

FCC TEST REPORT

For

Mobile Phone

Model Number: V2236

FCC ID: 2AUCY-V2236

Report Number : WT228002557

Test Laboratory : Shenzhen Academy of Metrology and Quality
Inspection
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Revision History

| No | Date | Remark |
|------|------------|---------------|
| V1.0 | 2022.11.17 | Initial issue |

TEST REPORT DECLARATION

Applicant : vivo Mobile Communication Co., Ltd.
Address : No.1, vivo Road, Chang'an, Dongguan,Guangdong,China
Manufacturer : vivo Mobile Communication Co., Ltd.
Address : No.1, vivo Road, Chang'an, Dongguan,Guangdong,China
EUT Description : Mobile Phone
Model No. : V2236
Trade mark : vivo
Serial Number : /
FCC ID : 2AUCY-V2236

Test Standards:

FCC Part 15 Subpart E 15.407

The EUT described above is tested by Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory to determine the maximum emissions from the EUT. Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory is assumed full responsibility for the accuracy of the test results. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with FCC Rules Part 15.207, 15.209 and 15.407.

The test report is valid for above tested sample only and shall not be reproduced in part without written approval of the laboratory.

| | | | |
|-------------------|---------------------------------|-------|---------------------|
| Project Engineer: | <u>陈司林</u> (Chen Silin 陈司林) | Date: | <u>Nov.17, 2022</u> |
| Checked by: | <u>施昌达</u> (Shi Changda 施昌达) | Date: | <u>Nov.17, 2022</u> |
| Approved by: | <u>林奕翔</u> (Lin Yixiang 林奕翔) | Date: | <u>Nov.17, 2022</u> |

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1. TEST RESULTS SUMMARY

Table 1 Test Results Summary

| Test Items | FCC Rules | Test Results |
|---|--------------------------------|--------------|
| 6dB Bandwidth | FCC §15.407 (e) | Pass |
| 26dB Bandwidth | FCC §15.407 (a) | Pass |
| Maximum Peak Conducted Power | FCC §15.407 (a) | Pass |
| Maximum Power Spectral Density Level | FCC §15.407 (a) | Pass |
| Radiated Bandedge and Spurious | 15.407 (b) 15.209 15.205 | Pass |
| Conducted emission test for AC power port | 15.207 | Pass |
| Antenna Requirement | 15.203 | Pass |

Remark: "N/A" means "Not applicable."

2. GENERAL INFORMATION

2.1. Report Information

This report is not a certificate of quality; it only applies to the sample of the specific product/equipment given at the time of its testing. The results are not used to indicate or imply that they are application to the similar items. In addition, such results must not be used to indicate or imply that SMQ approves recommends or endorses the manufacture, supplier or use of such product/equipment, or that SMQ in any way guarantees the later performance of the product/equipment.

The sample/s mentioned in this report is/are supplied by Applicant, SMQ therefore assumes no responsibility for the accuracy of information on the brand name, model number, origin of manufacture or any information supplied.

Additional copies of the report are available to the Applicant at an additional fee. No third part can obtain a copy of this report through SMQ, unless the applicant has authorized SMQ in writing to do so.

The lab will not be liable for any loss or damage resulting for false, inaccurate, inappropriate or incomplete product information provided by the applicant/manufacturer.

2.2. Laboratory Accreditation and Relationship to Customer

The testing report were performed by the Shenzhen Academy of Metrology and quality Inspection EMC Laboratory (Guangdong EMC compliance testing center), in their facilities located at NETC Building, No.4 Tongfa Rd., Xili, Nanshan, Shenzhen, China. At the time of testing, Laboratory is accredited by the following organizations:

China National Accreditation Service for Conformity Assessment (CNAS) accredits the Laboratory for conformance to FCC standards, EMC international standards and EN standards. The Registration Number is CNAS L0579.

The Laboratory is Accredited Testing Laboratory of FCC with Designation number CN1165 and Site registration number 582918.

The Laboratory is registered to perform emission tests with Innovation, Science and Economic Development (ISED), and the registration number is 11177A.

The Laboratory is registered to perform emission tests with VCCI, and the registration number are C-20048, G20076, R-20077, R-20078 and T-20047.

The Laboratory is Accredited Testing Laboratory of American Association for Laboratory Accreditation (A2LA) and certificate number is 3292.01.

2.3. Measurement Uncertainty

Conducted Emission

9 kHz~150 kHz $U=3.7\text{dB}$ $k=2$

150 kHz~30MHz $U=3.3\text{dB}$ $k=2$

Radiated Emission

30MHz~1000MHz $U=4.3\text{dB}$ $k=2$

1GHz~6GHz $U=4.6\text{ dB}$ $k=2$

6GHz~40GHz $U=5.1\text{dB}$ $k=2$

3. PRODUCT DESCRIPTION

NOTE: The extreme test conditions for temperature and antenna gain were declared by the manufacturer.

3.1. EUT Description

Description : Mobile Phone
 Manufacturer : vivo Mobile Communication Co., Ltd.
 Model Number : V2236
 Operate Frequency : U-NII 1 (5180~5240 MHz)
 U-NII 2A (5260~5320 MHz)
 U-NII 2C (5500~5700 MHz)
 U-NII 3 (5745~5825 MHz)
 Antenna Designation : PIFA Antenna
 U-NII 1(5180~5240 MHz) -1.92 dBi
 U-NII 2A (5260~5320 MHz) -1.92 dBi
 U-NII 2C (5500~5700 MHz) -1.92 dBi
 U-NII 3(5745~5825 MHz) -3.0 dBi
 Operating voltage : DC3.6V (Low)/DC3.89V (Nominal)/DC4.45V (Max)
 Software Version : PD2236GF_EX_A_12.0.0.8.W30.V000L1
 Hardware Version : MP_0.1
 Remark: /

Frequency List:

| Band 1 | | Band 2A | | Band 2C | | Band 3 | |
|--------|-----------------|---------|-----------------|---------|-----------------|--------|-----------------|
| Ch. | Frequency (MHz) | Ch. | Frequency (MHz) | Ch. | Frequency (MHz) | Ch. | Frequency (MHz) |
| 36 | 5180 | 52 | 5260 | 100 | 5500 | 149 | 5745 |
| 40 | 5200 | 56 | 5280 | 104 | 5520 | 153 | 5765 |
| 44 | 5220 | 60 | 5300 | 108 | 5540 | 157 | 5785 |
| 48 | 5240 | 64 | 5320 | 112 | 5560 | 161 | 5805 |
| | | | | 116 | 5580 | 165 | 5825 |
| | | | | 120 | 5600 | | |
| | | | | 124 | 5620 | | |
| | | | | 128 | 5640 | | |
| | | | | 132 | 5660 | | |
| | | | | 136 | 5680 | | |
| | | | | 140 | 5700 | | |

Table 2 802.11a/802.11n/802.11ac (20MHz) Frequency /Channel operations

| Band 1 | | Band 2A | | Band 2C | | Band 3 | |
|--------|-----------------|---------|-----------------|---------|-----------------|--------|-----------------|
| Ch. | Frequency (MHz) | Ch. | Frequency (MHz) | Ch. | Frequency (MHz) | Ch. | Frequency (MHz) |
| 38 | 5190 | 54 | 5270 | 102 | 5510 | 151 | 5755 |
| 46 | 5230 | 62 | 5310 | 110 | 5550 | 159 | 5795 |
| | | | | 118 | 5590 | | |
| | | | | 126 | 5630 | | |
| | | | | 134 | 5670 | | |

Table 3 802.11n/802.11ac (40MHz BW) Frequency /Channel operations

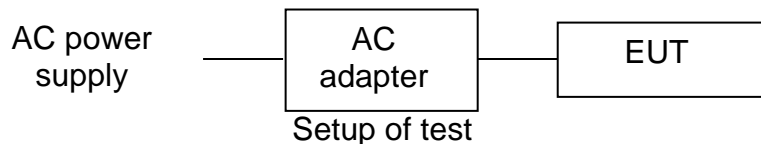
| Band 1 | | Band 2A | | Band 2C | | Band 3 | |
|--------|-----------------|---------|-----------------|---------|-----------------|--------|-----------------|
| Ch. | Frequency (MHz) | Ch. | Frequency (MHz) | Ch. | Frequency (MHz) | Ch. | Frequency (MHz) |
| 42 | 5210 | 58 | 5290 | 106 | 5530 | 155 | 5775 |
| | | | | 122 | 5610 | | |

Table 4 802.11ac (80MHz) BW Frequency /Channel operations

3.2. Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for FCC ID: **2AUCY-V2236** filing to comply with Section 15.207, 15.209, 15.407 of the FCC Part 15, Subpart E .

3.3. Block Diagram of EUT Configuration



3.4. Operating Condition of EUT

The Radiated spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range, and EUT is rotated on three test planes to find out the worst emission (X plane).

Worst-case mode and channel used for 30-1000 MHz radiated and power line conducted emissions was the mode and channel with the highest output power.

Worst-case data rates as provided by the client were:

802.11a mode: 6 Mbps

802.11n HT20 mode: MCS0

802.11n HT40 mode: MCS0

802.11ac VHT20 mode: MCS0

802.11ac VHT40 mode: MCS0

802.11ac VHT80 mode: MCS0

802.11a operates in SISO mode. For SISO conducted measurements, the modes tested in this report will be considered as a worst case mode.

802.11n operate in SISO mode. For SISO conducted measurements, the modes tested in this report will be considered as a worst case mode.

802.11ac operate in SISO mode. For SISO conducted measurements, the modes

tested in this report will be considered as a worst case mode.

3.5. Directional Antenna Gain

The EUT does NOT support a WIFI MIMO function.
Directional gain need NOT to be considered.

3.6. Support Equipment List

Table 5 Support Equipment List

| Name | Model No | S/N | Manufacturer |
|--|-----------|-----|---------------------------------------|
| Adapter for EUT | V1020D-US | --- | Dongguan Phitek Electronics Co., Ltd. |
| Rechargeable Li-ion Polymer Battery for EUT | B-Y1 | --- | Sunwoda Electronic Co., Ltd. |
| USB Cable for EUT | BK-C-19-B | --- | vivo |

3.7. Test Conditions

Date of test : Nov.03, 2022- Nov.16, 2022

Date of EUT Receive : Nov.03, 2022

Temperature: 21°C-27°C

Relative Humidity: 46%-57%

3.8. Special Accessories

Not available for this EUT intended for grant.

3.9. Equipment Modifications

Not available for this EUT intended for grant.

4. TEST EQUIPMENT USED

Table 6 Test Equipment

| No. | Equipment | Manufacturer | Model No. | Last Cal. | Cal. Interval |
|------------|------------------------|--------------|---------------------|--------------|---------------|
| SB9058/05 | Test Receiver | R&S | ESCI 3 | Sep.13,2022 | 1 Year |
| SB4357 | AMN | R&S | ENN216 | Aug.23,2022 | 1 Year |
| SB9548 | Shielded Room | Albatross | SR | Sep.06,2022 | 1 Year |
| SB17366 | Test Receiver | R&S | ESR26 | Jun.22,2022 | 1 Year |
| SB3345 | Loop Antenna | Schwarzbeck | FMZB1516-113 | Jan.20,2022 | 1 Year |
| SB3955 | Broadband Antenna | SCHWARZBECK | VULB9163 | Jun.22,2022 | 1 Year |
| SB13958 | Horn Antenna | R&S | HF907 | Jun.07,2022 | 1 Year |
| SB9555/01 | Semi Anechoic Chamber | Albatross | 9×6×6(m) | Aug.16,2022 | 1 Year |
| SB8501/09 | Test Receiver | R&S | ESU40 | Jan.20,2022 | 1 Year |
| SB3435 | Horn Antenna | R&S | HF906 | Dec.03,2021 | 1 Year |
| SB9058/03 | Pre-Amplifier | R&S | SCU 18 | Jan.20,2022 | 1 Year |
| SB8501/11 | Antenna | R&S | 3160-09 | Mar.09,2020 | 3 Years |
| SB8501/12 | Antenna | R&S | 3160-10 | Mar.17,2020 | 3 Years |
| SB8501/16 | Pre-Amplifier | R&S | SCU-26 | Jan.20,2022 | 1 Year |
| SB9059 | Pre-Amplifier | R&S | SCU-40 | Aug.23,2022 | 1 Year |
| SB9555/02 | Fully Anechoic Chamber | Albatross | 10.0×5.2× 5.4(m) | Aug.16,2022 | 1 Year |
| SB20321/01 | Spectrum Analyzer | R&S | FSV3044 | Dec.24, 2021 | 1 Year |

Table 7 Test software

| Name | Manufacturer | Version |
|--------------------------------|------------------------------|-------------|
| Bluetooth and WiFi Test System | Shenzhen JS tonscond co.,ltd | 2.6.87.0615 |

5. DUTY CYCLE

5.1.Limits of Duty Cycle

None; for reporting purposes only

5.2.Test Procedure

1. Set span = Zero
2. RBW = 20MHz
3. VBW = 30MHz,
4. Detector = Peak

5.3.Test Setup

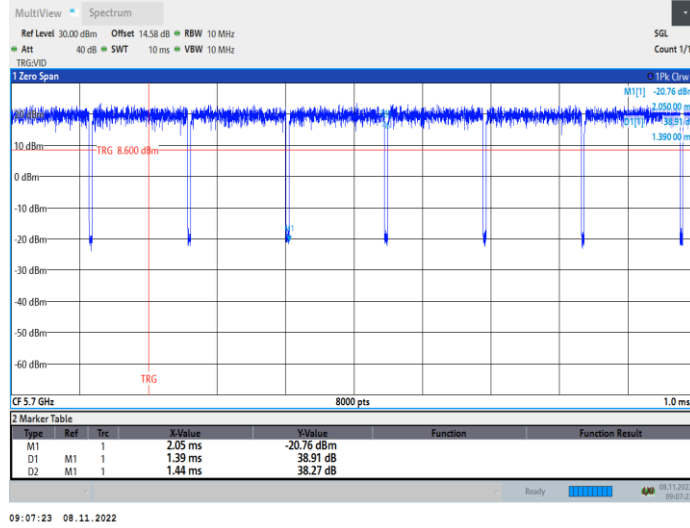


5.4.Test Data

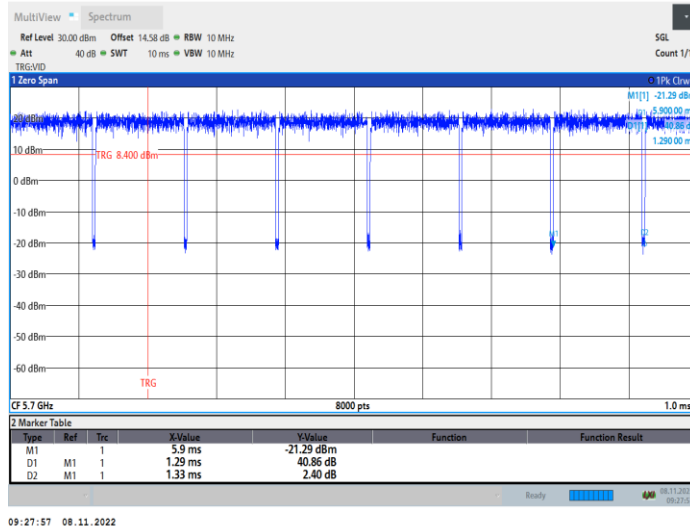
Table 8 Duty Cycle Test Data

| Test Mode | On Time (ms) | Duty Cycle (%) | Duty Factor | 1/T Minimum VBW (kHz) |
|----------------|--------------|----------------|-------------|-----------------------|
| 802.11a | 1.39 | 97.20 | 0.12 | 0.01 |
| 802.11n HT20 | 1.29 | 96.99 | 0.13 | 0.01 |
| 802.11n HT40 | 0.63 | 92.65 | 0.33 | 0.01 |
| 802.11ac VHT20 | 1.32 | 97.06 | 0.13 | 0.01 |
| 802.11ac VHT40 | 0.65 | 94.20 | 0.26 | 0.01 |
| 802.11ac VHT80 | 0.32 | 76.19 | 1.18 | 0.01 |

