



CAICT



FCC PART 15C TEST REPORT

No.25T04Z100239-005

for
TCL Communication Ltd.
GSM/UMTS/LTE/NR Mobile phone

T513SP

FCC ID:2ACCJH187

with

Hardware Version: 04

Software Version: 9CS4

Issued Date: 2025-03-27

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of CTTL.

Test Laboratory:

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REPORT HISTORY

| Report Number | Revision | Description | Issue Date |
|------------------|----------|-------------|------------|
| 25T04Z100239-005 | Rev.0 | 1st edition | 2025-03-27 |

Note: the latest revision of the test report supersedes all previous version.

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1. Test Laboratory

1.1. Introduction & Accreditation

Telecommunication Technology Labs, CAICT is an ISO/IEC 17025:2017 accredited test laboratory under American Association for Laboratory Accreditation (A2LA) with lab code 7049.01, and is also an FCC accredited test laboratory (CN1349), and ISED accredited test laboratory (CAB identifier:CN0066). The detail accreditation scope can be found on A2LA website.

1.2. Testing Location

Location 1:CTTL(Gaolizhang Road)

Address: Cuihu Cloud Center, No.1, Gaolizhang Road, Wenquan, Haidian District, Beijing, China

Location 2:CTTL(huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing, 100191, P. R. China

1.3. Testing Environment

Normal Temperature: 15-35°C
Relative Humidity: 20-75%

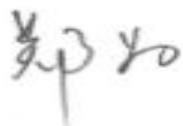
1.4. Project date

Testing Start Date: 2025-02-14
Testing End Date: 2025-03-27

1.5. Signature



Yao Xingyu
(Prepared this test report)



Zheng Wei
(Reviewed this test report)



Pang Shuai
(Approved this test report)

2. Client Information

2.1. Applicant Information

Company Name: TCL Communication Ltd.
Address/Post: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong
City: Hong Kong
Postal Code: /
Country: China
Contact Person: Ting Wang
Contact Email: ting.wang.hz@tcl.com
Telephone: +86 752 2639091
Fax: 0086-755-36612000-81722

2.2. Manufacturer Information

Company Name: TCL Communication Ltd.
Address/Post: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong
City: Hong Kong
Postal Code: /
Country: China
Contact Person: Ting Wang
Contact Email: ting.wang.hz@tcl.com
Telephone: +86 752 2639091
Fax: 0086-755-36612000-81722

3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

| | |
|----------------------|------------------------------|
| Description | GSM/UMTS/LTE/NR Mobile phone |
| Model name | T513SP |
| FCC ID | 2ACCJH187 |
| With WLAN Function | Yes |
| Frequency Band | ISM 2400MHz~2483.5MHz |
| Type of Modulation | DSSS/CCK/OFDM |
| Number of Channels | 11 |
| Antenna | Integral Antenna |
| MAX Conducted Power | 24.98dBm |
| Normal Voltage | 3.87V |
| Extreme High Voltage | 4.45V |
| Extreme Low Voltage | 3.6V |

3.2. Internal Identification of EUT

| EUT ID* | SN or IMEI | HW Version | SW Version | Date of receipt |
|---------|---------------------------------|------------|------------|-----------------|
| UT13a | 016644000212016/016644000212024 | 04 | 9CS4 | 2025-02-17 |
| UT53a | 016644000213576/016644000213584 | 04 | 9CS4 | 2025-03-10 |

*EUT ID: is used to identify the test sample in the lab internally.

UT13a is used for Conduction test, UT53a is used for Radiation test.

3.3. Internal Identification of AE

| AE ID* | Description | Model | Manufacturer |
|--------|-------------------------------|--------------|--------------|
| AE1 | Cable | CDA0000218C1 | JUWEI |
| AE2 | Charger(Provided by the lab.) | / | / |

*AE ID: is used to identify the test sample in the lab internally. The information of manufacturer was provided by the client.

3.4. General Description

The Equipment under Test (EUT) is a model of GSM/UMTS/LTE/NR Mobile phone with integrated antenna and inbuilt battery.

It consists of normal options: travel charger, USB cable.

Manual and specifications of the EUT were provided to fulfil the test.

Samples undergoing test were selected by the client.

3.5. Interpretation of the Test Environment

For the test methods, the test environment uncertainty figures correspond to an expansion factor $k=2$.

Measurement Uncertainty

| Parameter | Uncertainty |
|-------------|-------------|
| temperature | 0.48°C |
| humidity | 2 % |
| DC voltages | 0.003V |

4. Reference Documents

4.1. Documents supplied by applicant

EUT feature information is supplied by the applicant or manufacturer, which is the basis of testing.

4.2. Reference Documents for testing

The following documents listed in this section are referred for testing.

| Reference | Title | Version |
|----------------|--|---------|
| FCC Part15 | FCC CFR 47, Part 15, Subpart C: 15.205 Restricted bands of operation; 15.209 Radiated emission limits, general requirements; 15.247 Operation within the bands 902-928MHz, 2400-2483.5 MHz, and 5725-5850 MHz. | 2021 |
| ANSI C63.10 | American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices Federal Communications Commission Office of Engineering and Technology Laboratory Division GUIDANCE FOR COMPLIANCE MEASUREMENTS ON DIGITAL TRANSMISSION SYSTEM, FREQUENCY HOPPING SPREAD SPECTRUM SYSTEM, AND HYBRID SYSTEM DEVICES OPERATING UNDER SECTION 15.247 OF THE FCC RULES | 2013 |
| KDB 558074 D01 | DIGITAL TRANSMISSION SYSTEM, FREQUENCY HOPPING SPREAD SPECTRUM SYSTEM, AND HYBRID SYSTEM DEVICES OPERATING UNDER SECTION 15.247 OF THE FCC RULES | 2019 |

Note: KDB 558074 D01 is not in the scope of ISO/IEC 17025 accreditation by A2LA.

5. LABORATORY ENVIRONMENT

Conducted RF performance testing is performed in shielding room.

EMC performance testing is performed in Semi-anechoic chamber.

6. Test Results

6.1. Summary of Test Results

| SUMMARY OF MEASUREMENT RESULTS | Sub-clause of Part15C | Sub-clause of IC | Verdict |
|---|------------------------|------------------|---------|
| Maximum Peak Output Power | 15.247 (b) | / | P |
| Peak Power Spectral Density | 15.247 (e) | / | P |
| DTS 6-dB Signal Bandwidth | 15.247 (a) | / | P |
| Band Edges Compliance | 15.247 (d) | / | P |
| Transmitter Spurious Emission - Conducted | 15.247 (d) | / | P |
| Radiated Unwanted Emission | 15.247, 15.205, 15.209 | / | P |
| AC Powerline Conducted Emission | 15.107, 15.207 | / | P |

Please refer to **ANNEX A** for detail.

Terms used in Verdict column

| | |
|----|---|
| P | Pass, The EUT complies with the essential requirements in the standard. |
| NP | Not Perform, The test was not performed by CTTL |
| NA | Not Applicable, The test was not applicable |
| F | Fail, The EUT does not comply with the essential requirements in the standard |

6.2. Statements

CTTL has evaluated the test cases as listed in section 6.1 of this report for the EUT specified in section 3 according to the standards or reference documents listed in section 4.

This report only deals with the WLAN function among the features described in section 3.

6.3. Test Conditions

For this report, all the test cases are tested under normal temperature and normal voltage, and also under norm humidity, the specific condition is shown as follows:

| | |
|-------------|-------|
| Temperature | 26°C |
| Voltage | 3.87V |
| Humidity | 44% |

7. Test Facilities Utilized

Conducted test system

| No. | Equipment | Model | Serial Number | Manufacturer | Calibration Period | Calibration Due date |
|-----|------------------------|---------|---------------|-----------------|--------------------|----------------------|
| 1 | Vector Signal Analyzer | FSQ40 | 200089 | Rohde & Schwarz | 1 year | 2025-08-11 |
| 2 | Vector Signal Analyzer | FSW67 | 104051 | Rohde & Schwarz | 1 year | 2025-04-30 |
| 3 | LISN | ENV216 | 101200 | Rohde & Schwarz | 1 year | 2025-05-16 |
| 4 | Test Receiver | ESCI | 100344 | Rohde & Schwarz | 1 year | 2025-04-01 |
| 5 | Attenuator | 10dB/2W | / | Rosenberger | / | / |
| 6 | Shielding Room | S81 | / | ETS-Lindgren | / | / |
| 7 | Data Acquisition Unit | U2531A | TW54433522 | Agilent | / | / |
| 8 | Power Sensor | U2021XA | MY54460006 | Agilent | 1 year | 2025-06-15 |

Radiated emission test system

| No. | Equipment | Model | Serial Number | Manufacturer | Calibration Period | Calibration Due date |
|-----|---------------|-----------|---------------|--------------|--------------------|----------------------|
| 1 | Test Receiver | ESW44 | 103023 | R&S | 1 year | 2025-06-06 |
| 2 | EMI Antenna | VULB 9163 | 01222 | SCHWARZBECK | 1 year | 2025-09-11 |
| 3 | EMI Antenna | 3115 | 0016725 | ETS-Lindgren | 1 year | 2025-04-11 |

8. Measurement Uncertainty

8.1. Maximum Output Power

Measurement Uncertainty: 0.387dB,k=1.96

8.2. Peak Power Spectral Density

Measurement Uncertainty: 0.705dB,k=1.96

8.3. DTS 6-dB Signal Bandwidth

Measurement Uncertainty: 60.80Hz,k=1.96

8.4. Band Edges Compliance

Measurement Uncertainty : 0.62dB,k=1.96

8.5. Transmitter Spurious Emission

Conducted (k=1.96)

| Frequency Range | Uncertainty(dB) |
|---------------------|-----------------|
| 30MHz ≤ f ≤ 2GHz | 1.22 |
| 2GHz ≤ f ≤3.6GHz | 1.22 |
| 3.6GHz ≤ f ≤8GHz | 1.22 |
| 8GHz ≤ f ≤12.75GHz | 1.51 |
| 12.75GHz ≤ f ≤26GHz | 1.51 |
| 26GHz ≤ f ≤40GHz | 1.59 |

8.6. Radiated Unwanted Emission

| Frequency Range | Uncertainty(dB) k=2 |
|------------------|---------------------|
| 9kHz-30MHz | / |
| 30MHz ≤ f ≤ 1GHz | 4.72 |
| 1GHz ≤ f ≤18GHz | 4.84 |
| 18GHz ≤ f ≤40GHz | 5.12 |

8.7. AC Power-line Conducted Emission

Measurement Uncertainty : 3.08dB,k=2

ANNEX A: Detailed Test Results

A.1. Measurement Method

A.1.1. Conducted Measurements

Connect the EUT to the test system as Fig.A.1.1.1 shows.

