

FCC CERTIFICATION TEST REPORT

FOR

| | | |
|-----------------------------|---|---|
| Applicant | : | MOTREX CO., LTD. |
| Address | : | Seoyoung Bldg. 25, Hwangsaeul-ro 258beon-gil, Bundang-gu, Seongnam-si, Gyeonggi-do, South Korea |
| Equipment under Test | : | Equipo de Audio y Video para Vehiculo |
| Model No. | : | MTXMO440LBL7m, MTXMO410LNQ5a |
| Trade Mark | : | HYUNDAI/KIA |
| FCC ID | : | BP9-MO440LBL7M |
| Manufacturer | : | Skypine Electronics(Shenzhen) Co.,Ltd |
| Address | : | 3rd Floor of Building B, Jingang Technology Park, Qiaotou Village, Fuhai Sub-District, Baoan, Shenzhen, China |

Issued By: Dongguan Dongdian Testing Service Co., Ltd.

Add.: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park,
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Tel.: +86-0769-38826678, **E-mail:** ddt@dgddt.com, <http://www.dgddt.com>

REPORT

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TEST REPORT DECLARE

| | | |
|-----------------------------|---|---|
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| Address | : | Seoyoung Bldg. 25, Hwangsaoul-ro 258beon-gil, Bundang-gu, Seongnam-si, Gyeonggi-do, South Korea |
| Equipment under Test | : | Equipo de Audio y Video para Vehiculo |
| Model No | : | MTXMO440LBL7m, MTXMO410LNQ5a |
| Trade Mark | : | HYUNDAI/KIA |
| Manufacturer | : | Skypine Electronics(Shenzhen) Co.,Ltd |
| Address | : | 3rd Floor of Building B, Jingang Technology Park, Qiaotou Village, Fuhai Sub-District, Baoan, Shenzhen, China |

Test Standard Used:

FCC Rules and Regulations Part 15 Subpart C

Test procedure used:

ANSI C63.10:2013, 558074 D01 15.247 Meas Guidance v05r02

We Declare:

The equipment described above is tested by Dongguan Dongdian Testing Service Co., Ltd. and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and Dongguan Dongdian Testing Service Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

After test and evaluation, our opinion is that the equipment provided for test compliance with the requirement of the above FCC standards.

| | | | |
|-------------------------|--------------------|----------------------|-------------------------------|
| Report No: | DDT-R22092815-2E02 | | |
| Date of Receipt: | Oct. 28, 2022 | Date of Test: | Oct. 28, 2022 ~ Nov. 25, 2022 |

Prepared By:

Johnny Wang

Johnny Wang/Engineer

Approved By:



Damon Hu/EMC Manager

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Dongguan Dongdian Testing Service Co., Ltd.

Revision history

| Rev. | Revisions | Issue Date | Revised By |
|------|---------------|---------------|------------|
| --- | Initial issue | Nov. 25, 2022 | |
| | | | |

1. Summary of test results

| The EUT have been tested according to the applicable standards as referenced below. | | |
|---|---|---------|
| Description of Test Item | Standard | Results |
| 6dB Bandwidth and 99% Bandwidth | FCC Part 15: 15.247 ANSI C63.10:2013 | Pass |
| Conducted Output Power | FCC Part 15: 15.247 ANSI C63.10:2013 | Pass |
| Power Spectral Density | FCC Part 15:15.247 ANSI C63.10:2013 | Pass |
| Band-edge and Spurious Emissions (Conducted) | FCC Part 15: 15.209 FCC Part 15: 15.247 ANSI C63.10: 2013 | Pass |
| Radiated Spurious Emissions | FCC Part 15: 15.247 ANSI C63.10:2013 | Pass |
| Radiated Band Edge Compliance | FCC Part 15: 15.209 FCC Part 15: 15.247 ANSI C63.10: 2013 | Pass |
| Power Line Conducted Emission | FCC Part 15: 15.207 ANSI C63.10: 2013 | N/A |
| Antenna requirement | FCC Part 15: 15.203 | Pass |
| Note: N/A is an abbreviation for Not Applicable | | |

2. General test information

2.1. Description of EUT

| | |
|--------------------------|--|
| EUT* Name | : Equipo de Audio y Video para Vehiculo |
| Model Number | : MTXMO440LBL7m, MTXMO410LNQ5a |
| Difference of models | : Their head unit electrical circuit design, layout, components used and internal wiring are identical, the shape and the material are also identical. Only the frontpanel and the packaging material size are different, but the frontpanel circuit design and principle are the same. Therefore the test performed on the model MTXMO440LBL7m and record in this report. |
| EUT function description | : Please reference user manual of this device |
| Power supply | : DC 12V |
| Radio Technology | : IEEE 802.11b/g/n |
| FCC Operation frequency | : IEEE 802.11b: 2412MHz—2462MHz IEEE 802.11g: 2412MHz—2462MHz IEEE 802.11n HT20: 2412MHz—2462MHz IEEE 802.11n HT40: 2422MHz—2452MHz |
| Modulation | : IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20, HT40: OFDM (64QAM, 16QAM, QPSK, BPSK) |
| Transmitter rate | : IEEE 802.11b: 1, 2, 5.5, 11 Mbps IEEE 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps IEEE 802.11n HT20: up to 72.2 Mbps IEEE 802.11n HT40: up to 150 Mbps |
| Antenna Gain | : 3.53 dBi |
| Sample Number | : S22092815-05 |

Note: EUT is the ab. of equipment under test.

| Channel information | | | | | |
|---------------------|-----------------|----|-----------------|----|-----------------|
| CH | Frequency (MHz) | CH | Frequency (MHz) | CH | Frequency (MHz) |
| 1 | 2412 | 5 | 2432 | 9 | 2452 |
| 2 | 2417 | 6 | 2437 | 10 | 2457 |
| 3 | 2422 | 7 | 2442 | 11 | 2462 |
| 4 | 2427 | 8 | 2447 | / | / |

2.2. Accessories of EUT

| Assistant equipment | Manufacturer | Model number | Other |
|---------------------|--------------|--------------|-------|
| N/A | N/A | N/A | N/A |

2.3. Assistant equipment used for test

| Assistant equipment | Manufacturer | Model number | EMC Compliance | SN |
|---------------------|--------------|--------------|----------------|-----|
| N/A | N/A | N/A | N/A | N/A |

2.4. Block diagram of EUT configuration for test



Test software: Xshell.exe

The test software was used to control EUT work in Continuous Tx mode, and select test channel, wireless mode as below table:

The pathloss of external cable: 0.5dB (According to the manufacturer's claims)

Tested mode, channel, setting Tx power and rand data rate information

| Mode | Setting Tx Power | data rate (Mbps) (see Note) | Channel | Frequency (MHz) |
|-------------------------|------------------|--------------------------------|-----------|--------------------|
| | ANT1 | | | |
| Tx mode 802.11b | 40 | 1 | LCH: CH1 | 2412 |
| | 40 | 1 | MCH: CH6 | 2437 |
| | 40 | 1 | HCH: CH11 | 2462 |
| Tx mode 802.11g | 35 | 6 | LCH: CH1 | 2412 |
| | 35 | 6 | MCH: CH6 | 2437 |
| | 35 | 6 | HCH: CH11 | 2462 |
| Tx mode 802.11n HT20 | 35 | MCS 0 | LCH: CH1 | 2412 |
| | 35 | MCS 0 | MCH: CH6 | 2437 |
| | 35 | MCS 0 | HCH: CH11 | 2462 |
| Tx mode 802.11n HT40 | 32 | MCS 0 | LCH: CH3 | 2422 |
| | 32 | MCS 0 | MCH: CH6 | 2437 |
| | 32 | MCS 0 | HCH: CH9 | 2452 |

Note: According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test.

2.5. Deviations of test standard

No Deviation

2.6. Test environment conditions

During the measurement the environmental conditions were within the listed ranges:

| | |
|--------------------|-------------------|
| Temperature range: | +21 °C to +25 °C |
| Humidity range: | 40% to 75% |
| Pressure range: | 86 kPa to 106 kPa |

2.7. Test laboratory

Dongguan Dongdian Testing Service Co., Ltd.

Add.: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City, Guangdong Province, China, 523808.

Tel.: +86-0769-38826678, <http://www.dgddt.com>, Email: ddt@dgddt.com.

CNAS Accreditation No. L6451; A2LA Accreditation Number: 3870.01

FCC Designation Number: CN1182, Test Firm Registration Number: 540522

Innovation, Science and Economic Development Canada Site Registration Number: 10288A

Conformity Assessment Body identifier: CN0048

VCCI facility registration number: C-20087, T-20088, R-20123, R-20155, G-20118

2.8. Measurement uncertainty

| Test Item | Uncertainty |
|--|--|
| Bandwidth | 1.1% |
| Peak Output Power (Conducted) (Spectrum analyzer) | 0.86 dB (10 MHz ≤ f < 3.6 GHz); |
| | 1.38 dB (3.6 GHz ≤ f < 8 GHz) |
| Peak Output Power (Conducted) (Power Sensor) | 0.74 dB |
| Power Spectral Density | 0.74 dB (10 MHz ≤ f < 3.6 GHz); |
| | 1.38 dB (3.6 GHz ≤ f < 8 GHz) |
| Frequencies Stability | 6.7 × 10 ⁻⁸ (Antenna couple method) |
| | 5.5 × 10 ⁻⁸ (Conducted method) |
| Conducted spurious emissions | 0.86 dB (10 MHz ≤ f < 3.6 GHz); |
| | 1.40 dB (3.6 GHz ≤ f < 8 GHz) |
| | 1.66 dB (8 GHz ≤ f < 26.5 GHz) |
| Uncertainty for radio frequency (RBW < 20 kHz) | 3×10 ⁻⁸ |
| Temperature | 0.4 °C |
| Humidity | 2 % |
| Uncertainty for Radiation Emission test (9 kHz – 30 MHz) | 3.44 dB |
| Uncertainty for Radiation Emission test (30 MHz - 1 GHz) | 4.70 dB (Antenna Polarize: V) |
| | 4.84 dB (Antenna Polarize: H) |
| Uncertainty for Radiation Emission test (1 GHz - 40 GHz) | 4.10 dB (1 - 6 GHz) |
| | 4.40 dB (6 GHz - 18 GHz) |
| | 3.54 dB (18 GHz - 26 GHz) |
| | 4.30 dB (26 GHz - 40 GHz) |
| Uncertainty for Power line conduction emission test | 3.34dB (150KHz-30MHz) |
| | 3.72dB (9KHz-150KHz) |

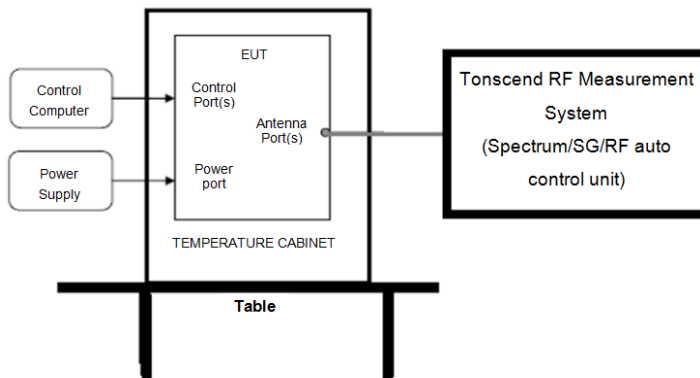
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

3. Equipment used during test

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|---|-----------------|--|-----------------------|---------------|---------------|
| ☑RF Connected Test (Tonscend RF Measurement System 3#) | | | | | |
| SPECTRUM ANALYZER | R&S | FSV40 | 101407 | Jul. 21, 2022 | 1 Year |
| Wideband Radio Communication tester | R&S | CMW500 | 117491 | May 18, 2022 | 1 Year |
| Vector Signal Generator | Agilent | N5182A | MY19060405 | May 18, 2022 | 1 Year |
| Vector Signal Generator | Agilent | N5182A | MY48180912 | May 18, 2022 | 1 Year |
| RF Control Unit | Tonsend | JS0806-2 | DDT-ZC01449 | May 18, 2022 | 1 Year |
| Temp&Humi Programmable | ZHIXIANG | ZXGDJS-150L | ZX170110-A | May 26, 2022 | 1 Year |
| Test Software | JS Tonscend | JS1120-3 | Ver.2.6.77.0518 | N/A | N/A |
| ☑Radiation 3#chamber | | | | | |
| EMI Test Receiver | R&S | ESU | 100472 | May 18, 2022 | 1 Year |
| Spectrum analyzer | Agilent | E4447A | MY50180031 | May 18, 2022 | 1 Year |
| Active Loop antenna | Schwarzbeck | FMZB-1519 | 1519-038 | Sep. 29, 2022 | 1 Year |
| Trilog Broadband Antenna | Schwarzbeck | VULB 9163 | 01429 | Jul. 22, 2022 | 1 Year |
| Double Ridged Horn Antenna | Schwarzbeck | BBHA 9120 D | 02468 | Sep. 29, 2022 | 1 Year |
| Broad Band Horn Antenna | Schwarzbeck | BBHA 9170 | 790 | May 06, 2022 | 1 Year |
| Pre-amplifier | COM-POWER | PAM-118A | 18040084 | Aug. 17, 2022 | 1 Year |
| Pre-amplifier | COM-POWER | PAM-840A | 461369 | Apr. 11, 2022 | 1 Year |
| RE Cable | N/A | W23.02 CP1-X2 + W23.09 AP1-X8+ JCT26S-NJ- NJ-1.5M+ JCT26S-NJ- NJ-1.5M | 4.5M+8M+1.5M+ 1.5M | Aug.17, 2022 | 1 Year |
| RF Cable | Yuhu Technology | JCTB810-NJ- NJ-9M | 21123964 | May. 19,2022 | 1 Year |
| Test software | Tonscend | JS32-RE | V 5.0.0.1 | N/A | N/A |
| ☑Power Line Conducted Emissions Test 1# | | | | | |
| Test Receiver | R&S | ESCI | 100551 | Aug. 26, 2022 | 1 Year |
| LISN 1 | R&S | ENV216 | 101109 | Aug. 26, 2022 | 1 Year |
| LISN 2 | R&S | ESH2-Z5 | 100309 | Aug. 26, 2022 | 1 Year |
| Pulse Limiter | R&S | ESH3-Z2 | 101242 | Aug. 26, 2022 | 1 Year |
| CE Cable 1 | HUBSER | N/A | W10.01 | Aug. 26, 2022 | 1 Year |
| Test software | Tonscend | JS32-RE | V 5.0.0.1 | N/A | N/A |

4. 6dB Bandwidth and 99% Bandwidth

4.1. Block diagram of test setup



4.2. Limits

For direct sequence systems, the minimum 6 dB bandwidth shall be at least 500 kHz

4.3. Test Procedure

(1) Connect EUT's antenna output to spectrum analyzer by RF cable.

