



# RADIO TEST REPORT FCC ID: 2A86J-MSWXB2518

Product: MSWXB2518 Trade Mark: N/A Model No.: MSWXB2518 Family Model: N/A Report No.: S24101705201001 Issue Date: Nov. 30, 2024

# **Prepared for**

Shenzhen MoreSense Technology Co., Ltd. 206, building A1, international Jinbo Plaza, 663 Bulong Road,

Bantian street, Longgang District, Shenzhen

# Prepared by

Shenzhen NTEK Testing Technology Co., Ltd. No. 24 Xinfa East Road, Xiangshan Community, Xinqiao Street, Baoan District, Shenzhen, Guangdong, People's Republic of China Tel. 0755-23200050 Website: http://www.ntek.org.cn



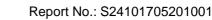


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| 8 TE  | ST RESULTS   |  |
| 8.1<br>8.2<br>8.3<br>8.4<br>8.5<br>8.6<br>8.7<br>8.8<br>8.9                   | DWELL TIME<br>MAXIMUM CONDUCTED OUTPUT POWER<br>-20DB BANDWIDTH<br>OCCUPIED CHANNEL BANDWIDTH<br>CARRIER FREQUENCIES SEPARATION<br>NUMBER OF HOPPING CHANNEL.<br>BAND EDGE<br>BAND EDGE<br>BAND EDGE (HOPPING)<br>CONDUCTED RF SPURIOUS EMISSION   | 45<br>51<br>57<br>63<br>69<br>72<br>79                         |

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#### 1 **TEST RESULT CERTIFICATION**

| Shenzhen MoreSense Technology Co., Ltd.   |
|---|
| 206, building A1, international Jinbo Plaza, 663 Bulong Road, Bantian street, Longgang District, Shenzhen |
| Shenzhen MoreSense Technology Co., Ltd.   |
| 206, building A1, international Jinbo Plaza, 663 Bulong Road, Bantian street, Longgang District, Shenzhen |
|   |
| MSWXB2518   |
| N/A   |
| MSWXB2518   |
| N/A   |
| S241017052001   |
| Oct. 17, 2024 ~ Nov. 30, 2024   |
|   |

Certificate #4298.01

Measurement Procedure Used:

## APPLICABLE STANDARDS

| FCC 47 CFR Part 2, Subpart J<br>FCC 47 CFR Part 15, Subpart C<br>ANSI C63.10-2013 | STANDARD/ TEST PROCEDURE      | TEST RESULT             |
|---|-------------------------------|-------------------------|
|   | FCC 47 CFR Part 15, Subpart C | TEST RESULT<br>Complied |

This device described above has been tested by Shenzhen NTEK Testing Technology Co., Ltd., and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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The test results of this report relate only to the tested sample identified in this report.

Prepared Bv

Kieron Luo

(Project Engineer)

(Supervisor)

Approved . Βv

Alex Li (Manager)

Version.1.3



| FCC Part15 (15.247), Subpart C |                                |         |        |
|--------------------------------|--------------------------------|---------|--------|
| Standard Section               | Test Item                      | Verdict | Remark |
| 15.207                         | Conducted Emission             | PASS    |        |
| 15.209 (a)<br>15.205 (a)       | Radiated Spurious Emission     | PASS    |        |
| 15.247(a)(1)                   | Hopping Channel Separation     | PASS    |        |
| 15.247(b)(1)                   | Peak Output Power              | PASS    |        |
| 15.247(a)(iii)                 | Number of Hopping Frequency    | PASS    |        |
| 15.247(a)(iii)                 | Dwell Time                     | PASS    |        |
| 15.247(a)(1)                   | Bandwidth                      | PASS    |        |
| 15.247 (d)                     | Band Edge Emission             | PASS    |        |
| 15.247 (d)                     | Spurious RF Conducted Emission | PASS    |        |
| 15.203                         | Antenna Requirement            | PASS    |        |

Remark:

 "N/A" denotes test is not applicable in this Test Report.
 All test items were verified and recorded according to the standards and without any deviation during the test.





## **3 FACILITIES AND ACCREDITATIONS**

## 3.1 FACILITIES

All measurement facilities used to collect the measurement data are located at

No. 24 Xinfa East Road, Xiangshan Community, Xinqiao Street, Baoan District, Shenzhen, Guangdong, People's Republic of China.

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.10 and CISPR Publication 22.

## 3.2 LABORATORY ACCREDITATIONS AND LISTINGS

| Site Description |  |
|------------------|--|
| CNAS-Lab.        | : The Certificate Registration Number is L5516.                      |
| IC-Registration  | The Certificate Registration Number is 9270A.                        |
| -                | CAB identifier:CN0074  |
| FCC- Accredited  | Test Firm Registration Number: 463705.                               |
|                  | Designation Number: CN1184   |
| A2LA-Lab.        | The Certificate Registration Number is 4298.01                       |
|                  | This laboratory is accredited in accordance with the recognized      |
|                  | International Standard ISO/IEC 17025:2005 General requirements for   |
|                  | the competence of testing and calibration laboratories.              |
|                  | This accreditation demonstrates technical competence for a defined   |
|                  | scope and the operation of a laboratory quality management system    |
|                  | (refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009).       |
| Name of Firm     | : Shenzhen NTEK Testing Technology Co., Ltd.                         |
| Site Location    | : No. 24 Xinfa East Road, Xiangshan Community, Xinqiao Street, Baoan |
|                  | District, Shenzhen, Guangdong, People's Republic of China.           |

#### 3.3 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement  $y\pm U$ , where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.

| No. | Item                                | Uncertainty |  |
|-----|-------------------------------------|-------------|--|
| 1   | Conducted Emission Test             | ±2.80dB     |  |
| 2   | RF power, conducted, PSD            | ±0.16dB     |  |
| 3   | Spurious emissions, conducted       | ±0.21dB     |  |
| 4   | All emissions, radiated(30MHz~1GHz) | ±2.64dB     |  |
| 5   | All emissions, radiated(1GHz~6GHz)  | ±2.40dB     |  |
| 6   | All emissions, radiated(>6GHz)      | ±2.52dB     |  |
| 7   | Temperature                         | ±0.5°C      |  |
| 8   | Humidity                            | ±2%         |  |
| 9   | All emissions, radiated(9KHz~30MHz) | ±6dB        |  |
| 10  | Occupied Channel Bandwidth          | ±3.7dB      |  |
| 11  | Dwell time                          | ±2.8%       |  |





## 4 GENERAL DESCRIPTION OF EUT

| Product Feature and Specification |                         |  |
|-----------------------------------|-------------------------|--|
| Equipment                         | MSWXB2518               |  |
| Trade Mark                        | N/A                     |  |
| FCC ID                            | 2A86J-MSWXB2518         |  |
| Model No.                         | MSWXB2518               |  |
| Family Model                      | N/A                     |  |
| Model Difference                  | N/A                     |  |
| Operating Frequency               | 2402-2480MHz            |  |
| Modulation                        | GFSK, π/4-DQPSK, 8-DPSK |  |
| Number of Channels                | 79 Channels             |  |
| Antenna Type                      | ceramic antenna         |  |
| Antenna Gain                      | 1.5 dBi                 |  |
| Adapter                           | N/A                     |  |
| Battery                           | N/A                     |  |
| Rating(s)                         | DC 3.3V                 |  |
| HW Version                        | N/A                     |  |
| SW Version                        | N/A                     |  |

Note 1: Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual.





| Revision History |         |                         |               |  |
|------------------|---------|-------------------------|---------------|--|
| Report No.       | Version | Description             | Issued Date   |  |
| S24101705201001  | Rev.01  | Initial issue of report | Nov. 30, 2024 |  |
|                  |         |                         |               |  |
|                  |         |                         |               |  |
|                  |         |                         |               |  |
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|                  |         |                         |               |  |
|                  |         |                         |               |  |
|                  |         |                         |               |  |
|                  |         |                         |               |  |



## **5 DESCRIPTION OF TEST MODES**

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To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

Test of channel included the lowest and middle and highest frequency to perform the test, then record on this report.

Those data rates (1Mbps for GFSK modulation; 2Mbps for  $\pi$ /4-DQPSK modulation; 3Mbps for 8-DPSK modulation) were used for all test.

The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement -X, Y, and Z-plane. The X-plane results were found as the worst case and were shown in this report.

Carrier Frequency and Channel list:

| Channel | Frequency(MHz) |
|---------|----------------|
| 0       | 2402           |
| 1       | 2403           |
|         |                |
| 39      | 2441           |
| 40      | 2442           |
|         |                |
| 77      | 2479           |
| 78      | 2480           |

Note: fc=2402MHz+k×1MHz k=0 to 78

The following summary table is showing all test modes to demonstrate in compliance with the standard.

| For AC Conducted Emission |                             |  |  |  |
|---------------------------|-----------------------------|--|--|--|
| Final Test Mode           | Final Test Mode Description |  |  |  |
| Mode 1 normal link mode   |                             |  |  |  |
|                           |                             |  |  |  |

Note: AC power line Conducted Emission was tested under maximum output power.

| For Radiated Test Cases |                  |  |
|-------------------------|------------------|--|
| Final Test Mode         | Description      |  |
| Mode 1                  | normal link mode |  |
| Mode 2                  | CH00(2402MHz)    |  |
| Mode 3                  | CH39(2441MHz)    |  |
| Mode 4                  | CH78(2480MHz)    |  |

Note: For radiated test cases, the worst mode data rate 3Mbps was reported only, because this data rate has the highest RF output power at preliminary tests, and no other significantly frequencies found in conducted spurious emission.

| For Conducted Test Cases |               |  |
|--------------------------|---------------|--|
| Final Test Mode          | Description   |  |
| Mode 2                   | CH00(2402MHz) |  |
| Mode 3                   | CH39(2441MHz) |  |
| Mode 4                   | CH78(2480MHz) |  |
| Mode 5                   | Hopping mode  |  |

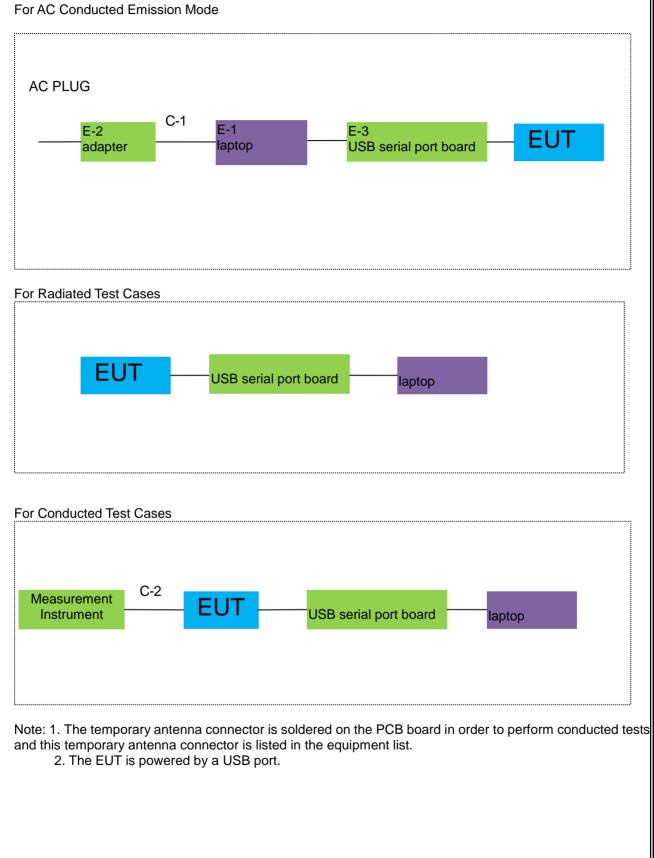
Note: The engineering test program was provided and the EUT was programmed to be in continuously transmitting mode.

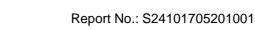




## 6 SETUP OF EQUIPMENT UNDER TEST

## 6.1 BLOCK DIAGRAM CONFIGURATION OF TEST SYSTEM





## 6.2 SUPPORT EQUIPMENT

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

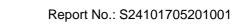
Certificate #4298.01

| Item | Equipment                | Manufacturer | Model/Type No. | Note        |
|------|--------------------------|--------------|----------------|-------------|
| AE-1 | laptop                   | ASUS         | S5506M         | Peripherals |
| AE-2 | adapter                  | ASUS         | ADP-90RE B     | Peripherals |
| AE-3 | USB serial port<br>board | NA           | NA             | Peripherals |
|      |                          |              |                |             |
|      |                          |              |                |             |
|      |                          |              |                |             |
|      |                          |              |                |             |
|      |                          |              |                |             |

| Item | Cable Type  | Shielded Type | Ferrite Core | Length |
|------|-------------|---------------|--------------|--------|
| C-1  | Power Cable | NO            | NO           | 1.0m   |
| C-2  | RF Cable    | YES           | NO           | 0.1m   |
|      |             |               |              |        |
|      |             |               |              |        |
|      |             |               |              |        |
|      |             |               |              |        |

#### Notes:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in [Length] column.
- (3) "YES" is means "shielded" "with core"; "NO" is means "unshielded" "without core".



## 6.3 EQUIPMENTS LIST FOR ALL TEST ITEMS

ilac-

ACCREDITED Certificate #4298.01

#### Radiation& Conducted Test equipment

| vaulatio |   | estequipment    |                 |                   |                  |                     |                           |
|----------|---|-----------------|-----------------|-------------------|------------------|---------------------|---------------------------|
| Item     | Kind of<br>Equipment                        | Manufacturer    | Type No.        | Serial No.        | Last calibration | Calibrated<br>until | Calibrati<br>on<br>period |
| 1        | Spectrum<br>Analyzer                        | Agilent         | E4440A          | MY41000130        | 2024.04.26       | 2025.04.25          | 1 year                    |
| 2        | Spectrum<br>Analyzer                        | Agilent         | N9020A          | MY49100060        | 2024.04.25       | 2025.04.24          | 1 year                    |
| 3        | Spectrum<br>Analyzer                        | R&S             | FSV40           | 101417            | 2024.04.25       | 2025.04.24          | 1 year                    |
| 4        | Test Receiver                               | R&S             | ESPI7           | 101318            | 2024.04.26       | 2025.04.25          | 1 year                    |
| 5        | Bilog Antenna                               | TESEQ           | CBL6111D        | 31216             | 2024.05.12       | 2025.05.11          | 1 year                    |
| 6        | 50Ω Coaxial<br>Switch                       | Anritsu         | MP59B           | 6200983705        | 2024.04.26       | 2027.04.25          | 3 year                    |
| 7        | Horn Antenna                                | EM              | EM-AH-1018<br>0 | 2011071402        | 2024.05.12       | 2027.05.11          | 3 year                    |
| 8        | Broadband<br>Horn Antenna                   | SCHWARZBE<br>CK | BBHA 9170       | 803               | 2024.05.12       | 2027.05.11          | 3 year                    |
| 9        | Amplifier                                   | EMC             | EMC051835<br>SE | 980246            | 2024.04.25       | 2025.04.24          | 1 year                    |
| 10       | Active Loop<br>Antenna                      | SCHWARZBE<br>CK | FMZB 1519<br>B  | 055               | 2024.05.17       | 2027.05.16          | 3 year                    |
| 11       | Power Meter                                 | DARE            | RPR3006W        | 15I00041SN<br>084 | 2024.04.25       | 2025.04.24          | 1 year                    |
| 12       | Test Cable<br>(9KHz-30MHz)                  | N/A             | R-01            | N/A               | 2023.05.06       | 2026.05.05          | 3 year                    |
| 13       | Test Cable<br>(30MHz-1GHz)                  | N/A             | R-02            | N/A               | 2023.05.06       | 2026.05.05          | 3 year                    |
| 14       | High Test<br>Cable(1G-40G<br>Hz)            | N/A             | R-03            | N/A               | 2022.06.17       | 2025.06.16          | 3 year                    |
| 15       | Filter                                      | TRILTHIC        | 2400MHz         | 29                | 2024.04.26       | 2027.04.25          | 3 year                    |
| 16       | temporary<br>antenna<br>connector<br>(Note) | NTS             | R001            | N/A               | N/A              | N/A                 | N/A                       |

Note:

We will use the temporary antenna connector (soldered on the PCB board) When conducted test And this temporary antenna connector is listed within the instrument list





| AC Co | AC Conduction Test equipment   |                 |           |            |                  |                     |                    |
|-------|--------------------------------|-----------------|-----------|------------|------------------|---------------------|--------------------|
| Item  | Kind of<br>Equipment           | Manufacturer    | Type No.  | Serial No. | Last calibration | Calibrated<br>until | Calibration period |
| 1     | Test Receiver                  | R&S             | ESCI      | 101160     | 2024.04.26       | 2025.04.25          | 1 year             |
| 2     | LISN                           | R&S             | ENV216    | 101313     | 2024.04.25       | 2025.04.24          | 1 year             |
| 3     | LISN                           | SCHWARZBE<br>CK | NNLK 8129 | 8129245    | 2024.04.25       | 2025.04.24          | 1 year             |
| 4     | 50Ω Coaxial<br>Switch          | ANRITSU<br>CORP | MP59B     | 6200983704 | 2024.04.26       | 2027.04.25          | 3 year             |
| 5     | Test Cable<br>(9KHz-30MH<br>z) | N/A             | C01       | N/A        | 2023.05.06       | 2026.05.05          | 3 year             |
| 6     | Test Cable<br>(9KHz-30MH<br>z) | N/A             | C02       | N/A        | 2023.05.06       | 2026.05.05          | 3 year             |
| 7     | Test Cable<br>(9KHz-30MH<br>z) | N/A             | C03       | N/A        | 2023.05.06       | 2026.05.05          | 3 year             |

Note: Each piece of equipment is scheduled for calibration once a year except the Aux Equipment & Test Cable which is scheduled for calibration every 2 or 3 years.

Measurement Software

| Item | Manufacturer | Software Name        | Software Version | Description       |
|------|--------------|----------------------|------------------|-------------------|
| 1    | MWRFtest     | MTS 8310 2.4GHz/5GHz | 2.0              | RF Conducted Test |
| 2    | Farad        | EZ-EMC_RE            | AIT-03A          | RadiatedTest      |
| 3    | Farad        | EZ-EMC_CE            | AIT-03A          | AC Conducted Test |

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## 7 TEST REQUIREMENTS

## 7.1 CONDUCTED EMISSIONS TEST

## 7.1.1 Applicable Standard

According to FCC Part 15.207(a)

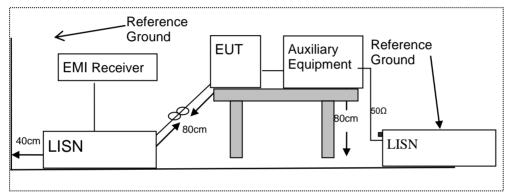
## 7.1.2 Conformance Limit

|                | Conducted Emission Limit |         |  |
|----------------|--------------------------|---------|--|
| Frequency(MHz) | Quasi-peak               | Average |  |
| 0.15-0.5       | 66-56*                   | 56-46*  |  |
| 0.5-5.0        | 56                       | 46      |  |
| 5.0-30.0       | 60                       | 50      |  |

Note: 1. \*Decreases with the logarithm of the frequency

- 2. The lower limit shall apply at the transition frequencies
  - 3. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

## 7.1.3 Test Configuration



## 7.1.4 Test Procedure

According to the requirements in Section 13.1.4.1 of ANSI C63.10-2013 Conducted emissions the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode.

- 1. The EUT was placed 0.4 meter from the conducting wall of the shielding room.
- 2. The EUT was placed on a table which is 0.8m above ground plane.
- 3. Connect EUT to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- 4. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40cm long.
- 5. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- 6. LISN at least 80 cm from nearest part of EUT chassis.
- 7. The frequency range from 150KHz to 30MHz was searched.
- 8. Set the test-receiver system to Peak Detect Function and specified bandwidth(IF bandwidth=9KHz) with Maximum Hold Mode
- 9. For the actual test configuration, please refer to the related Item -EUT Test Photos.

## 7.1.5 Test Results

Pass





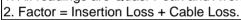
## 7.1.6 Test Results

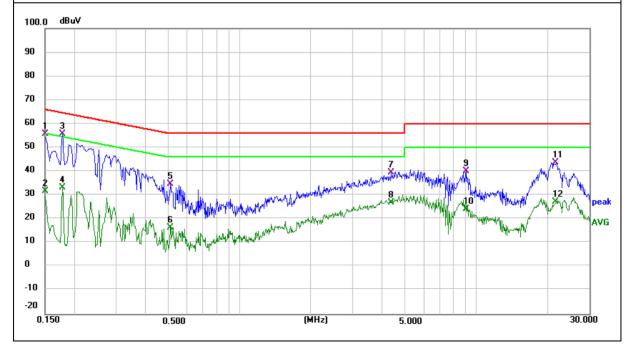
| EUT:           | MSWXB2518    | Model Name :       | MSWXB2518 |
|----------------|--------------|--------------------|-----------|
| Temperature:   | <b>24.9℃</b> | Relative Humidity: | 53.2%     |
| Pressure:      | 1010hPa      | Phase :            | L         |
| Test Voltage : | DC 3.3V      | Test Mode:         | Mode 1    |

| Frequency | Reading Level | Correct Factor | Measure-ment | Limits | Margin | Damark |
|-----------|---------------|----------------|--------------|--------|--------|--------|
| (MHz)     | (dBµV)        | (dB)           | (dBµV)       | (dBµV) | (dB)   | Remark |
| 0.1500    | 45.75         | 10.00          | 55.75        | 66.00  | -10.25 | QP     |
| 0.1500    | 21.76         | 10.00          | 31.76        | 56.00  | -24.24 | AVG    |
| 0.1776    | 45.85         | 10.05          | 55.90        | 64.60  | -8.70  | QP     |
| 0.1776    | 23.29         | 10.05          | 33.34        | 54.60  | -21.26 | AVG    |
| 0.5072    | 24.00         | 10.70          | 34.70        | 56.00  | -21.30 | QP     |
| 0.5072    | 5.71          | 10.70          | 16.41        | 46.00  | -29.59 | AVG    |
| 4.3605    | 29.43         | 10.03          | 39.46        | 56.00  | -16.54 | QP     |
| 4.3605    | 17.02         | 10.03          | 27.05        | 46.00  | -18.95 | AVG    |
| 9.0113    | 29.43         | 10.71          | 40.14        | 60.00  | -19.86 | QP     |
| 9.0113    | 13.61         | 10.71          | 24.32        | 50.00  | -25.68 | AVG    |
| 21.7149   | 30.78         | 13.00          | 43.78        | 60.00  | -16.22 | QP     |
| 21.7149   | 14.14         | 13.00          | 27.14        | 50.00  | -22.86 | AVG    |

