



FCC PART 15E TEST REPORT No.24T04Z100905-004

for

OnePlus Technology (Shenzhen) Co., Ltd.

Tablet

OPD2403

FCC ID:2ABZ2-OPD2403

with

Hardware Version: 88666_1_11

Software Version: OPD2403_14.1.0

Issued Date: 2024-06-17

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

REPORT HISTORY

Report Number	Revision	Description	Issue Date
24T04Z100905-004	Rev.0	1st edition	2024-06-05
24T04Z100905-004	Rev.1	Update 802.11n/ac/ax/be description for CDD, BF and STBC mode on page10	2024-06-17

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(BDA)

Address: No.18A, Kangding Street, Beijing Economic-Technology
Development Area, Beijing, P. R. China 100176

1.3. TestingEnvironment

Normal Temperature: 15-35°C

Relative Humidity: 20-75%

1.4. Project date

Testing Start Date: 2024-04-26

Testing End Date: 2024-06-05

1.5. Signature



Yao Xingyu

(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: 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: /

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

3.1. About EUT

Description	Tablet
Model name	OPD2403
FCC ID	2ABZ2-OPD2403
WLAN Frequency Band	ISM Band: 5725MHz~5850MHz
Type of modulation	OFDM/OFDMA
Nominal Voltage	3.89V
Extreme High Voltage	4.48V
Extreme Low Voltage	3.3V

3.2. Internal Identification of EUT used during the test

EUT ID*	IMEI	HW Version	SW Version	Date of receipt
UT11a	W621521000006E3U900918	88666_1_11	OPD2403_14.1.0	2024-05-06
UT02a	W621521000006E3U900939	88666_1_11	OPD2403_14.1.0	2024-05-07
UT03a	W621521000006E3U900936	88666_1_11	OPD2403_14.1.0	2024-05-07

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

UT11a is used for Conduction test, UT02a and UT03a is used for Radiation test.

3.3. Internal Identification of AE used during the test

AE ID*	Description	Model	Manufacturer
AE1	Battery	BLT009	Sunwoda Electronic CO.,LTD.
AE2	Charger	VCB7OAUH	Dongguan Aohai Technology Co.,Ltd.
AE3	USB Cable	DL129	Dongguan Fuqiang Electronics Co., Ltd

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

3.4. General Description

Equipment Under Test (EUT) is a model of Tablet with integrated antenna. It consists of normal options: Battery and Charger.

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

Samples undergoing test were selected by the Client.

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	FCC CFR 47, Part 15, Subpart C and E:	
	15.205 Restricted bands of operation;	2021
	15.209 Radiated emission limits, general requirements;	
	15.407 General technical requirements	
ANSI C63.10	Methods of Measurement of Radio-Noise Emissions from	
	Low-Voltage Electrical and Electronic Equipment in the	2013
	Range of 9 kHz to 40 GHz	
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.

6. Test Results

6.1. Summary of Test Results

SUMMARY OF MEASUREMENT RESULTS	Sub-clause of Part15E	Sub-clause of IC	Verdict
Maximum Peak Output Power	15.407 (a)	/	P
Peak Power Spectral Density	15.407 (a)	/	P
Occupied 6dB Bandwidth	15.407 (e)	/	P
Radiated Unwanted Emission	15.407, 15.205, 15.209	/	P
AC Powerline Conducted Emission	15.107, 15.207	/	P

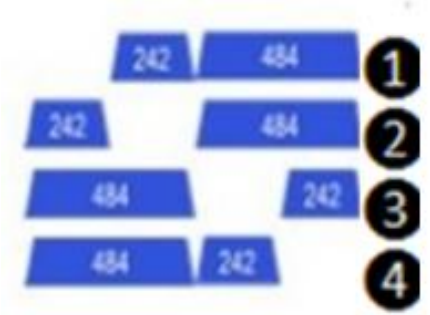
Please refer to **ANNEX A** for detail.

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-3, and can't transmit simultaneously in U-NII-3.
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/6dB bandwidth) has reported only 802.11a/ac-VHT20/40/ax-HE80MHz by referring to the higher output power.
6. For 802.11ax single RU and 802.11be single RU modes, the PSD has reported only 802.11ax- HE20-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.
52 Tone,index38 + 26Tone,index1, 52 Tone,index39 + 26Tone,index7
106 Tone,index53 + 26Tone,index4, 106 Tone,index54 + 26Tone,index4.
8. For 802.11be-EHT80MHz large MRU and Puncturing modes are tested for conducted power/PSD.

Bandwidth	Pattern	index
80MHz		484+242-tone Index 1 484+242-tone Index 2 484+242-tone Index 3 484+242-tone Index 4

6.3. Antenna Gain

Mode	Ant0(dBi)	Ant1(dBi)	Power(dBi)	PSD(dBi)
CDD	-1.4	-1.6	-1.4	1.51
BF	-1.4	-1.6	1.51	1.51

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

Directional gain = $10 \log [(10^{G1/20} + 10^{G2/20} + \dots + 10^{Gn/20})^2 / \text{NANT}]$ 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 = $10 \log [(10^{G1/20} + 10^{G2/20} + \dots + 10^{Gn/20})^2 / \text{NANT}]$ 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/ac/ax/be support CDD, BF and STBC mode, as they use the same power setting, only eirp results of BF have been reported.
5. 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 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.

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	3.89V
Humidity	44%

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	2025-04-01
2	LISN	ENV216	101200	R&S	1 Year	2025-05-17
3	Test Receiver	ESCI	100344	R&S	1 Year	2025-05-01
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	103144	R&S	1 Year	2024-12-26
2	EMI Antenna	VULB9163	01223	R&S	1 Year	2024-08-18
3	EMI Antenna	3115	00167250	R&S	1 Year	2025-05-11
4	EMI Antenna	3116	2663	R&S	1 Year	2025-03-21

Test Software

Test Item	Test Software and Version	Software Vendor
Radiated Continuous Emission	EMC32 V11.50.20	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. 6dB 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

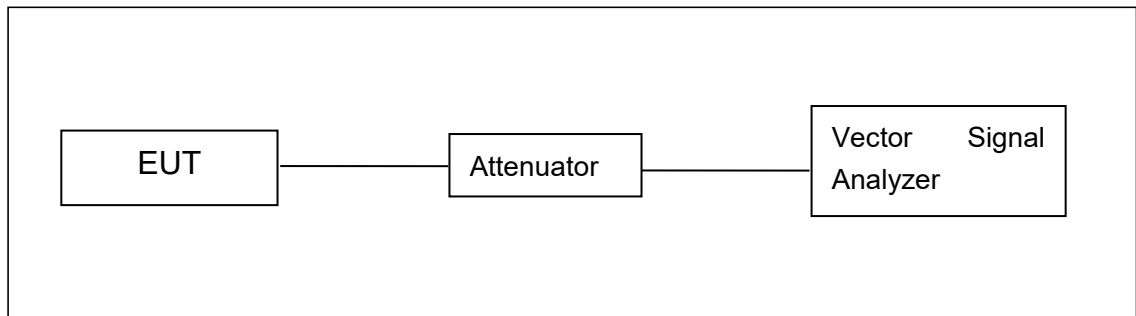
Measurement Uncertainty : 3.08dB,k=2

ANNEX A: MEASUREMENT 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 sei-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 Peak Output Power

Measurement Limit and Method:

Standard	Limit (dBm)
FCC CRF Part 15.407(a)	< 30

Set span to encompass the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.

Set RBW = 1 MHz.

Set VBW $\geq$ 3 MHz.

Number of points in sweep $\geq 2 \times \text{span} / \text{RBW}$.

Sweep time = auto.

Detector = power averaging (rms)

Trace average at least 100 traces in power averaging (rms) mode; however, the number of traces to be averaged shall be increased above 100 as needed to ensure that the average accurately represents the true average over the on and off periods of the transmitter.

Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument's band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal. Add 10 log (1/x), where x is the duty cycle

A.2.1. Maximum Average Output Power-Conducted

EUT ID: UT11a

Measurement Results:

Full RU MIMO

Mode	Data Rate (Index)	Conducted power								
		5745MHz(Ch149)			5785MHz(Ch157)			5825MHz(Ch165)		
		Ant0	Ant1	MIMO	Ant0	Ant1	MIMO	Ant0	Ant1	MIMO
802.11a	6Mbps	17.30	17.38	20.35	17.28	17.20	20.25	17.15	16.96	20.07
802.11n-HT20	MCS0	17.39	17.35	20.38	17.30	17.28	20.30	17.22	17.04	20.14
802.11ac-VHT20	MCS0	17.39	17.44	20.43	17.31	17.27	20.30	17.26	17.02	20.15
802.11ax-HE20	MCS0	17.33	17.32	20.34	17.18	17.23	20.22	17.16	17.07	20.13
802.11be-EHT20	MCS0	17.31	17.32	20.33	17.29	17.24	20.28	17.19	16.98	20.10

Mode	Data Rate (Index)	Conducted power					
		5755MHz(Ch151)			5795MHz(Ch159)		
		Ant0	Ant1	MIMO	Ant0	Ant1	MIMO
802.11n-HT40	MCS0	15.83	15.93	18.89	15.86	15.77	18.83
802.11ac-VHT40	MCS0	15.85	15.94	18.91	15.83	15.89	18.87
802.11ax-HE40	MCS0	15.43	15.52	18.49	15.38	15.35	18.38
802.11be-EHT40	MCS0	15.22	15.16	18.20	15.16	15.08	18.13

Mode	Data Rate (Index)	Conducted power		
		5775MHz(Ch155)		
		Ant0	Ant1	MIMO
802.11ac-VHT80	MCS0	13.62	13.37	16.51
802.11ax-HE80	MCS0	13.83	13.70	16.78
802.11be-EHT80	MCS0	13.87	13.63	16.76

RU mode:

Mode	RU index	Conducted power								
		5745MHz(Ch149)			5785MHz(Ch157)			5825MHz(Ch165)		
		Ant0	Ant1	MIMO	Ant0	Ant1	MIMO	Ant0	Ant1	MIMO
802.11ax -HE20	RU26 left	2.34	2.26	5.31	2.18	2.34	5.27	0.74	-0.80	3.05
	RU26 right	2.15	2.24	5.21	2.10	2.34	5.23	0.63	-0.83	2.97
	RU52 left	5.32	5.16	8.25	5.37	5.03	8.21	5.23	5.03	8.14
	RU52 right	5.36	5.05	8.22	5.33	4.90	8.13	5.09	4.80	7.96
	RU106 left	8.36	8.21	11.30	8.31	8.03	11.18	8.10	7.93	11.03
	RU106 right	8.33	8.09	11.22	8.32	7.96	11.15	8.13	7.76	10.96
802.11be -EHT20	RU26 left	2.39	2.34	5.38	2.29	2.32	5.32	0.81	-0.68	3.14
	RU26 right	2.30	2.12	5.22	2.26	2.24	5.26	0.66	-0.90	2.96
	RU52 left	5.21	5.21	8.22	5.27	5.11	8.20	5.04	5.08	8.07
	RU52 right	5.16	5.06	8.12	5.09	4.97	8.04	4.77	4.81	7.80
	RU106 left	8.09	8.27	11.19	8.08	8.10	11.10	7.84	7.92	10.89
	RU106 right	8.01	8.06	11.05	7.98	7.95	10.98	7.77	7.80	10.80

MRU mode:

Mode	RU index	Conducted power								
		5745MHz(Ch149)			5785MHz(Ch157)			5825MHz(Ch165)		
		Ant0	Ant1	MIMO	Ant0	Ant1	MIMO	Ant0	Ant1	MIMO
802.11be -EHT20	52 Tone,index38 + 26Tone,index1	5.84	5.30	8.59	5.82	5.13	8.50	5.51	5.00	8.27
	52 Tone,index39 + 26Tone,index7	5.71	5.08	8.42	5.69	4.94	8.34	5.52	4.83	8.20
	106 Tone,index53 + 26Tone,index4	8.49	8.21	11.36	8.40	8.08	11.25	8.21	7.95	11.09
	106 Tone,index54 + 26Tone,index4	8.14	8.35	11.26	8.03	8.29	11.17	7.83	8.13	10.99

