



FCC PART 15E TEST REPORT No.24T04Z101589-009

for

POINTMOBILE CO., LTD

Mobile Computer

PM452

FCC ID: V2X-PM452W

with

Hardware Version: MP

Software Version: 452.00.XX

Issued Date: 2024-09-06

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.

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
24T04Z101589-009	Rev.0	1st edition	2024-09-06

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

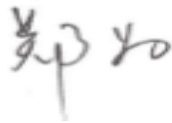
Testing Start Date: 2024-06-21

Testing End Date: 2024-09-06

1.5. Signature



Dong Jiaxuan
(Prepared this test report)



Zheng Wei
(Reviewed this test report)



Pang Shuai
(Approved this test report)

2. Client Information

2.1 Applicant Information

Company Name: POINTMOBILE CO., LTD
Address/Post: A-26F, Building Gasan Publik 178, Digital-ro, Geumcheon-gu
Seoul, 08513 Republic of Korea
Contact: Hanna Chae
Email: certi.manager@pointmobile.com
Tel.: +82 10 7773 8827
Fax: +82 2-3397-7872

2.2 Manufacturer Information

Company Name: POINTMOBILE CO., LTD
Address/Post: A-26F, Building Gasan Publik 178, Digital-ro, Geumcheon-gu
Seoul, 08513 Republic of Korea
Contact: Hanna Chae
Email: certi.manager@pointmobile.com
Tel.: +82 10 7773 8827
Fax: +82 2-3397-7872

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

3.1. About EUT

Description	Mobile Computer
Model name	PM452
FCC ID	V2X-PM452W
WLAN Frequency Band	ISM Bands: -5150MHz~5250MHz -5250MHz~5350MHz -5470MHz~5725MHz
Type of modulation	OFDM/OFDMA
Antenna	Integral Antenna
Nominal Voltage	3.63V

3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version	Date of receipt
UT14a	/	MP	452.00.XX	2024-06-21
UT05a	/	MP	452.00.XX	2024-06-21
UT17a	356658610000189	MP	452.00.XX	2024-08-30

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

UT05a is used for Conduction test, UT14a is used for Radiation test.

3.3. Internal Identification of AE used during the test

AE ID*	Description	Model	Manufacturer
AE1-1	Battery1	451-BTEC	ZhuHai Gushine Electronic Technology Co.,Ltd
AE1-2	Battery2	451-BTSC/BP19-002770	ETI CA Battery Inc.

*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 Computer 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

5. Laboratory Environment

Conducted RF performance testing is performed in shielding room.

EMC performance testing is performed in Semi-anechoic chamber.

6. Test Results

6.1. Summary of Test Results

SUMMARY OF MEASUREMENT RESULTS	Sub-clause of Part15E	Sub-clause of IC	Verdict
Maximum Output Power	15.407	/	P
Peak Power Spectral Density	15.407	/	BR
Occupied 26dB Bandwidth	15.403	/	BR
Radiated Unwanted Emission	15.407, 15.205, 15.209	/	BR
AC Powerline Conducted Emission	15.107, 15.207	/	BR
99% Occupied bandwidth	/	/	BR
Transmit Power Control	15.407	/	BR

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

Terms used in Verdict column

P	Pass, The EUT complies with the essential requirements in the standard.
NP	Not Perform, The test was not performed by CTTL
NA	Not Applicable, The test was not applicable
F	Fail, The EUT does not comply with the essential requirements in the standard
BR	BR Re-use test data from basic model report.

6.2. Statements

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

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

The Equipment Under Test (EUT) model PM452 are variant product of PM452, according to the declaration of changes provided by the applicant and FCC KDB publication 178919 D01, except Maximum Output Power , other results are derived from test report No.24T04Z101463-020.

For detail differences between two models please refer the Declaration of Changes document.

6.3. Test Conditions

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

Temperature	26°C
Voltage	3.63V
Humidity	44%

7. Test Facilities Utilized

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Vector Signal Analyzer	FSQ40	200089	Rohde & Schwarz	1 year	2025-07-04
2	Vector Signal Analyzer	FSW67	104051	Rohde & Schwarz	1 year	2025-04-06
3	Test Receiver	ESCI 3	100344	R&S	1 year	2025-04-01
4	LISN	ENV216	101200	R&S	1 year	2025-05-16
5	Attenuator	10dB/2W	/	Rosenberger	/	/
6	Shielding Room	S81	/	ETS-Lindgren	/	/

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Test Receiver	ESW44	103144	R&S	1 year	2024-11-26
2	EMI Antenna	VULB 9163	01223	SCHWARZBECK	1 year	2024-08-18
3	EMI Antenna	3115	00167250	ETS-Lindgren	1 year	2025-05-11
4	EMI Antenna	3116	2663	ETS-Lindgren	1 year	2025-03-21

Test Software

Test Item	Test Software and Version	Software Vendor
Radiated Continuous Emission	EMC32 V10.60.20	R&S
Conducted Emission	EMC32 V8.53.0	R&S

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)
$30\text{MHz} \leq f \leq 2\text{GHz}$	1.22
$2\text{GHz} \leq f \leq 3.6\text{GHz}$	1.22
$3.6\text{GHz} \leq f \leq 8\text{GHz}$	1.22
$8\text{GHz} \leq f \leq 12.75\text{GHz}$	1.51
$12.75\text{GHz} \leq f \leq 26\text{GHz}$	1.51
$26\text{GHz} \leq f \leq 40\text{GHz}$	1.59

8.6 Radiated Unwanted Emission

Radiated (k=2)

Frequency Range	Uncertainty(dB)
9kHz-30MHz	/
$30\text{MHz} \leq f \leq 1\text{GHz}$	4.72
$1\text{GHz} \leq f \leq 18\text{GHz}$	4.84
$18\text{GHz} \leq f \leq 40\text{GHz}$	5.12

8.7 AC Power-line Conducted Emission

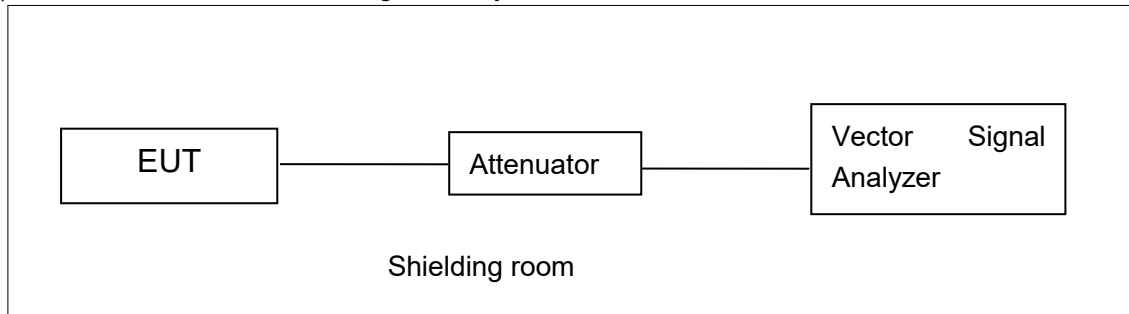
Measurement Uncertainty : 3.08dB,k=2

ANNEX A: Detailed Test Results

A.1. Measurement Method

A.1.1. Conducted Measurements

- 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

Measurement performed according to Clause 6.4, 6.5, 6.6 in ANSI C63.10-2013 and II.G.4, II.G.5, II.G.6 in KDB 789033.

