



FCC TEST REPORT

FCC ID:2BARD-GPLINK2022

Report Number..... : ZKT-230426L3046E-2

Date of Test..... Feb. 27, 2023 to Apr. 24, 2023

Date of issue : Apr. 24, 2023

Total number of pages 54

Test Result : PASS

Testing Laboratory..... : Shenzhen ZKT Technology Co., Ltd.

Address : 1/F, No. 101, Building B, No. 6, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen, China

Applicant's name : SHENZHEN YIZHI RUILIAN TECHNOLOGY CO.,LTD

Address : 215, 2nd Floor, Liangji Building, Donghuan 1st Road, Longhua Stree, Longhua District, Shenzhen

Manufacturer's name : SHENZHEN YIZHI RUILIAN TECHNOLOGY CO.,LTD

Address : 215, 2nd Floor, Liangji Building, Donghuan 1st Road, Longhua Stree, Longhua District, Shenzhen

Test specification:

Standard : FCC CFR Title 47 Part 15 Subpart C Section 15.247
ANSI C63.10:2013

Test procedure..... : /

Non-standard test method : N/A

Test Report Form No. : TRF-EL-110_V0

Test Report Form(s) Originator : ZKT Testing

Master TRF : Dated: 2023-04-24

This device described above has been tested by ZKT, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Product name..... : A i car Box

Trademark : N/A

Model/Type reference : A i car

Ratings..... : Input: DC 5V/2A
Output: 5W



Testing procedure and testing location:

Testing Laboratory : **Shenzhen ZKT Technology Co., Ltd.**

Address : 1/F, No. 101, Building B, No. 6, Tangwei Community
Industrial Avenue, Fuhai Street, Bao'an District,
Shenzhen, China

Tested by (name + signature) : Jim Liu

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Approved (name + signature) : Lake Xie





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1. VERSION

Report No.	Version	Description	Approved
ZKT-230426L3046E-2	Rev.01	Initial issue of report	Apr. 24, 2023



2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15 (15.247) , Subpart C			
Standard Section	Test Item	Result	Remark
FCC part 15.203/15.247 (c)	Antenna requirement	PASS	
FCC part 15.207	AC Power Line Conducted Emission	PASS	
FCC part 15.247 (b)(3)	Conducted Peak Output Power	PASS	
FCC part 15.247 (a)(2)	6dB Bandwidth	PASS	
FCC part 15.247 (e)	Power Spectral Density	PASS	
FCC part 15.247(d)	Band Edge	PASS	
FCC part 15.205/15.209	Spurious Emission	PASS	

NOTE:

(1)" N/A" denotes test is not applicable in this Test Report



2.1 TEST FACILITY

Shenzhen ZKT Technology Co., Ltd.
Add. : 1/F, No. 101, Building B, No. 6, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen, China

FCC Test Firm Registration Number: 692225
Designation Number: CN1299
IC Registered No.: 27033
CAB identifier: CN0110

2.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$ · where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$ · providing a level of confidence of approximately 95 % .

No.	Item	Uncertainty
1	3m chamber Radiated spurious emission(9KHz-30MHz)	U=4.5dB
2	3m chamber Radiated spurious emission(30MHz-1GHz)	U=4.8dB
3	3m chamber Radiated spurious emission(1GHz-6GHz)	U=4.9dB
4	3m chamber Radiated spurious emission(6GHz-40GHz)	U=5.0dB
5	Conducted disturbance	U=3.2dB
6	RF Band Edge	U=1.68dB
7	RF power conducted	U=1.86dB
8	RF conducted Spurious Emission	U=2.2dB
9	RF Occupied Bandwidth	U=1.8dB
10	RF Power Spectral Density	U=1.75dB
11	humidity uncertainty	U=5.3%
12	Temperature uncertainty	U=0.59°C



3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Product Name:	A i car Box	
Model No.:	A i car	
Model Different.:	N/A	
Sample ID:	CZ20230224-01E	
Sample(s) Status:	Engineer sample	
Operation frequency:	2412MHz~2462MHz for 802.11b/g/n20 2422MHz~2452MHz for 802.11n40	
WIFI feature:	☒ 802.11b ☒ 802.11n20	☒ 802.11g ☒ 802.11n40
Modulation type:	IEEE 802.11b : DSSS (DBPSK, DQPSK, CCK) IEEE 802.11g/n (HT20/HT40) : OFDM (64QAM, 16QAM, QPSK, BPSK)	
Antenna Type:	WiFi chip RTL8811CU ANT 1: PCB antenna WiFi chip RTL8731BU ANT 2: PCB antenna	
Antenna gain:	3dBi	
Hardware Version:	H1.0	
Software Version:	S1.0	
Power supply:	Input: DC 5V/2A Output: 5W	



Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2412MHz	4	2427MHz	7	2442MHz	10	2457MHz
2	2417MHz	5	2432MHz	8	2447MHz	11	2462MHz
3	2422MHz	6	2437MHz	9	2452MHz		

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

802.11b/g/n20

Test Mode	Channel	Frequency (MHz)
1	1	2412MHz
2	6	2437MHz
3	11	2462MHz

802.11n40

Test Mode	Channel	Frequency (MHz)
4	3	2422MHz
5	6	2437MHz
6	9	2452MHz

3.2 DESCRIPTION OF TEST MODES

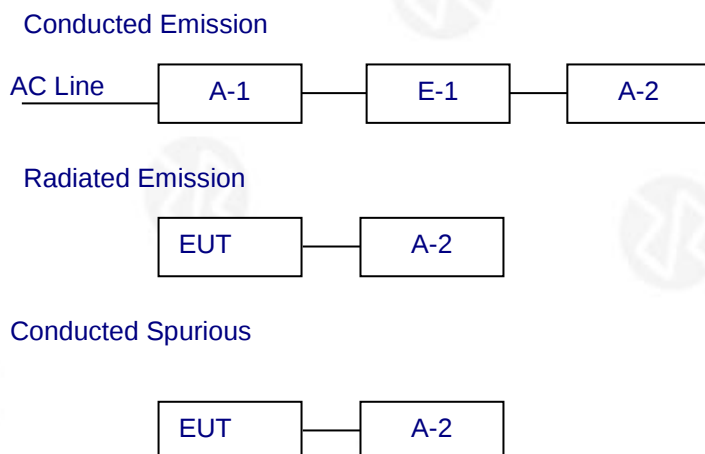
Transmitting mode	Keep the EUT in continuously transmitting mode
Remark: During the test, the duty cycle >98%, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and found that the worst case was under the nominal rated supply condition. So the report just shows that condition's data.	

We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:				
Pre-scan all kind of data rate in lowest channel, and found the follow list which it was worst case.				
Mode	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)
Data rate	1Mbps	6Mbps	6.5Mbps	6.5Mbps

Test Software	SecureCRT
Power level setup	<13dBm



3.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



3.4 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
E-1	A i car Box	N/A	A i car	N/A	EUT
A-1	AC Adapter	Lenovo	ADL45WCC	N/A	Auxiliary
A-2	Notebook	Asus Computer Co., Ltd	X1502ZA1260-0D8SXB JX10	N5N0CV10V35921A	Auxiliary

Item	Shielded Type	Ferrite Core	Length	Note
/	/	/	/	/

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.



3.5EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation Test equipment

Item	Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	Spectrum Analyzer (9kHz-26.5GHz)	KEYSIGHT	9020A	MY55370835	Oct. 28, 2022	Oct. 27, 2023
2	Spectrum Analyzer (10kHz-39.9GHz)	R&S	FSQ	100363	Oct. 28, 2022	Oct. 27, 2023
3	EMI Test Receiver (9kHz-7GHz)	R&S	ESCI7	101169	Oct. 28, 2022	Oct. 27, 2023
4	Bilog Antenna (30-1500MHz)	Schwarzbeck	VULB9168	N/A	Nov. 02, 2022	Nov. 01, 2023
5	Horn Antenna (1GHz-18GHz)	Agilent	AH-118	071145	Nov. 01, 2022	Oct. 31, 2023
6	Horn Antenna (15GHz-40GHz)	A.H.System	SAS-574	588	Oct. 28, 2022	Oct. 27, 2023
7	Loop Antenna	TESEQ	HLA6121	58357	Nov. 01, 2022	Oct. 31, 2023
8	Amplifier (30-1000MHz)	EM Electronics	EM330 Amplifier	060747	Nov. 15, 2022	Nov. 14, 2023
9	Amplifier (1GHz-26.5GHz)	Agilent	8449B	3008A00315	Oct. 28, 2022	Oct. 27, 2023
10	Amplifier (500MHz-40GHz)	Quanjuda	DLE-161	097	Oct. 28, 2022	Oct. 27, 2023
11	Test Cable	N/A	R-01	N/A	Oct. 28, 2022	Oct. 27, 2023
12	Test Cable	N/A	R-02	N/A	Oct. 28, 2022	Oct. 27, 2023
13	Test Cable	N/A	R-03	N/A	Oct. 28, 2022	Oct. 27, 2023
14	Magnetic Field Probe Tester	Narda	ELT-400	0-0344	Nov. 15, 2022	Nov. 14, 2023
15	D.C. Power Supply	LongWei	TPR-6405D	N/A	\	\
16	EMC Software	Frad	EZ-EMC	Ver.EMC-CO N 3A1.1	\	\
17	Turntable	MF	MF-7802BS	N/A	\	\
18	Antenna tower	MF	MF-7802BS	N/A	\	\

Conduction Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	LISN	R&S	ENV216	101471	Nov. 18, 2021	Nov. 17, 2022
2	LISN	CYBERTEK	EM5040A	E1850400149	Nov. 18, 2021	Nov. 17, 2022
3	Test Cable	N/A	C01	N/A	Nov. 18, 2021	Nov. 17, 2022
4	Test Cable	N/A	C02	N/A	Nov. 18, 2021	Nov. 17, 2022
5	EMI Test Receiver	R&S	ESCI3	101393	Nov. 18, 2021	Nov. 17, 2022
6	EMC Software	Frad	EZ-EMC	Ver.EMC-CO N 3A1.1	\	\



4. EMC EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

Test Requirement:	FCC Part15 C Section 15.207
Test Method:	ANSI C63.10:2013
Test Frequency Range:	150KHz to 30MHz
Receiver setup:	RBW=9KHz, VBW=30KHz, Sweep time=auto

4.1.1 POWER LINE CONDUCTED EMISSION Limits

FREQUENCY (MHz)	Limit (dBuV)		Standard
	Quasi-peak	Average	
0.15 -0.5	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	56.00	46.00	FCC
5.0 -30.0	60.00	50.00	FCC

Note:

(1) *Decreases with the logarithm of the frequency.

4.1.2 TEST PROCEDURE

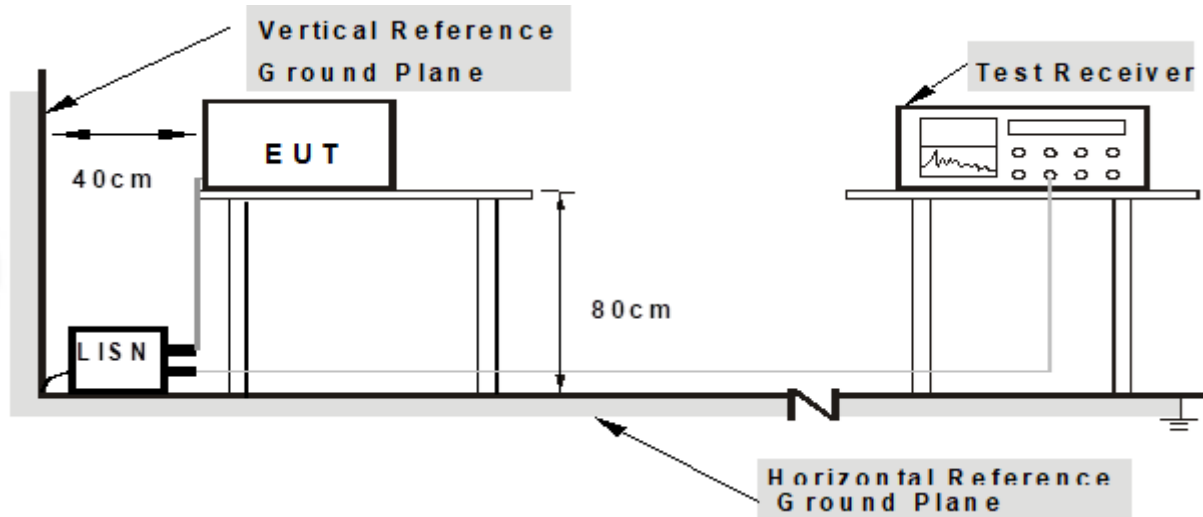
- The EUT was placed 80cm meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- LISN at least 80 cm from nearest part of EUT chassis.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.1.3 DEVIATION FROM TEST STANDARD

No deviation



4.1.4 TEST SETUP



- Note:**
1. Support units were connected to second LISN.
 2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

4.1.5 EUT OPERATING CONDITIONS

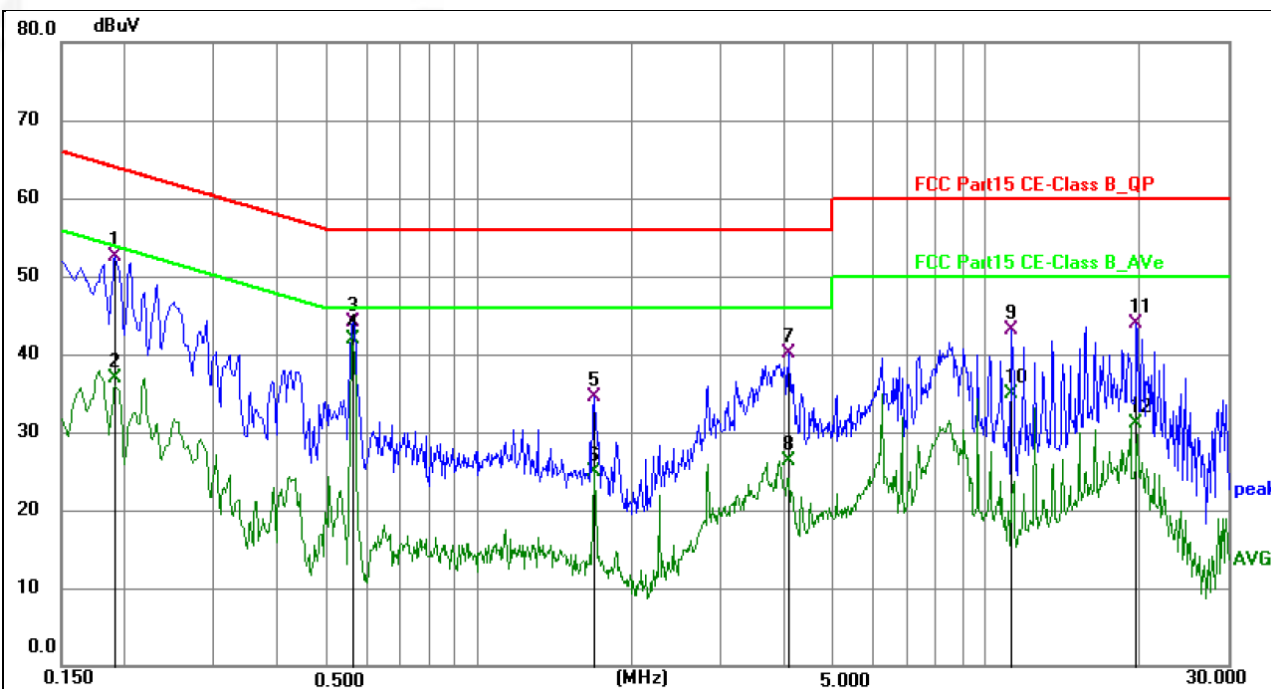
The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

We pretest AC 120V and AC 240V, the worst voltage was AC 120V and the data recording in the report.



