FCC TEST REPORT

For

Mobile Phone

Model Number: RMX3630

FCC ID: 2AUYFRMX3630

Report Number : WT228002151

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

No	Date	Remark
V1.0	2022.09.21	Initial issue

TEST REPORT DECLARATION

Applicant	:	Realme Chongqing Mobile Telecommunications Corp., Ltd.
Address	:	No.178 Yulong Avenue, Yufengshan, Yubei District, Chongqing, China
Manufacturer	:	Realme Chongqing Mobile Telecommunications Corp., Ltd.
Address	:	No.178 Yulong Avenue, Yufengshan, Yubei District, Chongqing, China
EUT Description	:	Mobile Phone
Model No.	:	RMX3630
Trade mark	:	realme
Serial Number	:	/
FCC ID	:	2AUYFRMX3630

Test Standards:

FCC Part 15 Subpart E 15.407 (2020)

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:	周芳媛	Date:	Sep.21, 2022
	(Zhou Fangai 周芳媛)		
Checked by:	施昌达	Date:	Sep.21, 2022
	(Shi Changda 施昌达)		
Approved by:	林奕翔	Date:	Sep.21, 2022
	(Lin Yixiang 林奕翔)		

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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=3.7dB k=2
150 kHz~30MHz U=3.3dB k=2

Radiated Emission
30MHz~1000MHz U=4.3dB k=2
1GHz~6GHz U=4.6 dB k=2
6GHz~40GHz U=5.1dB 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	:	Realme Chongqing Mobile Telecommunications Corp., Ltd.
Model Number	:	RMX3630
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	:	Fixed Internal Antenna U-NII 1(5180~5240 MHz) -0.2 dBi U-NII 2A (5260~5320 MHz) -0.2 dBi U-NII 2C (5500~5700 MHz) -0.1 dBi U-NII 3(5745~5825 MHz) -0.4 dBi
Operating voltage	:	DC3.4V (Low)/DC3.87V (Nominal)/DC4.45V (Max)
Software Version	:	realme UI V3.0
Hardware Version	:	11

Remark: 1. There are 4 adapters, only the worst data of VCB3HDUH (4#) shown in this report.
2. There are 2 USB cables, only the worst data of DL150 (1#) shown in this report.

Frequency List:

Band 1

Ch.	Frequency (MHz)
36	5180
40	5200
44	5220
48	5240

Band 2A

Ch.	Frequency (MHz)
52	5260
56	5280
60	5300
64	5320

Band 2C

Ch.	Frequency (MHz)
100	5500
104	5520
108	5540
112	5560
116	5580
120	5600
124	5620
128	5640
132	5660
136	5680
140	5700

Band 3

Ch.	Frequency (MHz)
149	5745
153	5765
157	5785
161	5805
165	5825

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

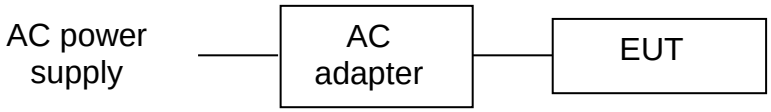
Band 1		Band 2A		Band 2C		Band 3	
Ch.	Frequency (MHz)	Ch.	Frequency (MHz)	Ch.	Frequency (MHz)	Ch.	Frequency (MHz)
42	5210	58	5290	106	5530	155	5775
				122	5610		

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: **2AUYFRMX3630** 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



Setup of test

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 1# for EUT	VCB3HDUH	---	SHENZHEN HUNTKEY ELECTRIC CO., LTD.
Adapter 2# for EUT	VCB3HDUH	---	Huizhou Golden Lake Industrial Co., Ltd.
Adapter 3# for EUT	VCB3HAUH	---	Huizhou Golden Lake Industrial Co., Ltd.
Adapter 4# for EUT	VCB3HDUH	---	Dongguan YOHOO Electronic Technology Co., Ltd.
Rechargeable Li-ion Polymer Battery for EUT	BLP957	---	Sunwoda Electronic Co., Ltd.
Earphone for EUT	RMA2001	---	---
USB Cable 1# for EUT	DL150	---	---
USB Cable 2# for EUT	DL143	---	---

3.7. Test Conditions

Date of test：Aug.31, 2022- Sep.20, 2022
Date of EUT Receive：Aug.29, 2022
Temperature: 21℃-26℃
Relative Humidity: 48%-54%

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.24,2021	1 Year
SB4357	AMN	R&S	ENN216	Aug.23,2022	1 Year
SB9549	Shielded Room	Albatross	SR	Sep.24,2021	1 Year
SB15044/01	Test Receiver	R&S	ESW8	Sep.14,2021	1 Year
SB15044/01	Test Receiver	R&S	ESW8	Sep.13,2022	1 Year
SB18856	Broadband Antenna	SCHWARZBECK	VULB9163	Sep.26,2021	1 Year
SB18844	Semi Anechoic Chamber	Albatross	9×6×6(m)	Mar.22,2022	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 tonscend 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

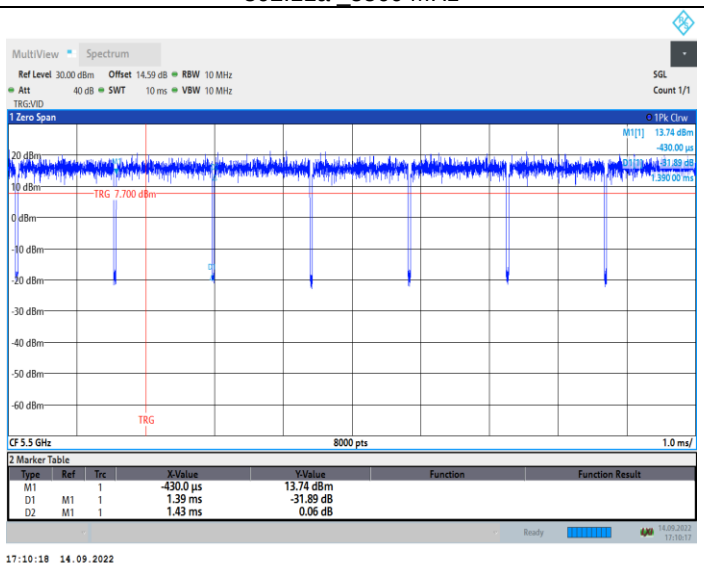
5.3. Test Setup

5.4. Test Data

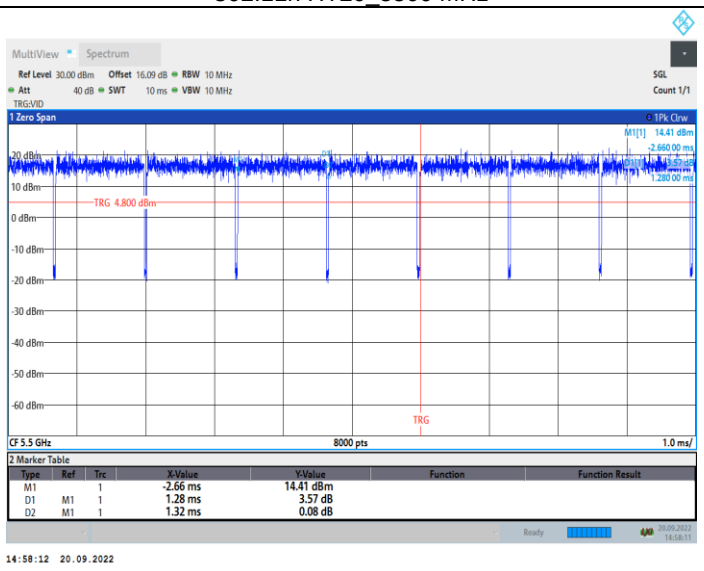
Table 8 Duty Cycle Test Data

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	1.28	96.97	0.13	0.01
802.11n HT40	0.63	95.45	0.20	0.01
802.11ac VHT20	1.31	97.04	0.13	0.01
802.11ac VHT40	0.65	95.59	0.20	0.01
802.11ac VHT80	0.32	88.89	0.51	0.01

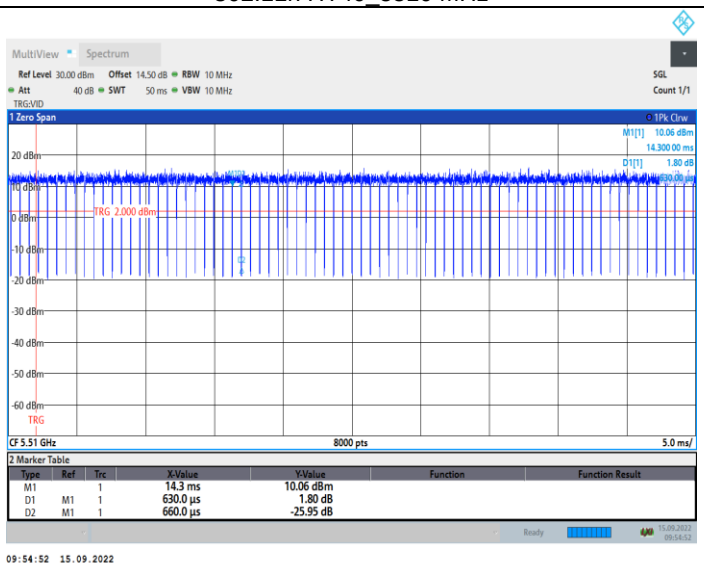
802.11a _5500 MHz



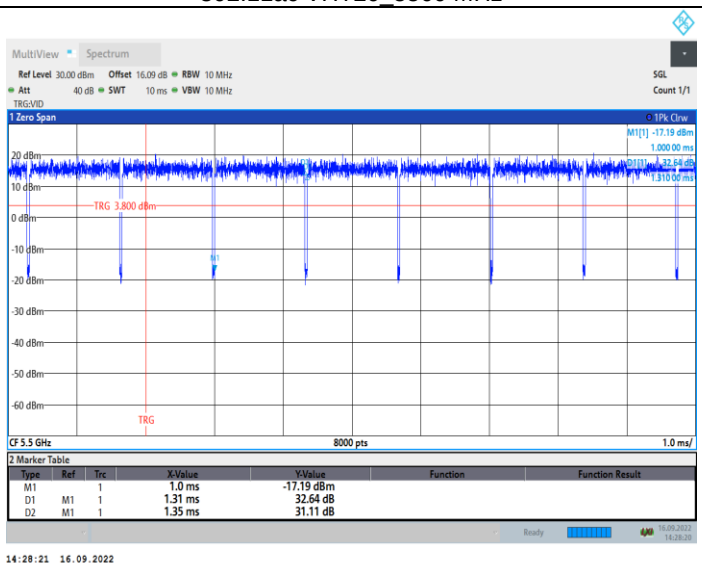
802.11n HT20_5500 MHz



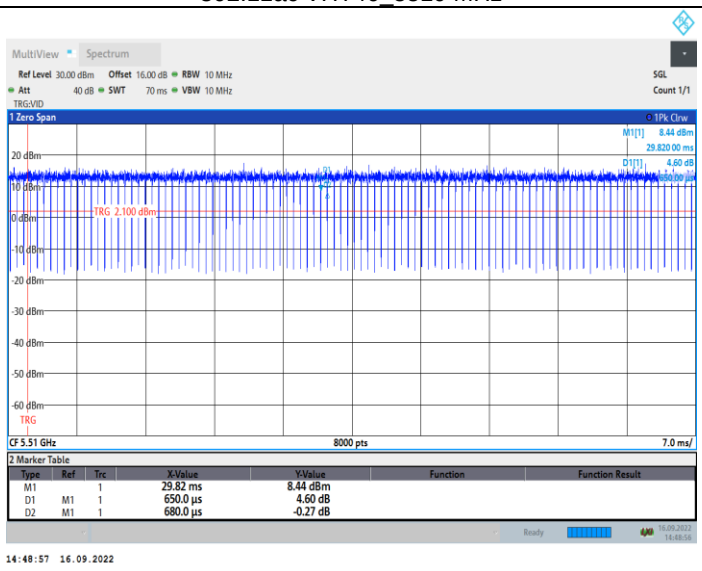
802.11n HT40_5510 MHz



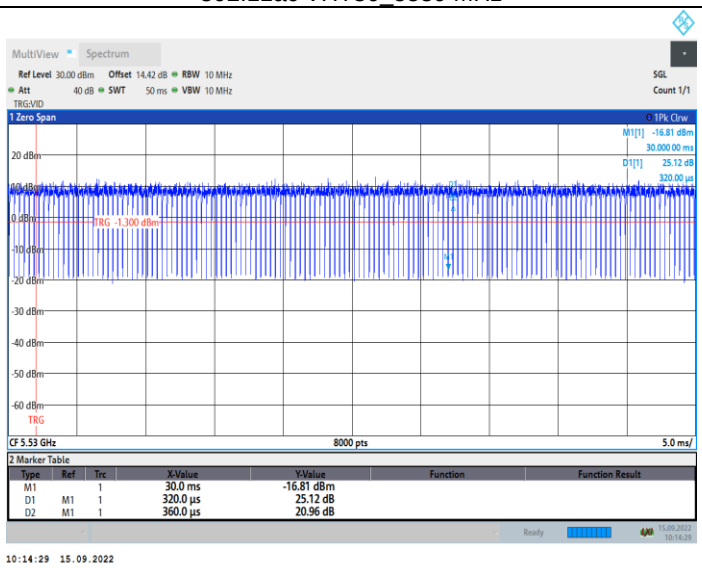
802.11ac VHT20_5500 MHz



802.11ac VHT40_5510 MHz



802.11ac VHT80_5530 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) ≥ 3 x 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	15.12	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	15.12	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	35.20	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	35.20	0.5	PASS
802.11ac VHT40	5795	35.12	0.5	PASS
802.11ac VHT80	5775	75.20	0.5	PASS