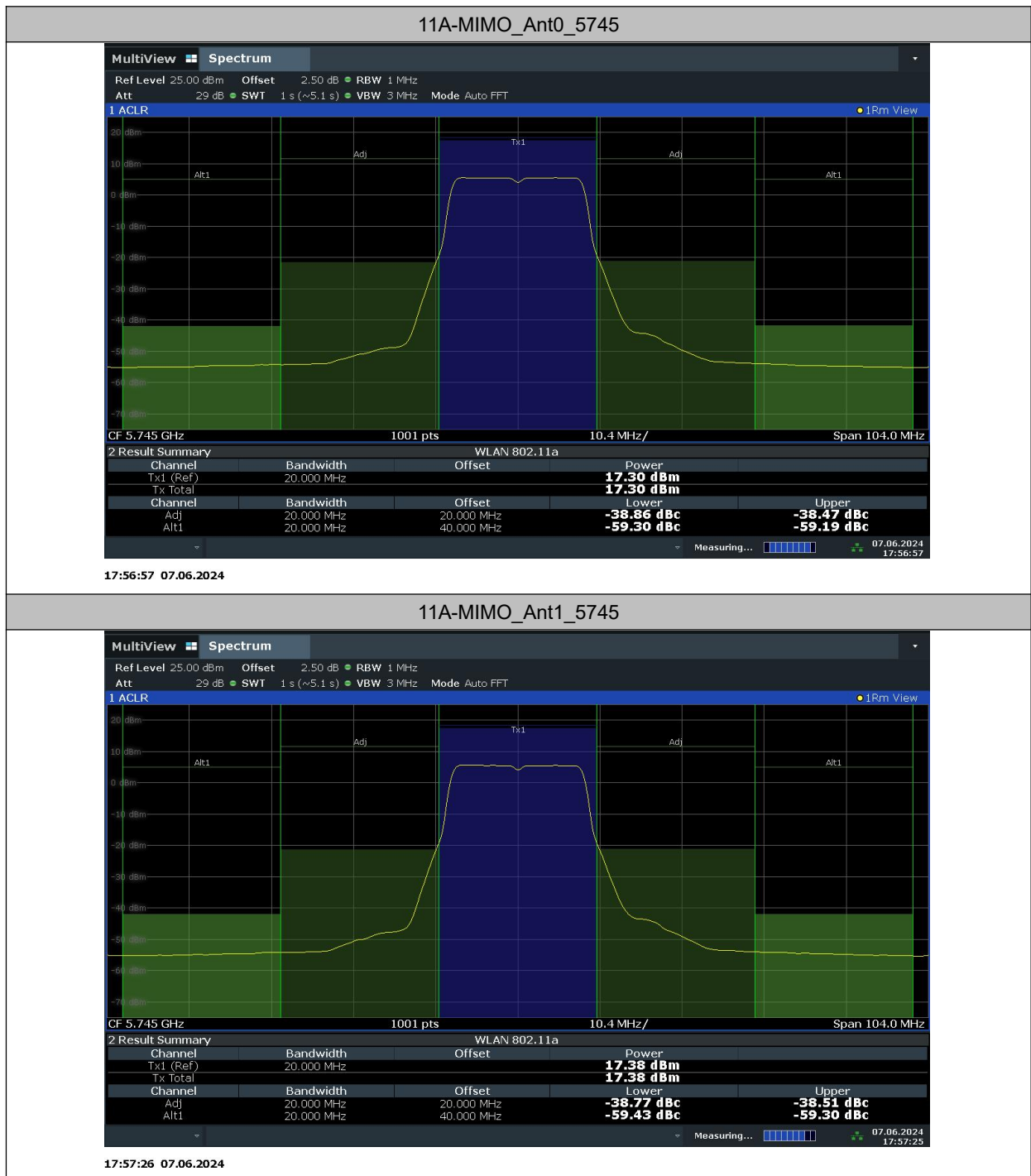
Mode	RU index	configure	Conducted power		
			5775MHz(Ch155)		
			Ant0	Ant1	MIMO
802.11be -EHT80	484+242 Tone	1	17.26	17.71	20.50
		2	17.24	17.61	20.44
		3	17.25	17.59	20.43
		4	17.27	17.53	20.41

The data rate 6Mbps (11a mode), MCS0 (11n-HT20 mode), MCS0 (11n-HT40 mode), MCS0 (11ac-VHT20 mode), MCS0 (11ac-VHT40 mode), MCS0 (11ac-VHT80 mode) , MCS0 (11ax-HE20 mode), MCS0 (11ax-HE40 mode), MCS0 (11ax-HE80 mode),MCS0 (11be-EHT20 mode), MCS0 (11be-EHT40 mode), MCS0 (11be-EHT80 mode)are selected as the worst condition; as the maximum power is got with these data rate. The following cases are performed with this condition.

Duty Cycle

Mode	802.11a	802.11n20	802.11n40	802.11ac20	802.11ac40	802.11ac80
Duty Cycle	99%	99%	99%	99%	99%	99%

802.11ax20	802.11ax40	802.11ax80	802.11be20	802.11be40	802.11be80
99%	99%	99%	99%	99%	99%



Conclusion: PASS

A.3. Peak Power Spectral Density

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.407(a)	< 30 dBm/500 kHz

Set span to encompass the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.

Set RBW = 500 kHz.

Set VBW $\geq$ 3 MHz.

Number of points in sweep $\geq 2 \times \text{span} / \text{RBW}$.

Sweep time = auto.

Detector = power averaging (rms)

Trace average at least 100 traces in power averaging (rms) mode; however, the number of traces to be averaged shall be increased above 100 as needed to ensure that the average accurately represents the true average over the on and off periods of the transmitter. Use the peak search function on the instrument to find the peak of the spectrum and record its value. Add $10 \log (1/x)$, where x is the duty cycle.

Measurement Uncertainty:

Measurement Uncertainty	0.75dB
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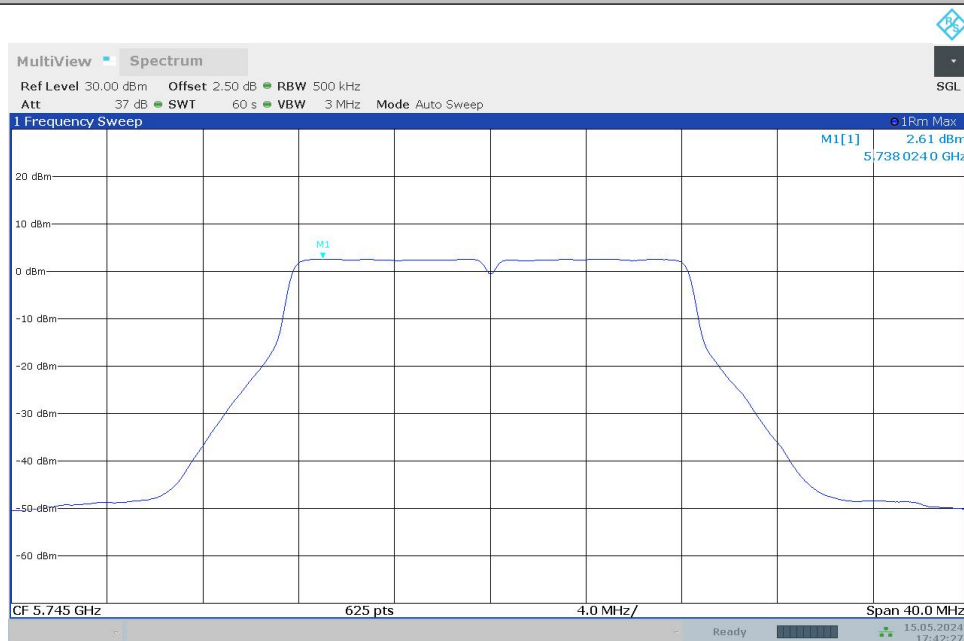
EUT ID: UT11a

Measurement Results:

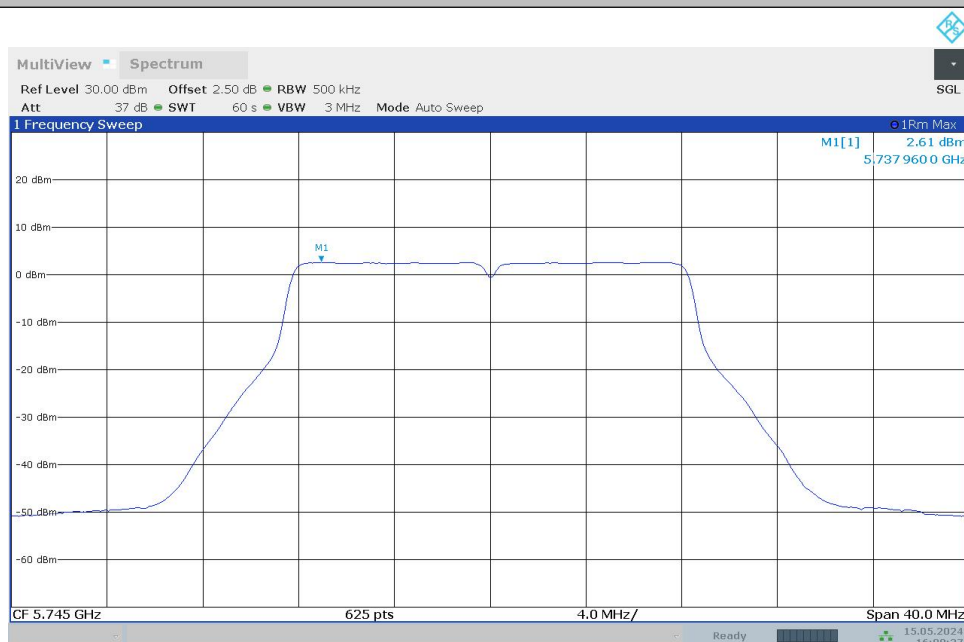
TestMode	Antenna	Frequency[MHz]	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A-MIMO	Ant0	5745	2.61	≤ 30.00	PASS
	Ant1	5745	2.61	≤ 30.00	PASS
	total	5745	5.62	≤ 30.00	PASS
	Ant0	5785	2.54	≤ 30.00	PASS
	Ant1	5785	2.51	≤ 30.00	PASS
	total	5785	5.54	≤ 30.00	PASS
	Ant0	5825	2.33	≤ 30.00	PASS
	Ant1	5825	2.50	≤ 30.00	PASS
	total	5825	5.43	≤ 30.00	PASS
11AC20MIMO	Ant0	5745	2.36	≤ 30.00	PASS
	Ant1	5745	2.34	≤ 30.00	PASS
	total	5745	5.36	≤ 30.00	PASS
	Ant0	5785	2.31	≤ 30.00	PASS
	Ant1	5785	2.28	≤ 30.00	PASS
	total	5785	5.31	≤ 30.00	PASS
	Ant0	5825	2.13	≤ 30.00	PASS
	Ant1	5825	2.20	≤ 30.00	PASS
	total	5825	5.18	≤ 30.00	PASS
11AC40MIMO	Ant0	5755	-2.10	≤ 30.00	PASS
	Ant1	5755	-2.11	≤ 30.00	PASS

	total	5755	0.91	≤30.00	PASS
	Ant0	5795	-2.25	≤30.00	PASS
	Ant1	5795	-2.20	≤30.00	PASS
	total	5795	0.79	≤30.00	PASS
11AX80MIMO	Ant0	5775	-6.86	≤30.00	PASS
	Ant1	5775	-6.78	≤30.00	PASS
	total	5775	-3.81	≤30.00	PASS