## Remark:

1. All readings are Quasi-Peak and Average values.









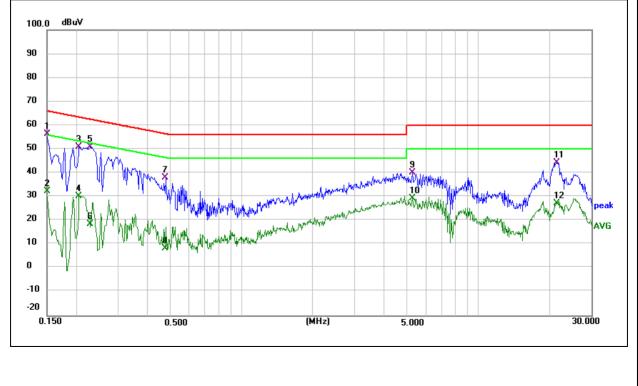
| EUT:           | MSWXB2518     | Model Name :       | MSWXB2518 |
|----------------|---------------|--------------------|-----------|
| Temperature:   | <b>24.9</b> ℃ | Relative Humidity: | 53.2%     |
| Pressure:      | 1010hPa       | Phase :            | Ν         |
| Test Voltage : | DC 3.3V       | Test Mode:         | Mode 1    |

| Frequency | Reading Level | Correct Factor | Measure-ment | Limits | Margin | Remark |
|-----------|---------------|----------------|--------------|--------|--------|--------|
| (MHz)     | (dBµV)        | (dB)           | (dBµV)       | (dBµV) | (dB)   | Remark |
| 0.1500    | 46.25         | 10.00          | 56.25        | 66.00  | -9.75  | QP     |
| 0.1500    | 22.26         | 10.00          | 32.26        | 56.00  | -23.74 | AVG    |
| 0.2049    | 40.77         | 10.10          | 50.87        | 63.41  | -12.54 | QP     |
| 0.2049    | 20.28         | 10.10          | 30.38        | 53.41  | -23.03 | AVG    |
| 0.2290    | 40.77         | 10.16          | 50.93        | 62.49  | -11.56 | QP     |
| 0.2290    | 8.32          | 10.16          | 18.48        | 52.49  | -34.01 | AVG    |
| 0.4736    | 27.48         | 10.63          | 38.11        | 56.45  | -18.34 | QP     |
| 0.4736    | -2.20         | 10.63          | 8.43         | 46.45  | -38.02 | AVG    |
| 5.2489    | 30.01         | 10.13          | 40.14        | 60.00  | -19.86 | QP     |
| 5.2489    | 19.10         | 10.13          | 29.23        | 50.00  | -20.77 | AVG    |
| 21.4860   | 31.34         | 12.96          | 44.30        | 60.00  | -15.70 | QP     |
| 21.4860   | 14.27         | 12.96          | 27.23        | 50.00  | -22.77 | AVG    |

Remark:

1. All readings are Quasi-Peak and Average values.

2. Factor = Insertion Loss + Cable Loss.





## 7.2 RADIATED SPURIOUS EMISSION

## 7.2.1 Applicable Standard

#### According to FCC Part 15.247(d) and 15.209 and ANSI C63.10-2013

#### 7.2.2 Conformance Limit

According to FCC Part 15.247(d): radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)). According to FCC Part15.205, Restricted bands

| According to 1 00 1 art13.20 |                     |               |             |
|------------------------------|---------------------|---------------|-------------|
| MHz                          | MHz                 | MHz           | GHz         |
| 0.090-0.110                  | 16.42-16.423        | 399.9-410     | 4.5-5.15    |
| 0.495-0.505                  | 16.69475-16.69525   | 608-614       | 5.35-5.46   |
| 2.1735-2.1905                | 16.80425-16.80475   | 960-1240      | 7.25-7.75   |
| 4.125-4.128                  | 25.5-25.67          | 1300-1427     | 8.025-8.5   |
| 4.17725-4.17775              | 37.5-38.25          | 1435-1626.5   | 9.0-9.2     |
| 4.20725-4.20775              | 73-74.6             | 1645.5-1646.5 | 9.3-9.5     |
| 6.215-6.218                  | 74.8-75.2           | 1660-1710     | 10.6-12.7   |
| 6.26775-6.26825              | 123-138             | 2200-2300     | 14.47-14.5  |
| 8.291-8.294                  | 149.9-150.05        | 2310-2390     | 15.35-16.2  |
| 8.362-8.366                  | 156.52475-156.52525 | 2483.5-2500   | 17.7-21.4   |
| 8.37625-8.38675              | 156.7-156.9         | 2690-2900     | 22.01-23.12 |
| 8.41425-8.41475              | 162.0125-167.17     | 3260-3267     | 23.6-24.0   |
| 12.29-12.293                 | 167.72-173.2        | 3332-3339     | 31.2-31.8   |
| 12.51975-12.52025            | 240-285             | 3345.8-3358   | 36.43-36.5  |
| 12.57675-12.57725            | 322-335.4           | 3600-4400     | (2)         |
| 13.36-13.41                  |                     |               |             |

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

| Restricted<br>Frequency(MHz) | Field Strength (µV/m) | Field Strength (dBµV/m) | Measurement Distance |
|------------------------------|-----------------------|-------------------------|----------------------|
| 0.009~0.490                  | 2400/F(KHz)           | 20 log (uV/m)           | 300                  |
| 0.490~1.705                  | 24000/F(KHz)          | 20 log (uV/m)           | 30                   |
| 1.705~30.0                   | 30                    | 29.5                    | 30                   |
| 30-88                        | 100                   | 40                      | 3                    |
| 88-216                       | 150                   | 43.5                    | 3                    |
| 216-960                      | 200                   | 46                      | 3                    |
| Above 960                    | 500                   | 54                      | 3                    |

Limits of Radiated Emission Measurement(Above 1000MHz)

| Froguopov(MHz) | Class B (dBuV/ | /m) (at 3M) |
|----------------|----------------|-------------|
| Frequency(MHz) | PEAK           | AVERAGE     |
| Above 1000     | 74             | 54          |

Remark :1. Emission level in dBuV/m=20 log (uV/m)

Measurement was performed at an antenna to the closed point of EUT distance of meters.
 For Frequency 9kHz~30MHz:

Distance extrapolation factor =40log(Specific distance/ test distance)(dB);

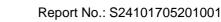
Limit line=Specific limits(dBuV) + distance extrapolation factor.

For Frequency above 30MHz:

Distance extrapolation factor =20log(Specific distance/ test distance)(dB);

Limit line=Specific limits(dBuV) + distance extrapolation factor.

# NTEK 北测<sup>®</sup>



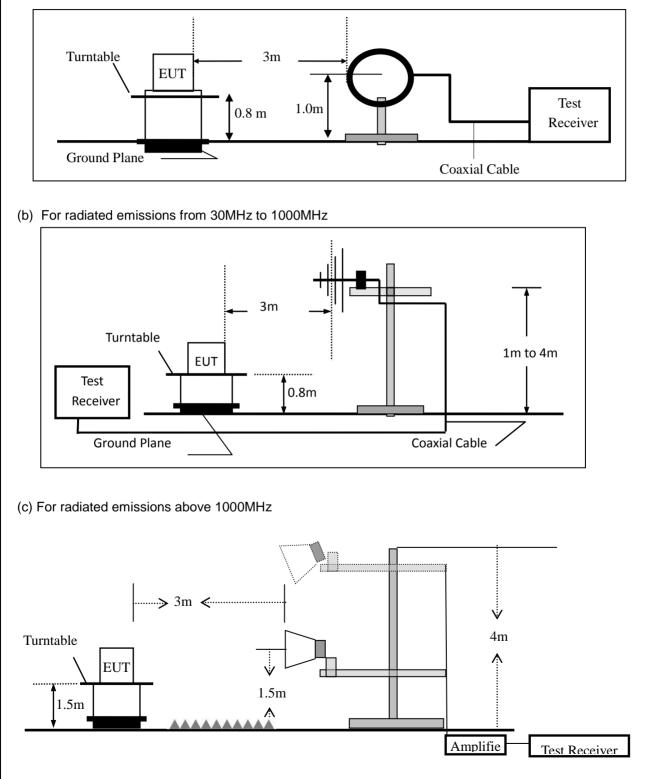
## 7.2.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

Certificate #4298.01

## 7.2.4 Test Configuration

### (a) For radiated emissions below 30MHz





#### 7.2.5 Test Procedure

The test site semi-anechoic chamber has met the requirement of NSA tolerance 4 dB according to the standards: ANSI C63.10-2013. The test distance is 3m.The setup is according to the requirements in Section 13.1.4.1 of ANSI C63.10-2013 and CAN/CSA-CEI/IEC CISPR 22.

Certificate #4298.01

This test is required for any spurious emission that falls in a Restricted Band, as defined in Section 15.205. It must be performed with the highest gain of each type of antenna proposed for use with the EUT. Use the following spectrum analyzer settings:

| Spectrum Parameter                    | Setting   |  |  |  |  |
|---------------------------------------|---|--|--|--|--|
| Attenuation                           | Auto  |  |  |  |  |
| Start Frequency                       | 1000 MHz  |  |  |  |  |
| Stop Frequency                        | 10th carrier harmonic                             |  |  |  |  |
| RB / VB (emission in restricted band) | 1 MHz / 1 MHz for Peak, 1 MHz / 1 MHz for Average |  |  |  |  |

| Receiver Parameter     | Setting                          |
|------------------------|----------------------------------|
| Attenuation            | Auto                             |
| Start ~ Stop Frequency | 9kHz~150kHz / RB 200Hz for QP    |
| Start ~ Stop Frequency | 150kHz~30MHz / RB 9kHz for QP    |
| Start ~ Stop Frequency | 30MHz~1000MHz / RB 120kHz for QP |

- a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 m for below 1GHz and 1.5m for above 1GHz the ground at a 3 meter. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m for below 1GHz and 1.5m for above 1GHz; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For the radiated emission test above 1GHz: Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
- e. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- f. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- g. For the actual test configuration, please refer to the related Item -EUT Test Photos.
  - Note:

Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported





| During the radiated emission test, the Spectrum Analyzer was set with the following configurations: |          |                      |                 |  |  |  |  |  |  |  |
|---|----------|----------------------|-----------------|--|--|--|--|--|--|--|
| Frequency Band (MHz)  | Function | Resolution bandwidth | Video Bandwidth |  |  |  |  |  |  |  |
| 30 to 1000  | QP       | 120 kHz              | 300 kHz         |  |  |  |  |  |  |  |
| AL  | Peak     | 1 MHz                | 1 MHz           |  |  |  |  |  |  |  |
| Above 1000  | Average  | 1 MHz                | 1 MHz           |  |  |  |  |  |  |  |

Note: for the frequency ranges below 30 MHz, a narrower RBW is used for these ranges but the measured value should add a RBW correction factor (RBWCF) where RBWCF [dB] =10\*lg(100 [kHz]/narrower RBW [kHz])., the narrower RBW is 1 kHz and RBWCF is 20 dB for the frequency 9 kHz to 150 kHz, and the narrower RBW is 10 kHz and RBWCF is 10 dB for the frequency 150 kHz to 30 MHz.

#### 7.2.6 Test Results

Spurious Emission below 30MHz (9KHz to 30MHz)

| EUT:         | MSWXB2518         | Model No.:         | MSWXB2518  |
|--------------|-------------------|--------------------|------------|
| Temperature: | <b>20</b> °C      | Relative Humidity: | 48%        |
| Test Mode:   | Mode2/Mode3/Mode4 | Test By:           | Kieron Luo |

| Freq. | Ant.Pol. | Emission L | evel(dBuV/m) | Limit 3 | m(dBuV/m) | Over(dB) |    |  |
|-------|----------|------------|--------------|---------|-----------|----------|----|--|
| (MHz) | H/V      | PK AV      |              | PK AV   |           | PK       | AV |  |
|       |          |            |              |         |           |          |    |  |

Note: the amplitude of spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.



191.7450

586.8436

938.8326



-19.89

-14.03

-9.59

peak

peak

peak

Spurious Emission below 1GHz (30MHz to 1GHz) All the modulation modes have been tested, and the worst result was report as below: EUT: MSWXB2518 Model Name : MSWXB2518 Temperature: **24.3**℃ 53% **Relative Humidity:** 1010hPa Test Mode: Pressure: Mode 4 DC 3.3V Test Voltage : Emission Meter Frequency Factor Limits Margin Polar Reading Level Remark (H/V) (dBuV/m) (MHz) (dBuV) (dB) (dBuV/m) (dB) 43.2016 V 49.06 -24.13 24.93 40.00 -15.07 peak V 18.36 61.7780 6.75 25.11 40.00 -14.89peak V 108.2666 5.82 17.65 23.47 43.50 -20.03 peak V

23.61

31.97

36.41

43.50

46.00

46.00

V **Remark:** 

V

Emission Level= Meter Reading+ Factor, Margin= Emission Level - Limit

17.22

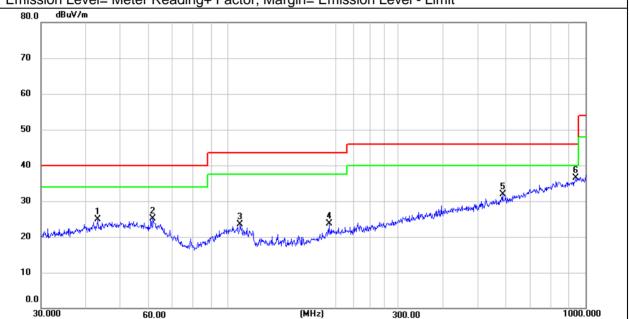
25.50

30.52

6.39

6.47

5.89







| Polar | Frequency             | Meter<br>Reading | Factor              | Emission<br>Level         | Limits  | Margin   | Remark   |  |
|-------|-----------------------|------------------|---------------------|---------------------------|---|--|--|--|
| (H/V) | (MHz)                 | (dBuV)           | (dB)                | (dBuV/m)                  | (dBuV/m)  | (dB)   | Remark   |  |
| Н     | 64.8865               | 7.69             | 17.56               | 25.25                     | 40.00   | -14.75   | peak   |  |
| Н     | 103.0800              | 8.74             | 17.84               | 26.58                     | 43.50   | -16.92   | peak   |  |
| Н     | 192.4185              | 11.28            | 17.26               | 28.54                     | 43.50   | -14.96   | peak   |  |
| Н     | 319.9370              | 7.53             | 20.62               | 28.15                     | 46.00   | -17.85   | peak   |  |
| Н     | 719.1995              | 6.01             | 28.18               | 34.19                     | 46.00   | -11.81   | peak   |  |
| Н     | 955.4381              | 6.69             | 30.67               | 37.36                     | 46.00   | -8.64  | peak   |  |
| Remar |                       |                  |                     |                           |   |  |  |  |
| -     | on Level= Meter I     | Reading+ Fac     | tor, Margin         | = Emission Le             | vel - Limit   |  |  |  |
| 80.0  | dBuV/m                |                  |                     |                           |   |  |  |  |
|       |                       |                  |                     |                           |   |  |  |  |
| 70    |                       |                  |                     |                           |   |  |  |  |
|       |                       |                  |                     |                           |   |  |  |  |
| 60    |                       |                  |                     |                           |   |  |  |  |
|       |                       |                  |                     |                           |   |  |  |  |
| 50    |                       |                  |                     |                           |   |  |  |  |
|       |                       |                  |                     |                           |   |  | <b>-</b> _   |  |
| 40    |                       |                  |                     |                           |   |  |  |  |
| 40    |                       |                  |                     |                           | porte and the second | 5  | P. Contraction of the second s |  |
| 30    |                       |                  |                     | 3                         |   | In the start of the start  |  |  |
| 30    |                       | 1 2              |                     | ×                         | under with good the word with   | All Contraction of the Contracti |  |  |
|       | a all my way way and  | ma with          | while be and with   | 1 holder with the strange | יירוא <b>ע</b>  |  |  |  |
| 20 🎽  | and the second second | Mus Hower        | Merson an under the | Algader                   |   |  |  |  |
| 10    |                       |                  |                     |                           |   |  |  |  |
| 0.0   |                       |                  |                     |                           |   |  |  |  |
|       | 000 60                | ).00             | ()                  | MHz)                      | 300.00  |  | 1000.000   |  |





| · · · · · · · · · · · · · · · · · · ·  | Spurious Emission Above 1GHz (1GHz to 25GHz) |               |                   |                  |                        |        |        |         |        |            |  |
|--|--|---------------|-------------------|------------------|------------------------|--------|--------|---------|--------|------------|--|
| EUT:   | MS   | WXB251        | 8                 | Mod              | el No.:                |        | MSV    | /XB2518 |        |            |  |
| Temperature:   | 20   | 20 °C         |                   |                  | Relative Humidity: 48% |        |        |         |        |            |  |
| Test Mode:   | Мо   | de2/Mod       | e3/Mode4          | Test             | By:                    |        | Kierc  | on Luo  |        |            |  |
| All the modulation modes have been tested, and the worst result was report as below: |  |               |                   |                  |                        |        |        |         |        |            |  |
| Frequency  | Read<br>Level                                | Cable<br>loss | Antenna<br>Factor | Preamp<br>Factor | Emission<br>Level      | Lim    | nits   | Margin  | Remark | Comment    |  |
| (MHz)  | (dBµV)                                       | (dB)          | dB/m              | (dB)             | (dBµV/m)               | (dBµ'  | V/m)   | (dB)    |        |            |  |
|  |  |               | Low Char          | nel (2402        | MHz) (GFSk             | ()Abo  | ve 1G  | ì       |        |            |  |
| 4804.214   | 53.50  | 5.21          | 35.59             | 44.30            | 50.00                  | 74.    | 00     | -24.00  | Pk     | Vertical   |  |
| 4804.214   | 39.33  | 5.21          | 35.59             | 44.30            | 35.83                  | 54.    | 00     | -18.17  | AV     | Vertical   |  |
| 7206.265   | 65.75  | 6.48          | 36.27             | 44.60            | 63.90                  | 74.    | 00     | -10.10  | Pk     | Vertical   |  |
| 7206.265   | 52.72  | 6.48          | 36.27             | 44.60            | 50.87                  | 54.    | 00     | -3.13   | AV     | Vertical   |  |
| 4804.109   | 53.23  | 5.21          | 35.55             | 44.30            | 49.69                  | 74.    | 00     | -24.31  | Pk     | Horizontal |  |
| 4804.109   | 38.97  | 5.21          | 35.55             | 44.30            | 35.43                  | 54.    | 00     | -18.57  | AV     | Horizontal |  |
| 7206.224   | 64.72  | 6.48          | 36.27             | 44.52            | 62.95                  | 74.    | 00     | -11.05  | Pk     | Horizontal |  |
| 7206.224   | 51.08  | 6.48          | 36.27             | 44.52            | 49.31                  | 54.    | 00     | -4.69   | AV     | Horizontal |  |
|  |  |               | Mid Chan          | nel (2441        | MHz)( GFSK             | )Abo   | ve 1G  |         |        |            |  |
| 4882.396   | 53.30  | 5.21          | 35.66             | 44.20            | 49.97                  | 74.    | 00     | -24.03  | Pk     | Vertical   |  |
| 4882.396   | 39.76  | 5.21          | 35.66             | 44.20            | 36.43                  | 54.    | 00     | -17.57  | AV     | Vertical   |  |
| 7323.241   | 63.97  | 7.10          | 36.50             | 44.43            | 63.14                  | 74.    | 00     | -10.86  | Pk     | Vertical   |  |
| 7323.241   | 50.94  | 7.10          | 36.50             | 44.43            | 50.11                  | 54.    | 00     | -3.89   | AV     | Vertical   |  |
| 4882.108   | 54.43  | 5.21          | 35.66             | 44.20            | 51.10                  | 74.    | 00     | -22.90  | Pk     | Horizontal |  |
| 4882.108   | 40.64  | 5.21          | 35.66             | 44.20            | 37.31                  | 54.    | 00     | -16.69  | AV     | Horizontal |  |
| 7323.132   | 63.59  | 7.10          | 36.50             | 44.43            | 62.76                  | 74.    | 00     | -11.24  | Pk     | Horizontal |  |
| 7323.132   | 49.01  | 7.10          | 36.50             | 44.43            | 48.18                  | 54.    | 00     | -5.82   | AV     | Horizontal |  |
|  |  | T             | High Char         | nel (2480        | MHz)( GFSK             | () Abo | ove 10 | 3       |        |            |  |
| 4960.397   | 57.45  | 5.21          | 35.52             | 44.21            | 53.97                  | 74.    | 00     | -20.03  | Pk     | Vertical   |  |
| 4960.397   | 40.62  | 5.21          | 35.52             | 44.21            | 37.14                  | 54.    | 00     | -16.86  | AV     | Vertical   |  |
| 7440.201   | 64.59  | 7.10          | 36.53             | 44.60            | 63.62                  | 74.    | 00     | -10.38  | Pk     | Vertical   |  |
| 7440.201   | 51.85  | 7.10          | 36.53             | 44.60            | 50.88                  | 54.    | 00     | -3.12   | AV     | Vertical   |  |
| 4960.225   | 55.11  | 5.21          | 35.52             | 44.21            | 51.63                  | 74.    | 00     | -22.37  | Pk     | Horizontal |  |
| 4960.225   | 42.03  | 5.21          | 35.52             | 44.21            | 38.55                  | 54.    | 00     | -15.45  | AV     | Horizontal |  |
| 7440.298   | 62.49  | 7.10          | 36.53             | 44.60            | 61.52                  | 74.    | 00     | -12.48  | Pk     | Horizontal |  |
| 7440.298   | 49.77  | 7.10          | 36.53             | 44.60            | 48.80                  | 54.    | 00     | -5.20   | AV     | Horizontal |  |

Note:

(1) Emission Level= Antenna Factor + Cable Loss + Read Level - Preamp Factor (2) All other emissions more than 20dB below the limit.