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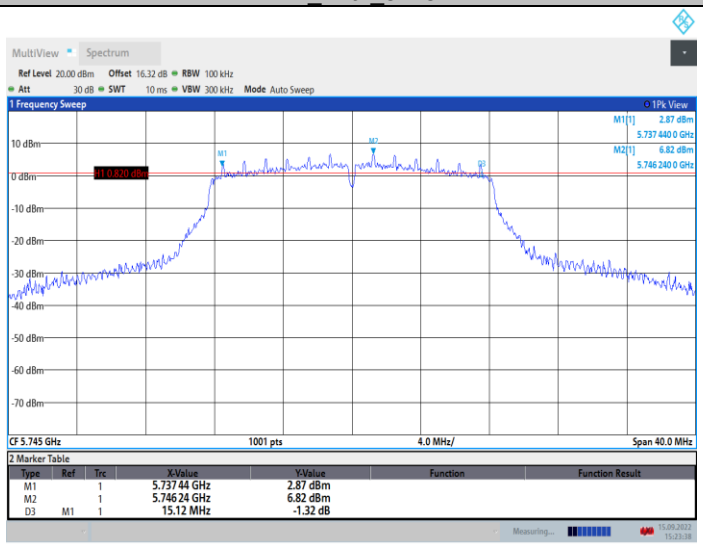

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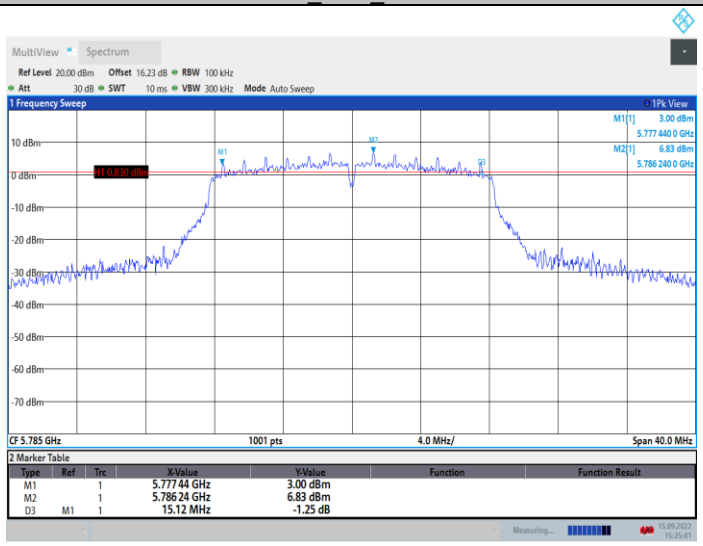

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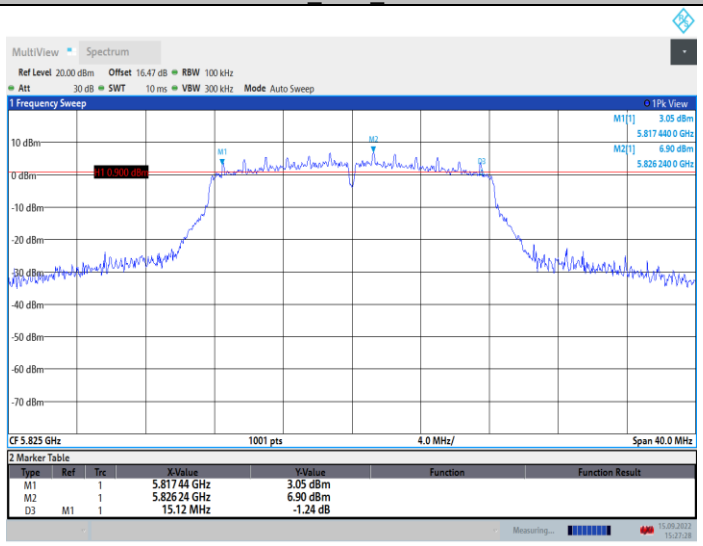

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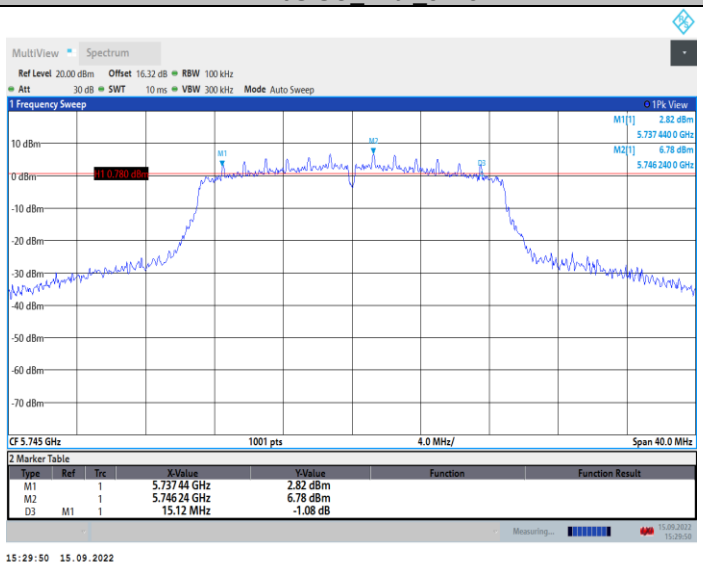

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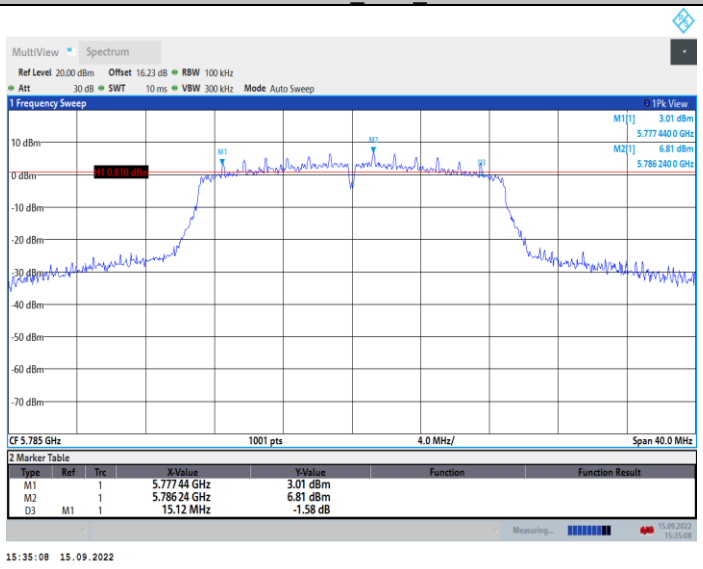

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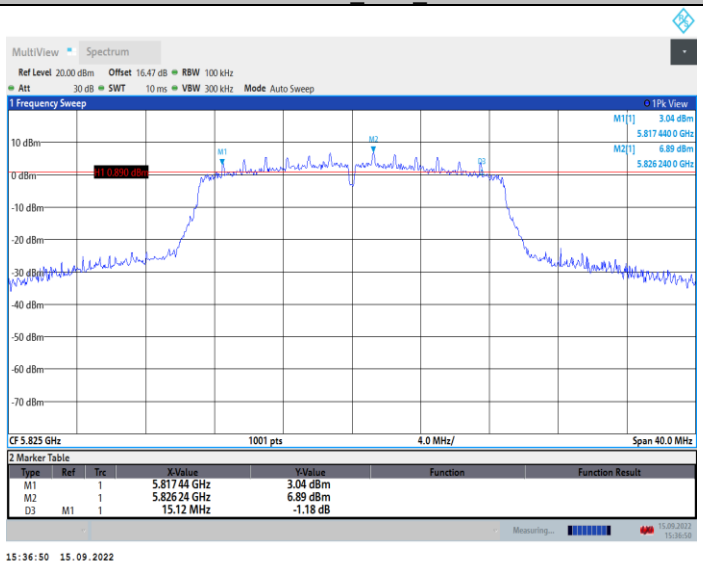

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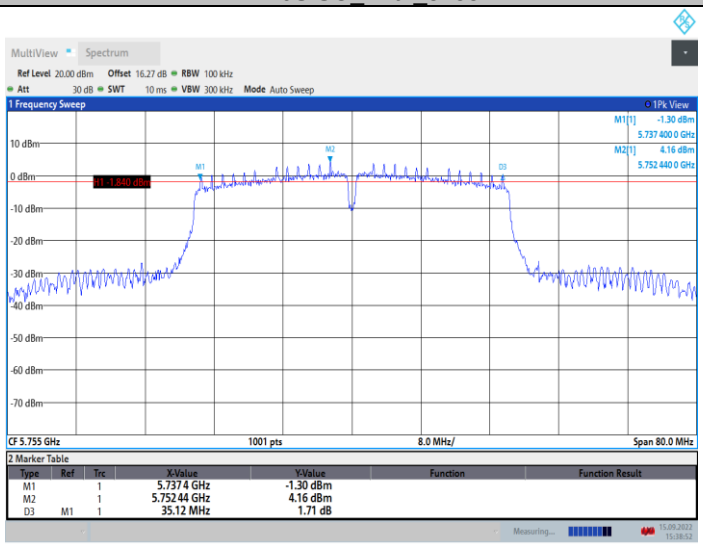

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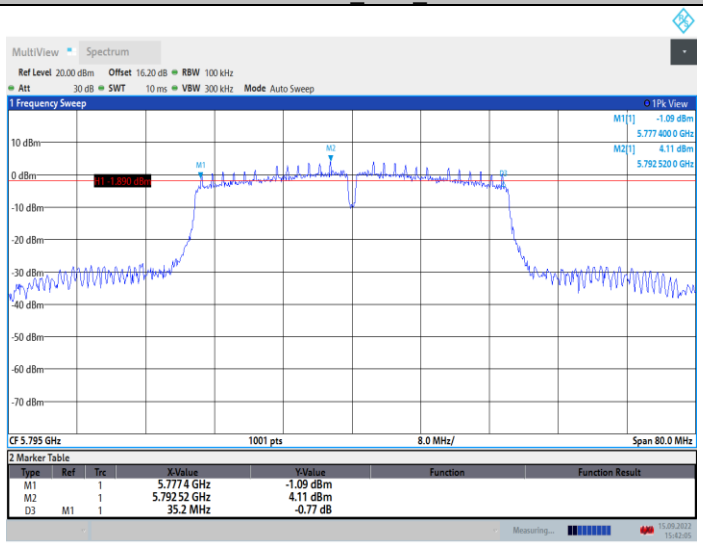

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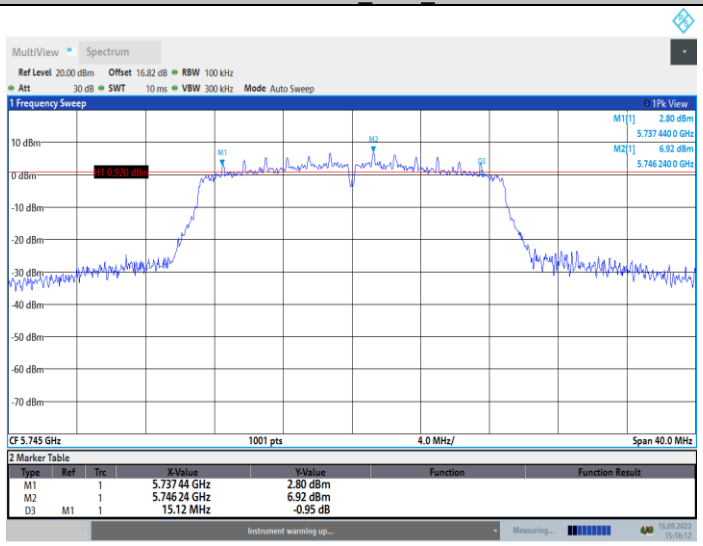

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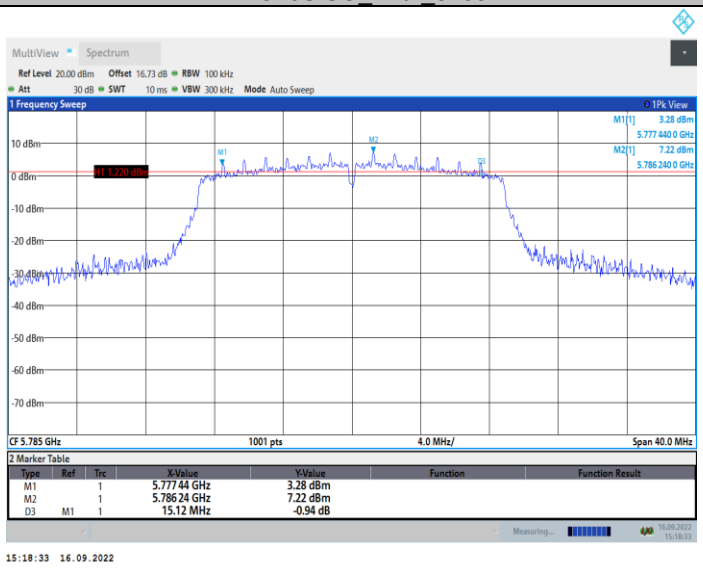

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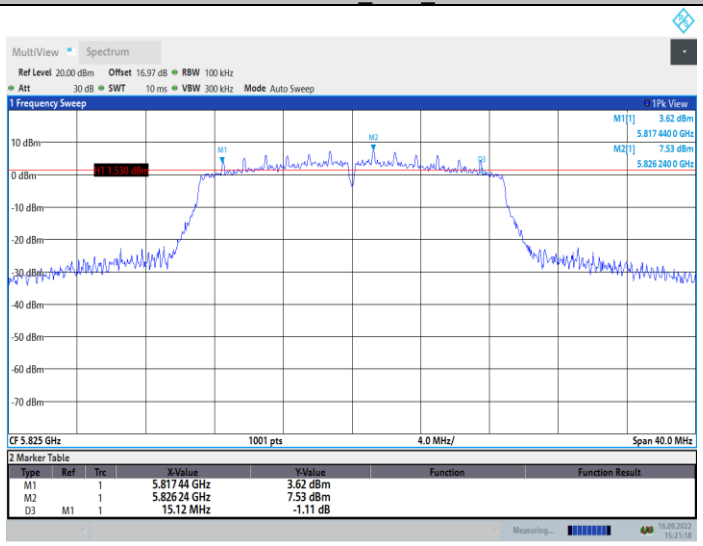

