FCC PART 15
TEST REPORT
No.23T04Z80206-05

for

OnePlus Technology (Shenzhen) Co., Ltd.

Mobile Phone

CPH2611

2ABZ2-AA560

With

Hardware Version: 11

Software Version: OxygenOS V14.0

Issued Date: 2023-11-27

Note:

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

Test Laboratory:

CTTL-Telecommunication Technology Labs, CAICT

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

Tel:+86(0)10-62304633-2512, Fax:+86(0)10-62304633-2504

Email: cttl_terminals@caict.ac.cn, website: www.caict.ac.cn

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
23T04Z80206-05	Rev.0	1st edition	2023-11-10
23T04Z80206-05	Rev.1	Add the Antenna Gain for BF and Update the statements about antenna gain. Add the polts for Output power and Peak Power Spectral Density.	2023-11-27

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

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1. Test Laboratory

1.1. Introduction & Accreditation

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

1.2. Testing Location

Conducted testing Location: CTTL(Huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing, P. R. China100191

Radiated testing Location: CTTL(huayuan North Road)

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

1.3. Testing Environment

Normal Temperature: 15-35°C

Relative Humidity: 20-75%

1.4. Project date

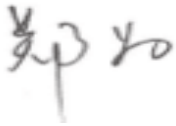
Testing Start Date: 2023-09-26

Testing End Date: 2023-11-10

1.1. Signature

Yao Xingyu

(Prepared this test report)



Zheng Wei

(Reviewed this test report)

Pang Shuai

(Approved this test report)

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2. Client Information

2.1. Applicant Information

Company Name:	OnePlus Technology (Shenzhen) Co., Ltd.
Address:	18C02, 18C03, 18C04, and 18C05, Shum Yip Terra Building, Binhe Avenue North, Futian District, Shenzhen, Guangdong, P.R. China.
City:	Shenzhen
Postal Code:	/
Country:	China
Telephone:	(86)75561882366
Fax:	/

2.2. Manufacturer Information

Company Name:	OnePlus Technology (Shenzhen) Co., Ltd.
Address:	18C02, 18C03, 18C04, and 18C05, Shum Yip Terra Building, Binhe Avenue North, Futian District, Shenzhen, Guangdong, P.R. China.
City:	Shenzhen
Postal Code:	/
Country:	China
Telephone:	(86)75561882366
Fax:	/

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

3.1. About EUT

Description	Mobile Phone
Model name	CPH2611
FCC ID	2ABZ2-AA560
WLAN Frequency Band	ISM Bands: -5150MHz~5250MHz -5250MHz~5350MHz -5470MHz~5725MHz
Type of modulation	OFDM
Antenna	Integral Antenna
Nominal Voltage	7.82V
Extreme High Voltage	9V
Extreme Low Voltage	6.6V

3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version	Date of receipt
UT04a	869135060023755/ 869135060023748	11	OxygenOS V14.0	2023-09-26
UT11a	869135060027210/ 869135060027202	11	OxygenOS V14.0	2023-10-07

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

UT04a is used for Conduction test, UT11a is used for Radiation test.

3.3. Internal Identification of AE used during the test

AE ID*	Description
AE1	Battery
AE2	Charger
AE3	USB Cable

AE1

Model	BLPA33
Manufacturer	Sunwoda Electronic Co., Ltd.
Capacity	2680mAh
Nominal Voltage	/

AE2

Model	VCBAHBUH
Manufacturer	Shenzhen Huntkey Electric Co.,Ltd
Length of cable	/

AE3

Model	DL129
Manufacturer	Changzhou Duwei Electronics Co., Ltd.
Length of cable	/

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

3.4. General Description

The Equipment under Test (EUT) is a model of Mobile Phone with integrated antenna and inbuilt battery.

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

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

Samples undergoing test were selected by the client.

3.5. Interpretation of the Test Environment

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

Measurement Uncertainty

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

4. Reference Documents

4.1. Documents supplied by applicant

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

4.2. Reference Documents for testing

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

FCC Part15	Title 47 of the Code of Federal Regulations; Chapter I Part 15 - Radio frequency devices	2021
ANSI C63.10	Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	2013
UNII: KDB 789033 D02	General U-NII Test Procedures New Rules v02r01	2017-12
KDB 662911 D01	Emissions Testing of Transmitters with Multiple Outputs in the Same Band(e.g., MIMO, Smart Antenna, etc)	2013-10

5. Laboratory Environment

Conducted RF performance testing is performed in shielding room.

EMC performance testing is performed in Semi-anechoic chamber.

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6. Test Results

6.1. Summary of Test Results

SUMMARY OF MEASUREMENT RESULTS	Sub-clause of Part15E	Sub-clause of IC	Verdict
Maximum Output Power	15.407	/	**P**
Peak Power Spectral Density	15.407	/	**P**
Occupied 26dB Bandwidth	15.403	/	**P**
Band edge compliance (Radiated)	15.407	/	**P**
Transmitter spurious emissions (Radiated)	15.407	/	**P**
AC Powerline Conducted Emission (150kHz- 30MHz)	15.407	/	**P**
99% Occupied bandwidth	/	/	**P**
Transmit Power Control	15.407	/	**NA**

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

Terms used in Verdict column

P	Pass, The EUT complies with the essential requirements in the standard.
NM	Not measured, The test was not measured by CTTL
NA	Not Applicable, The test was not applicable
F	Fail, The EUT does not comply with the essential requirements in the standard

6.2. For conducted result :

1. EUT support 802.11a/n/ac/ax/be modes on U-NII-1/-2A/-2C, and can't transmit simultaneously in U-NII-1/-2A/-2C.
2. As WLAN SISO(1x1) & MIMO(2x2) mode have the same power setting, the whole testing has assessed only MIMO mode.
3. 802.11ax support full RU and single RU modes.
4. 802.11be support full RU, single RU, small MRU, large MRU and puncturing modes.
5. For 802.11a/n/ac/ax full RU/be full RU, the whole testing (PSD/26dB bandwidth /99% bandwidth) has reported only 802.11a/n-HT20/40/be-EHT80/ax-HE160MHz by referring to the higher output power.
6. For 802.11ax single RU and 802.11be singlel RU modes, the PSD has reported only 802.11ax- EHT20-single RU by referring to the higher output power.
7. For 802.11be-EHT20/40MHz small MRU mode, the PSD has reported only 802.11be-EHT20 by referring to the higher output power.
   a. For low channel : 52 Tone,index38 + 26Tone,index1 and 106 Tone,index53 + 26Tone,index4;
   b. For high channel : 52 Tone,index39 + 26Tone,index7 and 106 Tone,index54 + 26Tone,index4.
8. For 802.11be-EHT80/160MHz large MRU and Puncturing modes are tested for conducted power/PSD.

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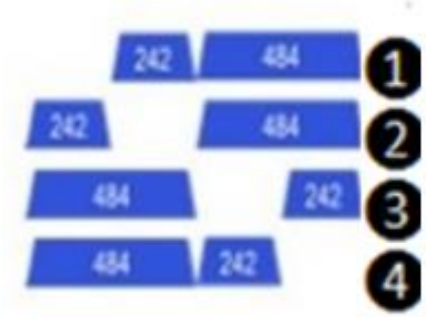
Bandwidth	Pattern	index
80MHz		484+242-tone Index 1 484+242-tone Index 2 484+242-tone Index 3 484+242-tone Index 4
160MHz		996+484+242-tone Index 1 996+484+242-tone Index 2 996+484+242-tone Index 3 996+484+242-tone Index 4 996+484+242-tone Index 5 996+484+242-tone Index 6 996+484+242-tone Index 7 996+484+242-tone Index 8
160MHz		996+484-tone Index1 996+484-tone Index 2 996+484-tone Index 3 996+484-tone Index 4

6.3. Antenna Gain

Mode	Band	Ant9(dBi)	Ant15(dBi)	Power(dBi)	PSD(dBi)
CDD	UNII-1	-2.0	-2.5	-2.0	0.76
	UNII-2A	-1.0	-2.5	-1.0	1.29
	UNII-2C	-1.0	-1.5	-1.0	1.76
BF	UNII-1	-2.0	-2.5	0.76	0.76
	UNII-2A	-1.0	-2.5	1.29	1.29
	UNII-2C	-1.0	-1.5	1.76	1.76

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1. For BF transmissions, power and PSD directional gain is calculated as:

   Directional gain = 10 log [$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{Gn/20})^2$ /NANT] dBi, as following table for PSD. NANT = number of transmit antennas NSS = number of spatial streams. (When NSS=1 or 2, both powersettings are the same,The worst case directional gain will occur when NSS = 1)

2. For CDD transmissions, directional gain is calculated as:

   a. For power, the directional gain GANT is set equal to the antenna having the highest gain, i.e.,Directional gain = GANT MAX (Ant.1 Gain, Ant.2 Gain, …) + Array Gain, where Array Gain = 0 dB (i.e., no array gain) for NANT ≤ 4.

   b. For PSD, the directional gain calculation is following:

   Directional gain = 10 log [$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{Gn/20})^2$ /NANT] dBi. NANT = number of transmit antennas NSS = number of spatial streams. (When NSS=1 or 2, both powersettings are the same,The worst case directional gain will occur when NSS = 1).

3. 802.11a support CDD mode ;

4. 802.11n support CDD and STBC mode, as they use the same power setting, only eirp results of CDD have been reported.

5. 802.11ac/ax/be support CDD, BF and STBC mode, as they use the same power setting, only eirp results of BF have been reported.

6. The device what use a permanently attached antenna were considered sufficient to comply withthe provisions of 15.203.

6.4. Statements

CTTL has evaluated the test cases requested by the client/manufacturer as listed in section 6.1 of this report for the EUT specified in section 3 according to the standards or reference documents listed in section 4.1.

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

6.5. Test Conditions

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

Temperature	26°C
Voltage	7.82V
Humidity	44%

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7. Test Facilities Utilized

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Vector Signal Analyzer	FSW67	104051	Rohde & Schwarz	1 year	2024-03-06
2	LISN	ENV216	101200	R&S	1 year	2024-06-05
3	Test Receiver	ESCI	100344	R&S	1 year	2024-02-28
4	Attenuator	10dB/2W	/	Rosenberger	/	/
5	Shielding Room	S81	/	ETS-Lindgren	/	/

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Test Receiver	ESW44	103023	R&S	1 year	2024-07-08
2	EMI Antenna	VULB 9163	01223	SCHWARZBECK	1 year	2024-08-18
3	EMI Antenna	3115	6914	ETS-Lindgren	1 year	2024-04-25
4	EMI Antenna	3116	2661	ETS-Lindgren	1 year	2024-01-30

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8. Measurement Uncertainty

8.1 Transmitter Output Power

Measurement Uncertainty: 0.387dB,k=1.96

8.2 Peak Power Spectral Density

Measurement Uncertainty: 0.705dB,k=1.96

8.3 26dB Emission Bandwidth

Measurement Uncertainty: 60.80Hz,k=1.96

8.4 Band Edges Compliance

Measurement Uncertainty : 0.62dB,k=1.96

8.5 Spurious Emissions

Conducted (k=1.96)

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

Radiated (k=2)

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

8.6 AC Power-line Conducted Emission

Measurement Uncertainty : 3.08dB,k=2

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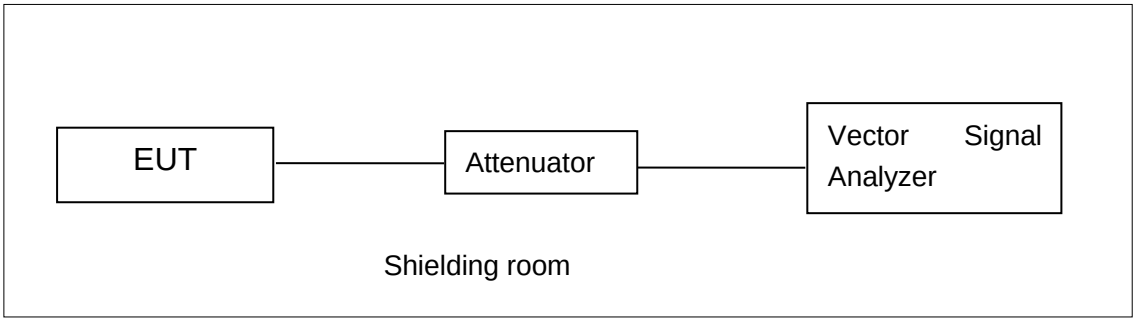
ANNEX A: Detailed Test Results

A.1. Measurement Method

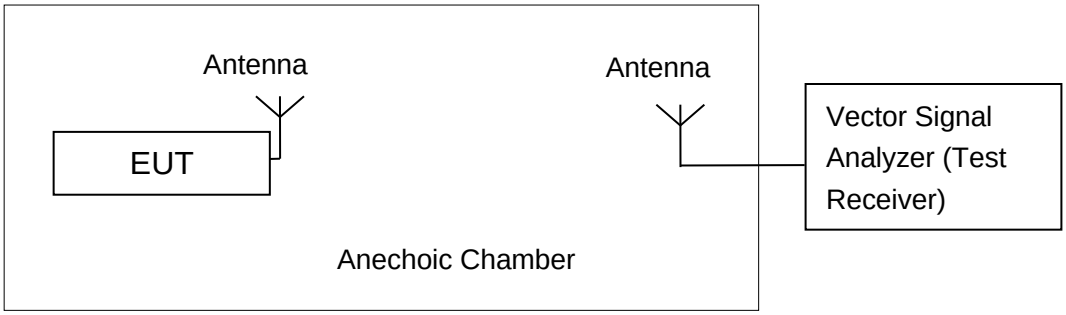
A.1.1. Conducted Measurements

1). Connect the EUT to the test system correctly.
2). Set the EUT to the required work mode.
3). Set the EUT to the required channel.
4). Set the spectrum analyzer to start measurement.
5). Record the values. Vector Signal Analyzer



A.1.2. Radiated Emission Measurements

In the case of radiated emission, the used settings are as follows,
Sweep frequency from 30 MHz to 1GHz, RBW = 100 kHz, VBW = 300 kHz;
Sweep frequency from 1 GHz to 26GHz, RBW = 1MHz, VBW = 3MHz;



The measurement is made according to KDB 789033
The radiated emission test is performed in semi-anechoic chamber. The distance from the EUT to the reference point of measurement antenna is 3m. The test is carried out on both vertical and horizontal polarization and only maximization result of both polarizations is kept. During the test, the turntable is rotated 360° and the measurement antenna is moved from 1m to 4m to get the maximization result.

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A.2. Maximum output Power

Measurement Limit and Method:

Standard	Frequency (MHz)	Limit (dBm)
FCC CRF Part 15.407(a)	5150MHz~5250MHz	24dBm
	5250MHz~5350MHz	24dBm or 11+10logB
	5470MHz~5725MHz	24dBm or 11+10logB

Limit use the less value, and B is the 26dB bandwidth.