| UT:         | MSWXB2           |                        |                   |                | 2390MHz and odel No.: |          |              | /XB2518           | ;        |            |
|-------------|------------------|------------------------|-------------------|----------------|-----------------------|----------|--------------|-------------------|----------|------------|
| emperature: | . <b>20</b> ℃    | Relative Humidity: 48% |                   |                |                       |          |              |                   |          |            |
| est Mode:   | Mode2/ N         |                        |                   |                | est By:               | !        | Kierc        | on Luo            |          |            |
| Il the modu | lation mod       | es have                | been test         |                | d the worst res       | sult was | s <u>rep</u> | or <u>t as be</u> | low:     |            |
| Frequency   | Meter<br>Reading | Cable<br>Loss          | Antenna<br>Factor | Pream<br>Facto |                       | Limit    | its          | Margin            | Detector | Comment    |
| (MHz)       | (dBµV)           | (dB)                   | dB/m              | (dB)           | ) (dBµV/m)            | (dBµV    | //m)         | (dB)              | Туре     |            |
|             |                  |                        | 1                 | Mbps(C         | GFSK)-Non-hop         | ping     |              |                   |          |            |
| 2310.00     | 56.30            | 2.97                   | 27.80             | 43.80          | 0 43.27               | 74       | +            | -30.73            | Pk       | Horizontal |
| 2310.00     | 43.94            | 2.97                   | 27.80             | 43.80          | 0 30.91               | 54       | +            | -23.09            | AV       | Horizontal |
| 2310.00     | 55.93            | 2.97                   | 27.80             | 43.80          | 0 42.90               | 74       | +            | -31.10            | Pk       | Vertical   |
| 2310.00     | 41.54            | 2.97                   | 27.80             | 43.80          | 0 28.51               | 54       | +            | -25.49            | AV       | Vertical   |
| 2390.00     | 58.68            | 3.14                   | 27.21             | 43.80          | 0 45.23               | 74       | +            | -28.77            | Pk       | Vertical   |
| 2390.00     | 45.59            | 3.14                   | 27.21             | 43.80          | 0 32.14               | 54       | +            | -21.86            | AV       | Vertical   |
| 2390.00     | 57.44            | 3.14                   | 27.21             | 43.80          | 0 43.99               | 74       | +            | -30.01            | Pk       | Horizontal |
| 2390.00     | 44.97            | 3.14                   | 27.21             | 43.80          | 0 31.52               | 54       | +            | -22.48            | AV       | Horizontal |
| 2483.50     | 55.14            | 3.58                   | 27.70             | 44.00          | 0 42.42               | 74       | +            | -31.58            | Pk       | Vertical   |
| 2483.50     | 43.63            | 3.58                   | 27.70             | 44.00          | 0 30.91               | 54       | +            | -23.09            | AV       | Vertical   |
| 2483.50     | 55.54            | 3.58                   | 27.70             | 44.00          | 0 42.82               | 74       | +            | -31.18            | Pk       | Horizontal |
| 2483.50     | 44.52            | 3.58                   | 27.70             | 44.00          | 0 31.80               | 54       | F            | -22.20            | AV       | Horizontal |
| 2500.00     | 53.48            | 5.9                    | 27.70             | 45.10          | 0 41.98               | 74       | F            | -32.02            | Pk       | Vertical   |
| 2500.00     | 42.16            | 5.9                    | 27.70             | 45.10          | 0 30.66               | 54       | F            | -23.34            | AV       | Vertical   |
| 2500.00     | 52.78            | 5.9                    | 27.70             | 45.10          |                       | 74       |              | -32.72            | Pk       | Horizontal |
| 2500.00     | 41.85            | 5.9                    | 27.70             | 45.10          | 0 30.35               | 54       | F            | -23.65            | AV       | Horizontal |
|             |                  |                        |                   | 1Mbp:          | s(GFSK)-hoppin        | ng       |              |                   |          |            |
| 2310.00     | 52.99            | 2.97                   | 27.80             | 43.80          |                       | 74.0     | )0           | -34.04            | Pk       | Vertical   |
| 2310.00     | 42.15            | 2.97                   | 27.80             | 43.80          | 0 29.12               | 54.0     | 00           | -24.88            | AV       | Vertical   |
| 2310.00     | 54.66            | 2.97                   | 27.80             | 43.80          | 0 41.63               | 74.0     | )0           | -32.37            | Pk       | Horizontal |
| 2310.00     | 41.58            | 2.97                   | 27.80             | 43.80          | 0 28.55               | 54.0     | 00           | -25.45            | AV       | Horizontal |
| 2390.00     | 51.01            | 3.14                   | 27.21             | 43.80          | 0 37.56               | 74.0     | 00           | -36.44            | Pk       | Vertical   |
| 2390.00     | 40.81            | 3.14                   | 27.21             | 43.80          | 0 27.36               | 54.0     | )0           | -26.64            | AV       | Vertical   |
| 2390.00     | 52.71            | 3.14                   | 27.21             | 43.80          | 0 39.26               | 74.0     | 00           | -34.74            | Pk       | Horizontal |
| 2390.00     | 43.28            | 3.14                   | 27.21             | 43.80          | 0 29.83               | 54.0     | )0           | -24.17            | AV       | Horizontal |
| 2483.50     | 55.81            | 3.58                   | 27.70             | 44.00          | 0 43.09               | 74.0     | )0           | -30.91            | Pk       | Vertical   |
| 2483.50     | 44.09            | 3.58                   | 27.70             | 44.00          | 0 31.37               | 54.0     | )0           | -22.63            | AV       | Vertical   |
| 2483.50     | 54.73            | 3.58                   | 27.70             | 44.00          | 0 42.01               | 74.0     | )0           | -31.99            | Pk       | Horizonta  |
| 2483.50     | 43.59            | 3.58                   | 27.70             | 44.00          | 0 30.87               | 54.0     | )0           | -23.13            | AV       | Horizonta  |
| 2500.00     | 52.57            | 5.9                    | 27.70             | 45.10          | 0 41.07               | 74.0     | 00           | -32.93            | Pk       | Vertical   |
| 2500.00     | 41.83            | 5.9                    | 27.70             | 45.10          | 0 30.33               | 54.0     | 00           | -23.67            | AV       | Vertical   |
| 2500.00     | 51.22            | 5.9                    | 27.70             | 45.10          | 0 39.72               | 74.0     | 00           | -34.28            | Pk       | Horizonta  |
| 2500.00     | 40.67            | 5.9                    | 27.70             | 45.10          | 0 29.17               | 54.0     | 00           | -24.83            | AV       | Horizonta  |

Note: (1) All other emissions more than 20dB below the limit.

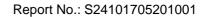




|    | Spurious Emission in Restricted Band 3260MHz-18000MHz |                  |               |                   |       |               |                   |        |         |           |          |            |
|----|---|------------------|---------------|-------------------|-------|---------------|-------------------|--------|---------|-----------|----------|------------|
| ΕL | JT:   | MSWXB2518        |               |                   |       |               | Model No.: MS     |        |         | MSWXB2518 |          |            |
| Те | mperature:  | <b>20</b> ℃      |               |                   |       | Relat         | ive Humidit       | y:     | 48%     |           |          |            |
| Те | st Mode:  | Mode             | e2/ Mode      | э4                |       | Test I        | By:               |        | Kiero   | n Luo     |          |            |
| A  | II the modula   | ation mode       | es have       | been teste        | ed, a | and the       | e worst res       | ult wa | is repo | ort as be | ow:      |            |
|    | Frequency   | Reading<br>Level | Cable<br>Loss | Antenna<br>Factor |       | eamp<br>actor | Emission<br>Level | Lin    | nits    | Margin    | Detector | Comment    |
|    | (MHz)   | (dBµV)           | (dB)          | dB/m              | (     | dB)           | (dBµV/m)          | (dBµ   | ıV/m)   | (dB)      | Туре     |            |
|    | 3260  | 54.16            | 4.04          | 29.57             | 44    | 4.70          | 43.07             | 7      | '4      | -30.93    | Pk       | Vertical   |
|    | 3260  | 40.77            | 4.04          | 29.57             | 44    | 4.70          | 29.68             | 5      | 64      | -24.32    | AV       | Vertical   |
|    | 3260  | 54.14            | 4.04          | 29.57             | 44    | 4.70          | 43.05             | 7      | '4      | -30.95    | Pk       | Horizontal |
|    | 3260  | 41.37            | 4.04          | 29.57             | 4     | 4.70          | 30.28             | 5      | 64      | -23.72    | AV       | Horizontal |
|    | 3332  | 52.91            | 4.26          | 29.87             | 4     | 4.40          | 42.64             | 7      | '4      | -31.36    | Pk       | Vertical   |
|    | 3332  | 41.34            | 4.26          | 29.87             | 4     | 4.40          | 31.07             | 5      | 64      | -22.93    | AV       | Vertical   |
|    | 3332  | 53.50            | 4.26          | 29.87             | 4     | 4.40          | 43.23             | 7      | '4      | -30.77    | Pk       | Horizontal |
|    | 3332  | 43.80            | 4.26          | 29.87             | 4     | 4.40          | 33.53             | 5      | 64      | -20.47    | AV       | Horizontal |
|    | 17797   | 42.12            | 10.99         | 43.95             | 43    | 3.50          | 53.56             | 7      | '4      | -20.44    | Pk       | Vertical   |
|    | 17797   | 33.55            | 10.99         | 43.95             | 4:    | 3.50          | 44.99             | 5      | 64      | -9.01     | AV       | Vertical   |
|    | 17788   | 42.49            | 11.81         | 43.69             | 4     | 4.60          | 53.39             | 7      | '4      | -20.61    | Pk       | Horizontal |
|    | 17788   | 34.00            | 11.81         | 43.69             | 4     | 4.60          | 44.90             | 5      | 54      | -9.10     | AV       | Horizontal |

Note: (1) All other emissions more than 20dB below the limit.





### 7.3 NUMBER OF HOPPING CHANNEL

#### 7.3.1 Applicable Standard

According to FCC Part 15.247(a)(1) (iii)and ANSI C63.10-2013

#### 7.3.2 Conformance Limit

Frequency hopping systems in the 2400-2483.5MHz band shall use at least 15 channels.

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#### 7.3.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

#### 7.3.4 Test Setup

Please refer to Section 6.1 of this test report.

#### 7.3.5 Test Procedure

The testing follows ANSI C63.10-2013 clause 7.8.3

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.

The path loss was compensated to the results for each measurement.

Set to the maximum power setting and enable the EUT transmit continuously.

The EUT must have its hopping function enabled.

Use the following spectrum analyzer settings:

Span = the frequency band of operation

RBW : To identify clearly the individual channels, set the RBW to less than 30% of the channel spacing or the 20 dB bandwidth, whichever is smaller.

 $VBW \ge RBW$ 

Sweep = auto

Detector function = peak Trace = max hold

#### 7.3.6 Test Results

| EUT:         | MSWXB2518     | Model No.:         | MSWXB2518                      |
|--------------|---------------|--------------------|--------------------------------|
| Temperature: | <b>20</b> ℃   | Relative Humidity: | 48%                            |
| Test Mode:   | Mode 5(1Mbps) | Test By:           | MSWXB2518<br>48%<br>Kieron Luo |



## 7.4 HOPPING CHANNEL SEPARATION MEASUREMENT

#### 7.4.1 Applicable Standard

According to FCC Part 15.247(a)(1) and ANSI C63.10-2013

#### 7.4.2 Conformance 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. Alternatively, frequency hopping systems operating in the 2400-2483.5MHz band shall have hopping channel carrier frequencies that are separated by 25kHz or two-thirds of the 20dB bandwidth of the hopping channel, whichever is greater.

#### 7.4.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

#### 7.4.4 Test Setup

Please refer to Section 6.1 of this test report.

#### 7.4.5 Test Procedure

The testing follows ANSI C63.10-2013 clause 7.8.2

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.

The path loss was compensated to the results for each measurement.

Set to the maximum power setting and enable the EUT transmit continuously.

The EUT was operating in controlled its channel.

Use the following spectrum analyzer settings:

Span = Measurement Bandwidth or Channel Separation

RBW: Start with the RBW set to approximately 30% of the channel spacing; adjust as necessary to best identify the center of each individual channel.

VBW ≥ RBW Sweep = auto

Detector function = peak Trace = max hold

#### 7.4.6 Test Results

| EUT:         | MSWXB2518         | Model No.:         | MSWXB2518                      |
|--------------|-------------------|--------------------|--------------------------------|
| Temperature: | <b>20</b> ℃       | Relative Humidity: | MSWXB2518<br>48%<br>Kieron Luo |
| Test Mode:   | Mode2/Mode3/Mode4 | Test By:           | Kieron Luo                     |



## 7.5 AVERAGE TIME OF OCCUPANCY (DWELL TIME)

#### 7.5.1 Applicable Standard

According to FCC Part 15.247(a)(1)(iii) and ANSI C63.10-2013

#### 7.5.2 Conformance Limit

The average time of occupancy on any channel shall not be greater than 0.4s within a period of 0.4s multiplied by the number of hopping channels employed.

Certificate #4298.01

#### 7.5.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

#### 7.5.4 Test Setup

Please refer to Section 6.1 of this test report.

### 7.5.5 Test Procedure

The testing follows ANSI C63.10-2013 clause 7.8.4 The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. Set to the maximum power setting and enable the EUT transmit continuously. The EUT must have its hopping function enabled. Use the following spectrum analyzer settings: Span = zero span, centered on a hopping channel RBW  $\geq$  1MHz VBW  $\geq$  RBW Sweep = as necessary to capture the entire dwell time per hopping channel Detector function = peak Trace = max hold Measure the maximum time duration of one single pulse. Set the EUT for DH5, DH3 and DH1 packet transmitting. Measure the maximum time duration of one single pulse.





#### 7.5.6 Test Results

| EUT:         | MSWXB2518         | Model No.:         | MSWXB2518  |
|--------------|-------------------|--------------------|------------|
| Temperature: | <b>20</b> ℃       | Relative Humidity: | 48%        |
| Test Mode:   | Mode2/Mode3/Mode4 | Test By:           | Kieron Luo |

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Test data reference attachment.

Note:

Period Time = (channel number)\*0.4

DH1 Dwell time: Pulse time\* Burst Count (Number of hops in the period specified in the requirements) DH3 Dwell time: Pulse time\* Burst Count (Number of hops in the period specified in the requirements) DH5 Dwell time: Pulse time\* Burst Count (Number of hops in the period specified in the requirements)



### 7.6 20DB BANDWIDTH TEST

#### 7.6.1 Applicable Standard

According to FCC Part 15.247(a)(1) and ANSI C63.10-2013

#### 7.6.2 Conformance Limit

No limit requirement.

#### 7.6.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

#### 7.6.4 Test Setup

Please refer to Section 6.1 of this test report.

#### 7.6.5 Test Procedure

The testing follows ANSI C63.10-2013 clause 6.9.2 The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. Set to the maximum power setting and enable the EUT transmit continuously. The EUT was operating in controlled its channel. Use the following spectrum analyzer settings: Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel RBW  $\geq$  1% of the 20 dB bandwidth VBW  $\geq$  RBW Sweep = auto Detector function = peak Trace = max hold

Certificate #4298.01

#### 7.6.6 Test Results

| EUT:         | MSWXB2518         | Model No.:         | MSWXB2518  |
|--------------|-------------------|--------------------|------------|
| Temperature: | <b>20</b> ℃       | Relative Humidity: | 48%        |
| Test Mode:   | Mode2/Mode3/Mode4 | Test By:           | Kieron Luo |





## 7.7 **PEAK OUTPUT POWER**

#### 7.7.1 Applicable Standard

According to FCC Part 15.247(b)(1) and ANSI C63.10-2013

#### 7.7.2 Conformance Limit

The maximum peak conducted output power of the intentional radiator shall not exceed the following: (1) For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band 0.125 watts.

#### 7.7.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

#### 7.7.4 Test Setup

Please refer to Section 6.1 of this test report.

#### 7.7.5 Test Procedure

The testing follows ANSI C63.10-2013 clause 7.8.5.

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.

The path loss was compensated to the results for each measurement.

Set to the maximum power setting and enable the EUT transmit continuously.

The EUT was operating in controlled its channel.

Use the following spectrum analyzer settings:

Span = approximately 5 times the 20 dB bandwidth, centered on a hopping channel

 $RBW \ge the 20 dB$  bandwidth of the emission being measured

 $VBW \ge RBW$ 

Sweep = auto

Detector function = peak Trace = max hold

#### 7.7.6 Test Results

| EUT:         | MSWXB2518         | Model No.:         | MSWXB2518  |  |
|--------------|-------------------|--------------------|------------|--|
| Temperature: | <b>20</b> ℃       | Relative Humidity: | 48%        |  |
| Test Mode:   | Mode2/Mode3/Mode4 | Test By:           | Kieron Luo |  |





### 7.8 CONDUCTED BAND EDGE MEASUREMENT

#### 7.8.1 Applicable Standard

According to FCC Part 15.247(d) and ANSI C63.10-2013

#### 7.8.2 Conformance Limit

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

#### 7.8.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

#### 7.8.4 Test Setup

Please refer to Section 6.1 of this test report.

#### 7.8.5 Test Procedure

The testing follows ANSI C63.10-2013 clause 7.8.6.

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.

The path loss was compensated to the results for each measurement.

Set to the maximum power setting and enable the EUT transmit continuously.

The EUT must have its hopping function enabled.

Use the following spectrum analyzer settings:

Span = approximately 5 times the 20 dB bandwidth, centered on a hopping channel

RBW = 100KHz

VBW = 300KHz

Band edge emissions must be at least 20 dB down from the highest emission level within the authorized band as measured with a 100kHz RBW. The attenuation shall be 30 dB instead of 20 dB when RMS conducted output power procedure is used.

Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.

Repeat above procedures until all measured frequencies were complete.

#### 7.8.6 Test Results

| EUT:         | MSWXB2518            | Model No.:         | MSWXB2518  |
|--------------|----------------------|--------------------|------------|
| Temperature: | <b>20</b> °C         | Relative Humidity: | 48%        |
| Test Mode:   | Mode2 /Mode4/ Mode 5 | Test By:           | Kieron Luo |





## 7.9 SPURIOUS RF CONDUCTED EMISSION

## 7.9.1 Applicable Standard

According to FCC Part 15.247(d) and ANSI C63.10-2013.

#### 7.9.2 Conformance Limit

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

#### 7.9.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

#### 7.9.4 Test Setup

Please refer to Section 6.1 of this test report.

#### 7.9.5 Test Procedure

Establish an emission level by using the following procedure:

a) Set the center frequency and span to encompass frequency range to be measured.

- b) Set the RBW = 100 kHz.
- c) Set the VBW  $\geq$  [3 × RBW].
- d) Detector = peak.
- e) Sweep time = auto couple.
- f) Trace mode = max hold.

g) Allow trace to fully stabilize.

h) Use the peak marker function to determine the maximum amplitude level.

Then the limit shall be attenuated by at least 20 dB relative to the maximum amplitude level in 100 kHz.

#### 7.9.6 Test Results

Remark: The measurement frequency range is from 30MHzHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the spurious emissions and bandege measurement data.





## 7.10 ANTENNA APPLICATION

#### 7.10.1 Antenna Requirement

15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

#### 7.10.2 Result

The EUT antenna is Permanently attached ceramic antenna (Gain: 1.5 dBi). It comply with the standard requirement.



#### 7.11 FREQUENCY HOPPING SYSTEM (FHSS) EQUIPMENT REQUIREMENTS 7.11.1 Standard Applicable

According to FCC Part 15.247(a)(1), The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals. (g) Frequency hopping spread spectrum systems are not required to employ all available hopping channels during each transmission. However, the system, consisting of both the transmitter and the receiver, must be designed to comply with all of the regulations in this section should the transmission bursts must comply with the definition of a frequency hopping system and must distribute its transmissions over the minimum number of hopping channels specified in this section. (h) The incorporation of intelligence within a frequency hopping spread spectrum system that permits the system to recognize other users within the spectrum band so that it individually and independently chooses and adapts its hopsets to avoid hopping on occupied channels is permitted. The coordination of frequency hopping systems in any other manner for the express purpose of avoiding the simultaneous occupancy of individual hopping frequencies by multiple transmitters is not permitted.

## 7.11.2 Frequency Hopping System

This transmitter device is frequency hopping device, and complies with FCC part 15.247 rule. This device uses Bluetooth radio which operates in 2400-2483.5 MHz band. Bluetooth uses a radio technology called frequency-hopping spread spectrum, which chops up the data being sent and transmits chunks of it on up to 79 bands (1 MHz each; centred from 2402 to 2480 MHz) in the range 2,400-2,483.5 MHz. The transmitter switches hop frequencies 1,600 times per second to assure a high degree of data security. All Bluetooth devices participating in a given piconet are synchronized to the frequency-hopping channel for the piconet. The frequency hopping sequence is determined by the master's device address and the phase of the hopping sequence (the frequency to hop at a specific time) is determined by the master's internal clock. Therefore, all slaves in a piconet must know the master's device address and must synchronize their clocks with the master's clock. Adaptive Frequency Hopping (AFH) was introduced in the Bluetooth specification to provide an effective way for a Bluetooth radio to counteract normal interference. AFH identifies "bad" channels, where either other wireless devices are interfering with the Bluetooth signal or the Bluetooth signal is interfering with another device. The AFH-enabled Bluetooth device will then communicate with other devices within its piconet to share details of any identified bad channels. The devices will then switch to alternative available "good" channels, away from the areas of interference, thus having no impact on the bandwidth used.

This device was tested with an bluetooth system receiver to check that the device maintained hopping synchronization, and the device complied with these requirements for FCC Part 15.247 rule.

## 7.11.3 EUT Pseudorandom Frequency Hopping Sequence

Pseudorandom Frequency Hopping Sequence Table as below: Channel: 08, 24, 40, 56, 40, 56, 72, 09, 01, 09, 33, 41, 33, 41, 65, 73, 53, 69, 06, 22, 04, 20, 36, 52, 38, 46, 70, 78, 68, 76, 21, 29, 10, 26, 42, 58, 44, 60, 76, 13, 03, 11, 35, 43, 37, 45, 69, 77, 55, 71, 08, 24, 08, 24, 40, 56, 40, 48, 72, 01, 72, 01, 25, 33, 12, 28, 44, 60, 42, 58, 74, 11, 05, 13, 37, 45 etc.

The system receiver have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shift frequencies in synchronization with the transmitted signals.





## 8 TEST RESULTS

## 8.1 DWELL TIME

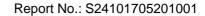
| Condition | Mode  | Frequency<br>(MHz) | Antenna | Pulse<br>Time<br>(ms) | Total<br>Dwell<br>Time<br>(ms) | Burst<br>Count | Period<br>Time<br>(ms) | Limit<br>(ms) | Verdict |
|-----------|-------|--------------------|---------|-----------------------|--------------------------------|----------------|------------------------|---------------|---------|
| NVNT      | 1-DH1 | 2441               | Ant1    | 0.369                 | 85.977                         | 233            | 31600                  | 400           | Pass    |
| NVNT      | 1-DH3 | 2441               | Ant1    | 1.625                 | 214.5                          | 132            | 31600                  | 400           | Pass    |
| NVNT      | 1-DH5 | 2441               | Ant1    | 2.872                 | 292.944                        | 102            | 31600                  | 400           | Pass    |
| NVNT      | 2-DH1 | 2441               | Ant1    | 0.378                 | 81.27                          | 215            | 31600                  | 400           | Pass    |
| NVNT      | 2-DH3 | 2441               | Ant1    | 1.63                  | 202.12                         | 124            | 31600                  | 400           | Pass    |
| NVNT      | 2-DH5 | 2441               | Ant1    | 2.88                  | 276.48                         | 96             | 31600                  | 400           | Pass    |
| NVNT      | 3-DH1 | 2441               | Ant1    | 0.378                 | 80.136                         | 212            | 31600                  | 400           | Pass    |
| NVNT      | 3-DH3 | 2441               | Ant1    | 1.63                  | 215.16                         | 132            | 31600                  | 400           | Pass    |
| NVNT      | 3-DH5 | 2441               | Ant1    | 2.88                  | 285.12                         | 99             | 31600                  | 400           | Pass    |