4.1.6 TEST RESULT

Temperature :	26°C	Relative Humidity:	54%
Pressure :	101kPa	Phase :	L
Test Voltage :	DC 5V from adapter AC 120V/60Hz		



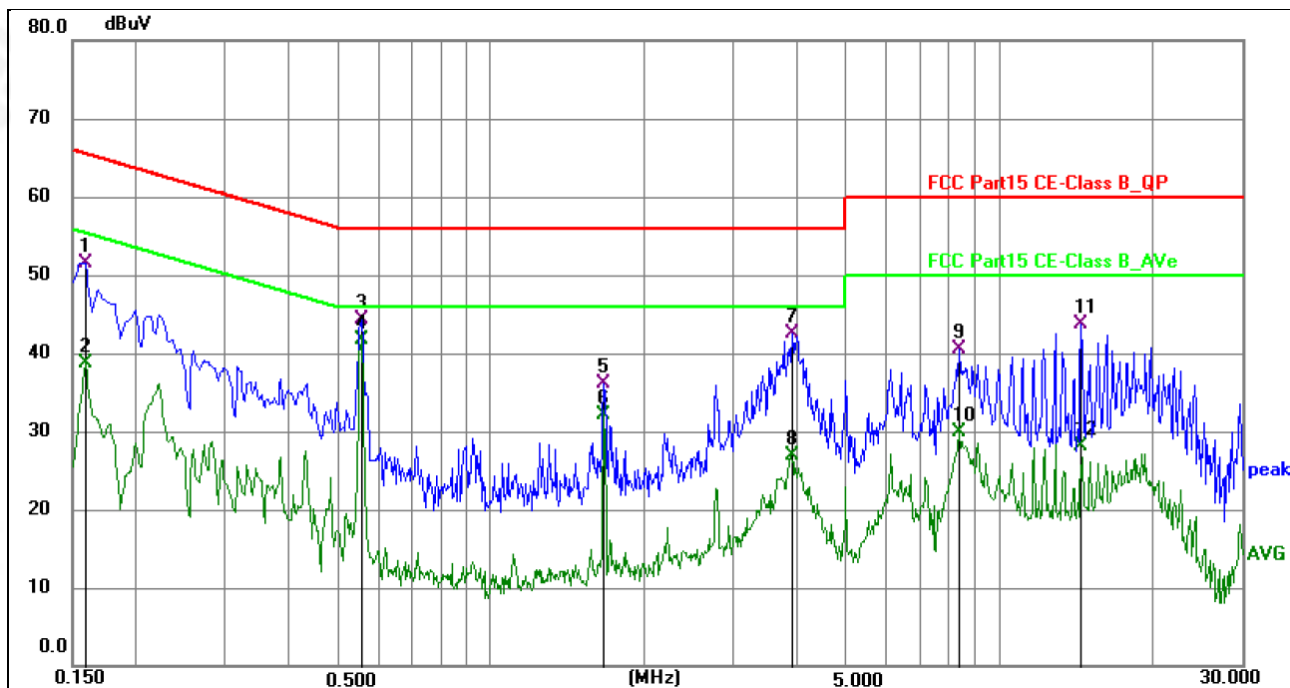
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.190500	42.44	10.08	52.52	64.01	-11.49	QP	P
2	0.190500	26.88	10.08	36.96	54.01	-17.05	AVG	P
3	0.563700	34.08	10.07	44.15	56.00	-11.85	QP	P
4 *	0.563700	31.77	10.07	41.84	46.00	-4.16	AVG	P
5	1.693500	24.50	10.02	34.52	56.00	-21.48	QP	P
6	1.693500	14.94	10.02	24.96	46.00	-21.04	AVG	P
7	4.078500	30.31	9.87	40.18	56.00	-15.82	QP	P
8	4.078500	16.42	9.87	26.29	46.00	-19.71	AVG	P
9	11.256000	33.54	9.53	43.07	60.00	-16.93	QP	P
10	11.256000	25.36	9.53	34.89	50.00	-15.11	AVG	P
11	19.837200	34.57	9.41	43.98	60.00	-16.02	QP	P
12	19.837200	21.67	9.41	31.08	50.00	-18.92	AVG	P

Notes:

1. An initial pre-scan was performed on the line and neutral lines with peak detector.
2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Measurement Level = Reading level + Correct Factor



Temperature :	26°C	Relative Humidity:	54%
Pressure :	101kPa	Phase :	N
Test Voltage :	DC 5V from adapter AC 120V/60Hz		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.159000	41.29	10.13	51.42	65.52	-14.10	QP	P
2	0.159000	28.49	10.13	38.62	55.52	-16.90	AVG	P
3	0.555000	34.21	10.08	44.29	56.00	-11.71	QP	P
4 *	0.555000	31.58	10.08	41.66	46.00	-4.34	AVG	P
5	1.671000	26.17	10.02	36.19	56.00	-19.81	QP	P
6	1.671000	22.11	10.02	32.13	46.00	-13.87	AVG	P
7	3.911900	32.56	9.87	42.43	56.00	-13.57	QP	P
8	3.911900	16.99	9.87	26.86	46.00	-19.14	AVG	P
9	8.353500	30.81	9.66	40.47	60.00	-19.53	QP	P
10	8.353500	20.21	9.66	29.87	50.00	-20.13	AVG	P
11	14.500500	34.16	9.49	43.65	60.00	-16.35	QP	P
12	14.500500	18.71	9.49	28.20	50.00	-21.80	AVG	P

Notes:

- 1.An initial pre-scan was performed on the line and neutral lines with peak detector.
- 2.Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
- 3.Mesurement Level = Reading level + Correct Factor



4.2 RADIATED EMISSION MEASUREMENT

Test Requirement:	FCC Part15 C Section 15.209				
Test Method:	ANSI C63.10:2013				
Test Frequency Range:	9kHz to 25GHz				
Test site:	Measurement Distance: 3m				
Receiver setup:	Frequency	Detector	RBW	VBW	Value
	9KHz-150KHz	Quasi-peak	200Hz	600Hz	Quasi-peak
	150KHz-30MHz	Quasi-peak	9KHz	30KHz	Quasi-peak
	30MHz-1GHz	Quasi-peak	100KHz	300KHz	Quasi-peak
	Above 1GHz	Peak	1MHz	3MHz	Peak
		Peak	1MHz	10Hz	Average

4.2.1 RADIATED EMISSION LIMITS

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT

FREQUENCY (MHz)	Limit (dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	74	54

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

4.2.2 TEST PROCEDURE

Below 1GHz test procedure as below:

- a. The EUT was placed on the top of a rotating table 80cm meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of variable-height antenna tower.



- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

Above 1GHz test procedure as below:

- g. Different from above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber and change from table 0.8 meter to 1.5 meter (Above 18GHz the distance is 1 meter and table is 1.5 meter).
- h. Test the EUT in the lowest channel, the middle channel, the Highest channel

Note:

Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

4.2.3 DEVIATION FROM TEST STANDARD

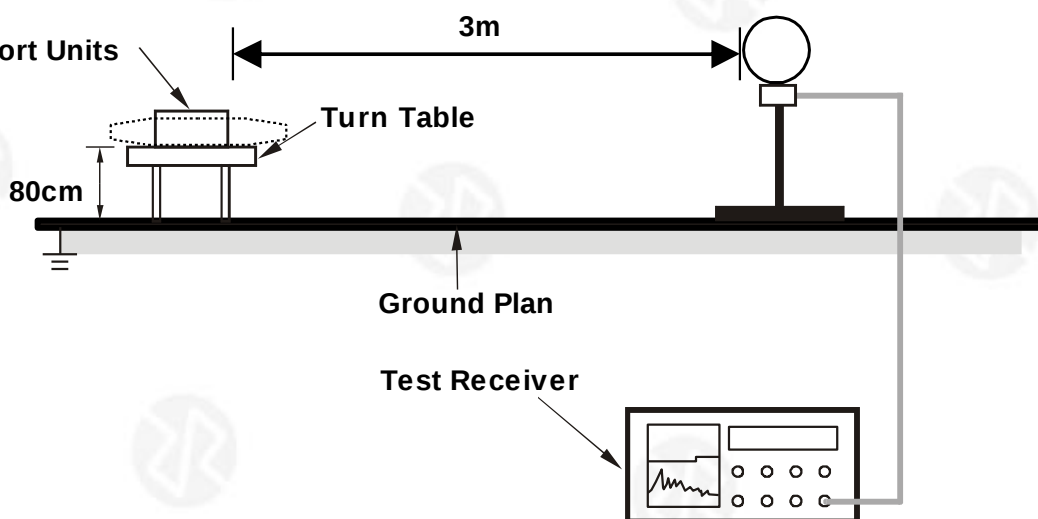
No deviation

4.2.4 TEST SETUP

(A) Radiated Emission Test-Up Frequency Below 30MHz

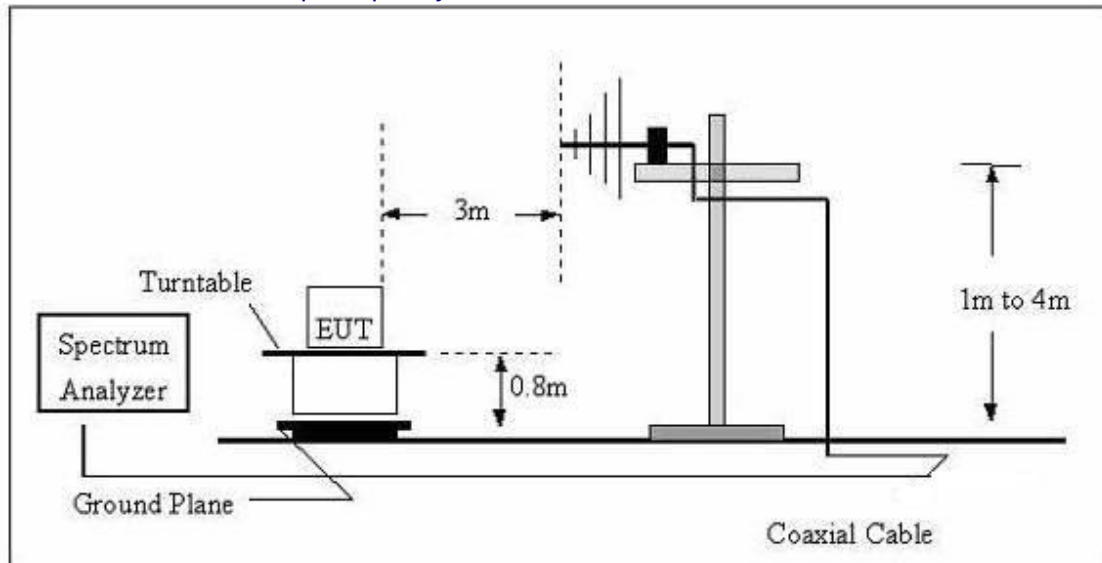
EUT&

Support Units

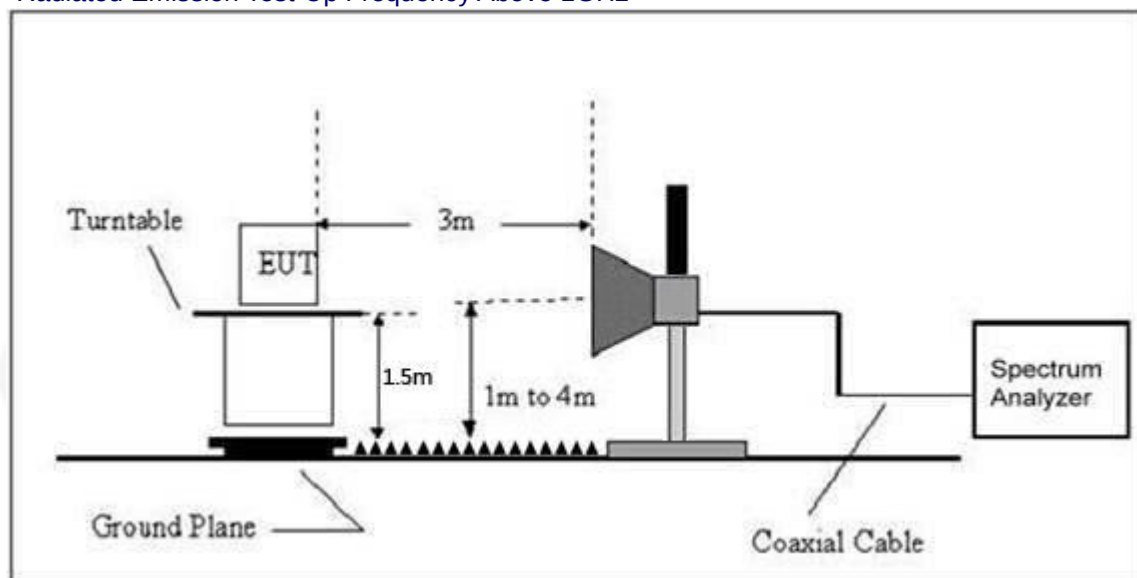




(B) Radiated Emission Test-Up Frequency 30MHz~1GHz



(C) Radiated Emission Test-Up Frequency Above 1GHz



4.2.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.



4.2.6 TEST RESULTS

Between 9KHz – 30MHz

EUT:	A i car Box	Model Name:	A i car
Pressure:	1010 hPa	Test Voltage:	DC 5V from adapter AC 120V/60Hz
Test Mode:	TX	Polarization:	--

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	Pass
--	--	--	--	Pass

Note:

For 9kHz-30MHz, the amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

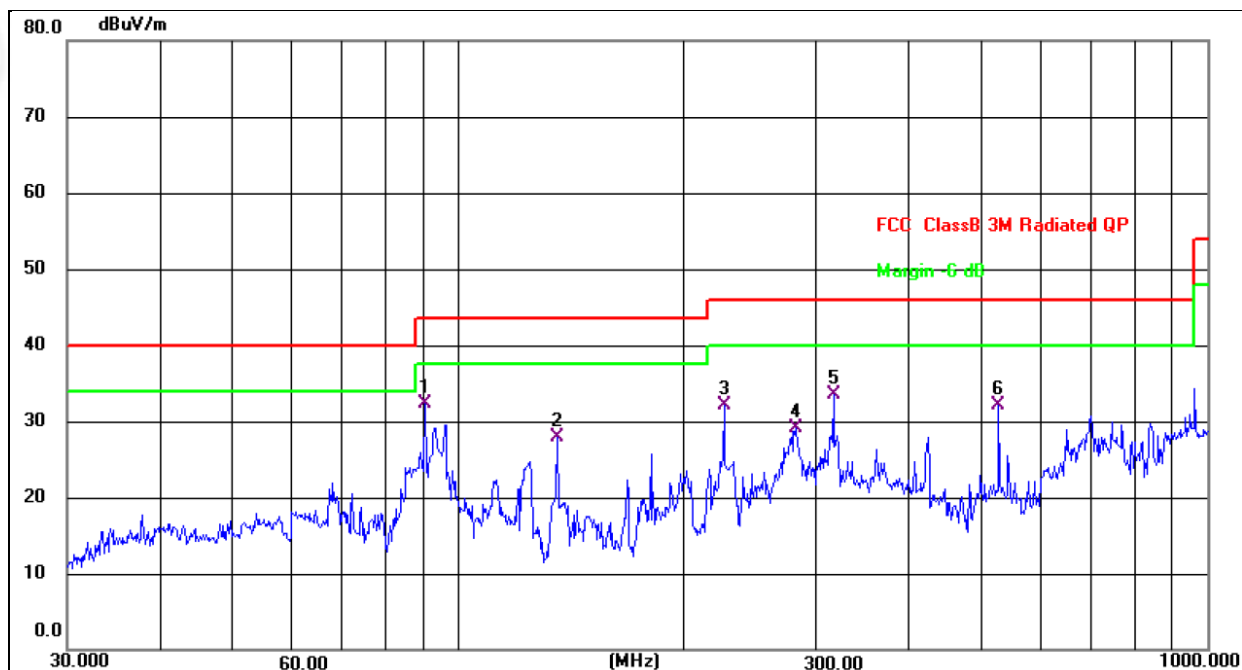
Distance extrapolation factor = $40 \log (\text{specific distance}/\text{test distance})$ (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor.



Between 30MHz – 1GHz

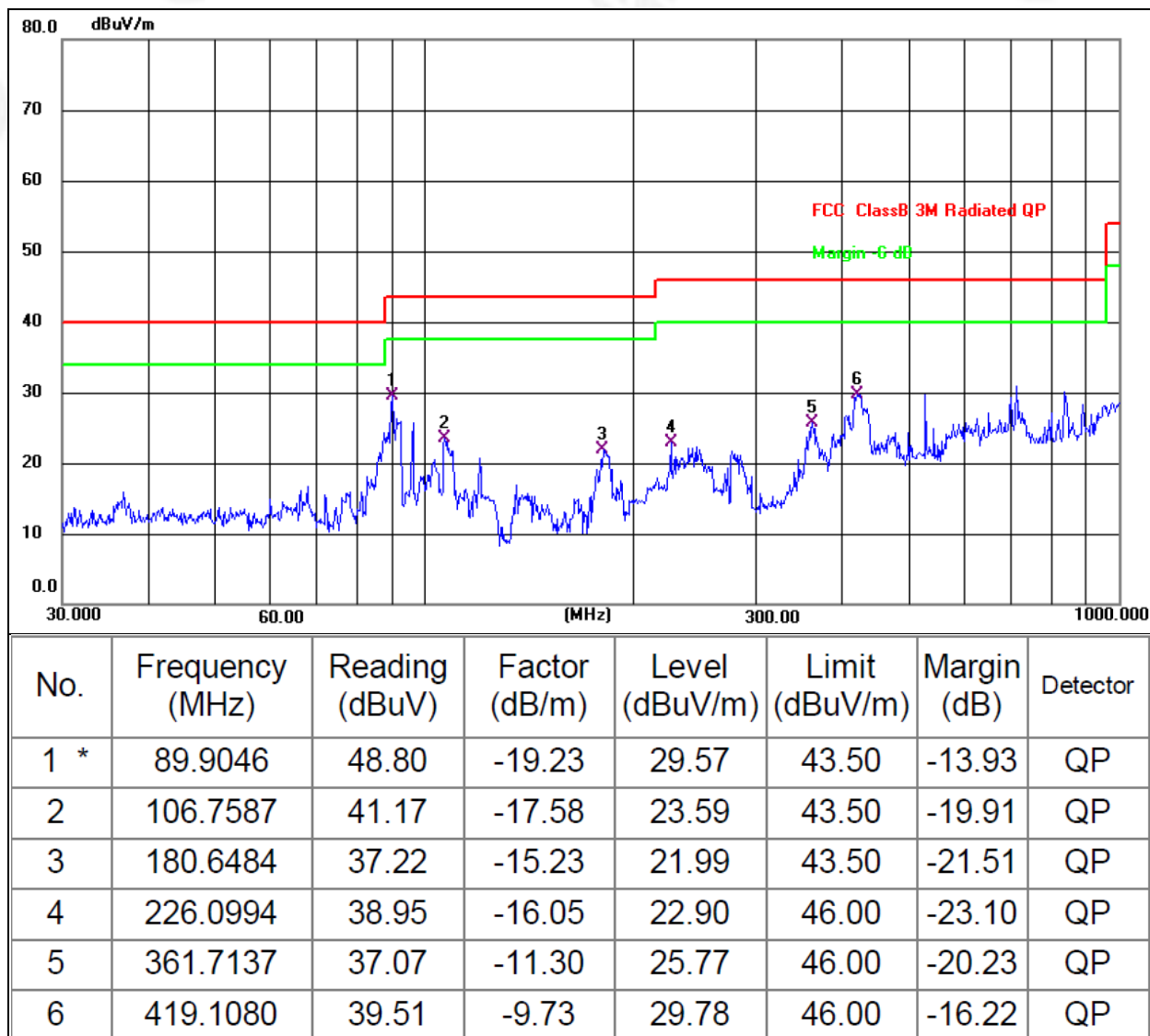
Temperature:	26℃	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	Horizontal
Test Voltage:	DC 5V from adapter AC 120V/60Hz	Test Mode	TX