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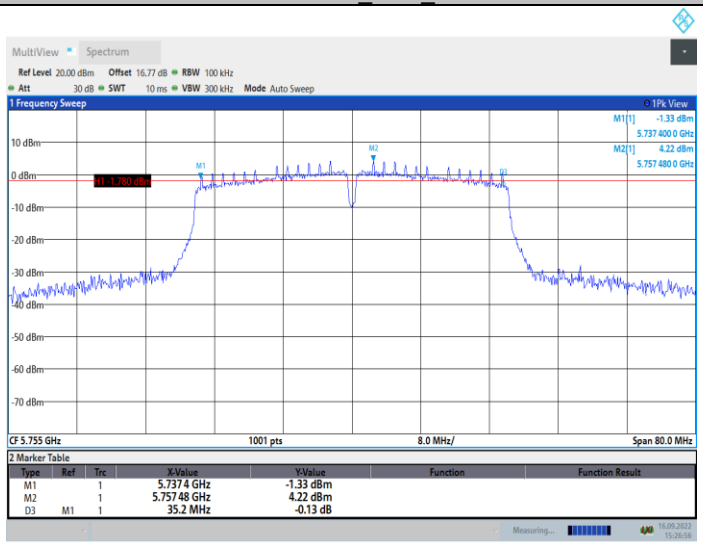

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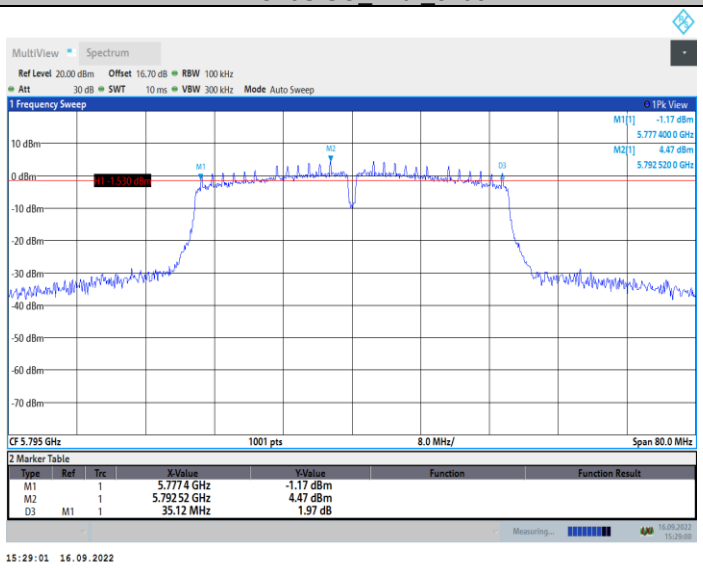

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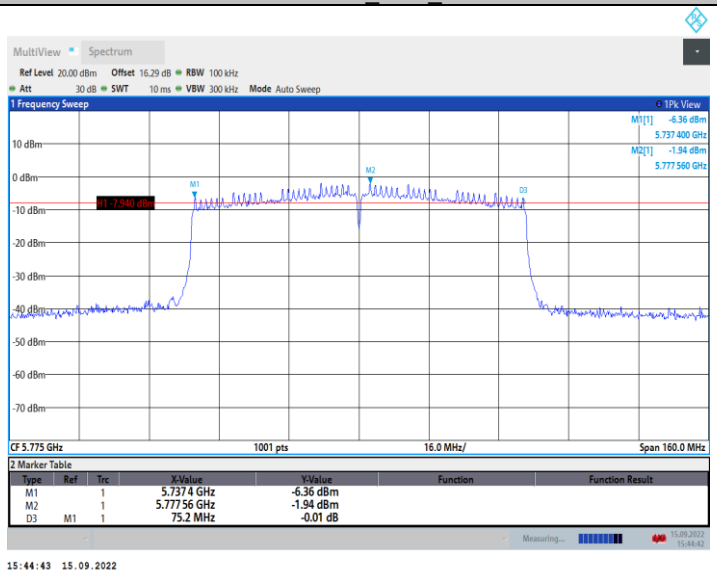

7. 26DB BANDWIDTH MEASUREMENT

7.1. Limts 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	19.92	---	PASS
802.11a	5200	20.00	---	PASS
802.11a	5240	20.88	---	PASS
802.11a	5260	19.92	---	PASS
802.11a	5280	19.84	---	PASS
802.11a	5320	19.88	---	PASS
802.11a	5500	20.08	---	PASS
802.11a	5600	19.96	---	PASS
802.11a	5700	19.88	---	PASS
802.11a	5745	20.08	---	PASS
802.11a	5785	20.44	---	PASS
802.11a	5825	20.12	---	PASS
802.11n HT20	5180	20.12	---	PASS

802.11n HT20	5200	20.60	---	PASS
802.11n HT20	5240	22.52	---	PASS
802.11n HT20	5260	20.16	---	PASS
802.11n HT20	5280	20.24	---	PASS
802.11n HT20	5320	20.16	---	PASS
802.11n HT20	5500	20.40	---	PASS
802.11n HT20	5600	20.20	---	PASS
802.11n HT20	5700	20.16	---	PASS
802.11n HT20	5745	20.80	---	PASS
802.11n HT20	5785	20.36	---	PASS
802.11n HT20	5825	20.52	---	PASS
802.11n HT40	5190	41.04	---	PASS
802.11n HT40	5230	41.52	---	PASS
802.11n HT40	5270	40.96	---	PASS
802.11n HT40	5310	40.80	---	PASS
802.11n HT40	5510	41.20	---	PASS
802.11n HT40	5590	40.96	---	PASS
802.11n HT40	5670	40.64	---	PASS
802.11n HT40	5755	46.00	---	PASS
802.11n HT40	5795	41.28	---	PASS
802.11ac VHT20	5180	20.28	---	PASS
802.11ac VHT20	5200	20.32	---	PASS
802.11ac VHT20	5240	20.20	---	PASS
802.11ac VHT20	5260	20.12	---	PASS
802.11ac VHT20	5280	20.28	---	PASS
802.11ac VHT20	5320	20.20	---	PASS
802.11ac VHT20	5500	20.24	---	PASS
802.11ac VHT20	5600	20.20	---	PASS
802.11ac VHT20	5700	20.28	---	PASS
802.11ac VHT20	5745	20.28	---	PASS
802.11ac VHT20	5785	21.36	---	PASS
802.11ac VHT20	5825	20.68	---	PASS
802.11ac VHT40	5190	40.80	---	PASS
802.11ac VHT40	5230	43.20	---	PASS
802.11ac VHT40	5270	40.88	---	PASS
802.11ac VHT40	5310	41.52	---	PASS
802.11ac VHT40	5510	41.12	---	PASS
802.11ac VHT40	5590	41.12	---	PASS

802.11ac VHT40	5670	40.72	---	PASS
802.11ac VHT40	5755	41.12	---	PASS
802.11ac VHT40	5795	43.68	---	PASS
802.11ac VHT80	5210	81.76	---	PASS
802.11ac VHT80	5290	81.60	---	PASS
802.11ac VHT80	5530	81.28	---	PASS
802.11ac VHT80	5610	81.28	---	PASS
802.11ac VHT80	5775	81.28	---	PASS

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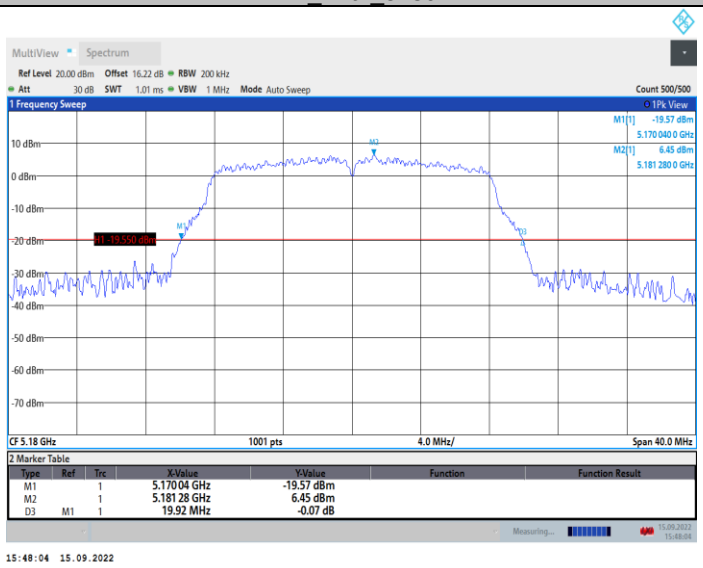

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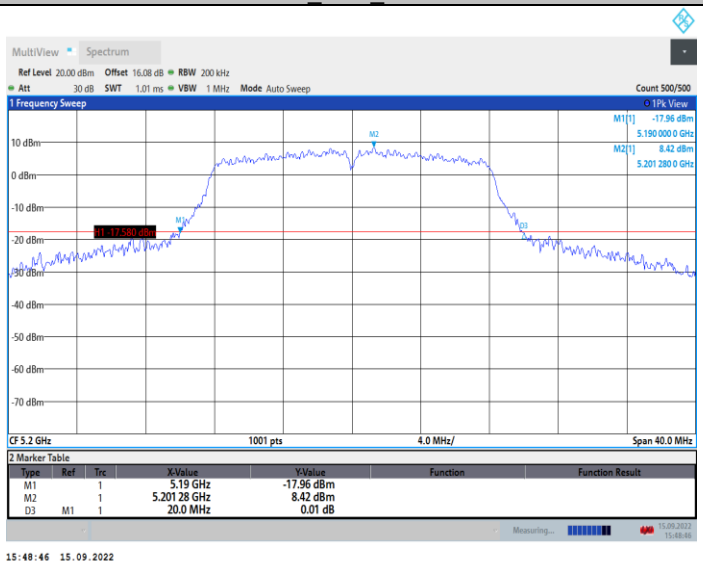

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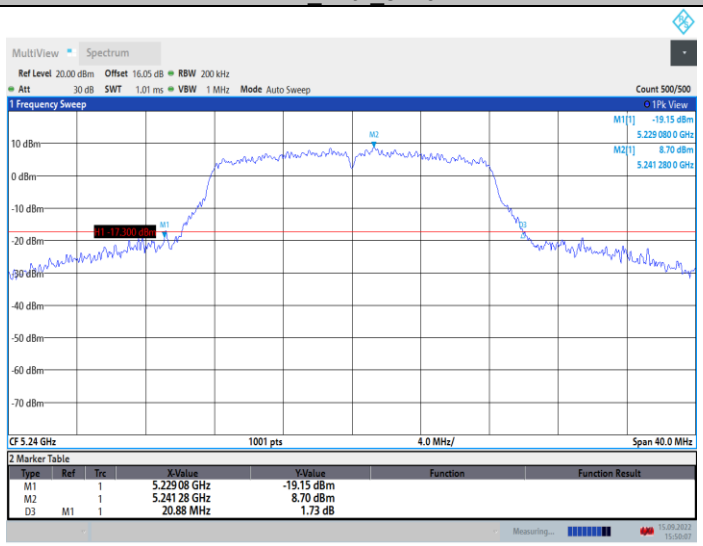

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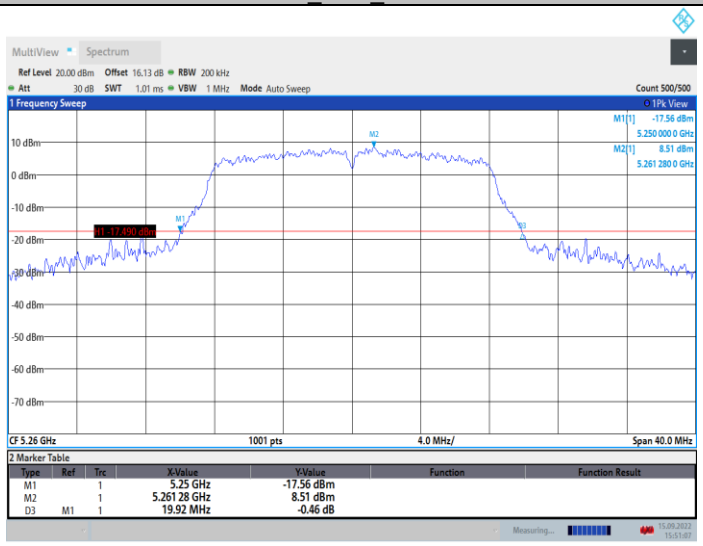

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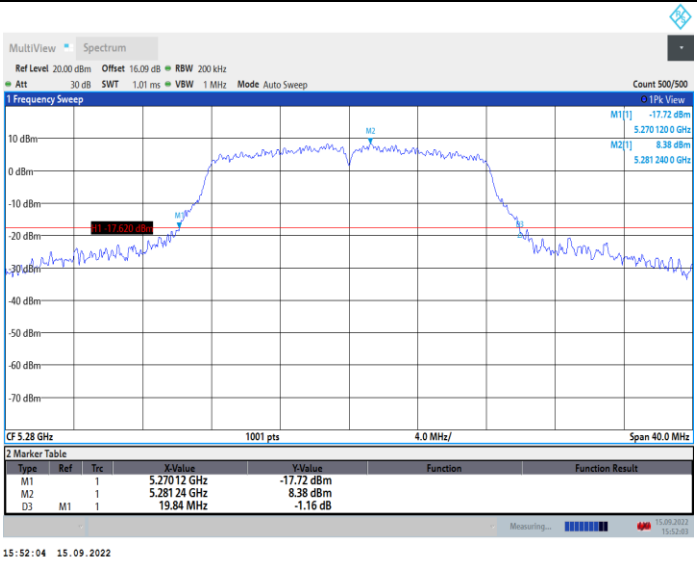