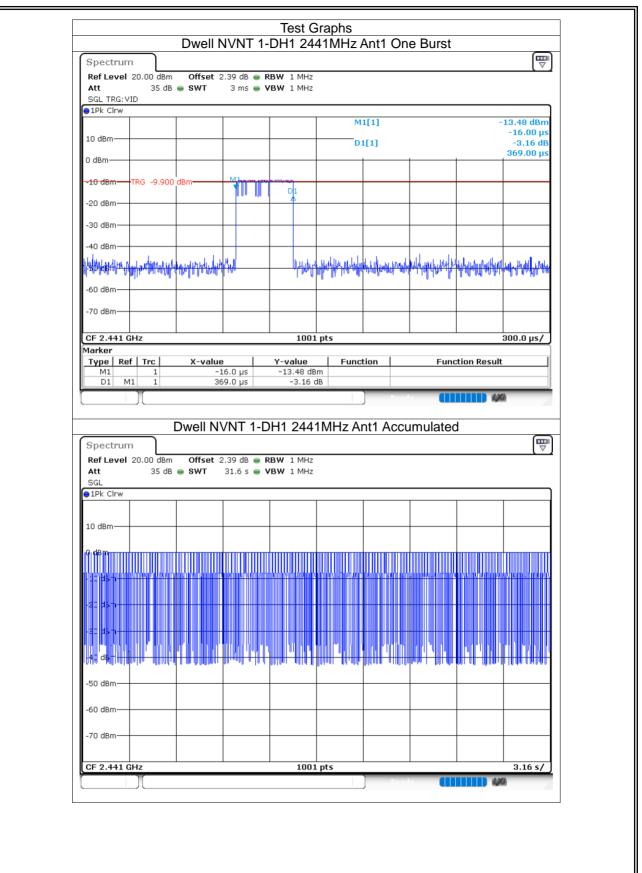


ilac-MR

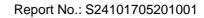
ACCREDITED

Certificate #4298.01



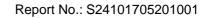






| ⊖1Pk Clrw   |            |                           |                     |            |                     |             |                           |                         |
|---|------------|---------------------------|---------------------|------------|---------------------|-------------|---------------------------|-------------------------|
|   |            |                           |                     | M          | 1[1]                |             |                           | -8.73 dBm<br>00000000 s |
| 10 dBm  |            |                           |                     | D          | l[1]                |             |                           | -1.01 dB                |
| 0 dBm   | M1         |                           |                     |            |                     |             |                           | 1.62500 ms              |
| -10 dBm TRG -10.0   | 000 dBm    | <b>ุณุณ−าญาาามงางเพ</b> า | าบพทางทหนานาา       | ությ1<br>Փ |                     | un company  | fine outpoint constraints |                         |
| -20 dBm   |            | 10                        |                     |            |                     |             |                           |                         |
| -30 dBm   |            |                           |                     |            |                     |             |                           |                         |
|   |            |                           |                     |            |                     |             |                           |                         |
| -40 dBm   | ad.        |                           |                     | uldha wat  | protophand          |             |                           |                         |
| rgabyoper and a second s | 144        |                           |                     | HAL WARDA  | Risandelli zaristva |             |                           |                         |
| -60 dBm   |            |                           |                     |            |                     |             |                           |                         |
| -70 dBm   |            |                           |                     |            |                     |             |                           |                         |
| CF 2.441 GHz  |            |                           | 1001                | nte        |                     |             |                           | 500.0 µs/               |
| Marker  |            |                           | 1001                | prs        |                     |             |                           | 300.0 µs7               |
| TypeRefTrcM11   | X-value    | 9 0.0 s                   | Y-value<br>-8.73 dB | Funct      | tion                | Func        | tion Result               | <u>t</u>                |
| D1 M1 1   | 1.6        | 525 ms                    | -1.01 d             | IB         |                     |             |                           |                         |
|   |            |                           |                     |            | Read                | y <b>di</b> |                           |                         |
|   | Durall NI  |                           |                     |            |                     |             |                           |                         |
|   |            | /NT 1-D                   | H3 2441             | 1MHz Ar    | nt1 Acci            | imulated    |                           |                         |
| Spectrum  | Dwell IN   | VNT 1-D                   | H3 2441             | 1MHz Ar    | nt1 Accu            | Imulated    |                           | m                       |
| Spectrum<br>Ref Level 20.00 dB  |            | VNT 1-D                   |                     | 1MHz Ar    | nt1 Accu            | Imulated    |                           |                         |
| RefLevel 20.00 dB<br>Att 35 d   | m Offset 2 |                           | BW 1 MHz            | 1 MHz Ar   | nt1 Accu            | Imulated    | <u> </u>                  |                         |
| Ref Level 20.00 dB  | m Offset 2 | 2.39 dB 👄 R               | BW 1 MHz            | 1MHz Ar    | nt1 Accu            | imulated    |                           |                         |
| Ref Level 20.00 dB<br>Att 35 d<br>SGL   | m Offset 2 | 2.39 dB 👄 R               | BW 1 MHz            | 1MHz Ar    | nt1 Accu            | imulated    |                           |                         |
| Ref Level 20.00 dB<br>Att 35 d<br>SGL   | m Offset 2 | 2.39 dB 👄 R               | BW 1 MHz            | 1MHz Ar    |                     | Imulated    |                           |                         |
| Ref Level 20.00 dB<br>Att 35 d<br>SGL<br>1Pk Cirw   | m Offset 2 | 2.39 dB 👄 R               | BW 1 MHz            | 1MHz Ar    | nt1 Accu            |             |                           |                         |
| Ref Level 20.00 dB<br>Att 35 c<br>SGL<br>IPK CIrw<br>10 dBm<br>0 dBm  | m Offset 2 | 2.39 dB 👄 R               | BW 1 MHz            | 1MHz Ar    |                     |             |                           |                         |
| Ref Level 20.00 dB<br>Att 35 d<br>SGL<br>1Pk Cirw<br>10 dBm   | m Offset 2 | 2.39 dB 👄 R               | BW 1 MHz            | 1MHz Ar    |                     |             |                           |                         |
| Ref Level 20.00 dB<br>Att 35 c<br>SGL<br>IPK CIrw<br>10 dBm<br>0 dBm  | m Offset 2 | 2.39 dB 👄 R               | BW 1 MHz            | 1MHz Ar    |                     |             |                           |                         |
| Ref Level 20.00 dB           Att         35 c           SGL         9 IPk Clrw           10 dBm         9 dBm           -10 dBm         -10 dBm   | m Offset 2 | 2.39 dB 👄 R               | BW 1 MHz            | 1MHz Ar    |                     |             |                           |                         |
| Ref Level 20.00 dB           Att         35 c           SGL         ■           ● 1Pk Clrw         ■           10 dBm         ■           -10 dBm         ■   | m Offset 2 | 2.39 dB 👄 R               | BW 1 MHz            | 1MHz Ar    |                     |             |                           |                         |
| Ref Level 20.00 dB           Att         35 c           SGL         9 IPk Clrw           10 dBm         9 dBm           -10 dBm         -10 dBm   | m Offset 2 | 2.39 dB 👄 R               | BW 1 MHz            |            |                     |             |                           |                         |
| Ref Level 20.00 dB           Att         35 c           SGL         9 IPk Clrw           10 dBm         9 dBm           -10 dBm         -10 dBm   | m Offset 2 | 2.39 dB 👄 R               | BW 1 MHz            | 1MHz Ar    |                     |             |                           |                         |
| Ref Level 20.00 dB           Att         35 c           SGL         9 1Pk Clrw           10 dBm         9           p dBm         9           -20 dBm         9           -30 dBm         9           -50 dBm         9   | m Offset 2 | 2.39 dB 👄 R               | BW 1 MHz            | 1MHz Ar    |                     |             |                           |                         |
| Ref Level 20.00 dB           Att         35 c           SGL         10 dBm           10 dBm         10 dBm           20 dBm         10 dBm           -20 dBm         10 dBm           -30 dBm         10 dBm  | m Offset 2 | 2.39 dB 👄 R               | BW 1 MHz            | 1MHz Ar    |                     |             |                           |                         |
| Ref Level 20.00 dB           Att         35 c           SGL         9 1Pk Clrw           10 dBm         9           p dBm         9           -20 dBm         9           -30 dBm         9           -50 dBm         9   | m Offset 2 | 2.39 dB 👄 R               | BW 1 MHz            | 1MHz Ar    |                     |             |                           |                         |
| Ref Level 20.00 dB       Att     35 c       SGL     ■       ● 1Pk Clrw       10 dBm       □ dBm       -10 dBm       -20 dBm       -30 dBm       -50 dBm       -60 dBm   | m Offset 2 | 2.39 dB 👄 R               | BW 1 MHz            | 1MHz Ar    |                     |             |                           |                         |
| Ref Level 20.00 dB       Att     35 c       SGL     ■       ● 1Pk Clrw       10 dBm       □ dBm       -10 dBm       -20 dBm       -30 dBm       -50 dBm       -60 dBm   | m Offset 2 | 2.39 dB 👄 R               | BW 1 MHz            |            |                     |             |                           | 3.16 s/                 |





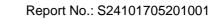
| ●1Pk Clrw   |                    |                        | I                                    |                      |                | 1[1]     |                      |                 | -10.02 dBm            |
|---|--------------------|------------------------|--------------------------------------|----------------------|----------------|----------|----------------------|-----------------|-----------------------|
| 10 dBm  |                    |                        |                                      |                      |                |          |                      |                 | -16.00 µs             |
| 0 dBm   |                    |                        |                                      |                      | D              | 1[1]     |                      | . :             | 0.97 dB<br>2.87200 ms |
|   | м1                 |                        |                                      | D1                   |                |          |                      |                 |                       |
| -10 dBm   | RG -9.800          | dBm <del>aileaco</del> |                                      | -برجمانو، صفح        |                |          |                      |                 |                       |
| -20 dBm   |                    |                        |                                      |                      |                |          |                      |                 |                       |
| -30 dBm   |                    |                        |                                      |                      |                |          |                      |                 |                       |
| -40 dBm   |                    |                        |                                      |                      | le e e         |          |                      |                 |                       |
| uha se manih  | ₩ <sup>2</sup>     |                        |                                      | H <sub>r</sub>       | 4411+1414hilds | Huntert  | allalaninan likipita | http://www.html | alliteration          |
| -60 dBm   |                    |                        |                                      |                      |                |          |                      |                 |                       |
| -70 dBm   |                    |                        |                                      |                      |                |          |                      |                 |                       |
|   |                    |                        |                                      |                      |                |          |                      |                 |                       |
| CF 2.441 Gł<br>Marker   | lz                 |                        |                                      | 1001                 | L pts          |          |                      |                 | 800.0 µs/             |
| Type Ref  | 1 Trc              | X-value                | <b>е</b><br>16.0 µs                  | Y-value<br>-10.02 dB | Func           | tion     | Fund                 | tion Result     | t]                    |
| D1 M1   |                    |                        | 872 ms                               | 0.97                 |                |          |                      |                 |                       |
|   |                    |                        |                                      |                      |                |          |                      |                 |                       |
| Spectrum<br>Ref Level 2<br>Att  | 20.00 dBm          | Offset 2               | VNT 1-D<br>2.39 dB • R<br>31.6 s • V | BW 1 MHz             |                | nt1 Accu | imulated             |                 |                       |
| Ref Level 2<br>Att<br>SGL   | 20.00 dBm          | Offset 2               | 2.39 dB 👄 R                          | BW 1 MHz             |                | nt1 Accu | imulated             |                 |                       |
| Ref Level 2<br>Att<br>SGL<br>1Pk Clrw   | 20.00 dBm          | Offset 2               | 2.39 dB 👄 R                          | BW 1 MHz             |                | nt1 Accu | imulated             |                 |                       |
| Ref Level 2<br>Att<br>SGL   | 20.00 dBm          | Offset 2               | 2.39 dB 👄 R                          | BW 1 MHz             |                | nt1 Accu |                      |                 |                       |
| Ref Level 2<br>Att<br>SGL<br>1Pk Clrw   | 20.00 dBm          | Offset 2               | 2.39 dB 👄 R                          | BW 1 MHz             |                | nt1 Accu |                      |                 |                       |
| Ref Level 2<br>Att<br>SGL<br>1Pk Clrw<br>10 dBm   | 20.00 dBm          | Offset 2               | 2.39 dB 👄 R                          | BW 1 MHz             |                |          |                      |                 |                       |
| Ref Level 2<br>Att<br>SGL<br>● 1Pk Clrw<br>10 dBm<br>- 10 dBm   | 20.00 dBm          | Offset 2               | 2.39 dB 👄 R                          | BW 1 MHz             |                |          |                      |                 |                       |
| Ref Level 2<br>Att<br>SGL<br>IPk Clrw<br>10 dBm<br>0 dBm  | 20.00 dBm          | Offset 2               | 2.39 dB 👄 R                          | BW 1 MHz             |                |          |                      |                 |                       |
| Ref Level 2<br>Att<br>SGL<br>● 1Pk Clrw<br>10 dBm<br>   | 20.00 dBm          | Offset 2               | 2.39 dB 👄 R                          | BW 1 MHz             |                |          |                      |                 |                       |
| Ref Level 2<br>Att<br>SGL<br>● 1Pk Clrw<br>10 dBm<br>− 10 dBm<br>− 10 dBm<br>− 20 cBr − −   | 20.00 dBm          | Offset 2               | 2.39 dB 👄 R                          | BW 1 MHz             |                |          |                      |                 |                       |
| Ref Level 2<br>Att<br>SGL<br>● 1Pk Clrw<br>10 dBm<br>0 dBm<br>-10 dBm<br>-20 cBr<br>-20 cBr<br>-20 cBr<br>-20 cBr   | 20.00 dBm          | Offset 2               | 2.39 dB 👄 R                          | BW 1 MHz             |                |          |                      |                 |                       |
| Ref Level 2<br>Att<br>SGL<br>● 1Pk Clrw<br>10 dBm<br>-10 dBm<br>-10 dBm<br>-20 c6r  | 20.00 dBm          | Offset 2               | 2.39 dB 👄 R                          | BW 1 MHz             |                |          |                      |                 |                       |
| Ref Level 2<br>Att<br>SGL<br>● 1Pk Clrw<br>10 dBm<br>0 dBm<br>-10 dBm<br>-20 cBr<br>-20 cBr<br>-20 cBr<br>-20 cBr   | 20.00 dBm          | Offset 2               | 2.39 dB 👄 R                          | BW 1 MHz             |                |          |                      |                 |                       |
| Ref Level 2<br>Att<br>SGL<br>● 1Pk Clrw<br>10 dBm<br>0 dBm<br>-10 dBm<br>-20 dBm<br>-20 dBm<br>-30 dBm<br>-50 dBm   | 20.00 dBm          | Offset 2               | 2.39 dB 👄 R                          | BW 1 MHz             |                |          |                      |                 |                       |
| Ref Level 2           Att           SGL           ID dBm           0 dBm           10 dBm           20 dBm           -20 dBm           -30 dBm           -50 dBm           -60 dBm              | 20.00 dBm<br>35 dB | Offset 2               | 2.39 dB 👄 R                          | BW 1 MHz<br>BW 1 MHz |                |          |                      |                 |                       |
| Ref Level 2           Att           SGL           • 1Pk Clrw           10 dBm           • 10 dBm           • 10 dBm           • 20 dBm           • 20 dBm           • 50 dBm           • 60 dBm | 20.00 dBm<br>35 dB | Offset 2               | 2.39 dB 👄 R                          | BW 1 MHz<br>BW 1 MHz |                |          |                      |                 |                       |





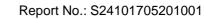
| 00 dBm 0.49 dB<br>378.00 µS<br>378.00 µS<br>378.00 µS<br>378.00 µS<br>378.00 µS<br>20 dBm 100 mm |  |                  |   |                            |   | M                 | 1[1]               |                 |                  | -3.77 dBm                  |
|--|--|------------------|---|----------------------------|---|-------------------|--------------------|-----------------|------------------|----------------------------|
| 0 dBm       TBG -11.300 dBm       TBG -11.300 dBm         20 dBm       30 dBm       10 dBm       10 dBm         30 dBm       10 dBm       10 dBm       10 dBm         40 dBm       10 dBm       10 dBm       10 dBm         70 dBm       10 dBm       10 dBm       10 dBm         60 dBm       10 dBm       10 dBm       10 dBm         70 dBm       10 dBm       10 dBm       10 dBm       10 dBm         0 dBm       10 dBm       10 dBm       10 dBm       10 dBm         0 dBm       10 dBm       10 dBm       10 dBm       10 dBm       10 dBm         0 dBm       10 dBm  | 10 dBm   |                  |   |                            |   | D;                | l[1]               |                 |                  | -1.00 μs<br>0.49 dB        |
| 111.dm       TRG       -11.300 dBm       Image: Constraint of the second of the sec  | 0 dBm  |                  |   | M1                         | mon march t   |                   |                    |                 |                  | 378.00 µs                  |
| 20 dBm   | -10 dBm  | TRG -11.30       | 0 dBm                                       |                            | · 1   |                   |                    |                 |                  |                            |
| 40 dBm   | -20 dBm  |                  |   |                            |   |                   |                    |                 |                  |                            |
| By the find the second secon                                  | -30 dBm  |                  |   |                            |   |                   |                    |                 |                  |                            |
| 60 dBm 70 dBm 7            | -40 dBm  |                  |   |                            |   |                   |                    |                 |                  |                            |
| 60 dBm 70 dBm 7            |  | him would        | Ward Wards                                  | hdda 🚽                     | kiteli | halle, elalutelea | elletter the term  | ulandahar be    | mhulden of the   | hilly white white          |
| CF 2.441 CHz       1001 pts       300.0 µs/         harker       Type   Ref       Trc       X-value       Y-value       Function       Function Result         M1       1       -1000.0 ns       -3.77 dBm       Image: Comparison of the second of t  | -60 dBm  |                  | •   |                            |   |                   |                    |                 |                  |                            |
| Trc         X-value         Y-value         Function         Function Result           M1         1         -1000.0 ns         -3.77 dbm         Function         Function Result           D1         M1         1         378.0 µs         0.49 db         Function         Function Result           D1         M1         1         378.0 µs         0.49 db         Function         Function Result           Dwell NVNT 2-DH1 24411MHz Ant1 Accumulated         Spectrum         Spectr  | -70 dBm  |                  |   |                            |   |                   |                    |                 |                  |                            |
| Type Ref Trc X-value Y-value Function Function Result           M1         1         -1000.0 ns         -3.77 dbm         Function Result           D1         M1         1         378.0 µs         0.49 db         Image: State St   | CF 2.441 (                                       | GHz              |   |                            | 1001  | pts               |                    |                 |                  | 300.0 µs/                  |
| M1       1       -1000.0 ns       -3.77 dBm         D1       M1       1       378.0 µs       0.49 dB         Divel NVNT 2-DH1 2441MHz Ant1 Accumulated         Spectrum         Ref Level 20.00 dBm       Offset 2.39 dB       RBW 1 MHz         Att 35 dB       SWT       31.6 s       YBW 1 MHz         Site         DIPK Cirw         Image: SwT       31.6 s       YBW 1 MHz         Site         Site       SWT       31.6 s       YBW 1 MHz         Site       SWT       SWT       SWT       SWT       SWT       SWT       SWT       SWT       SWT       SWT<  | Marker   |                  | X-value                                     | . 1                        |   |                   | tion               | Fund            | tion Result      |                            |
| Spectrum         Image: Spectrum           Ref Level 20.00 dBm         Offset 2.39 dB • RBW 1 MHz           Att         35 dB • SWT           SGL           J1PK Clrw           10 dBm  | M1   | 1                | -100  | 10.0 ns                    | -3.77 dB  | m                 |                    |                 |                  |                            |
| Spectrum         Image: Spectrum           Ref Level 20.00 dBm         Offset 2.39 dB • RBW 1 MHz           Att         35 dB • SWT           SGL           J1PK Clrw           10 dBm  |  |                  |   |                            |   |                   | Read               | y (11           |                  | 0                          |
| Spectrum         Image: Spectrum           Ref Level 20.00 dBm         Offset 2.39 dB • RBW 1 MHz           Att         35 dB • SWT           SGL           J1PK Clrw           10 dBm  |  |                  | Dwell N                                     | /NT 2-D                    | )H1 2441  | IMHz Ar           | nt1 Acci           | umulated        | 4                |                            |
| Att       35 dB       SWT       31.6 s       VBW 1 MHz         SGL       91.Pk Clrw       10 dBm       11 d       11   | Spectrur   |                  |   |                            |   |                   |                    |                 | -                |                            |
| SGL         1Pk Clrw         10 dBm         10 dBm<  |  |                  |   |                            |   |                   |                    |                 |                  |                            |
| 10 dBm     10 dBm <td>SGL</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>   | SGL  |                  |   |                            |   |                   |                    |                 |                  |                            |
| DdBm       Image: Control of the control  |  |                  |   |                            |   |                   |                    |                 |                  |                            |
| 10       65       100  | 10 dBm   |                  |   |                            |   |                   |                    |                 |                  |                            |
| #0       d5 m  | 0 dBm  |                  |   |                            |   |                   |                    |                 |                  |                            |
| #0       d5 m  |  | evenan rarnaarse | • (11 <sup>41</sup> N/1 <sup>4</sup> / N/19 | <u>ALIDI (TAMINA TADA)</u> | тикитки пратили   | hwiperine and     | 171717FW0000010707 | ant the real of | anter a l'action | <b>STRUKTION (MICHAELT</b> |
| #0       d5 m  | -LC 65-6   |                  |   |                            |   |                   |                    |                 |                  |                            |
| #0       d5 m  | -10 c5m  |                  |   |                            |   |                   |                    |                 |                  |                            |
| -50 dBm  | -20 c5n  |                  |   |                            |   |                   |                    |                 | t vythe htt      |                            |
| -60 dBm  | -10 65 m<br>-20 65 m<br>-80 65 m                 |                  | t transfer to the second                    | <b>A A D</b> UTT           | l al 1 al 01 04 a.  |                   |                    |                 |                  |                            |
| -70 dBm  | -20 65 m→<br>-20 65 m→<br>-30 65 m→<br>-40 65 m→ |                  |   |                            |   |                   |                    |                 |                  | 140 <b>140 140</b>         |
| CF 2.441 GHz 1001 pts 3.16 s/  |  |                  |   |                            |   |                   |                    |                 |                  |                            |
| CF 2.441 GHz 1001 pts 3.16 s/  | - <del>4</del> 0 dam-++                          |                  |   |                            |   |                   |                    |                 |                  |                            |
|  | -40 d3 m<br>-50 d8m<br>-60 d8m                   |                  |   |                            |   |                   |                    |                 |                  |                            |
| Peady Main Main Main Main Main Main Main Main  | -#0 <b>d</b> \$ <b>m</b><br>-50 dBm              |                  |   |                            |   |                   |                    |                 |                  |                            |
|  | -#0 <b>d</b> 3m<br>-50 dBm<br>-60 dBm<br>-70 dBm |                  |   |                            |   |                   |                    |                 |                  | 3.16 s/                    |





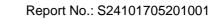
|  |             |                   |                 |                     | м         | 1[1]       |  |                | -3.69 dBm             |
|--|-------------|-------------------|-----------------|---------------------|-----------|------------|--|----------------|-----------------------|
| 10 dBm   |             |                   |                 |                     | D         | 1[1]       |  | 0.0            | 00000000 s<br>0.78 dB |
| 0 dBm  | M           | 1<br>e            | wana beer water |                     | ~R1       |            | 1  | 1              | .63000 ms             |
| -10 dBm  | TRG -11.300 | ) dBm <del></del> |                 |                     | 1         |            |  |                |                       |
| -20 dBm  |             |                   |                 |                     |           |            |  |                |                       |
| -30 dBm  |             |                   |                 |                     |           |            |  |                |                       |
| -40 dBm  |             |                   |                 |                     |           |            |  |                |                       |
| LARARH HA  |             |                   |                 |                     |           | ubaalumphe | un alla and the state of the second | - Hypeliperiol | HUM HUM LAN           |
| -60 dBm  |             |                   |                 |                     | i fix els |            | <b>P</b> • • •   |                | τμ γ · · ·            |
| -70 dBm  |             |                   |                 |                     |           |            |  |                |                       |
|  |             |                   |                 |                     |           |            |  |                |                       |
| CF 2.441 (<br>Marker   | GHz         |                   |                 | 1001                | pts       |            |  |                | 500.0 µs/             |
| Type Re<br>M1  | f Trc       | X-value           | 0.0 s           | Y-value<br>-3.69 dB | Func<br>m | tion       | Fund   | ction Result   | :]                    |
|  | 11 1        | 1.                | .63 ms          | 0.78 d              |           |            |  |                |                       |
| Att  | 35 UB       | SWT               | 31.6 s 👄 🎙      | VBW 1 MHz           |           |            |  |                |                       |
|  | or de       |                   |                 |                     |           |            |  |                |                       |
| SGL  | 35 UB       | ● SWT             | 31.6 s 👄 🕻      | VBW 1 MHz           |           |            |  |                |                       |
|  | 35 UB       | ● SWT             | 31.6 s 👄        | VBW 1 MHz           |           |            | 1  |                |                       |
| SGL  | 35 UB       | ● SWT             | 31.6 s 👄        | VBW 1 MHz           |           |            |  |                |                       |
| SGL<br>9 1Pk Clrw  | 35 08       | ● SWT             | 31.6 s 🕳 🕚      | VBW 1 MHz           |           |            |  |                |                       |
| SGL<br>1Pk Clrw<br>10 dBm<br>0 dBm   |             | • SWT             | 31.6 s 🖷 🕅      |                     |           |            |  |                |                       |
| SGL<br>1Pk Clrw<br>10 dBm  |             | • SWT             | 31.6 s 🖷 V      |                     |           |            |  |                |                       |
| SGL<br>1Pk Clrw<br>10 dBm<br>0 dBm   |             | • SWT             | 31.6 s 🖷 🕚      |                     |           |            |  |                |                       |
| SGL  |             | SWT               | 31.6 s 🖷 🕚      |                     |           |            |  |                |                       |
| SGL<br>10 dBm<br>0 dBm<br>10 |             | • SWT             | 31.6 s • •      |                     |           |            |  | J              |                       |
| SGL<br>● 1Pk Clrw<br>10 dBm<br>→ 10 dBm  |             | • SWT             | 31.6 s • Y      |                     |           |            |  | J              |                       |
| SGL<br>10 dBm<br>0 dBm<br>10 |             | • SWT             | 31.6 s          |                     |           |            |  | J              |                       |
| SGL<br>● 1Pk Clrw<br>10 dBm<br>→ 10 dBm  |             | SWT               | 31.6 s          |                     |           |            |  | J              |                       |
| SGL  |             | • SWT             | 31.6 s          |                     |           |            |  | J              |                       |
| SGL<br>10 dBm<br>0 dBm<br>10 |             | • SWT             | 31.6 s          |                     |           |            |  | J              |                       |
| SGL  |             | • SWT             | 31.6 s          |                     | рts       |            |  | J              | 3.16 s/               |