The measurementmethod SA-2 is made according to KDB 789033

A.2.1 Maximum output Power-Conducted

EUT ID: UT04a

Measurement Results:

802.11a mode

Mode	Channel	Test Result (dBm)		
		Data Rate (Mbps)		
		6		
		Ant9	Ant15	Sum
802.11a	5180MHz (Ch36)	16.20	16.27	19.25
	5200MHz (Ch40)	16.35	16.54	19.46
	5240MHz(Ch48)	16.74	16.11	19.45
	5260MHz(Ch52)	16.58	16.57	19.59
	5280MHz(Ch56)	16.63	16.85	19.75
	5320MHz(Ch64)	16.57	17.08	19.84
	5500MHz(Ch100)	16.53	16.80	19.68
	5580MHz(Ch116)	16.01	16.07	19.05
	5700MHz(Ch140)	16.72	17.02	19.88

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

802.11n-HT20 mode

Mode	Channel	Test Result (dBm)		
		Data Rate (Mbps)		
		MCS0		
		Ant9	Ant15	Sum
802.11n20	5180MHz (Ch36)	16.19	16.46	19.34
	5200MHz (Ch40)	16.47	16.71	19.60
	5240MHz(Ch48)	16.82	16.29	19.57
	5260MHz(Ch52)	16.67	16.78	19.74

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	5280MHz(Ch56)	16.75	17.02	19.90
	5320MHz(Ch64)	16.60	17.22	19.93
	5500MHz(Ch100)	16.54	16.96	19.77
	5580MHz(Ch116)	16.00	16.18	19.10
	5700MHz(Ch140)	16.80	17.15	19.99

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

802.11ac-VHT20 mode

Mode	**Channel**	**Test Result (dBm)**		
		Data Rate (Mbps)		
		MCS0		
		Ant9	Ant15	Sum
802.11ac20	5180MHz (Ch36)	16.19	16.43	19.32
	5200MHz (Ch40)	16.47	16.71	19.60
	5240MHz(Ch48)	16.81	16.27	19.56
	5260MHz(Ch52)	16.72	16.76	19.75
	5280MHz(Ch56)	16.74	17.01	19.89
	5320MHz(Ch64)	16.64	17.23	19.96
	5500MHz(Ch100)	16.55	16.94	19.76
	5580MHz(Ch116)	16.02	16.19	19.12
	5700MHz(Ch140)	16.80	17.14	19.98

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

802.11ax-HE20 mode

Mode	**Channel**	**Test Result (dBm)**		
		Data Rate (Mbps)		
		MCS0		
		Ant9	Ant15	Sum
802.11ax20	5180MHz (Ch36)	16.19	16.39	19.30
	5200MHz (Ch40)	16.38	16.65	19.53
	5240MHz(Ch48)	16.74	16.20	19.49
	5260MHz(Ch52)	16.64	16.71	19.69
	5280MHz(Ch56)	16.68	16.95	19.83
	5320MHz(Ch64)	16.62	17.15	19.90
	5500MHz(Ch100)	16.57	16.87	19.73
	5580MHz(Ch116)	16.00	16.10	19.06
	5700MHz(Ch140)	16.75	17.09	19.93

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

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802.11be-EHT20 mode

Mode	Channel	Test Result (dBm)		
		Data Rate (Mbps)		
		MCS0		
		Ant9	Ant15	Sum
802.11be20	5180MHz (Ch36)	16.58	16.85	19.73
	5200MHz (Ch40)	16.64	16.96	19.81
	5240MHz(Ch48)	16.82	16.62	19.73
	5260MHz(Ch52)	16.97	16.89	19.94
	5280MHz(Ch56)	16.92	16.97	19.96
	5320MHz(Ch64)	16.85	16.96	19.92
	5500MHz(Ch100)	16.61	16.64	19.64
	5580MHz(Ch116)	16.18	16.51	19.36
	5700MHz(Ch140)	16.49	16.76	19.64

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

802.11n-HT40 mode

Mode	Channel	Test Result (dBm)		
		Data Rate		
		MCS0		
		Ant9	Ant15	Sum
802.11n40	5190MHz (Ch38)	16.56	16.79	19.69
	5230MHz(Ch46)	16.72	16.31	19.53
	5270MHz(Ch54)	16.96	16.98	19.98
	5310MHz(Ch62)	15.75	15.94	18.86
	5510MHz(Ch102)	15.48	15.92	18.72
	5550MHz(Ch110)	16.19	16.73	19.48
	5670MHz(Ch134)	16.39	16.96	19.69

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

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802.11ac-VHT40 mode

Mode	Channel	Test Result (dBm)		
		Data Rate		
		MCS0		
		Ant9	Ant15	Sum
802.11ac40	5190MHz (Ch38)	16.53	16.78	19.67
	5230MHz(Ch46)	16.67	16.27	19.48
	5270MHz(Ch54)	16.88	16.97	19.94
	5310MHz(Ch62)	15.72	15.95	18.85
	5510MHz(Ch102)	15.47	15.96	18.73
	5550MHz(Ch110)	16.18	16.70	19.46
	5670MHz(Ch134)	16.38	16.92	19.67

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

802.11ax-HE40 mode

Mode	Channel	Test Result (dBm)		
		Data Rate		
		MCS0		
		Ant9	Ant15	Sum
802.11ax40	5190MHz (Ch38)	16.16	16.29	19.24
	5230MHz(Ch46)	16.37	16.01	19.20
	5270MHz(Ch54)	16.51	16.45	19.49
	5310MHz(Ch62)	15.34	15.47	18.42
	5510MHz(Ch102)	15.16	15.50	18.34
	5550MHz(Ch110)	16.04	16.22	19.14
	5670MHz(Ch134)	16.14	16.53	19.35

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

802.11be-EHT40 mode

Mode	Channel	Test Result (dBm)		
		Data Rate		
		MCS0		
		Ant9	Ant15	Sum
802.11be40	5190MHz (Ch38)	16.29	16.49	19.40
	5230MHz(Ch46)	16.36	16.17	19.28
	5270MHz(Ch54)	16.47	16.43	19.46
	5310MHz(Ch62)	15.31	15.26	18.30

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	5510MHz(Ch102)	15.12	15.22	18.18
	5550MHz(Ch110)	16.00	16.15	19.09
	5670MHz(Ch134)	16.24	16.21	19.24

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

802.11ac-VHT80 mode

Mode	Channel	Test Result (dBm)		
		Data Rate		
		MCS0		
		Ant9	Ant15	Sum
802.11ac80	5210MHz(Ch42)	15.21	15.13	18.18
	5290MHz(Ch58)	15.56	15.80	18.69
	5530MHz(Ch106)	16.13	16.78	19.48
	5610MHz(Ch122)	16.13	16.12	19.14

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

802.11ax-HE80 mode

Mode	Channel	Test Result (dBm)		
		Data Rate		
		MCS0		
		Ant9	Ant15	Sum
802.11ax80	5210MHz(Ch42)	15.45	15.26	18.37
	5290MHz(Ch58)	15.74	15.96	18.86
	5530MHz(Ch106)	16.39	16.94	19.68
	5610MHz(Ch122)	16.39	16.29	19.35

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

802.11be-EHT80 mode

Mode	Channel	Test Result (dBm)		
		Data Rate		
		MCS0		
		Ant9	Ant15	Sum
802.11be80	5210MHz(Ch42)	15.67	15.89	18.79
	5290MHz(Ch58)	15.79	15.92	18.87
	5530MHz(Ch106)	16.19	16.76	19.49

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	5610MHz(Ch122)	16.81	16.92	19.88

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

802.11ac-VHT160 mode

Mode	Channel	Test Result (dBm)		
		Data Rate		
		MCS0		
		Ant9	Ant15	Sum
802.11ac160	5250MHz(Ch50)	15.76	15.91	18.85
	5570MHz(Ch114)	13.49	14.09	16.81

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

802.11ax-HE160 mode

Mode	Channel	Test Result (dBm)		
		Data Rate		
		MCS0		
		Ant9	Ant15	Sum
802.11ax160	5250MHz(Ch50)	15.65	15.73	18.70
	5570MHz(Ch114)	13.37	13.98	16.70

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

802.11be-EHT160 mode

Mode	Channel	Test Result (dBm)		
		Data Rate		
		MCS0		
		Ant9	Ant15	Sum
802.11be160	5250MHz(Ch50)	15.36	15.10	18.24
	5570MHz(Ch114)	13.09	13.46	16.29

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

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RU Mode

802.11ax-20 RU MIMO mode

Mode	Channel	Test Result (dBm)		
		Ant9	Ant15	mimo
		MCS0	MCS0	MCS0
RU26-L	5180MHz (Ch36)	7.19	7.54	10.38
	5200MHz (Ch40)	7.53	7.82	10.69
	5240MHz(Ch48)	7.69	7.28	10.50
	5260MHz(Ch52)	7.95	7.74	10.86
	5280MHz(Ch56)	7.74	8.10	10.93
	5320MHz(Ch64)	7.79	8.09	10.95
RU26-R	5500MHz(Ch100)	7.64	7.81	10.74
	5580MHz(Ch116)	7.10	7.07	10.10
	5700MHz(Ch140)	7.78	8.30	11.06
Mode	Channel	Test Result (dBm)		
		Ant9	Ant15	mimo
		MCS0	MCS0	MCS0
RU52-L	5180MHz (Ch36)	10.30	10.82	13.58
	5200MHz (Ch40)	10.71	11.12	13.93
	5240MHz(Ch48)	10.88	10.99	13.95
	5260MHz(Ch52)	11.39	11.08	14.25
	5280MHz(Ch56)	11.28	11.53	14.42
	5320MHz(Ch64)	11.32	11.52	14.43
RU52-R	5500MHz(Ch100)	11.19	11.42	14.32
	5580MHz(Ch116)	10.69	10.36	13.54
	5700MHz(Ch140)	11.18	11.55	14.38
Mode	Channel	Test Result (dBm)		
		Ant9	Ant15	mimo
		MCS0	MCS0	MCS0
RU106-L	5180MHz (Ch36)	13.56	13.71	16.65
	5200MHz (Ch40)	13.96	14.09	17.04
	5240MHz(Ch48)	14.13	13.87	17.01
	5260MHz(Ch52)	14.25	13.95	17.11
	5280MHz(Ch56)	14.20	14.31	17.27
	5320MHz(Ch64)	14.15	14.43	17.30
RU106-R	5500MHz(Ch100)	14.03	14.15	17.10
	5580MHz(Ch116)	13.55	13.34	16.46
	5700MHz(Ch140)	14.28	14.84	17.58

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802.11be-20 RU MIMO mode

Mode	Channel	Test Result (dBm)		
		Ant9	Ant15	mimo
		MCS0	MCS0	MCS0
RU26-L	5180MHz (Ch36)	7.11	7.48	10.31
	5200MHz (Ch40)	7.57	7.98	10.79
	5240MHz(Ch48)	7.68	7.17	10.44
	5260MHz(Ch52)	7.94	7.85	10.91
	5280MHz(Ch56)	7.64	7.53	10.60
	5320MHz(Ch64)	7.78	7.63	10.72
RU26-R	5500MHz(Ch100)	7.54	7.59	10.58
	5580MHz(Ch116)	7.00	7.06	10.04
	5700MHz(Ch140)	7.92	8.18	11.06
Mode	Channel	Test Result (dBm)		
		Ant9	Ant15	mimo
		MCS0	MCS0	MCS0
RU52-L	5180MHz (Ch36)	10.43	10.73	13.59
	5200MHz (Ch40)	10.77	11.42	14.12
	5240MHz(Ch48)	10.98	10.52	13.77
	5260MHz(Ch52)	11.38	10.97	14.19
	5280MHz(Ch56)	11.36	11.00	14.19
	5320MHz(Ch64)	11.34	11.16	14.26
RU52-R	5500MHz(Ch100)	11.00	10.94	13.98
	5580MHz(Ch116)	10.54	10.06	13.32
	5700MHz(Ch140)	11.07	11.43	14.26
Mode	Channel	Test Result (dBm)		
		Ant9	Ant15	mimo
		MCS0	MCS0	MCS0
RU106-L	5180MHz (Ch36)	13.52	13.74	16.64
	5200MHz (Ch40)	14.01	14.23	17.13
	5240MHz(Ch48)	14.08	13.75	16.93
	5260MHz(Ch52)	14.25	13.91	17.09
	5280MHz(Ch56)	14.22	13.86	17.05
	5320MHz(Ch64)	14.16	13.89	17.04
RU106-R	5500MHz(Ch100)	13.98	13.83	16.92
	5580MHz(Ch116)	13.50	13.02	16.28
	5700MHz(Ch140)	14.25	14.63	17.45
Mode	Channel	Test Result (dBm)		
		Ant9	Ant15	mimo
		10.33	11.25	13.82
52 Tone,index38 +	5180MHz (Ch36)	10.74	11.69	14.25

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26Tone,index1	5200MHz (Ch40)	10.91	11.50	14.23
	5240MHz(Ch48)	11.24	11.51	14.39
	5260MHz(Ch52)	11.22	11.65	14.45
	5280MHz(Ch56)	11.31	11.69	14.51
	5320MHz(Ch64)	11.10	11.63	14.38
52 Tone,index39 + 26Tone,index7	5500MHz(Ch100)	10.49	10.57	13.54
	5580MHz(Ch116)	11.15	11.83	14.51
	5700MHz(Ch140)	10.33	11.25	13.82
Mode	Channel	Test Result (dBm)		
		Ant9	Ant15	mimo
		MCS0	MCS0	MCS0
106 Tone,index53 + 26Tone,index4	5180MHz (Ch36)	13.08	13.79	16.46
	5200MHz (Ch40)	13.43	14.12	16.80
	5240MHz(Ch48)	13.62	14.02	16.83
	5260MHz(Ch52)	13.89	13.92	16.92
	5280MHz(Ch56)	13.85	14.14	17.01
	5320MHz(Ch64)	13.51	14.06	16.80
106 Tone,index54 + 26Tone,index4	5500MHz(Ch100)	13.33	13.91	16.64
	5580MHz(Ch116)	13.31	13.59	16.46
	5700MHz(Ch140)	13.79	14.64	17.25

802.11be-80 RU MIMO mode

Mode	Channel	Tone	Test Result (dBm)			
			configure	Ant9	Ant15	mimo
				MCS0	MCS0	MCS0
802.11be-80	5210MHz(Ch42)	484+242 Tone	1	16.51	16.82	19.68
			2	16.31	16.73	19.54
			3	16.44	16.83	19.65
			4	16.29	16.69	19.50
	5290MHz(Ch58)	484+242 Tone	1	16.90	17.27	20.10
			2	16.77	17.15	19.97
			3	16.81	17.25	20.05
			4	16.72	17.25	20.00
	5530MHz(Ch106)	484+242 Tone	1	16.51	16.91	19.72
			2	16.49	16.94	19.73
			3	16.47	17.01	19.76
			4	16.53	17.00	19.78
	5610MHz(Ch122)	484+242 Tone	1	16.09	16.08	19.10
			2	16.00	16.09	19.06

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			3	16.02	16.06	19.05
			4	16.03	16.17	19.11

802.11be-160 RU MIMO mode

Mode	Channel	RU	configure	Ant9	Ant15	mimo
802.11be-160	5250MHz(Ch50)	996+484 Tone	1	17.07	16.92	20.01
			2	17.06	16.88	19.98
			3	17.09	16.94	20.03
			4	17.03	16.98	20.02
	5570MHz(Ch114)	996+484 Tone	1	16.28	16.93	19.63
			2	16.34	16.96	19.67
			3	16.40	16.98	19.71
			4	16.32	16.99	19.68
802.11be-160	5250MHz(Ch50)	996+484+242 Tone	1	16.34	16.32	19.34
			2	16.29	16.31	19.31
			3	16.33	16.12	19.24
			4	16.39	16.27	19.34
			5	16.46	16.34	19.41
			6	16.32	16.30	19.32
			7	16.34	16.31	19.34
			8	16.23	16.36	19.31
	5570MHz(Ch114)	996+484+242 Tone	1	16.12	16.72	19.44
			2	16.01	16.59	19.32
			3	16.14	16.74	19.46
			4	16.10	16.69	19.42
			5	16.28	16.82	19.57
			6	16.17	16.78	19.50
			7	16.15	16.76	19.48
			8	16.05	16.69	19.39

The duty cycle of all mode >90%.