Set the EUT to the required work mode.

Set the EUT to the required channel.

Set the Vector Signal Analyzer and start measurement.

Record the values. Vector Signal Analyzer

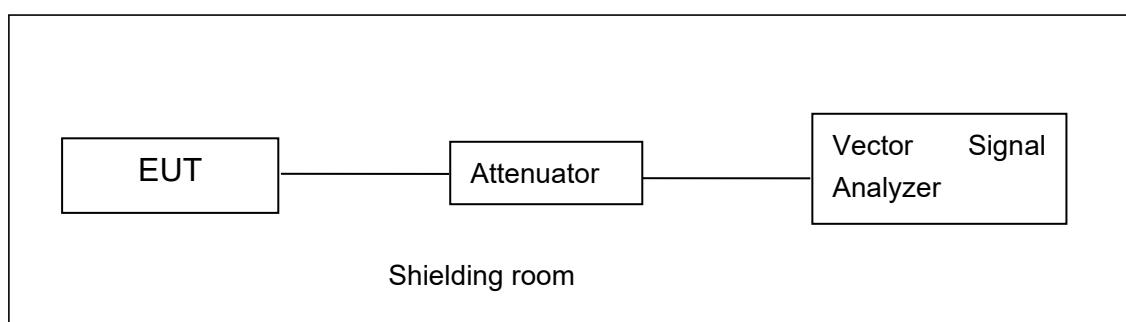


Fig.A.1.1.1: Test Setup Diagram for Conducted Measurements

A.1.2. Radiated Emission Measurements

The measurement is made according to ANSI C63.10

The radiated emission test is performed in semi-anechoic chamber. The EUT was placed on a non-conductive table with 80cm above the ground plane for measurement below 1GHz and 1.5m above the ground plane for measurement above 1GHz. The measurement antenna was placed at a distance of 3 meters from the EUT. The test is carried out on both vertical and horizontal polarization and only maximization result of both polarizations is kept. During the test, the turntable is rotated from 0° to 360° and the measurement antenna is moved from 1m to 4m to get the maximization result. The maximization process was repeated with the EUT positioned in each of its three orthogonal orientations

A.2. Maximum Output Power

Method of Measurement: See ANSI C63.10-2013-clause 11.9.1.3

The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall use a fast-responding diode detector.

Measurement Limit:

| Standard | Limit (dBm) |
|------------------------|-------------|
| FCC CRF Part 15.247(b) | < 30 |

A.2.1 Antenna Gain

Antenna gain is -4.55dBi and the value is supplied by the applicant or manufacturer.

A.2.2. Peak Output Power-conducted

EUT ID: UT13a

Measurement Results:

802.11b/g mode

| Mode | Data Rate (Mbps) | Test Result (dBm) | | |
|---------|------------------|-------------------|---------------|-----------------|
| | | 2412MHz (Ch1) | 2437MHz (Ch6) | 2462 MHz (Ch11) |
| 802.11b | 1 | 19.96 | 19.53 | 19.93 |
| 802.11g | 6 | 24.82 | 24.78 | 24.25 |

The data rate 1Mbps and 6Mbps are selected as worst condition, and the following cases are performed with this condition.

802.11n-HT20 mode

| Mode | Data Rate (Index) | Test Result (dBm) | | |
|-----------------|-------------------|-------------------|---------------|-----------------|
| | | 2412MHz (Ch1) | 2437MHz (Ch6) | 2462 MHz (Ch11) |
| 802.11n (20MHz) | MCS0 | 24.98 | 24.79 | 24.34 |

The data rate MCS0 is selected as worst condition, and the following cases are performed with this condition.

802.11n-HT40 mode

| Mode | Data Rate (Index) | Test Result (dBm) | | |
|--------------------|----------------------|-------------------|------------------|-------------------|
| | | 2422MHz (Ch3) | 2437MHz (Ch6) | 2452 MHz (Ch9) |
| 802.11n (40MHz) | MCS0 | 23.97 | 23.92 | 23.98 |

The data rate MCS0 is selected as worst condition, and the following cases are performed with this condition.

The duty cycle of all mode

| TestMode | Frequency[MHz] | Transmission Duration [ms] | Transmission Period [ms] | Duty Cycle [%] |
|-----------|----------------|----------------------------|--------------------------|----------------|
| 11B | 2412 | 8.39 | 8.42 | 99.64 |
| | 2437 | 8.38 | 8.41 | 99.64 |
| | 2462 | 8.38 | 8.41 | 99.64 |
| 11G | 2412 | 1.39 | 1.43 | 97.20 |
| | 2437 | 1.40 | 1.43 | 97.90 |
| | 2462 | 1.40 | 1.43 | 97.90 |
| 11N20SISO | 2412 | 1.30 | 1.34 | 97.01 |
| | 2437 | 1.30 | 1.34 | 97.01 |
| | 2462 | 1.30 | 1.34 | 97.01 |
| 11N40SISO | 2422 | 0.64 | 0.67 | 95.52 |
| | 2437 | 0.64 | 0.67 | 95.52 |
| | 2452 | 0.64 | 0.67 | 95.52 |



Duty cycle

Conclusion: Pass

A.3. Peak Power Spectral Density

Method of Measurement: See ANSI C63.10-2013-clause 11.10.2

- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span to 1.5 times the DTS bandwidth.
- c) Set the RBW to RBW = 3 kHz.
- d) Set the VBW = 10 kHz.
- e) Detector = peak.
- f) Sweep time = auto couple.
- g) Trace mode = max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum amplitude level within the RBW.

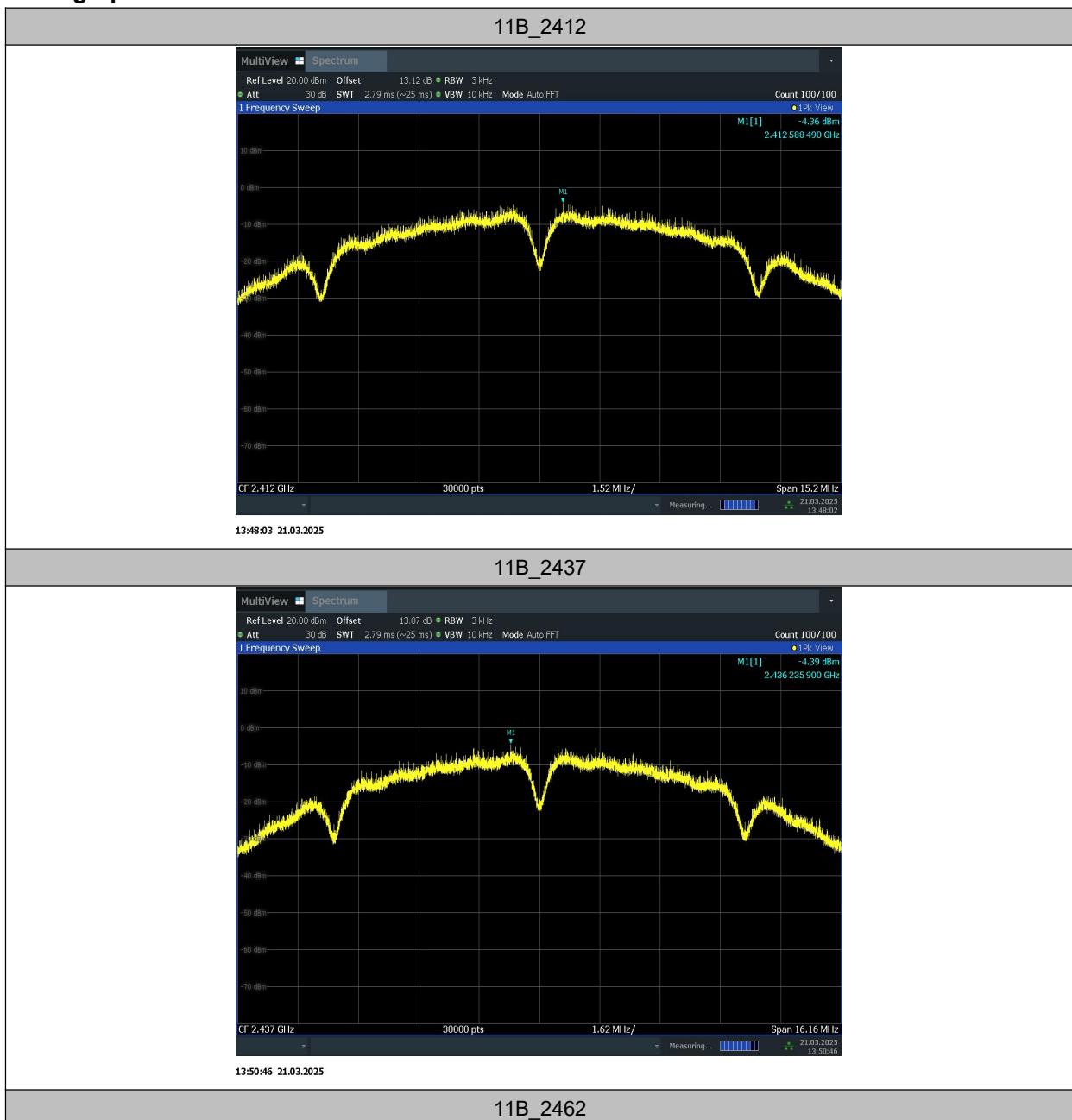
Measurement Limit:

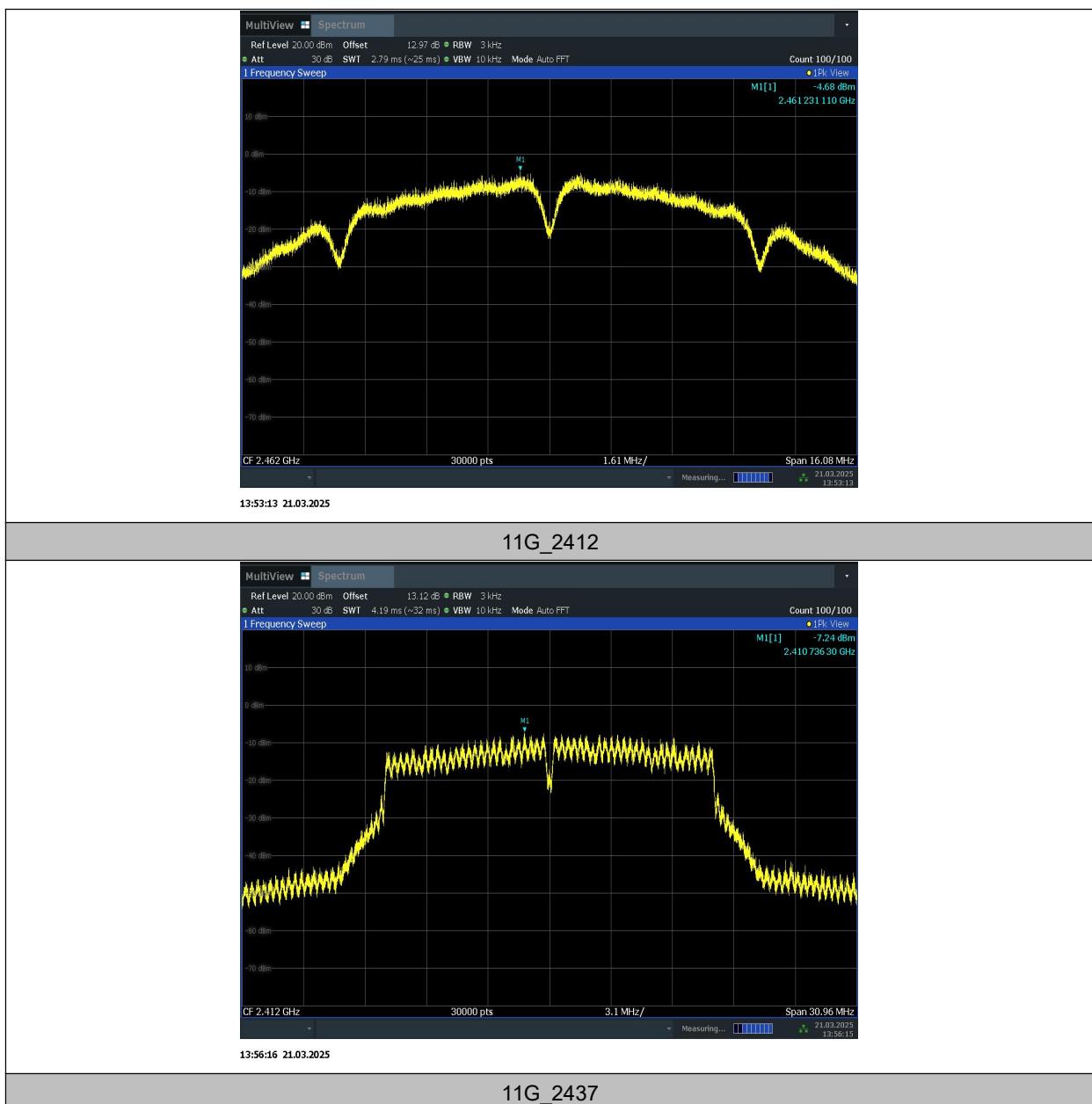
| Standard | Limit |
|------------------------|---------------|
| FCC CRF Part 15.247(e) | < 8 dBm/3 kHz |

