| | 达 现J | |
|----------------------------------|--|---------------------------|
| | TEST REPOR | Т |
| FCC ID : | 2AFSG-F9 | |
| Test Report No: | TCT220228E001 | |
| Date of issue: | Mar. 09, 2022 | |
| Testing laboratory: : | SHENZHEN TONGCE TESTING | S LAB |
| Testing location/ address: | TCT Testing Industrial Park Fuq Street, Bao'an District Shenzhen Republic of China | |
| Applicant's name: : | Dongguan Jin wen hua digital te | chnology Co., LTD. |
| Address: | NO.1 Hua Da Road, Long Bei Li Dongguan City, Guangdong, Ch | |
| Manufacturer's name : | Dongguan Jin wen hua digital te | chnology Co., LTD. |
| Address: | NO.1 Hua Da Road, Long Bei Li Dongguan City, Guangdong, Ch | |
| Standard(s): | FCC CFR Title 47 Part 15 Subpa FCC KDB 558074 D01 15.247 M ANSI C63.10:2013 | |
| Test item description : | HIT BOOM | |
| Trade Mark: | SUNGRYCIS | |
| Model/Type reference : | F9 | |
| Rating(s): | Rechargeable Li-ion Battery DC | 3.7V C |
| Date of receipt of test item | Feb. 28, 2022 | |
| Date (s) of performance of test: | Feb. 28, 2022 ~ Mar. 09, 2022 | |
| Tested by (+signature) : | Brews XU | Forents sotters |
| Check by (+signature) : | Beryl ZHAO | Boy(PTCT) |
| Approved by (+signature): | Tomsin | Tomsters |
| TONGCE TESTING LAB. Th | oduced except in full, without the his document may be altered or r | evised by SHENZHEN TONGCE |

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TCT通测检测 TESTING CENTRE TECHNOLOGY

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| | |



1. General Product Information

1.1. EUT description

| Test item description: | НІТ ВООМ | (C ¹) | (\mathbf{C}^{*}) |
|------------------------|-----------------------------------|-------------------|-----------------------------|
| Model/Type reference: | F9 | | |
| Sample Number | TCT220228E001-0101 | | |
| Bluetooth Version: | V5.0 | | |
| Operation Frequency: | 2402MHz~2480MHz | | |
| Transfer Rate: | 1/2/3 Mbits/s | | $\left(\mathbf{C} \right)$ |
| Number of Channel: | 79 | | |
| Modulation Type: | GFSK, π/4-DQPSK, 8DPSK | | |
| Modulation Technology: | FHSS | | |
| Antenna Type: | PCB Antenna | | |
| Antenna Gain: | 0dBi | S. | |
| Rating(s): | Rechargeable Li-ion Battery DC 3. | 7V | |

Note: The antenna gain listed in this report is provided by applicant, and the test laboratory is not responsible for this parameter.

1.2. Model(s) list

None.

1.3. Operation Frequency

| Channel | Frequency | Channel | Frequency | Channel | Frequency | Channel | Frequency |
|----------------------|--------------------------|-----------|-------------|-----------|-------------|----------|-----------|
| 0 | 2402MHz | 20 | 2422MHz | 40 | 2442MHz | 60 | 2462MHz |
| 1 | 2403MHz | 21 | 2423MHz | 41 | 2443MHz | 61 | 2463MHz |
| ~ | (| × | (| <u> </u> | | ···· | (|
| 10 | 2412MHz | 30 | 2432MHz | 50 | 2452MHz | 70 | 2472MHz |
| 11 | 2413MHz | 31 | 2433MHz | 51 | 2453MHz | 71 | 2473MHz |
| | | | | | | | |
| 18 | 2420MHz | 38 | 2440MHz | 58 | 2460MHz | 78 | 2480MHz |
| 19 | 2421MHz | 39 | 2441MHz | 59 | 2461MHz | | - |
| Remark: modulatic | Channel 0, 3 on mode. | 39 &78 ha | ve been tes | ted for G | FSK, π/4-D0 | QPSK, 8E | DPSK |

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2. Test Result Summary

| Requirement | CFR 47 Section | Result |
|-------------------------------------|---------------------|--------|
| Antenna Requirement | §15.203/§15.247 (c) | PASS |
| AC Power Line Conducted Emission | §15.207 | PASS |
| Conducted Peak Output Power | §15.247 (b)(1) | PASS |
| 20dB Occupied Bandwidth | §15.247 (a)(1) | PASS |
| Carrier Frequencies Separation | §15.247 (a)(1) | PASS |
| Hopping Channel Number | §15.247 (a)(1) | PASS |
| Dwell Time | §15.247 (a)(1) | PASS |
| Radiated Emission | §15.205/§15.209 | PASS |
| Band Edge | §15.247(d) | PASS |

Note:

1. PASS: Test item meets the requirement.

2. Fail: Test item does not meet the requirement.

3. N/A: Test case does not apply to the test object.

4. The test result judgment is decided by the limit of test standard.

Report No.: TCT220228E001

3. General Information

3.1. Test environment and mode

| Operating Environment: | | |
|------------------------|---|-------------------|
| Condition | Conducted Emission | Radiated Emission |
| Temperature: | 25.0 °C | 25.3 °C |
| Humidity: | 55 % RH | 54 % RH |
| Atmospheric Pressure: | 1010 mbar | 1010 mbar |
| Test Software: | | |
| Software Information: | BT FCC TOOL V2.23 | |
| Power Level: | 3 | |
| Test Mode: | • | |
| Engineering mode: | Keep the EUT in continuous channel and modulations wi | 0, |

The sample was placed 0.8m & 1.5m for the measurement below & above 1GHz above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case(Z axis) are shown in Test Results of the following pages. DH1 DH3 DH5 all have been tested, only worse case DH1 is reported.

3.2. Description of Support Units

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.

| Equipment | Model No. | Serial No. | FCC ID | Trade Name |
|-----------|-----------|------------------|--------|------------|
| Adapter | JD-050200 | 2012010907576735 | / | / |

Note:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.

2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

3. For conducted measurements (Output Power, 20dB Occupied Bandwidth, Carrier Frequencies Separation, Hopping Channel Number, Dwell Time, Spurious Emissions), the antenna of EUT is connected to the test equipment via temporary antenna connector, the antenna connector is soldered on the antenna port of EUT, and the temporary antenna connector is listed in the Test Instruments.

FCT通测检测 4. Facilities and Accreditations

4.1. Facilities

The test facility is recognized, certified, or accredited by the following organizations:

• FCC - Registration No.: 645098

SHENZHEN TONGCE TESTING LAB

Designation Number: CN1205

The testing lab has been registered and fully described in a report with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

- IC Registration No.: 10668A-1
- SHENZHEN TONGCE TESTING LAB
- CAB identifier: CN0031

The testing lab has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing.

4.2. Location

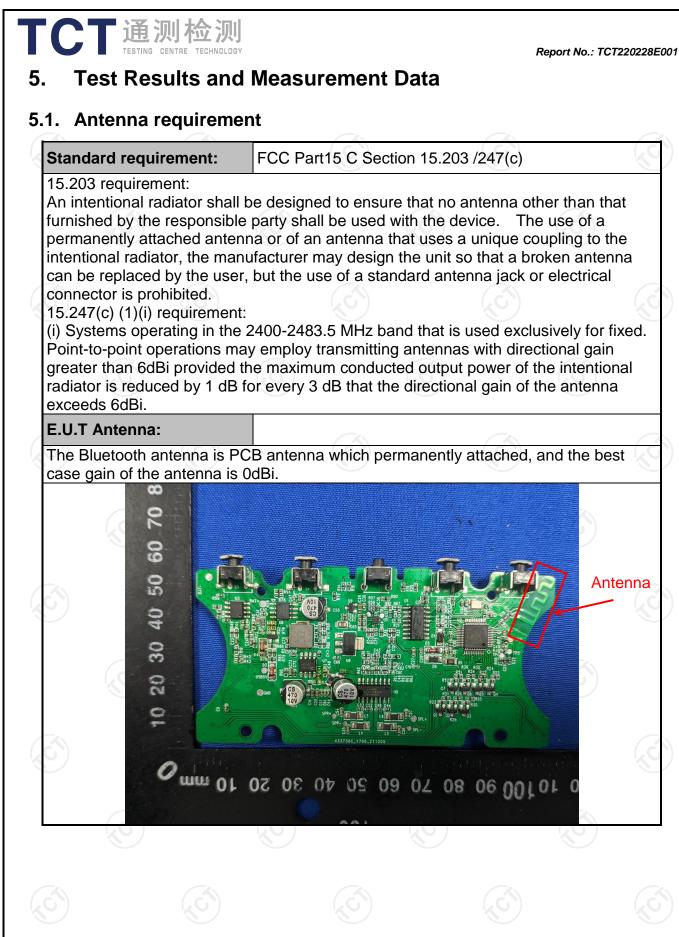
SHENZHEN TONGCE TESTING LAB

Address: TCT Testing Industrial Park Fuqiao 5th Industrial Zone, Fuhai Street, Bao'an District Shenzhen, Guangdong, 518103, People's Republic of China TEL: +86-755-27673339

4.3. 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 | MU |
|-----|---|-----------|
| 1 | Conducted Emission | ± 3.10 dB |
| 2 | RF power, conducted | ± 0.12 dB |
| 3 | Spurious emissions, conducted | ± 0.11 dB |
| 4 | All emissions, radiated(<1 GHz) | ± 4.56 dB |
| 5 | All emissions, radiated(1 GHz - 18 GHz) | ± 4.22 dB |
| 6 | All emissions, radiated(18 GHz- 40 GHz) | ± 4.36 dB |





5.2. Conducted Emission

5.2.1. Test Specification

| Tari Dan in and | | 45.007 | |
|-------------------------------|--|---|---|
| Test Requirement: | FCC Part15 C Section | 15.207 | |
| Test Method: | ANSI C63.10:2013 | | |
| Frequency Range: | 150 kHz to 30 MHz | S) | $\langle \mathcal{C}^{(n)} \rangle$ |
| Receiver setup: | RBW=9 kHz, VBW=30 |) kHz, Sweep time | e=auto |
| | Frequency range | Limit (| dBuV) |
| | (MHz) | Quasi-peak | Average |
| Limits: | 0.15-0.5 | 66 to 56* | 56 to 46* |
| | 0.5-5 | 56 | 46 |
| | 5-30 | 60 | 50 |
| | Referenc | e Plane | |
| Test Setup: | E.U.T AC powe Test table/Insulation plane Remark: E.U.T. Equipment Under Test LISN: Line Impedence Stabilization N Test table height=0.8m | EMI Receiver | AC power |
| | | | |
| Test Mode: | Charging + Transmittir | 0 | 0 |
| Test Mode: Test Procedure: | The E.U.T is connerimpedance stabilized provides a 500hm/st measuring equipme The peripheral device power through a Licoupling impedance refer to the block photographs). Both sides of A.C. conducted interferent emission, the relative the interface cables | ected to an adapted tation network 50uH coupling im nt. ces are also connect SN that provides with 50ohm tern diagram of the line are checked nce. In order to fin the positions of equi must be changed | (L.I.S.N.). This pedance for the ected to the main a 50ohm/50uh nination. (Please test setup and ed for maximum nd the maximum ipment and all o according to |
| | The E.U.T is connerimpedance stabilized provides a 500hm/s measuring equipme The peripheral device power through a Licoupling impedance refer to the block photographs). Both sides of A.C. conducted interferent emission, the relative | ected to an adapted tation network 50uH coupling im nt. ces are also connect SN that provides with 50ohm tern diagram of the line are checked nce. In order to fin the positions of equi must be changed | (L.I.S.N.). This pedance for the ected to the main a 50ohm/50uh nination. (Please test setup and ed for maximum nd the maximum ipment and all o according to |

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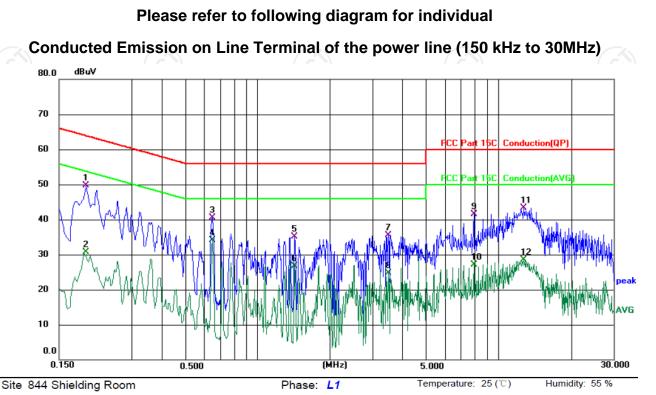
http://www.tct-lab.com

Fax: 86-755-27673332

5.2.2. Test Instruments

| Cond | lucted Emission | Shielding R | oom Test Site (8 | 43) |
|--|-----------------------|-------------|------------------|-----------------|
| Equipment | Manufacturer | Model | Serial Number | Calibration Due |
| EMI Test Receiver | R&S | ESCI3 | 100898 | Jul. 07, 2022 |
| Line Impedance Stabilisation Newtork(LISN) | Schwarzbeck | NSLK 8126 | 8126453 | Mar. 11, 2022 |
| Line-5 | ТСТ | CE-05 | N/A | Jul. 07, 2022 |
| EMI Test Software | Shurple Technology | EZ-EMC | N/A | N/A |

5.2.3. Test data



Limit: FCC Part 15C Conduction(QP) Power: DC 5 V(Adapter Input AC 120 V/60 Hz)

| No. Mk. | Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Over | | | |
|---------|---------|------------------|-------------------|------------------|-------|--------|----------|---------|--|
| | MHz | dBuV | dB | dBuV | dBuV | dB | Detector | Comment | |
| 1 | 0.1940 | 40.04 | 9.58 | 49.62 | 63.86 | -14.24 | QP | | |
| 2 | 0.1940 | 21.03 | 9.58 | 30.61 | 53.86 | -23.25 | AVG | | |
| 3 | 0.6500 | 31.24 | 9.19 | 40.43 | 56.00 | -15.57 | QP | | |
| 4 * | 0.6500 | 24.90 | 9.19 | 34.09 | 46.00 | -11.91 | AVG | | |
| 5 | 1.4299 | 25.79 | 9.37 | 35.16 | 56.00 | -20.84 | QP | | |
| 6 | 1.4299 | 17.40 | 9.37 | 26.77 | 46.00 | -19.23 | AVG | | |
| 7 | 3.5019 | 25.95 | 9.53 | 35.48 | 56.00 | -20.52 | QP | | |
| 8 | 3.5019 | 15.08 | 9.53 | 24.61 | 46.00 | -21.39 | AVG | | |
| 9 | 7.8979 | 32.03 | 9.57 | 41.60 | 60.00 | -18.40 | QP | | |
| 10 | 7.8979 | 17.50 | 9.57 | 27.07 | 50.00 | -22.93 | AVG | | |
| 11 | 12.7420 | 33.75 | 9.64 | 43.39 | 60.00 | -16.61 | QP | | |
| 12 | 12.7420 | 18.87 | 9.64 | 28.51 | 50.00 | -21.49 | AVG | | |
| | | | | | | | | | |

Note:

Freq. = Emission frequency in MHz

Reading level $(dB\mu V) = Receiver reading$

Corr. Factor (dB) = LISN factor + Cable loss

Measurement $(dB\mu V) = Reading level (dB\mu V) + Corr. Factor (dB)$

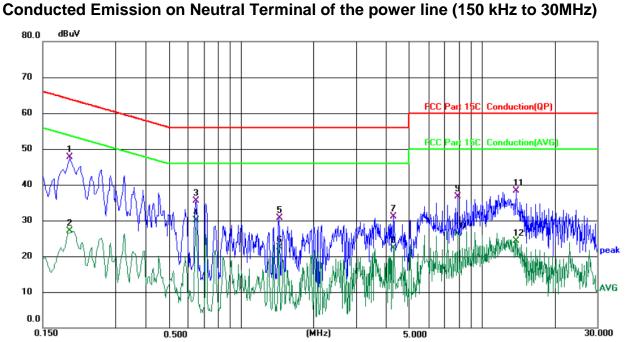
Limit ($dB\mu V$) = Limit stated in standard

 $Margin (dB) = Measurement (dB\mu V) - Limits (dB\mu V)$

Q.P. =Quasi-Peak

AVG =average

* is meaning the worst frequency has been tested in the frequency range 150 kHz to 30MHz.



 Site 844 Shielding Room
 Phase: N
 Temperature: 25 (°C)
 Humidity: 55 %

 Limit: FCC Part 15C Conduction(QP)
 Power: DC 5 V(Adapter Input AC 120 V/60 Hz)

| No. Mk | Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Over | | |
|--------|---------|------------------|-------------------|------------------|-------|--------|----------|---------|
| | MHz | dBuV | dB | dBuV | dBuV | dB | Detector | Comment |
| 1 | 0.1940 | 38.11 | 9.51 | 47.62 | 63.86 | -16.24 | QP | |
| 2 | 0.1940 | 17.53 | 9.51 | 27.04 | 53.86 | -26.82 | AVG | |
| 3 | 0.6500 | 26.23 | 9.21 | 35.44 | 56.00 | -20.56 | QP | |
| 4 * | 0.6500 | 20.81 | 9.21 | 30.02 | 46.00 | -15.98 | AVG | |
| 5 | 1.4340 | 21.33 | 9.34 | 30.67 | 56.00 | -25.33 | QP | |
| 6 | 1.4340 | 13.08 | 9.34 | 22.42 | 46.00 | -23.58 | AVG | |
| 7 | 4.3140 | 21.61 | 9.46 | 31.07 | 56.00 | -24.93 | QP | |
| 8 | 4.3140 | 12.94 | 9.46 | 22.40 | 46.00 | -23.60 | AVG | |
| 9 | 7.9180 | 27.17 | 9.58 | 36.75 | 60.00 | -23.25 | QP | |
| 10 | 7.9180 | 16.65 | 9.58 | 26.23 | 50.00 | -23.77 | AVG | |
| 11 | 13.8460 | 28.58 | 9.66 | 38.24 | 60.00 | -21.76 | QP | |
| 12 | 13.8460 | 14.72 | 9.66 | 24.38 | 50.00 | -25.62 | AVG | |

Note1:

Freq. = Emission frequency in MHz Reading level ($dB\mu V$) = Receiver reading Corr. Factor (dB) = LISN factor + Cable loss

Measurement $(dB\mu V)$ = Reading level $(dB\mu V)$ + Corr. Factor (dB)

 $Limit (dB\mu V) = Limit stated in standard$

Margin (dB) = Measurement (dB μ V) – Limits (dB μ V)

Q.P. =Quasi-Peak AVG =average

* is meaning the worst frequency has been tested in the frequency range 150 kHz to 30MHz.

Note2:

Measurements were conducted in all three channels (high, middle, low) and three modulation (GFSK, Pi/4 DQPSK, 8DPSK), and the worst case Mode (Lowest channel and 8DPSK) was submitted only.



5.3. Conducted Output Power

5.3.1. Test Specification

| Test Requirement: | FCC Part15 C Section 15.247 (b)(1) | | | |
|-------------------|--|--|--|--|
| Test Method: | KDB 558074 D01 v05r02 | | | |
| Limit: | Section 15.247 (b) The maximum peak conducted out power of the intentional radiator shall not exceed the following: (1) For frequency hopping systems operatin 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. | | | |
| Test Setup: | Spectrum Analyzer | EUT | | |
| Test Mode: | Transmitting mode with me | odulation | | |
| Test Procedure: | centered on a hopping cha RBW > the 20 dB bandwid measured VBW ≥ RBW Sweep = auto Detector function = peak Trace = max hold Allow the trace to stabilize | times the 20 dB bandwidth, annel Ith of the emission being | | |
| Test Result: | PASS | | | |

5.3.2. Test Instruments

| Name | Manufacturer | Model No. | Serial Number | Calibration Due |
|----------------------|--------------|-----------|---------------|------------------------|
| Spectrum Analyzer | Agilent | N9020A | MY49100619 | Jul. 18, 2022 |
| Combiner Box | Ascentest | AT890-RFB | N/A | Jul. 07, 2022 |





5.4. 20dB Occupy Bandwidth

5.4.1. Test Specification

| Test Requirement: | FCC Part15 C Section 15.247 (a)(1) | | | | |
|-------------------|--|--|--|--|--|
| Test Method: | KDB 558074 D01 v05r02 | | | | |
| Limit: | N/A | | | | |
| Test Setup: | Spectrum Analyzer | | | | |
| Test Mode: | Transmitting mode with modulation | | | | |
| Test Procedure: | 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. Use the following spectrum analyzer settings for 20dB Bandwidth measurement. Span = approximately 2 to 5 times the 20 dB bandwidth, centered on a hopping channel; 1%≤RBW≤5% of the 20 dB bandwidth; VBW≥3RBW; Sweep = auto; Detector function = peak; Trace = max hold. Measure and record the results in the test report. | | | | |
| Test Result: | PASS | | | | |

5.4.2. Test Instruments

| | Manufacturer | Model No. | Serial Number | Calibration Due |
|----------------------|--------------|-----------|---------------|-----------------|
| Spectrum Analyzer | Agilent | N9020A | MY49100619 | Jul. 18, 2022 |
| Combiner Box | Ascentest | AT890-RFB | N/A | Jul. 07, 2022 |



5.5. Carrier Frequencies Separation

5.5.1. Test Specification

| Test Requirement: | FCC Part15 C Section 15.247 (a)(1) | | |
|-------------------|---|--|--|
| Test Method: | KDB 558074 D01 v05r02 | | |
| 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 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. | | |
| Test Setup: | Spectrum Analyzer EUT | | |
| Test Mode: | Hopping mode | | |
| Test Procedure: | 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. Enable the EUT hopping function. Use the following spectrum analyzer settings: Span = wide enough to capture the peaks of two adjacent channels; RBW is 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. Use the marker-delta function to determine the separation between the peaks of the adjacent channels. Record the value in report. | | |
| Test Result: | PASS | | |

5.5.2. Test Instruments

| Name | Manufacturer | Model No. | Serial Number | Calibration Due |
|----------------------|--------------|-----------|---------------|-----------------|
| Spectrum Analyzer | Agilent | N9020A | MY49100619 | Jul. 18, 2022 |
| Combiner Box | Ascentest | AT890-RFB | N/A | Jul. 07, 2022 |