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

A.2. Maximum output Power

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 measurement method SA-2 is made according to KDB 789033

A.2.1 Antenna Gain

Antenna gain is -4dBi and the value is supplied by the applicant or manufacturer.

A.2.2 Maximum output Power-Conducted

EUT ID: UT05a/17a

Measurement Results:

802.11a mode

Mode	Frequency	Test Result (dBm)							
		Data Rate (Mbps)							
		6	9	12	18	24	36	48	54
802.11a	5180MHz	14.56	\	\	\	\	\	\	\
	5200MHz	14.78	\	\	\	\	\	\	\
	5240MHz	15.52	\	\	\	\	\	\	\
	5260MHz	15.49	\	\	\	\	\	\	\
	5280MHz	15.89	\	\	\	\	\	\	\
	5320MHz	16.00	\	\	\	\	\	\	\
	5500MHz	16.67	\	\	\	\	\	\	\
	5580MHz	16.55	\	\	\	\	\	\	\
	5700MHz	17.13	\	\	\	\	\	\	\

The spot check result of average output power are 17.13dBm (802.11a 6Mbps ch140 prototype result: 17.39dBm)

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

802.11n-HT20 mode

Mode	Frequency	Test Result (dBm)							
		Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11n (HT20)	5180MHz	\	\	\	\	\	\	\	15.33
	5200MHz	\	\	\	\	\	\	\	13.86
	5240MHz	\	\	\	\	\	\	\	15.78
	5260MHz	\	\	\	\	\	\	\	14.31
	5280MHz	\	\	\	\	\	\	\	14.68
	5320MHz	\	\	\	\	\	\	\	14.99
	5500MHz	\	\	\	\	\	\	\	15.68
	5580MHz	\	\	\	\	\	\	\	15.40
	5700MHz	\	\	\	\	\	\	\	16.64

The data rate MCS7 is selected as worst condition, and the following cases are performed with this condition.

802.11ac-VHT20 mode

Mode	Frequency	Test Result (dBm)								
		Data Rate								
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
802.11ac (VHT20)	5180MHz	\	\	\	\	\	\	\	\	11.58
	5200MHz	\	\	\	\	\	\	\	\	11.73
	5240MHz	\	\	\	\	\	\	\	\	12.10
	5260MHz	\	\	\	\	\	\	\	\	12.14
	5280MHz	\	\	\	\	\	\	\	\	12.50
	5320MHz	\	\	\	\	\	\	\	\	13.03
	5500MHz	\	\	\	\	\	\	\	\	13.48
	5580MHz	\	\	\	\	\	\	\	\	13.31
	5700MHz	\	\	\	\	\	\	\	\	14.47

The data rate MCS8 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											
		MCS0	MCS 1	MC S2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8	MCS 9	MCS 10	MCS 11
802.11ax (HE20)	5180MHz (Ch36)	14.19	\	\	\	\	\	\	\	\	\	\	\
	5200MHz (Ch40)	14.35	\	\	\	\	\	\	\	\	\	\	\
	5240MHz (Ch48)	14.91	\	\	\	\	\	\	\	\	\	\	\
	5260MHz (Ch52)	14.81	\	\	\	\	\	\	\	\	\	\	\
	5280MHz (Ch56)	15.21	\	\	\	\	\	\	\	\	\	\	\
	5320MHz (Ch64)	15.41	\	\	\	\	\	\	\	\	\	\	\
	5500MHz (Ch100)	16.24	\	\	\	\	\	\	\	\	\	\	\
	5580MHz (Ch116)	15.86	\	\	\	\	\	\	\	\	\	\	\
	5700MHz (Ch140)	16.63	\	\	\	\	\	\	\	\	\	\	\

The spot check result of average output power are 16.63dBm (802.11ax20 MCS0 ch140 prototype result: 16.95dBm)

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

802.11n-HT40 mode

Mode	Frequency	Test Result (dBm)							
		Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11n (HT40)	5190MHz	\	\	\	\	\	\	\	10.37
	5230MHz	\	\	\	\	\	\	\	10.80
	5270MHz	\	\	\	\	\	\	\	11.12
	5310MHz	\	\	\	\	\	\	\	11.30
	5510MHz	\	\	\	\	\	\	\	12.33
	5550MHz	\	\	\	\	\	\	\	12.29
	5670MHz	\	\	\	\	\	\	\	12.99

The spot check result of average output power are 12.99dBm (802.11n40 MCS7 ch134 prototype result: 12.71dBm)

The data rate MCS7 is selected as worst condition, and the following cases are performed with this condition.

802.11ac-VHT40 mode

Mode	Frequency	Test Result (dBm)									
		Data Rate									
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
802.11ac (VHT40)	5190MHz	\	\	\	\	\	\	\	\	\	10.10
	5230MHz	\	\	\	\	\	\	\	\	\	10.46
	5270MHz	\	\	\	\	\	\	\	\	\	10.80
	5310MHz	\	\	\	\	\	\	\	\	\	11.18
	5510MHz	\	\	\	\	\	\	\	\	\	12.06
	5550MHz	\	\	\	\	\	\	\	\	\	12.09
	5670MHz	\	\	\	\	\	\	\	\	\	12.35

The data rate MCS9 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	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9	MCS10	MCS11
802.11ax (HE40)	5190MHz (Ch38)	\	\	\	\	\	\	\	10.87	\	\	\	\
	5230MHz (Ch46)	\	\	\	\	\	\	\	10.90	\	\	\	\
	5270MHz (Ch54)	\	\	\	\	\	\	\	11.85	\	\	\	\
	5310MHz	\	\	\	\	\	\	\	11.76	\	\	\	\

	(Ch62)												
	5510MHz (Ch102)	\	\	\	\	\	\	\	12.49	\	\	\	\
	5550MHz (Ch110)	\	\	\	\	\	\	\	12.36	\	\	\	\
	5670MHz (Ch134)	\	\	\	\	\	\	\	12.62	\	\	\	\

The data rate MCS7 is selected as worst condition, and the following cases are performed with this condition.