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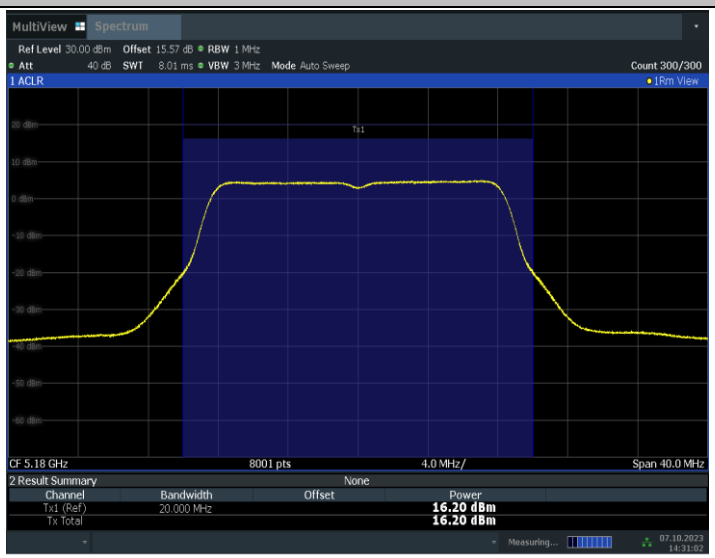
11A-MIMO_Ant9_5180
 14:31:02 07.10.2023
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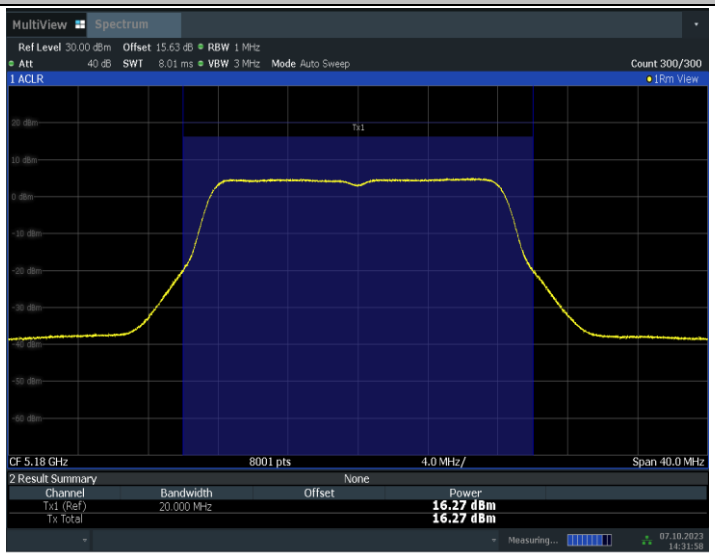 14:31:59 07.10.2023

11a CH36

Conclusion: PASS

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A.3. Peak Power Spectral Density (conducted)

Measurement Limit:

Standard	Frequency (MHz)	Limit (dBm/MHz)
FCC CRF Part 15.407(a)	5150MHz~5250MHz	11
	5250MHz~5350MHz	11
	5470MHz~5725MHz	11

The output power measurement method Section F is made according to KDB 789033

EUT ID: UT04a

Measurement Results:

Test Mode	Antenna	Frequency [MHz]	Result [dBm/MHz]	Limit [dBm/MHz]	Verdict
11A-MIMO	Ant9	5180	5.04	≤11.00	PASS
	Ant15	5180	5.62	≤11.00	PASS
	total	5180	8.35	≤11.00	PASS
	Ant9	5200	5.13	≤11.00	PASS
	Ant15	5200	5.25	≤11.00	PASS
	total	5200	8.20	≤11.00	PASS
	Ant9	5240	5.45	≤11.00	PASS
	Ant15	5240	4.79	≤11.00	PASS
	total	5240	8.14	≤11.00	PASS
	Ant9	5260	5.32	≤11.00	PASS
	Ant15	5260	5.39	≤11.00	PASS
	total	5260	8.37	≤11.00	PASS
	Ant9	5280	5.58	≤11.00	PASS
	Ant15	5280	5.64	≤11.00	PASS
	total	5280	8.62	≤11.00	PASS
	Ant9	5320	5.20	≤11.00	PASS
	Ant15	5320	5.92	≤11.00	PASS
	total	5320	8.59	≤11.00	PASS
	Ant9	5500	5.31	≤11.00	PASS
	Ant15	5500	5.55	≤11.00	PASS
	total	5500	8.44	≤11.00	PASS
	Ant9	5580	4.67	≤11.00	PASS
	Ant15	5580	4.94	≤11.00	PASS
	total	5580	7.82	≤11.00	PASS
	Ant9	5700	5.41	≤11.00	PASS
	Ant15	5700	5.83	≤11.00	PASS
	total	5700	8.64	≤11.00	PASS
11N20MIMO	Ant9	5180	4.68	≤11.00	PASS
	Ant15	5180	4.87	≤11.00	PASS
	total	5180	7.79	≤11.00	PASS

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	Ant9	5200	4.82	≤11.00	PASS
	Ant15	5200	5.08	≤11.00	PASS
	total	5200	7.96	≤11.00	PASS
	Ant9	5240	5.28	≤11.00	PASS
	Ant15	5240	4.63	≤11.00	PASS
	total	5240	7.98	≤11.00	PASS
	Ant9	5260	5.11	≤11.00	PASS
	Ant15	5260	5.52	≤11.00	PASS
	total	5260	8.33	≤11.00	PASS
	Ant9	5280	5.30	≤11.00	PASS
	Ant15	5280	5.44	≤11.00	PASS
	total	5280	8.38	≤11.00	PASS
	Ant9	5320	5.00	≤11.00	PASS
	Ant15	5320	5.74	≤11.00	PASS
	total	5320	8.40	≤11.00	PASS
	Ant9	5500	5.11	≤11.00	PASS
	Ant15	5500	5.41	≤11.00	PASS
	total	5500	8.27	≤11.00	PASS
	Ant9	5580	4.41	≤11.00	PASS
	Ant15	5580	4.57	≤11.00	PASS
	total	5580	7.50	≤11.00	PASS
	Ant9	5700	5.19	≤11.00	PASS
	Ant15	5700	5.52	≤11.00	PASS
	total	5700	8.37	≤11.00	PASS
11N40MIMO	Ant9	5190	2.15	≤11.00	PASS
	Ant15	5190	2.23	≤11.00	PASS
	total	5190	5.20	≤11.00	PASS
	Ant9	5230	2.28	≤11.00	PASS
	Ant15	5230	1.76	≤11.00	PASS
	total	5230	5.04	≤11.00	PASS
	Ant9	5270	2.20	≤11.00	PASS
	Ant15	5270	2.50	≤11.00	PASS
	total	5270	5.36	≤11.00	PASS
	Ant9	5310	0.99	≤11.00	PASS
	Ant15	5310	1.56	≤11.00	PASS
	total	5310	4.29	≤11.00	PASS
	Ant9	5510	0.98	≤11.00	PASS
	Ant15	5510	1.56	≤11.00	PASS
	total	5510	4.29	≤11.00	PASS
	Ant9	5550	1.70	≤11.00	PASS
	Ant15	5550	2.00	≤11.00	PASS
	total	5550	4.86	≤11.00	PASS
	Ant9	5670	1.89	≤11.00	PASS

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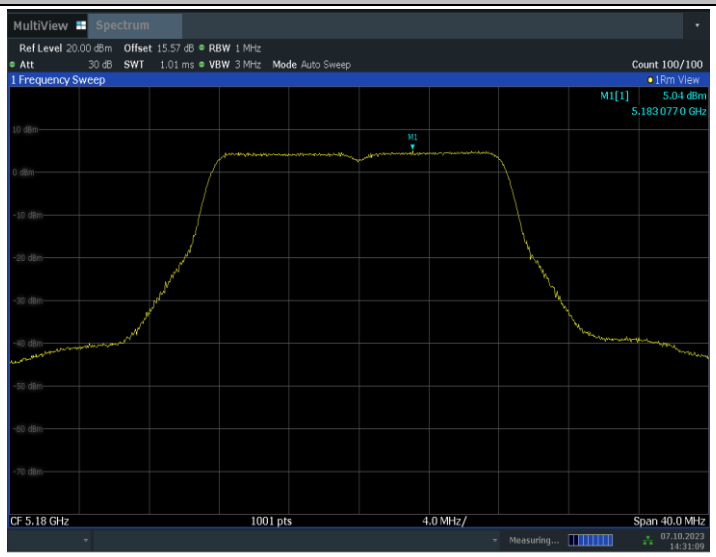
	Ant15	5670	2.33	≤11.00	PASS
	total	5670	5.13	≤11.00	PASS
11AX160MIMO	Ant9	5250	-4.01	≤11.00	PASS
	Ant15	5250	-3.69	≤11.00	PASS
	total	5250	-0.84	≤11.00	PASS
	Ant9	5570	-6.59	≤11.00	PASS
	Ant15	5570	-5.99	≤11.00	PASS
	total	5570	-3.27	≤11.00	PASS
11BE80MIMO	Ant9	5210	-2.13	≤11.00	PASS
	Ant15	5210	-2.21	≤11.00	PASS
	total	5210	0.84	≤11.00	PASS
	Ant9	5290	-2.28	≤11.00	PASS
	Ant15	5290	-1.84	≤11.00	PASS
	total	5290	0.96	≤11.00	PASS
	Ant9	5530	-1.21	≤11.00	PASS
	Ant15	5530	-0.99	≤11.00	PASS
	total	5530	1.91	≤11.00	PASS
	Ant9	5610	-1.52	≤11.00	PASS
	Ant15	5610	-1.47	≤11.00	PASS
	total	5610	1.52	≤11.00	PASS

11A-MIMO_Ant9_5180



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11A-MIMO_Ant15_5180

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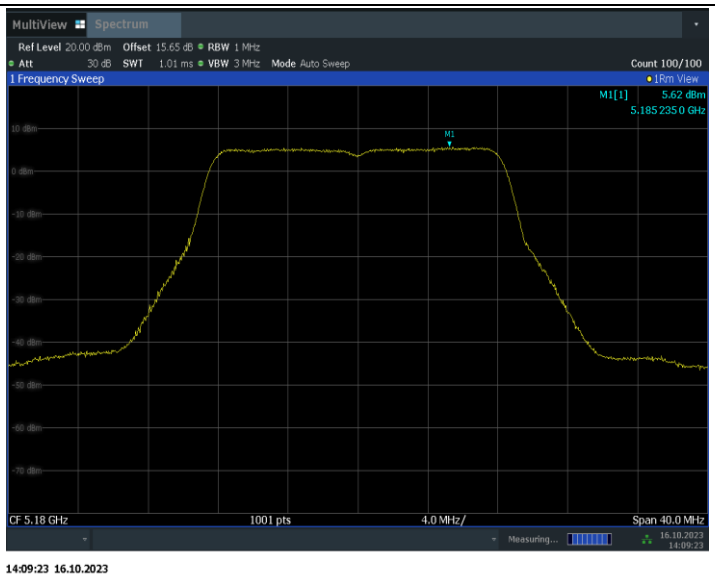

14:09:23 16.10.2023

RU Mode

Test Mode	Antenna	Frequency [MHz]	Ru Size	Ru Index	Result [dBm/MHz]	Limit [dBm/MHz]	Verdict
11AX20MIMO	Ant9	5180	26Tone	RU0	4.69	≤11.00	PASS
			52Tone	RU37	5.15	≤11.00	PASS
			106Tone	RU53	5.21	≤11.00	PASS
	Ant15	5180	26Tone	RU0	5.00	≤11.00	PASS
			52Tone	RU37	5.49	≤11.00	PASS
			106Tone	RU53	5.28	≤11.00	PASS
	total	5180	26Tone	RU0	7.86	≤11.00	PASS
			52Tone	RU37	8.33	≤11.00	PASS
			106Tone	RU53	8.26	≤11.00	PASS
	Ant9	5200	26Tone	RU0	4.88	≤11.00	PASS
			52Tone	RU37	5.26	≤11.00	PASS
			106Tone	RU53	5.48	≤11.00	PASS
	Ant15	5200	26Tone	RU0	5.35	≤11.00	PASS
			52Tone	RU37	5.80	≤11.00	PASS
			106Tone	RU53	5.90	≤11.00	PASS
	total	5200	26Tone	RU0	8.13	≤11.00	PASS
			52Tone	RU37	8.55	≤11.00	PASS
			106Tone	RU53	8.71	≤11.00	PASS
	Ant9	5240	26Tone	RU0	5.23	≤11.00	PASS
			52Tone	RU37	5.50	≤11.00	PASS
			106Tone	RU53	5.71	≤11.00	PASS
	Ant15	5240	26Tone	RU0	4.84	≤11.00	PASS
			52Tone	RU37	5.69	≤11.00	PASS

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			106Tone	RU53	5.48	≤11.00	PASS
	total	5240	26Tone	RU0	8.05	≤11.00	PASS
			52Tone	RU37	8.61	≤11.00	PASS
			106Tone	RU53	8.61	≤11.00	PASS
	Ant9	5260	26Tone	RU0	5.55	≤11.00	PASS
			52Tone	RU37	6.19	≤11.00	PASS
			106Tone	RU53	5.97	≤11.00	PASS
	Ant15	5260	26Tone	RU0	5.19	≤11.00	PASS
			52Tone	RU37	5.83	≤11.00	PASS
			106Tone	RU53	5.75	≤11.00	PASS
	total	5260	26Tone	RU0	8.38	≤11.00	PASS
			52Tone	RU37	9.02	≤11.00	PASS
			106Tone	RU53	8.87	≤11.00	PASS
	Ant9	5280	26Tone	RU0	5.15	≤11.00	PASS
			52Tone	RU37	5.84	≤11.00	PASS
			106Tone	RU53	6.04	≤11.00	PASS
	Ant15	5280	26Tone	RU0	5.51	≤11.00	PASS
			52Tone	RU37	6.25	≤11.00	PASS
			106Tone	RU53	5.86	≤11.00	PASS
	total	5280	26Tone	RU0	8.34	≤11.00	PASS
			52Tone	RU37	9.06	≤11.00	PASS
			106Tone	RU53	8.96	≤11.00	PASS
	Ant9	5320	26Tone	RU0	5.10	≤11.00	PASS
			52Tone	RU37	6.02	≤11.00	PASS
			106Tone	RU53	6.05	≤11.00	PASS
	Ant15	5320	26Tone	RU0	5.46	≤11.00	PASS
			52Tone	RU37	6.34	≤11.00	PASS
			106Tone	RU53	5.91	≤11.00	PASS
	total	5320	26Tone	RU0	8.29	≤11.00	PASS
			52Tone	RU37	9.19	≤11.00	PASS
			106Tone	RU53	8.99	≤11.00	PASS
	Ant9	5500	26Tone	RU8	5.02	≤11.00	PASS
			52Tone	RU40	5.74	≤11.00	PASS
			106Tone	RU54	5.71	≤11.00	PASS
	Ant15	5500	26Tone	RU8	5.18	≤11.00	PASS
			52Tone	RU40	6.01	≤11.00	PASS
			106Tone	RU54	5.92	≤11.00	PASS
	total	5500	26Tone	RU8	8.11	≤11.00	PASS
			52Tone	RU40	8.89	≤11.00	PASS
			106Tone	RU54	8.83	≤11.00	PASS
	Ant9	5580	26Tone	RU8	4.56	≤11.00	PASS
			52Tone	RU40	5.22	≤11.00	PASS
			106Tone	RU54	5.41	≤11.00	PASS

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	Ant15	5580	26Tone	RU8	4.35	≤11.00	PASS
			52Tone	RU40	5.07	≤11.00	PASS
			106Tone	RU54	5.11	≤11.00	PASS
	total	5580	26Tone	RU8	7.47	≤11.00	PASS
			52Tone	RU40	8.16	≤11.00	PASS
			106Tone	RU54	8.27	≤11.00	PASS
	Ant9	5700	26Tone	RU8	5.25	≤11.00	PASS
			52Tone	RU40	5.81	≤11.00	PASS
			106Tone	RU54	5.76	≤11.00	PASS
	Ant15	5700	26Tone	RU8	5.64	≤11.00	PASS
			52Tone	RU40	6.10	≤11.00	PASS
			106Tone	RU54	6.46	≤11.00	PASS
	total	5700	26Tone	RU8	8.46	≤11.00	PASS
			52Tone	RU40	8.97	≤11.00	PASS
			106Tone	RU54	9.13	≤11.00	PASS

11AX20MIMO_Ant9_5180_26Tone_RU0

11AX20MIMO_Ant9_5180_52Tone_RU37

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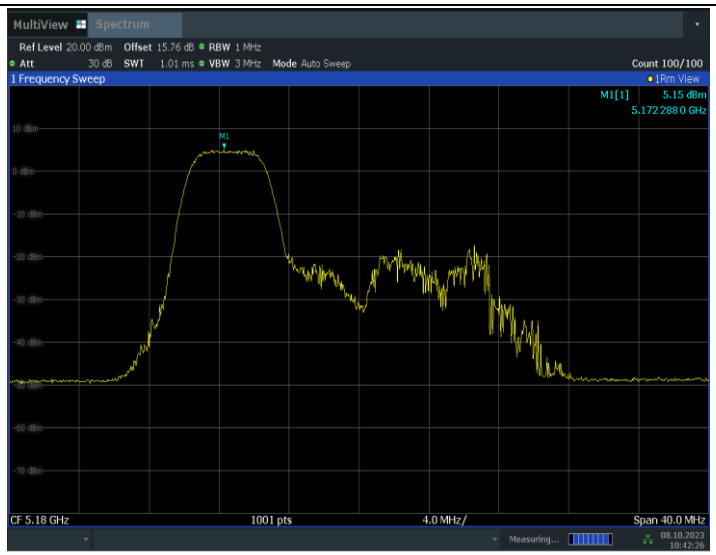

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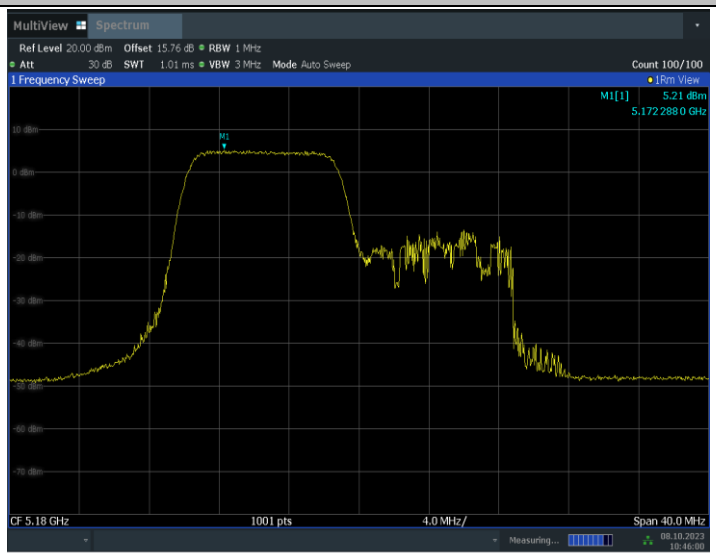
11AX20MIMO_Ant9_5180_106Tone_RU53