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	90.2202	51.56	-19.21	32.35	43.50	-11.15	QP
2	135.5061	42.62	-14.70	27.92	43.50	-15.58	QP
3	226.0994	48.24	-16.05	32.19	46.00	-13.81	QP
4	281.9945	42.45	-13.43	29.02	46.00	-16.98	QP
5	316.5889	46.20	-12.62	33.58	46.00	-12.42	QP
6	526.3967	38.97	-6.87	32.10	46.00	-13.90	QP



Temperature:	26℃	Relative Humidity:	54%
Pressure:	101kPa	Polarization:	Vertical
Test Voltage:	DC 5V from adapter AC 120V/60Hz	Test Mode	TX



Remarks:

- 1.Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
- 2.The emission levels of other frequencies are very lower than the limit and not show in test report.
- 3.The test data shows only the worst case 802.11b andAC 120Vmode



1GHz~25GHz

802.11b

Frequency	Read Level	Cable loss	Antenna Factor	Preamplifier Factor	Emission Level	Limits	Margin	Remark	Comment
(MHz)	(dBμV)	(dB)	dB/m	(dB)	(dBμV/m)	(dBμV/m)	(dB)		
Low Channel (2412 MHz)(802.11b)--Above 1G									
4824.161	63.20	4.36	32.92	45.53	54.95	74.00	-19.05	Pk	Vertical
4824.161	43.55	4.36	32.92	45.53	35.30	54.00	-18.70	AV	Vertical
7236.396	60.32	5.02	37.63	45.56	57.41	74.00	-16.59	Pk	Vertical
7236.396	40.51	5.02	37.63	45.56	37.60	54.00	-16.40	AV	Vertical
4824.154	62.75	4.36	32.92	45.53	54.50	74.00	-19.50	Pk	Horizontal
4824.154	43.18	4.36	32.92	45.53	34.93	54.00	-19.07	AV	Horizontal
7236.168	63.62	5.02	37.63	45.56	60.71	74.00	-13.29	Pk	Horizontal
7236.168	43.18	5.02	37.63	45.56	40.27	54.00	-13.73	AV	Horizontal
Low Channel (2437 MHz)(802.11b)--Above 1G									
4874.112	63.24	4.41	33.01	45.76	54.90	74.00	-19.10	Pk	Vertical
4874.112	43.91	4.41	33.01	45.76	35.57	54.00	-18.43	AV	Vertical
7311.247	60.45	5.02	37.68	45.59	57.56	74.00	-16.44	Pk	Vertical
7311.247	41.17	5.02	37.68	45.59	38.28	54.00	-15.72	AV	Vertical
4874.132	62.93	4.41	33.01	45.76	54.59	74.00	-19.41	Pk	Horizontal
4874.132	44.14	4.41	33.01	45.76	35.80	54.00	-18.20	AV	Horizontal
7311.085	61.67	5.02	37.68	45.59	58.78	74.00	-15.22	Pk	Horizontal
7311.085	42.57	5.02	37.68	45.59	39.68	54.00	-14.32	AV	Horizontal
Low Channel (2462 MHz)(802.11b)--Above 1G									
4924.169	63.62	4.50	33.26	46.07	55.31	74.00	-18.69	Pk	Vertical
4924.169	43.73	4.50	33.26	46.07	35.42	54.00	-18.58	AV	Vertical
7386.215	61.33	5.02	37.78	45.77	58.36	74.00	-15.64	Pk	Vertical
7386.215	40.41	5.02	37.78	45.77	37.44	54.00	-16.56	AV	Vertical
4924.045	63.37	4.50	33.26	46.07	55.06	74.00	-18.94	Pk	Horizontal
4924.045	45.25	4.50	33.26	46.07	36.94	54.00	-17.06	AV	Horizontal
7386.132	60.78	5.02	37.78	45.77	57.81	74.00	-16.19	Pk	Horizontal
7386.132	42.94	5.02	37.78	45.77	39.97	54.00	-14.03	AV	Horizontal

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier, Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
4. All the modulation modes have been tested, and only the worst results are reflected in the report.



5.RADIATED BAND EDGE

5.1 TEST REQUIREMENT:

Test Requirement:	FCC Part15 C Section 15.209 and 15.205				
Test Method:	ANSI C63.10: 2013				
Test Frequency Range:	All of the restrict bands were tested, only the worst band's (2310MHz to 2500MHz) data was showed.				
Test site:	Measurement Distance: 3m				
Receiver setup:	Frequency	Detector	RBW	VBW	Value
	Above	Peak	1MHz	3MHz	Peak
	1GHz	Average	1MHz	3MHz	Average

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	Class B (dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	74	54

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

5.2 TEST PROCEDURE

Above 1GHz test procedure as below:

1. The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could bestopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dBmargin would be re-tested one by one using peak, quasi-peak or average method as specified and then reportedin a data sheet.
7. Test the EUT in the lowest channel,the Highest channel

Note:

Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

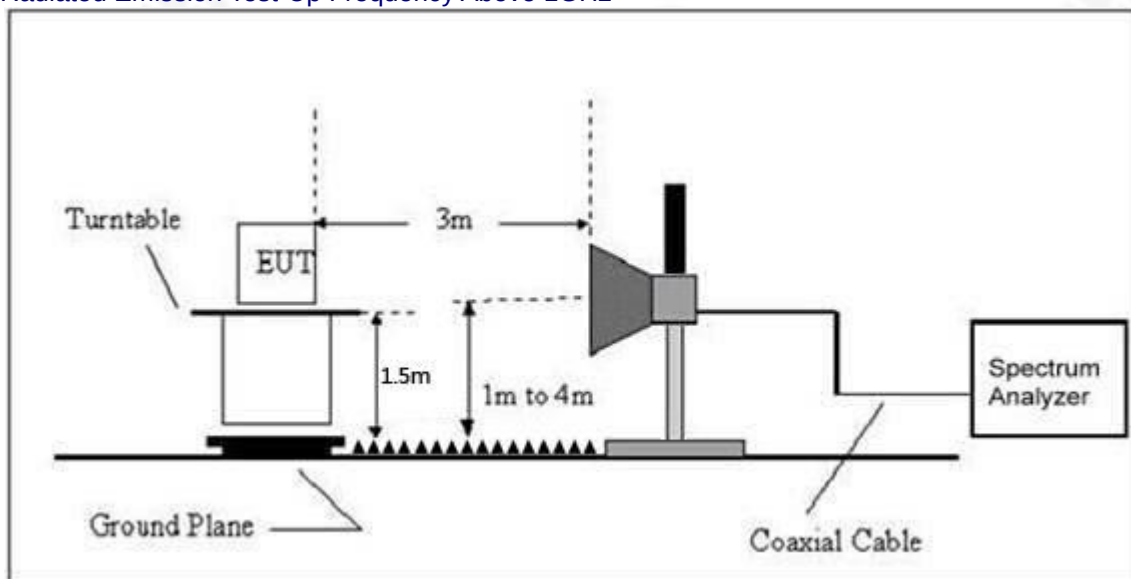
5.3 DEVIATION FROM TEST STANDARD

No deviation



5.4 TEST SETUP

Radiated Emission Test-Up Frequency Above 1GHz



5.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

5.6 TEST RESULT



Frequency (MHz)	Meter Reading	Cable Loss	Antenna Factor	Preamp Factor	Emission Level	Limits	Margin	Detector	Comment
	(dBμV)	(dB)	dB/m	(dB)	(dBμV/m)	(dBμV/m)	(dB)	Type	
802.11b									
2310.00	58.47	2.40	27.70	40.40	48.17	74	-25.83	Pk	Horizontal
2310.00	43.88	2.40	27.70	40.40	33.58	54	-20.42	AV	Horizontal
2310.00	59.15	2.40	27.70	40.40	48.85	74	-25.15	Pk	Vertical
2310.00	42.07	2.40	27.70	40.40	31.77	54	-22.23	AV	Vertical
2390.00	57.65	2.44	28.30	40.10	48.29	74	-25.71	Pk	Vertical
2390.00	42.10	2.44	28.30	40.10	32.74	54	-21.26	AV	Vertical
2390.00	56.71	2.44	28.30	40.10	47.35	74	-26.65	Pk	Horizontal
2390.00	41.18	2.44	28.30	40.10	31.82	54	-22.18	AV	Horizontal
2483.50	57.51	2.48	28.70	39.80	48.89	74	-25.11	Pk	Vertical
2483.50	43.21	2.48	28.70	39.80	34.59	54	-19.41	AV	Vertical
2483.50	58.79	2.48	28.70	39.80	50.17	74	-23.83	Pk	Horizontal
2483.50	41.33	2.48	28.70	39.80	32.71	54	-21.29	AV	Horizontal
2500.00	59.22	2.48	29.05	39.80	50.95	74	-23.05	Pk	Vertical
2500.00	41.99	2.48	29.05	39.80	33.72	54	-20.28	AV	Vertical
2500.00	58.93	2.48	29.05	39.80	50.66	74	-23.34	Pk	Horizontal
2500.00	42.22	2.48	29.05	39.80	33.95	54	-20.05	AV	Horizontal
802.11g									
2310.00	59.11	2.40	27.70	40.40	48.81	74	-25.19	Pk	Horizontal
2310.00	44.13	2.40	27.70	40.40	33.83	54	-20.17	AV	Horizontal
2310.00	56.94	2.40	27.70	40.40	46.64	74	-27.36	Pk	Vertical
2310.00	42.88	2.40	27.70	40.40	32.58	54	-21.42	AV	Vertical
2390.00	57.86	2.44	28.30	40.10	48.50	74	-25.50	Pk	Vertical
2390.00	41.79	2.44	28.30	40.10	32.43	54	-21.57	AV	Vertical
2390.00	57.83	2.44	28.30	40.10	48.47	74	-25.53	Pk	Horizontal
2390.00	43.49	2.44	28.30	40.10	34.13	54	-19.87	AV	Horizontal
2483.50	58.90	2.48	28.70	39.80	50.28	74	-23.72	Pk	Vertical
2483.50	44.03	2.48	28.70	39.80	35.41	54	-18.59	AV	Vertical
2483.50	58.79	2.48	28.70	39.80	50.17	74	-23.83	Pk	Horizontal
2483.50	41.90	2.48	28.70	39.80	33.28	54	-20.72	AV	Horizontal
2500.00	58.44	2.48	29.05	39.80	50.17	74	-23.83	Pk	Vertical
2500.00	41.38	2.48	29.05	39.80	33.11	54	-20.89	AV	Vertical
2500.00	59.05	2.48	29.05	39.80	50.78	74	-23.22	Pk	Horizontal
2500.00	42.25	2.48	29.05	39.80	33.98	54	-20.02	AV	Horizontal



802.11n20									
2310.00	58.30	2.40	27.70	40.40	48.00	74	-26.00	Pk	Horizontal
2310.00	43.50	2.40	27.70	40.40	33.20	54	-20.80	AV	Horizontal
2310.00	58.84	2.40	27.70	40.40	48.54	74	-25.46	Pk	Vertical
2310.00	42.51	2.40	27.70	40.40	32.21	54	-21.79	AV	Vertical
2390.00	57.51	2.44	28.30	40.10	48.15	74	-25.85	Pk	Vertical
2390.00	41.72	2.44	28.30	40.10	32.36	54	-21.64	AV	Vertical
2390.00	56.73	2.44	28.30	40.10	47.37	74	-26.63	Pk	Horizontal
2390.00	42.24	2.44	28.30	40.10	32.88	54	-21.12	AV	Horizontal
2483.50	58.44	2.48	28.70	39.80	49.82	74	-24.18	Pk	Vertical
2483.50	42.72	2.48	28.70	39.80	34.10	54	-19.90	AV	Vertical
2483.50	58.66	2.48	28.70	39.80	50.04	74	-23.96	Pk	Horizontal
2483.50	41.80	2.48	28.70	39.80	33.18	54	-20.82	AV	Horizontal
2500.00	58.90	2.48	29.05	39.80	50.63	74	-23.37	Pk	Vertical
2500.00	42.17	2.48	29.05	39.80	33.90	54	-20.10	AV	Vertical
2500.00	58.62	2.48	29.05	39.80	50.35	74	-23.65	Pk	Horizontal
2500.00	41.32	2.48	29.05	39.80	33.05	54	-20.95	AV	Horizontal
802.11n40									
2310.00	59.19	2.40	27.70	40.40	48.89	74	-25.11	Pk	Horizontal
2310.00	44.28	2.40	27.70	40.40	33.98	54	-20.02	AV	Horizontal
2310.00	57.49	2.40	27.70	40.40	47.19	74	-26.81	Pk	Vertical
2310.00	43.50	2.40	27.70	40.40	33.20	54	-20.80	AV	Vertical
2390.00	58.35	2.44	28.30	40.10	48.99	74	-25.01	Pk	Vertical
2390.00	42.32	2.44	28.30	40.10	32.96	54	-21.04	AV	Vertical
2390.00	58.41	2.44	28.30	40.10	49.05	74	-24.95	Pk	Horizontal
2390.00	43.38	2.44	28.30	40.10	34.02	54	-19.98	AV	Horizontal
2483.50	58.33	2.48	28.70	39.80	49.71	74	-24.29	Pk	Vertical
2483.50	44.59	2.48	28.70	39.80	35.97	54	-18.03	AV	Vertical
2483.50	59.09	2.48	28.70	39.80	50.47	74	-23.53	Pk	Horizontal
2483.50	42.72	2.48	28.70	39.80	34.10	54	-19.90	AV	Horizontal
2500.00	59.18	2.48	29.05	39.80	50.91	74	-23.09	Pk	Vertical
2500.00	41.46	2.48	29.05	39.80	33.19	54	-20.81	AV	Vertical
2500.00	58.83	2.48	29.05	39.80	50.56	74	-23.44	Pk	Horizontal
2500.00	41.86	2.48	29.05	39.80	33.59	54	-20.41	AV	Horizontal



6. POWER SPECTRAL DENSITY

Test Requirement:	FCC Part15 C Section 15.247 (e)
Test Method:	KDB558074 D0115.247 Meas Guidancev05r02

6.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247	Power Spectral Density	8dBm/3kHz	2400-2483.5	PASS

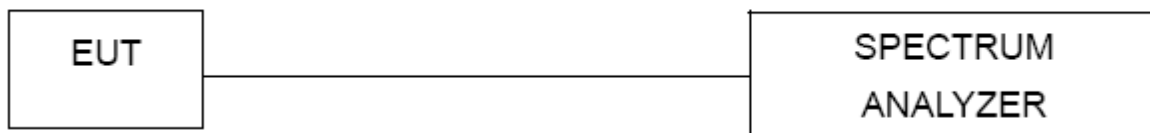
6.2 TEST PROCEDURE

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS bandwidth.
3. Set the RBW to: $3\text{ kHz} \leq \text{RBW} \leq 100\text{ kHz}$.
4. Set the VBW $\geq 3 \times \text{RBW}$.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level within the RBW.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

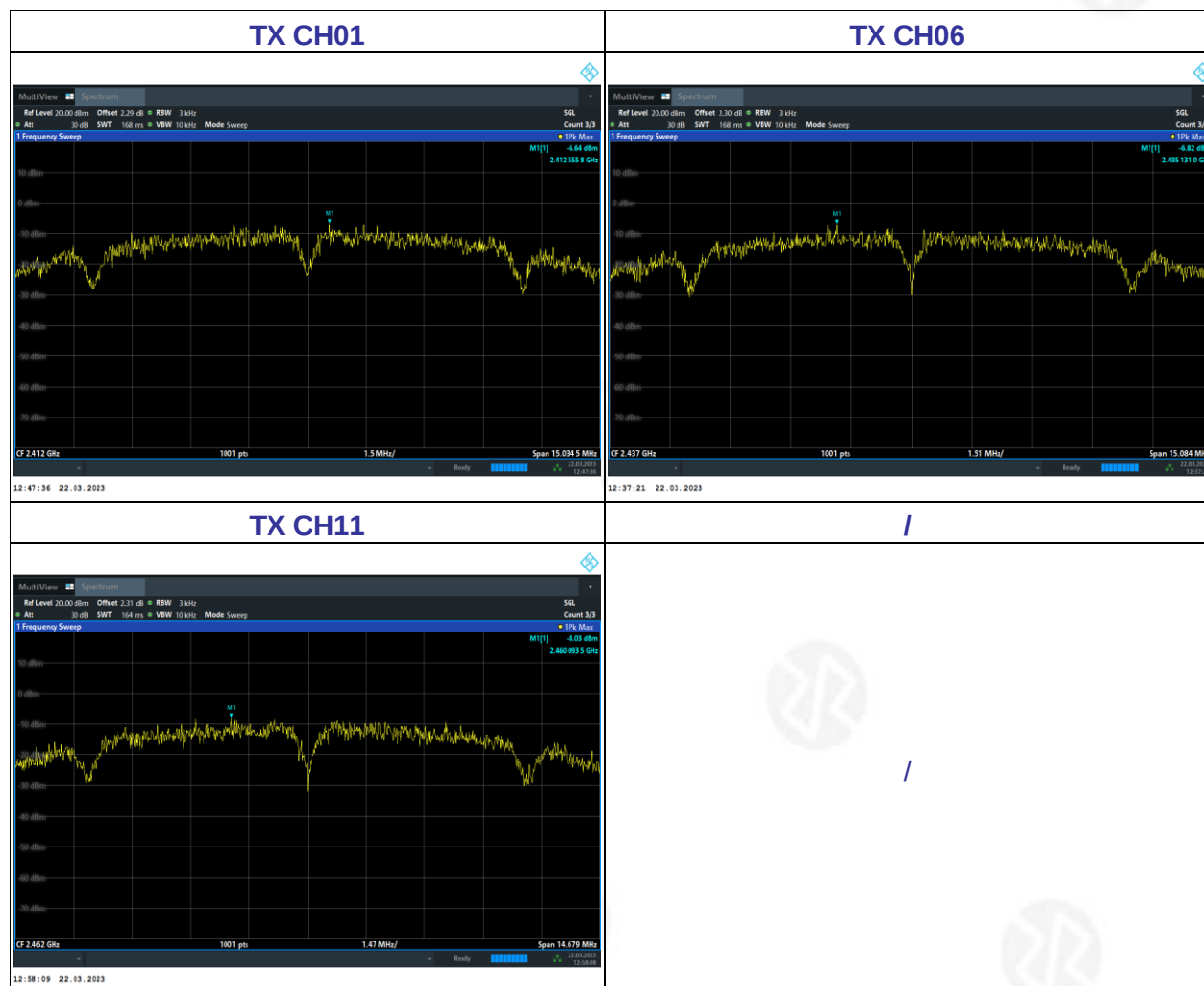
The EUT tested system was configured as the statements of 2.1 Unless otherwise a special operating condition is specified in the follows during the testing.