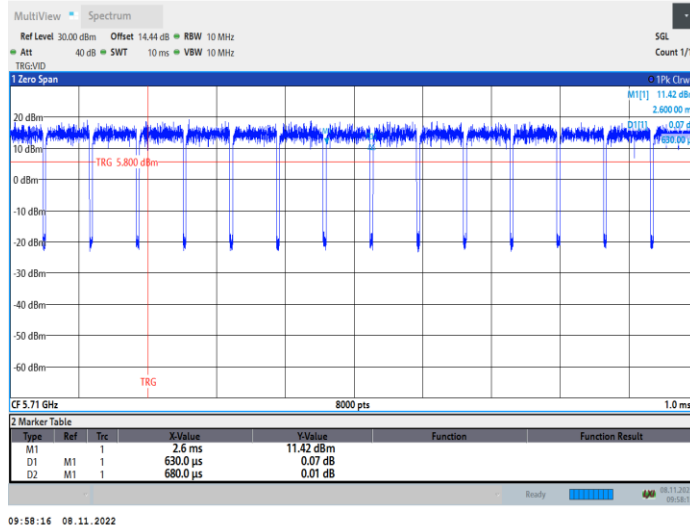
802.11a_5700 MHz



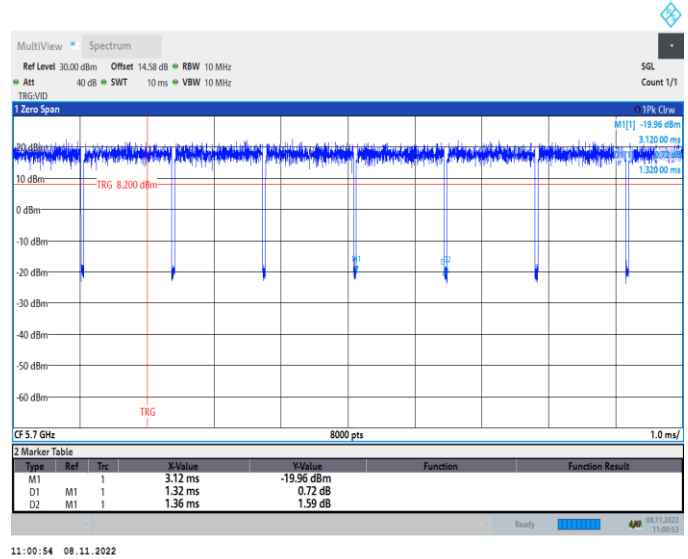
802.11n HT20_5700 MHz



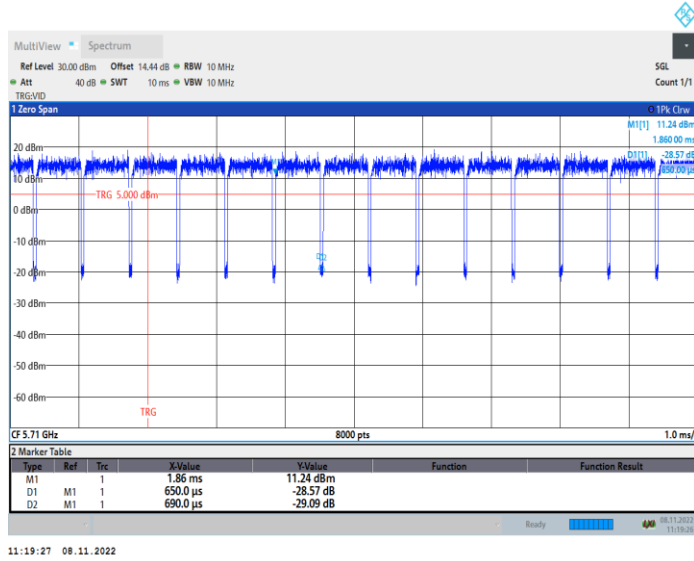
802.11n HT40_5710MHz



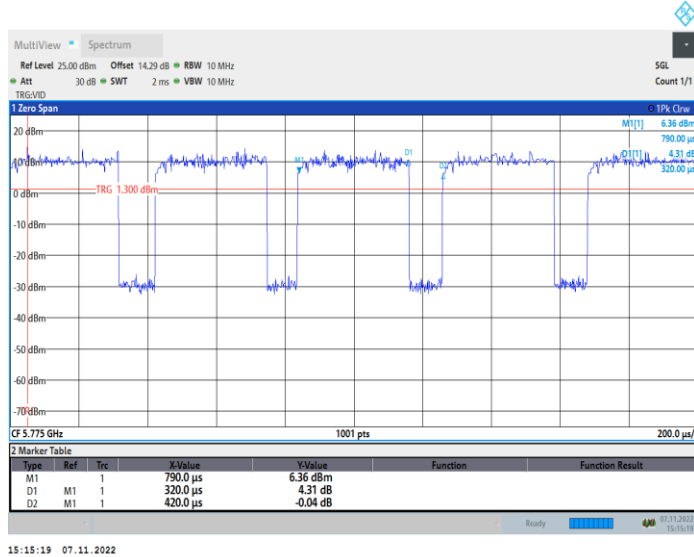
802.11ac VHT20_5700 MHz



802.11ac VHT40_5710 MHz



802.11ac VHT80_5775 MHz



6. 6DB BANDWIDTH MEASUREMENT

6.1.Limits of 6dB Bandwidth Measurement

The minimum 6 dB emission bandwidth of at least 500 kHz for the band 5.725-5.85 GHz.

6.2.Test Procedure

The transmitter output was connected to the spectrum analyzer.

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
- 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.

6.3.Test Setup



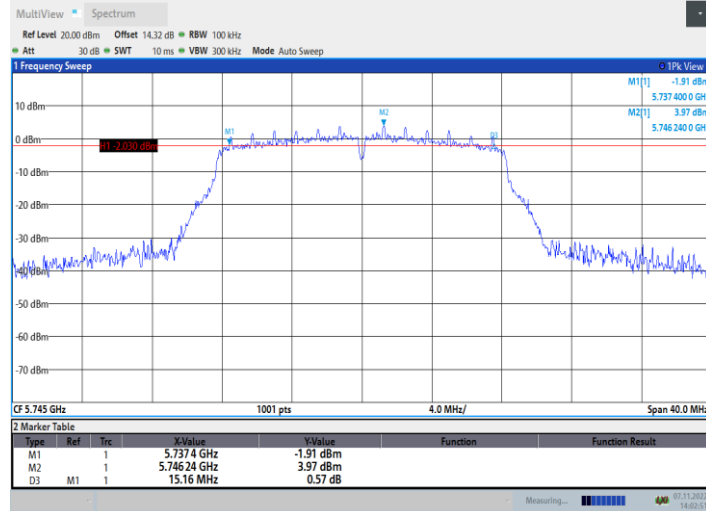
6.4.Test Data

Table 9 6dB Bandwidth Test Data

| Test Mode | Test Channel | 6dB Bandwidth [MHz] | Limit [MHz] | Verdict |
|----------------|--------------|---------------------|-------------|---------|
| 802.11a | 5745 | 15.16 | 0.5 | PASS |
| 802.11a | 5785 | 15.12 | 0.5 | PASS |
| 802.11a | 5825 | 15.12 | 0.5 | PASS |
| 802.11n HT20 | 5745 | 15.12 | 0.5 | PASS |
| 802.11n HT20 | 5785 | 15.16 | 0.5 | PASS |
| 802.11n HT20 | 5825 | 15.12 | 0.5 | PASS |
| 802.11n HT40 | 5755 | 35.12 | 0.5 | PASS |
| 802.11n HT40 | 5795 | 35.12 | 0.5 | PASS |
| 802.11ac VHT20 | 5745 | 15.12 | 0.5 | PASS |

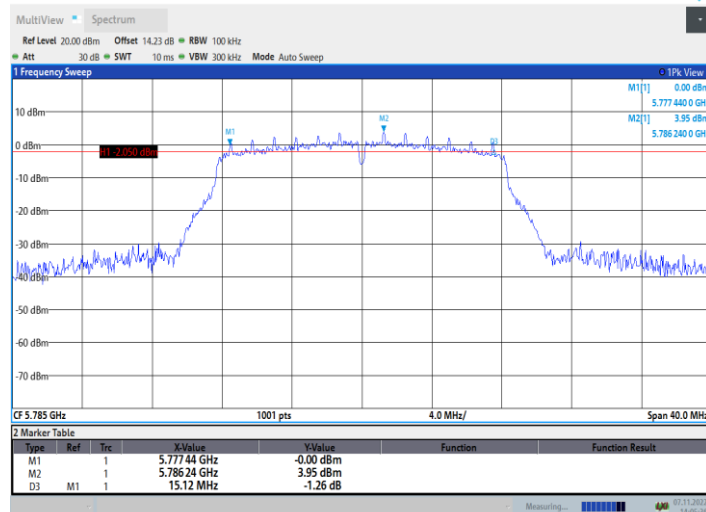
| | | | | |
|----------------|------|-------|-----|------|
| 802.11ac VHT20 | 5785 | 15.12 | 0.5 | PASS |
| 802.11ac VHT20 | 5825 | 15.12 | 0.5 | PASS |
| 802.11ac VHT40 | 5755 | 35.12 | 0.5 | PASS |
| 802.11ac VHT40 | 5795 | 35.12 | 0.5 | PASS |
| 802.11ac VHT80 | 5775 | 75.20 | 0.5 | PASS |

11A_Ant1_5745



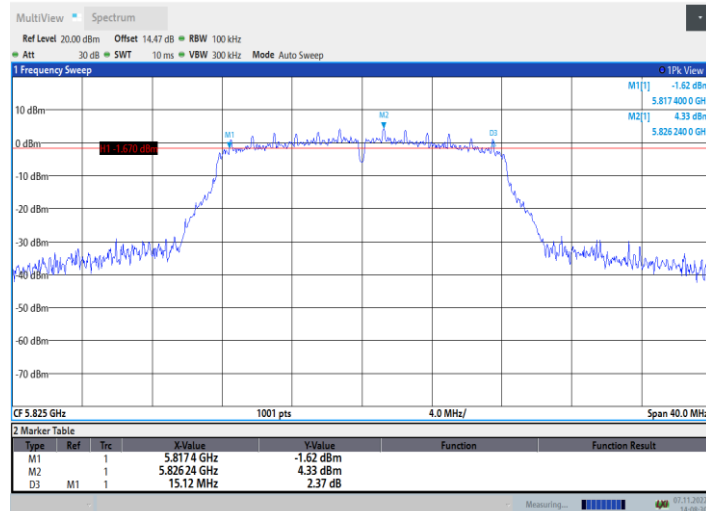
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11A_Ant1_5785



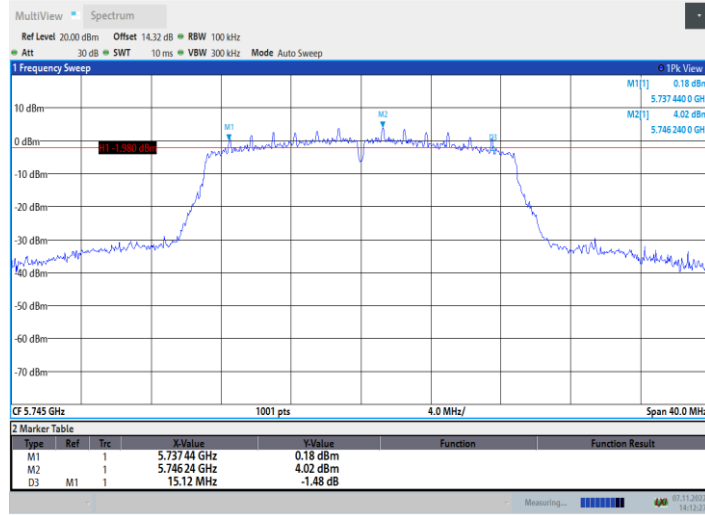
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11A_Ant1_5825



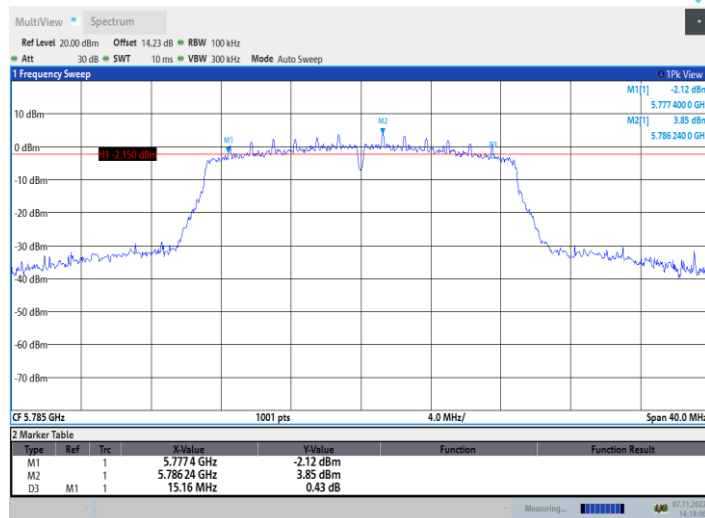
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11N20SISO_Ant1_5745



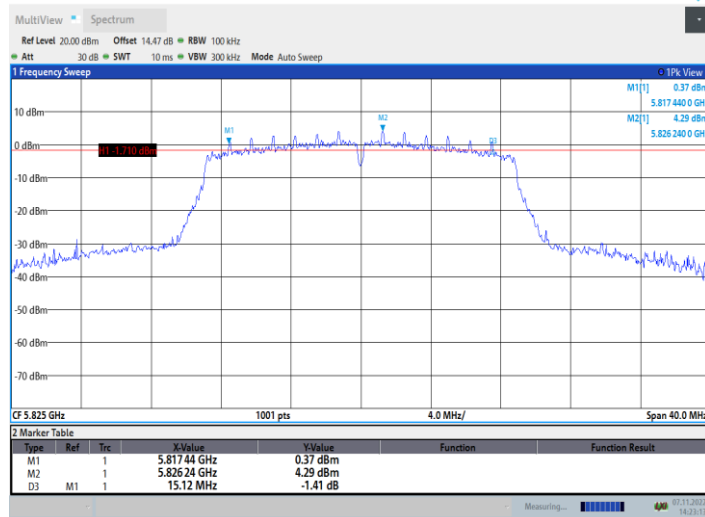
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11N20SISO_Ant1_5785



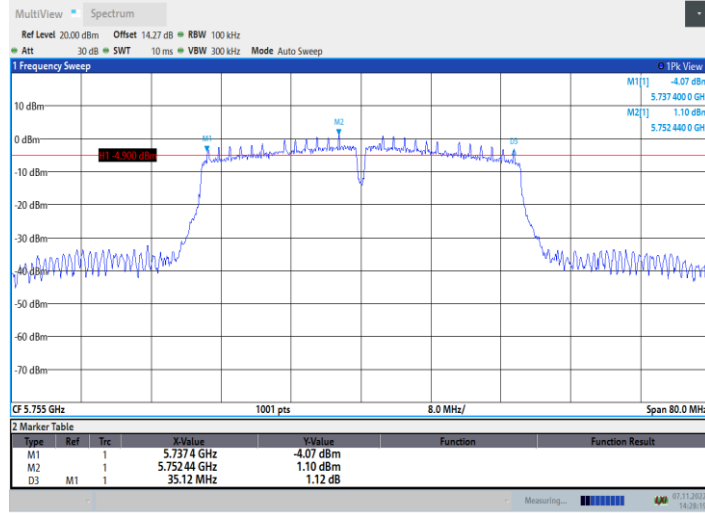
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11N20SISO_Ant1_5825



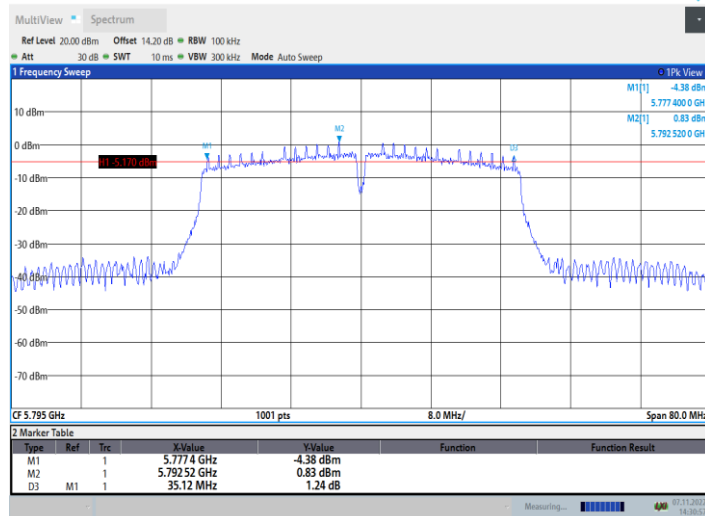
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11N40SISO_Ant1_5755



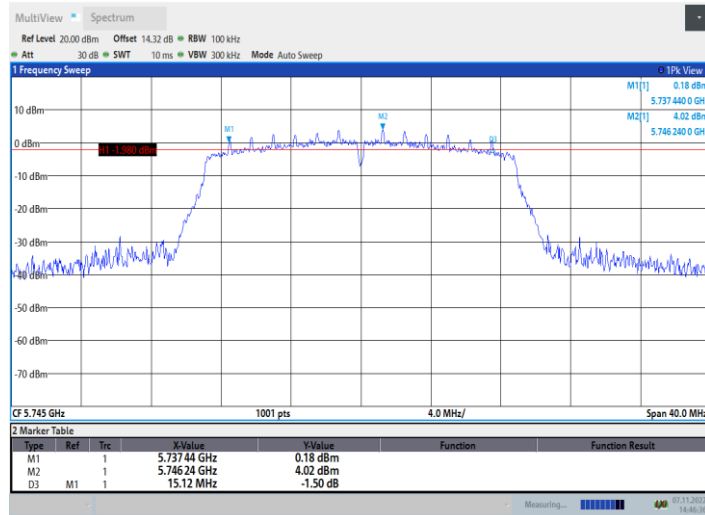
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11N40SISO_Ant1_5795



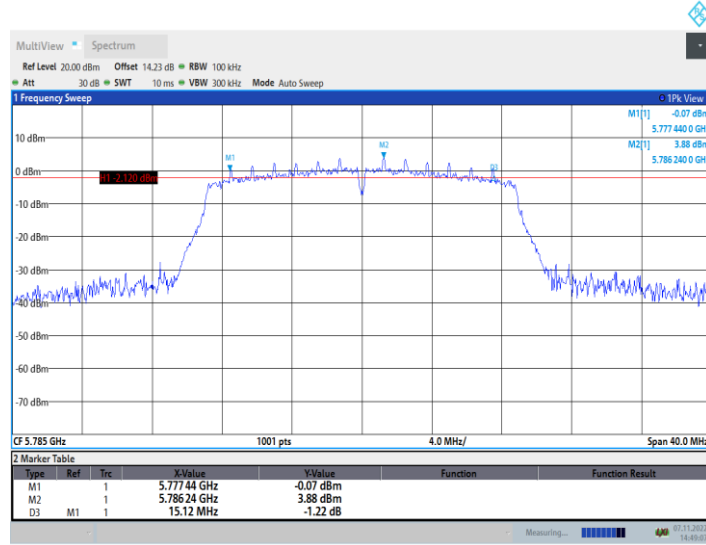
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11AC20SISO_Ant1_5745



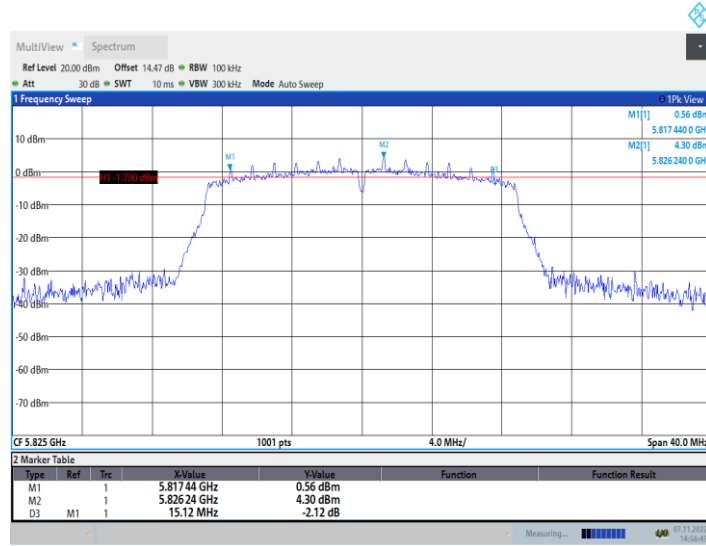
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11AC20SISO_Ant1_5785



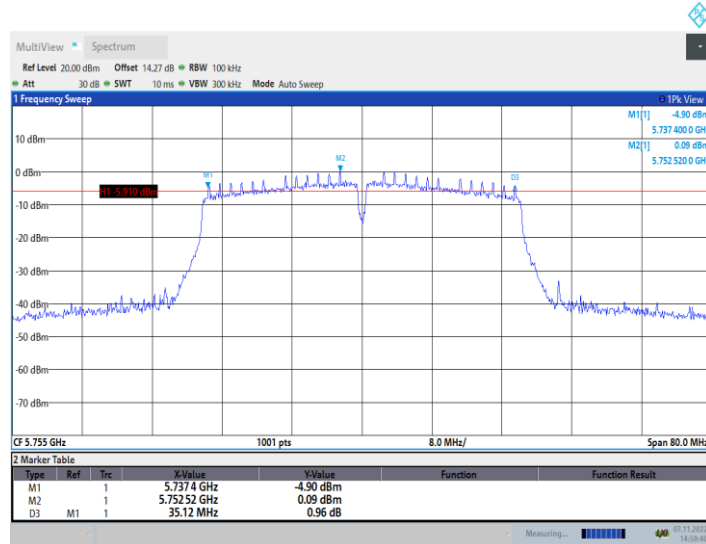
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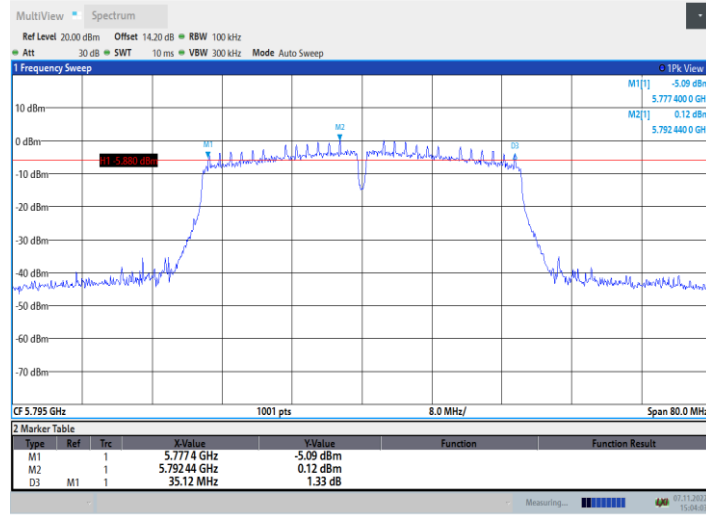
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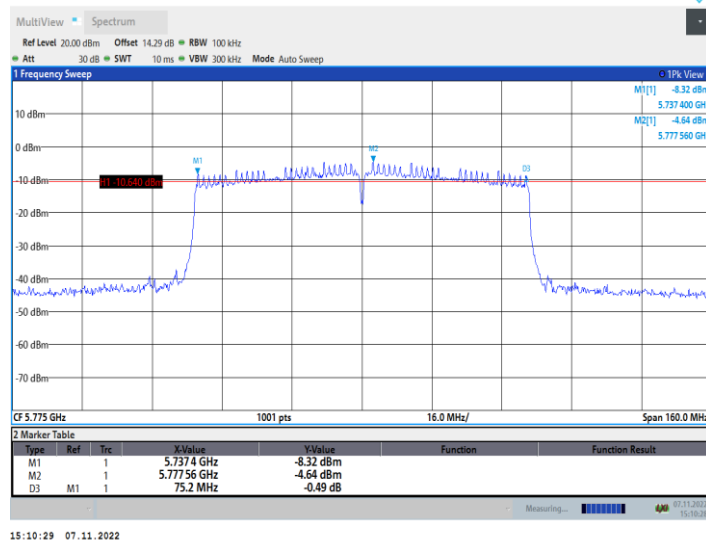


14:59:41 07.11.2022

11AC40SISO_Ant1_5795



11AC80SISO_Ant1_5775



7. 26DB BANDWIDTH MEASUREMENT

7.1.Limits of 26dB Bandwidth Measurement

None; for reporting purposes only.

7.2.Test Setup

- a) Set RBW = approximately 1% of the emission bandwidth.
- b) Set the VBW > RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

7.3.Test Setup



7.4.Test Data

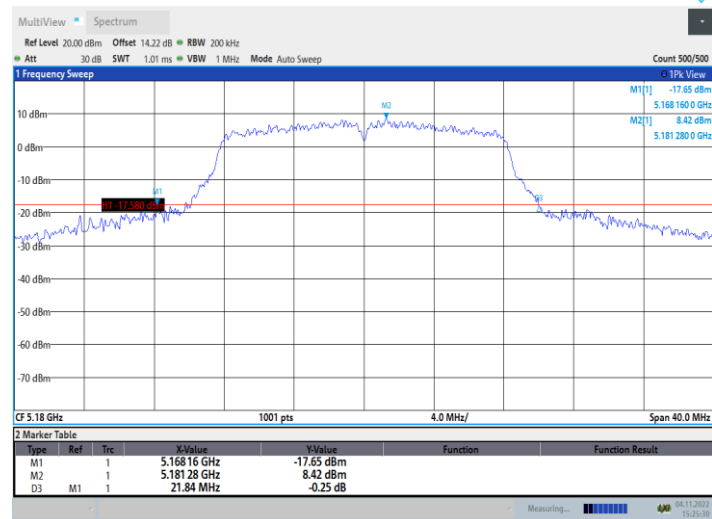
Table 10 26dB Bandwidth Test Data

| Test Mode | Test Channel | 26dB Bandwidth [MHz] | Limit[MHz] | Verdict |
|--------------|--------------|----------------------|------------|---------|
| 802.11a | 5180 | 21.84 | --- | PASS |
| 802.11a | 5200 | 20.60 | --- | PASS |
| 802.11a | 5240 | 19.96 | --- | PASS |
| 802.11a | 5260 | 19.84 | --- | PASS |
| 802.11a | 5280 | 19.96 | --- | PASS |
| 802.11a | 5320 | 22.04 | --- | PASS |
| 802.11a | 5500 | 20.56 | --- | PASS |
| 802.11a | 5600 | 19.92 | --- | PASS |
| 802.11a | 5700 | 22.76 | --- | PASS |
| 802.11a | 5745 | 19.92 | --- | PASS |
| 802.11a | 5785 | 20.16 | --- | PASS |
| 802.11a | 5825 | 19.96 | --- | PASS |
| 802.11n HT20 | 5180 | 20.36 | --- | PASS |

| | | | | |
|----------------|------|-------|-----|------|
| 802.11n HT20 | 5200 | 20.28 | --- | PASS |
| 802.11n HT20 | 5240 | 20.24 | --- | PASS |
| 802.11n HT20 | 5260 | 20.32 | --- | PASS |
| 802.11n HT20 | 5280 | 20.16 | --- | PASS |
| 802.11n HT20 | 5320 | 20.32 | --- | PASS |
| 802.11n HT20 | 5500 | 20.28 | --- | PASS |
| 802.11n HT20 | 5600 | 20.16 | --- | PASS |
| 802.11n HT20 | 5700 | 20.32 | --- | PASS |
| 802.11n HT20 | 5745 | 20.24 | --- | PASS |
| 802.11n HT20 | 5785 | 20.20 | --- | PASS |
| 802.11n HT20 | 5825 | 20.20 | --- | PASS |
| 802.11n HT40 | 5190 | 40.88 | --- | PASS |
| 802.11n HT40 | 5230 | 40.80 | --- | PASS |
| 802.11n HT40 | 5270 | 40.64 | --- | PASS |
| 802.11n HT40 | 5310 | 41.36 | --- | PASS |
| 802.11n HT40 | 5510 | 41.44 | --- | PASS |
| 802.11n HT40 | 5590 | 41.20 | --- | PASS |
| 802.11n HT40 | 5670 | 41.12 | --- | PASS |
| 802.11n HT40 | 5755 | 40.64 | --- | PASS |
| 802.11n HT40 | 5795 | 41.12 | --- | PASS |
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| 802.11ac VHT20 | 5200 | 20.24 | --- | PASS |
| 802.11ac VHT20 | 5240 | 20.20 | --- | PASS |
| 802.11ac VHT20 | 5260 | 20.16 | --- | PASS |
| 802.11ac VHT20 | 5280 | 20.16 | --- | PASS |
| 802.11ac VHT20 | 5320 | 20.24 | --- | PASS |
| 802.11ac VHT20 | 5500 | 20.28 | --- | PASS |
| 802.11ac VHT20 | 5600 | 20.16 | --- | PASS |
| 802.11ac VHT20 | 5700 | 20.28 | --- | PASS |
| 802.11ac VHT20 | 5745 | 20.40 | --- | PASS |
| 802.11ac VHT20 | 5785 | 20.24 | --- | PASS |
| 802.11ac VHT20 | 5825 | 20.28 | --- | PASS |
| 802.11ac VHT40 | 5190 | 40.88 | --- | PASS |
| 802.11ac VHT40 | 5230 | 40.88 | --- | PASS |
| 802.11ac VHT40 | 5270 | 41.04 | --- | PASS |
| 802.11ac VHT40 | 5310 | 41.04 | --- | PASS |
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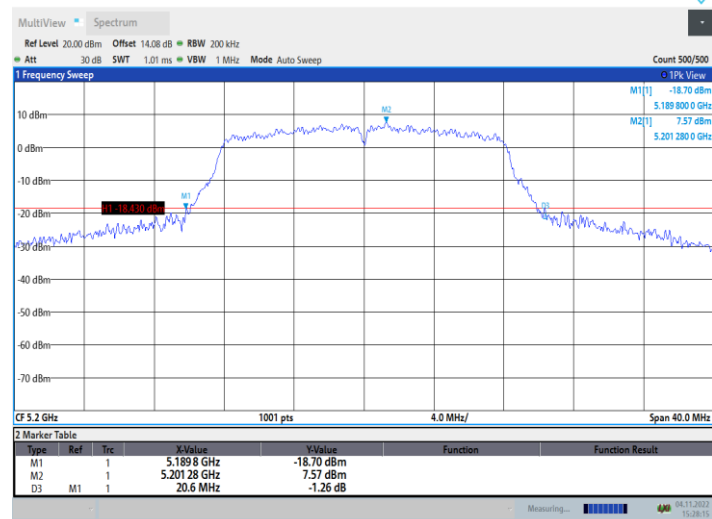
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| 802.11ac VHT40 | 5670 | 40.96 | --- | PASS |
| 802.11ac VHT40 | 5755 | 40.88 | --- | PASS |
| 802.11ac VHT40 | 5795 | 40.96 | --- | PASS |
| 802.11ac VHT80 | 5210 | 81.44 | --- | PASS |
| 802.11ac VHT80 | 5290 | 81.60 | --- | PASS |
| 802.11ac VHT80 | 5530 | 81.60 | --- | PASS |
| 802.11ac VHT80 | 5610 | 81.44 | --- | PASS |
| 802.11ac VHT80 | 5775 | 81.44 | --- | PASS |

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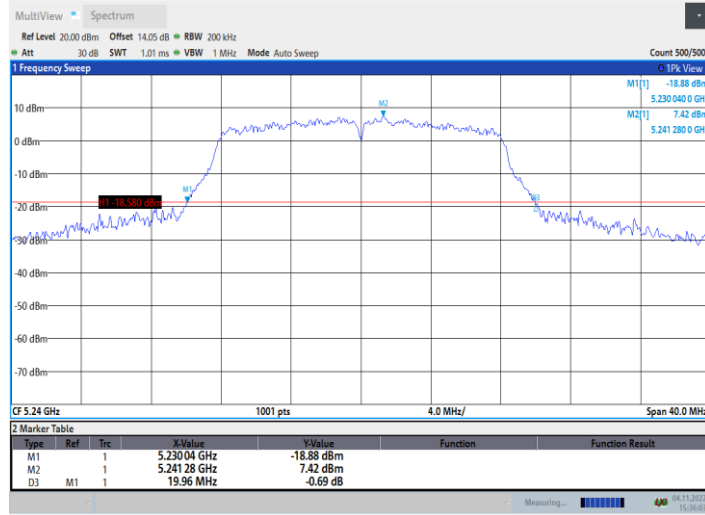
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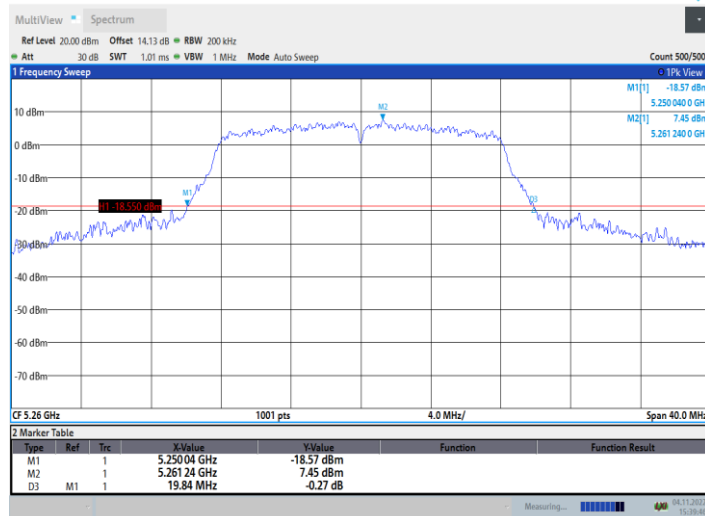
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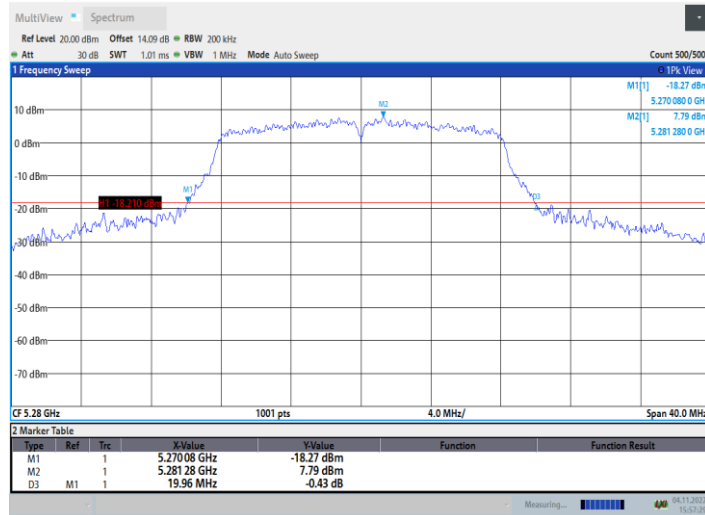
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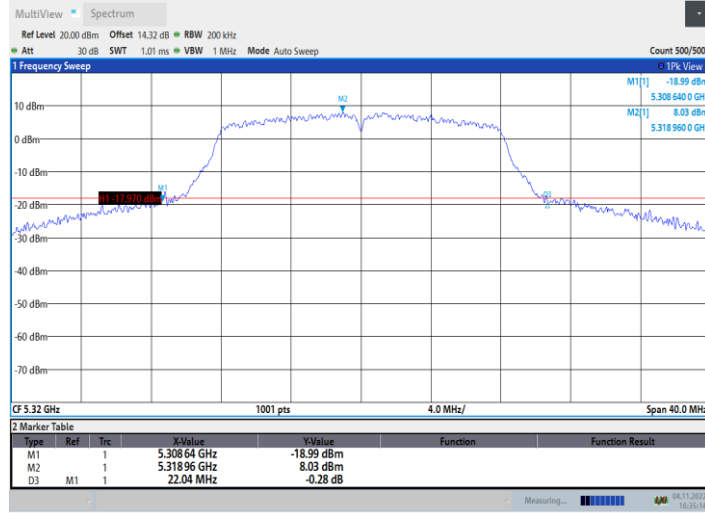
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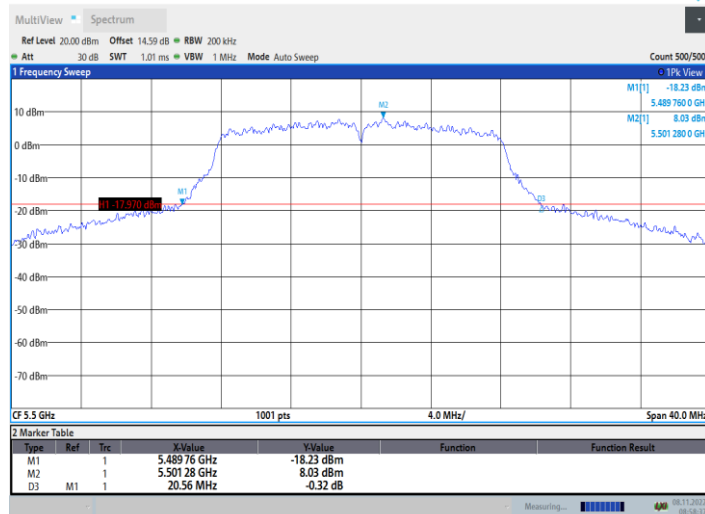
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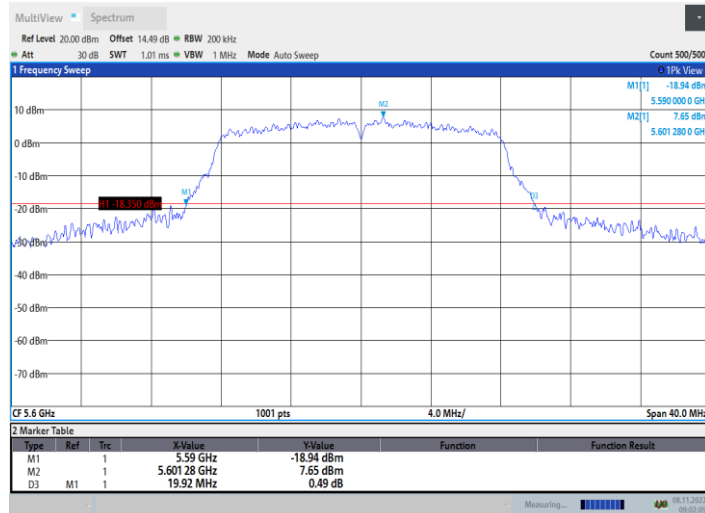
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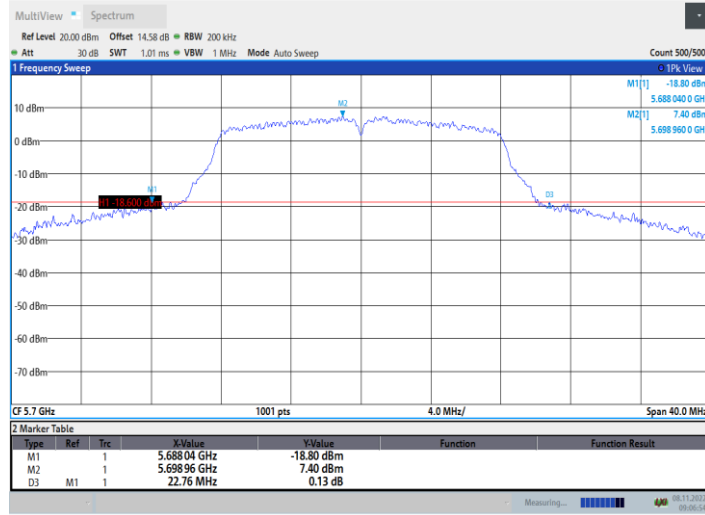
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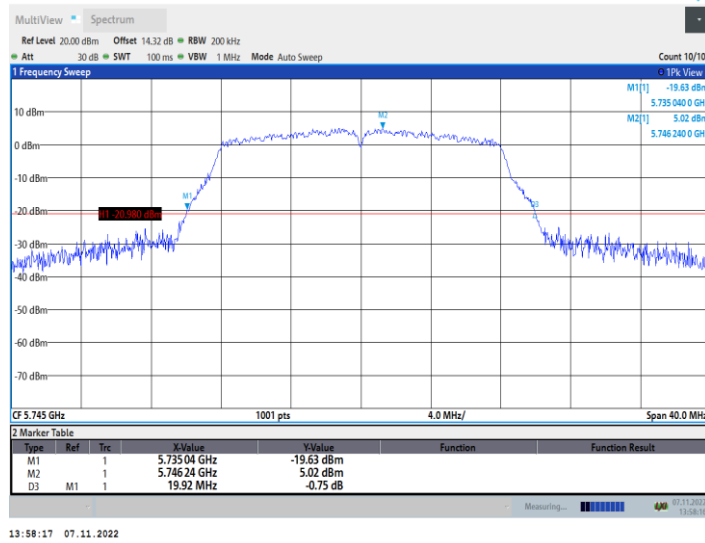


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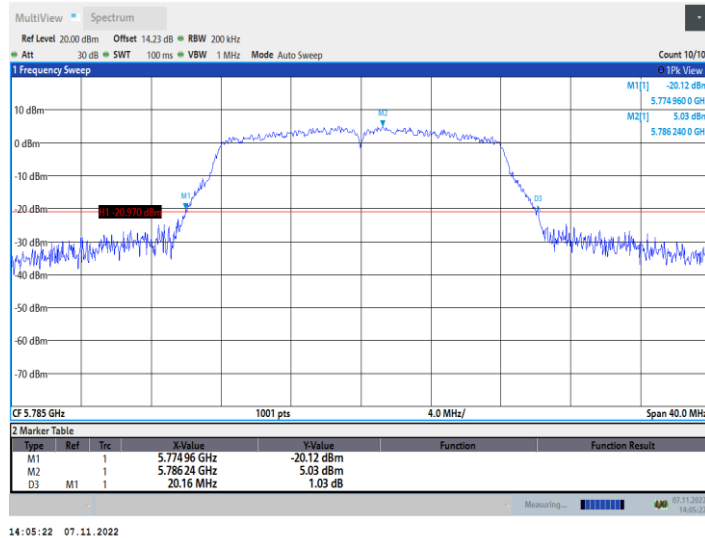
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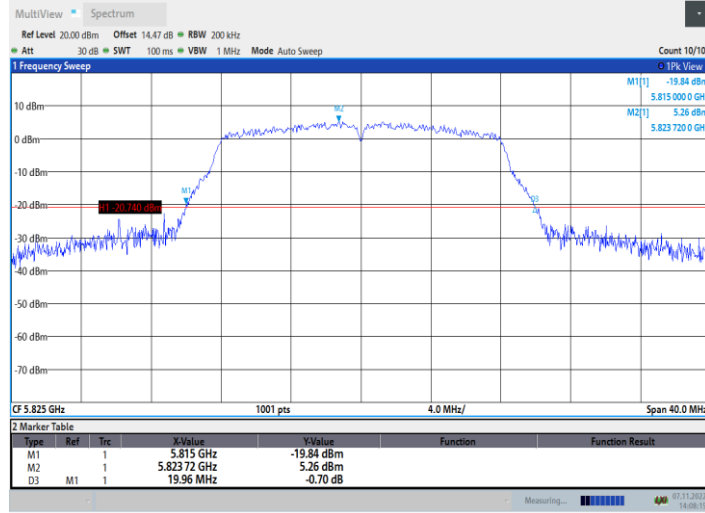
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11A_Ant1_5785

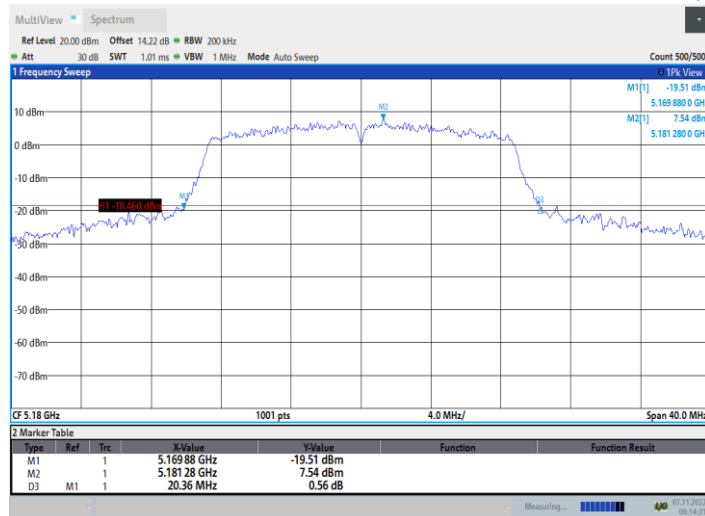


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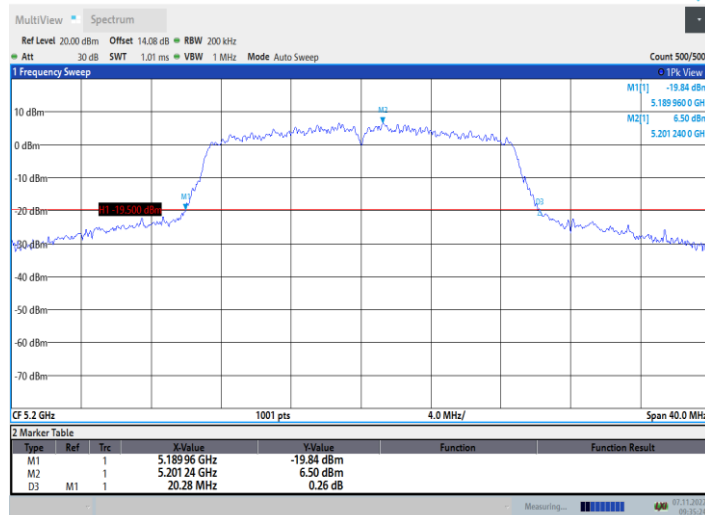
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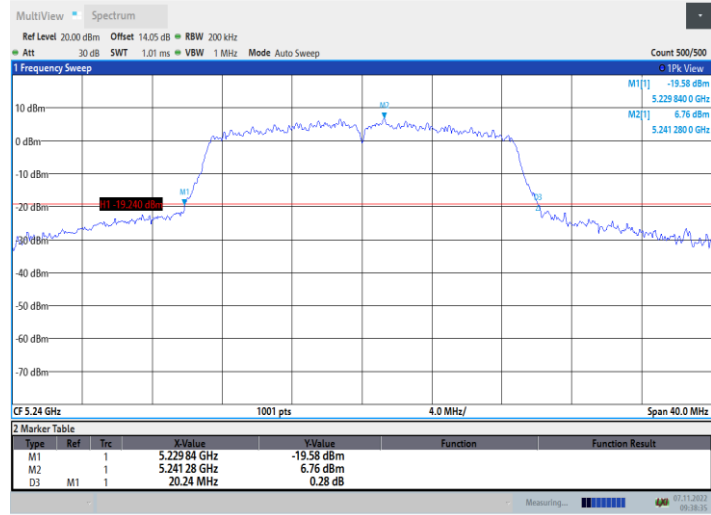
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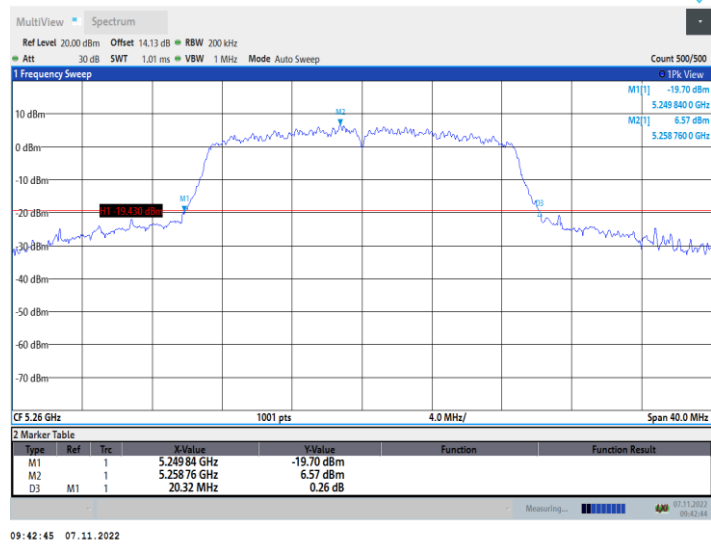


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11N20SISO_Ant1_5260



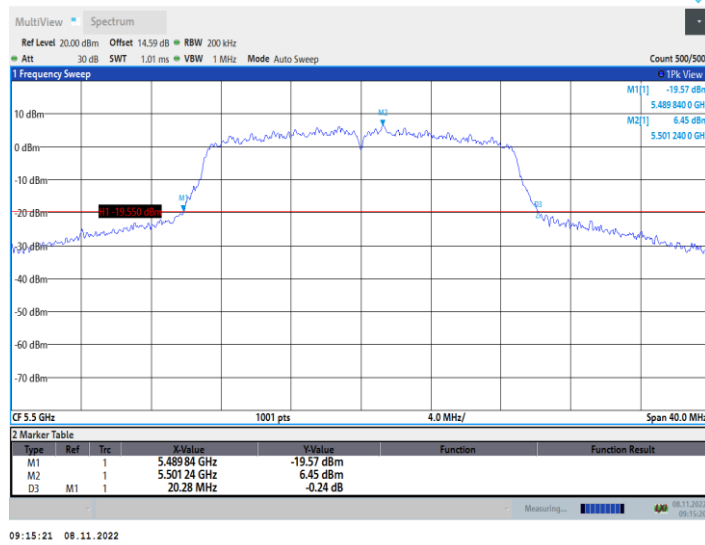
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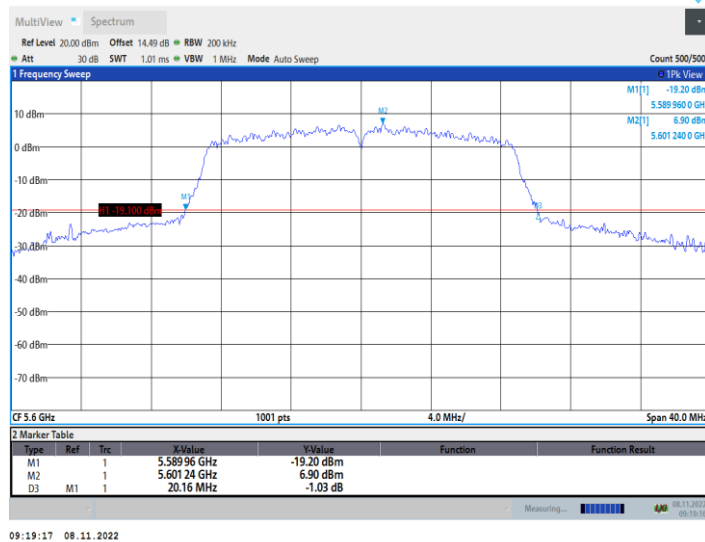
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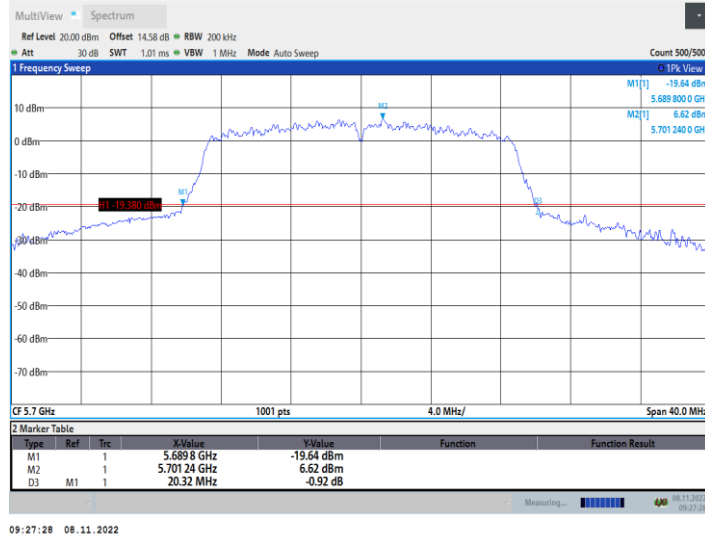
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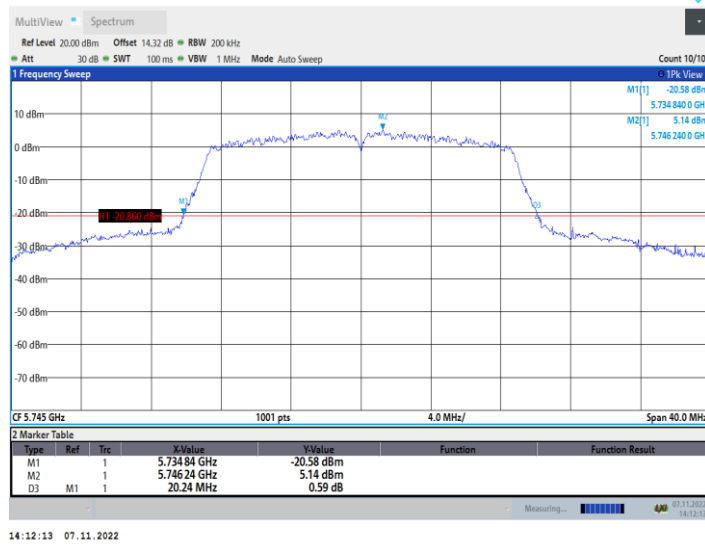
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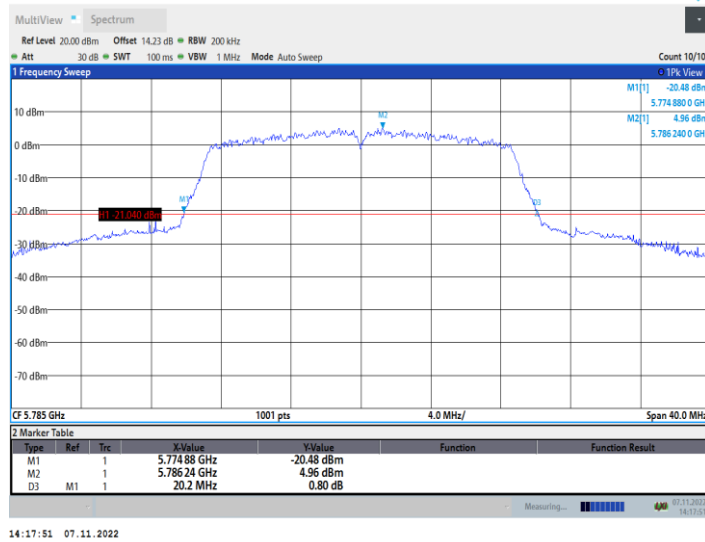
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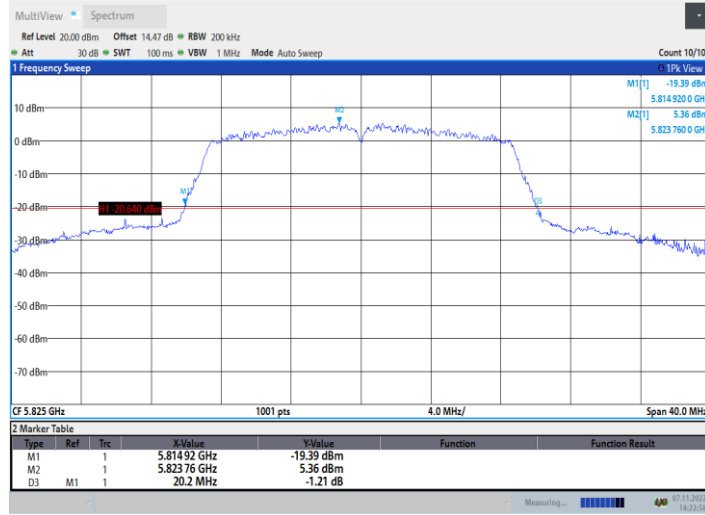
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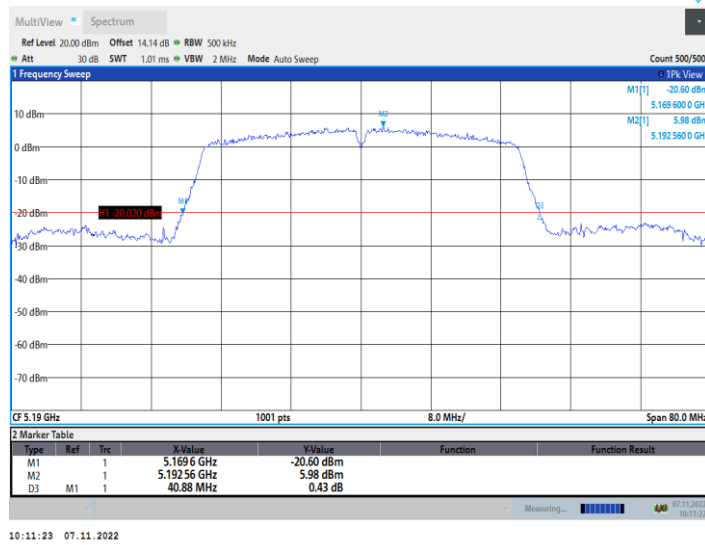
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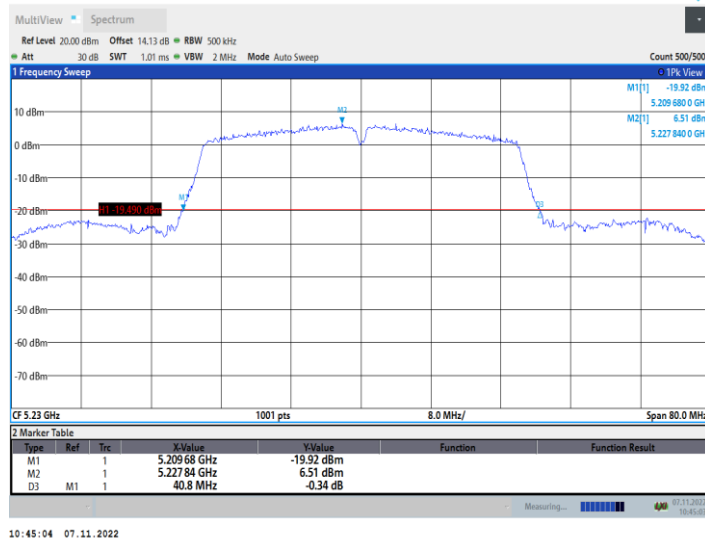
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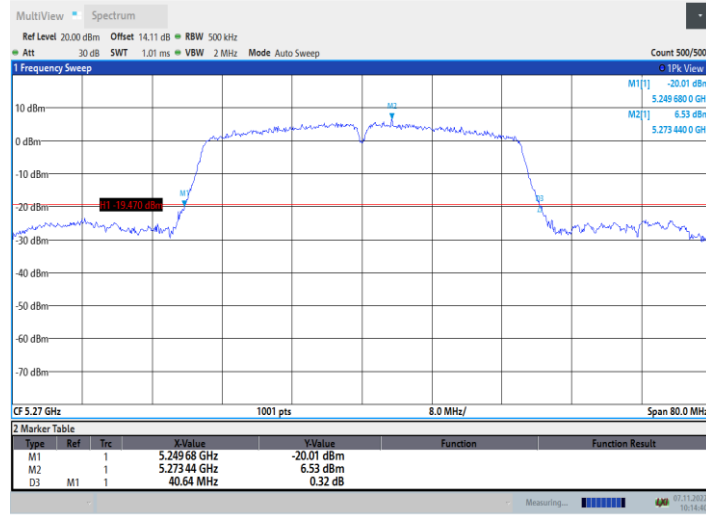
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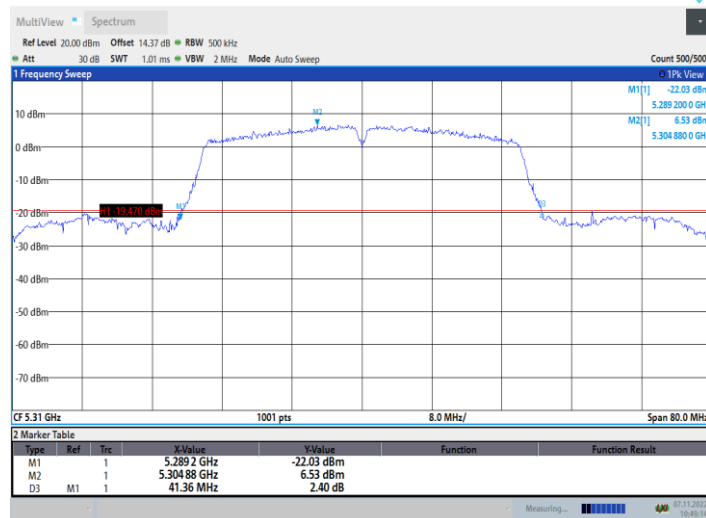


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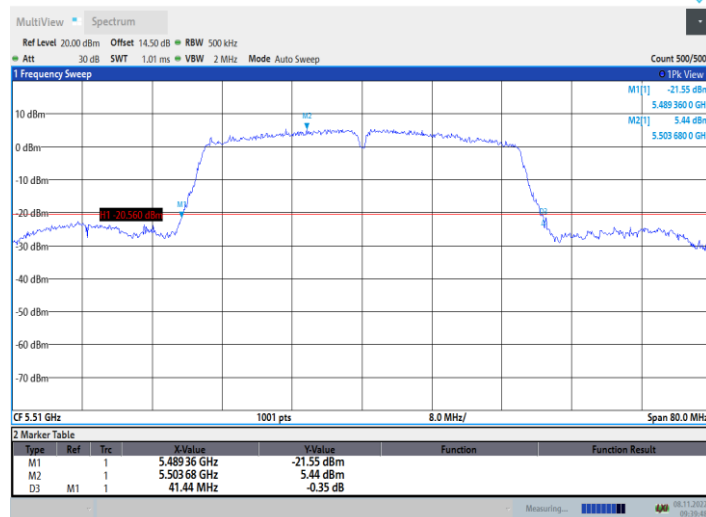
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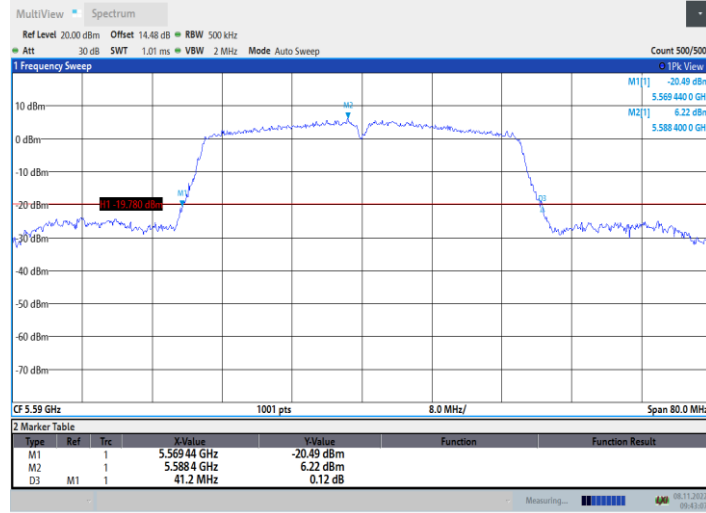
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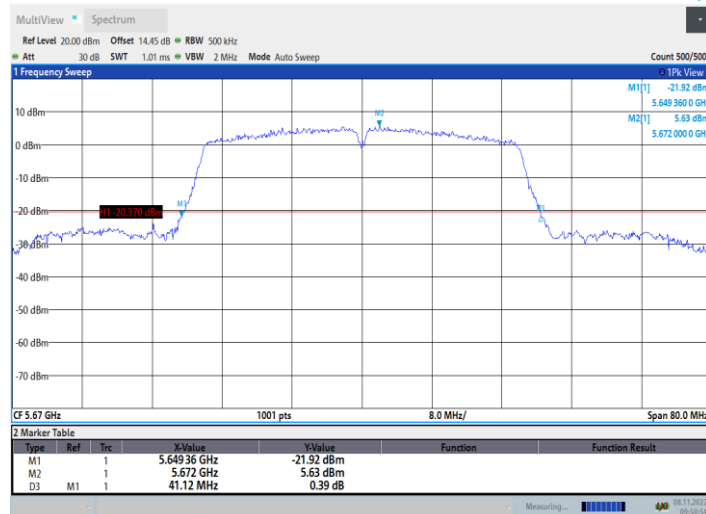
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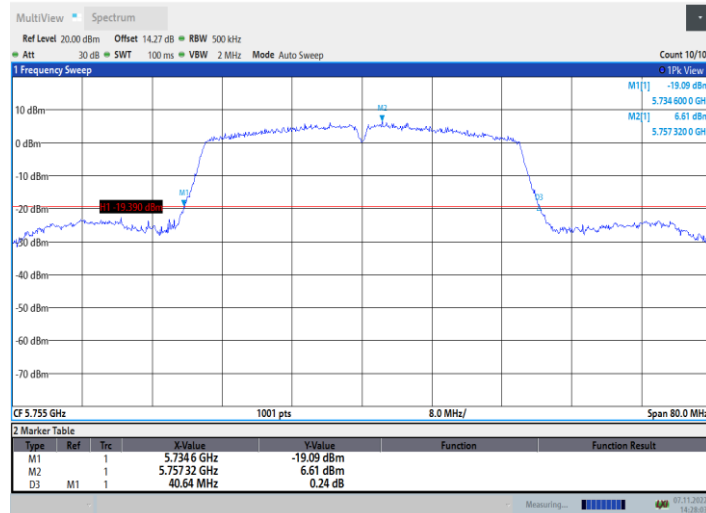
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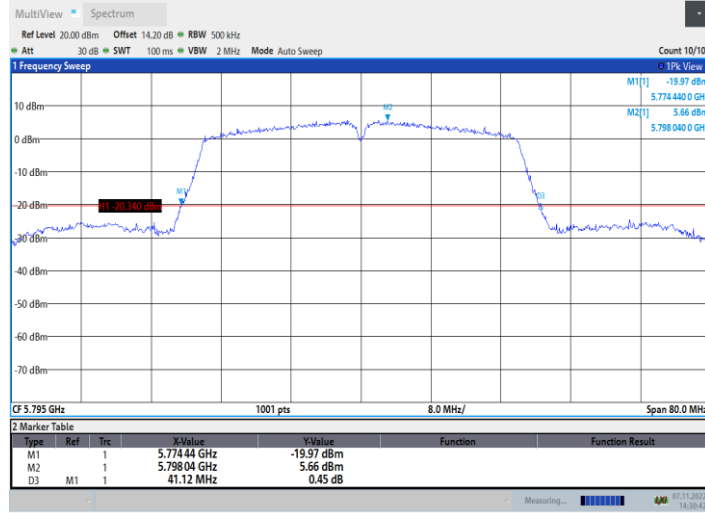
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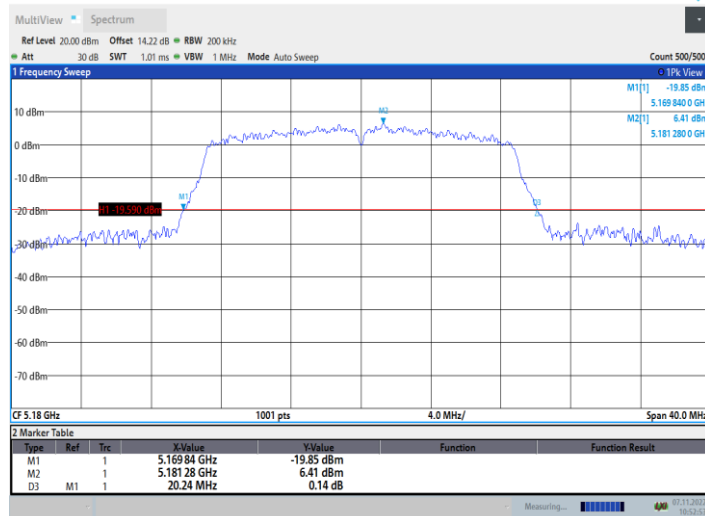
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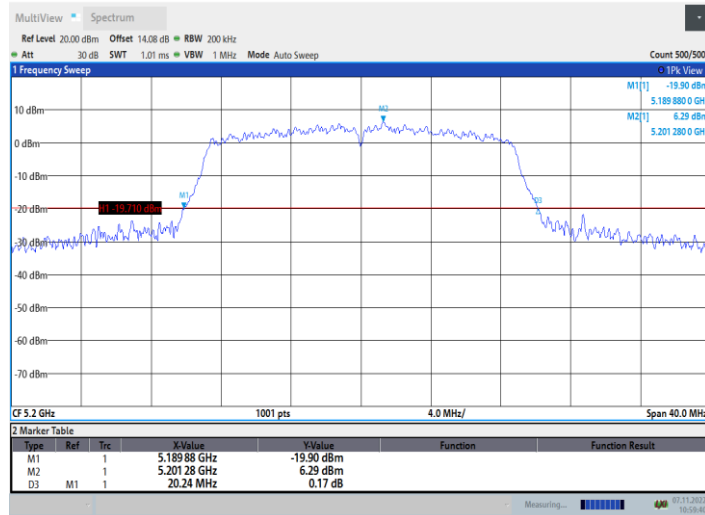
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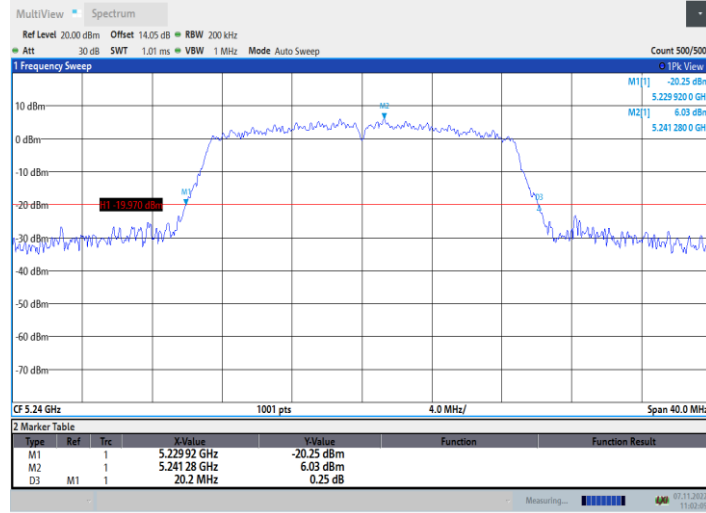
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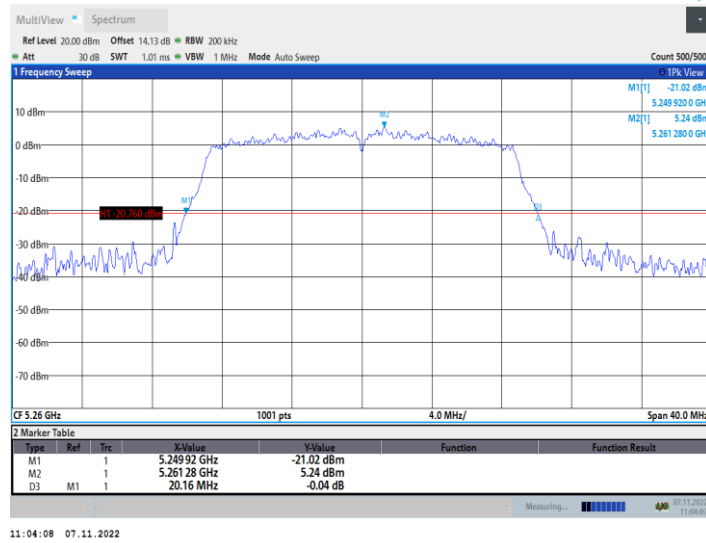


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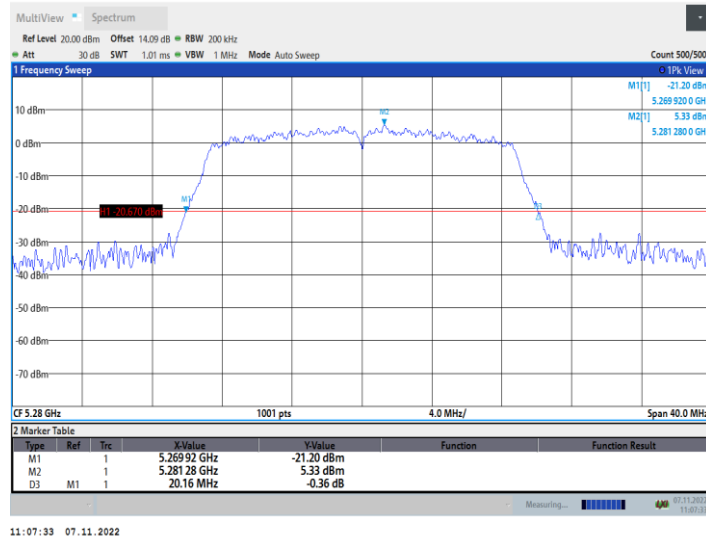
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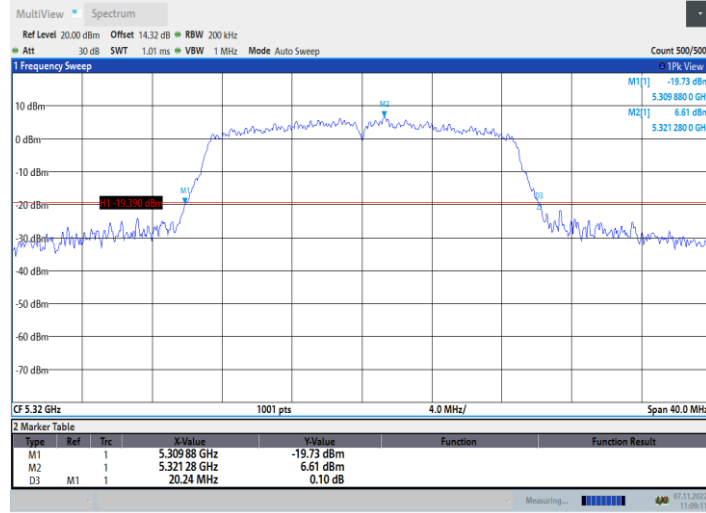
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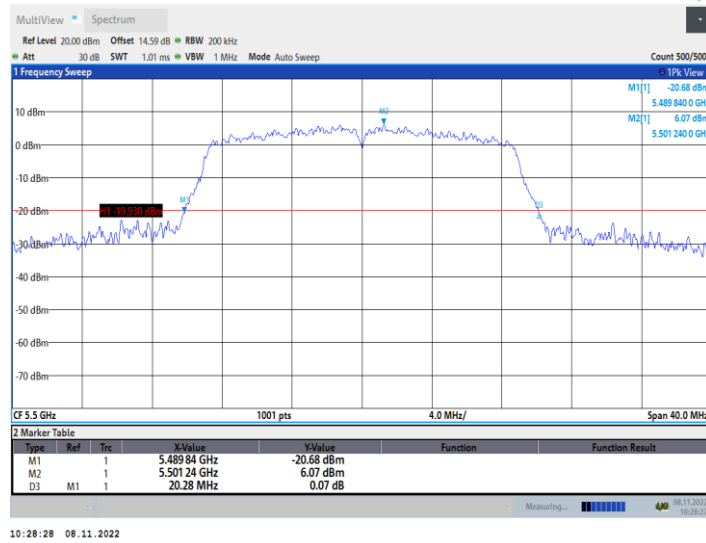
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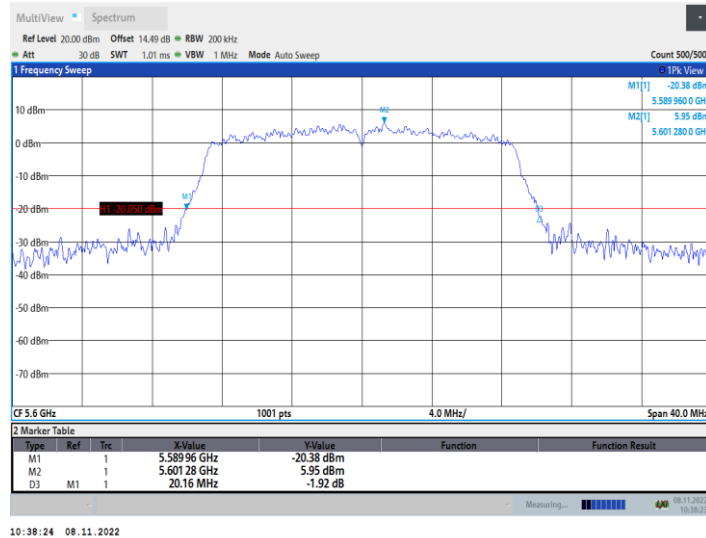
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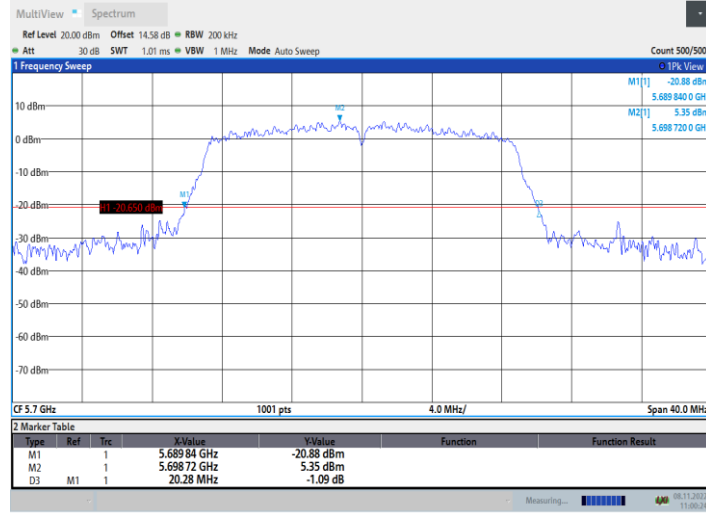
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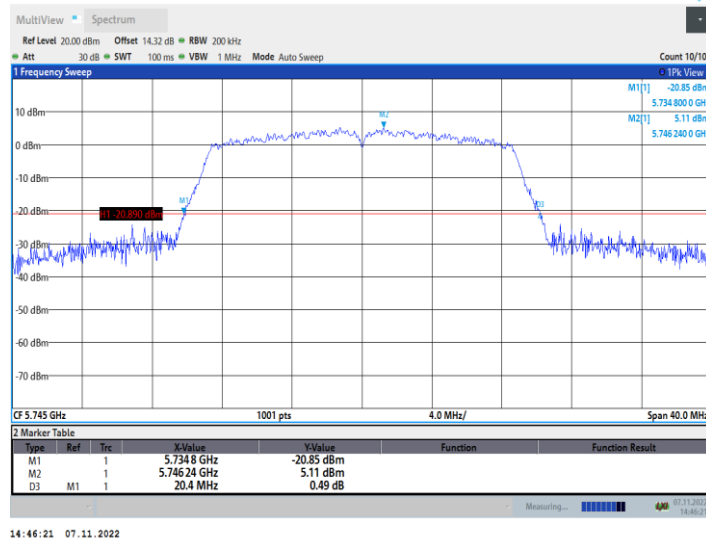
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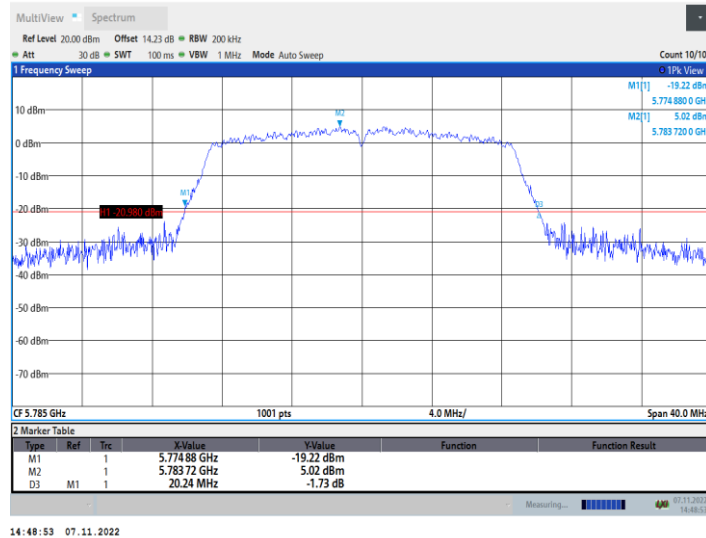
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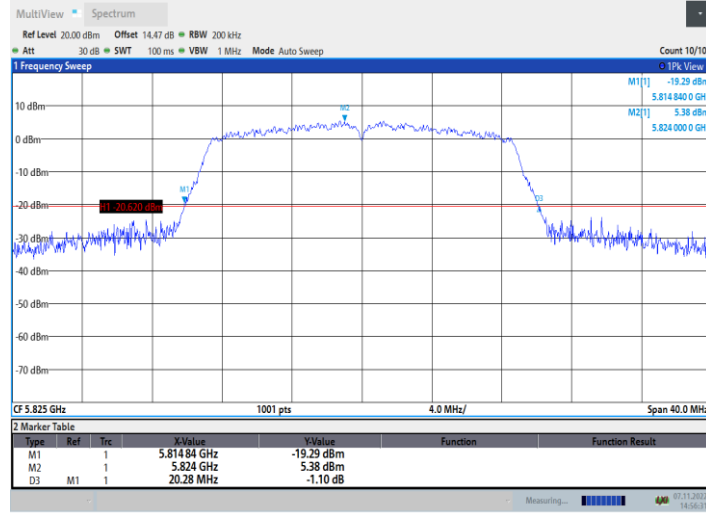
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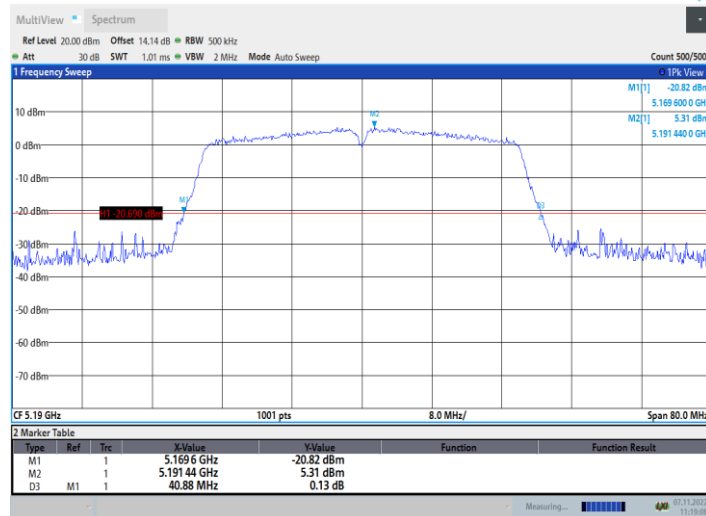


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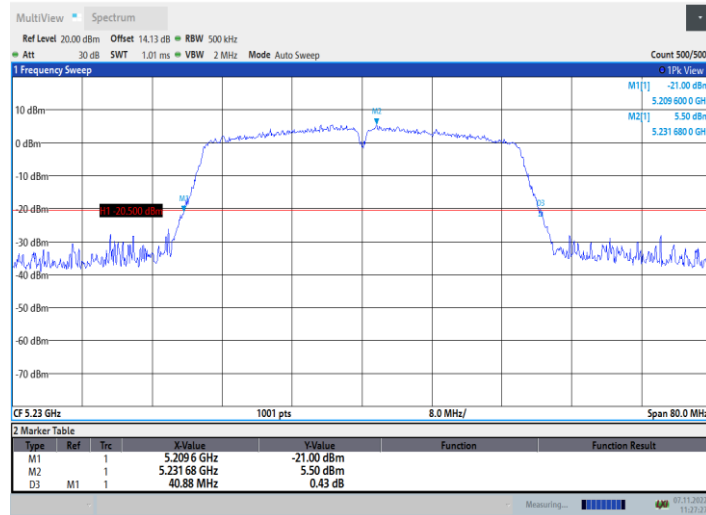
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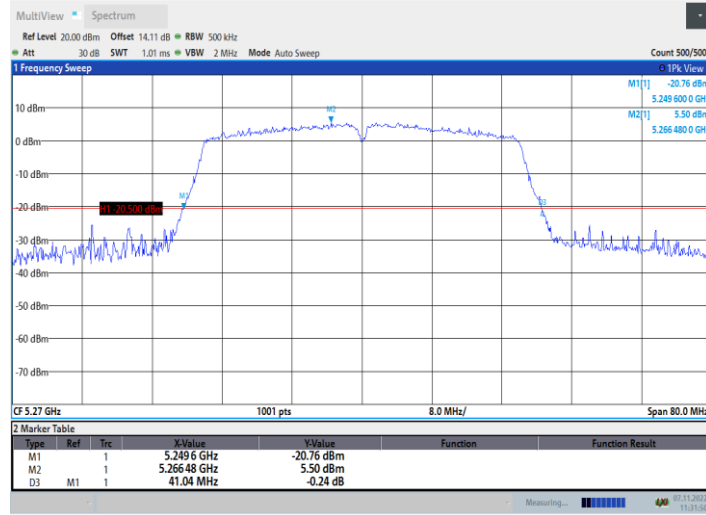
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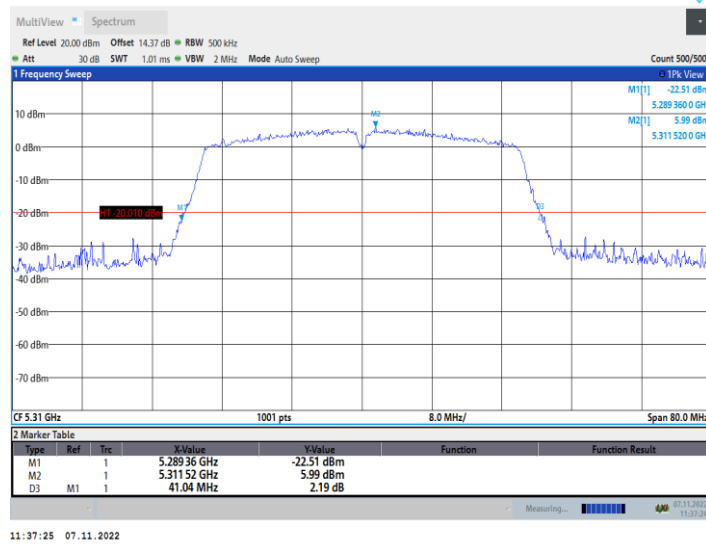


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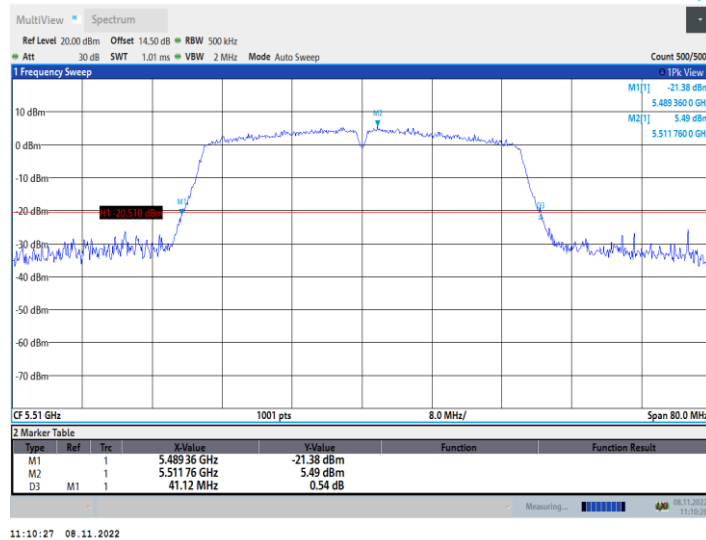
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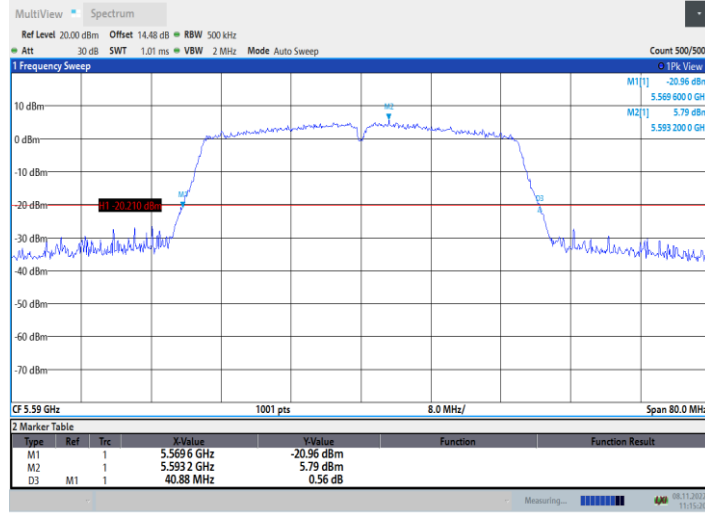
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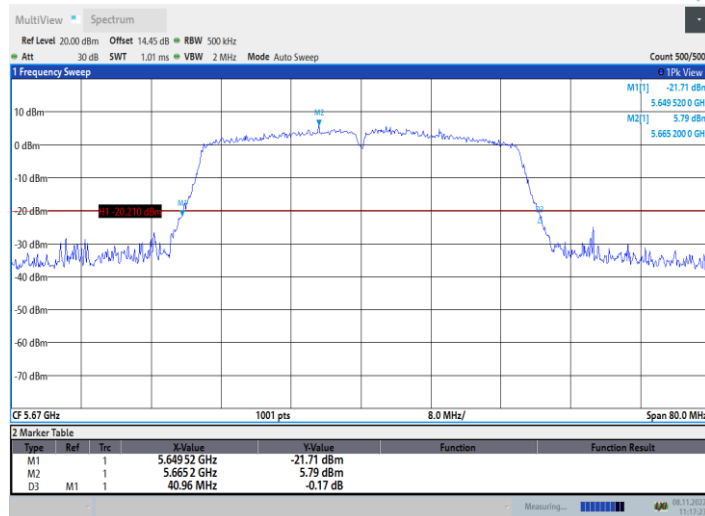


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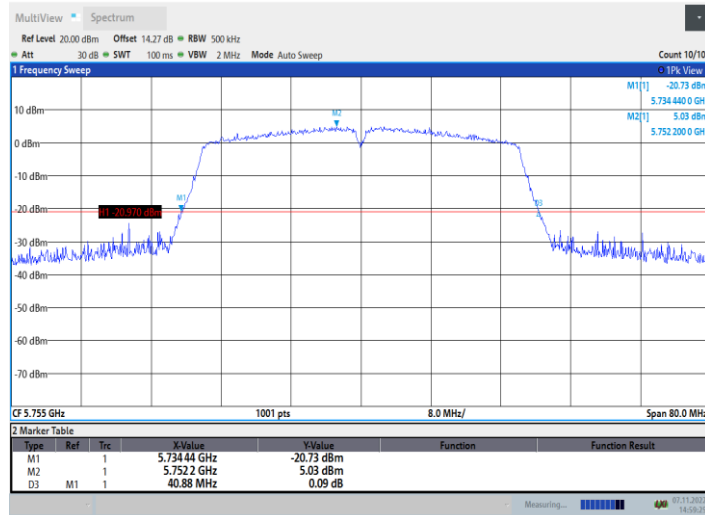
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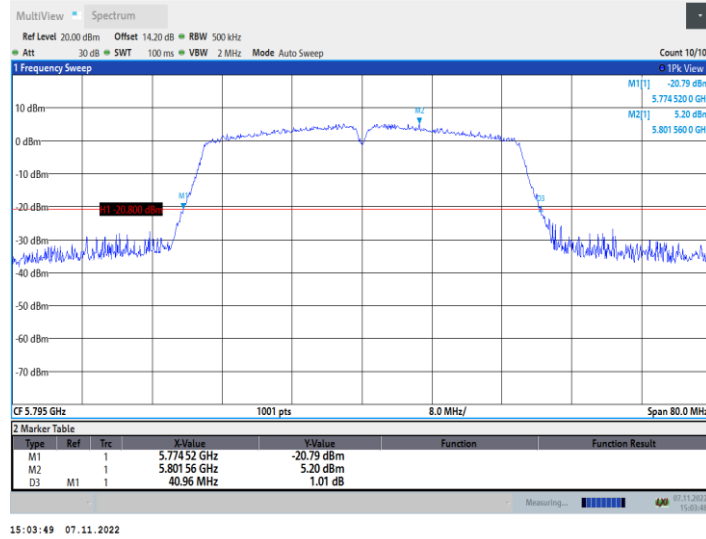
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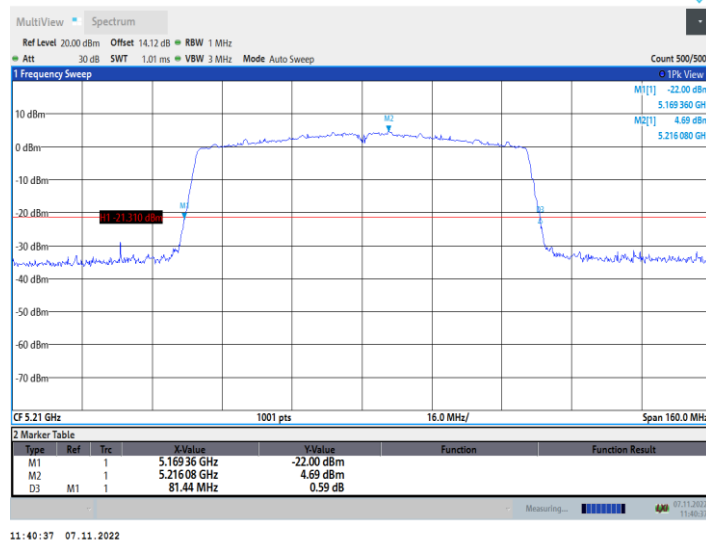


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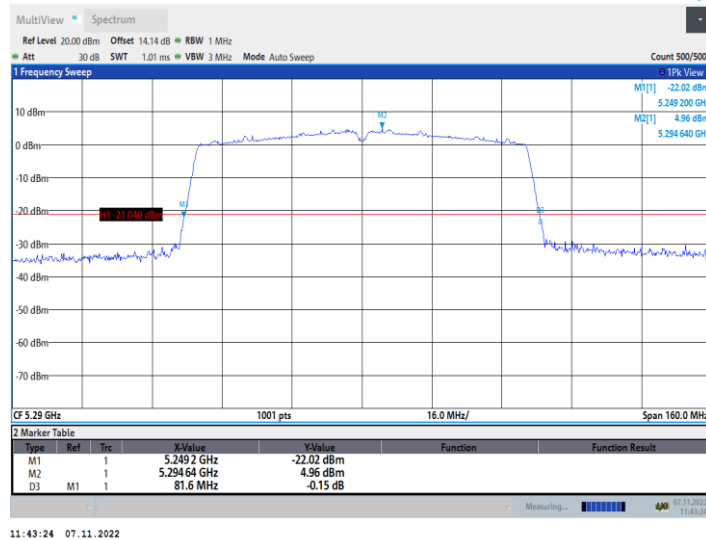
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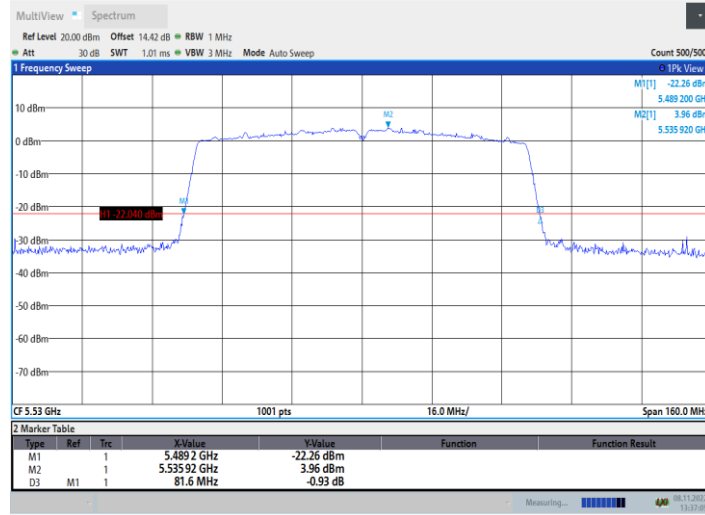
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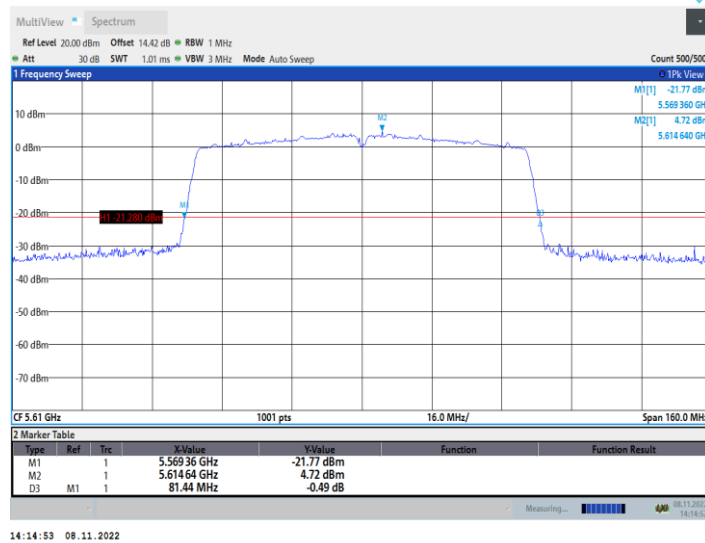
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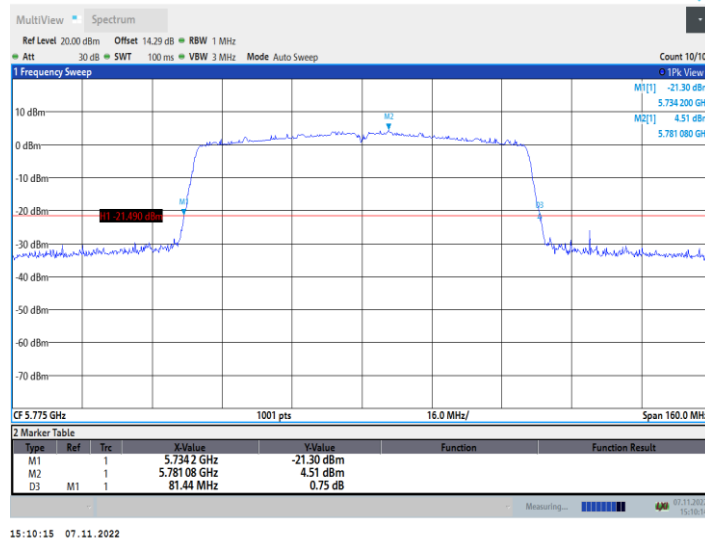
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11AC80SISO_Ant1_5610



11AC80SISO_Ant1_5775



8. MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

8.1.Limits of Maximum Conducted Output Power Measurement

CFR 47 (FCC) part 15.407 (a)

For the band 5.15–5.25 GHz.

For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz, the maximum antenna gain does not exceed 6 dBi.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

8.2. Test Procedure

(i) Measurements may be performed using spectrum analyzer if all of the conditions listed below are satisfied.

The EUT is configured to transmit continuously or to transmit with a constant duty cycle.

At all times when the EUT is transmitting, it must be transmitting at its maximum power control level.

The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.

(ii) If the transmitter does not transmit continuously, measure the duty cycle, x, of the transmitter output signal as described in section II.B.

(iii) Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.

(iv) Adjust the measurement in dBm by adding $10 \log (1/x)$ where x is the duty cycle (e.g., $10 \log (1/0.25)$ if the duty cycle is 25%) the measurement result.

8.3. Test Setup



8.4. Test Data

Table 11 Maximum Conducted Output Power Test Data

| Test Mode | Test Channel [MHz] | Power [dBm] | Limit [dBm] | Verdict |
|-----------|--------------------|-------------|--------------|---------|
| 802.11a | 5180 | 17.32 | ≤ 23.98 | PASS |

| | | | | |
|----------------|------|-------|---------|------|
| 802.11a | 5200 | 16.34 | <=23.98 | PASS |
| 802.11a | 5240 | 16.54 | <=23.98 | PASS |
| 802.11a | 5260 | 16.48 | <=23.98 | PASS |
| 802.11a | 5280 | 16.68 | <=23.98 | PASS |
| 802.11a | 5320 | 16.72 | <=23.98 | PASS |
| 802.11a | 5500 | 16.34 | <=23.98 | PASS |
| 802.11a | 5600 | 16.66 | <=23.98 | PASS |
| 802.11a | 5700 | 16.19 | <=23.98 | PASS |
| 802.11a | 5745 | 14.25 | <=30 | PASS |
| 802.11a | 5785 | 14.18 | <=30 | PASS |
| 802.11a | 5825 | 14.56 | <=30 | PASS |
| 802.11n HT20 | 5180 | 16.71 | <=23.98 | PASS |
| 802.11n HT20 | 5200 | 15.54 | <=23.98 | PASS |
| 802.11n HT20 | 5240 | 15.67 | <=23.98 | PASS |
| 802.11n HT20 | 5260 | 15.76 | <=23.98 | PASS |
| 802.11n HT20 | 5280 | 15.66 | <=23.8 | PASS |
| 802.11n HT20 | 5320 | 15.93 | <=23.98 | PASS |
| 802.11n HT20 | 5500 | 15.26 | <=23.98 | PASS |
| 802.11n HT20 | 5600 | 15.76 | <=23.98 | PASS |
| 802.11n HT20 | 5700 | 15.47 | <=23.98 | PASS |
| 802.11n HT20 | 5745 | 14.11 | <=30 | PASS |
| 802.11n HT20 | 5785 | 13.98 | <=30 | PASS |
| 802.11n HT20 | 5825 | 14.44 | <=30 | PASS |
| 802.11n HT40 | 5190 | 14.11 | <=23.98 | PASS |
| 802.11n HT40 | 5230 | 14.49 | <=23.98 | PASS |
| 802.11n HT40 | 5270 | 14.22 | <=23.98 | PASS |
| 802.11n HT40 | 5310 | 14.99 | <=23.98 | PASS |
| 802.11n HT40 | 5510 | 14.12 | <=23.98 | PASS |
| 802.11n HT40 | 5590 | 14.17 | <=23.98 | PASS |
| 802.11n HT40 | 5670 | 14 | <=23.98 | PASS |
| 802.11n HT40 | 5755 | 13.93 | <=30 | PASS |
| 802.11n HT40 | 5795 | 13.67 | <=30 | PASS |
| 802.11ac VHT20 | 5180 | 15.26 | <=23.98 | PASS |
| 802.11ac VHT20 | 5200 | 15 | <=23.98 | PASS |
| 802.11ac VHT20 | 5240 | 14.95 | <=23.98 | PASS |
| 802.11ac VHT20 | 5260 | 13.92 | <=23.98 | PASS |
| 802.11ac VHT20 | 5280 | 14.13 | <=23.98 | PASS |
| 802.11ac VHT20 | 5320 | 15.35 | <=23.98 | PASS |
| 802.11ac VHT20 | 5500 | 15.26 | <=23.98 | PASS |
| 802.11ac VHT20 | 5600 | 14.62 | <=23.98 | PASS |
| 802.11ac VHT20 | 5700 | 14.41 | <=23.98 | PASS |
| 802.11ac VHT20 | 5745 | 14.1 | <=30 | PASS |
| 802.11ac VHT20 | 5785 | 14 | <=30 | PASS |
| 802.11ac VHT20 | 5825 | 14.45 | <=30 | PASS |
| 802.11ac VHT40 | 5190 | 13.73 | <=23.98 | PASS |
| 802.11ac VHT40 | 5230 | 13.59 | <=23.98 | PASS |