802.11ac-VHT80 mode

Mode	Frequency	Test Result (dBm)										
		Data Rate										
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9	
802.11ac (VHT80)	5210MHz	\	\	\	\	\	\	\	\	\	\	10.79
	5290MHz	\	\	\	\	\	\	\	\	\	\	10.88
	5530MHz	\	\	\	\	\	\	\	\	\	\	12.13
	5610MHz	\	\	\	\	\	\	\	\	\	\	11.60
	5690MHz	\	\	\	\	\	\	\	\	\	\	12.17

The spot check result of average output power are 12.17dBm (802.11ac80 MCS9 ch138 prototype result: 12.99dBm)

The data rate MCS9 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	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9	MCS10	MCS11	
802.11ax (HE80)	5210MHz (Ch42)	\	\	\	\	\	\	\	\	\	10.78	\	\	
	5290MHz (Ch58)	\	\	\	\	\	\	\	\	\	11.55	\	\	
	5530MHz (Ch106)	\	\	\	\	\	\	\	\	\	12.80	\	\	
	5610MHz (Ch122)	\	\	\	\	\	\	\	\	\	12.13	\	\	
	5690MHz (Ch138)	\	\	\	\	\	\	\	\	\	12.87	\	\	

The data rate MCS9 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											
		MCS 0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8	MCS9	MC S1 0	MCS 11
802.11ac (VHT160)	5250MHz (Ch50)	\	\	\	\	\	\	\	\	\	10.60	\	\
	5570MHz (Ch114)	\	\	\	\	\	\	\	\	\	10.50	\	\

The spot check result of average output power are 10.50dBm (802.11ac160 MCS9 ch114 prototype result: 10.91dBm)

The data rate MCS9 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											
		MCS 0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8	MCS 9	MCS 10	MCS 11
802.11ax (HE160)	5250MHz (Ch50)	\	\	\	\	\	\	\	\	\	\	\	9.27
	5570MHz (Ch114)	\	\	\	\	\	\	\	\	\	\	\	9.69

The data rate MCS11 is selected as worst condition, and the following cases are performed with this condition.

11ax-RU
802.11ax-HE20 mode

Mode	Channel	Test Result (dBm)											
		Data Rate											
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9	MCS10	MCS11
RU26-L	5180MHz (Ch36)	11.48	\	\	\	\	\	\	\	\	\	\	\
	5200MHz (Ch40)	11.70	\	\	\	\	\	\	\	\	\	\	\
	5240MHz (Ch48)	12.01	\	\	\	\	\	\	\	\	\	\	\
	5260MHz (Ch52)	12.10	\	\	\	\	\	\	\	\	\	\	\
	5280MHz (Ch56)	12.14	\	\	\	\	\	\	\	\	\	\	\
	5320MHz (Ch64)	12.48	\	\	\	\	\	\	\	\	\	\	\
RU26-R	5500MHz (Ch100)	13.34	\	\	\	\	\	\	\	\	\	\	\
	5580MHz (Ch116)	13.13	\	\	\	\	\	\	\	\	\	\	\
	5700MHz (Ch140)	14.17	\	\	\	\	\	\	\	\	\	\	\

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											
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9	MCS10	MCS11
RU52-L	5180MHz (Ch36)	14.48	\	\	\	\	\	\	\	\	\	\	\
	5200MHz (Ch40)	14.79	\	\	\	\	\	\	\	\	\	\	\
	5240MHz (Ch48)	14.96	\	\	\	\	\	\	\	\	\	\	\
	5260MHz (Ch52)	15.11	\	\	\	\	\	\	\	\	\	\	\
	5280MHz (Ch56)	15.23	\	\	\	\	\	\	\	\	\	\	\
	5320MHz (Ch64)	15.56	\	\	\	\	\	\	\	\	\	\	\
RU52-R	5500MHz (Ch100)	16.69	\	\	\	\	\	\	\	\	\	\	\
	5580MHz (Ch116)	16.09	\	\	\	\	\	\	\	\	\	\	\
	5700MHz (Ch140)	17.28	\	\	\	\	\	\	\	\	\	\	\