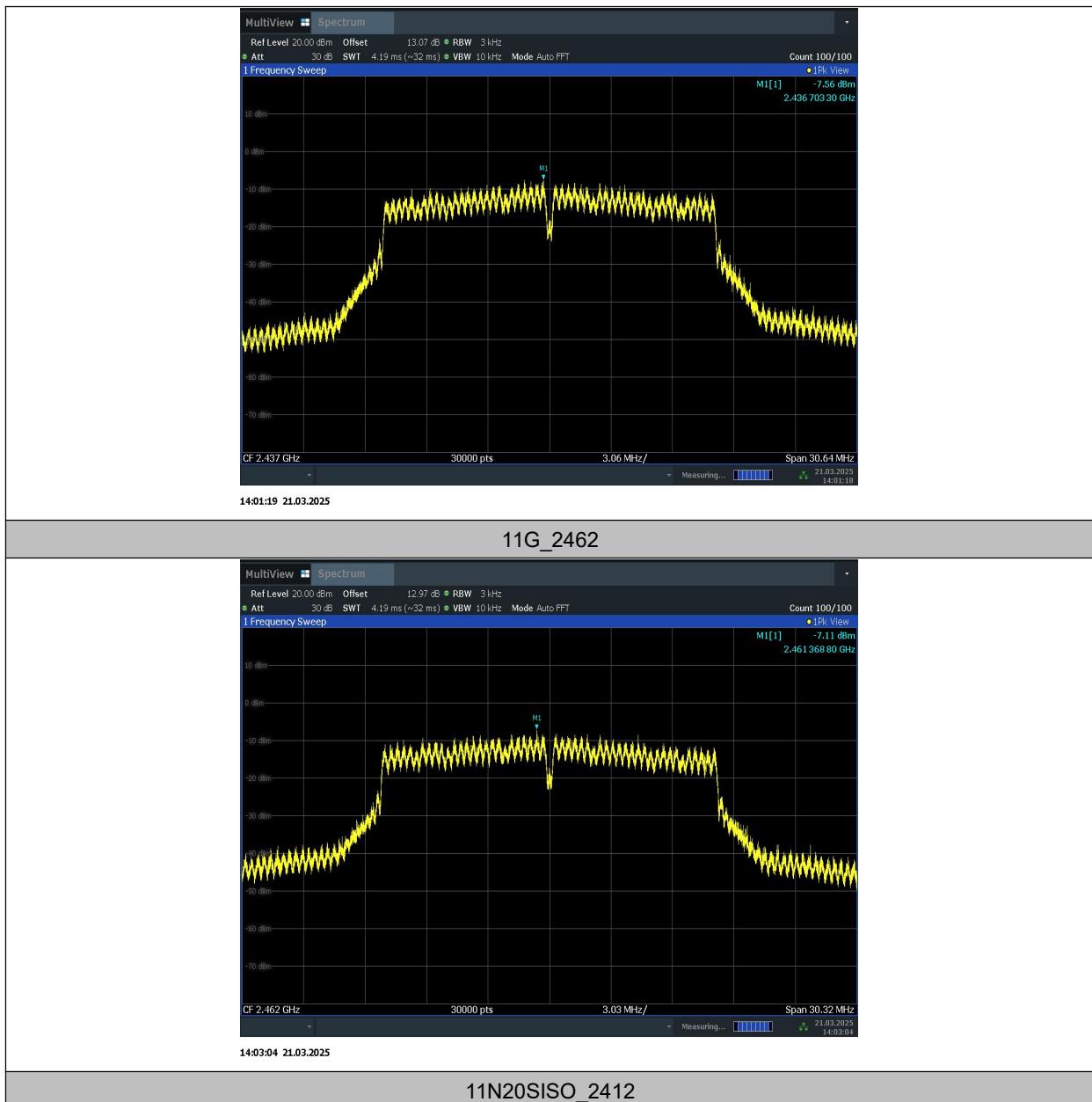
EUT ID: UT13a

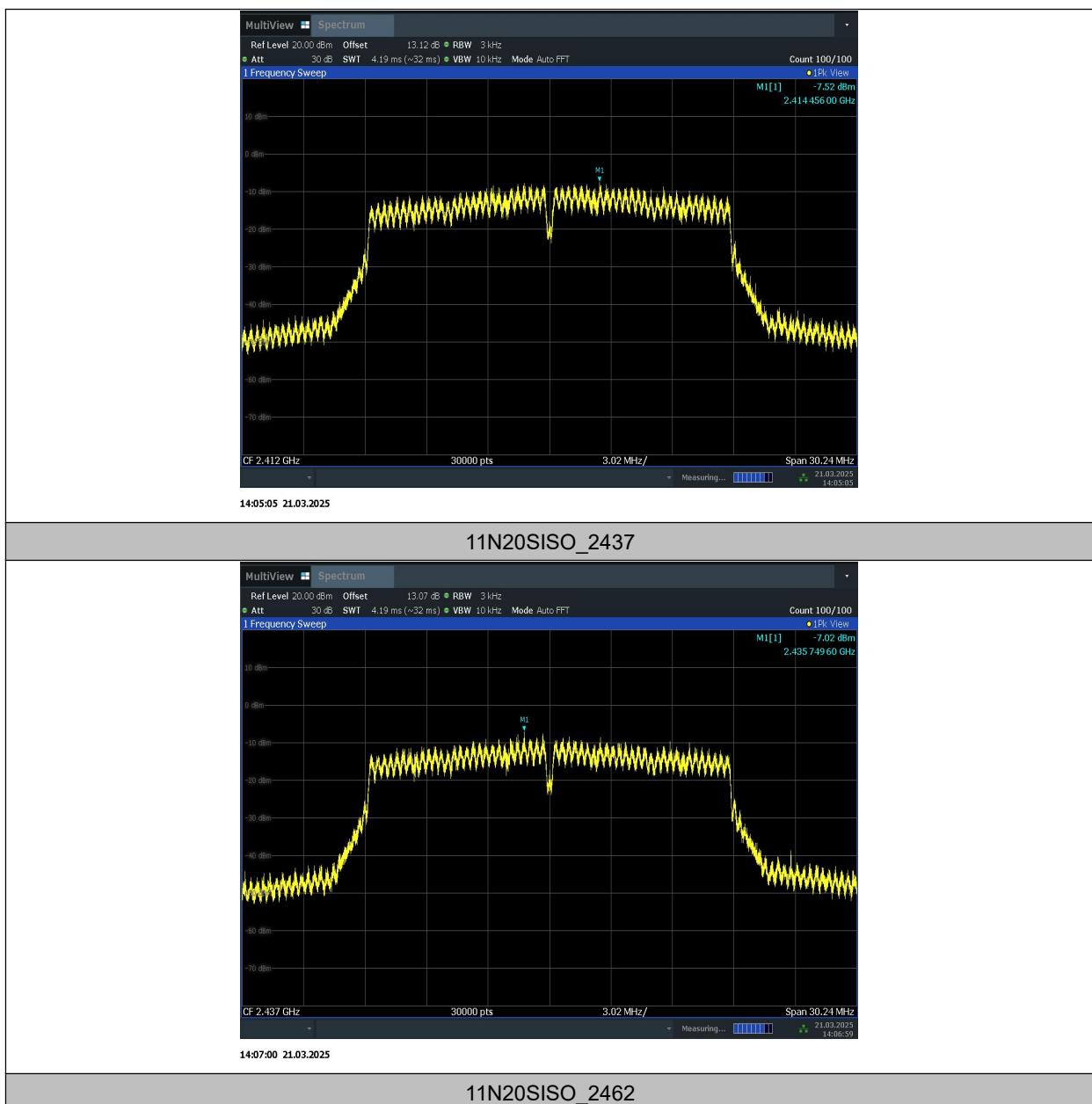
Measurement Results:

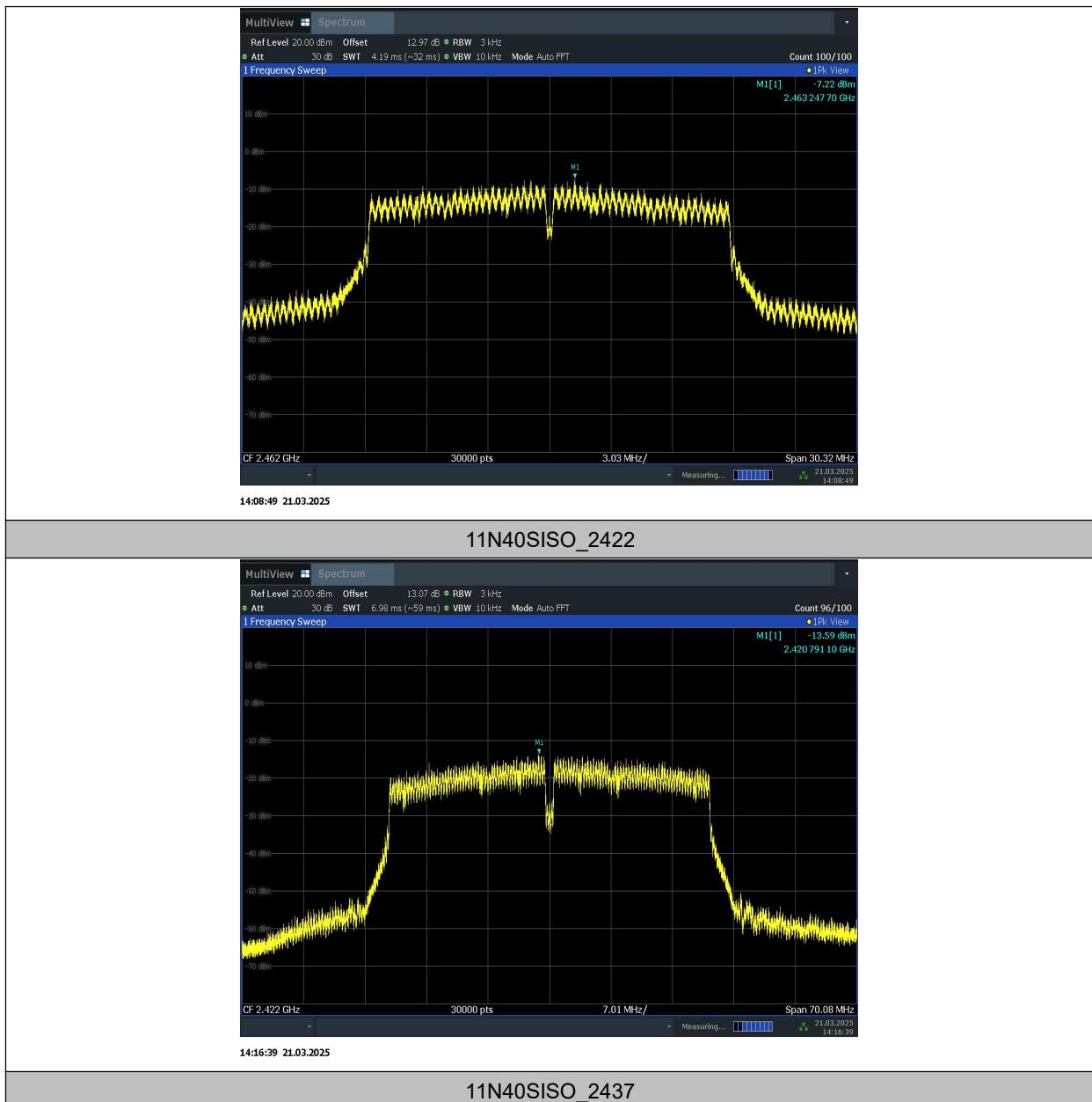
| TestMode | Frequency[MHz] | Result[dBm/3-100kHz] | Limit[dBm/3kHz] | Verdict |
|-----------|----------------|----------------------|-----------------|---------|
| 11B | 2412 | -4.36 | ≤8.00 | PASS |
| | 2437 | -4.39 | ≤8.00 | PASS |
| | 2462 | -4.68 | ≤8.00 | PASS |
| 11G | 2412 | -7.24 | ≤8.00 | PASS |
| | 2437 | -7.56 | ≤8.00 | PASS |
| | 2462 | -7.11 | ≤8.00 | PASS |
| 11N20SISO | 2412 | -7.52 | ≤8.00 | PASS |
| | 2437 | -7.02 | ≤8.00 | PASS |
| | 2462 | -7.22 | ≤8.00 | PASS |
| 11N40SISO | 2422 | -13.59 | ≤8.00 | PASS |
| | 2437 | -13.73 | ≤8.00 | PASS |
| | 2452 | -13.35 | ≤8.00 | PASS |

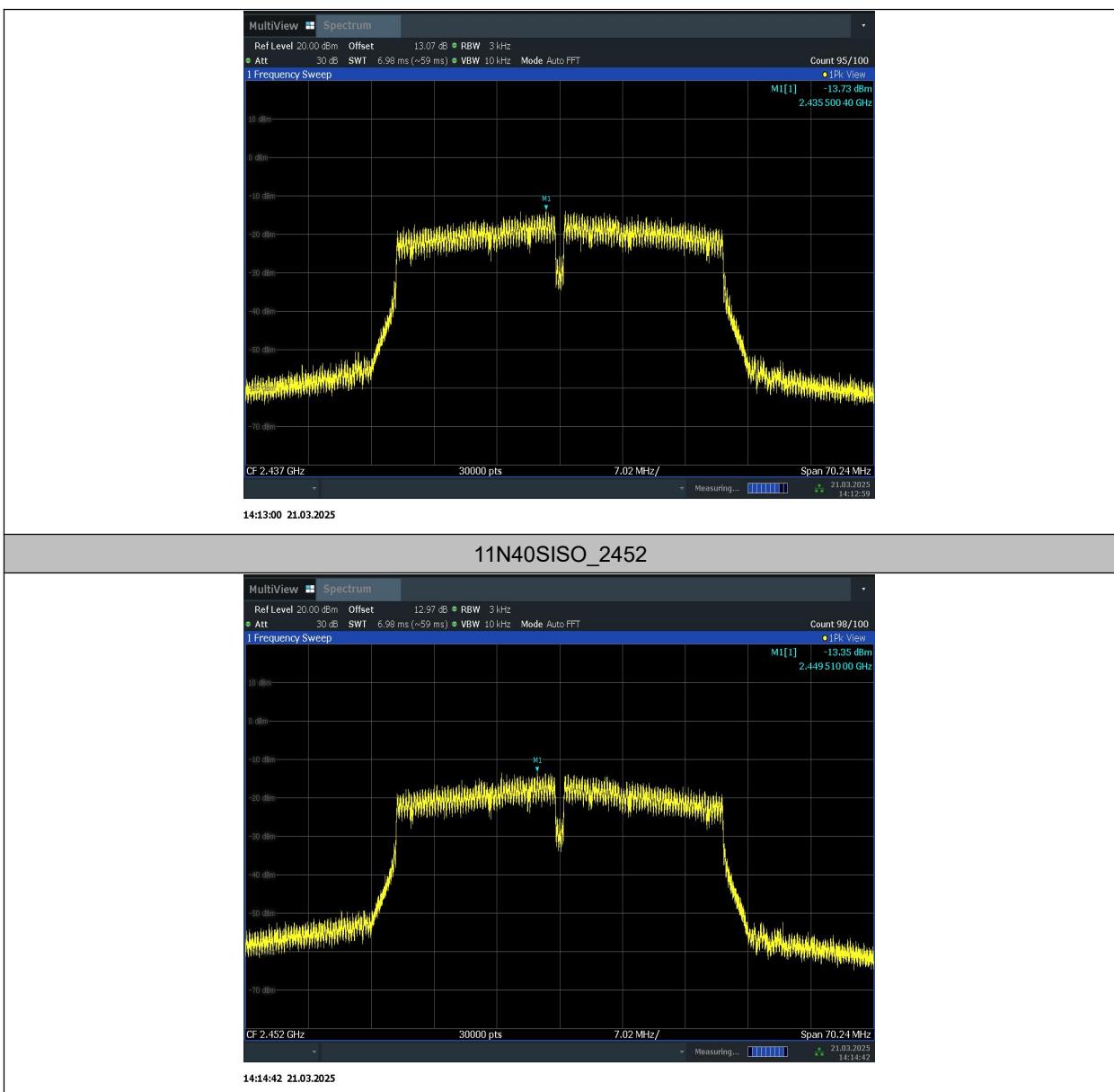
Test graphs as below:












Conclusion: Pass

A.4. DTS 6-dB Signal Bandwidth

Method of Measurement: See ANSI C63.10-2013 section 11.8.1.