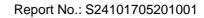
| SGL TRG: VID<br>1Pk Clrw   |                                |                                      |                        |                 |             |               |  |                               |
|--|--------------------------------|--------------------------------------|------------------------|-----------------|-------------|---------------|--|-------------------------------|
|  |                                |                                      |                        | M1              | [1]         |               | 0.1  | -3.17 dBm<br>00000000 s       |
| 10 dBm   |                                |                                      |                        | D1              | [1]         |               |  | -0.21 dB                      |
| 0 dBm  | ush, mangray san tan maning ma | ale, manimente and a                 | any municipi           |                 |             |               |  | 2.88000 ms                    |
| -10. dBm TRG -1:   | 1.200 dBm                      |                                      | Ī                      |                 |             |               |  |                               |
| -20 dBm  |                                |                                      |                        |                 |             |               |  |                               |
| -30 dBm  |                                |                                      |                        |                 |             |               |  |                               |
| -40 dBm  |                                |                                      |                        |                 |             |               |  |                               |
| 486Helleny-wyr hyd   |                                |                                      | կ                      | hhydrogathygall | Junnalrutha | appharulaphan | un and the second s | What have been and the second |
|  |                                |                                      |                        | 11              | 0 -0 -01 40 |               |  |                               |
| -60 dBm  |                                |                                      |                        |                 |             |               |  |                               |
| -70 dBm  |                                |                                      |                        |                 |             |               |  |                               |
| CF 2.441 GHz   |                                | 1                                    | 1001                   | L pts           |             |               |  | 800.0 µs/                     |
| Marker<br>Type   Ref   Trc   | X-value                        | 9                                    | Y-value                | Functi          | ion         | Func          | tion Result  | t                             |
| M1 1<br>D1 M1 1  | 2                              | 0.0 s<br>.88 ms                      | -3.17 dB<br>-0.21 (    |                 |             |               |  |                               |
| ~  |                                |                                      |                        |                 | Read        | · •           |  | 0                             |
| Spectrum<br>Ref Level 20.00 c<br>Att 35  | IBm Offset 2                   | VNT 2-D<br>2.39 dB • F<br>31.6 s • V | RBW 1 MHz              | 1MHz An         | nt1 Accu    | imulated      | 1  |                               |
| Ref Level 20.00 d  | IBm Offset 2                   | 2.39 dB 👄 F                          | RBW 1 MHz              | 1MHz An         | it1 Accu    | imulated      | 1  |                               |
| Ref Level 20.00 c<br>Att 35<br>SGL<br>1Pk Cirw   | IBm Offset 2                   | 2.39 dB 👄 F                          | RBW 1 MHz              | 1MHz An         | nt1 Accu    | imulatec      | 1  |                               |
| Ref Level 20.00 d<br>Att 35<br>SGL   | IBm Offset 2                   | 2.39 dB 👄 F                          | RBW 1 MHz              | 1MHz An         | nt1 Accu    |               |  |                               |
| Ref Level 20.00 c<br>Att 35<br>SGL<br>1Pk Clrw   | IBm Offset 2                   | 2.39 dB 👄 F                          | RBW 1 MHz              | 1MHz An         |             |               |  |                               |
| Ref Level 20.00 c<br>Att 35<br>SGL<br>1Pk Clrw<br>10 dBm   | IBm Offset 2                   | 2.39 dB 👄 F                          | RBW 1 MHz              | 1MHz An         |             |               |  |                               |
| Ref Level 20.00 c<br>Att 35<br>SGL<br>1Pk Clrw<br>10 dBm   | IBm Offset 2                   | 2.39 dB 👄 F                          | RBW 1 MHz              | 1MHz An         |             |               |  |                               |
| Ref Level         20.00 C           Att         35           SGL         10           10 dBm         0           -10 dBm         -10 dBm   | IBm Offset 2<br>dB • SWT       | 2.39 dB • F<br>31.6 s • V            | RBW 1 MHz<br>/BW 1 MHz |                 |             |               |  |                               |
| Ref Level         20.00 C           Att         35           SGL         10           10 dBm         0           -10 dBm         -10 dBm   | IBm Offset 2                   | 2.39 dB • F<br>31.6 s • V            | RBW 1 MHz<br>/BW 1 MHz |                 |             |               |  |                               |
| Ref Level         20.00 C           Att         35           SGL         10           10 dBm         0           0 dBm         -10 dBm           -10 dBm         -20 c Bm           -20 c Bm         -20 c Bm  | IBm Offset 2<br>dB • SWT       | 2.39 dB • F<br>31.6 s • V            | RBW 1 MHz<br>/BW 1 MHz |                 |             |               |  |                               |
| Ref Level         20.00 C           Att         35           SGL         10           10 dBm         0           0 dBm         -10 dBm           -10 dBm         -20 c Bm           -20 c Bm         -20 c Bm  | IBm Offset 2<br>dB • SWT       | 2.39 dB • F<br>31.6 s • V            | RBW 1 MHz<br>/BW 1 MHz |                 |             |               |  |                               |
| Ref Level         20.00 C           Att         35           SGL         10           ID dBm         0           0 dBm         0           -10 dEm         0           -20 dEm         0           -30 dEm         0           -30 dBm         0 | IBm Offset 2<br>dB • SWT       | 2.39 dB • F<br>31.6 s • V            | RBW 1 MHz<br>/BW 1 MHz |                 |             |               |  |                               |
| Ref Level         20.00 C           Att         35           SGL         10           ID dBm         0           0 dBm         0           -10 dBm         0           -20 dBm         0           -31 dBm         0           -32 dBm         0           -34 dBm         0   | IBm Offset 2<br>dB • SWT       | 2.39 dB • F<br>31.6 s • V            | RBW 1 MHz<br>/BW 1 MHz |                 |             |               |  |                               |
| Ref Level         20.00 C           Att         35           SGL         10           ID dBm         0           0 dBm         0           -10 dEm         0           -20 dEm         0           -30 dEm         0           -30 dBm         0 | IBm Offset 2<br>dB • SWT       | 2.39 dB • F<br>31.6 s • V            | RBW 1 MHz<br>/BW 1 MHz |                 |             |               |  |                               |
| Ref Level         20.00 C           Att         35           SGL         10           ID dBm         0           0 dBm         0           -20 dBm         0           -30 dBm         0           -50 dBm         0 | IBm Offset 2<br>dB • SWT       | 2.39 dB • F<br>31.6 s • V            | RBW 1 MHz<br>/BW 1 MHz |                 |             |               |  |                               |





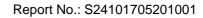
|                                       |  |   |                                  | M                                       | 1[1]           |  |  | 11.92 dBm  |
|---------------------------------------|--|---|----------------------------------|---|----------------|--|--|--|
| 10 dBm                                |  |   |                                  | Di                                      | L[1]           |  |  | -133.00 μs<br>-2.27 dB                               |
| 0 dBm                                 |  |   |                                  |   |                |  |  | 378.00 µs  |
| -10 dBm-TR                            | G -11.100 dB                                       | m M1 And  | Mulu 31                          |   |                |  |  |  |
| -20 dBm                               |  | m <u> </u>  | <b>^</b>                         |   |                |  |  |  |
| -30 dBm                               |  |   |                                  |   |                |  |  |  |
| -40 dBm                               |  |   |                                  |   |                |  |  |  |
| And sub-                              | Wether Hard And And And And And And And And And An | haddler   |                                  | honoppinity stilling                    | Milphylynyny   | MH-HARA  | <del>Million all all a</del>   | Why water and  |
| -60 dBm                               |  |   |                                  |   |                | 1  |  |  |
| -70 dBm                               |  |   |                                  |   |                |  |  |  |
| CF 2.441 GHz                          |  |   | 1001                             | pts                                     |                |  |  | 300.0 µs/  |
| Marker<br>Type   Ref                  |  | X-value   | Y-value                          | ·                                       | tion           | Func   | tion Result  |  |
| M1<br>D1 M1                           | 1  | -133.0 µs<br>378.0 µs   | -11.92 dP                        | im                                      |                |  | cion no sun  |  |
|                                       |  |   |                                  |   | ) Read         | y <b>M</b>   |  | 1  |
|                                       | Dw   | ell NVNT 3  |                                  | 1MH7 Δι                                 | nt1 Acci       | mulater  |  |  |
| Spectrum                              |  |   |                                  |   |                | innulated  | •  |  |
| Ref Level 20                          |  | Offset 2.39 dB  |                                  |   |                |  |  | (``)   |
| Att<br>SGL<br>1Pk Clrw                | 35 dB 😑 S  | SWI 31.0 S I  | ● VBW 1 MHz                      |   |                |  |  |  |
| UPK CIrw                              |  |   |                                  |   |                |  |  |  |
| 10 dBm                                |  |   |                                  |   |                |  |  |  |
| 0 dBm                                 |  |   |                                  |   |                |  |  |  |
| ממומרונים ערוארים                     | מנייומאי אאו בערמער                                | A PERCENTION AND A PARTY OF MANY AND A PARTY OF MAN | הייתו הרוא בורה היו איז הייתה או | ANTINOTION                              | IN PININ INDUN | THA MARMAN ANY IN  | THE REPORT OF THE PARTY OF THE P | 2799) (A HAR AND |
|                                       |  |   |                                  |   |                |  |  |  |
|                                       |  |   |                                  |   |                |  |  |  |
| -20   26 <del>-</del>                 |  |   |                                  |   |                | The second s | <u>, , , , , ,</u>   |  |
| .a: ≈=<br>.a; ≈=                      |  |   |                                  | °", , , , , , , , , , , , , , , , , , , |                |  |  |  |
| -22 :8<br>-23 :8,<br>-43 :8(-,        |  |   |                                  |   |                |  | A MANAMAN I JANA   |  |
| -20 c8<br>-23 c8<br>-45 ¢8<br>-50 dBm | 1000 () (0.00)(0.00)                               |   |                                  |   |                |  | U MÜHMÜNN I TI'U I   |  |
|                                       |  |   |                                  |   |                |  | A MANANA I JI O  |  |
| -60 dBm                               |  |   |                                  |   |                |  | nnninn i Lind  |  |
|                                       |  |   |                                  |   |                |  | U DUULUUU A A A A A A A A A A A A A A A A A  |  |
| -60 dBm                               |  |   |                                  | pts                                     |                |  | n n n n n n n n n n n n n n n n n n n  | 3.16 s/  |
| -60 dBm                               |  |   |                                  | pts                                     | Read           | Y <b>(</b>   |  |  |





| 10 dBm     M1[1]       0 dBm     M1       0 dBm     M1       -10 dBm     TRG -10.700 dBm       -20 dBm     -10.700 dBm       -30 dBm     -10.700 dBm       -40 dBm     -10.700 dBm  | -3.33 dBm<br>0.00000000 s<br>0.24 dB<br>1.63000 ms   |
|---|--|
| 0 dBm   |  |
| -10 dBm TRG -10.700 dBm   |  |
| -20 dBm   |  |
| -30 dBm   |  |
|   |  |
| -40 dBm   |  |
|   |  |
|   | ultra trace to the la  |
| -60 dBm   | ana and the stand of the standard of the stand |
| -70 dBm   |  |
|   |  |
| CF 2.441 GHz 1001 pts   | 500.0 μs/  |
| Marker<br>_Type   Ref   Trc   X-value   Y-value   Function   Function   | tesult   |
| M1         1         0.0 s         -3.33 dBm           D1         M1         1         1.63 ms         0.24 dB  |  |
| Ready   | <b>1</b> 4341  |
|   |  |
| Dwell NVNT 3-DH3 2441MHz Ant1 Accumulated   |  |
| Spectrum  |  |
| Ref Level         20.00 dBm         Offset         2.39 dB         ● RBW         1 MHz           ● Att         30 dB         ● SWT         31.6 s         ● VBW         3 MHz   |  |
| SGL   |  |
| 1Pk Clrw  |  |
| 10 dBm  |  |
|   |  |
|   |  |
|   |  |
|   |  |
|   |  |
| o dam   |  |
| O dBm   |  |
| o dBm   |  |
| O dBm   |  |
| 0 dBm   |  |
| HC 68 m   |  |
| 10 d8 m     10 d8 m       -20 d8 m  |  |
| 440 bb h  |  |
| Hdd blam     Hdd b | 3.16 s/  |





|  |                    |                     |                           |                   | M           | 1[1]     |               |                       | 13.58 dBm             |
|--|--------------------|---------------------|---------------------------|-------------------|-------------|----------|---------------|-----------------------|-----------------------|
| 10 dBm   |                    |                     |                           |                   |             | 1[1]     |               |                       | -136.00 μs<br>3.13 dB |
| 0 dBm  |                    |                     |                           |                   |             |          |               | :                     | 2.88000 ms            |
|  |                    | at the supplicitude | hord and produced of      | hadden and the 1  |             |          |               |                       |                       |
| -20 dBm  | KG -10.900         |                     |                           |                   |             |          |               |                       |                       |
| -30 dBm  |                    |                     |                           |                   |             |          |               |                       |                       |
| -40 dBm  |                    |                     |                           |                   |             |          |               |                       |                       |
| Pengeryara   |                    |                     |                           | why               | հերթություն | www.     | nandulundaha  | 91.4M4 No.14.14.44.44 | handland y Handla     |
|  |                    |                     |                           |                   | 1000 1      |          |               | <u> </u>              |                       |
| -60 dBm  |                    |                     |                           |                   |             |          |               |                       |                       |
| -70 dBm  |                    |                     |                           |                   |             |          |               |                       |                       |
| CF 2.441 G   | Hz                 |                     |                           | 1001              | l pts       |          |               |                       | 800.0 µs/             |
| Marker<br>Type Ref   |                    | X-value             |                           | Y-value           | Fund        | tion     | Fund          | tion Result           | :                     |
| M1<br>D1 M1  | 1<br>1 1           |                     | 86.0 µs<br>.88 ms         | -13.58 dE<br>3.13 |             |          |               |                       |                       |
|  | )[]                |                     |                           |                   |             | ] Read   | ly <b>(II</b> |                       |                       |
|  | Г                  | )<br>Well N         | /NT 3-D                   | H5 244            | 1MHz Ai     | nt1 Acci | umulated      | 1                     |                       |
| Spectrum   |                    |                     |                           |                   |             |          |               | -                     |                       |
|  |                    |                     |                           |                   |             |          |               |                       | Ē                     |
| Ref Level  | 20.00 dBm          |                     | 2.39 dB 👄 R               |                   |             |          |               |                       |                       |
|  | 20.00 dBm          | Offset 2<br>SWT     | 2.39 dB 👄 R<br>31.6 s 👄 V |                   |             |          |               |                       |                       |
| Ref Level 3<br>Att<br>SGL  | 20.00 dBm          |                     |                           |                   |             |          |               |                       |                       |
| Ref Level 2<br>Att<br>SGL<br>1Pk Clrw  | 20.00 dBm          |                     |                           |                   |             |          |               |                       |                       |
| Ref Level 2<br>Att<br>SGL<br>1Pk Clrw  | 20.00 dBm          |                     |                           |                   |             |          |               |                       |                       |
| Ref Level 2<br>Att<br>SGL<br>1Pk Clrw  | 20.00 dBm          |                     |                           |                   |             |          |               |                       |                       |
| Ref Level :<br>Att<br>SGL<br>1Pk Clrw<br>10 dBm  | 20.00 dBm          |                     |                           |                   |             |          |               |                       |                       |
| Ref Level :<br>Att<br>SGL<br>1Pk Clrw<br>10 dBm  | 20.00 dBm          |                     |                           |                   |             |          |               |                       |                       |
| Ref Level :<br>Att<br>SGL<br>1Pk Clrw<br>10 dBm  | 20.00 dBm          |                     |                           |                   |             |          |               |                       |                       |
| Ref Level :<br>Att<br>SGL<br>1Pk Clrw<br>10 dBm  | 20.00 dBm          |                     |                           |                   |             |          |               |                       |                       |
| Ref Level :           Att           SGL           IPk Clrw           10 dBm           10 dBm           -10 c 5 m           -20 c 5 m   | 20.00 dBm<br>35 dB | • SWT               |                           | 'BW 1 MHz         |             |          |               |                       |                       |
| Ref Level :           Att           SGL           IPk Clrw           10 dBm           0.dBm           -20.cSr           -35.cSr  | 20.00 dBm<br>35 dB | • SWT               | 31.6 5 • V                | 'BW 1 MHz         |             |          |               |                       |                       |
| Ref Level :           Att           SGL           1Pk Clrw           10 dBm           10 dBm           -20 c3r           -20 c3r           -30 c3r           -50 dBm   | 20.00 dBm<br>35 dB | • SWT               | 31.6 5 • V                | 'BW 1 MHz         |             |          |               |                       |                       |
| Ref Level :           Att           SGL           1Pk Clrw           10 dBm           10 dBm           4.0 dBm           4.0 dBm           4.0 dBm           4.0 dBm           4.0 dBm           5.0 dBm           -50 dBm | 20.00 dBm<br>35 dB | • SWT               | 31.6 5 • V                | 'BW 1 MHz         |             |          |               |                       |                       |
| Ref Level :           Att           SGL           IPR CIrw           10 dBm           10 dBm           -20 dBm           -20 dBm           -30 dBm           -50 dBm   | 20.00 dBm<br>35 dB | • SWT               | 31.6 5 • V                | 'BW 1 MHz         |             |          |               |                       |                       |
| Ref Level 3           Att           SGL           1Pk Clrw           10 dBm           10 dBm           4.0 dBm           4.0 dBm           4.0 dBm           4.0 dBm           4.0 dBm           5.0 dBm           -50 dBm | 20.00 dBm<br>35 dB | • SWT               | 31.6 5 • V                | 'BW 1 MHz         |             |          |               |                       | 3.16 s/               |
| Ref Level :           Att           SGL           IPR Clrw           10 dBm           dBm           -20 dBm           -20 dBm           -50 dBm           -60 dBm           -70 dBm  | 20.00 dBm<br>35 dB | • SWT               | 31.6 5 • V                | 'BW 1 MHz         |             |          |               |                       | 3.16 s/               |



### 8.2 MAXIMUM CONDUCTED OUTPUT POWER

| Condition | Mode  | Frequency<br>(MHz) | Antenna | Conducted<br>Power (dBm) | Limit<br>(dBm) | Verdict |
|-----------|-------|--------------------|---------|--------------------------|----------------|---------|
| NVNT      | 1-DH5 | 2402               | Ant1    | 0.05                     | 21             | Pass    |
| NVNT      | 1-DH5 | 2441               | Ant1    | 0.35                     | 21             | Pass    |
| NVNT      | 1-DH5 | 2480               | Ant1    | 0.11                     | 21             | Pass    |
| NVNT      | 2-DH5 | 2402               | Ant1    | -0.6                     | 21             | Pass    |
| NVNT      | 2-DH5 | 2441               | Ant1    | -0.29                    | 21             | Pass    |
| NVNT      | 2-DH5 | 2480               | Ant1    | -0.59                    | 21             | Pass    |
| NVNT      | 3-DH5 | 2402               | Ant1    | -0.23                    | 21             | Pass    |
| NVNT      | 3-DH5 | 2441               | Ant1    | 0.06                     | 21             | Pass    |
| NVNT      | 3-DH5 | 2480               | Ant1    | -0.19                    | 21             | Pass    |