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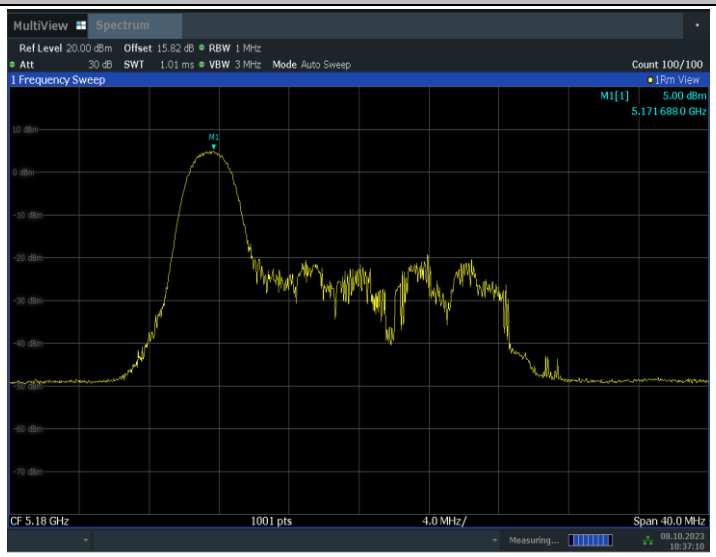
11AX20MIMO_Ant15_5180_26Tone_RU0



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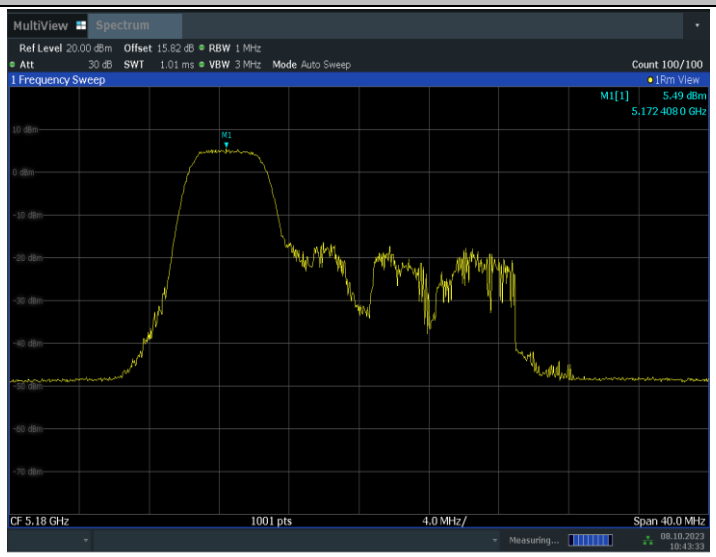
11AX20MIMO_Ant15_5180_52Tone_RU37
 10:43:34 08.10.2023
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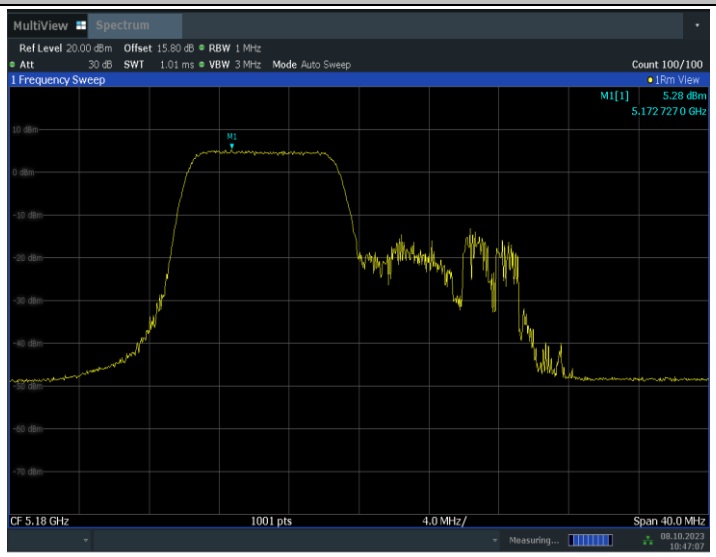 10:47:08 08.10.2023

Small MRU mode

Test Mode	Antenna	Channel	Mru Type	Mru Index	Result [dBm/MHz]	Limit [dBm/MHz]	Verdict
11BE20MIMO	Ant9	5180	52+26_OFDMA	1	3.24	≤11.00	PASS
			106+26_OFDMA	1	3.74	≤11.00	PASS
	Ant15	5180	52+26_OFDMA	1	4.10	≤11.00	PASS
			106+26_OFDMA	1	4.40	≤11.00	PASS
	total	5180	52+26_OFDMA	1	6.70	≤11.00	PASS
			106+26_OFDMA	1	7.09	≤11.00	PASS
	Ant9	5200	52+26_OFDMA	1	3.55	≤11.00	PASS

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			106+26_OFDMA	1	4.42	≤11.00	PASS
	Ant15	5200	52+26_OFDMA	1	4.74	≤11.00	PASS
			106+26_OFDMA	1	5.00	≤11.00	PASS
	total	5200	52+26_OFDMA	1	7.20	≤11.00	PASS
			106+26_OFDMA	1	7.73	≤11.00	PASS
	Ant9	5240	52+26_OFDMA	1	3.90	≤11.00	PASS
			106+26_OFDMA	1	4.53	≤11.00	PASS
	Ant15	5240	52+26_OFDMA	1	4.41	≤11.00	PASS
			106+26_OFDMA	1	4.55	≤11.00	PASS
	total	5240	52+26_OFDMA	1	7.17	≤11.00	PASS
			106+26_OFDMA	1	7.55	≤11.00	PASS
	Ant9	5260	52+26_OFDMA	1	4.05	≤11.00	PASS
			106+26_OFDMA	1	4.83	≤11.00	PASS
	Ant15	5260	52+26_OFDMA	1	4.40	≤11.00	PASS
			106+26_OFDMA	1	4.77	≤11.00	PASS
	total	5260	52+26_OFDMA	1	7.24	≤11.00	PASS
			106+26_OFDMA	1	7.81	≤11.00	PASS
	Ant9	5280	52+26_OFDMA	1	4.28	≤11.00	PASS
			106+26_OFDMA	1	4.82	≤11.00	PASS
	Ant15	5280	52+26_OFDMA	1	4.55	≤11.00	PASS
			106+26_OFDMA	1	5.10	≤11.00	PASS
	total	5280	52+26_OFDMA	1	7.43	≤11.00	PASS
			106+26_OFDMA	1	7.97	≤11.00	PASS
	Ant9	5320	52+26_OFDMA	1	4.09	≤11.00	PASS
			106+26_OFDMA	1	4.28	≤11.00	PASS
	Ant15	5320	52+26_OFDMA	1	4.74	≤11.00	PASS
			106+26_OFDMA	1	5.06	≤11.00	PASS
	total	5320	52+26_OFDMA	1	7.44	≤11.00	PASS
			106+26_OFDMA	1	7.70	≤11.00	PASS
	Ant9	5500	52+26_OFDMA	3	3.98	≤11.00	PASS
			106+26_OFDMA	2	4.26	≤11.00	PASS
	Ant15	5500	52+26_OFDMA	3	4.38	≤11.00	PASS
			106+26_OFDMA	2	4.74	≤11.00	PASS
	total	5500	52+26_OFDMA	3	7.19	≤11.00	PASS
			106+26_OFDMA	2	7.52	≤11.00	PASS
	Ant9	5580	52+26_OFDMA	3	3.33	≤11.00	PASS
			106+26_OFDMA	2	3.88	≤11.00	PASS
	Ant15	5580	52+26_OFDMA	3	3.51	≤11.00	PASS
			106+26_OFDMA	2	3.74	≤11.00	PASS
	total	5580	52+26_OFDMA	3	6.43	≤11.00	PASS
			106+26_OFDMA	2	6.82	≤11.00	PASS
	Ant9	5700	52+26_OFDMA	3	4.13	≤11.00	PASS
			106+26_OFDMA	2	4.71	≤11.00	PASS

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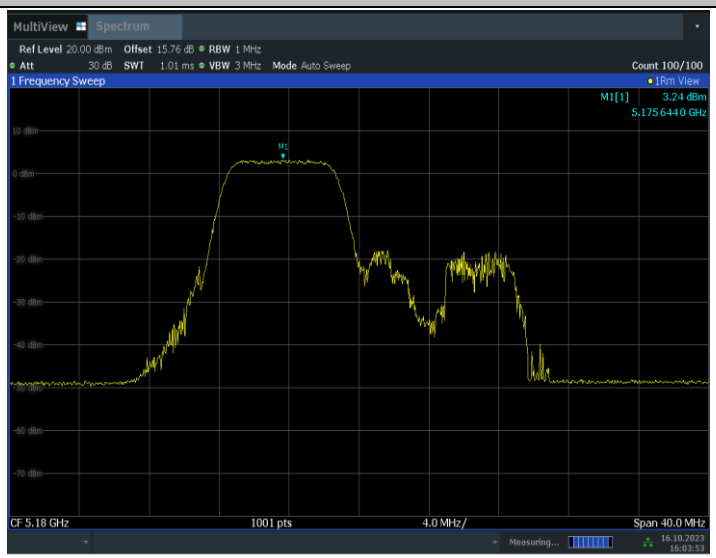
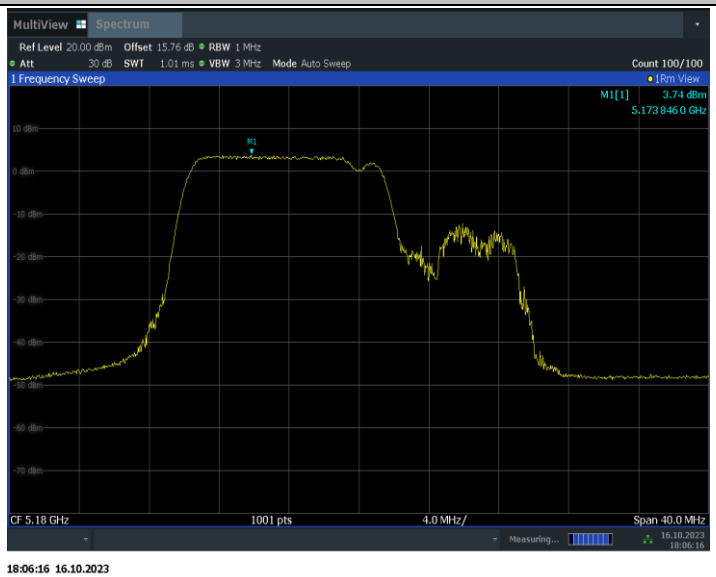
	Ant15	5700	52+26_OFDMA	3	4.69	≤11.00	PASS
			106+26_OFDMA	2	5.12	≤11.00	PASS
	total	5700	52+26_OFDMA	3	7.43	≤11.00	PASS
			106+26_OFDMA	2	7.93	≤11.00	PASS

11BE20MIMO_Ant9_5180_52+26_OFDMA_1



11BE20MIMO_Ant9_5180_106+26_OFDMA_1



11BE20MIMO_Ant15_5180_52+26_OFDMA_1

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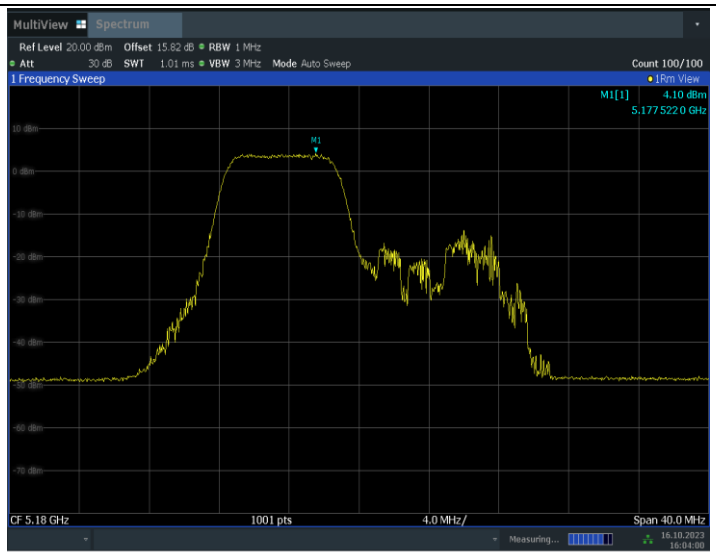

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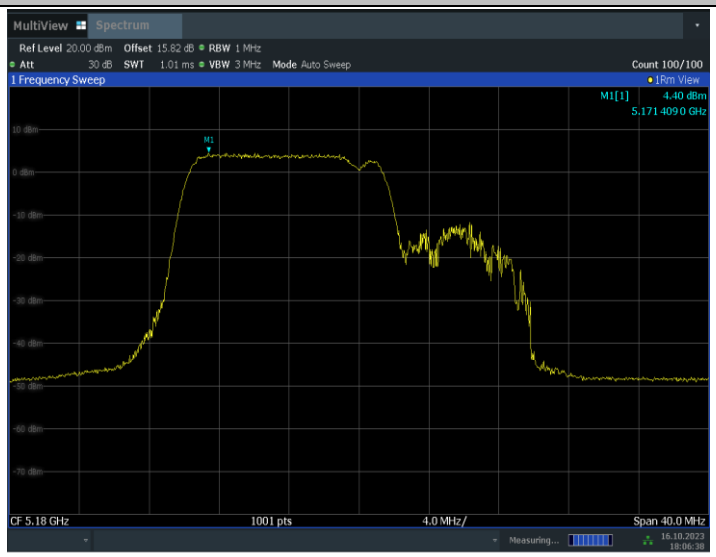
11BE20MIMO_Ant15_5180_106+26_OFDMA_1



18:06:39 16.10.2023

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Large MRU mode

Test Mode	Antenna	Channel	Mru Type	Mru Index	Result [dBm/MHz]	Limit [dBm/MHz]	Verdict
11BE80MIMO	Ant9	5210	484+242_OFDMA	1	0.00	≤11.00	PASS
				2	0.13	≤11.00	PASS
				3	0.27	≤11.00	PASS
				4	-0.17	≤11.00	PASS
	Ant15	5210	484+242_OFDMA	1	0.32	≤11.00	PASS
				2	0.20	≤11.00	PASS
				3	0.37	≤11.00	PASS
				4	0.34	≤11.00	PASS
	total	5210	484+242_OFDMA	1	3.17	≤11.00	PASS
				2	3.18	≤11.00	PASS
				3	3.33	≤11.00	PASS
				4	3.10	≤11.00	PASS
	Ant9	5290	484+242_OFDMA	1	0.53	≤11.00	PASS
				2	0.24	≤11.00	PASS
				3	0.34	≤11.00	PASS
				4	0.30	≤11.00	PASS
	Ant15	5290	484+242_OFDMA	1	0.75	≤11.00	PASS
				2	0.64	≤11.00	PASS
				3	0.67	≤11.00	PASS
				4	0.71	≤11.00	PASS
	total	5290	484+242_OFDMA	1	3.65	≤11.00	PASS
				2	3.45	≤11.00	PASS
				3	3.52	≤11.00	PASS
				4	3.52	≤11.00	PASS
	Ant9	5530	484+242_OFDMA	1	-0.07	≤11.00	PASS
				2	0.04	≤11.00	PASS
				3	0.05	≤11.00	PASS
				4	0.27	≤11.00	PASS
	Ant15	5530	484+242_OFDMA	1	0.31	≤11.00	PASS
				2	0.45	≤11.00	PASS
				3	0.43	≤11.00	PASS
				4	0.43	≤11.00	PASS
	total	5530	484+242_OFDMA	1	3.13	≤11.00	PASS
				2	3.26	≤11.00	PASS
				3	3.25	≤11.00	PASS
				4	3.36	≤11.00	PASS
	Ant9	5610	484+242_OFDMA	1	-0.37	≤11.00	PASS
				2	-0.47	≤11.00	PASS
				3	-0.53	≤11.00	PASS