(2) 99% Bandwidth set the spectrum analyzer as follows:

RBW: 1% to 5% of the OBW

VBW: $\geq 3\text{RBW}$

Detector Mode: Peak

Sweep time: auto

Trace mode Max hold

(3) 6dB Bandwidth set the spectrum analyzer as follows:

RBW: 100 kHz

VBW: 300 kHz

Detector Mode: Peak

Sweep time: auto

Trace mode Max hold

(4) Allow the trace to stabilize, 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.

4.4. Test Result

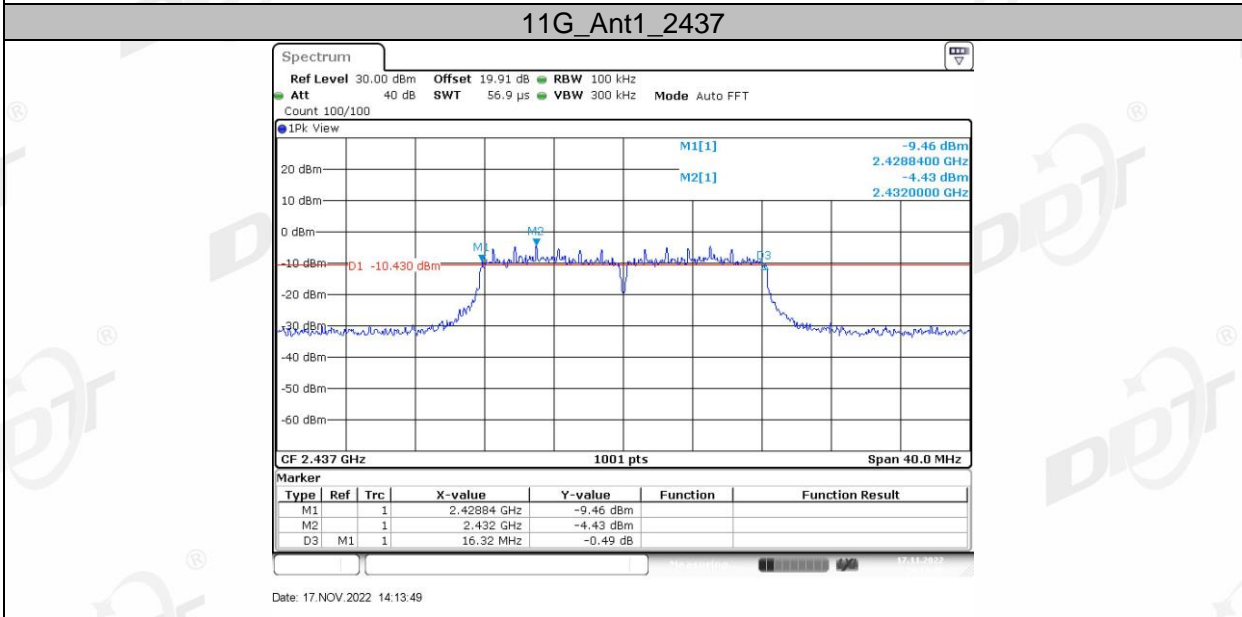
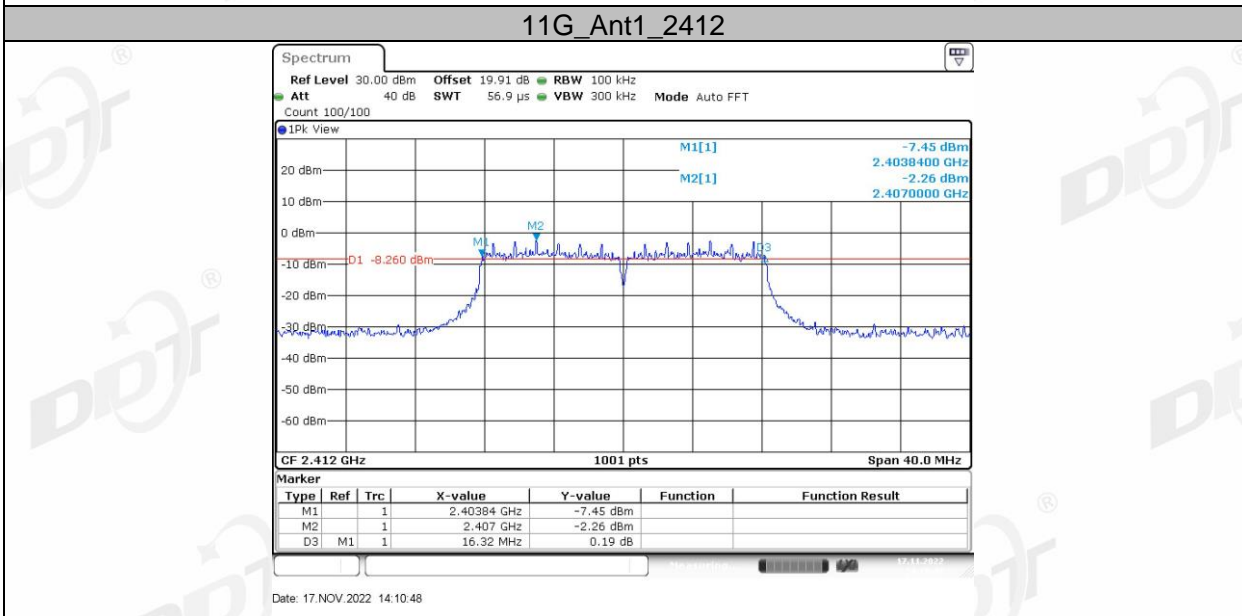
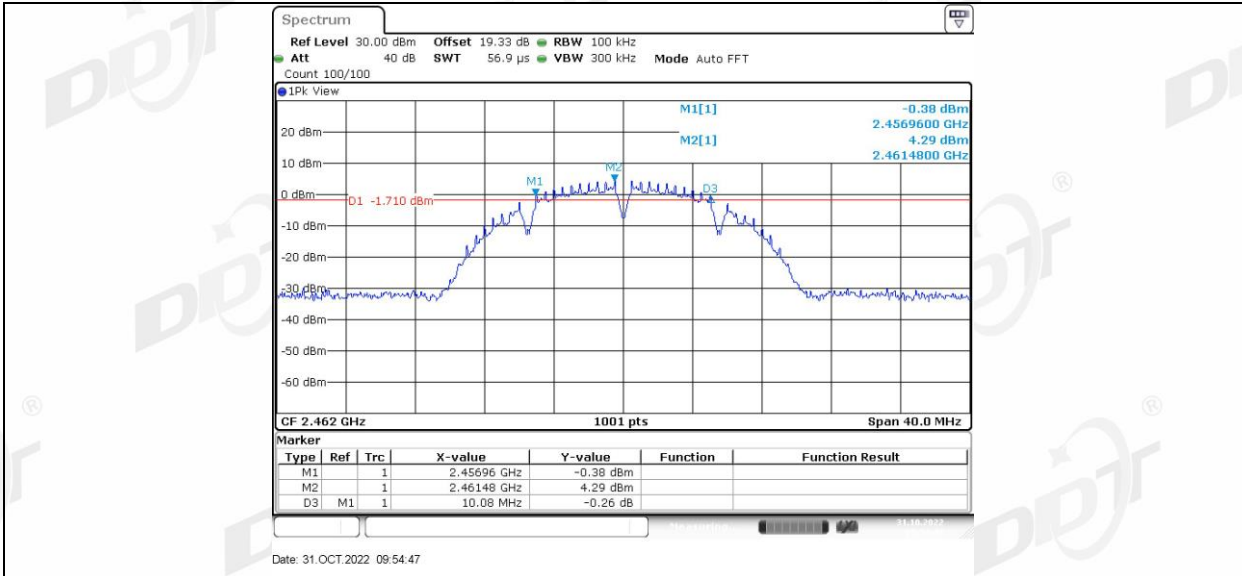
| Test Mode | Test | Ant | 6dB Bandwidth [MHz] | Limit [MHz] | Verdict |
|-----------|------|------|---------------------|-------------|---------|
| 11B | 2412 | Ant1 | 10.08 | 0.5 | Pass |
| 11B | 2437 | Ant1 | 10.08 | 0.5 | Pass |
| 11B | 2462 | Ant1 | 10.08 | 0.5 | Pass |
| 11G | 2412 | Ant1 | 16.32 | 0.5 | Pass |
| 11G | 2437 | Ant1 | 16.32 | 0.5 | Pass |
| 11G | 2462 | Ant1 | 16.32 | 0.5 | Pass |
| 11N20SISO | 2412 | Ant1 | 17.28 | 0.5 | Pass |
| 11N20SISO | 2437 | Ant1 | 17.28 | 0.5 | Pass |
| 11N20SISO | 2462 | Ant1 | 17.28 | 0.5 | Pass |
| 11N40SISO | 2422 | Ant1 | 36.08 | 0.5 | Pass |
| 11N40SISO | 2437 | Ant1 | 35.84 | 0.5 | Pass |
| 11N40SISO | 2452 | Ant1 | 36.08 | 0.5 | Pass |

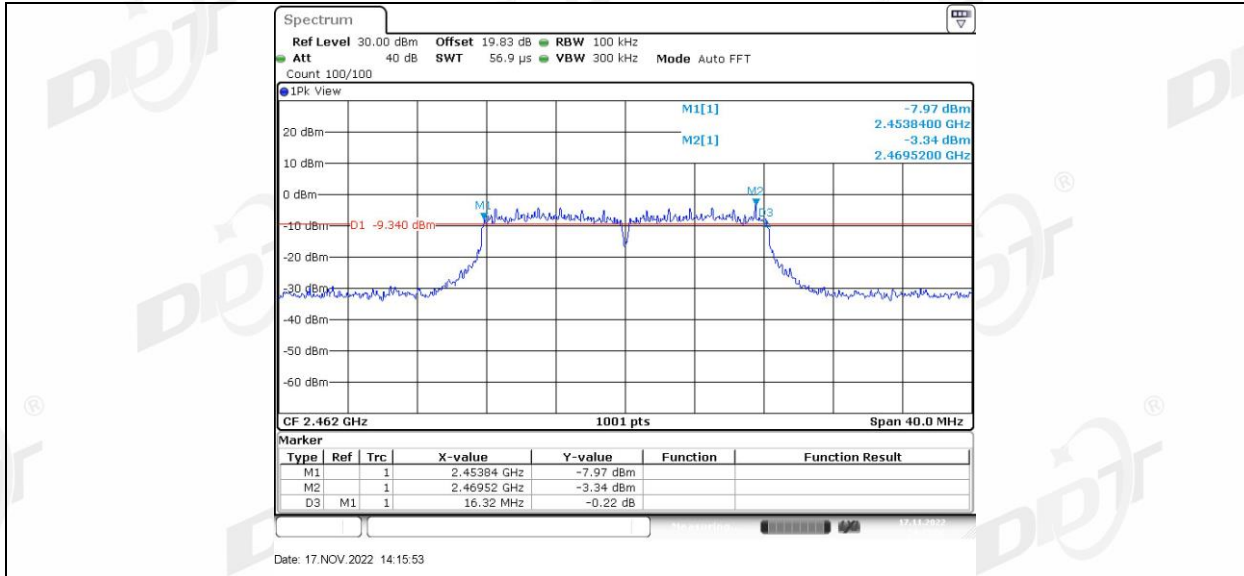
| Test Mode | Test | Ant | 99% OBW [MHz] | Limit [MHz] | Verdict |
|-----------|------|------|---------------|-------------|---------|
| 11B | 2412 | Ant1 | 15.744 | --- | Pass |
| 11B | 2437 | Ant1 | 15.824 | --- | Pass |
| 11B | 2462 | Ant1 | 15.864 | --- | Pass |
| 11G | 2412 | Ant1 | 17.662 | --- | Pass |
| 11G | 2437 | Ant1 | 18.541 | --- | Pass |
| 11G | 2462 | Ant1 | 17.662 | --- | Pass |
| 11N20SISO | 2412 | Ant1 | 19.021 | --- | Pass |
| 11N20SISO | 2437 | Ant1 | 19.061 | --- | Pass |
| 11N20SISO | 2462 | Ant1 | 18.741 | --- | Pass |
| 11N40SISO | 2422 | Ant1 | 36.843 | --- | Pass |
| 11N40SISO | 2437 | Ant1 | 36.523 | --- | Pass |
| 11N40SISO | 2452 | Ant1 | 36.523 | --- | Pass |

4.5. Original test data

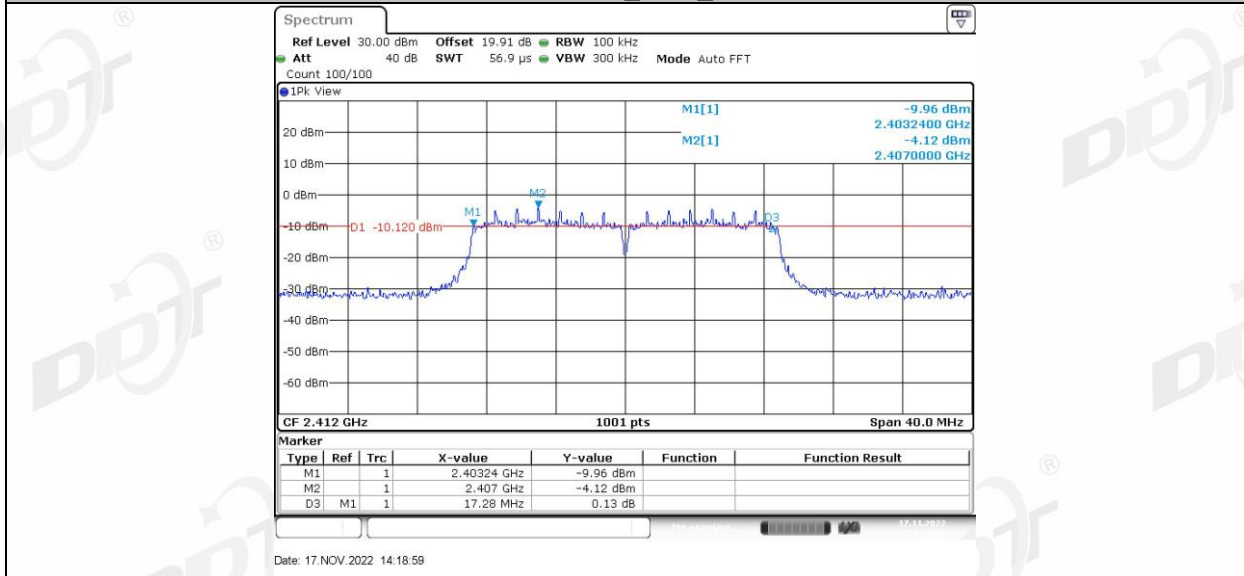
6 dB bandwidth:



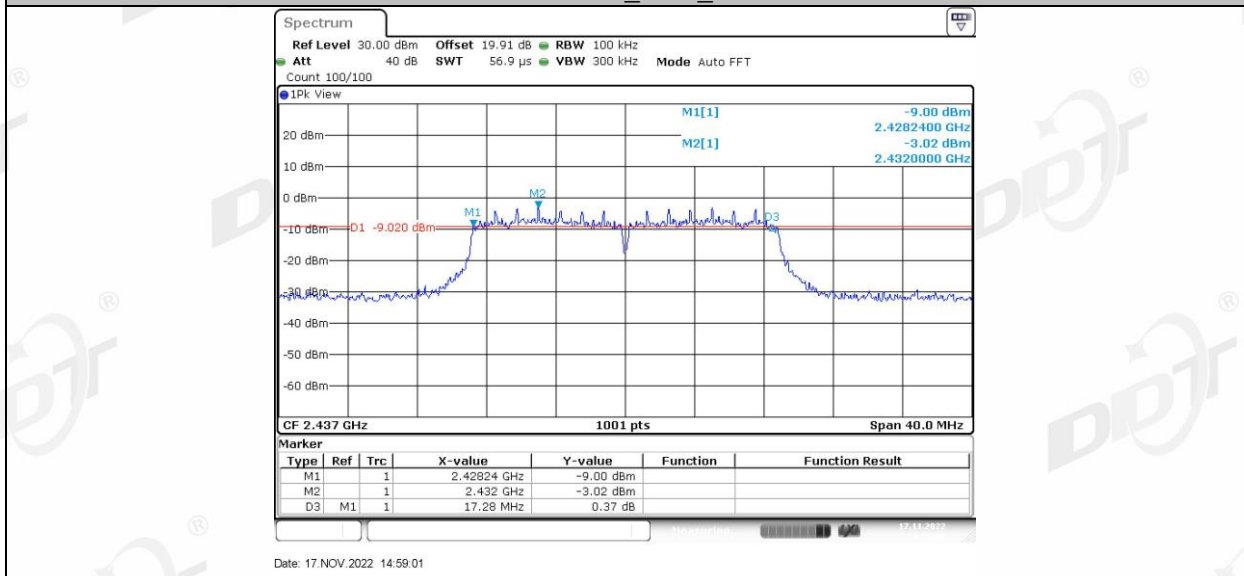




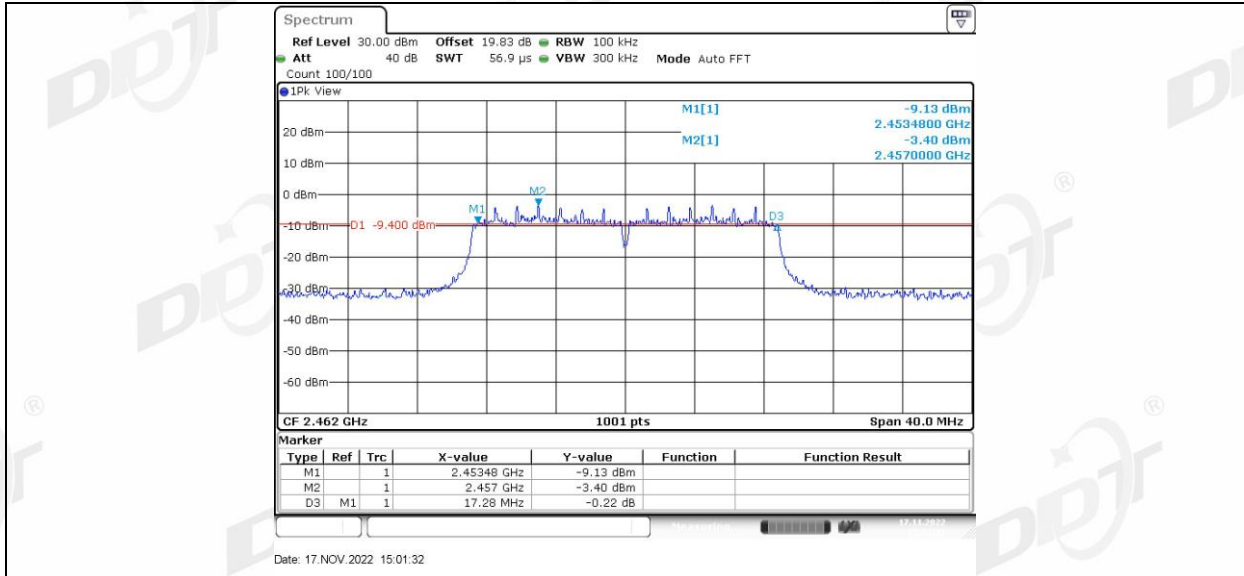
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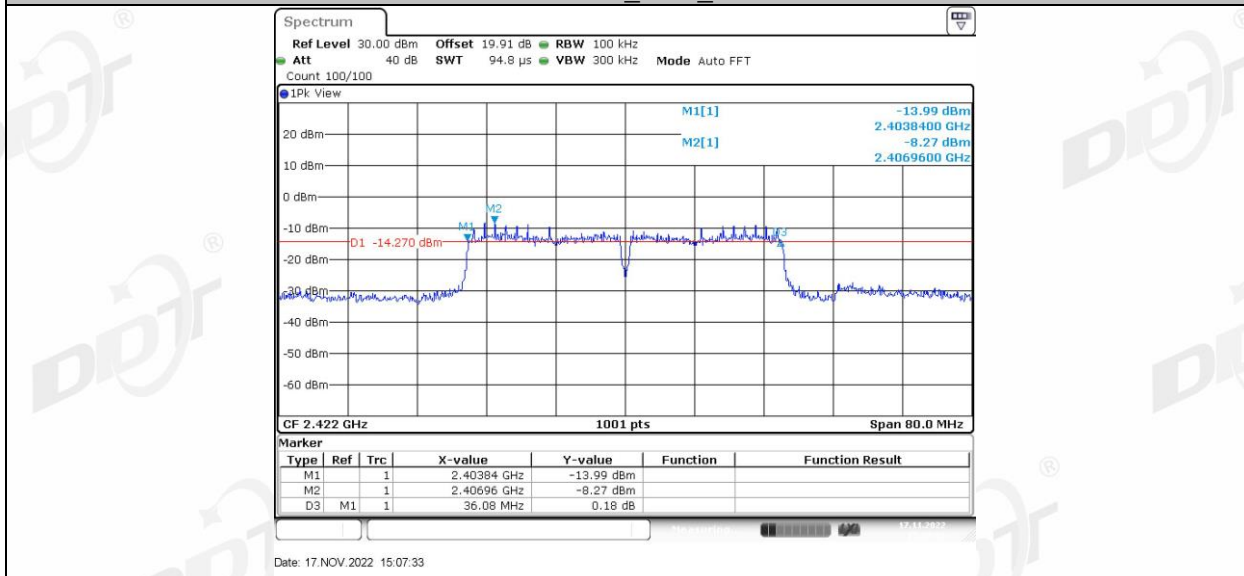
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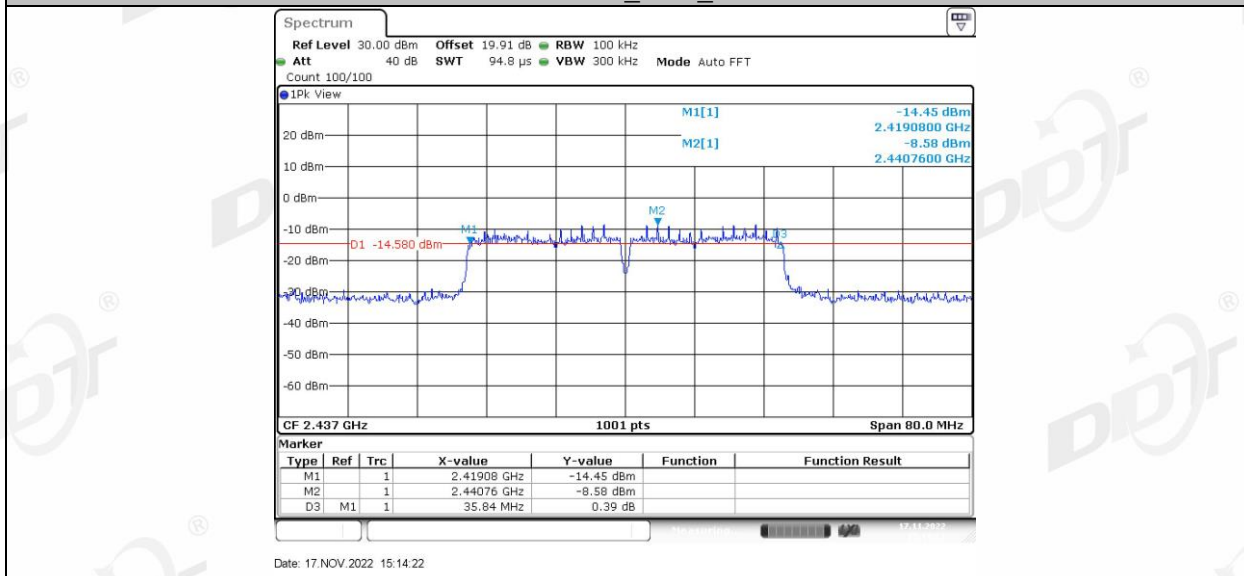
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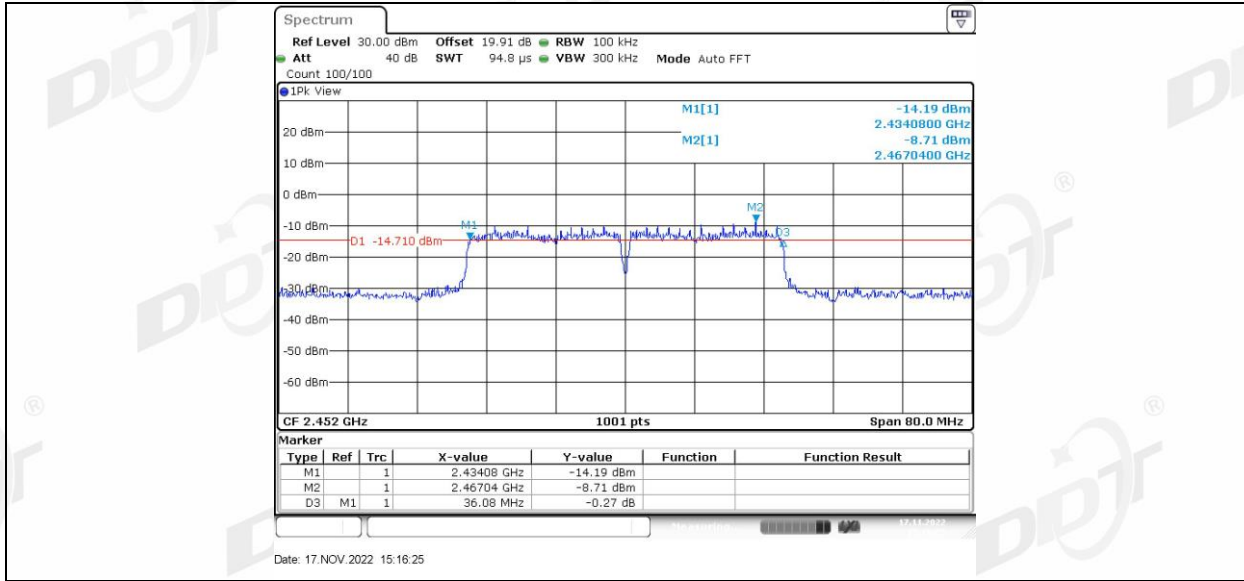
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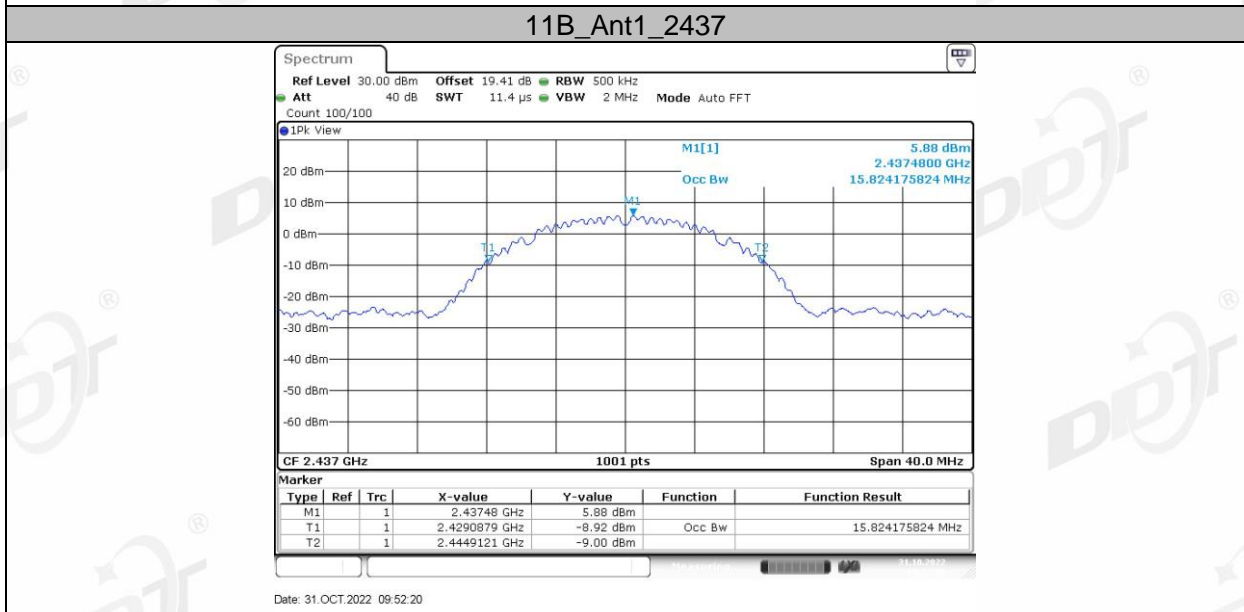
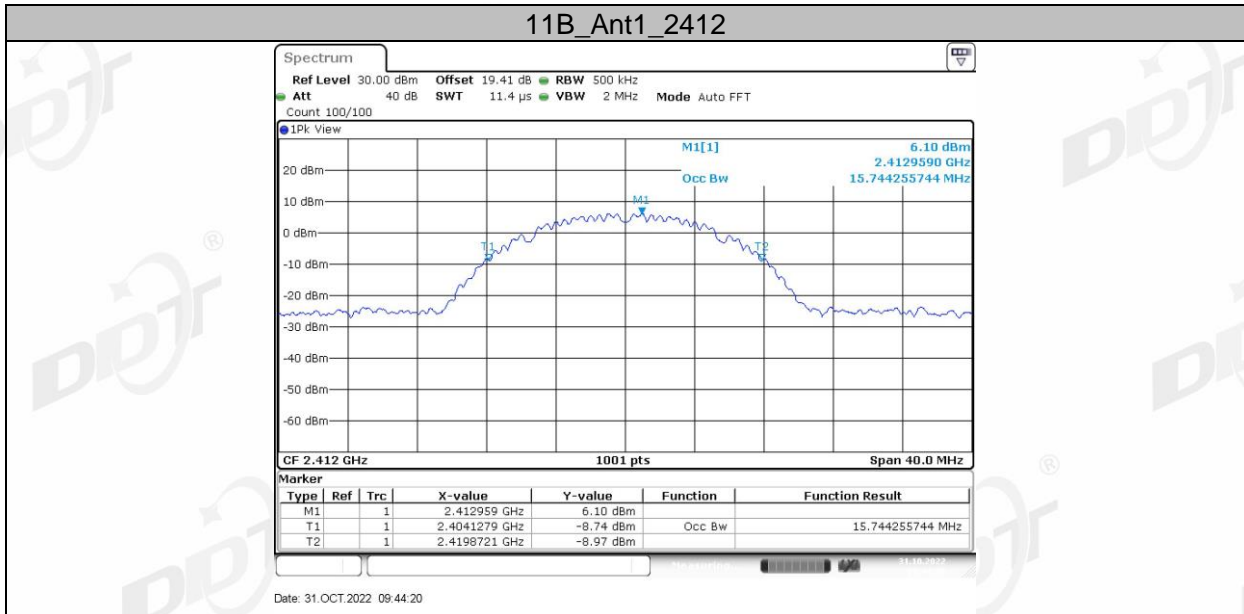
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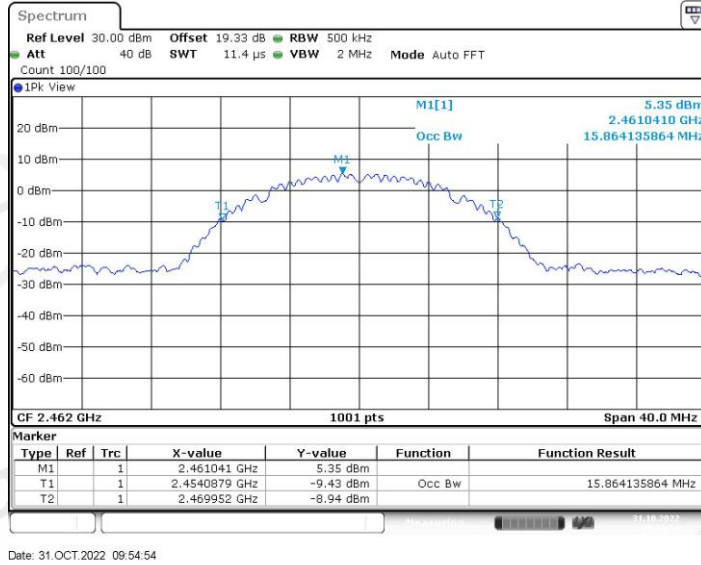
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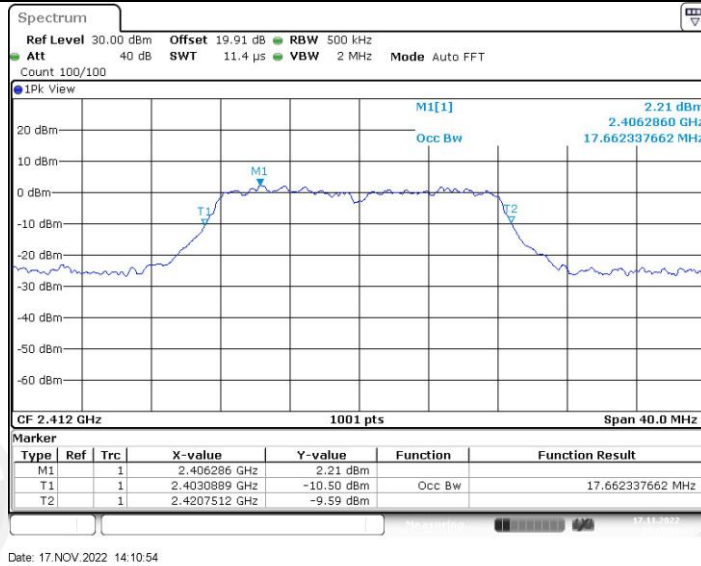
99% bandwidth:



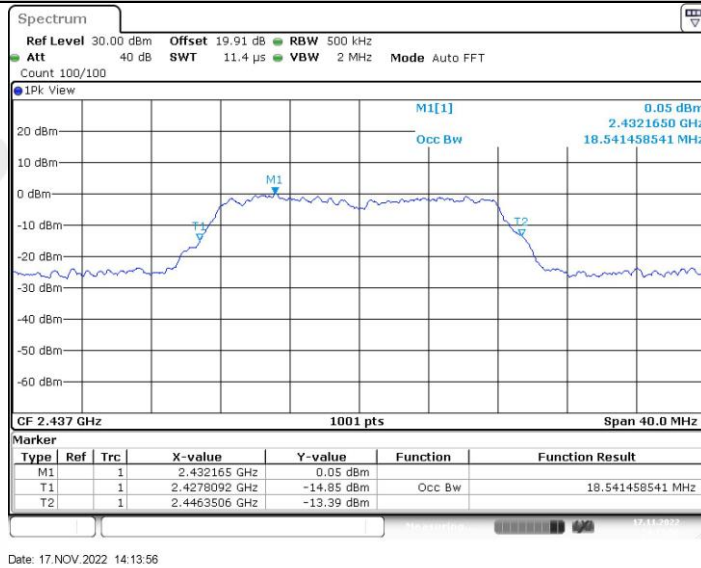
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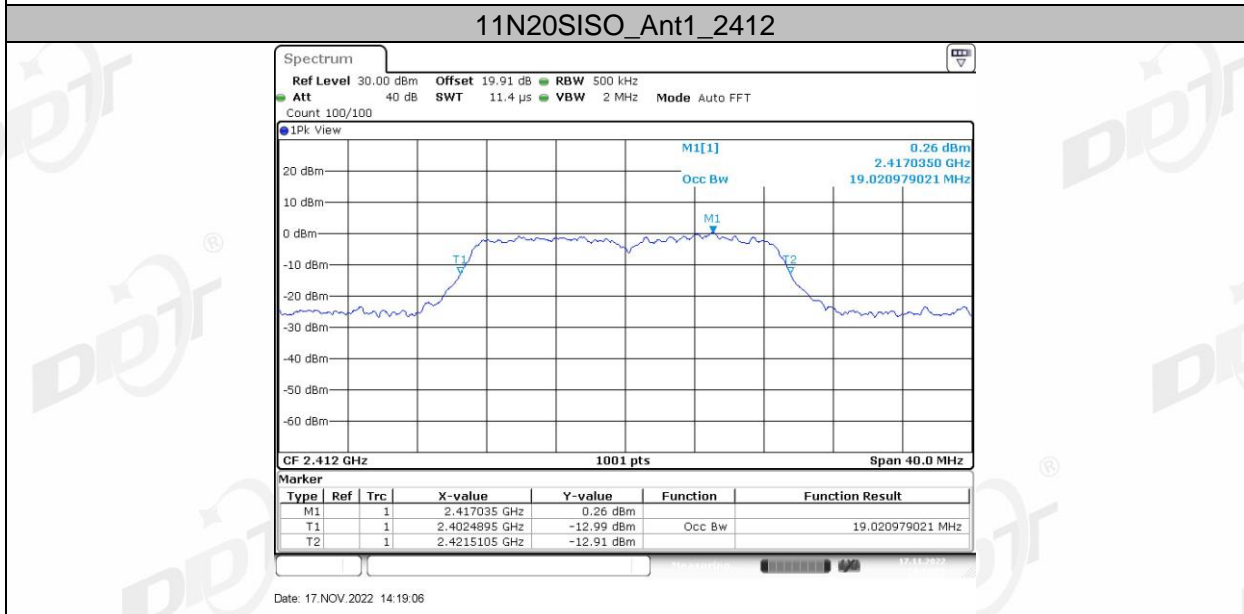
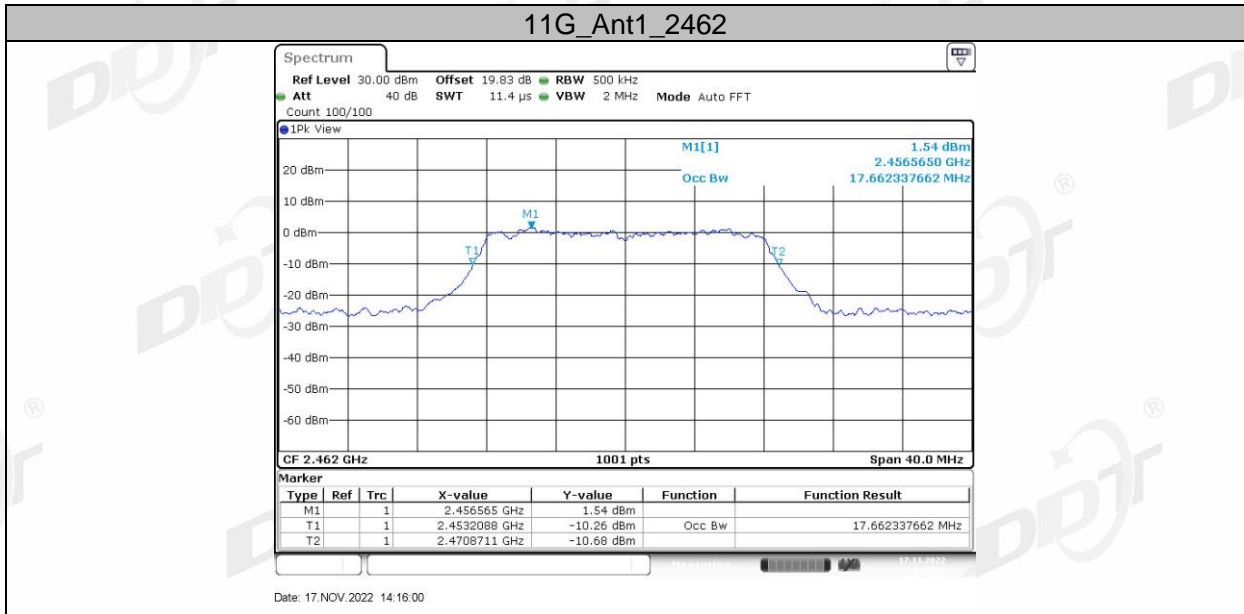


11G_Ant1_2412

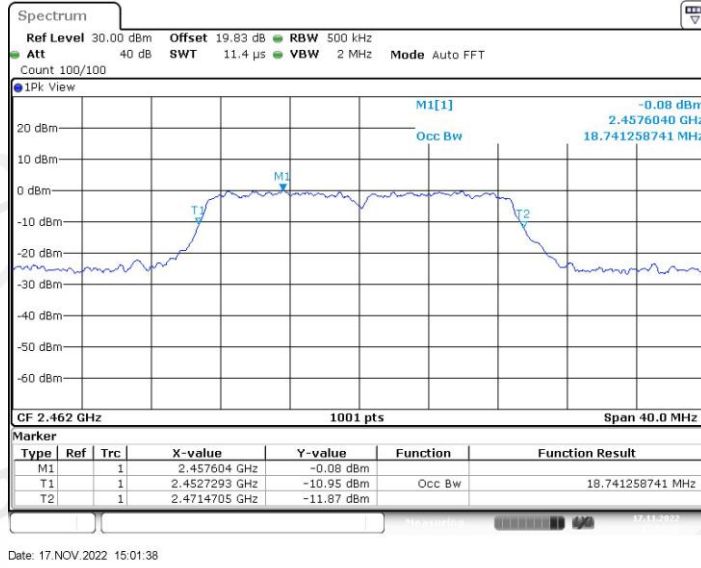


11G_Ant1_2437

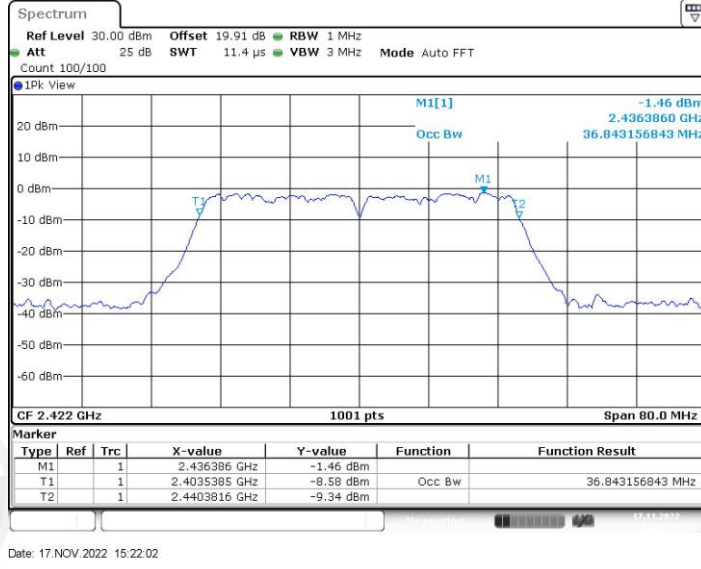




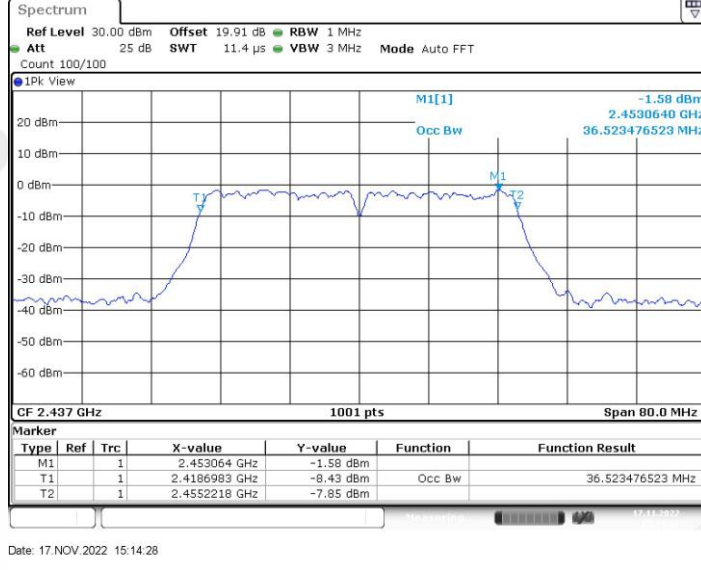
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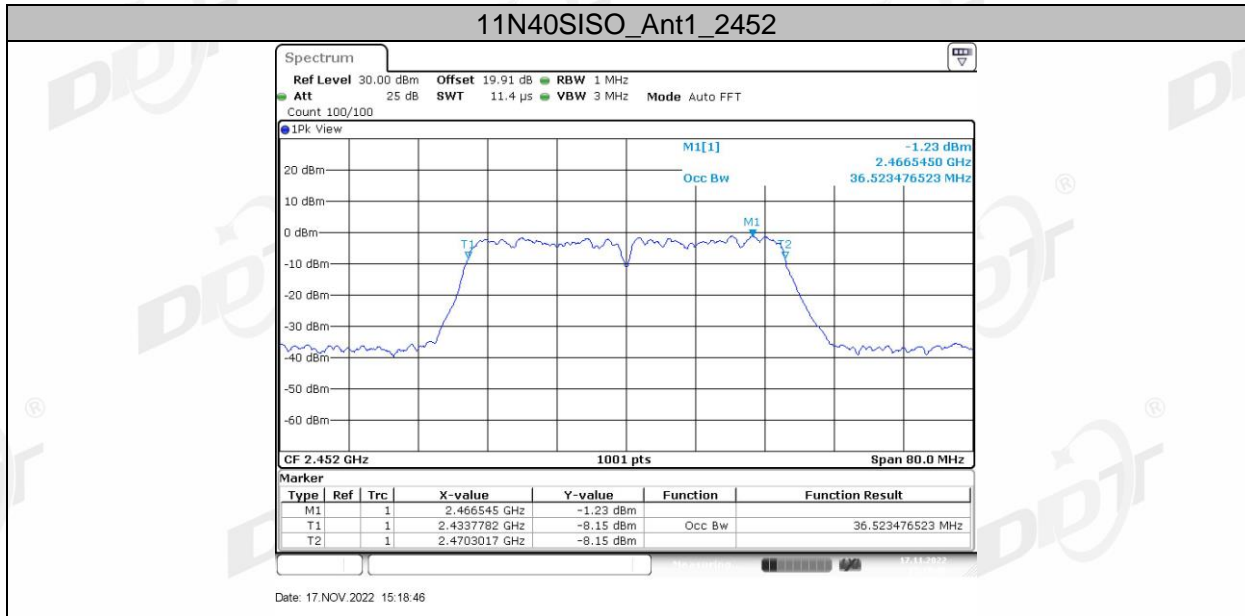


11N40SISO_Ant1_2422



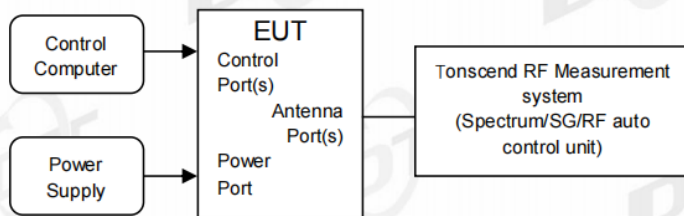
11N40SISO_Ant1_2437





5. Duty Cycle

5.1. Block diagram of test setup



5.2. Limit

Just for Report.

5.3. Test procedure

- (1) Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, The cable loss and attenuator loss have been put into spectrum analyzer as amplitude offset. set the Spectrum Analyzer as below:

Centre Frequency: The centre frequency of the middle hopping channel.

Resolution BW: 10 MHz.

Video BW: 10 MHz.

Span: Zero span.

Detector: Peak.

Trace Mode: Max Hold.

Sweep: Video Trigger

- (2) When the trace is complete, measure the sending time of 1 burst and the duty cycle of 1 burst cycle.

- (3) Calculate dwell time follow below formula:

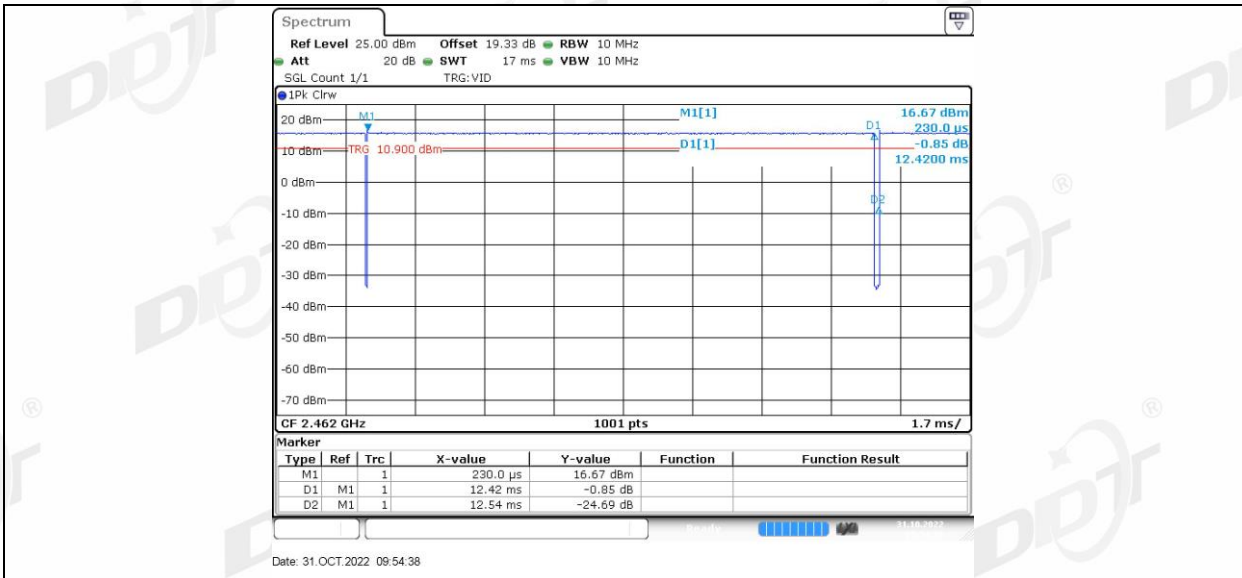
Duty cycle= Pulse's on time / Burst cycle

5.4. Test result

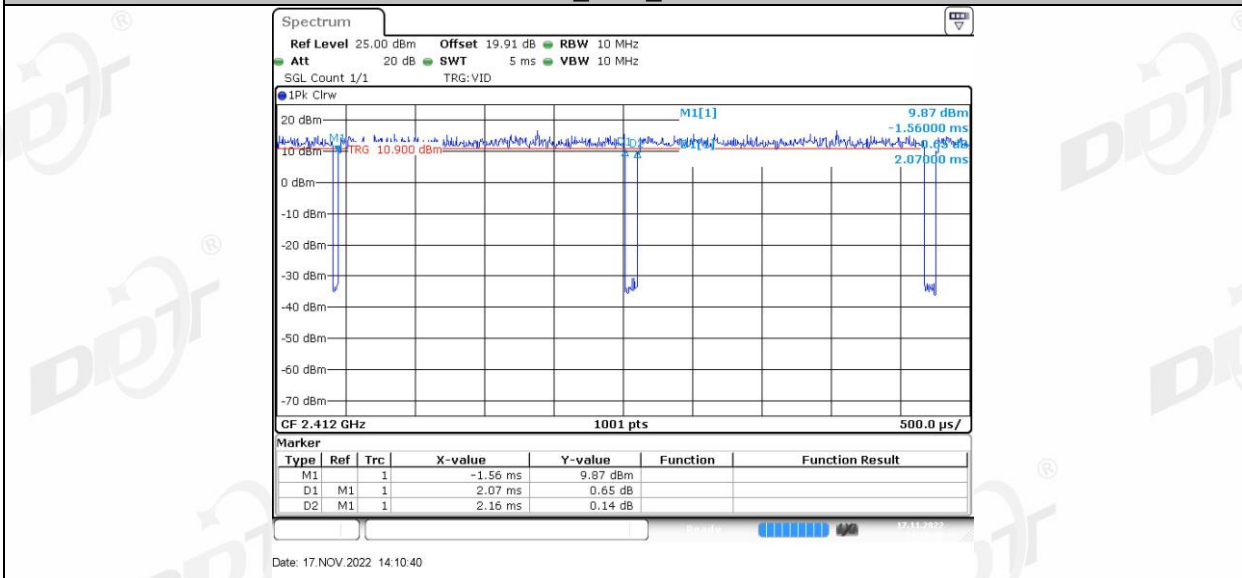
| Test Mode | Antenna | Frequency[MHz] | Transmission Duration [ms] | Transmission Period [ms] | Duty Cycle [%] |
|-----------|---------|----------------|----------------------------|--------------------------|----------------|
| 11B | Ant1 | 2412 | 12.44 | 12.56 | 99.04 |
| | | 2437 | 12.42 | 12.54 | 99.04 |
| | | 2462 | 12.42 | 12.54 | 99.04 |
| 11G | Ant1 | 2412 | 2.07 | 2.16 | 95.83 |
| | | 2437 | 2.07 | 2.17 | 95.39 |
| | | 2462 | 2.07 | 2.24 | 92.41 |
| 11N20SISO | Ant1 | 2412 | 1.93 | 2.06 | 93.69 |
| | | 2437 | 1.93 | 2.06 | 93.69 |
| | | 2462 | 1.93 | 2.10 | 91.90 |
| 11N40SISO | Ant1 | 2422 | 0.95 | 1.01 | 94.06 |
| | | 2437 | 0.94 | 1.02 | 92.16 |
| | | 2452 | 0.95 | 1.10 | 86.36 |

5.5. Test Graphs

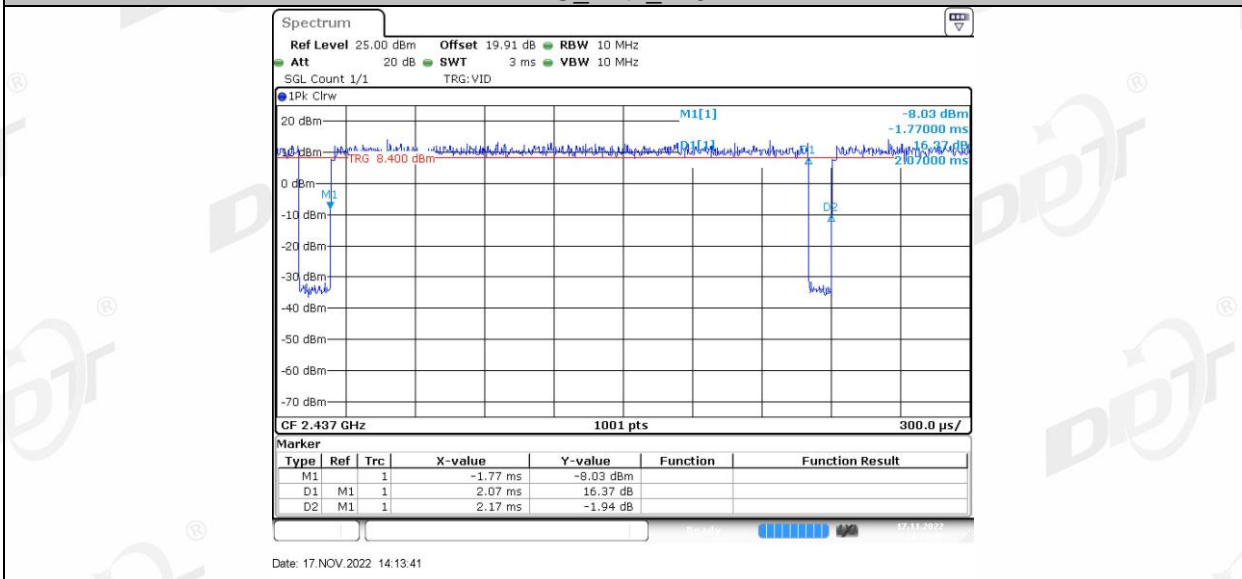




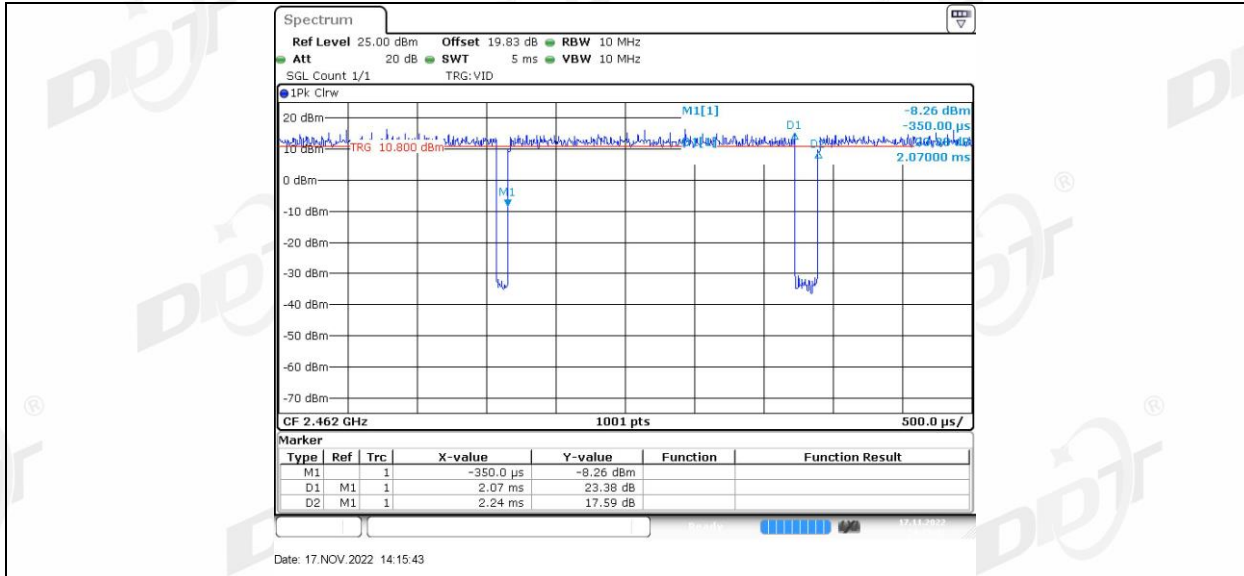
11G_Ant1_2412



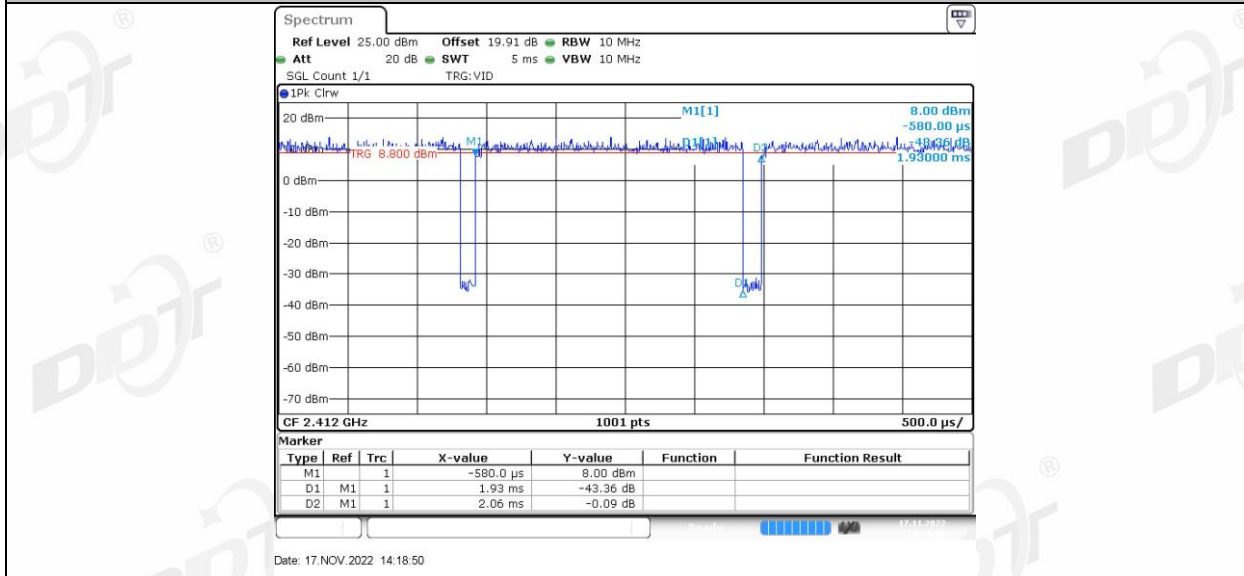
11G_Ant1_2437



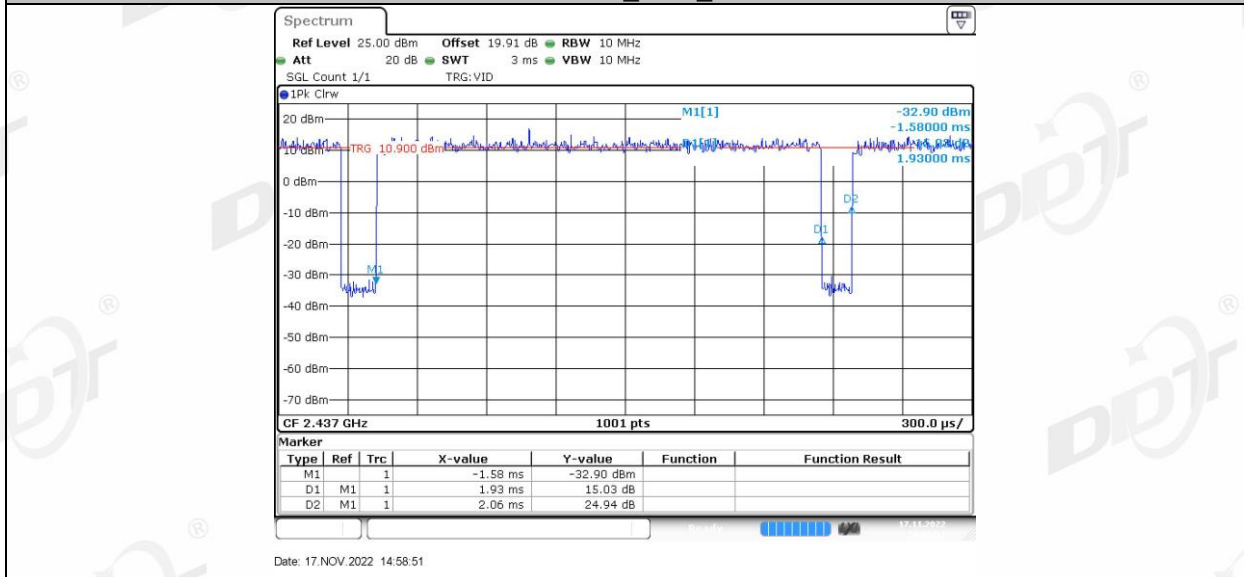
11G_Ant1_2462



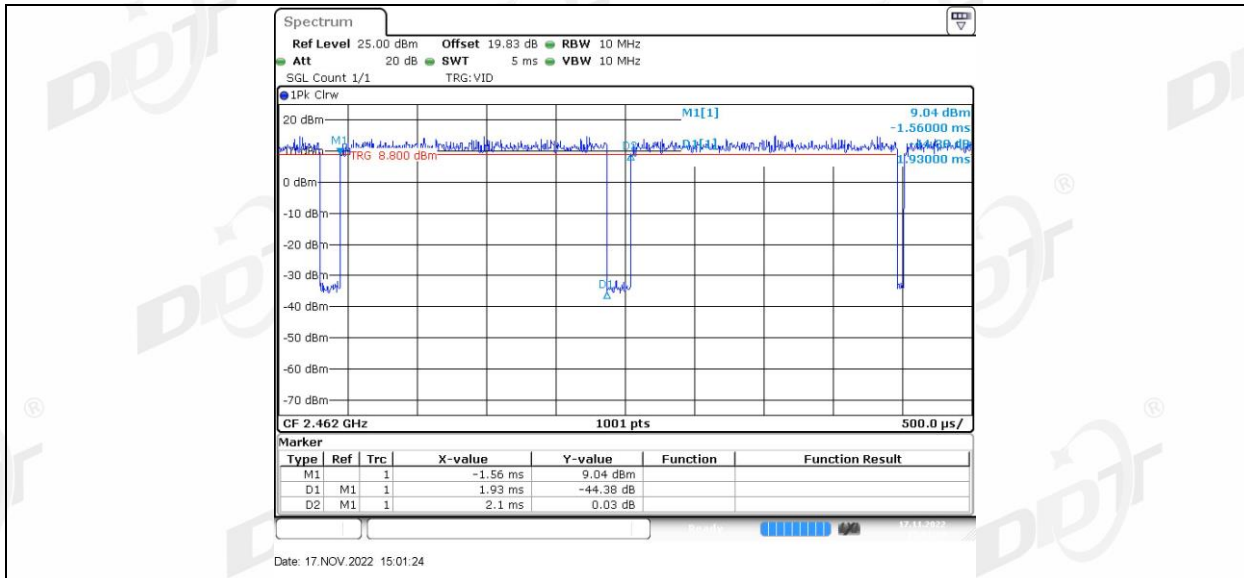
11N20SISO_Ant1_2412



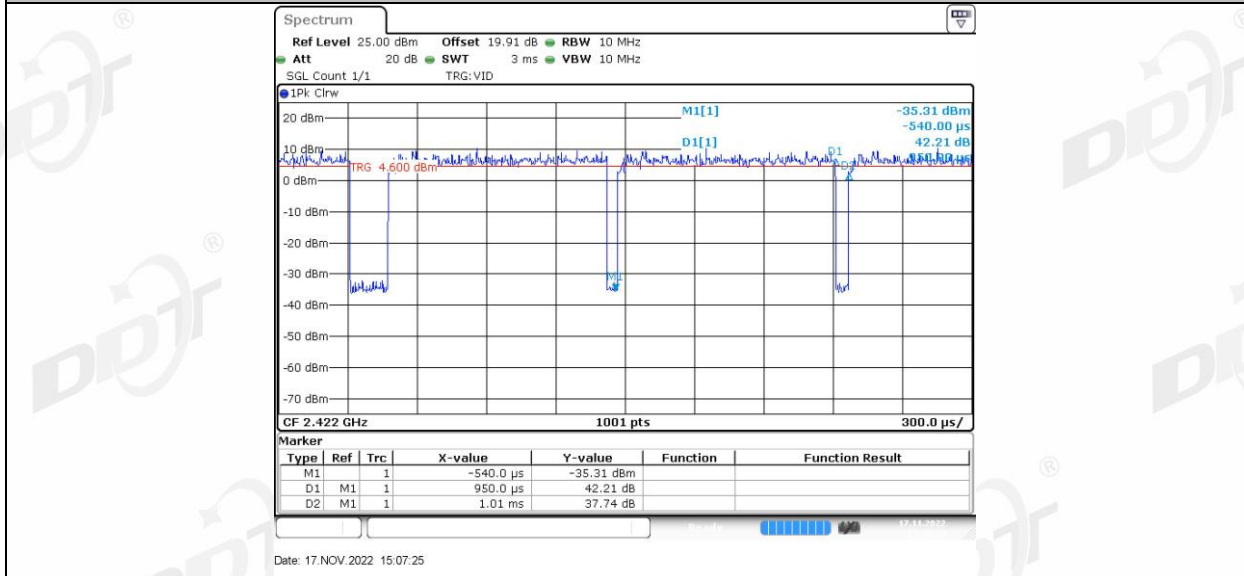
11N20SISO_Ant1_2437



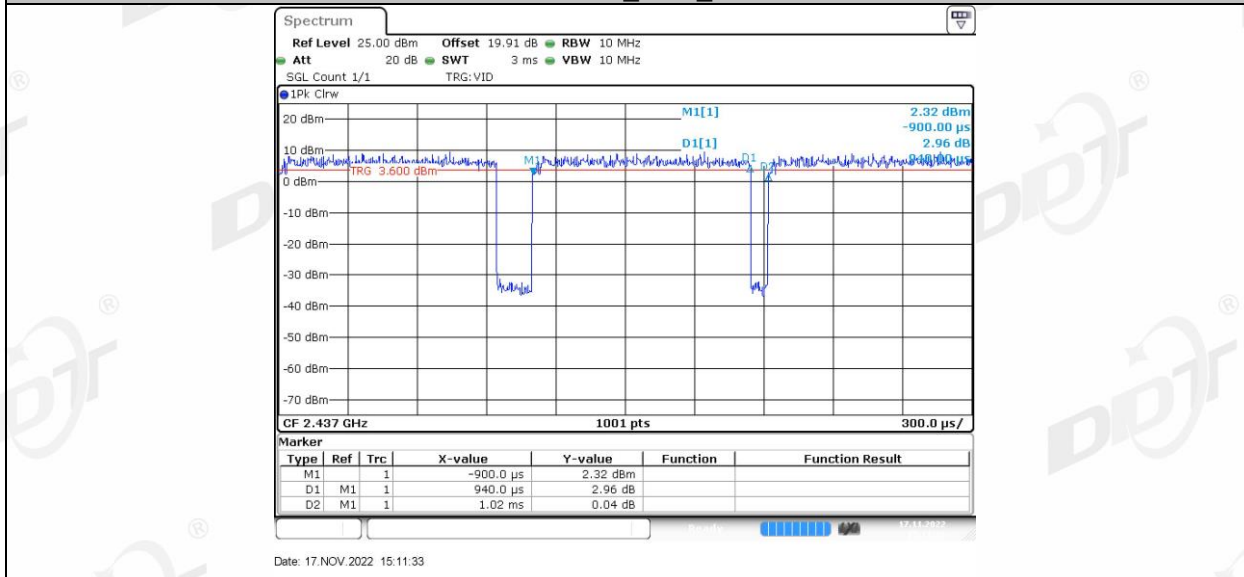
11N20SISO_Ant1_2462



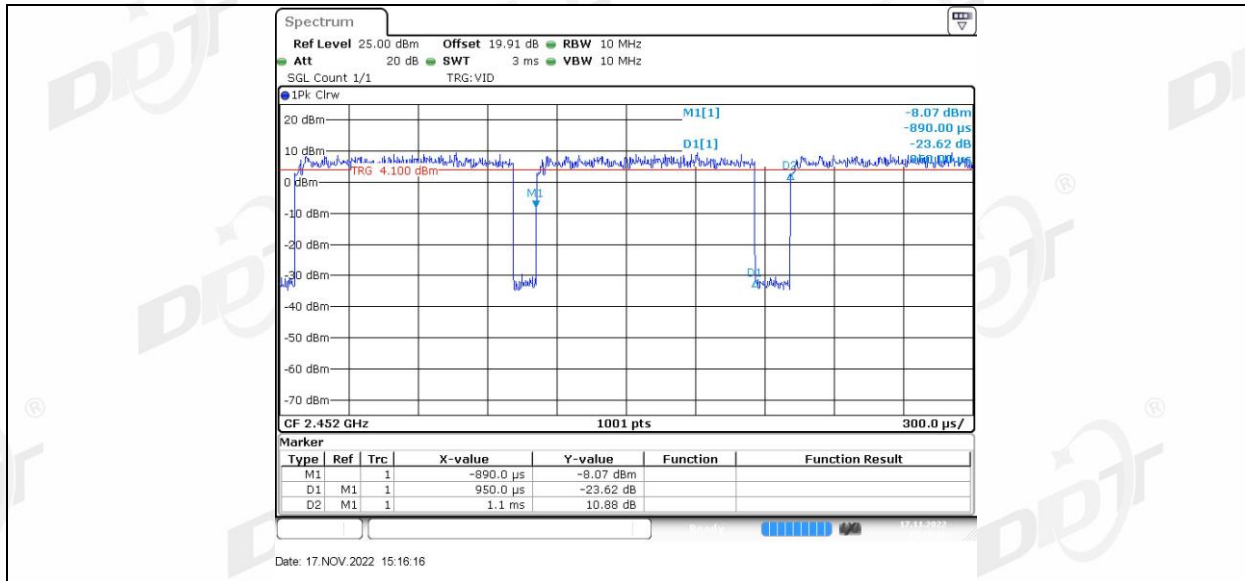
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



6. Conducted Output Power

6.1. Block diagram of test setup

Same as section 4.1

6.2. Limits

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

6.3. Test Procedure

Connect each EUT's antenna output to power sensor by RF cable and attenuator

Measure the output power of each antenna port by power meter.

6.4. Test Result

| Test Mode | Test Channel | Ant | Average power [dBm] | Duty Cycle [%] | DC Factor [dBm] | Conducted Output Power (dBm) | Limit [dBm] | Verdict |
|-----------|--------------|------|---------------------|----------------|-----------------|------------------------------|-------------|---------|
| 11B | 2412 | Ant1 | 15.27 | 99.04 | 0.04 | 15.31 | 30 | Pass |
| 11B | 2437 | Ant1 | 14.65 | 99.04 | 0.04 | 14.69 | 30 | Pass |
| 11B | 2462 | Ant1 | 14.40 | 99.04 | 0.04 | 14.44 | 30 | Pass |
| 11G | 2412 | Ant1 | 8.93 | 95.83 | 0.18 | 9.11 | 30 | Pass |
| 11G | 2437 | Ant1 | 6.76 | 95.39 | 0.20 | 6.96 | 30 | Pass |
| 11G | 2462 | Ant1 | 8.50 | 92.41 | 0.34 | 8.84 | 30 | Pass |
| 11N20SISO | 2412 | Ant1 | 6.83 | 93.69 | 0.28 | 7.11 | 30 | Pass |
| 11N20SISO | 2437 | Ant1 | 8.08 | 93.69 | 0.28 | 8.36 | 30 | Pass |
| 11N20SISO | 2462 | Ant1 | 7.76 | 91.90 | 0.37 | 8.13 | 30 | Pass |
| 11N40SISO | 2422 | Ant1 | 5.49 | 94.06 | 0.27 | 5.76 | 30 | Pass |
| 11N40SISO | 2437 | Ant1 | 5.37 | 92.16 | 0.35 | 5.72 | 30 | Pass |
| 11N40SISO | 2452 | Ant1 | 5.48 | 86.36 | 0.64 | 6.12 | 30 | Pass |

7. Power Spectral Density

7.1. Block diagram of test setup

Same as section 4.1

7.2. Limits

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

7.3. Test Procedure

- (1) Connect EUT's antenna output to spectrum analyzer by RF cable.
- (2) Set the spectrum analyzer as follows:

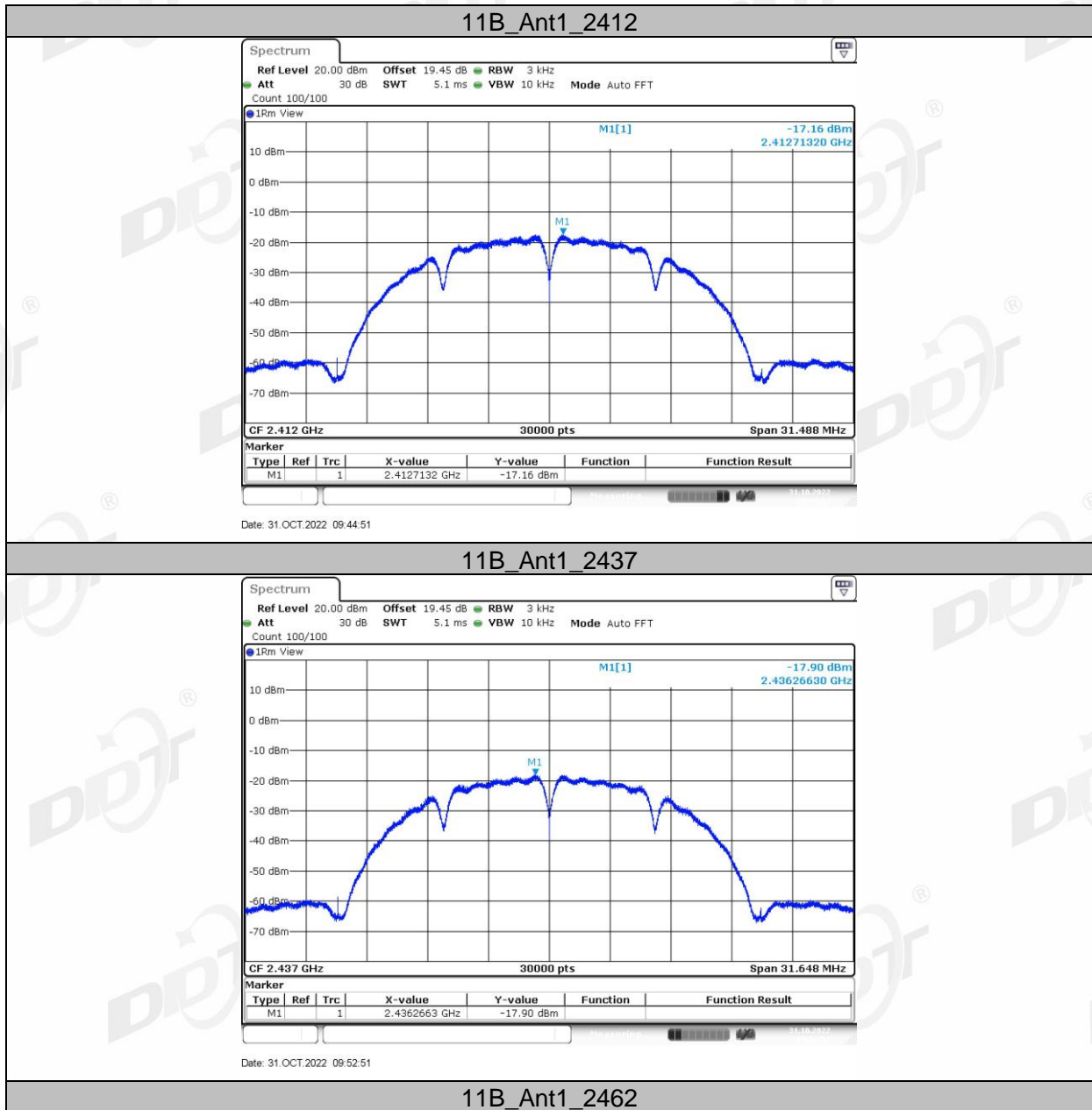
| | |
|------------------|--|
| Center frequency | DTS Channel center frequency |
| RBW: | $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$ |
| VBW: | $\geq 3\text{RBW}$ |
| Span | 1.5 times the DTS bandwidth |
| Detector Mode: | RMS |
| Sweep time: | auto |
| Trace mode | Max hold |

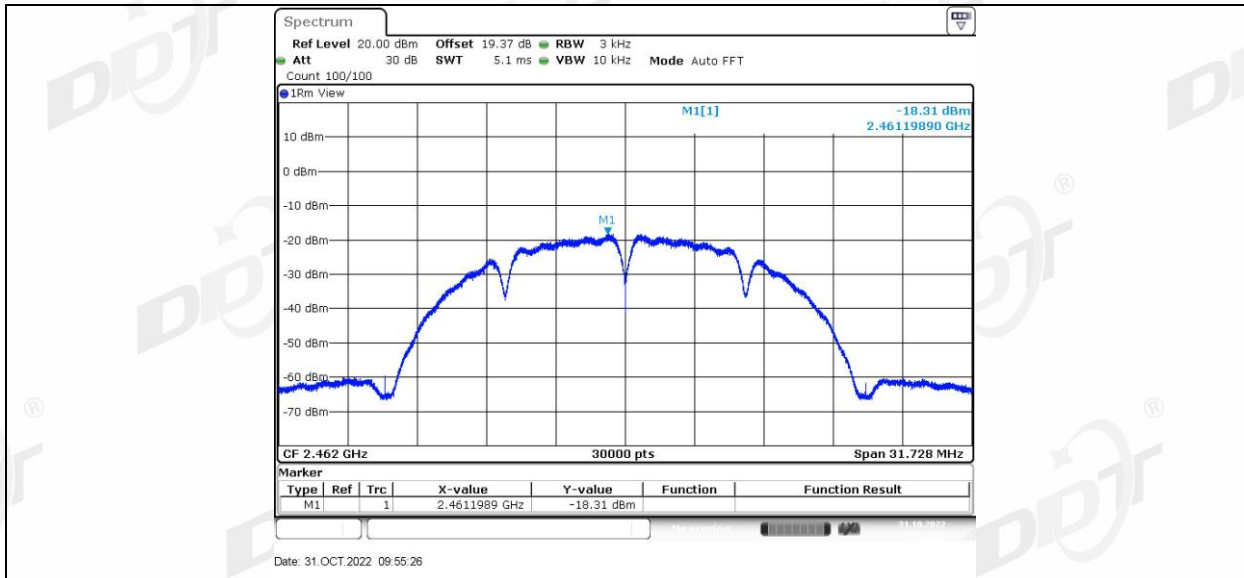
- (3) Allow the trace to stabilize, use the peak marker function to determine the maximum amplitude level within the RBW.
- (4) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

7.4. Test Result

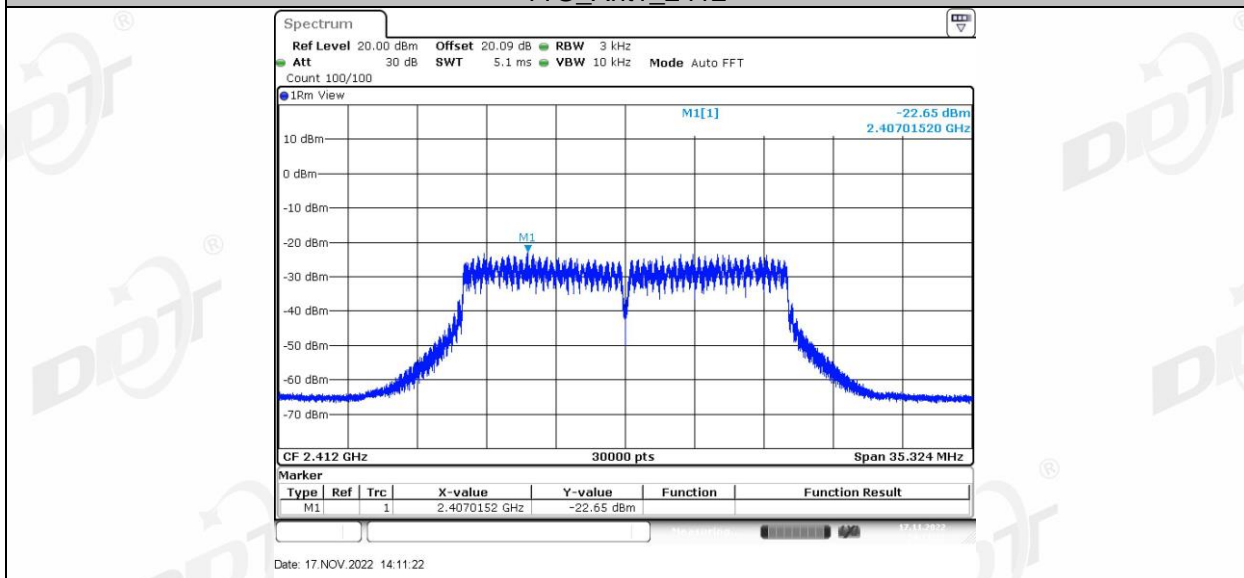
| Test Mode | Test Channel | Ant | PSD [dBm] | Limit [dBm/3kHz] | Verdict |
|-----------|--------------|------|-----------|------------------|---------|
| 11B | 2412 | Ant1 | -17.16 | 8.00 | Pass |
| 11B | 2437 | Ant1 | -17.90 | 8.00 | Pass |
| 11B | 2462 | Ant1 | -18.31 | 8.00 | Pass |
| 11G | 2412 | Ant1 | -22.65 | 8.00 | Pass |
| 11G | 2437 | Ant1 | -24.58 | 8.00 | Pass |
| 11G | 2462 | Ant1 | -24.03 | 8.00 | Pass |
| 11N20SISO | 2412 | Ant1 | -24.89 | 8.00 | Pass |
| 11N20SISO | 2437 | Ant1 | -22.77 | 8.00 | Pass |
| 11N20SISO | 2462 | Ant1 | -23.82 | 8.00 | Pass |
| 11N40SISO | 2422 | Ant1 | -27.99 | 8.00 | Pass |
| 11N40SISO | 2437 | Ant1 | -28.17 | 8.00 | Pass |
| 11N40SISO | 2452 | Ant1 | -27.36 | 8.00 | Pass |

7.5. Original test data

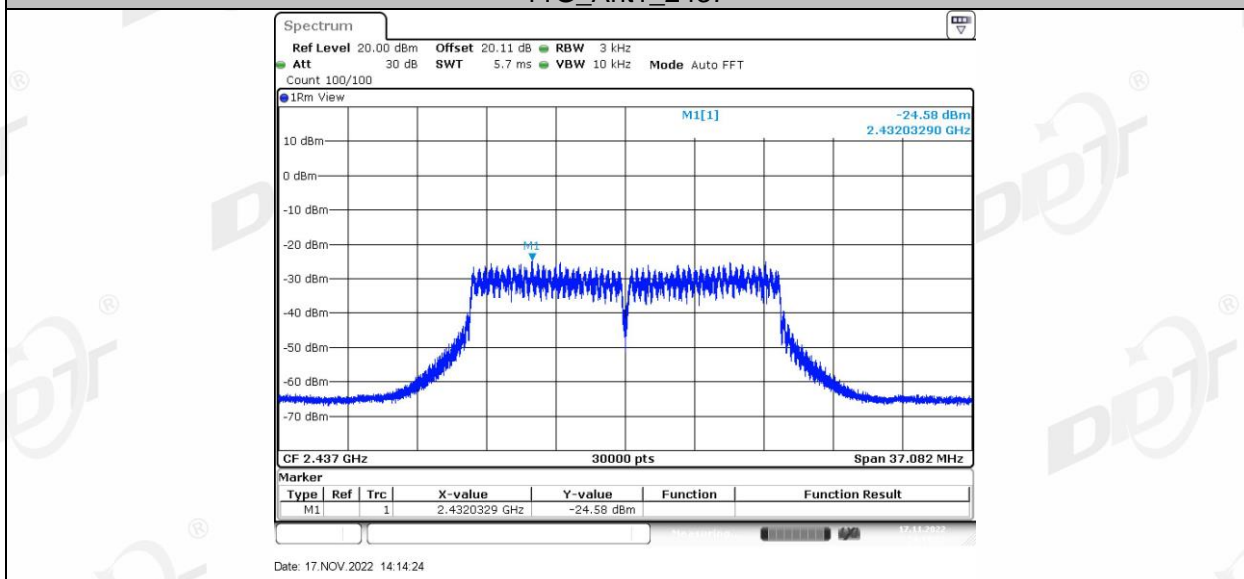




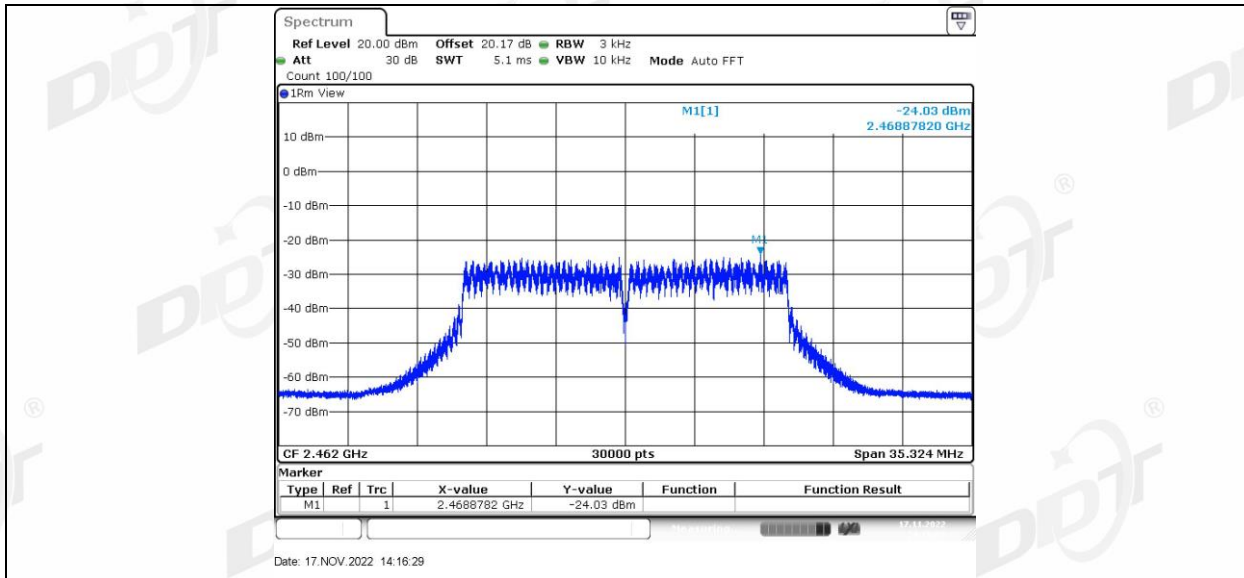
11G_Ant1_2412



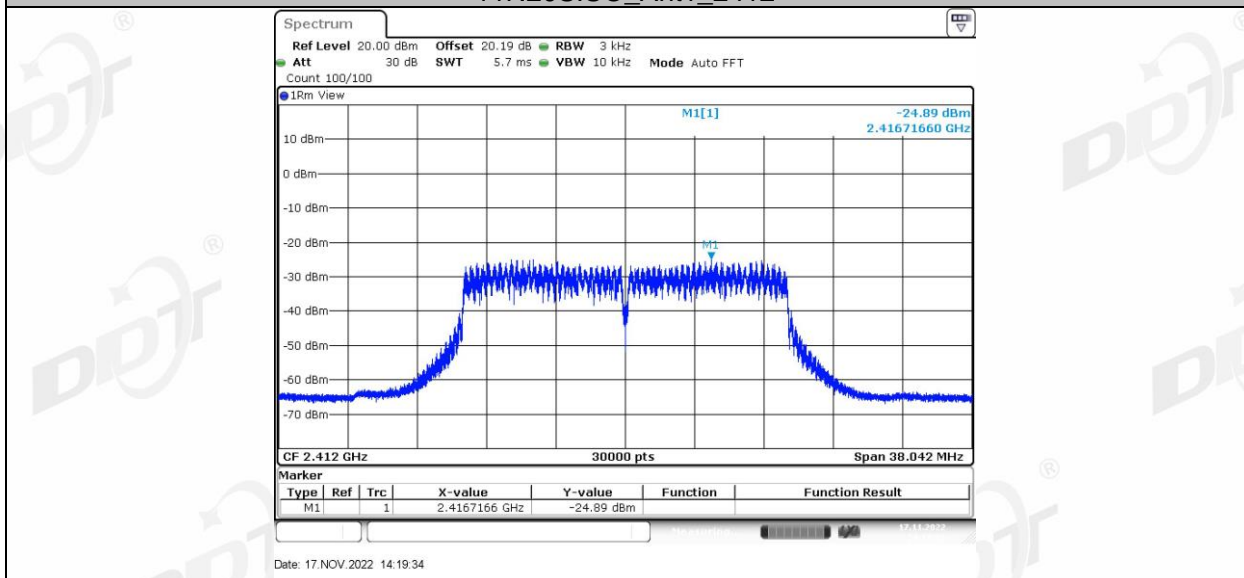
11G_Ant1_2437



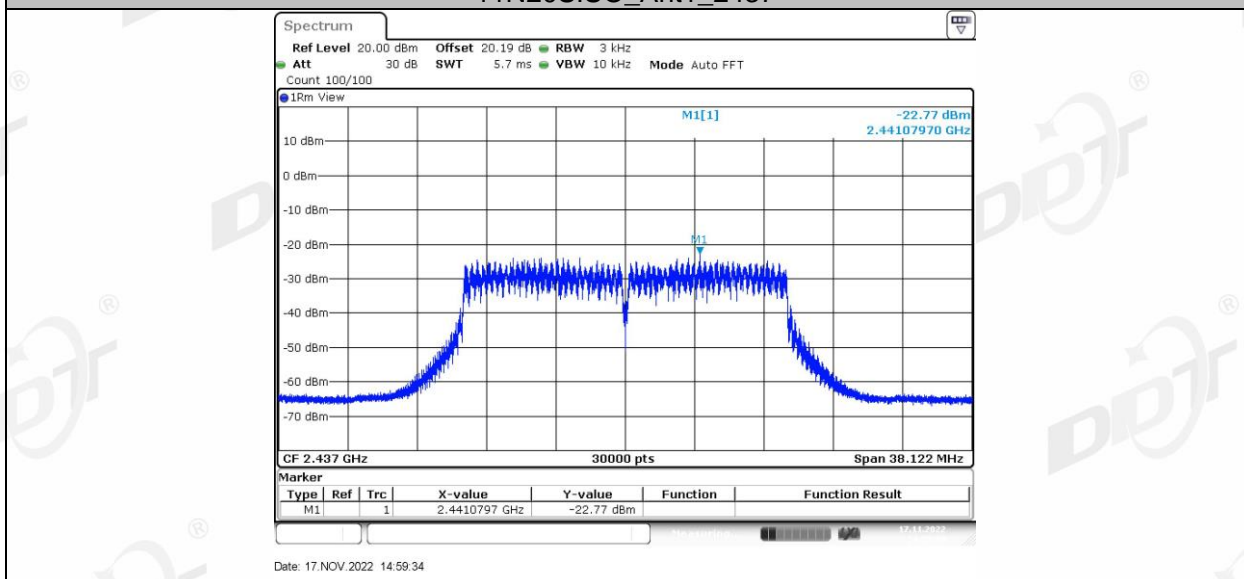
11G_Ant1_2462



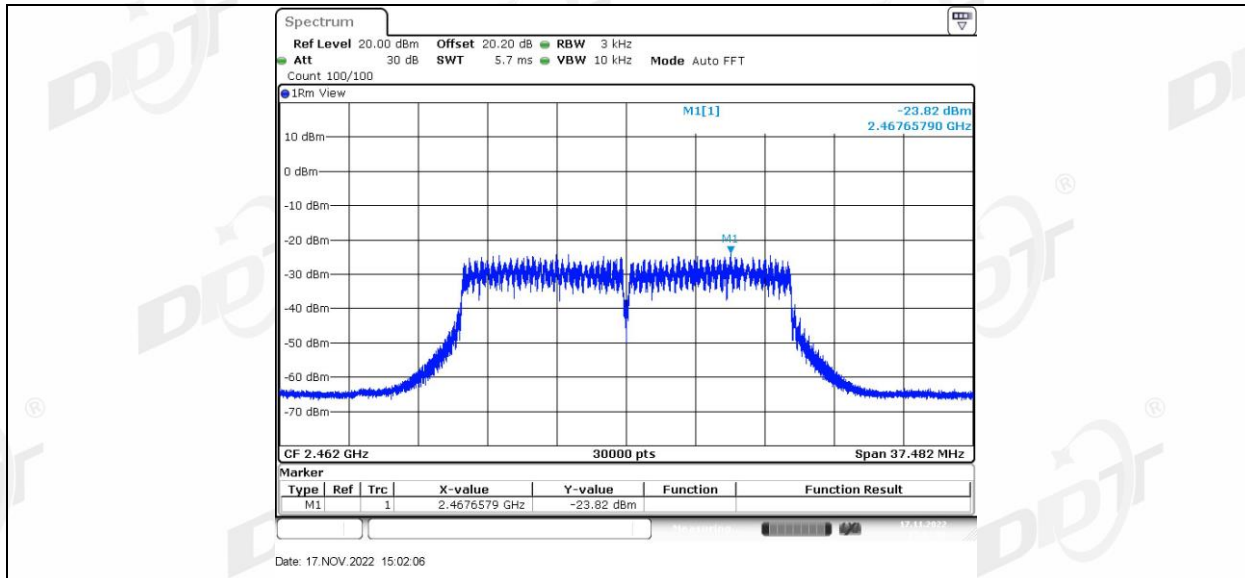
11N20SISO_Ant1_2412



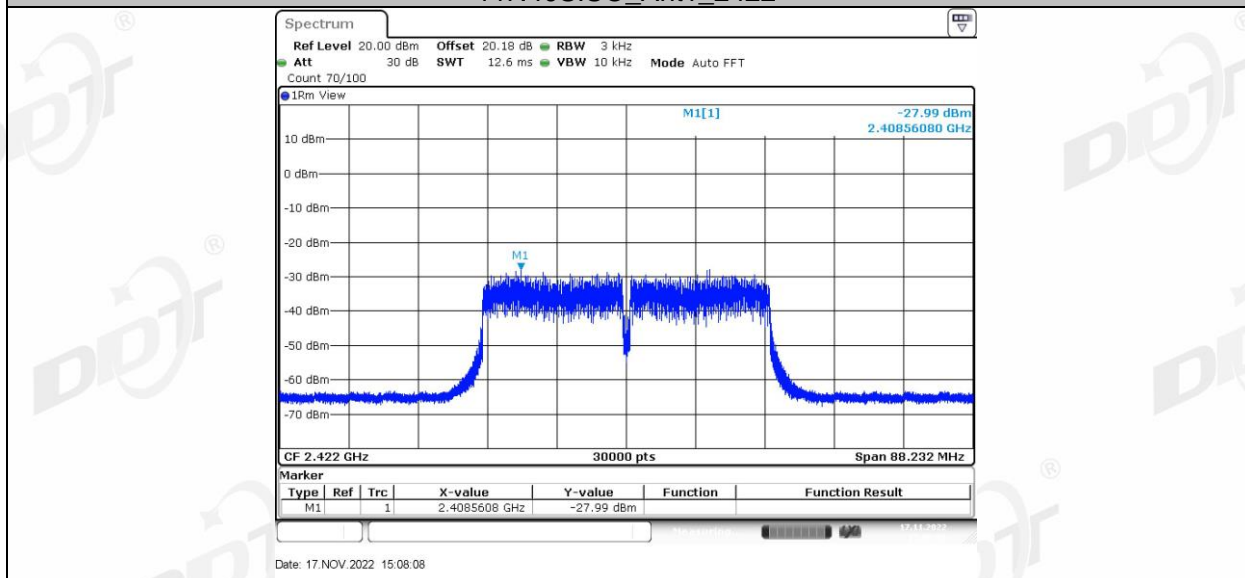
11N20SISO_Ant1_2437



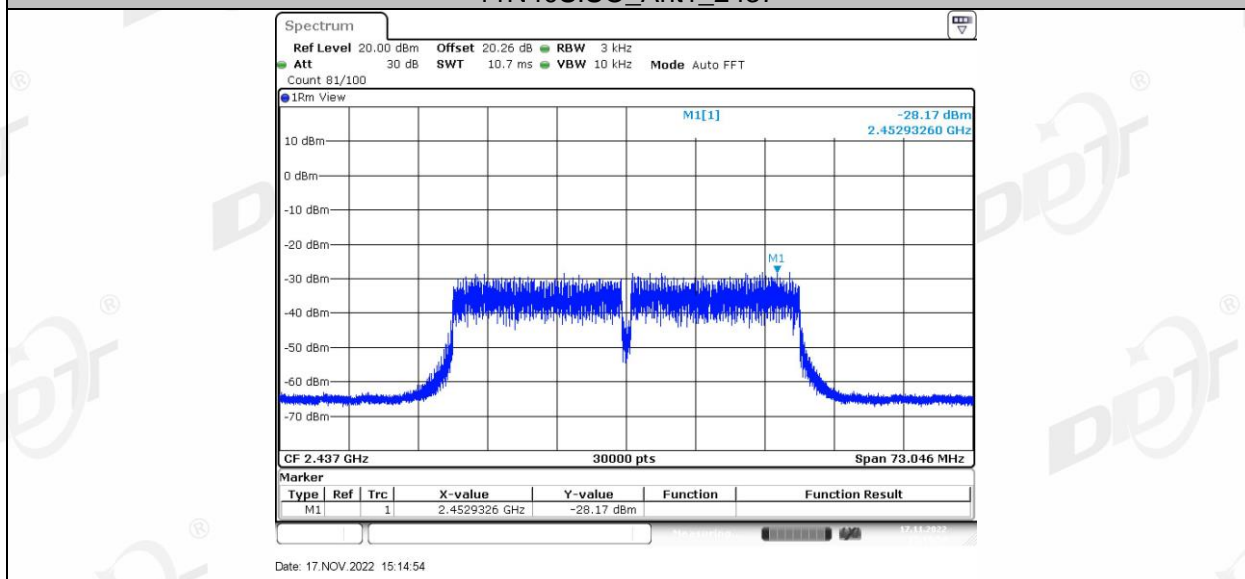
11N20SISO_Ant1_2462



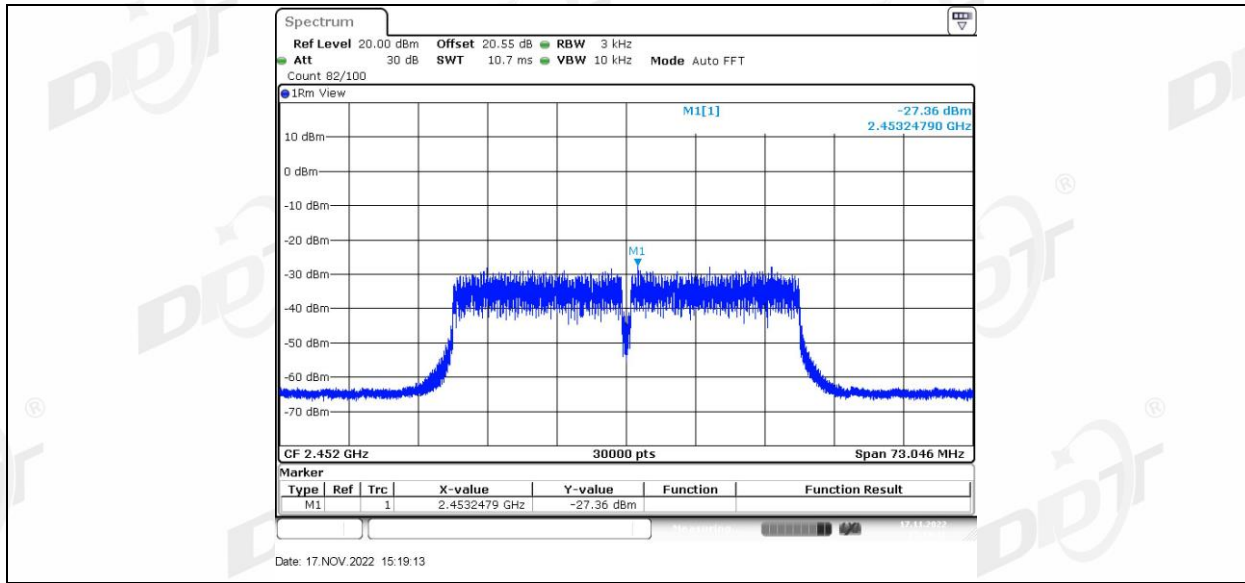
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



Note: The Duty Cycle Factor is compensated in the graph.

8. Band Edge Compliance (Conducted Method)

8.1. Block diagram of test setup

Same as section 4.1

8.2. Limits

In any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

8.3. Test procedure

(1) Connect EUT's antenna output to spectrum analyzer by RF cable.

(2) Establish a reference level by using the following procedure:

| | |
|----------------|--|
| RBW: | 100 kHz |
| VBW: | 300 kHz |
| Span | Encompass frequency range to be measured |
| Detector Mode: | Peak |
| Sweep time: | auto |
| Trace mode | Max hold |

(3) Allow the trace to stabilize, use the peak marker function to determine the maximum peak power level to establish the reference level.

(4) Then mark the maximum amplitude of all unwanted emissions outside of the authorized frequency band.

8.4. Test Result

| EUT Set Mode | CH or Frequency | Result (dBm) | EUT Set Mode | CH or Frequency | Result Result (dBm) |
|--------------|-----------------|--------------|--------------|-----------------|---------------------|
| 11b | CH1 | Pass | 11n HT 20 | CH1 | Pass |
| | CH6 | Pass | | CH6 | Pass |
| | CH11 | Pass | | CH11 | Pass |
| 11g | CH1 | Pass | 11n HT 40 | CH3 | Pass |
| | CH6 | Pass | | CH6 | Pass |
| | CH11 | Pass | | CH9 | Pass |