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) = 300 kHz.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

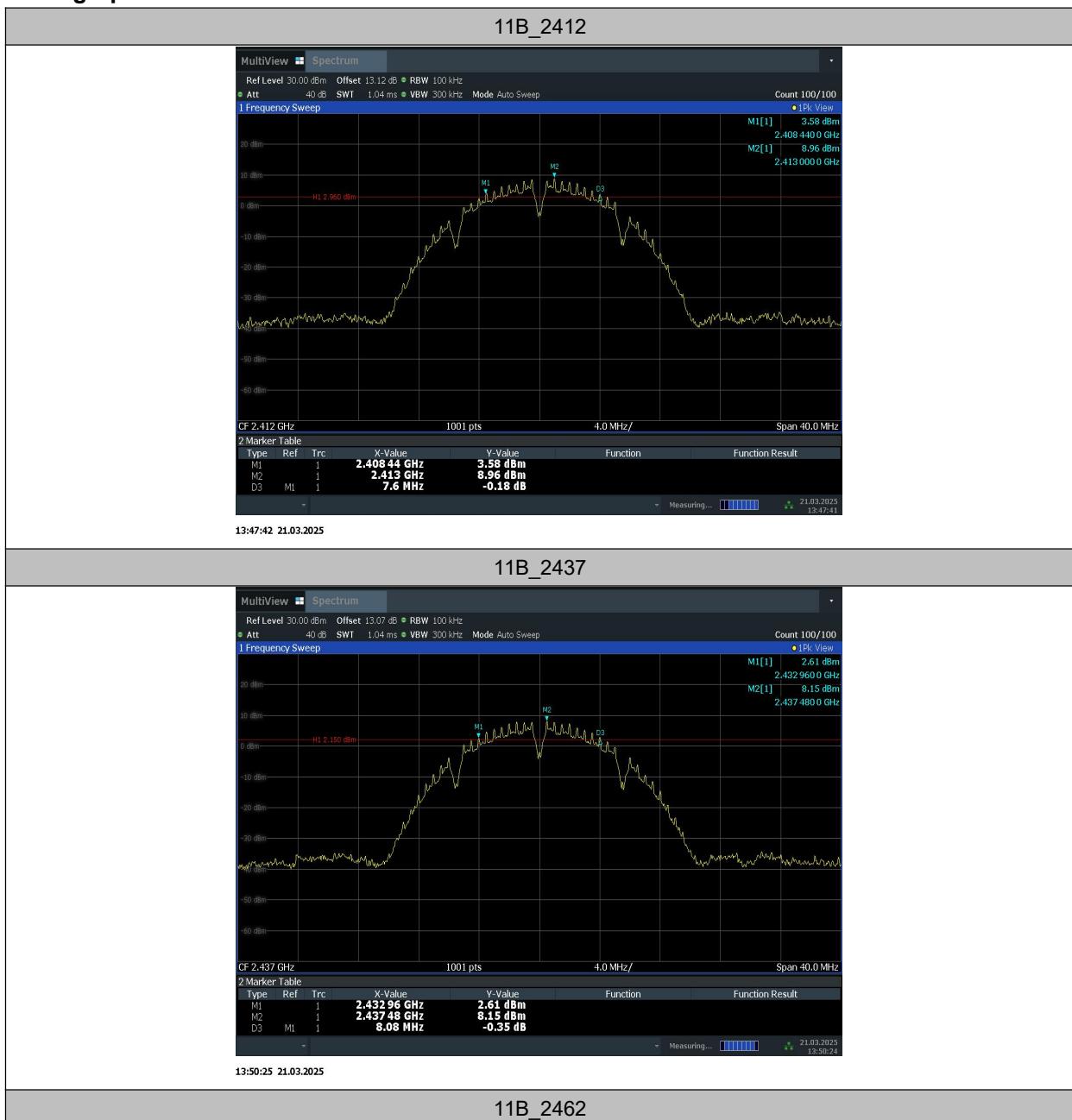
Measurement Limit:

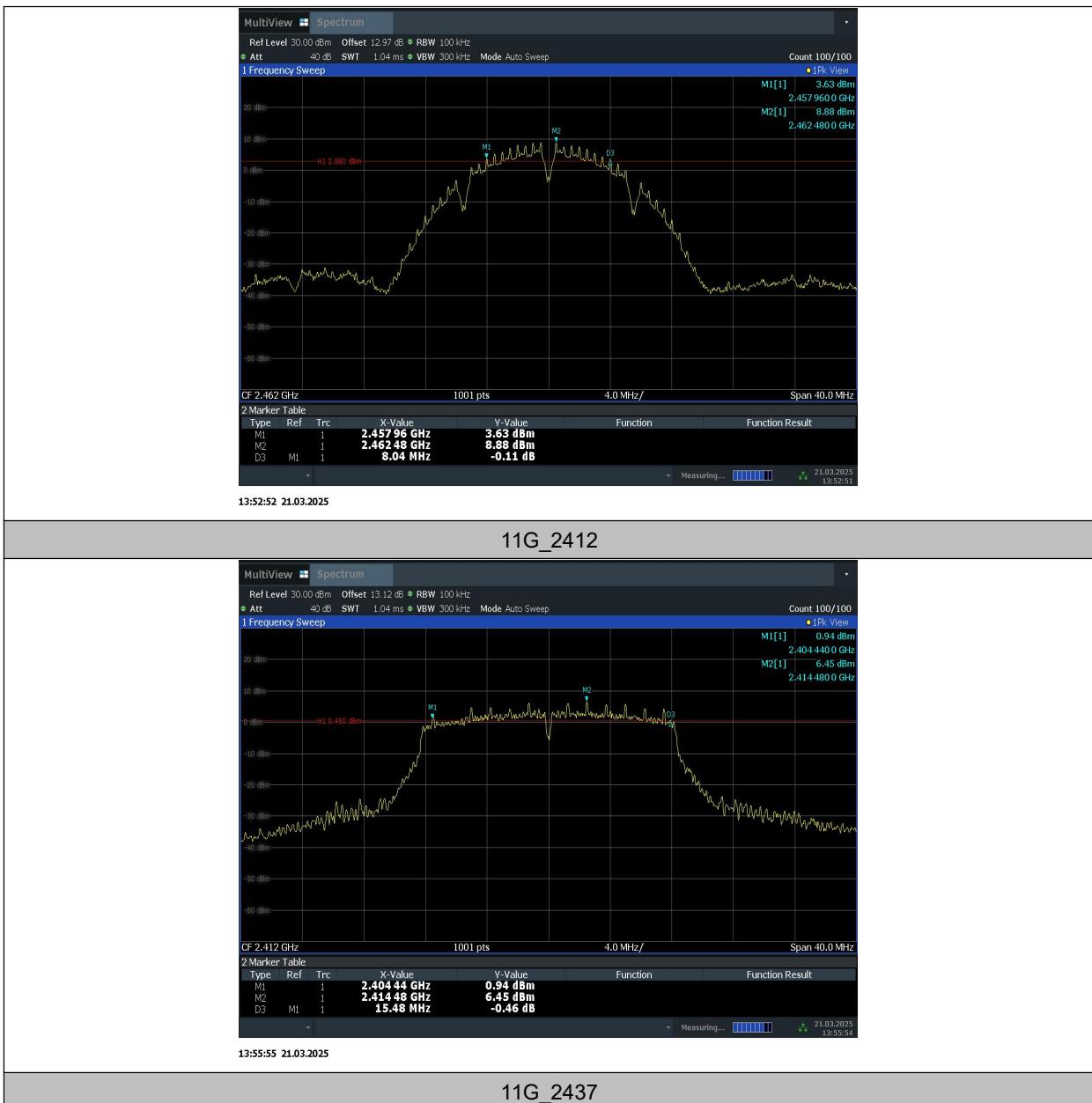
| Standard | Limit (kHz) |
|----------------------------|-------------|
| FCC 47 CFR Part 15.247 (a) | ≥ 500 |