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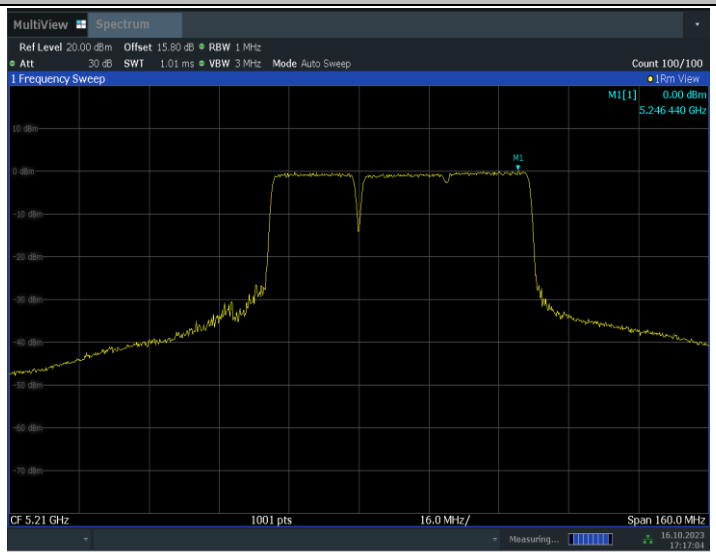
				4	-0.56	≤11.00	PASS
	Ant15	5610	484+242_OFDMA	1	-0.46	≤11.00	PASS
				2	-0.36	≤11.00	PASS
				3	-0.43	≤11.00	PASS
				4	-0.37	≤11.00	PASS
	total	5610	484+242_OFDMA	1	2.60	≤11.00	PASS
				2	2.60	≤11.00	PASS
				3	2.53	≤11.00	PASS
				4	2.55	≤11.00	PASS

11BE80MIMO_Ant9_5210_484+242_OFDMA_1



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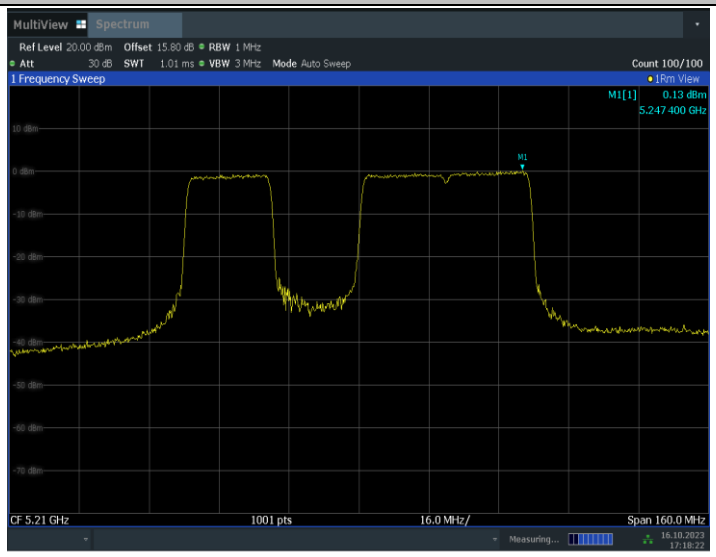
11BE80MIMO_Ant9_5210_484+242_OFDMA_2



17:18:23 16.10.2023

11BE80MIMO_Ant9_5210_484+242_OFDMA_3

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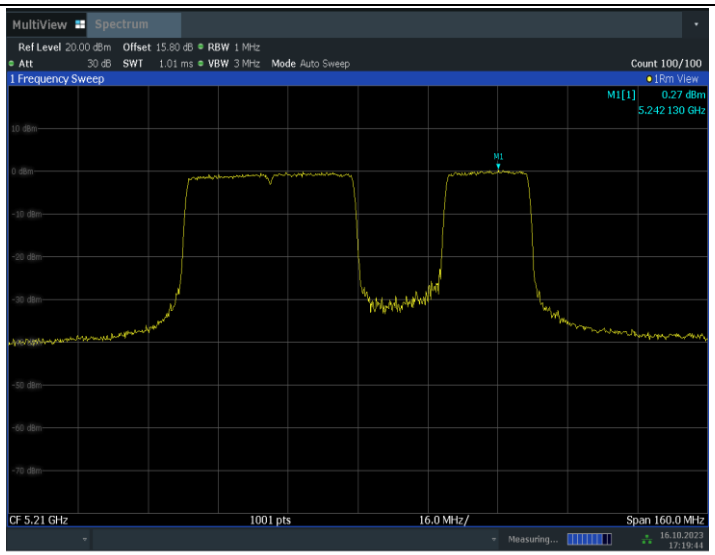

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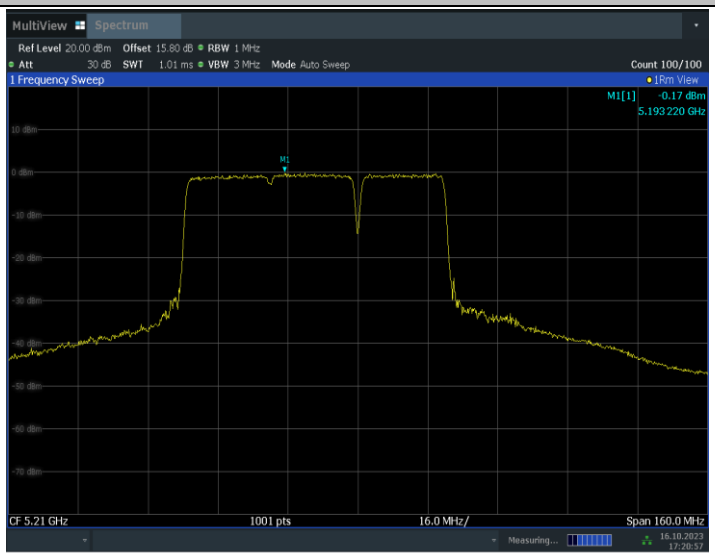
11BE80MIMO_Ant9_5210_484+242_OFDMA_4



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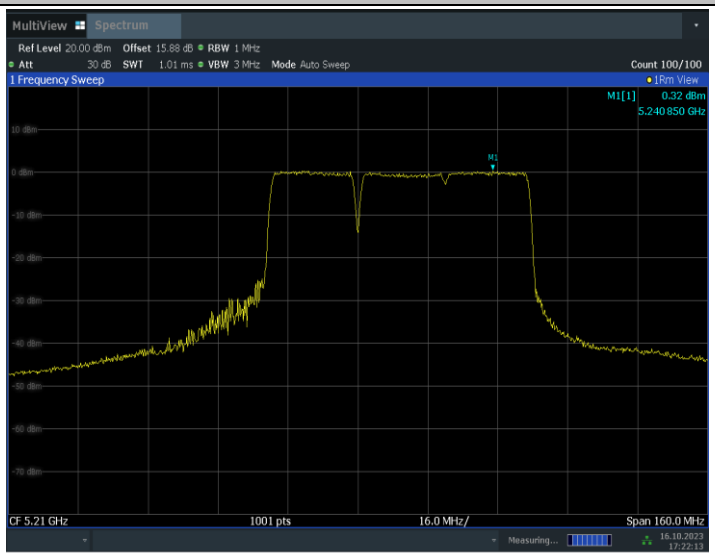
11BE80MIMO_Ant15_5210_484+242_OFDMA_1



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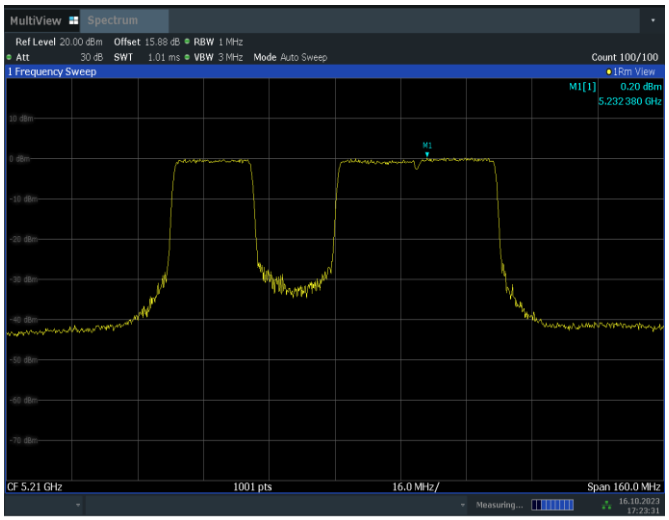
11BE80MIMO_Ant15_5210_484+242_OFDMA_2



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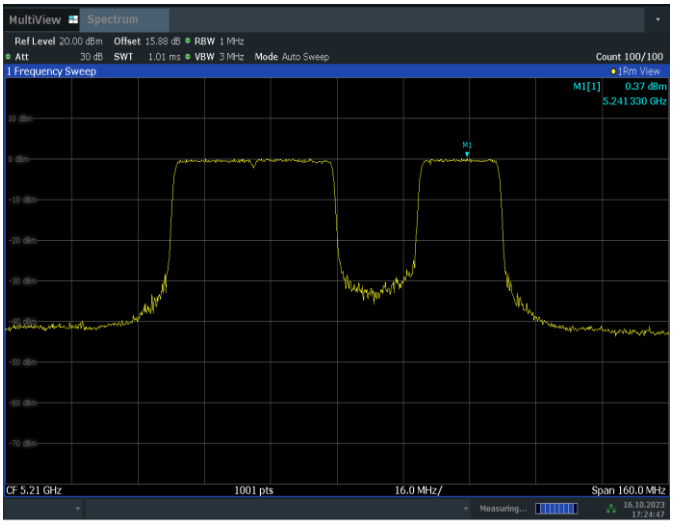
11BE80MIMO_Ant15_5210_484+242_OFDMA_3



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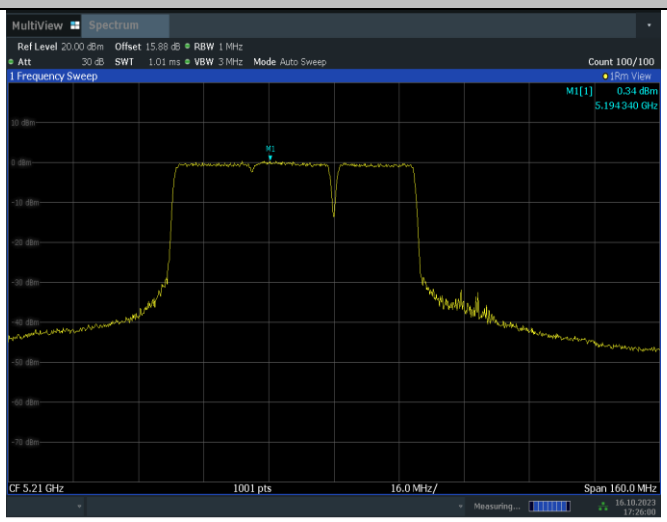
11BE80MIMO_Ant15_5210_484+242_OFDMA_4



17:26:00 16.10.2023

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Large MRU mode

Test Mode	Antenna	Channel	Mru Type	Mru Index	Result [dBm/MHz]	Limit [dBm/MHz]	Verdict
11BE160 MIMO	Ant9	5250_UNII-1	996+484_OFDMA	1	-2.02	≤11.00	PASS
				2	-3.45	≤11.00	PASS
				3	-1.86	≤11.00	PASS
				4	-1.92	≤11.00	PASS
			996+484+242_OFDMA	1	-3.32	≤11.00	PASS
				2	-3.10	≤11.00	PASS
				3	-2.87	≤11.00	PASS
				4	-3.91	≤11.00	PASS
				5	-2.72	≤11.00	PASS
				6	-2.77	≤11.00	PASS
				7	-2.83	≤11.00	PASS
				8	-3.29	≤11.00	PASS
	Ant15	5250_UNII-1	996+484_OFDMA	1	-1.94	≤11.00	PASS
				2	-2.68	≤11.00	PASS
				3	-1.77	≤11.00	PASS
				4	-1.86	≤11.00	PASS
			996+484+242_OFDMA	1	-3.17	≤11.00	PASS
				2	-3.24	≤11.00	PASS
				3	-2.95	≤11.00	PASS
				4	-3.80	≤11.00	PASS
				5	-2.87	≤11.00	PASS
				6	-2.97	≤11.00	PASS
				7	-2.93	≤11.00	PASS
				8	-2.98	≤11.00	PASS
	total	5250_UNII-1	996+484_OFDMA	1	1.03	≤11.00	PASS
				2	-0.04	≤11.00	PASS
				3	1.20	≤11.00	PASS
				4	1.12	≤11.00	PASS
			996+484+242_OFDMA	1	-0.23	≤11.00	PASS
				2	-0.16	≤11.00	PASS
				3	0.10	≤11.00	PASS
				4	-0.84	≤11.00	PASS
				5	0.22	≤11.00	PASS
				6	0.14	≤11.00	PASS
				7	0.13	≤11.00	PASS
				8	-0.12	≤11.00	PASS
	Ant9	5250_UNII-2A	996+484_OFDMA	1	-2.17	≤11.00	PASS
				2	-1.89	≤11.00	PASS
				3	-2.54	≤11.00	PASS

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				4	-1.98	≤11.00	PASS
			996+484+242_OFDMA	1	-3.14	≤11.00	PASS
				2	-3.30	≤11.00	PASS
				3	-3.05	≤11.00	PASS
				4	-3.01	≤11.00	PASS
				5	-3.43	≤11.00	PASS
				6	-3.01	≤11.00	PASS
				7	-3.21	≤11.00	PASS
				8	-3.28	≤11.00	PASS
	Ant15	5250_UNII-2A	996+484_OFDMA	1	-1.77	≤11.00	PASS
				2	-1.93	≤11.00	PASS
				3	-3.37	≤11.00	PASS
				4	-1.82	≤11.00	PASS
			996+484+242_OFDMA	1	-3.19	≤11.00	PASS
				2	-3.13	≤11.00	PASS
				3	-3.16	≤11.00	PASS
				4	-3.09	≤11.00	PASS
				5	-3.85	≤11.00	PASS
				6	-3.00	≤11.00	PASS
				7	-3.03	≤11.00	PASS
				8	-3.08	≤11.00	PASS
	total	5250_UNII-2A	996+484_OFDMA	1	1.04	≤11.00	PASS
				2	1.10	≤11.00	PASS
				3	0.08	≤11.00	PASS
				4	1.11	≤11.00	PASS
			996+484+242_OFDMA	1	-0.15	≤11.00	PASS
				2	-0.20	≤11.00	PASS
				3	-0.09	≤11.00	PASS
				4	-0.04	≤11.00	PASS
				5	-0.62	≤11.00	PASS
				6	0.01	≤11.00	PASS
				7	-0.11	≤11.00	PASS
				8	-0.17	≤11.00	PASS
	Ant9	5570	996+484_OFDMA	1	-3.10	≤11.00	PASS
				2	-3.02	≤11.00	PASS
				3	-2.64	≤11.00	PASS
				4	-3.06	≤11.00	PASS
			996+484+242_OFDMA	1	-3.75	≤11.00	PASS
				2	-3.81	≤11.00	PASS
				3	-3.52	≤11.00	PASS
				4	-3.35	≤11.00	PASS
				5	-3.40	≤11.00	PASS
				6	-3.83	≤11.00	PASS

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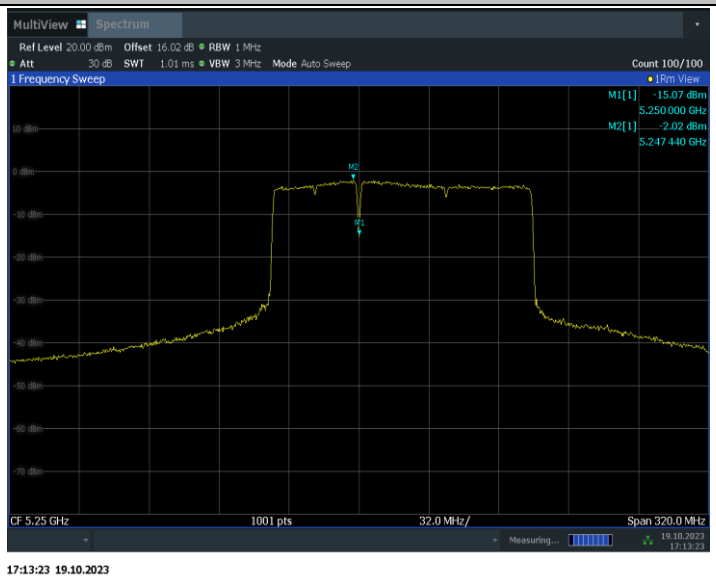
				7	-3.70	≤11.00	PASS
				8	-3.94	≤11.00	PASS
	Ant15	5570	996+484_OFDMA	1	-1.82	≤11.00	PASS
				2	-2.20	≤11.00	PASS
				3	-2.09	≤11.00	PASS
				4	-1.98	≤11.00	PASS
			996+484+242_OFDMA	1	-2.86	≤11.00	PASS
				2	-3.02	≤11.00	PASS
				3	-2.82	≤11.00	PASS
				4	-3.04	≤11.00	PASS
				5	-2.56	≤11.00	PASS
				6	-2.94	≤11.00	PASS
				7	-3.02	≤11.00	PASS
				8	-2.77	≤11.00	PASS
	total	5570	996+484_OFDMA	1	0.60	≤11.00	PASS
				2	0.42	≤11.00	PASS
				3	0.65	≤11.00	PASS
				4	0.52	≤11.00	PASS
			996+484+242_OFDMA	1	-0.27	≤11.00	PASS
				2	-0.39	≤11.00	PASS
				3	-0.15	≤11.00	PASS
				4	-0.18	≤11.00	PASS
				5	0.05	≤11.00	PASS
				6	-0.35	≤11.00	PASS
				7	-0.34	≤11.00	PASS
				8	-0.31	≤11.00	PASS