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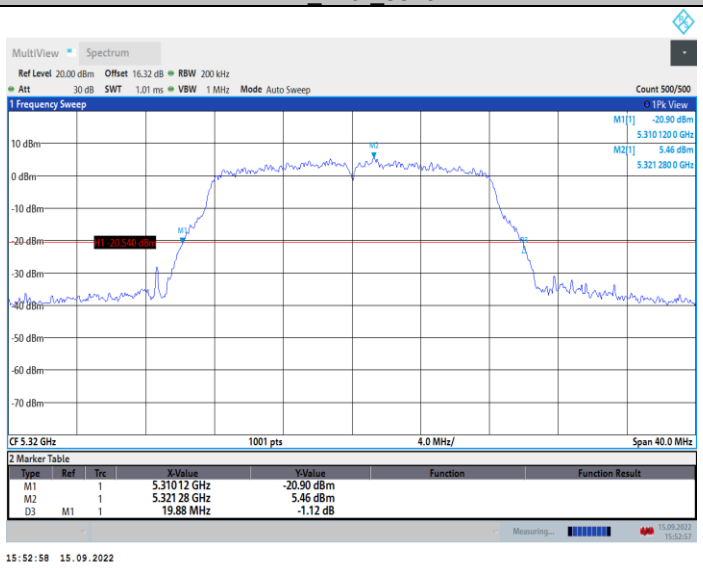

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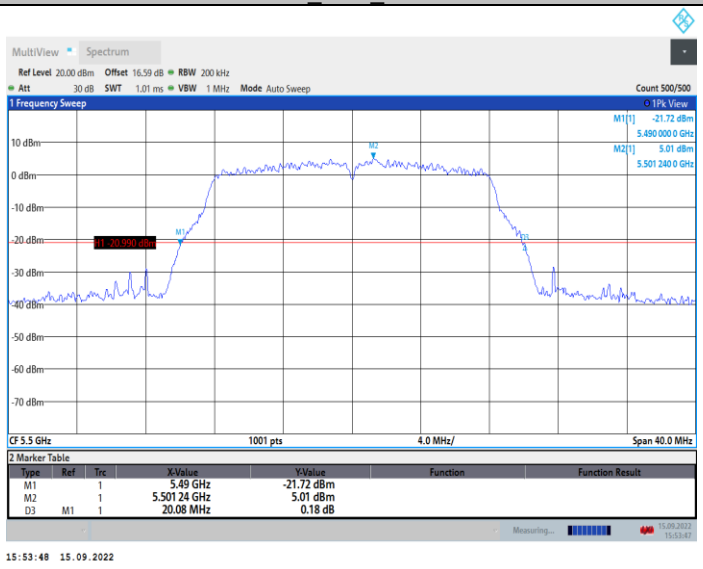

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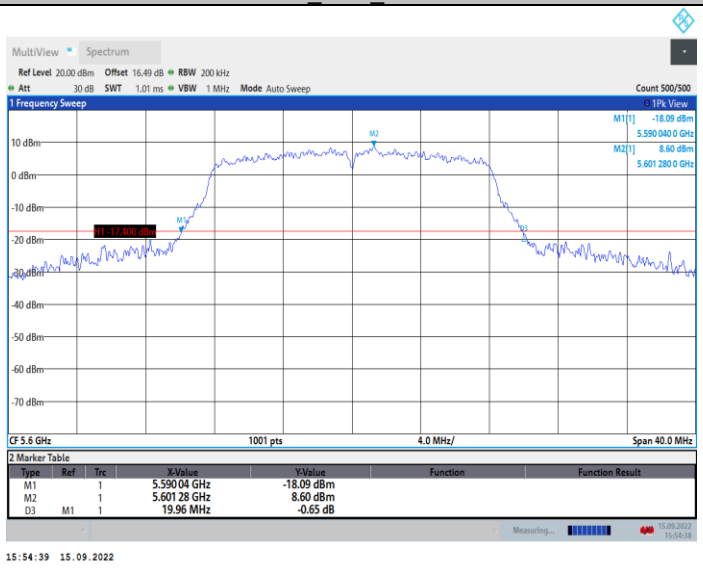

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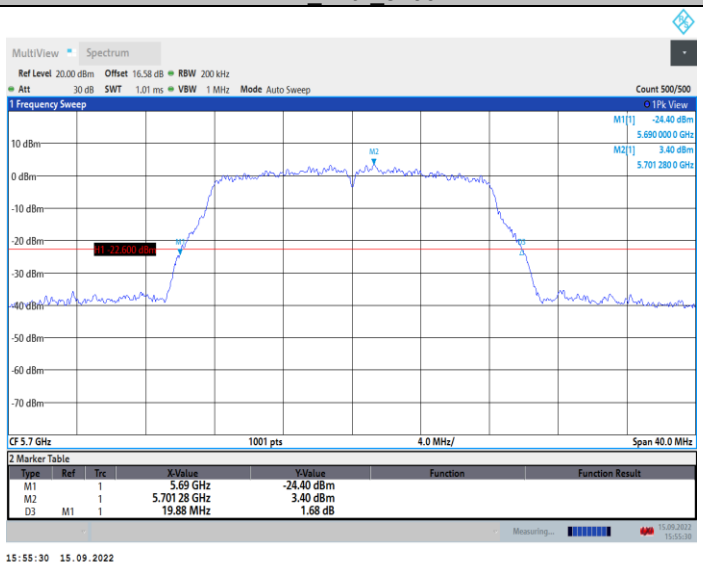

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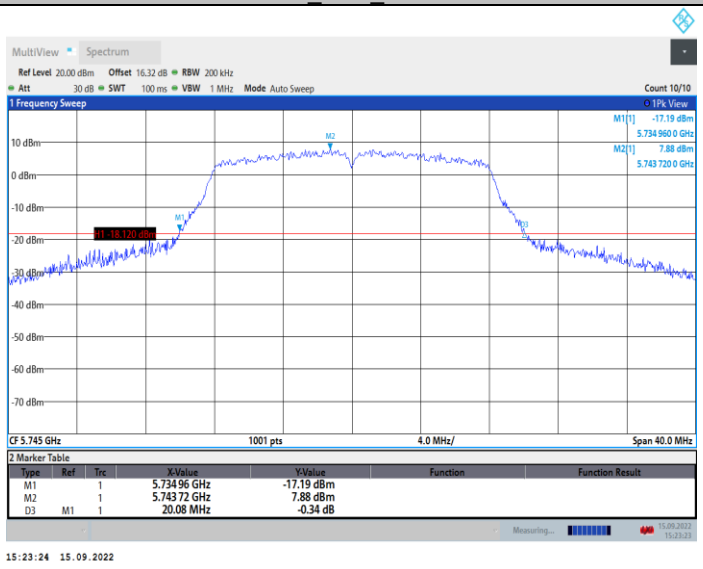

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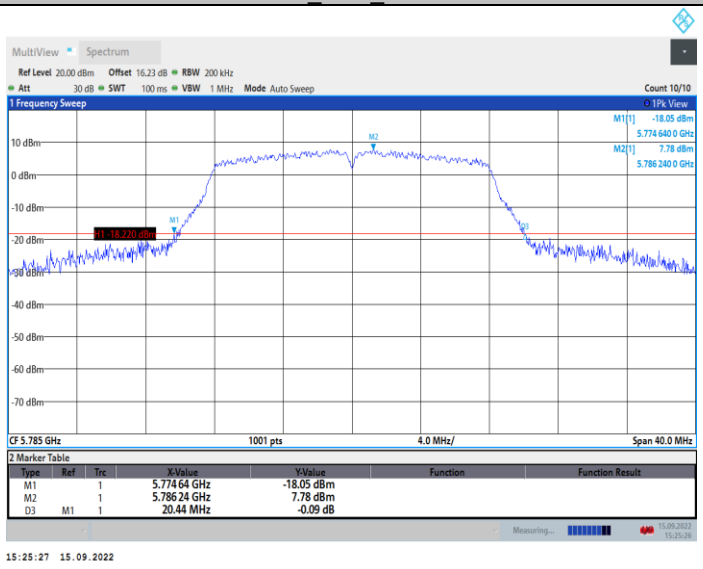

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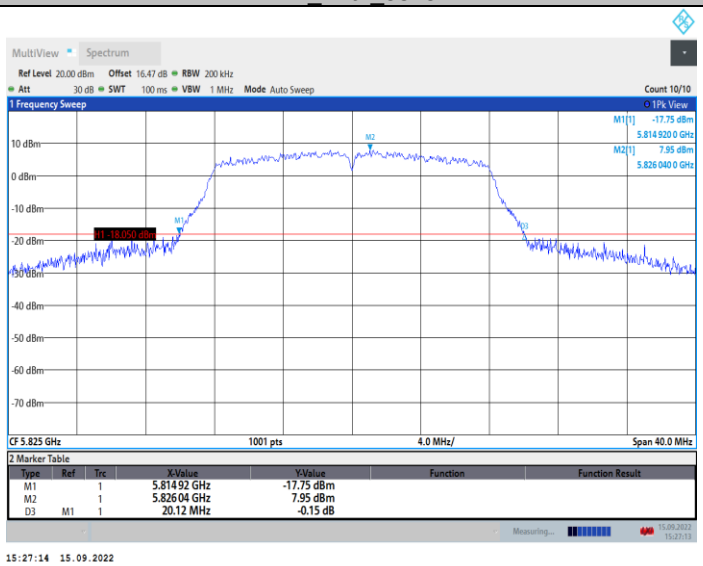

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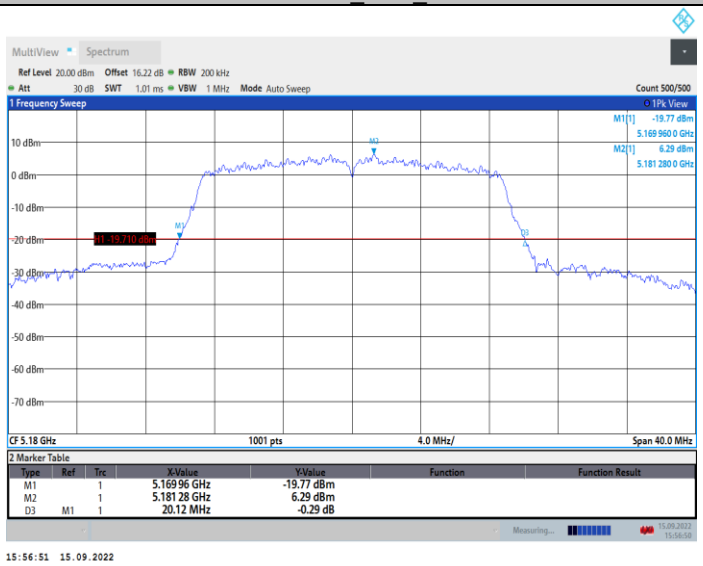

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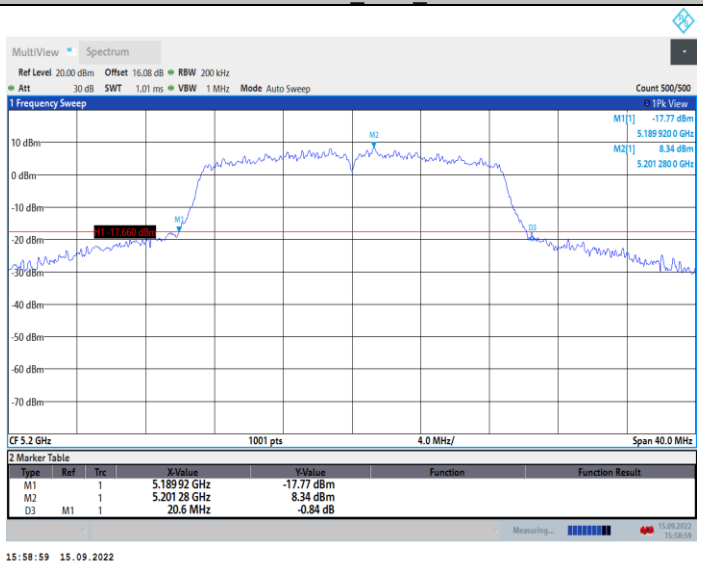

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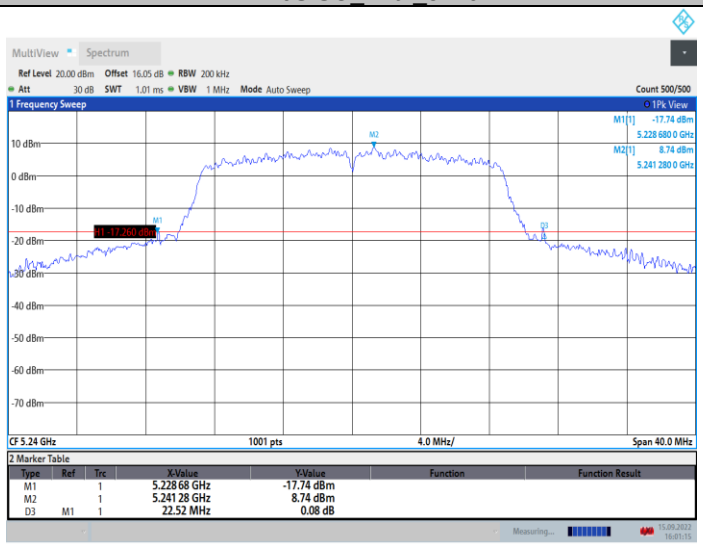