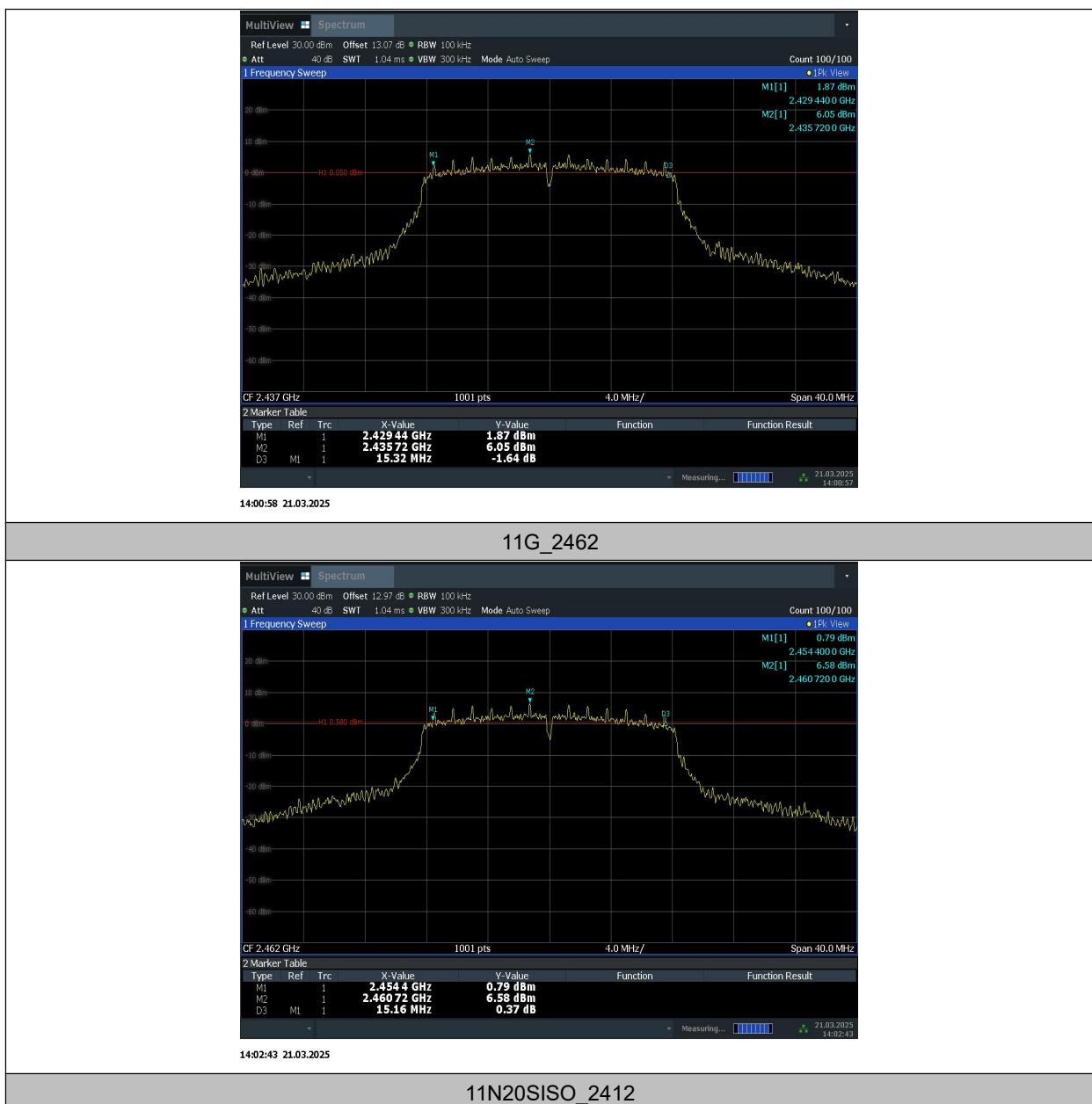
EUT ID: UT13a

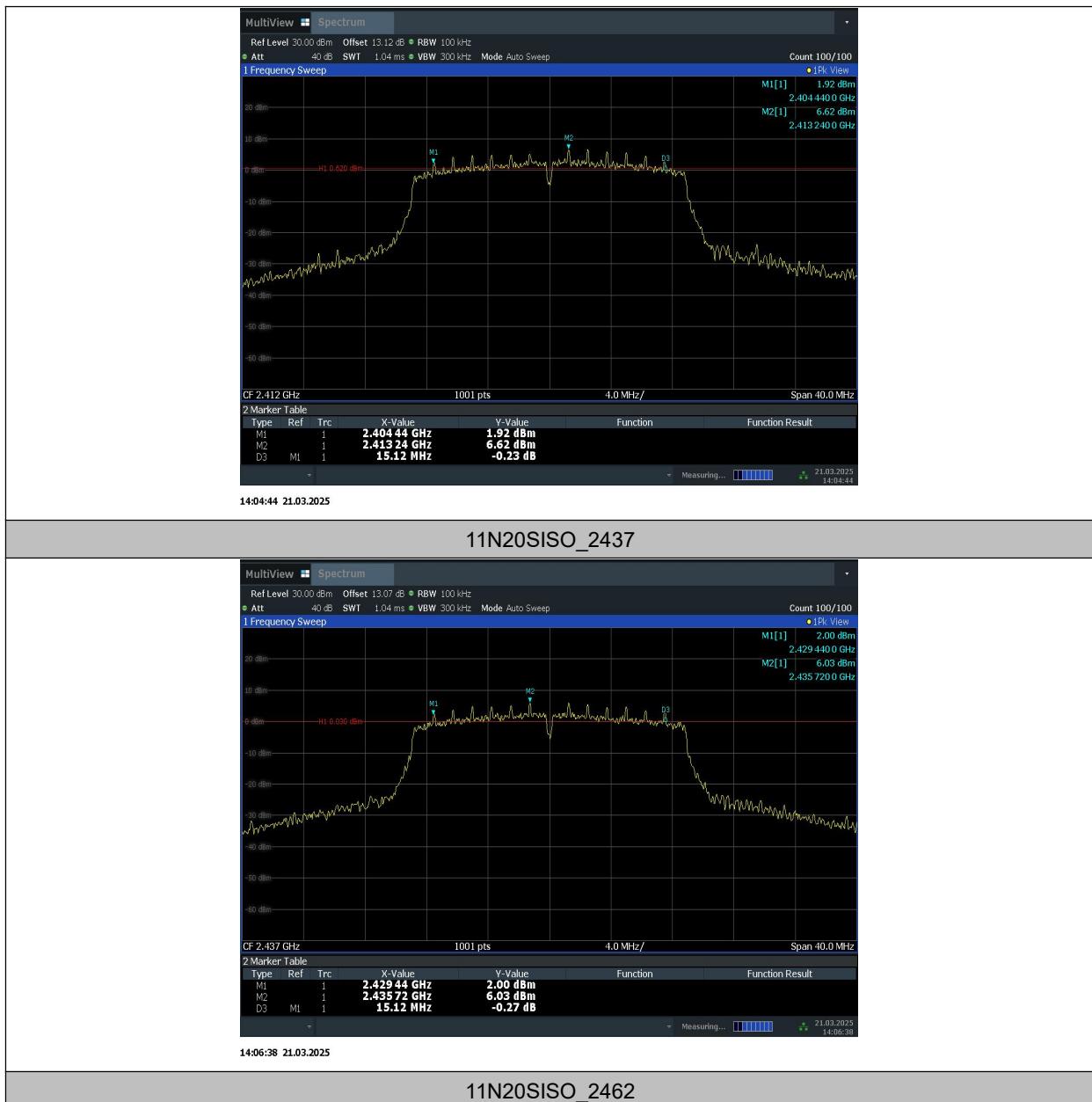
Measurement Result:

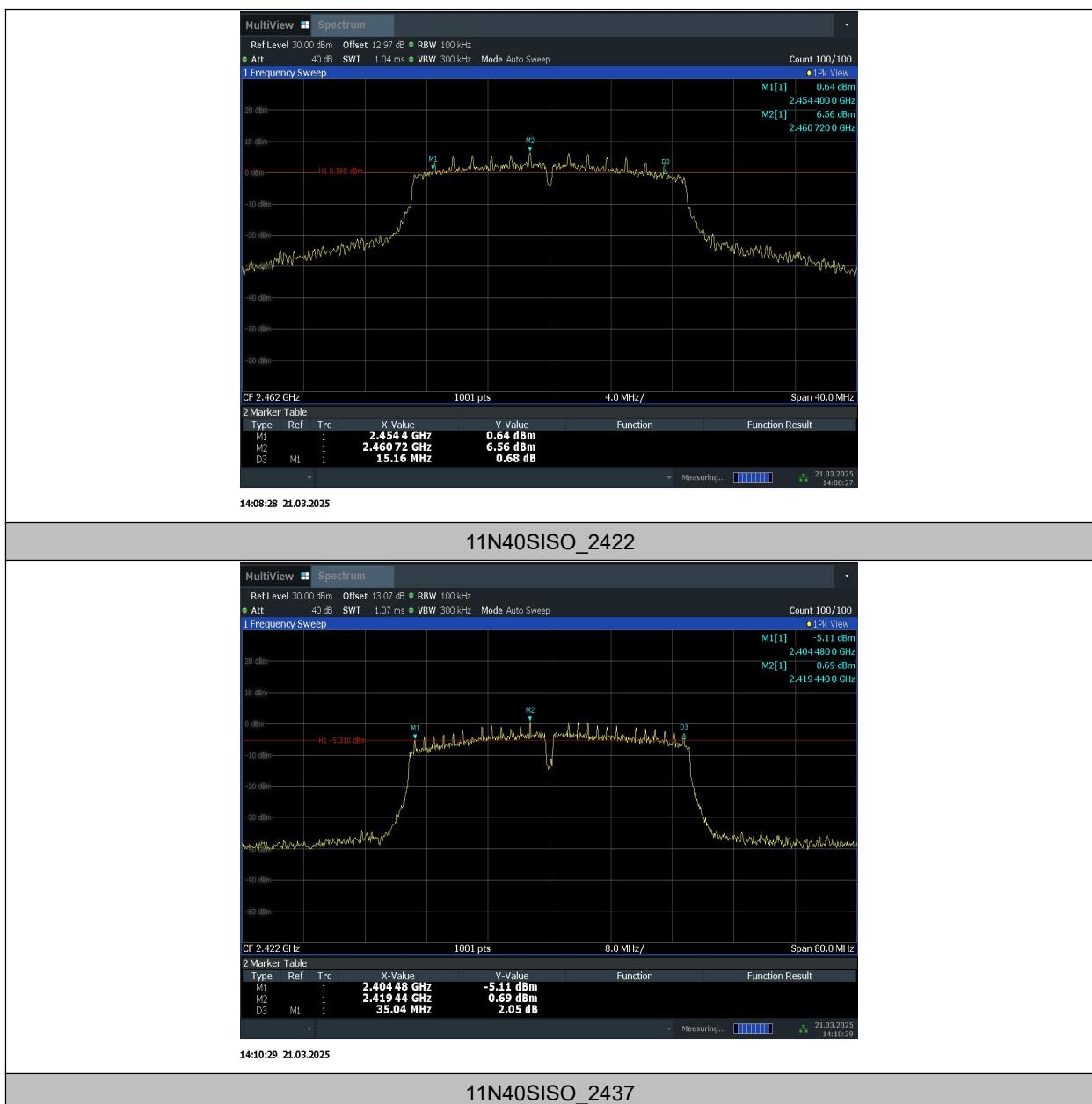
| TestMode | Frequency[MHz] | DTS BW [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|-----------|----------------|--------------|---------|---------|------------|---------|
| 11B | 2412 | 7.60 | 2408.44 | 2416.04 | 0.5 | PASS |
| | 2437 | 8.08 | 2432.96 | 2441.04 | 0.5 | PASS |
| | 2462 | 8.04 | 2457.96 | 2466.00 | 0.5 | PASS |
| 11G | 2412 | 15.48 | 2404.44 | 2419.92 | 0.5 | PASS |
| | 2437 | 15.32 | 2429.44 | 2444.76 | 0.5 | PASS |
| | 2462 | 15.16 | 2454.40 | 2469.56 | 0.5 | PASS |
| 11N20SISO | 2412 | 15.12 | 2404.44 | 2419.56 | 0.5 | PASS |
| | 2437 | 15.12 | 2429.44 | 2444.56 | 0.5 | PASS |
| | 2462 | 15.16 | 2454.40 | 2469.56 | 0.5 | PASS |
| 11N40SISO | 2422 | 35.04 | 2404.48 | 2439.52 | 0.5 | PASS |
| | 2437 | 35.12 | 2419.40 | 2454.52 | 0.5 | PASS |
| | 2452 | 35.12 | 2434.40 | 2469.52 | 0.5 | PASS |