11BE160MIMO_Ant9_5250_UNII-1_996+484_OFDMA_1



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11BE160MIMO_Ant9_5250_UNII-1_996+484_OFDMA_2

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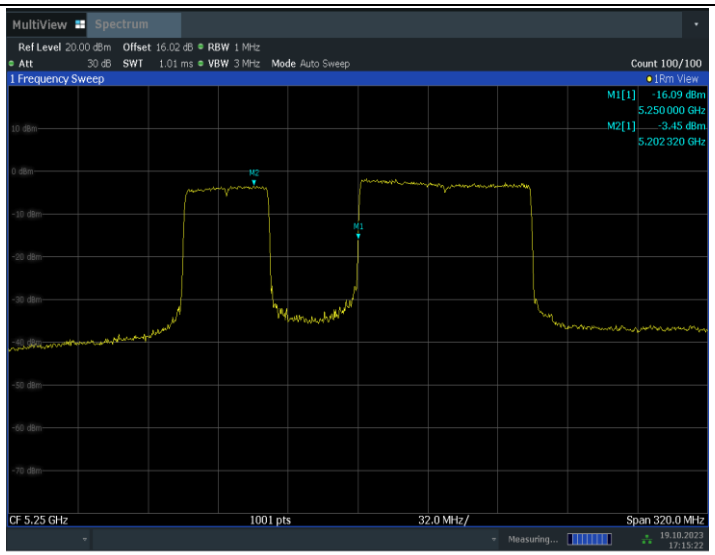

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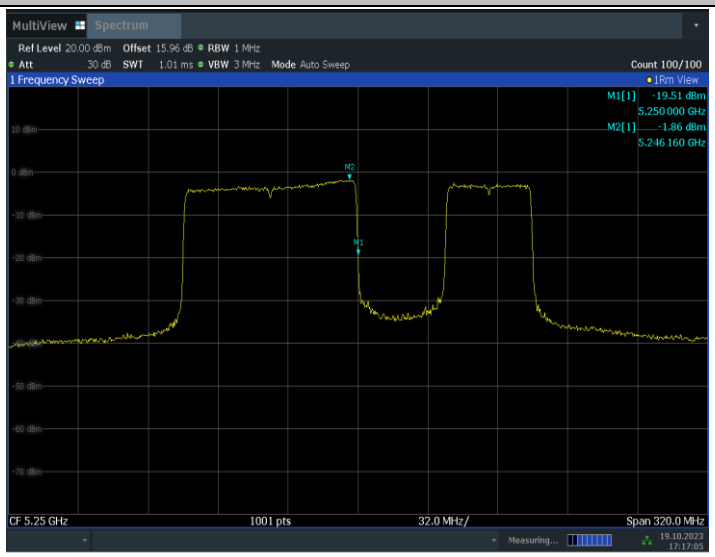

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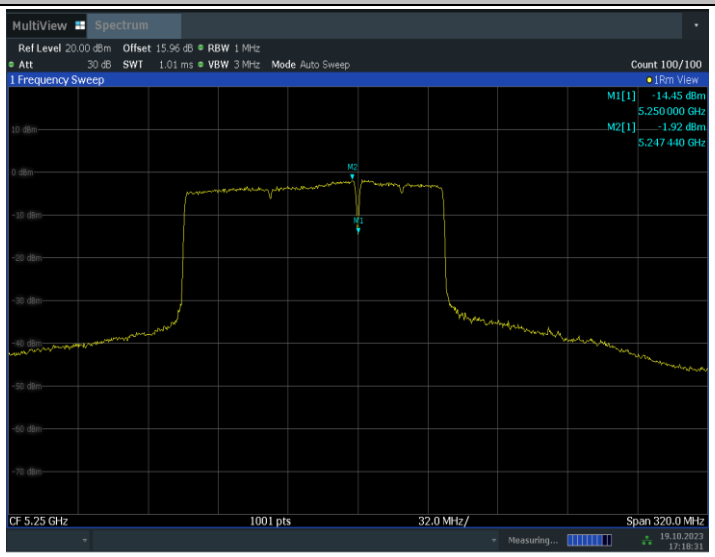

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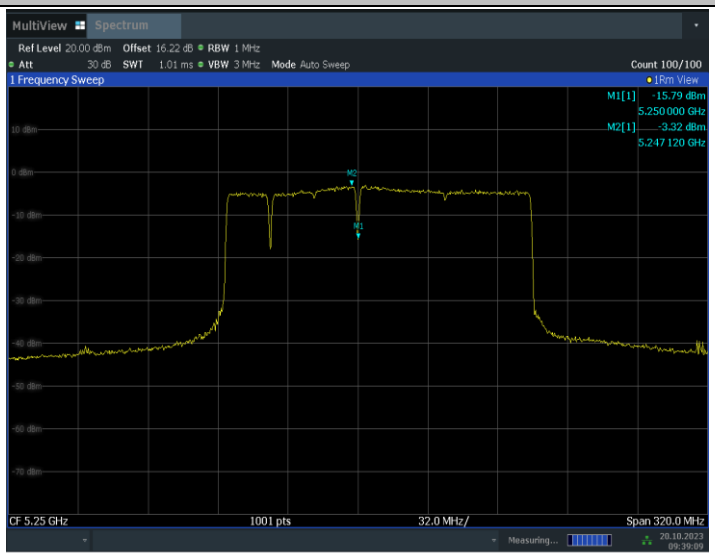

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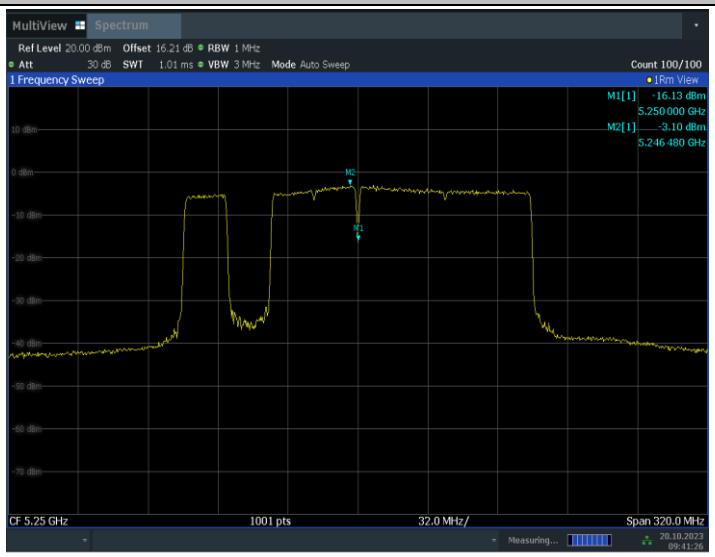

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11BE160MIMO_Ant9_5250_UNII-1_996+484+242_OFDMA_3

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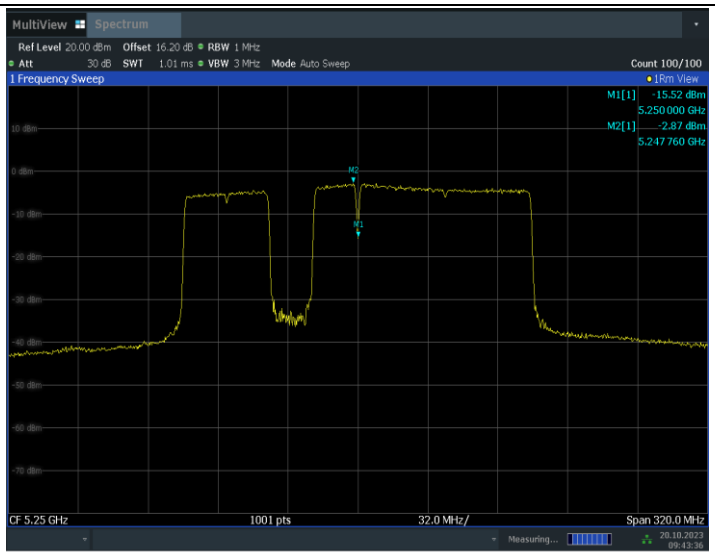

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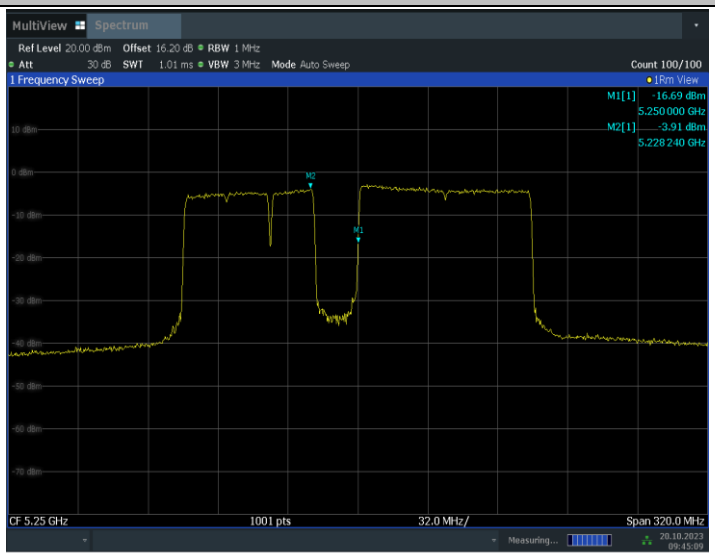

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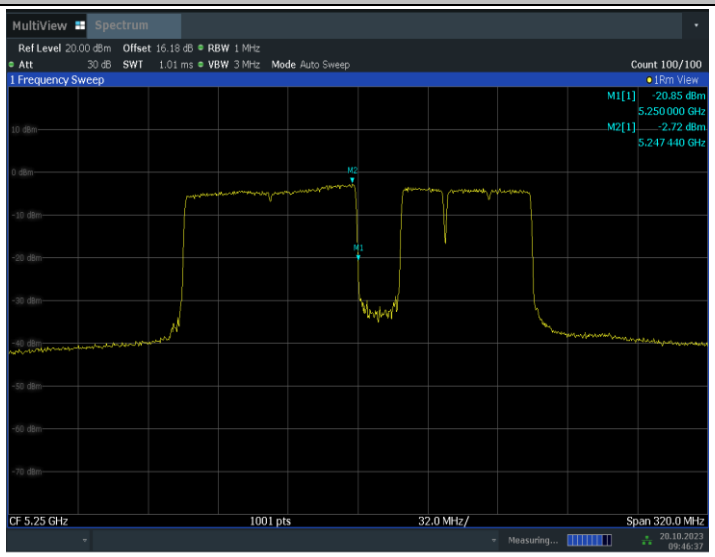

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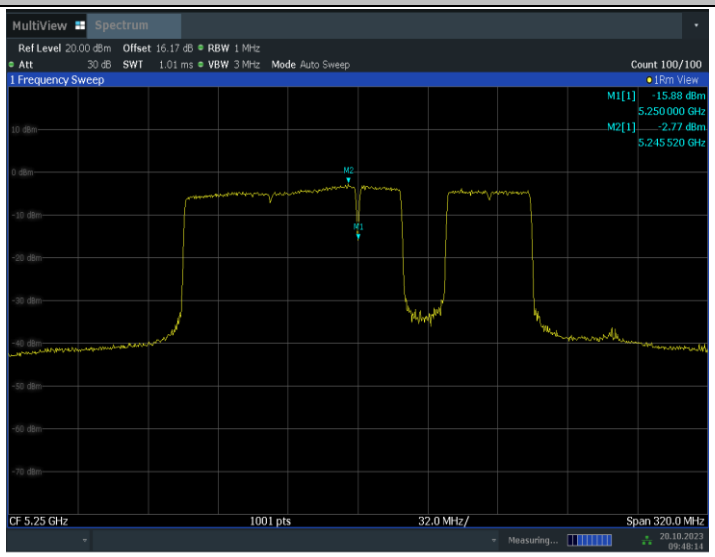

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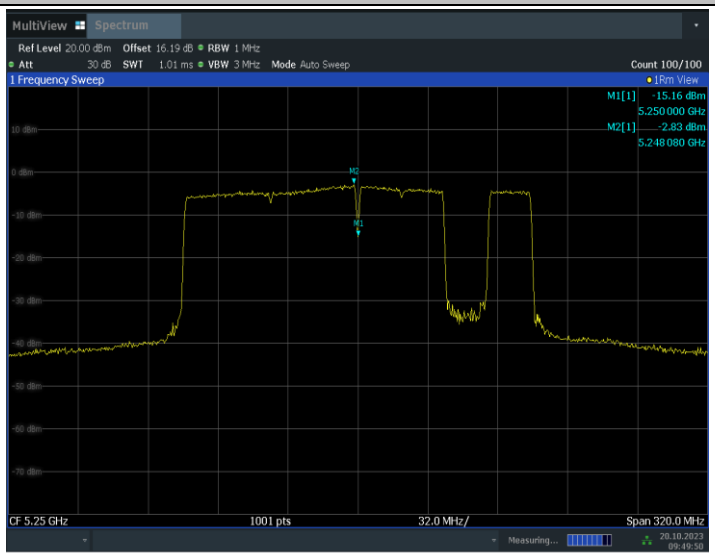

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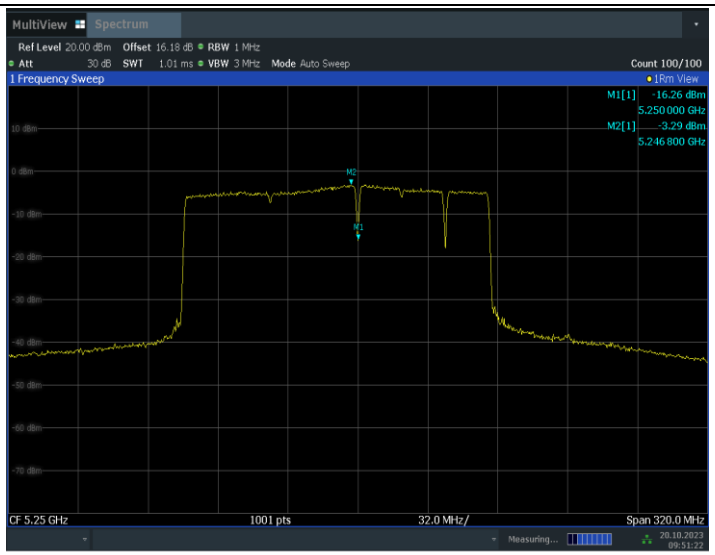

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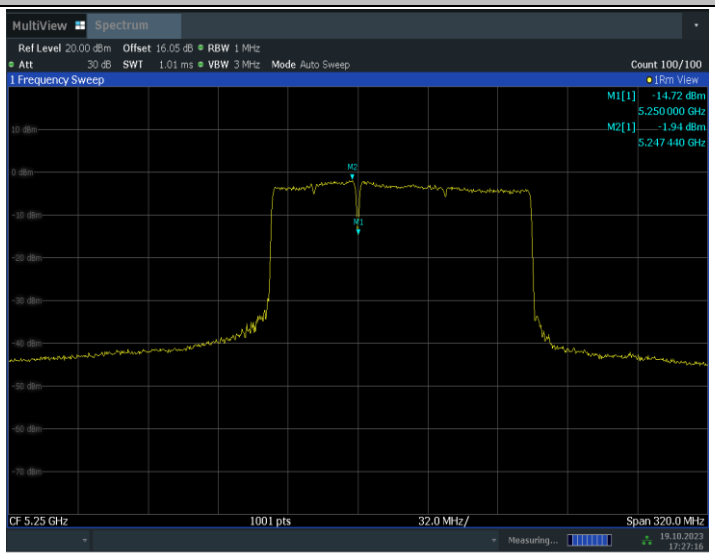