11A-MIMO_Ant0_5745



11A-MIMO_Ant1_5745

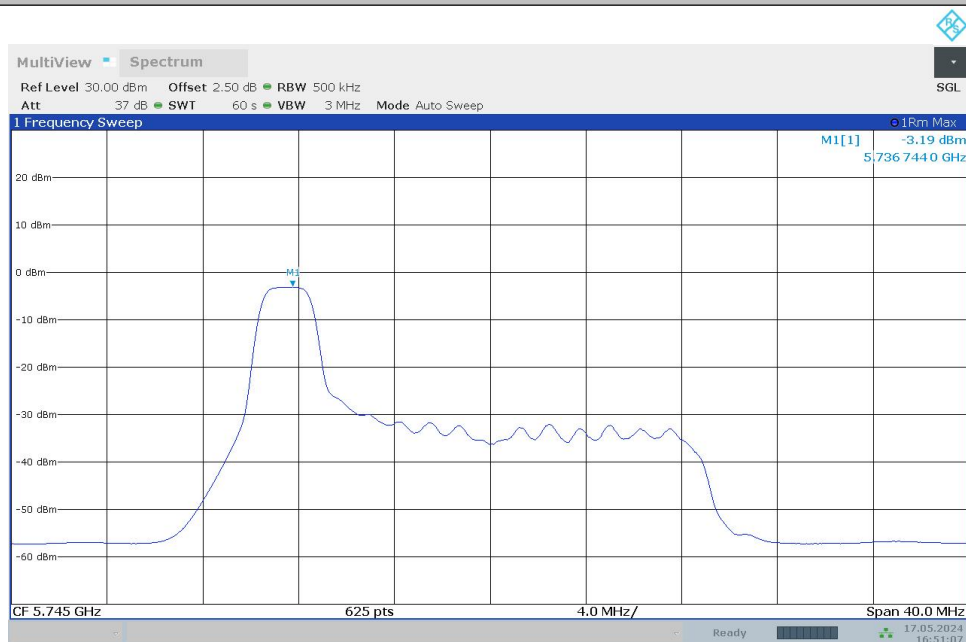


RU mode

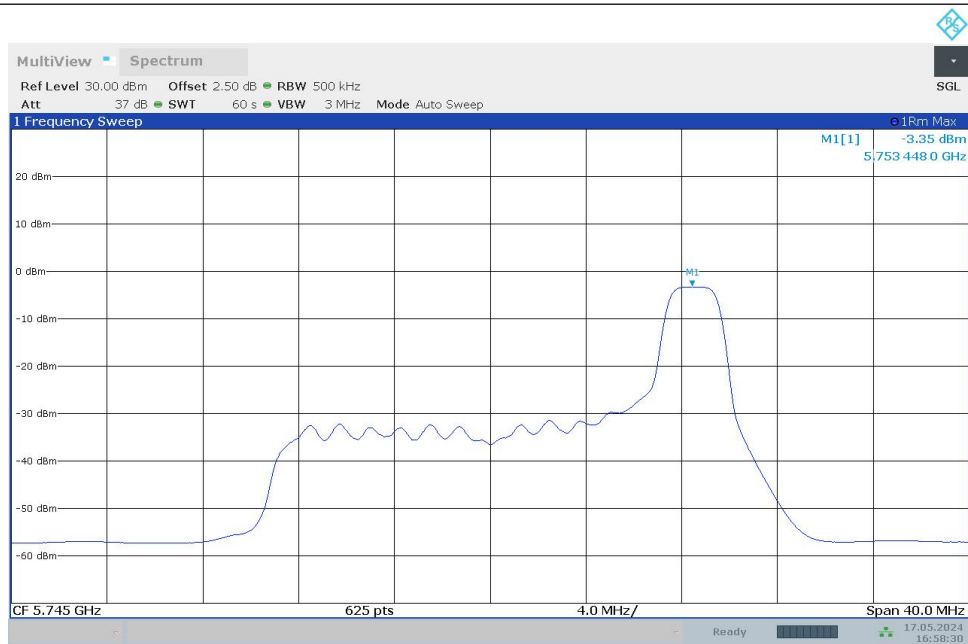
Test Mode	Antenna	Frequency [MHz]	Ru Size	Ru Index	Result [dBm/MHz]	Limit [dBm/MHz]	Verdict
11AX20MIMO	Ant0	5745	26Tone	RU0	-3.19	≤30.00	PASS
				RU8	-3.35	≤30.00	PASS
			52Tone	RU37	-3.39	≤30.00	PASS
				RU40	-3.49	≤30.00	PASS
			106Tone	RU53	-3.49	≤30.00	PASS
				RU54	-3.61	≤30.00	PASS
	Ant1	5745	26Tone	RU0	-3.34	≤30.00	PASS
				RU8	-3.44	≤30.00	PASS
			52Tone	RU37	-3.42	≤30.00	PASS
				RU40	-3.57	≤30.00	PASS
			106Tone	RU53	-3.47	≤30.00	PASS
				RU54	-3.57	≤30.00	PASS
	total	5745	26Tone	RU0	-0.25	≤30.00	PASS
				RU8	-0.38	≤30.00	PASS
			52Tone	RU37	-0.39	≤30.00	PASS
				RU40	-0.52	≤30.00	PASS
			106Tone	RU53	-0.47	≤30.00	PASS
				RU54	-0.58	≤30.00	PASS
	Ant0	5785	26Tone	RU0	-3.34	≤30.00	PASS
				RU8	-3.38	≤30.00	PASS
			52Tone	RU37	-3.48	≤30.00	PASS
				RU40	-3.43	≤30.00	PASS
			106Tone	RU53	-3.57	≤30.00	PASS
				RU54	-3.60	≤30.00	PASS
	Ant1	5785	26Tone	RU0	-3.34	≤30.00	PASS
				RU8	-3.38	≤30.00	PASS
			52Tone	RU37	-3.54	≤30.00	PASS
				RU40	-3.71	≤30.00	PASS
			106Tone	RU53	-3.62	≤30.00	PASS
				RU54	-3.68	≤30.00	PASS
	total	5785	26Tone	RU0	-0.33	≤30.00	PASS
				RU8	-0.37	≤30.00	PASS
			52Tone	RU37	-0.50	≤30.00	PASS
				RU40	-0.56	≤30.00	PASS
			106Tone	RU53	-0.58	≤30.00	PASS
				RU54	-0.63	≤30.00	PASS
	Ant0	5825	26Tone	RU0	-5.07	≤30.00	PASS
				RU8	-5.22	≤30.00	PASS
			52Tone	RU37	-3.59	≤30.00	PASS

	Ant1	5825	106Tone	RU40	-3.68	≤30.00	PASS
				RU53	-3.69	≤30.00	PASS
				RU54	-3.83	≤30.00	PASS
			26Tone	RU0	-6.48	≤30.00	PASS
				RU8	-6.58	≤30.00	PASS
			52Tone	RU37	-3.60	≤30.00	PASS
				RU40	-3.75	≤30.00	PASS
			106Tone	RU53	-3.78	≤30.00	PASS
				RU54	-3.90	≤30.00	PASS
	total	5825	26Tone	RU0	-2.71	≤30.00	PASS
				RU8	-2.84	≤30.00	PASS
			52Tone	RU37	-0.58	≤30.00	PASS
				RU40	-0.70	≤30.00	PASS
			106Tone	RU53	-0.72	≤30.00	PASS
				RU54	-0.85	≤30.00	PASS