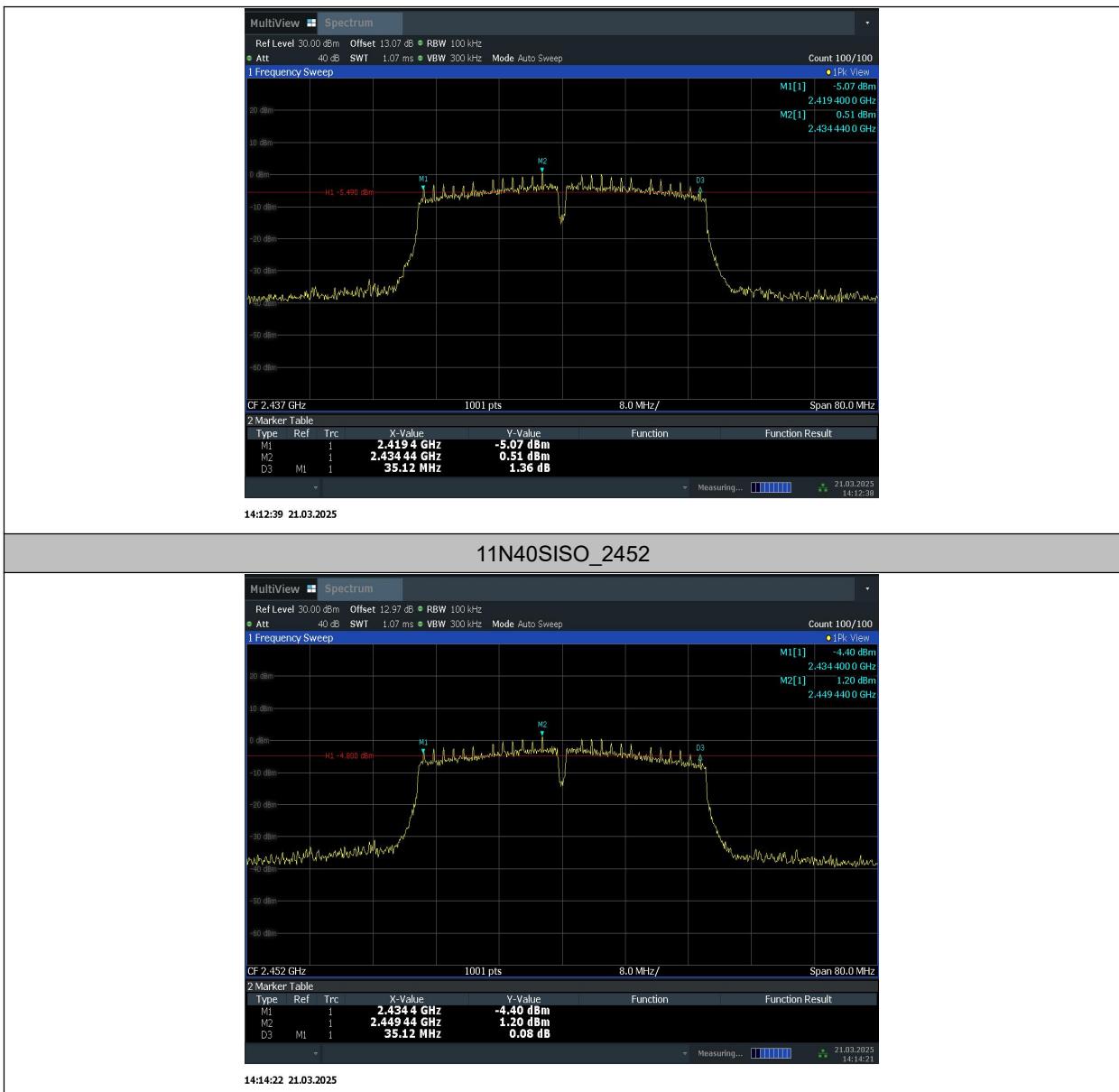
Test graphs as below:












Conclusion: Pass

A.5. Band Edges Compliance

Method of Measurement: See ANSI C63.10-2013-clause 6.10.4

Connect the spectrum analyzer to the EUT using an appropriate RF cable connected to the EUT output. Configure the spectrum analyzer settings as described below.

- a) Set Span = 100MHz
- b) Sweep Time: coupled
- c) Set the RBW= 100 kHz
- c) Set the VBW= 300 kHz
- d) Detector: Peak
- e) Trace: Max hold

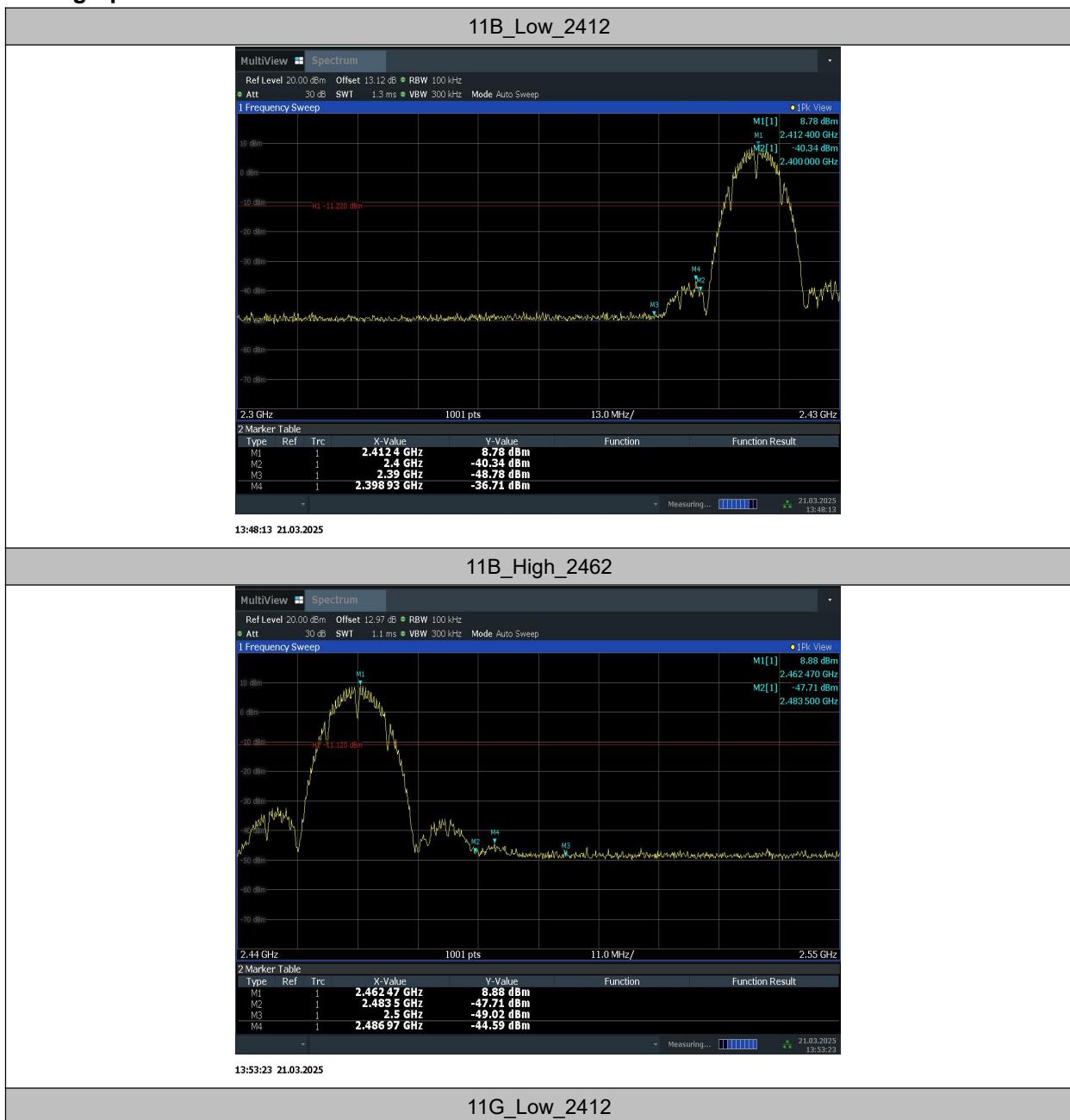
Measurement Limit:

| Standard | Limit (dBc) |
|----------------------------|-------------|
| FCC 47 CFR Part 15.247 (d) | > 20 |