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5.6. Hopping Channel Number

5.6.1. Test Specification

| Test Requirement: | FCC Part15 C Section 15.247 (a)(1) | | | |
|-------------------|--|-----|-------|--|
| Test Method: | KDB 558074 D01 v05r02 | | | |
| Limit: | Frequency hopping systems in band shall use at least 15 char | | 5 MHz | |
| Test Setup: | | • | | |
| | Spectrum Analyzer | EUT | | |
| Test Mode: | Hopping mode | | | |
| Test Procedure: | Hopping mode 1. 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. 2. Set to the maximum power setting and enable the EUT transmit continuously. 3. Enable the EUT hopping function. 4. Use the following spectrum analyzer settings: Span = the frequency band of operation; set the RBW to less than 30% of the channel spacing or the 20 dB bandwidth, whichever is smaller; VBW≥RBW; Sweep = auto; Detector function = peak; Trace = max hold. 5. The number of hopping frequency used is defined as the number of total channel. | | | |
| Test Result: | PASS | | | |

5.6.2. Test Instruments

| Name | Manufacturer | Model No. | Serial Number | Calibration Due |
|----------------------|--------------|-----------|---------------|------------------------|
| Spectrum Analyzer | Agilent | N9020A | MY49100619 | Jul. 18, 2022 |
| Combiner Box | Ascentest | AT890-RFB | N/A | Jul. 07, 2022 |
| | (.G) | | G | (\mathbf{G}) |

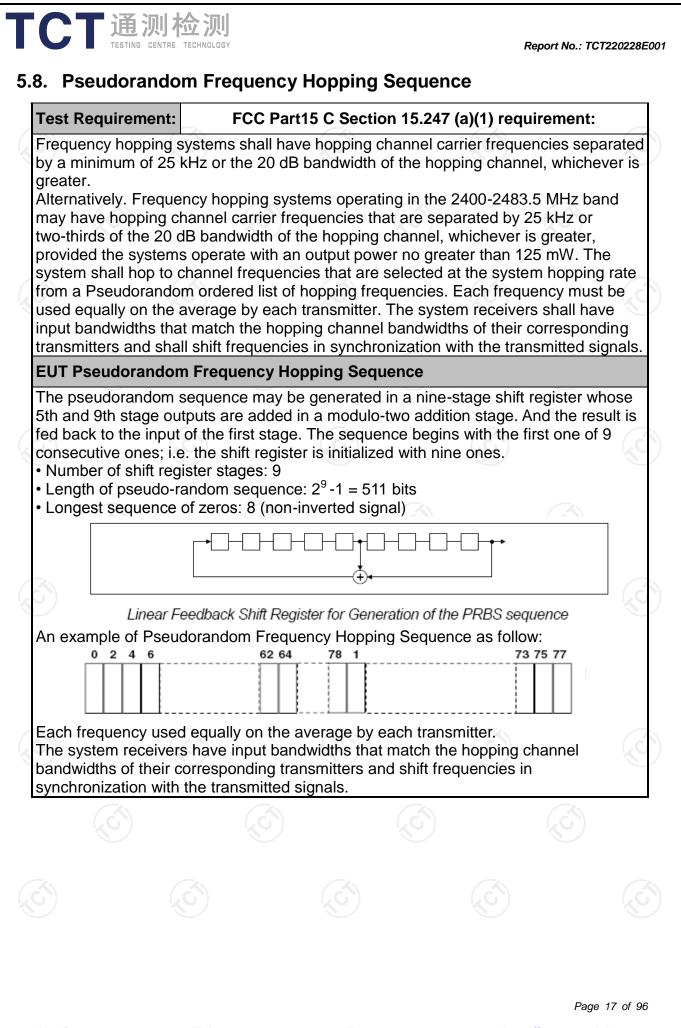
5.7. Dwell Time

5.7.1. Test Specification

| FCC Part15 C Section 15.247 (a)(1) |
|--|
| KDB 558074 D01 v05r02 |
| The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. |
| Spectrum Analyzer EUT |
| Hopping mode |
| 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. Enable the EUT hopping function. Use the following spectrum analyzer settings: Span = zero span, centered on a hopping channel; RBW shall be ≤ channel spacing and where possible RBW should be set >> 1 / T, where T is the expected dwell time per channel; VBW≥RBW; Sweep = as necessary to capture the entire dwell time per hopping channel; Detector function = peak; Trace = max hold. Measure and record the results in the test report. |
| PASS |
| |

5.7.2. Test Instruments

| Name | Manufacturer | Model No. | Serial Number | Calibration Due |
|----------------------|--------------|-----------|---------------|------------------------|
| Spectrum Analyzer | Agilent | N9020A | MY49100619 | Jul. 18, 2022 |
| Combiner Box | Ascentest | AT890-RFB | N/A | Jul. 07, 2022 |
| | | | | |





5.9. Conducted Band Edge Measurement

5.9.1. Test Specification

| Test Requirement: | FCC Part15 C Section 15.247 (d) | | |
|-------------------|--|--|--|
| Test Method: | KDB 558074 D01 v05r02 | | |
| Limit: | In any 100 kHz bandwidth outside the intentional radiation frequency band, the radio frequency power shall be at least 20 dB below the highest level of the radiated power. In addition, radiated emissions which fall in the restricted bands must also comply with the radiated emission limits. | | |
| Test Setup: | Spectrum Analyzer EUT | | |
| Test Mode: | Transmitting mode with modulation | | |
| Test Procedure: | Set to the maximum power setting and enable the EUT transmit continuously. Set RBW = 100 kHz (≥1% span=10MHz), VBW = 30 kHz (≥RBW). Band edge emissions must be at leas 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 i used. Enable hopping function of the EUT and then repeating the strength of the results in the test report. | | |
| Test Result: | PASS | | |

5.9.2. Test Instruments

| Name | Manufacturer | Model No. | Serial Number | Calibration Due |
|----------------------|--------------|-----------|-------------------|------------------------|
| Spectrum Analyzer | Agilent | N9020A | MY49100619 | Jul. 18, 2022 |
| Combiner Box | Ascentest | AT890-RFB | N/A | Jul. 07, 2022 |
| | (G) |) (| (G [*]) | (\mathcal{G}) |



5.10. Conducted Spurious Emission Measurement

5.10.1. Test Specification

| Test Requirement: | FCC Part15 C Section 15.247 (d) |
|-------------------|---|
| Test Method: | KDB 558074 D01 v05r02 |
| Limit: | In any 100 kHz bandwidth outside the intentional radiation frequency band, the radio frequency power shall be at least 20 dB below the highest level of the radiated power. In addition, radiated emissions which fall in the restricted bands must also comply with the radiated emission limits. |
| Test Setup: | Spectrum Analyzer EUT |
| Test Mode: | Transmitting mode with modulation |
| Test Procedure: | 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. Set RBW = 100 kHz, VBW = 300kHz, scan up through 10th harmonic. All harmonics / spurs must be at least 20 dB down from the highest emission level within the authorized band as measured with a 100 kHz RBW. Measure and record the results in the test report. The RF fundamental frequency should be excluded against the limit line in the operating frequency band. |
| Test Result: | PASS |

5.10.2. Test Instruments

| Name | Manufacturer | Model No. | Serial Number | Calibration Due |
|----------------------|--------------|---------------------------------------|---------------|------------------------|
| Spectrum Analyzer | Agilent | N9020A | MY49100619 | Jul. 18, 2022 |
| Combiner Box | Ascentest | AT890-RFB | N/A | Jul. 07, 2022 |
| | | · · · · · · · · · · · · · · · · · · · | | |



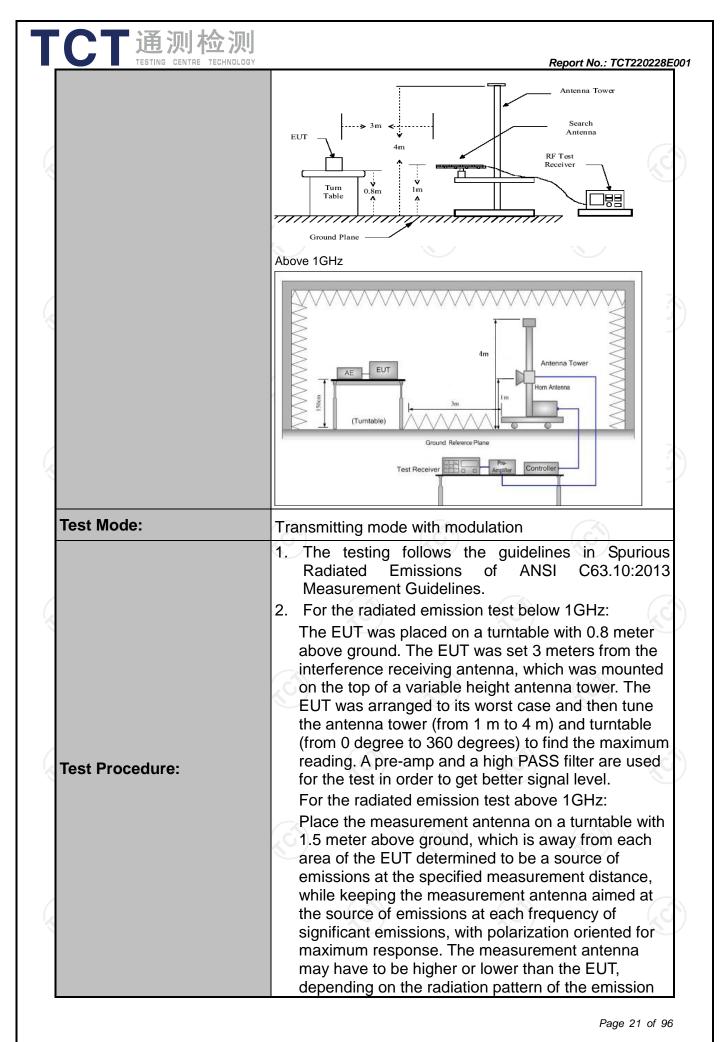




5.11.1. Test Specification

TCT通测检测 TESTING CENTRE TECHNOLOGY

| | FCC Part 15 | C Section | 15.209 | | | | | |
|-----------------------|-------------------------|---|-----------------------------|-----------|--------------------|---------------------|--|--|
| Test Method: | ANSI C63.10 |):2013 | | | | | | |
| Frequency Range: | 9 kHz to 25 0 | GHz | | | | 6 | | |
| Measurement Distanc | :e: 3 m | 3 m | | | | | | |
| Antenna Polarization: | Horizontal & | Horizontal & Vertical | | | | | | |
| | Frequency | Detector | RBW | VBW | | Remark | | |
| | 9kHz- 150kHz | Quasi-peak | | 1kHz | | si-peak Value | | |
| Receiver Setup: | 150kHz- 30MHz | Quasi-peak | 9kHz | 30kHz | Quas | si-peak Value | | |
| | 30MHz-1GHz | Quasi-peak | | 300KHz | | si-peak Value | | |
| | Above 1GHz | Peak | 1MHz | 3MHz | | eak Value | | |
| | | Peak | 1MHz | 10Hz | Ave | erage Value | | |
| | Frequen | су | Field Str | | | asurement | | |
| | 0.009-0.4 | | (microvolts) 2400/F(| E. XI | Dista | nce (meters) 300 | | |
| | 0.490-1.7 | / | 2400/F | | | 300 | | |
| | 1.705-3 | | 30 | · · · · · | | 30 | | |
| | 30-88 | | 100 | | 3 | | | |
| l insit. | 88-216 | | 150 | | | 3 | | |
| Limit: | 216-960 Above 90 | | 200 500 | | 3 | | | |
| | Frequency Above 1GHz | | volts/meter) 500 5000 | 3 | (meters) | | | |
| Test setup: | EUT | ssions below stance = 3m Turn table Ground | | | Compu Amplifier | | | |
| | 30MHz to 1GHz | | (| | | | | |



| | receiving t measurem maximizes antenna e restricted above the 3. Set to the EUT trans 4. Use the fo (1) Span emiss (2) Set R for f> Swe = ma (3) For a correc 15.35 | g aimed at the the maximum s nent antenna el s the emissions levation for ma to a range of he ground or refer e maximum por smit continuous ollowing spectru shall wide enor sion being meas BW=120 kHz fr 1GHz ; VBW≥F ep = auto; Dete ax hold for peak average measu ection factor me (c). Duty cycle | ignal. The fi evation sha s. The measu ximum emis eights of frou- rence groun wer setting sly. um analyzer ugh to fully of sured; or f < 1 GHz RBW; ector functio c rement: use ethod per | nal II be that v urement ssions sha m 1 m to 4 d plane. and enab settings: capture th c, RBW=1 n = peak; e duty cycl 00 millise | II be 4 m Ile the e MHz Trace e conds |
|---------------|--|---|---|---|--|
| | Whe leng Aver Leve Corre | re N1 is numbe th of type 1 puls age Emission I el + 20*log(Duty cted Reading: / | ses, etc. Level = Peal / cycle) Antenna Fac | k Emission ctor + Cab | is 💟 n ble |
| Test results: | Whe leng Aver Leve Corre | ere N1 is number th of type 1 puls age Emission I el + 20*log(Duty | ses, etc. Level = Peal / cycle) Antenna Fac | k Emission ctor + Cab | is 🖋 n ole |
| Test results: | Whe leng Aver Leve Corre Loss | re N1 is numbe th of type 1 puls age Emission I el + 20*log(Duty cted Reading: / | ses, etc. Level = Peal / cycle) Antenna Fac | k Emission ctor + Cab | is 🚫 n ole |
| Test results: | Whe leng Aver Leve Corre Loss | re N1 is numbe th of type 1 puls age Emission I el + 20*log(Duty cted Reading: / | ses, etc. Level = Peal / cycle) Antenna Fac | k Emission ctor + Cab | is 😪 n ole |
| Test results: | Whe leng Aver Leve Corre Loss | re N1 is numbe th of type 1 puls age Emission I el + 20*log(Duty cted Reading: / | ses, etc. Level = Peal / cycle) Antenna Fac | k Emission ctor + Cab | is 😪 n ole |



5.11.2. Test Instruments

| | Radiated En | nission Test Site | e (966) | |
|----------------------|-----------------------|-------------------|--------------------|-----------------|
| Name of Equipment | Manufacturer | Model | Serial Number | Calibration Due |
| EMI Test Receiver | R&S | ESIB7 | 100197 | Jul. 07, 2022 |
| Spectrum Analyzer | R&S | FSQ40 | 200061 | Jul. 07, 2022 |
| Pre-amplifier | SKET | LNPA_0118G- 45 | SK2021012 102 | Mar. 11, 2022 |
| Pre-amplifier | SKET | LNPA_1840G- 50 | SK2021092 03500 | Apr. 08, 2022 |
| Pre-amplifier | HP | 8447D | 2727A05017 | Jul. 07, 2022 |
| Loop antenna | ZHINAN | ZN30900A | 12024 | Sep. 05, 2022 |
| Broadband Antenna | Schwarzbeck | VULB9163 | 340 | Sep. 04, 2022 |
| Horn Antenna | Schwarzbeck | BBHA 9120D | 631 | Sep. 04, 2022 |
| Horn Antenna | Schwarzbeck | BBHA 9170 | 00956 | Apr. 10, 2023 |
| Antenna Mast | Keleto | RE-AM | N/A | N/A |
| Coaxial cable | SKET | RC_DC18G-N | N/A | Apr. 08, 2022 |
| Coaxial cable | SKET | RC-DC18G-N | N/A | Apr. 08, 2022 |
| Coaxial cable | SKET | RC-DC40G-N | N/A | Jul. 07, 2022 |
| EMI Test Software | Shurple Technology | EZ-EMC | N/A | N/A |
| | | C | | |

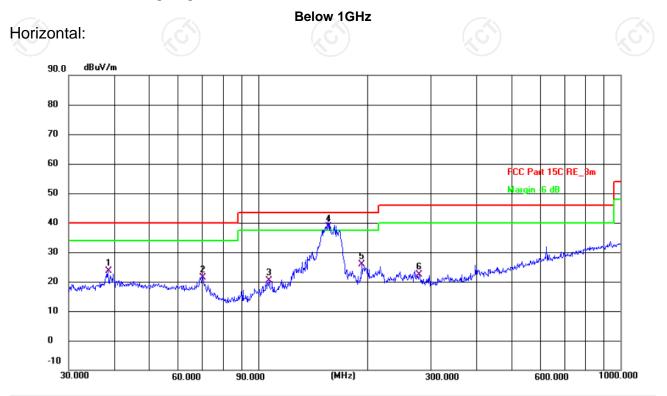
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5.11.3. **Test Data**

TCT通测检测 TCT通测检测

Please refer to following diagram for individual



Site #1 3m Anechoic Chamber Limit: FCC Part 15C RE_3m

Polarization: Horizontal Power: DC 3.7 V

Temperature: 25.3(C) Humidity: 54 %

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | P/F | Remark |
|-----|--------------------|-------------------|------------------|-------------------|-------------------|----------------|----------|-----|--------|
| 1 | 38.4809 | 9.90 | 13.83 | 23.73 | 40.00 | -16.27 | QP | Р | |
| 2 | 70.3365 | 10.27 | 11.23 | 21.50 | 40.00 | -18.50 | QP | Р | |
| 3 | 107.1337 | 9.30 | 11.02 | 20.32 | 43.50 | -23.18 | QP | Р | |
| 4 * | 155.9101 | 24.85 | 13.75 | 38.60 | 43.50 | -4.90 | QP | Р | |
| 5 | 193.0944 | 14.90 | 11.10 | 26.00 | 43.50 | -17.50 | QP | Р | |
| 6 | 278.0668 | 8.91 | 13.51 | 22.42 | 46.00 | -23.58 | QP | Р | |

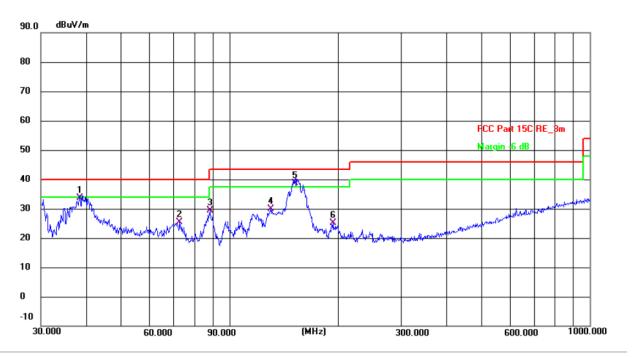


Vertical:

6

193.7726

TCT通测检测 TESTING CENTRE TECHNOLOGY



Site #1 3m Anechoic Chamber Polarization: Vertical Temperature: 25.3(C) Humidity: 54 % Limit: FCC Part 15C RE_3m Power: DC 3.7 V Frequency Reading Factor Level Limit Margin Detector P/F No. Remark (MHz) (dBuV) (dB/m) (dBuV/m) (dBuV/m) (dB) 1 38.4808 19.77 13.83 33.60 40.00 -6.40 QP Ρ 2 72.8465 14.69 10.72 25.41 40.00 -14.59 QP Ρ 3 88.3421 20.20 9.07 29.27 43.50 -14.23 QP Ρ 4 130.3788 17.11 12.67 29.78 43.50 -13.72 QP Ρ 5 152.1297 25.00 13.60 38.60 43.50 -4.90 QP Ρ *

Note: 1. The low frequency, which started from 9KHz~30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

-18.32

QP

Ρ

 Measurements were conducted in all three channels (high, middle, low) and three modulation (GFSK, Pi/4 DQPSK, 8DPSK) and the worst case Mode (Lowest channel and 8DPSK) was submitted only.
 Freq. = Emission frequency in MHz

43.50

- Measurement $(dB\mu V/m) = Reading level (dB\mu V) + Corr. Factor (dB)$
- Correction Factor= Antenna Factor + Cable loss Pre-amplifier

11.05

Limit $(dB\mu V/m) = Limit$ stated in standard

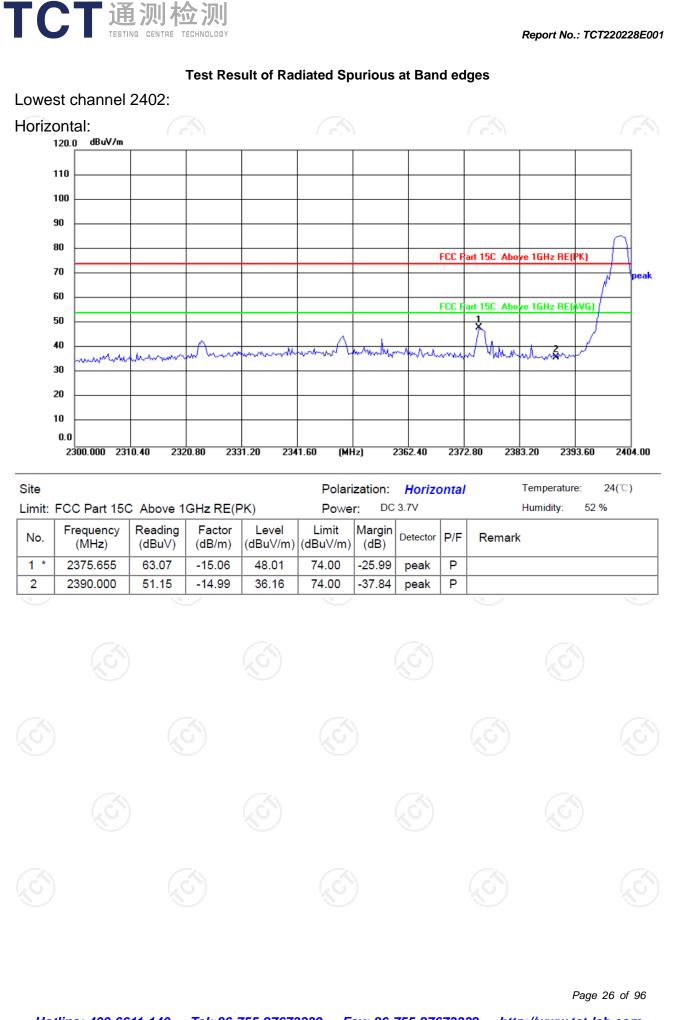
14.13

 $Over (dB) = Measurement (dB\mu V/m) - Limits (dB\mu V/m)$

* is meaning the worst frequency has been tested in the test frequency range.