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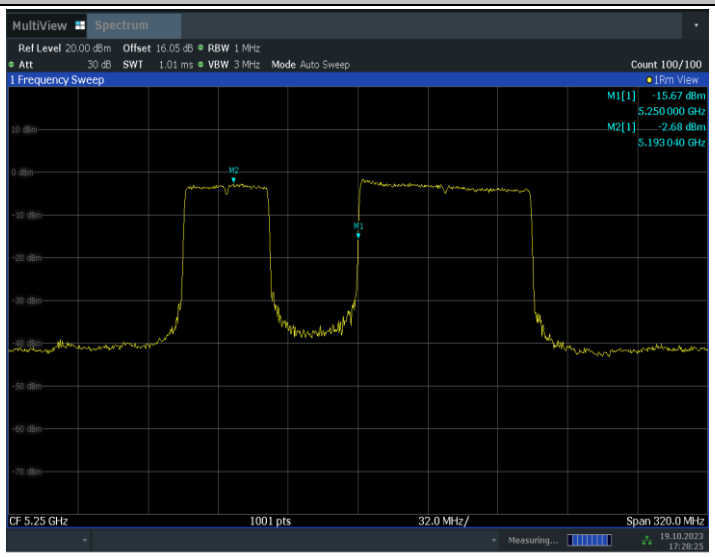

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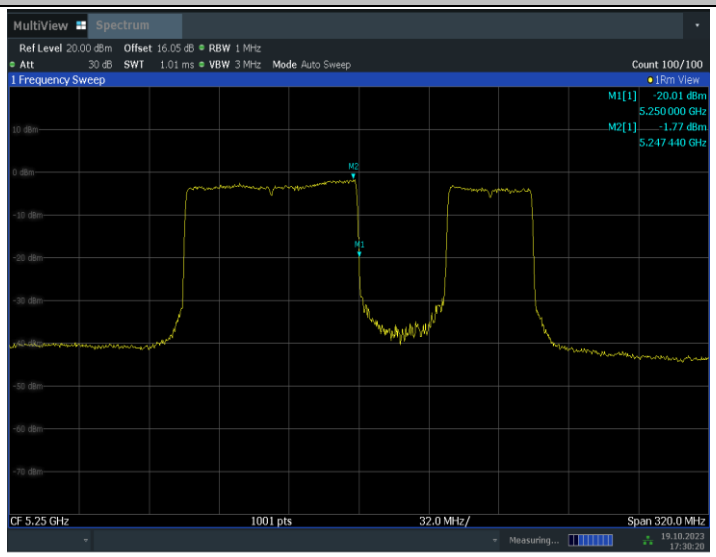
11BE160MIMO_Ant15_5250_UNII-1_996+484_OFDMA_3



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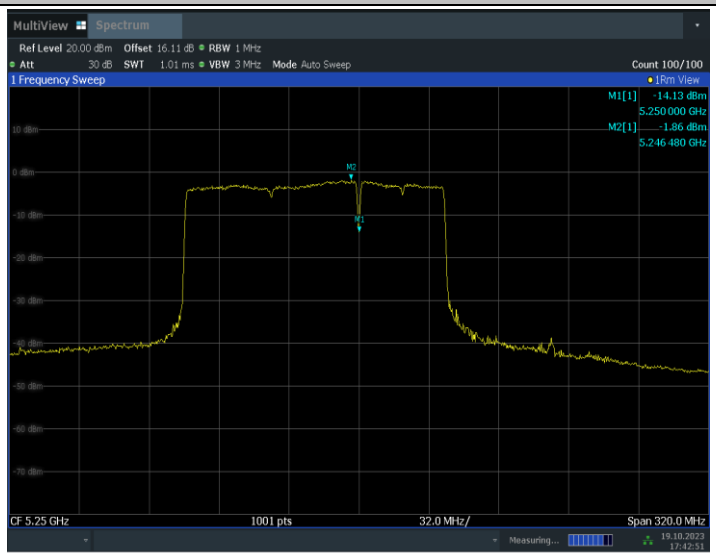

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11BE160MIMO_Ant15_5250_UNII-1_996+484+242_OFDMA_1

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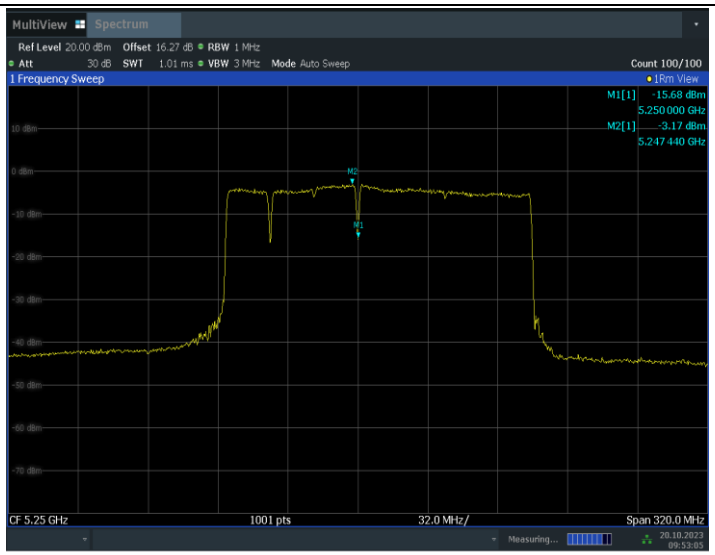

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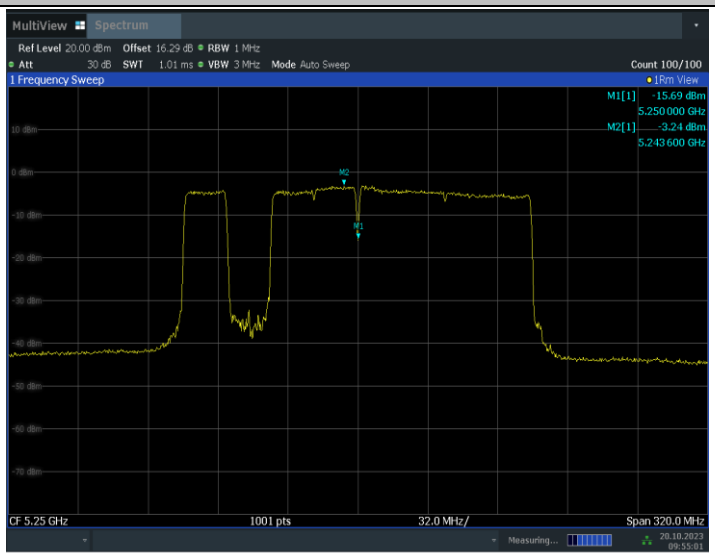

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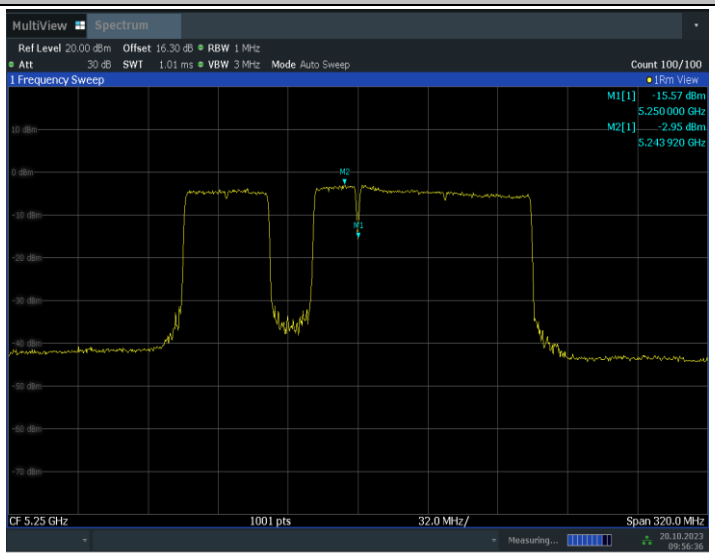

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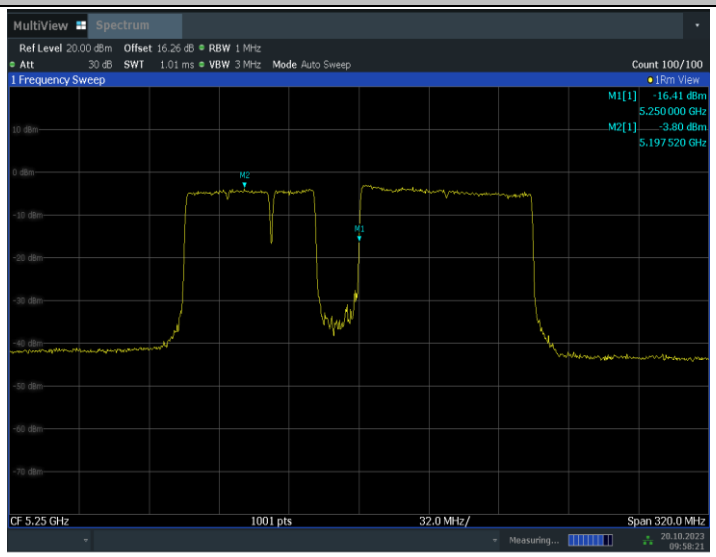 09:58:22 20.10.2023
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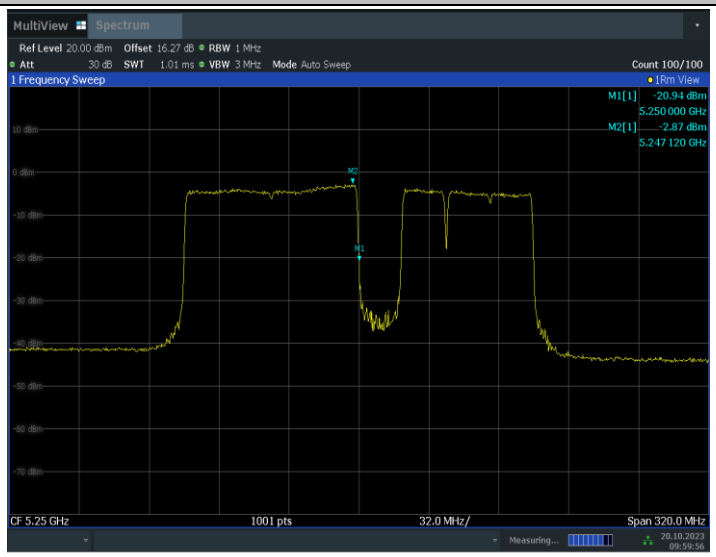 09:59:57 20.10.2023
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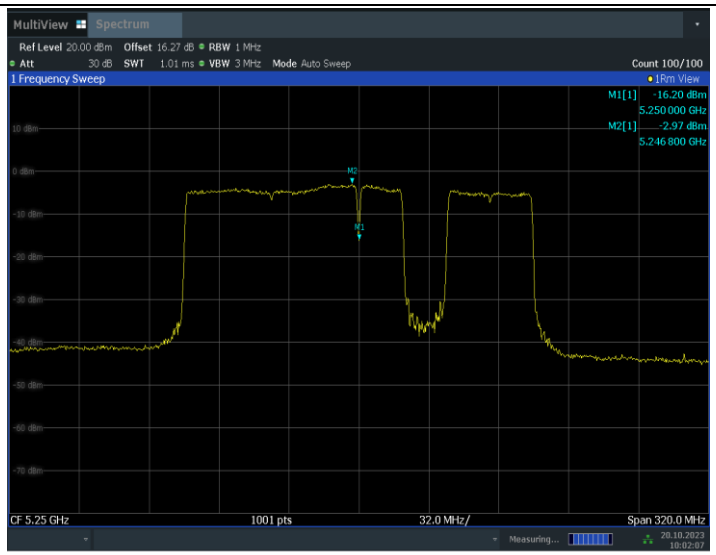

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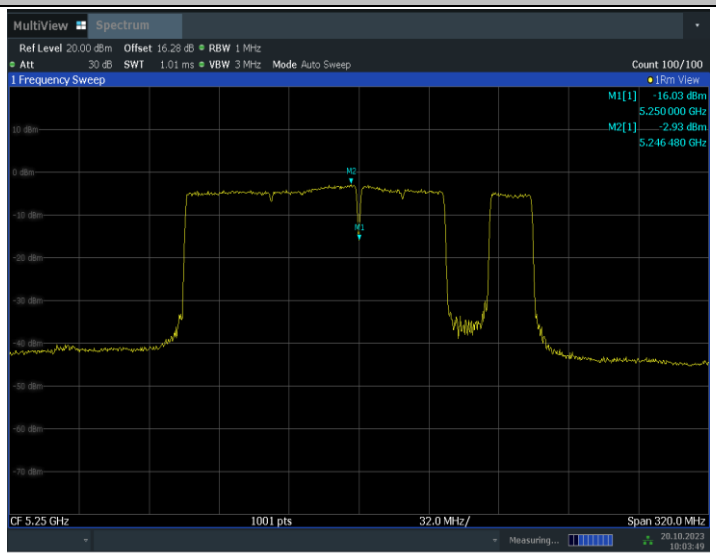

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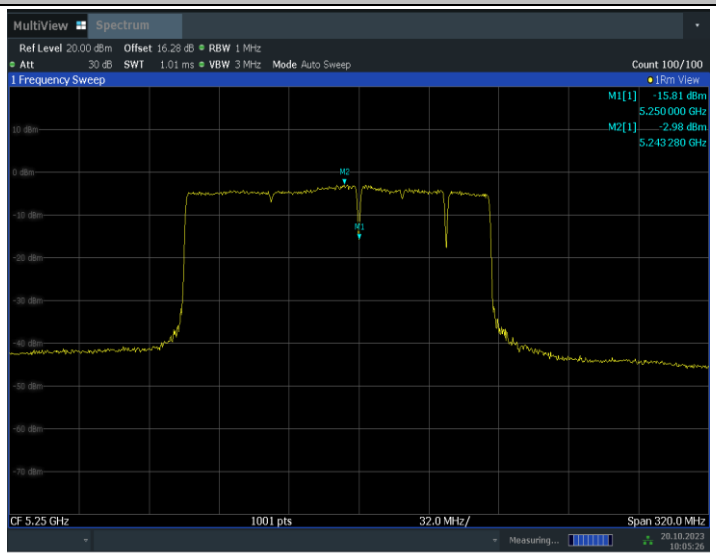

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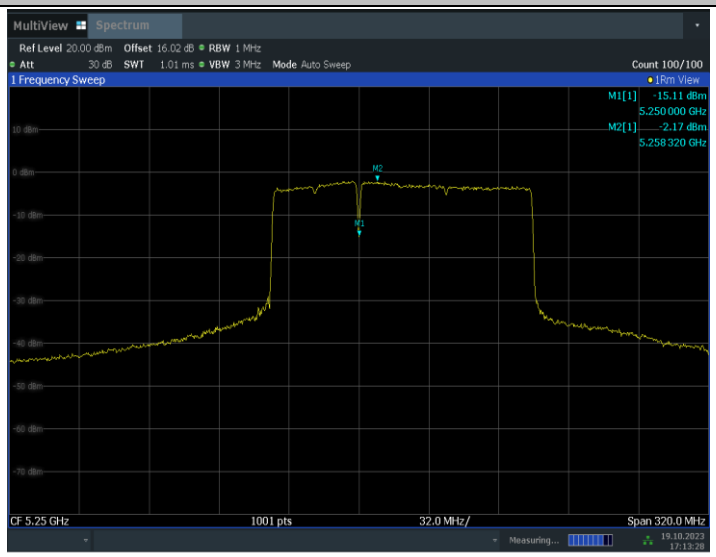
11BE160MIMO_Ant9_5250_UNII-2A_996+484_OFDMA_1



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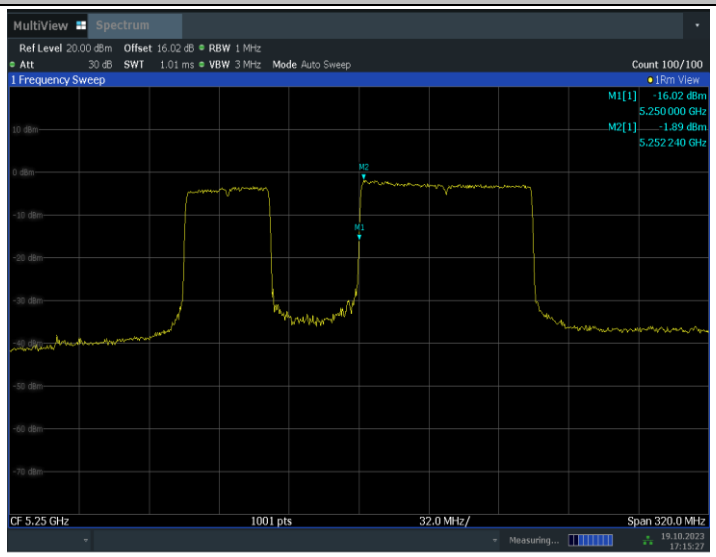