6.6 TEST RESULT

Temperature :	26°C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	DC 5V from adapter AC 120V/60Hz
Test Mode :	ANT 1 TX b Mode		

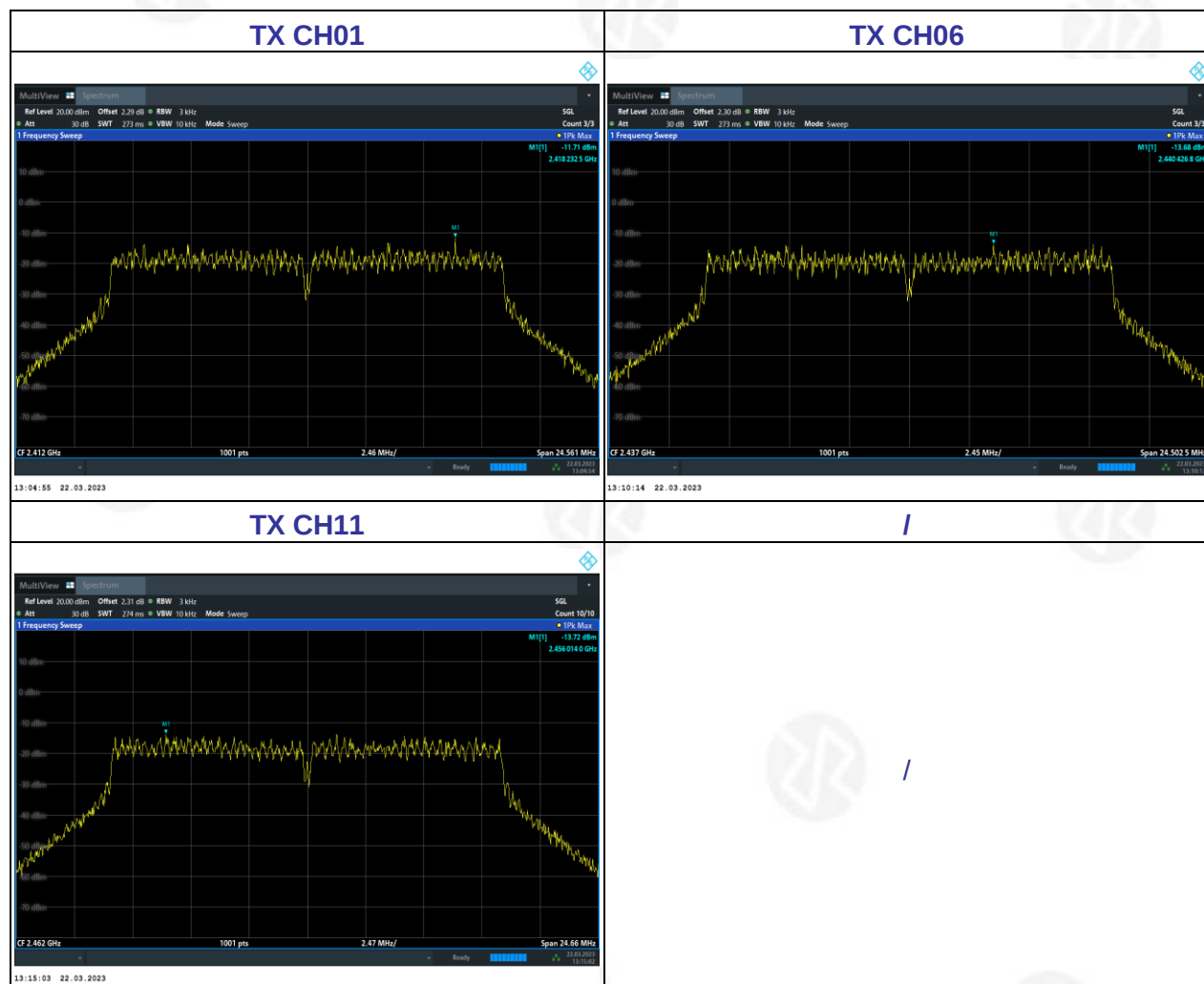
Frequency	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
2412 MHz	-6.64	8	PASS
2437 MHz	-6.82	8	PASS
2462 MHz	-8.03	8	PASS





Temperature :	26℃	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	DC 5V from adapter AC 120V/60Hz
Test Mode :	ANT 1 TX g Mode		

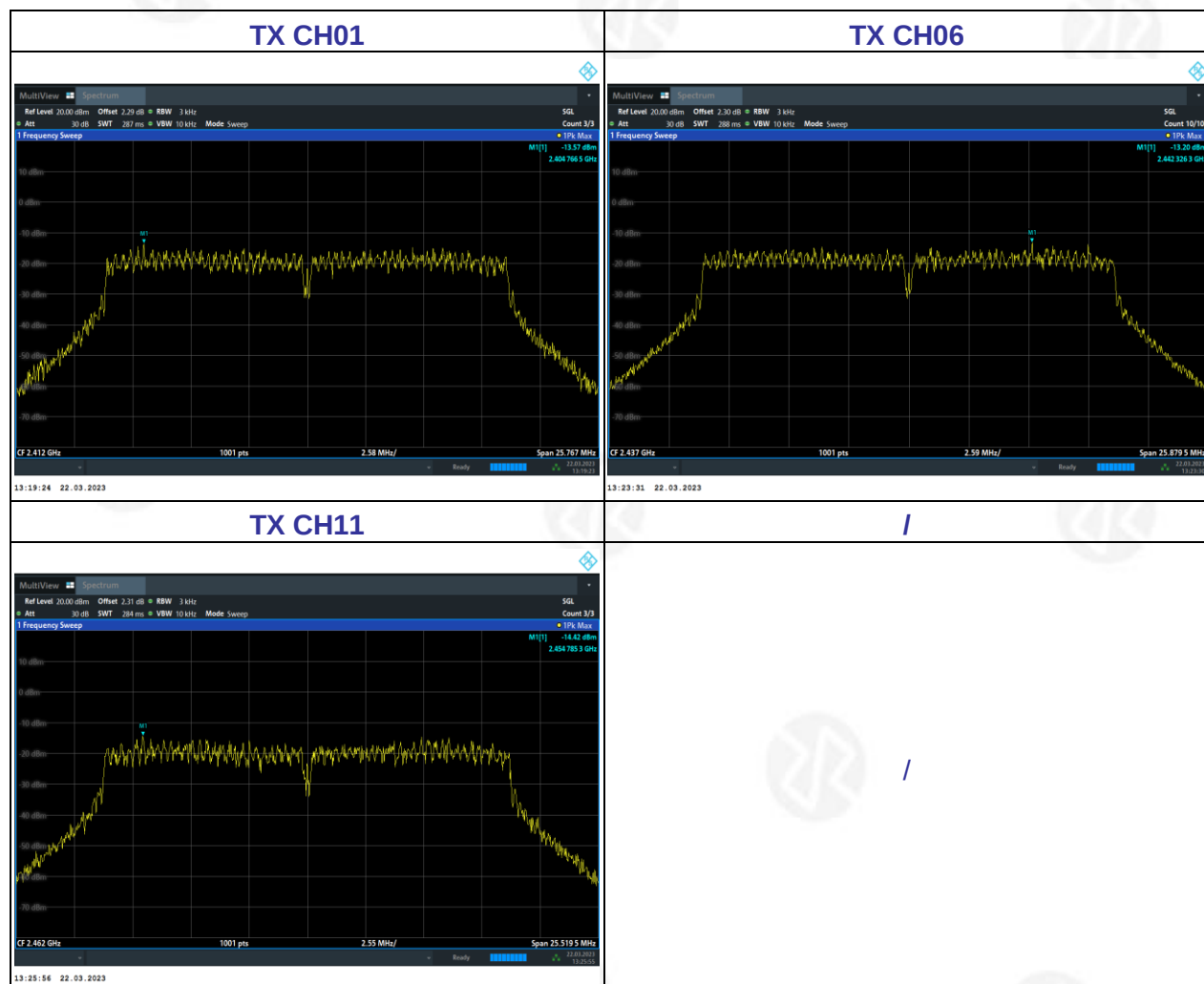
Frequency	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
2412 MHz	-11.71	8	PASS
2437 MHz	-13.68	8	PASS
2462 MHz	-13.72	8	PASS





Temperature :	26℃	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	DC 5V from adapter AC 120V/60Hz
Test Mode :	ANT 1 TX n20 Mode		

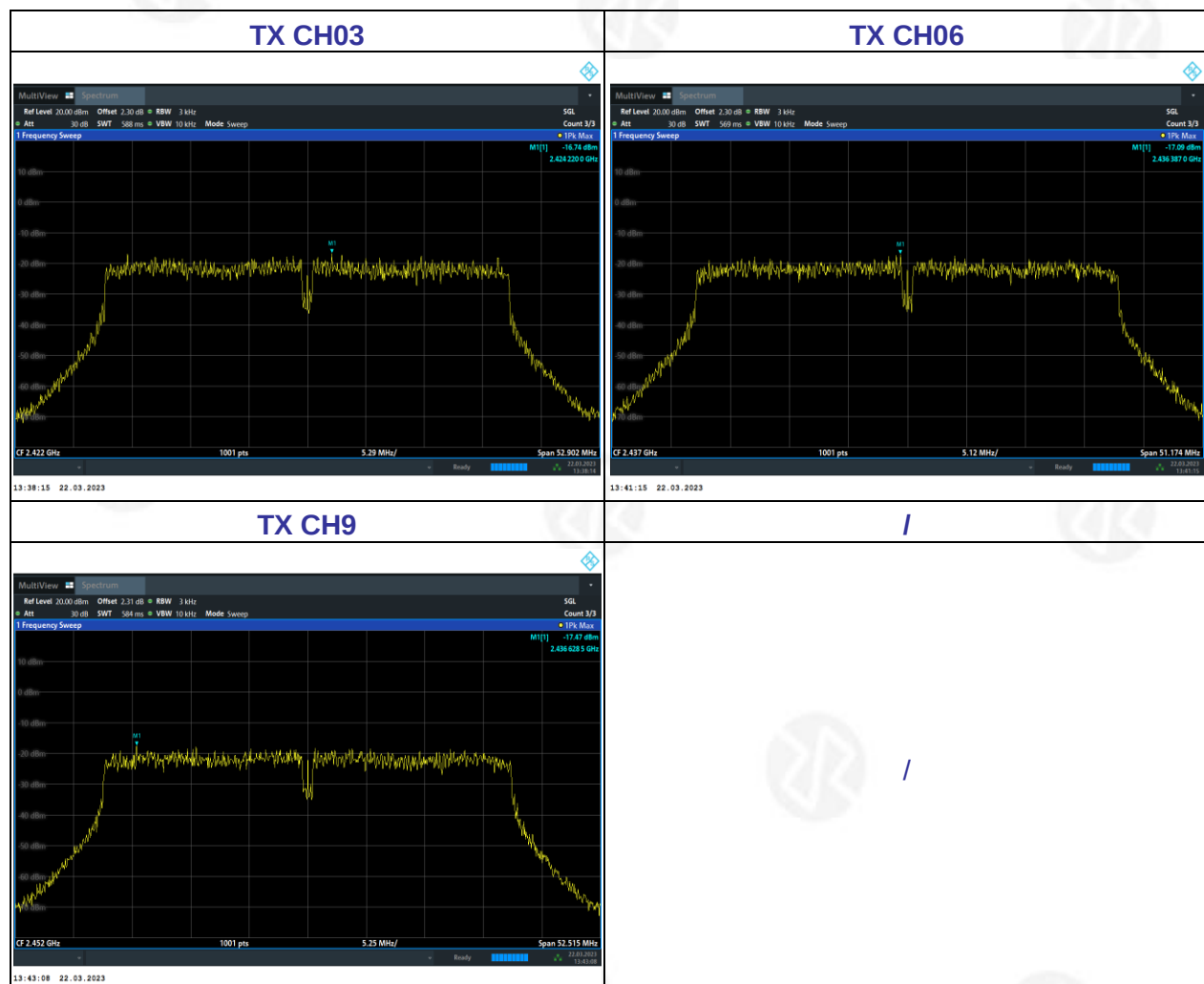
Frequency	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
2412 MHz	-13.57	8	PASS
2437 MHz	-13.2	8	PASS
2462 MHz	-14.42	8	PASS





Temperature :	26℃	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	DC 5V from adapter AC 120V/60Hz
Test Mode :	ANT 1 TX n40 Mode		

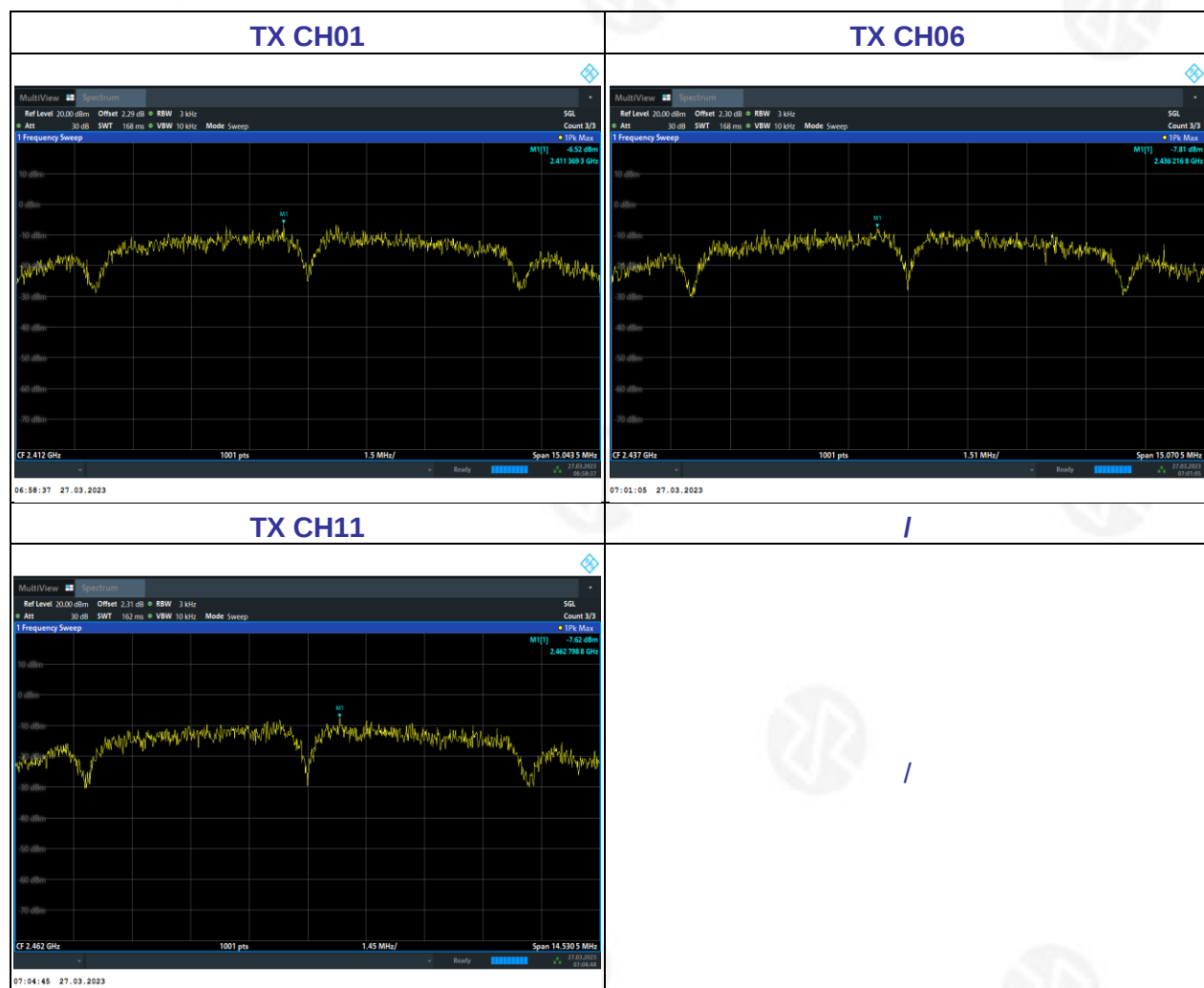
Frequency	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
2422 MHz	-16.74	8	PASS
2437 MHz	-17.09	8	PASS
2452 MHz	-17.47	8	PASS





Temperature :	26℃	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	DC 5V from adapter AC 120V/60Hz
Test Mode :	ANT 2 TX b Mode		

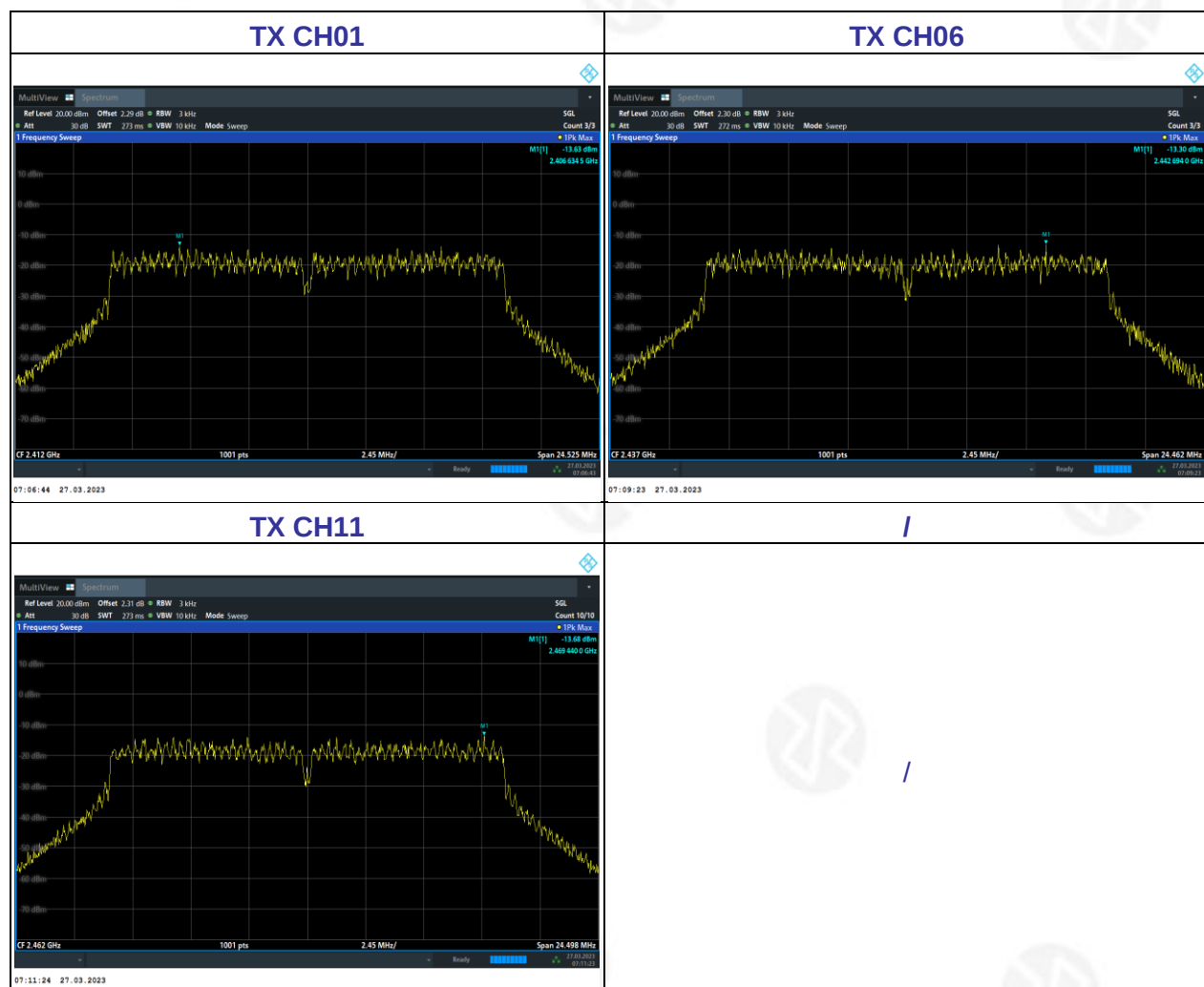
Frequency	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
2412 MHz	-6.52	8	PASS
2437 MHz	-7.81	8	PASS
2462 MHz	-7.62	8	PASS





Temperature :	26℃	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	DC 5V from adapter AC 120V/60Hz
Test Mode :	ANT 2 TX g Mode		

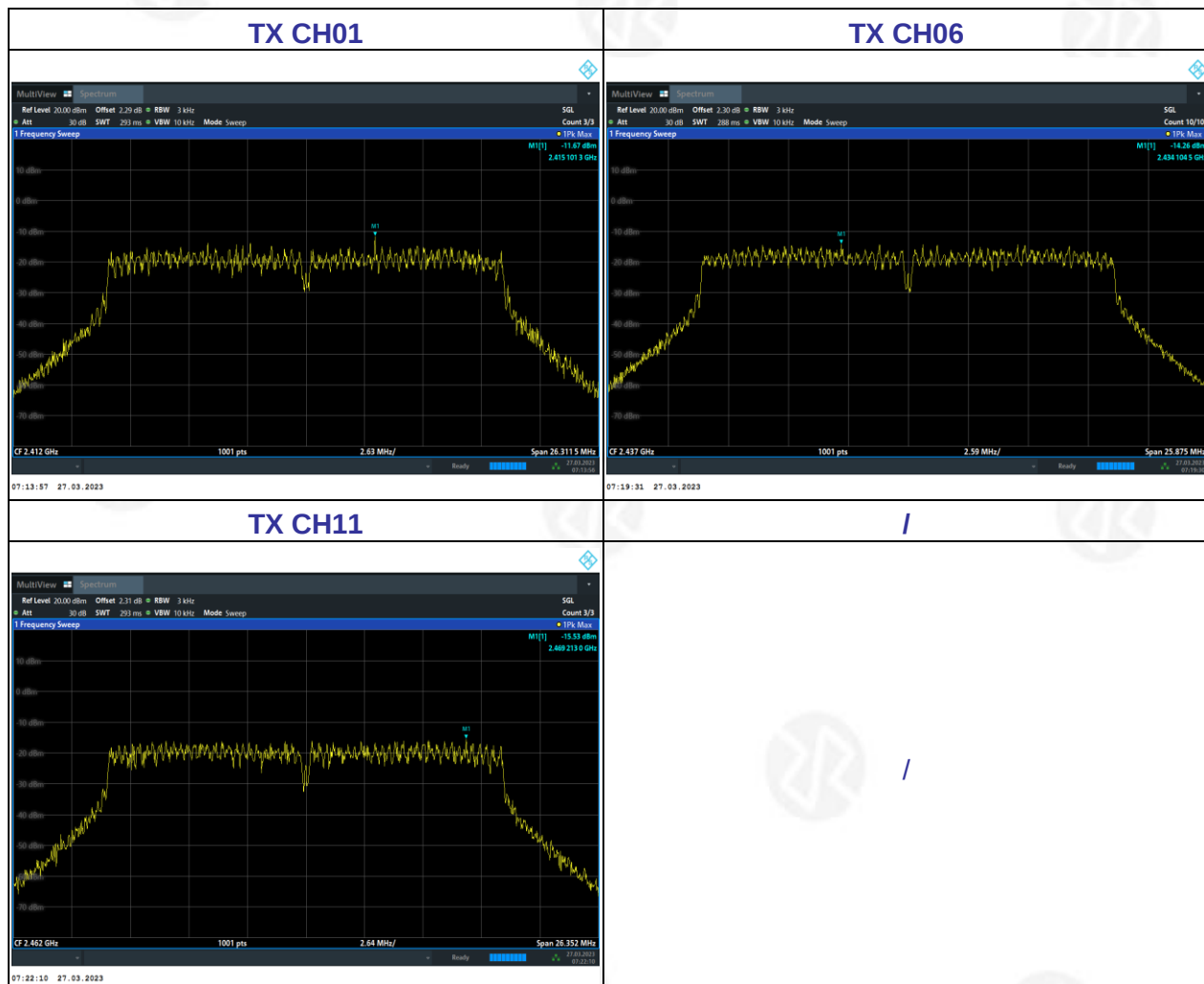
Frequency	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
2412 MHz	-13.63	8	PASS
2437 MHz	-13.3	8	PASS
2462 MHz	-13.68	8	PASS





Temperature :	26℃	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	DC 5V from adapter AC 120V/60Hz
Test Mode :	ANT 2 TX n20 Mode		

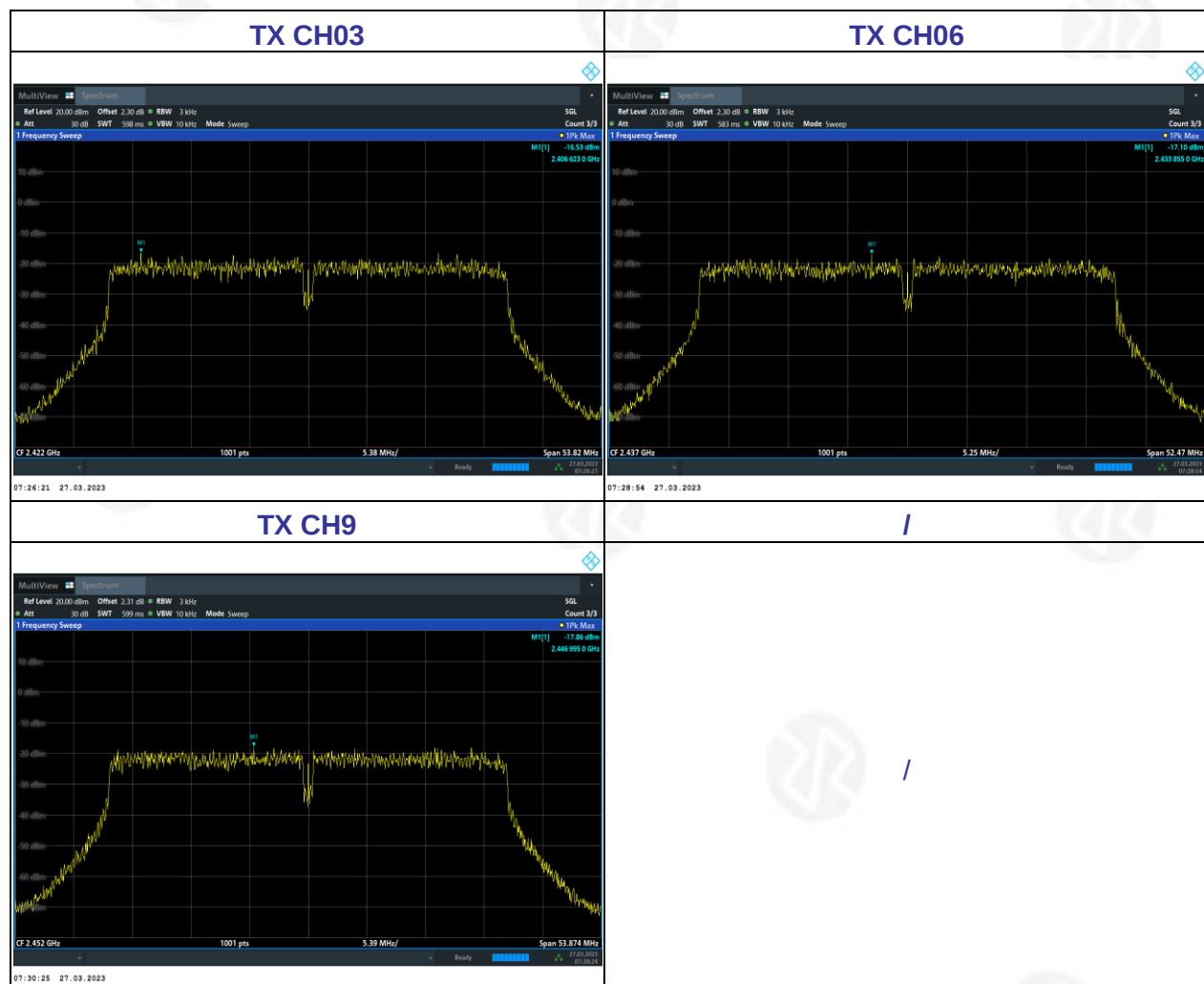
Frequency	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
2412 MHz	-11.67	8	PASS
2437 MHz	-14.26	8	PASS
2462 MHz	-15.53	8	PASS





Temperature :	26℃	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	DC 5V from adapter AC 120V/60Hz
Test Mode :	ANT 2 TX n40 Mode		

Frequency	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
2422 MHz	-16.74	8	PASS
2437 MHz	-17.09	8	PASS
2452 MHz	-17.47	8	PASS





7. 6DB BANDWIDTH

Test Requirement:	FCC Part15 C Section 15.247 (a)(2)
Test Method:	KDB558074 D0115.247 Meas Guidancev05r02

7.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(a)(2)	Bandwidth	$\geq 500\text{KHz}$ (6dB bandwidth)	2400-2483.5	PASS

7.2 TEST PROCEDURE

1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) $\geq 3 \times \text{RBW}$.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. 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.

7.3 DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP



7.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

7.6 TEST RESULT



Temperature :	26°C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	DC 5V from adapter AC 120V/60Hz
Test Mode :	ANT 1 TX b/g/n20/n40		

Channel	Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
TX b Mode /CH01, CH06, CH11				
Low	2412	10.023	500	Pass
Middle	2437	10.056	500	Pass
High	2462	9.786	500	Pass
TX g Mode /CH01, CH06, CH11				
Low	2412	16.374	500	Pass
Middle	2437	16.335	500	Pass
High	2462	16.44	500	Pass
TX n20 Mode /CH01, CH06, CH11				
Low	2412	17.178	500	Pass
Middle	2437	17.253	500	Pass
High	2462	17.013	500	Pass
TX n40 Mode /CH03, CH06, CH9				
Low	2422	35.268	500	Pass
Middle	2437	34.116	500	Pass
High	2452	35.01	500	Pass

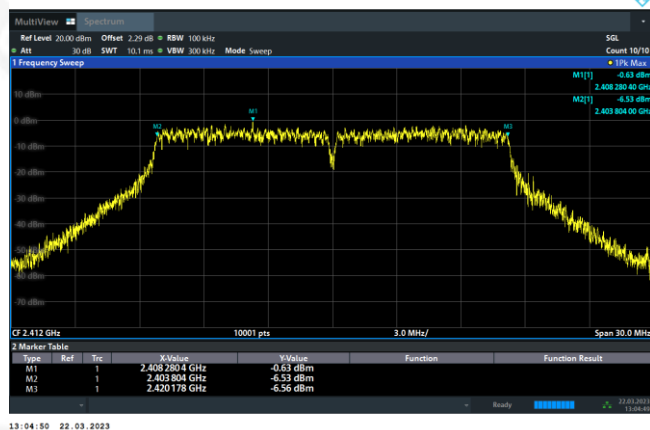
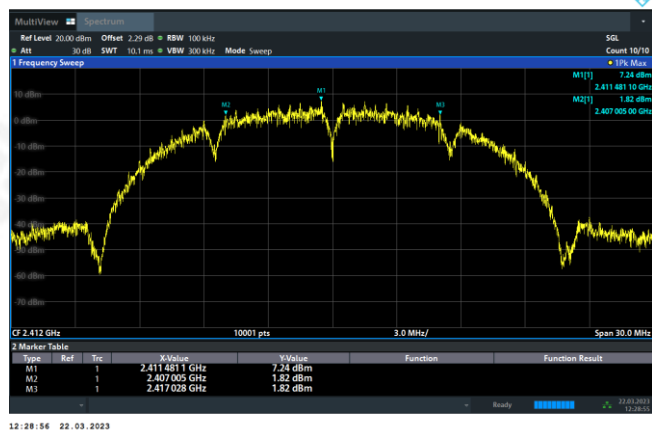


Test plot as follows:

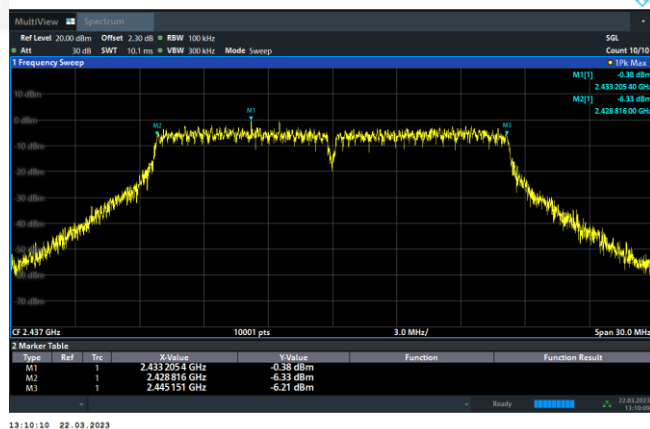
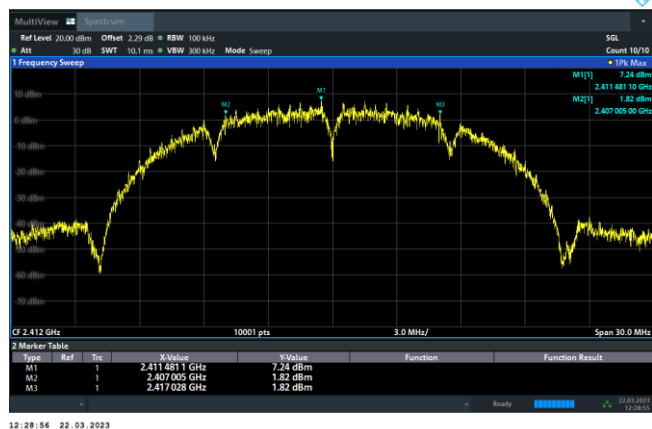
802.11b

802.11g

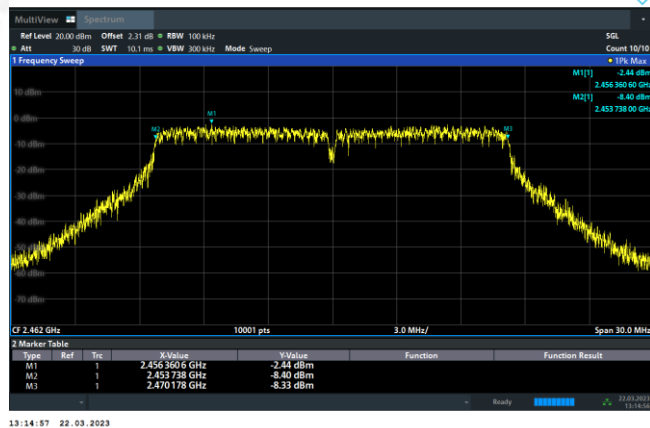
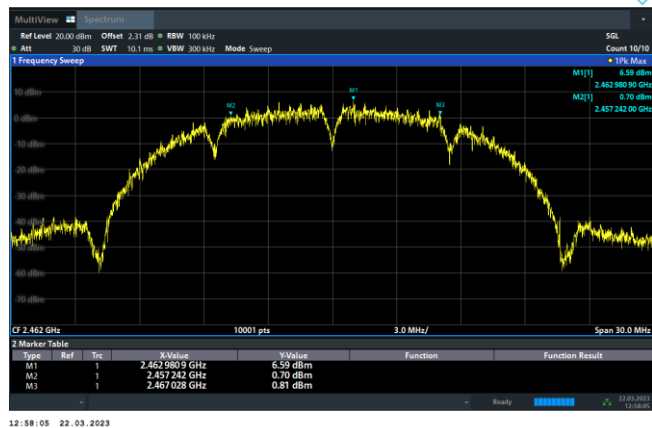
Lowest channel



Middle channel



Highest channel

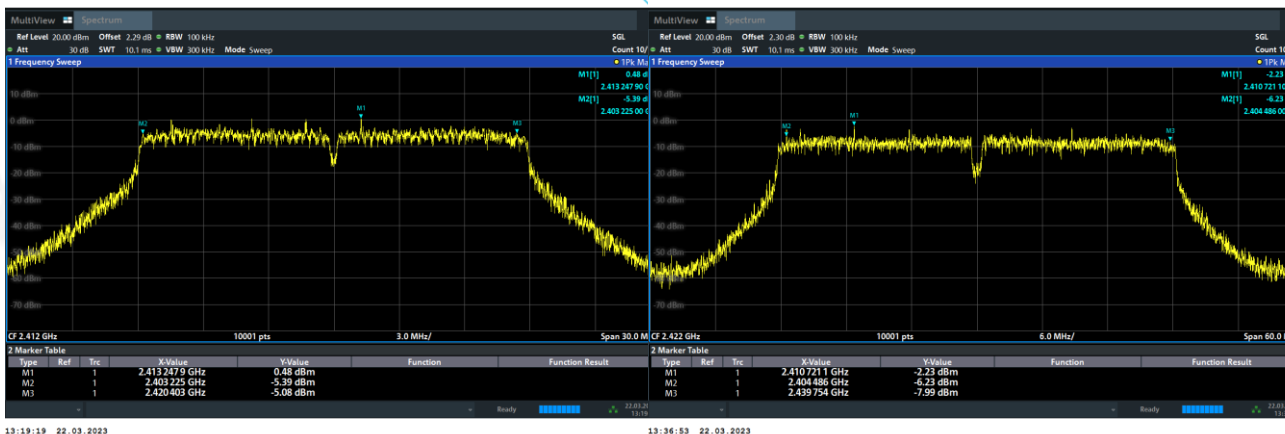




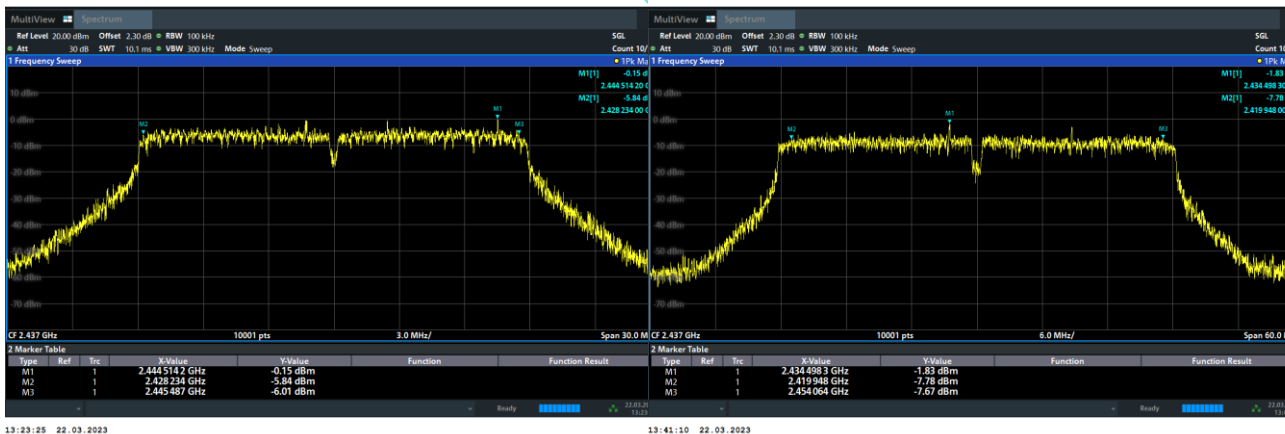
802.11n20

802.11n40

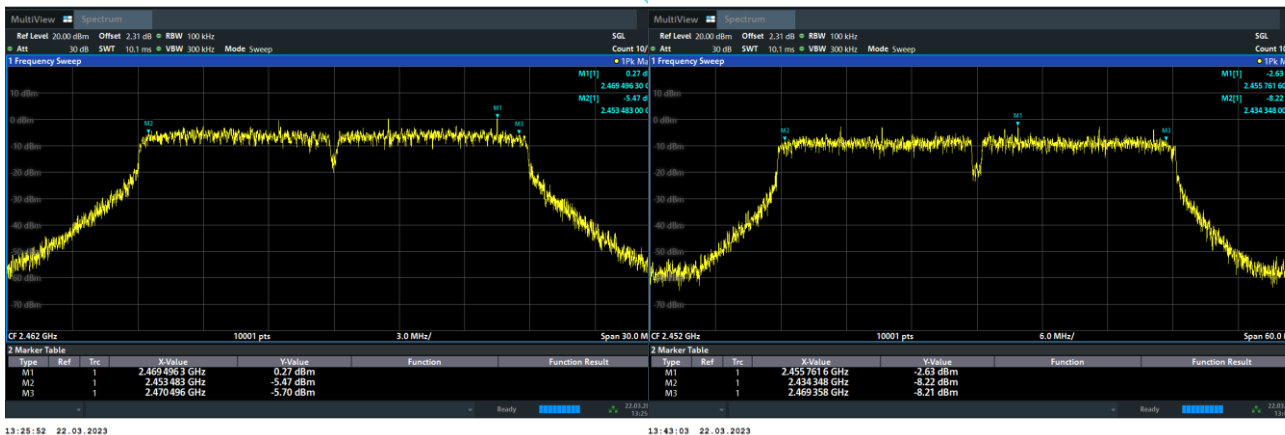
Lowest channel



Middle channel



Highest channel





Temperature :	26°C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	DC 5V from adapter AC 120V/60Hz
Test Mode :	ANT 2 TX b/g/n20/n40		

Channel	Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
TX b Mode /CH01, CH06, CH11				
Low	2412	10.029	500	Pass
Middle	2437	10.047	500	Pass
High	2462	9.687	500	Pass
TX g Mode /CH01, CH06, CH11				
Low	2412	16.35	500	Pass
Middle	2437	16.308	500	Pass
High	2462	16.332	500	Pass
TX n20 Mode /CH01, CH06, CH11				
Low	2412	17.541	500	Pass
Middle	2437	17.25	500	Pass
High	2462	17.568	500	Pass
TX n40 Mode /CH03, CH06, CH9				
Low	2422	35.88	500	Pass
Middle	2437	34.98	500	Pass
High	2452	35.916	500	Pass

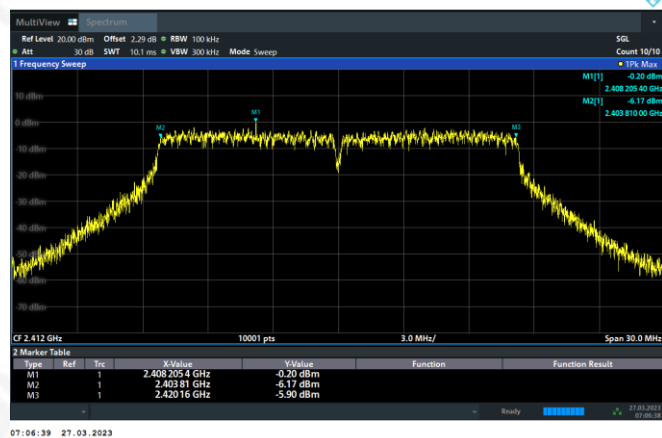
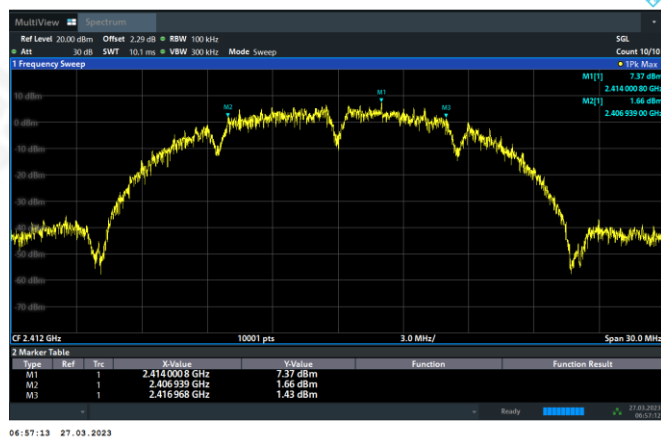


Test plot as follows:

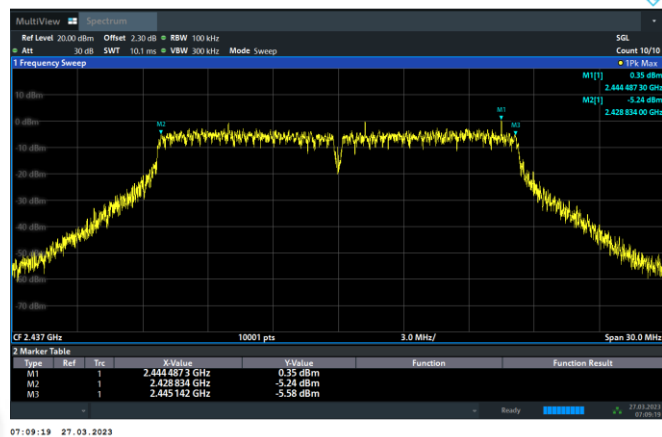
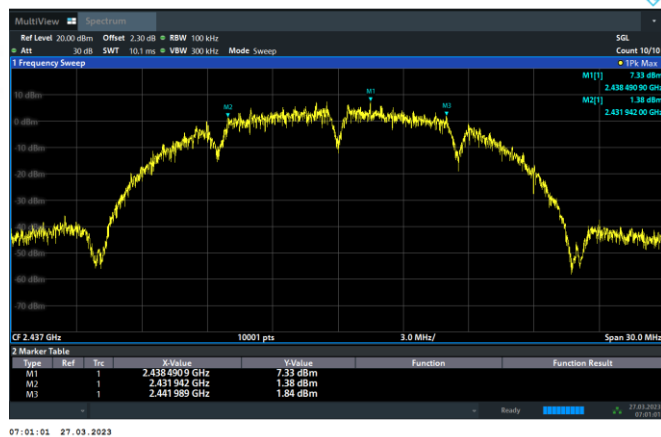
802.11b

802.11g

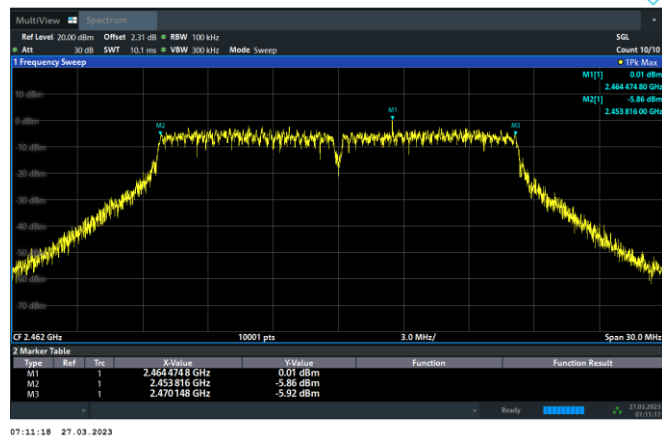
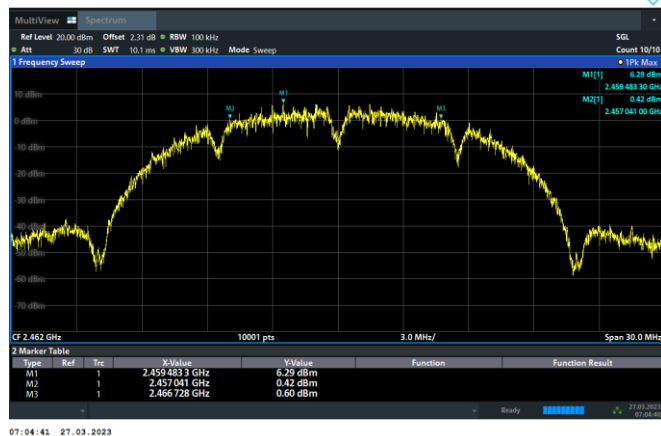
Lowest channel



Middle channel



Highest channel

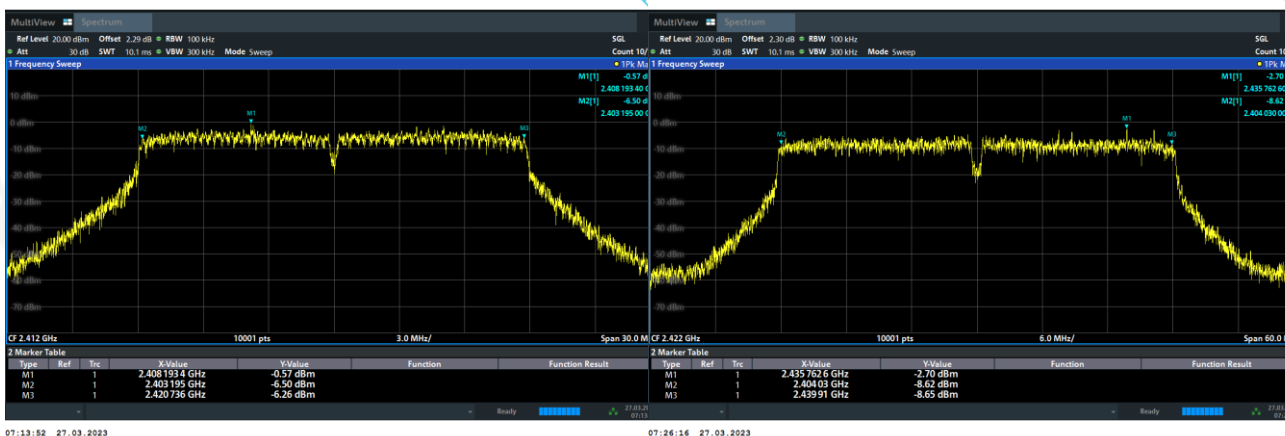




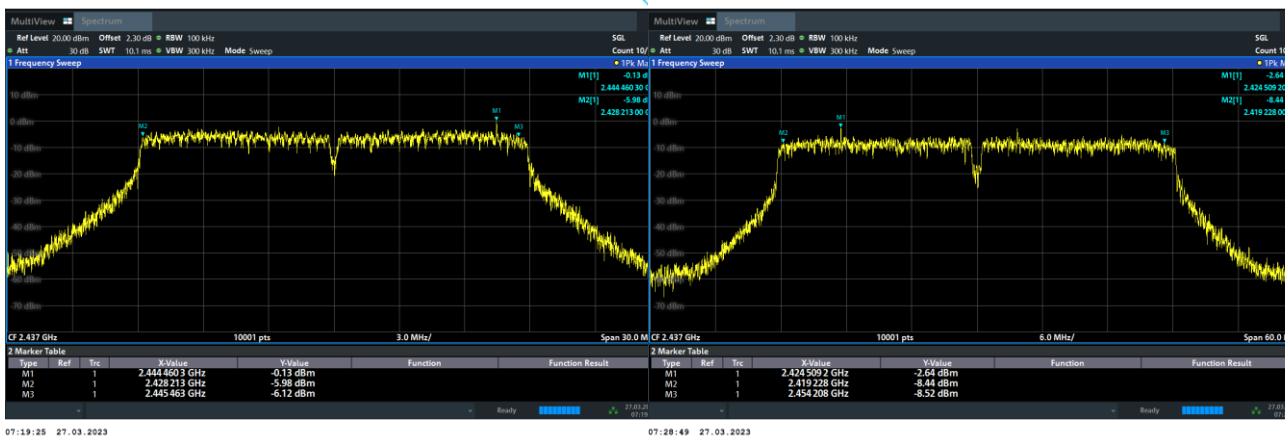
802.11n20

802.11n40

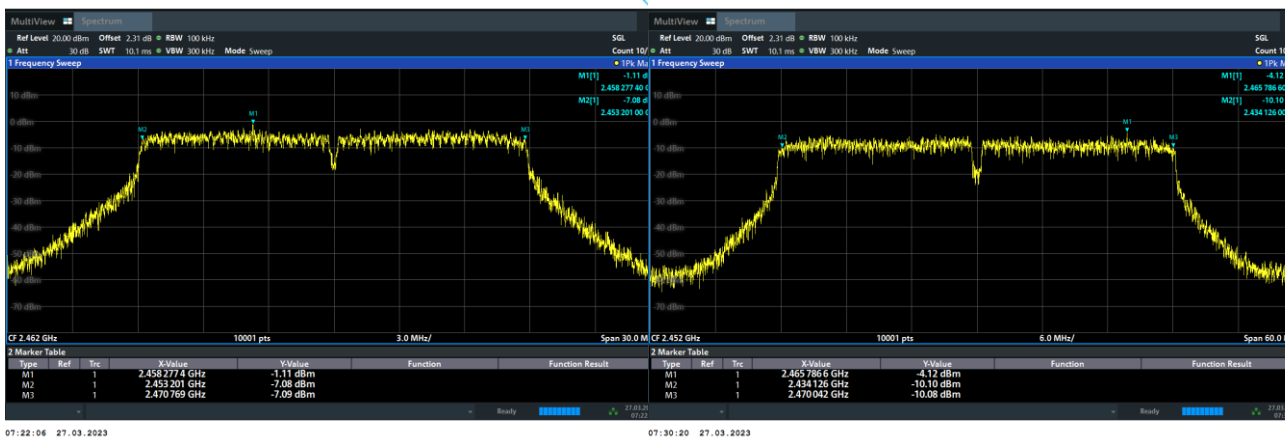
Lowest channel



Middle channel



Highest channel





8. PEAK OUTPUT POWER

Test Requirement:	FCC Part15 C Section 15.247 (b)(3)
Test Method:	KDB558074 D0115.247 Meas Guidancev05r02

8.1 APPLIED PROCEDURES/LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(3)	Peak Output Power	1 watt or 30dBm	2400-2483.5	PASS

8.2 TEST PROCEDURE

- a. The EUT was directly connected to the Power meter

8.3 DEVIATION FROM STANDARD

No deviation.

8.4 TEST SETUP



8.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.



8.6 TEST RESULT

Temperature :	26°C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	DC 5V from adapter AC 120V/60Hz
Test Mode:	ANT 1 TX b/g/n20/n40		

802.11b

Test Channel	Frequency (MHz)	Maximum Peak Conducted Output Power(dBm)	Limit (dBm)
CH01	2412	18.3	30
CH06	2437	17.35	30
CH11	2462	19.86	30

802.11g

Test Channel	Frequency (MHz)	Maximum Peak Conducted Output Power(dBm)	Limit (dBm)
CH01	2412	15.54	30
CH06	2437	17.63	30
CH11	2462	17.83	30

802.11n20

Test Channel	Frequency (MHz)	Maximum Peak Conducted Output Power(dBm)	Limit (dBm)
CH01	2412	18.21	30
CH06	2437	17.73	30
CH11	2462	19.32	30

802.11n40

Test Channel	Frequency (MHz)	Maximum Peak Conducted Output Power(dBm)	Limit (dBm)
CH03	2422	17.9	30
CH06	2437	18.06	30
CH09	2452	17.83	30



Temperature :	26°C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	DC 5V from adapter AC 120V/60Hz
Test Mode:	ANT 2 TX b/g/n20/n40		

802.11b

Test Channel	Frequency (MHz)	Maximum Peak Conducted Output Power(dBm)	Limit (dBm)
CH01	2412	18.74	30
CH06	2437	17.38	30
CH11	2462	20.19	30

802.11g

Test Channel	Frequency (MHz)	Maximum Peak Conducted Output Power(dBm)	Limit (dBm)
CH01	2412	15.27	30
CH06	2437	17.8	30
CH11	2462	17.81	30

802.11n20

Test Channel	Frequency (MHz)	Maximum Peak Conducted Output Power(dBm)	Limit (dBm)
CH01	2412	17.89	30
CH06	2437	17.81	30
CH11	2462	19.28	30

802.11n40

Test Channel	Frequency (MHz)	Maximum Peak Conducted Output Power(dBm)	Limit (dBm)
CH03	2422	18.43	30
CH06	2437	17.93	30
CH09	2452	18.04	30



9. CONDUCTED BAND EDGE AND SPURIOUS EMISSION

Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	KDB558074 D0115.247 Meas Guidancev05r02

9.1 APPLICABLE STANDARD

in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, In addition, radiated emissions which fall in the restricted bands, as defined in§15.205(a), must also comply with the radiated emission limits specified in15.209(a).

9.2 TEST PROCEDURE

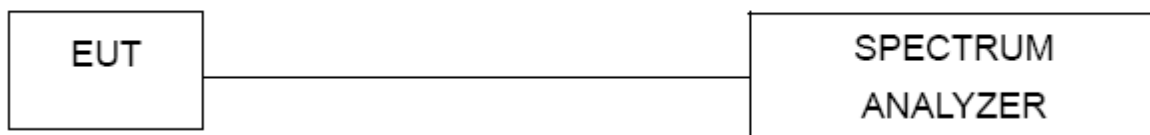
Using the following spectrum analyzer setting:

- A) Set the RBW = 100KHz.
- B) Set the VBW = 300KHz.
- C) Sweep time = auto couple.
- D) Detector function = peak.
- E) Trace mode = max hold.
- F) Allow trace to fully stabilize.

9.3 TEST PROCEDURE

No deviation.

9.4 TEST SETUP



9.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

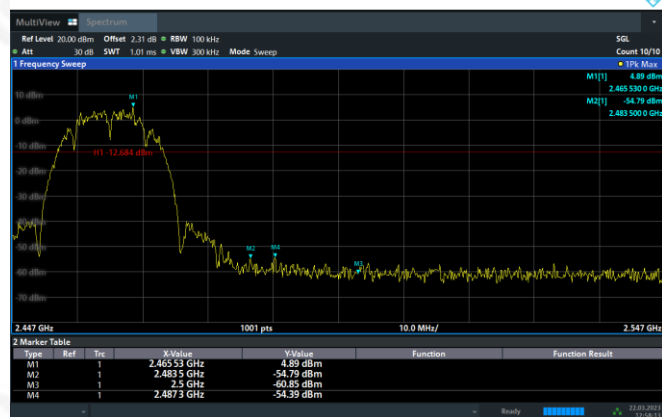
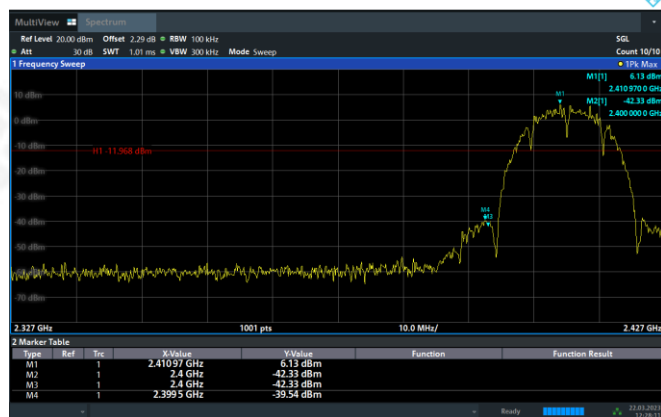
9.6 TEST RESULTS



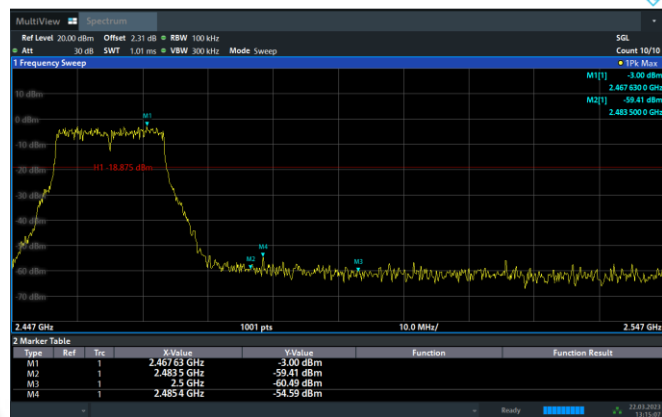
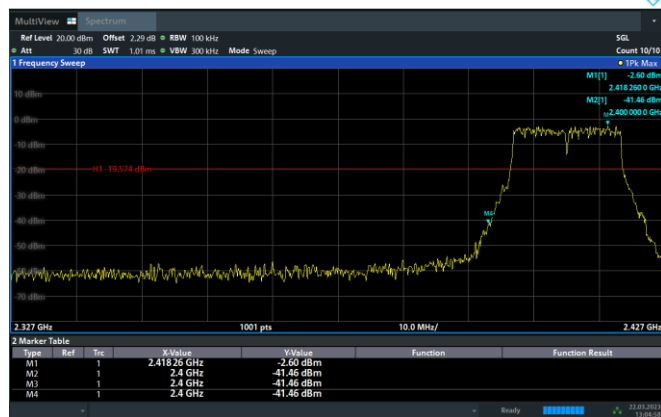
Test plot as follows:

ANT 1

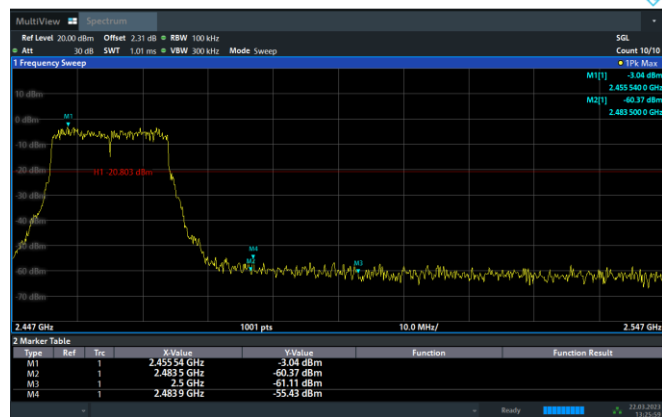
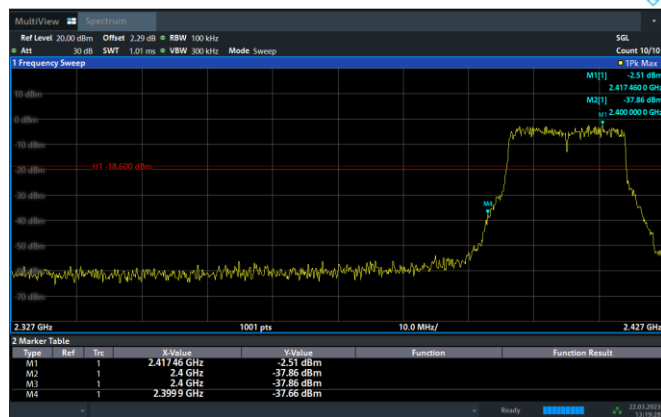
802.11b



802.11g

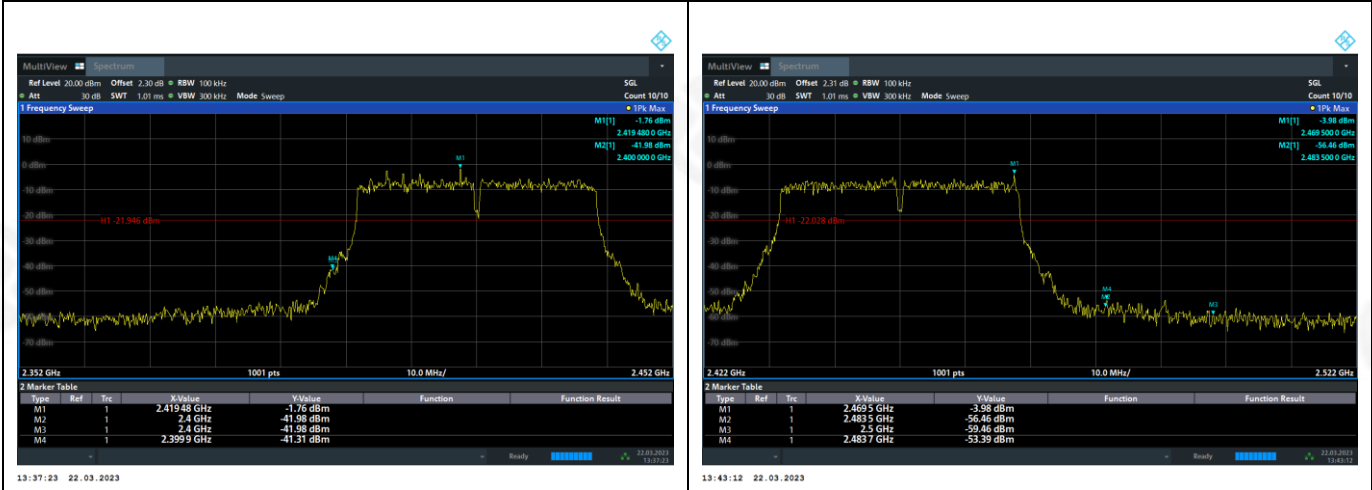


802.11n(HT20)





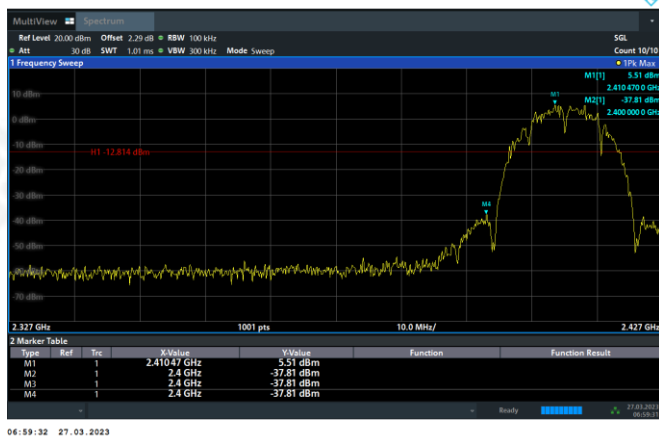
802.11n(HT40)



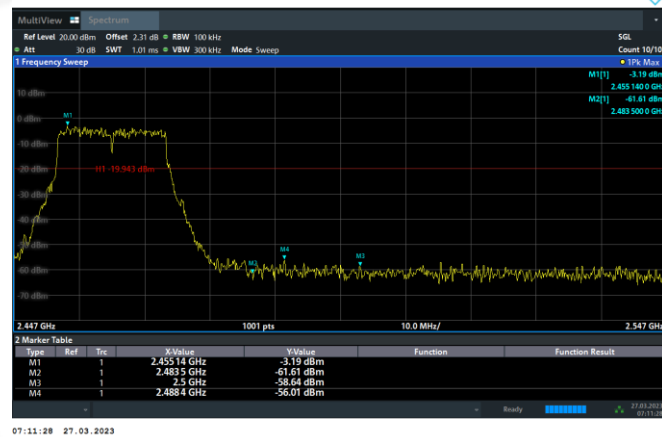
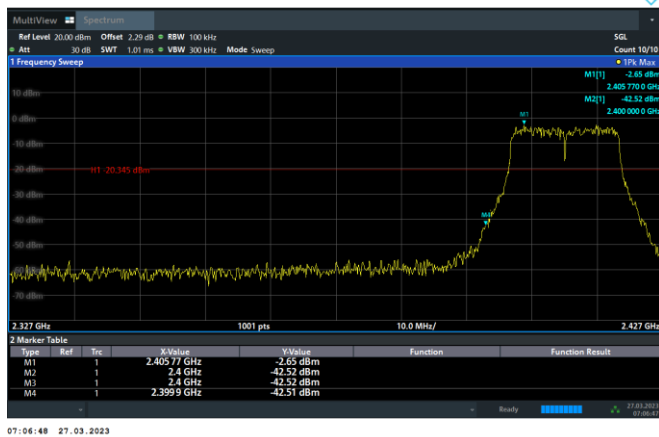