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| Spectrum<br>Ref Level 20.00 dBm Off<br>Att 35 dB SW<br>SGL Count 100/100   |                  |                                  | Mode Auto Sweep                  |  |       |           |
|--|------------------|----------------------------------|----------------------------------|--|-------|-----------|
| ●1Pk Max   |                  |                                  | M1[1]                            |  |       | 0.05 dBm  |
| 10 dBm   |                  |                                  |                                  | + +                                    | 2.401 | 96500 GHz |
|  |                  | мі                               |                                  |  |       |           |
| 0 dBm  |                  | <u> </u>                         |                                  |  |       |           |
| -10 dBm  |                  |                                  |                                  |  | /     |           |
| -20 dBm  |                  |                                  |                                  |  |       | /         |
|  |                  |                                  |                                  |  |       |           |
| -30 dBm  |                  |                                  |                                  |  |       |           |
| -40 dBm  |                  |                                  |                                  |  |       |           |
| -50 dBm  |                  |                                  |                                  |  |       |           |
| co dou   |                  |                                  |                                  |  |       |           |
| -60 dBm  |                  |                                  |                                  |  |       |           |
| -70 dBm  |                  |                                  |                                  |  |       |           |
|  |                  |                                  |                                  |  | 0     | n 5.0 MHz |
| CE 2.402 GHz   |                  |                                  |                                  |  |       |           |
| Spectrum<br>Ref Level 20.00 dBm Off<br>Att 35 dB SW  | set 2.39 dB 👄 RB | BW 2 MHz                         | H5 2441MHz An<br>Mode Auto Sweep | dy <b>(111)</b><br>ht1                 |       |           |
| Spectrum<br>Ref Level 20.00 dBm Off  | set 2.39 dB 👄 RB | /NT 1-DF<br>BW 2 MHz             | H5 2441MHz Al                    | tr ti                                  |       |           |
| Spectrum<br>Ref Level 20.00 dBm Off<br>Att 35 dB SW<br>SGL Count 100/100<br>P1Pk Max   | set 2.39 dB 👄 RB | /NT 1-DF<br>BW 2 MHz             | H5 2441MHz A                     | nt1                                    |       |           |
| Spectrum<br>Ref Level 20.00 dBm Off<br>Att 35 dB SW<br>SGL Count 100/100   | set 2.39 dB 👄 RB | /NT 1-DF<br>BW 2 MHz<br>BW 2 MHz | H5 2441MHz Al                    | • • • • • • • • • • • • • • • • • • •  |       |           |
| Spectrum<br>Ref Level 20.00 dBm Off<br>Att 35 dB SW<br>SGL Count 100/100<br>P1Pk Max   | set 2.39 dB 👄 RB | /NT 1-DF<br>BW 2 MHz<br>BW 2 MHz | Mode Auto Sweep                  | ht1                                    |       |           |
| Spectrum<br>Ref Level 20.00 dBm Off<br>Att 35 dB SW<br>SGL Count 100/100<br>P1Pk Max<br>10 dBm   | set 2.39 dB 👄 RB | /NT 1-DF<br>BW 2 MHz<br>BW 2 MHz | Mode Auto Sweep                  | •• ••••••••••••••••••••••••••••••••••• |       |           |
| Spectrum           Ref Level 20.00 dBm Off           Att 35 dB SW           SGL Count 100/100           • IPk Max           10 dBm           -10 dBm   | set 2.39 dB 👄 RB | /NT 1-DF<br>BW 2 MHz<br>BW 2 MHz | Mode Auto Sweep                  | htt                                    |       |           |
| Spectrum           Ref Level         20.00         dBm         Off           Att         35 dB         SW         SGL         SGL         SW           SGL         Count         100/100         ID  | set 2.39 dB 👄 RB | /NT 1-DF<br>BW 2 MHz<br>BW 2 MHz | Mode Auto Sweep                  | htt                                    |       |           |
| Spectrum           Ref Level         20.00 dBm         Off           Att         35 dB         SW           SGL         Count         100/100           ● 1Pk Max         10 dBm         0 dBm           -10 dBm         -10 dBm         -10 dBm   | set 2.39 dB 👄 RB | /NT 1-DF<br>BW 2 MHz<br>BW 2 MHz | Mode Auto Sweep                  | htt                                    |       |           |
| Spectrum           Ref Level 20.00 dBm         Off           Att         35 dB         SW           SGL Count 100/100         ● 1Pk Max           10 dBm   | set 2.39 dB 👄 RB | /NT 1-DF<br>BW 2 MHz<br>BW 2 MHz | Mode Auto Sweep                  | ** ••••••••••••••••••••••••••••••••••• |       |           |
| Spectrum           Ref Level 20.00 dBm         Off           Att         35 dB         SW           SGL Count 100/100         9         1Pk Max           10 dBm         0         0           -10 dBm         -         -           -30 dBm         -30 dBm         -   | set 2.39 dB 👄 RB | /NT 1-DF<br>BW 2 MHz<br>BW 2 MHz | Mode Auto Sweep                  | •• ••••••••••••••••••••••••••••••••••• |       |           |
| Spectrum           Ref Level 20.00 dBm         Off           Att         35 dB         Sw           SGL Count 100/100         91Pk Max         91Pk Max           10 dBm         0         0           -10 dBm         -20 dBm         -20 dBm           -30 dBm         -30 dBm         -50 dBm   | set 2.39 dB 👄 RB | /NT 1-DF<br>BW 2 MHz<br>BW 2 MHz | Mode Auto Sweep                  | ** ••••••••••••••••••••••••••••••••••• |       |           |
| Spectrum           Ref Level 20.00 dBm         Off           Att         35 dB         Sw           SGL Count 100/100         9         1Pk Max           10 dBm         0         0           -10 dBm         -20 dBm         -30 dBm   | set 2.39 dB 👄 RB | /NT 1-DF<br>BW 2 MHz<br>BW 2 MHz | Mode Auto Sweep                  | ** ••••••••••••••••••••••••••••••••••• |       |           |
| Spectrum           Ref Level 20.00 dBm         Off           Att         35 dB         Sw           SGL Count 100/100         91Pk Max         10 dBm         10 dBm           0 dBm         -0 dBm         -0 dBm         -0 dBm         -0 dBm           -20 dBm         -30 dBm         -30 dBm         -30 dBm         -10 dBm         -10 dBm   | set 2.39 dB 👄 RB | /NT 1-DF<br>BW 2 MHz<br>BW 2 MHz | Mode Auto Sweep                  | ht1                                    |       |           |
| Spectrum           Ref Level 20.00 dBm         Off           Att         35 dB         Sw           SGL Count 100/100         91Pk Max         91Pk Max           10 dBm         0         0           -10 dBm         -         -           -20 dBm         -         -           -30 dBm         -         -           -50 dBm         -         -   | set 2.39 dB 👄 RB | /NT 1-DF<br>BW 2 MHz<br>BW 2 MHz | H5 2441MHz Ai<br>Mode Auto Sweep | ** ••••••••••••••••••••••••••••••••••• | 2.441 |           |
| Spectrum  Ref Level 20.00 dBm Off Att 35 dB SW SGL Count 100/100  1Pk Max  10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -60 dB | set 2.39 dB 👄 RB | /NT 1-DF<br>BW 2 MHz<br>BW 2 MHz | Mode Auto Sweep                  | ** ••••••••••••••••••••••••••••••••••• |       |           |

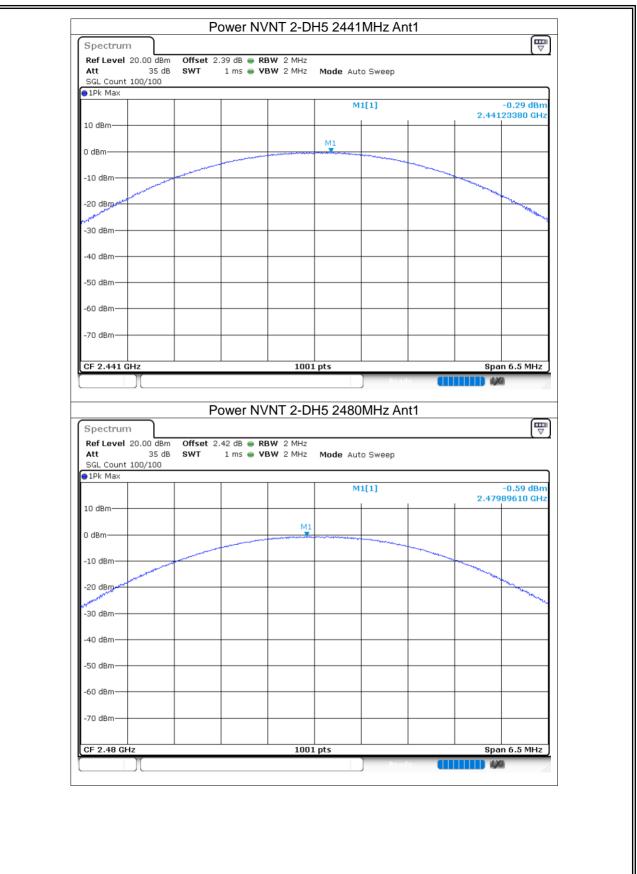




| Att 35 dE<br>SGL Count 100/100<br>9 1Pk Max  | SWT        | i ms 🖶 VE  | BW 2 MHz                         | Mode Aut | to Sweep |            |       |                         |
|--|------------|------------|----------------------------------|----------|----------|------------|-------|-------------------------|
|  |            |            |                                  | м        | 1[1]     |            | 0.472 | 0.11 dBm                |
| 10 dBm   |            |            |                                  |          |          | +          | 2.479 | 96000 GHz               |
| 0 dBm  |            |            | MI                               |          |          |            |       |                         |
|  |            |            |                                  |          |          |            |       |                         |
| -10 dBm  |            |            |                                  |          |          |            |       |                         |
| -20 dBm  |            |            |                                  |          |          |            |       |                         |
| -30 dBm  |            |            |                                  |          |          |            |       |                         |
| -40 dBm  |            |            |                                  |          |          |            |       |                         |
|  |            |            |                                  |          |          |            |       |                         |
| -50 dBm  |            |            |                                  |          |          |            |       |                         |
| -60 dBm  |            |            |                                  |          |          |            |       |                         |
| -70 dBm  |            |            |                                  |          |          |            |       |                         |
|  |            |            |                                  |          |          |            |       |                         |
| CF 2.48 GHz  |            |            | 1001                             | pts      |          |            | Spa   | n 5.0 MHz               |
| Ref Level 20.00 dBm<br>Att 35 dE   | Offset 2.3 | 38 dB 👄 RE | /NT 2-DF<br>BW 2 MHz<br>BW 2 MHz |          |          | nt1        |       | <br>₹                   |
| Ref Level         20.00 dBm           Att         35 dB           SGL Count         100/100  | Offset 2.3 | 38 dB 👄 RE | BW 2 MHz                         | Mode Aut | to Sweep | nt1        |       |                         |
| Att 35 dE<br>SGL Count 100/100<br>1Pk Max  | Offset 2.3 | 38 dB 👄 RE | BW 2 MHz                         | Mode Aut |          | nt1        | 2.402 | -0.60 dBm<br>211690 GHz |
| Ref Level         20.00 dBm           Att         35 dE           SGL Count         100/100           1Pk Max         10 dBm   | Offset 2.3 | 38 dB 👄 RE | BW 2 MHz                         | Mode Aut | to Sweep | <u>ht1</u> | 2.402 | -0.60 dBm               |
| Ref Level         20.00         dBm           Att         35 dE         35 dE           SGL         Count         100/100           1Pk         Max         35 dE  | Offset 2.3 | 38 dB 👄 RE | BW 2 MHz                         | Mode Aut | to Sweep | nt1        | 2.402 | -0.60 dBm               |
| Ref Level         20.00 dBm           Att         35 dE           SGL Count         100/100           1Pk Max         10 dBm   | Offset 2.3 | 38 dB 👄 RE | BW 2 MHz                         | Mode Aut | to Sweep |            | 2.402 | -0.60 dBm               |
| Ref Level         20.00 dBm           Att         35 dE           SGL Count         100/100           IPk Max         10 dBm           0 dBm         0 dBm   | Offset 2.3 | 38 dB 👄 RE | BW 2 MHz                         | Mode Aut | to Sweep |            | 2.402 | -0.60 dBm               |
| Ref Level         20.00 dBm           Att         35 dE           SGL Count         100/100           IPk Max           10 dBm           0 dBm   | Offset 2.3 | 38 dB 👄 RE | BW 2 MHz                         | Mode Aut | to Sweep | nt1        | 2.402 | -0.60 dBm               |
| Ref Level         20.00 dBm           Att         35 dE           SGL         Count         100/100           IPk Max         10 dBm         0 dBm           10 dBm         -0 dBm         -0 dBm           -20 dBm  | Offset 2.3 | 38 dB 👄 RE | BW 2 MHz                         | Mode Aut | to Sweep | nt1        | 2.402 | -0.60 dBm               |
| Ref Level         20.00 dBm           Att         35 dE           SGL         Count         100/100           IPk Max         10 dBm         0           0 dBm         -0         0           -10 dBm         -0         -0           -20 dBm         -0         -0           -30 dBm         -40 dBm         -0   | Offset 2.3 | 38 dB 👄 RE | BW 2 MHz                         | Mode Aut | to Sweep | nt1        | 2.402 | -0.60 dBm               |
| Ref Level         20.00 dBm           Att         35 dE           SGL         Count         100/100           IPk Max         10 dBm         0 dBm           10 dBm         -0 dBm         -0 dBm           -10 dBm         -0 dBm         -0 dBm           -30 dBm         -30 dBm         -0 dBm   | Offset 2.3 | 38 dB 👄 RE | BW 2 MHz                         | Mode Aut | to Sweep | nt1        | 2.402 | -0.60 dBm               |
| Ref Level         20.00 dBm           Att         35 dE           SGL         Count         100/100           IPk Max         10 dBm         0           0 dBm         -0         0           -10 dBm         -0         -0           -20 dBm         -0         -0           -30 dBm         -40 dBm         -0   | Offset 2.3 | 38 dB 👄 RE | BW 2 MHz                         | Mode Aut | to Sweep | nt1        | 2.402 | -0.60 dBm               |
| Ref Level         20.00 dBm           Att         35 dE           SGL Count         100/100           IPk Max         10 dBm           0 dBm         0           -10 dBm         -0           -20 dBm         -0           -30 dBm         -0           -50 dBm         -50 dBm  | Offset 2.3 | 38 dB 👄 RE | BW 2 MHz                         | Mode Aut | to Sweep |            | 2.402 | -0.60 dBm               |
| Ref Level         20.00 dBm           Att         35 dE           SGL Count         100/100           IPk Max         10 dBm           0 dBm         -           -10 dBm         -           -20 dBm         -           -30 dBm         -           -40 dBm         -           -50 dBm         -           -70 dBm         -                               | Offset 2.3 | 38 dB 👄 RE | BW 2 MHz<br>BW 2 MHz             | Mode Aut | to Sweep | nt1        |       | -0.60 dBm<br>11690 GHz  |
| Ref Level         20.00 dBm           Att         35 dE           SGL         Count         100/100           IPk Max         10 dBm         0           0 dBm         -0         0 dBm           -10 dBm         -0         -0           -20 dBm         -0         -0           -30 dBm         -0         -0           -60 dBm         -60 dBm         -0 | Offset 2.3 | 38 dB 👄 RE | BW 2 MHz                         | Mode Aut | to Sweep | nt1        |       | -0.60 dBm<br>11690 GHz  |

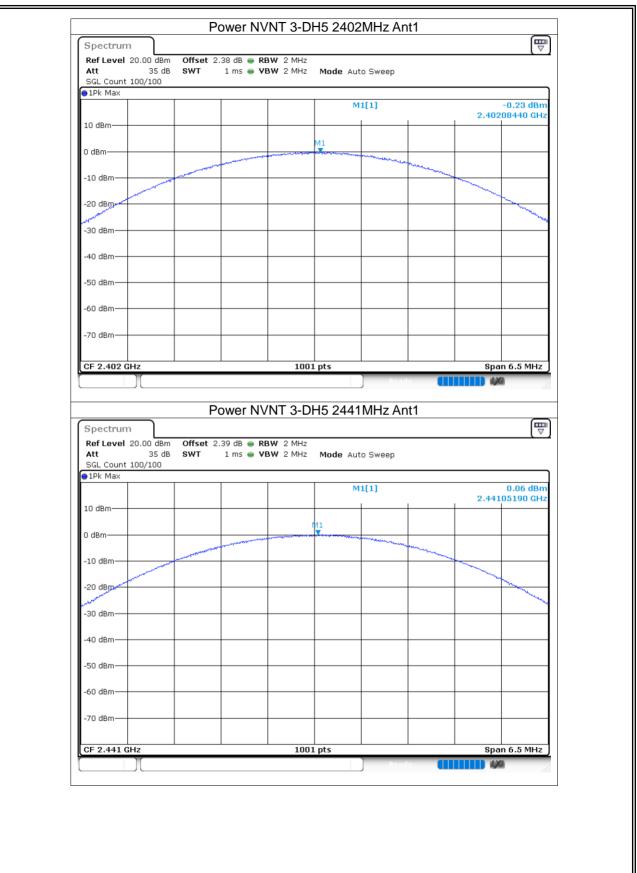
















| -0.19 dBm  |
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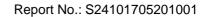


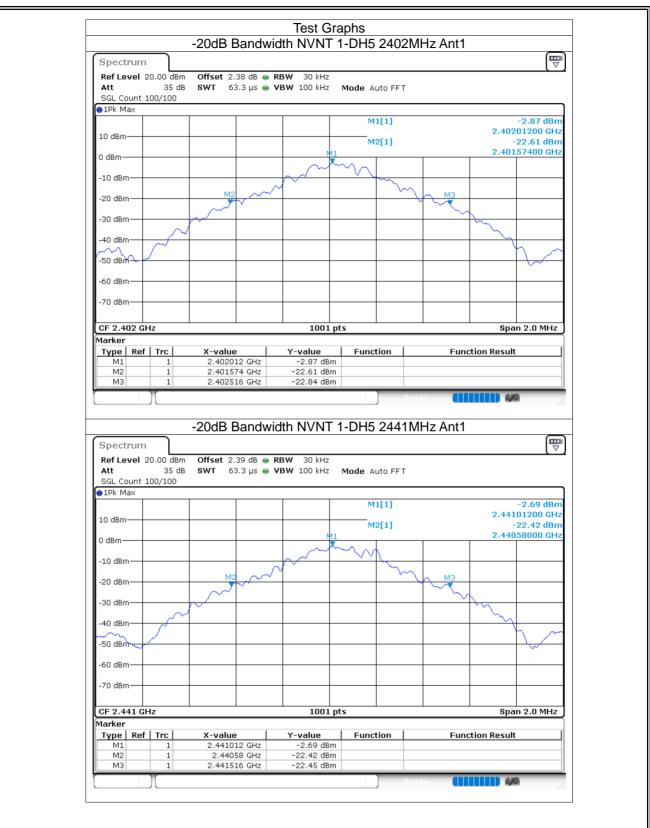
## 8.3 -20DB BANDWIDTH

| Condition | Mode  | Frequency<br>(MHz) | Antenna | -20 dB Bandwidth<br>(MHz) | Verdict |
|-----------|-------|--------------------|---------|---------------------------|---------|
| NVNT      | 1-DH5 | 2402               | Ant1    | 0.942                     | Pass    |
| NVNT      | 1-DH5 | 2441               | Ant1    | 0.936                     | Pass    |
| NVNT      | 1-DH5 | 2480               | Ant1    | 0.93                      | Pass    |
| NVNT      | 2-DH5 | 2402               | Ant1    | 1.33                      | Pass    |
| NVNT      | 2-DH5 | 2441               | Ant1    | 1.34                      | Pass    |
| NVNT      | 2-DH5 | 2480               | Ant1    | 1.336                     | Pass    |
| NVNT      | 3-DH5 | 2402               | Ant1    | 1.306                     | Pass    |
| NVNT      | 3-DH5 | 2441               | Ant1    | 1.308                     | Pass    |
| NVNT      | 3-DH5 | 2480               | Ant1    | 1.299                     | Pass    |



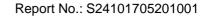
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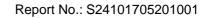
| Spectrum  | 011 1 5   |  |  |                      |   |
|---|---|--|--|----------------------|---|
|   | Offset 2.39 dB ●<br>SWT 63.3 µs ●                 |  | Mode Auto FFT                                  |                      |   |
| SGL Count 100/100   |   |  |  |                      |   |
| ●1Pk Max  | <u> </u>  |  | M1[1]  |                      | -8.32 dBm   |
| 10 dBm  |   |  | milil  | 2                    | .44120180 GHz   |
|   |   |  | M2[1]  | 2                    | -28.32 dBm<br>44036600 GHz                              |
| 0 dBm   |   |  | M1   |                      |   |
| -10 dBm   |   | track  | $\sim$   |                      |   |
| -20 dBm   |   |  |  |                      |   |
| -30 dBm   |   |  |  |                      |   |
|   |   |  |  |                      |   |
| -40 dBm   |   |  |  |                      |   |
| -50.dBm   |   |  |  |                      | - A   |
| -60 dBm   |   |  |  |                      |   |
| -70 dBm   |   |  |  |                      |   |
|   |   |  |  |                      |   |
| CF 2.441 GHz  |   | 1001 pt  | ts   |                      | Span 2.0 MHz  |
| Marker<br>Type   Ref   Trc  | X-value   | Y-value  | Function                                       | Function Re          | sult  |
| M1 1<br>M2 1  | 2.4412018 GHz<br>2.440366 GHz                     | -8.32 dBm<br>-28.32 dBm  |  |                      |   |
| 1712 1  |   | 20.52 0011   |  |                      |   |
| M3 1  | 2.441706 GHz                                      | -27.99 dBm   |  |                      | ]   |
| M3 1  | 2.441706 GHz                                      | -27.99 dBm   |  | eady <b>(111111)</b> | 4,40  |
| M3 1  | · · · · · · · · · · · · · · · · · · ·             |  | R  | eady <b>(111111)</b> | 14,451  |
| M3 1  | 2.441706 GHz                                      |  | 2-DH5 2480                                     | MHz Ant1             |   |
| Spectrum  | -20dB Bandwi                                      | idth NVNT 2  | 2-DH5 2480                                     | MHz Ant1             |   |
| Spectrum<br>Ref Level 20.00 dBm   | -20dB Bandwi                                      | idth NVNT 2<br>RBW 30 kHz  |  | MHz Ant1             |   |
| Spectrum<br>Ref Level 20.00 dBm<br>Att 35 dB<br>SGL Count 100/100   | -20dB Bandwi                                      | idth NVNT 2<br>RBW 30 kHz  |  | MHz Ant1             |   |
| Spectrum<br>Ref Level 20.00 dBm<br>Att 35 dB  | -20dB Bandwi                                      | idth NVNT 2<br>RBW 30 kHz  | Mode Auto FFT                                  | MHz Ant1             |   |
| Spectrum<br>Ref Level 20.00 dBm<br>Att 35 dB<br>SGL Count 100/100   | -20dB Bandwi                                      | idth NVNT 2<br>RBW 30 kHz  | Mode Auto FFT                                  |                      | -8.61 dBm<br>48002000 GHz                               |
| Spectrum<br>Ref Level 20.00 dBm<br>Att 35 dB<br>SGL Count 100/100<br>P1Pk Max<br>10 dBm   | -20dB Bandwi                                      | idth NVNT 2<br>RBW 30 kHz  | Mode Auto FFT                                  | 2                    | -8.61 dBm   |
| Spectrum           Ref Level 20.00 dBm           Att 35 dB           SGL Count 100/100           Ith Max           10 dBm           0 dBm   | -20dB Bandwi                                      | idth NVNT 2<br>RBW 30 kHz  | Mode Auto FFT<br>M1[1]<br>M2[1]                | 2                    | -8.61 dBm<br>.48002000 GHz<br>-28.21 dBm                |
| Spectrum<br>Ref Level 20.00 dBm<br>Att 35 dB<br>SGL Count 100/100<br>P1Pk Max<br>10 dBm   | -20dB Bandwi                                      | idth NVNT 2<br>RBW 30 kHz<br>VBW 100 kHz   | Mode Auto FFT<br>M1[1]<br>M2[1]                | 2                    | -8.61 dBm<br>.48002000 GHz<br>-28.21 dBm                |
| Spectrum<br>Ref Level 20.00 dBm<br>Att 35 dB<br>SGL Count 100/100<br>1Pk Max<br>10 dBm<br>-10 dBm<br>-20 dBm  | -20dB Bandwi<br>offset 2.42 dB ●<br>swT 63.3 µs ● | idth NVNT 2<br>RBW 30 kHz<br>VBW 100 kHz   | Mode Auto FFT<br>M1[1]<br>M2[1]                | 2 2 2                | -8.61 dBm<br>48002000 GHz<br>-28.21 dBm<br>47936800 GHz |
| Spectrum<br>Ref Level 20.00 dBm<br>Att 35 dB<br>SGL Count 100/100<br>PIPk Max<br>10 dBm<br>-10 dBm  | -20dB Bandwi<br>offset 2.42 dB ●<br>swT 63.3 µs ● | idth NVNT 2<br>RBW 30 kHz<br>VBW 100 kHz   | Mode Auto FFT<br>M1[1]<br>M2[1]                | 2                    | -8.61 dBm<br>48002000 GHz<br>-28.21 dBm<br>47936800 GHz |
| Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 PIPk Max 10 dBm -10 dBm -20 dBm -30 dBm  | -20dB Bandwi<br>offset 2.42 dB ●<br>swT 63.3 µs ● | idth NVNT 2<br>RBW 30 kHz<br>VBW 100 kHz   | Mode Auto FFT<br>M1[1]<br>M2[1]                | 2 2 2                | -8.61 dBm<br>48002000 GHz<br>-28.21 dBm<br>47936800 GHz |
| Spectrum           Ref Level 20.00 dBm           Att 35 dB           SGL Count 100/100           INF Max           10 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm   | -20dB Bandwi<br>offset 2.42 dB ●<br>swT 63.3 µs ● | idth NVNT 2<br>RBW 30 kHz<br>VBW 100 kHz   | Mode Auto FFT<br>M1[1]<br>M2[1]                | 2 2 2                | -8.61 dBm<br>48002000 GHz<br>-28.21 dBm<br>47936800 GHz |
| Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 PIPk Max 10 dBm -10 dBm -20 dBm -30 dBm  | -20dB Bandwi<br>offset 2.42 dB ●<br>swT 63.3 µs ● | idth NVNT 2<br>RBW 30 kHz<br>VBW 100 kHz   | Mode Auto FFT<br>M1[1]<br>M2[1]                | 2 2 2                | -8.61 dBm<br>48002000 GHz<br>-28.21 dBm<br>47936800 GHz |
| Spectrum           Ref Level 20.00 dBm           Att 35 dB           SGL Count 100/100           INF Max           10 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm   | -20dB Bandwi<br>offset 2.42 dB ●<br>swT 63.3 µs ● | idth NVNT 2<br>RBW 30 kHz<br>VBW 100 kHz   | Mode Auto FFT<br>M1[1]<br>M2[1]                | 2 2 2                | -8.61 dBm<br>48002000 GHz<br>-28.21 dBm<br>47936800 GHz |
| Spectrum           Ref Level 20.00 dBm           Att 35 dB           SGL Count 100/100           ● 1Pk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -59-dBm   | -20dB Bandwi<br>offset 2.42 dB ●<br>swT 63.3 µs ● | idth NVNT 2<br>RBW 30 kHz<br>VBW 100 kHz   | Mode Auto FFT<br>M1[1]<br>M2[1]                | 2 2 2                | -8.61 dBm<br>48002000 GHz<br>-28.21 dBm<br>47936800 GHz |
| Spectrum           Ref Level 20.00 dBm           Att 35 dB           SGL Count 100/100           INF Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -60 dBm   | -20dB Bandwi<br>offset 2.42 dB ●<br>swT 63.3 µs ● | idth NVNT 2<br>RBW 30 kHz<br>VBW 100 kHz   | Mode Auto FFT<br>M1[1]<br>M2[1]                | 2 2 2                | -8.61 dBm<br>48002000 GHz<br>-28.21 dBm<br>47936800 GHz |
| Spectrum<br>Ref Level 20.00 dBm<br>Att 35 dB<br>SGL Count 100/100<br>IPk Max<br>10 dBm<br>-10 dBm<br>-20 dBm<br>-20 dBm<br>-30 dBm<br>-60 dBm<br>-70 dBm<br>-70 dBm<br>-70 dBm  | -20dB Bandwi<br>offset 2.42 dB ●<br>swT 63.3 µs ● | idth NVNT 2<br>RBW 30 kHz<br>VBW 100 kHz   | Mode Auto FFT<br>M1[1]M2[1]                    | 2                    | -8.61 dBm<br>48002000 GHz<br>-28.21 dBm<br>47936800 GHz |
| Spectrum           Ref Level 20.00 dBm           Att 35 dB           SGL Count 100/100           IN Max           10 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -60 dBm           -70 dBm  | -20dB Bandwi<br>offset 2.42 dB ●<br>swT 63.3 µs ● | idth NVNT 2<br>RBW 30 kHz<br>VBW 100 kHz<br>M1   | Mode Auto FFT<br>M1[1]M2[1]                    | 2                    | -8.61 dBm<br>48002000 GHz<br>-28.21 dBm<br>47936800 GHz |
| Spectrum           Ref Level 20.00 dBm           Att 35 dB           SGL Count 100/100           IPk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -70 dBm           -70 dBm           CF 2.48 GHz           Marker           Type         Ref           M1         1  | -20dB Bandwi<br>Offset 2.42 dB •<br>SWT 63.3 µs • | idth NVNT 2<br>RBW 30 kHz<br>VBW 100 kHz<br>100 kHz<br>100 kHz<br>100 kHz<br>100 kHz<br>100 kHz<br>100 kHz<br>100 kHz<br>100 kHz | Mode Auto FFT<br>M1[1]<br>M2[1]<br>M2[1]<br>ts | 2                    | -8.61 dBm<br>48002000 GHz<br>-28.21 dBm<br>47936800 GHz |
| Spectrum           Ref Level 20.00 dBm           Att         35 dB           SGL Count 100/100           INK Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -70 dBm | -20dB Bandwi<br>Offset 2.42 dB •<br>SWT 63.3 µs • | idth NVNT 2<br>RBW 30 kHz<br>VBW 100 kHz<br>////////////////////////////////////   | Mode Auto FFT<br>M1[1]<br>M2[1]<br>M2[1]<br>ts | 2                    | -8.61 dBm<br>48002000 GHz<br>-28.21 dBm<br>47936800 GHz |