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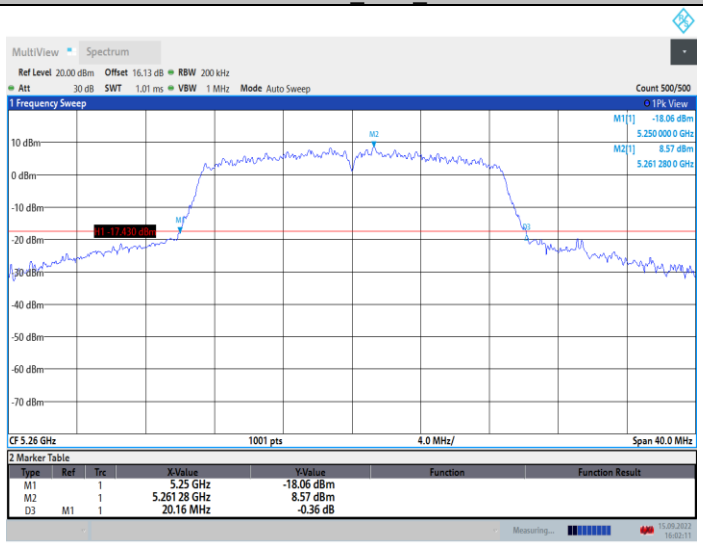

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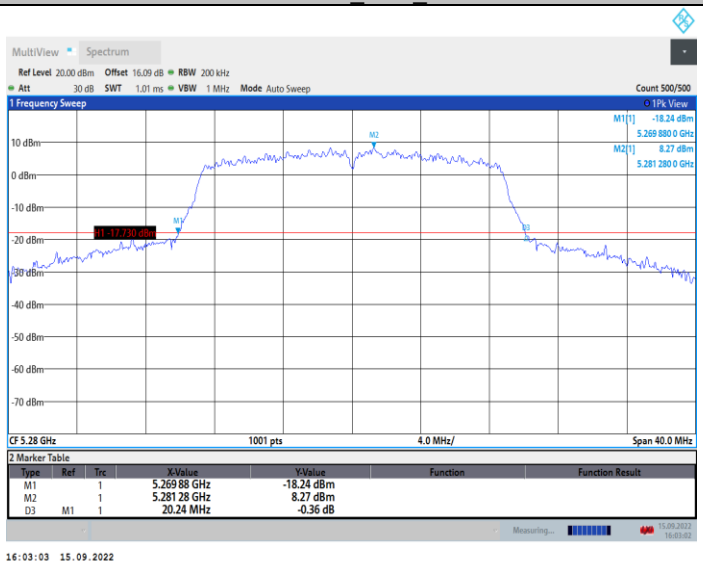

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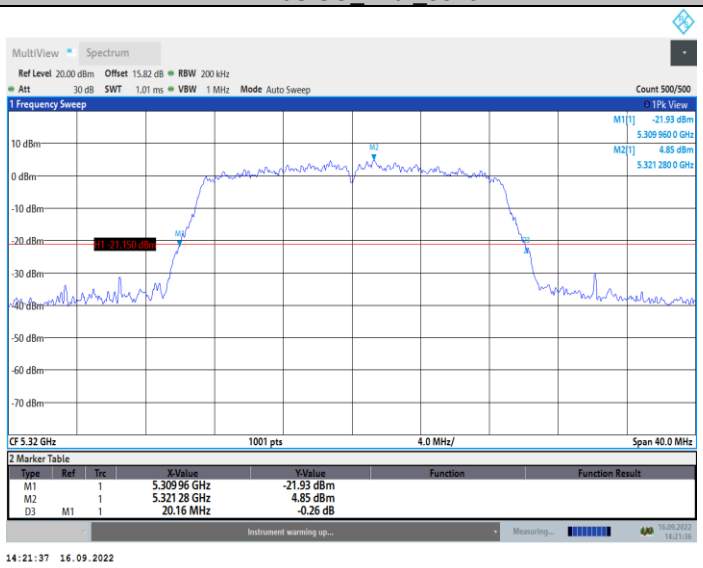

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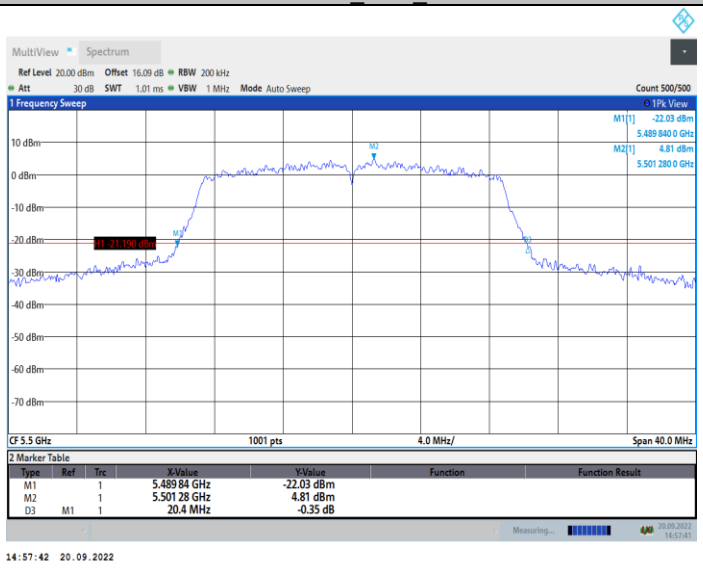

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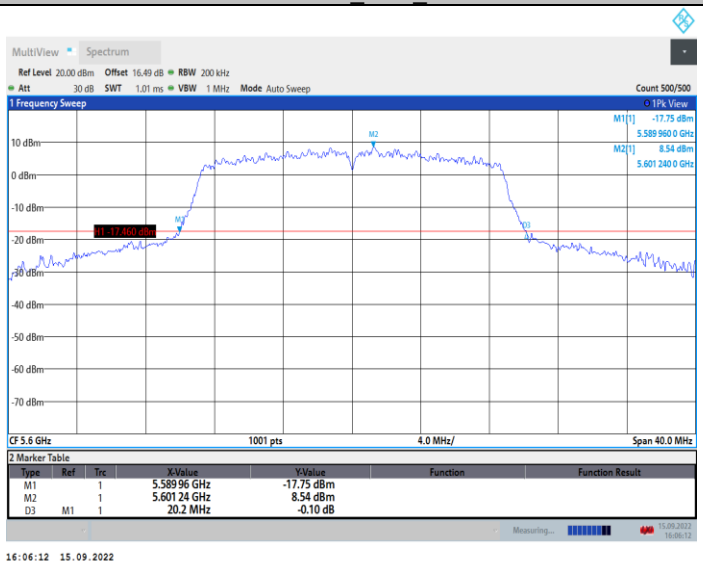

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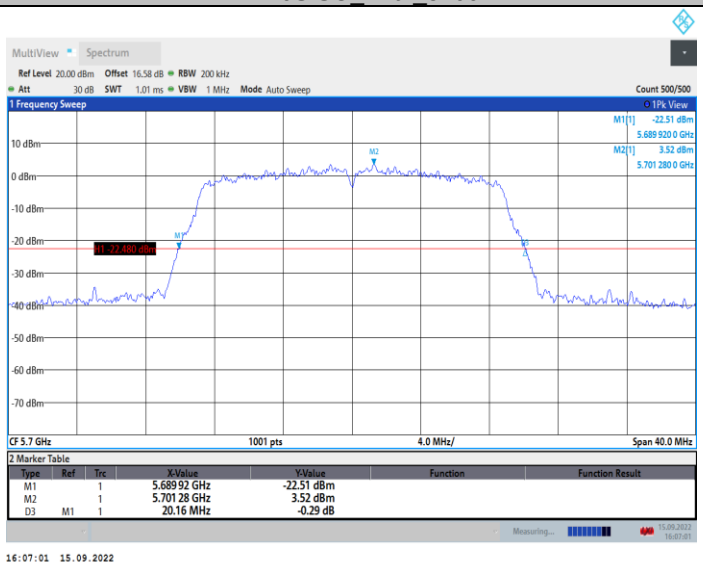

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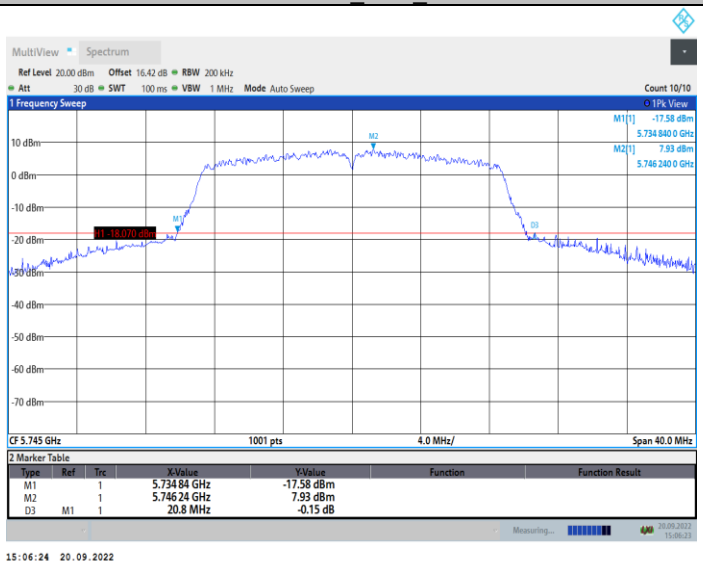

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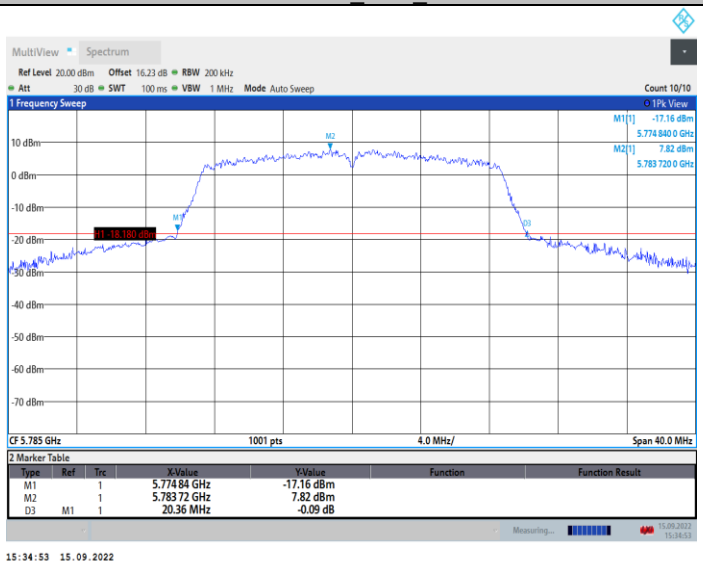

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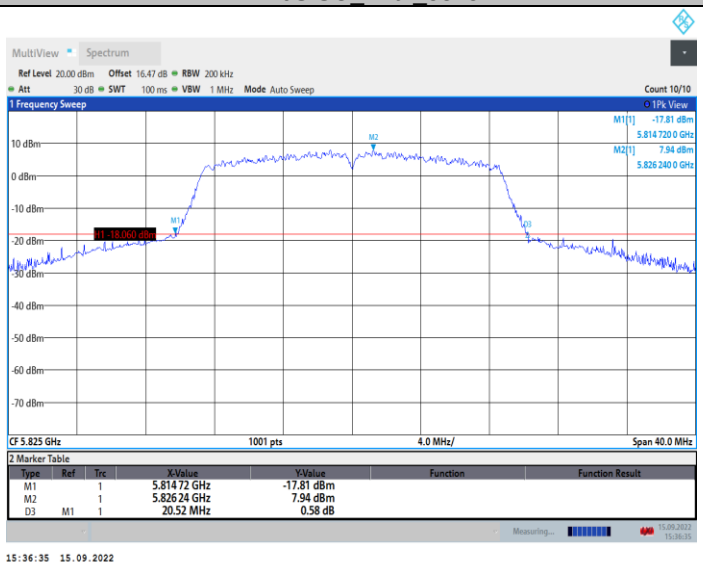

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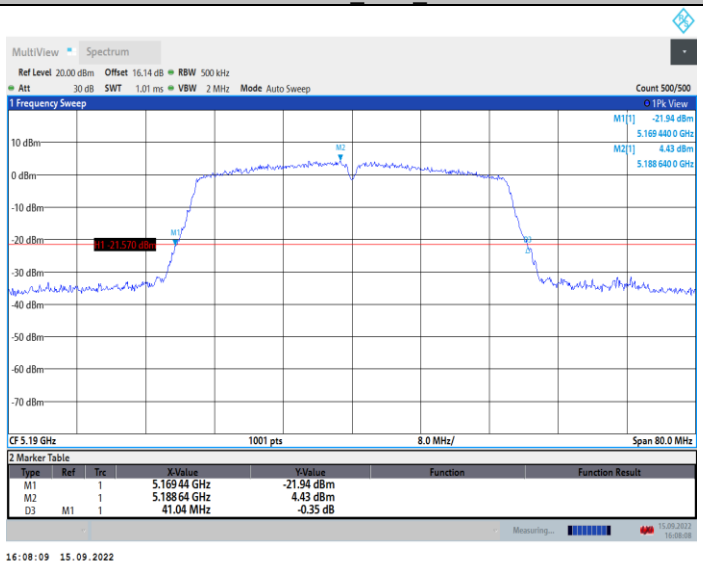