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

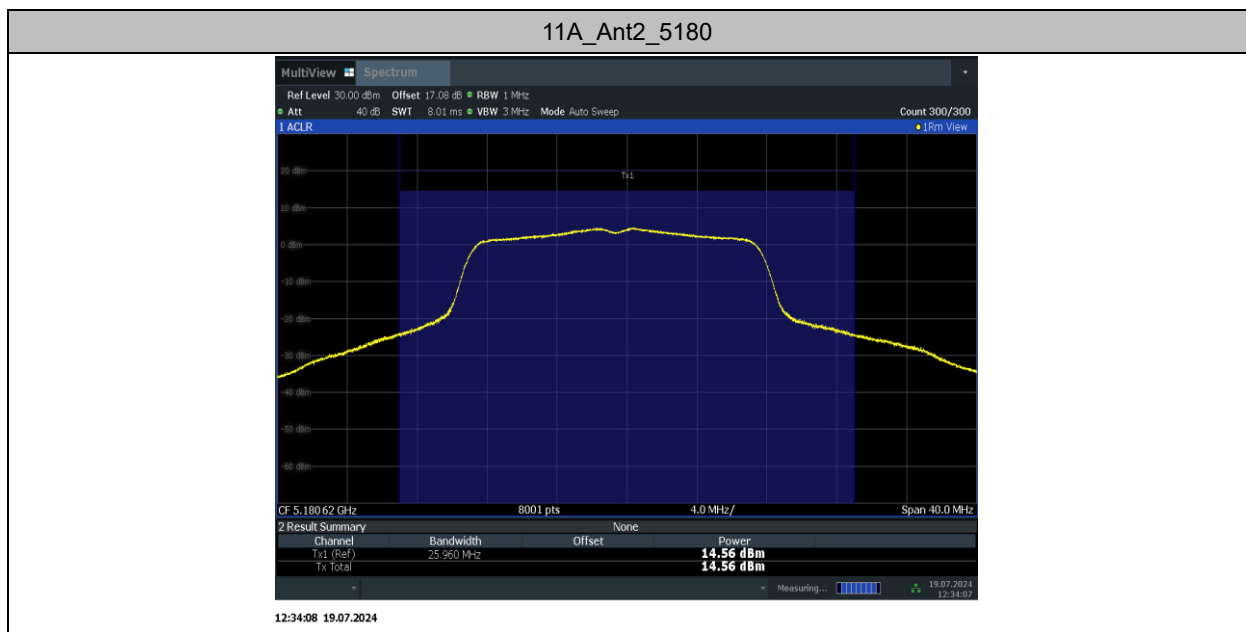
802.11ax-HE20 mode

Mode	Channel	Test Result (dBm)											
		Data Rate											
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9	MCS10	MCS11
RU106-L	5180MHz (Ch36)	14.53	\	\	\	\	\	\	\	\	\	\	\
	5200MHz (Ch40)	14.84	\	\	\	\	\	\	\	\	\	\	\
	5240MHz (Ch48)	15.09	\	\	\	\	\	\	\	\	\	\	\
	5260MHz (Ch52)	15.06	\	\	\	\	\	\	\	\	\	\	\
	5280MHz (Ch56)	15.36	\	\	\	\	\	\	\	\	\	\	\
	5320MHz (Ch64)	15.70	\	\	\	\	\	\	\	\	\	\	\
RU106-R	5500MHz (Ch100)	16.59	\	\	\	\	\	\	\	\	\	\	\
	5580MHz (Ch116)	16.15	\	\	\	\	\	\	\	\	\	\	\
	5700MHz (Ch140)	17.23	\	\	\	\	\	\	\	\	\	\	\

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

Duty cycle

Mode	11a					
Duty Cycle	79%					
Mode	11n-20	11n-40	11ac-20	11ac-40	11ac-80	11ac-160
Duty Cycle	30%	22%	29%	20%	15%	11%
Mode	11ax-20	11ax-40	11ax-80	11ax-160	11ax-20 RU	
Duty Cycle	74%	23%	17%	15%	83%	



Maximum output Power

Conclusion: PASS

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

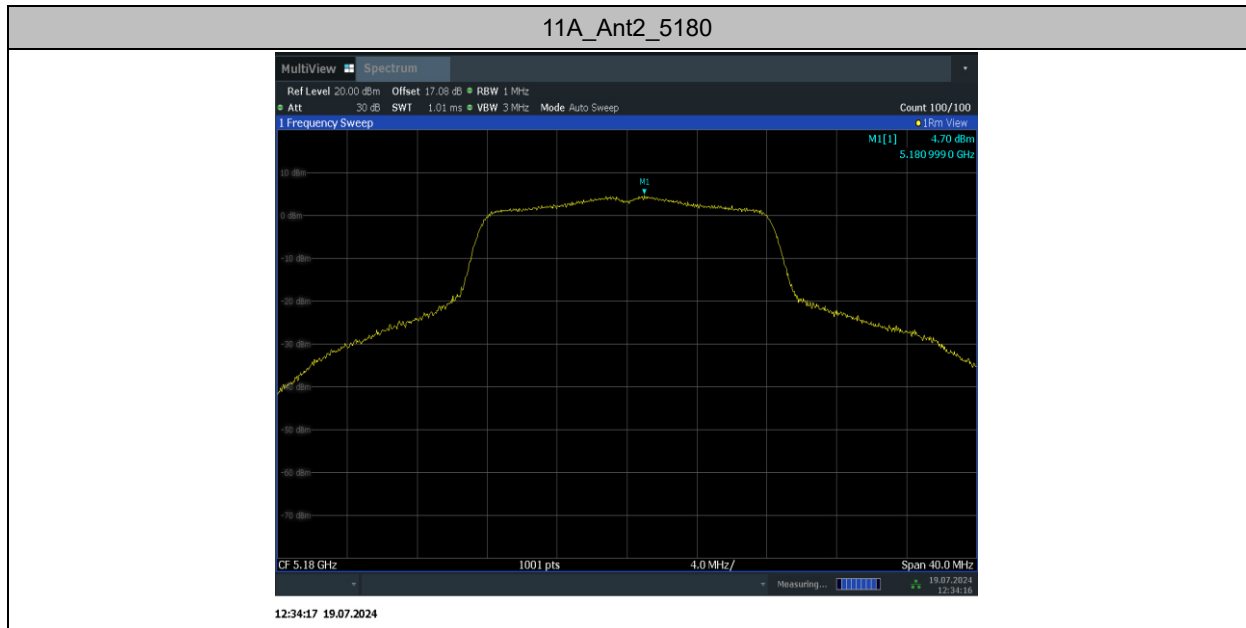
The output power measurement method Section F is made according to KDB 789033

EUT ID: UT05a

Measurement Results:

TestMode	Antenna	Frequency[MHz]	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant2	5180	4.70	≤11.00	PASS
		5200	5.03	≤11.00	PASS
		5240	5.56	≤11.00	PASS
		5260	5.54	≤11.00	PASS
		5280	5.98	≤11.00	PASS
		5320	6.08	≤11.00	PASS
		5500	6.79	≤11.00	PASS
		5580	6.46	≤11.00	PASS
		5700	7.33	≤11.00	PASS
11N40SISO	Ant2	5190	-2.34	≤11.00	PASS
		5230	-1.58	≤11.00	PASS
		5270	-1.49	≤11.00	PASS
		5310	-0.83	≤11.00	PASS
		5510	-0.03	≤11.00	PASS
		5550	2.99	≤11.00	PASS
		5670	0.18	≤11.00	PASS
11AC80SISO	Ant2	5210	-4.83	≤11.00	PASS
		5290	-4.80	≤11.00	PASS
		5530	-3.33	≤11.00	PASS
		5610	-3.64	≤11.00	PASS
		5690	-3.02	≤11.00	PASS
11AC160SISO	Ant2	5250	-8.61	≤11.00	PASS
		5570	-8.02	≤11.00	PASS
11AX20SISO	Ant2	5180	3.84	≤11.00	PASS
		5200	4.19	≤11.00	PASS
		5240	4.48	≤11.00	PASS
		5260	4.39	≤11.00	PASS
		5280	4.99	≤11.00	PASS
		5320	5.28	≤11.00	PASS
		5500	5.81	≤11.00	PASS

		5580	5.67	≤ 11.00	PASS
		5700	6.76	≤ 11.00	PASS



Peak Power Spectral Density:

11ax-RU

Test Mode	Antenna	Frequency[MHz]	Ru Size	Ru Index	Result [dBm/MHz]	Limit [dBm/MHz]	Verdict
11AX20SISO	Ant2	5180	26Tone	RU0	8.77	≤ 11.00	PASS
			52Tone	RU37	9.10	≤ 11.00	PASS
			106Tone	RU53	6.06	≤ 11.00	PASS
		5200	26Tone	RU0	9.00	≤ 11.00	PASS
			52Tone	RU37	9.65	≤ 11.00	PASS
			106Tone	RU53	6.29	≤ 11.00	PASS
		5240	26Tone	RU0	9.30	≤ 11.00	PASS
			52Tone	RU37	9.64	≤ 11.00	PASS
			106Tone	RU53	6.78	≤ 11.00	PASS
		5260	26Tone	RU0	9.97	≤ 11.00	PASS
			52Tone	RU37	9.89	≤ 11.00	PASS
			106Tone	RU53	6.65	≤ 11.00	PASS
		5280	26Tone	RU0	9.60	≤ 11.00	PASS
			52Tone	RU37	10.25	≤ 11.00	PASS
			106Tone	RU53	6.95	≤ 11.00	PASS
		5320	26Tone	RU0	9.80	≤ 11.00	PASS
			52Tone	RU37	10.16	≤ 11.00	PASS
			106Tone	RU53	7.49	≤ 11.00	PASS
		5500	26Tone	RU8	10.02	≤ 11.00	PASS

			52Tone	RU40	9.94	≤11.00	PASS
			106Tone	RU54	8.33	≤11.00	PASS
		5580	26Tone	RU8	9.53	≤11.00	PASS
			52Tone	RU40	10.21	≤11.00	PASS
			106Tone	RU54	7.91	≤11.00	PASS
		5700	26Tone	RU8	9.96	≤11.00	PASS
			52Tone	RU40	10.23	≤11.00	PASS
			106Tone	RU54	9.35	≤11.00	PASS

Conclusion: PASS

A.4. 26dB Emission Bandwidth (conducted)

Measurement Limit:

Standard	Limit (kHz)
FCC 47 CFR Part 15.403 (i)	/

The measurement is made according to KDB 789033

Measurement Uncertainty:

Measurement Uncertainty	60.80Hz
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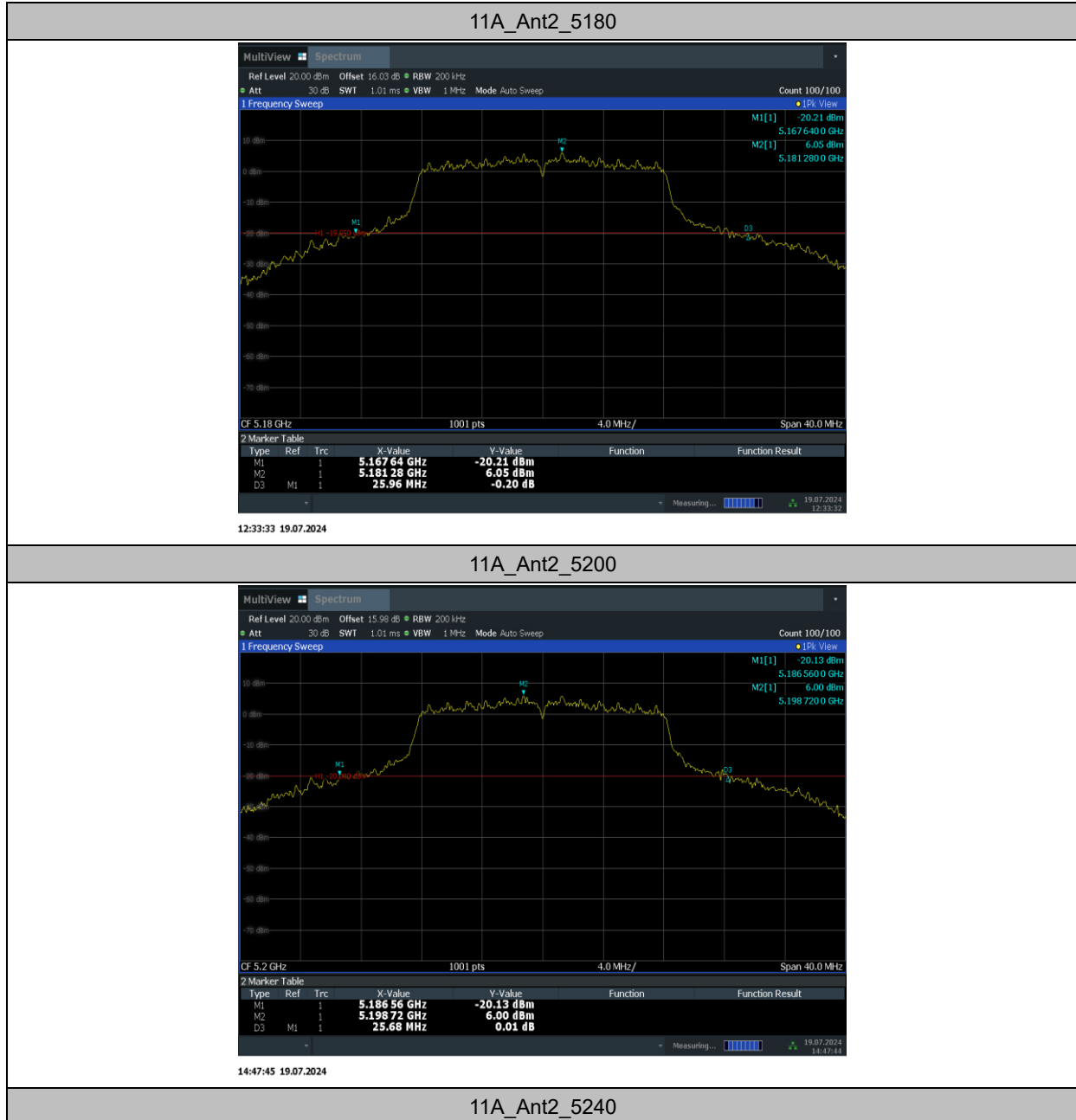
EUT ID: UT05a