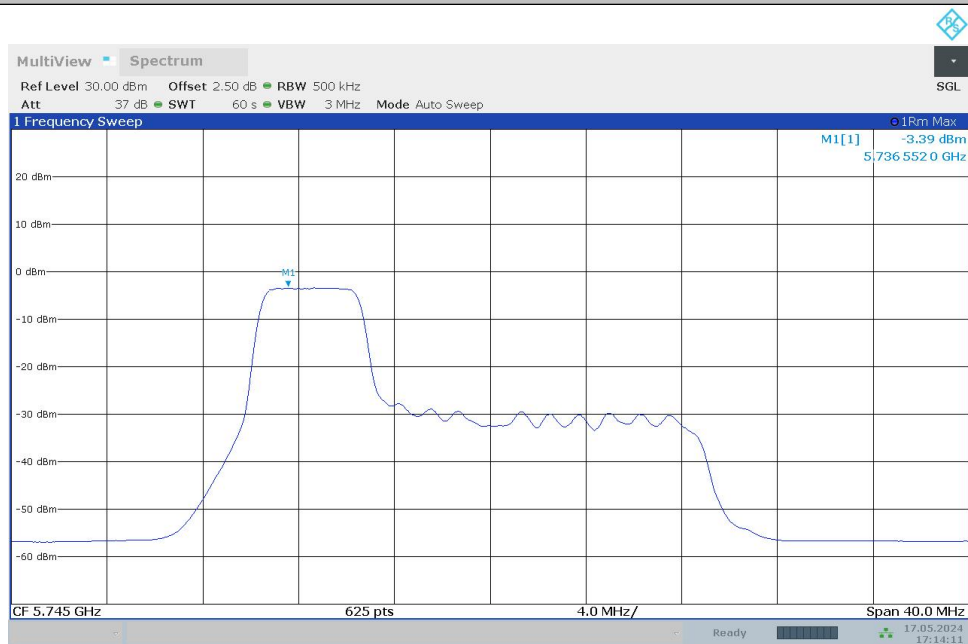
11AX20MIMO_Ant0_5745_26Tone_RU0



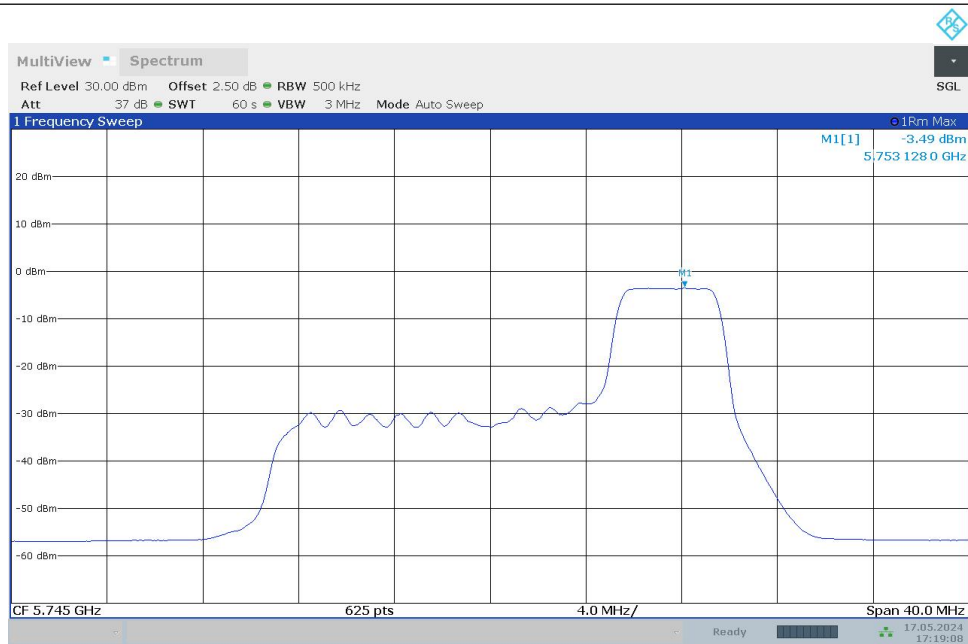
11AX20MIMO_Ant0_5745_26Tone_RU8



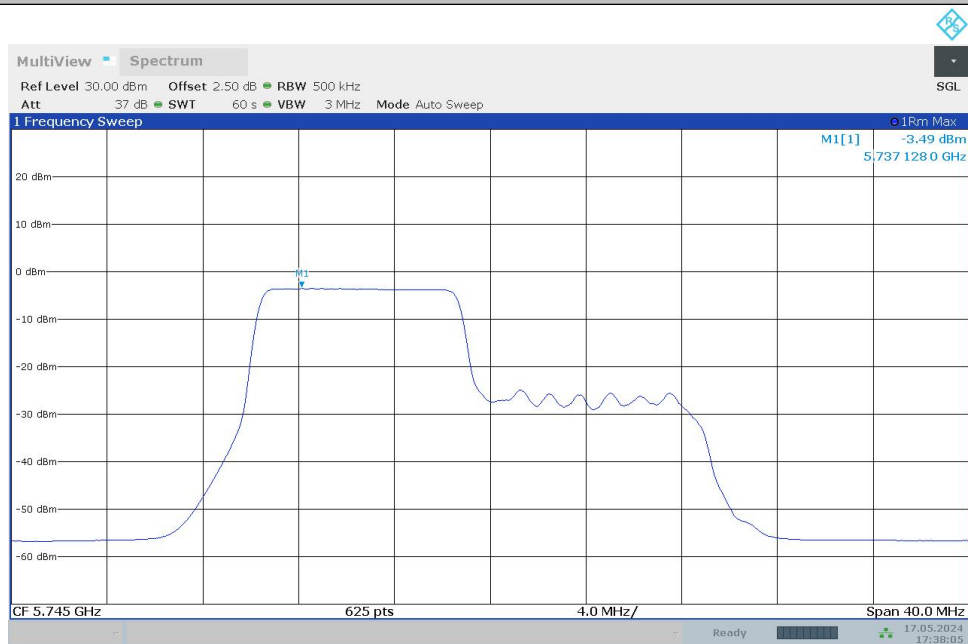
11AX20MIMO_Ant0_5745_52Tone_RU37



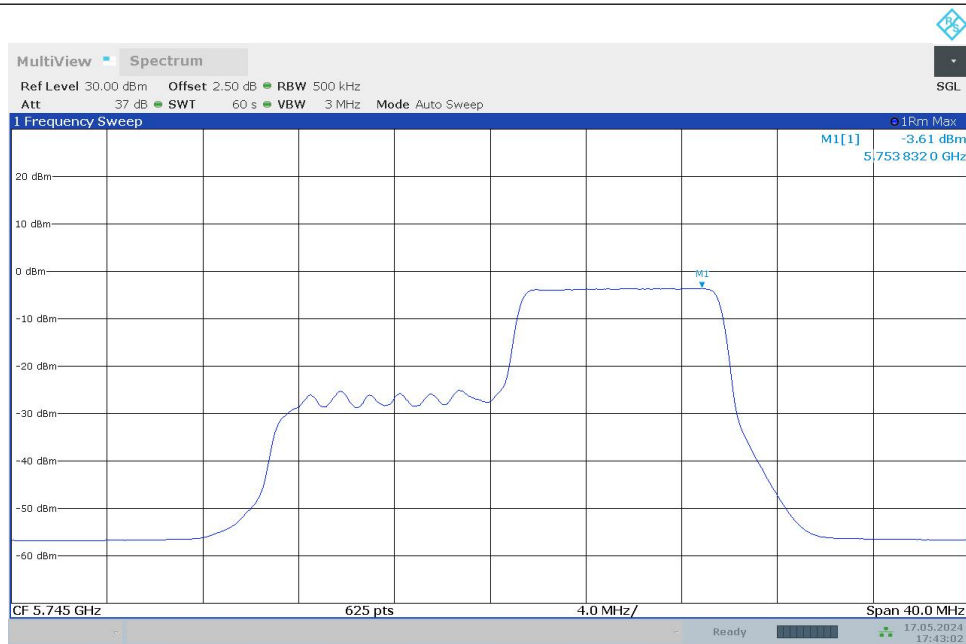
11AX20MIMO_Ant0_5745_52Tone_RU40



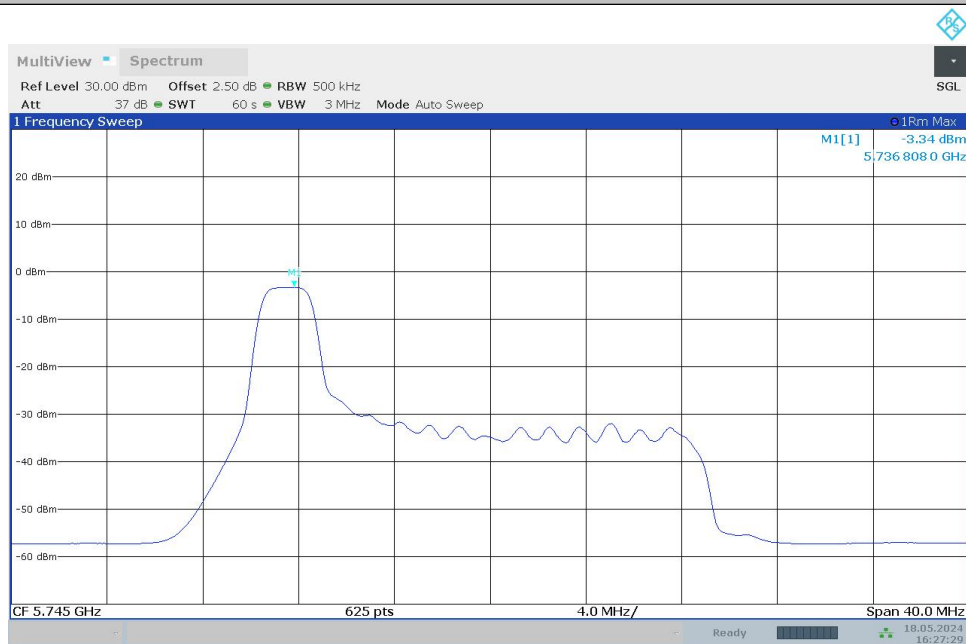
11AX20MIMO_Ant0_5745_106Tone_RU53



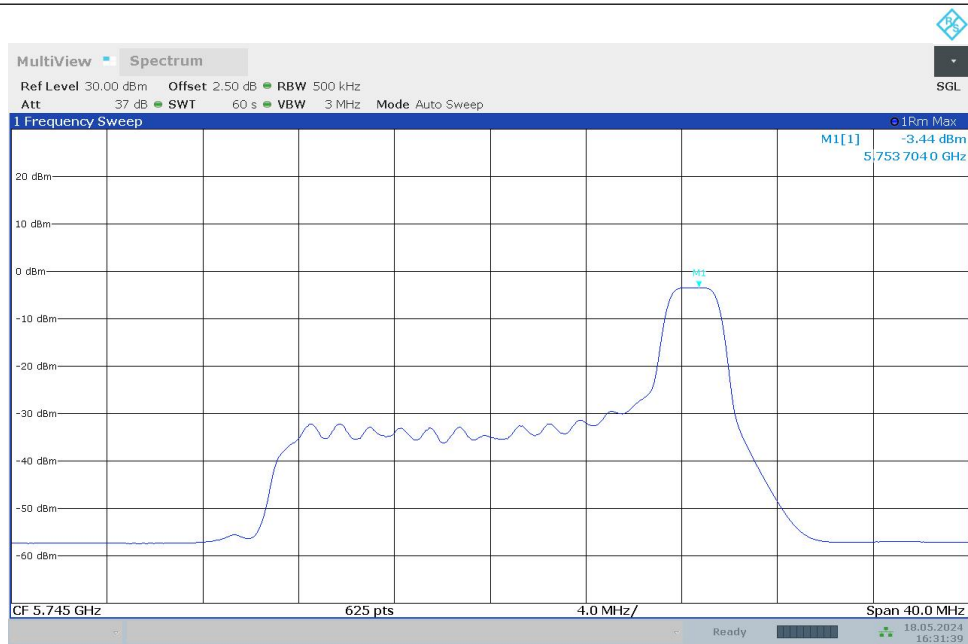
11AX20MIMO_Ant0_5745_106Tone_RU54



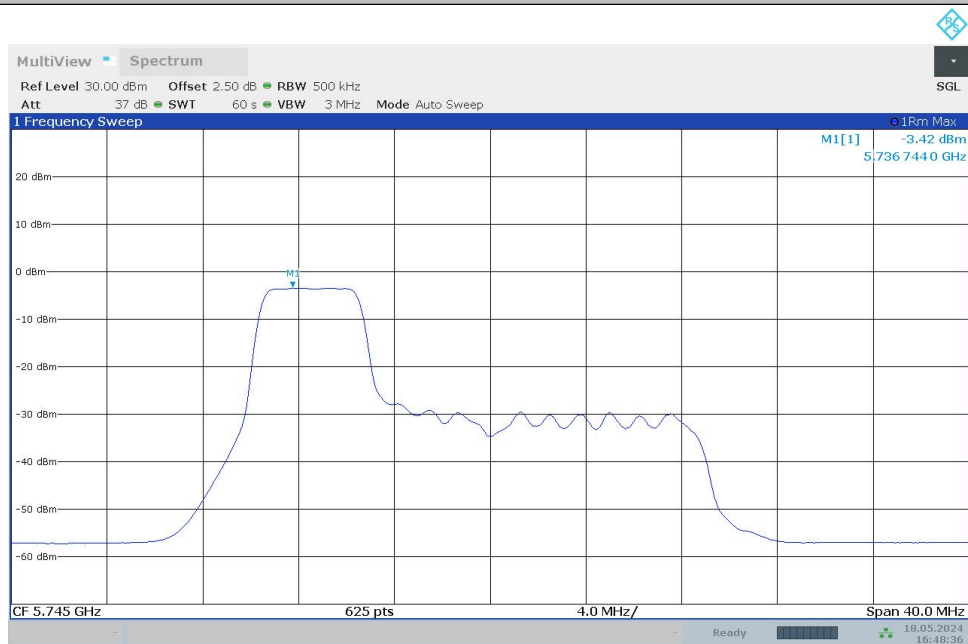
11AX20MIMO_Ant1_5745_26Tone_RU0



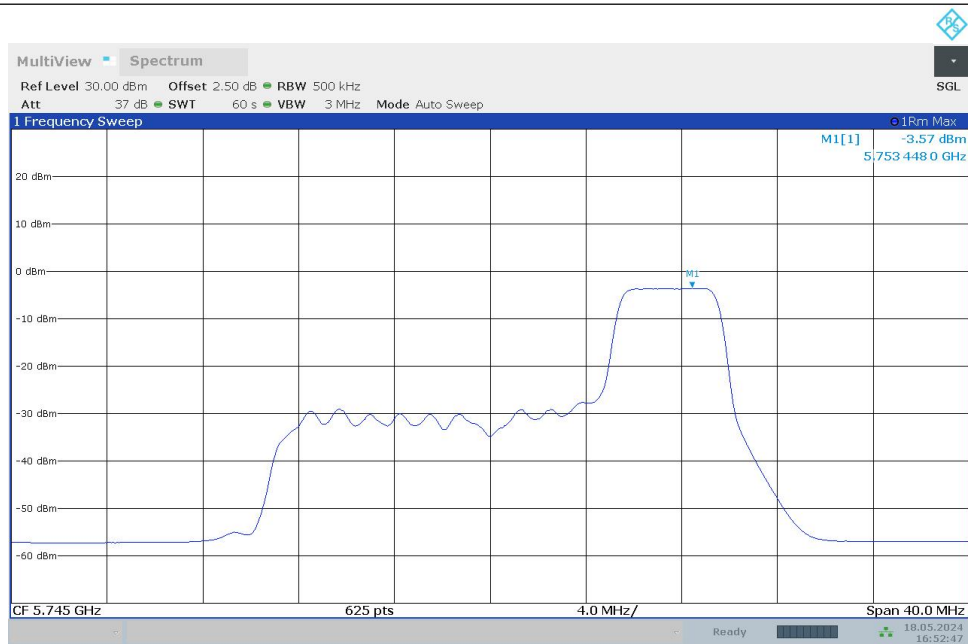
11AX20MIMO_Ant1_5745_26Tone_RU8



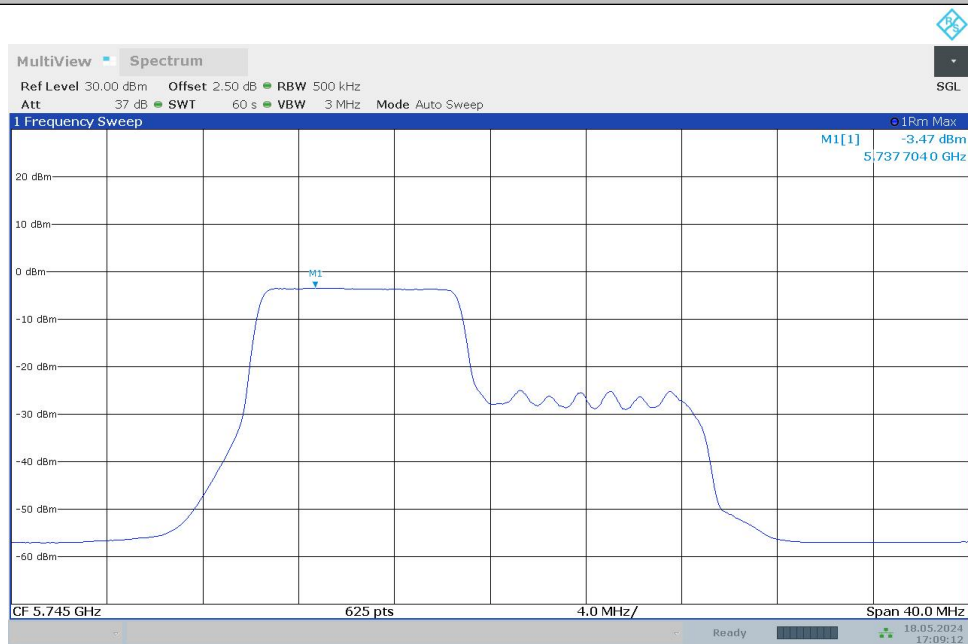
11AX20MIMO_Ant1_5745_52Tone_RU37



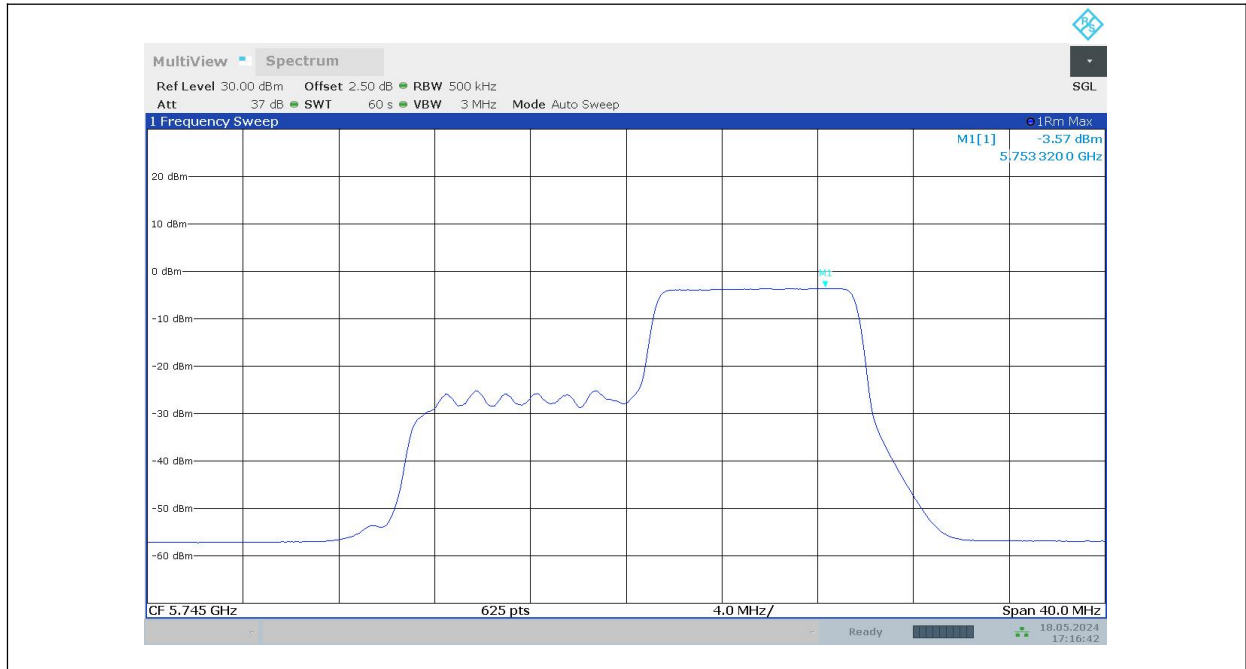
11AX20MIMO_Ant1_5745_52Tone_RU40



11AX20MIMO_Ant1_5745_106Tone_RU53



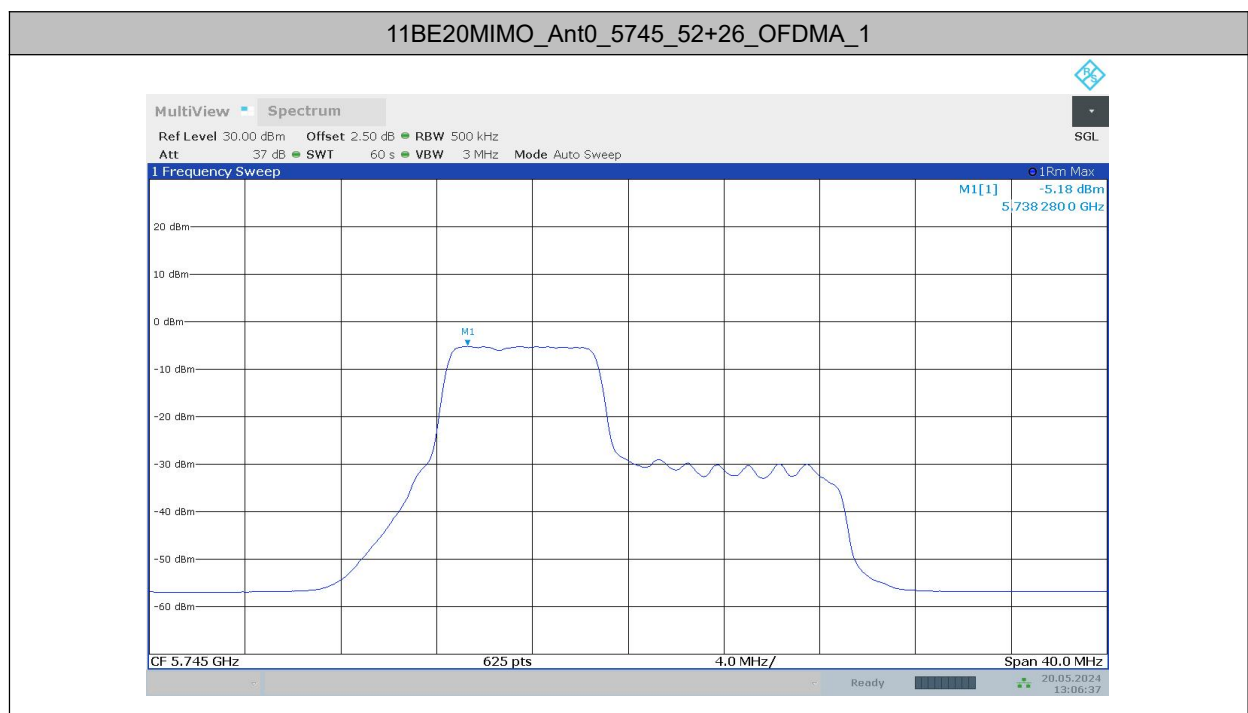
11AX20MIMO_Ant1_5745_106Tone_RU54



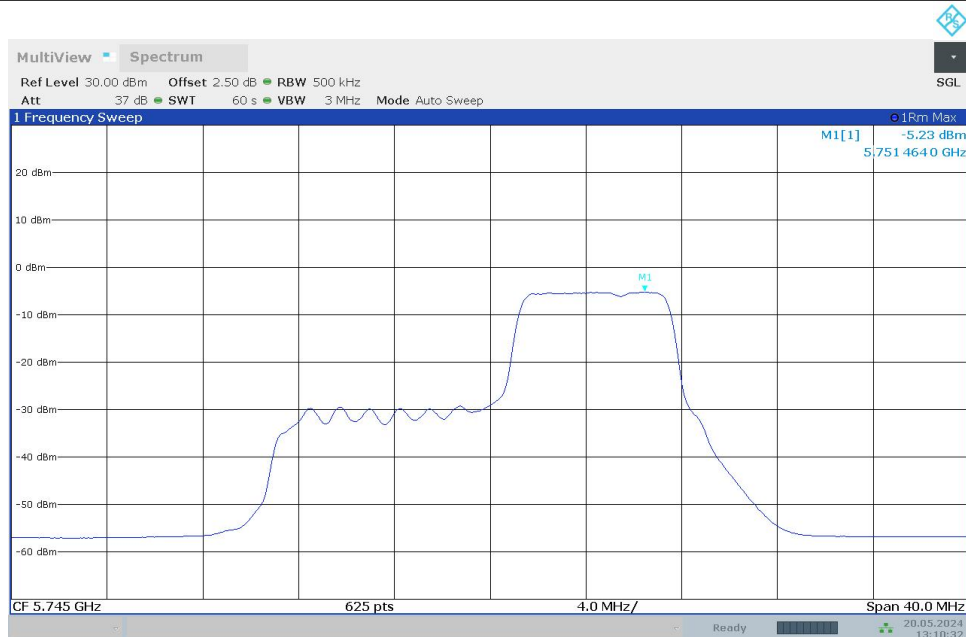
MRU mode

Test Mode	Antenna	Channel	Mru Type	Mru Index	Result [dBm/MHz]	Limit [dBm/MHz]	Verdict
11BE20MIMO	Ant0	5745	52+26_OFDMA	1	-5.18	≤30.00	PASS
				3	-5.23	≤30.00	PASS
			106+26_OFDMA	1	-4.54	≤30.00	PASS
				2	-4.59	≤30.00	PASS
	Ant1	5745	52+26_OFDMA	1	-5.15	≤30.00	PASS
				3	-5.31	≤30.00	PASS
			106+26_OFDMA	1	-4.40	≤30.00	PASS
				2	-4.59	≤30.00	PASS