| Spectrum  |   |                           |  |  |               |                                      |  |
|---|---|---------------------------|--|--|---------------|--------------------------------------|--|
| Ref Level 20.00<br>Att 3  | dBm Offset 2.3<br>5 dB SWT 63   |                           | 30 kHz   | Mode Auto CC   | т             |                                      |  |
| SGL Count 100/10  |   | ). 5 µS 👅 ¥E              | 3W 100 KH2   | MOUE AUTO FF   | 1             |                                      |  |
| ●1Pk Max  |   |                           |  |  |               |                                      |  |
|   |   |                           |  | M1[1]  |               |                                      | -6.34 dBm<br>19780 GHz                           |
| 10 dBm  |   |                           |  | M2[1]  |               | -2                                   | 26.22 dBm  |
| 0 dBm   |   |                           |  | M1   |               | 2.4013                               | 38600 GHz  |
| -10 dBm   |   |                           |  | <u>~~</u>  |               |                                      |  |
| -20 dBm   |   | $\sim\sim$                |  | $\vee$ $ $ $\sim$  | $\sim 1 \sim$ | h.                                   |  |
| -20 0811  | M2~~/   |                           |  |  |               | M3                                   |  |
| -30 dBm   |   |                           |  |  |               |                                      |  |
| -40 dBm   | /   |                           |  |  |               |                                      |  |
| -50-dBm   | /   |                           |  |  |               | L                                    | $\sim \sim$                                      |
| ~~~   |   |                           |  |  |               |                                      | $\sim$   |
| -60 dBm   |   |                           |  |  |               |                                      |  |
| -70 dBm   |   |                           |  |  |               |                                      |  |
| CF 2.402 GHz  |   |                           | 1001 m   |  |               |                                      | 2.0 MHz  |
| GF 2.402 GH2<br>Marker  |   |                           | 1001 p   |  |               | span                                 | 1 2.0 MHZ  |
| Type   Ref   Trc  |   |                           | Y-value  | Function   | Fund          | ction Result                         |  |
| M1 1<br>M2 1  |   |                           | -6.34 dBm<br>-26.22 dBm  |  |               |                                      |  |
| M3 1  | . 2.40269   | 92 GHz                    | -26.06 dBm   |  |               |                                      |  |
|   |   |                           |  |  |               |                                      |  |
| Spectrum  |   |                           |  | 3-DH5 244  | Poety 111     |                                      |  |
| Ref Level 20.00   | dBm Offset 2.3<br>5 dB SWT 63   | 39 dB 👄 RE                | <b>3W</b> 30 kHz   |  |               |                                      |  |
| Ref Level 20.00<br>Att 3  | dBm Offset 2.3<br>5 dB SWT 63   | 39 dB 👄 RE                | <b>3W</b> 30 kHz   | Mode Auto FF   |               |                                      |  |
| Ref Level 20.00<br>Att 3<br>SGL Count 100/10<br>PIPK Max  | dBm Offset 2.3<br>5 dB SWT 63   | 39 dB 👄 RE                | <b>3W</b> 30 kHz   |  |               |                                      | €6.46 dBm<br>14400 GHz                           |
| Ref Level         20.00           Att         3           SGL Count         100/10  | dBm Offset 2.3<br>5 dB SWT 63   | 39 dB 👄 RE                | <b>3W</b> 30 kHz   | Mode Auto FF   |               | 2.4410<br>-2                         | -6.46 dBm<br>)4400 GHz<br>26.17 dBm              |
| Ref Level 20.00<br>Att 3<br>SGL Count 100/10<br>1Pk Max   | dBm Offset 2.3<br>5 dB SWT 63   | 39 dB 👄 RE                | 30 kHz<br>BW 100 kHz   | Mode Auto FF   |               | 2.4410<br>-2                         | -6.46 dBm<br>04400 GHz                           |
| Ref Level         20.00           Att         3           SGL Count         100/10           IPk Max         10           IO dBm         10   | dBm Offset 2.3<br>5 dB SWT 63   | 39 dB 👄 RE                | 30 kHz<br>BW 100 kHz   | Mode Auto FF   |               | 2.4410<br>-2                         | -6.46 dBm<br>)4400 GHz<br>26.17 dBm              |
| Ref Level         20.00           Att         3           SGL         Count         100/10           ● 1Pk Max         10         dBm           10 dBm         -10 dBm         -10  | dBm Offset 2.3<br>5 dB SWT 63<br>00   | 39 dB 👄 RE                | 30 kHz<br>BW 100 kHz   | Mode Auto FF   |               | 2.4410<br>-2<br>2.4403               | -6.46 dBm<br>)4400 GHz<br>26.17 dBm              |
| Ref Level         20.00           Att         3           SGL Count         100/10           1Pk Max         10           10 dBm         0           -10 dBm  | dBm Offset 2.3<br>5 dB SWT 63   | 39 dB 👄 RE                | 30 kHz<br>BW 100 kHz   | Mode Auto FF   |               | 2.4410<br>-2                         | -6.46 dBm<br>)4400 GHz<br>26.17 dBm              |
| Ref Level         20.00           Att         3           SGL         Count         100/10           1Pk Max         10         dBm           0         dBm         -10   | dBm Offset 2.3<br>5 dB SWT 63<br>00   | 39 dB 👄 RE                | 30 kHz<br>BW 100 kHz   | Mode Auto FF   |               | 2.4410<br>-2<br>2.4403               | -6.46 dBm<br>)4400 GHz<br>26.17 dBm              |
| Ref Level         20.00           Att         3           SGL         Count         100/10           1Pk Max         10           10 dBm         0           -10 dBm         -0           -20 dBm         -20   | dBm Offset 2.3<br>5 dB SWT 63<br>00   | 39 dB 👄 RE                | 30 kHz<br>BW 100 kHz   | Mode Auto FF   |               | 2.4410<br>-2<br>2.4403               | -6.46 dBm<br>)4400 GHz<br>26.17 dBm              |
| Ref Level         20.00           Att         3           SGL Count         100/10           1Pk Max         10           10 dBm  | dBm Offset 2.3<br>5 dB SWT 63<br>00   | 39 dB 👄 RE                | 30 kHz<br>BW 100 kHz   | Mode Auto FF   |               | 2.4410<br>-2<br>2.4403               | -6.46 dBm<br>)4400 GHz<br>26.17 dBm              |
| Ref Level         20.00           Att         3           SGL Count         100/10           ● 1Pk Max         10           10 dBm         0           0 dBm         -10           -10 dBm         -20           -20 dBm         -30 dBm           -40 dBm         -40 dBm  | dBm Offset 2.3<br>5 dB SWT 63<br>00   | 39 dB 👄 RE                | 30 kHz<br>BW 100 kHz   | Mode Auto FF   |               | 2.4410<br>-2<br>2.4403               | -6.46 dBm<br>14400 GHz<br>26.17 dBm<br>18600 GHz |
| Ref Level         20.00           Att         3           SGL Count         100/10           • 1Pk Max         10           0 dBm         -           -10 dBm         -           -20 dBm         -           -30 dBm         -           -40 dBm         -           -60 dBm         -   | dBm Offset 2.3<br>5 dB SWT 63<br>00   | 39 dB 👄 RE                | 30 kHz<br>BW 100 kHz   | Mode Auto FF   |               | 2.4410<br>-2<br>2.4403               | -6.46 dBm<br>14400 GHz<br>26.17 dBm<br>18600 GHz |
| Ref Level         20.00           Att         3           SGL         20.01           ● 1Pk Max         10           ● 1Pk Max         10           0 dBm         -0           -10 dBm         -0           -20 dBm   | dBm Offset 2.3<br>5 dB SWT 63<br>00   | 39 dB 👄 RE                | 30 kHz<br>BW 100 kHz   | Mode Auto FF   |               | 2.4410<br>-2<br>2.4403               | -6.46 dBm<br>14400 GHz<br>26.17 dBm<br>18600 GHz |
| Ref Level         20.00           Att         3           SGL Count         100/10           • 1Pk Max         10           10 dBm         0           -10 dBm         -0           -20 dBm         -0           -30 dBm         -0           -40 dBm         -0           -50/dBm         -0           -70 dBm         -0  | dBm Offset 2.3<br>5 dB SWT 63<br>00   | 39 dB 👄 RE                | BW 30 kHz<br>BW 100 kHz  | Mode Auto FF   |               | 2.4410<br>-2<br>2.4403               | -6.46 dBm<br>14400 GHz<br>26.17 dBm<br>18600 GHz |
| Ref Level         20.00           Att         3           SGL Count         100/10           IPk Max         10           0 dBm         0           -10 dBm         -           -20 dBm         -           -30 dBm         -           -40 dBm         -           -50 dBm         -           -60 dBm         -           -70 dBm         -           CF 2.441 GHz         Marker   | dBm Offset 2.3<br>5 dB SWT 63<br>00   | 39 dB 👄 RE                | 30 kHz<br>BW 100 kHz   | Mode Auto FF   |               | 2.4410<br>-2<br>2.4403               | -6.46 dBm<br>14400 GHz<br>26.17 dBm<br>18600 GHz |
| Ref Level         20.00           Att         3           SGL Count         100/10           ● 1Pk Max         10           10 dBm         0           0 dBm         -           -10 dBm         -           -20 dBm         -           -30 dBm         -           -40 dBm         -           -50 dBm         -           -70 dBm         -           CF 2.441 GHz         Marker           Type         Ref         Trc   | dBm Offset 2.3<br>5 dB SWT 63<br>00   | 39 dB • Re<br>3.3 µs • Ve | 30 kHz<br>BW 100 kHz<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M    | Mode Auto FF   | T             | 2.4410<br>-2<br>2.4403               | -6.46 dBm<br>14400 GHz<br>26.17 dBm<br>18600 GHz |
| Ref Level         20.00           Att         3           SGL Count         100/10           ● 1Pk Max         100           10 dBm         0           0 dBm         -00           -10 dBm         -00           -20 dBm         -00           -30 dBm         -00           -40 dBm         -00           -70 | dBm Offset 2.3<br>5 dB SWT 63<br>00<br>May<br>May<br>May<br>May<br>May<br>May<br>May<br>May<br>May<br>May | 39 dB • Re<br>3.3 μs • VE | BW 30 kHz<br>BW 100 kHz<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M | Mode Auto FF <sup>-</sup><br>M1[1]<br>M2[1]<br>1<br>M2[1]<br>1<br>M2[1]<br>1<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1 | T             | 2.4410<br>-2<br>2.4403<br>M3<br>Span | -6.46 dBm<br>14400 GHz<br>26.17 dBm<br>18600 GHz |
| Ref Level         20.00           Att         3           SGL Count         100/10           • IPk Max         100           10 dBm         -           0 dBm         -           -10 dBm         -           -20 dBm         -           -30 dBm         -           -40 dBm         -           -50 dBm         -           -60 dBm         -           -70 dBm         -           CF 2.441 GHz         Marker           Type         Ref         Tro  | dBm Offset 2.3<br>5 dB SWT 63<br>00<br>May<br>May<br>May<br>May<br>May<br>May<br>May<br>May<br>May<br>May | 39 dB • Re<br>3.3 μs • VE | BW 30 kHz<br>BW 100 kHz<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M | Mode Auto FF <sup>-</sup><br>M1[1]<br>M2[1]<br>1<br>M2[1]<br>1<br>M2[1]<br>1<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1]<br>M2[1 | T             | 2.4410<br>-2<br>2.4403<br>M3<br>Span | -6.46 dBm<br>14400 GHz<br>26.17 dBm<br>18600 GHz |





| Spectrum<br>Ref Level 20.00 d  | IBm Offset 2.42 dB 👄 | RBW 30 kHz                  |                  |       |             |           |
|--|----------------------|-----------------------------|------------------|-------|-------------|-----------|
|  | dB SWT 63.2 µs 👄     | <b>VBW</b> 100 kHz r        | Mode Auto FFT    |       |             |           |
| SGL Count 100/100<br>1Pk Max   | J                    |                             |                  |       |             |           |
| TEK Max  |                      |                             | M1[1]            |       |             | -6.51 dBm |
|  |                      |                             | with             |       | 2,480       | 19780 GHz |
| .0 dBm   |                      |                             | M2[1]            |       |             | 25.58 dBm |
| I dBm  |                      |                             |                  |       | 2.479       | 39100 GHz |
| ubiii  |                      |                             | M1               |       |             |           |
| 10 dBm   |                      | -                           | $\sim A + \dots$ |       |             |           |
|  |                      | $\gamma \sim \gamma \sim 0$ | " home           |       |             |           |
| 20 dBm   | M                    |                             |                  | Ma Ma |             |           |
|  | , j <sup>™</sup>     |                             |                  | T Y   |             |           |
| 30 dBm   |                      |                             |                  | +     |             |           |
| 10 10  |                      |                             |                  |       |             |           |
| 40 dBm   |                      |                             |                  |       |             |           |
| 50 dBm   |                      |                             |                  |       |             | ~         |
| and the second s | www.                 |                             |                  |       | www         | m         |
| 50 dBm   |                      |                             |                  |       |             |           |
|  |                      |                             |                  |       |             |           |
| 70 dBm   |                      |                             |                  |       |             |           |
|  |                      |                             |                  |       |             |           |
| F 2.48 GHz   |                      | 1001 pt:                    | 5                |       | Spa         | n 3.0 MHz |
| arker  |                      | •                           |                  |       |             |           |
| Type   Ref   Trc   | X-value              | Y-value                     | Function         | Fund  | tion Result |           |
| M1 1   | 2.4801978 GHz        | -6.51 dBm                   |                  |       |             |           |
| M2 1   | 2.479391 GHz         | -25.58 dBm                  |                  |       |             |           |
| M3 1   | 2.48069 GHz          | -26.28 dBm                  |                  |       |             |           |

# NTEK 北测<sup>®</sup>



## 8.4 OCCUPIED CHANNEL BANDWIDTH

| Condition | Mode  | Frequency (MHz) | Antenna | 99% OBW (MHz) |
|-----------|-------|-----------------|---------|---------------|
| NVNT      | 1-DH5 | 2402            | Ant1    | 0.829         |
| NVNT      | 1-DH5 | 2441            | Ant1    | 0.845         |
| NVNT      | 1-DH5 | 2480            | Ant1    | 0.859         |
| NVNT      | 2-DH5 | 2402            | Ant1    | 1.193         |
| NVNT      | 2-DH5 | 2441            | Ant1    | 1.197         |
| NVNT      | 2-DH5 | 2480            | Ant1    | 1.199         |
| NVNT      | 3-DH5 | 2402            | Ant1    | 1.183         |
| NVNT      | 3-DH5 | 2441            | Ant1    | 1.187         |
| NVNT      | 3-DH5 | 2480            | Ant1    | 1.193         |