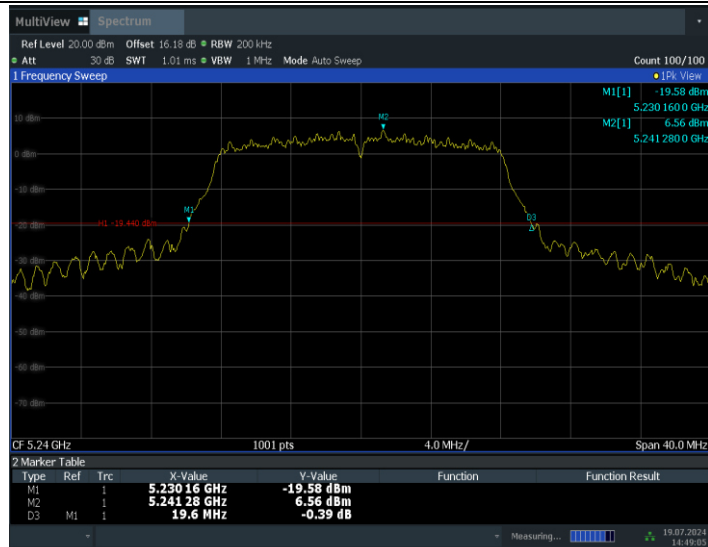
Measurement Result:

TestMode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant2	5180	25.96	5167.64	5193.60	---	---
		5200	25.68	5186.56	5212.24	---	---
		5240	19.60	5230.16	5249.76	---	---
		5260	20.36	5249.68	5270.04	---	---
		5280	20.36	5269.68	5290.04	---	---
		5320	26.84	5305.32	5332.16	---	---
		5500	27.80	5486.60	5514.40	---	---
		5580	20.40	5569.64	5590.04	---	---
		5700	24.44	5686.56	5711.00	---	---
11N40SISO	Ant2	5190	40.48	5169.76	5210.24	---	---
		5230	40.48	5209.84	5250.32	---	---
		5270	40.40	5249.76	5290.16	---	---
		5310	40.80	5289.68	5330.48	---	---
		5510	40.64	5489.68	5530.32	---	---
		5550	40.80	5529.60	5570.40	---	---
		5670	40.64	5649.84	5690.48	---	---
11AC80SISO	Ant2	5210	80.96	5169.52	5250.48	---	---
		5290	81.12	5249.36	5330.48	---	---
		5530	80.96	5489.52	5570.48	---	---
		5610	81.12	5569.36	5650.48	---	---
		5690	80.96	5649.52	5730.48	---	---
11AC160SISO	Ant2	5250	163.20	5168.40	5331.60	---	---
		5570	163.20	5488.40	5651.60	---	---
11AX20SISO	Ant2	5180	21.84	5169.16	5191.00	---	---
		5200	21.08	5189.48	5210.56	---	---
		5240	19.92	5230.04	5249.96	---	---
		5260	21.80	5249.08	5270.88	---	---
		5280	21.64	5269.36	5291.00	---	---
		5320	21.52	5309.24	5330.76	---	---
		5500	20.96	5489.52	5510.48	---	---

		5580	22.12	5568.84	5590.96	---	---
		5700	21.68	5689.24	5710.92	---	---

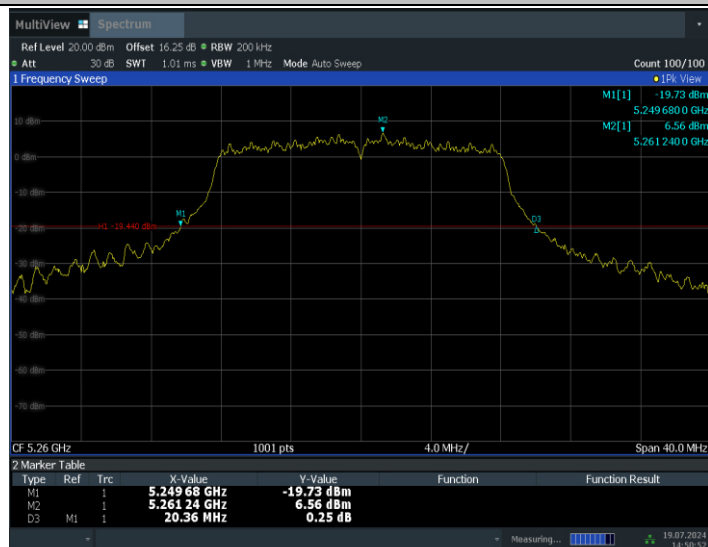
Test graphs as below:





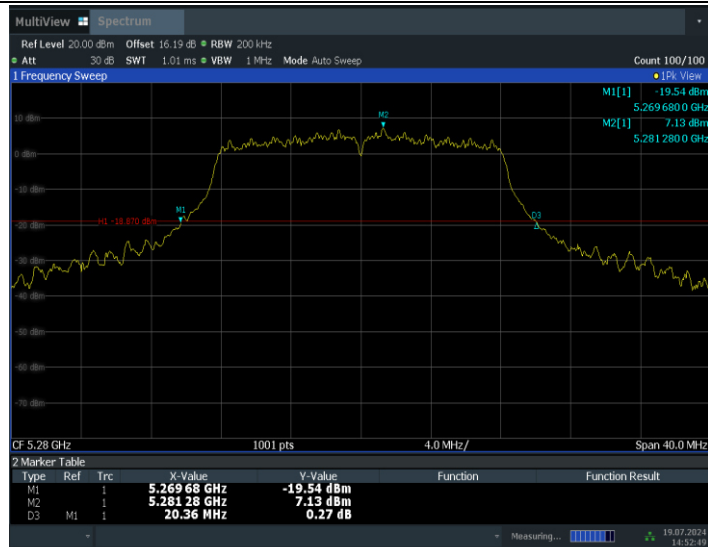
14:49:06 19.07.2024

11A_Ant2_5260



14:50:52 19.07.2024

11A_Ant2_5280



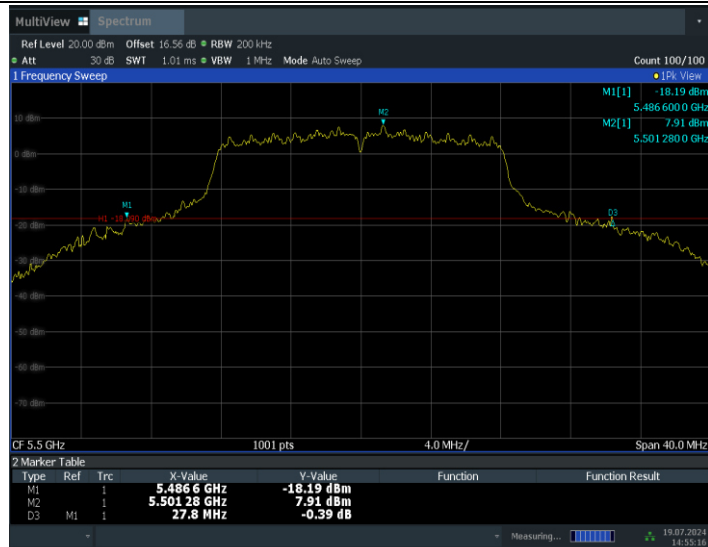
14:52:49 19.07.2024

11A_Ant2_5320



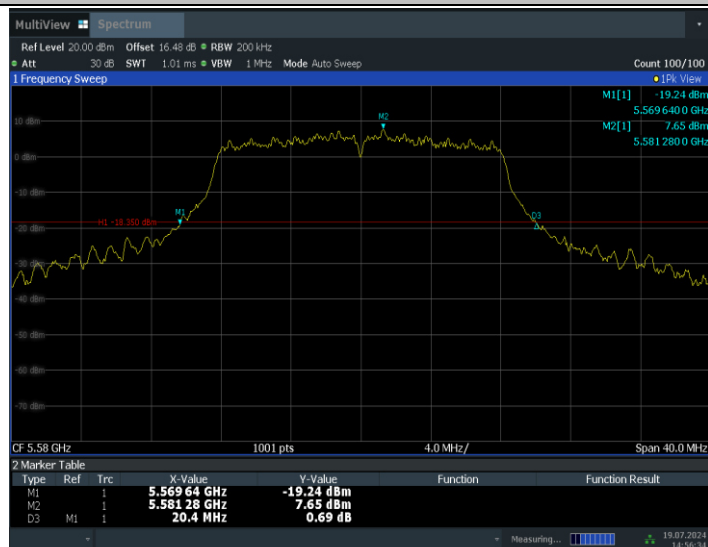
14:54:04 19.07.2024

11A_Ant2_5500



14:55:17 19.07.2024

11A_Ant2_5580



14:56:35 19.07.2024

11A_Ant2_5700



14:57:54 19.07.2024

11N40SISO_Ant2_5190



16:49:37 19.07.2024

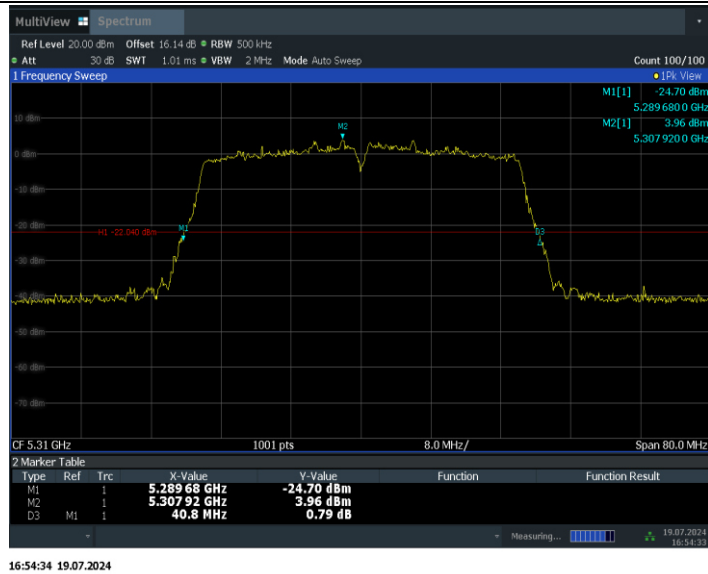
11N40SISO_Ant2_5230



11N40SISO_Ant2_5270



11N40SISO_Ant2_5310



11N40SISO_Ant2_5510



11N40SISO_Ant2_5550



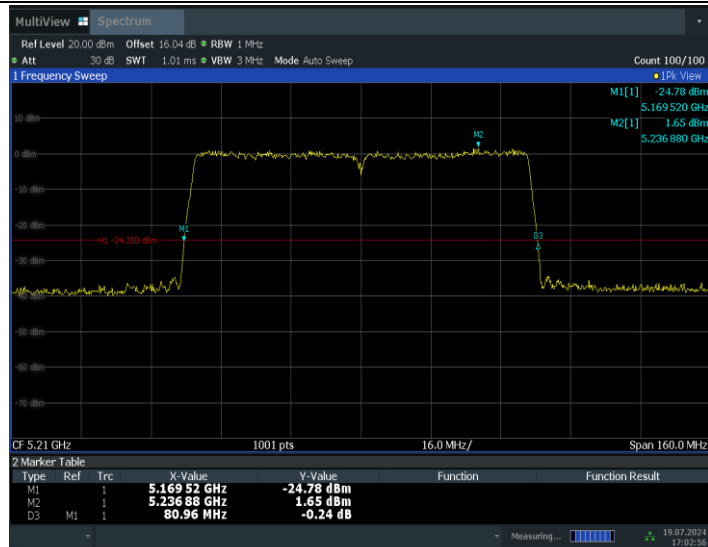
16:56:37 19.07.2024

11N40SISO_Ant2_5670



16:57:48 19.07.2024

11AC80SISO_Ant2_5210



17:02:57 19.07.2024

11AC80SISO_Ant2_5290



17:06:41 19.07.2024

11AC80SISO_Ant2_5530



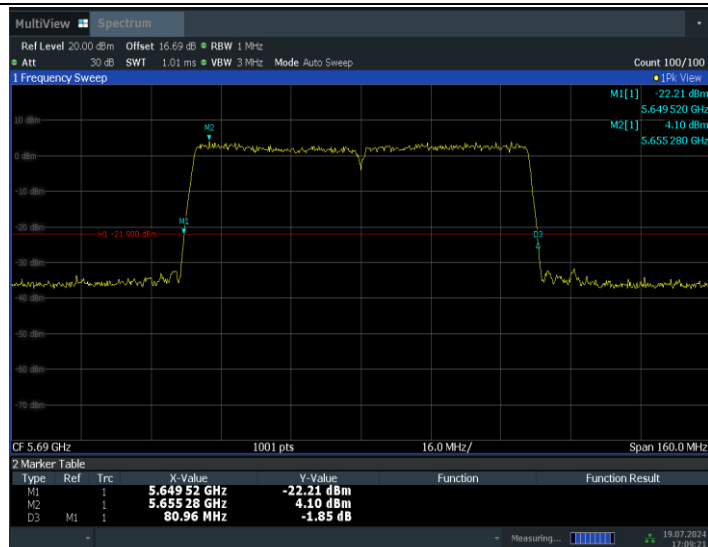
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11AC80SISO_Ant2_5610