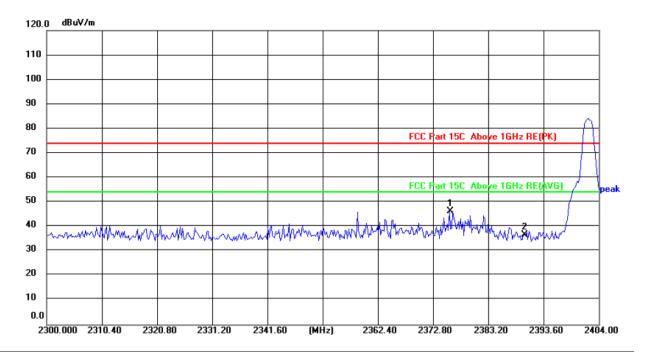
25.18

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Vertical:

TCT通测检测 TESTING CENTRE TECHNOLOGY



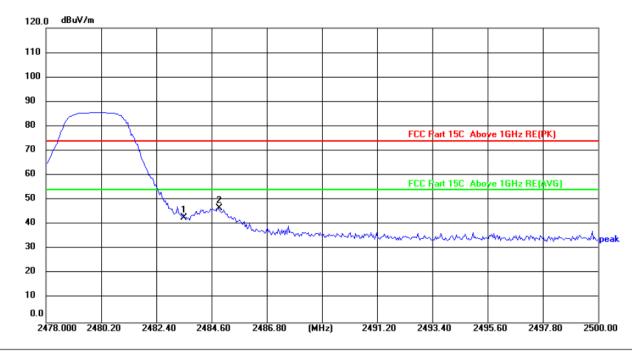
| Site | | | | | Polarization: Vertical | | | a/ | Temperature: 24(°C) | |
|---|--------------------|-------------------|------------------|-------------------|------------------------|----------------|----------|-----|---------------------|--|
| Limit: FCC Part 15C Above 1GHz RE(PK) Power: DC 3.7V Humidity: 52 % | | | | | | | | | | |
| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | | Margin (dB) | Detector | P/F | Remark | |
| 1 * | 2375.864 | 61.46 | -15.06 | 46.40 | 74.00 | -27.60 | peak | Ρ | | |
| 2 | 2390.000 | 51.73 | -14.99 | 36.74 | 74.00 | -37.26 | peak | Ρ | | |



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Highest channel 2480:

Horizontal:

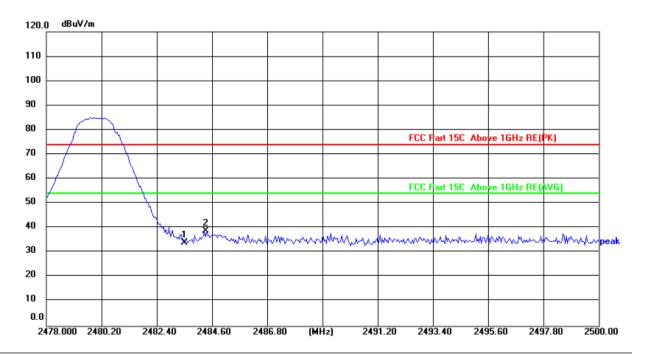


| Site | | | | | Polari | Polarization: Horizontal | | | Temperature: 24(°C) |
|-------|--------------------|-------------------|----------|----------------|----------|--------------------------|--------|---|---------------------|
| Limit | FCC Part 15 | C Above 1 | GHz RE(F | PK) | Powe | r: DC | 3.7V | | Humidity: 52 % |
| No. | Frequency (MHz) | Level (dBuV/m) | | Margin (dB) | Detector | P/F | Remark | | |
| 1 | 2483.500 | 57.29 | -14.58 | 42.71 | 74.00 | -31.29 | peak | Ρ | |
| 2 * | 2484.878 | 61.23 | -14.57 | 46.66 | 74.00 | -27.34 | peak | Ρ | |
| 11 11 | | | | | | | | | |

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Vertical:

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| Site | | | | | Polarization: Vertical | | | | Temperature: 24(°C) | | | |
|--------|---|-------------------|--------|-------------------|------------------------|----------------|----------|-----|---------------------|--|--|--|
| Limit: | Limit: FCC Part 15C Above 1GHz RE(PK) Power: DC 3.7V Humidity: 52 % | | | | | | | | | | | |
| No. | Frequency (MHz) | Reading (dBuV) | | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | P/F | Remark | | | |
| 1 | 2483.500 | 48.70 | -14.58 | 34.12 | 74.00 | -39.88 | peak | Ρ | | | | |
| 2 * | 2484.305 | 53.49 | -14.57 | 38.92 | 74.00 | -35.08 | peak | Ρ | | | | |

Note: Measurements were conducted in all three modulation (GFSK, Pi/4 DQPSK, 8DPSK), and the worst case Mode (8DPSK) was submitted only.

Above 1GHz

| Modulation | Type: 8D | PSK | | | | | | | |
|--------------------|------------------|---------------------------|-------------------------|--------------------------------|-------|---------------------------|------------------------|----------------------|----------------|
| Low chann | el: 2402 N | 1Hz | | | | | | | |
| Frequency (MHz) | Ant. Pol. H/V | Peak reading (dBµV) | AV reading (dBuV) | Correction Factor (dB/m) | Peak | n Level AV (dBµV/m) | Peak limit (dBµV/m) | AV limit (dBµV/m) | Margin (dB) |
| 4804 | Н | 46.17 | | 0.66 | 46.83 | | 74 | 54 | -7.17 |
| 7206 | Н | 36.05 | | 9.50 | 45.55 | | 74 | 54 | -8.45 |
| | Н | | | | | ~~~ | | | |
| | C) | | J.J | `) | () | · (J`) | | (\mathcal{G}) | |
| 4804 | V | 46.57 | | 0.66 | 47.23 | | 74 | 54 | -6.77 |
| 7206 | V | 35.36 | | 9.50 | 44.86 | | 74 | 54 | -9.14 |
| | V | | | | | | | | |
| | | | | | | | | | |

| Middle cha | nnel: 2441 | MHz | | |) | | | | K C |
|--------------------|-------------------|---------------------------|-------------------------|--------------------------------|-----------------------------|----|------------------------|----|----------------|
| Frequency (MHz) | Ant. Pol. H/V | Peak reading (dBµV) | AV reading (dBµV) | Correction Factor (dB/m) | Emissic Peak (dBµV/m) | AV | Peak limit (dBµV/m) | | Margin (dB) |
| 4882 | Н | 45.26 | | 0.99 | 46.25 | · | 74 | 54 | -7.75 |
| 7323 | ζ ^O H) | 35.90 | - KO | 9.87 | 45.77 | | 74 | 54 | -8.23 |
| | Ĥ | | | | | | | | |
| | | | | | | | | | |
| 4882 | V | 46.99 | | 0.99 | 47.98 | | 74 | 54 | -6.02 |
| 7323 | V | 35.71 | | 9.87 | 45.58 | | 74 | 54 | -8.42 |
| | V | | | ~ × | · / | | | | |

High channel: 2480 MHz

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| Ant Pol | Peak | AV | | Emissio | on Level | Poak limit | AV/ limit | Margin |
|---------|---|---|---|---|---|--|---|--|
| | | reading | Factor | Peak | AV | | | (dB) |
| , • | (dBµV) | (dBµV) | (dB/m) | (dBµV/m) | (dBµV/m) | | (00,00,00) | (42) |
| Н | 44.49 |) | 1.33 | 45.82 | | 74 | 54 | -8.18 |
| Н | 34.56 | | 10.22 | 44.78 | | 74 | 54 | -9.22 |
| Н | | | | <u> </u> | | | | |
| | (.c.) | | | | | (.c.) | | 0.0 |
| V | 44.80 | | 1.33 | 46.13 | | 74 | 54 | -7.87 |
| V | 34.92 | | 10.22 | 45.14 | | 74 | 54 | -8.86 |
| V | | | | | | | | |
| | Ant. Pol. H/V H H H V V | Ant. Pol. H/V Peak reading (dBµV) H 44.49 H 34.56 H V 44.80 V 34.92 | Ant. Pol. H/V Peak reading (dBµV) AV reading (dBµV) H 44.49 H 34.56 H V 44.80 V 34.92 | Ant. Pol. reading (dBµV) reading (dBµV) Factor (dB/m) H 44.49 1.33 H 34.56 10.22 H 10.22 H V 44.80 1.33 V 34.92 10.22 | Ant. Pol. H/V Peak reading (dBµV) AV reading (dBµV) Correction Factor (dB/m) Emissic Peak (dBµV/m) H 44.49 1.33 45.82 H 34.56 10.22 44.78 H V 44.80 1.33 46.13 V 34.92 10.22 45.14 | Ant. Pol. H/V Peak reading (dBµV) AV reading (dBµV) Correction Factor (dB/m) Emission Level Peak (dBµV/m) H 44.49 1.33 45.82 H 34.56 10.22 44.78 H 1.33 46.13 V 44.80 10.22 45.14 | Ant. Pol. H/V Peak reading (dBµV) AV reading (dBµV) Correction Factor (dB/m) Emission Level Peak (dBµV/m) Peak limit (dBµV/m) H 44.49 1.33 45.82 74 H 34.56 10.22 44.78 74 H 74 H 74 V 44.80 1.33 46.13 V 34.92 10.22 45.14 74 | $\begin{array}{c c c c c c c c c c c c c c c c c c c $ |

Note:

1. Emission Level=Peak Reading + Correction Factor; Correction Factor= Antenna Factor + Cable loss - Pre-amplifier

2. Margin (dB) = Emission Level (Peak) (dB μ V/m)-Average limit (dB μ V/m)

3. The emission levels of other frequencies are very lower than the limit and not show in test report.

4. Measurements were conducted from 1 GHz to the 10th harmonic of highest fundamental frequency.

5. Data of measurement shown "----"in the above table mean that the reading of emissions is attenuated more than 20 dB below the limits or the field strength is too small to be measured.

6. Measurements were conducted in all three modulation (GFSK, Pi/4 DQPSK, 8DPSK), and the worst case Mode (8DPSK) was submitted only.

7. All the restriction bands are compliance with the limit of 15.209.



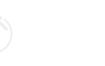
Appendix A: Test Result of Conducted Test

Maximum Conducted Output Power

| Condition | Mode | Frequency (MHz) | Conducted Power (dBm) | Limit (dBm) | Verdict |
|-----------|-------|--------------------|--------------------------|----------------|---------|
| NVNT | 1-DH1 | 2402 | -2.60 | 30 | Pass |
| NVNT | 1-DH1 | 2441 | -2.58 | 30 | Pass |
| NVNT | 1-DH1 | 2480 | -2.76 | 30 | Pass |
| NVNT | 2-DH1 | 2402 | -0.11 | 21 | Pass |
| NVNT | 2-DH1 | 2441 | -0.01 | 21 | Pass |
| NVNT | 2-DH1 | 2480 | -0.07 | 21 | Pass |
| NVNT | 3-DH1 | 2402 | 0.58 | 21 | Pass |
| NVNT | 3-DH1 | 2441 | 0.51 | 21 | Pass |
| NVNT | 3-DH1 | 2480 | 0.45 | 21 | Pass |





















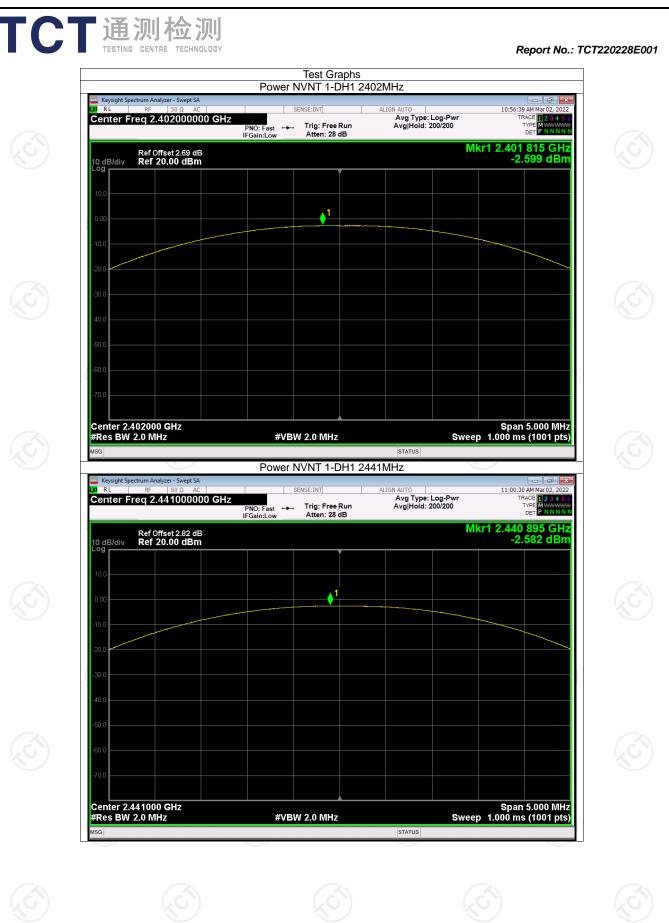






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Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com



| Keysig | ht Spectrum Analyzer - Swept SA RF 50 Ω AC | Power NVNT 1-DH1 24 | ALIGN AUTO | 11:03:15 AM Mar02, 2022 |
|---------|---|---|--|--|
| | r Freq 2.480000000 GHz | PNO: Fast +++ Trig: Free Run IFGain:Low Atten: 28 dB | Avg Type: Log-Pwr Avg Hold: 1000/1000 | TRACE 1 2 3 4 5 6 TYPE MWWWW DET PNNNNN |
| 10 dB/c | Ref Offset 2.91 dB liv Ref 20.00 dBm | | Mkr1 | 1 2.479 845 GHz -2.757 dBm |
| 10.0 | | | | |
| 0.00 | | 1 | | |
| -10.0 | | | | |
| -20.0 | | | | |
| -30.0 | | | | |
| -40.0 | | | | |
| -50.0 | | | | |
| -60.0 | | | | |
| -70.0 | | | | |
| Cente | r 2.480000 GHz | | | Span 5.000 MHz |
| #Res I | 3W 2.0 MHz | #VBW 2.0 MHz | Sweep 1 | 1.000 ms (1001 pts) |
| | ht Spectrum Analyzer - Swept SA | Power NVNT 2-DH1 24 | | |
| Cente | r Freq 2.402000000 GHz | PNO: Fast Trig: Free Run | ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 1000/1000 | 11:06:46 AM Mar02, 2022 TRACE 12 3 4 5 6 TYPE MWWWWW DET P. N.N.N.N |
| 10 4174 | Ref Offset 2.69 dB | IFGain:Low Atten: 28 dB | Mkr | 1 2.402 040 GHz -0.114 dBm |
| | liv Ref 20.00 dBm | | | |
| 10.0 | | 1 | | |
| 0.00 | | | | |
| -10.0 | | | | |
| -30.0 | | | | |
| -40.0 | | | | |
| -50.0 | | | | |
| -60.0 | | | | |
| -70.0 | | | | |
| Cente | r 2.402000 GHz | | | Span 5.000 MHz |
| #Res | SW 2.0 MHz | #VBW 2.0 MHz | Sweep 1 | 1.000 ms (1001 pts) |
| | / | | | |
| | | | | |
| | | | | |
| | | | | |

Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

| Keysig | ht Spectrum Analyzer - Swept SA RF 50 Ω AC | Power NVNT 2-DH1 2 | ALIGN AUTO | 11:12:43 AM Mar 02, 2022 | |
|-------------|---|-------------------------------|--|--|--|
| Cente | r Freq 2.441000000 GHz | | Avg Type: Log-Pwr Avg Hold: 1000/1000 | TRACE 123456 TYPE MWWWW DET PNNNNN | |
| 10 dB/c | Ref Offset 2.82 dB liv Ref 20.00 dBm | | Mkr1 | 2.441 095 GHz -0.011 dBm | |
| | | | | | |
| 0.00 | | ♦ ¹ | | | |
| -10.0 | | | | | |
| -20.0 — | | | | | |
| -30.0 | | | | | |
| -40.0 | | | | | |
| -50.0 | | | | | |
| -60.0 | | | | | |
| -70.0 | | | | | |
| Cente | r 2.441000 GHz | | | Span 5.000 MHz | |
| #Res MSG | 3W 2.0 MHz | #VBW 2.0 MHz | STATUS | 1.000 ms (1001 pts) | |
| | ht Spectrum Analyzer - Swept SA | Power NVNT 2-DH1 2 | | | |
| Cente | RF 50 Ω AC Freq 2.480000000 GHz | PNO: Fast ++++ Irig: Free Run | ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 1000/1000 | 11:17:04 AM Mar 02, 2022 TRACE 1 2 3 4 5 6 TYPE MWWWW DET PNNNNN | |
| | Ref Offset 2.91 dB liv Ref 20.00 dBm | IFGain:Low Atten: 28 dB | Mkr1 | 2.480 135 GHz -0.065 dBm | |
| | | | | | |
| 10.0 | | ▲ ¹ | | | |
| -10.0 | | | | | |
| -10.0 | | | | and the second sec | |
| -30.0 | | | | | |
| -40.0 | | | | | |
| -50.0 | | | | | |
| -60.0 | | | | | |
| -70.0 | | | | | |
| Cente | r 2.480000 GHz | | | Span 5.000 MHz | |
| #Res I | 3W 2.0 MHz | #VBW 2.0 MHz | Sweep 7 | 1.000 ms (1001 pts) | |
| C | | | | NO NO | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| Keysight | Spectrum Analyzer - Swept SA RF 50 Ω AC | Power NVNT 3-DH1 2 | ALIGN AUTO | 11:23:50 AM Mar 02, 2022 | |
|------------------|--|---|--|--|--|
| | Freq 2.402000000 GHz | | Avg Type: Log-Pwr Avg Hold: 1000/1000 | TRACE 123456 TYPE MWWWWW DET PNNNNN | |
| 10 dB/div | Ref Offset 2.69 dB ∕ Ref 20.00 dBm | | Mkr1 | 2.401 965 GHz 0.579 dBm | |
| Log | | | | | |
| 0.00 | | 1 | | | |
| -10.0 | | | | | |
| -20.0 | | | | | |
| -30.0 | | | | | |
| -40.0 | | | | | |
| -50.0 | | | | | |
| -60.0 | | | | | |
| -70.0 | | | | | |
| Center #Res B | 2.402000 GHz W 2.0 MHz | #VBW 2.0 MHz | Sweep 1 | Span 5.000 MHz .000 ms (1001 pts) | |
| MSG | | | STATUS | | |
| LX/ RL | Spectrum Analyzer - Swept SA RF 50 Ω AC | Power NVNT 3-DH1 2 | ALIGN AUTO | 11:29:02 AM Mar 02, 2022 | |
| Center | Freq 2.441000000 GHz | PNO: Fast ↔ Trig: Free Run IFGain:Low Atten: 28 dB | Avg Type: Log-Pwr Avg Hold: 1000/1000 | TRACE 1 2 3 4 5 6 TYPE MWWWW DET P NNNNN | |
| 10 dB/div Log | Ref Offset 2.82 dB Ref 20.00 dBm | | Mkr1 | 2.440 970 GHz 0.507 dBm | |
| 10.0 | | | | | |
| 0.00 | | 1 | | | |
| -10.0 | | | | | |
| -20.0 | | | | | |
| -30.0 | | | | | |
| -40.0 | | | | | |
| -50.0 | | | | | |
| -60.0 | | | | | |
| -70.0 | | | | | |
| Center #Res B | 2.441000 GHz W 2.0 MHz | #VBW 2.0 MHz | Sween 1 | Span 5.000 MHz .000 ms (1001 pts) | |
| MSG | W 2.0 WI12 | | STATUS | looo ma (roor play | |
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Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

| LXI F | eysight Spectrum Analyzer - Swept SA RE RF 50 Ω AC Inter Freq 2.4800000000 | | SENSE:INT | ALIGN AUTO Avg Type: Log-F | 11:33 Pwr | 59 AM Mar 02, 2022 TRACE 1 2 3 4 5 6 | |
|-------------|--|-----------------------------|----------------------------------|-------------------------------|----------------------|---|--|
| | | PNO: Fast +>- IFGain:Low | . Trig: Free Run Atten: 28 dB | AvgjHold: 1000/1 | | TRACE 1 2 3 4 5 6 TYPE NWWWW DET NNNNN 0 065 GHz | |
| 10 d Log | Ref Offset 2.91 dB B/div Ref 20.00 dBm | | Ĭ | | | 0.452 dBm | |
| 10.0 | | | 1 | | | | |
| -10.0 | | | | | | | |
| -20.0 | | | | | | | |
| -30.0 | | | | | | | |
| -40.0 | | | | | | | |
| -60.0 | | | | | | | |
| -70.0 | | | | | | | |
| Cer #Re | nter 2.480000 GHz s BW 2.0 MHz | #VB | W 2.0 MHz | STATUS | Spa Sweep 1.000 n | n 5.000 MHz ns (1001 pts) | |
| | No. | | S. | | S. | | |
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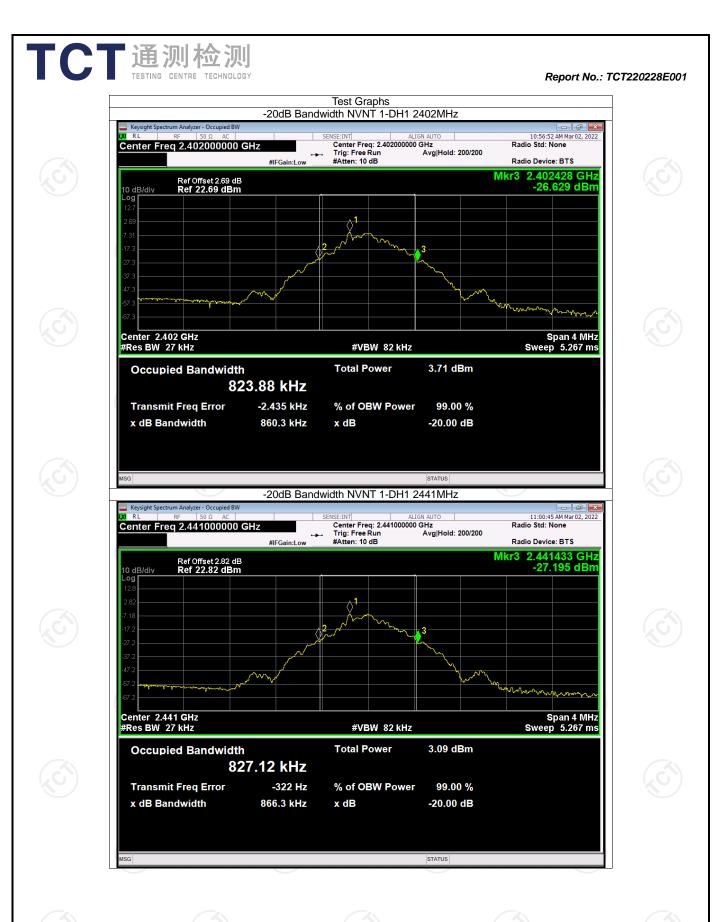


| | -20dB Bandwidth | | | | | | | | |
|---|-----------------|-------|--------------------|------------------------------|---------|--|--|--|--|
| | Condition | Mode | Frequency (MHz) | -20 dB Bandwidth (MHz) | Verdict | | | | |
| | NVNT | 1-DH1 | 2402 | 0.860 | Pass | | | | |
| | NVNT | 1-DH1 | 2441 | 0.866 | Pass | | | | |
| | NVNT | 1-DH1 | 2480 | 0.867 | Pass | | | | |
| (| NVNT | 2-DH1 | 2402 | 1.268 | Pass | | | | |
| N | NVNT | 2-DH1 | 2441 | 1.268 | Pass | | | | |
| | NVNT | 2-DH1 | 2480 | 1.269 | Pass | | | | |
| | NVNT | 3-DH1 | 2402 | 1.243 | Pass | | | | |
| | NVNT | 3-DH1 | 2441 | 1.240 | Pass | | | | |
| | NVNT | 3-DH1 | 2480 | 1.240 | Pass | | | | |