	total	5745	52+26_OFDMA	1	-2.15	≤30.00	PASS
				3	-2.26	≤30.00	PASS
			106+26_OFDMA	1	-1.46	≤30.00	PASS
				2	-1.58	≤30.00	PASS
	Ant0	5785	52+26_OFDMA	1	-5.19	≤30.00	PASS
				3	-5.19	≤30.00	PASS
			106+26_OFDMA	1	-4.56	≤30.00	PASS
				2	-4.63	≤30.00	PASS
	Ant1	5785	52+26_OFDMA	1	-5.33	≤30.00	PASS
				3	-5.43	≤30.00	PASS
			106+26_OFDMA	1	-4.56	≤30.00	PASS
				2	-4.63	≤30.00	PASS
	total	5785	52+26_OFDMA	1	-2.25	≤30.00	PASS
				3	-2.30	≤30.00	PASS
			106+26_OFDMA	1	-1.55	≤30.00	PASS

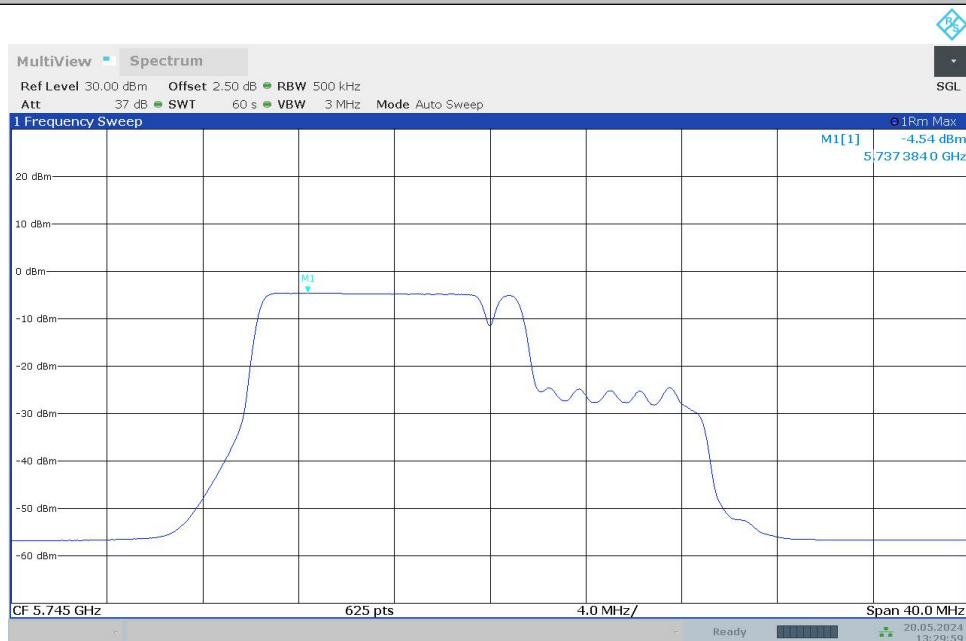
	Ant0	5825	52+26_OFDMA	2	-1.62	≤30.00	PASS
				1	-5.37	≤30.00	PASS
				3	-5.48	≤30.00	PASS
			106+26_OFDMA	1	-4.68	≤30.00	PASS
				2	-4.80	≤30.00	PASS
	Ant1	5825	52+26_OFDMA	1	-5.38	≤30.00	PASS
				3	-5.49	≤30.00	PASS
			106+26_OFDMA	1	-4.70	≤30.00	PASS
				2	-4.87	≤30.00	PASS
	total	5825	52+26_OFDMA	1	-2.36	≤30.00	PASS
				3	-2.47	≤30.00	PASS
			106+26_OFDMA	1	-1.68	≤30.00	PASS
				2	-1.82	≤30.00	PASS
11BE80MIMO	Ant0	5775	484+242_OFDMA	1	-2.25	≤30.00	PASS
				2	-2.29	≤30.00	PASS
				3	-2.24	≤30.00	PASS
				4	-2.60	≤30.00	PASS
	Ant1	5775	484+242_OFDMA	1	-1.72	≤30.00	PASS
				2	-1.71	≤30.00	PASS
				3	-1.72	≤30.00	PASS
				4	-2.03	≤30.00	PASS
	total	5775	484+242_OFDMA	1	1.03	≤30.00	PASS
				2	1.02	≤30.00	PASS
				3	1.04	≤30.00	PASS
				4	0.70	≤30.00	PASS