ANT 2

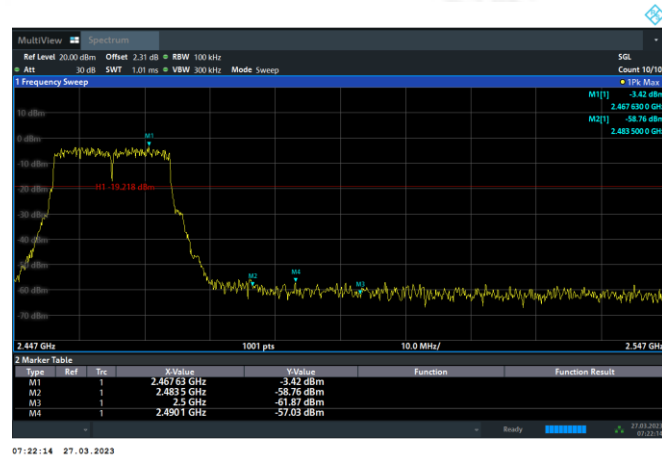
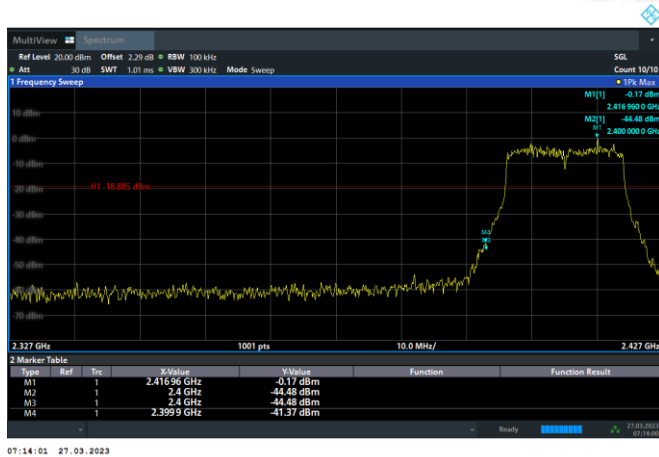
802.11b



802.11g

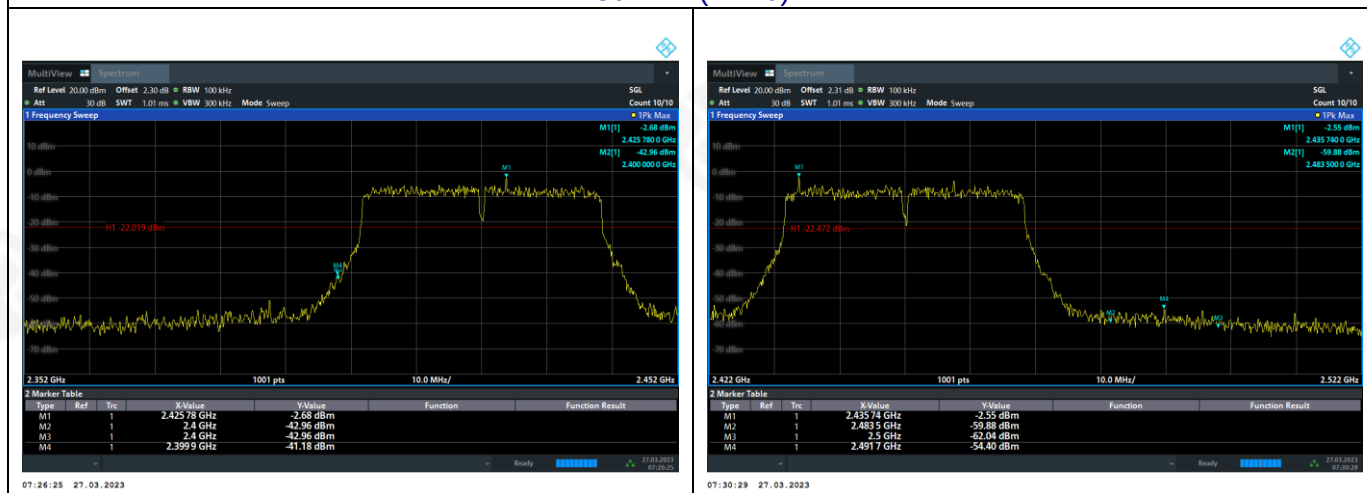


802.11n(HT20)





802.11n(HT40)

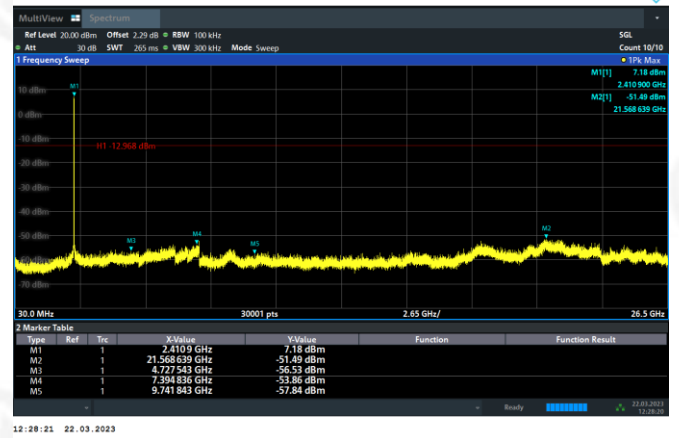
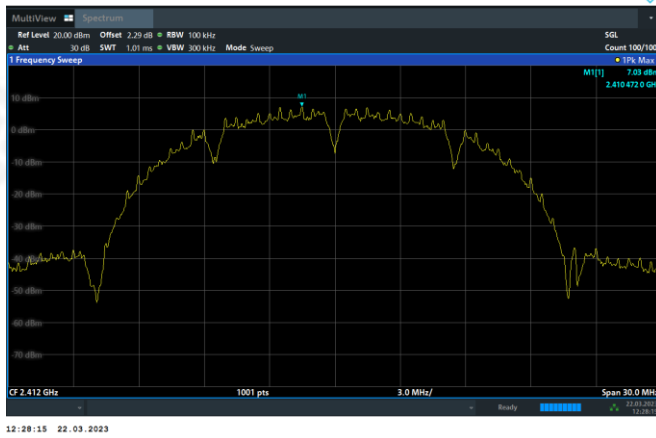




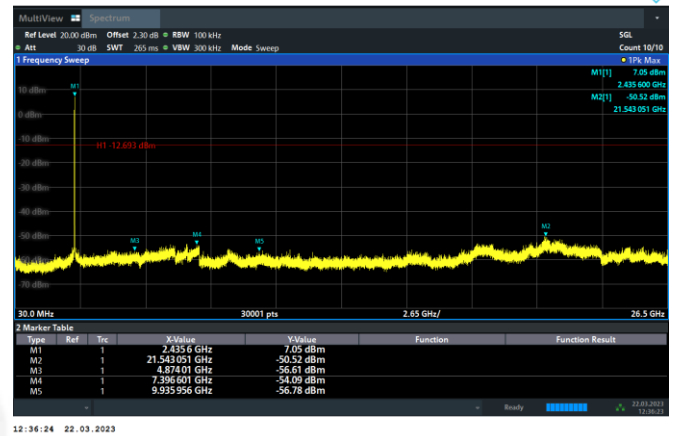
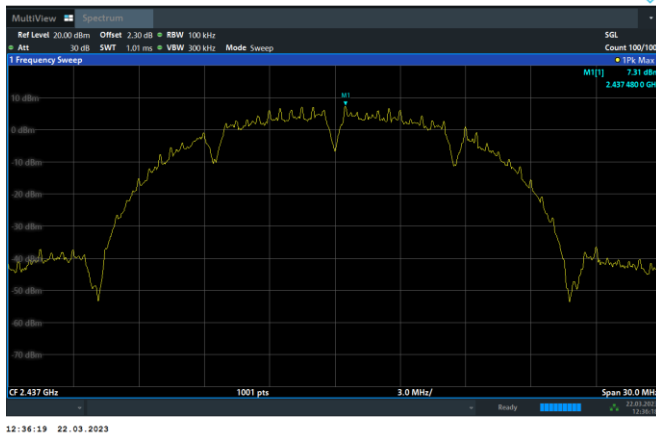
Test plot as follows:

ANT 1

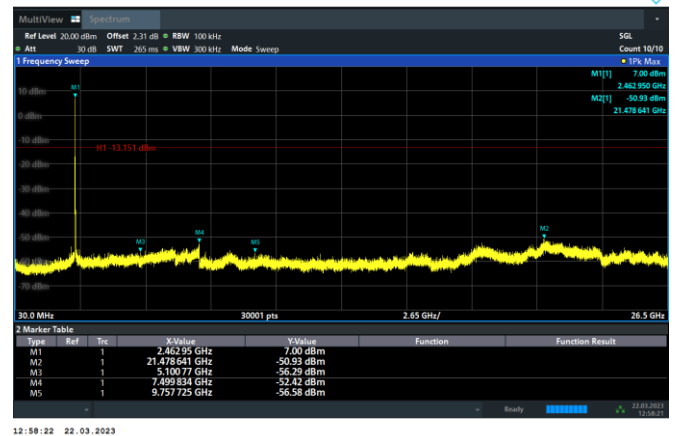
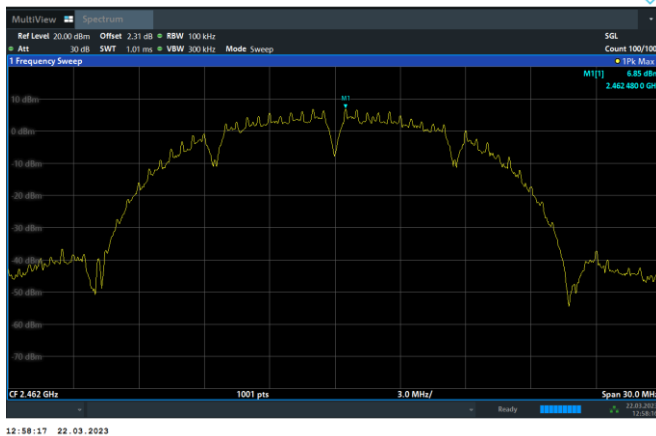
802.11b on Channel 01



802.11b on Channel 06



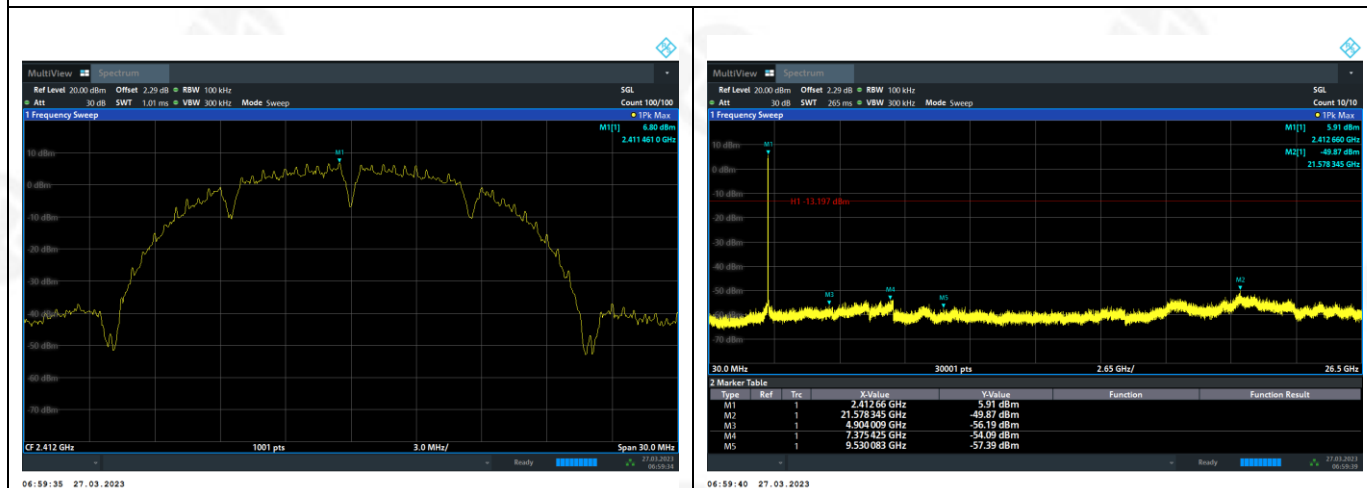
802.11b on Channel 11



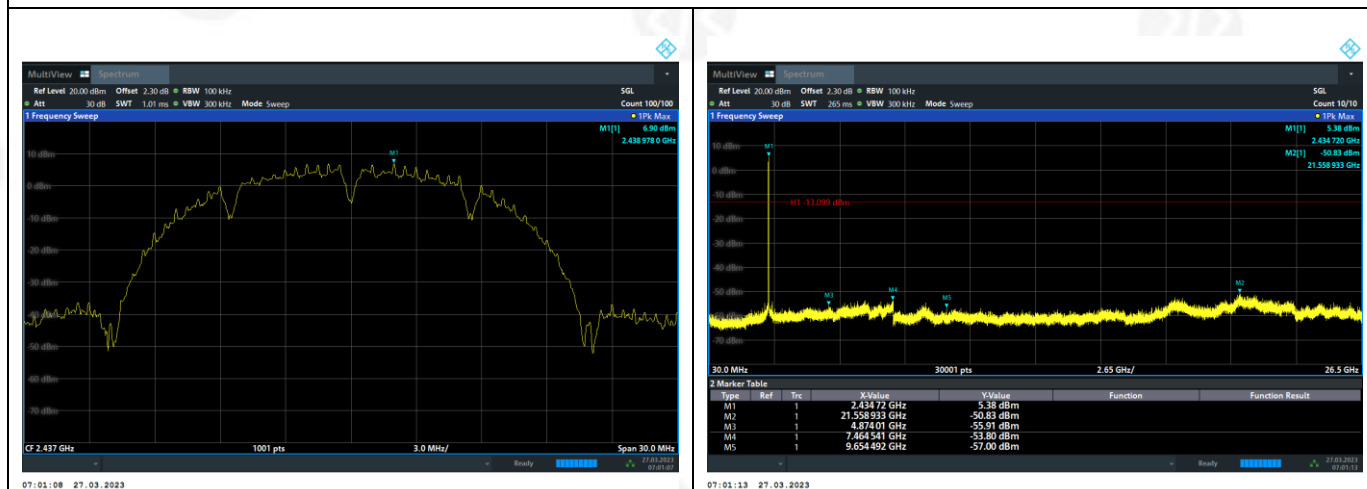


ANT 2

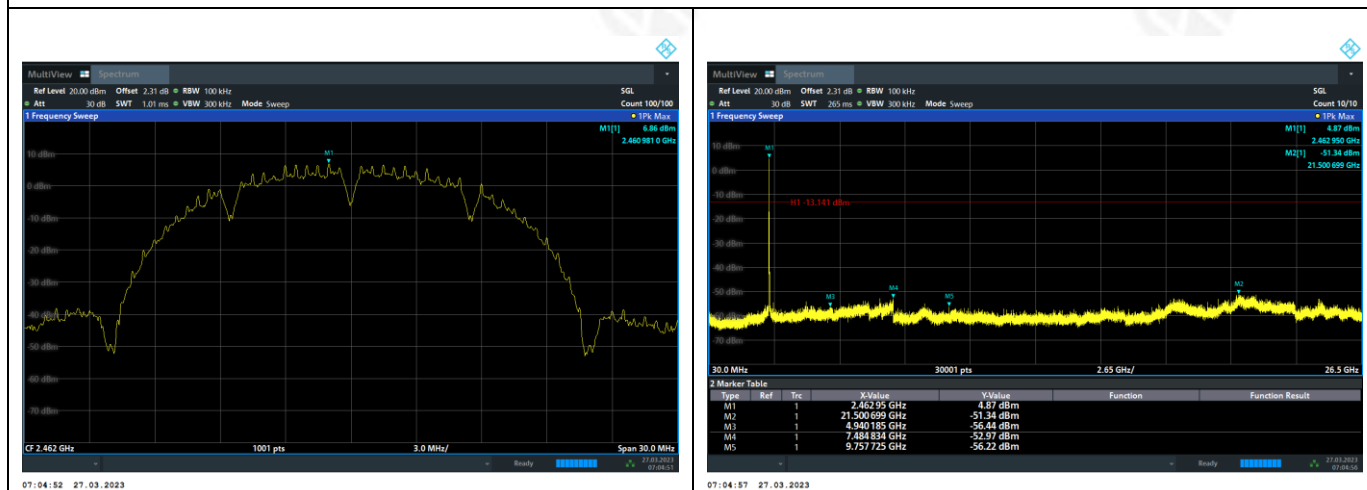
802.11b on Channel 01



802.11b on Channel 06



802.11b on Channel 11



Note:

- 1: The measurement frequency range is from 9kHz to the 10th harmonic of the fundamental frequency; The lowest, middle and highest channels are tested to verify the spurious emissions and band edge measurement data.
- 2: All the modulation modes have been tested, and only the worst results are reflected in the report. The worst mode is 802.11b CH01/06/11.



10. ANTENNA REQUIREMENT

Standard requirement:	FCC Part15 C Section 15.203 /247(c)
15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. 15.247(c) (1)(i) requirement: (i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.	
EUT Antenna:	
The antenna 1 is PCB Antenna, the best case gain of the antenna is 3dBi, reference to the appendix II for details The antenna 2 is PCB Antenna, the best case gain of the antenna is 3dBi, reference to the appendix II for details	



11. TEST SETUP PHOTO

Reference to the appendix I for details.

12. EUT CONSTRUCTIONAL DETAILS

Reference to the appendix II for details.

***** END OF REPORT *****