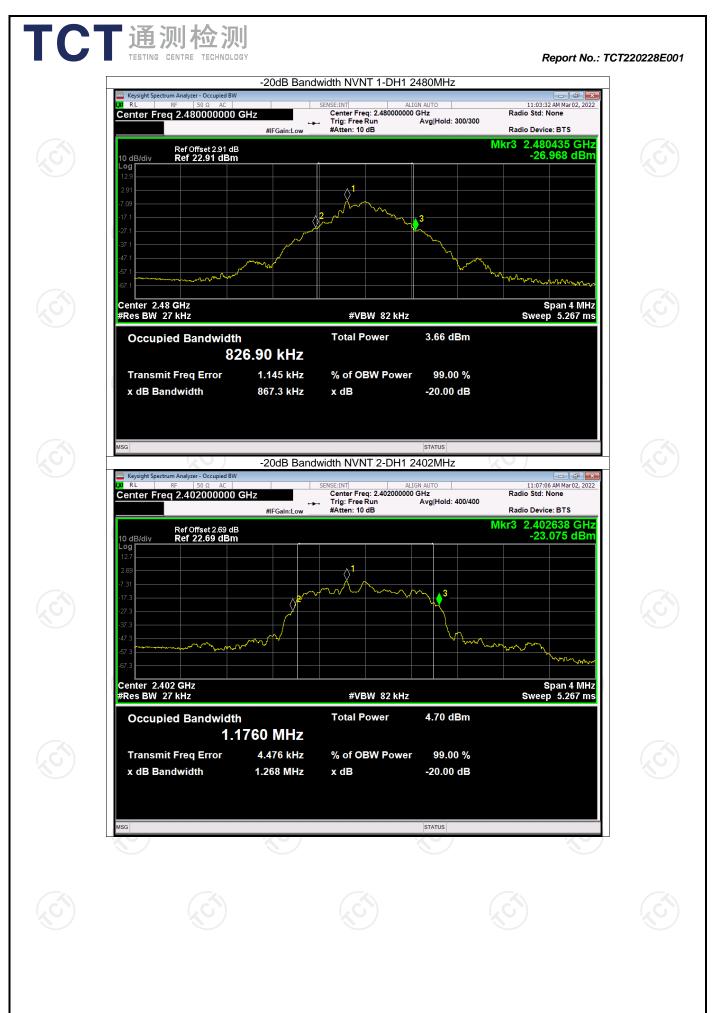
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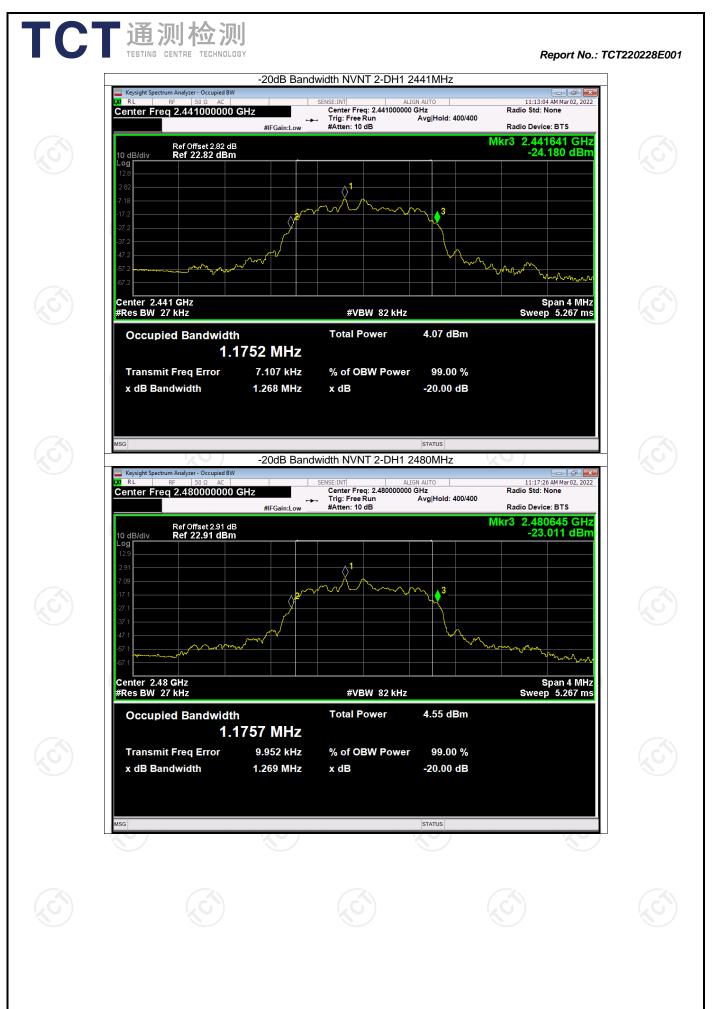


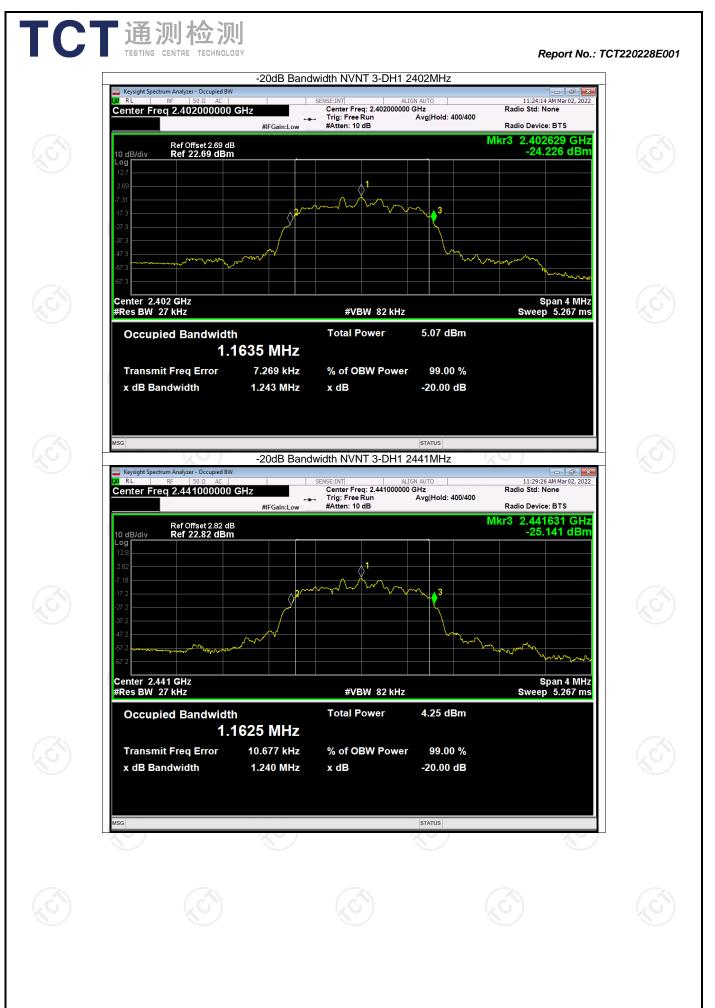
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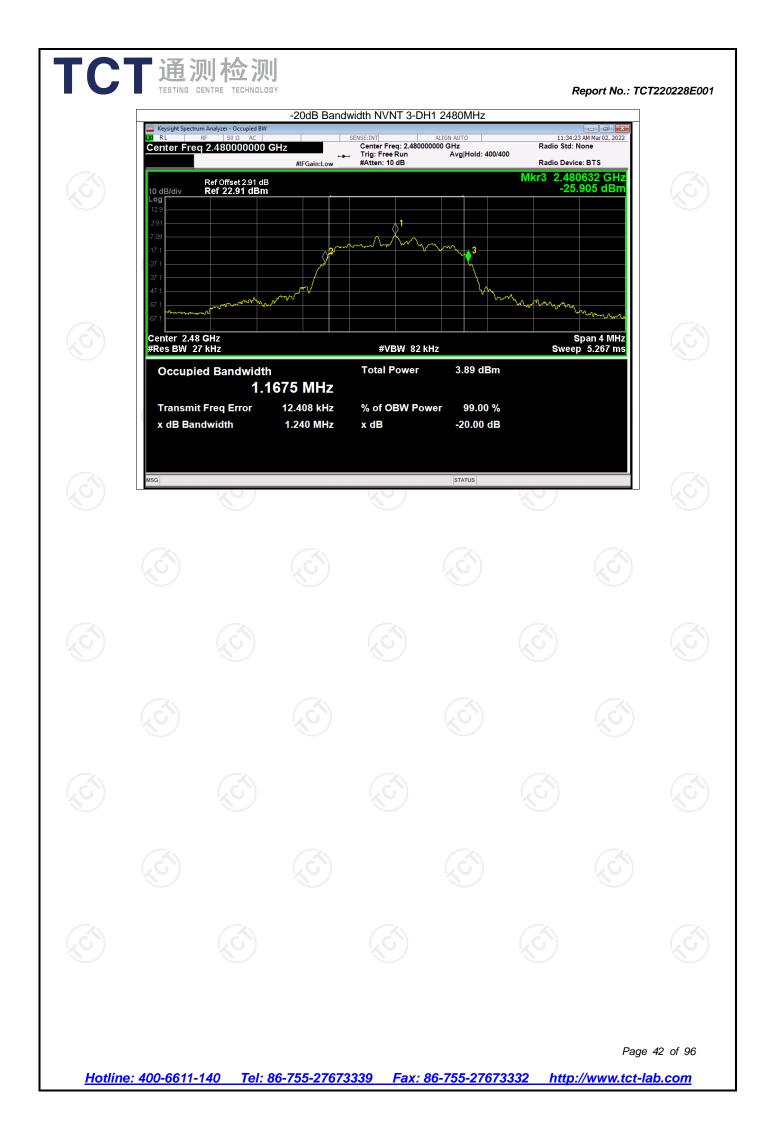
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Carrier Frequencies Separation

TCT通测检测 TESTING CENTRE TECHNOLOGY

Report No.: TCT220228E001

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| | ENTRE TECHNOLOGY | CFS NVNT 1-DH1 248 | 0MHz | Report No.: TCT22 | |
|-----------------------------|-----------------------------------|---|---------------------------------|--|--|
| Keysight Spectrum | F 50 Ω AC | SENSE:INT | ALIGN AUTO Avg Type: Log-Pwr | 11:05:18 AM Mar 02, 2022 | |
| Center Freq | 2.479500000 GHz | NO: Wide Trig: Free Run Gain:Low #Atten: 30 dB | Avg Hold:>100/100 | TRACE 1 2 3 4 5 6 TYPE MWWWW DET PNNNNN | |
| 10 dB/div R | ef Offset 2.91 dB ef 20.00 dBm | | Mkr1 | 2.479 006 GHz -3.436 dBm | |
| 10.0 | 1 | | 2 | | |
| -10.0 | | | | | |
| -30.0 | | | | | |
| -50.0 | | | | | |
| -70.0 | | | | | |
| Center 2.479 #Res BW 100 |) kHz | #VBW 300 kHz | | Span 2.000 MHz 1.000 ms (1001 pts) | |
| MKR MODE TRC SO | 2.479 006 GHz | Y FUNCTION 1 -3.436 dBm -3.453 dBm | UNCTION WIDTH FUNC | TION VALUE | |
| 3 4 5 6 | | | | E | |
| 7 8 9 | | | | | |
| | | | | The second secon | |
| MSG | <u>k</u> 0) | CFS NVNT 2-DH1 240 | STATUS 2MHz | | |
| Keysight Spectrum | | SENSE:INT | ALIGN AUTO | 11:10:14 AM Mar 02, 2022 | |
| Center rreq | P | NO: Wide 😱 Trig: Free Run Gain:Low #Atten: 30 dB | Avg Hold:>100/100 | TRACE 2 2 4 5 6 TYPE MWWWW DET PNNNN | |
| 10 dB/div Re Log | ef Offset 2.69 dB ef 20.00 dBm | | MKM | 2.401 848 GHz -2.722 dBm | |
| 0.00 | | | 2 | | |
| -10.0 -20.0 | | | | | |
| -30.0 | | | | | |
| -50.0 | | | | | |
| -70.0 Center 2.402 | 500 CH2 | | | Span 2.000 MHz | |
| #Res BW 100 |) kHz | #VBW 300 kHz | | 1.000 ms (1001 pts) | |
| 1 N 1 f 2 N 1 f 3 | 2.401 848 GHz | -2.722 dBm | | | |
| 4 5 6 7 | | | | | |
| 8 9 10 | | | | | |
| 11 | | III | STATUS | | |
| | X | I I I I I I I I I I I I I I I I I I I | | | |
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| | Keysight Spectrum Analyzer - Swept SA | CFS NVNT 2-DH1 24 | | | |
|-------------|--|--|--|---|--|
| | RL RF 50 Ω AC enter Freq 2.441500000 GHz | Z PNO: Wide Trig: Free Run IFGain:Low #Atten: 30 dB | ALIGN AUTO Avg Type: Log-Pwr Avg Hold:>100/100 | 11:15:38 AM Mar02, 2022 TRACE 1 2 3 4 5 6 TYPE MWWWW DET P N N N N | |
| | Ref Offset 2.82 dB dB/div Ref 20.00 dBm | | Mkr1 | 2.440 852 GHz -2.562 dBm | |
| 1 | | | 2 ² | | |
| -21 | | | | | |
| -41 | 0.0 | | | | |
| -61 | 0.0 | | | | |
| | enter 2.441500 GHz Res BW 100 kHz | #VBW 300 kHz | Sweep 7 | Span 2.000 MHz I.000 ms (1001 pts) | |
| | N 1 f 2.440 852 N 1 f 2.441 848 | Y FUNCTION GHz -2.562 dBm GHz -2.262 dBm | FUNCTION WIDTH FUNC | TION VALUE | |
| | | | | = | |
| 1 | | | | | |
| 1 MSC | | ш | STATUS | | |
| | Keysight Spectrum Analyzer - Swept SA RL RF 50 Ω AC | CFS NVNT 2-DH1 24 | ALIGN AUTO | 11:20:01 AM Mar 02, 2022 | |
| | enter Freq 2.479500000 GHz | | Avg Type: Log-Pwr Avg Hold:>100/100 | TRACE 123456 TYPE MWWWW DET PNNNNN | |
| 10 | Ref Offset 2.91 dB dB/div Ref 20.00 dBm | | Mkr1 | 2.478 850 GHz -2.632 dBm | |
| 0 | | | <u>2</u> | | |
| -2 | | | | | |
| | 1.0 .0 | | | | |
| | 0.0 | | | | |
| #F | enter 2.479500 GHz Res BW 100 kHz | #VBW 300 kHz | | Span 2.000 MHz I.000 ms (1001 pts) | |
| | NODE TRC SCL X N 1 f 2.478 850 2 N 1 f 2.479 848 3 - - - - | Y FUNCTION GHz -2.632 dBm GHz -2.724 dBm | FUNCTION WIDTH FUNC | rion value | |
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| | | m | STATUS | • | |
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| 1 1 1 | | | | | |