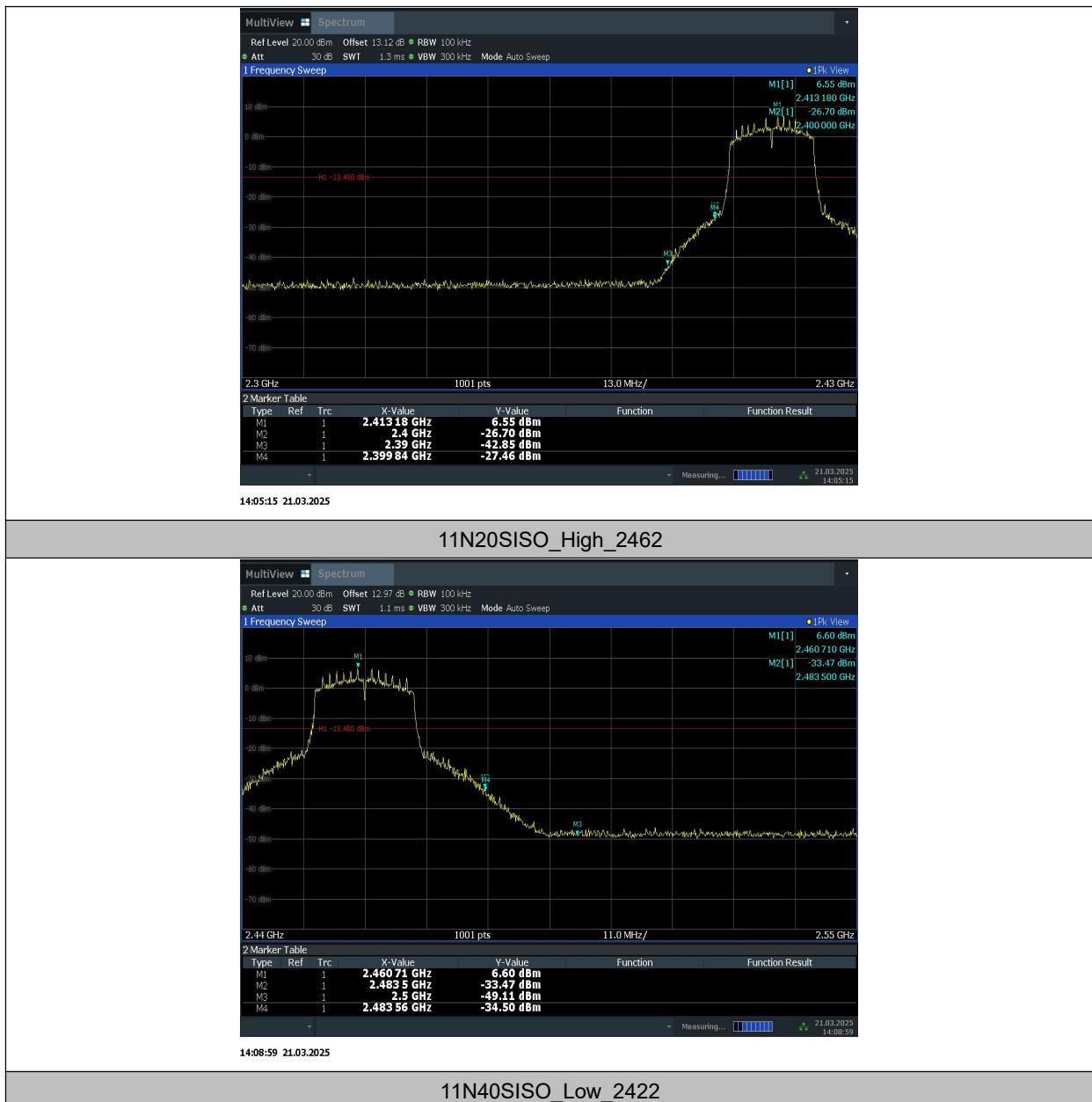
EUT ID: UT13a

Measurement Result:

| TestMode | ChName | Frequency[MHz] | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|-----------|--------|----------------|---------------|-------------|------------|---------|
| 11B | Low | 2412 | 8.78 | -36.71 | ≤-11.22 | PASS |
| | High | 2462 | 8.88 | -44.59 | ≤-11.12 | PASS |
| 11G | Low | 2412 | 6.49 | -26.88 | ≤-13.51 | PASS |
| | High | 2462 | 6.39 | -34.68 | ≤-13.61 | PASS |
| 11N20SISO | Low | 2412 | 6.55 | -27.46 | ≤-13.45 | PASS |
| | High | 2462 | 6.60 | -34.5 | ≤-13.4 | PASS |
| 11N40SISO | Low | 2422 | 0.73 | -35.69 | ≤-19.27 | PASS |
| | High | 2452 | 1.17 | -37.59 | ≤-18.83 | PASS |

Test graphs as below:








Conclusion: Pass

A.6. Transmitter Spurious Emission

A.6.1 Transmitter Spurious Emission – Conducted

Method of Measurement: See ANSI C63.10-2013-clause 11.11

Establish a reference level by using the following procedure:

- a) Set instrument center frequency to DTS channel center frequency
- b) Set the span to ≥ 1.5 times the DTS bandwidth
- c) Set the RBW= 100 kHz
- d) Set the VBW= 300 kHz
- e) Detector = Peak
- f) Sweep time = auto couple
- g) Trace mode = max hold
- h) Allow trace to fully stabilize
- i) Use the peak marker function to determine the maximum PSD level

Note that the channel found to contain the maximum PSD level can be used to establish the reference level.

Establish an emission level by using the following procedure:

- a) Set the center frequency and span to encompass frequency range to be measured.
- b) Set the RBW = 100 kHz.
- c) Set the VBW = 300 kHz.
- d) Detector = peak.
- e) Sweep time = auto couple.
- f) Trace mode = max hold.
- g) Allow trace to fully stabilize.
- h) Use the peak marker function to determine the maximum amplitude level.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11. Report the three highest emissions relative to the limit.

Measurement Limit:

| Standard | Limit |
|----------------------------|---|
| FCC 47 CFR Part 15.247 (d) | 20dB below peak output power in 100 kHz bandwidth |

EUT ID: UT13a

Measurement Results:

| TestMode | Frequency[MHz] | FreqRange [Mhz] | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|----------|----------------|-----------------|----------------|--------------|---------------|---------|
| 11B | 2412 | Reference | 9.11 | 9.11 | --- | PASS |
| | | 30~1000 | 9.11 | -56.42 | ≤ -10.89 | PASS |
| | | 1000~26500 | 9.11 | -43.68 | ≤ -10.89 | PASS |
| | 2437 | Reference | 8.61 | 8.61 | --- | PASS |
| | | 30~1000 | 8.61 | -56.28 | ≤ -11.39 | PASS |

| | | | | | | |
|-----------|------|------------|------|--------|---------|------|
| | 2462 | 1000~26500 | 8.61 | -43.68 | ≤-11.39 | PASS |
| | | Reference | 8.83 | 8.83 | --- | PASS |
| | | 30~1000 | 8.83 | -56.76 | ≤-11.17 | PASS |
| | | 1000~26500 | 8.83 | -44.31 | ≤-11.17 | PASS |
| 11G | 2412 | Reference | 6.92 | 6.92 | --- | PASS |
| | | 30~1000 | 6.92 | -56.44 | ≤-13.08 | PASS |
| | | 1000~26500 | 6.92 | -43.89 | ≤-13.08 | PASS |
| | 2437 | Reference | 6.24 | 6.24 | --- | PASS |
| | | 30~1000 | 6.24 | -56.41 | ≤-13.76 | PASS |
| | | 1000~26500 | 6.24 | -44.11 | ≤-13.76 | PASS |
| | 2462 | Reference | 6.42 | 6.42 | --- | PASS |
| | | 30~1000 | 6.42 | -55.87 | ≤-13.58 | PASS |
| | | 1000~26500 | 6.42 | -43.65 | ≤-13.58 | PASS |
| 11N20SISO | 2412 | Reference | 6.96 | 6.96 | --- | PASS |
| | | 30~1000 | 6.96 | -57.05 | ≤-13.04 | PASS |
| | | 1000~26500 | 6.96 | -43.54 | ≤-13.04 | PASS |
| | 2437 | Reference | 6.25 | 6.25 | --- | PASS |
| | | 30~1000 | 6.25 | -56.67 | ≤-13.75 | PASS |
| | | 1000~26500 | 6.25 | -44.04 | ≤-13.75 | PASS |
| | 2462 | Reference | 6.61 | 6.61 | --- | PASS |
| | | 30~1000 | 6.61 | -56.72 | ≤-13.39 | PASS |
| | | 1000~26500 | 6.61 | -43.48 | ≤-13.39 | PASS |
| 11N40SISO | 2422 | Reference | 0.68 | 0.68 | --- | PASS |
| | | 30~1000 | 0.68 | -56.33 | ≤-19.32 | PASS |
| | | 1000~26500 | 0.68 | -43.53 | ≤-19.32 | PASS |
| | 2437 | Reference | 0.67 | 0.67 | --- | PASS |
| | | 30~1000 | 0.67 | -56.66 | ≤-19.33 | PASS |
| | | 1000~26500 | 0.67 | -44.14 | ≤-19.33 | PASS |
| | 2452 | Reference | 1.15 | 1.15 | --- | PASS |
| | | 30~1000 | 1.15 | -56.67 | ≤-18.85 | PASS |
| | | 1000~26500 | 1.15 | -43.61 | ≤-18.85 | PASS |

Test graphs as below:
