

RF Test Report

For

Applicant Name:

Shenzhen DOOGEE Hengtong Technology CO.,LTD

Address:

Address:

EUT Name:

Brand Name:

Model Number:

B, 2/F, Building A4, Silicon Valley Power Digital Industrial Park, No. 22, Longhua New District, Shenzhen, China Tablet DOOGEE R10, R10Pro, R10S, R10E Series Model Number: Refer to section 2

Issued By

Company Name:

BTF Testing Lab (Shenzhen) Co., Ltd. F101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, China

Report Number: Test Standards:

BTF230607R00202 47 CFR Part 15.247

Test Conclusion: FCC ID: Test Date: Date of Issue:

Pass 2AX4YR10 2023-04-22 to 2023-05-08 2023-06-07

Prepared By:

Date:

Approved By:

Date:

Elma. Kang ab (Shenzh elma.yang/ Project Enginee 2023-06-07 Ryan.CJ/ EMC Manager 2023-06-07

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| Revision History | | | | |
|--------------------------------------|------------|----------|--|--|
| Version Issue Date Revisions Content | | | | |
| R_V0 | 2023-06-07 | Original | | |
| | | | | |
| | | | | |

Note: Once the revision has been made, then previous versions reports are invalid.

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1 Introduction

1.1 Identification of Testing Laboratory

| Company Name: | BTF Testing Lab (Shenzhen) Co., Ltd. | |
|--|--------------------------------------|--|
| Address: F101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, China | | |
| Phone Number: | +86-0755-23146130 | |
| Fax Number: | +86-0755-23146130 | |

1.2 Identification of the Responsible Testing Location

| Company Name: | BTF Testing Lab (Shenzhen) Co., Ltd. |
|--|--------------------------------------|
| Address:F101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, China | |
| Phone Number: +86-0755-23146130 | |
| Fax Number: +86-0755-23146130 | |
| FCC Registration Number: 518915 | |
| Designation Number: CN1330 | |

1.3 Announcement

(1) The test report reference to the report template version v0.

(2) The test report is invalid if not marked with the signatures of the persons responsible for preparing, reviewing and approving the test report.

(3) The test report is invalid if there is any evidence and/or falsification.

(4) This document may not be altered or revised in any way unless done so by BTF and all revisions are duly noted in the revisions section.

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(6) The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.



2 **Product Information**

2.1 Application Information

| Company Name: | e: Shenzhen DOOGEE Hengtong Technology CO.,LTD | |
|---------------|--|--|
| Address: | B, 2/F, Building A4, Silicon Valley Power Digital Industrial Park, No. 22, Longhua New District, Shenzhen, China | |

2.2 Manufacturer Information

| Company Name: Shenzhen DOOGEE Hengtong Technology CO.,LTD | |
|---|--|
| Address: | B, 2/F, Building A4, Silicon Valley Power Digital Industrial Park, No. 22, Longhua New District, Shenzhen, China |

2.3 Factory Information

| Company Name: | Shenzhen DOOGEE Hengtong Technology CO.,LTD | |
|---------------|--|--|
| | B, 2/F, Building A4, Silicon Valley Power Digital Industrial Park, No. 22, Longhua New District, Shenzhen, China | |

2.4 General Description of Equipment under Test (EUT)

| EUT Name: | Tablet |
|----------------------|--|
| Test Model Number: | R10 |
| Series Model Number: | R10, R10Pro, R10S, R10E |
| Diff: | There is no difference except the name of the model. All tests are made with the R10 model |

2.5 Technical Information

| Power Supply: | DC 3.8V from battery or DC 9V from adapter | | |
|---|--|--|--|
| Power Adaptor: | Input: 100~240V 50/60Hz 0.6A | | |
| Tower Adaptor. | Output: 5V=3A, 9V=2.22A, 12V=1.67A | | |
| Operation Frequency: 2402MHz to 2480MHz | | | |
| Number of Channels: 40 | | | |
| Modulation Type: GFSK | | | |
| Antenna Type: PIFA antenna | | | |
| Antenna Gain [#] : | 1.51 dBi | | |

Note:

#: The antenna gain provided by the applicant, and the laboratory will not be responsible for the accumulated calculation results which covers the information provided by the applicant.

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3 Summary of Test Results

3.1 Test Standards

The tests were performed according to following standards: 47 CFR Part 15.247: Operation within the bands 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz

3.2 Uncertainty of Test

| Item | Measurement Uncertainty | |
|---|-------------------------|--|
| Conducted Emission (150 kHz-30 MHz) | ±2.64dB | |
| The following measurement uncertainty levels have been estimated for tests performed on the EUT as | | |
| specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately | | |

3.3 Summary of Test Result

the 95% confidence level using a coverage factor of k=2

| Item | Standard | Requirement | Result |
|--|--------------------|--------------------------|--------|
| Antenna requirement | 47 CFR Part 15.247 | Part 15.203 | Pass |
| Conducted Emission at AC power line | 47 CFR Part 15.247 | 47 CFR 15.207(a) | Pass |
| Occupied Bandwidth | 47 CFR Part 15.247 | 47 CFR 15.215(c) | Pass |
| Maximum Conducted Output Power | 47 CFR Part 15.247 | 47 CFR 15.247(b)(1) | Pass |
| Channel Separation | 47 CFR Part 15.247 | 47 CFR 15.247(a)(1) | Pass |
| Number of Hopping Frequencies | 47 CFR Part 15.247 | 47 CFR 15.247(a)(1)(iii) | Pass |
| Dwell Time | 47 CFR Part 15.247 | 47 CFR 15.247(a)(1)(iii) | Pass |
| Emissions in non-restricted frequency bands | 47 CFR Part 15.247 | 47 CFR 15.247(d) | Pass |
| Band edge emissions (Radiated) | 47 CFR Part 15.247 | 47 CFR 15.247(d) | Pass |
| Emissions in restricted frequency bands (below 1GHz) | 47 CFR Part 15.247 | 47 CFR 15.247(d) | Pass |
| Emissions in restricted frequency bands (above 1GHz) | 47 CFR Part 15.247 | 47 CFR 15.247(d) | Pass |



Test Configuration 4

Test Equipment List 4.1

| Conducted Emission at AC power line | | | | | | | | |
|-------------------------------------|-------------------|-------------|--------------|------------|--------------|--|--|--|
| Equipment | Manufacturer | Model No | Inventory No | Cal Date | Cal Due Date | | | |
| Pulse Limiter | SCHWARZBECK | VTSD 9561-F | 00953 | 2022-11-24 | 2023-11-23 | | | |
| Coaxial Switcher | SCHWARZBECK | CX210 | CX210 | 2022-11-24 | 2023-11-23 | | | |
| V-LISN | SCHWARZBECK | NSLK 8127 | 01073 | 2022-11-24 | 2023-11-23 | | | |
| LISN | AFJ | LS16/110VAC | 16010020076 | 2023-02-23 | 2024-02-22 | | | |
| EMI Receiver | ROHDE&SCHWA RZ | ESCI3 | 101422 | 2022-11-24 | 2023-11-23 | | | |

| Occupied Bandwidth | | | | | | | |
|--|---|-----------|--------------|------------|--------------|--|--|
| Equipment | Manufacturer | Model No | Inventory No | Cal Date | Cal Due Date | | |
| RFTest software | / | V1.00 | / | / | / | | |
| RF Control Unit | Techy | TR1029-1 | / | 2022-11-24 | 2023-11-23 | | |
| RF Sensor Unit | Techy | TR1029-2 | / | 2022-11-24 | 2023-11-23 | | |
| Programmable constant temperature and humidity box | ZZCKONG | ZZ-K02A | 20210928007 | 2022-11-24 | 2023-11-23 | | |
| Adjustable Direct Current Regulated Power Supply | Dongguan Tongmen Electronic Technology Co., LTD | etm-6050c | 20211026123 | 2022-11-24 | 2023-11-23 | | |
| WIDEBAND RADIO COMMNUNICATION TESTER | Rohde & Schwarz | CMW500 | 161997 | 2022-11-24 | 2023-11-23 | | |
| MXA Signal Analyzer | KEYSIGHT | N9020A | MY50410020 | 2022-11-24 | 2023-11-23 | | |

| Maximum Conducted Output Power | | | | | | | | |
|--|---|-----------|--------------|------------|--------------|--|--|--|
| Equipment | Manufacturer | Model No | Inventory No | Cal Date | Cal Due Date | | | |
| RFTest software | / | V1.00 | / | / | / | | | |
| RF Control Unit | Techy | TR1029-1 | / | 2022-11-24 | 2023-11-23 | | | |
| RF Sensor Unit | Techy | TR1029-2 | / | 2022-11-24 | 2023-11-23 | | | |
| Programmable constant temperature and humidity box | ZZCKONG | ZZ-K02A | 20210928007 | 2022-11-24 | 2023-11-23 | | | |
| Adjustable Direct Current Regulated Power Supply | Dongguan Tongmen Electronic Technology Co., LTD | etm-6050c | 20211026123 | 2022-11-24 | 2023-11-23 | | | |
| WIDEBAND RADIO COMMNUNICATION TESTER | Rohde & Schwarz | CMW500 | 161997 | 2022-11-24 | 2023-11-23 | | | |
| MXA Signal Analyzer | KEYSIGHT | N9020A | MY50410020 | 2022-11-24 | 2023-11-23 | | | |

| Channel Separation | | | | | |
|--------------------|--------------|----------|--------------|----------|--------------|
| Equipment | Manufacturer | Model No | Inventory No | Cal Date | Cal Due Date |
| RFTest software | / | V1.00 | / | / | / |

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| RF Control Unit | Techy | TR1029-1 | / | 2022-11-24 | 2023-11-23 |
|--|---|-----------|-------------|------------|------------|
| RF Sensor Unit | Techy | TR1029-2 | / | 2022-11-24 | 2023-11-23 |
| Programmable constant temperature and humidity box | ZZCKONG | ZZ-K02A | 20210928007 | 2022-11-24 | 2023-11-23 |
| Adjustable Direct Current Regulated Power Supply | Dongguan Tongmen Electronic Technology Co., LTD | etm-6050c | 20211026123 | 2022-11-24 | 2023-11-23 |
| WIDEBAND RADIO COMMNUNICATION TESTER | Rohde & Schwarz | CMW500 | 161997 | 2022-11-24 | 2023-11-23 |
| MXA Signal Analyzer | KEYSIGHT | N9020A | MY50410020 | 2022-11-24 | 2023-11-23 |

| Number of Hopping Frequencies | | | | | | | | |
|--|---|-----------|--------------|------------|--------------|--|--|--|
| Equipment | Manufacturer | Model No | Inventory No | Cal Date | Cal Due Date | | | |
| RFTest software | / | V1.00 | / | / | / | | | |
| RF Control Unit | Techy | TR1029-1 | / | 2022-11-24 | 2023-11-23 | | | |
| RF Sensor Unit | Techy | TR1029-2 | / | 2022-11-24 | 2023-11-23 | | | |
| Programmable constant temperature and humidity box | ZZCKONG | ZZ-K02A | 20210928007 | 2022-11-24 | 2023-11-23 | | | |
| Adjustable Direct Current Regulated Power Supply | Dongguan Tongmen Electronic Technology Co., LTD | etm-6050c | 20211026123 | 2022-11-24 | 2023-11-23 | | | |
| WIDEBAND RADIO COMMNUNICATION TESTER | Rohde & Schwarz | CMW500 | 161997 | 2022-11-24 | 2023-11-23 | | | |
| MXA Signal Analyzer | KEYSIGHT | N9020A | MY50410020 | 2022-11-24 | 2023-11-23 | | | |

| Dwell Time | | | | | |
|--|---|-----------|--------------|------------|--------------|
| Equipment | Manufacturer | Model No | Inventory No | Cal Date | Cal Due Date |
| RFTest software | / | V1.00 | / | / | / |
| RF Control Unit | Techy | TR1029-1 | / | 2022-11-24 | 2023-11-23 |
| RF Sensor Unit | Techy | TR1029-2 | / | 2022-11-24 | 2023-11-23 |
| Programmable constant temperature and humidity box | ZZCKONG | ZZ-K02A | 20210928007 | 2022-11-24 | 2023-11-23 |
| Adjustable Direct Current Regulated Power Supply | Dongguan Tongmen Electronic Technology Co., LTD | etm-6050c | 20211026123 | 2022-11-24 | 2023-11-23 |
| WIDEBAND RADIO COMMNUNICATION TESTER | Rohde & Schwarz | CMW500 | 161997 | 2022-11-24 | 2023-11-23 |
| MXA Signal Analyzer | KEYSIGHT | N9020A | MY50410020 | 2022-11-24 | 2023-11-23 |

Emissions in non-restricted frequency bands

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| Equipment | Manufacturer | Model No | Inventory No | Cal Date | Cal Due Date |
|--|---|-----------|--------------|------------|--------------|
| RFTest software | / | V1.00 | / | / | / |
| RF Control Unit | Techy | TR1029-1 | / | 2022-11-24 | 2023-11-23 |
| RF Sensor Unit | Techy | TR1029-2 | / | 2022-11-24 | 2023-11-23 |
| Programmable constant temperature and humidity box | ZZCKONG | ZZ-K02A | 20210928007 | 2022-11-24 | 2023-11-23 |
| Adjustable Direct Current Regulated Power Supply | Dongguan Tongmen Electronic Technology Co., LTD | etm-6050c | 20211026123 | 2022-11-24 | 2023-11-23 |
| WIDEBAND RADIO COMMNUNICATION TESTER | Rohde & Schwarz | CMW500 | 161997 | 2022-11-24 | 2023-11-23 |
| MXA Signal Analyzer | KEYSIGHT | N9020A | MY50410020 | 2022-11-24 | 2023-11-23 |

| Band edge emissions | (Radiated) | | | | |
|--------------------------------|-------------------|---------------------|--------------|------------|--------------|
| Equipment | Manufacturer | Model No | Inventory No | Cal Date | Cal Due Date |
| Coaxial cable Multiflex 141 | Schwarzbeck | N/SMA 0.5m | 517386 | 2023-03-24 | 2024-03-23 |
| Preamplifier | SCHWARZBECK | BBV9744 | 00246 | 2022-11-24 | 2023-11-23 |
| RE Cable | REBES Talent | UF1-SMASMAM-1 0m | 21101566 | 2022-11-24 | 2023-11-23 |
| RE Cable | REBES Talent | UF2-NMNM-10m | 21101570 | 2022-11-24 | 2023-11-23 |
| RE Cable | REBES Talent | UF1-SMASMAM-1 m | 21101568 | 2022-11-24 | 2023-11-23 |
| RE Cable | REBES Talent | UF2-NMNM-1m | 21101576 | 2022-11-24 | 2023-11-23 |
| RE Cable | REBES Talent | UF2-NMNM-2.5m | 21101573 | 2022-11-24 | 2023-11-23 |
| POSITIONAL CONTROLLER | SKET | PCI-GPIB | / | / | / |
| Horn Antenna | SCHWARZBECK | BBHA9170 | 01157 | 2021-11-28 | 2023-11-27 |
| EMI TEST RECEIVER | ROHDE&SCHWA RZ | ESCI7 | 101032 | 2022-11-24 | 2023-11-23 |
| SIGNAL ANALYZER | ROHDE&SCHWA RZ | FSQ40 | 100010 | 2022-11-24 | 2023-11-23 |
| POSITIONAL CONTROLLER | SKET | PCI-GPIB | / | / | / |
| Broadband Preamplilifier | SCHWARZBECK | BBV9718D | 00008 | 2023-03-24 | 2024-03-23 |
| Horn Antenna | SCHWARZBECK | BBHA9120D | 2597 | 2022-05-22 | 2024-05-21 |
| EZ_EMC | Frad | FA-03A2 RE+ | / | / | / |
| POSITIONAL CONTROLLER | SKET | PCI-GPIB | / | / | / |
| Log periodic antenna | SCHWARZBECK | VULB 9168 | 01328 | 2021-11-28 | 2023-11-27 |

| Emissions in restricted frequency bands (below 1GHz) | | | | | | | | | |
|--|--------------|------------|--------------|------------|--------------|--|--|--|--|
| Equipment | Manufacturer | Model No | Inventory No | Cal Date | Cal Due Date | | | | |
| Coaxial cable Multiflex 141 | Schwarzbeck | N/SMA 0.5m | 517386 | 2023-03-24 | 2024-03-23 | | | | |
| Preamplifier | SCHWARZBECK | BBV9744 | 00246 | 2022-11-24 | 2023-11-23 | | | | |

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| RE Cable | REBES Talent | UF1-SMASMAM-1 0m | 21101566 | 2022-11-24 | 2023-11-23 |
|-----------------------------|-------------------|---------------------|----------|------------|------------|
| RE Cable | REBES Talent | UF2-NMNM-10m | 21101570 | 2022-11-24 | 2023-11-23 |
| RE Cable | REBES Talent | UF1-SMASMAM-1 m | 21101568 | 2022-11-24 | 2023-11-23 |
| RE Cable | REBES Talent | UF2-NMNM-1m | 21101576 | 2022-11-24 | 2023-11-23 |
| RE Cable | REBES Talent | UF2-NMNM-2.5m | 21101573 | 2022-11-24 | 2023-11-23 |
| POSITIONAL CONTROLLER | SKET | PCI-GPIB | / | / | / |
| Horn Antenna | SCHWARZBECK | BBHA9170 | 01157 | 2021-11-28 | 2023-11-27 |
| EMI TEST RECEIVER | ROHDE&SCHWA RZ | ESCI7 | 101032 | 2022-11-24 | 2023-11-23 |
| SIGNAL ANALYZER | ROHDE&SCHWA RZ | FSQ40 | 100010 | 2022-11-24 | 2023-11-23 |
| POSITIONAL CONTROLLER | SKET | PCI-GPIB | / | / | / |
| Broadband Preamplilifier | SCHWARZBECK | BBV9718D | 00008 | 2023-03-24 | 2024-03-23 |
| Horn Antenna | SCHWARZBECK | BBHA9120D | 2597 | 2022-05-22 | 2024-05-21 |
| EZ_EMC | Frad | FA-03A2 RE+ | / | / | / |
| POSITIONAL CONTROLLER | SKET | PCI-GPIB | / | / | 1 |
| Log periodic antenna | SCHWARZBECK | VULB 9168 | 01328 | 2021-11-28 | 2023-11-27 |

| Emissions in restricte | Emissions in restricted frequency bands (above 1GHz) | | | | | | | |
|--------------------------------|--|---------------------|--------------|------------|--------------|--|--|--|
| Equipment | Manufacturer | Model No | Inventory No | Cal Date | Cal Due Date | | | |
| Coaxial cable Multiflex 141 | Schwarzbeck | N/SMA 0.5m | 517386 | 2023-03-24 | 2024-03-23 | | | |
| Preamplifier | SCHWARZBECK | BBV9744 | 00246 | 2022-11-24 | 2023-11-23 | | | |
| RE Cable | REBES Talent | UF1-SMASMAM-1 0m | 21101566 | 2022-11-24 | 2023-11-23 | | | |
| RE Cable | REBES Talent | UF2-NMNM-10m | 21101570 | 2022-11-24 | 2023-11-23 | | | |
| RE Cable | REBES Talent | UF1-SMASMAM-1 m | 21101568 | 2022-11-24 | 2023-11-23 | | | |
| RE Cable | REBES Talent | UF2-NMNM-1m | 21101576 | 2022-11-24 | 2023-11-23 | | | |
| RE Cable | REBES Talent | UF2-NMNM-2.5m | 21101573 | 2022-11-24 | 2023-11-23 | | | |
| POSITIONAL CONTROLLER | SKET | PCI-GPIB | / | / | / | | | |
| Horn Antenna | SCHWARZBECK | BBHA9170 | 01157 | 2021-11-28 | 2023-11-27 | | | |
| EMI TEST RECEIVER | ROHDE&SCHWA RZ | ESCI7 | 101032 | 2022-11-24 | 2023-11-23 | | | |
| SIGNAL ANALYZER | ROHDE&SCHWA RZ | FSQ40 | 100010 | 2022-11-24 | 2023-11-23 | | | |
| POSITIONAL CONTROLLER | SKET | PCI-GPIB | / | / | / | | | |
| Broadband Preamplilifier | SCHWARZBECK | BBV9718D | 00008 | 2023-03-24 | 2024-03-23 | | | |
| Horn Antenna | SCHWARZBECK | BBHA9120D | 2597 | 2022-05-22 | 2024-05-21 | | | |
| EZ_EMC | Frad | FA-03A2 RE+ | / | / | / | | | |
| POSITIONAL CONTROLLER | SKET | PCI-GPIB | / | / | 1 | | | |

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| Log periodic antenna S | SCHWARZBECK | VULB 9168 | 01328 | 2021-11-28 | 2023-11-27 |
|------------------------|-------------|-----------|-------|------------|------------|



4.2 Test Auxiliary Equipment

The EUT was tested as an independent device.

4.3 Test Modes

| Tested mode, channel information | | | | | | |
|--|--------------|--------------------|--|--|--|--|
| Mode | Channel | Frequency (MHz) | | | | |
| | Low :CH1 | 2402 | | | | |
| GFSK | Middle: CH40 | 2441 | | | | |
| | High: CH79 | 2480 | | | | |
| | Low :CH1 | 2402 | | | | |
| π/4 DQPSK | Middle: CH40 | 2441 | | | | |
| | High: CH79 | 2480 | | | | |
| al second and a se | Low :CH1 | 2402 | | | | |
| 8DPSK | Middle: CH40 | 2441 | | | | |
| and the second se | High: CH79 | 2480 | | | | |

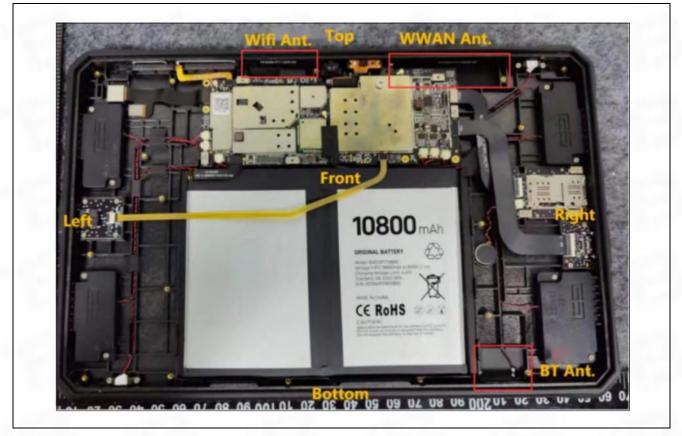


5 Evaluation Results (Evaluation)

5.1 Antenna requirement

Test Requirement:An intentional radiator shall be designed to ensure that no antenna other than that
furnished by the responsible party shall be used with the device. The use of a
permanently attached antenna or of an antenna that uses a unique coupling to the
intentional radiator shall be considered sufficient to comply with the provisions of
this section.

5.1.1 Conclusion:





Radio Spectrum Matter Test Results (RF) 6

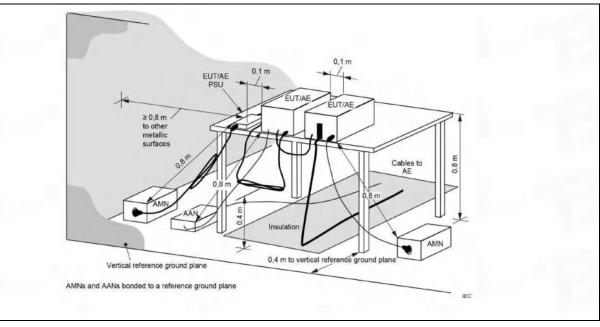
Conducted Emission at AC power line 6.1

| Test Requirement: | Except as shown in paragraphs (b that is designed to be connected to frequency voltage that is conducted or frequencies, within the band 15 the following table, as measured u stabilization network (LISN). | o the public utility (AC) ed back onto the AC po 0 kHz to 30 MHz, shall | power line, the radio wer line on any frequency not exceed the limits in | | | | |
|---|---|--|--|--|--|--|--|
| Test Method: | | Refer to ANSI C63.10-2013 section 6.2, standard test method for ac power-line conducted emissions from unlicensed wireless devices | | | | | |
| | Frequency of emission (MHz) | Conducted limit (dE | βµV) | | | | |
| | | Quasi-peak | Average | | | | |
| Test Limit: | 0.15-0.5 | 66 to 56* | 56 to 46* | | | | |
| | 0.5-5 | 56 | 46 | | | | |
| | 5-30 | 60 | 50 | | | | |
| *Decreases with the logarithm of the frequency. | | | | | | | |

6.1.1 E.U.T. Operation:

| Operating Environment: | |
|------------------------|-----------|
| Temperature: | 22.4 °C |
| Humidity: | 52.7 % |
| Atmospheric Pressure: | 1010 mbar |

6.1.2 Test Setup Diagram:

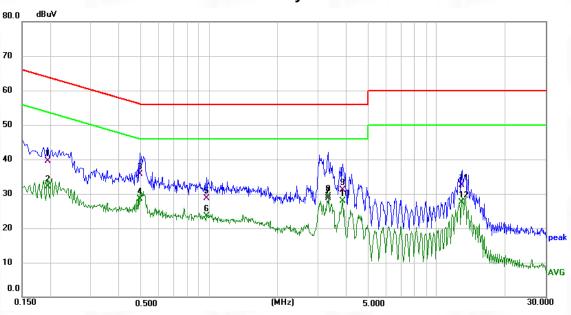


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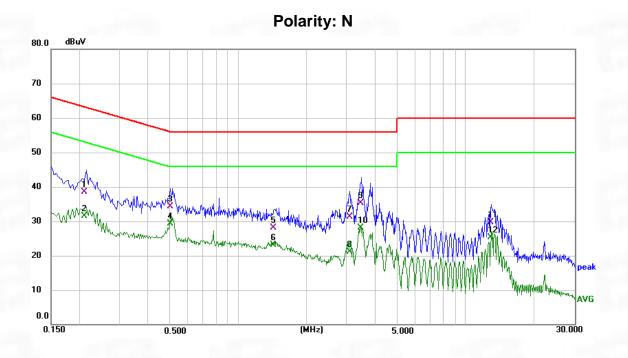




| No. | Frequency (MHz) | Reading Level(dBuV) | Factor (dB) | Measure- ment(dBuV) | Limit (dBuV) | Over (dB) | Detector | Comment |
|-----|--------------------|------------------------|----------------|------------------------|-----------------|--------------|----------|---------|
| 1 | 0.1940 | 29.97 | 9.47 | 39.44 | 63.86 | -24.42 | QP | 1 |
| 2 | 0.1940 | 22.54 | 9.47 | 32.01 | 53.86 | -21.85 | AVG | 1 |
| 3 | 0.4940 | 25.88 | 9.73 | 35.61 | 56.10 | -20.49 | QP | |
| 4 | 0.4940 | 18.83 | 9.73 | 28.56 | 46.10 | -17.54 | AVG | 20 |
| 5 | 0.9780 | 18.76 | 9.91 | 28.67 | 56.00 | -27.33 | QP | 10 |
| 6 | 0.9780 | 13.57 | 9.91 | 23.48 | 46.00 | -22.52 | AVG | |
| 7 | 3.3300 | 18.82 | 9.91 | 28.73 | 56.00 | -27.27 | QP | 10 |
| 8* | 3.3300 | 19.46 | 9.91 | 29.37 | 46.00 | -16.63 | AVG | 20 |
| 9 | 3.8500 | 21.32 | 9.74 | 31.06 | 56.00 | -24.94 | QP | 20 |
| 10 | 3.8500 | 18.07 | 9.74 | 27.81 | 46.00 | -18.19 | AVG | A |
| П | 12.8979 | 22.53 | 9.88 | 32.41 | 60.00 | -27.59 | QP | |
| 12 | 12.8979 | 17.72 | 9.88 | 27.60 | 50.00 | -22.40 | AVG | |

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| No. | Frequency (MHz) | Reading Level(dBuV) | Factor (dB) | Measure- ment(dBuV) | Limit (dBuV) | Over (dB) | Detector | Comment |
|-----|--------------------|------------------------|----------------|------------------------|-----------------|--------------|----------|---------|
| 1 | 0.2100 | 28.97 | 9.52 | 38.49 | 63.21 | -24.72 | QP | |
| 2 | 0.2100 | 21.94 | 9.52 | 31.46 | 53.21 | -21.75 | AVG | 1 |
| 3 | 0.5020 | 24.53 | 9.72 | 34.25 | 56.00 | -21.75 | QP | |
| 4* | 0.5020 | 19.50 | 9.72 | 29.22 | 46.00 | -16.78 | AVG | |
| 5 | 1.4220 | 18.23 | 9.94 | 28.17 | 56.00 | -27.83 | QP | |
| 6 | 1.4220 | 13.22 | 9.94 | 23.16 | 46.00 | -22.84 | AVG | |
| 7 | 3.0900 | 21.22 | 9.99 | 31.21 | 56.00 | -24.79 | QP | |
| 8 | 3.0900 | 11.09 | 9.99 | 21.08 | 46.00 | -24.92 | AVG | |
| 9 | 3.4500 | 25.40 | 9.87 | 35.27 | 56.00 | -20.73 | QP | |
| 10 | 3.4500 | 18.25 | 9.87 | 28.12 | 46.00 | -17.88 | AVG | |
| 11 | 12.8979 | 19.74 | 9.88 | 29.62 | 60.00 | -30.38 | QP | |
| 12 | 12.8979 | 15.48 | 9.88 | 25.36 | 50.00 | -24.64 | AVG | |

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6.2 Occupied Bandwidth

| Test Requirement: | Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated. |
|-------------------|--|
| Test Method: | Occupied bandwidth—relative measurement procedure |
| Test Limit: | Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated. |
| Procedure: | a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the EMI receiver or spectrum analyzer shall be between two times and five times the OBW. b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW and video bandwidth (VBW) shall be approximately three times RBW, unless otherwise specified by the applicable requirement. c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.5.2. d) Steps a) through c) might require iteration to adjust within the specified tolerances. e) The dynamic range of the instrument at the selected RBW shall be more than 10 dB below the target "-xx dB down" requirement; that is, if the requirement calls for measuring the -20 dB OBW, the instrument noise floor at the selected RBW shall be at least 30 dB below the reference value. f) Set detection mode to peak and trace mode to max hold. g) Determine the reference value: Set the EUT to transmit an unmodulated carrier or modulated signal, as applicable. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace (this is the reference value). h) Determine the "-xx dB down amplitude" using [(reference value) - xx]. Alternatively, this calculation may be made by using the marker-delta function of the instrument. i) If the reference value is determined by an unmodulated carrier, then turn the EUT modulation ON, and either clear the existing trace or start a new trace from step g) shall be used for step j). j) Place two markers, one at the lowest frequency and the other at the highest frequency of the envelope of the spectral display, such that each marker is at or slightly below the "-xx |

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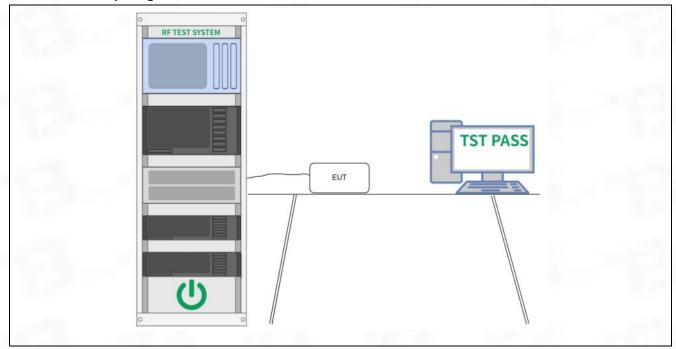


| k) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly |
|---|
| labeled. Tabular data may be reported in addition to the plot(s). |

6.2.1 E.U.T. Operation:

| Operating Environment: | |
|------------------------|-----------|
| Temperature: | 25.6 °C |
| Humidity: | 50.6 % |
| Atmospheric Pressure: | 1010 mbar |

6.2.2 Test Setup Diagram:



6.2.3 Test Data:



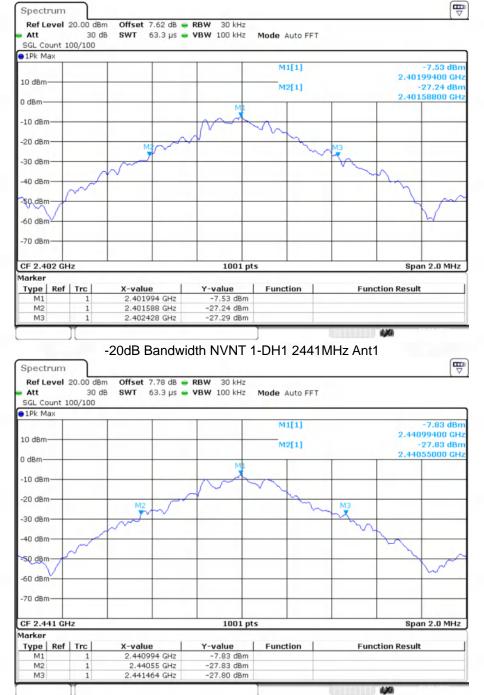
Test Report Number: BTF230607R00202

-20dB Bandwidth

| Condition | Mode | Frequency | Antonno | -20 dB Bandwidth | Limit 20 dB Bondwidth | Verdict |
|-----------|-------|-----------|---------|------------------|------------------------|---------|
| Condition | Mode | Frequency | Antenna | | Limit -20 dB Bandwidth | verdict |
| | | (MHz) | | (MHz) | (MHz) | |
| NVNT | 1-DH1 | 2402 | Ant1 | 0.84 | N/A | Pass |
| NVNT | 1-DH1 | 2441 | Ant1 | 0.914 | N/A | Pass |
| NVNT | 1-DH1 | 2480 | Ant1 | 0.848 | N/A | Pass |
| NVNT | 2-DH1 | 2402 | Ant1 | 1.186 | N/A | Pass |
| NVNT | 2-DH1 | 2441 | Ant1 | 1.19 | N/A | Pass |
| NVNT | 2-DH1 | 2480 | Ant1 | 1.198 | N/A | Pass |
| NVNT | 3-DH1 | 2402 | Ant1 | 1.192 | N/A | Pass |
| NVNT | 3-DH1 | 2441 | Ant1 | 1.198 | N/A | Pass |
| NVNT | 3-DH1 | 2480 | Ant1 | 1.204 | N/A | Pass |



-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



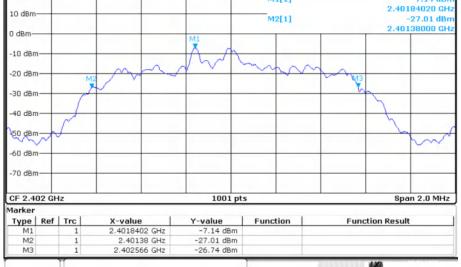
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-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



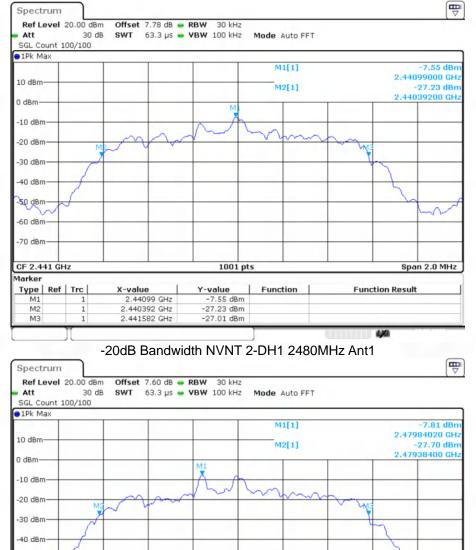


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-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



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2.4798402 GHz

2.479384 GHz

2.480582 GHz

50 dBm--60 dBm-

CF 2.48 GHz Marker

Type M1

M2

МЗ

Ref | Trc

1

1

Span 2.0 MHz

Function Result

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1001 pts

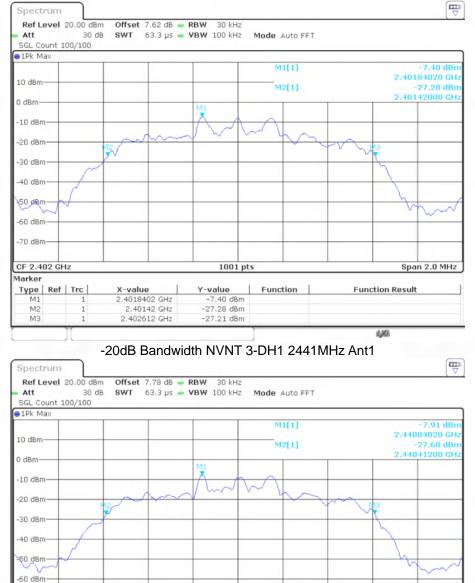
Function

-7.81 dBm -27.70 dBm

-27.64 dBm



-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



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X-value

2.4408402 GHz 2.440412 GHz 2.44161 GHz

-70 dBm-

Marker

M2

ΜЗ

CF 2.441 GHz

TypeRefTrcM11

Span 2.0 MHz

Function Result

1,XI

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1001 pts

Function

Y-value

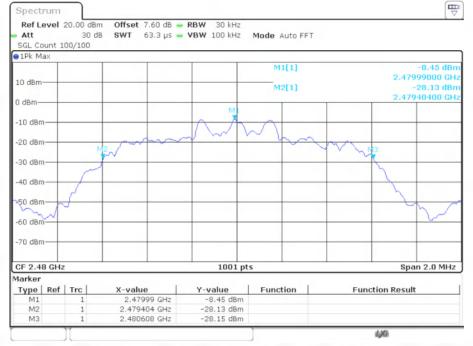
-7.91 dBm -27.68 dBm

-27.38 dBm



Test Report Number: BTF230607R00202

-20dB Bandwidth NVNT 3-DH1 2480MHz Ant1



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Maximum Conducted Output Power 6.3

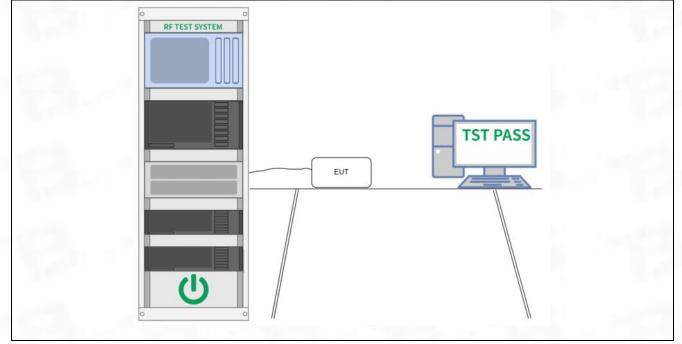
| Test Requirement: | For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts. |
|-------------------|---|
| Test Method: | Output power test procedure for frequency-hopping spread-spectrum (FHSS) devices |
| Test Limit: | For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts. |
| Procedure: | This is an RF-conducted test to evaluate maximum peak output power. Use a direct connection between the antenna port of the unlicensed wireless device and the spectrum analyzer, through suitable attenuation. The hopping shall be disabled for this test: a) Use the following spectrum analyzer settings: 1) Span: Approximately five times the 20 dB bandwidth, centered on a hopping channel. 2) RBW > 20 dB bandwidth of the emission being measured. 3) VBW >= RBW. 4) Sweep: Auto. 5) Detector function: Peak. 6) Trace: Max hold. b) Allow trace to stabilize. c) Use the marker-to-peak function to set the marker to the peak of the emission. d) The indicated level is the peak output power, after any corrections for external attenuators and cables. e) A plot of the test results and setup description shall be included in the test report. NOTE—A peak responding power meter may be used, where the power meter and sensor system video bandwidth is greater than the occupied bandwidth of the unlicensed wireless device, rather than a spectrum analyzer. |

6.3.1 E.U.T. Operation:

| Operating Environment: | |
|------------------------|-----------|
| Temperature: | 25.6 °C |
| Humidity: | 50.6 % |
| Atmospheric Pressure: | 1010 mbar |



6.3.2 Test Setup Diagram:



6.3.3 Test Data:

| Mode | Freq(MHz) | PK Output Power(dBm) | Limit(dBm) | Result |
|-----------|-----------|----------------------|------------|--------|
| | 2402 | 2.85 | 21 | Pass |
| GFSK | 2441 | 2.49 | 21 | Pass |
| 100 | 2480 | 2.09 | 21 | Pass |
| | 2402 | 2.46 | 30 | Pass |
| π/4 DQPSK | 2441 | 2.91 | 30 | Pass |
| | 2480 | 2.51 | 30 | Pass |
| | 2402 | 2.04 | 30 | Pass |
| 8DPSK | 2441 | 2.65 | 30 | Pass |
| | 2480 | 2.99 | 30 | Pass |

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6.4 Channel Separation

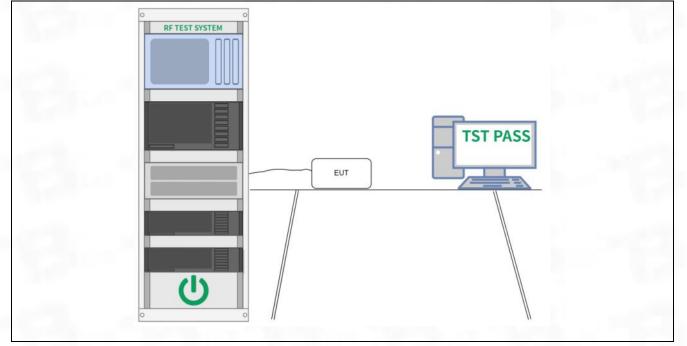
| Test Requirement: | Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel 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 Method: | Carrier frequency separation |
| Test 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. |
| Procedure: | The EUT shall have its hopping function enabled. Use the following spectrum analyzer settings: a) Span: Wide enough to capture the peaks of two adjacent channels. b) RBW: Start with the RBW set to approximately 30% of the channel spacing; adjust as necessary to best identify the center of each individual channel. c) Video (or average) bandwidth (VBW) ≥ RBW. d) Sweep: Auto. e) Detector function: Peak. f) Trace: Max hold. g) Allow the trace to stabilize. Use the marker-delta function to determine the separation between the peaks of the adjacent channels. Compliance of an EUT with the appropriate regulatory limit shall be determined. A plot of the data shall be included in the test report. |

6.4.1 E.U.T. Operation:

| Operating Environment: | |
|------------------------|-----------|
| Temperature: | 25.6 °C |
| Humidity: | 50.6 % |
| Atmospheric Pressure: | 1010 mbar |



6.4.2 Test Setup Diagram:



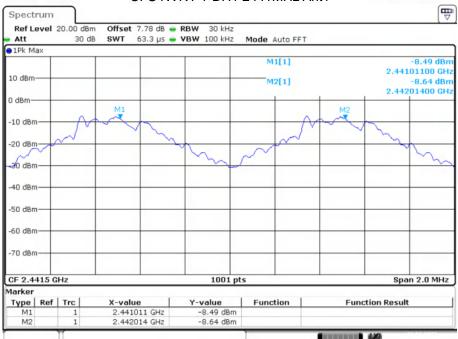
6.4.3 Test Data:

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Test Report Number: BTF230607R00202



| Condition | Mode | Antenna | Hopping Freq1 | Hopping Freq2 | HFS | Limit | Verdict |
|-----------|-------|---------|---------------|---------------|-------|-------|---------|
| | | | (MHz) | (MHz) | (MHz) | (MHz) | |
| NVNT | 1-DH1 | Ant1 | 2441.011 | 2442.014 | 1.003 | 0.914 | Pass |
| NVNT | 2-DH1 | Ant1 | 2440.84 | 2441.842 | 1.002 | 0.793 | Pass |
| NVNT | 3-DH1 | Ant1 | 2440.992 | 2441.992 | 1 | 0.799 | Pass |

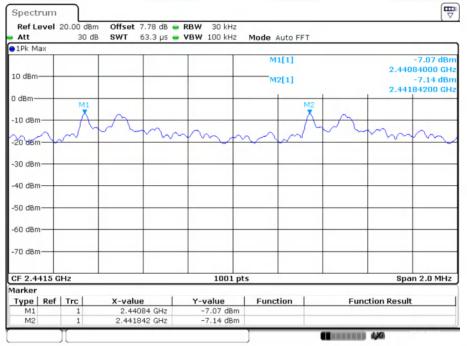


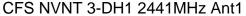
CFS NVNT 1-DH1 2441MHz Ant1

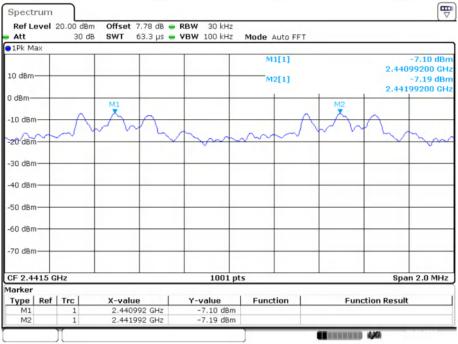
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CFS NVNT 2-DH1 2441MHz Ant1







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Number of Hopping Frequencies 6.5

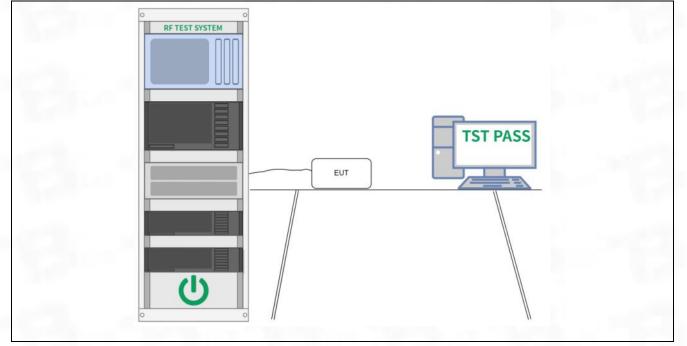
| Test Requirement: | Fequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used. |
|-------------------|--|
| Test Method: | Number of hopping frequencies |
| Test Limit: | Fequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. 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. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used. |
| Procedure: | The EUT shall have its hopping function enabled. Use the following spectrum analyzer settings: a) Span: The frequency band of operation. Depending on the number of channels the device supports, it may be necessary to divide the frequency range of operation across multiple spans, to allow the individual channels to be clearly seen. b) RBW: To identify clearly the individual channels, set the RBW to less than 30% of the channel spacing or the 20 dB bandwidth, whichever is smaller. c) VBW ≥ RBW. d) Sweep: Auto. e) Detector function: Peak. f) Trace: Max hold. g) Allow the trace to stabilize. It might prove necessary to break the span up into subranges to show clearly all of the hopping frequencies. Compliance of an EUT with the appropriate regulatory limit shall be determined for the number of hopping channels. A plot of the data shall be included in the test report. |

6.5.1 E.U.T. Operation:

| Operating Environment: | | | | |
|------------------------|-----------|------|-----|--|
| Temperature: | 25.6 °C | 1.00 | | |
| Humidity: | 50.6 % | 100 | 100 | |
| Atmospheric Pressure: | 1010 mbar | | | |



6.5.2 Test Setup Diagram:



6.5.3 Test Data:

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| Condition | Mode | Hopping Number | Limit | Verdict |
|-----------|-------|----------------|-------|---------|
| NVNT | 1-DH1 | 79 | 15 | Pass |
| NVNT | 2-DH1 | 79 | 15 | Pass |
| NVNT | 3-DH1 | 79 | 15 | Pass |

| 1Pk Ma | ĸ | 30 dB | SWT | - cq 0.F | VBW 300 kH | z Mode # | Auto FF1 | | | |
|--------------------|---------|-------|---------|----------|----------------------|----------|--------------|------|-------------|--|
| 10 dBm- | | | | | | | 1[1] 2[1] | | | -5.28 dB 18370 GF -5.92 dB 00765 GF |
| -10 cBm | | | | | | | UNIN. | | | WANA - |
| 30 dBm- | - | | | | | | | 1 | | |
| 40 dBm- 50 dBm- | | | | | | | | | | |
| 50 dBm- | - | _ | | | | | | | | 4 |
| 70 dBm- | - | | | | | | | | | |
| start 2. | 4 GHz | | | - | 1001 | pts | _ | | Stop 2 | .4835 GH: |
| larker Type | Ref 1 | rc | X-value | | Y-value | Fund | tion | Fund | tion Result | |
| M1 M2 | | 1 | 2.4018 | | -5.28 dB -5.92 dB | | | | | |

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Hopping No. NVNT 2-DH1 2441MHz Ant1

| 1Pk M | ax | | dB | SWT | - | 4.8 µs | - | 101 | | | | Toue | Auto FFT | | | | _ |
|------------|-------|----------|----|-------|---|--------|---|-----|------|-------------|-------|------|----------------|--------|---------------|--|-----------|
| 10 dBm | | | | | | | | | | | | | 11[1] 12[1] | | 2.40 | -11.48 d 15865 -6.53 d 799930 | GH IBr |
| 0 dBm- | + | | - | | - | | _ | + | - | _ | - | _ | - | - | - | M2 | 2 |
| - albible | MA | ANAN | A | AAAA | M | ₩₩ | ᄴ | | AM | M | NW. | HHH | MMM | ANNANA | hanna | HIII | - |
| -20 dBm | + | | - | | + | | _ | 1 | | | - | | <u> </u> | | | | - |
| -30 dBm | + | | - | | - | | | - | | _ | - | | | | | - | + |
| 40 dBm | + | | - | | - | _ | - | + | | _ | - | | | | | | t |
| 50 dBm | + | | - | - | + | | - | + | | _ | | | | | | - | L |
| 60 dBm | + | | - | - | + | - | - | + | _ | - | - | | | | - | - | _ |
| -70 dBm | + | | - | | + | - | - | + | | _ | - | | | | | - | _ |
| Start 2 | .4 GH | łz | | | | _ | _ | - | : | 1001 | l pts | _ | | | Stop 2 | .4835 G | Hz |
| larker | | | | | | | | | | | | | | | | | |
| Type M1 | Ref | Trc 1 | | 2.401 | | E CH- | - | | -val | ue 18 dB | Im | Fund | tion | Fun | iction Result | : | |
| M2 | | 1 | | | | 3 GH2 | | - | | 3 dB | | | | | | | |