| | <pre>transformation white - seets Genter Freq 2.402500000 GHz rection and rection and re</pre> | | 通测检测 TESTING CENTRE TECHNOLOGY | | 00101 | Report No.: TC | F220228E00 |
|---|--|--------------|--|--|--|--|-------------------|
| Mikr1 2.401 842 Gitt: 2.349 Gitt: 2 | Mikr1 2.401 842 GHz C Grine 2 60 8B C Grine 2 60 75 Span 2.000 MHz Span 2.000 MHz C FS IVVT 3-DH1 2441MHz C FS IVVT 3-DH1 2441MHz </th <th></th> <th>α RL RF 50Ω AC</th> <th></th> <th>ALIGN AUTO</th> <th>11:26:44 AM Mar 02, 2022</th> <th></th> | | α RL RF 50Ω AC | | ALIGN AUTO | 11:26:44 AM Mar 02, 2022 | |
| Conter Freq 2.4415000 CH2 Program Ref 07000 CH2 Processor Span 2.000 MH2 State State State State State State State State State State State State State State State State State State State State State State State Sta | Center 740500 CH2 Center 740500 CH2 AVEW 300 KH2 Sweep 1.000 mK1001 PE3 Sweep 1.000 KH2 Sweep 1.000 MH2 Sweep 1.000 KH2 Sweep 1.000 MH2 Sweep 1.000 KH2 Sweep 1.000 KH2 Sweep | | Center Freq 2.402500000 GHz | | Avg Type: Log-Pwr Avg Hold:>100/100 | TRACE 123456 TYPE MWWWW DET PNNNNN | |
| Image: state stat | Image: control transmission of the second | | Ref Offset 2.69 dB 10 dB/div Ref 20.00 dBm | | Mkr1 | 2.401 842 GHz -2.549 dBm | |
| Image: state stat | Image: Second | | 10.0 | | | | |
| Center 2.402500 GHz #Kes BW 100 kHz #Kes BW 100 kHz #K | 000 0 | | 10.0 | | | | |
| Image: Span 2.000 MHz Span 2.000 MHz Image: Span 2.000 MHz Sweep 1.000 ms (001 pts) Image: Sp | Image: Second Control of | | -30.0 | | | | |
| Center 2.441500 GHz Reform Reform Re | Center 2.402500 GHz #Kes BW 100 Hz #VBW 300 Hz Sweep 1.000 ms (1001 pts) | | -50.0 | | | | |
| Image: Sec: X X Y PARCTON FUNCTION WIDTH PARCTON WIDTH PARCTON WALL 3 1 1 2402336.0Hz -2569.dBm | Image mode the set of the 240 set o | | | | | | |
| 1 1 2 2402 835 GHz -2.469 dBm 2 1 1 2.402 835 GHz -2.469 dBm 2 1 1 2.402 835 GHz -2.469 dBm 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 <td< td=""><td>1 1 2 2402 833 GHz -2449 dBm 2 1 1 2402 833 GHz -2449 dBm 2 1 1 2402 833 GHz -2449 dBm 3 1 1 2402 833 GHz -2449 dBm 4 1 1 2402 833 GHz -2449 dBm 1 1 2402 833 GHz -2449 dBm 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2402 842 GHz 1</td><td></td><td></td><td>#VBW 300 kHz</td><td>Sweep 1</td><td>Span 2.000 MHz .000 ms (1001 pts)</td><td></td></td<> | 1 1 2 2402 833 GHz -2449 dBm 2 1 1 2402 833 GHz -2449 dBm 2 1 1 2402 833 GHz -2449 dBm 3 1 1 2402 833 GHz -2449 dBm 4 1 1 2402 833 GHz -2449 dBm 1 1 2402 833 GHz -2449 dBm 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2402 842 GHz 1 | | | #VBW 300 kHz | Sweep 1 | Span 2.000 MHz .000 ms (1001 pts) | |
| Image: Section Address Section | Image: Sector Analyses Image: Sector Analyses Image: Sector Analyses Image: Sector Analyses Image: Sector Analyses Sector Analyses Sector Analyses Sector Analyses Image: Sector Analyses Sector Analyses Sector Analyses Sector Analyses Image: Sector Analyses Sector Analyses Sector Analyses Sector Analyses Image: Sector Analyses Sector Analyses Sector Analyses Sector Analyses Image: Sector Analyses Sector Analyses Sector Analyses Sector Analyses Image: Sector Analyses Sector Analyses Sector Analyses Sector Analyses Image: Sector Analyses Sector Analyses Sector Analyses Sector Analyses Image: Sector Analyses Sector Analyses Sector Analyses Sector Analyses Image: Sector Analyses Sector Analyses Sector Analyses Sector Analyses Image: Sector Analyses Sector Analyses Sector Analyses Sector Analyses Image: Sector Analyses Sector Analyses Sector Analyses Sector Analyses Image: Sector Analyses Sector Analyses Sector Analyses Sector Analyses Image: Sector Analyses Sector | | MKR MODE TRC SCL X 1 N 1 f 2.401 842 GI 2 N 1 f 2 402 836 GI | Y FUNCTION Hz -2.549 dBm Hz -2 649 dBm | FUNCTION WIDTH FUNCT | ION VALUE | |
| Image: Section Address Section | CFS NVNT 3-DH1 2441MHz CFS NVNT 3-DH1 2441MHz CFS NVNT 3-DH1 2441MHz Center Freq 2.441500000 GHz Ref Offset 2.82 dB Center Freq 2.44150000 GHz PNO: Wde PNO: Wd | | 3 4 5 | | | E | |
| Image: Sector of the sector | CFS NVNT 3-DH1 2441MHz CFS NVNT 3-DH1 2441MHz CFS NVNT 3-DH1 2441MHz Center Freq 2.441500000 GHz PNC: Wde Net 1 2.424 Mid2 202 Center Freq 2.441500000 GHz PNC: Wde Net 1 2.441 Mid2 202 Center Freq 2.4415000 OBm Center Freq 2.4415000 OBm Center 2.477 dBm Center 2.477 dBm Center 2.4415000 GHz Freq 2.407 dBm Center 2.4415000 GHz Freq 2.441500 GHz Freq 1.000 Hz Freq 1.000 Freq 2.441500 GHz Freq 1.000 Freq 2.441500 GHz Freq 1.000 Freq 1.000 Freq 2.441500 GHz Freq 1.000 Freq | | 7 8 | | | | |
| CFS NVNT 3-DH1 2441MHz | CFS NVNT 3-DH1 2441MHz CFS NVNT 3-DH1 2441MHz CFS NVNT 3-DH1 2441MHz CFIter Freq 2.441500000 GHz PtC: Wide Trig: Free Run Arginol 3-100/100 Mkr1 2.440 242 GHz Center 2.441500 Odbm Center 2.440842 Odbm Center 2.4 | | 10 | | | | |
| Register Service | Revigiti Section: Address - Stept SA Section: Address - Stept SA Section: Address - Stept SA With Revigiti Section: Address - Stept SA Section: Address - Stept SA Address - Stept SA Center Freq 2.441500000 GHz Trig: Free Run #Atten: 30 dB Address - Stept SA Address - Stept SA Ref Offset 2.82 dB Mkr1 2.440 842 GHz -2.477 dBm 100 1 -2.477 dBm 100 -2.441500 GHz #VBW 300 kHz Streep 1.000 mS (1001 pts) WR 820 GHz -2.441 850 GHz -2.441 850 GHz -2.441 850 GHz 101 1 2.440 842 GHz -2.441 850 GHz -2.441 850 GHz -2.441 850 GHz -2.447 dBm 102 X Y Function Function width Function width Function width 113 2.440 842 GHz -2.441 850 | 3 | ISG | | | | |
| Center Freq 2.441500000 GHz Trig: Free Run Avg Type: Log-Pwr Trig: Free Run Ref Offset2.82 dB Mkr1 2.440 842 GHz -2.477 dBm 10 dB/dv Ref 20.00 dBm -2.477 dBm 10 dB/dv Ref 2440 842 GHz -2.477 dBm 11 f 2.441 850 GHz -2.477 dBm 11 f 2.441 850 GHz -2.477 dBm 11 f 2.441 850 GHz -2.477 dBm | Center Freq 2.441500000 GHz PRO: Wide IFGain:Low Trig: Free Run #Atten: 30 dB Mkr1 2.440 842 GHz 2.477 dBm 2.477 dBm Center 2.441500 GHz #Res BW 100 kHz #VBW 300 kHz Span 2.000 MHz Sweep 1.000 ms (1001 pts) MRT 12.441 850 GHz 2.477 dBm 10 0 10 0 1 | | | | | 11:32:42 AM Mar 02, 2022 | |
| 10. dB/div Ref 20.00 dBm -2.477 dBm 10. dB/div Ref 20.00 dBm -2.477 dBm 10. dB/div -2.477 dBm -2.477 dBm 10. dB/div -2.471 dBm -2.477 dBm 10. dB/div -2.471 dBm -2.477 dBm 10. dB/div -2.441 B50 GHz Span 2.000 MHz 20. dB/div -2.441 B50 GHz -2.477 dBm 10. dB/div -2.441 B50 GHz -2.477 dBm 20. dB/div | 0.dB/div Ref 20.00 dBm -2.477 dBm 0.00 | | Center Freq 2.441500000 GHz | PNO: Wide 😱 Trig: Free Run | Avg Type: Log-Pwr Avg Hold:>100/100 | TRACE 123456 TYPE MWWWWW DET PNNNN | |
| Content 2.441850 GHz 0.000 mm | Log 1 2 | | Ref Offset 2.82 dB 10 dB/div Ref 20.00 dBm | | Mkr1 | 2.440 842 GHz -2.477 dBm | |
| 100 1 | 100 1 | | 10.0 | | 2 | | |
| 300 400 400 500 500 500 600 700 700 500 700 500 700 500 700 500 700 500 700 500 700 7 | 300 400 400 400 500 500 600 500 7700 500 Center 2.441500 GHz \$\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ | | -10.0 | | | | |
| -50.0 MHz -50.0 | -600 -000 -700 -000 -700 -000 Center 2.441500 GHz #VBW 300 kHz Span 2.000 MHz Sweep 1.000 ms (1001 pts) MRR MODE TRC SCL X Y Function Function width 1 1 2 N 1 1 2 1 3 - 4 - 5 - 6 - 7 - 7 - 8 - 9 - 10 - 11 - 11 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 10 - 10 - 10 - 10 - 10 </td <td>\mathbf{G}</td> <td>-30.0</td> <td></td> <td></td> <td></td> <td></td> | \mathbf{G} | -30.0 | | | | |
| 70.0 Span 2.000 MHz Center 2.441500 GHz #VBW 300 kHz Sweep 1.000 ms (1001 pts) MRR MODE TCC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE 1 1 1 2.440 842 GHz -2.247 dBm -2.240 dBm 3 1 7 2.441 850 GHz -2.240 dBm -2.240 dBm -2.240 dBm 3 1 7 2.441 850 GHz -2.240 dBm -2.240 dBm <td>-70.0 Center 2.441500 GHz Span 2.000 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 1.000 ms (1001 pts) MRR MODE TRC SCL X Y Function width 1 1 2.441 850 GHz -2.2477 dBm 3 1 1 2.441 850 GHz -2.240 dBm 3 1 1 - - 4 - - - - 10 - - - - 11 - - - -</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> | -70.0 Center 2.441500 GHz Span 2.000 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 1.000 ms (1001 pts) MRR MODE TRC SCL X Y Function width 1 1 2.441 850 GHz -2.2477 dBm 3 1 1 2.441 850 GHz -2.240 dBm 3 1 1 - - 4 - - - - 10 - - - - 11 - - - - | | | | | | |
| #Res BW 100 kHz #VBW 300 kHz Sweep 1.000 ms (1001 pts) MKR MODE TRC SCL X Y 1 N 1 2 N 1 7 2.441 850 GHz 6 6 7 6 8 8 9 9 10 1 | #Res BW 100 kHz #VBW 300 kHz Sweep 1.000 ms (1001 pts) MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH 1 N 1 1 2 N 1 1 2 N 1 1 2 N 1 1 2 N 1 1 2 N 1 1 2 N 1 1 2 N 1 1 2 N 1 1 2 N 1 1 2 N 1 1 2 N 1 1 2 N 1 1 3 3 - 4 - - 5 - - 6 - - 7 - - 9 - - 9 - - 9 - - 10 - - 11 - - | | | | | | |
| MKR MODE TRC SCI X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE 1 N 1 f 2.440 842 GHz -2.477 dBm 2 N 1 f 2.441 850 GHz -2.240 dBm 3 1 f 2.441 850 GHz -2.240 dBm 4 - - - - 5 - - - - 6 - - - - 7 - - - - 8 - - - - 9 - - - - 10 - - - - 11 - - - - | MKR MODE TRC SCI X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE 1 N 1 f 2.440 842 GHz -2.477 dBm -2.40 dBm -2.240 dBm -2.24 | | | #VBW 300 kHz | Sweep 1 | Span 2.000 MHz .000 ms (1001 pts) | |
| | | | MKR MODE TRC SCL X | Y FUNCTION | | | |
| | | 3 | 3 | HZ -2.240 dBm | | | |
| 10 | 10 11 · · · · · · · · · · · · · · · · · · | | 6 7 | | | | |
| | | | 10 | | | | |
| | | N | SG SG | | STATUS | • | |
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| LXI RL | rum Analyzer - Swept SA RF 50 Ω AC | | SENSE:INT | ALIGN AUTO | 11:41: | 55 AM Mar 02, 2022 | |
|--|---------------------------------------|---|---------------------------------|---------------------------------------|--|--------------------|--|
| | q 2.479500000 G | CHZ PNO: Wide IFGain:Low | Trig: Free Run #Atten: 30 dB | Avg Type: Log-Pw Avg Hold:>100/100 | Mkr1 2.47 | | |
| Log 10.0 .000 -10.0 -20.0 -30.0 -40.0 | Ref Offset 2.91 dB Ref 20.00 dBm | | | | -2 | | |
| -500 -600 -700 Center 2.47 #Res BW 10 MKR MODE TRC 1 N 1 2 N 1 3 N | SCL X | #VB 162 GHz -2.600 166 GHz -2.739 | dBm | FUNCTION WIDTH | Spa Sweep 1.000 m FUNCTION VALUE | | |
| 4 6 7 8 9 10 11 | | | | STATUS | | | |
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| | | | | | | | |

| Condition | Mode | (MHz) | Mode | (dBc) | (dBc) | Verdict |
|-----------|-------|-------|------------|--------|-------|---------|
| NVNT | 1-DH1 | 2402 | No-Hopping | -47.84 | -20 | Pass |
| NVNT | 1-DH1 | 2480 | No-Hopping | -51.60 | -20 | Pass |
| NVNT | 2-DH1 | 2402 | No-Hopping | -48.53 | -20 | Pass |
| NVNT | 2-DH1 | 2480 | No-Hopping | -51.17 | -20 | Pass |
| NVNT | 3-DH1 | 2402 | No-Hopping | -48.83 | -20 | Pass |
| NVNT | 3-DH1 | 2480 | No-Hopping | -50.80 | -20 | Pass |

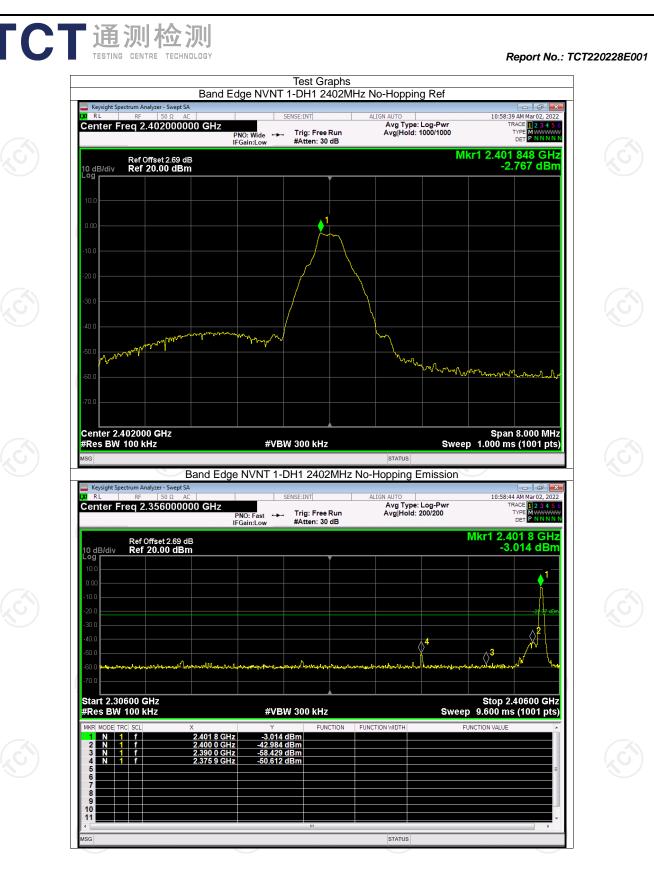
Band EdgeHoppingMax ValueLimitVardiat Frequency

Report No.: TCT220228E001

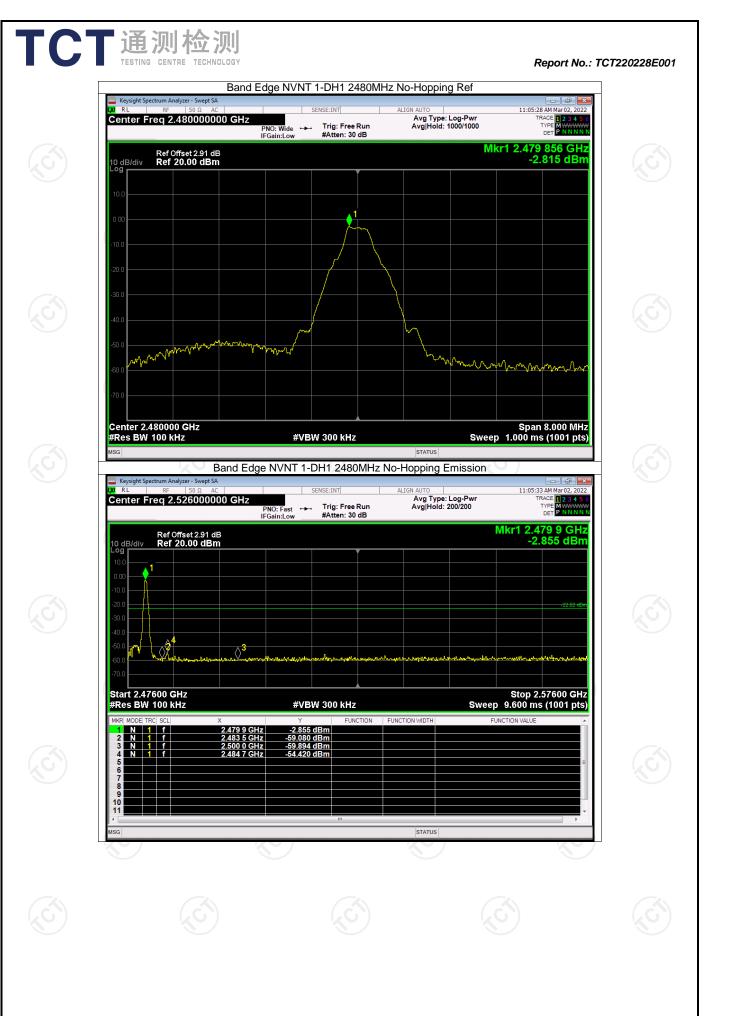
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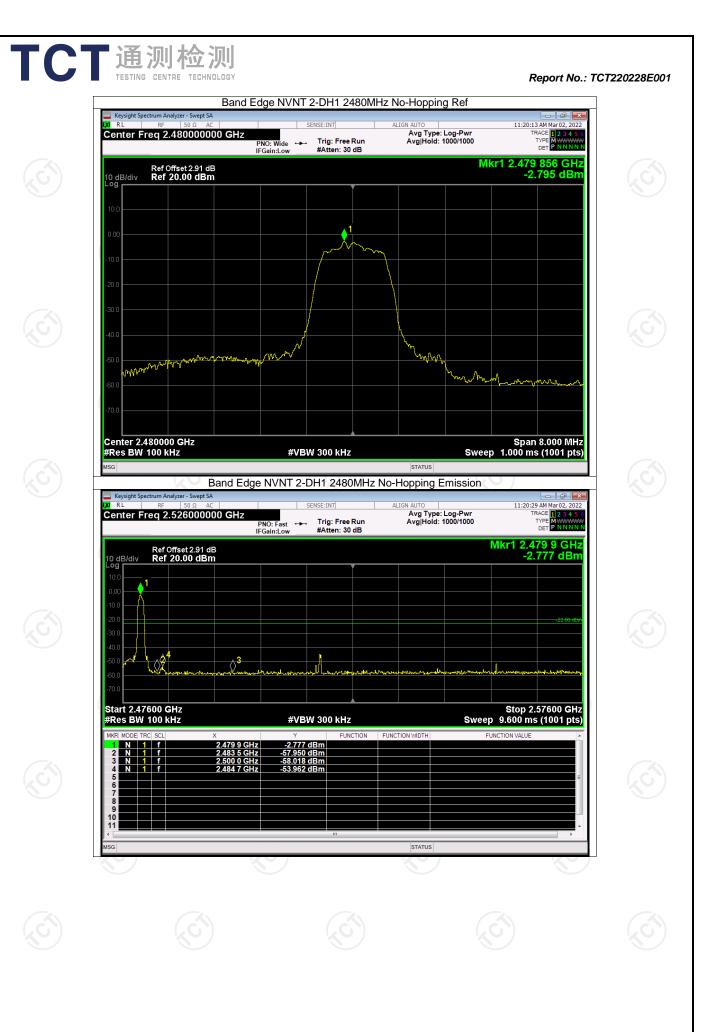


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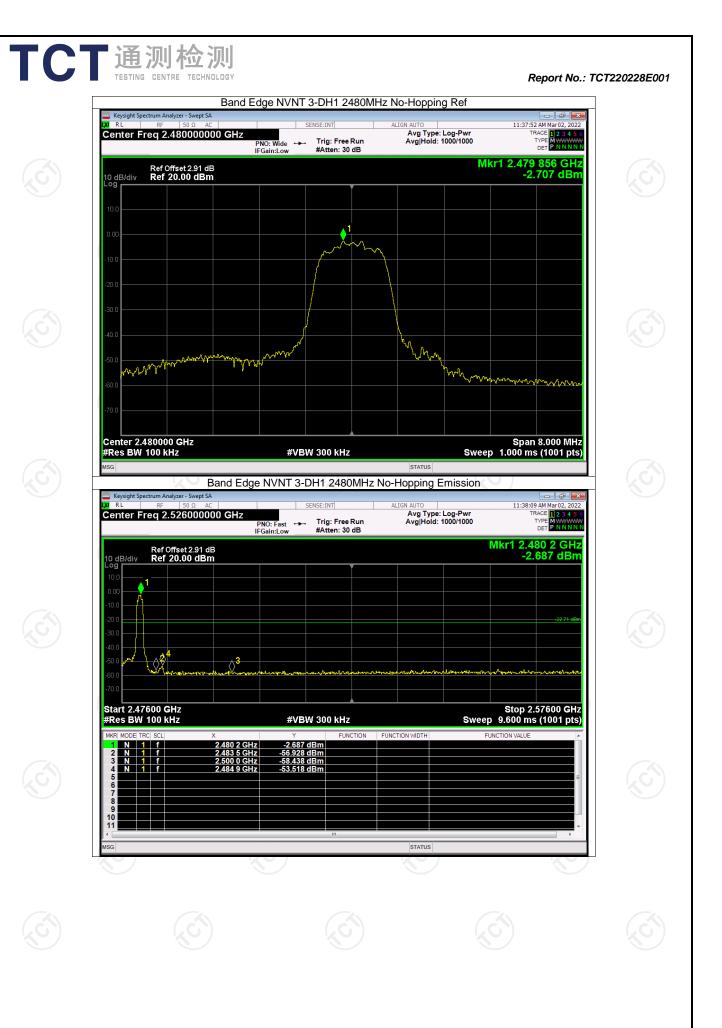
| Keysight Spectrum Analyzer - Swep RL RF 50 Ω Center Freq 2.402000 | AC S DOOD GHz PNO: Wide +++ | ENSE:INT | ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 1000/1000 | 11:10:24 AM Mar 02, 2022 TRACE 1 2 3 4 5 6 TYPE Mwwwww DET P N N N N N | - |
|---|--|---------------------------------|---|--|----|
| Ref Offset 2.69 10 dB/div Ref 20.00 dE | IFGain:Low dB BM | #Atten: 30 dB | Mk | r1 2.401 848 GHz -2.730 dBm | |
| 10.0 | | .1 | | | |
| -10.0 | | m | | | |
| -20.0 | | | | | |
| -30.0 | | | | | A |
| -50.0 vront | | | - Marine Mari | | |
| -60.0 | | | | www.www.www.ww | |
| Center 2.402000 GHz | | N 200 kU- | | Span 8.000 MHz 1.000 ms (1001 pts) | |
| #Res BW 100 kHz | | V 300 kHz | STATUS | 1.000 ms (1001 pts) | |
| Keysight Spectrum Analyzer - Swept KXI RL RF 50 Ω | | | | | |
| | AC | ENGERINI | | 11:10:41 AM Mor 02, 2022 | |
| Center Freq 2.356000 | PNO: Fast +++ | Trig: Free Run #Atten: 30 dB | ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 1000/1000 | 11:10:41 AM Mar02, 2022 TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P N N N N N | |
| Ref Offset 2.69 | PNO: Fast ↔ IFGain:Low | Trig: Free Run #Atten: 30 dB | Avg Type: Log-Pwr Avg Hold: 1000/1000 | 11:10:41 AM Mar02, 2022 TRACE 12 3 4 5 6 TYPE MUNIT DET P NNNNN Akr1 2.401 9 GHz -2.726 dBm | |
| Ref Offset 2.69 | PNO: Fast ↔ IFGain:Low | | Avg Type: Log-Pwr Avg Hold: 1000/1000 | | |
| 10 dB/div Ref Offset 2.69 10 dB/div Ref 20.00 dB | PNO: Fast ↔ IFGain:Low | | Avg Type: Log-Pwr Avg Hold: 1000/1000 | | G |
| Ref Offset 2.69 10 dB/div Ref 20.00 dB 100 0.00 -100 0.00 -300 0.00 | PNO: Fast ↔ IFGain:Low | | Avg Type: Log-Pwr Avg Hold: 1000/1000 | 7RACE 123456 TYPE MUNNIN DET PINNNIN Akr1 2.401 9 GHz -2.726 dBm | S. |
| Ref Offset 2.69 10 dB/div Ref 20.00 dB 10.0 0.00 -10.0 | PNO: Fast ↔ IFGain:Low | | Avg Type: Log-Pwr Avg Hold: 1000/1000 | | |
| Ref Offset 2.69 10 dB/div Ref 20.00 dE 100 000 000 000 -100 000 -200 000 -300 000 -600 000 -700 000 Start 2.30600 GHz | PNO: Fast → IFGain:Low | #Atten: 30 dB | Avg Type: Log-Pwr Avg Hold: 1000/1000 | TRACE 1 2 3 4 5 G TYPE MUNNIN OCT PINNINN Akr1 2.401 9 GHz -2.726 dBm | |
| Ref Offset 2.69 10 dB/div Ref 20.00 dB 10.0 | PNO: Fast IFGain:Low dB 3m dB 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | #Atten: 30 dB | Avg Type: Log-Pwr Avg Hold: 1000/1000 | 7RACE 12 3 4 5 G TYPE MINININ OET PINNININ Akr1 2.401 9 GHz -2.726 dBm | |
| Ref Offset 2.69 10 dB/div Ref 20.00 dB 10 0 | PNO: Fast IFGain:Low IdB IGB IGB IGB IGB IGB IGB IGB IG | #Atten: 30 dB | Avg Type: Log-Pwr Avg Hold: 1000/1000 | TRACE 12 3 4 5 G TYPE MINNIN Akr1 2.401 9 GHz -2.726 dBm 1 1 4 4 5 5 5 5 5 5 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 | |
| Ref Offset 2.69 10 dB/div Ref 20.00 dB 0 000 | PNO: Fast IFGain:Low dB 3m dB 4m 4m 4m 4m 4m 4m 4m 4 | #Atten: 30 dB | Avg Type: Log-Pwr Avg Hold: 1000/1000 | TRACE 12 3 4 5 G TYPE MINNIN Akr1 2.401 9 GHz -2.726 dBm 1 1 4 4 5 5 5 5 5 5 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 | |
| Ref Offset 2.69 10 dB/div Ref 20.00 dE 0 g | PNO: Fast IFGain:Low dB 3m dB 4m 4m 4m 4m 4m 4m 4m 4 | #Atten: 30 dB | Avg Type: Log-Pwr Avg Hold: 1000/1000 | TRACE 12 3 4 5 G TYPE MINNIN Akr1 2.401 9 GHz -2.726 dBm 1 1 4 4 5 5 5 5 5 5 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 | |
| Ref Offset 2.69 10 dB/div Ref 20.00 dB 0 00 | PNO: Fast IFGain:Low dB 3m dB 4m 4m 4m 4m 4m 4m 4m 4 | #Atten: 30 dB | Avg Type: Log-Pwr Avg Hold: 1000/1000 | TRACE 12 3 4 5 G TYPE MINNIN Akr1 2.401 9 GHz -2.726 dBm 1 1 4 4 5 5 5 5 5 5 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 | |
| Ref Offset 2.69 10 dB/div Ref 20.00 dB 10.0 0.00 0.00 0.00 -10.0 0.00 -20.0 0.00 -30.0 0.00 -40.0 0.00 -50.0 0.00 -60.0 0.00 -70.0 0 Start 2.30600 GHz #Res BW 100 kHz MKR MODE TRC SCL 1 2 N 1 2 N 1 3 N 1 4 N 1 5 6 6 7 9 0 10 1 11 1 | PNO: Fast IFGain:Low dB 3m dB 4m 4m 4m 4m 4m 4m 4m 4 | #Atten: 30 dB | Avg Type: Log-Pwr Avg Hold: 1000/1000 | TRACE 12 3 4 5 G TYPE MINNIN Akr1 2.401 9 GHz -2.726 dBm 1 1 4 4 5 5 5 5 5 5 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 | |
| Ref Offset 2.69 10 dB/div Ref 20.00 dB 10.0 0.00 0.00 0.00 -10.0 0.00 -20.0 0.00 -30.0 0.00 -40.0 0.00 -50.0 0.00 -60.0 0.00 -70.0 0 Start 2.30600 GHz #Res BW 100 kHz MKR MODE TRC SCL 1 2 N 1 2 N 1 3 N 1 4 N 1 5 6 6 7 9 0 10 1 11 1 | PNO: Fast IFGain:Low dB 3m dB 4m 4m 4m 4m 4m 4m 4m 4 | #Atten: 30 dB | Avg Type: Log-Pwr Avg Hold: 1000/1000 | TRACE 12 3 4 5 G TYPE MINNIN Akr1 2.401 9 GHz -2.726 dBm 1 1 4 4 5 5 5 5 5 5 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 | |