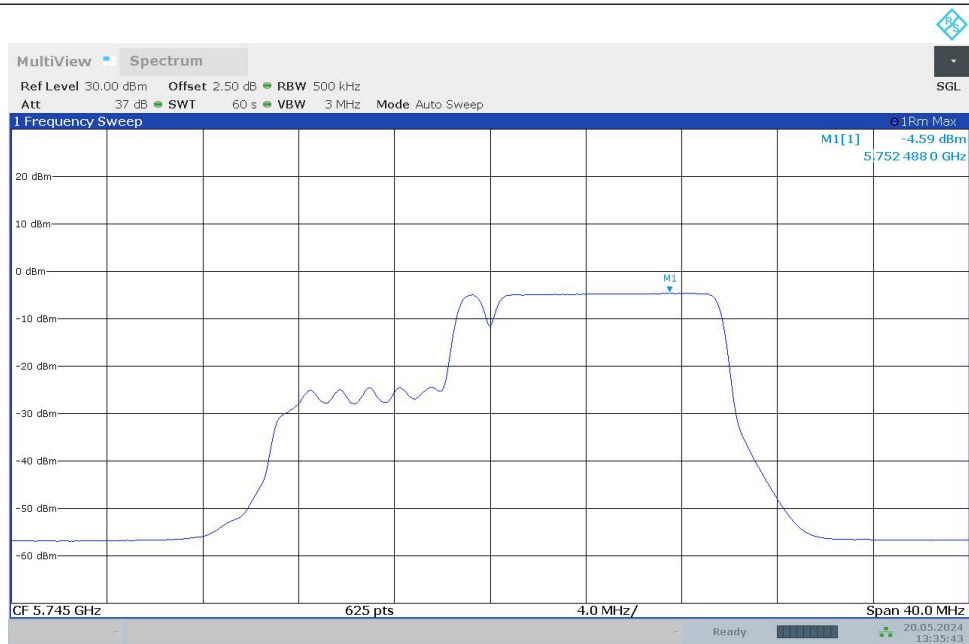
11BE20MIMO_Ant0_5745_52+26_OFDMA_3



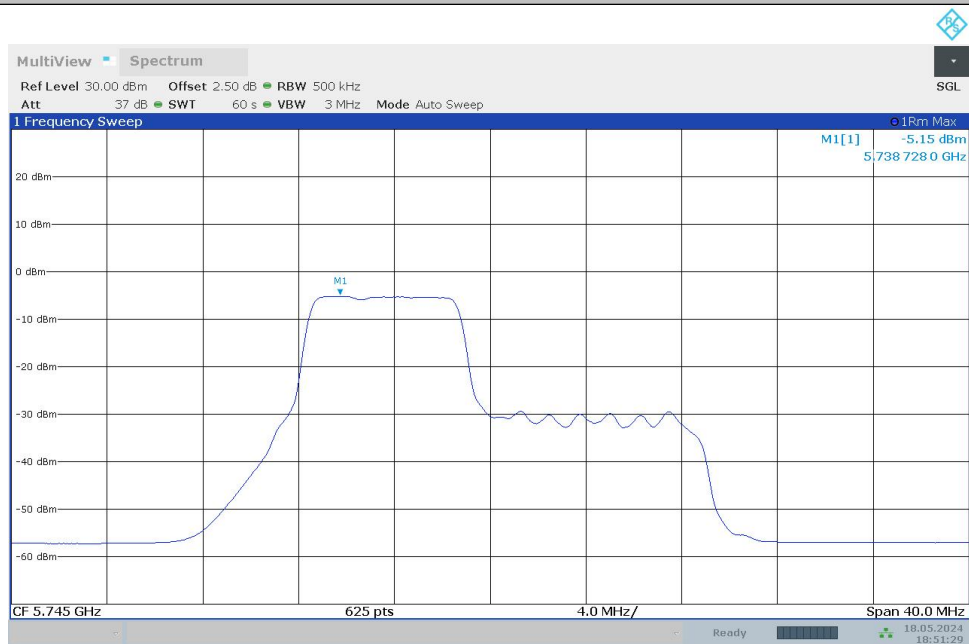
11BE20MIMO_Ant0_5745_106+26_OFDMA_1



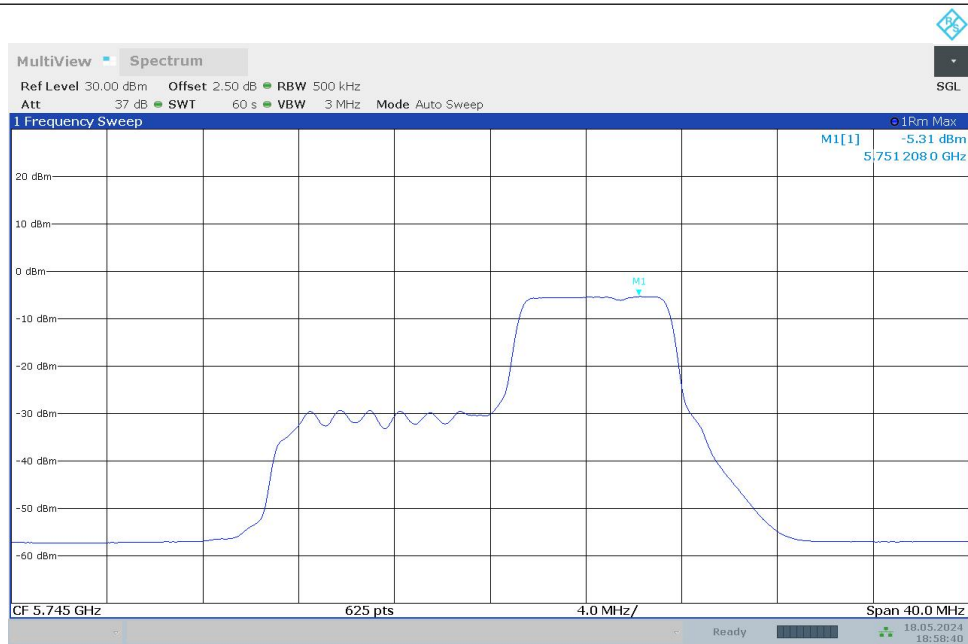
11BE20MIMO_Ant0_5745_106+26_OFDMA_2



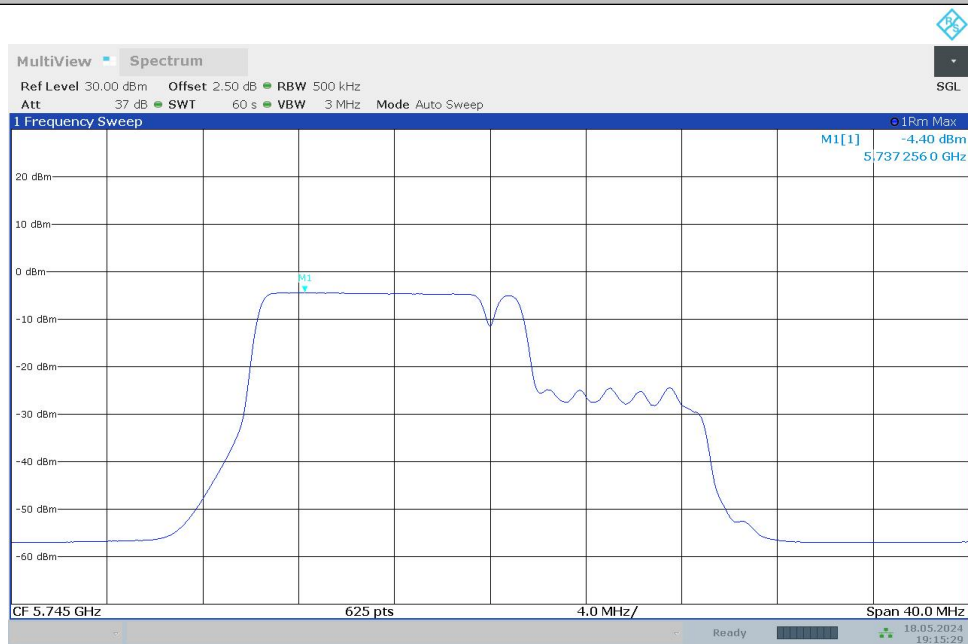
11BE20MIMO_Ant1_5745_52+26_OFDMA_1



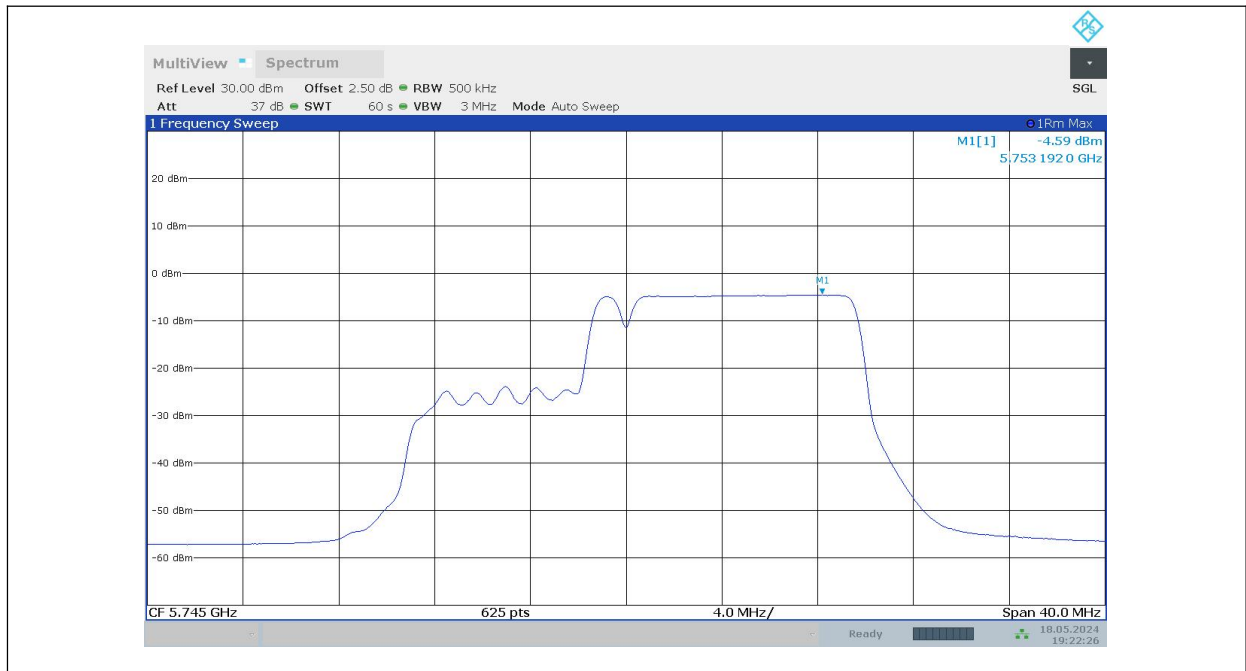
11BE20MIMO_Ant1_5745_52+26_OFDMA_3



11BE20MIMO_Ant1_5745_106+26_OFDMA_1



11BE20MIMO_Ant1_5745_106+26_OFDMA_2



Conclusion: PASS

A.4. 6dB Emission Bandwidth

Measurement Limit:

Standard	Limit (kHz)
FCC 47 CFR Part 15.407 (e)	≥ 500

Set RBW = 100 kHz.

Set the video bandwidth (VBW) $\geq 3 \times$ RBW.

Detector = Peak.

Trace mode = max hold.

Sweep = auto couple.

Allow the trace to stabilize.

Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Measurement Uncertainty:

Measurement Uncertainty	60.80Hz
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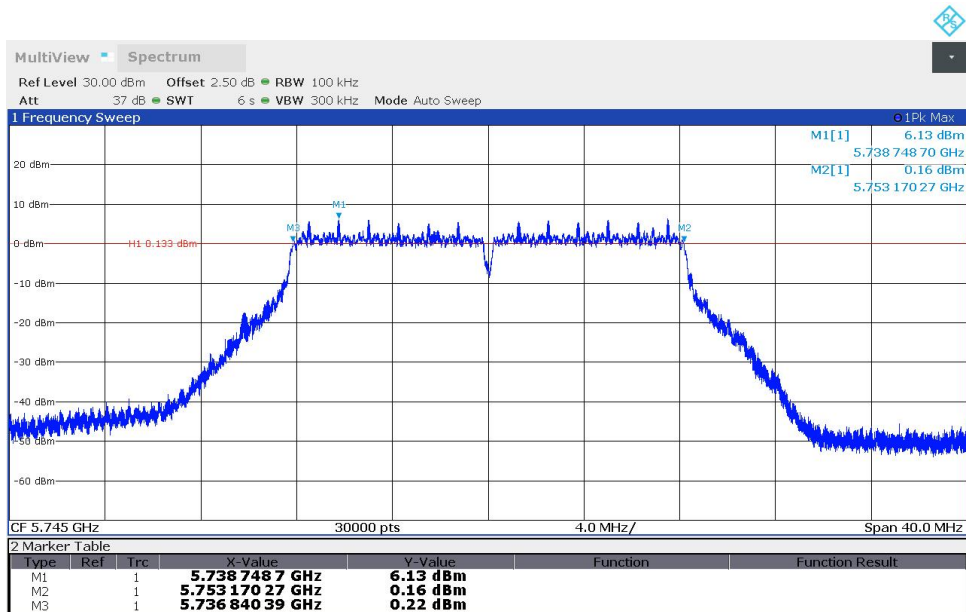
EUT ID: UT11a

Measurement Result:

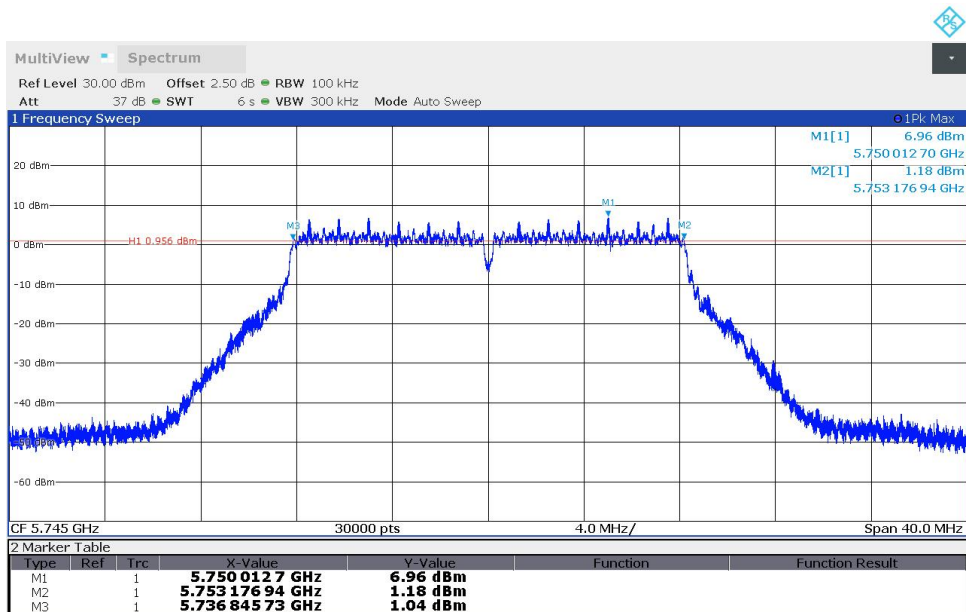
TestMode	Antenna	Frequency[MHz]	6db EBW [MHz]	Verdict
11A-MIMO	Ant0	5745	16.33	PASS
	Ant1	5745	16.33	PASS
	Ant0	5785	16.33	PASS
	Ant1	5785	16.34	PASS
	Ant0	5825	16.33	PASS
	Ant1	5825	16.33	PASS
11AC20MIMO	Ant0	5745	17.58	PASS
	Ant1	5745	17.58	PASS
	Ant0	5785	17.58	PASS
	Ant1	5785	17.57	PASS
	Ant0	5825	17.58	PASS
	Ant1	5825	17.57	PASS
11AC40MIMO	Ant0	5755	36.33	PASS
	Ant1	5755	36.32	PASS
	Ant0	5795	36.33	PASS
	Ant1	5795	36.32	PASS
11AX80MIMO	Ant0	5775	78.13	PASS
	Ant1	5775	78.12	PASS

Test graphs as below:

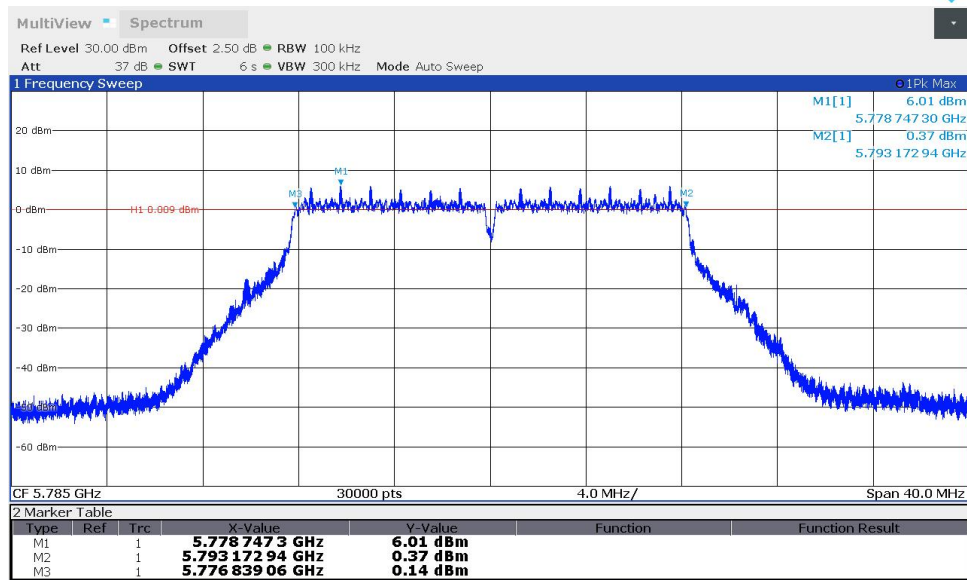
11A-MIMO_Ant0_5745



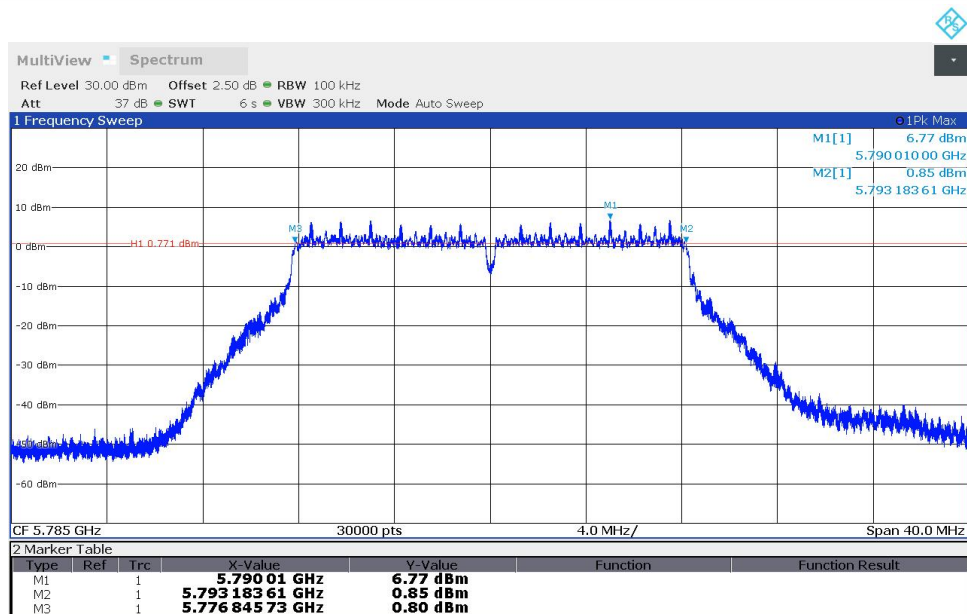
11A-MIMO_Ant1_5745



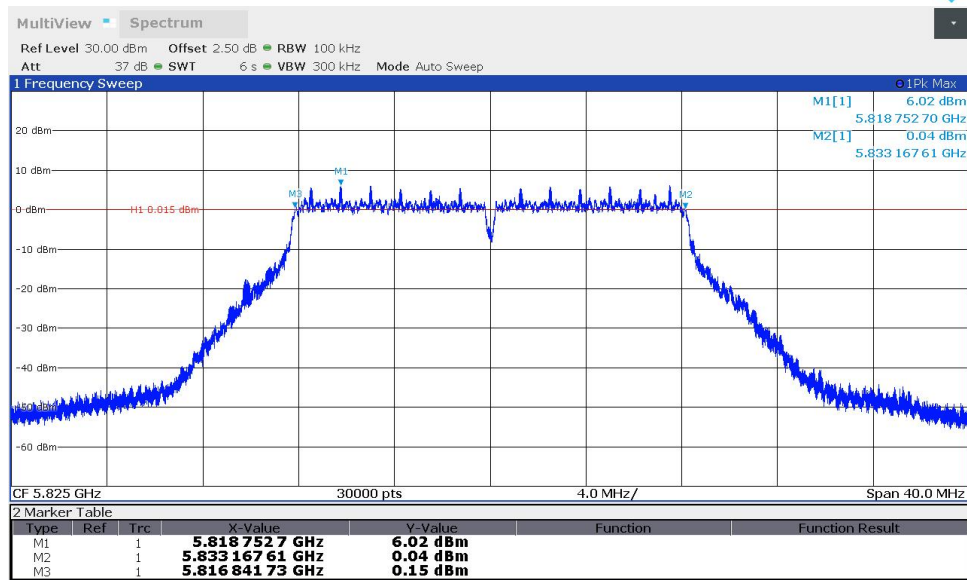
11A-MIMO_Ant0_5785



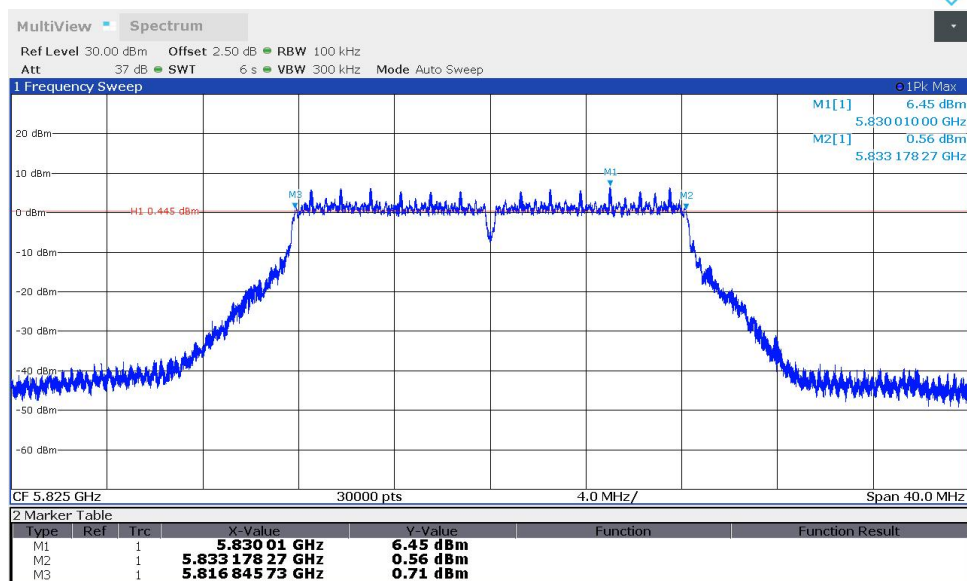
11A-MIMO_Ant1_5785



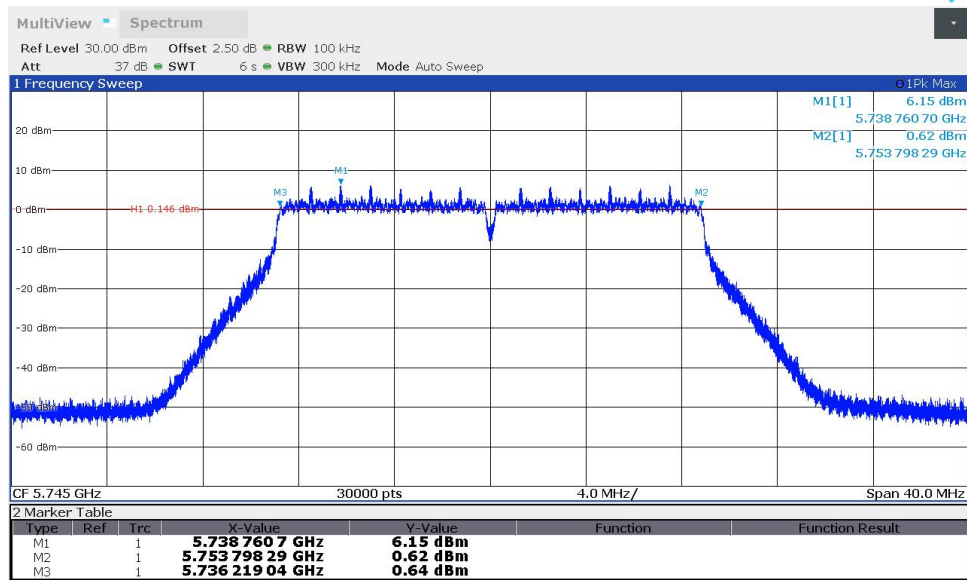
11A-MIMO_Ant0_5825



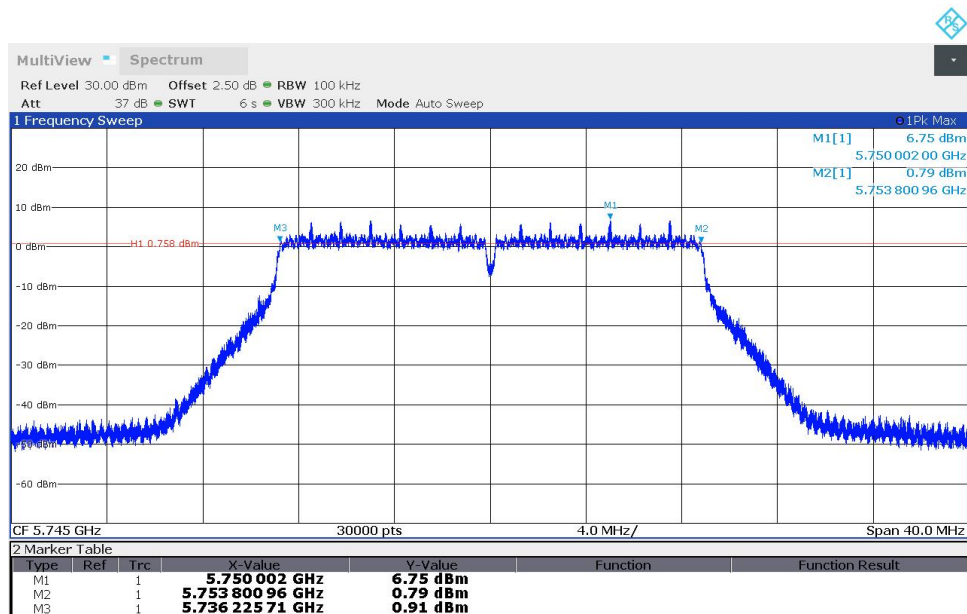
11A-MIMO_Ant1_5825



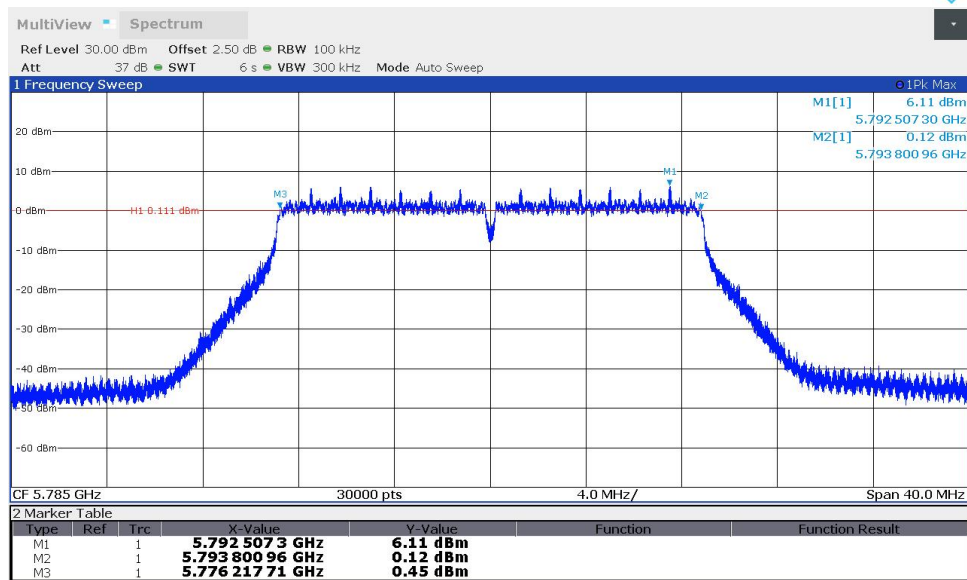
11AC20MIMO_Ant0_5745



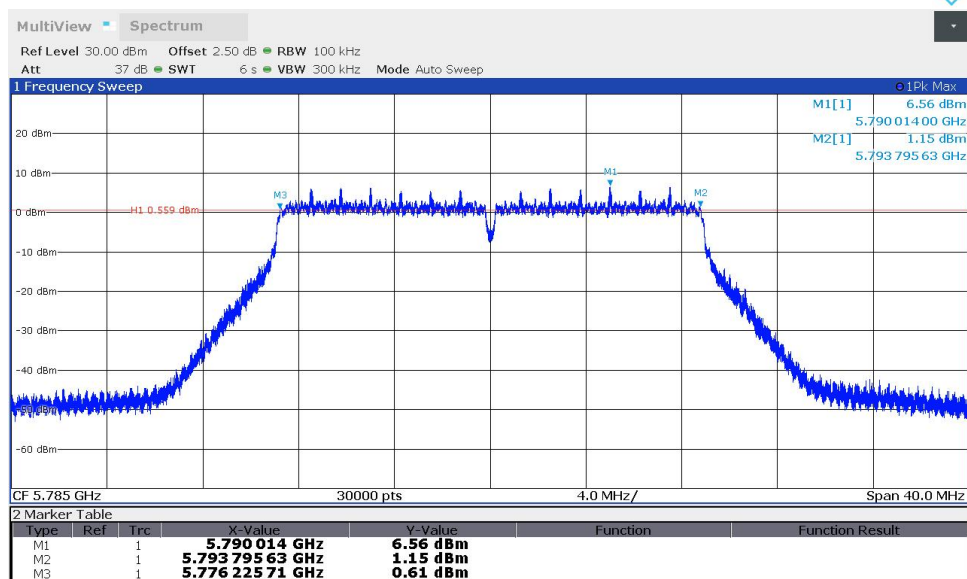