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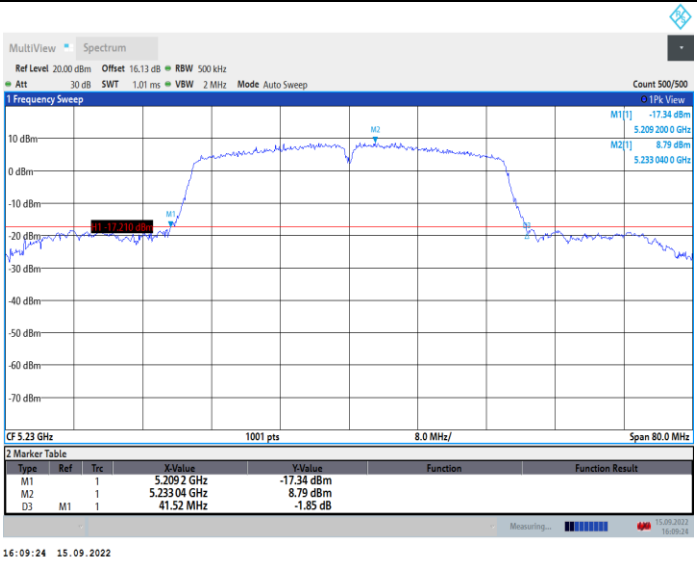

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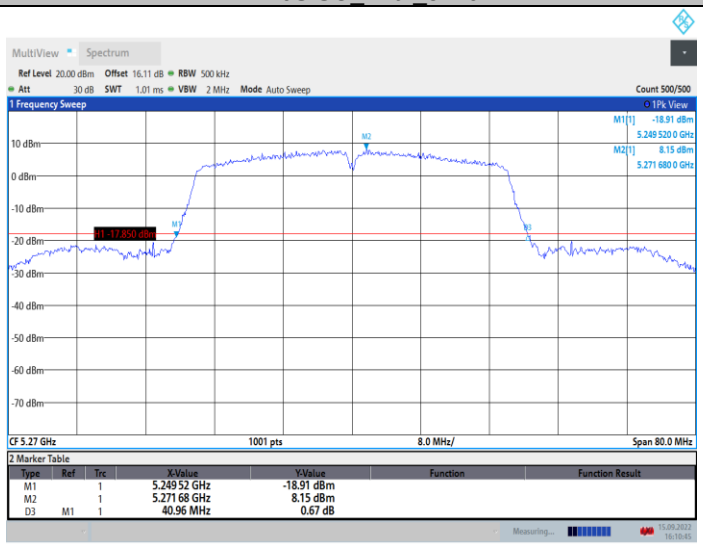

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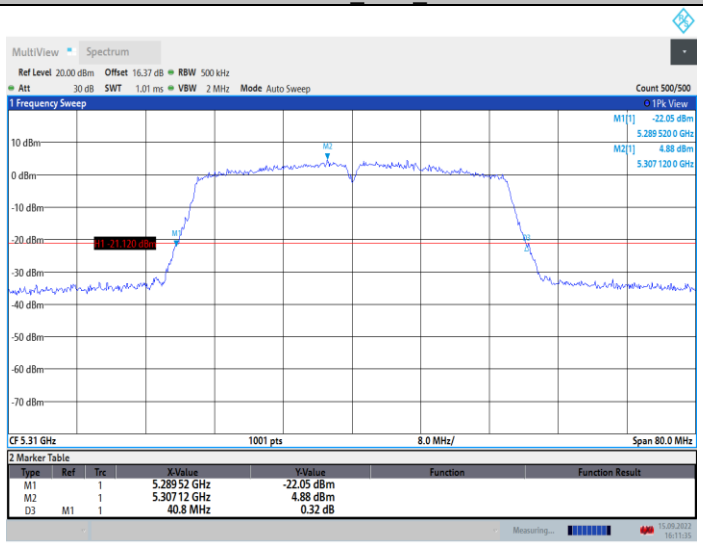

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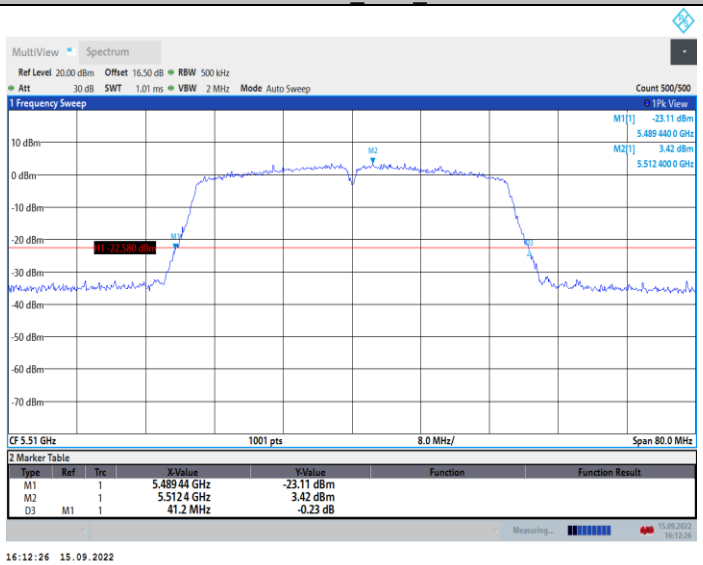

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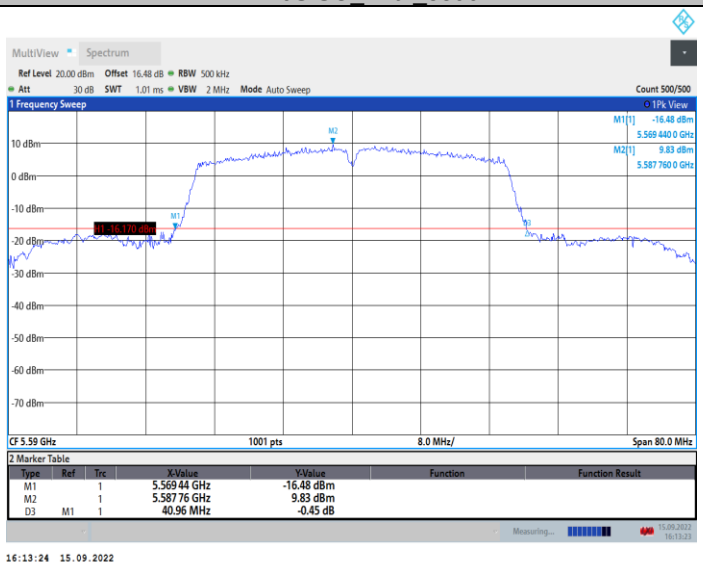

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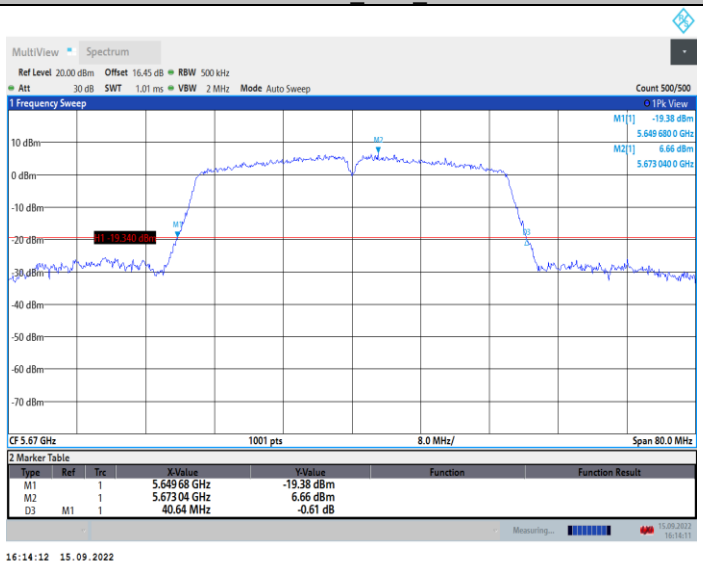

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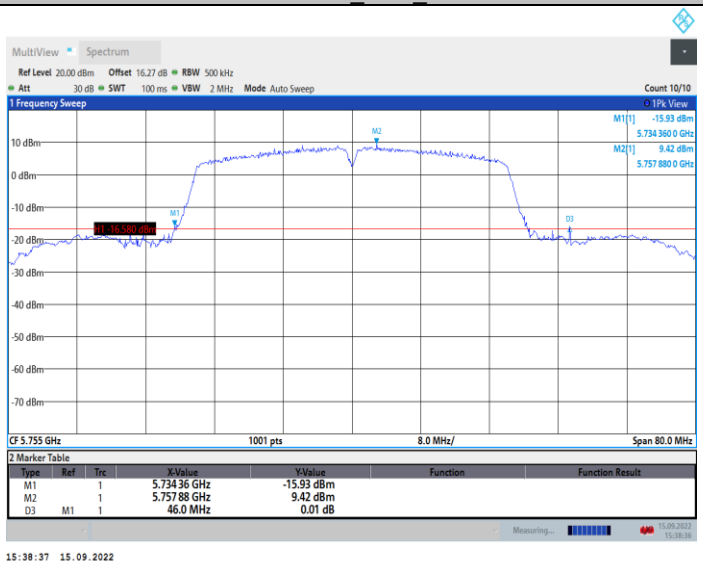

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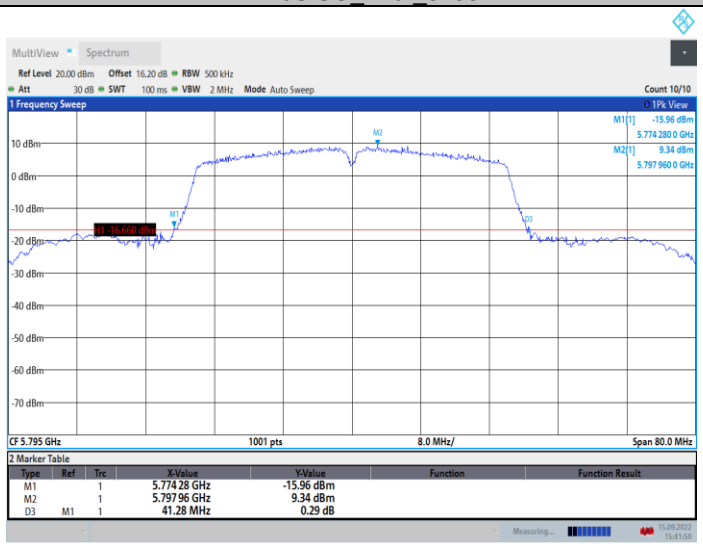

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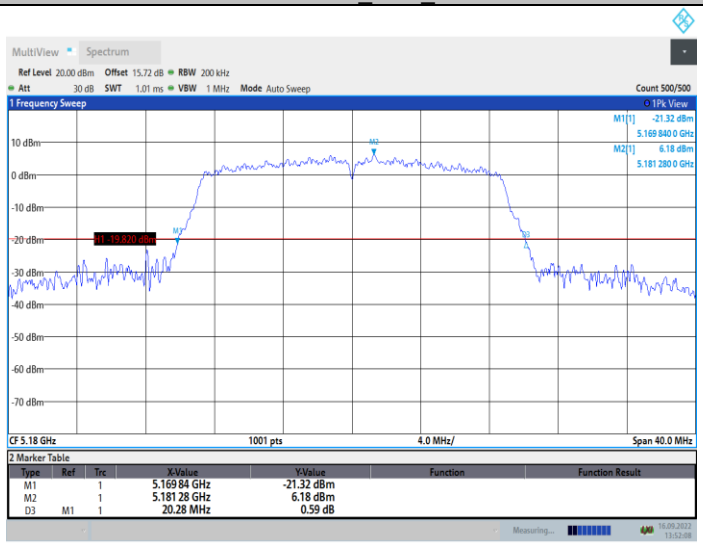

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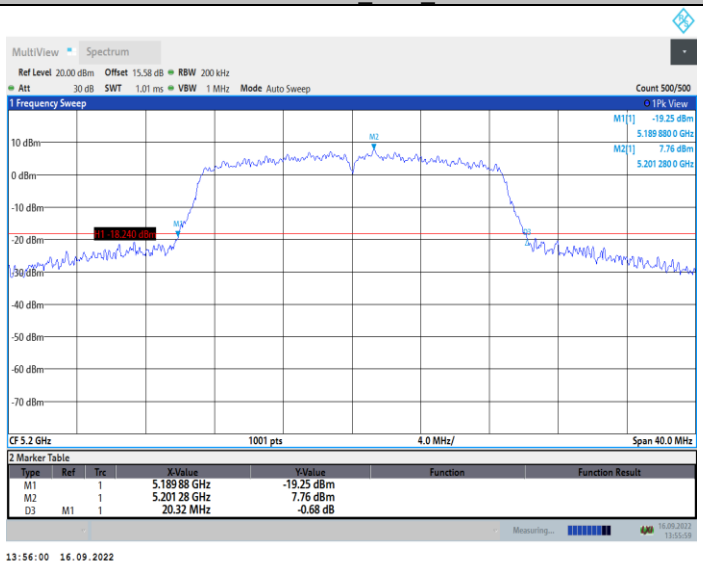

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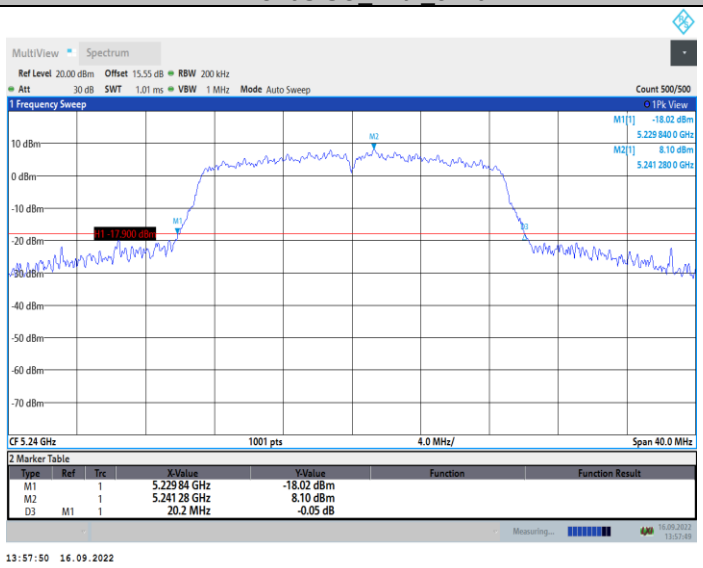