ACCRED

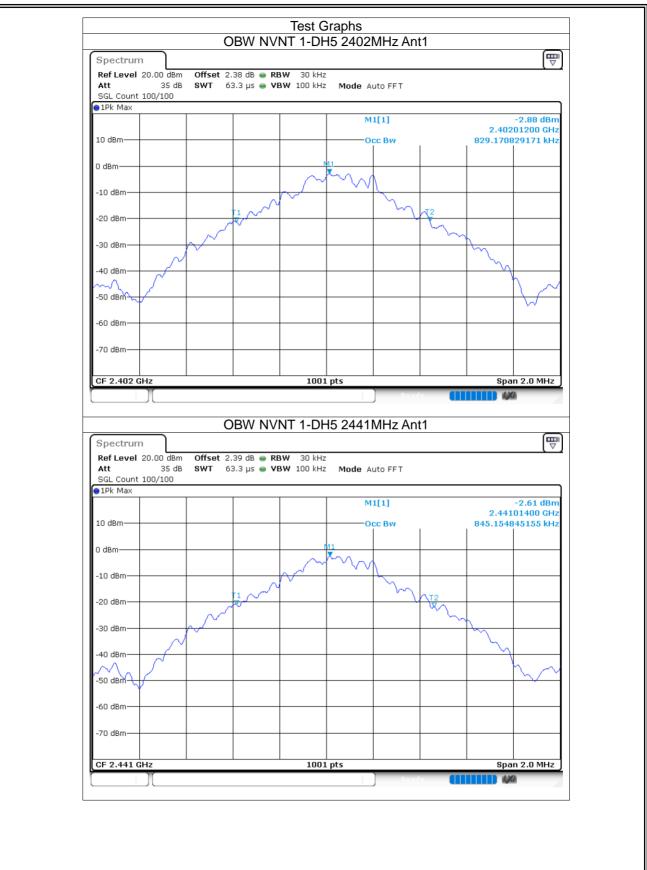
Certificate #4298.01

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ilac-MR

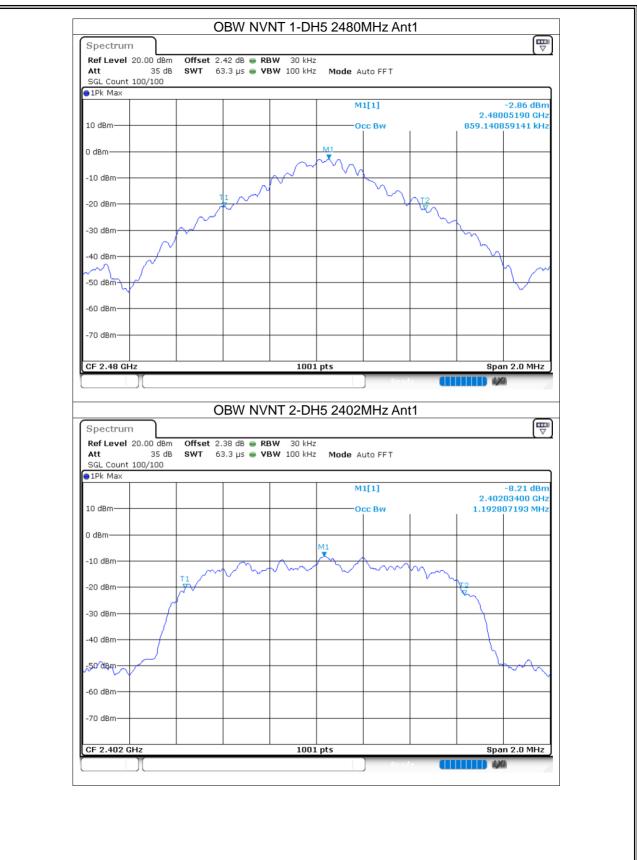






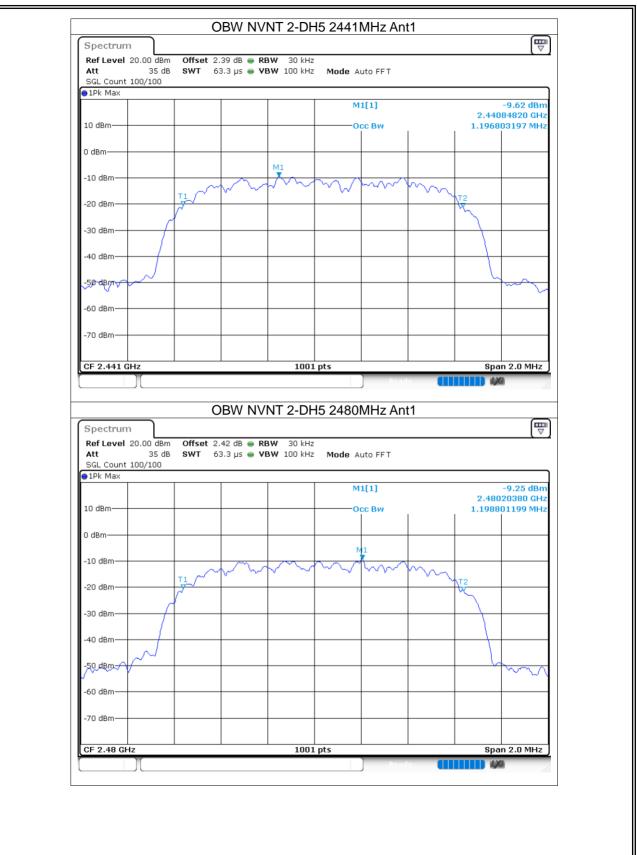






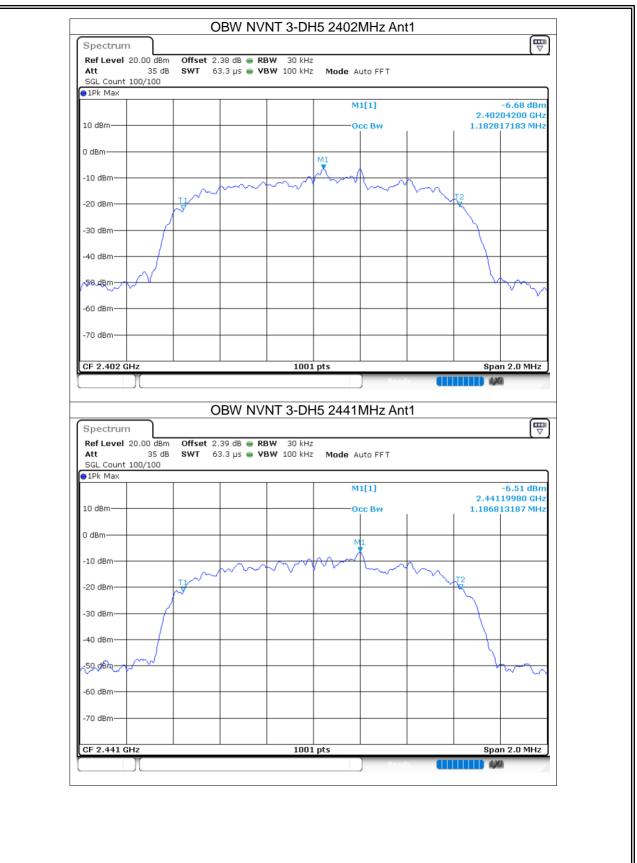






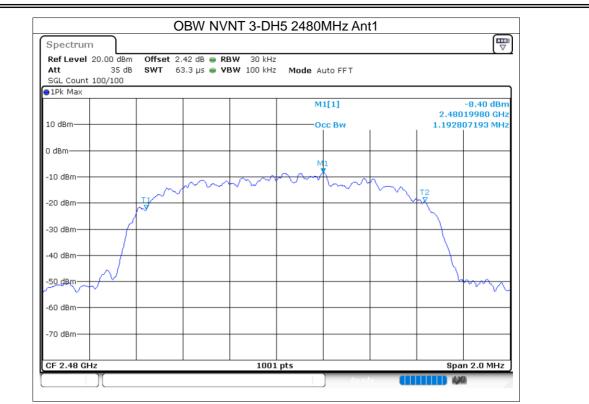














## 8.5 CARRIER FREQUENCIES SEPARATION

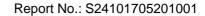
| 0.5 CARRIER | FREQUEN | ICIES SEPAR | ATION                  |                        |              |                |         |
|-------------|---------|-------------|------------------------|------------------------|--------------|----------------|---------|
| Condition   | Mode    | Antenna     | Hopping Freq1<br>(MHz) | Hopping Freq2<br>(MHz) | HFS<br>(MHz) | Limit<br>(MHz) | Verdict |
| NVNT        | 1-DH5   | Ant1        | 2402.012               | 2403.012               | 1            | 0.628          | Pass    |
| NVNT        | 1-DH5   | Ant1        | 2441.05                | 2442.05                | 1            | 0.624          | Pass    |
| NVNT        | 1-DH5   | Ant1        | 2479.014               | 2480.014               | 1            | 0.62           | Pass    |
| NVNT        | 2-DH5   | Ant1        | 2402.046               | 2403.046               | 1            | 0.887          | Pass    |
| NVNT        | 2-DH5   | Ant1        | 2441.04                | 2442.018               | 0.978        | 0.893          | Pass    |
| NVNT        | 2-DH5   | Ant1        | 2479.048               | 2480.048               | 1            | 0.891          | Pass    |
| NVNT        | 3-DH5   | Ant1        | 2402.198               | 2403.198               | 1            | 0.871          | Pass    |
| NVNT        | 3-DH5   | Ant1        | 2441.044               | 2442.028               | 0.984        | 0.872          | Pass    |
| NVNT        | 3-DH5   | Ant1        | 2479.198               | 2480.2                 | 1.002        | 0.866          | Pass    |

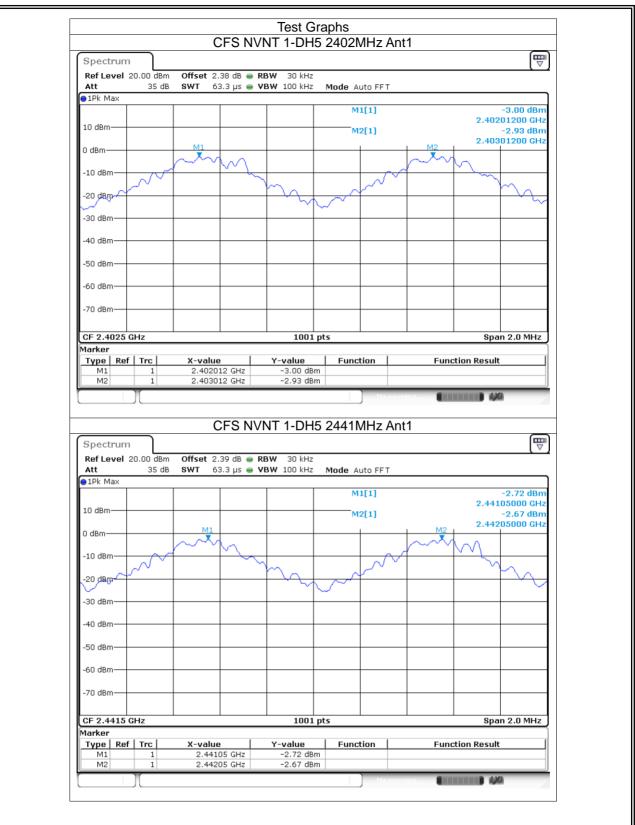
ACCREDITED Certificate #4298.01

ilac-MR/



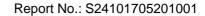
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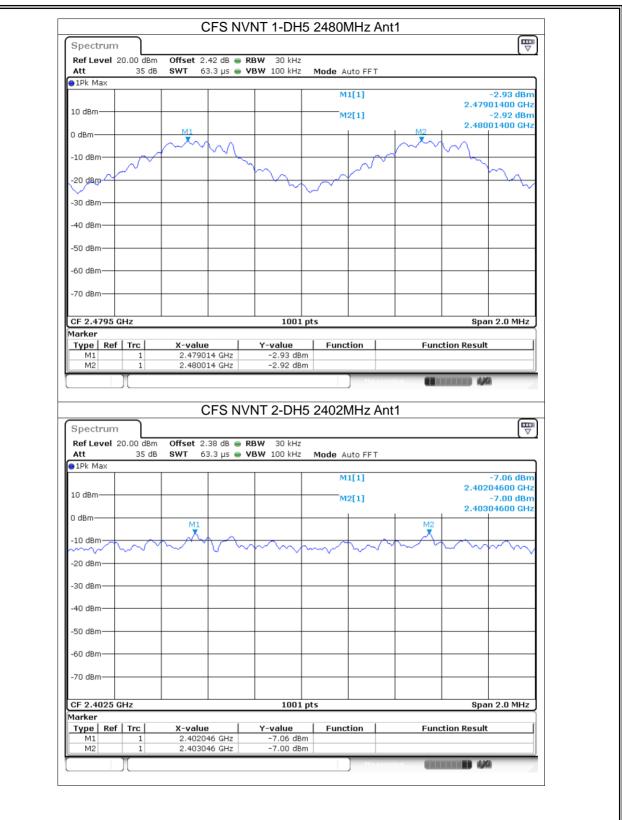






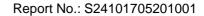
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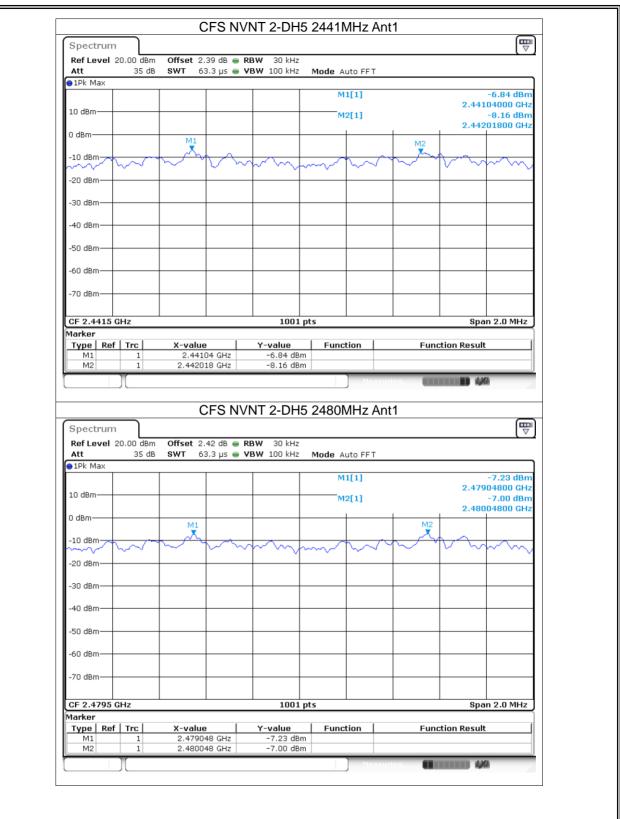






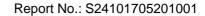
ACCREDITED

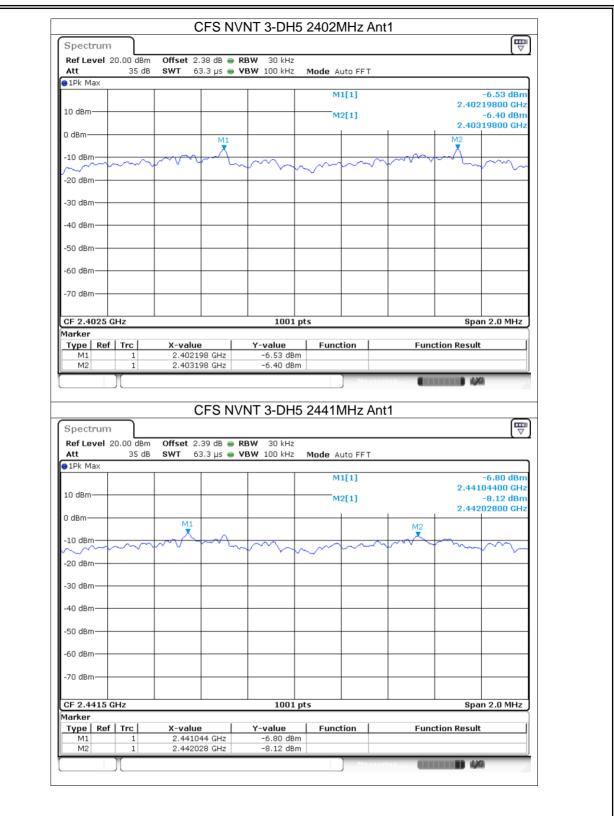






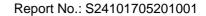
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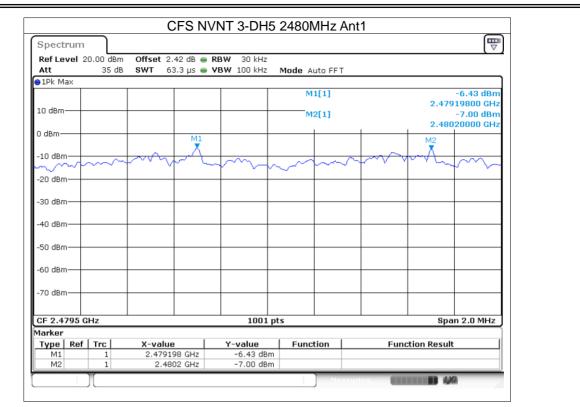






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#### 8.6 NUMBER OF HOPPING CHANNEL

| ···· |           |       |         |                |       |         |
|------|-----------|-------|---------|----------------|-------|---------|
|      | Condition | Mode  | Antenna | Hopping Number | Limit | Verdict |
|      | NVNT      | 1-DH5 | Ant1    | 79             | 15    | Pass    |
|      | NVNT      | 2-DH5 | Ant1    | 79             | 15    | Pass    |
|      | NVNT      | 3-DH5 | Ant1    | 79             | 15    | Pass    |





|   | Ηορρί                                 | ina No.                            | Test G<br>NVNT 1         | iraphs<br>-DH5 24  | 02MH  | z Ant1         |              |  |
|---|---------------------------------------|------------------------------------|--------------------------|--|---|----------------|--------------|--|
| Spectrum  |                                       |                                    |                          |  | 1   |                |              |  |
|   |                                       |                                    | BW 100 kHz<br>BW 300 kHz |  | to Sweep  |                |              |  |
| ●1Pk Max  |                                       |                                    |                          | M1   | [1]   |                |              | -1.20 dBn  |
| 10 dBm  |                                       |                                    |                          |  | (1)   |                | 2.40         | 20040 GH:<br>-2.27 dBn   |
|   |                                       |                                    |                          |  | 1.41  | 1              | 2.48         | 02435 GH   |
| E TATA MANA   | ADANATATAA                            | NAMANA                             | INANANAN                 | AAAAAAAAAA   | ABABAN  | JAANANAN       | haalaala     | MAAAAT   |
|   | A A A A A A A A A A A A A A A A A A A | NYWW                               | UVYVYVY                  | WWWW   | 1111111   | VYNYVN         |              |  |
| -20 dBm   |                                       |                                    |                          | 010  |   |                |              |  |
| -30 dBm   |                                       |                                    |                          |  |   |                |              |  |
| -40 dBm   |                                       |                                    |                          |  |   |                |              |  |
| 50 dBm  |                                       |                                    |                          |  |   |                |              |  |
| -60 dBm   |                                       |                                    |                          |  |   |                |              | ***  |
|   |                                       |                                    |                          |  |   |                |              |  |
| -70 dBm   |                                       |                                    |                          |  |   |                |              |  |
| Start 2.4 GHz   |                                       |                                    | 1001                     | pts  |   | 1              | Stop 2       | .4835 GHz  |
| Marker<br>Type Ref Trc  |                                       |                                    | Y-value                  | Funct  | ion   | Fun            | ction Result | :  |
| M1 1<br>M2 1  |                                       |                                    | -1.20 dB<br>-2.27 dB     |  |   |                |              |  |
|   |                                       |                                    |                          |  |   |                |              |  |
|   |                                       |                                    |                          |  | Measu   | ring           |              | 7  |
|   | Honni                                 |                                    |                          |  | Меаки<br>ОЗМН   | ring           | 44           |  |
| Spectrum  | Норрі                                 | ing No.                            | NVNT 2                   | -DH5 24  | 02MH  | ring<br>z Ant1 |              |  |
| Spectrum<br>Ref Level 20.00   | dBm Offset 2.3                        | 8 dB 😑 RE                          | <b>BW</b> 100 kHz        |  |   |                |              |  |
| Ref Level 20.00   | dBm Offset 2.3                        | 8 dB 😑 RE                          |                          |  |   |                |              | ¶<br>(₩<br>⊽   |
| Ref Level 20.00<br>Att 3  | dBm Offset 2.3                        | 8 dB 😑 RE                          | <b>BW</b> 100 kHz        | <b>Mode</b> Au   |   |                | 2.40         | -7.00 dBn  |
| Ref Level 20.00<br>Att 3  | dBm Offset 2.3                        | 8 dB 😑 RE                          | <b>BW</b> 100 kHz        | Mode Au  | to Sweep  |                |              | -7.00 dBn<br>17535 GH:<br>-7.59 dBn  |
| Ref Level         20.00           Att         3:           IPk Max         10 dBm           0 dBm         0 dBm   | dBm Offset 2.3<br>5 dB SWT            | 8 dB 🖷 RE<br>1 ms 🖶 VI             | BW 100 kHz<br>BW 300 kHz | Mode Au<br>M1<br>M2  | to Sweep<br>[1]<br>2[1]                                   |                | 2.48         | -7.00 dBn<br>117535 GH;<br>-7.59 dBn<br>04105 GH;  |
| Ref Level         20.00           Att         3:           IPk Max         10 dBm           0 dBm         0 dBm   | dBm Offset 2.3<br>5 dB SWT            | 8 dB 🖷 RE<br>1 ms 🖶 VI             | BW 100 kHz<br>BW 300 kHz | Mode Au<br>M1<br>M2  | to Sweep<br>[1]<br>2[1]                                   |                | 2.48         | -7.00 dBn<br>117535 GH;<br>-7.59 dBn<br>04105 GH;  |
| Ref Level         20.00           Att         3:           IPk Max         10 dBm           0 dBm         0 dBm   | dBm Offset 2.3<br>5 dB SWT            | 8 dB 🖷 RE<br>1 ms 🖶 VI             | BW 100 kHz<br>BW 300 kHz | Mode Au<br>M1<br>M2  | to Sweep<br>[1]<br>2[1]                                   |                | 2.48         | -7.00 dBn<br>117535 GH;<br>-7.59 dBn<br>04105 GH;  |
| Ref Level         20.00           Att         3:           IPk Max         3:           IO dBm         0           M1         3:           IO dBm         10           Att         3:           IO dBm         10           3:         3:           IO dBm         3:           Att         3:           IO dBm         10           IO dBm         10           -20 dBm         -20  | dBm Offset 2.3<br>5 dB SWT            | 8 dB 🖷 RE<br>1 ms 🖶 VI             | BW 100 kHz<br>BW 300 kHz | Mode Au<br>M1<br>M2  | to Sweep<br>[1]<br>2[1]                                   |                | 2.48         | -7.00 dBn<br>117535 GH;<br>-7.59 dBn<br>04105 GH;  |
| Ref Level         20.00           Att         3:           IDk Max         10           0 dBm         0           M1         -10           -20 dBm         -20 dBm  | dBm Offset 2.3<br>5 dB SWT            | 8 dB 🖷 RE<br>1 ms 🖶 VI             | BW 100 kHz<br>BW 300 kHz | Mode Au<br>M1<br>M2  | to Sweep<br>[1]<br>2[1]                                   |                | 2.48         | -7.00 dBn<br>117535 GH;<br>-7.59 dBn<br>04105 GH;  |
| Ref Level 20.00           Att         3:           ● 1Pk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm   | dBm Offset 2.3<br>5 dB SWT            | 38 dB 🖷 RE<br>1 ms 🖶 VI            | BW 100 kHz<br>BW 300 kHz | Mode Au<br>M1<br>M2  | to Sweep<br>[1]<br>2[1]                                   |                | 2.48         | -7.00 dBn<br>117535 GH;<br>-7.59 dBn<br>04105 GH;  |
| Ref Level         20.00           Att         3:           IDk Max         10           0 dBm         0           M1         -10           -20 dBm         -20 dBm  | dBm Offset 2.3<br>5 dB SWT            | 38 dB 🖷 RE<br>1 ms 🖶 VI            | BW 100 kHz<br>BW 300 kHz | Mode Au<br>M1<br>M2  | to Sweep<br>[1]<br>2[1]                                   |                | 2.48         | -7.00 dBn<br>117535 GH;<br>-7.59 dBn<br>04105 GH;  |
| Ref Level 20.00           Att         3:           ● 1Pk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm   | dBm Offset 2.3<br>5 dB SWT            | 38 dB 🖷 RE<br>1 ms 🖶 VI            | BW 100 kHz<br>BW 300 kHz | Mode Au<br>M1<br>M2  | to Sweep<br>[1]<br>2[1]                                   |                | 2.48         | -7.00 dBn<br>117535 GH;<br>-7.59 dBn<br>04105 GH;  |
| Ref Level 20.00           Att         3:           ● 1Pk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -80 dBm           -90 dBm           -50 dBm           -50 dBm   | dBm Offset 2.3<br>5 dB SWT            | 38 dB 🖷 RE<br>1 ms 🖶 VI            | BW 100 kHz<br>BW 300 kHz | Mode Au<br>M1<br>M2  | to Sweep<br>[1]<br>2[1]                                   |                | 2.48         | -7.00 dBn<br>117535 GH;<br>-7.59 dBn<br>04105 GH;  |
| Ref Level         20.00           Att         3:           ● 1Pk Max         10           10 dBm         0           0 dBm         0           -10 dBm         -           -20 dBm         -           -30 dBm         -           -50 dBm         -           -50 dBm         -           -70 dBm         -  | dBm Offset 2.3<br>5 dB SWT            | 38 dB 🖷 RE<br>1 ms 🖶 VI            | BW 100 kHz<br>BW 300 kHz | Mode Au<br>M1<br>M2  | to Sweep<br>[1]<br>2[1]                                   |                | 2.48         | -7.00 dBn<br>17535 GH:<br>-7.59 dBn<br>04105 GH:<br>M2<br>M2<br>M4<br>M4<br>M4<br>M4<br>M4<br>M4<br>M4<br>M4<br>M4<br>M4<br>M4<br>M4<br>M4           |
| Ref Level         20.00           Att         3:           ● 1Pk Max         10           10 dBm         0           0 dBm         0           -10 dBm         -           -20 dBm         -           -30 dBm         -           -40 dBm         -           -50 dBm         -           -60 dBm         -  | dBm Offset 2.3<br>5 dB SWT            | 38 dB 🖷 RE<br>1 ms 🖶 VI            | BW 100 kHz<br>BW 300 kHz | Mode Au<br>M1<br>M2  | to Sweep<br>[1]<br>2[1]                                   |                | 2.48         | -7.00 dBn<br>117535 GH;<br>-7.59 dBn<br>04105 GH;  |
| Ref Level 20.00           Att         3:           1Pk Max         10 dBm           0 dBm         -           -10 dBm         -           -20 dBm         -           -80 dBm         -           -50 dBm         -           -60 dBm         -           -70 dBm         -           -80 dBm         -           -90 dBm         -           -90 dBm         -           -90 dBm         -           -70 dBm         -           -70 dBm         - | dBm Offset 2.3<br>5 dB SWT            | BB dB <b>PRE</b><br>1 ms <b>VI</b> | BW 100 kHz<br>BW 300 kHz | Mode Au<br>M1<br>M2<br>M2<br>M2<br>M2<br>M2<br>M2<br>M2<br>M2<br>M2<br>M2<br>M2<br>M2<br>M2  | to Sweep<br>[1]<br>[1]<br>/////////////////////////////// |                | 2.48         | -7.00 dBn<br>17535 GH;<br>-7.59 dBn<br>04105 GH;<br>M2<br>H-M4<br>H-M4<br>H-<br>H-<br>H-<br>H-<br>H-<br>H-<br>H-<br>H-<br>H-<br>H-<br>H-<br>H-<br>H- |
| Ref Level         20.00           Att         3:           ● 1Pk Max         3:           10 dBm         0           0 dBm         0           -10 dBm         0           -20 dBm         0           -30 dBm         0           -30 dBm         0           -60 dBm         0           -70 dBm         0           Start 2.4 GHz         0           Marker         10           Type         Ref   | dBm Offset 2.3<br>5 dB SWT            | SB dB P RE<br>1 ms VI              | 3W 100 kHz<br>BW 300 kHz | Mode         Au           M1         M2           My         M4           M2         M2           M3         M2           M4         M4           M4         M4           M4         M4           M4         M4           M4         M4           M4         M4           M4 | to Sweep<br>[1]<br>[1]<br>/////////////////////////////// | Fun            | 2.48         | -7.00 dBn<br>17535 GH:<br>-7.59 dBn<br>04105 GH:<br>-7.59 dBn<br>04105 GH:<br>-4835 GHz  |