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| Band Edge NVNT 3-DH1 2402MHz No-Hop Keysight Spectrum Analyzer - Swept SA W RL RF 50 Ω AC SENSE:INT ALIGN. Center Freq 2.356000000 GHz PNO: Fast +++ Trig: Free Run Ref Offset 2.69 dB 10 dE/div Ref 20.00 dBm | AUTO 11:26:59 AM Mar02, 2022 Avg Type: Log-Pwr TRACE 12:34 5 5 Avg[Hold: 100/100 TYPE Mar04 DET PNNNNN |
|---|---|
| Log 100 100 100 100 100 100 100 10 | AUTO 11:26:59 AM Mar02, 2022 Avg Type: Log-Pwr TRACE AUTO 11:26:59 AM Mar02, 2022 |
| 000 000 000 100 000 000 200 000 000 200 000 000 200 000 000 200 000 000 200 000 000 200 000 000 200 000 000 400 000 000 400 000 000 400 000 000 600 000 000 600 000 000 600 000 000 600 000 000 600 000 000 700 000 000 600 0000 0000 800 AC SENSE:INT 800 AC SENSE:INT 800 AC SENSE:INT 900: Fast | Span 8.000 MHz Sweep 1.000 ms (1001 pts) status pping Emission |
| 100 | Span 8.000 MHz Sweep 1.000 ms (1001 pts) status pping Emission |
| -30.0 -30.0 -40.0 -40.0 -60.0 -40.0 -60.0 -40.0 -60.0 -40.0 -60.0 -40.0 -60.0 -40.0 -60.0 -40.0 -60.0 -40.0 -60.0 -40.0 -60.0 -40.0 -60.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -70.0 -70.0 -70.0 -70.0 -70.0 - | Span 8.000 MHz Sweep 1.000 ms (1001 pts) status pping Emission |
| -40.0 -70.0 - | Span 8.000 MHz Sweep 1.000 ms (1001 pts) status pping Emission |
| 50.0 | Span 8.000 MHz Sweep 1.000 ms (1001 pts) status pping Emission |
| -60 0 -70 0 <t< td=""><td>Span 8.000 MHz Sweep 1.000 ms (1001 pts) status pping Emission</td></t<> | Span 8.000 MHz Sweep 1.000 ms (1001 pts) status pping Emission |
| .70.0 Center 2.402000 GHz #Res BW 100 kHz #VBW 300 kHz Msg Band Edge NVNT 3-DH1 2402MHz No-Hop Keysight Spectrum Analyzer - Swept SA Sense:INT W RL RF 50 Ω Center Freq 2.356000000 GHz Frig: Free Run PNO: Fast ++- Trig: Free Run A Ref Offset 2.69 dB Ref 20.00 dBm | Span 8.000 MHz Sweep 1.000 ms (1001 pts) status pping Emission |
| Center 2.402000 GHz #VBW 300 kHz #Res BW 100 kHz #VBW 300 kHz Msg Band Edge NVNT 3-DH1 2402MHz No-Hop Image: Section Analyzer - Swept SA Sense:INT Image: Registry Section Analyzer - Swept SA Sense:INT Image: Registry Section Analyzer - Swept SA Sense:INT Image: Registry Section Analyzer - Swept SA PNO: Fast Image: Registry Section Analyzer - Swept SA PNO: Fast Image: Registry Section Analyzer - Swept SA PNO: Fast Image: Registry Section Analyzer - Swept SA PNO: Fast Image: Registry Section Analyzer - Swept SA PNO: Fast Image: Registry Section Analyzer - Swept SA PNO: Fast Image: Registry Section Analyzer - Swept SA PNO: Fast Image: Registry Section Analyzer - Swept SA PNO: Fast Image: Registry Section Analyzer - Swept SA PNO: Fast Image: Registry Section Analyzer - Swept SA PNO: Fast Image: Registry Section Analyzer - Swept SA PNO: Fast Image: Registry Section Analyzer - Swept SA PNO: Fast Image: Registry Section Analyzer - Swept SA PNO: Fast Image: Registry Section Analyzer - Swept SA < | Sweep 1.000 ms (1001 pts) status pping Emission AUTO 11:26:59 AM Mar02, 2022 Avg Type: Log-Pwr TRACE 12 34.5 6 TYPE DET PNNNNN |
| #Res BW 100 kHz #VBW 300 kHz Msg Band Edge NVNT 3-DH1 2402MHz No-Hop Band Edge NVNT 3-DH1 2402MHz No-Hop Keysight Spectrum Analyzer - Swept SA Center Freq 2.356000000 GHz PN0: Fast PN0: Fast Hatten: 30 dB Ref Offset 2.69 dB 10 dB/div | Sweep 1.000 ms (1001 pts) status pping Emission AUTO 11:26:59 AM Mar02, 2022 Avg Type: Log-Pwr TRACE 12 34.5 6 TYPE DET PNNNNN |
| Msg Band Edge NVNT 3-DH1 2402MHz No-Hop Keysight Spectrum Analyzer - Swept SA Of RL RF 50 Ω AC SENSE:INT ALIGN. Center Freq 2.356000000 GHz PNO: Fast IFGain:Low HAtten: 30 dB Ref Offset 2.69 dB 10 dB/div Ref 20.00 dBm | AUTO 11:26:59 AM Mar02, 2022 AVg Type: Log-Pwr Avg[Hold: 100/100 TYPE Det PNNNNN |
| Keysight Spectrum Analyzer - Swept SA Keysight Spectrum Analyzer - Swept SA Keysight Spectrum Analyzer - Swept SA Center Freq 2.356000000 GHz PNO: Fast → Trig: Free Run IFGain:Low Ref Offset 2.69 dB 10 dB/div Ref 20.00 dBm | AUTO 11:26:59 AM Mar02, 2022 Avg Type: Log-Pwr TRACE 12:34 5 5 Avg[Hold: 100/100 TYPE Mar04 DET PNNNNN |
| 10 dB/div Ref 20.00 dBm | Mkr1 2.402 2 GHz -2.687 dBm |
| 10.0 | |
| 0.00 | |
| -20.0 | -22.64 dBm |
| -40.0 | $\overset{4}{\overset{3}{\overset{3}{\overset{3}{\overset{1}{\overset{1}{\overset{1}{\overset{1}{1$ |
| - 60.0 | new of the second the second |
| Start 2.30600 GHz #Res BW 100 kHz #VBW 300 kHz | Stop 2.40600 GHz Sweep 9.600 ms (1001 pts) |
| MKR MODE TRC SCL X Y FUNCTION FUNCTION 1 N 1 f 2.402.2 GHz -2.687.dBm 42.077.dBm 2 N 1 f 2.400.0 GHz -42.077.dBm 42.077.dBm | WIDTH FUNCTION VALUE |
| 3 N 1 f 2.390 0 GHz -59.635 dBm 4 N 1 f 2.375 9 GHz -51.476 dBm 5 | E |
| | |
| | - |
| MSG | STATUS |
| | |

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| ('AnditiAn | Mode | | | | | Vordict |
|-------------|-------|-------|---------|--------|-------|---------|
| Condition | widde | (MHz) | Mode | (dBc) | (dBc) | Verdict |
| NVNT | 1-DH1 | 2402 | Hopping | -53.16 | -20 | Pass |
| NVNT | 1-DH1 | 2480 | Hopping | -62.83 | -20 | Pass |
| NVNT | 2-DH1 | 2402 | Hopping | -53.78 | -20 | Pass |
| NVNT | 2-DH1 | 2480 | Hopping | -57.70 | -20 | Pass |
| NVNT | 3-DH1 | 2402 | Hopping | -53.15 | -20 | Pass |
| NVNT | 3-DH1 | 2480 | Hopping | -58.06 | -20 | Pass |

Band Edge(Hopping) Frequency Hopping Max Value



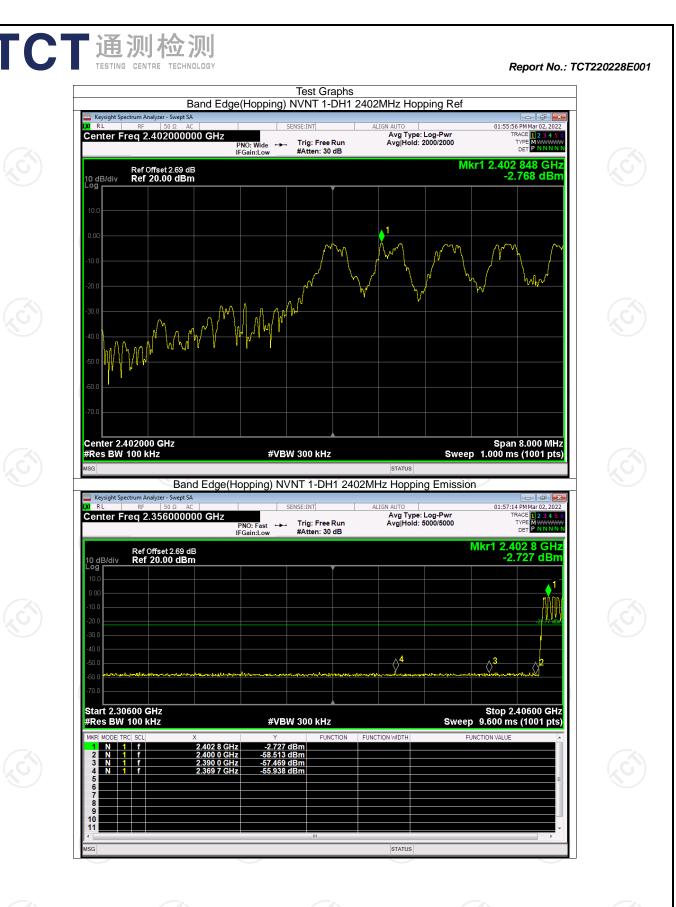
Report No.: TCT220228E001

. . .

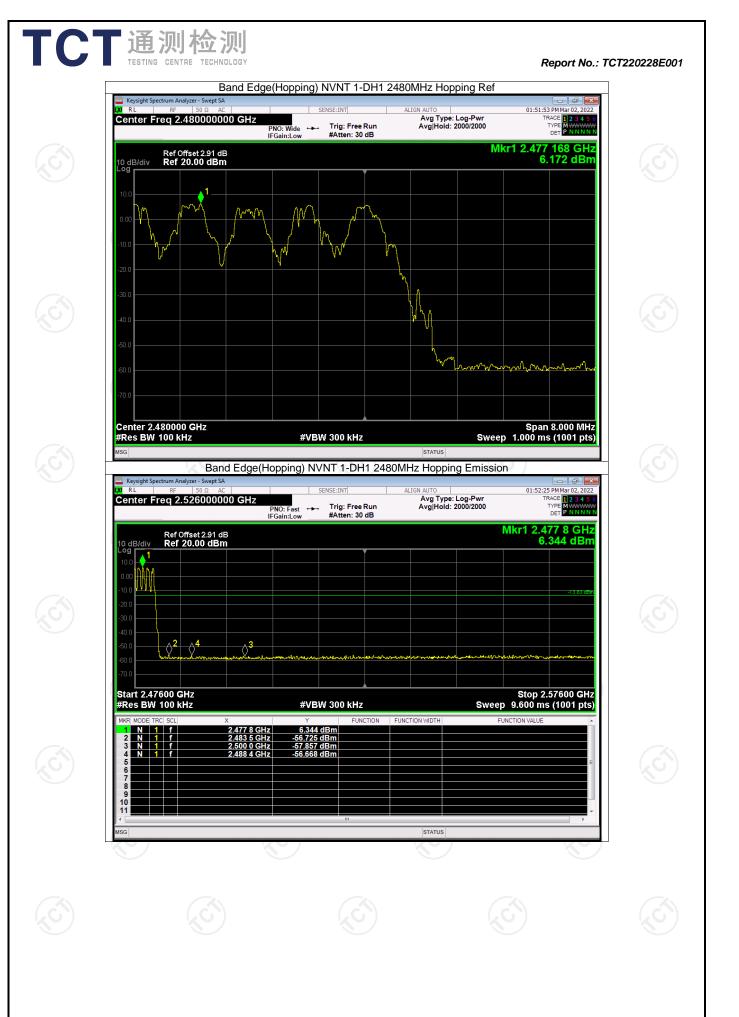
Limit





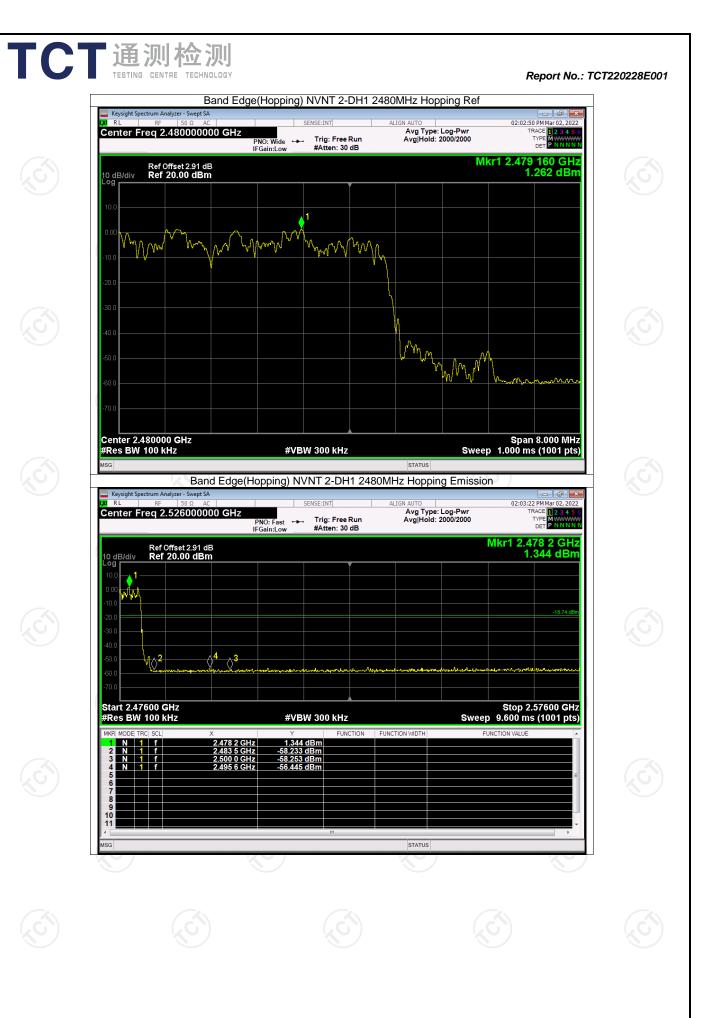




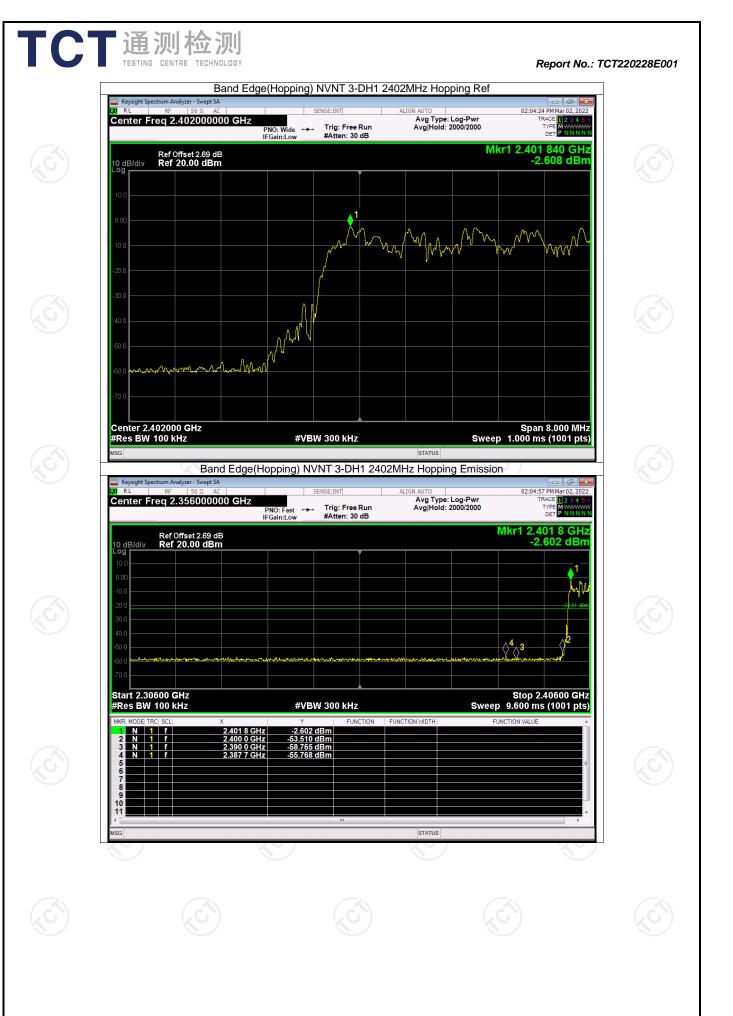


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| СТ | 通测检测 TESTING CENTRE TECHNOLOGY | | Rep | oort No.: TCT220228E001 |
|----|---|---|--|-------------------------|
| | Band Ec Keysight Spectrum Analyzer - Swept SA M RL RF 50 Ω AC | dge(Hopping) NVNT 2-DH1 2402N | | - 健 💌 |
| | Center Freq 2.402000000 GHz | PNO: Wide ++ Trig: Free Run IFGain:Low #Atten: 30 dB | Avg Type: Log-Pwr TRAC Avg Hold: 2000/2000 TYP DE | |
| | Ref Offset 2.69 dB 10 dB/div Ref 20.00 dBm 10.0 0.00 | | Mkr1 2.403 1 -3.10 | 84 GHz 07 dBm |
| Ĩ. | -10.0 | - MW MW | and way and a second | M A |
|) | -40.0 -50.0 -60.0 ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | MMM | | |
| | Center 2.402000 GHz #Res BW 100 kHz MsG Band Edge Keysight Spectrum Analyzer - Swept SA (W RL RF 50 Q AC Center Freq 2.356000000 GHz | PNO: Fast 🛶 Trig: Free Run | Sweep 1.000 ms (* status z Hopping Emission | 000 MHz 1001 pts) |
| | Ref Offset 2.69 dB 10 dB/div Ref 20.00 dBm 10 0 10 | IFGain:Low #Atten: 30 dB | Mkr1 2.403 | |
|) | -20.0 -30.0 -40.0 -50.0 -70.0 -70.0 | | 4 | |
| | Start 2.30600 GHz #Res BW 100 kHz | #VBW 300 kHz | Stop 2.40 Sweep 9.600 ms (* N WIDTH FUNCTION VALUE | |
| 3 | IMER MODE TEC X 1 1 f 2.403 0 2 N 1 f 2.400 0 3 N 1 f 2.390 0 4 N 1 f 2.376 2 5 7 7 7 8 9 9 10 | GHz -2.669 dBm GHz -58.152 dBm GHz -58.369 dBm | N WIDTH FORCTION VALUE | |
| | MSG | , | STATUS | |
| | | | | |



