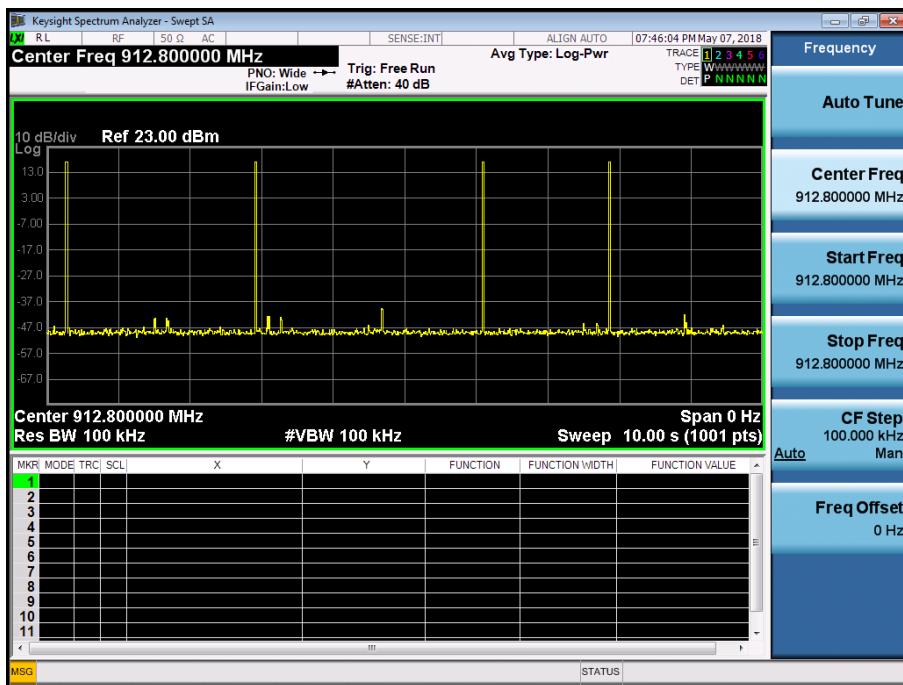
Dwell Time = (Time slot length \* (Number of hops in the period specified in the requirements))

Dwell Time = (0.0153s) \* 4 = 0.061s

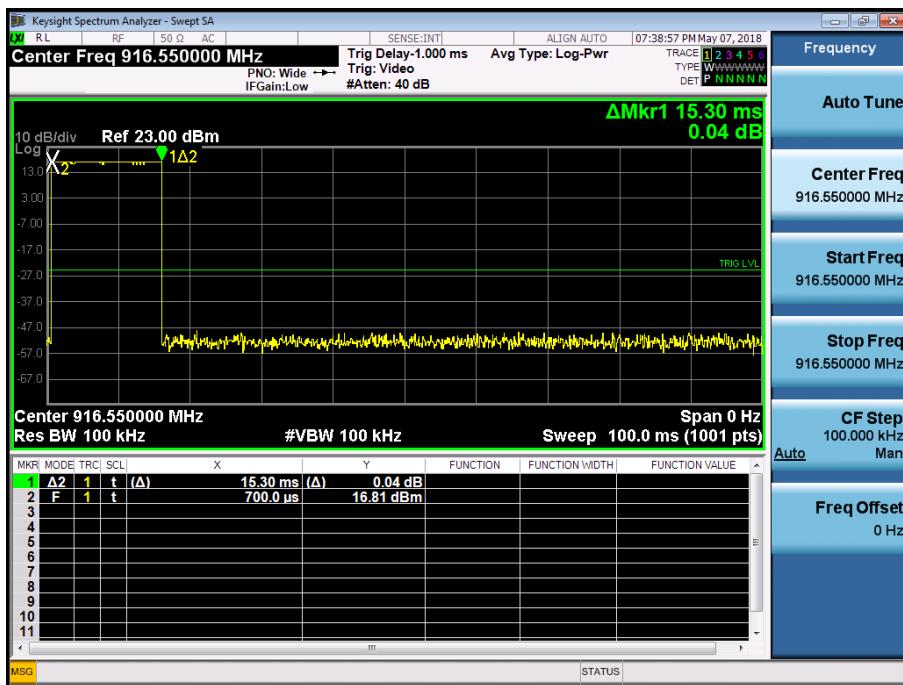
## Channel 01



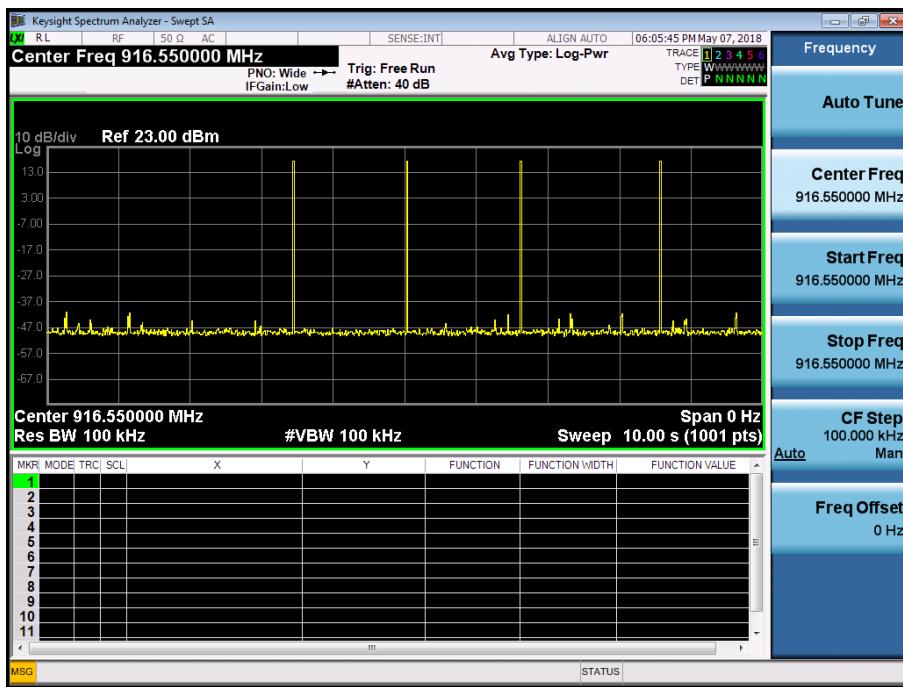
## Channel 01



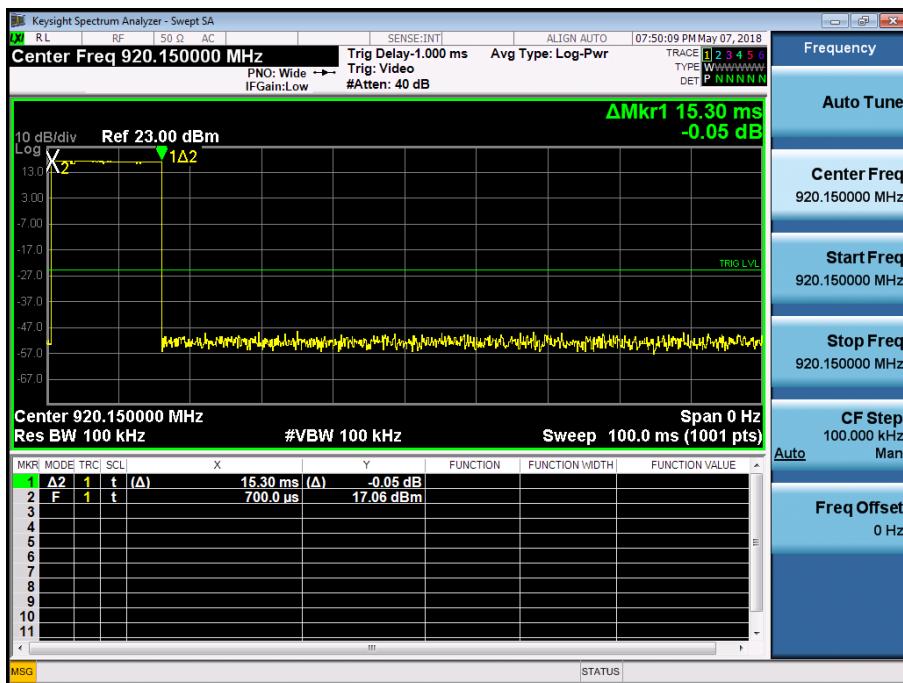
## Channel 26



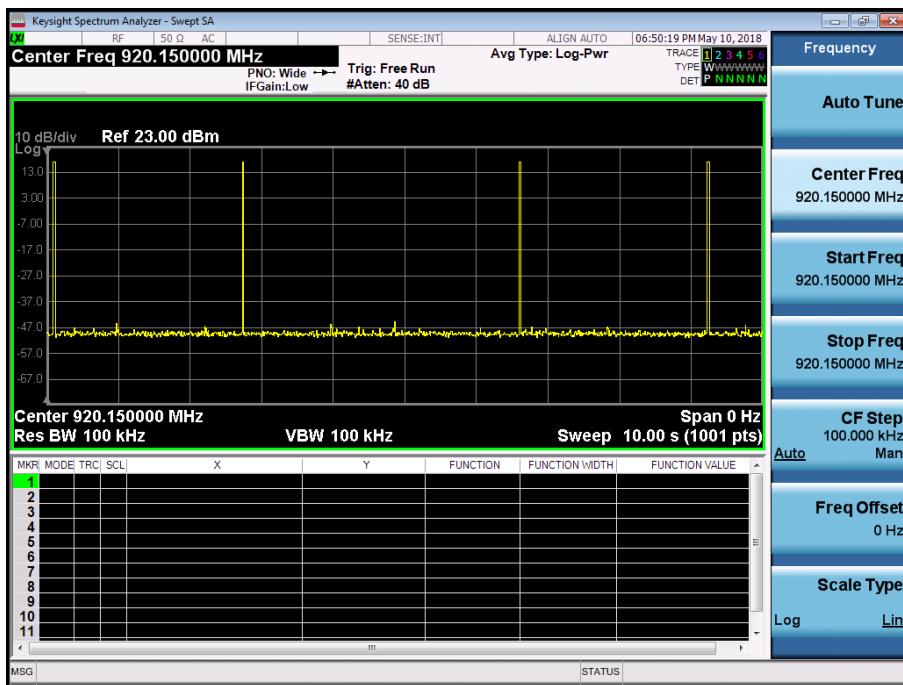
## Channel 26



### Channel 50



### Channel 50



## 11. EMI Reduction Method During Compliance Testing

No modification was made during testing.