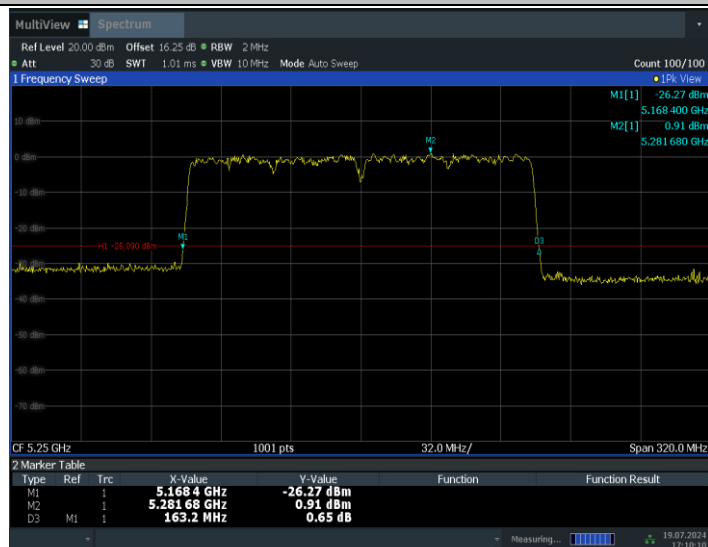
17:08:32 19.07.2024

11AC80SISO_Ant2_5690



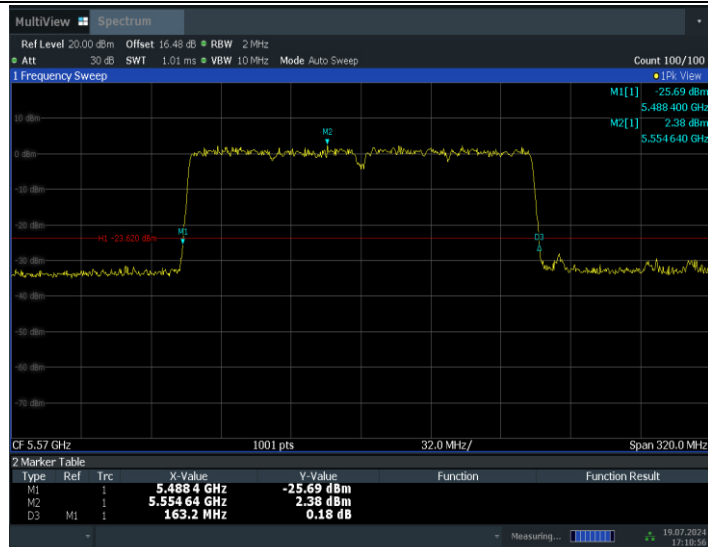
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11AC160SISO_Ant2_5250



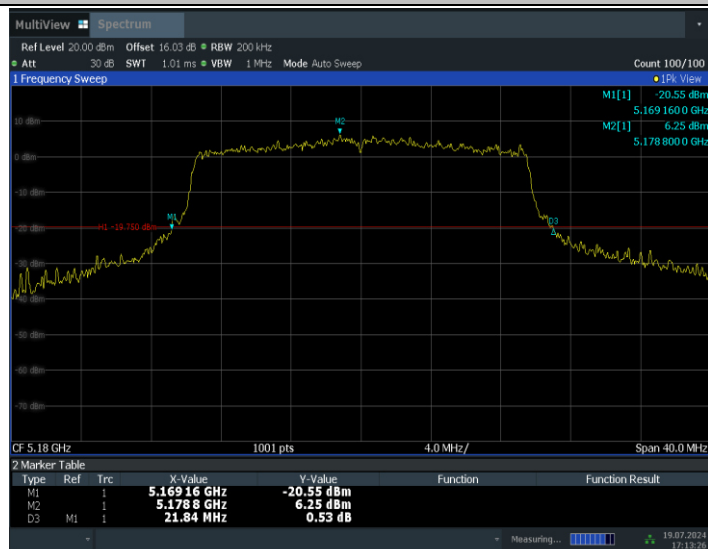
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11AC160SISO_Ant2_5570



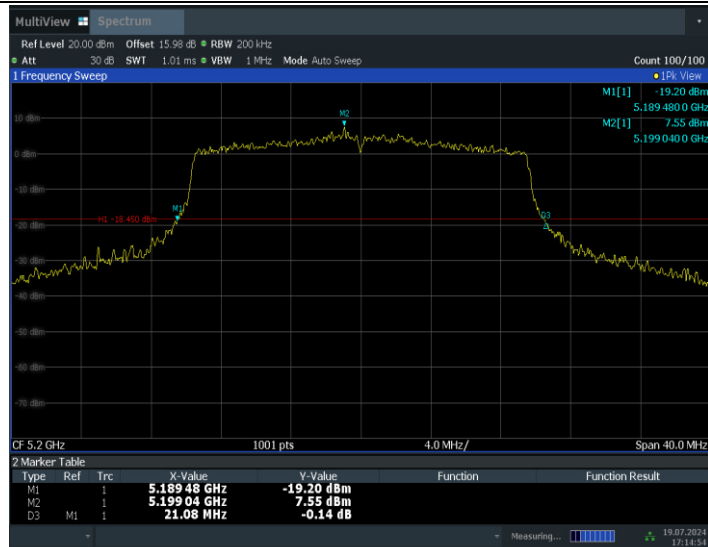
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11AX20SISO_Ant2_5180



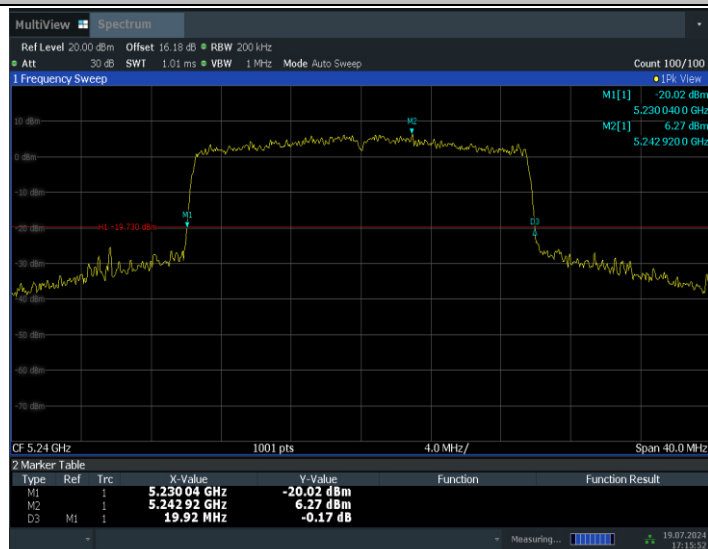
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11AX20SISO_Ant2_5200



17:14:54 19.07.2024

11AX20SISO_Ant2_5240



17:15:53 19.07.2024

11AX20SISO_Ant2_5260