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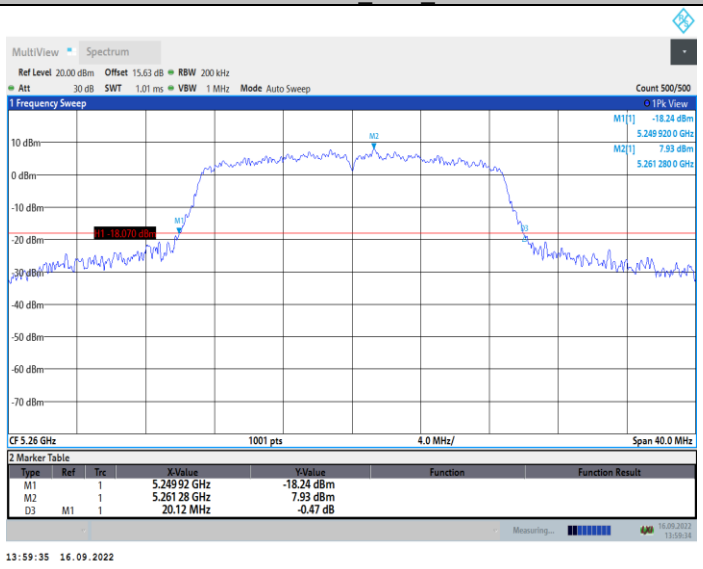

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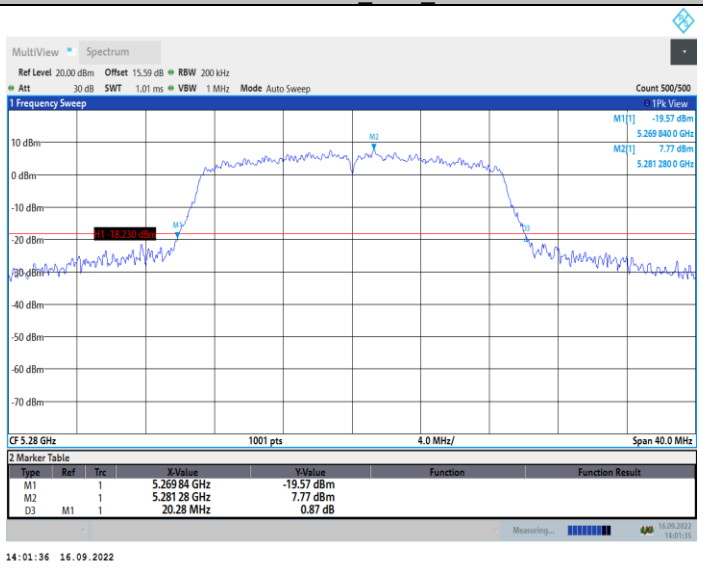

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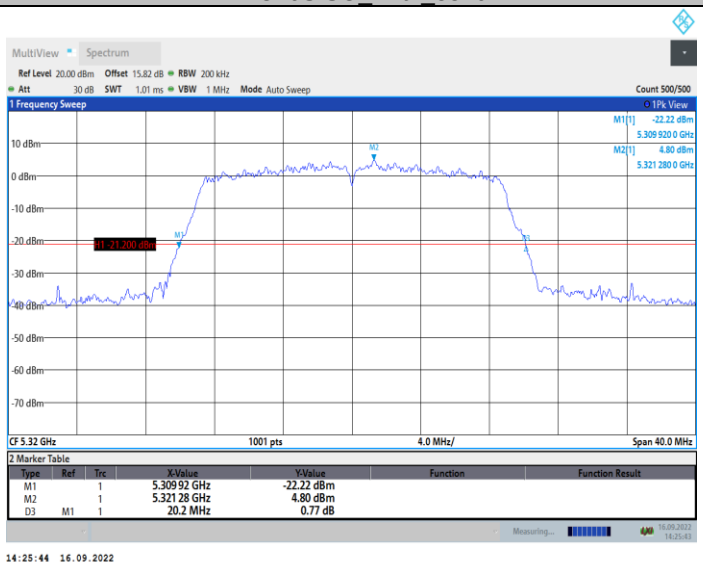

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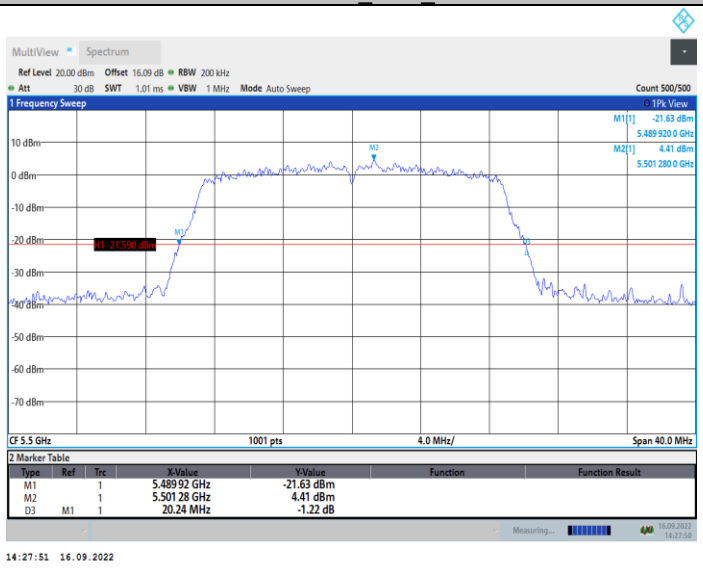

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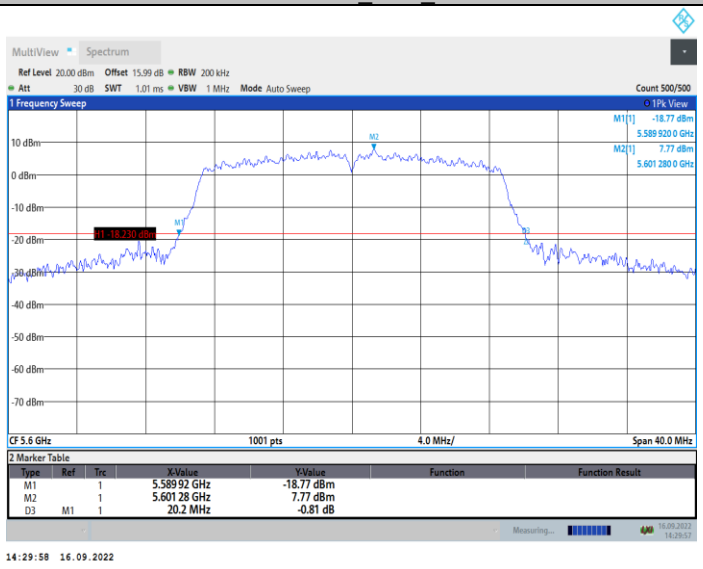

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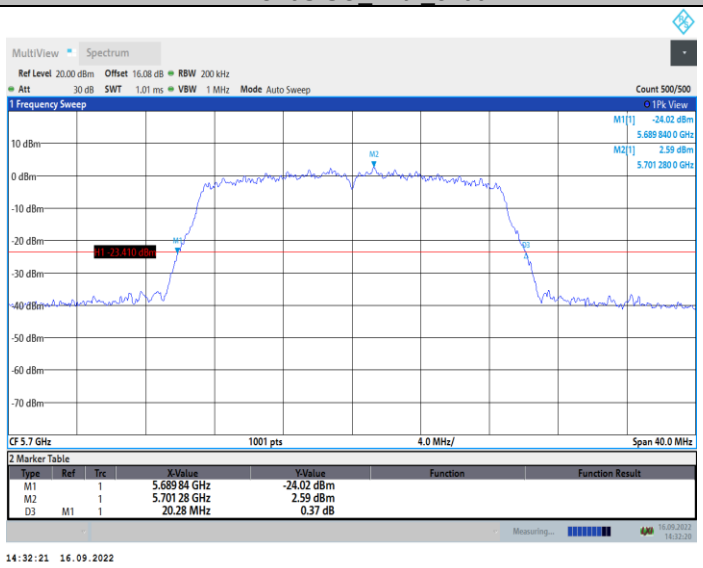

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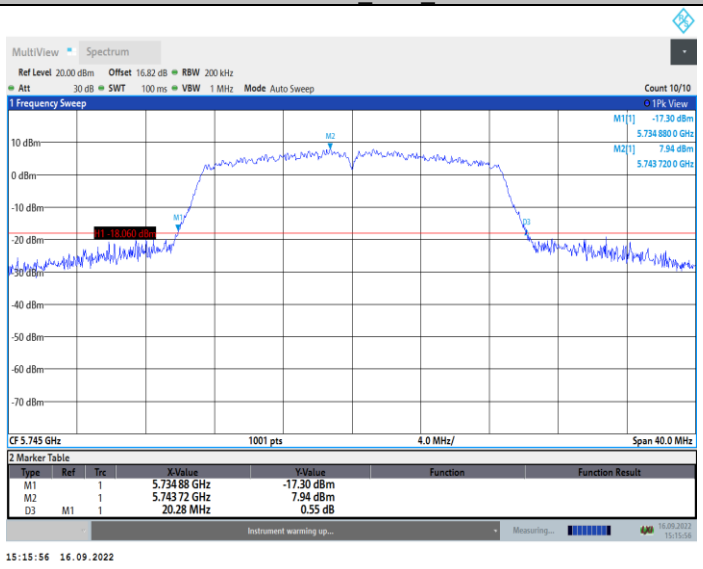

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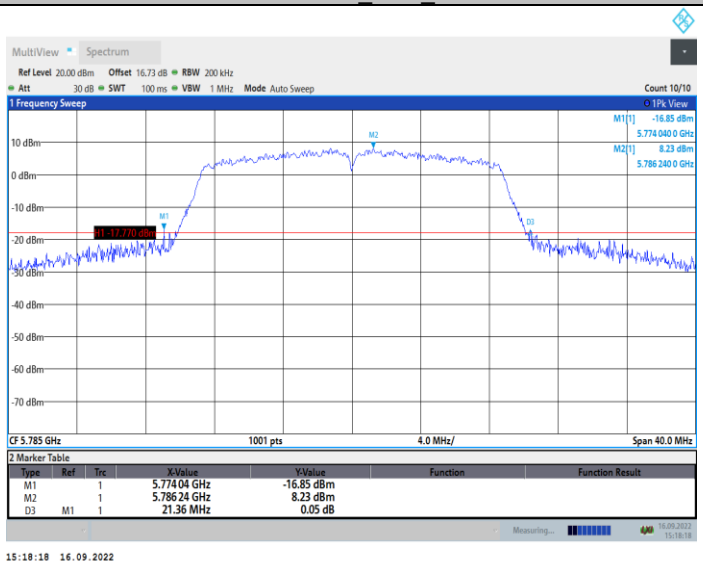

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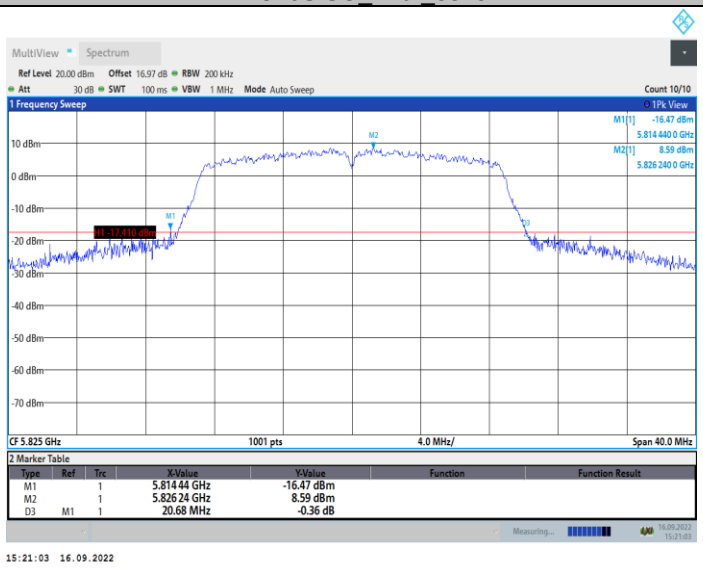

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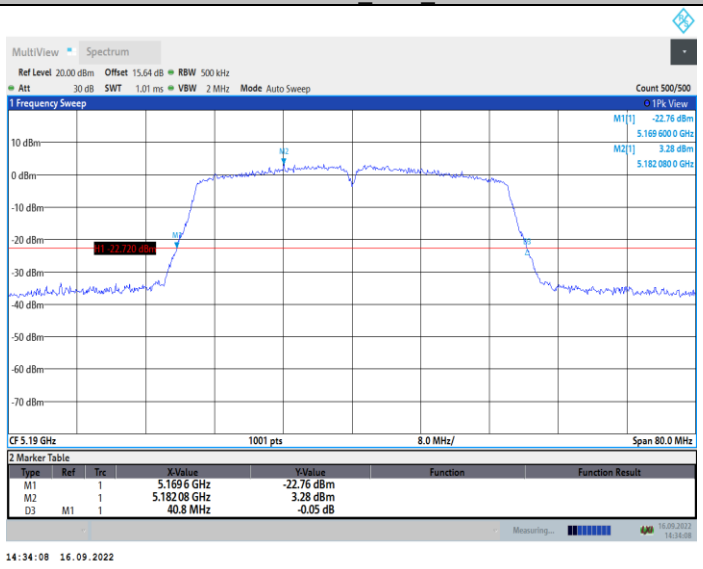