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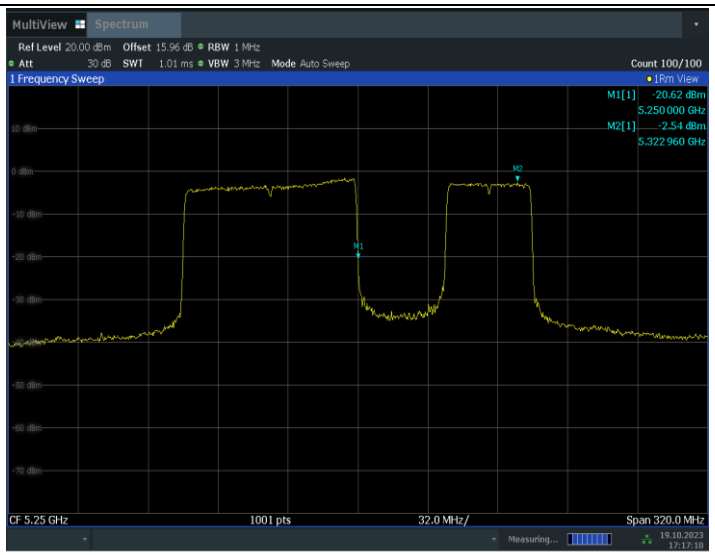

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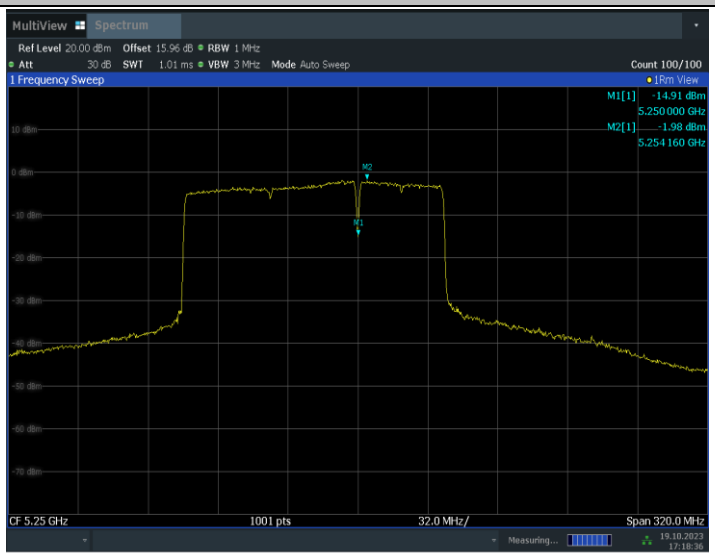

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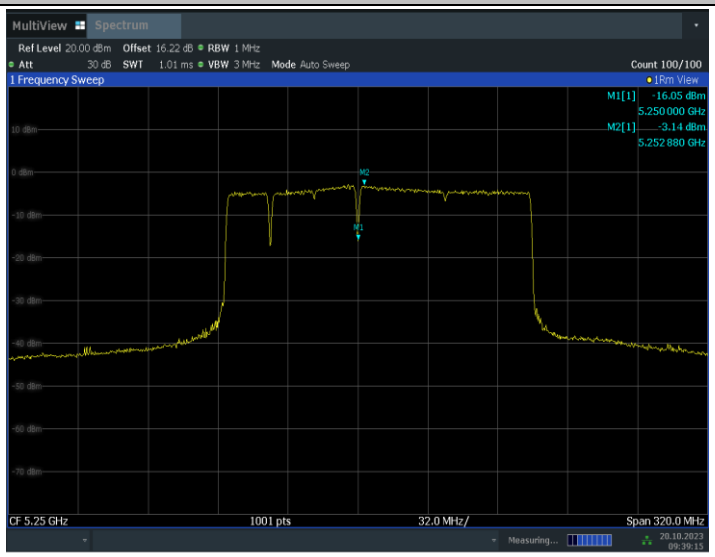

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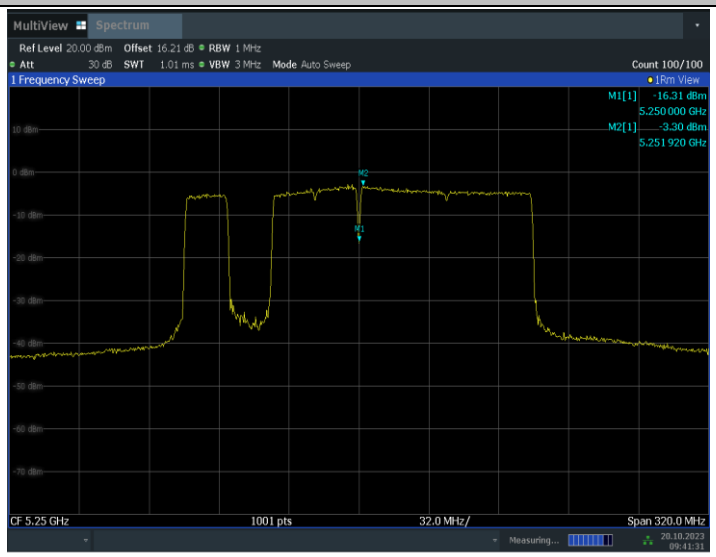 09:41:32 20.10.2023
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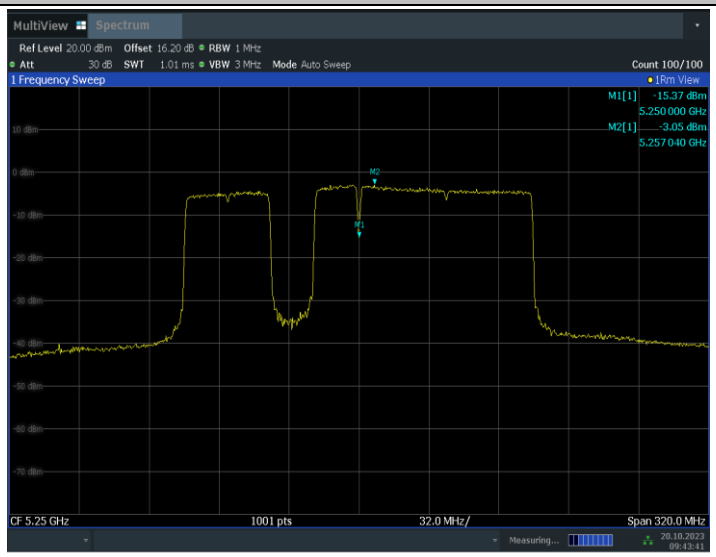 09:43:41 20.10.2023
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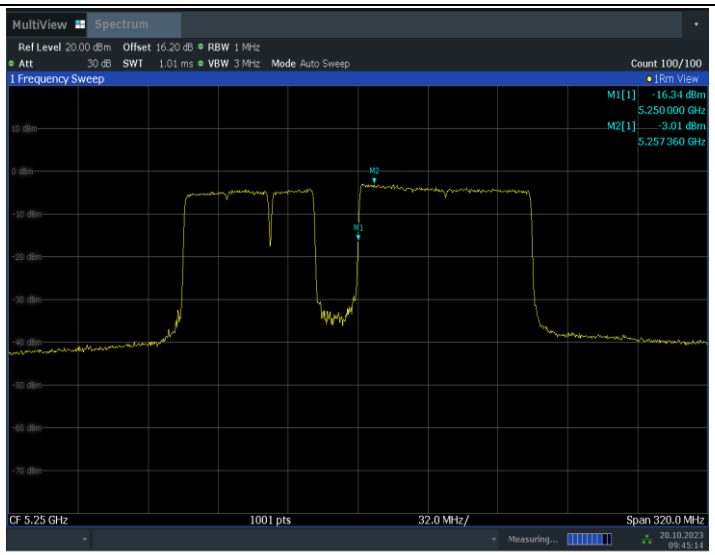

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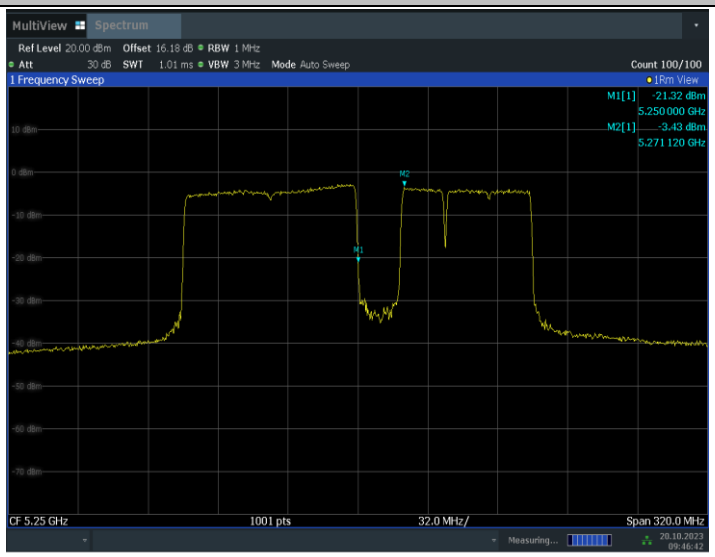

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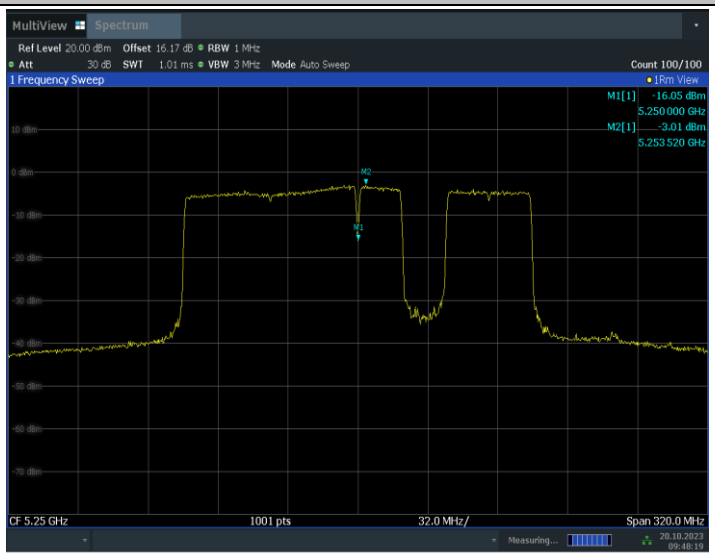

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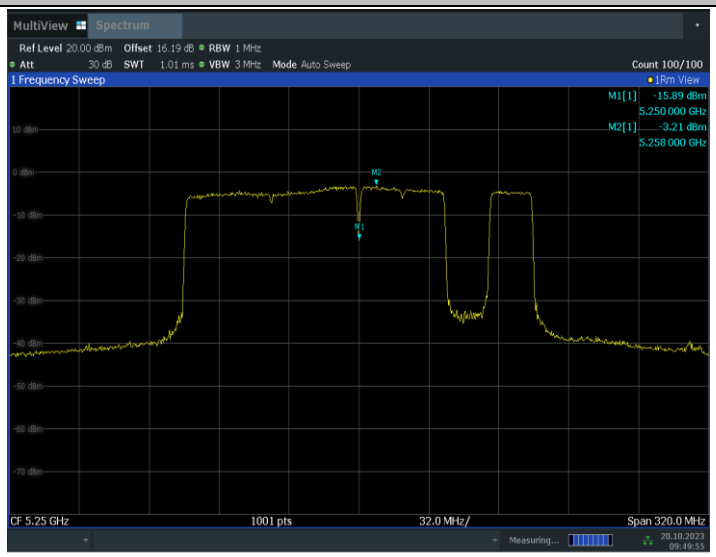 09:49:55 20.10.2023
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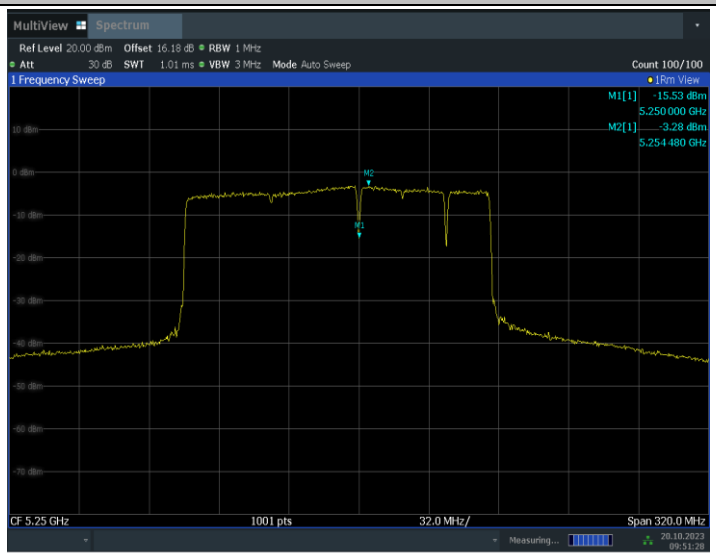 09:51:28 20.10.2023
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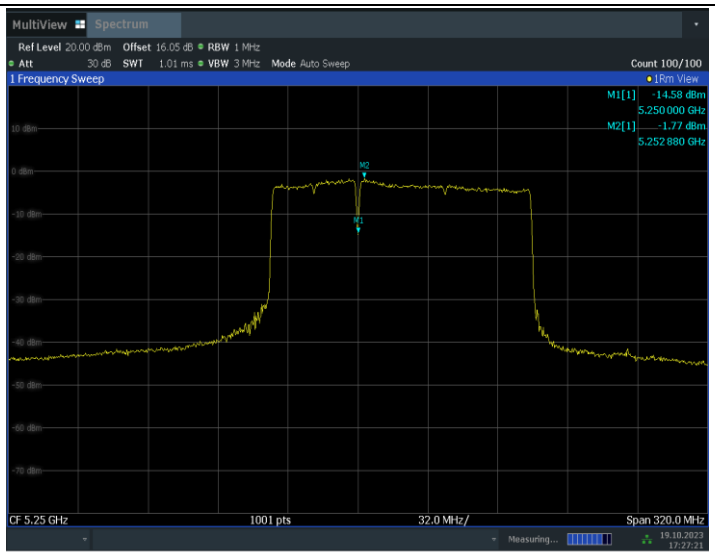

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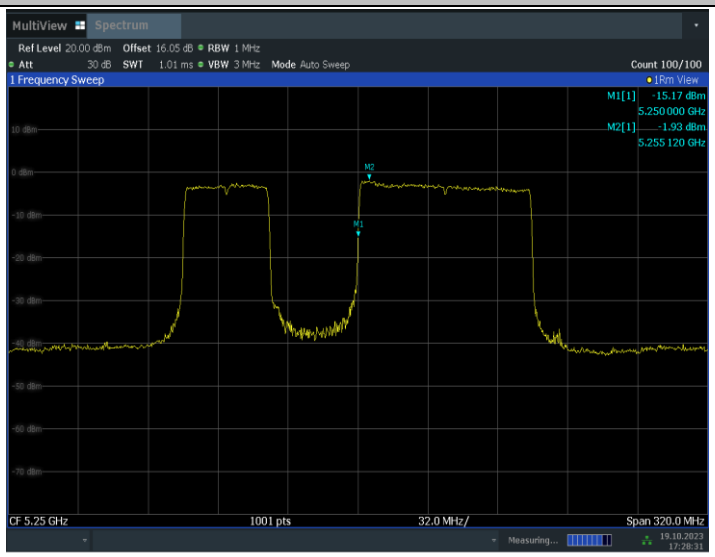

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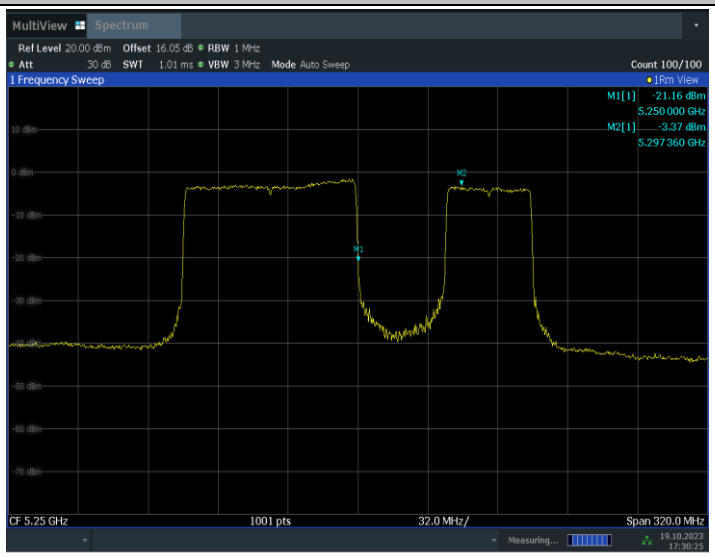

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