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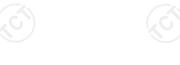


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Conducted RF Spurious Emission

| Condition | Mode | Frequency (MHz) | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|-------|-----------------|-----------------|-------------|---------|
| NVNT | 1-DH1 | 2402 | -41.47 | -20 | Pass |
| NVNT | 1-DH1 | 2441 | -42.67 | -20 | Pass |
| NVNT | 1-DH1 | 2480 | -42.01 | -20 | Pass |
| NVNT | 2-DH1 | 2402 | -42.16 | -20 | Pass |
| NVNT | 2-DH1 | 2441 | -41.96 | -20 | Pass |
| NVNT | 2-DH1 | 2480 | -41.74 | -20 | Pass |
| NVNT 🚫 | 3-DH1 | 2402 | -42.50 | -20 | Pass |
| NVNT | 3-DH1 | 2441 | -42.58 | -20 | Pass |
| NVNT | 3-DH1 | 2480 | -41.27 | -20 | Pass |
| | (| | | | |











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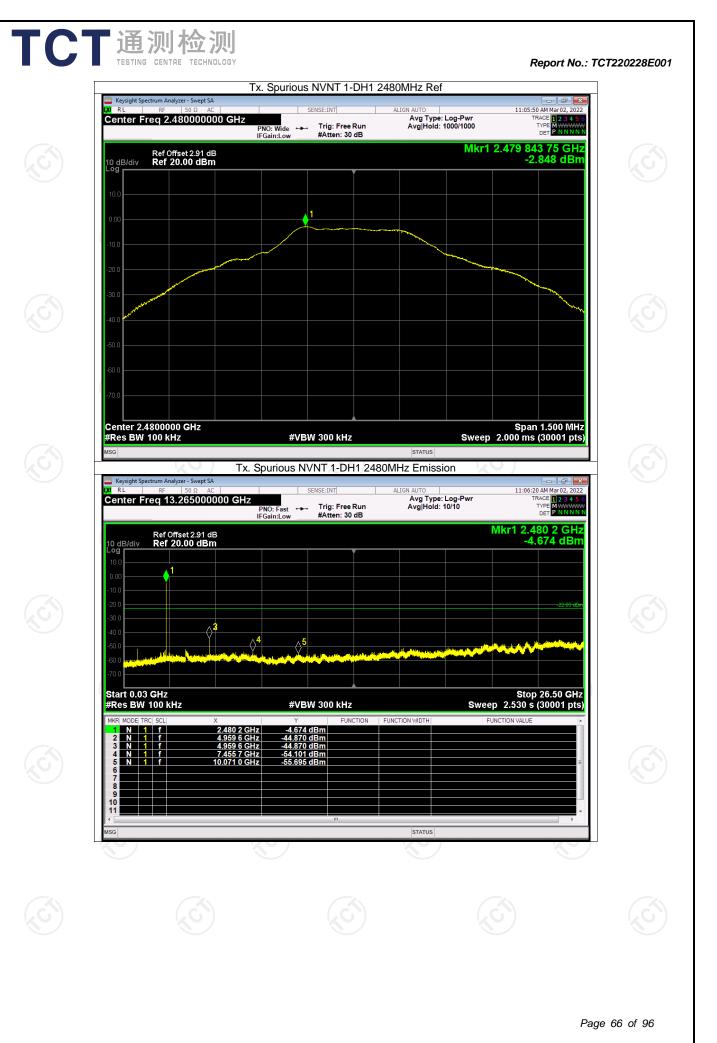
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| Keysight | Spectrum Analyzer - Swept SA RF 50 Ω AC | Tx. Spurious NVNT 1-DH1 | 1 2441MHz Ref | 11:02:23 AM Mar 02, 2022 |
|-------------------|--|---|--|---|
| | Freq 2.441000000 GHz | Z PNO: Wide ← Trig: Free Run IFGain:Low #Atten: 30 dB | Avg Type: Log-Pwr Avg Hold: 1000/1000 | TRACE 123456 TYPE MWWWW DET P NNNNN |
| 10 dB/div | Ref Offset 2.82 dB Ref 20.00 dBm | | Mkr1 2. | 440 845 80 GHz -2.653 dBm |
| | | | | |
| 0.00 | | | | |
| -10.0 | | | | |
| -20.0 | | | | |
| -30.0 | | | | |
| -40.0 | | | | |
| -50.0 | | | | |
| -60.0 | | | | |
| -70.0 | | | | |
| | 2.4410000 GHz N 100 kHz | #VBW 300 kHz | Sweep 2 | Span 1.500 MHz .000 ms (30001 pts) |
| MSG | | - x. Spurious NVNT 1-DH1 2- | STATUS | |
| LX/ RL | Spectrum Analyzer - Swept SA | SENSE:INT | ALIGN AUTO | 11:02:53 AM Mar 02, 2022 |
| Center | Freq 13.265000000 GH | PNO: Fast ↔ Trig: Free Run IFGain:Low #Atten: 30 dB | Avg Type: Log-Pwr Avg Hold: 10/10 | |
| 10 dB/div Log | Ref Offset 2.82 dB Ref 20.00 dBm | | M | kr1 2.441 4 GHz -3.361 dBm |
| 10.0 0.00 | | | | |
| -10.0 | | | | -22.65 dBm |
| -30.0 | 3 | | | <u>2</u> |
| -50.0 -60.0 recei | | | | المريبية ومحروبا المعاط المعتس وروحيان |
| -70.0 | 03 CH7 | | | Stop 26.50 GHz |
| | W 100 kHz | #VBW 300 kHz | | 2.530 s (30001 pts) |
| 1 N 2 N 3 N | 1 f 2.441 4 1 f 25.164 1 1 f 4.882 0 | 4 GHz -3.361 dBm GHz -45.321 dBm | | |
| 4 N 5 N 6 7 | 1 f 7.503 4 1 f 9.953 6 | I GHz -55.798 dBm 6 GHz -56.504 dBm | | |
| 8 9 10 | | | | |
| MSG | | m | STATUS | |
| | | | | |
| | | | | |
| | | | | |

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| LXI RL | rum Analyzer - Swept SA RF 50 Ω AC | SI | NVNT 2-DH1 2 | ALIGN AUTO | 11:10:59 AM Mar 02, 20 | 22 |
|---|---|---|--|--|---|-----------------|
| Center Fre | q 2.402000000 GH: | Z PNO: Wide IFGain:Low | Trig: Free Run #Atten: 30 dB | Avg Type: Log-Pwr Avg Hold: 1000/1000 | DET P NNN | |
| 10 dB(div | Ref Offset 2.69 dB Ref 20.00 dBm | | | MI | kr1 2.401 841 95 GF -2.758 dB | m |
| | | | Ĭ | | | |
| 0.00 | | 1 | | | | |
| -10.0 | | | | v-m- | | |
| -20.0 | | | | | | |
| -30.0 | | | | | | |
| -40.0 | | | | | | |
| -50.0 | | | | | | |
| -60.0 | | | | | | |
| -70.0 | | | | | | |
| Center 2.40 | 20000 GHz | | | | Span 1.500 MI | łz |
| <mark>#Res BW 1</mark> | 00 kHz | #VBV | / 300 kHz | SW | eep 2.000 ms (30001 pt | s) |
| Keysight Spectr | rum Analyzer - Swept SA | x. Spurious NV | NT 2-DH1 240 | 2MHz Emission | | × |
| | RF 50 Ω AC cq 13.265000000 GH | HZ PNO: Fast ↔→ | Trig: Free Run | ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 10/10 | 11:11:28 AM Mar02, 20 TRACE 1 2 3 4 TYPE MWWW DET PNNN | 22 5 6 WW |
| | | IFGain:Low | #Atten: 30 dB | | UC1 C | |
| | Ref Offset 2.69 dB | | | | Mkr1 2.401 7 GF | |
| 10 dB/div Log 10.0 | Ref Offset 2.69 dB Ref 20.00 dBm | | | | Mkr1 2.401 7 GH -3.602 dB | |
| | Ref Offset 2.69 dB Ref 20.00 dBm | | | | Mkr1 2.401 7 GH -3.602 dB | |
| Log 10.0 0.00 | | | | | -3.602 dBi | |
| 10.0 0.00 -10.0 | ↓ | ∧ 4 ∧5 | | | -3.602 dBi | |
| Log 10.0 -10.0 -20.0 -30.0 -40.0 -50.0 -60.0 | ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ | ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ | | | -3.602 dBi | |
| Log 10.0 -10.0 -20.0 -30.0 -40.0 -50.0 -60.0 -70.0 Start 0.03 C | | | | | -3.602 dBi | |
| Log 10.0 -10.0 -20.0 -30.0 -30.0 -40.0 -50 | A Constraint of the second sec | #VBM | | | -3.602 dBi | |
| Log 10.0 -10.0 -20.0 -30.0 -30.0 -40.0 -50 | ↓ 1 ↓ 1 ↓ 3 ↓ 4 ↓ 4 ↓ 4 ↓ 4 ↓ 4 ↓ 4 ↓ 4 ↓ 4 | #VBW GHz -3.602 d GHz -44.924 d GHz -47.335 d | FUNCTION Bm Bm Bm | S | -3.602 dB | |
| Log 10.0 -10.0 -20.0 -30.0 -40.0 -50.0 -60.0 -60.0 -70.0 Start 0.03 C #Res BW 1 MKR MODE TRC 1 N 1 - N 1 - N 1 | A 1 A 1 A 3 A 3 A 3 A 4 A 4 A 4 A 4 A 4 A 4 A 4 A 4 | #VBW GHz -3.602 d GHz -44.924 d GHz -47.335 d GHz -55.717 d | FUNCTION Bm Bm Bm Bm | S | -3.602 dB | |
| Log 10.0 -10.0 -20.0 -30.0 -30.0 -40.0 -50.0 | 1 3 3 3 3 3 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1 | #VBW GHz -3.602 d GHz -44.924 d GHz -47.335 d GHz -55.717 d | FUNCTION Bm Bm Bm Bm | S | -3.602 dB | |
| Log 10.0 0.00 -10.0 -20.0 -20.0 -30.0 -40.0 -50.0 | 1 3 3 3 3 3 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1 | #VBW GHz -3.602 d GHz -44.924 d GHz -47.335 d GHz -55.717 d | FUNCTION Bm Bm Bm Bm | FUNCTION WIDTH | -3.602 dB | |
| Log 10.0 -10.0 -20.0 -30.0 -30.0 -40.0 -50.0 | 1 3 3 3 3 3 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1 | #VBW GHz -3.602 d GHz -44.924 d GHz -47.335 d GHz -55.717 d | FUNCTION Bm Bm Bm Bm Bm Bm | S | -3.602 dB | |
| Log 10.0 0.00 -10.0 -20.0 -20.0 -30.0 -40.0 -50.0 | 1 3 3 3 3 3 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1 | #VBW GHz -3.602 d GHz -44.924 d GHz -47.335 d GHz -55.717 d | FUNCTION Bm Bm Bm Bm Bm Bm | FUNCTION WIDTH | -3.602 dB | |
| Log 10.0 0.00 -10.0 -20.0 -20.0 -30.0 -40.0 -50.0 | 1 3 3 3 3 3 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1 | #VBW GHz -3.602 d GHz -44.924 d GHz -47.335 d GHz -55.717 d | FUNCTION Bm Bm Bm Bm Bm Bm | FUNCTION WIDTH | -3.602 dB | |

| Keysight Spectrum Analyzer - Swept SA | Tx. Spurious NVNT 2-DH1 | | - 6 × |
|--|---|--|---|
| KL RF 50 Ω AC Center Freq 2.441000000 (| GHZ PNO: Wide IFGain:Low #Atten: 30 dB | ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 2000/2000 | 11:16:09 AM Mar 02, 2022 TRACE 1 2 3 4 5 6 TYPE M WWWW DET P N N N N N |
| Ref Offset 2.82 dB 10 dB/div Ref 20.00 dBm | | Mkr1 2.4 | 40 844 80 GHz -2.652 dBm |
| Log | | | |
| 0.00 | 1 | | |
| -10.0 | | | |
| -20.0 | | | |
| -30.0 | | | |
| -40.0 | | | |
| -50.0 | | | |
| -70.0 | | | |
| Center 2.4410000 GHz | | | Span 1.500 MHz |
| #Res BW 100 kHz | #VBW 300 kHz | Sweep 2.0 STATUS | 00 ms (30001 pts) |
| Keysight Spectrum Analyzer - Swept SA | Tx. Spurious NVNT 2-DH1 24 | 41MHz Emission | |
| 021 RL RF 50Ω AC Center Freq 13.265000000 | PNO: Fast ++++ Trig: Free Run | ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 10/10 | 11:16:38 AM Mar02, 2022 TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P N N N N N |
| Ref Offset 2.82 dB | IFGain:Low #Atten: 30 dB | Mk | 1 2.440 5 GHz -5.579 dBm |
| 10 dB/div Ref 20.00 dBm Log | | | |
| 0.00 1 | | | |
| | | | |
| -20.0 | | | -22.65 dBm |
| -30.0 -40.0 -50.0 | | | -22 65 dBm |
| -30.0 -40.0 | | | and the second statements of |
| -30.0 -40.0 -50.0 -60.0 | | | and the second statements of |
| -30.0 -30.0 -50.0 -60.0 -70.0 Start 0.03 GHz #Res BW 100 kHz MKR MODE TRC SCL X 1 N 1 f 24.7 2 W 1 f 24.7 | #VBW 300 kHz 40 5 GHz -5.579 dBm 30 9 GHz -44.618 dBm | Sweep 2 | Stop 26.50 GHz |
| -30.0 -40.0 -50.0 -60.0 -77.0 Start 0.03 GHz #Res BW 100 kHz MKR MODE TRC SCL X 1 N 1 f 24.7 3 N 1 f 24.7 3 N 1 f 7.3 5 N 1 f 7.3 | #VBW 300 kHz 40 5 GHz -5.579 dBm | Sweep 2 | Stop 26.50 GHz .530 s (30001 pts) |
| -30.0 -40.0 -50.0 -70.0 Start 0.03 GHz #Res BW 100 kHz MKR MODE TRC SCL × 1. N 1 f 24.7 3. N 1 f 24.7 3. N 1 f 24.7 3. N 1 f 7.3 | #VBW 300 kHz 40 5 GHz -5.579 dBm 30 9 GHz -44.618 dBm 82 0 GHz -50.285 dBm 07 5 GHz -55.479 dBm | Sweep 2 | Stop 26.50 GHz .530 s (30001 pts) |
| -30.0 -40.0 -60.0 -60.0 -70.0 Start 0.03 GHz #Res BW 100 kHz MKR MODE TRC SCL X 1 N 1 f 244 2 N 1 f 247 3 N 1 f 4.8 4 N 1 f 7.3 5 N 1 f 9.5 6 7 7 8 | #VBW 300 kHz 40 5 GHz -5.579 dBm 30 9 GHz -44.618 dBm 82 0 GHz -50.285 dBm 07 5 GHz -55.479 dBm | Sweep 2 | Stop 26.50 GHz .530 s (30001 pts) |
| -30.0 -30.0 -50.0 -60.0 -77.0 Start 0.03 GHz #Res BW 100 kHz MKR MODE TRC SCL X 1 N 1 f 24.7 3 N 1 f 4.8 4 N 1 f 7.3 5 N 1 f 9.5 6 7 8 9 9 10 | Y FUNCTION 40 5 GHz -5.579 dBm 30 9 GHz -44.618 dBm 20 0 GHz -50.285 dBm 71 5 GHz -56.080 dBm | Sweep 2 | Stop 26.50 GHz .530 s (30001 pts) |
| -30 0 -40 0 -50 0 -70 0 Start 0.03 GHz #Res BW 100 kHz MKR MODE TRC SCL × 1 f 24.7 3 N 1 f 24.7 3 N 1 f 24.7 3 N 1 f 9.5 6 9 9 9 10 11 | Y FUNCTION 40 5 GHz -5.579 dBm 30 9 GHz -44.618 dBm 20 0 GHz -50.285 dBm 71 5 GHz -56.080 dBm | Sweep 2 | Stop 26.50 GHz .530 s (30001 pts) |
| -30 0 -40 0 -50 0 -70 0 Start 0.03 GHz #Res BW 100 kHz MKR MODE TRC SCL × 1 f 24.7 3 N 1 f 24.7 3 N 1 f 24.7 3 N 1 f 9.5 6 9 9 9 10 11 | Y FUNCTION 40 5 GHz -5.579 dBm 30 9 GHz -44.618 dBm 20 0 GHz -50.285 dBm 71 5 GHz -56.080 dBm | Sweep 2 | Stop 26.50 GHz .530 s (30001 pts) |