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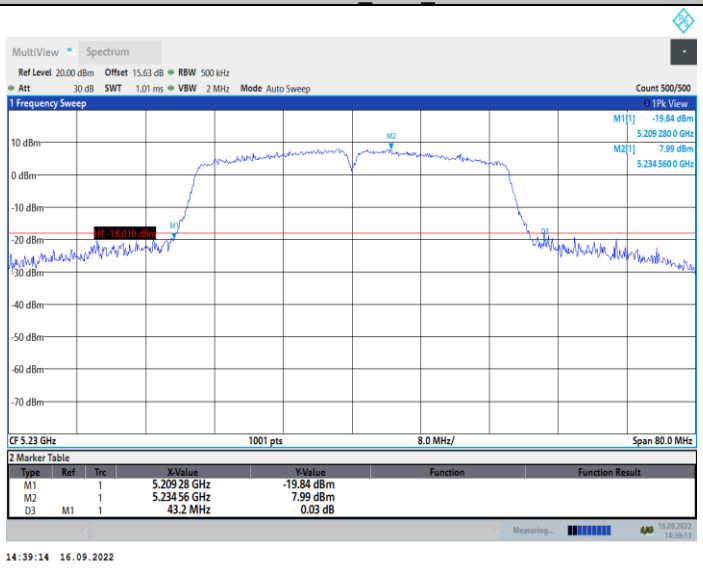

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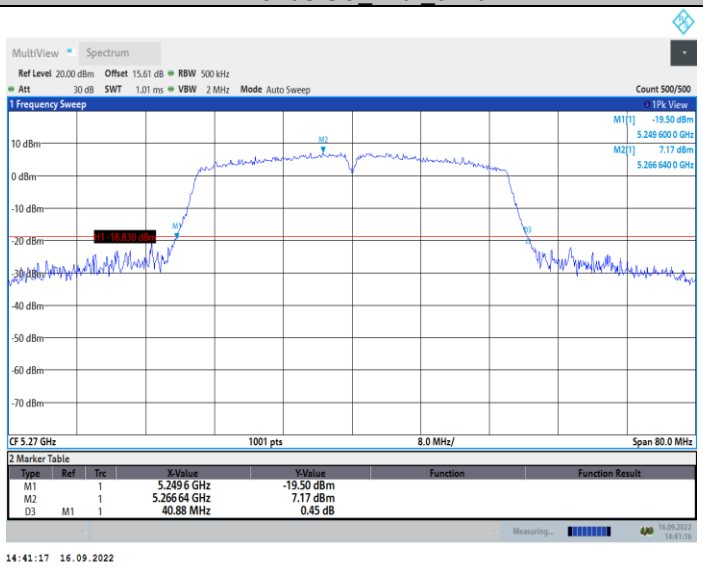

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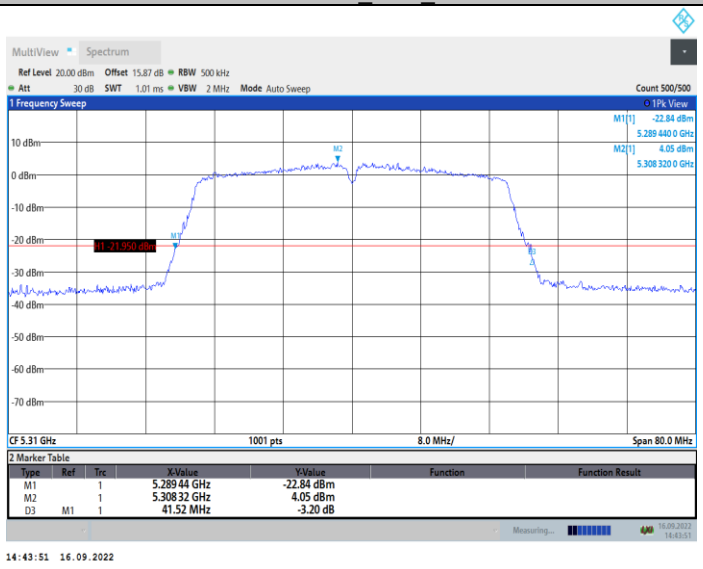

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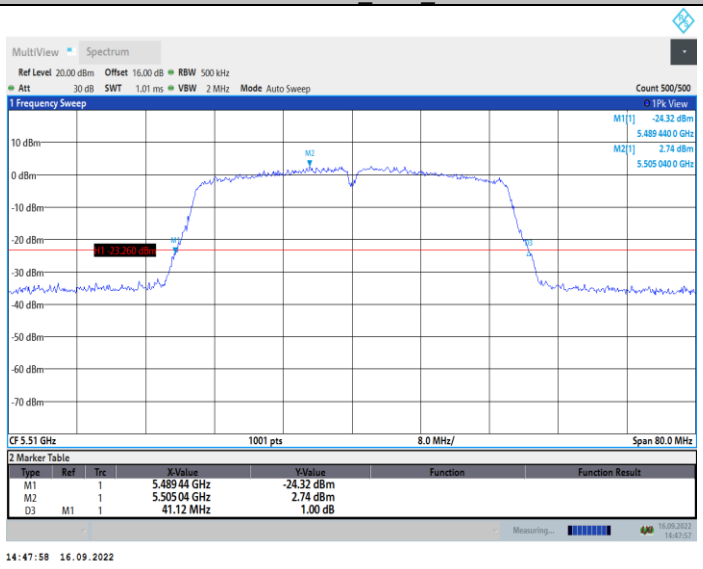

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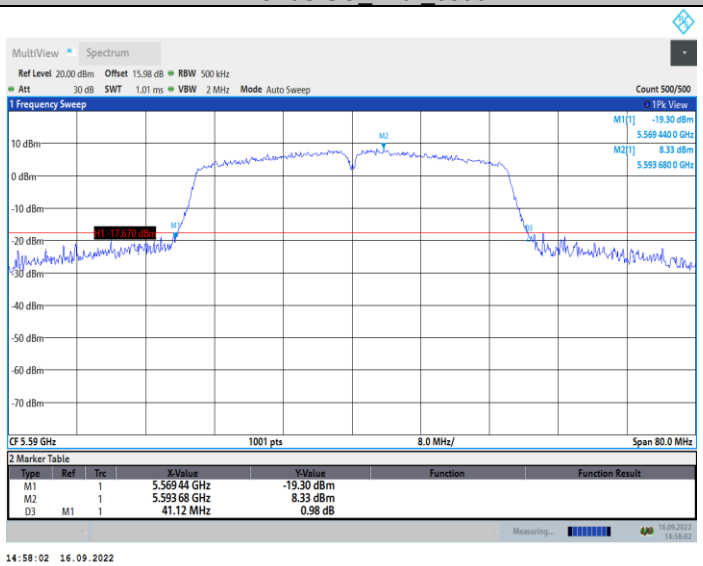

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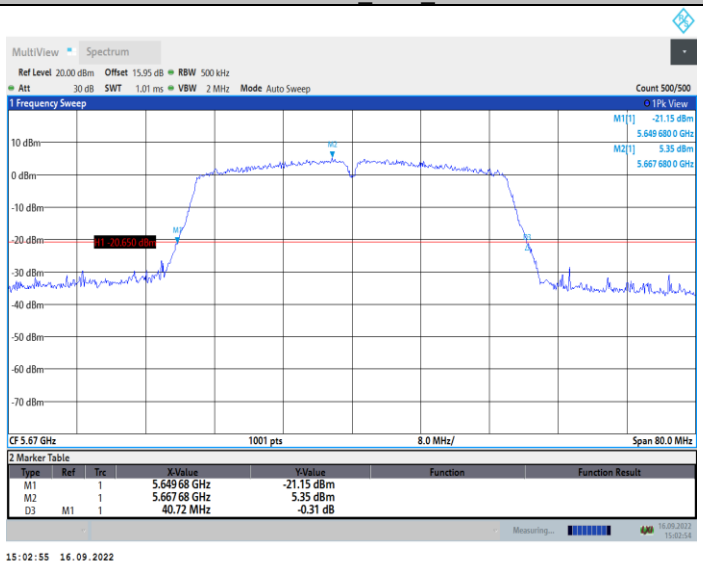

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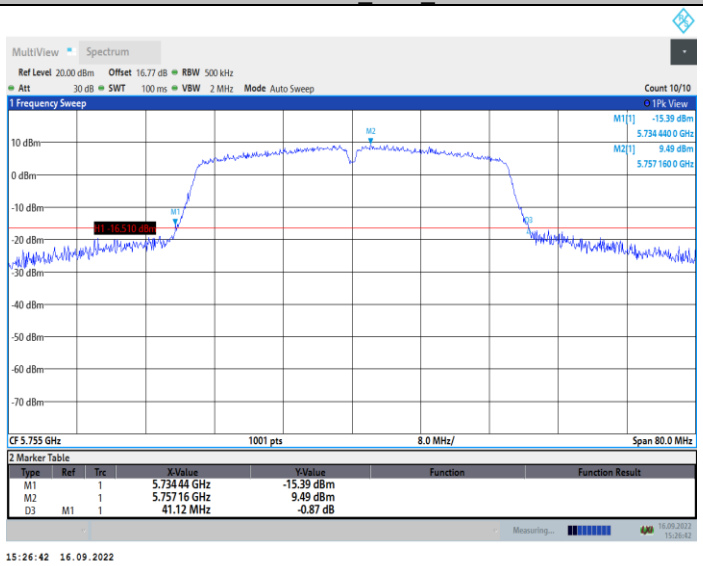

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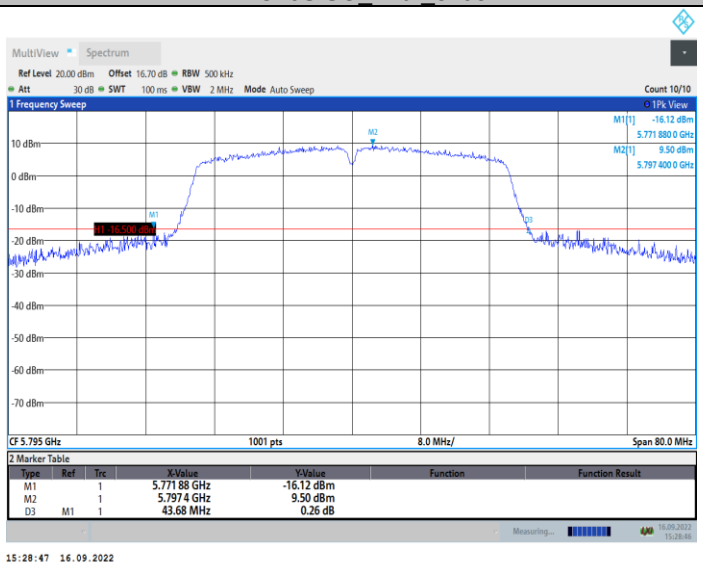

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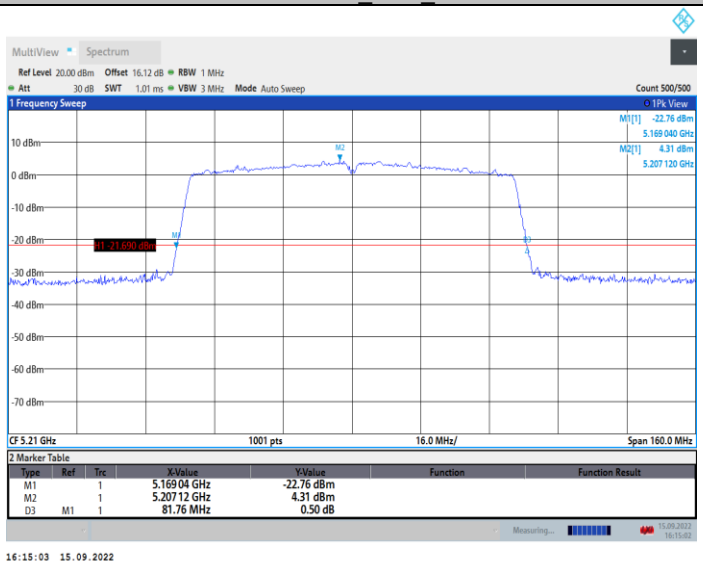
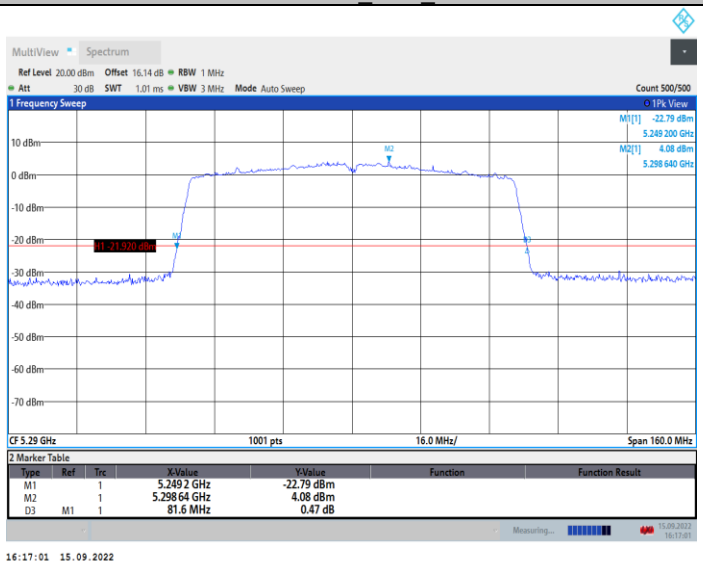
11AC80SISO_Ant1_5290