11AC20MIMO_Ant1_5745



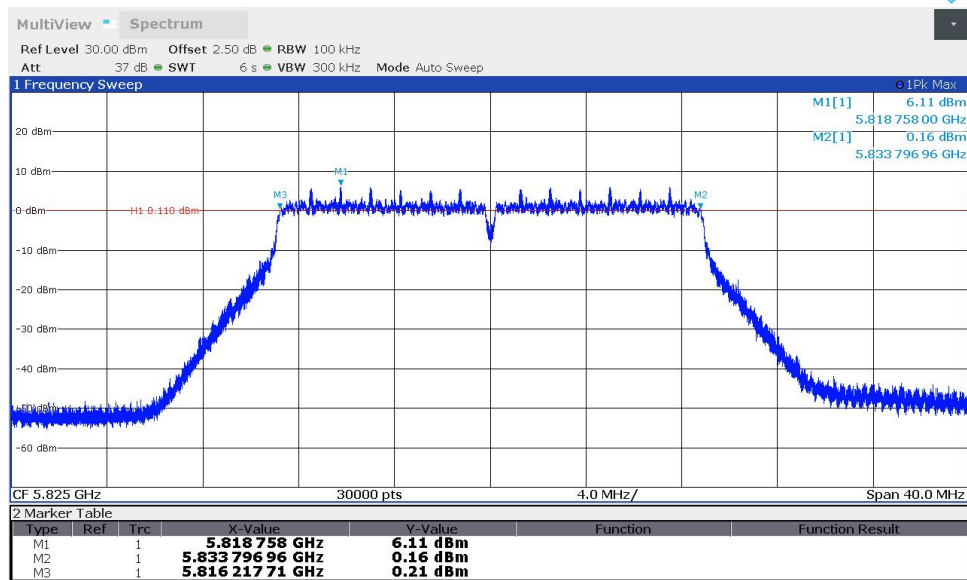
11AC20MIMO_Ant0_5785



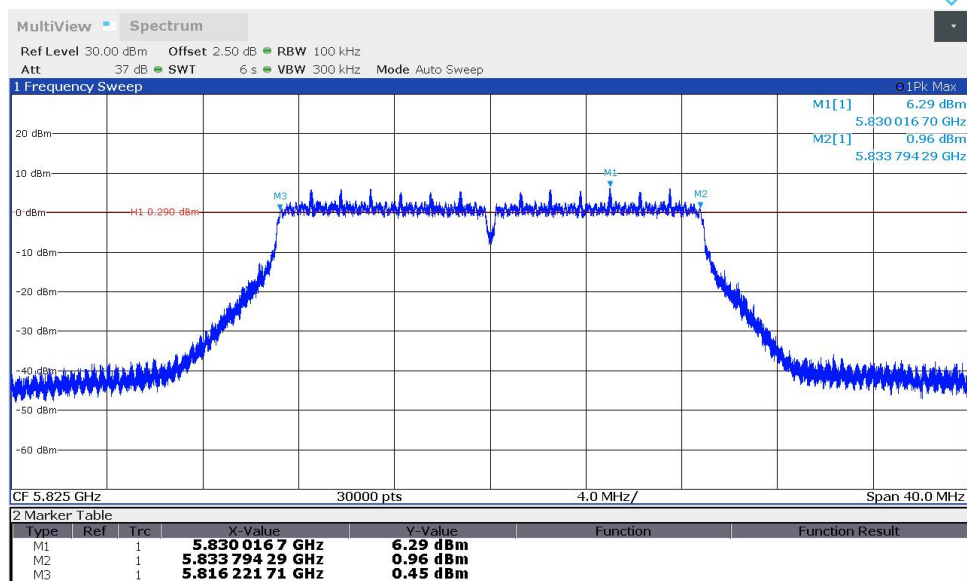
11AC20MIMO_Ant1_5785



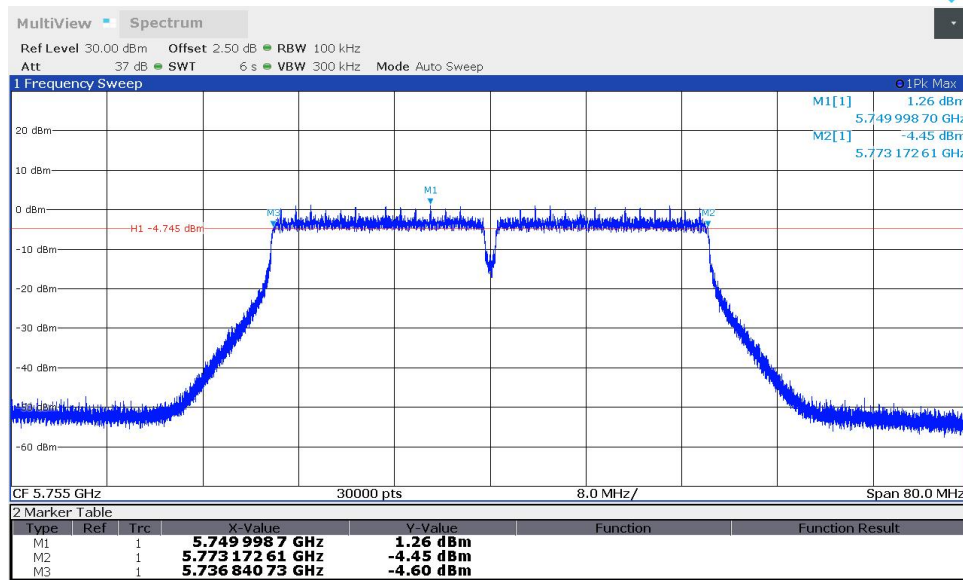
11AC20MIMO_Ant0_5825



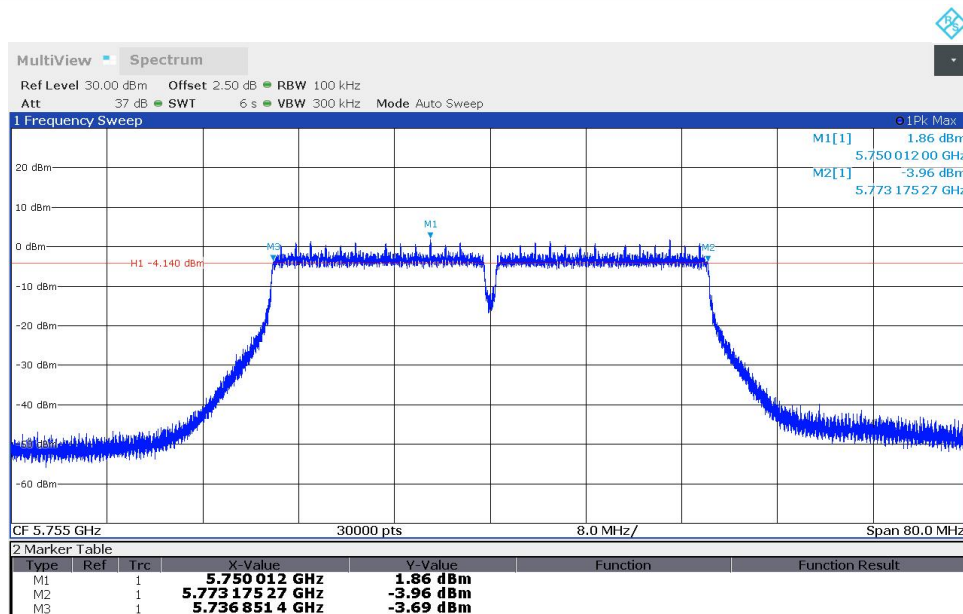
11AC20MIMO_Ant1_5825



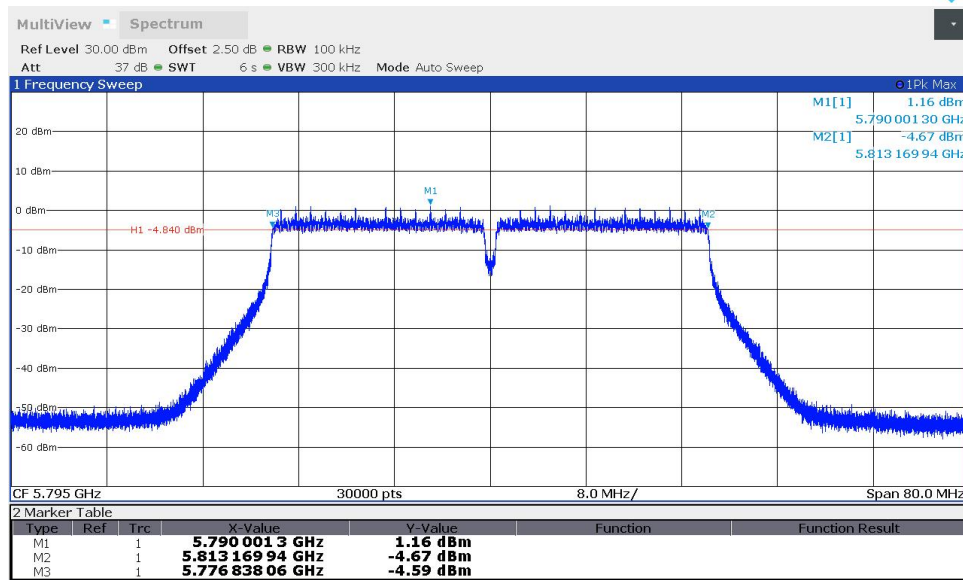
11AC40MIMO_Ant0_5755



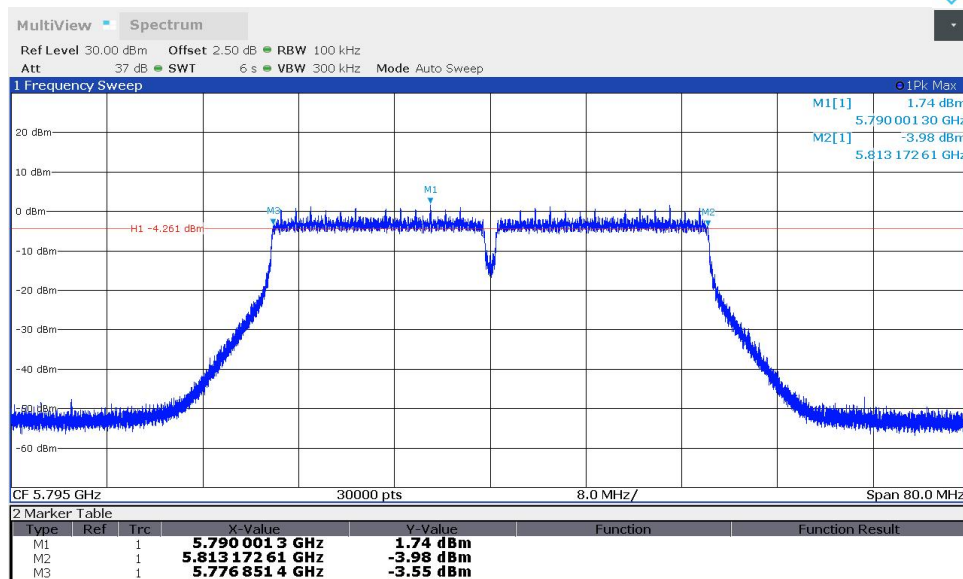
11AC40MIMO_Ant1_5755



11AC40MIMO_Ant0_5795



11AC40MIMO_Ant1_5795



11AX80MIMO_Ant0_5775