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| | Tx. Spurious NVNT 2-DH1 | 2480MHz Ref | |
|---|--|--|--|
| RL RF 50 Ω AC Center Freq 2.480000000 GH | PNO: Wide ++- Trig: Free Run | ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 1000/1000 | 11:20:48 AM Mar02, 2022 TRACE 1 2 3 4 5 6 TYPE M WWWW DET P N N N N N |
| Ref Offset 2.91 dB | IFGain:Low #Atten: 30 dB | Mkr1 2.4 | 79 847 50 GHz -2.808 dBm |
| 10 dB/div Ref 20.00 dBm | | | 2.000 0.011 |
| 10.0 | 1 | | |
| .10.0 | | | |
| -20.0 | | | |
| -30.0 | | | |
| -40.0 | | | |
| -50.0 | | | |
| -60.0 | | | |
| -70.0 | | | |
| Center 2.4800000 GHz #Res BW 100 kHz | #VBW 300 kHz | Sweep 2.0 | Span 1.500 MHz 00 ms (30001 pts) |
| MSG | x. Spurious NVNT 2-DH1 24 | 80MHz Emission |) |
| Keysight Spectrum Analyzer - Swept SA μ RF 50 Ω AC Center Freq 13.265000000 G | SENSE:INT | ALIGN AUTO | 11:21:17 AM Mar 02, 2022 TRACE 12, 3, 4, 5, 6 |
| | PNO: Fast +++ Trig: Free Run IFGain:Low #Atten: 30 dB | Avg Hold: 10/10 | TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P NNNNN r1 2.480 2 GHz |
| Ref Offset 2.91 dB 10 dB/div Ref 20.00 dBm | | | -3.253 dBm |
| | | | |
| -10.0 | | | -22:01-dDm |
| -40.0 | ۸ 4 ۸5 | | <mark>2</mark> |
| -50.0 | | | |
| Start 0.03 GHz | | | Stop 26.50 GHz |
| #Res BW 100 kHz MKR MODE TRC SCL X 1 N 1 f 2.480 2 | #VBW 300 kHz Y FUNCTION 2 GHz -3.253 dBm | | .530 s (30001 pts) |
| 2 N 1 f 25.119 1 3 N 1 f 4.959 6 4 N 1 f 7.487 5 | GHz -44.557 dBm GHz -44.667 dBm GHz -55.824 dBm | | |
| 5 N 1 f 10.063 0 6 7 8 |) GHz -55.885 dBm | | |
| 9 10 11 | | | |
| MSG | | STATUS | Þ |
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| Keysight Spectrum Analyzer - Swept SA | Tx. Spurious NVNT 3-DH1 | | |
|---|--|--|---|
| KI RF 50 Ω AC Center Freq 2.402000000 GHz | PNO: Wide ++++ Trig: Free Run | ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 2000/2000 | 11:27:29 AM Mar 02, 2022 TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P NINNN |
| Ref Offset 2.69 dB 10 dB/div Ref 20.00 dBm | IFGain:Low #Atten: 30 dB | Mkr1 2.4 | 102 159 45 GHz -2.657 dBm |
| | | | |
| | | 1 | |
| -10.0 | | | |
| -20.0 | | | |
| -30.0 | | | |
| -40.0 | | | |
| -50.0 | | | |
| -60.0 | | | |
| -70.0 | | | |
| Center 2.4020000 GHz #Res BW 100 kHz | #VBW 300 kHz | Sweep 2.0 | Span 1.500 MHz 000 ms (30001 pts) |
| MSG T | x. Spurious NVNT 3-DH1 24 | status 102MHz Emission | |
| Keysight Spectrum Analyzer - Swept SA | SENSE:INT | ALIGN AUTO Avg Type: Log-Pwr | 11:27:59 AM Mar02, 2022 TRACE 1 2 3 4 5 6 |
| Center Freq 13.265000000 GH | PNO: Fast ++- Trig: Free Run IFGain:Low #Atten: 30 dB | Avg Hold: 10/10 | DET PNNNN |
| Ref Offset 2.69 dB 10 dB/div Ref 20.00 dBm | | MK | r1 2.401 7 GHz -3.851 dBm |
| 0.00 10.0 | | | |
| -10.0 -20.0 | | | -22.66-dBm |
| -30.0 -40.0 | 4 | | <u>2</u> |
| -50.0 | | | |
| -70.0 Start 0.03 GHz | | | Stop 26.50 GHz |
| #Res BW 100 kHz | #VBW 300 kHz | | 2.530 s (30001 pts) |
| 1 N 1 f 2.4017 2 N 1 f 24.7777 3 N 1 f 24.8043 4 N 1 f 7.0578 | GHz -45.168 dBm GHz -50.151 dBm | | |
| 5 N 1 f 9.454 2 6 7 | GHz -55.950 dBm | | |
| 8 9 10 11 | | | |
| MSG | | STATUS | 4 |
| | | | |
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| TES | | | | | Report No.: 1 | TCT220228E |
|---|-------------------------------|---|---|--|--|------------|
| | ght Spectrum Analyzer - Sv | wept SA | Spurious NVNT 3-DH1 | | | _ |
| | er Freq 2.4410 | PNC | SENSE:INT | ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 1000/1000 | 11:33:01 AM Mar 02, 2022 TRACE 1 2 3 4 5 6 TYPE MWWWWW DET PNNNN | |
| | Ref Offset 2. | .82 dB | ain:Low #Atten: 30 dB | Mkr1 | 2.440 843 90 GHz -2.564 dBm | |
| | div Ref 20.00 | dBm | | | -2.964 dBm | No. |
| 10.0 - | | | | | | |
| 0.00 | | | 1 | | | |
| -10.0 | and the second | | | and the second s | And the second s | |
| -20.0 - | | | | | | |
| -30.0 7 | New Ar | | | | | |
| -40.0 — | | | | | | |
| -50.0 | | | | | | |
| -60.0 - | | | | | | |
| -70.0 | | | | | | |
| | | | | | | |
| Cente #Res | er 2.4410000 GH BW 100 kHz | Z | #VBW 300 kHz | Sweep | Span 1.500 MHz 2.000 ms (30001 pts) | |
| MSG | | | urious NVNT 3-DH1 24 | | | |
| Cent | er Freq 13.265 | PN | 0: Fast ↔→ Trig: Free Run ain:Low #Atten: 30 dB | Avg Type: Log-Pwr Avg Hold: 10/10 | TRACE 123456 TYPE MWWWWW DET PNNNNN | |
| 10 dB | Ref Offset 2 div Ref 20.00 | .82 dB dBm | | | Mkr1 2.441 4 GHz -5.299 dBm | |
| Log - 10.0 - | div Ref 20.00 | .82 dB dBm | | | Mkr1 2.441 4 GHz | |
| | Ref Offset 2 div Ref 20.00 | .82 dB dBm | | | Mkr1 2.441 4 GHz | |
| Log - 10.0 - 0.00 - | div Ref 20.00 | .82 dB dBm | | | Mkr1 2.441 4 GHz -5.299 dBm -22.66 dBm | (c |
| Log - 10.0 - -10.0 - -20.0 = -30.0 - -40.0 - | div Ref 20.00 | dBm | | | Mkr1 2.441 4 GHz | |
| Log 1000 - -1000 - -2000 - -3000 - -4000 - -5000 - -6000 - | div Ref 20.00 | 82 dB dBm | | | Mkr1 2.441 4 GHz -5.299 dBm -22.66 dBm | (Co |
| Log 100 - -100 - -200 - -300 - -400 - -500 - -600 - -700 - | div Ref 20.00 | dBm | | | Mkr1 2.441 4 GHz -5.299 dBm -22.56 dBm -22.56 dBm | (Co |
| Log 1000 -1000 -2000 -2000 -3000 -4000 -500 | div Ref 20.00 | dBm | 5 400 kHz | Swee | Mkr1 2.441 4 GHz -5.299 dBm -22 56 dBm -22 56 dBm -22 Stop 26.50 GHz p 2.530 s (30001 pts) | |
| Log 100 - 000 - -100 - -200 - -300 - -400 - -500 - | div Ref 20.00 | dBm | #VBW 300 kHz <u>FUNCTION</u> -5.299 dBm -45.143 dBm | Swee | Mkr1 2.441 4 GHz -5.299 dBm -2.66 dBm -2.66 dBm -2.66 dBm Stop 26.50 GHz | |
| Log 1000 -100 -200 -200 -300 -400 -400 -500 - | div Ref 20.00 | dBm → 3 → 4 ↓ 4 ↓ 4 ↓ 4 ↓ 4 ↓ 4 ↓ 4 ↓ 4 ↓ | | Swee | Mkr1 2.441 4 GHz -5.299 dBm -22 56 dBm -22 56 dBm -22 Stop 26.50 GHz p 2.530 s (30001 pts) | |
| Log 1000 -1000 -2000 -3000 -4000 -6000 -6000 -6000 -7000 Start #Res MKR M 2 1 2 3 3 4 5 6 7 8 8 | div Ref 20.00 | dBm → 3 → 4 → 4 → 4 → 4 → 4 → 4 → 4 → 4 | 5 4 | Swee | Mkr1 2.441 4 GHz -5.299 dBm -22 56 dBm -22 56 dBm -22 Stop 26.50 GHz p 2.530 s (30001 pts) | |
| Log 1000 0000 -1000 -2000 -3000 -4000 -4000 -6000 -6000 -7000 Start #Res MKR M 1 2 3 4 5 6 6 7 8 9 10 11 | div Ref 20.00 | dBm → 3 → 4 → 4 → 4 → 4 → 4 → 4 → 4 → 4 | ↓5 #VBW 300 kHz -5.299 dBm -47.290 dBm -55.389 dBm -56.708 dBm -56.708 dBm | Swee | Mkr1 2.441 4 GHz -5.299 dBm -22 56 dBm -22 56 dBm -22 Stop 26.50 GHz p 2.530 s (30001 pts) | |
| Log 1000 0000 -1000 -2000 -3000 -4000 -4000 -4000 -500 -5000 | div Ref 20.00 | dBm → 3 → 4 → 4 → 4 → 4 → 4 → 4 → 4 → 4 | 5 4 | Swee | Mkr1 2.441 4 GHz -5.299 dBm -22 56 dBm -22 56 dBm -22 Stop 26.50 GHz p 2.530 s (30001 pts) | |
| Log 1000 0000 -2000 -2000 -3000 -4000 -4000 -6000 -6000 -7000 Start #Res MKR MKR MKR 4 5 6 6 7 8 9 10 -1000 -2 | div Ref 20.00 | dBm → 3 → 4 → 4 → 4 → 4 → 4 → 4 → 4 → 4 | ↓5 #VBW 300 kHz -5.299 dBm -47.290 dBm -55.389 dBm -56.708 dBm -56.708 dBm | | Mkr1 2.441 4 GHz -5.299 dBm -22 56 dBm -22 56 dBm -22 Stop 26.50 GHz p 2.530 s (30001 pts) | |
| Log 1000 0000 -2000 -2000 -3000 -4000 -4000 -6000 -6000 -7000 Start #Res MKR MKR MKR 4 5 6 6 7 8 9 10 -1000 -2 | div Ref 20.00 | dBm → 3 → 4 → 4 → 4 → 4 → 4 → 4 → 4 → 4 | ↓5 #VBW 300 kHz -5.299 dBm -47.290 dBm -55.389 dBm -56.708 dBm -56.708 dBm | | Mkr1 2.441 4 GHz -5.299 dBm -22 56 dBm -22 56 dBm -22 Stop 26.50 GHz p 2.530 s (30001 pts) | |

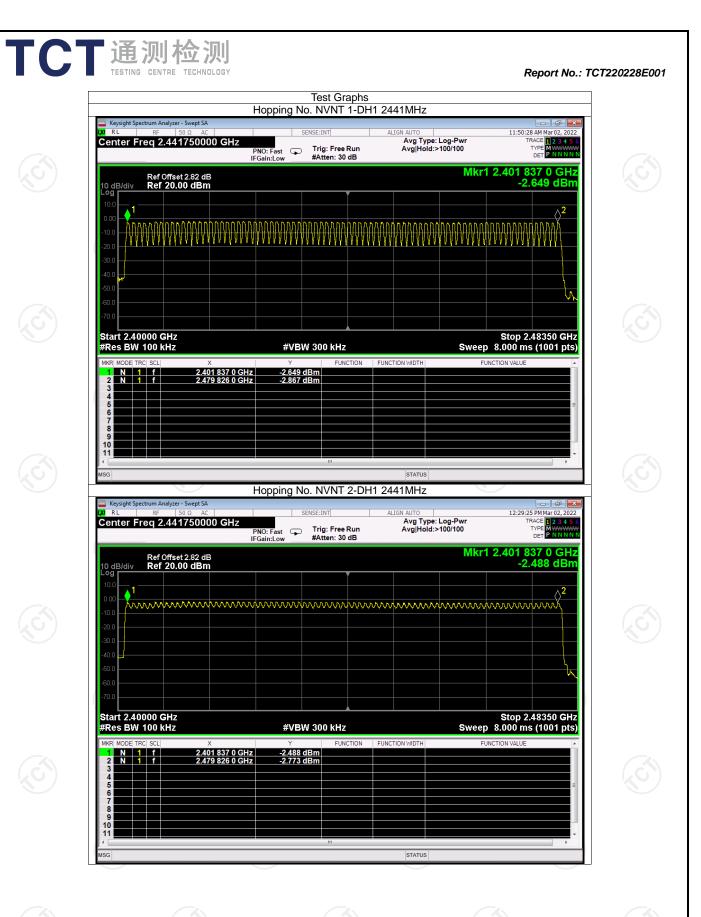
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| | Tx. Spurious NVNT 3-DH1 | 2480MHz Ref | |
|--|--|---|---|
| Will RF 50.0 AC Center Freq 2.480000000 GHz | PNO: Wide Trig: Free Run IFGain:Low #Atten: 30 dB | ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 1000/1000 | 11:38:28 AM Mar02, 2022 TRACE 1 2 3 4 5 6 TYPE MWWWW DET P N N N N N |
| Ref Offset 2.91 dB 10 dB/div Ref 20.00 dBm | | Mkr1 : | 2.479 844 50 GHz -2.730 dBm |
| Log | | | |
| 0.00 | 1 | | |
| -10.0 | | | |
| -20.0 | | | |
| -30.0 | | | |
| -40.0 | | | |
| -50.0 | | | |
| -70.0 | | | |
| | | | |
| Center 2.4800000 GHz #Res BW 100 kHz ^{MSG} | #VBW 300 kHz | Sweep | Span 1.500 MHz 2.000 ms (30001 pts) |
| Tx. | Spurious NVNT 3-DH1 24 | | |
| Keysight Spectrum Analyzer - Swept SA VX RL RF 50 Q AC Center Freq 13.265000000 GHz | SENSE:INT PNO: Fast +++ Trig: Free Run | ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 10/10 | 11:38:58 AM Mar02, 2022 TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P. N N N N N |
| Ref Offset 2.91 dB | IFGain:Low #Atten: 30 dB | | /kr1 2.480 2 GHz |
| 10 dB/div Ref 20.00 dBm | | | -6.876 dBm |
| 0.00 | | | |
| -20.0 | | | -22.73 dBm |
| -40.0 | | and the state of the | ورجادها المالية الرياس ويعاديهما |
| -70.0 | | | |
| Start 0.03 GHz #Res BW 100 kHz | #VBW 300 kHz | Sweep | Stop 26.50 GHz 2.530 s (30001 pts) |
| MKR MODE TRC SCL X 1 N 1 f 2.480 2 G 2 2 N 1 f 4.959 6 G 3 3 N 1 f 4.959 6 G | Hz -6.876 dBm | FUNCTION WIDTH FU | ICTION VALUE |
| 3 N 1 f 4.959 6 G 4 N 1 f 7.502 5 G 5 N 1 f 10.102 7 G 6 | Hz -55.841 dBm Hz -54.793 dBm | | E |
| 7 8 9 9 10 | | | |
| | m | STATUS | |
| MSC | x~7 | | |
| MSG | | | |
| MSG | | | |

| (| Condition | Mode |) | f Hoppin Hopping N | lumber | Limit | Verd | lict |
|---|----------------------|-------------------------|---|-----------------------|--------|----------------|-------------------|----------|
| Ð | NVNT NVNT NVNT | 1-DH1 2-DH1 3-DH1 | | 79 79 79 79 | | 15 15 15 | Pas Pas Pas | SS SS |
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Report No.: TCT220228E001

TCT通测检测 TESTING CENTRE TECHNOLOGY





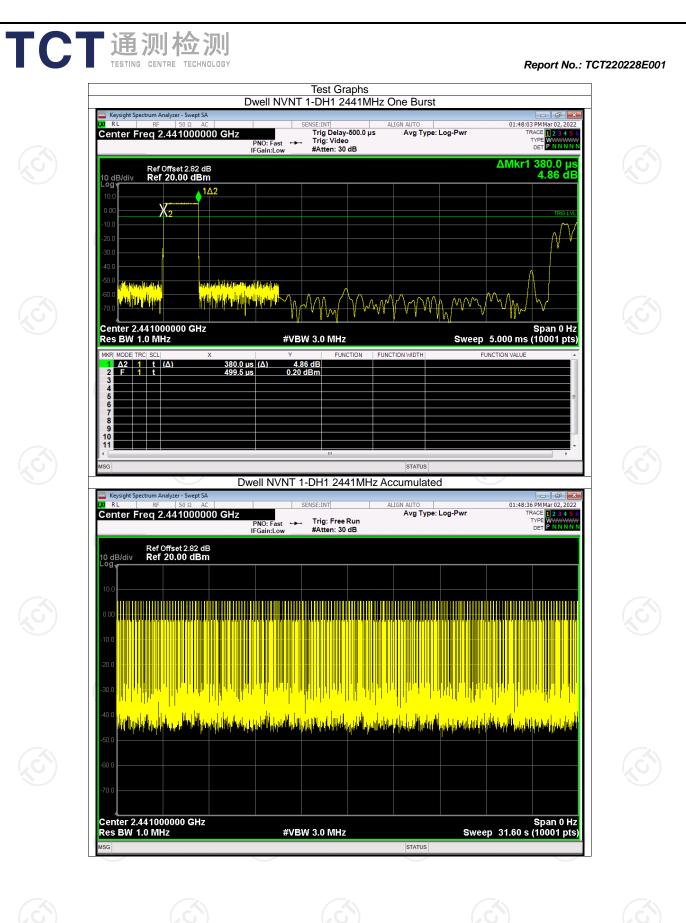
| LXI RL | um Analyzer - Swept SA RF 50 Ω AC | S | O. NVNT 3-DH1 | ALIGN AUTO | 01:34:44 | PM Mar 02, 2022 | |
|--|--------------------------------------|-------------------------------|---------------------------------|---------------------------------------|--|--|--|
| | q 2.441750000 G | HZ PNO: Fast IFGain:Low | Trig: Free Run #Atten: 30 dB | Avg Type: Log-Pw Avg Hold:>100/100 | | ACE 1 2 3 4 5 6 TYPE MWWWW DET PNNNN | |
| 10 dB/div | Ref Offset 2.82 dB Ref 20.00 dBm | | | | Mkr1 2.401 5 -6. | 511 dBm | |
| 0.00 - 1 -10.020.0 | vvvvvvvvvv | ᡰᡣ᠋᠐ᡁᡊᡧ᠋ᢉᢦ᠋ᢦᡳᠧᠧᡁᠢᢧ | VVVVVVVVVVV | vvvvvvvvv | M. M | vvvv | |
| -30.0 -40.0 -40.0 -50.0 | | | | | | | |
| -60.0 | | | | | | | |
| Start 2.4000 #Res BW 10 MKR MODE TRC | DO KHZ | Y | | S | Stop 2. weep 8.000 ms | 48350 GHz (1001 pts) | |
| 2 N 1 3 4 5 5 | | 0 GHz -5.423 0 | dBm | | | = | |
| 6 7 8 9 10 | | | | | | | |
| MSG | | | | STATUS | | • • | |
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| | Dwell Time | | | | | | | | | | |
|-----------|------------|--------------------|-----------------------|--------------------------------|----------------|------------------------|---------------|---------|--|--|--|
| Condition | Mode | Frequency (MHz) | Pulse Time (ms) | Total Dwell Time (ms) | Burst Count | Period Time (ms) | Limit (ms) | Verdict | | | |
| NVNT | 1-DH1 | 2441 | 0.38 | 120.84 | 318 | 31600 | 400 | Pass | | | |
| NVNT | 1-DH3 | 2441 | 1.66 | 297.14 | 179 | 31600 | 400 | Pass | | | |
| NVNT | 1-DH5 | 2441 | 2.91 | 317.19 | 109 | 31600 | 400 | Pass | | | |
| NVNT | 2-DH1 | 2441 | 0.40 | 128.00 | 320 | 31600 | 400 | Pass | | | |
| NVNT | 2-DH3 | 2441 | 1.65 | 272.25 | 165 | 31600 | 400 | Pass | | | |
| NVNT | 2-DH5 | 2441 | 2.90 | 316.10 | 109 | 31600 | 400 | Pass | | | |
| NVNT | 3-DH1 | 2441 | 0.40 | 127.60 | 319 | 31600 | 400 | Pass | | | |
| NVNT | 3-DH3 | 2441 | 1.65 | 275.55 | 167 | 31600 | 400 | Pass | | | |
| NVNT | 3-DH5 | 2441 | 2.90 | 321.90 | 111 | 31600 | 400 | Pass | | | |

Report No.: TCT220228E001



Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com



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| ТСТ | 通测检测 TESTING CENTRE TECHNOLOGY | | | No.: TCT220228E001 |
|----------------------------|--|---|--|----------------------------------|
| L X I | Keysight Spectrum Analyzer - Swept SA RL RF S0 Q AC Inter Freq 2.441000000 GHz | SENSE:INT ALIGN AUT Trig Delay-500.0 µs Avg Trig: Video in:Low #Atten: 30 dB | ro 02:10:54 PM Mar 02 g Type: Log-Pwr TRACE TYPE UPE WW DET P M | 2022 3 4 5 6 WWWW N N N |
| Lo | | | ΔMkr1 1.660 1.36 | |
| -10 -20 -30 -40 | 0 | | 2/1/market / 46 | |
| -500 -600 -700 | | | <mark>il il il il il internet set part de la posta de</mark> | |
| Re | | #VBW 3.0 MHz Y FUNCTION 1.36 dB 3.21 dBm | Span (Sweep 10.00 ms (10001 DTH FUNCTION VALUE | pts) |
| 4 5 6 7 8 9 | | | | п |
| | | "" STZ NVNT 1-DH3 2441MHz Accum | atus ulated | |
| LXI | IFGa | SENSE:INT ALIGN AUT D: Fast Trig: Free Run im:Low #Atten: 30 dB | TO 02:11:27 PM Mar 02 g Type: Log-Pwr TRACE 10 TYPE WW DET PN | . 2022 |
| 10 10 | | | | |
| -10 | | | | |
| -20. | | | | |
| -40 | | | | |
| -70. | | | Span | |
| | s BW 1.0 MHz | #VBW 3.0 MHz | Span Sweep 31.60 s (10001 | pts) |
| | | | | |
| | | | | |
| | | | | Page 78 of 96 |

| TC | 通测检测 TESTING CENTRE TECHNOLOGY | | Report No.: 1 | CT220228E001 |
|----|--|---|--|-------------------------------|
| | Keysight Spectrum Analyzer - Swept SA | Dwell NVNT 1-DH5 2441MHz One Bur | rst 🕞 💣 💌 |] |
| | X RL RF 50 Ω AC Center Freq 2.441000000 GH | SENSE:INT ALIGN AUTO Trig Delay-500.0 µs Avg Ty PNO: Fast →→ Trig: Video IFGain:Low #Atten: 30 dB | 02:11:53 PM Mar 02, 2022 pe: Log-Pwr TRACE 112:3:45:6 TYPE WWWWWW DET P ININININ | |
| | Ref Offset 2.82 dB 10 dB/div Ref 20.00 dBm | In Gam. Low white the could | ΔMkr1 2.910 ms -31.79 dB | (3) |
| | | | | |
| | -10.0 | 162 | TRIG LVL | |
| | -30.0 | | | |
| | -60.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | d ter for an a second secon A second secon | er bereite mer generen beforgene sternige vereitige sterne besternigen. An bereitigene sterne sterne bereitigene einigen sterne besterne generen. | |
| | -70.0 Center 2.441000000 GHz | | Span 0 Hz | $\langle \mathcal{C} \rangle$ |
| | Res BW 1.0 MHz MKR MODE TRC SCL X 1 Δ2 1 t (Δ) 2.91 | #VBW 3.0 MHz Υ FUNCTION FUNCTION WIDTH 0 ms (Δ) -31.79 dB | Sweep 10.00 ms (10001 pts) | |
| | 2 F 1 t 498 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | .0 μs 4.18 dBm | = | |
| | 6 7 8 9 | | | |
| | | | · · | |
| | MSG | STATUS Dwell NVNT 1-DH5 2441MHz Accumula | | |
| | Keysight Spectrum Analyzer - Swept SA Κμ RF 50 Ω AC Center Freq 2.441000000 GH3 | | 02:12:25 PM Mar 02, 2022 rpe: Log-Pwr TRACE 2 3 4 5 0 TYPE | |
| | Ref Offset 2.82 dB | PNO: Fast Trig: Free Run IFGain:Low #Atten: 30 dB | DET P NNNNN | |
| | 10 dB/div Ref 20.00 dBm | | | |
| | | | | |
| | 0.00 -10.0 | | | |
| | -20.0 | | | |
| | -30.0 | | | |
| | -40.0 | | | |
| | -50.0 and the building of the second se |) na na miyo na miyo na marana na na na na miyo na miyo na miyo na miyo na hisana na miyo na hisana kata kata Marana na miyo na hisana na miyo na hisana na miyo na miyo na mi | yd ryffian afwr ar dir ann yn yn yr ar yn | |
| | -60.0 | | | |
| | Center 2.441000000 GHz | | Span 0 Hz | |
| | Res BW 1.0 MHz | #VBW 3.0 MHz | Sweep 31.60 s (10001 pts) | |
| | | | | - |
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| | | | | |
| | | | Par | ge 79 of 96 |
| | | | | <u> </u> |

| | 通测检测 TESTING CENTRE TECHNOLOGY Rep Dwell NVNT 2-DH1 2441MHz One Burst | port No.: TCT220228E001 |
|------|--|---|
| | Keysight Spectrum Analyzer - Swept SA | □ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |
| | IFGain:Low #Atten: 30 dB Ref Offset 2.82 dB ΔMkr1 4 10 dB/div Ref 20.00 dBm -3 100 20 100 -3 100 20 100 -3 100 20 100 -3 | ETPNNNN |
| J.S. | Res BW 1.0 MHz #VBW 3.0 MHz Sweep 5.000 ms (1 MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE 1 Δ2 1 t (Δ) 400.0 µs (Δ) -32.09 dB 499.0 µs 0.49 dBm | Span 0 Hz 0001 pts) |
| | RL RF 50 Ω AC SENSE:INT ALIGN AUTO 02:26:04 P Center Freq 2.441000000 GHz SENSE to the sense tot the sense tot the sense tot | E E E E E E E E E E E E E E E E E E E |
| Ś | Ref Offset 2.82 dB Ref 20.00 dBm | |
| Č) | -40.0 -5 | Span 0 Hz 10001 pts) |
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