Hopping No. NVNT 3-DH1 2441MHz Ant1

| Att | | 30 de | SWT 9 | 14.8 µs 😑 | VBW 300 kH | z Mode | Auto FFT | | | | _ |
|----------------|------|-------|----------|-----------|-------------------|--------|--------------|--------|--------------|--------------------------------------|------------------|
| 10 dBm- | | | | | | | 1[1] 2[1] | | | -6.15 d 19205 13.12 d 04940 | GH 1Bn |
| -16464 | AN N | | NNNNN | MIMAN | HANA | MMMM | MMM | MARANA | MANANA | INNA | 2 |
| -20 dBm | + | | | | | | | | | | F |
| -30 dBm | + | | | | - | | | | | | t |
| 40 dBm | + | | | | | | | | | | $\left \right $ |
| 50 dBm | + | | | | - | | | | | | L |
| -60 dBm | + | | | _ | | | | | | | |
| -70 dBm | + | | | | | | | | | | |
| Start 2 | 4 GH | z | | | 100 | L pts | | | Stop 2 | .4835 G | Hz |
| 1arker Type | Ref | Trc | X-value | | Y-value | Func | tion | Fund | ction Result | | |
| M1 M2 | | 1 | 2.401920 | | -6.15 de | | | | | | |

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6.6 Dwell Time

| Test Requirement: | Fequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. 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. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used. |
|-------------------|---|
| Test Method: | Time of occupancy (dwell time) |
| Test Limit: | Fequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. 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. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used. |
| Procedure: | The EUT shall have its hopping function enabled. Use the following spectrum analyzer settings: a) Span: Zero span, centered on a hopping channel. b) RBW shall be <= channel spacing and where possible RBW should be set >> 1 / T, where T is the expected dwell time per channel. c) Sweep: As necessary to capture the entire dwell time per hopping channel; where possible use a video trigger and trigger delay so that the transmitted signal starts a little to the right of the start of the plot. The trigger level might need slight adjustment to prevent triggering when the system hops on an adjacent channel; a second plot might be needed with a longer sweep time to show two successive hops on a channel. d) Detector function: Peak. e) Trace: Max hold. Use the marker-delta function to determine the transmit time per hop. If this value varies with different modes of operation (data rate, modulation format, number of hopping channels, etc.), then repeat this test for each variation in transmit time. Repeat the measurement using a longer sweep time to determine the number of hops over the period specified in the requirements. The sweep time shall be equal to, or less than, the period specified in the requirements. Determine the number of hops over the sweep time and calculate the total number of hops in the period specified in the requirements) = (number of hops in the period specified in the requirements) = (number of hops on spectrum analyzer) × (period specified in the requirements / analyzer sweep time) The average time of occupancy is calculated from the transmit time per hop multiplied by the number of hops in the period specified in the requirements. If the number of hops in a specific time varies with different modes of operation (data rate, modulation format, number of hopping channels, etc.), then repeat this test for each variation. The measured transmit time and time between hops shall be consistent with the |
| | values described in the operational description for the EUT. |

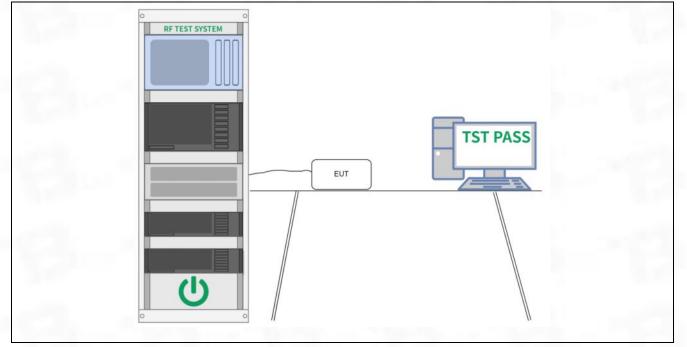
6.6.1 E.U.T. Operation:

| Operating Environment: | | |
|------------------------|-----------|--|
| Temperature: | 25.6 °C | |
| Humidity: | 50.6 % | |
| Atmospheric Pressure: | 1010 mbar | |

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6.6.2 Test Setup Diagram:



6.6.3 Test Data:

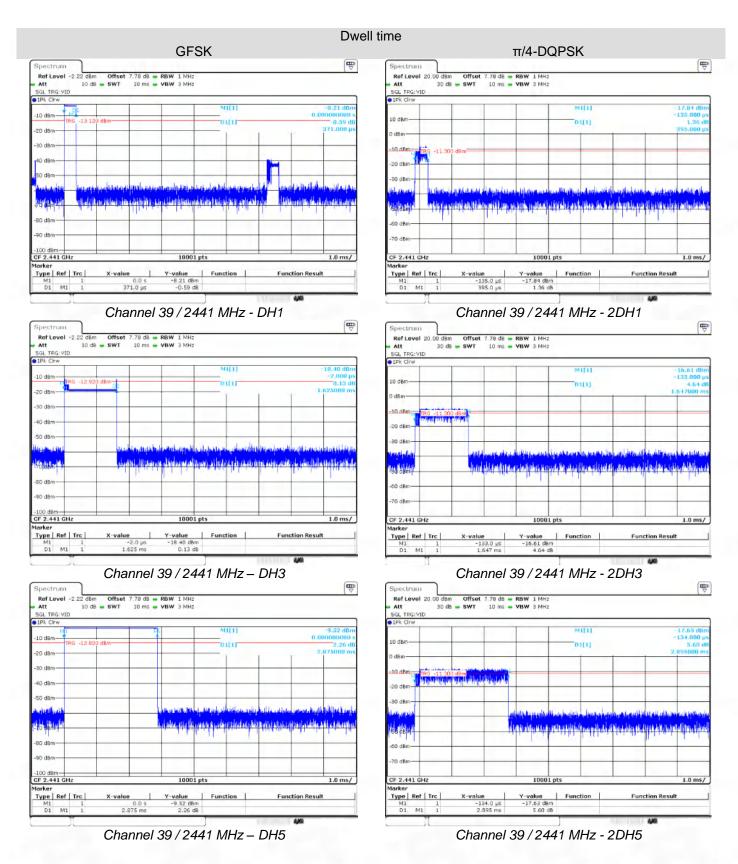
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| Mode | Data Packet | Frequency (MHz) | Pulse Duration (ms) | Dwell Time (s) | Limit (s) | Conclusio n |
|------------------|----------------|--------------------|--------------------------|-------------------|--------------|----------------|
| | DH1 | 2441 | 0.371 | 0.1187 | | Pass |
| GFSK | DH3 | 2441 | 1.625 | 0.2600 | <0.4 | Pass |
| | DH5 | 2441 | 2.875 | 0.3067 | | Pass |
| | DH1 | 2441 | 0.395 | 0.1264 | | Pass |
| π/4 DQPSK | DH3 | 2441 | 1.647 | 0.2635 | <0.4 | Pass |
| | DH5 | 2441 | 2.895 | 0.3088 | | Pass |
| | DH1 | 2441 | 0.379 | 0.1213 | | Pass |
| 8DPSK | DH3 | 2441 | 1.63 | 0.2608 | <0.4 | Pass |
| | DH5 | 2441 | 2.88 | 0.3072 | | Pass |
| Note: 1 A perior | , | , , | s) 600/(2*79)) * A pe | eriod time/100(| | |

2 DH1 time slot = Pulse Duration * (1600/(2*79)) * A period time/1000 DH3 time slot = Pulse Duration * (1600/(4*79)) * A period time/1000 DH5 time slot = Pulse Duration * (1600/(6*79)) * A period time/1000





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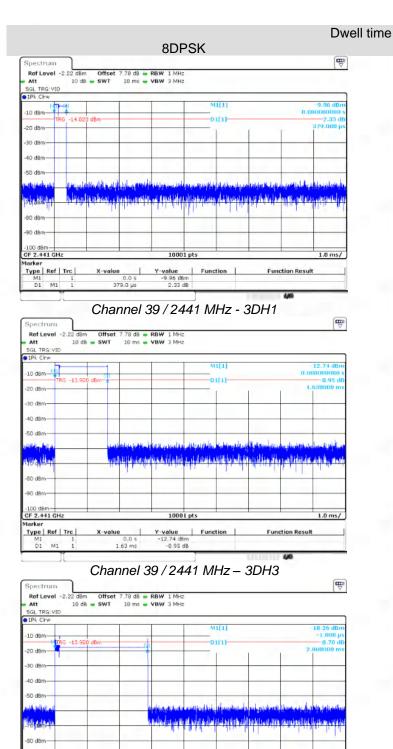


90 dB

-100 dBm CF 2.441 GHz Marker Type Ref Trc M1 1 D1 M1 1

X-value

2.88



10001 pts

0.78 dB

-18.26 (

Function

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1.0 ms/

Function Result



6.7 Emissions in non-restricted frequency bands

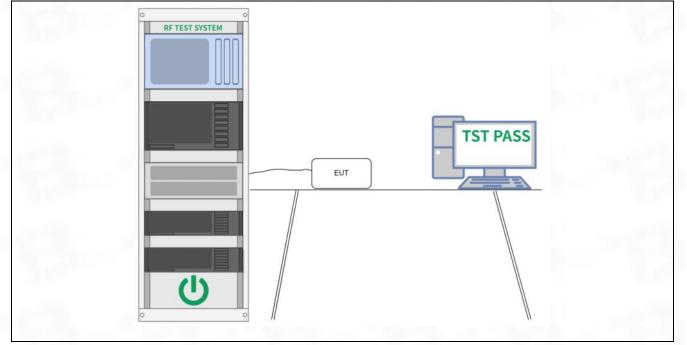
| Test Requirement: | In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in § 15.209(a) is not required. |
|-------------------|--|
| Test Method: | Conducted spurious emissions test methodology |
| Test Limit: | In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in § 15.209(a) is not required. |
| Procedure: | Conducted spurious emissions shall be measured for the transmit frequency, per 5.5 and 5.6, and at the maximum transmit powers. Connect the primary antenna port through an attenuator to the spectrum analyzer input; in the results, account for all losses between the unlicensed wireless device output and the spectrum analyzer. The instrument shall span 30 MHz to 10 times the operating frequency in GHz, with a resolution bandwidth of 100 kHz, video bandwidth of 300 kHz, and a coupled sweep time with a peak detector. The band 30 MHz to the highest frequency may be split into smaller spans, as long as the entire spectrum is covered. |
| | |

6.7.1 E.U.T. Operation:

| Operating Environment: | |
|------------------------|-----------|
| Temperature: | 25.6 °C |
| Humidity: | 50.6 % |
| Atmospheric Pressure: | 1010 mbar |



6.7.2 Test Setup Diagram:

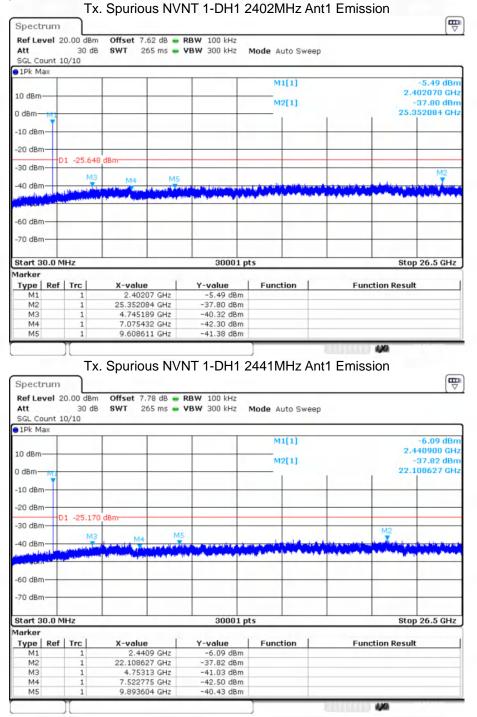


6.7.3 Test Data:

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Conducted RF Spurious Emission:



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Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission

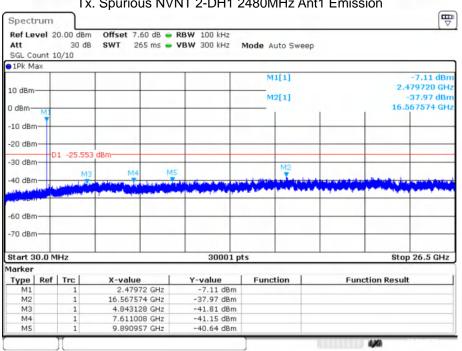
| Spectrum | | | | | | | | V |
|---|--|--|--|---------------------------------|--|------------------------|-----------------------|---|
| Ref Level 3 | | | | RBW 100 kHz | 10.00 A 10.00 A | | | |
| Att | 30 d | B SWT 2 | :65 ms 😑 | VBW 300 kHz | Mode Auto Swe | ер | | |
| SGL Count : | 10/10 | | | | | | | |
| 1Pk Max | | | | | | | | |
| | | | | | M1[1] | | | -9.77 dBr 480600 GH |
| l0 dBm | | | | | M2[1] | | | -37.55 dBr |
| dBm- | | | | | mat 1 | | | 266565 GH |
| MI | | | | | | 1 | 1 | 1 |
| 10 dBm | | | | | | _ | | |
| | | | | | | | | |
| 20 dBm | | | - | | | | | |
| 30 dBm | 01 -25.43 | IS dBm | | | | | | |
| | M | 8 M4 | M5 | | | | M2 | |
| 40 dBm | Hundard | and the state of the state | and the second | all a the section by the | No. of the state of the state | the shall what has the | and the second second | a named and a |
| | and the second second second | at he following the second | (manufacture) | and heading and should be a set | in Article Manhor | | and the state of the | 1 Contractor |
| and the second s | | | | | | | | |
| 60 dBm | | | - | | | | | |
| | | | | | | | | |
| 70 dBm | | | | | | | | |
| | | | | | | | | |
| Start 30.0 M | 4Hz | | | 30001 | ots | | Sto | p 26.5 GHz |
| larker | | | | | | | | |
| Type Ref | | X-value | | Y-value | Function | Fun | ction Resul | t |
| M1 | 1 | | 06 GHz | -9.77 dBm | | | | |
| M2 M3 | 1 | 22.2665 | | -37.55 dBm | | | | |
| M3 M4 | 1 | | 65 GHz 39 GHz | -40.71 dBm -42.04 dBm | | | | |
| M5 | 1 | | | | | | | |
| Spectrum | πт, | <. Spurio | | -40.24 dBm | 2402MHz A | nt1 Emise | sion | |
| Spectrum Ref Level 2 Att | Tx 20.00 dBr 30 d | <. Spurio | us NVI | NT 2-DH1 | 2402MHz A | | | Ţ |
| Spectrum Ref Level 3 Att SGL Count 3 | Tx 20.00 dBr 30 d | <. Spurio | us NVI | NT 2-DH1 | a an | | | Ū |
| Spectrum Ref Level 3 Att SGL Count 3 | Tx 20.00 dBr 30 d | <. Spurio | us NVI | NT 2-DH1 | Mode Auto Swe | | | |
| Spectrum Ref Level 2 Att SGL Count 2 1Pk Max | Tx 20.00 dBr 30 d | <. Spurio | us NVI | NT 2-DH1 | a an | | sion | -5.73 dBr |
| Spectrum Ref Level 2 Att SGL Count 2 1Pk Max | Tx 20.00 dBr 30 d | <. Spurio | us NVI | NT 2-DH1 | Mode Auto Swe | | sion | -5,73 dBr 402070 GH |
| Spectrum Ref Level 2 Att SGL Count 2 11Pk Max 10 dBm | Tx 20.00 dBr 30 d | <. Spurio | us NVI | NT 2-DH1 | Mode Auto Swe | | sion 2.4 | -5.73 dBr +02070 GH -38.10 dBr |
| Spectrum Ref Level 3 Att SGL Count 3 SGL C | Tx 20.00 dBr 30 d | <. Spurio | us NVI | NT 2-DH1 | Mode Auto Swe | | sion 2.4 | -5.73 dBr +02070 GH -38.10 dBr |
| Spectrum Ref Level 3 Att SGL Count 3 SGL C | Tx 20.00 dBr 30 d | <. Spurio | us NVI | NT 2-DH1 | Mode Auto Swe | | sion 2.4 | -5.73 dBr +02070 GH -38.10 dBr |
| Spectrum Ref Level 2 Att SGL Count 2 1Pk Max 10 dBm 0 dBm 10 dBm | Tx 20.00 dBr 30 d | <. Spurio | us NVI | NT 2-DH1 | Mode Auto Swe | | sion 2.4 | -5.73 dBr +02070 GH -38.10 dBr |
| Spectrum Ref Level 2 Att SGL Count 2 DIPk Max 10 dBm 10 dBm 10 dBm 20 dBm | Tx 20.00 dBr 30 d | K. Spurio | us NVI | NT 2-DH1 | Mode Auto Swe | | sion 2.4 | -5.73 dBr +02070 GH -38.10 dBr |
| Spectrum Ref Level 2 Att SGL Count 2 DIPk Max 10 dBm 10 dBm 10 dBm 20 dBm | T; 20.00 dBr 30 dl 10/10 | K. Spurio | .62 dB • .65 ms • | NT 2-DH1 | Mode Auto Swe | | sion 2.4 | -5.73 dBr +02070 GH -38.10 dBr |
| Spectrum Ref Level 3 Att SGL Count 3 11Pk Max 10 dBm 10 dBm 20 dBm 30 dBm | 20.00 dBr 30 dBr 10/10 | K. Spurio | us NVI | NT 2-DH1 | Mode Auto Swe | ep | sion 2.4 | -5.73 dBr +02070 GH -38.10 dBr |
| Spectrum Ref Level 3 Att SGL Count 3 11Pk Max 10 dBm 10 dBm 20 dBm 30 dBm | T; 20.00 dBr 30 dl 10/10 | K. Spurio | .62 dB • .65 ms • | NT 2-DH1 | Mode Auto Swe | ep | sion 2.4 | -5.73 dBr +02070 GH -38.10 dBr |
| Spectrum Ref Level 3 Att SGL Count 3 11Pk Max 10 dBm 10 dBm 20 dBm 30 dBm | T; 20.00 dBr 30 dl 10/10 | K. Spurio | .62 dB • .65 ms • | NT 2-DH1 | Mode Auto Swe | ep | sion 2.4 | -5.73 dBr +02070 GH -38.10 dBr |
| Spectrum Ref Level 3 Att SGL Count 3 DIPk Max 10 dBm 10 dBm 20 dBm 30 dBm 40 dBm | T; 20.00 dBr 30 dl 10/10 | K. Spurio | .62 dB • .65 ms • | NT 2-DH1 | Mode Auto Swe | ep | sion 2.4 | -5.73 dBr +02070 GH -38.10 dBr |
| Spectrum Ref Level 3 Att SGL Count 3 DIPk Max 10 dBm 10 dBm 20 dBm 30 dBm 40 dBm | T; 20.00 dBr 30 dl 10/10 | K. Spurio | .62 dB • .65 ms • | NT 2-DH1 | Mode Auto Swe | ep | sion 2.4 | -5.73 dBr +02070 GH -38.10 dBr |
| Spectrum Ref Level 2 Att SGL Count 2 DIPk Max 10 dBm 10 dBm 20 dBm 20 dBm 40 dBm 40 dBm 40 dBm 40 dBm 40 dBm | T; 20.00 dBr 30 dl 10/10 | K. Spurio | .62 dB • .65 ms • | NT 2-DH1 | Mode Auto Swe | ep | sion 2.4 | -5.73 dBr +02070 GH -38.10 dBr |
| Spectrum Ref Level 3 Att SGL Count 3 DIPk Max 10 dBm 10 dBm 20 dBm 40 dBm 40 dBm 40 dBm 70 dBm 70 dBm | 20.00 dBr 30 dl 10/10 | K. Spurio | .62 dB • .65 ms • | NT 2-DH1 | Mode Auto Swe | ep | 2 20.: | -5.73 dBr +02070 GH -38.10 dBr 247786 GH |
| Spectrum Ref Level : Att SGL Count : 10 dBm 10 dBm 10 dBm 20 dBm 40 dBm 40 dBm 70 dBm 70 dBm 5tert 30.0 M | 20.00 dBr 30 dl 10/10 | K. Spurio | .62 dB • .65 ms • | NT 2-DH1 | Mode Auto Swe | ep | 2 20.: | -5.73 dBn 402070 GH -38.10 dBn |
| Spectrum Ref Level 2 Att SGL Count 2 IPk Max IO dBm -10 dBm -20 dBm -20 dBm -20 dBm -20 dBm -70 dBm | 20.00 dBr 30 dl 10/10 | K. Spurio | .62 dB • | NT 2-DH1 | Mode Auto Swe | ер М2 | 2 20.: | -5.73 dBn 402070 GH -38.10 dBn 247786 GH |
| Spectrum Ref Level 2 Att SGL Count 2 IPk Max I0 dBm | 20.00 dBr 30 dl 10/10 | K. Spurio | us NVI | NT 2-DH1 | Mode Auto Swe | ер М2 | 2 20.: | -5.73 dBn 402070 GH -38.10 dBn 247786 GH |
| Spectrum Ref Level : Att SGL Count : 91Pk Max 10 dBm -10 dBm -20 dBm -20 dBm -40 dBm -40 dBm -70 dBm | 20.00 dBr 30 dl 10/10 | K. Spurio | us NVI | NT 2-DH1 | Mode Auto Swe | ер М2 | 2 20.: | -5.73 dBn 402070 GH -38.10 dBn 247786 GH |
| Spectrum Ref Level : Att SGL Count : PPK Max 10 dBm -10 dBm -20 dBm -20 dBm -30 dBm -30 dBm -70 dBm | 11 -25.45 10/10 11 -25.45 11 - | K. Spurio n Offset 7 8 SWT 2 6 dBm 1 13 M4 1 14 1 1 15 M4 1 16 dBm 1 16 dBm 1 17 M4 1 18 M4 1 19 1 1 20.2477 20.2477 1 | e 07 GHz 86 GHz | NT 2-DH1 | Mode Auto Swe | ер М2 | 2 20.: | |
| Spectrum Ref Level 2 Att SGL Count 2 1Pk Max 10 dBm -10 dBm -20 dBm -20 dBm -30 dBm -40 dBm -70 dBm | 20.00 dBr 30 dl 10/10 | K. Spurio n Offset 7 8 SWT 2 16 dBm 1 13 M4 1 13 M4 1 14 1 1 15 M4 1 14 1 1 15 M4 1 16 4 1 17 4 1 | 62 dB 65 ms 65 ms 07 GHz 19 GHz | NT 2-DH1 | Mode Auto Swe | ер М2 | 2 20.: | -5.73 dBn 402070 GH -38.10 dBn 247786 GH |
| Spectrum Ref Level 3 Att SGL Count 3 DIPk Max 10 dBm 10 dBm 20 dBm 20 dBm 40 dBm 40 dBm 70 dBm 70 dBm 70 dBm 8 Start 30.0 M Iarker Type Ref M1 | 11 -25.45 10/10 11 -25.45 11 - | K. Spurio n Offset 7 8 SWT 2 6 dBm 1 13 M4 1 14 1 1 15 M4 1 16 dBm 1 16 dBm 1 17 M4 1 18 M4 1 19 1 1 20.2477 20.2477 1 | 45 GH2 19 GH2 19 GH2 19 GH2 19 GH2 19 GH2 19 GH2 19 GH2 19 GH2 10 GH2 | NT 2-DH1 | Mode Auto Swe | ер М2 | 2 20.: | -5.73 dBr 402070 GH -38.10 dBr 247786 GH |

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Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission

| Ref Level Att | 20.00 dBm 30 dB | | | RBW 100 kHz VBW 300 kHz | Mode Auto Swe | en | (\ |
|--|--|------------------------------|-------------------------|--|------------------------------|---|---|
| SGL Count | | | | | Houe Hoto She | .05 | |
| 1Pk Max | | | | | | | |
| | | | | | M1[1] | | -5.81 dBm |
| 10 dBm | | | | | | | 2.440900 GHz |
| | | 1 1 | | | M2[1] | | -37.94 dBn |
| 0 dBm - M | | | | - | | | 18.291653 GH |
| | | 1 1 | | | | | |
| -10 dBm- | | | | | | | |
| -20 dBm- | | | | | | | |
| 20 0011 | | | | | | | |
| -30 dBm | D1 -26.81 | 2 dBm | | - | | | |
| | M | 13 M4 | M5 | | | M2 | |
| -40 dBm- | a to a local sector | Construction of the second | due la state | | the second second second | and all the second data | and the state of the |
| . Jan altin & El | | And the second second | | and a set of the set of the set of the | And the second second second | of the second | and build in the shine for statistic further and |
| | Barrie Barrier Barrier | | | | | | |
| | Des au biller an | | | | | | |
| -60 dBm | | | | | | | |
| -60 dBm | | | | | | _ | |
| -60 dBm | | | | | | | |
| | | | | | | | |
| | MHz | | | 30001 g | ots | | Stop 26.5 GHz |
| -70 dBm | MHz | | | 30001 p | ots | | Stop 26.5 GHz |
| -70 dBm | MHz f Trc | X-value | | 30001 p | ts | Fu | Stop 26.5 GHz |
| -70 dBm | | | 9 GHz | | | Fu | |
| -70 dBm Start 30.0 1arker Type Re | fTrc | | | Y-value | | Fu | |
| -70 dBm Start 30.0 Tarker Type Re M1 M2 M3 | f Trc | 2.440 18.29165 5.04871 | 3 GHz 2 GHz | Y-value -5.81 dBm -37.94 dBm -41.41 dBm | | Fu | |
| -70 dBm Start 30.0 Iarker Type Re M1 M2 | f Trc 1 | 2.440 18.29165 | 3 GHz 2 GHz 7 GHz | Y-value -5.81 dBm -37.94 dBm | | Fu | |

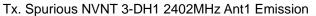


Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission

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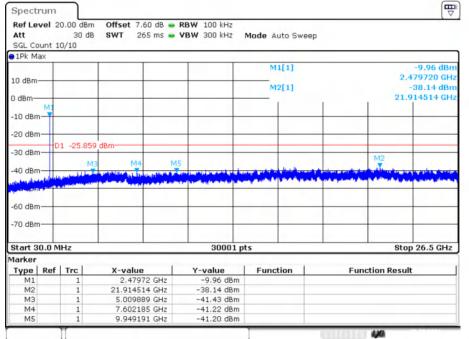


| Ref Level 2 Att SGL Count 1 | 30 dB | | | BW 100 kHz BW 300 kHz | Mode Auto S | weep | | | |
|--|--|---|--|--|---------------------------|-------------|----------|--|---|
| 1Pk Max | 0/10 | | | | | | | | |
| | | | | | M1[1] | | | - | 4.81 dBn |
| 10 dBm | | | | | | | | 2,40 | 2070 GH |
| | | | | | M2[1] | | | | 7.66 dBn |
| D dBm Ma | _ | | | | _ | | 1 | 16.92 | 9330 GH |
| -10 dBm | | | | | | | | | |
| -10 UBIII | | | | | | | | | |
| -20 dBm | _ | | | | | | | - | |
| | 1 -25.108 | dBm | | | | | | | |
| -30 dBm | 1.12 | | | | M | 2 | | | |
| 40 dBm | M3 | M4 | M5 | | | | | | the start |
| والمعلمة وفسالاروا | | | | - and the state of | A CONTRACTOR OF THE OWNER | a share and | | the state of the s | and Ann |
| Posto Billion and | A DESIGNATION OF THE OWNER. | | | | | | | | |
| 60 dBm | | | | | | | | | |
| OU UBIII | | | | | | | | | |
| 70 dBm | | | | | | | | | |
| | | | | | | | | | |
| Start 30.0 M | IHz | | | 30001 pt | s | | | Stop 2 | 6.5 GHz |
| larker | | | | | | | | | |
| Type Ref | Trc | X-value | 1 | Y-value | Function | 1 | Function | n Result | |
| M1 | 1 | 2.4020 | 7 GHz | -4.81 dBm | | | | | |
| M2 | 1 | 16.9293 | | -37.66 dBm | | | | | |
| M3 | 1 | 4.79989 | | -41.77 dBm | | | | | |
| M4 M5 | 1 | 7.01278 | | -41.25 dBm | | | | | |
| | Tx. | . Spuriou | | -41.47 dBm |] 441MHz | Ant1 E | mission | - | |
| Ref Level 2 Att | Tx. | . Spuriou | IS NVN 18 db 🕳 R | IT 3-DH1 2 BW 100 kHz | 2441MHz Mode Auto S | | | - | Œ |
| Ref Level 2 Att SGL Count 1 | Tx. | . Spuriou | IS NVN 18 db 🕳 R | IT 3-DH1 2 BW 100 kHz | | | | - | (T |
| Ref Level 2 Att SGL Count 1 | Tx. | . Spuriou | IS NVN 18 db 🕳 R | IT 3-DH1 2 BW 100 kHz | | | | ר | [\ |
| Ref Level 2 Att SGL Count 1 1Pk Max | Tx. | . Spuriou | IS NVN 18 db 🕳 R | IT 3-DH1 2 BW 100 kHz | Mode Auto S | | | 1 | (∨ 3.16 dBr |
| Ref Level 2 Att SGL Count 1 1Pk Max | Tx. | . Spuriou | IS NVN 18 db 🕳 R | IT 3-DH1 2 BW 100 kHz | Mode Auto S | | | | (∨ 3.16 dBn 3900 GH 7.88 dBn |
| Ref Level 2 Att SGL Count 1 1Pk Max | Tx. | . Spuriou | IS NVN 18 db 🕳 R | IT 3-DH1 2 BW 100 kHz | Mode Auto S M1[1] | | | | (∨ 3.16 dBn 3900 GH 7.88 dBn |
| Att SGL Count 1 1Pk Max 10 dBm 0 dBm | Tx. | . Spuriou | IS NVN 18 db 🕳 R | IT 3-DH1 2 BW 100 kHz | Mode Auto S M1[1] | | | | 3.16 dBr 3900 GH 7.88 dBr |
| Att SGL Count 1 1Pk Max 10 dBm 0 dBm | Tx. | . Spuriou | IS NVN 18 db 🕳 R | IT 3-DH1 2 BW 100 kHz | Mode Auto S M1[1] | | | | 3.16 dBr 3900 GH 7.88 dBr |
| Ref Level 2 Att SGL Count 1 1Pk Max 10 dBm 0 dBm 10 dBm | Tx. | . Spuriou | IS NVN 18 db 🕳 R | IT 3-DH1 2 BW 100 kHz | Mode Auto S M1[1] | | | | 3.16 dBr 3900 GH 7.88 dBr |
| Ref Level 2 Att SGL Count 1 PIPK Max 10 dBm 0 dBm -10 dBm -20 dBm | Tx. | Offset 7.7 SWT 26 | IS NVN 18 db 🕳 R | IT 3-DH1 2 BW 100 kHz | Mode Auto S M1[1] | | | | (∨ 3.16 dBn 3900 GH 7.88 dBn |
| Ref Level 2 Att SGL Count 1 PIPK Max 10 dBm 0 dBm 10 dBm 20 dBm | Tx 0.00 dBm 30 dB 0/10 | dBm | 18 NVN 18 dB • R 5 ms • V | IT 3-DH1 2 BW 100 kHz | Mode Auto S M1[1] | | | | 3.16 dBr 3900 GH 7.88 dBr |
| Ref Level 2 Att SGL Count 1 1Pk Max 10 dBm 0 dBm 10 dBm 20 dBm 30 dBm | Tx. 0.00 dBm 30 dB 0/10 | dBm | IS NVN 18 db 🕳 R | IT 3-DH1 2 BW 100 kHz | Mode Auto S M1[1] | | Emission | | 3.16 dBr 3900 GH 7.88 dBr |
| Ref Level 2 Att SGL Count 1 1Pk Max 10 dBm 0 dBm 10 dBm 20 dBm 30 dBm | Tx 0.00 dBm 30 dB 0/10 | dBm | 18 NVN 18 dB • R 5 ms • V | IT 3-DH1 2 BW 100 kHz | Mode Auto S M1[1] | | Emission | | 3.16 dBr 3900 GH 7.88 dBr |
| Ref Level 2 Att SGL Count 1 1Pk Max 10 dBm 0 dBm 10 dBm -10 dBm -20 dBm -30 dBm | Tx 0.00 dBm 30 dB 0/10 | dBm | 18 NVN 18 dB • R 5 ms • V | IT 3-DH1 2 BW 100 kHz | Mode Auto S M1[1] | | Emission | | (∨ 3.16 dBn 3900 GH 7.88 dBn |
| Ref Level 2 Att SGL Count 1 SGL Count 1 IPK Max 10 dBm 10 dBm 10 dBm 20 dBm -20 dBm -30 dBm -40 dBm | Tx 0.00 dBm 30 dB 0/10 | dBm | 18 NVN 18 dB • R 5 ms • V | IT 3-DH1 2 BW 100 kHz | Mode Auto S M1[1] | | Emission | | (♥ 8.16 dBn 0900 GH 7.88 dBn 4520 GH |
| Ref Level 2 Att SGL Count 1 SGL Count 2 SGL Count 3 SGL Count 3 <td>Tx 0.00 dBm 30 dB 0/10</td> <td>dBm</td> <td>18 NVN 18 dB • R 5 ms • V</td> <td>IT 3-DH1 2 BW 100 kHz</td> <td>Mode Auto S M1[1]</td> <td></td> <td>Emission</td> <td></td> <td>3.16 dBr 3900 GH 7.88 dBr</td> | Tx 0.00 dBm 30 dB 0/10 | dBm | 18 NVN 18 dB • R 5 ms • V | IT 3-DH1 2 BW 100 kHz | Mode Auto S M1[1] | | Emission | | 3.16 dBr 3900 GH 7.88 dBr |
| Ref Level 2 Att SGL Count 1 1Pk Max 10 dBm 0 dBm 10 dBm 20 dBm 30 dBm 40 dBm 60 dBm | Tx 0.00 dBm 30 dB 0/10 | dBm | 18 NVN 18 dB • R 5 ms • V | IT 3-DH1 2 BW 100 kHz | Mode Auto S M1[1] | | Emission | | 3.16 dBr 3900 GH 7.88 dBr |
| Ref Level 2 Att SGL Count 1 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -60 dBm | Tx 0.00 dBm 30 dB 0/10 | dBm | 18 NVN 18 dB • R 5 ms • V | IT 3-DH1 2 BW 100 kHz | Mode Auto S M1[1] | | Emission | | (∨ 3.16 dBn 3900 GH 7.88 dBn |
| Ref Level 2 Att SGL Count 1 SGL Count 1 IPK Max 10 dBm 10 dBm 10 dBm 20 dBm -20 dBm -30 dBm -40 dBm -70 dBm | 0.00 dBm 30 dB 0/10 | dBm | 18 NVN 18 dB • R 5 ms • V | IT 3-DH1 2 BW 100 kHz | Mode Auto S | | Emission | | (▼ 3,16 dBr 0900 GH 7,88 dBr 4520 GH |
| Ref Level 2 Att SGL Count 1 SGL Count 1 IPk Max 10 dBm 10 dBm -10 dBm -20 dBm -30 dBm -40 dBm -60 dBm -70 dBm -70 dBm -70 dBm | 0.00 dBm 30 dB 0/10 | dBm | 18 NVN 18 dB • R 5 ms • V | IT 3-DH1 2 | Mode Auto S | | Emission | | (▼ 3,16 dBr 0900 GH 7,88 dBr 4520 GH |
| Ref Level 2 Att SGL Count 1 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -60 dBm -70 dBm Start 30.0 M | 0.00 dBm 30 dB 0/10 | dBm | 18 NVN 18 dB • R 5 ms • V | IT 3-DH1 2 | Mode Auto S | | Emission | | (▼ 3,16 dBn 0900 GH 7,88 dBn 4520 GH |
| Ref Level 2 Att SGL Count 1 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -60 dBm -70 dBm Start 30.0 M | 0.00 dBm 30 dB 0/10 | dBm | IS NVN 18 dB • R 5 ms • V | IT 3-DH1 2 BW 100 kH2 BW 300 kH2 | Mode Auto S | | Emission | | (▼ 3,16 dBn 0900 GH 7,88 dBn 4520 GH |
| Ref Level 2 Att SGL Count 1 1Pk Max 10 dBm 10 dBm -10 dBm -20 dBm -30 dBm -40 dBm -70 dBm Start 30.0 M Marker Type Ref | 0.00 dBm 30 dB 0/10 | . Spuriou offset 7.7 swT 26 dBm dBm M4 M4 M4 M4 M4 M4 M4 M4 M4 M4 M4 M4 M4 | 18 dB • R 5 ms • V 5 ms • V 9 GHz 2 GHz | IT 3-DH1 2 | Mode Auto S | | Emission | | (▼ 3,16 dBn 0900 GH 7,88 dBn 4520 GH |
| Att SGL Count 1 1Pk Max 10 dBm 0 dBm 0 dBm -10 dBm -20 dBm -20 dBm -30 dBm -40 dBm -40 dBm -40 dBm -70 dBm Start 30.0 M Marker Type Ref M1 M2 M3 | 1 -25.117 M3 M4 0/10 1 -25.117 M3 M4 M4 M4 M4 M4 M4 M4 M4 M4 M4 | . Spuriou offset 7.7 swr 26 dBm dBm M4 control of the control of t | 18 dB → R 5 ms → V M5 M5 M5 M5 2 GHz 2 GHz 2 GHz 2 GHz 3 GHz | IT 3-DH1 2 BW 100 kHz BW 300 kHz BW 37.86 dBm BW 37.86 dBm BW 37.86 dBm BW 37.86 dBm | Mode Auto S | | Emission | | (∨ 3.16 dBn 3900 GH 7.88 dBn |
| Ref Level 2 Att SGL Count 1 SGL Max IPk Max 10 dBm 0 dBm -10 dBm -20 dBm -20 dBm -30 dBm -40 dBm -70 dBm | 1 -25.117 M3 M4 M3 M4 M4 M4 M4 M4 M4 M4 M4 M4 M4 | . Spuriou offset 7.7 swT 26 dBm dBm M4 M4 M4 M4 M4 M4 M4 M4 M4 M4 M4 M4 M4 | 15 NVN 18 dB • R 5 ms • V 16 dB • R 16 d | IT 3-DH1 2 BW 100 kHz BW 300 kHz | Mode Auto S | | Emission | | (▼ 3,16 dBn 0900 GH 7,88 dBn 4520 GH |

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Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission



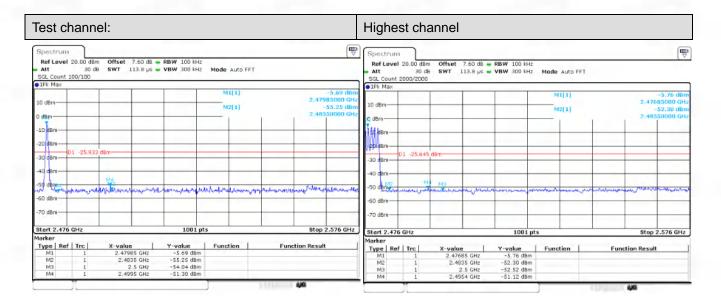
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| Test channel: | | | | | Lowest channel | | | | | | | | | | | | |
|--|-------------|------------------------------------|---------------------------------------|---------------------------------|----------------------------------|-------------------|----------------|-----------|-----------------------|----------------------------------|---------------------------------------|--------|----------|----------------------|------------------|-----------------|--------|
| Spectrum |) | | | | | ₩ | Spect | um |) | | | | | | | | T T |
| Ref Level 20.0 Att SGL Count 100/2 | 30 dB SV | fset 7.62 dB עד 113.8 עד 1 | | Mode Auto FFT | | | Att | ovel 20.0 | 30 dB SWT | | RBW 100 kHz VBW 300 kHz | | Auto FFT | | | | |
| 1Pk Max | | | | | | | 1Pk Ma | 310 | | | | | | | | | |
| 10 dBm | _ | | | M1[1] | 2,402150 | | 10 dBm | | | | | | 11(1) | | | -5,33 285000 | 0 GH |
| 0 dBm | | _ | | M2[1] | -53, 2,400000 | 65 dBm 100,GHz | 0 dBm- | _ | | _ | | N | 12[1] | 1 | | -52,43 | |
| -10 dBm | _ | _ | | | | - | -10 dBm | | | - | | _ | - | | - | - | t |
| -20 dBm | 25.891 dBm- | | | | | | -20 dBm | | 24.937 dBm | | | | | - | | | μ |
| -30 dBm | 25.891 dBm- | | | | | | -30 dBm | | and and | | | | | + | - | | + |
| -40 dBm | | M-4 | | | | 1 | -40 dBm | | | | | M4 | | | 112 | Ma | t |
| -50 dBm | anitarpen | and many house the | and the second | the state and the second second | and a second and a second of the | all land | -50 dBm | | and the second second | and the provides | unimena | wandow | man | New Male Male Martin | where the second | | |
| -70 dBm | _ | | | | | | -70 dBm | | _ | | | | | _ | - | _ | _ |
| Start 2.306 GHz | | | 1001 pt | 5 | Stop 2.40 | 06 GHz | Start 2 | .306 GH: | 2 | | 1001 p | ots | | | Stop | 2.406 | GH |
| forker Type Ref Tr | | value | Y-value | Function | Function Result | | | Ref Tr | | | Y-value | Fund | tion | Fur | iction Resul | t | |
| M1 M2 M3 | 1 | 2.40215 GHz 2.4 GHz 2.39 GHz | -5.10 dBm -53.65 dBm -54.16 dBm | | | | M1 M2 M3 | | 1 2.4 | 40285 GHz 2.4 GHz 2.39 GHz | -5.33 dBm -52.43 dBm -53.27 dBm | 1 | | | | | |
| M4 | 1 | 2.3419 GHz | -51.76 dBm | | | | M4 | | 1 2 | .3626 GHz | -50.66 dBm | | | | | | |
| TT I | | | | | 449 | | | | | | | | | 26211010 | 4,43 | | _ |

No-hopping mode

Hopping mode



No-hopping mode

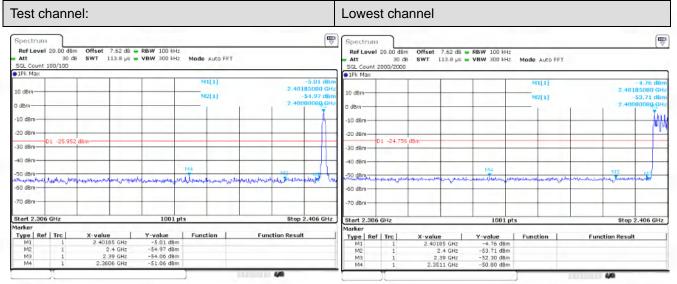
Hopping mode

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π/4DQPSK Mode:



No-hopping mode

Hopping mode

| Test channel: | Highest channel | | | | | | |
|--|--|--|--|--|--|--|--|
| Ref Level 20.00 dBm Offset 7.60 dB RBW 100 Hz Att 30.08 SWT 113.8 µs VBW 300 FH2 Mode Auto FFT SGL Count 100/100 SGL 00/100 FT SGL SGL | | | | | | | |
| D1 Max M1[1] -746 d 10 dBm M2[1] 2,4803000 f 0 dBm M2[1] 2,55,91 d 0 dBm M2[1] 2,4803000 f -10 Bm M2[1] 2,4803000 f -20 dBm M2[1] 2,4803000 f -10 Bm M2[1] -2,480 d -20 dBm M2[1] -2,480 d -30 dBm M2[1] -2,493 d -30 dBm M2[1] -4,493 d -30 dBm M2[1] -4,493 d < | Im MI[1] -5.92 40 H2 10 dem MI[1] 2.4768000 GI H3 0.0 dem 32.4768000 GI 32.4768000 GI H4 0.0 dem 2.4835000 GI 32.4835000 GI H4 0.0 dem 0.1 -20.663 dem 30.0 dem -30 dem -30 dem -30.0 dem -30.0 dem | | | | | | |
| Stort 2.476 GHz 1001 pts Stop 2.576 G Marker Trype Ref Trc X-value Function Function Result M1 1 2.48005 GHz -7.48 dBm Function Function Result M2 1 2.48055 GHz -55.91 dBm Function Function Result M3 1 2.5 GHz -55.91 dBm Function Function Result M4 1 2.4864 GHz -52.21 dBm Function Function Function | Ize Stort 2.476 GHz 1001 pts Stop 2.576 GH Marker Yuppe Ref Trc X-value Function Function Result M1 1 2.4765 GHz -5.67 dBm Function Function Result M2 1 2.4765 GHz -5.67 dBm Function Function Result M3 1 2.5 GHz -52.39 dBm Function Function Result M4 1 2.4976 dHz -60.1 dBm Function Function Result | | | | | | |

No-hopping mode

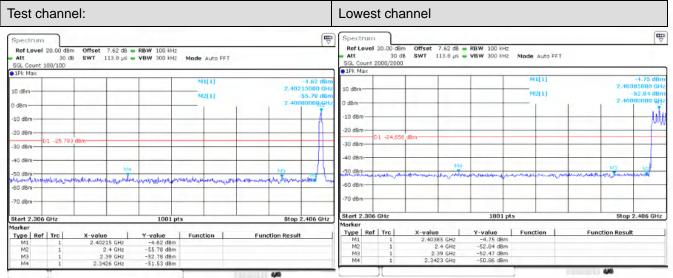
Hopping mode

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8DPSK Mode:



No-hopping mode

Hopping mode

| est channel: | Highest channel | | | | | |
|--|--|--|--|--|--|--|
| Spectrum | | | | | | |
| RofLevel 20.00 dBm Offset 7.60 dB RBW 100 kHz Att 30 dB SWT 113.8 µS VBW 300 kHz ScL Count 100/100 SWT 113.8 µS VBW 300 kHz | Ref Level 20.00 dBm Offset 7.60 dB RBW 100 H/z att 30 dB SWT 113.8 µs VBW 500 H/z Mode Auto FFT SGL Count 2000/2000 200 Hz Mode Auto FFT | | | | | |
| 1Pk Max | PPk Max | | | | | |
| 10 dBm | 10 dBm N1(1) -5-22 db 2.47615000 db N2(1) -52.47 db | | | | | |
| 0 d8m 2.48350000 GH | p dem 2,48350000 GP | | | | | |
| 10 dBm | //d.bem | | | | | |
| 20 dBm | -20 dBm- | | | | | |
| 01 -25.894 dBm | 01 -25 232 dBm | | | | | |
| 4Q d8m | -40 d8m | | | | | |
| 50 dBm57 M4 | -50 delle 112 160 | | | | | |
| and an and the second second second second second second and the second | -60 d8m | | | | | |
| 70 dBm | -70 dBm | | | | | |
| Start 2.476 GHz 1001 pts Stop 2.576 GHz | Start 2.476 GHz 1001 pts Stop 2.576 GHz | | | | | |
| lorker | Morker | | | | | |
| Type Ref Trc X-value Y-value Function Function Result | Type Ref Trc X-value Y-value Function Function Result | | | | | |
| M1 1 2.47985 GHz -5.85 dBm M2 1 2.4835 GHz -54.50 dBm | M1 1 2.47615 GHz -5.22 dBm M2 1 2.4835 GHz -52.47 dBm | | | | | |
| M2 1 2.4835 GHZ -54.90 dBm M3 1 2.5 GHZ -54.96 dBm | M3 1 2.5 GHz -52.22 dBm | | | | | |
| M4 1 2.4903 GHz -52.19 dBm | M4 1 2.4994 GHz -50.80 dBm | | | | | |
| Y | | | | | | |

No-hopping mode

Hopping mode

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6.8 Band edge emissions (Radiated)

| Test Requirement: | | ssions which fall in the restrictent nply with the radiated emission c)).` | | | | |
|-------------------------|---|--|-------------------------------------|--|--|--|
| Test Method: | Radiated emissions test | S | | | | |
| | Frequency (MHz) | Field strength (microvolts/meter) | Measurement distance (meters) | | | |
| | 0.009-0.490 | 2400/F(kHz) | 300 | | | |
| | 0.490-1.705 | 24000/F(kHz) | 30 | | | |
| | 1.705-30.0 | 30 | 30 | | | |
| | 30-88 | 100 ** | 3 | | | |
| Test Limit: | 88-216 | 150 ** | 3 | | | |
| | 216-960 | 200 ** | 3 | | | |
| | Above 960 | 500 | 3 | | | |
| | ** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241. | | | | | |
| Procedure: | ANSI C63.10-2013 secti | on 6.6.4 | | | | |
| 6.8.1 E.U.T. Operation: | | | | | | |

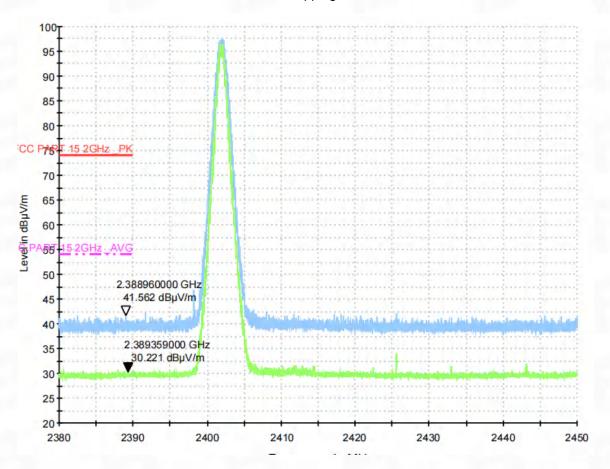
| Operating Environment: | |
|------------------------|-----------|
| Temperature: | 24.9 °C |
| Humidity: | 49.4 % |
| Atmospheric Pressure: | 1010 mbar |



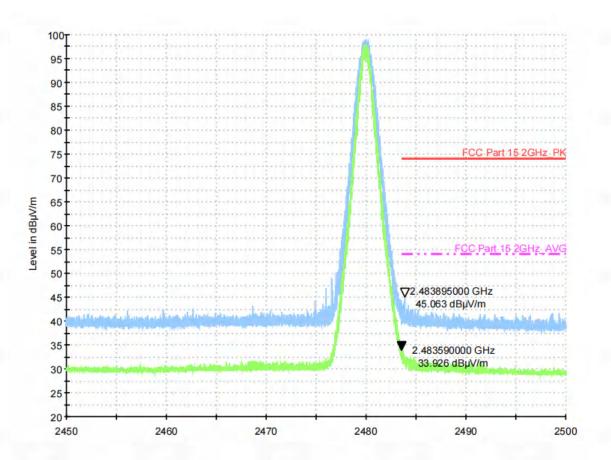
6.8.2 Test Data:

Worst test modulation 8DPSK

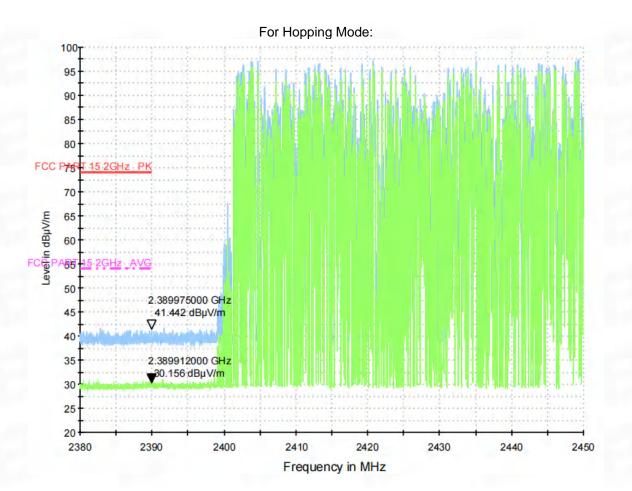
For Non-Hopping Mode:



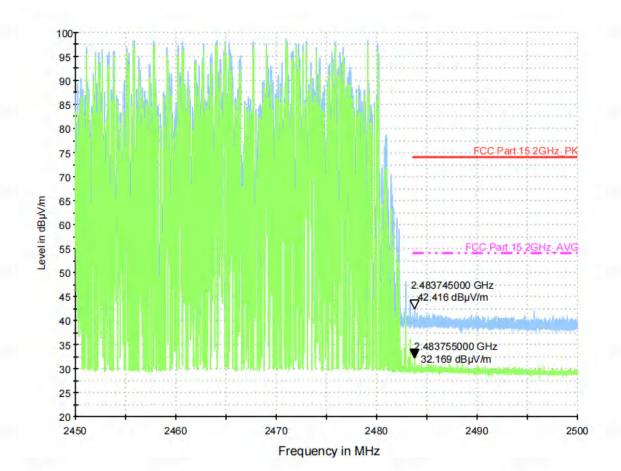














6.9 Emissions in restricted frequency bands (below 1GHz)

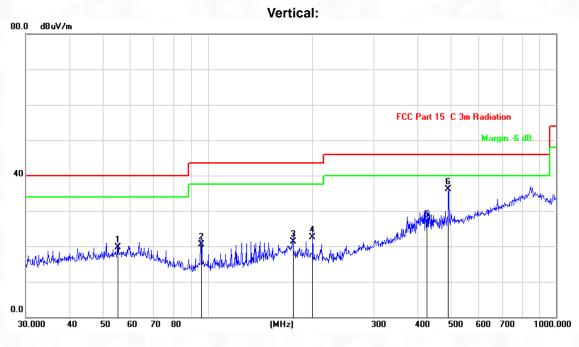
| Test Requirement: | | issions which fall in the restricte mply with the radiated emission (c)).` | | | | | |
|-------------------|---|---|-------------------------------------|--|--|--|--|
| Test Method: | Radiated emissions test | S | | | | | |
| | Frequency (MHz) | Field strength (microvolts/meter) | Measurement distance (meters) | | | | |
| | 0.009-0.490 | 2400/F(kHz) | 300 | | | | |
| | 0.490-1.705 | 24000/F(kHz) | 30 | | | | |
| | 1.705-30.0 | 30 | 30 | | | | |
| | 30-88 | 100 ** | 3 | | | | |
| Test Limit: | 88-216 | 150 ** | 3 | | | | |
| | 216-960 | 200 ** | 3 | | | | |
| | Above 960 | 500 | 3 | | | | |
| | radiators operating unde 54-72 MHz, 76-88 MHz, | ** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., | | | | | |
| Procedure: | ANSI C63.10-2013 sect | ion 6.6.4 | | | | | |
| 691 EUT Operation | n: | | | | | | |

6.9.1 E.U.T. Operation:

| Operating Environment: | |
|------------------------|-----------|
| Temperature: | 24.9 °C |
| Humidity: | 49.4 % |
| Atmospheric Pressure: | 1010 mbar |

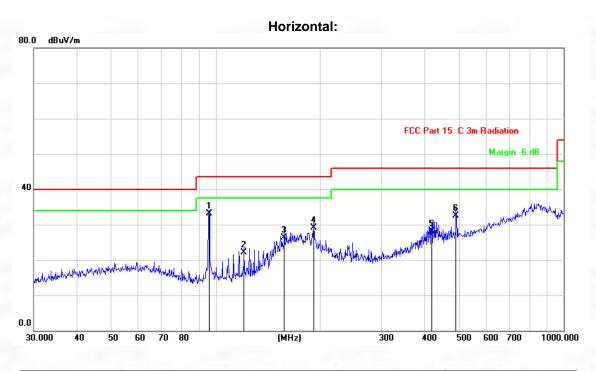


6.9.2 Test Data:



| No. | Frequency (MHz) | Reading Level(dBuV) | Factor (dB) | Measure- ment(dBuV) | Limit (dBuV) | Over (dB) | Detector | Comment |
|-----|--------------------|------------------------|----------------|------------------------|-----------------|--------------|----------|---------|
| 1 | 55,2207 | 28.78 | -9.08 | 19.70 | 40.00 | -20.30 | QP | |
| 2 | 95.7622 | 32.54 | -12.04 | 20.50 | 43.50 | -23.00 | QP | |
| 3 | 175.6516 | 32.73 | -11.43 | 21.30 | 43.50 | -22.20 | QP | |
| 4 | 199.9856 | 33.89 | -11.29 | 22.60 | 43.50 | -20.90 | QP | |
| 5 | 426.5210 | 29.19 | -2.19 | 27.00 | 46.00 | -19.00 | QP | |
| 6* | 490.7447 | 37.62 | -1.42 | 36.20 | 46.00 | -9.80 | QP | |





| No. | Frequency (MHz) | Reading Level(dBuV) | Factor (dB) | Measure- ment(dBuV) | Limit (dBuV) | Over (dB) | Detector | Comment |
|-----|--------------------|------------------------|----------------|------------------------|-----------------|--------------|----------|---------|
| 1* | 95.7622 | 45.14 | -12.04 | 33.10 | 43.50 | -10.40 | QP | |
| 2 | 120.6991 | 33.67 | -11.57 | 22.10 | 43,50 | -21.40 | QP | |
| 3 | 157.5588 | 37.78 | -11.48 | 26.30 | 43.50 | -17.20 | QP | |
| 4 | 191.7450 | 40.19 | -11.09 | 29.10 | 43.50 | -14.40 | QP | |
| 5 | 417.6411 | 30.72 | -2.62 | 28.10 | 46.00 | -17.90 | QP | |
| 6 | 490.7447 | 34.02 | -1.42 | 32.60 | 46.00 | -13.40 | QP | |

Remark: All modes have been tested, and only worst data of GFSK mode, Channel 2402MHz was listed in this report.



6.10 Emissions in restricted frequency bands (above 1GHz)

| Test Requirement: | | ssions which fall in the restrictemply with the radiated emission (c)). | | | | | |
|-------------------------|---|--|-------------------------------------|--|--|--|--|
| Test Method: | Radiated emissions tests | | | | | | |
| | Frequency (MHz) | Field strength (microvolts/meter) | Measurement distance (meters) | | | | |
| | 0.009-0.490 | 2400/F(kHz) | 300 | | | | |
| | 0.490-1.705 | 24000/F(kHz) | 30 | | | | |
| | 1.705-30.0 | 30 | 30 | | | | |
| | 30-88 | 100 ** | 3 | | | | |
| Test Limit: | 88-216 | 150 ** | 3 | | | | |
| | 216-960 | 200 ** | 3 | | | | |
| | Above 960 | 500 | 3 | | | | |
| | ** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241. | | | | | | |
| Procedure: | ANSI C63.10-2013 sect | ion 6.6.4 | | | | | |
| 6.10.1 E.U.T. Operation | n: | the second s | | | | | |

| Operating Environment: | |
|------------------------|-----------|
| Temperature: | 24.9 °C |
| Humidity: | 49.4 % |
| Atmospheric Pressure: | 1010 mbar |



6.10.2Test Data:

From 1G-25GHz

| | | | | Test Mode: | GFSK TX L | ow | | | |
|---------------|------------------------|----------------|-----------------------------|-------------------|-----------------------|--------------------|-------------------|----------------|--------|
| Freq (MHz) | Read Level (dBuV/m) | Polar (H/V) | Antenna Factor (dB/m) | Cable loss(dB) | Amp Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
| 4804 | 48.20 | V | 33.93 | 10.18 | 34.26 | 58.05 | 74 | -15.95 | PK |
| 4804 | 36.93 | V | 33.93 | 10.18 | 34.26 | 46.78 | 54 | -7.22 | AV |
| 7206 | / | / | / | / | / | / | / | / | / |
| 9608 | / | / | / | / | / | / | / | / | / |
| 4804 | 47.56 | Н | 33.93 | 10.18 | 34.26 | 57.41 | 74 | -16.59 | PK |
| 4804 | 35.74 | Н | 33.93 | 10.18 | 34.26 | 45.59 | 54 | -8.41 | AV |
| 7206 | / | / | / | / | / | / | / | / | / |
| 9608 | / | / | / | / | / | / | / | / | / |
| | | | | Test Mode: | GFSK TX N | /lid | | | |
| 4882 | 49.89 | V | 33.95 | 10.20 | 34.26 | 59.78 | 74 | -14.22 | PK |
| 4882 | 35.20 | V | 33.95 | 10.20 | 34.26 | 45.09 | 54 | -8.91 | AV |
| 7323 | / | / | / | / | / | / | / | / | / |
| 9764 | / | / | / | / | / | / | / | / | / |
| 4882 | 48.26 | Н | 33.95 | 10.20 | 34.26 | 58.15 | 74 | -15.85 | PK |
| 4882 | 34.52 | Н | 33.95 | 10.20 | 34.26 | 44.41 | 54 | -9.59 | AV |
| 7323 | / | / | / | / | / | / | / | / | / |
| 9764 | / | / | / | / | / | / | / | / | / |
| | | | | Test Mode: | GFSK TX H | ligh | | | |
| 4960 | 47.33 | V | 33.98 | 10.22 | 34.25 | 57.28 | 74 | -16.72 | PK |
| 4960 | 33.98 | V | 33.98 | 10.22 | 34.25 | 43.93 | 54 | -10.07 | AV |
| 7440 | / | / | / | / | / | / | / | / | / |
| 9920 | / | / | / | 1 | / | / | / | / | 1 |
| 4960 | 46.63 | H | 33.98 | 10.22 | 34.25 | 56.58 | 74 | -17.42 | PK |
| 4960 | 32.08 | H | 33.98 | 10.22 | 34.25 | 42.03 | 54 | -11.97 | AV |
| 7440 | / | / | / | / | / | / | / | / | / |
| 9920 | / | 1 | / | 1 | / | / | / | / | / |

 Result = Read level + Antenna factor + cable loss-Amp factor
 All the other emissions not reported were too low to read and deemed to comply with FCC limit.

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| | | | Τe | est Mode: π/4 | DQPSK T | X Low | | | |
|---------------|------------------------|----------------|-----------------------------|-------------------|-----------------------|--------------------|-------------------|----------------|--------|
| Freq (MHz) | Read Level (dBuV/m) | Polar (H/V) | Antenna Factor (dB/m) | Cable loss(dB) | Amp Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
| 4804 | 48.94 | V | 33.93 | 10.18 | 34.26 | 58.79 | 74 | -15.21 | PK |
| 4804 | 36.54 | V | 33.93 | 10.18 | 34.26 | 46.39 | 54 | -7.61 | AV |
| 7206 | / | / | / | / | / | / | / | / | / |
| 9608 | / | / | / | / | / | / | / | / | / |
| 4804 | 47.73 | Н | 33.93 | 10.18 | 34.26 | 57.58 | 74 | -16.42 | PK |
| 4804 | 35.32 | Н | 33.93 | 10.18 | 34.26 | 45.17 | 54 | -8.83 | AV |
| 7206 | / | / | / | / | / | / | / | / | / |
| 9608 | / | / | / | / | / | / | / | / | / |
| | | | Te | est Mode: π/4 | 1 DQPSK T | X Mid | | | |
| 4882 | 49.94 | V | 33.95 | 10.20 | 34.26 | 59.83 | 74 | -14.17 | PK |
| 4882 | 35.07 | V | 33.95 | 10.20 | 34.26 | 44.96 | 54 | -9.04 | AV |
| 7323 | / | / | / | / | / | / | / | / | / |
| 9764 | / | / | / | / | / | / | / | / | / |
| 4882 | 48.97 | Н | 33.95 | 10.20 | 34.26 | 58.86 | 74 | -15.14 | PK |
| 4882 | 34.08 | Н | 33.95 | 10.20 | 34.26 | 43.97 | 54 | -10.03 | AV |
| 7323 | / | / | / | / | / | / | / | / | / |
| 9764 | / | / | / | / | / | / | / | / | / |
| | | | Te | st Mode: π/4 | DQPSK T | X High | | | |
| 4960 | 47.32 | V | 33.98 | 10.22 | 34.25 | 57.27 | 74 | -16.73 | PK |
| 4960 | 33.44 | V | 33.98 | 10.22 | 34.25 | 43.39 | 54 | -10.61 | AV |
| 7440 | / | / | / | / | / | / | / | / | / |
| 9920 | / | / | / | / | / | / | / | / | / |
| 4960 | 46.67 | Н | 33.98 | 10.22 | 34.25 | 56.62 | 74 | -17.38 | PK |
| 4960 | 32.62 | Н | 33.98 | 10.22 | 34.25 | 42.57 | 54 | -11.43 | AV |
| 7440 | / | / | / | / | / | / | / | / | / |
| 9920 | / | / | / | / | / | / | / | / | / |

2, All the other emissions not reported were too low to read and deemed to comply with FCC limit.

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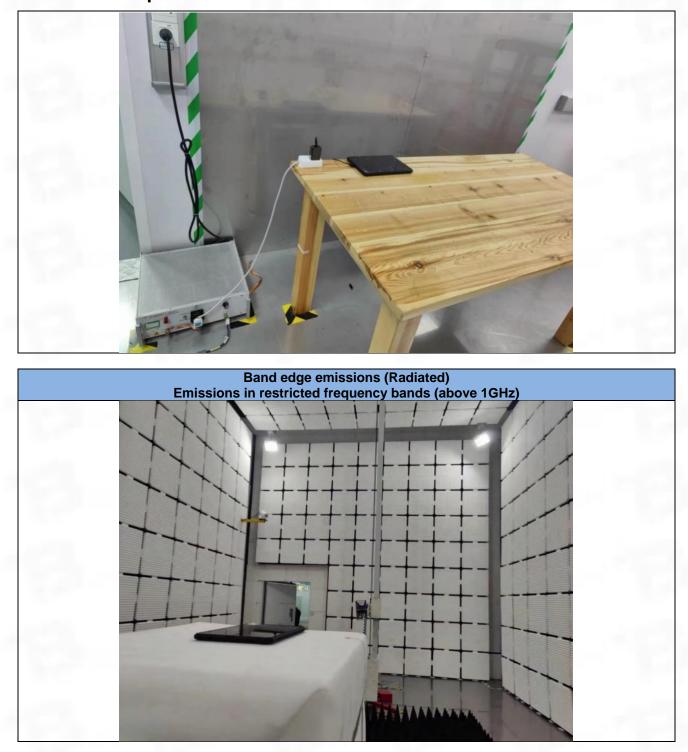
| | | | | Test Mode: 8 | BDPSK TX | Low | | | |
|---------------|------------------------|----------------|-----------------------------|-------------------|-----------------------|--------------------|-------------------|----------------|--------|
| Freq (MHz) | Read Level (dBuV/m) | Polar (H/V) | Antenna Factor (dB/m) | Cable loss(dB) | Amp Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
| 4804 | 48.44 | V | 33.93 | 10.18 | 34.26 | 58.29 | 74 | -15.71 | PK |
| 4804 | 36.20 | V | 33.93 | 10.18 | 34.26 | 46.05 | 54 | -7.95 | AV |
| 7206 | / | / | / | / | / | / | / | / | / |
| 9608 | / | / | / | / | / | / | / | / | / |
| 4804 | 47.80 | Н | 33.93 | 10.18 | 34.26 | 57.65 | 74 | -16.35 | PK |
| 4804 | 35.76 | Н | 33.93 | 10.18 | 34.26 | 45.61 | 54 | -8.39 | AV |
| 7206 | / | / | / | / | / | / | / | / | / |
| 9608 | / | / | / | / | / | / | / | / | / |
| | | | | Test Mode: 8 | BDPSK TX | Mid | | | |
| 4882 | 49.63 | V | 33.95 | 10.20 | 34.26 | 59.52 | 74 | -14.48 | PK |
| 4882 | 35.75 | V | 33.95 | 10.20 | 34.26 | 45.64 | 54 | -8.36 | AV |
| 7323 | / | / | / | / | 1 | / | / | / | / |
| 9764 | / | / | / | / | / | / | / | / | / |
| 4882 | 48.15 | Н | 33.95 | 10.20 | 34.26 | 58.04 | 74 | -15.96 | PK |
| 4882 | 34.31 | Н | 33.95 | 10.20 | 34.26 | 44.20 | 54 | -9.80 | AV |
| 7323 | / | / | / | / | / | / | / | / | / |
| 9764 | / | / | / | / | / | / | / | / | / |
| | | | - | Test Mode: 8 | DPSK TX I | High | | | |
| 4960 | 47.86 | V | 33.98 | 10.22 | 34.25 | 57.81 | 74 | -16.19 | PK |
| 4960 | 33.20 | V | 33.98 | 10.22 | 34.25 | 43.15 | 54 | -10.85 | AV |
| 7440 | / | / | / | / | 1 | / | / | / | / |
| 9920 | / | / | / | / | 1 | / | / | / | / |
| 4960 | 46.88 | Н | 33.98 | 10.22 | 34.25 | 56.83 | 74 | -17.17 | PK |
| 4960 | 32.70 | Н | 33.98 | 10.22 | 34.25 | 42.65 | 54 | -11.35 | AV |
| 7440 | / | / | / | / | / | / | / | / | / |
| 9920 | / | / | / | / | / | / | / | / | / |

1, Result = Read level + Antenna factor + cable loss-Amp factor

2, All the other emissions not reported were too low to read and deemed to comply with FCC limit.

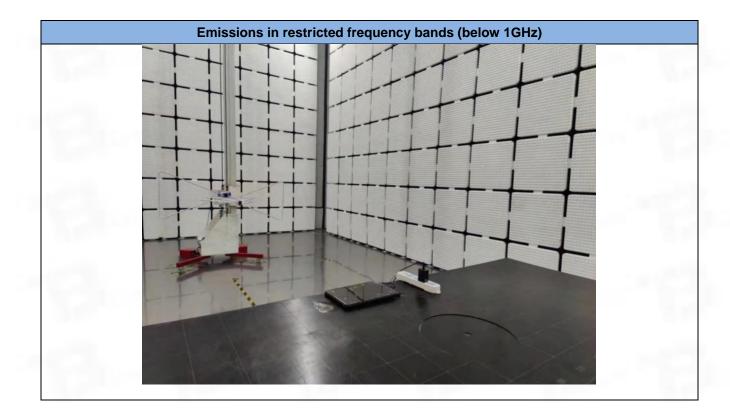


7 Test Setup Photos



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EUT Constructional Details (EUT Photos) 8



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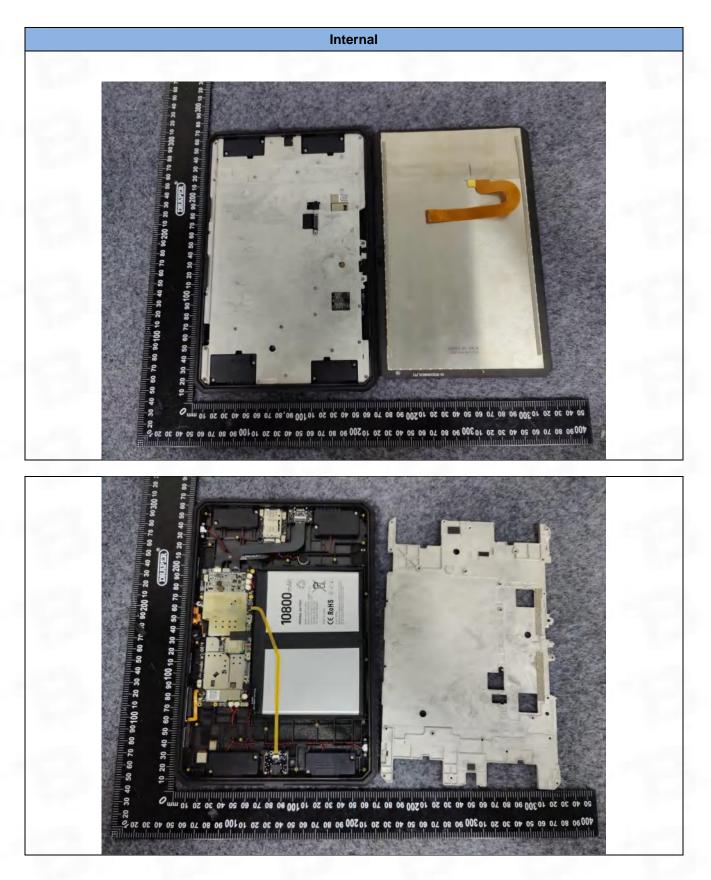
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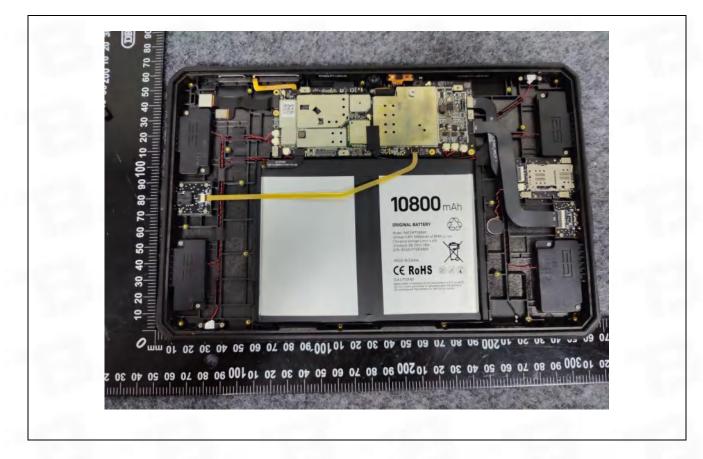
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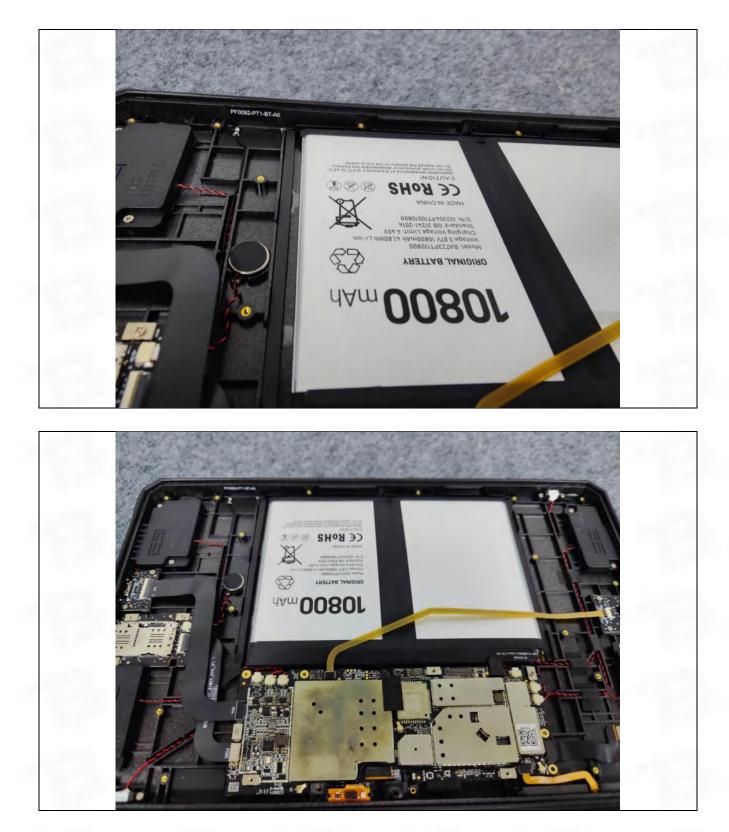






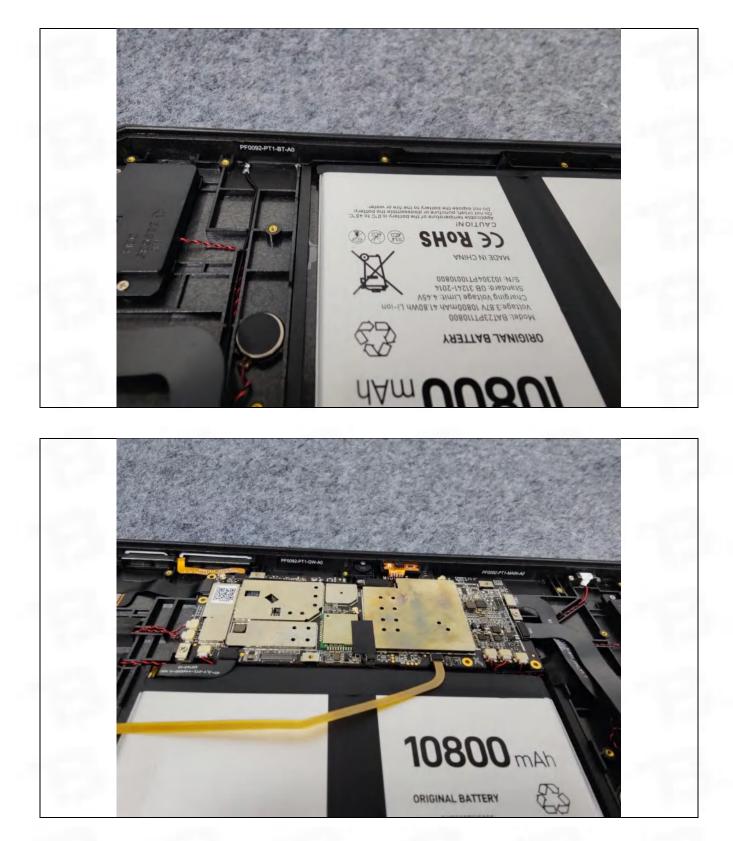
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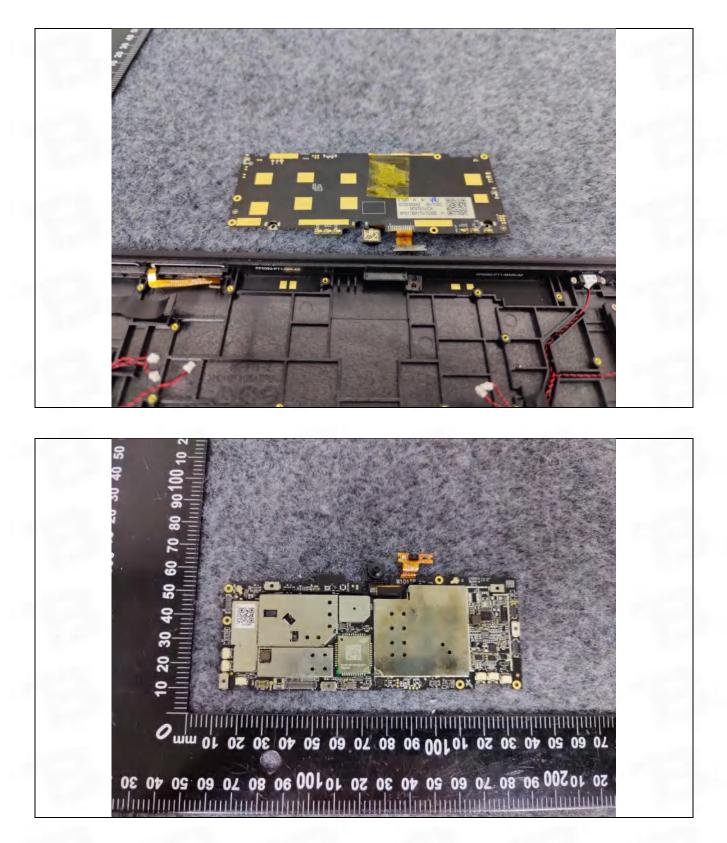
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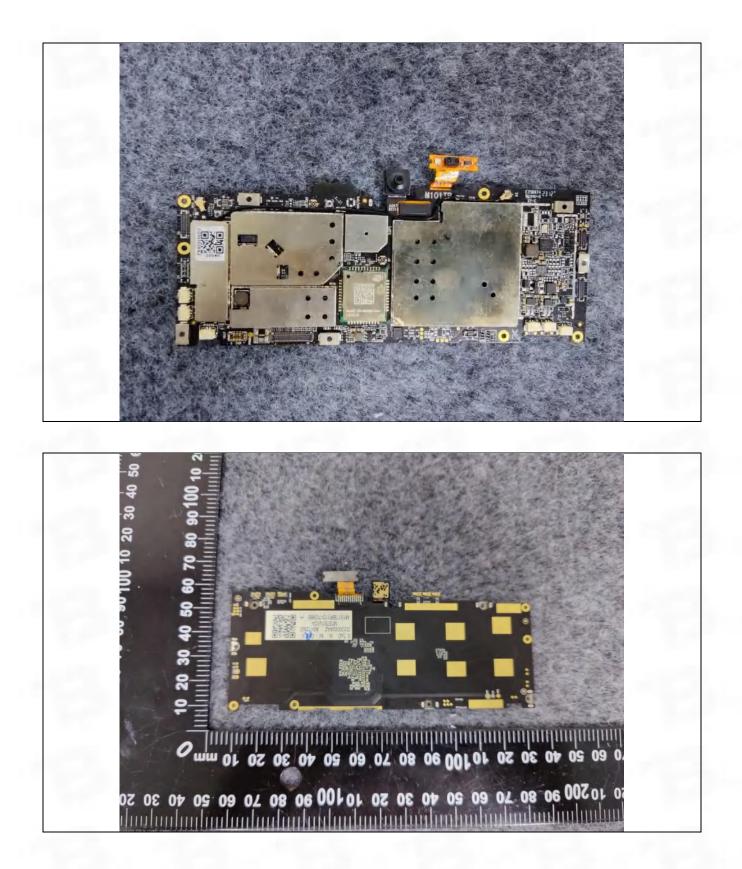
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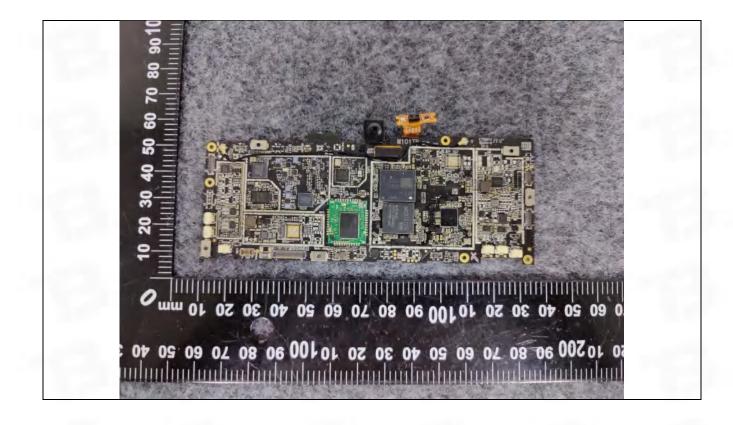
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Test Report Number: BTF230607R00202



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